

On-track Plant Attachment Handbook



About this Handbook

This handbook has been issued as a general guide for the range of attachments which are available for On-Track Plant (OTP) used on the Network Rail Managed Infrastructure.

The handbook gives brief details of attachments, their scope of use, and any limitations in use, technical details, approval reference numbers where these are available and the competency requirements required to operate the equipment.

Examples of widely available attachments have been included; however there may be other types of OTP attachments which have not been included.

Anyone can propose the inclusion of new attachment or an amendment to existing attachments' details. Please contact the Technical Services Plant team for advice. The contact details are given below.

This handbook will be regularly reviewed by the Professional Head [Plant & T&RS] and updated to include new information relating to OTP attachments.

Disclaimer

This document is issued for information purposes only.

Network Rail makes no warranties that the attachments included in this document are the most suitable for a particular type of work activity, or the only types which are available.

Inclusion of an attachment in this document should not be construed as an endorsement of that product by Network Rail, nor does it give it any preferred status.

It is the responsibility of the owner/user of an attachment to ensure that it has the attained any required product or engineering acceptance certification. In addition, the equipment must be suitable for the work to be carried out and has been maintained to the manufacturers' recommendations.

Users are also reminded of their own duties under UK Health and Safety legislation.

Supply

Copies of documents are available electronically, within Network Rail's organisation.

Hard copies of this document will be made available to Network Rail staff and other external organisations on request to the Professional Head [Plant & T&RS].

Version Control

Each section of the handbook has its own issue status and only new or amended sections will be issued along with an updated contents list.

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Summary of Approval and Competency Requirements

Competencies Key: ◆ Machine Controller ■ Crane Operator Licence ★ Other

Competency Module No.	Description	Product Approval	Engineering Acceptance RIS-1530-PLT	Other Approvals	Competencies
OTPA-1	ACCESS PLATFORM		✓	LOLER	◆ ■ ★
OTPA-2	AUGER	✓			◆
OTPA-3	BALLAST BLADE	✓			◆
OTPA-4	BALLAST BRUSH		✓		◆
OTPA-5	BALLAST DISTRIBUTOR		✓		◆
OTPA-6	BALLAST PLOUGH	✓			◆
OTPA-7	BALLAST REGULATOR	✓			◆
OTPA-8	BOWSERS	✓			◆
OTPA-9	BUCKETS	✓			◆
OTPA-10	CABLE DRUM CARRIER	✓	✓		◆ ■
OTPA-11	CHAINS / SLINGS	✓		LOLER	◆ ■
OTPA-12	COMPACTOR PLATE	✓			◆
OTPA-13	FAST CLIPPER	✓	✓		◆ ■
OTPA-14	FLAIL – BRUSH CUTTER	✓			◆ ■
OTPA-15	FLASH BUTT WELDER	✓			◆ ■
OTPA-16	GRAB	✓			◆ ■
OTPA-17	HYDRAULIC BREAKER	✓			◆
OTPA-x18	KNUKLE BOOM CRANE	✓		LOLER	◆ ■
OTPA-19	LIFTING BEAM	✓		LOLER	◆ ■
OTPA-20	PILING HAMMER	✓			◆ ■
OTPA-21	PILING HEAD	✓		LOLER	◆ ■
OTPA-22	QUICK HITCH	✓		LOLER	◆ ■
OTPA-23	RAIL CROPPER	✓			◆ ■

Competencies Key: ◆ Machine Controller ■ Crane Operator Licence ★ Other

Competency Module No.	Description	Product Approval	Engineering Acceptance RIS-1530-PLT	Other Approvals	Competencies
OTPA-24	RIPPER TOOTH	✓			◆
OTPA-25	ROTATOR	✓			◆ ■
OTPA-26	SCARIFIER	✓			◆
OTPA-27	SLEEPER CHANGER	✓		LOLER	◆ ■
OTPA-28	SLEEPER SPACER	✓		LOLER	◆ ■
OTPA-29	TAMPER	✓			◆ ■
OTPA-30	THIMBLE	✓		LOLER	◆ ■
OTPA-31	TILT ROTATOR	✓			◆ ■
OTPA-32	TRAILER		✓		◆ ■
OTPA-33	TREE CUTTING HEAD	✓			◆
OTPA-34	VACUUM LIFTER	✓		LOLER	◆ ■
OTPA-35	VACUUM EXCAVATOR	✓			◆ ■
OTPA-36	WOOD CHIPPER	✓			◆ ■
OTPA-37	MISCELLANEOUS	✓			◆ ■

Access Platforms

1

#	Description	Issue	Date
OTPA-1-1	Chieftain - Merlo - Access Platform	1	2014
OTPA-1-2	LH Technology - LH 400 - Access Platform	1	2014
OTPA-1-3	Rexquote - 14MBX - Access Platform	1	2014
OTPA-1-4	Rail-Ability - Rail-Reach III - Platform	1	2014
OTPA-1-5	Rail-Ability - Rail Boss Railreach Platform	1	2014
OTPA-1-6	SRS - Scissor & Boom Module Platform	1	2014
OTPA-1-7	SRS - Bridge Inspection Platform	1	2014

OTPA-1-1

Access Platform



Manufacturer

Chieftain

Model

Merlo

Description

The Chieftain Access Platform has a 1.8 metre platform and has a load carrying capacity of 225 kg.

Typically, it can lift two people and their tools safely to a maximum platform working height of 6.4 metres with a maximum outreach of 7.5 metres.

Full control of the machine from the platform is possible from the console in the basket.

Scope of Use

Working Platform

Competencies

Machine Controller, Crane Controller &
NR/CTM/OTPA/01 - Operate Attachment Access Platform (MEWP)

Product Approval No.

-

Risk Control Sheet No(s).

NR/L3/MTC/RCS0216/MP01 and MP07

OTPA-1-1

Access Platform

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for All operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

It shall NOT be used under live OLE or on live conductor rail lines.

Permitted speed - Maximum 5mph (8km/h).

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

The attachment must NOT be disconnected from excavator whilst on track.

Minimum documentation requirement for the host machine are:

Operating Instruction Manual, Engineering Acceptance Certificate (including Limitations of Use) and Logbook.

Additional documents may include:

Product Acceptance Certificate(s), Performance Test Records, Statutory Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Platform Size	1.8 x 0.7 m
Platform Capacity	225 kg (Max.)
Working Height	8 m (Max.)
Platform Rotation	+/- 95°
Max. Rail Speed Platform Controlled	1.2 m/s
Outreach Max.	7.5 m
Maximum Rail Gradient	1 in 25
Maximum Rail Cant	150 mm (6 °)
Max. Slew Speed - Platform Controlled	0.5 m/s
Max. Basket Raising / Lowering - Platform Controlled	0.2 m/s

OTPA-1-2

Access Platform



Manufacturer LH Access Technology **Model** LH 400 - 9/6

Description

LH Access Technology manufacturer the U400 Unimog with the LH 400 9/6 mobile elevating working platform attachment module. The platform boom can rotate 180° and it is fitted with 360° rotating basket. The boom can work throughout its full range on rail without the use of stabilisers and mechanical slew locking is fixed to allow for adjacent line working.

The Access Platform has a 2.2 metre platform has a capacity of 400 kg. Typically, it can lift three people and their tools safely to a maximum platform working height of 10 metres with a maximum outreach of 6.5 metres.

Full control of the machine from the platform is possible from the console in the basket.

Scope of Use Working Platform

Competencies Machine Controller, Crane Controller & NR/CTM/OTPA/01 - Operate Attachment Access Platform (MEWP)

E.A. Cert. No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 and MP07

OTPA-1-2

Access Platform

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for All operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use:

1. It shall only operate inside possessions.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
3. It shall NOT be used on live conductor rail lines
4. Working mode - Maximum track cant 180mm and/or 1 in 29 gradients.
5. Permitted speed - Maximum 5mph (8km/h).
6. Staff shall be briefed on the safe operation of the machine prior to its use.
7. The limitations of the RRV to which the machine is attached shall apply.
8. The must NOT be disconnected from RRV whilst on track.

Minimum documentation requirement for the host machine are:

Operating Instruction Manual, Engineering Acceptance Certificate (including Limitations of Use) and Logbook.

Additional documents may include:

Product Acceptance Certificate(s), Performance Test Records, Statutory Inspection Records, Calibration & Brake Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification:

Platform Size	2.2 x 1.5 m	Platform Rotation	+/- 90°
Platform Capacity	400 kg (Max.)	Max. Rail Speed Platform Controlled	1.2 m/s
Working Height	10 m (Max.)	Outreach Max.	6.5 m
Maximum Rail Cant	150 mm (6 °)	Maximum Rail Gradient	1 in 25
Max. Slew Speed - Platform Controlled			0.5 m/s
Max. Basket Raising / Lowering - Platform Controlled			0.2 m/s

OTPA-1-3

Access Platform - Boom



Manufacturer Rexquote **Model:** 14MBX Access Railer

Description

The 14MBX Access Railer is based on the Mecalac 14MBX with a special purpose boom configuration and de-mountable access platform.

It designed to operate in a railway environment for the access and repair of elevated structures. It can lift two people plus their tools in the platform to the full extent of the machines outreach on rail track.

Full control of the machine from the platform is possible from the console in the basket.

The cab controls are modified to address the interlocking and safety aspects of the complete machine. Additional controls allow low speed travel and full arm operation from the platform. These cut out the cab controls when in platform mode.

Scope of Use Working Platform

Competencies Machine Controller, Crane Controller & NR/CTM/OTPA/01 - Operate Attachment Access Platform (MEWP)

E.A. Cert. No.:

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 and MP07

OTPA-1-3

Access Platform - Boom MEWP

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for All operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

It shall not be used under live OLE or on live conductor rail lines.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

The attachment must NOT be disconnected from excavator whilst on track.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Engineering Acceptance Certificate (including Limitations of Use) and Logbook.

Additional documents may include:

Product Acceptance Certificate(s), Performance Test Records, Statutory Inspection Records, Brake Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification:

Platform Size	1.4 m x 0.7 m	Maximum Working Height	8.0 m
Platform Capacity	225 kg	Maximum Platform Height	6.4 m
Outreach Max.	7.9 m	Max. Rail Speed Platform Controlled	1.2 m/s
Platform Rotation	+/- 95°	Maximum Rail Gradient	1 in 25
Maximum Rail Cant	150 mm (6 ")	Max. Wind speed for Platform Use	12.5 m/s
Maximum Rail Speed - Platform Controlled			1.2 m/s
Maximum Slew Speed - Platform Controlled			0.5 m/s
Max. Basket Raising / Lowering - Platform Controlled			0.2 m/s

OTPA-1-4

Access Platform



Manufacturer Rail-Ability Ltd **Model** Rail-Reach III

Description

The Rail-Reach III Mobile Elevating Working Platform (MEWP) module is designed with twist locks that allow for quick fitting to the base truck, a Rail-Ability hybrid MAN TGM 4 x 4 fitted with Rail-Ability rail guidance gear. The rail gear complies with RIS1530PLT and there is optional control to operate a Crane and Drum carrier from the Platform

A double knuckle boom manipulator crane with a manipulator grab and/or winch facility in front of the Rail-Reach boom on the MEWP modules is an optional and recommended feature for handling OLE structure components.

The MEWP module is fitted with hydraulic stabiliser legs for enhance duties when the free on rail mode is not required which also enhance the module mounting and demounting procedure.

Scope of Use Working Platform

Competencies Machine Controller, Crane Controller & NR/CTM/OTPA/01 - Operate Attachment Access Platform (MEWP)

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03, MP06, and MP07

Supplier A P Webb

OTPA-1-4

Access Platform

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for **All** operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. It shall only operate inside possessions.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
3. It shall NOT be used on live conductor rail lines
4. Working mode - Maximum track cant 150mm and/or 1 in 25 gradients.
5. Permitted speed - Maximum 5mph (8km/h).
6. Staff shall be briefed on the safe operation of the machine prior to its use.
7. The limitations of the RRV to which the machine is attached shall apply.

The must NOT be disconnected from RRV whilst on track.

Minimum documentation requirement for the host machine are:

Operating Instruction Manual, Engineering Acceptance Certificate (including Limitations of Use) and Logbook.

Additional documents may include:

Product Acceptance Certificate(s), Performance Test Records, Statutory Inspection Records, Calibration & Brake Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Platform Capacity	500 kg (Max.) - up to 4 persons plus tools
Max. Rail Speed Platform Controlled	5 mph
Platform Size	1.2 m x 2.2 m
Working Height	14 m (Max.)
Outreach Max.	6.5 m
Platform Rotation	360° continuous to stops
Boom Slewing range	250° continuous to interlocks
Maximum Rail Cant	150 mm
Maximum Rail Gradient	1 in 25
Maximum Platform side loading	2000 N
Maximum Wind Speed	42mph, 18.9 m/s Beauford Scale 8
Automatic platform levelling within a	+/- 0,5°

OTPA-1-5

Access Platform



Manufacturer Rail-Ability Ltd **Model** Rail Boss & Superboss Railreach

Description

The Railreach Mobile Elevating Working Platform (MEWP) modules can be fitted to the Rail Ability - Rail Boss and Superboss base machine via twist locks that allow for quick fitting and removal. The base machines are fitted with Rail-Ability rail guidance gear that complies with the requirements of RIS-1530-PLT.

The Rail Boss and Super-Boss modules are designed to give a maximum lift capacity of up to 300 kgs at a reach of 8 metres and have a maximum basket rotation of up to 225°.

There is room on the working platform for 3 men plus their equipment and the MEWPs are ideal for vegetation control or overhead structure maintenance.

The basket can be controlled from by the controller in the basket or from ground level.

The access platform has proportional controls located at deck and at base, with status indication in vehicle cab and there is a tilt level sensor with audible alarm

In addition, it has an emergency platform recovery system and there are emergency stop and brakes, in the cab, in the platform, and at the ground controls.

Scope of Use Working Platform

Competencies Machine Controller, Crane Controller & NR/CTM/OTPA/01 - Operate Attachment Access Platform (MEWP)

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03, MP06, and MP07

Supplier A P Webb Plant Hire

OTPA-1-5

Access Platform

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. It shall only operate inside possessions.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
3. It shall NOT be used on live conductor rail lines
4. Working mode - Maximum track cant 150mm and/or 1 in 30 gradients.
5. Permitted speed - Maximum 5mph (8km/h).
6. Staff shall be briefed on the safe operation of the machine prior to its use.
7. The limitations of the RRV to which the machine is attached shall apply.

The must NOT be disconnected from RRV whilst on track.

Minimum documentation requirement for the host machine are:

Operating Instruction Manual, Engineering Acceptance Certificate (including Limitations of Use) and Logbook.

Additional documents may include:

Product Acceptance Certificate(s), Performance Test Records, Statutory Inspection Records, Calibration & Brake Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

	Rail-Boss	Super Boss
Platform Capacity (max.)	250 kg	300 kg
Working Height (max.)	6 m	7.5 m
Outreach (max.)	7 m	8 m
Max. Rail Speed Platform Controlled		6 mph
Platform Size (length x width)		2 m x 1 m
Boom Slewing range		180°
Maximum Rail Cant		150 mm
Maximum Rail Gradient		1 in 30
Maximum Platform side loading		500 N
Maximum Wind Speed		42mph (18.9 m/s)

OTPA-1-6

Access Platform



Manufacturer SRS Rail Systems **Model** Scissor & Boom Module

Description

The SRS scissor & boom access platform module is designed to operate in a railway environment for the access and repair of elevated structures. It takes about 20 minutes to change modules. They are based on 20ft containers and fastened with standard container locks. Hydraulic and electric power is supplied by the base vehicle through quick fit couplings and multi socket connectors. It can lift two people plus their tools in each of the 2 platforms to the full extent of the machines outreach. Full control of the machine from the platform is possible from the console in the baskets.

The cab controls are modified to address the interlocking and safety aspects of the complete machine. Additional controls allow low speed travel and full arm operation from the platform. These cut out the cab controls when in platform mode.

Scope of Use Working under OLE and structures

Competencies Machine Controller, Crane Controller & NR/CTM/OTPA/01 - Operate Attachment Access Platform (MEWP)

E.A. Cert. No. Various

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 and MP07

Supplier SRS Rail Systems Ltd.

OTPA-1-6

Access Platform

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
2. It shall not be used under live OLE.
3. Staff shall be briefed on the safe operation of the machine prior to its use.
4. The limitations of the RRV to which the machine is attached shall apply.
5. The must NOT be disconnected from RRV whilst on track.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Engineering Acceptance Certificate (including Limitations of Use) and Logbook.

Additional documents may include:

Product Acceptance Certificate(s), Performance Test Records, Statutory Inspection Records, Brake Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Platform Size (m)	1.1 m x 2 m x 1.1 m
Platform Capacity	350 kg
Outreach Max.	8 m
Platform Rotation	40°
Maximum Rail Cant	160 mm
Maximum Working Height	10 m
Maximum Platform Height	9 m
Max. Rail Speed Platform Controlled	3 mph
Maximum Rail Gradient	12.5
Max. Wind speed for Platform Use	12.5 m/s
Maximum Rail Speed	20 mph
Maximum Slew Speed	0.7 m/s
Max. Basket Raising / Lowering	0.4 m/s

OTPA-1-7

Access Platform

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. It shall only operate inside possessions.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
3. It shall NOT be used on live conductor rail lines or under live OLE
4. Staff shall be briefed on the safe operation of the machine prior to its use.
5. The limitations of the RRV to which the machine is attached shall apply.

Minimum documentation requirement for the host machine are:

Operating Instruction Manual, Engineering Acceptance Certificate (including Limitations of Use) and Logbook.

Additional documents may include:

Performance Test Records, Statutory Inspection Records, Calibration & Brake Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Platform Capacity	215 kg (Max.) - up to 2 persons
Platform Size	1.2 m x 1 m
Reach:	
Outreach	6.5 m
Down	7 m
Outer slewing radius	6.5 m
Up	6 m
Maximum Wind Speed	12.5 m/s

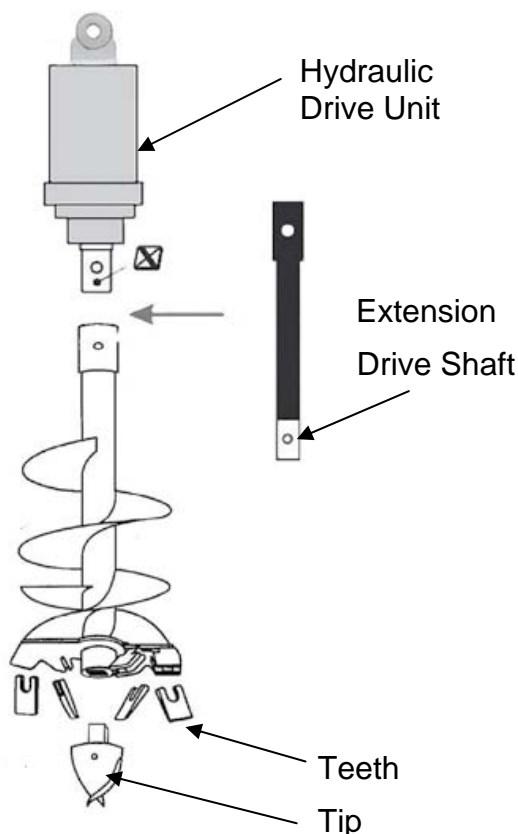
Augers and Drives

2

#	Description	Issue	Date
OTPA-2-1	Auger Torque	1	2014
OTPA-2-2	Digga	1	2014
OTPA-2-3	Kinshofer	1	2014

OTPA-2-1

Auger and Drive Unit



Manufacturer Auger Torque Ltd **Models** 10,000 Max - 50,000 Max

Suppliers Exac-One Ltd

Description

The Auger Torque augers and drive units are designed for use on excavators and are an economical, robust solution for drilling holes for posts, poles and foundations. Dependent on the requirements and the excavator, the drive unit can be equipped with different augers, varying in diameter, drilling teeth and heads. The maximum torque of the drive units range from 10,000 to 50,000 Nm.

The units have heavy duty steel housings and compact design, enabled by the planetary gear arrangement. All components run maintenance-free in an oil bath. The drilling direction can be reversed quickly, so that the auger can be easily removed from the hole.

The make and model of the excavator to which the auger drive will be fitted must be established so that the correct size and type of unit can be selected to ensure full drive/machine compatibility.

Scope of Use Drilling holes

Competencies Machine Controller, Crane Controller & OTPA-xx

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 and MP07

OTPA-2-1

Auger & Drive Unit

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use:

The auger unit shall be subject to all applicable limitations on the Engineering Acceptance certificate of the Road Rail Vehicle (RRV) to which it is attached.

The auger drive shall only be used with an RRV whose RCI indicator is active, and the lifting duty is in excess of the load in the most adverse condition.

Minimum documentation requirement for the host machine are:

Operating Instructions and Logbook

Additional documents may include:

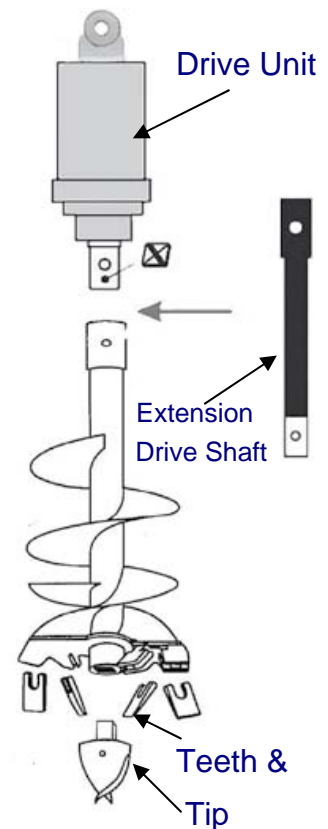
Test Records, Statutory Inspection & Test Records, Load Radius Charts (duty charts).

Technical Specification

Model	10000 Max	15000 Max	20000 Max	30000 Max	50000 Max
Machine weight (tonnes)	11-17	10-17	13-20	17-25	22-30
Length (m)	1.6	1.6	1.6	2 - 3	2 - 3
Torque max. (Nm)	9789	15741	20652	32269	50195
Hydraulic pressure (bar)	240	240	240	450	280
Flow requirement (l/min)	80-170	80-170	100-204	100-300	100-280
Shaft (mm - square)	75	75	75	110	110
Weight: (kg)	150	167	185	460	440
Unit Height (mm)	930	930	930	1610	1330
Unit Diameter (mm)	290	290	290	410	410
Drilling Diameter (mm)	150-1000	150-1200	300-900	300-1000	300-1500

OTPA-2-2

Auger and Drive Unit



Manufacturer Digga **Models** PD12 / PD15 / PD18 / PD22

Suppliers Avant Plant Sales

Description

The Digga augers and drive units are designed for use on excavators and are an economical, robust solution for drilling holes for posts, poles and foundations.

Dependent on the requirements and the excavator, the drive unit can be equipped with different augers, varying in diameter, drilling teeth and heads. The torque of the drive units ranges from 9765 to 22257 Nm.

The units have heavy duty steel housings and compact design, enabled by the planetary gear arrangement. All components run maintenance-free in an oil bath. The drilling direction can be reversed quickly, so that the auger can be easily removed from the hole.

The make and model of the excavator to which the auger drive will be fitted must be established so that the correct size and type of unit can be selected to ensure full drive/machine compatibility.

Scope of Use Drilling holes

Competencies Machine Controller, Crane Controller & OTPA-xx

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 and MP07

OTPA-2-2

Auger & Drive Unit

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use:

1. The auger unit shall be subject to all applicable limitations on the Engineering Acceptance certificate of the Road Rail Vehicle (RRV) to which it is attached.
2. The auger drive shall only be used with an RRV whose RCI indicator is active, and the lifting duty is in excess of the load in the most adverse condition.

Minimum documentation requirement for the host machine are:

Operating Instructions and Logbook

Additional documents may include:

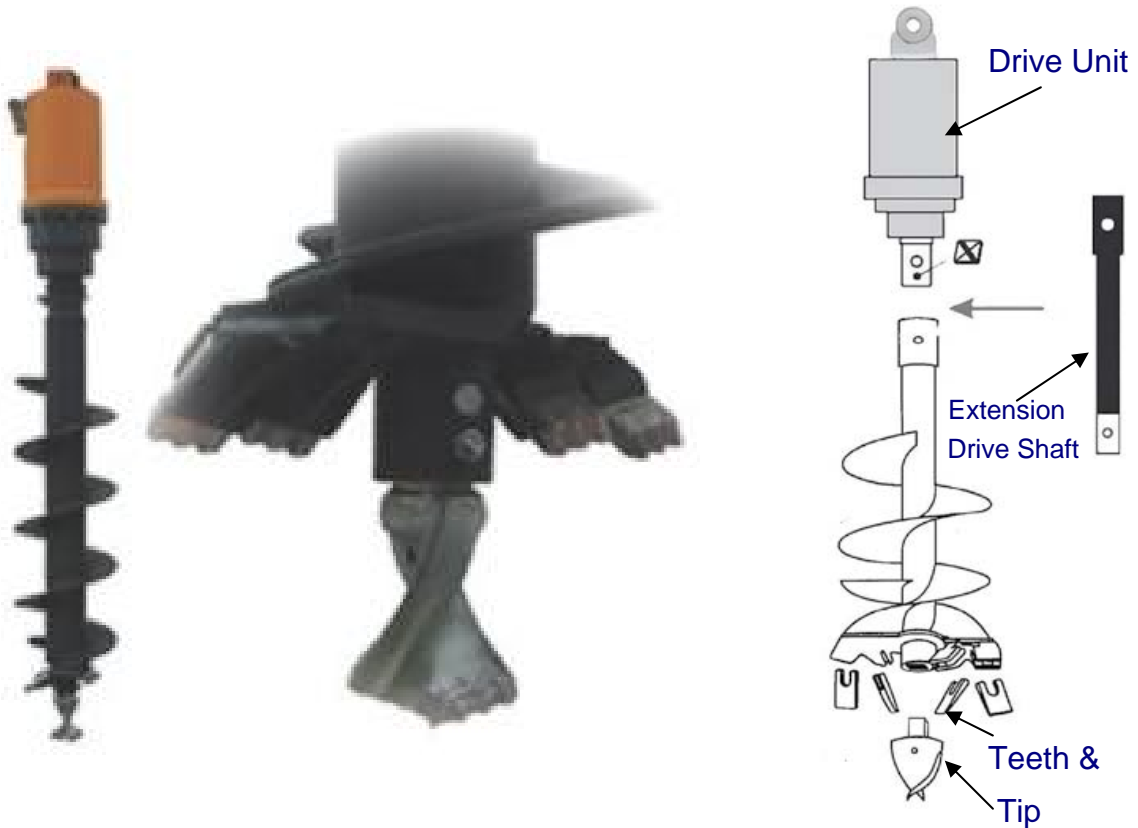
Test Records, Statutory Inspection & Test Records, Load Radius Charts (duty charts).

Technical Specification

	Model	PD12	PD15	PD18	PD22
Diameter (mm)		240	240	290	290
Length (mm)		624	775	775	775
Torque max. (Nm)		9765	13911	16191	22257
Hydraulic pressure (bar)		240	240	240	240
Flow requirement (l/min)		100 - 230	125 - 230	125 - 230	140 - 230
Speed (rev/min)		39 - 91	34 - 63	30 - 55	24 - 40
Shaft (mm - square)		75	75	75	75
Weight: (kg)		110	162	162	162
Maximum Auger Diameter		150 - 1500	150 -1500	150 - 1500	150 - 1500
Length of Auger (mm)		1500	1500	1500	1500
Machine weight (tonnes)		12 - 15	12 - 15	15 - 18	18 - 24

OTPA-2-3

Auger and Drive Unit



Manufacturer Kinshofer **Models** KM 250-1952 / 3750 / 5500 / 7400

Description

The Kinshofer augers and drive units are designed for use on excavators and are an economical, robust solution for drilling holes for posts, poles and foundations.

Dependent on the requirements and the excavator, the drive unit can be equipped with different augers, varying in diameter, drilling teeth and heads. The torque of the drive units ranges from 1952 to 7400 Nm.

The units have heavy duty steel housings and compact design, enabled by the planetary gear arrangement. All components run maintenance-free in an oil bath. The drilling direction can be reversed quickly, so that the auger can be easily removed from the hole.

The make and model of the excavator to which the auger drive will be fitted must be established so that the correct size and type of unit can be selected to ensure full drive/machine compatibility.

Scope of Use Drilling holes

Competencies Machine Controller, Crane Controller & OTPA-xx

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 and MP07

OTPA-2-3

Auger & Drive Unit

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

1. The auger unit shall be subject to all applicable limitations on the Engineering Acceptance certificate of the Road Rail Vehicle (RRV) to which it is attached.
2. The auger drive shall only be used with an RRV whose RCI indicator is active, and the lifting duty is in excess of the load in the most adverse condition.

Minimum documentation requirement for the host machine are:

Operating Instructions and Logbook

Additional documents may include:

Test Records, Statutory Inspection & Test Records, Load Radius Charts (duty charts).

Technical Specification

	Model	KM250-1952	KM250-3750	KM250-5500	KM250-7400
Torque @ 200 bar (Nm)		1952	3750	5500	7400
Hydraulic pressure (bar)		200	200	200	240
Flow requirement (l/min)		25 - 60	40 - 75	50 - 115	70 – 140
Shaft (mm - square)		57	57	57	57
Weight: (kg)		45	65	80	95
Diameter of Auger (mm)		100 - 600	100 - 600	100 - 600	100 - 600
Length of Auger (mm)		1200	1200	1200	1200
Weight of Auger (kg)		28 - 81	28 - 81	28 - 81	28 - 81
Machine weight (tonnes)		7	7	7	15

Ballast Profile Blade

3

#	Description	Issue	Date
OTPA-3-1	Ballast Profile Blade	1	2014

OTPA-3-1

Ballast Profile Blade



Manufacturer Various **Suppliers** All core suppliers

Description

Ballast blades or profile buckets are the quickest and most efficient way of spreading ballast on relayed track so the ballast brush has the minimum amount of material to regulate.

All profile buckets are fitted with small rail wheels to ensure that no damage occurs when the profile bucket passes over a dipped joint.

This is a purely mechanical design which is an efficient and cost effective way of re-distributing excess ballast.

The benefit of the Profile Bucket is that it can collect and pick up or carry a bucket of ballast spread material.

Scope of Use Redistribution of excess ballast on track

Competencies Machine Controller, Crane Controller & OTPA-7

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 and MP07

OTPA-3-1

Ballast Profile Blade

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for All operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

It shall only operate inside possessions.

Maximum speed 5 km/h

It shall NOT be used on live conductor rail lines.

The attachment shall be lifted over S&C and raised check rails.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

The Ballast Plough must NOT be disconnected from RRV whilst on track.

Minimum documentation requirement for the host machine are:

Operating Instruction Manual, Logbook

Additional documents may include:

Product Acceptance Certificate(s) and Inspection Records etc.

Technical Specification

Weight Up to 900 kg (depending on type)

Length Length: up to 500 mm

Width Width: up to 2000 mm

Height 700 mm

Ballast Brush

4

#	Description	Issue	Date
OTPA-4-1	Geismar - BVR	1	2014
OTPA-4-2	Rexquote - BB	1	2014
OTPA-4-3	Richter & Muller - HSB 1	1	2014
OTPA-4-4	Windhoff - ASB	1	2014

OTPA-4-1

Ballast Brush



Manufacturer	Geismar	Model	BVR
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Description

The Geismar Ballast Brush attachment is designed to operate with a road rail vehicle (RRV) using the host machines' hydraulic power for operation.

A rotating broom, equipped with 50 mm diameter rubber tubes sweeps and feeds excess ballast onto a lateral conveyor belt for transport to either left or right side of the tracks, as selected.

The rotary broom and conveyor are driven by means of hydraulic motors. This system allows a quick disassembly of the rubber tubes

The ballast brush runs on 4 rail wheels and connects directly to the RRV boom via a traction bar which propels the attachment s along the track.

Scope of Use	Removal of ballast on the track
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Competencies	Machine Controller, Crane Controller & OTPA-05
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E.A. Cert. No. (example)	-
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Risk Control Sheet No(s).	NR/L3/MTC/RCS0216/MP01-03, and MP07
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OTPA-4-1

Ballast Brush

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for All operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use:

The Ballast Brush shall only operate inside possessions.

It shall only be used in accordance with the Method Statement for the possession as determined and approved in accordance with the requirements of GE/RT8024.

The Ballast Brush shall only be coupled to RRVs which are certificated for towing or propelling this type of attachment.

It shall not be used on live conductor rails.

When on tracked, the Failsafe Breakaway System shall be tested before travelling or working.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

Minimum documentation requirement for the host machine are:

Operating Instruction Manual, Engineering Acceptance Certificate (including Limitations of Use) and Logbook

Additional documents may include:

Product Acceptance Certificate(s), Performance Test Records, Statutory Inspection Records, Calibration & Brake Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Weight	2000 kg
Width	2830 mm
Length	2500 mm
Height	1100 mm
Working Speed	1.5 - 2 km/h
Hydraulic Pressure	180 Bar
Brush diameter	830 mm
Brush rotation speed	320 rpm
Brush output	100 l/min
Conveyor output	55 l/min

OTPA-4-2

Ballast Brush



Manufacturer	Rexquote	Model	BB
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Description

The Rexquote Ballast Brush attachment is designed for use with a road rail vehicle (RRV) using the host machines' hydraulic power for operation.

A rotating broom sweeps and feeds excess ballast onto a lateral conveyor belt for transport to either left or right side of the tracks, as selected.

To reduce wear and noise emission, the broom box can be provided with a vulcanised rubber lining on the inside.

The ballast brush runs on 4 rail wheels and a coupling rod connects the attachment to the RRV vehicle.

Four hoisting lugs are provided for loading and unloading the ballast brush.

Scope of Use	Removal of excess ballast on the track
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Competencies	Machine Controller, Crane Controller & OTPA-05
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Plant Acceptance Cert. No.	AP/PT/0014/2004
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E.A. Cert. No. (example)	IF/1519/05	(Ready Power Engineering Ltd.)
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Risk Control Sheet No(s).	NR/L3/MTC/RCS0216/MP01-03, and MP07
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OTPA-4-2

Ballast Brush

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for All operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

It shall only operate inside possessions.

It shall only be used in accordance with the Method Statement for the possession.

Maximum permitted speed = 10 mph (16 km/h).

Staff shall be briefed on the safe operation of the machine prior to its use.

It shall only be coupled to RRVs or RMMMs which are certified for towing or propelling this type of Ballast Broom and the limitations of the RRV to which the machine is attached shall apply.

Minimum documentation requirement for the host machine are:

Operating Instruction Manual, Engineering Acceptance Certificate (including Limitations of Use) and Logbook

Additional documents may include:

Product Acceptance Certificate(s), Performance Test Records, Statutory Inspection Records, Calibration & Brake Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Weight	2080 kg
Width	2656 mm
Length	2808 mm
Height	1230 mm
Maximum Working Speed	500 m/h
Maximum Rail Cant	150 mm (6")
Maximum Rail Gradient	1 in 25
Hydraulic Pressure	180 Bar
Hydraulic Flow Rate	160 l/min
Rail Wheel Diameter	150 mm
Parking Brake Release Pressure	40 bar
Maximum Static Drawbar Pull Test Load	125 kg

OTPA-4-3

Ballast Brush



Manufacturer Richter & Muller **Model** HSB 1

Description

The HSB 1 Ballast Brush attachment is designed for use with a road rail vehicle (RRV) using the host machines' hydraulic power for operation.

A rotating broom sweeps and feeds excess ballast onto a lateral conveyor belt for transport to either left or right side of the tracks, as selected.

The ballast brush runs on 4 rail wheels and connects directly to the RRV boom.

The HSB 1 has a Failsafe Breakaway System to immobilise it when disconnected from the host vehicle.

Scope of Use Removal of ballast on the track

Competencies Machine Controller, Crane Controller & OTPA-05

Plant Acceptance Cert. No. AP/PT/0014/2004

E.A. Cert. No. (example) NS/5019/11 Story Rail Ltd.

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03, and MP07

OTPA-4-3

Ballast Brush

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for All operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use:

The Ballast Brush shall only operate inside possessions.

It shall only be used in accordance with the Method Statement for the possession as determined and approved in accordance with the requirements of GE/RT8024.

The Ballast Brush shall only be coupled to RRVs which are certificated for towing or propelling this type of attachment.

It shall not be used on live conductor rails.

When on tracked, the Failsafe Breakaway System shall be tested before travelling or working

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

Minimum documentation requirement for the host machine are:

Operating Instruction Manual, Engineering Acceptance Certificate (including Limitations of Use) and Logbook

Additional documents may include:

Product Acceptance Certificate(s), Performance Test Records, Statutory Inspection Records, Calibration & Brake Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification:

Weight	2400 kg
Width	2780 mm
Length	2120 mm
Height	1300 mm
Maximum Working Speed	10 mph
Maximum Rail Cant	150 mm (6")
Maximum Rail Gradient	1 in 25
Minimum Radius	80 m
Hydraulic Pressure	210 Bar
Hydraulic Flow Rate	120 l/min

OTPA-4-4

Ballast Brush



Manufacturer Windhoff **Model:** ASB

Description

The ASB Ballast Brush attachment is designed for use with a road rail vehicle (RRV) using the host machines' hydraulic power for operation.

A rotating broom sweeps and feeds the excess ballast onto a lateral conveyor belt for transport to either the left or right hand side of the track, as selected.

To reduce wear and noise emission, the broom box can be provided with a vulcanised rubber lining on the inside.

The ballast brush runs on 4 rail wheels and is propelled along the track by a coupling rod which is connected to the host RRV vehicle.

Four hoisting lugs are provided for loading and unloading the ballast brush.

Scope of Use Removal of excess ballast on the track

Competencies Machine Controller, Crane Controller & OTPA-05

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-3 and MP07

Suppliers A P Webb Ltd.

OTPA-4-4

Ballast Brush

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for All operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

It shall only operate inside possessions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

It shall NOT be used on live conductor rail lines.

The machine shall be lifted over S&C and raised check rails.

Working mode - Maximum track cant 180mm and/or 1 in 29 gradients.

Permitted speed - Maximum 5mph (8km/h).

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

The Ballast Brush must NOT be disconnected from excavator whilst on track.

Minimum documentation requirement for the host machine are:

Operating Instruction Manual, Engineering Acceptance Certificate (including Limitations of Use) and Logbook

Additional documents may include:

Product Acceptance Certificate(s), Performance Test Records, Statutory Inspection Records, Calibration & Brake Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Weight	2100 - 2200 kg
Length	2690 mm
Width	2960 mm
Height	1230 mm
Sweeping performance	500 - 700 m/h (depends on the height of ballast & selected sweeping depth)
Hydraulic Pressure/Flow	- Sweeper drum - 75 l/min @ at 140 bar - Conveyor belt - 22 l/min at 140 bar

Ballast Distributor

5

#	Description	Issue	Date
OTPA-5-1	GOS Tool & Engineering Ltd.	1	2014
OTPA-5-2	Rail-Ability Ltd - BDU	1	2014

OTPA-5-1

Ballast Distribution Unit



Manufacturer GOS Engineering **Model** BDU

Description

The BDU is used to distribute ballast into the 4 foot, 6foot and onto the sleeper ends.

It is attached to a road rail vehicle excavator crane via a tow bar and the host machine is used to fill the hopper and move the BDU as ballast is released.

If it is required to add more ballast to one side of the track (e.g. in preparation for cant adjustment), the hopper height can be adjusted by using the appropriate hydraulic hand pump.

The unit is fitted with side shutters / openings and side wing plates to distribute the ballast in the 6 foot.

Scope of Use Distribution of ballast onto the track

Competencies Machine Controller, Crane Controller & OTPA-7

E.A. Certificate No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-04 and MP07

OTPA-5-1

Ballast Distribution Unit

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for All operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

The trailer shall only operate inside possessions and it shall not be "on or off-tracked" or work under live OLE or Conductor-rail lines.

It may not travel on live Conductor-rail lines but it may travel under live OLE in accordance with the Method Statement for the possession.

It may not activate train operated points.

It shall only be coupled to vehicles which are certificated for towing / propelling this type of trailer unit and is subject to limitations of the towing / propelling vehicle.

It shall only be used for the transport of ballast in accordance with the manufacturers' Operating Manual and the Method Statement for the possession.

Minimum documentation requirement for the host machine are:

Operating Instructions, Engineering Acceptance Certificate and Logbook

Additional documents may include:

Product Acceptance Certificate, Inspection and Maintenance Records etc.

Technical Specification:

Weight	1500 kg
Length	up to 2000 mm
Width:	up to 1800 mm
Height:	1200 mm
Maximum Speed	5 km/h

OTPA-5-2

Ballast Distributor

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

It shall only be used for the transport of ballast in accordance with the manufacturers' Operating Manual and the Method Statement for the possession.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

It must not be used under live overhead line equipment or in live conductor rail areas.

It may not travel on live Conductor-rail lines but it may travel under live OLE in accordance with the Method Statement for the possession.

It may not activate train operated points.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Engineering Acceptance Certificate (including Limitations of Use), LOLER Certification and Logbook

Additional documents may include:

Test Records, Statutory Inspection Records, Test Certificates, Load Radius Charts etc.

Technical Specification

Ballast Capacity	10 tonnes
Discharge Rate	2 tonnes per minute
Conveyor movement	180°
Width	2 m approx.
Height	2 m approx.
Length	4 m approx.

Ballast Excavator

6

#	Description	Issue	Date
OTPA-6-1	Dymax - BB8.4G/10.4G /12.4G	1	2014
OTPA-6-2	Geismar - ODC	1	2014

OTPA-6-1

Ballast Excavator



Manufacturer	Dymax	Models	BB8.4G / BB10.4G / BB12.4G
Supplier	SES Rail Ltd.		

Description

The Dymax ballast excavator range are compact under cutters that are ideal for use with RRV excavators.

They have excellent high torque output from the direct hydraulic drive unit which enables the rapid removal of ballast from beneath tracks using the latest Dymax undercutting technology.

The attachments can undercut fouled ballast from off track or high rail positions and may be mounted either using a quick hitch coupler or directly pinned to the excavator boom.

Scope of Use	Excavating ballast
Competencies	Machine Controller, Crane Controller & OTPA-7
Product Acceptance No.	-
Risk Control Sheet No(s).	NR/L3/MTC/RCS0216/MP01-04 and MP07

OTPA-6-1

Ballast Excavator

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for All operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

It shall only operate inside possessions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

It shall NOT be used on live conductor rail lines.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

Minimum documentation requirement for the host machine are:

Operating Instructions and Logbook

Additional documents may include:

Product Acceptance Certificate, Inspection and Maintenance Records etc.

Technical Specification:

Model	Flow Ratings (lpm)	Pressure (bar)	Cut Length (mm)	Weight (kg)	RRV Weight (tonnes)
BB8.4G	75	275	2540	1134	10-13
BB10.4G	113	290	3048	1814	14 - 20
BB12.4g	144	290	3648	2993	20-30

OTPA-6-2

Ballast Excavator / Cleaner



Manufacturer Geismar **Model** ODC

Description

The ODC Ballast Clearing beam is designed to be used prior to sleeper replacement to prevent "high points" by quickly removing ballast from the four-foot and ballast shoulder between sleepers in a single operation to enable rapid sleeper extraction.

Working from the centre of the four-foot, the Ballast Clearing Beam pushes out the ballast to each side of the track by means of two sliding guides; each one being moved by its own double-acting hydraulic ram which is fitted with three separate, vertical steel ballast spades.

The outer-most spade is removable and each one has differing dimensions to enable more precise ballast removal to suit individual site needs. Fitted with a Quick-hitch connector and two hydraulic quick-release flexible hoses, the Ballast Clearing Beam can be attached to the road / rail excavator in seconds.

Two rail guides ensure that the Ballast Clearing Beam is centred to the track axis

The maximum working depth of the ballast spades is preset by means of two adjustable depth stops and these have 5 selectable depth settings.

Scope of Use Excavating ballast

Competencies Machine Controller, Crane Controller & OTPA-7

Product Acceptance No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-04 and MP07

OTPA-6-2

Ballast Excavator / Cleaner

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for All operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

It shall only operate inside possessions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

It shall NOT be used on live conductor rail lines.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

Minimum documentation requirement for the host machine are:

Operating Instructions and Logbook

Additional documents may include:

Product Acceptance Certificate, Inspection and Maintenance Records etc.

Technical Specification

Track Gauge	1435mm
Horizontal stroke of sliders	540mm each side of centre of four foot
Maximum clearing depth	559 mm
Minimum clearing depth	319 mm
Hydraulic requirements from excavator	210 bar @ 140 litres per minute
Length	3000 mm approx
Width	1700 mm approx
Height	1700 mm approx.
Weight	2000 kg approx.

Ballast Plough

7

#	Description	Issue	Date
OTPA-7-1	Richter and Muller - S1	1	2014
OTPA-7-2	Thompson Rail Equipment - BP	1	2014

OTPA-7-1

Ballast Regulator / Plough



Manufacturer

Richter & Muller

Model

S1

Suppliers

Tasty Plant

Description:

The S1 Ballast Regulator / Plough attachment is an efficient and cost effective way of re-distributing excess ballast. A purely mechanical design it attaches directly to the host RRV boom. It has 2 adjustable wings which can be swung round forward or trailing behind. The wings can be altered to adjust the angle and area that the wing collects surplus ballast from or spreads the ballast across.

It can be used to collect additional ballast in the cess and force the ballast over the cess rail and into the 4 foot. Likewise, the process can be repeated on the 6 foot rail to transpose the ballast into the 6 foot area.

The benefit of this attachment over a Profile Bucket is that it can collect and spread material outside the width of the sleeper it is working on.

The negative point with the Ballast Plough being, unlike the ballast bucket, it cannot pick up a bucket of ballast and carry ballast.

Scope of Use

Redistribution of excess ballast on track

Competencies

Machine Controller, Crane Controller & OTPA-7

Product Approval No.

PA05 / 01371

Risk Control Sheet No(s).

NR/L3/MTC/RCS0216/MP01-03 and MP07

OTPA-7-1

Ballast Regulator / Plough

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for All operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use:

It shall only operate inside possessions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

It shall NOT be used on live conductor rail lines.

The regulator shall be lifted over S&C and raised check rails.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

The Ballast Plough must NOT be disconnected from RRV whilst on track.

Minimum documentation requirement for the host machine are:

Operating Instruction Manual

Engineering Acceptance Certificate (including Limitations of Use)

Logbook

Additional documents may include:

Product Acceptance Certificate(s), Test Records and Inspection Records etc.

Technical Specification:

Weight 1.1 tonnes

Length 1900 mm

Width 1200 mm

Height 1200 mm

OTPA-7-2

Ballast Plough



Manufacturer Thompson Rail Equipment Ltd. **Model** BP

Description

The Thomson Ballast Plough is designed to remove excess ballast from the centre of the track and place it in the shoulder area.

The design of the blade 'slices' the ballast preventing a pressure wave through the ballast which can lead to damaged clips and housings.

Normally a single pass at 5 km/hr to 8 km/hr is all that's required to leave the track ready for a final pass with a ballast brush or for tamping

This plough is fitted with automatic, fail safe brakes and has hydraulically adjustable rear wheels to cater for different rail sections and heights.

Optional extras include marker lights, front wheel hydraulic adjustment and a central baffle plate which can be set to bias the ballast flow to one side or the other.

Scope of Use	Redistribution of excess ballast on track
Competencies:	Machine Controller, Crane Controller & OTPA-7
Product Acceptance No.	094/002028
PADS No.	094/016049
Risk Control Sheet No(s).	NR/L3/MTC/RCS0216/MP01-03 and MP07
Operators / Suppliers	TXM Plant

OTPA-7-2

Ballast Plough

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

It shall only operate inside possessions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

It shall NOT be used on live conductor rail lines.

The machine shall be lifted over S&C and raised check rails.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

The Ballast Plough must not be disconnected from RRV whilst on track.

Minimum documentation requirement for the host machine are:

Operating Instruction Manual, Engineering Acceptance Certificate (including Limitations of Use) and Logbook

Additional documents may include:

Product Acceptance Certificate(s), Brake Test Records and Inspection Records etc.

Technical Specification

Suitability	Excavator or other prime mover min. 25 tonnes		
Braking system	Hydraulic fail safe system operating on two wheels		
Brake test force	>8% GVM		
Weight	1965 kg	Length	3650 mm
Width	2685 mm	Height	1170 mm
Working Speed	6 – 10 kph	Max ballast depth	150mm
Maximum slope	1:29	Maximum cant	180mm
Height adjustment standard	Hydraulic height adjustment to rear wheels		
Height adjustment (optional)	Hydraulic height adjustment to front wheels		
Hydraulic Pressure	150 bar (min.) to 210 (max.)		

Bowser

8

#	Description	Issue	Date
OTPA-8-1	Fuel Proof	1	2014

OTPA-8-1

Fuel Bowser



Manufacturer Fuel Proof Ltd. **Model** 500 - 4500 L

Description

This range of static bunded fuel storage tanks are pressure tested and suitable to both site and industrial use. These fuel stores are double cylinder, fully bunded, all steel construction, mounted on a tough galvanised tubular steel bases which are fully ADR fuel transportation regulations compliant and meet the requirements of the Environmental Agency Pollution Prevention Guidelines (PPG2).

Design features include a high-flow hand pump (flow rate 45 litres/min), anti-vandal lockable doors, fully sealed rotary fuel gauge, large 2" & 3" alloy filler caps, automatic suction breather, pressure relief valve and an in-line fuel filter.

The tanks can be lifted full of fuel, using either the lifting eyes or the forklift pockets.

The unique Fuelstore pump mounting plate can cater for a wide variety of fuel delivery options. Also fitted as standard are 1/2" BSP generator feed and return connections.

The range of static bowzers from this company start from 500 litres (110 gallons) and go up to 4500 litres (1000 gallons) capacity. Towable, highway trailer variants (1000 & 2000l) of this range are also available.

Scope of Use	Storage and dispensing fuel
Competencies	Machine Controller, Crane Controller
Product Approval No.	-
Risk Control Sheet No(s).	NR/L3/MTC/RCS0216/MP01-03 and MP07
Suppliers	L & W Rail

OTPA-8-1

Fuel Bowser

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use:

1. The bowser shall only be used for the storage of either diesel or gas oil.
Note: They must not be used for the storage of petrol.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and the safe system of work.
3. The tank shall only be lifted using either the lifting lugs or forklift pockets in accordance with the manufacturers' instructions.
4. Staff shall be briefed on the safe operation of the equipment prior to its use.
5. The limitations of the RRV to which the bowser is attached shall apply.

Minimum documentation requirement for the host machine are:

Operating Instruction Manual, Product Acceptance Certificate, Logbook

Additional documents may include:

Statutory Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Information:

Capacity litres (gallons)	Length (mm)	Width (mm)	Height (mm)	Empty weight (kg)	Full weight (kg)
500 (110)	1318	1060	1300	450	885
1000 (220)	1588	1309	1509	595	1465
1500 (330)	2078	1309	1509	699	2085
2000 (440)	2078	1489	1693	820	2620
2500 (550)	2600	1489	1693	1000	3225
3000 (660)	2600	1625	1809	1210	3984
4500 (1000)	2900	1830	1980	1450	5365

Buckets

9

#	Description	Issue	Date
OTPA-9-1	Bucket - Clamshell - General	1	2014
OTPA-9-2	Bucket - Clamshell - Kinshofer - C05H-25 - 60	1	2014
OTPA-9-3	Bucket - Clamshell - Kinshofer - C12H-40 - 100	1	2014
OTPA-9-4	Liebherr - GM 5, GM 8 and GM 10	1	2014
OTPA-9-5	Richter & Muller	1	2014

OTPA-9-1

Clamshell Bucket



Manufacturer Various - Engcon, Geismar, Kinshofer, Richter & Muller etc.

Description

Clamshell buckets can be used for excavating wet beds or drainage as well as general loading unloading, shouldering work and cess work can also be undertaken.

The hydraulic system is fitted with a pressure control valve making it suitable for any hydraulic supply from up to 300 bar.

Scope of Use Excavating earth, spoil and ballast etc.

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

OTPA-9-1

Clamshell Bucket

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

The bucket must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

It must not be used under live overhead line equipment or in live conductor rail areas.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Product Acceptance Certificate (including Limitations of Use) and Logbook

Additional documents may include:

Performance Test Records, Statutory Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Weight	Up to 1000kg (Depending on type)
Length	Up to 700mm
Width:	Up to 1000mm
Height:	700mm

OTPA-9-2

Clamshell Bucket

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for **All** operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

The bucket must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

It must not be used under live overhead line equipment or in live conductor rail areas.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, and Logbook

Additional documents may include:

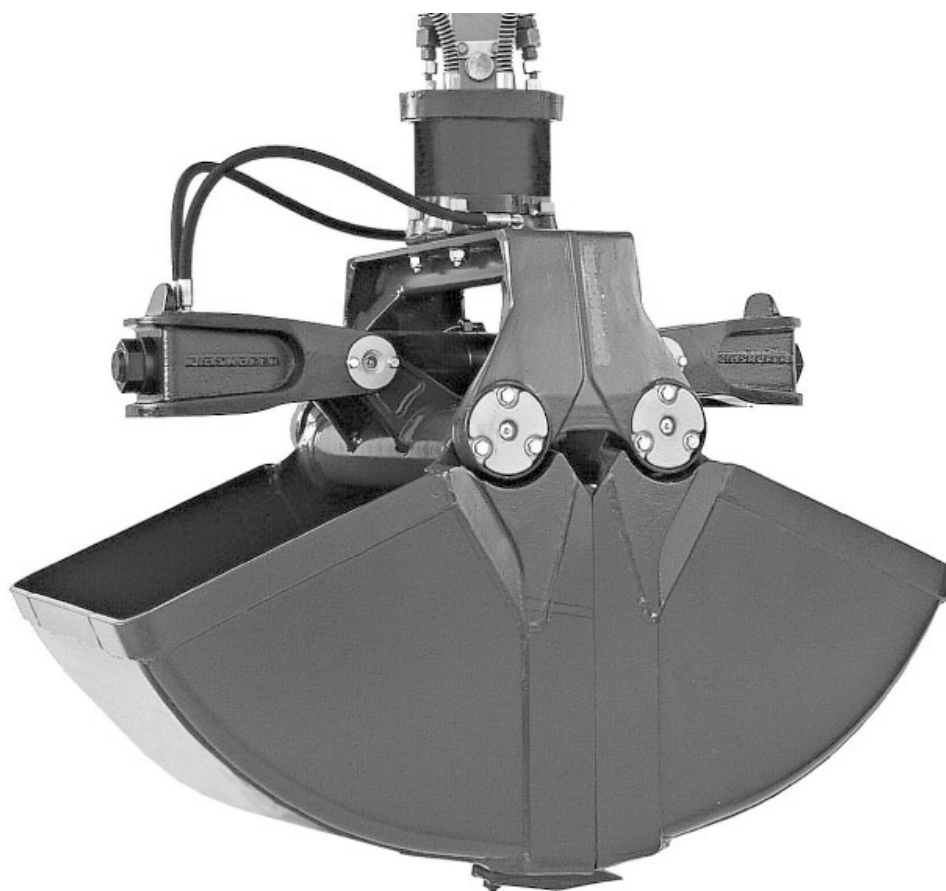
Product Acceptance Certificate (including Limitations of Use), Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Model	Width (mm)	Opening range (mm)	Volume (litres)	Weight (kg)	Load Capacity (kg)
C05H-25	250	1090	70	160	2000
C05H-30	300	1090	85	165	2000
C05H-35	350	1090	100	190	2000
C05H-40	400	1090	115	205	2000
C05H-45	450	1090	130	225	2000
C05H-50	500	1090	140	231	2000
C05H-60	600	880	115	235	2000

OTPA-9-3

Clamshell Bucket



Manufacturer Kinshofer **Models** C12H-40 / 50 / 65 / 80 / 100

Description

Clamshell buckets can be used for excavating wet beds or drainage. as well as general loading unloading, shouldering work and cess work can also be under taken

This robust range of clamshell buckets is designed for use with excavators from 9t to 12t operating weight.

The hydraulic system is fitted with a pressure control valve making it suitable for a hydraulic supply up to 320 bar with flow rates from 40 to 120 litres/min.

Scope of Use Excavating earth, spoil and ballast etc.

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

OTPA-9-3

Clamshell Bucket

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for **All** operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use:

The bucket must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

It must not be used under live overhead line equipment or in live conductor rail areas.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, and Logbook

Additional documents may include:

Product Acceptance Certificate (including Limitations of Use), Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Model	Width (mm)	Opening range (mm)	Volume (litres)	Weight (kg)	Load Capacity (kg)
C12H-40	400	1450	170	345	3000
C12H-50	500	1450	220	370	3000
C12H-65	650	1450	290	390	3000
C12H-80	800	1450	355	425	3000
C12H-100	1000	1450	450	455	3000

OTPA-9-4

Clamshell Bucket



Manufacturer Liebherr **Models** GM 5, GM 8 & GM 10

Description

Clamshell buckets can be used for excavating wet beds or drainage. as well as general loading unloading, shouldering work and cess work can also be under taken

The clamshell is one of the most important digging tools in the utility business. The clamshell selection is based on the ground condition, the specific material weight and the required production performance. The selection of the entire clamshell attachment is significant in order to determine the required digging depth.

Clamshell Capacities from 0.1– 2.0 m³, shell width from 300–2,000 mm

Typical applications are for narrow and deep trench digging and loading and unloading and handling of various bulk goods, and excavation

This range of buckets feature rugged design with protected cylinders, infinite rotation a quick-change system and grab extension available as an option

Scope of Use Excavating earth, spoil and ballast etc.

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

OTPA-9-4

Clamshell Bucket

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use:

The bucket must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

It must not be used under live overhead line equipment or in live conductor rail areas.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, and Logbook

Additional documents may include:

Product Acceptance Certificate (including Limitations of Use), Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Model	Width (mm)	Height Open (mm)	Height Closed (mm)	Weight (kg)	Capacity (m³)
GM 5 B	300 to 600	1070	1400	410 - 510	0.10 to 0.27
GM 8 B	320 to 800	1990	2420	710 - 800	0.17 to 0.40
GM 10 B	320 to 1000	2685	2440	770 - 970	0.17 to 0.60

OTPA-9-5

Clamshell Bucket



Manufacturer Richter & Muller

Description

The clamshell-bucket developed by Richter & Müller are extremely manageable and can be used for track construction.

These buckets have low structural shape, compact 360° hydraulic rotating motor, integrated pressure relief for the grab function. The buckets have forged bolt-on teeth and tube-protection-stirrup for the hydraulic connections at the grab rotating motor

Typically, these clamshell buckets can be used for excavating wet beds or drainage. as well as general loading unloading, shouldering work and cess work can also be undertaken.

The hydraulic system is fitted with a pressure control valve making it suitable for any hydraulic supply from up to 300 bar.

Scope of Use Excavating earth, spoil and ballast etc.

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

OTPA-9-5

Clamshell Bucket

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

The bucket must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

It must not be used under live overhead line equipment or in live conductor rail areas.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Product Acceptance Certificate (including Limitations of Use) and Logbook

Additional documents may include:

Performance Test Records, Statutory Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Weight	Up to 1000kg (Depending on type)
Length	Up to 700mm
Cutting Width:	280 to 1000mm
Height:	700mm
Excavator Weight	13 to 20 tonnes
Max. Lifting capacity	4 tones
Rotary function max. closing energy	37 kN
Bulk weight	up to 3 t/m ³
Operating pressure	max. 350 bar

Cable Drum Carriers

10

#	Description	Issue	Date
OTPA-10-1	GOS Engineering	1	2014
OTPA-10-2	Rexquote - T9	1	2014

OTPA-10-1

Cable Drum Carrier

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for All operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

The attachment/trailer shall only operate inside possessions and it shall not be "on or off-tracked" or work under live OLE or Conductor-rail lines.

It may not travel on live Conductor-rail lines but it may travel under live OLE in accordance with the Method Statement for the possession.

It may not activate train operated points.

It shall only be coupled to vehicles which are certificated for towing / propelling this type of trailer and is subject to limitations of the towing / propelling vehicle.

It shall only be used for the transport of cable drums in accordance with the Rexquote Operating Manual and the Method Statement for the possession.

Minimum documentation requirement for the host machine are:

Operating Instructions, E.A. Certificate, Logbook

Additional documents may include:

Product Acceptance Certificate, Inspection and Maintenance Records etc.

Technical Specification

Overall Length	2.5 m (approximate)
Width	2.3 m
Height without Cable Drum	1.8 m
Height with Cable Drum	3.0 m (approximate)
Weight	1200 kg
Maximum Carrying Capacity	9 tonnes
Maximum Travel speed	10 mph (5 mph at points and crossings)
Maximum Rail Cant	200 mm (8")
Maximum Gradient	1 in 29

OTPA-10-2

Cable Drum Carrier



Manufacturer

Rexquote

Model

T9

Description

The trailer model shown above is the type T9 drum carrier which has an overall length of 5 metre. This 4 wheel trailer is specifically designed to carry cable drums and work with compatible road rail vehicles. The trailer is fitted with hydraulic-release emergency / parking brake. It trailer has robust fabricated steel “A” side frames which allows for easy loading of drums onto the trailer.

The cable drum mounting shaft locates, and is secured in pockets on the top of the 'A' frames. Cable is fed out as the towing Road Rail Vehicle travels along the track.

The trailer has a maximum rated capacity of 16 tonnes (Gross Vehicle Weight) and can carry a maximum payload of 12 tonnes.

Scope of Use

Laying of cable

Competencies

Machine Controller, Crane Controller & OTPA-7

E.A. Certificate (example)

IF/0372/11 (Ready Power Engineering)

Risk Control Sheet No(s).

NR/L3/MTC/RCS0216/MP01-04 and MP07

OTPA-10-2

Cable Drum Carrier

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for All operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

The trailer shall only operate inside possessions and it shall not be "on or off-tracked" or work under live OLE or Conductor-rail lines.

It may not travel on live Conductor-rail lines but it may travel under live OLE in accordance with the Method Statement for the possession.

It may not activate train operated points.

It shall only be coupled to vehicles which are certificated for towing / propelling this type of trailer and is subject to limitations of the towing / propelling vehicle.

It shall only be used for the transport of cable drums in accordance with the Rexquote Operating Manual and the Method Statement for the possession.

Minimum documentation requirement for the host machine are:

Operating Instructions, E.A. Certificate, Logbook

Additional documents may include:

Product Acceptance Certificate, Inspection and Maintenance Records etc.

Technical Specification:

Overall Length	5.27 m
Width	2.69 m
Height without Cable Drum	1.94
Height with Cable Drum	2.83
Weight	3,900 kg
Maximum Carrying Capacity	12,000 kg
Maximum Travel speed	10 mph (5 mph at points and crossings)
Maximum Rail Cant	200 mm (8")
Maximum Gradient	1 in 29
Minimum Brake Release Pressure	27 bar
Maximum Brake Release Pressure	250 bar

Chains and Slings

11

#	Description	Issue	Date
OTPA-11-1	Chains and Slings - General	1	2014

OTPA-11-1

Chains & Slings



Manufacturers

Crosby, Dillon, Parsons, Tangye and Thiele

Description

Loose lifting gear such as chains, slings (synthetic and wire), shackles, hoist rings, turnbuckles, eyebolts are widely available from industry leading manufacturers.

Typically, chains are available as single leg, two leg, three leg and four leg slings from most manufacturers.

Synthetic slings are available as Flat or Fibre Round slings. These are normally made from high tensile polyester (PES) and manufactured to machine directive 89/392/CE.

These slings have low elongation and are colour coded according to rating. Typically, these types of slings are available as straight pull, choke hitch, basket hitch or 2 leg slings.

Scope of Use

Lifting operations

Competencies

Machine Controller, Crane Controller & OTPA-x

Product Approval No.

-

Risk Control Sheet No(s).

NR/L3/MTC/RCS0216/MP01-03, MP07 and MP21

OTPA-11-1

Chains & Slings

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

1. All loose lifting gear shall have a valid LOLER certificate and shall be subject to a six monthly thorough examination.
2. Lifting equipment shall be subject to all applicable limitations on the LOLER certificate.
3. Lifting gear shall only be used with an RRV when the RC! indicator is active, and the lifting duty is within the equipments' safe working load in the most adverse condition.
4. Never exceed the working load limit marked on the sling.
5. Never use a sling at angles greater than 60° from the vertical.
6. When lifting operations are finished, slings should be removed from crane hooks and stowed on a properly designed rack. They should not be left lying on the floor where they may suffer damage or may be lost.

Minimum documentation requirement for the host machine are:

Operating Instructions, LOLER certificate.

Additional documents may include:

Test Records, Statutory Inspection & Test Records, Load Radius Charts (duty charts).

Technical Specifications for loose lifting gear are available from the manufacturer.

Working Load Limits

The working load limits (WLL) listed by the manufacturer are the maximum weights which slings are designed to carry in general lifting service according to the standard uniform load method of rating.

In exceptionally hazardous conditions or in any other circumstances which might indicate a need for a WLL lower than the designed figure, the degree of hazard should be assessed by a competent person and the working load limit adjusted accordingly. The WLL, which should be marked on the sling itself, or on a securely fixed metal tag, must not be exceeded in any circumstances.

The load imposed on a sling leg increases as the angle of the leg from vertical increases.

Account is taken of this fact when calculating working load limits. For example, a 10mm two-leg sling to be used at an angle of 45° from the vertical (90° included angle) will have a WLL 1.4 times that of a 10mm single leg sling when used vertically, and not 2 times the single leg.

Compactor Plates

12

#	Description	Issue	Date
OTPA-12-1	Atlas Copco - HC103/308/409/920	1	2014
OTPA-12-2	Engcon - PP350 / PP600 / PP950	1	2014
OTPA-12-3	Richter & Muller - Compactor Plaintiff	1	2014

OTPA-12-1

Compactor Plate



Manufacturer Atlas Copco **Models** HC 103 / 308 / 409 / 920

Description

Primary areas of work for hydraulic compactors are compaction of soil, ballast, hollow and slope compression, driving in posts and formwork.

The excavator load is partially transferred to the vibrating plate. Thus the weight of the carrier machine accelerates the compacting process, so allowing greater chute heights to be processed.

These units create less noise than a manually operated compactor which is a great advantage in terms of safety and there is the added advantage that there is a reduction in harmful vibration for the operator.

Scope of Use Compacting ballast and soil

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s) NR/L3/MTC/RCS0216/MP01 to MP07

OTPA-12-1

Compactor Plate

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work and Method Statement in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. The compactor must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
3. Staff shall be briefed on the safe operation of the attachment prior to its use.
4. The compactor shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.

Minimum documentation requirement for the host machine are:

Operating Instructions, Certificate of Acceptance or Conformity and Logbook.

Additional documents may include:

Product Acceptance Certificate, Inspection Records, Load Radius Charts.

Technical Specification

	Model	HC 103	HC 308	HC 409	HC 920
Weight: (kg)		160	320	430	880
Flow requirement (l/min)		30	57	76	114
Hydraulic pressure (bar)		150	150	150	150
Vibrating Force (t)		1.4	2.3	3.6	7.3
Vibrating Frequency (n/min)		2100	2100	2200	2200
Base plate Size (W x L)		346 x 678	475 x 693	610 x 929	710 x 1178
Plate Coverage (m ²)		0.19	0.25	0.42	0.63
Height (mm)		486	623	622	764
Slewing Gear Weight (kg)		-	80	80	80

OTPA-12-2

Compactor



Manufacturer Engcon

Models PP350 / PP600 / PP950

Description

Primary areas of work for hydraulic compactors are compaction of soil, ballast, hollow and slope compression, driving in posts and formwork.

The excavator load is partially transferred to the vibrating plate. Thus the weight of the carrier machine accelerates the compacting process, so allowing greater chute heights to be processed.

These units create less noise than a manually operated compactor which is a great advantage in terms of safety and there is the added advantage that there is a reduction in harmful vibration for the operator.

Scope of Use Compacting ballast and soil

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 to MP07

OTPA-12-2

Compactor

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work and Method Statement in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. The compactor must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
3. Staff shall be briefed on the safe operation of the attachment prior to its use.
4. The compactor shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.

Minimum documentation requirement for the host machine are:

Operating Instructions, Certificate of Acceptance and Logbook.

Additional documents may include:

Product Acceptance Certificate, Inspection Records, Load Radius Charts.

Technical Specification

Model	PP350	PP600	PP950
Compaction force: (kg)	3500	6000	9500
Weight excl. mounting: (kg)	390	620	900
Length (mm)	890	1050	1270
Width (mm)	620	720	900
Height (mm)	450	520	600
Compaction area: (m2)	0.42	0.58	0.90
Hydraulic. flow: (l/min)	75	120	120
Frequency: (Hz)	2100	2100	2100

OTPA-12-3

Compactor



Manufacturer Richter & Muller **Model** Compactor Plaintiff

Description

Due to its compact structural shape, the compactor plaintiff is practically applicable on all types of tracks.

The unit has a hydraulic rotator that can turn the compactor head 360° which allows the compression of ballast under the sleeper.

The unit has a high compaction frequency and is applicable with all current excavators.

These units create less noise than a manually operated compactor which is a great advantage in terms of safety and there is the added advantage that there is a reduction in harmful vibration for the operator.

Scope of Use Compacting Ballast

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 to MP07

OTPA-12-3

Compactor

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work and Method Statement in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. The compactor must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
3. Staff shall be briefed on the safe operation of the attachment prior to its use.
4. The compactor shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.

Minimum documentation requirement for the host machine are:

Operating Instructions, Certificate of Acceptance and Logbook.

Additional documents may include:

Product Acceptance Certificate, Inspection Records, Load Radius Charts.

Technical Specification

Weight	350 kg
Length	1260 mm
Width	300 mm
Height	1097 mm
Rotator capacity	360°

Cone Penetration Unit

13

#	Description	Issue	Date
OTPA-13-1	Cone Penetration Test Unit - Lankelma - UK14	1	2014

OTPA-13-1

Cone Penetration Test Unit



Manufacturer Lankelma **Model** UK 14

Description

Lankelma have developed this Cone Penetration Test (CPT) unit to undertake conventional static cone penetration tests on the infrastructure. The unit has been designed to install geotechnical instrumentation and obtain undisturbed soil samples for railway infrastructure projects, including re-signalling, tunnels and station platform works.

The CPT unit is attached to a 360° RRV excavator via a Quick Hitch that is able to safely lift the 2.2 tonne weight of the CPT rig to the desired height of the embankment or test location.

Typically, the rig is used to carry out tests in the Cess, 6 foot, 10 foot, on up and down embankments, cuttings, and at locations that would normally be very difficult to reach with conventional equipment.

Scope of Use Rail Site Investigation Testing

Competencies Machine Controller, Crane Controller & OTPA-7

Product Acceptance No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-04 and MP07

OTPA-13-1

Cone Penetration Test Unit

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for All operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

It shall NOT be used under live OLE or on live conductor rail lines.

Staff shall be briefed on the safe operation of the machine prior to its use and they shall not ride in the working platform when a movement takes place.

The limitations of the RRV to which the machine is attached shall apply.

The attachment must NOT be disconnected from excavator whilst on track.

Minimum documentation requirement for the host machine are:

Operating Instructions, E.A. Certificate, Logbook

Additional documents may include:

Product Acceptance Certificate, Inspection and Maintenance Records etc.

Technical Specification

Width	1480 mm
Length	1900 mm
Height Overall	2056 mm
Height	1425 mm
Weight	2200 kg
Range of reach (machine dependant)	6 to 10 metres

Lankelma has a list of approved excavator suppliers, who are familiar with the working of the UK14 rig, e.g.:

Stobart Rail, TMX Plant, Quattro Plant, QTS, BRP (Rugby)

Fast Clippers

14

#	Description	Issue	Date
OTPA-14-1	AWI - FCM-TR-2	1	2014
OTPA-14-2	Rosenqvist - CD 400	1	2014
OTPA-14-3	Thompson Rail Equipment. - Mk 3A	1	2014

OTPA-14-1

Fast Clipper



Manufacturer	AWI	Model	FCM-TR-2
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Description

The AWI FCM -TR - 2 Fast Clipper attachment is designed for use with a road rail vehicle (RRV) using the host machines' hydraulic power for operation.

It can both clip and declip PANDROL FASTCLIPS and there is a sleeper lifting unit included for raising low sleepers.

The TR-2 can fit and remove Pandrol FASTCLIP™ at a rate of 10 to 40 sleepers per minute depending upon model type, operator proficiency and track conditions.

Scope of Use	Pandrol Fastclips
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Competencies	Machine Controller, Crane Controller & OTPA-10
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E.A. Cert. No.	IF/0603/11 (example for vehicle no. 99709_001016-3)
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Risk Control Sheet No(s).	NR/L3/MTC/RCS0216/MP01 and MP07
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OTPA-14-1

Fast Clipper

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. It shall only operate inside possessions.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
3. It shall NOT be used on live conductor rail lines.
4. The machine shall be lifted over S&C and raised check rails.
5. Working mode - Maximum track cant 150mm and/or 1 in 30 gradients.
6. Permitted speed - Maximum 10 mph (16km/h), Switches & Crossings and Raised Check Rails 5mph (8km/h).
7. Staff shall be briefed on the safe operation of the machine prior to its use.
8. The limitations of the RRV to which the machine is attached shall apply.
9. The Fast Clipper must NOT be disconnected from excavator whilst on track.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Engineering Acceptance Certificate (including Limitations of Use) and Logbook

Additional documents may include:

Product Acceptance Certificate(s), Performance Test Records, Statutory Inspection Records, Calibration information/Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Weight	1.3 tonnes
Length	2500 mm (approx.)
Width	2000 mm (approx.)
Height	1000 mm (approx.)
Performance	up to 40 clips per minute
Brake Release Pressure (max.)	30 bar

OTPA-14-2

Fast Clipper



Manufacturer Rosenqvist Rail Tech AB **Model** CD 400

Description

The Rosenqvist - CD400 Clip Driver attachment is designed for use on a road rail vehicle (RRV) using the host machines hydraulic power for operation. It can both clip and declip PANDROL FASTCLIPS.

A sleeper lifting unit included for raising low sleepers (but not with the “e Clip” option).

The CD400 can be fitted with proximity sensors for automatic fastening which increases the productivity potential of the machine.

Scope of Use Pandrol “e Clip”, Fastclip, Fastclip FE and Deenik

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. PA05/01477 **E.A. Cert. No.** IF/0011/09

Risk Control Sheet No(s) NR/L3/MTC/RCS0216/MP01 and MP07

OTPA-14-2

Fast Clipper

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. It shall only operate inside possessions.
2. Adjacent lines "open to traffic" shall be protected when placing the clip driver on or off track. It shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
3. It shall NOT be used on live 3rd rail lines or Overhead Line Equipment.
4. The machine shall be lifted over S&C and raised check rails.
5. Working mode - Maximum track cant 150mm and/or 1 in 29 gradients.
6. Permitted speed - Maximum 5mph (8km/h).
7. Staff shall be briefed on the safe operation of the machine prior to its use.
8. The limitations of the RRV to which the machine is attached shall apply.
9. The Clip Driver must NOT be disconnected from excavator whilst on track.

Minimum documentation requirement for the host machine are:

- Maintenance and Operating Instructions
- Engineering Acceptance Certificate (including Limitations of Use)
- Logbook

Additional documents may include:

Product Acceptance Certificate(s), Performance Test Records, Statutory Inspection Records, Calibration information/Certificates etc.

Technical Specification

Weight	1400 kg (3087 lb)	with tools for clipping and declipping of Pandrol FASTCLIP and sleeper lift
Length	2500 mm (98.3 in)	
Width	2100 mm (82.7 in)	
Height	1030 mm (40.6 in)	
Wheel Diameter	250 mm (9.8 in)	
Capacity	Up to 40 sleepers / min	

OTPA-14-3

Fast Clipper



Manufacturer Thompson Rail Equipment Ltd. **Model** Mk 3A

Description

The Thomson Rail Fastclip attachment is designed for use on a road rail vehicle (RRV) using the host machines hydraulic power for operation.

It is suitable for all steel and concrete sleepers and both CEN60 and BS113A rail and it is easy to adjust and to operate. The machine can also be adapted to suit combinations as required.

The machine requires two hydraulic services, one for the sleeper lifter and one for the clipping or de-clipping paddles. The hydraulic system is fitted with a pressure control valve making it suitable for any hydraulic supply from 175 to 300 bar.

Scope of Use Pandrol “e Clip” and Fastclip

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. PA05/01958 **E.A. Cert. No.** RT/EA/0186/08

PADS No. 094/013005

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 and MP07

Operators / Suppliers Balfour Beatty Rail, W Bradshaw, Quattro, Readypower, Shovlin Rail, Story Rail, TXM Plant

OTPA-14-3

Fast Clipper

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for **All** operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. It shall only operate inside possessions.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
3. It shall NOT be used on live conductor rail lines.
4. The machine shall be lifted over S&C and raised check rails.
5. Working mode - Maximum track cant 180mm and/or 1 in 29 gradient.
6. Permitted speed - Maximum 10 mph (16 km/h), 5 mph thorough switches & crossings and raised check rails.
7. Staff shall be briefed on the safe operation of the machine prior to its use.
8. The limitations of the RRV to which the machine is attached shall apply.
9. The Clip Driver must NOT be disconnected from excavator whilst on track.

Minimum documentation requirement for the host machine are:

- Operating Instruction Manual
- Engineering Acceptance Certificate (including Limitations of Use)
- Logbook

Additional documents may include:

Product Acceptance Certificate(s), Performance Test Records, Statutory Inspection Records, Calibration & Brake Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Weight	2250 kg
Length	2195 mm
Width	2200 mm
Height	1230 mm
Sleeper Lift Capacity	350 kg
Hydraulic Pressure	90 - 210 Bar

Flails and Brush Cutters

15

#	Description	Issue	Date
OTPA-15-1	Ferri - THM105, THM125 & TIR 150	1	2014
OTPA-15-2	Geismar - ORD	1	2014
OTPA-15-3	Mulag - BRK 1200 / UMK1200	1	2014
OTPA-15-4	OSMA - TE120/160-CP & TFL90/100	1	2014
OTPA-15-5	Windhoff - AGM	1	2014

OTPA-15-1

Flail - Brush Cutter



Manufacturer Ferri **Models** THM 105, THM 125 & TIR 150

Description

The Ferri flail cutting head attachments are designed for use on road rail vehicles (RRV) excavators using the host machines hydraulic power for operation.

They are suitable for cutting grass, scrub and small trees up to 60 mm thick.

They are equipped with adjustable protection and automatic change of the cutting shaft rotating direction.

The hydraulic system is fitted with a pressure control valve making it suitable for hydraulic supplies up to 220 bar.

Scope of Use Cutting grass, scrub and small trees

Competencies Machine Controller & OTPA-11

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 and MP07

OTPA-15-1

Flail - Brush Cutter

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and the safe system of work.
2. It shall NOT be used under live OLE or on live 3rd rail lines.
3. Permitted working speed - Maximum 6 mph (10km/h).
4. Staff shall be briefed on the safe operation of the machine prior to its use.
5. The limitations of the RRV to which the machine is attached shall apply.
6. The must not be disconnected from excavator whilst on track.

Minimum documentation requirement for the host machine are:

- Maintenance and Operating Instructions
- Product Acceptance Certificate (including Limitations of Use)
- Logbook

Additional documents may include:

Performance Test Records, Inspection Records & Test Certificates, etc.

Technical Specification

Model	Cutting width (mm)	Exterior width (mm)	Weight (kg)	Flow rate (l/min)	Pressure (bar)	No. of Knives
THM 105	1050	1290	330	60-100	220	18
THM 125	1250	1490	348	60-100	220	22
TIR 150	1450	1680	630	90-100	220	24

OTPA-15-2

Flail - Brush Cutter



Manufacturer

Geismar

Model

ORD

Description

The Geismar Flail / Brush Cutter attachment is designed for use on a road rail vehicle (RRV) using the host machines hydraulic power for operation.

It is suitable for cutting grass and scrub up to 80 mm thick.

It is equipped with adjustable protection.

The hydraulic system is fitted with a pressure control valve making it suitable for a hydraulic supply up to 210 bar.

Scope of Use

Cutting grass, scrub and small bushes / trees

Competencies

Machine Controller & OTPA-11

Product Approval No.

-

Risk Control Sheet No(s).

NR/L3/MTC/RCS0216/MP01 and MP07

OTPA-15-2

Flail - Brush Cutter

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and the safe system of work.
2. It shall NOT be used on live conductor rail lines.
3. Permitted speed - Maximum 6 mph (10km/h).
4. Staff shall be briefed on the safe operation of the machine prior to its use.
5. The limitations of the RRV to which the machine is attached shall apply.
6. The must not be disconnected from excavator whilst on track.

Minimum documentation requirement for the host machine are:

- Operating Instruction Manual
- Product Acceptance Certificate (including Limitations of Use)
- Logbook

Additional documents may include:

Performance Test Records, Inspection Records, Calibration & Test Certificates, etc.

Technical Specification

Weight	380 kg
Total Width	1400 mm
Working Width	1250 mm
Length	500 mm
Height	520 mm
No. of Flails	12
Working Speed	Up to 10 km/h (typical)
Flail Head Speed	2 500 rpm
Hydraulic Pressure	210 bar (max)
Hydraulic output	100 l/min (max)

OTPA-15-3

Flail - Brush Cutter



Manufacturer Mulag **Models** BRK 1200 / UMK 1200

Description

The MULAG GMK 1200 Cutting Head attachment is designed for use on a road rail vehicle (RRV) excavators and tractors using the host machines hydraulic power for operation. It's suitable for cutting grass and scrub up to 60 mm thick.

It's equipped with adjustable protection and automatic change of the cutting shaft rotating direction.

The hydraulic system is fitted with a pressure control valve making it suitable for hydraulic supplies up to 340 bar.

Scope of Use Cutting grass and scrub

Competencies Machine Controller & OTPA-11

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 and MP07

Suppliers Avondale Environmental Services Ltd

OTPA-15-3

Flail - Brush Cutter

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for **All** operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and the safe system of work.
2. It shall NOT be used under live OLE or on live 3rd rail lines.
3. Permitted working speed - Maximum 6 mph (10km/h).
4. Staff shall be briefed on the safe operation of the machine prior to its use.
5. The limitations of the RRV to which the machine is attached shall apply.
6. The must not be disconnected from excavator whilst on track.

Minimum documentation requirement for the host machine are:

- Maintenance and Operating Instructions
- Product Acceptance Certificate (including Limitations of Use)
- Logbook

Additional documents may include:

Performance Test Records, Inspection Records, Calibration & Test Certificates, etc.

Technical Specification

	BRK 1200	UMK 1200
Weight	375 kg	395 kg
Total Width	1520 mm	1500 mm
Working Width	1200 mm	1200 mm
Number of Flails	20	12
Working Speed	Up to 10 km/h	Up to 10 km/h
Flail Head Speed	2300 rpm.	2300 rpm.
Hydraulic Pressure	340 bar (max)	340 bar (max)
Flow Rate	62 l/min.	62 l/min.

OTPA-15-4

Flail - Brush Cutter



Manufacturer OSMA **Models** TE 120-CP, TE160-CP, TFL 90 & TFL100

Description

The OSMA Flail Brush cutting attachments are designed for use on road rail vehicle (RRV) excavators and tractors using the host machines' hydraulic power for operation. They are suitable for cutting grass, scrub and small trees up to 60 mm thick.

They are equipped with adjustable protection and automatic change of the cutting shaft rotating direction.

The hydraulic system is fitted with a pressure control valve making it suitable for hydraulic supplies up to 250 bar.

Scope of Use Cutting grass, scrub and small trees

Competencies Machine Controller & OTPA-11

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 and MP07

OTPA-15-4

Flail - Brush Cutter

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and the safe system of work.
2. It shall NOT be used under live OLE or on live 3rd rail lines.
3. Permitted working speed - Maximum 6 mph (10km/h).
4. Staff shall be briefed on the safe operation of the machine prior to its use.
5. The limitations of the RRV to which the machine is attached shall apply.
6. The must not be disconnected from excavator whilst on track.

Minimum documentation requirement for the host machine are:

- Maintenance and Operating Instructions
- Product Acceptance Certificate (including Limitations of Use)
- Logbook

Additional documents may include:

Performance Test Records, Inspection Records & Test Certificates, etc.

Technical Specification

Model	Cutting width (mm)	Exterior width (mm)	Weight (kg)	Flow rate (l/min)	Pressure (bar)	Knives
TE 120-CP	1250	1450	430	85-100	200-220	40
TE160-CP	160	1850	525	85-100	200-220	48
TFL 90	900	1050	450	60-80	180-220	16
TFL 100	1050	1250	650	90-100	220-250	16

OTPA-15-5

Flail - Brush Cutter



Manufacturer	Windhoff	Model	AGM
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Description

The Windhoff Brush Cutter / Mulcher attachment is designed for use on a road rail vehicle (RRV) using the host machines hydraulic power for operation.

It is suitable for cutting grass and scrub up to 60 mm thick. It is equipped with adjustable protection and automatic change of the cutting shaft rotating direction.

The hydraulic system is fitted with a pressure control valve making it suitable for a hydraulic supply up to 340 bar.

Scope of Use	Cutting grass and scrub
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Competencies:	Machine Controller & OTPA-11
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Product Approval No.	-
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Risk Control Sheet No(s).	NR/L3/MTC/RCS0216/MP01 and MP07
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OTPA-15-5

Flail - Brush Cutter

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for **All** operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and the safe system of work.
2. It shall NOT be used on live conductor rail lines.
3. Permitted speed - Maximum 6 mph (10km/h).
4. Staff shall be briefed on the safe operation of the machine prior to its use.
5. The limitations of the RRV to which the machine is attached shall apply.
6. The must not be disconnected from excavator whilst on track.

Minimum documentation requirement for the host machine are:

- Operating Instruction Manual
- Product Acceptance Certificate (including Limitations of Use)
- Logbook

Additional documents may include:

Performance Test Records, Inspection Records, Calibration & Test Certificates, etc.

Technical Specification

Weight	880 kg
Total Width	1520 mm
Working Width	1200 mm
Length	1000 mm
Height	1350 mm
No. of Flails	20
Working Speed	Up to 10 km/h
Flail Head Speed	1800 rpm.
Hydraulic Pressure	150 bar (max)

Flash Butt Welders

16

#	Description	Issue	Date
OTPA-16-1	Flash Butt Welder - Holland K-922	1	2014
OTPA-16-2	Flash Butt Welder - Holland K-355	1	2014

OTPA-16-1

Flash Butt Welder



Manufacturer

Holland

Model

K - 922

Description

The K-922 welding head is designed specifically for closure welding and has the capability to shear the upset and flash while maintaining a constant tension on the rails.

The unit shown above is based on the Doosan DX160/170 Series excavator.

The GOS - Philmor model DX160RW – “All Terrain Mobile Welder” (ATMW) combines the functional flexibility of a road/rail vehicle with the ability to perform high quality welds in an often challenging railway environment.

The DX160RW road/rail conversion is used as a “transporter” machine to create the ATMW system, incorporating a Holland and Co Model K-922 Flash Butt Welder.

The unit shown is complete with a "Knuckle Boom" and "Mini Dipper" for better control.

Scope of Use

Welding Rail

Competencies

Machine Controller, Crane Controller & OTPA-10

Product Approval No.

-

Supplier

GOS Tool & Engineering

Risk Control Sheet No(s).

NR/L3/MTC/RCS0216/MP01 and MP07

OTPA-16-1

Flash Butt Welder

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for **All** operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. It shall only operate inside possessions.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
3. It shall NOT be used on live conductor rail lines.
4. Staff shall be briefed on the safe operation of the machine prior to its use.
5. The limitations of the RRV to which the machine is attached shall apply.
6. The Clip Driver must NOT be disconnected from excavator whilst on track.

Minimum documentation requirement for the host machine are:

Operating Instruction Manual, Product Acceptance Certificate (including Limitations of Use) and Logbook, E. A Certificate (for host machine).

Additional documents may include:

Performance Test Records, Statutory Inspection Records, Calibration & Brake Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Rated Voltage	370 – 390 volts
Rated Primary Current	550 Amps
Rated Welding Current	30,000 Amps
Hydraulic Working Pressure	207 bar
Rated Upset / Pull Force	120 tonnes
Rated Clamping Force	290 tonnes
Welding Pulling Stroke	150 mm
Weight	3800 kg
Overall Dimensions	1000 x 970 x 1895 mm

OTPA-16-2

Flash Butt Welder

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for **All** operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. It shall only operate inside possessions.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
3. It shall NOT be used on live conductor rail lines.
4. Staff shall be briefed on the safe operation of the machine prior to its use.
5. The limitations of the RRV to which the machine is attached shall apply.
6. The Clip Driver must NOT be disconnected from excavator whilst on track.

Minimum documentation requirement for the host machine are:

Operating Instruction Manual, Product Acceptance Certificate (including Limitations of Use) and Logbook, E. A Certificate (for host machine).

Additional documents may include:

Performance Test Records, Statutory Inspection Records, Calibration & Brake Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Rated Voltage	380 V +/- 10%
Rated Primary Current	500 Amps
Rated Welding Current	30,000 Amps
Hydraulic Working Pressure	138 bar
Rated Upset / Pull Force	65 tonnes
Rated Clamping Force	176 tonnes
Welding Pulling Stroke	150 mm
Weight	2950 kg
Overall Dimensions	920 x 1062 x 1852 mm

Grabs

17

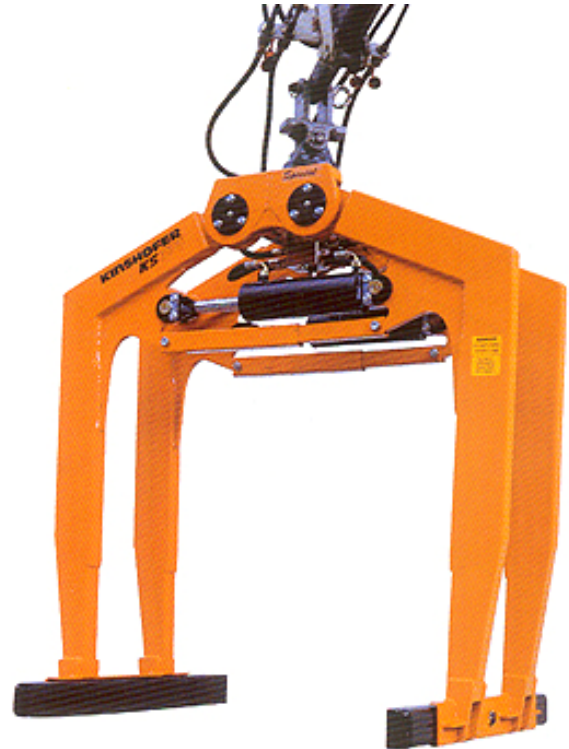
#	Description	Issue	Date
OTPA-17-1	Block Grab - various	1	2014
OTPA-17-2	Log (timber) Grab - various	1	2014
OTPA-17-3	Plate Grab - Thompson Rail Equipment	1	2014
OTPA-17-4	Post Grab - Kinshofer	1	2014
OTPA-17-5	Sleeper Loading Grab - Richter & Muller	1	2014

OTPA-17-1

Block Grab



Typical Mechanical Scissor Block Grab



Hydraulic Grab - Kinshofer

Manufacturers various - Chieftain, Kinshofer, McQuaid, Probst.

Description

Mechanical and hydraulic block grabs are available for lifting packs of concrete blocks, bricks or slabs.

There are several designs, some are a fully automatic scissor design mechanism and others incorporate hydraulic cylinders to apply the appropriate pressure to safely lift a pack or individual blocks. Both types are shown above. These types of grabs can handle standard packs of concrete blocks, bricks and slabs safely and their simple sturdy construction results in a long service life.

The grabs can be operated via the RRV without the driver leaving the safety of his vehicle.

Scope of Use Lifting - packs of concrete blocks, slabs and bricks etc.

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06 and MP07

OTPA-17-1

Block Grab

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for **All** operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. Grabs must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
3. Staff shall be briefed on the safe operation of the machine prior to its use.
4. The limitations of the RRV to which the machine is attached shall apply.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions,

Additional documents may include:

Product Acceptance Certificate (including Limitations of Use), LOLER Certification, Test Records, Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

(Note: The details below are for a typical mechanical and hydraulic block grab. Please refer to the manufacturers' individual data sheets for actual details of a particular make and model).

Model	Internal Height (mm)	Overall Height (mm)	Opening range (mm)	Capacity (kg)	Pad Length (mm)
Mechanical (typical)	400 - 925	1430	600 - 1130	1800	1200
Hydraulic - BS311	1000	1650	220 - 1420	2000	1000 - 1200
	1100	1750	160 - 1450	2000	1000 - 1200
	1200	1850	98 - 1475	1800	1000 - 1200
	1300	1950	40 - 1500	1600	1000 - 1200

OTPA-17-2

Log Grabs



Manufacturers Various - e.g. - Abiljo (UK), Engcon, Kinshofer, Idrobenne etc.

Description

The examples (Kinshofer KM634 range) of hydraulic grabs shown above are typical designs for this type of grab.

These grabs are robust and powerful tools for heavy duty log / timber lifting operations.

Their optimised shell design allows the grabs to handle small diameter timber safely and their sturdy construction results in a long service life.

The hydraulic cylinders are positioned such that they are protected within the carrier frame and the use of hose guards gives additional protection to the hydraulic system.

Scope of Use Lifting operations - logs, timber and vegetation etc.

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06 and MP07

OTPA-17-2

Log Grab

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. Grabs must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
3. Staff shall be briefed on the safe operation of the machine prior to its use.
4. The limitations of the RRV to which the machine is attached shall apply.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions,

Additional documents may include:

Product Acceptance Certificate (including Limitations of Use), LOLER Certification, Test Records, Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Note: The details below are for the Kinshofer KM634 range of Log Grabs only.

Please refer to the individual manufacturers' data sheets for capacities of other makes/models.

Model	Capacity	Width	Log-Ø	Max.	Weight	Closing	Load
KM634	(m²)	min.	max.	Opening	(kg)	force	capacity
		(mm)	(mm)	(mm)		(kN)	(kg)
- 0-25	0.25	420	90	1470	170	13	4000
- 0-35	0.35	500	135	1950	225	16	5000
- 0-50	0.50	500	170	1985	250	15	5000
- S0-40	0.40	510	135	1950	270	16	6000
- S0-50	0.50	510	170	1985	275	16	7000
- S0-70	0.70	590	110	2570	530	15	8000

OTPA-17-3

Plate Grab



Manufacturer Thomson Rail Equipment Ltd **Model** PG

Description

This type of Plate Grab incorporates a hinge mechanism into the jaw plates to ensure that the grip of the jaws is evenly distributed across all the steel sleepers in the pack. This compact plate grab will handle all designs of steel sleepers in all pack sizes. The hinge mechanism can be locked if the grab is required to handle small loads such as short lengths of rail. For storage and transport the jaws open wider making it stable. For safety, the hydraulic cylinders are fitted with check valves and pressure control valves and for storage and transport the jaws open wider to make it more stable.

Scope of Use Lifting packs of steel sleepers

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

OTPA-17- 3

Plate Grab

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for **All** operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use:

The Plate Grab must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

It must not be used under live overhead line equipment or in live conductor rail areas.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, LOLER Certification

Additional documents may include:

Product Acceptance Certificate (including Limitations of Use), Performance Test Records, Statutory Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Unladen Weight	510 kg
Safe Working Load	5,000 kg
Proof Load Test	10,000 kg
Hydraulic Pressure	150 to 350 bar
Hydraulic Rotator	10,000 kg
Jaw Tip Opening	0 to 970 mm
Pack Width (floating mode)	200 to 350 mm

OTPA-17-4

Post Grab Manipulator



Manufacturer Kinshofer **Suppliers** Shovlin Plant & Sandhurst Hire

Description

The manipulators can manoeuvre signal posts, pipes and tubes weighing up to 1000kgs and measuring between 70-300mm diameter easily and safely. Sandhurst manipulators have vertical and horizontal attachment rotation, so used in conjunction with the excavator crowd ram, posts can be rotated and tilted through any angle.

Clamping is very secure, with each clamp working independently of one another. In use, each clamp stops when meeting resistance, enabling uneven shapes to be handled.

Posts are gripped securely and held firm by nylon pads, fitted to the clamps, preventing load slip and providing post protection.

These manipulators have continuous rotation and controlled braking, resulting in smooth and accurate control over post setting.

This attachment is deal for use with RRV excavators from 13 – 30 tonnes.

Scope of Use Lifting, positioning & setting of Signal Posts

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06 and MP07

OTPA-17-4

Post Grab Manipulator

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. Grabs must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
3. Staff shall be briefed on the safe operation of the machine prior to its use.
4. The limitations of the RRV to which the machine is attached shall apply.
5. It must not be used under live overhead line equipment or in live conductor rail areas.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions,

Additional documents may include:

Product Acceptance Certificate (including Limitations of Use), LOLER Certification, Test Records, Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Model	Load Capacity (kg)	Gripping Diameter (mm) (Min/Max)	Length (mm)	Unit Weight (kg)	Closing Force (kN)	Max. Operating Pressure (Bar)	Oil Flow (L/Min)
KM Range							
930-500	500	100 - 300	785	235	11	200	20 - 40
930-1000	1000	100 - 300	1275	310	23	200	20 - 40
930-2000	2000	250 - 600	1365	865	25	200	20 - 40
930-3000	3000	250 -600	1630	1085	39	200	20 - 40

OTPA-17-5

Sleeper Loading Grab



Manufacturer Richter & Muller **Model** HSV5 & HSV7

Suppliers Tasty Plant

Description

The Richter & Müller hydraulic sleeper loading grabs are designed for loading batches of 5 or 7 concrete sleepers, side-by-side.

The beam length is mechanically adjustable so that it is possible to handle sleepers of different lengths.

It incorporates a strong and endlessly rotating (360°) hydraulic rotator which allows rapid, exact and high-efficiency operations possible.

The sleeper loading device may be mounted onto most types of standard RRV excavators.

Scope of Use Lifting packs of steel sleepers

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03, MP06 and MP07

OTPA-17-5

Sleeper Loading Grab

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for **All** operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. The Sleeper Grab must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
3. Staff shall be briefed on the safe operation of the machine prior to its use.
4. The limitations of the RRV to which the machine is attached shall apply.
5. It must not be used under live overhead line equipment or in live conductor rail areas.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, LOLER Certification

Additional documents may include:

Product Acceptance Certificate (including Limitations of Use), Test Records, Statutory Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

	Model	HSV5	HSV7
Weight (kg)		750	800
Length (mm)		2000	2400
Width (mm)		1450	2050
Height (mm)		800 mm	1100
Maximum number of sleepers lifted		5	7

Hydraulic Hammer Breakers 18

#	Description	Issue	Date
OTPA-18-1	Atlas Copco - MB750 -1500	1	2014
OTPA-18-2	JCB - Hammmermaster range	1	2014

OTPA-18-1

Hammer - Breaker



Manufacturer Atlas Copco **Models** MB750 / MB1000 / MB 1200 / MB1500

Description

Atlas Copco medium breakers are powered by a combination of oil and gas (nitrogen).

70% of the impact energy is generated by gas power, which means that the breakers are virtually independent of the hydraulic supply from the RRV thanks to simple design.

There are only three moving parts: the percussion piston, the control valve and the pilot valve which helps minimise routine maintenance.

The make and model of the excavator to which a hydraulic breaker will be fitted must be established so that the correct size and type can be selected. The excavator's hydraulic system must be compatible with the breaker.

Scope of Use General demolition, rock breaking and trenching

Competencies Machine Controller, Crane Controller & OTPA-xx

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 and MP07

OTPA-18-1

Hammer - Breaker

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

1. Staff shall be briefed on the safe operation of the machine prior to its use.
2. The breaker shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.
3. The breaker shall only be used with an RRV whose RCI indicator is active, and the lifting duty is in excess of the beam / load in the most adverse condition.

Minimum documentation requirement for the host machine are

Maintenance Instructions, Operating Instructions and Logbook

Additional documents may include:

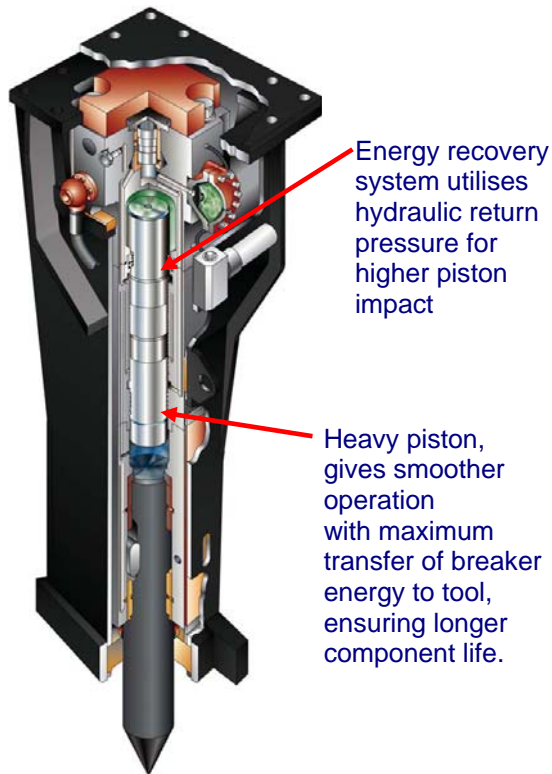
Test Records, Product Acceptance Certificate (if applicable), Statutory Inspection & Test Records, Load Radius Charts (duty charts).

Technical Specification

Model Type	MB750	MB1000	MB1200	MB1500
Service Weight (kg)	750	1000	1200	1500
Oil Flow Rate (l/min)	80 - 120	85 - 130	100 - 140	120 - 155
Hydraulic Pressure (bar)	140 - 170	160 - 180	160 - 180	160 - 180
Impact Rate (bpm)	370 - 800	350 - 750	340 - 680	330 - 640
Working Length of Tool (mm)	550	570	605	630
Tool Diameter (mm)	100	110	120	135
Machine weight (t)	10 - 17	12 - 21	15 - 26	17 - 29

OTPA-18-2

Hammer - Breaker



Manufacturer JCB **Models** Hammermaster Range

Description

The JCB Heavy line "*Hammermasters*" offers a wide range of features: oil and gas powered working principle gives the same high-impact energy virtually independent of oil delivery; long piston stroke provides high impact whilst maintaining smooth operation; and sound insulation is standard, enhancing operator comfort as well as being environmentally friendly. These breakers come with a choice of tools, including hoses, hanger brackets, adaptors, couplings, grease gun and grease.

They are designed to be a durable and robust, high-impact breaker with smooth operation. The large diameter tool give the range a long tool and bush life, reducing failures from incorrect operation and operator abuse. The breakers are fitted with the JCB Autogrease system as standard, which delivers a constant supply of grease to lubricate the breaker components.

The make and model of the excavator to which a hydraulic breaker will be fitted must be established so that the correct size and type can be selected. The excavator's hydraulic system must be compatible with the breaker.

Scope of Use General demolition, rock breaking and trenching

Competencies Machine Controller, Crane Controller & OTPA-xx

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 and MP07

OTPA-18-2

Hammer - Breaker

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

Staff shall be briefed on the safe operation of the machine prior to its use.

The breaker shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.

The breaker shall only be used with an RRV whose RCI indicator is active, and the lifting duty is in excess of the beam / load in the most adverse condition.

Minimum documentation requirement for the host machine are:

Maintenance Instructions, Operating Instructions, Logbook

Additional documents may include:

Product Acceptance Certificate, Inspection & Test Records, Load Radius Charts.

Technical Specification

Model Type	HM860Q	HM1260Q	HM1560Q	HM1700Q	HM2460Q	HM3060Q
Service Weight (kg)	850	1250	1600	1700	2200	3000
Impact Energy (joules)	1417	1978	2496	3577	4784	6024
Blow rate / min.	420 - 750	350 - 600	360 - 540	320 - 600	280 - 550	280 - 540
Hydraulic Pressure (bar)	140 - 170	140 - 170	120 - 140	160 - 180	160 - 180	160 - 180
Oil Flow Rate (l/min)	80 - 110	90 - 120	130 - 170	130 - 160	140 - 180	210 - 270
Back Pressure max. (bar)	12	12	12	12	12	12
Tool diameter (mm)	100	115	135	140	150	165
Sound Power Level (dBA)	117	117	117	121	121	122
Machine weight (t)	12	13	16	19	24	32

Knuckle Boom Cranes

19

#	Description	Issue	Date
OTPA-19-1	Palfinger - PC2300A	1	2014
OTPA-19-2	Hiab - 045	1	2014

OTPA-19-1

Knuckle Boom Crane



Manufacturer	Palfinger	Model	PC2300A
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Description

The Aquarius 4WD Canter road rail truck may fitted with a rear mounted Palfinger PC2300 telescopic knuckle boom crane which is certified for use under live OLE.

The crane has worm slewing drive which enables the crane boom to be precisely rotated.

Load holding valves prevent the crane booms from dropping and are fitted on the main boom cylinder and the extension boom hydraulic cylinders.

The crane incorporates an electro-hydraulic emergency stop button which stops every crane function immediately.

Scope of Use	Lifting operations
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Competencies	Machine Controller, Crane Controller & NR/CTM/OTPA/01 - Operate Attachment Access Platform (MEWP)
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E.A. Cert. No.	IF/0192/10 (example for Aquarius Canter as shown above)
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Risk Control Sheet No(s).	NR/L3/MTC/RCS0216/MP01 and MP07
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OTPA-19-1

Knuckle Boom Crane

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for All operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
2. The crane jib shall NOT be deployed from its stowed travel position, in any circumstances when the RRV is under live OLE.
3. The RRV shall be stationary as the stabiliser legs are interlocked with the crane control. Deployment of the stabiliser legs shall only take place in accordance with the Method Statement and the safe system of work for the possession and the stabiliser legs shall not impinge on sleepers.
4. Only the identified lift point shall be used.
5. Crane and stabiliser legs shall be locked in stowed position when not in use.
6. Staff shall be briefed on the safe operation of the machine prior to its use.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Engineering Acceptance Certificate (including Limitations of Use), LOLER certification, Load Radius Charts (duty charts) and Logbook.

Additional documents may include:

Product Acceptance Certificate(s), Performance Test Records, Statutory Inspection Records, Test Certificates, etc.

Technical Specification

Max. lifting moment	23 kNm	16920 lbs
Safe Working Load at minimum reach	1820 kg	4010 lbs
Safe Working Load at maximum reach	500 kg	1100 lbs
Maximum hydraulic outreach	4.1 m	13' 5"
Slewing angle	340°	-
Max. operating pressure	185 bar	2683 psi
Recommended pump capacity	6 l/min	1.3 gal./min
Weight	230 kg	510 lbs

OTPA-19-2

Knuckle Boom Crane



Manufacturer HIAB **Model** 045

Description

The road rail truck HIAB 045 telescopic knuckle boom crane shown above is rear mounted and is a typical arrangement for a flat bed lorry. Other options are for the crane to be either mounted behind the driving cab or in the middle of the flat bed.

The crane has a slewing drive which enables the crane boom to be precisely rotated.

Load holding valves prevent the crane booms from dropping and are fitted on the main boom cylinder and the extension boom hydraulic cylinders.

The crane incorporates an electro-hydraulic emergency stop button which stops every crane function immediately.

Scope of Use Lifting operations

Competencies Machine Controller, Crane Controller & NR/CTM/OTPA/01 - Operate Attachment Access Platform (MEWP)

E.A. Cert. No. ER/0142/08 (typical example for vehicle shown above)

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 and MP07

OTPA-19-2

Knuckle Boom Crane

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
2. The crane jib shall NOT be deployed from its stowed travel position, in any circumstances when the RRV is under live OLE.
3. The RRV shall be stationary as the stabiliser legs are interlocked with the crane control. Deployment of the stabiliser legs shall only take place in accordance with the Method Statement and the safe system of work for the possession and the stabiliser legs shall not impinge on sleepers.
4. Only the identified lift point shall be used.
5. Crane and stabiliser legs shall be locked in stowed position when not in use.
6. Staff shall be briefed on the safe operation of the machine prior to its use.

Minimum documentation requirement for the host machine are

Maintenance and Operating Instructions, Engineering Acceptance Certificate (including Limitations of Use), LOLER certification, Load Radius Charts (duty charts) and Logbook.

Additional documents may include

Product Acceptance Certificate(s), Performance Test Records, Statutory Inspection Records, Test Certificates, etc.

Technical Specification

Max. lifting moment		45.3 kNm
Lifting Capacity	1.5 m	2900 kg
	2.4 m	1900 kg
	3.1 m	1480 kg
	4.5 m	1020 kg
Hydraulic Pump Flowrate		25 - 30 l/min
Slewing angle / Slewing Speed		410° / 15°/s
Height in transportation position		1880 mm
Max. operating pressure		22.5 Mpa
Weight		600 kg

Lifting Beams and Systems

20

#	Description	Issue	Date
OTPA-20-1	Bag Lifting Beam - Arbil - BRB	1	2014
OTPA-20-2	Bag Lifting Beam System - Thompson - LRBHA 211	1	2014
OTPA-20-3	Level Crossing Slab Lifter - Thompson - XL 209	1	2014
OTPA-20-4	Panel Lifting Beam - TME 630	1	2014
OTPA-20-5	Rail Lifting Beam - Geismar - PRR 481	1	2014
OTPA-20-6	Rail Lifting Beam - Geismar - PRR 488	1	2014
OTPA-20-7	Rail Lifting Beam - Thompson - RLB-20	1	2014
OTPA-20-8	Sleeper Lifting Beam - Arbil	1	2014
OTPA-20-9	Sleeper Lifting Beam - Geismar - PCT	1	2014
OTPA-20-10	Telescopic Rail Lifting Beam - Giesmar - PER 495	1	2014
OTPA-20-11	Telescopic Rail Lifting Beam - Thompson - TRLB20	1	2014
OTPA-20-12	Track Lifting Jack - Railability	1	2014
OTPA-20-13	Universal Lifting Beam - Thompson - UB20	1	2014

OTPA-20-1

Bag Lifting Beam



Manufacturer Arbil **Model** BLB

Description

The Arbil ballast bag lifter helps improve the safe handling of large bags of rail ballast and has been designed to be robust and portable.

The ballast bag lifter is available in either a 1 tonne or 2 tonne version with either welded on hooks or swivel safety hooks for additional safety and ease of use.

Manufactured in two width versions to suit differing bag sizes (800mm – 850mm & 900mm – 970 mm).

Scope of Use Lifting and handling bags of materials.

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 to MP07

OTPA-20-1

Bag Lifting Beam

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work and Method Statement in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. Each beam shall have a valid LOLER certificate.
2. The beam shall be subject to all applicable limitations on the Engineering Acceptance certificate of the Road rail Vehicle (RRV) to which it's attached.
3. The beam shall only be used with an RRV whose RCI indicator is active, and the lifting duty is in excess of the beam / load in the most adverse condition.

Minimum documentation requirement for the host machine are

Operating Instructions, LOLER Test Certificate and Logbook.

Additional documents may include

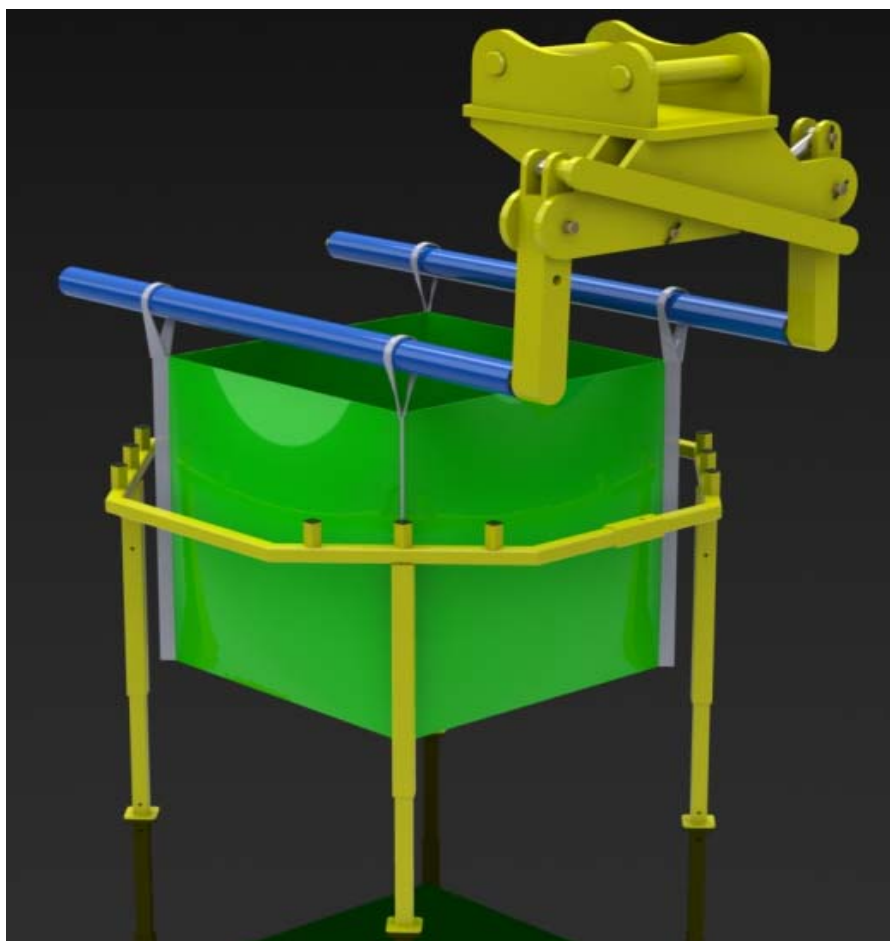
Product Acceptance Certificate, Inspection Records, Load Radius Charts.

Technical Specification

Safe Working Load	1 tonne or 2 tonne
Weight	Up to 75 kg (dependant on type)
Length	800 mm to 1000 mm
Width	800 mm to 1000 mm
Height	Up to 400 mm
Suppliers	Arbil or Railability

OTP-20-2

Bag Handling System



Manufacturer Thomson Rail Equipment **Model** LRBHA 211

Description

The Bag Handling System comprises of hydraulically adjustable lifting forks, and a self-tensioning support frame. It is designed to completely remove the need for operatives to hold bags open during the loading operation & manually attach items of loose lifting tackle.

The system is compatible for use with all 360° Excavators*, (Road~Rail or otherwise); and promotes enforcement of the machine exclusion zone/s, by removing the need for operatives to be part of the loading & lifting processes.

The system is designed to be used with the 1m³ size “1 tonne” bags only.

The bag support frame quickly breaks down into small sections for easy transport.

Scope of Use Lifting and handling bags of materials.

Competencies Crane Controller & OTPA-14 & OTPO-02

Product Acceptance No. PA05/04988 **PADS No's.** 094/001302 to 001307

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01,02,03,05,07,08, & 21

OTP-20-2

Bag Handling System

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work and Method Statement in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. Each set of lifting forks shall have a valid LOLER certificate.
2. The lifting forks shall be subject to all applicable limitations on the Engineering Acceptance certificate of the Road rail Vehicle (RRV) to which it's attached.
3. The lifting forks shall only be used with an RRV whose RCI indicator is active, and the lifting duty is in excess of the bag forks & load weight, in the most adverse condition.

Minimum documentation requirements for the host machine are

Operating Instructions, LOLER Test Certificate and Logbook.

Additional documents may include

Product Acceptance Certificate, Inspection Records, Load Radius, (Lifting duty); Charts.

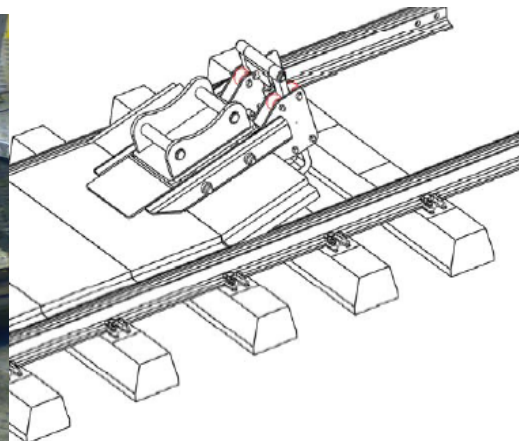
Technical Specification

Safe Working Load	1 tonne
Weight	Fork Attachment = 350kg, Bag Support Frame = 75kg
Length	1000 mm
Width	1000 mm
Height	1200 mm
Suppliers	Network Rail (Wessex route) owned asset.
Hydraulic Pressure	210 Bar (max.) 90 Bar (min.)

Note *First of class example of this unit currently in use on the Wessex route, please consult your RPSE for details of availability, & build of further units.*

OTPA-20-3

Level Crossing Slab Lifter



Manufacturer Thomson Rail Equipment **Model** XL 209

Description

The Crossing slab lifter is designed & built to lift, handle, remove & install all types* of level crossing slabs, in use on NR Infrastructure. The slab lifter unit includes a “tit-rotator” head, which allows the unit to assume the required angles to manipulate the slabs, (in & out of the track); such that all heavy lifting, (manual handling); is avoided.

The unit is mechanical / hydraulic in operation, and is compatible with all suitably rigged 360° Excavators**, (Road Rail or otherwise); and promotes improved safety & greater efficiency on site, with increased productivity, and better worksite management.

* Bomac, Holdfast, & Strail types.

** Hydraulic Services & Electric circuits.

Scope of Use Lifting & handling all types of level crossing slabs

Competencies Crane Controller & OTPA-14, & OTPO-02

Product Approval No. PA05/04271

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01, 02, 03, 05, 07 & 21

OTPA-20-3

Level Crossing Slab Lifter

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for **All** operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

The attachment must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

Staff shall be briefed on the safe operation of the attachment prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

Equipment can be used under live OLE ONLY when fitted to a machine fitted with a suitable approved height limitation system AND the safe system of work is in place to cover the specific activity.

Minimum documentation requirements for the host machine are:

Maintenance and Operating Instructions, Product Acceptance and LOLER Certification (including Limitations of Use) and Logbook

Additional documents may include:

Performance Test Records, Statutory Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Width	675mm
Height	1100mm
Length	1200mm
Weight	890kg
Lifting Capacity	375kg
Operating Temperature:	-20° to 60° C

Suppliers **Network Rail (Wessex route) owned asset.**

Note *First of class example of this unit currently in use on the Wessex route, please consult your RPSE for details of availability, & build of further units.*

OTPA-20-4

Panel Lifting Beam



Manufacturer Track Maintenance Equipment **Model** TME630

Description

The TME Rail Panel Lifting Beam has been specifically designed to lift panels of track. After the section of rail has been cut or assembled into panels, the beam is hydraulically clamped onto the rails of the panel.

Optional hydraulic rams then lift the panel clear of the ballast, allowing one Road Rail Vehicle (RRV) to then lift the panel.

The beam can be fitted to any RRV excavator, road rail loader or crane.

Scope of Use	Lifting and handling of track panels and rail.
Competencies	Machine Controller, Crane Controller & OTPA-10
Product Approval No.	-
Acceptance of Certificate No.	EL/14262/02/04
Risk Control Sheet No(s).	NR/L3/MTC/RCS0216/MP01 to MP07

OTPA-20-4

Panel Lifting Beam

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work and Method Statement in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. The equipment shall only be operated inside a possession that shall normally include any adjacent lines. In situations where there are more than two lines, a risk assessment shall be carried out to determine if the line separation is sufficient to permit some lines to remain open to traffic.
2. Each beam shall have a valid LOLER certificate.
3. The beam shall only be used to lift new or serviceable rail of up to 6m in length. Longer lengths of rail may be lifted when the rail is scrap and marked accordingly.
5. The beam shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.
6. The beam shall only be used with an RRV when the RC! indicator is active, and the lifting duty is in excess of the beam / load in the most adverse condition.
7. Only the crane controller shall set the position of the by-pass valve.
8. Universal Lifting Beams must be used in pairs for lifting track panels.

Minimum documentation requirement for the host machine are

Operating Instructions, Certificate of Acceptance and Logbook.

Additional documents may include

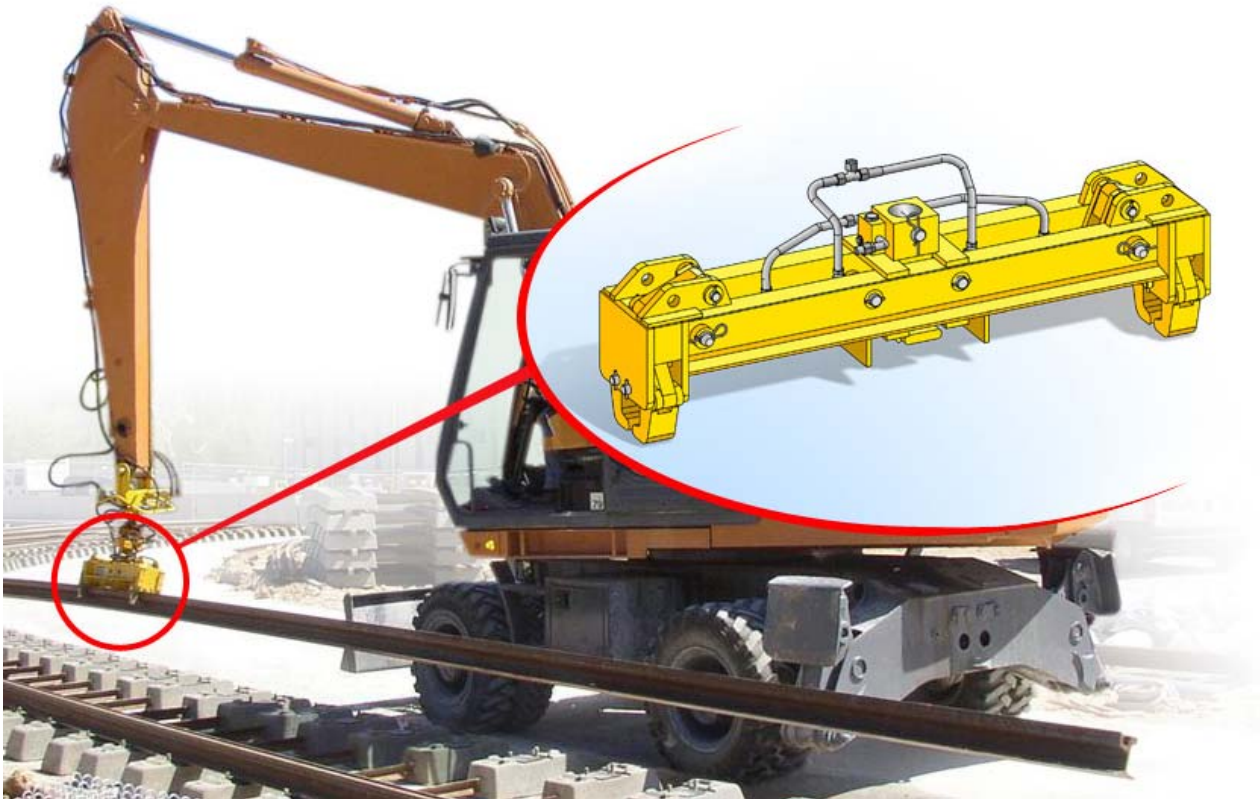
Product Acceptance Certificate, LOLER Test & Inspection Records, Load Radius Charts.

Technical Specification

Safe Working Load	5,000 kg.
Weight	600 kg (beam only)
Length	2500 mm
Width	2000 mm
Height	1000 mm
Hydraulic Pressure	150 bar

OTPA-20-5

Rail Lifting Beam



Manufacturer

Geismar

Model:

PRR 481

Description

This hydraulic rail handling beam has been designed to handle flat bottom rails up to 18 meters along the track or on site.

It has a pair of hydraulically driven clamps mounted at each end which clamp the rails (within the limits of its maximum load).

Hydraulic rams are equipped with non-return valves in order to prevent the load dropping in the event of a hose bursting or hydraulic pressure dropping.

The beam includes a safety device preventing the hydraulic clamps from opening whilst carrying a load (*Note: the clamps can open only when there is no load on them*)

A hydraulic 360° rotator mounted in the middle of the beam is normally used to connect the beam to the boom of the crane or excavator.

Scope of Use

Lifting and handling of individual rail or small track panels

Competencies

Machine Controller, Crane Controller & OTPA-10

Product Approval No.

PA05/0xxxxx

Risk Control Sheet No(s).

NR/L3/MTC/RCS0216/MP01, 02, 03, 05, 07, 08 & 21

OTPA-20-5

Rail Lifting Beam

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work and Method Statement in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. The equipment shall only be operated inside a possession that shall normally include any adjacent lines. In situations where there are more than two lines, a risk assessment shall be carried out to determine if the line separation is sufficient to permit some lines to remain open to traffic.
2. Each beam shall have a valid LOLER certificate.
3. The beam shall only be used to lift new or serviceable rail of up to 18m in length.
4. The beam shall only be used to lift longer lengths of rail when the rail is scrap and marked accordingly.
5. The beam shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.
6. The beam shall only be used with an RRV whose RC! indicator is active, and the lifting duty is in excess of the beam / load in the most adverse condition.

Minimum documentation requirement for the host machine are

Operating Instructions, Certificate of Acceptance and Logbook.

Additional documents may include

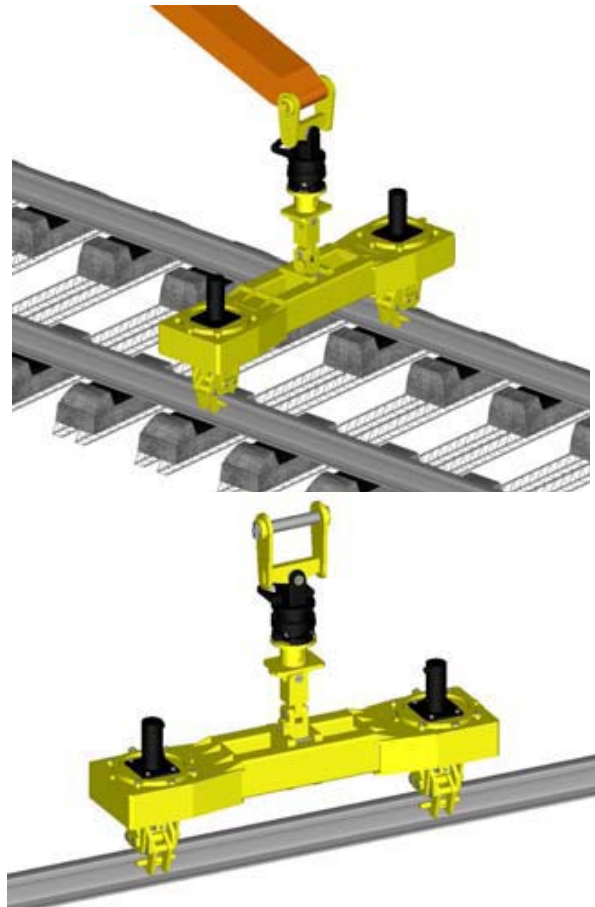
Product Acceptance Certificate, LOLER Test & Inspection Records, Load Radius Charts.

Technical Specification

Safe Working Load	1150 kg.
Weight	120 kg (beam only)
Weight (Hook and Rotator)	132 kg (approximate)
Length	1300 mm
Width	250 mm
Height	350 mm
Hydraulic Pressure	200 bar (max.)
Maximum hydraulic flow	30 litres per minute

OTPA-20-6

Rail Lifting Beam



Manufacturer

Geismar

Model

PRR 488

Description

Thanks to its rotating hydraulic clamps it can handle individual rails up to 18 metres long or small track panels.

The rotating rail handling beam has a pair of hydraulically driven clamps mounted at each end. These can clamp rails or small track panels (within the limits of its maximum load).

Hydraulic rams are equipped with non-return valves in order to prevent the load dropping in the event of a hose bursting or hydraulic pressure dropping.

The beam includes a safety device preventing the hydraulic clamps from opening whilst carrying a load (clamps can open only when there is no load on them)

A rotator mounted in the middle of the PRR 488 connects with the crane or excavator.

Scope of Use

Lifting and handling of individual rail or small track panels

Competencies

Crane Controller & OTPA-10 OTPA-14, & OTPO-02

Product Approval No.

-

Risk Control Sheet No(s).

NR/L3/MTC/RCS0216/MP01, 02, 03, 05, 07, 08 & 21

OTPA-20-6

Rail Lifting Beam

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work and Method Statement in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. The equipment shall only be operated inside a possession that shall normally include any adjacent lines. In situations where there are more than two lines, a risk assessment shall be carried out to determine if the line separation is sufficient to permit some lines to remain open to traffic.
2. the beam shall have a valid LOLER certificate.
3. The beam shall only be used to lift new or serviceable rail of up to 18 m in length.
4. The beam shall only be used to lift longer lengths of rail when the rail is scrap and marked accordingly.
5. The beam shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.
6. The beam shall only be used with an RRV when the RC! indicator is active.

Minimum documentation requirement for the host machine are

Operating Instructions, Certificate of Acceptance and Logbook.

Additional documents may include

Product Acceptance Certificate, LOLER Test & Inspection Records, Load Radius Charts.

Technical Specification

Safe Working Load	6000 kg.
Weight	500 kg (beam only)
Weight (with Hook and Rotator)	132 kg
Length	1967 mm
Width	450 mm
Height	771 mm
Rotator capacity	4,500 kg
Hydraulic Pressure	200 bar
Maximum hydraulic flow	30 litres per minute

OTPA-20-7

Rail Lifting Beam



Manufacturer Thompson Rail Equipment Ltd. **Model:** RLB-20

Description

The Thomson Rail Equipment Rail Lifting Beam is designed for lifting and handling individual rails and has a safe working load of 2 tonnes.

Check valves are fitted to the gripping rams and a safety lockout valve to prevent jaws opening whilst carrying load with over-ride for scrap clearance work

A heavy duty 10 tonne rotator is an optional extra and the beam is fully driver operated. Typically, the beam can lift, carry, stack and load track panels up to 20m (60ft) long.

Scope of Use	Lifting and handling of individual rail
Competencies	Crane Controller & OTPA-10, OTPA-14 & OTPO-02
Product Approval No.	PA05/02964
Pads No.	094/002030
Plant Acceptance Certificate for Portable/Transportable Infrastructure Plant and Work Equipment No.	IF-P-0003-06
Risk Control Sheet No(s).	NR/L3/MTC/RCS0216/MP01, 02, 03, 05, 07 & 21
Operators / Suppliers	Quattro and TXM Plant

OTPA-20-7

Rail Lifting Beam

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work and Method Statement in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. The equipment shall only be operated inside a possession that shall normally include any adjacent lines. In situations where there are more than two lines, a risk assessment shall be carried out to determine if the line separation is sufficient to permit some lines to remain open to traffic.
2. Each beam shall have a valid LOLER certificate.
3. The beam shall only be used to lift new or serviceable rail of up to 6m in length.
4. The beam shall only be used to lift longer lengths of rail when the rail is scrap and marked accordingly.
5. The beam shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.
6. The beam shall only be used with an RRV when the RCI indicator is active, and the lifting duty is in excess of the beam / load in the most adverse condition.

Minimum documentation requirement for the host machine are

Operating Instructions, Certificate of Acceptance and Logbook.

Additional documents may include

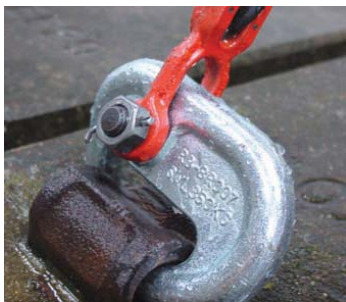
Product Acceptance Certificate, LOLER Test & Inspection Records, Load Radius Charts.

Technical Specification

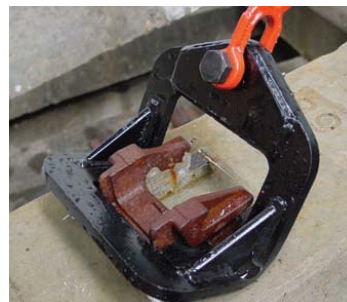
Safe Working Load	2,000 kg.
Proof Test Load	4,000 kg
Weight	255 kg (beam only)
Weight with Rotator	285 kg
Length	1300 mm
Width	290 mm
Height	710 mm
Rotator capacity	4,500 kg
Hydraulic Pressure	90 – 210 bar

OTPA-20-8

Sleeper Lifting Beam



'E' Clip



Fast Clip

Manufacturer / Supplier Arbil

Description

The Arbil Sleeper Lifting beam is designed for the lifting and handling individual rail sleepers. Sleeper lifting beams are available in various styles with either fixed or adjustable centres, allowing for the differing sleeper spacings.

In addition depending upon the type of beam, a wide variety of dropper chain configurations and sleeper hooks are available.

The standard range of lifting and laying beams are configured for loading, with dropper chains fitted at half sleeper spacings. There are 3 leg, 5 leg, 7 leg and 8 leg spacing options available and there is a choice of pandrol or fast clipper lifting hooks.

Scope of Use Lifting and laying of rail sleepers

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. various

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 to MP07

OTPA-20-8

Sleeper Lifting Beam

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work and Method Statement in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. The equipment shall only be operated inside a possession that shall normally include any adjacent lines. In situations where there are more than two lines, a risk assessment shall be carried out to determine if the line separation is sufficient to permit some lines to remain open to traffic.
2. Each beam shall have a valid LOLER certificate.
3. The beam shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.
4. The beam shall only be used with an RRV whose RCI indicator is active, and the lifting duty is in excess of the beam / load in the most adverse condition.

Minimum documentation requirement for the host machine are

Operating Instructions, LOLER Certificate and Logbook.

Additional documents may include

Product Acceptance Certificate, Test & Inspection Records, Load Radius Charts.

Technical Specification

Safe Working Load	2500 kg.
Weight	Up to 150 kg
Length	3000 mm
Width	2400 mm
Height	1800mm (with sleepers attached)

Note:

All Lifting and Laying Beams are fitted with a centre lifting eye and top double leg chain sling as standard. Steering eyes can be fitted to the end of each beam if required.

OTPA-20-9

Sleeper Lifting Beam



Manufacturer / Supplier	Geismar	Model	PCT
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Description

The Geismar Sleeper Lifting beam is designed for lifting and positioning individual rail sleepers.

All types of sleeper can be handled using chains and hooks suited to the type of fastening.

Up to 10, 250 kg concrete sleepers can be lifted and there is a choice of pandrol or fast clipper lifting hooks.

Scope of Use	Lifting and laying of rail sleepers
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Competencies	Machine Controller, Crane Controller & OTPA-10
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Product Approval No.	-
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Risk Control Sheet No(s).	NR/L3/MTC/RCS0216/MP01 to MP07
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OTPA-20-9

Sleeper Lifting Beam

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work and Method Statement in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. The equipment shall only be operated inside a possession that shall normally include any adjacent lines. In situations where there are more than two lines, a risk assessment shall be carried out to determine if the line separation is sufficient to permit some lines to remain open to traffic.
2. Each beam shall have a valid LOLER certificate.
3. The beam shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.
4. The beam shall only be used with an RRV whose RCI indicator is active, and the lifting duty is in excess of the beam / load in the most adverse condition.

Minimum documentation requirement for the host machine are:

Operating Instructions, LOLER Certificate and Logbook.

Additional documents may include:

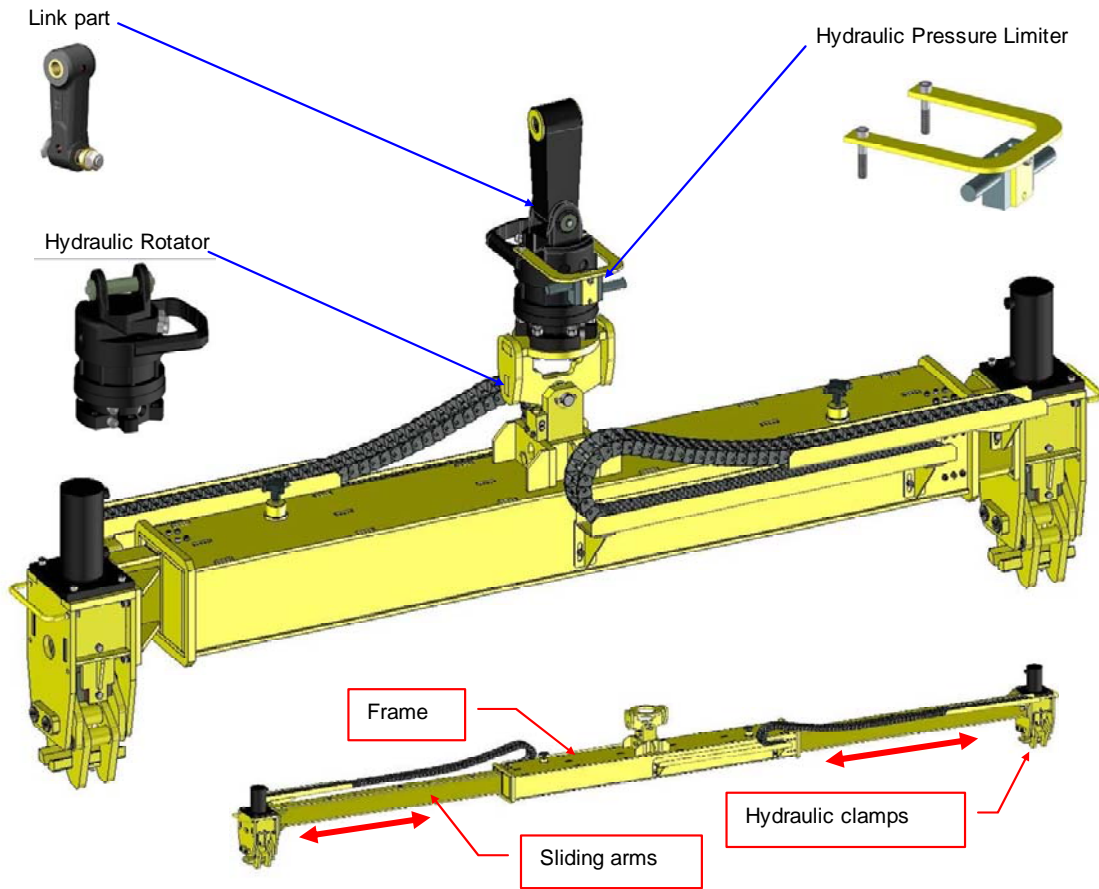
Product Acceptance Certificate, Test & Inspection Records, Load Radius Charts.

Technical Specification

Safe Working Load	2500 kg (10 x 250 kg sleepers)
Weight	Up to 250 kg
Length	3000 mm
Width	2400 mm
Height	1800mm (with sleepers attached)

OTPA-20-10

Telescopic Rail Lifting Beam



Manufacturer

Geismar

Model

PER 495

Description

This Telescopic Rail Lifting Beam is designed for lifting and handling individual rails.

A central frame supports 2 sliding, extendable arms which can lift rail from 18m in length up to a maximum of 24m. The extendable arms are equipped with hydraulic clamps and can be fully driver operated from the cab of the road rail crane. A heavy duty hydraulic rotator and swivel hook shown are optional extras.

The hydraulic gripping rams incorporate non-return valves to prevent the load dropping in the event of hydraulic pressure drop or a hose bursting. In addition, safety lockout valves prevent the gripping clamp jaws from opening whilst carrying a load. The clamps can only open if the beam is in contact with the ground. To open the clamps the return security valve must rest on the frame of the PER 495. This allows for the safe and efficient handling of new rails without risk of damage.

Scope of Use

Lifting and handling of rail

Competencies

Machine Controller, Crane Controller & OTPA-10

Product Approval No.

-

Risk Control Sheet No(s).

NR/L3/MTC/RCS0216/MP01 to MP07

OTPA-20-10

Telescopic Lifting Beam

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work and Method Statement in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. The equipment shall only be operated inside a possession that shall normally include any adjacent lines. In situations where there are more than two lines, a risk assessment shall be carried out to determine if the line separation is sufficient to permit some lines to remain open to traffic.
2. Each beam shall have a valid LOLER certificate.
3. In the fully closed position, the beam shall only be used to lift new or serviceable flat bottom rail (UIC:60, BSI13A, BS110A) of up to 18m (60ft) in length.
4. The beam shall be used to lift new or serviceable flat bottom rail (UIC60, BS 113A, BS 11 OA) up to 24m (80ft) in length with the arms fully extended.
5. The beam shall only be used to lift longer lengths of rail when the rail is scrap and marked accordingly.
6. The beam shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.
7. The beam shall only be used with an RRV whose RCI indicator is active, and the lifting duty is in excess of the beam / load in the most adverse condition.

Minimum documentation requirement for the host machine are

Operating Instructions, LOLER Certificate and Logbook.

Additional documents may include

Product Acceptance Certificate, Test & Inspection Records, Load Radius Charts.

Technical Specification

Safe Working Load	1,500 kg.
Length of rail capacity	Up to 18 m lengths with the arms in the closed position Up to 24 m lengths with the arms fully extended
Maximum Hydraulic Flow	20 litres/min
Service Pressure	160 bar
Weight	700 kg
Length	2680 mm to 6000 mm (infinitely variable)
Width	498 mm
Height	927 mm

OTPA-20-11

Telescopic Rail Lifting Beam



Manufacturer Thompson Rail Equipment Ltd. **Model** TRLB-20

Description

The Thomson Rail Equipment Telescopic Rail Lifting Beam is designed for the lifting and handling individual rails. With a 1,250 kg safe working load and a 6m effective length this lifting beam handles rail up to 20m (60 ft) in length with minimal flexing of the rail. This allows for the safe and efficient handling of new rails without risk of damage.

Check valves are fitted to the gripping rams and a safety lockout valve to prevent jaws opening whilst carrying load with over-ride for scrap clearance work.

A heavy duty hydraulic rotator or a swivel hook are optional extras and the beam may be fully driver operated.

Scope of Use Lifting and handling of rail

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. 05 / 02965 **PADS No.** 094 / 002031

Acceptance for Portable / Transportable Plant and Equipment – Certificate No. IF-P-0007-06

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 to MP07

Operators / Suppliers L & W, Network Rail, Quattro, Readypower, Story Rail, SRS, TXM Plant.

OTPA-20-11

Telescopic Lifting Beam

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work and Method Statement in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. The equipment shall only be operated inside a possession that shall normally include any adjacent lines. In situations where there are more than two lines, a risk assessment shall be carried out to determine if the line separation is sufficient to permit some lines to remain open to traffic.
2. Each beam shall have a valid LOLER certificate.
3. In the fully closed position, the beam shall only be used to lift new or serviceable flat bottom rail (UIC:60, BSI13A, BS110A) of up to 9.2m (30ft) in length.
4. The beam shall be used to lift new or serviceable flat bottom rail (UIC60, BS 113A, BS 11 OA) up to 18.3m (60ft) in length only in the fully extended position.
5. In the fully closed position, the beam shall only be used to lift new or serviceable bull head rail of up to 6.5m (20ft) in length.
6. The beam shall be used to lift new or serviceable bull head rail up to 9.2m (30ft) in length only in the fully extended position.
7. The beam shall only be used to lift longer lengths of rail when the rail is scrap and marked accordingly.
8. The beam shall only be used to lift new or serviceable rail of up to 6m in length. Longer lengths of rail may be lifted when the rail is scrap and marked accordingly.
9. The beam shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.
10. The beam shall only be used with an RRV whose RCI indicator is active, and the lifting duty is in excess of the beam / load in the most adverse condition.

Minimum documentation requirement for the host machine are

Operating Instructions, Certificate of Acceptance and Logbook.

Additional documents may include

Product Acceptance Certificate, LOLER Test & Inspection Records, Load Radius Charts.

Technical Specification

Safe Working Load	1,250 kg.	Proof Test Load	2,500 kg
Weight	525 kg (beam only)	Weight with Rotator	580 kg
Length	3600 to 6200 mm (infinitely variable)		
Width	290 mm		
Height	910 mm		
Rotator capacity	12,000 kg		
Hydraulic Pressure	90 – 210 bar		

OTP-20-12

Track Lifting Jack



Manufacturer Rail Ability Ltd **Model** TLJ

Description

The Rail Ability Track Lifting beam is designed to assist in the raising and lowering of the track with great precision.

The jack legs work independently to cater for work on canted track.

This attachment can work in conjunction with a hand operated stone blower. This attachment is ideal for working in areas with dropped joints.

The system is compatible for use with 360° excavators, subject to the machine's lifting capacity.

Scope of Use Track lifting operations

Competencies Crane Controller & OTPA-14 & OTPO-02

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01,02,03,05,07,08, & 21

OTPA-20-12

Track Lifting Jack

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work and Method Statement in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. The equipment shall only be operated inside a possession that shall normally include any adjacent lines. In situations where there are more than two lines, a risk assessment shall be carried out to determine if the line separation is sufficient to permit some lines to remain open to traffic.
2. The beam shall have a valid LOLER certificate.
3. The beam shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.
4. The beam shall only be used with an RRV when the RC! indicator is active.

Minimum documentation requirements for the host machine are

Operating Instructions, LOLER Test Certificate and Logbook.

Additional documents may include

Product Acceptance Certificate, Inspection Records, Load Radius, (Lifting duty); Charts.

Technical Specification

Safe Working Load	5 tonnes
Weight	1000 kg
Length	300 mm
Width	2000 mm
Height	1000 mm

Note: All technical details above are approximat.

OTPA-20-13

Universal Lifting Beam



Manufacturer Thompson Rail Equipment Ltd. **Model** UB20

Description

The Thomson Rail Equipment Universal Lifting Beam is designed to be used in pairs for the tandem lifting of track panels, or singly for handling rail. They have a safe working load of 10 tonne.

Check valves are fitted to the gripping rams and a safety lockout valve to prevent jaws opening whilst carrying load with over-ride for scrap clearance work

A heavy duty 10 tonne rotator is an optional extra and the beam is fully driver operated. Typically, the beam can lift, carry, stack and load track panels up to 20m (60ft) long.

Scope of Use Lifting and handling of track panels and rail.

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. PA05 / 02004 **PADS No.** 094/002028

Acceptance for Portable Plant & Equipment – Certificate No. AR/PT/0017/2003

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 to MP07

Operators / Suppliers AB2000, Arbil, Aspin Group, Balfour Beatty Rail, W Bradshaw, L & W, McCulloch Rail, Quattro, Readypower, Shovlin Rail, Story Rail, TXM Plant, Volker Rail

OTPA-20-13

Universal Lifting Beam

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work and Method Statement in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. The equipment shall only be operated inside a possession that shall normally include any adjacent lines. In situations where there are more than two lines, a risk assessment shall be carried out to determine if the line separation is sufficient to permit some lines to remain open to traffic.
2. Each beam shall have a valid LOLER certificate.
3. The beam shall only be used to lift new or serviceable rail of up to 6m in length. Longer lengths of rail may be lifted when the rail is scrap and marked accordingly.
5. The beam shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.
6. The beam shall only be used with an RRV when the RC! indicator is active.
7. Only the crane controller shall set the position of the by-pass valve.
8. Universal Lifting Beams must be used in pairs for lifting track panels.

Minimum documentation requirement for the host machine are:

Operating Instructions, Certificate of Acceptance, Maintenance Plan and Logbook.

Additional documents may include:

Product Acceptance Certificate, LOLER Test & Inspection Records, Load Radius Charts.

Technical Specification

Safe Working Load	10,000 kg.	Proof Test Load	20,000 kg
Weight	380 kg (beam only)	Weight with Rotator	460 kg
Length	1820 mm		
Width	380 mm		
Height	757 mm		
Rotator capacity	12,000 kg		
Hydraulic Pressure	90 bar (min.) – 210 bar (max.)		

Mixers

21

#	Description	Issue	Date
OTPA-21-1	Mixer - Agitator - A P Webb	1	2014
OTPA-21-2	Mixer - Agitator - PCP Ltd. - CF7 / CF9 / CF12	1	2014

OTPA-21-2

Mixer - Agitator



Supplier Premier Concrete Pumping Ltd. **Model** CF7, CF9 & CF12

Description

The PCP range of Mixer - Agitator units are holding drums that enable an amount of wet concrete to be discharged as and when it is required at a work site.

The mixer basically keeps the concrete agitated so that it doesn't set. These are ideally suited for use with piling rigs and are available in 2 to 8 cubic metre capacities.

The units are mounted onto suitable rail trailers and secured via standard container twist locks.

The mixer shown above is working in tandem with a Putzmeister trailer mounted concrete pump.

Scope of Use Transport and discharge of concrete

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 and MP07

OTPA-21-2

Mixer - Agitator

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for **All** operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
2. It shall NOT be used on live conductor rail lines.
3. Working mode - Maximum track cant 180mm and/or 1 in 29 gradients.
4. Permitted speed - Maximum 5mph (8km/h).
5. Staff shall be briefed on the safe operation of the equipment prior to its use.
6. The limitations of the RRV & Trailer to which the mixer is attached shall apply.

Minimum documentation requirement for the host machine are:

Operating Instruction Manual

Additional documents may include:

Product Acceptance Certificate(s), Performance Test Records, Statutory Inspection and maintenance records etc.

Technical Specification

	Model	CF7	CF9	CF12
Nominal Capacity (m ³)		7	9	12
Water Tank capacity (litres)		800	2000	2000
Length (mm)		6400	6700	8050
Width (mm)		2357	2440	2360
Height (mm)		2800	2950	3038
Weight (kg)		6500	7500	8500

Piling Drivers and Hammers

22

#	Description	Issue	Date
OTPA-22-1	Piling Hammer - BSP - DX-RT 20 & DX-RT 25	1	2014
OTPA-22-2	Piling Driver Vibratory - Dawson EMV70 / EMV300	1	2014
OTPA-22-3	Piling Hammer - FAMBO - PR100 / PR110	1	2014
OTPA-22-4	Piling Driver Vibratory - Movax SP40W / 50W / 60W	1	2014

OTPA-22-1

Piling Hammer



Manufacturer BSP **Models** DX-RT 20 & DX-RT 25

Description

The DX-RT piling hammer is adapted for use on railway infrastructure applications. Operating from Road-Rail Excavators of approx 30T mass and above.

The Hammer is pinned to the excavator bucket linkage. The attachment allows fast erection from horizontal transport position and side-plumbing to vertical of 5° to cope with the cant of rail lines. During piling the hammer is guided or crowded in the vertical plane by the attachment mechanism.

The drive cap adaptation shown fits standard 610mm (24") dia. UK Network Rail rail piles used to support electrification stanchions. Overall width of cap guide 800mm which can be adapted for other pile sizes. Typically 457mm (18"), 406mm (16") 305mm (12") Piles are normally pitched with a side-grip vibratory head and driven until vibrator reaches its limit. The hammer finally drives the pile to track level at the height determined by the needs of the embankment or cutting.

Scope of Use Driving foundation piles

Competencies Machine Controller, Crane Controller & OTPA-1x

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01, MP07 and MP15

Supplier BSP International Foundations Ltd

OTPA-22-1

Piling Hammer

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

It shall only operate inside possessions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

It shall NOT be used under live OLE.

Working mode - Maximum 5° track cant.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

Minimum documentation requirement for the host machine are

Operating Instruction Manual and Logbook.

Additional documents may include:

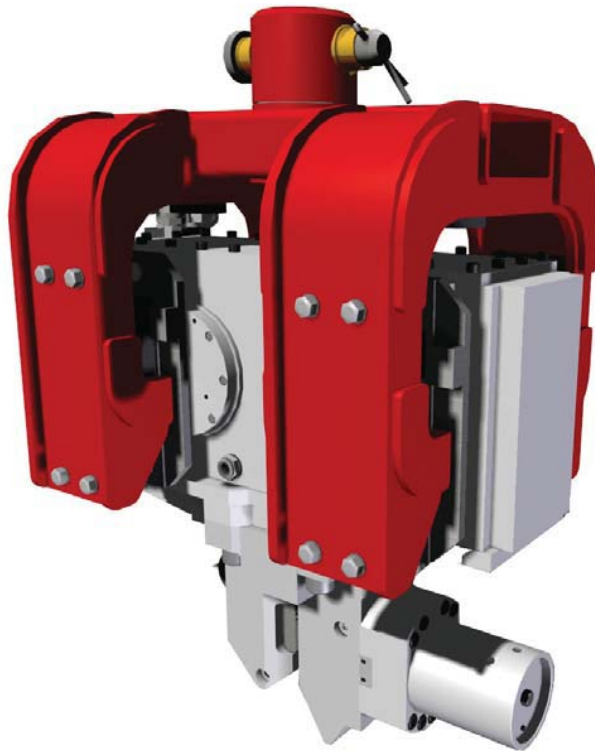
Product Acceptance Certificate, Test and Inspection Records & Load Radius Charts.

Technical Specification

Model	DX-RT 20	DX-RT 25
Hammer Weight (kg)	4350	4750
Hammer Length (mm)	3890	3890
Hammer Width (mm)	600	600
Impact Energy (kNm)	20	25
Blow Rate per minute	80	80
Hydraulic Pressure (bar)	140	180
Hydraulic Flowrate (l/min)	140	150
Ram Mass (kg)	1500	2500

OTPA-22-2

Piling Driver - Vibratory



Manufacturer Dawson Construction Plant **Models** EMV70 / EMV300

Description

Dawson excavator mounted vibrators have been designed specifically to work in place of an excavator bucket to drive and extract piles. The pile can be lifted to vertical using the built-in lifting chain where it is then gripped tightly in a powerful hydraulic jaw. Once secured, the pile is then vibrated with high frequency vibrations to ‘fluidise’ the soil resisting the pile. Down-crowd force applied by the excavator boom, coupled with the self-weight of the pile and the vibrator, provides sufficient force to push the pile into the ground. Naturally, the process works in reverse for pile extraction. The equipment offers a highly productive and cost effective piling rig based around standard excavators.

Because these vibrators are high frequency they provide lower levels of ground vibration and low noise levels.

The EMV70 and EMV300 units are extremely versatile and readily adapt to most excavators in the 5 to 25 tonnes range. Hydraulic power supply is taken from the excavators bucket ram circuit.

Scope of Use Driving and extracting foundation piles

Competencies Machine Controller and Crane Controller

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01, MP07 and MP15

Suppliers Sandhurst Equipment Rental

OTPA-22-2

Piling Driver - Vibratory

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
2. It shall NOT be used under live OLE.
3. Working mode - Maximum 5° track cant.
4. Staff shall be briefed on the safe operation of the machine prior to its use.
5. The limitations of the RRV to which the machine is attached shall apply.

Minimum documentation requirement for the host machine are:

Operating Instruction Manual and Logbook.

Additional documents may include:

Product Acceptance Certificate, Test and Inspection Records & Load Radius Charts.

Technical Specification

	Model	EMV70	EMV300
Frequency (vpm)		3000	2400
Centrifugal Force (kN)		70	300
Amplitude (mm)		3.4	14.7
Oil flow (l/min)		30 - 120	130 - 250
Hydraulic Pressure (bar)		240 - 350	280 - 350
Hydraulic Motor Power (min. kW)		12	60
Dynamic Mass (kg)		410	625
Total Mass (kg)		520	965
Excavator class (ton)		5 - 20	13 - 35
Maximum Pull/Push Loading (kg)		2800	15000
Height (mm)		942	1200
Depth (mm)		795	1011
Width (mm)		360	615
Clamp force (tonne)		30	36

OTPA-22-3

Piling Hammer



Manufacturer FAMBO **Models** PR 700 / PR 1100

Description

The Fambo Piling Hammer is fixed to the excavator boom which allows for fast erection on-site. During piling, the hammer is guided or crowded in the vertical plane by the attachment mechanism.

The drive cap adaptation shown fits standard Network Rail rail piles which are used to support electrification stanchions.

A typical high production piling train will use an excavator mounted side grip vibrator to place, pitch and part drive the pile. The powerful Fambo pile driver with its rapid blow rate is then used to drive the pile to the desired level, quickly and efficiently.

Scope of Use Driving piles

Competencies Machine Controller & Crane Controller

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01, MP07 and MP15

OTPA-22-3

Piling Hammer

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for **all** operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use:

1. It shall only operate inside possessions.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
3. It shall NOT be used under live OLE.
4. Working mode - Maximum 5° track cant.
5. Staff shall be briefed on the safe operation of the machine prior to its use.
6. The limitations of the RRV to which the machine is attached shall apply.

Minimum documentation requirement for the host machine are:

Operating Instruction Manual and Logbook.

Additional documents may include:

Product Acceptance Certificate, Test and Inspection Records & Load Radius Charts.

Technical Specification

Model	PR 700	PR 1100
Fambo Hammer	HR 250	HR 500
Impact Energy (Nm)	0 - 2450	0 - 4800
Blow Rate per minute	0 - 100	0 - 100
Hydraulic Pressure (bar)	180	250
Hydraulic Flowrate (l/min)	20 - 40	35 - 60
Hammer Drop Height (mm)	0 - 1000	0 - 1000
Length of Mast (mm)	3300	5500
Total Weight (kg)	985	2500

OTPA-22-4

Piling Driver - Vibratory



Manufacturer Movax **Models** SP40W / 50W / SP60W

Description

The Movax vibratory driver is fixed directly to the excavator boom which allows for fast erection on-site.

They can be used to pick, locate, drive, lift and extract circular tube piles (up to 760 mm diameter).

Other applications include the driving of H-beams, support piles, driving of small tubes and the compacting of ground with its compacting plate.

This model's piling power is sufficient for easy and moderate grounds.

A piling hammer, with its rapid blow rate is then used to drive the pile to the desired level, quickly and efficiently.

Scope of Use	Driving foundation piles
Competencies	Machine Controller & Crane Controller
Product Approval No.	-
Risk Control Sheet No(s).	NR/L3/MTC/RCS0216/MP01, MP07 and MP15
Suppliers	Terrawise Construction & Aspin Plant.

OTPA-22-4

Piling Driver - Vibratory

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for **all** operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
2. It shall NOT be used under live OLE.
3. Working mode - Maximum 5° track cant.
4. Staff shall be briefed on the safe operation of the machine prior to its use.
5. The limitations of the RRV to which the machine is attached shall apply.

Minimum documentation requirement for the host machine are:

Operating Instruction Manual and Logbook.

Additional documents may include:

Product Acceptance Certificate, Test and Inspection Records & Load Radius Charts.

Technical Specification

	Model	SP-40W	SP-50W	SW-60W
Weight without adapter (kg)		1800	1820	1840
Height (mm)		2071	2071	2071
Depth (mm)		1275	1275	1275
Width (mm)		972	972	972
Excavator class (ton)		18-20	22-25	25-30
Oil flow (l/min)		120*	150*	180*
Max. return pressure (bar)		5	5	5
Pressure setting (bar)		320	320	320
Frequency (1/min)		3000	3000	3000
Centrifugal force (kN)		400	500	600
Driving method		vibra	vibra	vibra
Swing / tilt angle (°)		360/30	360/30	360/30
Number of arms		3	3	3

* Oil flow at 280 bar only 1 - pump installation allowed.

Quick Hitch

23

#	Description	Issue	Date
OTPA-23-1	CJM - DL4 / DL6 / DL12 / DL20 / DL30	1	2014
OTPA-23-2	Engcon - S50/S60/S70 & EC45/50/60	1	2014
OTPA-23-3	Geith - QC/QH60(M&H), 65, 70, 80 & 90	1	2014
OTPA-23-4	Miller - Powerlatch 4, 5, 6 & 7	1	2014

OTPA-23-1

Quick Hitch

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

1. Where the quick hitch and anything attached to it via its jaws is intended to be used for lifting any load, they must be approved for lifting by the manufacturer. The coupler shall be marked up with its safe working load and have undergone a thorough examination. This includes items like tilt rotators that may also act as a quick hitch.
2. Where an adaptor plate is used to enable a lifting accessory to be attached to a quick hitch the adaptor plate will become part of the lifting accessory and included in the six monthly thorough examination.
3. Each quick hitch used for lifting shall have a valid LOLER certificate.
4. The quick hitch shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.
5. The quick hitch shall only be used with an RRV whose RCI indicator is active, and the lifting duty is in excess of the beam / load in the most adverse condition.

Minimum documentation requirement for the host machine are:

Operating Instructions, Logbook

Additional documents may include:

Test Records, Statutory Inspection & Test Records, Load Radius Charts (duty charts).

Technical Specification

Model Type	DL 4	DL 6	DL 12	DL 20	DL 30
Carrier Weight (kg)	3 – 5.5	5.5 - 10	10 - 15	15 - 23	23 - 35
Pin diameter (mm)	35 - 45	45 - 60	60 - 70	70 - 80	80 -100
Weight: (kg)	40	60	125	250	450
Lifting Eye SWL (kg)	1000	1000	2000	2000	3000

OTPA-23-2

Quick Hitch



Manual & Hydraulic – S range

Hydraulic – EC Oil range

Manufacturer Engcon **Models** S50 / S60 / S70 & EC45 / 50 / 60

Description

This type of quick hitch (also known as a quick coupler) saves time and reduces the risk of injuries through manual handling and crushing during the attachment changing process, whilst giving benefits in improved productivity.

The Engcon range of quick hitches can be supplied with either hydraulic or mechanical locking. The hydraulic locking models allow for the rapid change of attachments directly from the drivers' cab. The EC Oil range is Engcon's quick hitch system for automatic hydraulic coupling of hydraulic attachments, such as a tilt-rotator.

The make and model of the excavator to which a quick hitch will be fitted must be established so that the correct size and type of quick hitch can be selected. The excavator's hydraulic and electrical systems must be compatible with the control and actuating system of the quick hitch if it is a "fully automatic type".

Typical attachments that can be used with coupler are – ballast profile buckets, ballast brushes, tampers, lifting beams, flails, sleeper layers, tilt rotators and drilling rigs etc.

Scope of Use Connecting OTP attachments to excavator boom

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01, MP07 and MP21

OTPA-23-2

Quick Hitch

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

1. Where the quick hitch and anything attached to it via its jaws is intended to be used for lifting any load, they must be approved for lifting by the manufacturer. The coupler shall be clearly marked with its safe working load and have undergone a thorough examination. This includes items like tilt rotators that may also act as a quick hitch.
2. Where an adaptor plate is used to enable a lifting accessory to be attached to a quick hitch the adaptor plate will become part of the lifting accessory and included in the six monthly thorough examinations.
3. A Quick hitch that is used for lifting shall have a valid LOLER certificate.
4. The quick hitch shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.
5. The quick hitch shall only be used with an RRV whose RCI indicator is active, and the lifting duty is in excess of the beam / load in the most adverse condition.

Minimum documentation requirement for the host machine are:

Operating Instructions, LOLER certificate (if appropriate) and Logbook

Additional documents may include:

Test Records, Statutory Inspection & Test Records, and Load Radius Charts (duty charts).

Technical Specification

	Model Type	S50	S60	S70	ECO45	ECO50	ECO60
Axle diameter (mm)		50	60	70	45	50	60
Width (mm)		270	340	450	290	270	340
Length (mm)		430	480	600	430	430	480
Height (mm)		140	170	190	185	185	190
Weight: (kg)		50	125	210	100	105	180
Max. hydraulic pressure (bar)		210	210	210	210	210	210
Flow requirement (l/min)		-	-	-	55	55	100
Machine weight (t)		6-12	12-18	16-25	6-12	6-12	12-18

OTPA-23-3

Quick Hitch



Manufacturer Geith International **Models** QC/QH60(M&H), 65, 70, 80 & 90

Description

This type of quick hitch (also known as a quick coupler) saves time and reduces the risk of injuries through manual handling and crushing during the attachment changing process, whilst giving benefits in improved productivity.

The Geith range of Quick Hitches can be supplied with either hydraulic or mechanical locking. The hydraulic locking models allow for the rapid change of attachments directly from the drivers' cab.

The make and model of the excavator to which a quick hitch will be fitted must be established so that the correct size and type of quick hitch can be selected. The excavator's hydraulic and electrical systems must be compatible with the control and actuating system of the quick hitch if it is either of the "semi-automatic" or "fully automatic type".

Typical attachments that can be used with coupler are – ballast profile buckets, ballast brushes, tampers, lifting beams, flails, sleeper layers, tilt rotators and drilling rigs etc.

Scope of Use Connecting OTP attachments to excavator boom

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01, MP07and MP21

OTPA-23-3

Quick Hitch

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

1. Where the quick hitch and anything attached to it via its jaws is intended to be used for lifting any load, they must be approved for lifting by the manufacturer. The coupler shall be clearly marked up with its safe working load and have undergone a thorough examination. This includes items like tilt-rotators that may also act as a quick hitch.
2. Where an adaptor plate is used to enable a lifting accessory to be attached to a quick hitch the adaptor plate will become part of the lifting accessory and included in the six monthly thorough examinations.
3. Each quick hitch used for lifting shall have a valid LOLER certificate.
4. The quick hitch shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.
5. The quick hitch shall only be used with an RRV whose RCI indicator is active, and the lifting duty is in excess of the beam / load in the most adverse condition.

Minimum documentation requirement for the host machine are:

Operating Instructions, Logbook

Additional documents may include:

Test Records, Statutory Inspection & Test Records and Load Radius Charts (duty charts).

Technical Specification

Model (M = Manual, H = hydraulic)	Machine Weight (t)	Base Width mm	Weight Kg (lb)	Pin Dia. mm	Pin Centres max-min (mm)
QC60H	11-17	210 / 250	150 (330)	60	280-480
QH60M	11-17	250	172 (379)	60	355-420
QC65H	11-15	220 / 250	171 (377)	65	355-430
QH65M	11-15	220 / 250	177 (390)	65	355-420
QH70H & M	15-22	250 / 280	186 (410)	70	365-490
QC80H	16-29	280 / 300	285 (628)	80	385-530
QH80M	16-29	280 / 300	240 (529)	80	390-525
QC90H	24-35	320	420 (924)	90	380-570
QH90M	24-35	325	436 (961)	90	460-610

OTPA-23-4

Quick Hitch



Manufacturer Miller UK Ltd. **Models** Powerlatch 4, 5, 6 & 7

Description

This type of quick hitch (also known as a quick coupler) saves time and reduces the risk of injuries through manual handling and crushing during the attachment changing process, whilst giving benefits in improved productivity.

The Miller Powerlatch range of hydraulic locking quick hitches models allow for the rapid change of attachments directly from the drivers' cab.

This range of couplers are genuine 'twin locking' couplers. In the event of hydraulic failure or accidentally operating the switch, the Powerlatch will automatically lock on both front and rear pins, mechanically and independently of the hydraulic circuit.

Note: Attachments can only be removed in a safe, curled position.

The make and model of the excavator to which a quick hitch will be fitted must be established so that the correct size and type of quick hitch can be selected.

The excavator's hydraulic system must be compatible with the control and actuating system of the quick hitch.

Typical attachments that can be used with this type of coupler are ballast profile buckets, ballast ploughs, ballast brushes, tampers, lifting beams, flails, sleeper layers, tilt rotators and drilling rigs etc.

Scope of Use Connecting OTP attachments to excavator boom

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01, MP07 and MP21

OTPA-23-4

Quick Hitch

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

1. Where the quick hitch and anything attached to it via its jaws is intended to be used for lifting any load, they must be approved for lifting by the manufacturer. The coupler shall be clearly marked up with its safe working load and have undergone a thorough examination. This includes items like tilt rotators that may also act as a quick hitch.
2. Where an adaptor plate is used to enable a lifting accessory to be attached to a quick hitch the adaptor plate will become part of the lifting accessory and included in the six monthly thorough examination.
3. A quick hitch which is used for lifting shall have a valid LOLER certificate.
4. The quick hitch shall be subject to all applicable limitations on the Engineering Acceptance certificate of the Road Rail Vehicle (RRV) to which it is attached.
5. The quick hitch shall only be used with an RRV whose RC! indicator is active, and the lifting duty is in excess of the beam / load in the most adverse condition.

Minimum documentation requirement for the host machine are:

Operating Instructions, LOLER certificate (if appropriate) and Logbook

Additional documents may include:

Test Records, Statutory Inspection & Test Records, Load Radius Charts (duty charts).

Model Type	4	5	6	7
Pin diameter (mm)	60 - 65*	70 - 80*	80	80 – 90*
Minimum Width (mm) (between bucket bosses)	216	272	302	321
Pin Centres (mm)	345 - 415 355 – 420*	376 – 472 391 – 477*	430 - 520	443 – 520 458 – 525*
Weight: (kg)	180	263	310	470
Max. hydraulic pressure (bar)	400	400	400	400
Machine weight (t)	10 - 13	14 - 18	19 - 21	22 -27

Rail Cropper

24

#	Description	Issue	Date
OTPA-24-1	Mobile Frag - RC 240	1	2014
OTPA-24-2	Mobile Frag - RC450	1	2014

OTPA-24-1

Rail Cropper



Manufacturer

Mobile Frag Ltd.

Model: RC-240

Description

The RC-240 Rail Cropper attachment is designed to fit on most 17 tonne - 25 tonne road rail excavators (RRVs) using the host machines hydraulic power for operation.

It was specifically designed for quick and efficient cutting of all types of scrap rail both in the rail industry and for further processing in the scrap metal industry.

This is a faster method of scrap rail clearance compared to oxy-cutting and the RC-240 attachment can cut up to 2 km of rail per hour into 6 metre lengths.

The attachment requires a 320 bar hydraulic supply to the main cylinder and a 60 bar supply for the rotary actuator.

Scope of Use

Cutting Scrap Rail only

Competencies

Machine Controller, Crane Controller & OTPA-17

Product Approval No.

PA05/01805

Certificate of Acceptance No.

EL/15414/01/02

Risk Control Sheet No(s).

NR/L3/MTC/RCS0216/MP01 and MP07

OTPA-24-1

Rail Cropper

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. The Rail Cropper must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
3. Staff shall be briefed on the safe operation of the machine prior to its use.
4. The limitations of the RRV to which the machine is attached shall apply.
5. It must not be used under live overhead line equipment or in live conductor rail areas.

Minimum documentation requirement for the host machine are:

- Maintenance and Operating Instructions
- Product Acceptance Certificate
- Logbook

Additional documents may include Test performance records and inspection records.

Technical Specification:

Weight	1800 kg
Length	2100 mm
Width:	1200 mm
Height:	700 mm
Maximum Cutting Force	300 tonnes
Hydraulic Pressure	350 bar max.
Cuts per minute	13
Length of end cuts	from 100mm and above

OTPA-24-2

Rail Cropper (Heavy Duty)



Manufacturer Mobile Frag Ltd. **Model** RC-450

Description

The RC-450 Rail Cropper attachment is designed to fit on most 32 tonne - 45 tonne road rail excavators (RRVs) using the host machines hydraulic power for operation.

It was specifically designed for quick and efficient cutting of all types of scrap rail both in the rail industry and for further processing in the scrap metal industry.

This is a faster method of scrap rail clearance compared to oxy-cutting. The RC-450 attachment can cut sections up to UIC 60 and 141AB rail at a rate 30 tonnes of per hour into 1.5 metre lengths.

The attachment requires a 320 bar hydraulic supply to the main cylinder and a 60 bar supply for the rotary actuator.

Scope of Use Cutting Scrap Rail only

Competencies Machine Controller, Crane Controller & OTPA-17

Product Approval No. -

Certificate of Acceptance No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-MP03, MP07, MP08 & MP25

OTPA-24-2

Rail Cropper

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. The Rail Cropper must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
3. Staff shall be briefed on the safe operation of the machine prior to its use.
4. The limitations of the RRV to which the machine is attached shall apply.
5. It must not be used under live overhead line equipment or in live conductor rail areas.

Minimum documentation requirement for the host machine are:

- Maintenance and Operating Instructions
- Product Acceptance Certificate
- Logbook

Additional documents may include: Test performance records and inspection records.

Technical Specification:

Weight	3500 kg
Length	2400 mm
Width:	510 mm
Height:	1880 mm
Maximum Cutting Force	550 tonnes
Hydraulic Pressure	350 bar max.
Cuts per minute	10
Length of end cuts	from 100mm and above

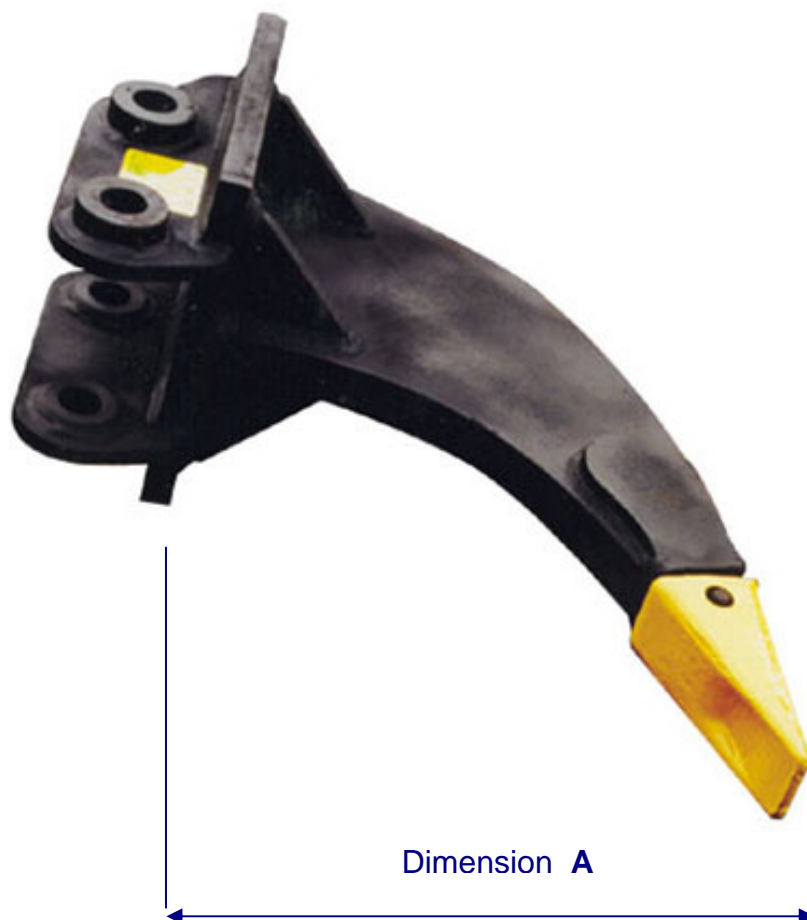
Ripper Blade

25

#	Description	Issue	Date
OTPA-25-1	Abiljo - R70 / R90 / R130 & R160	1	2014
OTPA-25-2	Engcon - R5 / R10 / R15 / R20 & R30	1	2014
OTPA-25-3	Geith - MODBR / MODCR & MODDR	1	2014

OTPA-25-1

Ripper Teeth



Manufacturer Abiljo Ltd **Models** R70 / R90 / R130 & R160

Suppliers Exac-One Ltd

Description

The Abiljo range of ripper teeth is ideally suited for use with 360° road rail excavators from 5 tonnes to 30 tonnes. All of the ripper shanks are cut from high-wear, high yield-strength Hardox steel and fitted with replaceable CAT type tips. They are suitable for use with either a quick hitch or direct mounting applications.

Typically they are used for digging in hard or frozen ground and the ripper is specifically designed for optimum breaking and demolition of hard materials.

Ripping ground prior to digging greatly reduces wear and stress on both bucket and machine, and speeds up overall cycle times.

Scope of Use Breaking and digging

Competencies Machine Controller, Crane Controller & OTPA-xx

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01, MP07and MP21

OTPA-25-1

Ripper Teeth

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

1. The ripper shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.
2. The ripper shall only be used with an RRV whose RCI indicator is active, and the duty is in excess of the loading in the most adverse condition.

Minimum documentation requirement for the host machine are:

Operating Instructions and Logbook

Additional documents may include:

Product Acceptance Certificate, Inspection Records, Load Radius Charts (duty charts).

Technical Specification

Model Type	R70	R90	R130	R160
Height (Dimension A)	600 mm	750 mm	750 mm	750 mm
Shank Material (Hardox)	40 mm	50 mm	50 mm	60 mm
Tooth System	Cat 205	Cat 215	Cat 225	Cat 225
Machine weight (tonnes)	7 - 9	9 - 10	13-15	16 - 19

OTPA-25-2

Ripper Teeth



Manufacturer Engcon **Models** R5 / R10 / R15 / R20 & R30

Description

The Engcon range of ripper teeth is ideally suited for use with 3600 road rail excavators up to 32 tonnes.

All of the ripper shanks are cut from high-wear, high yield-strength steel and fitted with replaceable CAT type tips. They are suitable for use with either a quick hitch or direct mounting applications.

Typically they are used for digging in hard or frozen ground and the ripper is specifically designed for optimum breaking and demolition of hard materials.

Ripping ground prior to digging greatly reduces wear and stress on both bucket and machine, and speeds up overall cycle times.

Scope of Use Breaking and digging ground and hard materials

Competencies Machine Controller, Crane Controller & OTPA-xx

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 and MP07

OTPA-25-2

Ripper Teeth

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

The ripper shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.

The ripper shall only be used with an RRV whose RCI indicator is active, and the duty is in excess of the loading in the most adverse condition.

Minimum documentation requirement for the host machine are:

Operating Instructions and Logbook

Additional documents may include:

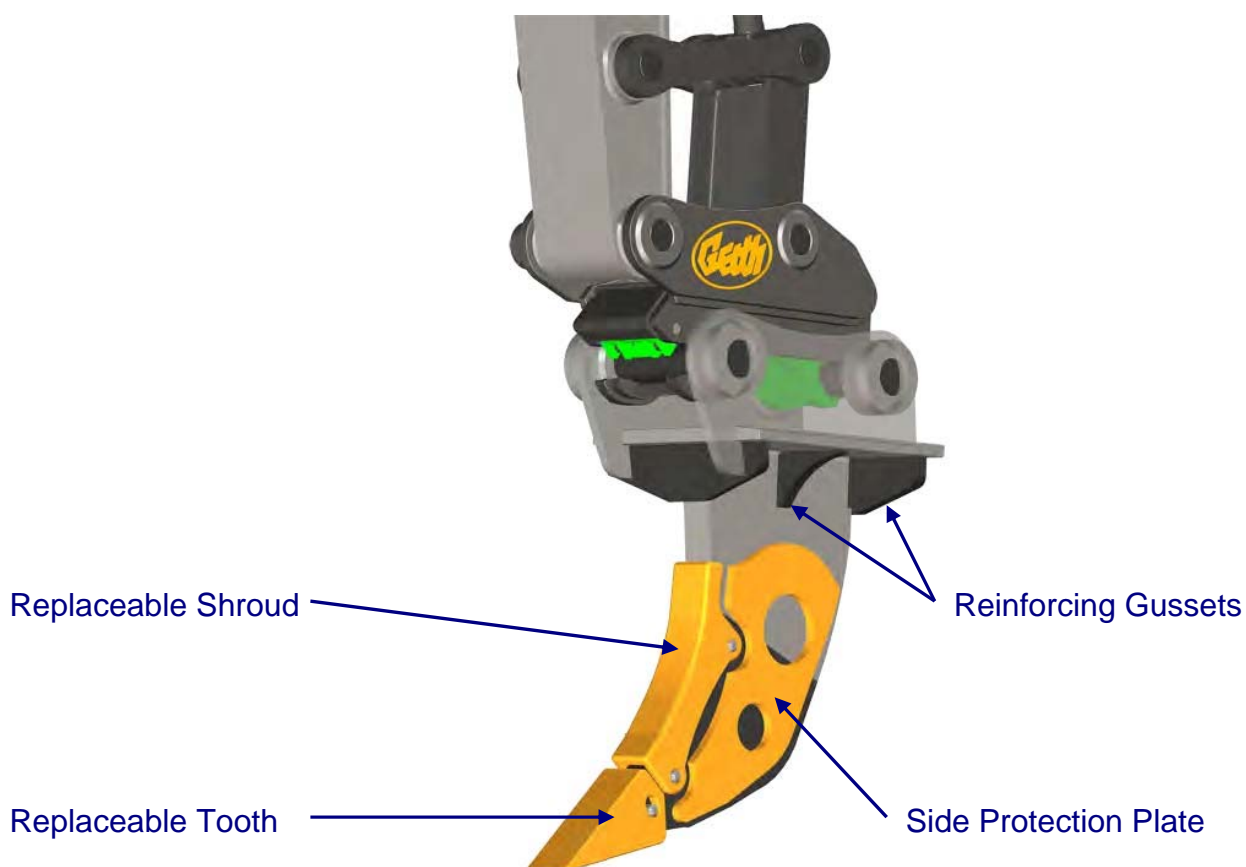
Product Acceptance Certificate, Inspection Records, Load Radius Charts (duty charts).

Technical Specification

	Model Type	R5	R10	R15	R20	R30
Height (mm)		600	700	900	1200	1400
Weight (kg)		85	110	180	340	680

OTPA-25-3

Ripper Blade



Manufacturer Geith **Models** MODBR000 / MODCR000 & MODDR000

Description

The Geith range of ripper teeth is ideally suited for use with 3600 road rail excavators up to 30 tonnes.

All of the ripper shanks are high-wear, high yield-strength steel and fitted with replaceable tooth tips and wear shroud (450 BHN). Additional side wear protection plates are incorporated to give extended life of the ripper. Reinforcing gussets are included for added strength and durability.

They are suitable for use with either a quick hitch or direct mounting applications.

Typically they are used for digging in hard or frozen ground and the ripper is specifically designed for optimum breaking and demolition of hard materials.

Ripping ground prior to digging greatly reduces wear and stress on both bucket and machine, and speeds up overall cycle times.

Scope of Use Breaking and digging ground and hard materials

Competencies Machine Controller and Crane Controller

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 and MP07

OTPA-25-3

Ripper

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

The ripper shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.

The ripper shall only be used with an RRV whose RCI indicator is active, and the duty is in excess of the loading in the most adverse condition.

Minimum documentation requirement for the host machine are:

Operating Instructions and Logbook

Additional documents may include:

Product Acceptance Certificate, Inspection Records, Load Radius Charts (duty charts).

Technical Specification

Model Type	MODBR000	MODCR000	MODDR000
Working Depth (mm)	813	940	1039
Shank Thickness (mm)	102	114	114
Weight (kg)	260	500	650
Machine weight (tonnes)	10 - 18	18 - 23	23 - 30

Scarifier

26

#	Description	Issue	Date
OTPA-26-1	Scarifier - Thompson Rail Equipment	1	2014

OTPA-26-1

Scarifier

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. The scarifier must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and the safe system of work.
3. Staff shall be briefed on the safe operation of the machine prior to its use.
4. The limitations of the tractor or RRV to which the machine is attached shall apply.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Product Acceptance Certificate, Logbook

Additional documents may include:

CE documentation, Inspection Records, Load Radius charts (duty chart) etc.

Technical Specification

Weight (kg)	850 (typical)
Width x Length x Height (mm)	2500 x 2000 x 1000
Hydraulic requirement	1 double acting service
Hydraulic pressure (bar)	175 - 210
Suitability	Railway Ballast to any depth
Fitment	Category 2 or 3 - 3 point linkage
Optional Attachments	Quick Hitch head for mounting on excavator
Tines	Heart tines inclined at 5 degrees, rigid mounted
Levelling Board	Hydraulically controlled, 200mm travel
Crumbling roller	Free floating, self aligning bearings
Accessories included	2.5m hydraulic supply hoses

Sleeper Spacer / Layer

27

#	Description	Issue	Date
OTPA-27-1	Geismar - PTV 286 / PTV 896	1	2014
OTPA-27-2	GOS – 4 & 7 leg	1	2014
OTPA-27-3	Richter & Muller - HSG 5	1	2014
OTPA-27-4	Rosenqvist - SL600 HD	1	2014
OTPA-27-5	Thompson Rail Equipment - SSB20	1	2014
OTPA-27-6	Track Maintenance Equipment - TME610	1	2014
OTPA-27-7	Windhoff - ALS5	1	2014

OTPA-27-1

Sleeper Spacer



Manufacturer Geismar **Model** PTV286 / PTV896

Description

The Hydraulic Variable Sleeper Spacing attachments - PTV 286 and PTV 896 are designed for the high output unloading and laying of concrete sleepers. The telescopic frame structure make it small yet it's easy adjustable to fit most types of current sleepers.

Different clamps can be mounted on this machine, depending on the shape, length and nature of the sleepers to be handled. They can grip up to 7 sleepers at once.

The main advantage of this machine is its ability to lay down the sleepers according to a chosen spacing, thanks to a simple adjustment, the operator can modify the spacing when needed (for example for curves or any other types of tasks).

The hydraulic telescopic arms work independently, so that sleepers of different lengths can be held safely. The 360° rotator drive provides endless slewing motions for reaching virtually any position.

Scope of Use Lifting and placing sleepers

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

OTPA-27-1

Sleeper Spacer

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for All operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

The Sleeper Layer must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

It must not be used under live overhead line equipment or in live conductor rail areas.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Product Acceptance Certificate (including Limitations of Use), LOLER Certificate and Logbook.

Additional documents may include:

Performance Test Records, Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

	Model	PVT 286	PVT 896
Lifting Capacity (kg)		1600	2240
Weight under load (kg)		2900	4040
Weight (kg)		1300	1800
Length (mm)		3560 (5 sleepers)	4200 (7 sleepers)
Height (mm)		1300	1130
Width with clamps (without clamps)		2770 (1820)	2770 (2300)
Maximum Pressure - Rotator (bar)		250	250
Rams (bar)		160	160
Adjustment distance for spacing (mm)		300 to 650	300 to 650
Electrical Circuit Voltage (v)		24	24

OTPA-27-2

Sleeper Spacer



Manufacturer GOS Tool & Engineering Services **Model** 4 & 7 Leg

Description

The hydraulic Sleeper Spacing attachment - (4 and 7 leg variants) are designed for the high output unloading and laying of concrete sleepers. The telescopic frame structure make it small, light weight yet its easy adjustable to fit most types of current sleepers.

Different clamps can be mounted on this machine, depending on the shape, length and nature of the sleepers to be handled. They can grip up to 7 sleepers at once.

The main advantage of these attachments is their ability to lay down the sleepers to a chosen spacing. Thanks to a simple adjustment, the operator can modify the spacing when needed (for example for curves or any other types of tasks).

The hydraulic telescopic arms work independently, so that sleepers of different lengths can be held safely. The 360° rotator drive provides endless slewing motions for reaching virtually any position.

Scope of Use Lifting and placing sleepers

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

OTPA-27-2

Sleeper Spacer

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

The Sleeper Layer must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

It must not be used under live overhead line equipment or in live conductor rail areas.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Product Acceptance Certificate (including Limitations of Use), LOLER Certificate and Logbook.

Additional documents may include:

Performance Test Records, Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

	Model	4 Leg	7 Leg
Lifting Capacity (kg)		1500	2500
Weight (kg)		1000	1250
Length (mm)		2500	3200
Height (mm)		1500	1500
Width with clamps (mm)		2000	2000
Maximum Pressure (bar)		70	70
Hydraulic Flow (l/min)		50	50

Note; All dimensions are approximate. Please check with the OEM for accurate technical details.

OTPA-27-3

Sleeper Spacer



Manufacturer Richter & Muller **Model** HSG 4 and HSG 5

Description

The Richter & Muller - HSG4 and HSG5 sleeper laying attachments are designed for the high output unloading and laying of concrete and wooden sleepers.

The hydraulic telescopic arms work independently, so that sleepers of different lengths can be held safely.

Lifted into position, their correct placement is assured by a precision gauging system that spreads the sleepers to the desired distance.

The telescopic frame structure make it small yet it's easy adjustable to fit most types of current sleepers.

The unit is fitted with a 360° hydraulic rotating head and a safety lifting function to prevent the operator from dropping sleepers.

Scope of Use Lifting and placing sleepers

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. PA05/01372

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03, MP06 and MP07

OTPA-27-3

Sleeper Spacer

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for All operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

The Sleeper Layer must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

It must not be used under live overhead line equipment or in live conductor rail areas.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Product Acceptance Certificate (including Limitations of Use), LOLER Certificate and Logbook.

Additional documents may include:

Performance Test Records, Statutory Inspection Records, Calibration & Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Weight	1100 kg
Length	3043 mm
Width	2060 mm
Height	1560 mm
Hydraulic Pressure	80 bar
Hydraulic Flow	60 l/min

OTPA-27-4

Sleeper Spacer



Manufacturer Rosenqvist **Model:** SL600 HD

Description

The Rosenqvist SL600-HD attachment is designed for use high output sleeper laying. Up to six adjacent sleepers can be laid simultaneously from an accompanying supply.

Lifted into position, their correct placement is assured by a precision gauging system that spreads the sleepers to the desired distance. The telescopic frame structure make it small yet it's easy adjustable to fit most type of sleepers

The unit can be can be fitted with or without tilt rotating function and a safety lifting function to prevent the operator from dropping sleepers.

Scope of Use Lifting and placing sleepers

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. PA05/03134

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

OTPA-27-4

Sleeper Layer

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for **All** operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. The Sleeper Layer must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
3. Staff shall be briefed on the safe operation of the machine prior to its use.
4. The limitations of the RRV to which the machine is attached shall apply.
5. It must not be used under live overhead line equipment or in live conductor rail areas.

Minimum documentation requirement for the host machine are:

- Maintenance and Operating Instructions
- Product Acceptance Certificate (including Limitations of Use)
- Logbook

Additional documents may include:

Performance Test Records, Statutory Inspection Records, Calibration & Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Weight	309 kg
Length min.	2000 mm
Length max	4475 mm
Height	1333 mm
Max. Distance between sleepers	762 mm

OTPA-27-5

Sleeper Layer

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

The Sleeper Layer must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

It must not be used under live overhead line equipment or in live conductor rail areas.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Product Acceptance Certificate (including Limitations of Use), LOLER Certification and Logbook

Additional documents may include:

Performance Test Records, Statutory Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Safe Working Load	350 kg / leg
Proof Load	700 kg / leg
Hydraulic Pressure	90 - 210 bar
Weight	850 - 950 kg
Width (max.)	3000 mm
Length (max.)	3500 mm
Height (with rotator)	1100 mm
Max. Distance between sleepers	760 mm

Note: All technical details above are approximate for a 7 leg sleeper spacer.

OTPA-27-6

Sleeper Spacer



Manufacturer Track Maintenance Equipment **Model** TME610

Description

The TME Sleeper Lifting and Spacing Beam has been designed to lift all types of concrete sleeper on the UK market.

The Beam is designed to hydraulically adjust the sleeper spacing before placing onto the track bed. It is adjustable to all current concrete sleeper lengths. It can be fitted to any excavator, road rail loader or crane.

The standard beam lifts and spaces 4 concrete sleepers but can be built to handle other quantities.

Scope of Use Lifting and placing sleepers

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. EL/14262/02/02

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

OTPA-27-6

Sleeper Spacer

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

The Sleeper Layer must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

It must not be used under live overhead line equipment or in live conductor rail areas.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Product Acceptance Certificate (including Limitations of Use), LOLER Certificate and Logbook

Additional documents may include:

Performance Test Records, Statutory Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Working Load (lifting 4 sleeper version)	1500 kg
Hydraulic Pressure (max.)	150 bar
Weight	850 kg
Width (max.)	3000 mm
Length (max.)	3500 mm
Height (with rotator)	1100 mm
Max. Distance between sleepers	762 mm

OTPA-27-7

Sleeper Spacer



Manufacturer Windhoff **Model** ALS 5

Description

The Windhoff ALS 5 sleeper laying attachment is designed for the high output unloading and laying of concrete and wooden sleepers.

The 5 hydraulic telescopic arms work independently, so that sleepers of different lengths can be held safely. The 360° rotator drive provides endless slewing motions for reaching virtually any position. The telescopic frame structure make it small yet it's easy adjustable to fit most types of current sleepers

Its use ranges from the laying of sleepers for newly constructed tracks and replacement work to loading and downloading work at supply trains and work sites.

Scope of Use Lifting and placing sleepers

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

OTPA-27-7

Sleeper Spacer

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

The Sleeper Layer must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

It must not be used under live overhead line equipment or in live conductor rail areas.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Product Acceptance Certificate (including Limitations of Use), LOLER Certificate and Logbook.

Additional documents may include:

Performance Test Records, Statutory Inspection Records, Calibration & Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Weight	1150 kg
Length	3200 mm
Height	1300 mm
Width (transport mode)	2240 mm
Width of Sleepers	2200 - 2600 mm
Adjustment range for spacing	600 - 750 mm
No. of Sleepers	5

Sleeper Changer

28

#	Description	Issue	Date
OTPA-28-1	Geismar - ORT	1	2014
OTPA-28-2	Richter & Muller - HSW Combi	1	2014
OTPA-28-3	Rosenqvist - SB60	1	2014
OTPA-28-4	Windhoff - ASW	1	2014

OTPA-28-1

Sleeper Changer



Manufacturer Geismar **Model** ORT

Description

The ORT Sleeper Replacing attachment is designed to provide safe insertion and extraction of concrete or wooden sleepers.

It comprises of a retractable transverse beam system for the insertion or extraction of sleepers and a swivelling hydraulic sleeper clamp. The clamp swivel in a horizontal plane to longitudinally position the sleeper along the track, and can vertically swivel (transversally to the track) to ease sleeper insertion.

Lighting illuminates the work area at night or when used in tunnels.

All operations are hydraulically powered using the host RRVs' hydraulic power supply.

It is operated through a remote control inside the cab of the host RRV.

Scope of Use Lifting and placing sleepers

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

OTPA-28-1

Sleeper Changer

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use:

The Sleeper Changer must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

It must not be used under live overhead line equipment or in live conductor rail areas.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Product Acceptance Certificate (including Limitations of Use), LOLER Certification and Logbook

Additional documents may include:

Performance Test Records, Statutory Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Performance (sleepers per hour)	10 to 15
Swivelling Clamp Horizontal Rotation	+/- 90°
Swivelling Clamp Vertical Inclination	0 to 24°
Swivelling Extraction Arm - Stroke / Power	1200 mm / 5000 daN
Swivelling Extraction Arm - Insertion Power / Angular Swivel	3800 daN / 30°
Hydraulic Flow	120 l/min
Hydraulic Pressure	210 bar
Length	2573 mm
Width	1614 mm
Height	2043 mm
Weight	2500 kg

OTPA-28-2

Sleeper Changer



Manufacturer Richter & Muller

Model HSW Combi

Description

This is a purpose built attachment that is designed for two applications:

1. *Sleeper Changing*

Where the requirement is for the removal of single sleepers by digging away the ballast to reveal the sleeper and then locating this sleeper within the jaws of the grab and sliding it out to one side or, if wet-bedding, swivel it around and through between the rails.

2. *Excavation of wet-beds*

The old ballast is dug out and the dig depth can be adjusted down to 600mm by means of rollers. There is no need to split the track at any stage of the operation.

Side buckets can be removed on certain models to allow for digging through platforms and catch-pits.

Scope of Use Lifting and placing sleepers

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. PA05/01370

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

Suppliers Tasty Plant

OTPA-28-2

Sleeper Changer

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

The Sleeper Changer must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

It must not be used under live overhead line equipment or in live conductor rail areas.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Product Acceptance Certificate, LOLER Certification (if applicable) and Logbook

Additional documents may include:

Performance Test Records, Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Hydraulic Pressure (max.)	250 bar
Weight	1.1 tons
Width	2880 mm
Height	1300 mm

OTPA-28-3

Sleeper Changer



Manufacturer Rosenqvist **Model** SB60

Description

The SB60 Sleeper Replacer is designed to provide safe and efficient replacement of sleepers. It has tilt and rotate functions that allow sleepers to be changed from both the middle and side of the track.

It is also designed for effective movement and recessing of the track ballast and fits most types of sleepers.

Options include

- Clip Master - for fast and safe clipping of FASTCLIPS
- Buckets - for removing ballast on wet locations

Scope of Use Lifting and placing sleepers

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. PA05/04237

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

OTPA-28-3

Sleeper Changer

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use:

The Sleeper Changer must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

It must not be used under live overhead line equipment or in live conductor rail areas.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Product Acceptance Certificate (including Limitations of Use), LOLER Certification and Logbook

Additional documents may include:

Performance Test Records, Statutory Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Weight	1050 kg
Clamping Force	6000 kg
Torque	295 Nm
Blade Width	2700 mm
Height	1000 mm

OTPA-28-4

Sleeper Changer



Manufacturer Windhoff **Model** ASW

Description

This is a multifunction attachment for filling and removal of ballast as well as the replacement of a single sleeper or several successive sleepers. The unit is attached to a host road-rail excavator or track construction machine, which also supplies the hydraulic energy required.

Hydraulically operated sleeper tongs and a 360° rotating drive allow for the safe and careful removal or laying of concrete or wooden sleepers as well as concrete-blocks and steel tiebars.

The attachment is equipped with three shovel segments for taking up the ballast under the track grate. The shovel segments can be dismantled for changing of single sleepers.

Scope of Use Lifting and placing sleepers

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

OTPA-28-4

Sleeper Changer

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

The Sleeper Changer must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

It must not be used under live overhead line equipment or in live conductor rail areas.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Product Acceptance Certificate (including Limitations of Use), LOLER Certification and Logbook

Additional documents may include:

Performance Test Records, Statutory Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Length	1400 mm
Blade Width	2750 mm
Height	1450 mm
Weight	1300 kg
Track Widths	Up to 1435 mm

Tampers

29

#	Description	Issue	Date
OTPA-29-1	Dymax - DBT.1, DX-BT-HY-360 x 2-HX & x 4HX	1	2014
OTPA-29-2	Geismar - MB8AC	1	2014
OTPA-29-3	Geismar - MB1T	1	2014
OTPA-29-4	Richter and Muller - Twin Bank Tamper - MSG8	1	2014
OTPA-29-5	Track Maintenance Equipment - RST 0210	1	2014
OTPA-29-6	Windhoff - AST 8	1	2014

OTPA-29-1

Tamper



1 Motor Tamper



2 Motor Tamper



4 Motor Tamper

Manufacturer Dymax **Models** DBT.1, DX-BT-HY-360 x2-HX / x4HX

Description

Dymax Ballast Tampers attachments for use with RRV excavators are based upon proven technology and are ideal for spot maintenance where fouled ballast needs to be removed and new ballast tamped into position.

The tamping heads are equipped with vibratory motors (1, 2 or 4 models), replace-able carbide tamping tools, heavy duty frames with rubber isolators that maximises vibrations to the ballast and hydraulic rotators for precise placement.

Dymax tampers are available for most makes and models of excavators, but the machines must have at least 16GPM of hydraulic flow.

The standard duty 1, 2 and 4 motor tampers are ideal for machines such as excavators up to 30 tonnes operating weight.

Scope of Use Tamping of Ballast

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01, MP07and MP21

OTPA-29-1

Tamper

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

Where the tilt rotator or anything attached to it is intended to be used for lifting any load, they must be approved for lifting by the manufacturer. The coupler shall be clearly marked with its safe working load.

Where an adaptor plate is used to enable a lifting accessory to be attached to a tilt rotator the adaptor plate will become part of the lifting accessory and included in the six monthly thorough examination.

A tilt rotator that is used for lifting shall have a valid LOLER certificate.

The tilt rotator shall be subject to all applicable limitations on the Engineering Acceptance certificate of the Road Rail Vehicle (RRV) to which it is attached.

The quick hitch shall only be used with an RRV whose RCI indicator is active, and the lifting duty is in excess of the beam / load in the most adverse condition.

Minimum documentation requirement for the host machine are:

Operating Instructions, LOLER certificate (if appropriate) and Logbook

Additional documents may include:

Test Records, Statutory Inspection/Test Records and Load Radius Charts (duty charts).

Technical Specification

	1 Motor	2 Motor	4 Motor
Model	DBT.1	DX-BT-HY-360 x 2-HX-16T	DX-BT-HY-360 x 4-HX-16T
Length (mm)	1143	1250*	1320
Width (mm)	712	800*	1473
Height (mm)	1448	1800*	2200
Weight (kg)	690	1270	2322
Hydraulic Flow Rate (l/min)	29	57	113
Hydraulic Pressure (bar)	138	152	171
Rotation	360°	360°	360°
Machine Weight (tonnes)	7 - 10	12 - 15	12 - 30

* This data gives approximate sizes

OTPA-29-2

Tamper



Manufacturer Geismar **Model** MB8AC

Description

Mounted on 4 rail wheels, this tamper is effective for the tamping track and switches.

Power is taken from the host RRVs' hydraulic system, whose jib is used for on/off tracking and moving the tamping unit along the track. It has two vertically guided, independent tamping heads and the tamping depth is electrically adjustable.

Each tamping head support frame moves transversally to the track axis and operates stably on all types of switch and crossing configurations. Tamping of twin sleepers is also possible.

All functions are effectively controlled by the operator from the excavator cab.

Scope of Use Tamping Ballast

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

OTPA-29-2

Tamper

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use:

The tamper attachment must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

The limitations of the RRV to which the machine is attached shall apply.

Equipment can be used under live OLE when used on a machine fitted with a suitable approved height limitation system and the safe system of work is in place to cover this.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Product Acceptance Certificate (including Limitations of Use) and Logbook

Additional documents may include:

Performance Test Records, Statutory Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Vertical stroke above rail level	660 mm
Transverse stroke of each tamping unit	1050 mm
Distance between tamping tines -	560 mm (Opening)
"Single sleeper" position	290 mm max. (Closing)
"Twin Sleeper" position	770 mm (Opening)
	290 mm max. (Closing)
Length	2000 mm
Width	2500 mm
Height	1580 mm
Weight	2540 kg
Hydraulic Power - Vibration Motor - 46 Hz	115 l/min flow @t 150 bar
Hydraulic Power - Movement	80 l/min flow @ 110 bar

OTPA-29-3

Tamper



Manufacturer Geismar **Model** MB 1T

Description

The MB 1T Ballast Tamping Set has been designed to carry out tamping operations in plain track and switch and crossing areas. The MB 1T has four tamping tines and is connected to, and hydraulically powered by the host Road Rail Vehicle (RRV). The RRV jib controls the movement and handling of the tamping attachment.

The tamping head can swivel for retraction and the plunge depth of each tamping head can be mechanically adjusted. The tamping head is connected to the main frame of the machine through an elastic link enclosed in a swiveling support.

All hydraulic functions are controlled by the machine operator via joysticks located in the RRV cab.

Scope of Use Tamping Ballast

Competencies: Machine Controller, Crane Controller & OTPA-10

Product Approval No.: -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

OTPA-29-3

Tamper

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for **All** operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

The tamper attachment must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

The limitations of the RRV to which the machine is attached shall apply.

Equipment can be used under live OLE when used on a machine fitted with a suitable approved height limitation system and the safe system of work is in place to cover this.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Product Acceptance Certificate (including Limitations of Use) and Logbook.

Additional documents may include:

Performance Test Records, Statutory Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Vertical stroke above rail level	510 mm
Output (tamping mode)	100 sleepers / hour (60 m/h)
Distance between tamping tines -	580 mm (Opening)
"Single sleeper" position	320 mm max. (Closing)
"Twain Sleeper" position	830 mm (Opening)
	320 mm max. (Closing)
Length	1625 mm
Width	600 mm
Height	1450 mm
Weight	800 kg
Number of tamping tines	4
Hydraulic Power - Vibration Motor - 46 Hz	52.5 l/min flow @t 150 bar
Hydraulic Power - Movement	40 l/min flow @ 120 bar

OTPA-29-4

Tamper



Manufacturer Richter and Muller **Model** MSG8

Description

The Richter & Muller MSG8 twin bank tamper is designed to provide mechanical ballast tamping for small areas, e.g. soft spot sleeper replacement. The twin bank tamper has eight tamping tines which provide balanced tamping under both rails and both sides of the sleeper, all at the same time. The tamping is coupled with on-board vibration to give excellent ballast compaction. The MSG8 Tamping bank is multi-gauge adjustable for 1000mm, 1435mm, 1524mm and 1600mm.

The system is ideal for spot sleeper replacement work and is a significantly safer method of compacting ballast than by manually operated equipment.

The tamper gives better compaction than is achieved by hand held impact hammers and can reduce the number of tamper visits required to achieve final ballast compaction.

Use of the hydraulic mini-tamper mounted on a road-railer allows more sleepers to be replaced and tamped in a single shift thereby allowing improved productivity.

Scope of Use	Tamping Ballast
Competencies	Machine Controller, Crane Controller & OTPA-10
Product Approval No.	-
Suppliers	Tasty Plant
Risk Control Sheet No(s).	NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

OTPA-29-4

Tamper

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

The tamper attachment must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Only to be used for follow up of wet bed rectification for a maximum length of 10 beds and for use in sidings.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

The attachment must NOT be used in live conductor rail areas. It must not be used under live overhead line equipment unless it is used on a machine fitted with a suitable approved height limitation system and the safe system of work is in place to cover this.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Product Acceptance Certificate (including Limitations of Use) and Logbook

Additional documents may include:

Performance Test Records, Statutory Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Length	800 mm
Width	2200 mm
Height (without slew motor)	1150 mm (without slew motor)
Weight (without slew motor)	1300 kg (without slew motor)
Hydraulic Operating Pressures	160 bar (Vibration) 140 bar (Tamping)
Tamping Performance	Up to 120 m/h

OTPA-29-5

Tamper



Manufacturer Track Maintenance Equipment **Model** RST 210

Description

The RST 0210 Mini Tamper System is designed to provide mechanical ballast tamping in small areas e.g. soft spot sleeper replacement. The double tamper has eight tamping tines which provide balanced tamping under both rails and both sides of the sleeper all at the same time. The tamping is coupled with on-board vibration to give excellent ballast compaction.

The system is ideal for spot sleeper replacement work and is a significantly safer method of compacting ballast than by manually operated equipment. The tamper gives better compaction than is achieved by hand held impact hammers and can reduce the number of plainline tamper visits required to achieve final ballast compaction.

Use of the hydraulic mini-tamper mounted on a road-railer allows more sleepers to be replaced and tamped in a single shift thereby allowing improved productivity.

Scope of Use Tamping Ballast

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

OTPA-29-5

Tamper

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

The tamper attachment must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Only to be used for follow up of wet bed rectification for a maximum length of 10 beds and for use in sidings.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

It must not be used under live overhead line equipment or in live conductor rail areas.

Equipment must NOT be used in live conductor rail areas

Equipment can be used under live OLE when used on a machine fitted with a suitable approved height limitation system and the safe system of work is in place to cover this.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Product Acceptance Certificate (including Limitations of Use) and Logbook

Additional documents may include:

Performance Test Records, Statutory Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Length	2200 mm
Width	400 mm
Height	1500 mm
Weight	890 kg
Hydraulic Operating Pressures	190 bar (Vibration) 110 bar (Tamping)
Tamping Performance	Up to 100 m/h

OTPA-29-6

Tamper



Manufacturer Windhoff **Model** AST 8

Description

The attachment has 8 tines and is typically used for tamping work on short lengths of track and at switches.

When working at switches, one tamping section can be raised hydraulically. It features two working units with a total of 8 pokers which simultaneously dig into the crib ballast.

A rotating cylinder permits the alignment of the attachment with the sleeper position. All control functions are effectively operated from the excavator cab.

Scope of Use Tamping Ballast

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. PA05/02249

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06 and MP07

OTPA-29-6

Tamper

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use:

The tamper attachment must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Only to be used for follow up of wet bed rectification for a maximum length of 10 beds and for use in sidings.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

It must not be used under live overhead line equipment or in live conductor rail areas.

Equipment must NOT be used in live conductor rail areas

Equipment can be used under live OLE when used on a machine fitted with a suitable approved height limitation system and the safe system of work is in place to cover this.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Product Acceptance Certificate (including Limitations of Use) and Logbook

Additional documents may include:

Performance Test Records, Statutory Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Length (dependant on track width)	2200 mm (for standard gauge)
Width	845 mm
Height	1400 mm
Weight	1320 kg
Hydraulics - Compacting motor:	75 l/min at 150 bar
Lock cylinder:	50 l/min at 110 bar
Tamping Performance	ca. 80 – 120 m/h

Thimbles

30

#	Description	Issue	Date
OTPA-30-1	Arbil - Mk 3	1	2014
OTPA-30-2	Geismar - OMR H	1	2014
OTPA-30-3	Rexquote - RT	1	2014
OTPA-30-4	Thompson Rail Equipment - RT 20	1	2014
OTPA-30-5	Thompson Rail Equipment - Rail Foot Thimble	1	2014

OTPA-30-1

Thimble



Manufacturer

Arbil

Model

Mk 3

Description

The Arbil Mark 3 Rail Thimble is suitable for use with BS113A, UIC60 and Bull Head rail sections.

It is designed to be suspended from chain, hook or shackle from the host RRV boom.

Rollers grip the rail securely under the head and support it during the threading operation. Grease nipples are fitted to each shaft to allow for lubrication of each roller.

The hydraulic cylinder is fitted with a safety valve in case of hose failure.

Using this thimble, long welded rail can be threaded into place ready for fastening or quickly removed from the rail seats for transposing.

Scope of Use

BS113A and UIC60 rail sections

Competencies

Machine Controller, Crane Controller & OTPA-21

Product Approval No.

-

Risk Control Sheet No(s).

NR/L3/MTC/RCS0216/MP01, MP06 and MP07

OTPA-30-1

Thimble

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

1. Where rails are to be moved by means of a rail thimble, the safe system of work shall incorporate adequate control measures for railway specific risks, see - “NR/L2/RMVP/0200/P005 - Handling new or serviceable rail with road-rail excavator cranes in rail mode” for detailed requirements.
2. The shortest length of rail that can be moved with the thimble is 100 metres.
3. Each thimble shall have a valid LOLER certificate.
4. The thimble shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.
5. The thimble shall only be used with an RRV whose the load on hook indicator (RCI) indicator is active, and the lifting duty is in excess of the beam/load in the most adverse condition.
6. During the operation the RCI shall be monitored and the load shall not be allowed to exceed the Safe Working Load of the thimble or the lifting appliance.

Note: This should be limited to a maximum of 2 tonne.

Minimum documentation requirement for the host machine are:

Operating Instructions, LOLER Test Certificate, Product Acceptance Certificate (including Limitations of Use) and Logbook

Additional documents may include:

Test Records, Statutory Inspection Records, Load Radius Charts (duty charts) etc.

Technical Specification

Safe Working Load	3,000 kg
Proof Test Load	6,000 kg
Weight	120 kg
Length	632 mm
Width	730 mm
Height	730 mm
Hydraulic Pressure	100 – 210 bar

OTPA-30-2

Thimble



Manufacturer

Geismar

Model

OMR H

Description

The four roller hydraulic rail clamp/thimble is designed to operate in a railway environment for the laying of long welded rails (LWR). Using this thimble, long welded rail can be threaded into place ready for fastening or quickly removed from the rail seats for transposing. The four roller design enables easier movement over electric and aluminothermic welds during rail/road loader travel.

It is designed to be suspended from chain, hook or shackle from the host RRV boom.

A hydraulic cylinder clamps the rollers under the rail head securely and supports it during the threading operation. Grease nipples are fitted to each shaft to allow for lubrication of each roller. A compression spring mounted on ram rods guarantees clamp locking, even in the case of a hydraulic failure.

Scope of Use

BS113A and UIC60 rail sections

Competencies

Machine Controller, Crane Controller & OTPA-21

Product Approval No.

-

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01, MP06 and MP07

OTPA-30-3

Thimble



Key: 1 Cylinder 2 Upper Rollers 3 Side Rollers 4 Bottom Rollers 5 Pivot Pins

Manufacturer Rexquote **Model** RT

Description

The thimble is designed to operate in a railway environment for the laying of rail. Using this thimble, long welded rail can be threaded into place ready for fastening or quickly removed from the rail seats for transposing. The Thimble is built to handle standard flat bottom rails including UIC 60 and 113A.

It is designed to be suspended from chain, hook or shackle from the host RRV boom.

Rollers grip the rail securely under the head and support it during the threading operation. Grease nipples are fitted to each shaft to allow for lubrication of each roller.

The hydraulic cylinder is fitted with a safety valve in case of hose failure.

Scope of Use BS113A and UIC60 rail sections

Competencies Machine Controller, Crane Controller & OTPA-21

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01, MP06 and MP07

OTPA-30-3

Thimble

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

1. Where rails are to be moved by means of a rail thimble, the safe system of work shall incorporate adequate control measures for railway specific risks, see - *"NR/L2/RMVP/0200/P005 - Handling new or serviceable rail with road-rail excavator cranes in rail mode"* for detailed requirements.
2. The shortest length of rail that can be moved with the thimble is 100 metres.
3. Each thimble shall have a valid LOLER certificate.
4. The thimble shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.
5. The thimble shall only be used with an RRV whose the load on hook indicator (RCI) indicator is active, and the lifting duty is in excess of the beam/load in the most adverse condition.
6. During the operation the RCI shall be monitored and the load shall not be allowed to exceed the Safe Working Load of the thimble or the lifting appliance. *Note: This should be limited to a maximum of 2 tonne.*

Minimum documentation requirement for the host machine are:

Operating Instructions, LOLER Test Certificate, Load Radius Charts (duty charts), Logbook, Product Acceptance Certificate (if available, including any "Limitations of Use")

Additional documents may include:

Test Records, Statutory Inspection Records etc.

Technical Specification

Weight	170 kg
Length	500 mm (approx.)
Width	600 mm (approx.)
Height	750 mm (approx.)
Hydraulic Flow	10 l/min @ up to 100 bar
Hydraulic Pressure	200 bar (max.)

OTPA-30-4

Thimble



Manufacturer Thompson Rail Equipment Ltd. **Model** RT 20

Description

The Thomson Universal Rail Thimble is suitable for use with both CEN60 and BS113a rail without adjustment and with practically all types of flat bottomed running rail.

It is designed to be suspended from chain, hook or shackle from the host RRV boom.

Four rollers, fitted with Impregnated bronze bushes grip the rail securely under the head and support it during the threading operation. Grease nipples are fitted to each shaft to allow for lubrication of each roller.

It is fitted with a safety check valve and proof tested to 20 tonnes.

Using this thimble long welded rail can be threaded into place ready for fastening or quickly removed from the rail seats for transposing.

Scope of Use CEN60 and BS113a rail sections

Competencies Machine Controller, Crane Controller & OTPA-21

Product Approval No. PA05/03274

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01, MP06 and MP07

Operators / Suppliers AB 2000, Balfour Beatty rail, W Bradshaw, Breffni, L & W, Readypower, Quattro, Shovlin Plant, Story Rail, TXM Plant and Volker Rail.

OTPA-30-4

Thimble

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

1. Where rails are to be moved by means of a rail thimble, the safe system of work shall incorporate adequate control measures for railway specific risks, see Network Rail standard - "NR/L2/RMVP/0200/P005 - Handling new or serviceable rail with road-rail excavator cranes in rail mode" for detailed requirements.
2. The shortest length of rail that can be moved with the thimble is 100 metres.
3. Each thimble shall have a valid LOLER certificate.
4. The thimble shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.
5. The thimble shall only be used with an RRV whose the load on hook indicator (RCI) indicator is active, and the lifting duty is in excess of the beam/load in the most adverse condition.
6. During the operation the RCI shall be monitored and the load shall not be allowed to exceed the Safe Working Load of the thimble or the lifting appliance. *Note: This should be limited to a maximum of 2 tonne.*

Minimum documentation requirement for the host machine are:

Operating Instructions, LOLER Test Certificate, Product Acceptance Certificate (including Limitations of Use), Logbook

Additional documents may include:

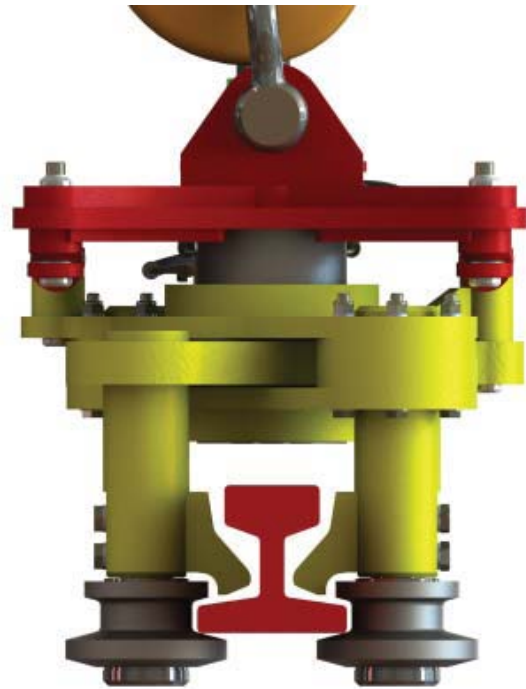
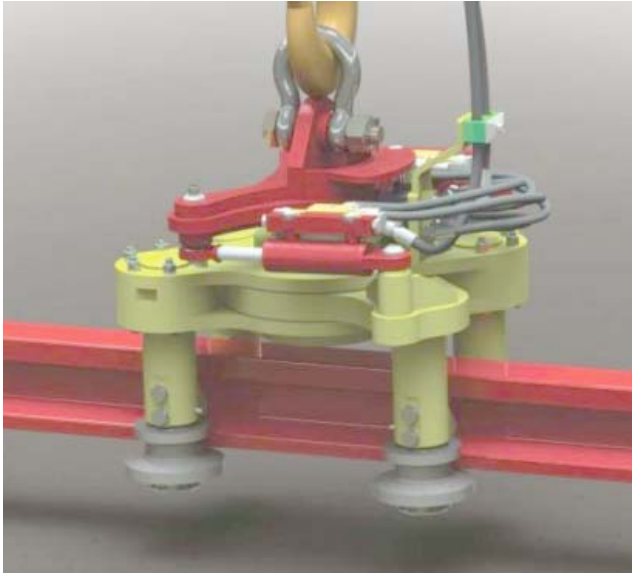
Test Records, Statutory Inspection Records, Load Radius Charts (duty charts) etc.

Technical Specification:

Safe Working Load	2,000 kg
Proof Test Load	4,000 kg
Weight	235 kg
Length	630 mm
Width	730 mm
Height	735 mm
Hydraulic Pressure	90 – 210 bar

OTPA-30-5

Thimble



Manufacturer Thompson Rail Equipment Ltd.

Model Rail Foot Thimble

Description

The Thomson Rail foot thimble is a universal rail thimble for threading all types of flat bottom rail, including both running rail and conductor rail sections. The hydraulic cylinders allow the thimble securely to grip the base of the rail section and to guide it accurately into place.

A special mechanism automatically withdraws the rollers a precise amount and locks the hydraulic system as the rail is lifted. In this way the rail is allowed to run freely whilst damage due to welds and rail defects is minimised. Rail cannot be released from the Rail Foot Thimble until safely lowered.

It is designed to be suspended from chain, hook or shackle from the host RRV boom.

Using this thimble long welded rail can be threaded into place ready for fastening or quickly removed from the rail seats for transposing.

Scope of Use Flat bottom rail sections

Competencies Machine Controller, Crane Controller & OTPA-21

Product Approval No. PA05/05727

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01, MP06 and MP07

Operators / Suppliers Balfour Beatty Rail

OTPA-30-5

Thimble

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

1. Where rails are to be moved by means of a rail thimble, the safe system of work shall incorporate adequate control measures for railway specific risks, see Network Rail standard - "NR/L2/RMVP/0200/P005 - Handling new or serviceable rail with road-rail excavator cranes in rail mode" for detailed requirements.
2. The shortest length of rail that can be moved with the thimble is 100 metres.
3. Each thimble shall have a valid LOLER certificate.
4. The thimble shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.
5. The thimble shall only be used with an RRV whose the load on hook indicator (RCI) indicator is active, and the lifting duty is in excess of the beam/load in the most adverse condition.
6. During the operation the RCI shall be monitored and the load shall not be allowed to exceed the Safe Working Load of the thimble or the lifting appliance. *Note: This should be limited to a maximum of 2 tonne.*

Minimum documentation requirement for the host machine are:

Operating Instructions, LOLER Test Certificate, Product Acceptance Certificate (including Limitations of Use), Logbook

Additional documents may include:

Test Records, Statutory Inspection Records, Load Radius Charts (duty charts) etc.

Technical Specification:

Safe Working Load	2,000 kg
Proof Test Load	4,000 kg
Weight	250 kg
Length	550 mm
Width	480 mm
Height	580 mm
Hydraulic Pressure	90 – 210 bar

Tilt Rotators

31

#	Description	Issue	Date
OTPA-31-1	Engcon	1	2014
OTPA-31-2	Indextator	1	2014
OTPA-31-3	Kinshofer	1	2014
OTPA-31-4	Liebherr	1	2014
OTPA-31-5	OilQuick	1	2014
OTPA-31-6	Steelwrist	1	2014

OTPA-31-1

Tilt Rotator



Manufacturer

Engcon

Models

EC10B / 15B / 20B / 30B

Description

Engcon's range of tilt rotators are equipped with double-acting tilt cylinders for optimized tilting force and even operation. The Tiltrotator is equipped with a standard control system that permits the simultaneous control of the rotation, slewing, hydraulic auxiliary function and hydraulic quick hitch.

This control makes the tilt rotator extremely useful in placing attachments in the optimal operating position or for quickly reversing position, saving time and delivering improved productivity.

The make and model of the excavator to which a tilt rotator will be fitted must be established so that the correct size can be selected. Engcon's tilt rotators can be matched with most existing excavators, with machine weights of 10 to 32 tons.

Typical attachments that can be used with tilt rotator are excavator buckets, flails/brush cutters, pole grabs, grapples, pilling hammers, rail / tree croppers, ballast excavators and drilling rigs etc.

Scope of Use

Connecting OTP attachments to excavator boom

Competencies

Machine Controller & Crane Controller

Product Approval No.

-

Risk Control Sheet No(s).

NR/L3/MTC/RCS0216/MP01, MP07and MP21

OTPA-31-1

Tilt Rotator

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

1. Where the tilt rotator or anything attached to it is intended to be used for lifting any load, they must be approved for lifting by the manufacturer. The coupler shall be clearly marked with its safe working load and have undergone a thorough examination.
2. Where an adaptor plate is used to enable a lifting accessory to be attached to a tilt rotator the adaptor plate will become part of the lifting accessory and included in the six monthly thorough examinations.
3. A tilt rotator that is used for lifting shall have a valid LOLER certificate.
4. The tilt rotator shall be subject to all applicable limitations on the Engineering Acceptance certificate of the RRV to which it is attached.
5. The quick hitch shall only be used with an RRV who's RC! indicator is active, and the lifting duty is in excess of the beam / load in the most adverse condition.

Minimum documentation requirement for the host machine are:

Operating Instructions, LOLER certificate (if appropriate) and Logbook

Additional documents may include:

Test Records, Statutory Inspection & Test Records and Load Radius Charts (duty charts).

Technical Specification

Model Type	EC 10B	EC 15B	EC 20B	EC 30B
Width (mm)	490	570	600	780
Length (mm)	536	698	800	970
Height (mm)	420	440	450	740
Weight: (kg)	270	360	470	850
Rotation	unlimited	unlimited	unlimited	unlimited
Tilt Range	+/-40°	+/-40°	+/-40°	+/-40°
Flow requirement (l/min)	20 - 40	40 - 60	40 - 80	40 - 80
Hydraulic pressure (bar)	180 - 210	180 - 210	180 - 210	180 - 210
Machine weight (t)	6 - 14	12 - 18	16 - 24	22 - 32

OTPA-31-2

Tilt Rotator



Manufacturer Indexator **Models** RT 30 / RT 40 / RT 60 / RT 80

Description:

Indexator’s range of tilt rotators are equipped with either a single or double-acting tilt cylinders for optimized tilting force and even operation. The tilt rotator is equipped with a standard control system that permits the simultaneous control of the rotation, tilt and hydraulic auxiliary function.

Proportional control makes the tilt rotator extremely useful in placing attachments in the optimal position for working or for quickly reversing its position, saving time and delivering improved productivity.

The make and model of the excavator to which a tilt rotator will be fitted must be established so that the correct size can be selected. Indexator’s tilt rotators can be matched with most existing excavators, with machine weights of 6 to 30 tonnes.

Typical attachments that can be used with tilt rotator are excavator buckets, flails/brush cutters, pole grabs, grapples, pilling hammers, rail / tree croppers, ballast excavators and drilling rigs etc.

Scope of Use Rotating and tilting OTP attachments

Competencies Machine Controller, Crane Controller & OTPA-xx

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01, MP07and MP21

OTPA-31-2

Tilt Rotator

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

1. Where the tilt rotator or anything attached to it is intended to be used for lifting any load, they must be approved for lifting by the manufacturer. The coupler shall be clearly marked with its safe working load.
2. Where an adaptor plate is used to enable a lifting accessory to be attached to a tilt rotator the adaptor plate will become part of the lifting accessory and included in the six monthly thorough examination.
3. A tilt rotator that is used for lifting shall have a valid LOLER certificate.
4. The tilt rotator shall be subject to all applicable limitations on the Engineering Acceptance certificate of the Road Rail Vehicle (RRV) to which it is attached.
5. The quick hitch shall only be used with an RRV whose RCI indicator is active, and the lifting duty is in excess of the beam / load in the most adverse condition.

Minimum documentation requirement for the host machine are:

Operating Instructions, LOLER certificate (if appropriate) and Logbook

Additional documents may include:

Test Records, Statutory Inspection/Test Records and Load Radius Charts (duty charts).

Technical Specification

	Model Type	RT 30	RT 40	RT 60	RT 80
Width (mm)		635	695	790	940
Length (mm)		595	675	795	920
Height (mm)		420	465	500	620
Weight: (kg)		225*	315*	460*	730*
Tilt Range		+/-40°	+/-40°	+/-40°	+/-40°
Rotation		unlimited	unlimited	unlimited	unlimited
Rotation - 1 turn @ 50 l/min		7 seconds	7 seconds	7 seconds	7 seconds
Max / Min flow (l/min)		30 - 60	40 - 80	40 - 80	50 - 80
Hydraulic pressure (bar)		200 - 250	200 - 250	200 - 300	200 - 300
Machine weight (tonnes)		6 - 11	10 - 15	15 - 24	23 - 30

* The weight will depend on the type of adapter, quick coupler and control system.

OTPA-31-3

Tilt Rotator



Manufacturer Kinshofer **Models** TR06 / TR10 / TR18 & TR25-NOX

Description:

Kinshofer range of tilt rotators allow Continuous 360° rotation and a tilting angle of 2 x 45° to 2 x 55° make it a universal joint. Combined with Quick Change System and various attachments this means highest efficiency at any construction site. The NOX Tilt-rotator range is optimally engineered to suit excavators with an operating weight from 3 t to 25 t.

Proportional control makes the tilt rotator extremely useful in placing attachments in the optimal position for working or for quickly reversing its position, saving time and delivering improved productivity.

The make and model of the excavator to which a tilt rotator will be fitted must be established so that the correct size can be selected. Indexator's tilt rotators can be matched with most existing excavators, with machine weights of 6 to 30 tonnes.

Typical attachments that can be used with tilt rotator are excavator buckets, flails/brush cutters, pole grabs, grapples, pilling hammers, rail / tree croppers, ballast excavators and drilling rigs etc.

Scope of Use Rotating and tilting OTP attachments

Competencies Machine Controller, Crane Controller & OTPA-xx

Product Approval No.: -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01, MP07and MP21

OTPA-31-3

Tilt Rotator

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

1. Where the tilt rotator or anything attached to it is intended to be used for lifting any load, they must be approved for lifting by the manufacturer. The coupler shall be clearly marked with its safe working load.
2. Where an adaptor plate is used to enable a lifting accessory to be attached to a tilt rotator the adaptor plate will become part of the lifting accessory and included in the six monthly thorough examinations.
3. A tilt rotator that is used for lifting shall have a valid LOLER certificate.
4. The tilt rotator shall be subject to all applicable limitations on the Engineering Acceptance certificate of the Road Rail Vehicle (RRV) to which it is attached.
5. The quick hitch shall only be used with an RRV whose RCI indicator is active, and the lifting duty is in excess of the beam / load in the most adverse condition.

Minimum documentation requirement for the host machine are:

Operating Instructions, LOLER certificate (if appropriate) and Logbook

Additional documents may include:

Test Records, Statutory Inspection/Test Records and Load Radius Charts (duty charts).

Technical Specification

Model Type	TR06NOX	TR10NOX	TR18NOX	TR25NOX
Excavator Weight (t)	3 - 6	5 -10	9 - 18	15 -25
Weight (mm)	120	220	460	620
Width (mm)	360	412	450	534
Length (mm)	500	610	740	783
Height (mm)	370	445	530	597
Tilt Angle	2 x 50°	2 x 55°	2 x 50°	2 x 45°
Tilting Torque (kN)	8.4	14	27	40
Rotating Torque (Nm)	7500	7500	8400	10400
Rotation Speed (rpm)	9.0	7.5	7.0	5.7
Flowrate (l/min)	40	40	120	120

OTPA-31-4

Tilt Rotator

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

1. Where the tilt rotator or anything attached to it is intended to be used for lifting any load, they must be approved for lifting by the manufacturer. The coupler shall be clearly marked with its safe working load.
2. Where an adaptor plate is used to enable a lifting accessory to be attached to a tilt rotator the adaptor plate will become part of the lifting accessory and included in the six monthly thorough examination.
3. A tilt rotator that is used for lifting shall have a valid LOLER certificate.
4. The tilt rotator shall be subject to all applicable limitations on the Engineering Acceptance certificate of the Road Rail Vehicle (RRV) to which it is attached.
5. The quick hitch shall only be used with an RRV whose RCI indicator is active, and the lifting duty is in excess of the beam / load in the most adverse condition.

Minimum documentation requirement for the host machine are:

Operating Instructions, LOLER certificate (if appropriate) and Logbook

Additional documents may include:

Test Records, Statutory Inspection/Test Records and Load Radius Charts (duty charts).

Technical Specification

Model Type	LH-TR 20	LH-TR 25
Weight (kg)	470	720
Width (mm)	870	880
Length (mm)	440	630
Height (mm)	600	680
Tilt Angle	+/- 50°	+/- 50°

OTPA-31-5

Tilt Rotator



Manufacturer OilQuick **Models** OQTR 30, 40, 60B and 80

Description:

Based on Indexator's proven Rototilt technology the OilQuick range of tilt rotators allow continuous 360° rotation and a tilting angle of 2 x 50° to 2 x 55° make it a universal joint. Combined with Quick Change System and various attachments this means highest efficiency at any construction site. The tiltrotators are optimally engineered to suit excavators with an operating weight from 6 t to 30 t.

Proportional control makes the tilt rotator extremely useful in placing attachments in the optimal position for working or for quickly reversing its position, saving time and delivering improved productivity.

Typical attachments that can be used with tilt rotator are excavator buckets, flails/brush cutters, pole grabs, grapples, pilling hammers, rail / tree croppers, ballast excavators and drilling rigs etc.

Scope of Use Rotating and tilting OTP attachments

Competencies Machine Controller, Crane Controller & OTPA-xx

Product Approval No.: -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01, MP07and MP21

OTPA-31-5

Tilt Rotator

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

Where the tilt rotator or anything attached to it is intended to be used for lifting any load, they must be approved for lifting by the manufacturer. The coupler shall be clearly marked with its safe working load.

Where an adaptor plate is used to enable a lifting accessory to be attached to a tilt rotator the adaptor plate will become part of the lifting accessory and included in the six monthly thorough examination.

A tilt rotator that is used for lifting shall have a valid LOLER certificate.

The tilt rotator shall be subject to all applicable limitations on the Engineering Acceptance certificate of the Road Rail Vehicle (RRV) to which it is attached.

The quick hitch shall only be used with an RRV whose RCI indicator is active, and the lifting duty is in excess of the beam / load in the most adverse condition.

Minimum documentation requirement for the host machine are:

Operating Instructions, LOLER certificate (if appropriate) and Logbook

Additional documents may include:

Test Records, Statutory Inspection/Test Records and Load Radius Charts (duty charts).

Technical Specification

	Model	OQTR 30	OQTR 40	OQTR 60B	OQTR 80
Width - Single cylinders		660 mm	705 mm	790 mm	-
Width - Double cylinder		635 mm	695 mm	810 mm	940 mm
Weight (kg) depends on type		from 265	from 325	from 480 kg	from 750
Tilt angle		2x40°	2x40°	2x40°	2x40°
Max. bucket digging force		70 kN	105 kN	170 kN	200 kN
Rotation speed (50 l/min)		1 turn/7 sec	1 turn/7 sec	1 turn/7 sec	1 turn/7 sec
Maximum pressure		25 MPa	25 MPa	25 MPa	25 MPa
Max. return pressure (50 l/min)		2 MPa	2 MPa	2 MPa	2 MPa
Min/Max connected flow		30/60 l/min	40/80 l/min	40/80 l/min	50/80 l/min
Rotation		Unlimited	Unlimited	Unlimited	Unlimited
Weight of machine		5-11 ton	10-15 ton	12-18 ton	23-30 ton

OTPA-31-6

Tilt Rotator



Manufacturer Steelwrist **Models** X12 / X18 / X26

Description:

The Steelwrist tiltrotators are designed for excavators with an operating weight between 6 and 26 tonnes. They have a bi-directional tilt angle of 45°, coupled with high torque rotation and are available with hydraulic quick couplers.

Typical attachments for use with the tilt rotator are excavator buckets, flails/brush cutters, pole grabs, grapples, pilling hammers, rail / tree croppers, ballast excavators and drilling rigs etc.

The control systems are all fully integrated and enable control of all functions directly from the driver's cab.

Proportional control makes the tilt rotator extremely useful in placing attachments in the optimal position for working or for quickly reversing its position, saving time and delivering improved productivity.

Scope of Use Rotating and tilting OTP attachments

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01, MP07and MP21

OTPA-31-6

Tilt Rotator

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use:

Where the tilt rotator or anything attached to it is intended to be used for lifting any load, they must be approved for lifting by the manufacturer. The coupler shall be clearly marked with its safe working load.

Where an adaptor plate is used to enable a lifting accessory to be attached to a tilt rotator the adaptor plate will become part of the lifting accessory and included in the six monthly thorough examination.

A tilt rotator that is used for lifting shall have a valid LOLER certificate.

The tilt rotator shall be subject to all applicable limitations on the Engineering Acceptance certificate of the Road Rail Vehicle (RRV) to which it is attached.

The quick hitch shall only be used with an RRV whose RCI indicator is active, and the lifting duty is in excess of the beam / load in the most adverse condition.

Minimum documentation requirement for the host machine are:

Operating Instructions, LOLER certificate (if appropriate) and Logbook

Additional documents may include:

Test Records, Statutory Inspection/Test Records and Load Radius Charts (duty charts).

Technical Specification

	Model	X12	X18	X26
Height (mm)		425	449	512
Width (mm)		564	612	690
Weight (kg)		370	490	695
Tilt angle		+/- 45°	+/- 45°	+/- 45°
Tilt Force (kNm)		29	41	61
Rotation		360°	360°	360°
Rotation speed (rpm)		8	8	8
Rotational Torque (kNm)		6.5	7.8	10.6
Hydraulic Pressure (bar)		180 - 210	180 - 210	180 - 210
Hydraulic Flow (l/min)		25 - 50	40 - 60	40 - 80
Weight of machine (tonnes)		6 - 12	12 - 18	18 - 26

Trailers

32

#	Description	Issue	Date
OTPA-32-1	Trailer - Chieftain - 4m, 5m and 6m	1	2014
OTPA-32-2	Trailer - Philmor - T5000 range	1	2014
OTPA-32-3	Trailer - Rexquote - T4 / T5	1	2014
OTPA-32-4	Trailer Box - General	1	2014
OTPA-32-5	Trailer - Aquarius - RRT	1	2014
OTPA-32-6	Trailer - Aquarius – LTE	1	2014

OTPA-32-1

Trailer - Platform type



Manufacturer Chieftain **Models** 4m, 5m and 6m

Description:

The Chieftain platform rail trailer range enables the cost efficient transport of goods and equipment to worksites and rail stations. They are available in 4, 5 and 6 metre lengths. All trailers are designed and developed to meet all RIS 1530-PLT regulations.

Each platform trailer comes complete with multi-leaf suspension, Ø550mm P1/10 profile wheels, hydraulic brakes, failsafe braking system, full 12V LED lighting, lashing rings and tow hitch c/w tow pole as standard.

Ballast boxes are an optional extra for the platform trailer range.

Scope of Use Transport of goods and equipment

Competencies Machine Controller, Crane Controller & OTPA-xx

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 & MP07

OTPA-32-1

Trailer – Platform type

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

1. Trailer shall only operate inside possessions.
2. Trailer may On or Off track, travel or work under live OLE in compliance with Method Statement for the possession as determined and approved in accordance with the requirements of GE/RTS024.
3. The trailer shall not On or Off track and work on live conductor-rail lines.
4. Maximum track cant 200mm and/or gradient 1/25.
5. Trailer may not activate train operated points.
6. Maximum speed = 10mph, switches and crossings = 5mph.
7. Shall only be coupled to RRVs which are certificated for towing or propelling this type of trailer and the trailer shall be subject to limitations of the towing vehicle.
8. Trailer rated capacity of 24 tonne GLW shall not be exceeded (21 tonne payload).

Minimum documentation requirement for the host machine are:

Operating Instructions, Engineering Acceptance certificate and Logbook.

Additional documents may include:

Test Records, Statutory Inspection & Test Records, Load Radius Charts (duty charts).

Technical Specification

Model Type	4m	5m	5m skelly	6m
Length (m)	4	5	5	6
Gross Trailer Weight (kg)	20,000	20,000	20,000	20,000
Axle Capacity (kg)	10,000	10,000	10,000	10,000
Tare Weight (kg)	2,626	3,036	2,085	3,326
Payload (kg)	17,374	16,964	17,915	16,674
Ballast Box (kg)	1,212	1,339	-	1,543

OTPA-32-2

Trailer - Platform



Manufacturer	Philmor	Models	T5000 series
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Description

Philmor T5000 series Rail Trailers are “traditional style” non-powered, 2-axle rail vehicles designed to be towed / propelled by a compatible vehicle. Featuring a low, flat deck with fixings along their sides for securing a variety of loads.

The trailers are fully welded steel construction throughout with variable rate, heavy duty single coil sprung independent axles give good ride quality and resistance to derailment.

The platform rail trailer range enables the efficient transport of goods and equipment to worksites and 12 or 20 tonne versions are available on standard 5m long chassis.

Other load capacity variants and sizes (including 3.5 m -10 tonne capacity) are available.

The 4 axle 7040AAS (7m long) rail trailer has hydraulic loading ramps and retractable side extension boards for transporting wide loads of up to 40 tonnes subject to the towing vehicle limitations.

Variants with fully insulated and "gauge adjustable" axles are also available.

Two or four spring applied "failsafe" park brake units are available with air or hydraulic operation – dependent on trailer payload required. Also available with dual air/hydraulic brake capability – for enhanced operational flexibility and capability.

Scope of Use	Transport of goods and equipment
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Competencies	Machine Controller, Crane Controller & OTPA-10
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Engineering Acceptance No.	Various
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Risk Control Sheet No(s).	NR/L3/MTC/RCS0216/MP01 & MP07
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OTPA-32-2

Trailer – Platform

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use:

1. Trailer shall only operate inside possessions.
2. Trailer may “On or Off” track, travel or work under live OLE in compliance with Method Statement for the possession as determined and approved in accordance with the requirements of GE/RTS024.
3. The trailer shall not On or Off track and work on live conductor-rail lines.
4. Maximum track cant 200mm and/or gradient 1/25.
5. Trailer may not activate train operated points.
6. Maximum speed = 10mph, switches and crossings = 5mph.
7. Shall only be coupled to RRVs which are certificated for towing or propelling this type of trailer and the trailer shall be subject to limitations of the towing vehicle.
8. Trailer rated capacity GLW shall not be exceeded.

Minimum documentation requirement for the host machine are:

Operating Instructions, Engineering Acceptance certificate and Logbook.

Additional documents may include:

Test Records, Statutory Inspection & Test Records, Load Radius Charts (duty charts).

Technical Specification

	Model Type	T5000 series	7040AAS
Length (metres)		3.5m, 5m & 6m	7.4 m
Width (metres)		2.4	2.4 (3.1 c/w extensions)
Platform Height (mm) above rail		550	580
Number of Axles		2	4
Payload (tonnes)		Up to 20	40
Gross Trailer Weight (tonne)		Up to 22.9	45.5
Tare Weight (tonne)		2.9	5.5
Maximum Speed (mph)		10	10

OTPA-32-3

Trailer



Manufacturer	Rexquote	Models	T4 & T5
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Description

The Rexquote 2 axle rail trailer range includes a number of different sized flat bed trailers.

These are manufactured with different weight capacities, with or without sides and with the option of specially made ramps, adjustable support legs and other accessories.

Rexquote trailers enable transport of goods and equipment to a worksite without the costly use of a train.

Each trailer is fitted with failsafe, spring applied parking brakes as standard with the option of proportional service braking system controlled by the foot pedal in the cab of the machine or via a joystick in the cab in the case of machines without OEM footbrake.

Included in the range are cable carrying trailers, personnel transporters and the addition of twist locks now means they have the ability to carry ISO containers.

Scope of Use	Transport of goods and equipment
Competencies	Machine Controller and Crane Controller
Engineering Acceptance No.	Various
Risk Control Sheet No(s).	NR/L3/MTC/RCS0216/MP01 & MP07

OTPA-32-3

Trailer

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use:

1. Trailer shall only operate inside possessions.
2. Trailer may On or Off track, travel or work under live OLE in compliance with Method Statement for the possession as determined and approved in accordance with the requirements of GE/RTS024.
3. The trailer shall not On or Off track and work on live conductor-rail lines.
4. Maximum track cant 200mm and/or gradient 1/29.
5. Trailer may not activate train operated points.
6. Maximum speed = 10mph, switches and crossings = 5mph.
7. The trailer shall only be coupled an RRV which is certificated for towing or propelling this type of trailer and the trailer shall be subject to limitations of the towing vehicle.
8. Trailer rated capacity of 24 tonne GLW shall not be exceeded (21 tonne payload).

Minimum documentation requirement for the host machine are:

Operating Instructions, Engineering Acceptance certificate and Logbook.

Additional documents may include:

Test Records, Statutory Inspection & Test Records, Load Radius Charts (duty charts).

Technical Specification

	Model Type	T4	T5
Length (m)		4	3.5
Gross Trailer Weight (tonnes)		24	9
Axle Capacity (kg)		12000	4500
Tare Weight (kg)		2900	2250
Payload (tonnes)		21	8

OTPA-32-4

Trailer Box



Manufacturers Rexquote, Philmor, Chieftain

Description

Trailer boxes are purpose built attachments that are designed for the efficient transport of goods and equipment to worksites.

They are particularly suited for moving loose materials such as spoil, ballast, sand etc.

They are available in a range of sizes up to 5m in length

The trailer boxes are fully welded steel construction with integral lifting points to facilitate loading and unloading from the rail trailer.

Scope of Use Transportation of goods and loose materials

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

Suppliers L&W

OTPA-32-4

Trailer Box

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use:

The boxes must only be lifted and moved by authorised and competent personnel.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the Rail Trailer to which the box is attached shall apply.

It must not be used under live overhead line equipment or in live conductor rail areas.

Minimum documentation requirement for the host machine are:

LOLER Certification and Logbook

Additional documents may include:

Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Length	Up to 6m
Width	Up to 2400 mm
Height	Up to 800 mm
Weight	Up to 4900 kg
Safe Working Load	Up to 15000 kg
Maximum Speed	10 m.p.h.

OTPA-32-5

Trailer - Road Rail type



Description

This Road Rail trailer is purpose built design for the efficient transport of plant and equipment to worksites.

It may also be used for moving small quantities loose materials such as spoil, ballast, sand etc.

The trailer is fully air braked and road approved at full payload.

The trailers are fully welded construction with integral tail ramps to facilitate loading and unloading of plant.

The trailer is a cost effective and efficient solution for the delivery of small tracked machines from the depot to the track worksite.

Scope of Use	Transportation of plant, equipment and materials
Competencies:	Machine Controller & OTPA-10
Product Approval No.:	PA05/5168
Risk Control Sheet No(s).	NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07
Suppliers	Aquarius Railroad Technologies Ltd

OTPA-32-5

Trailer - Road Rail type

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use:

The trailer must only be operated inside possessions and moved by authorised and competent personnel.

Trailer shall not on or off track under live OLE or work on live conductor-rail lines.

Maximum track cant 200 mm and/or gradient of 1/29.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Staff shall be briefed on the safe operation of the trailer prior to its use.

The limitations of the road rail vehicle to which the trailer is attached shall apply.

Minimum documentation requirement for the host machine are:

E. A. Certification and Logbook

Additional documents may include:

Inspection Records, Test Certificates, Load Charts etc.

Technical Specification

Gross Vehicle Weight	3500 kg
Maximum Payload	2700 kg
Capacity (W x L)	1200 mm x 2400 mm
Maximum Speed	20 m.p.h.
@ switches and crossings	5 m.p.h.

OTPA-32-6

Trailer - LTE



Manufacturer Aquarius Railroad Technologies Ltd **Model** LTE

Description

The Load Tray Extension (LTE) trailer are purpose built attachments that are designed for the efficient transport of goods and equipment to worksites.

The trailer is a compact light weight design that has a single rail axle (no brakes) and is suitable for towing by a variety of road rail vehicles.

The trailer is a fully riveted aluminium construction with all around small side walls.

Scope of Use Transportation of goods and materials

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. PA05/05135

VAB Certificate No. IF/0668/12

Vehicle No. 99709-009051-2

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

Suppliers Aquarius Railroad Technologies Ltd

OTPA-32-6

Trailer - LTE

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use:

The trailer must only be lifted and moved by authorised and competent personnel.

The trailer shall be subject to the limitations of the towing RRV.

If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Maximum speed = 10 mph, points & crossings = 5 mph, raised check rails = 2 mph.

In travelling and working modes, maximum track cant 200mm and/or gradient 1:25.

The rated capacity of 550kg GVW (490kg payload), evenly distributed, shall NOT be exceeded

Staff shall be briefed on the safe operation of the LTE prior to its use.

The limitations of the rail vehicle to which the trailer is attached shall apply.

It shall NOT on/off track, travel or work on live conductor-rail lines.

Minimum documentation requirement for the host machine are:

E.A Certification, Maintenance Manual and Logbook

Additional documents may include:

Inspection Records, Test Certificates, Loading Charts etc.

Technical Specification

Length*	1700 mm
Width*	1500 mm
Height	260 mm
Trailer Tare Weight	60 kg
Safe Payload	490 kg
Maximum Speed	10 m.p.h.

* Note: The dimensions given above are approximate.

Tree Cutters

33

#	Description	Issue	Date
OTPA-33-1	Bracke C16 B - Tree Cutting Head	1	2014
OTPA-33-2	Habbig - HS650 / HS760 / HS 850 - Tree Cutter	1	2014
OTPA-33-3	Mulag - FSG2000 - Tree Clearing Saw	1	2014
OTPA-33-4	Waratah - TH250HD - Tree Cutter / Harvester Head	1	2014

OTPA-33-1

Tree Cutting Head



Manufacturer	Bracke Forest AB	Model	C 16 B
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Description

The tree cutting head is versatile, easily manoeuvred, high capacity cutting head which has an open saw box to allow for quick and easy maintenance.

This makes it a head suited to all types of mechanised logging, such as clearing along the trackside, roadsides and power lines. The cutting head can be installed on excavators and other machines equipped with a crane.

The head has efficient grapple arms that make it possible to easily gather and stack valuable assortments of timber. The head uses the same hydraulic cylinder for accumulation and grappling.

The unit has a patented cutting solution that results in extremely quick cuts. The cutting solution comprises a self-tensioning standard cutting chain fitted to a circular saw disc.

The make and model of the excavator to which the head will be fitted must be established to ensure full drive / machine compatibility.

Scope of Use	Cutting and gathering trees
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Competencies:	Machine Controller, Crane Controller & OTPA-27
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Product Approval No.:	-
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Risk Control Sheet No(s).	NR/L3/MTC/RCS0216/MP01 and MP07
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OTPA-33-1

Tree Cutting Head

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

1. The cutting head shall be subject to all applicable limitations on the Engineering Acceptance certificate of the Road Rail Vehicle (RRV) to which it is attached.
2. It must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.
3. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and the safe system of work.
4. Staff shall be briefed on the safe operation of the machine prior to its use.
5. The cutting head shall only be used with an RRV whose RCI indicator is active, and the lifting duty is in excess of the load in the most adverse condition.

Minimum documentation requirement for the host machine are:

Operating Instructions and Logbook

Additional documents may include:

Test Records, Statutory Inspection & Test Records, Load Radius Charts (duty charts).

Technical Specification	C 16 B
Weight (kg)	270
Saw Disc Diameter (mm)	795
Cutting Capacity (mm)	260
Cutting Chain	¾"
Hydraulic pressure (bar)	170
Flow requirement (l/min)	120
Electrical System (volts)	24
Length (mm)	1200
Width (mm)	1000
Height (mm)	1120
Machine weight (tonnes)	15 - 28

OTPA-33-2

Tree Cutting Head



Manufacturer Habbig **Models** HS650 / HS760 / HS 850

Description

The tree cutting head is versatile, easily manoeuvred, high capacity cutting head with an integral swivel device. The tree-cutter is an economic and efficient way of cutting and pollarding as only one man is needed to cut the trees and lay the branches in rows. There is no need to gather all the branches afterwards and/or pull these down out of the trees.

All Habbig tree-cutters allow the operator to cut and grab timber from within the cab of an excavator, to safely, quickly and neatly clear large volumes of branches and trunks. The timber can then be placed exactly where required, reducing the need for ground-staff.

The make and model of the excavator to which the head will be fitted must be established to ensure compatibility.

Scope of Use Cutting and gathering trees

Competencies: Machine Controller, Crane Controller & OTP-27

Product Approval No. -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 and MP07

OTPA-33-2

Tree Cutting Head

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use:

1. The cutting head shall be subject to all applicable limitations on the Engineering Acceptance certificate of the Road Rail Vehicle (RRV) to which it is attached.
2. It must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.
3. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and the safe system of work.
4. Staff shall be briefed on the safe operation of the machine prior to its use.
5. The cutting head shall only be used with an RRV whose RCI indicator is active, and the lifting duty is in excess of the load in the most adverse condition.

Minimum documentation requirement for the host machine are:

Operating Instructions and Logbook

Additional documents may include:

Test Records, Statutory Inspection & Test Records, Load Radius Charts (duty charts).

Technical Specification:	HS650	HS760	HS850
Weight (kg)	270	365	475
Cut Dia. Soft Wood (mm)	200	230	280
Cut dia. Hard Wood (mm)	160	180	210
Opening Width (mm)	550	670	660
Hydraulic pressure (bar)	200 - 220	250 - 270	270 - 300
Flow requirement (l/min)	60 - 100	60 - 100	80 - 100
Length (mm)	1350	1600	1700
Width (mm)	800	830	850
Height (mm)	1100	1100	1150
Machine size (tonnes)	3 - 7	5 - 12	8 - 15

OTPA-33-3

Tree Clearing Saw



Supplier Mulag **Model** FSG2000

Description

The Mulag clearing saw head has a reach of 8m (from running rail) and can clean cut overhanging branches / vegetation up to 150 mm dia.

The saw head is typically rear mounted on a Unimog Road Rail Vehicle and works in combination with a front mounted chipper. The saw head has tungsten saw blades to give a long operational life.

The RRV and attachments area are approved for single line working with adjacent line open to traffic. The permitted number of personnel in RRV cab is 3, to include the MC.

Scope of Use Cutting overhanging branches / vegetation

Competencies OTP Machine Operator with NPTC training Machine Controller, NON Crane Controller, OTP-27

Plant Acceptance Cert. No. 99709 979091-4, 99709 979092-2 & 99709 979094-8

E.A. Cert. No. (example) IF/0285/12

Suppliers Avondale Environmental Services

OTPA-33-3

Tree Clearing Saw

Control Measures Required:

Pre site survey identifying off track hazards, overheads, scrape etc

Limitations of Use:

Can ONLY operate inside a possession

It shall NOT on/off track travel or work on live conductor rail lines

It will not activate train operated points

Minimum documentation requirement for the host machine are:

Can only be used with specially adapted Avondale Road Rail Vehicle (Unimog)

Operating Instruction Manual, Engineering Acceptance Certificate (including Limitations of Use) and Logbook

Additional documents may include:

Product Performance Test Records, Statutory Inspection Records, Calibration & Brake Test Certificates etc.

Technical Specification: (Base Vehicle with attachment in Road / Rail transport mode)

Weight	235 kg
Width	2000 mm
Length	700 mm
Height	500 mm
Hydraulic Pressure	340 bar (max.)
Hydraulic Flow Rate	62 l/min

Host Machine - (Unimog MHU800)

Maximum Working Speed	4 mph
Maximum Rail Cant	150 mm (6")
Maximum Rail Gradient	1 in 25
Maximum Reach	8 m

OTPA-33-4

Tree Cutting / Harvesting Head



Manufacturer	Waratah	Models	TH250 / H270 / H290
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Description

The H200 series tree cutting/harvesting heads are a felling head, grapple, and saw, all in one unit that can process trees up to 760 mm diameter. They are designed to be a versatile, easily manoeuvred, high capacity cutting heads for cutting and harvesting timber. The saw units provide fast cutting cycles have automatic chain lubrication and tensioning to improve cutting performance and reduce maintenance.

They are suited to all types of mechanised logging, such as clearing along the trackside, roadsides and power lines. The cutting head can be installed on excavators and other machines equipped with a crane.

The make and model of the excavator to which the head will be fitted must be established to ensure full drive / machine compatibility.

Scope of Use	Cutting and gathering trees
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Competencies	Machine Controller, Crane Controller & OTPA-27
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Product Approval No.

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01 and MP07

OTPA-33-4

Tree Cutting Head

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations in Use

1. The cutting head shall be subject to all applicable limitations on the Engineering Acceptance certificate of the Road Rail Vehicle (RRV) to which it is attached.
2. It must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.
3. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and the safe system of work.
4. Staff shall be briefed on the safe operation of the machine prior to its use.
5. The cutting head shall only be used with an RRV whose RCI indicator is active, and the lifting duty is in excess of the load in the most adverse condition.

Minimum documentation requirement for the host machine are

Operating Instructions and Logbook

Additional documents may include

Test Records, Statutory Inspection & Test Records, and Load Radius Charts (duty charts).

Technical Specifications	TH250	H270	H290
Weight (kg)	950	1350	1870
Maximum Cutting Capacity (mm)	570	650	750
Maximum Gripping Width (mm)	1410	1660	1970
Hydraulic pressure (bar)	280	280	280
Flow requirement (l/min)	180 - 340	260 - 380	320 - 380
Width (mm)	1110	1075	1187
Height (mm)	1500	1585	1970
Delimiting knives diameter (4 moving & 2 fixed)	400	460	510
Maximum feed speed (m/s)	4.5 – 6.0	4.5 – 6.0	4.5 – 6.0

IR 22 Rotator

Maximum Load Capacity (kN)	450	450	450
Torque @ 200 bar (Nm)	3300	3300	3300

Note: All harvester heads have 2WD with hydraulically driven rubber feed rollers

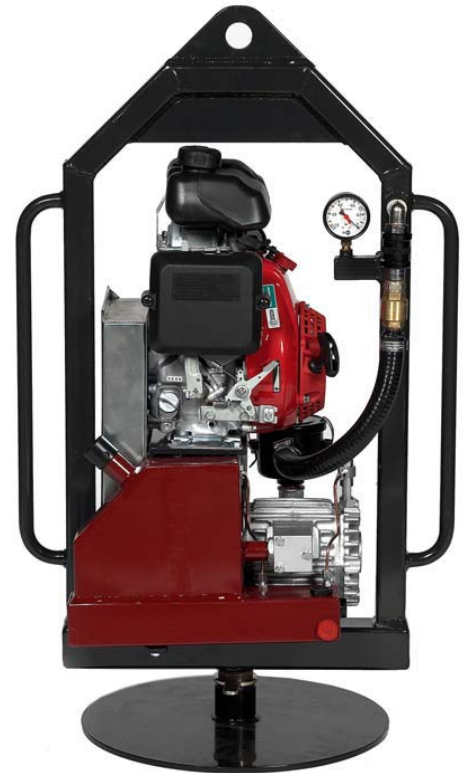
Vacuum Lifters

34

#	Description	Issue	Date
OTPA-34-1	AI-Vac 1600 / 3500 Lux & Handy	1	2014
OTPA-34-2	Vacuum Lifter - GGR UNIC NR1000	1	2014

OTPA-34-1

Vacuum Lifter



Model AI-Vac 1600 & 3500 Lux

AI-Vac Handy

Description

The AI-Vac range of vacuum lifters are designed for lifting porous and polished concrete products such as cable troughing, concrete slabs and sleepers etc. The vacuum lifter pads are flexible enough to work with irregular or textured surfaces and for other porous materials. A range of easily changed suction pads is available for lifting different types of products and materials.

The "1600 or 3500 Lux" vacuum lifters are petrol or diesel engine driven. They may be mounted on rail trailers, road rail lorries and other suitable construction machines. They can be operated safely by one man via a steering arm, which is attached to the suction cup.

The "AI-vac-Handy" is a compact petrol driven unit that can be hung via a lifting shackle to the boom of an excavator crane or a knuckle boom crane.

Scope of Use Lifting of concrete products, level crossing slabs & cable ducts

Competencies Machine Controller, Crane Controller & OTPA-23

Product Approval No. -

Risk Control Sheet Nos. NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

OTPA-34-1

Vacuum Lifter

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

The attachment must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

Equipment can be used under live OLE when used on a machine fitted with a suitable approved height limitation system and the safe system of work is in place to cover this.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, LOLER Certification (including Limitations of Use) and Logbook

Additional documents may include:

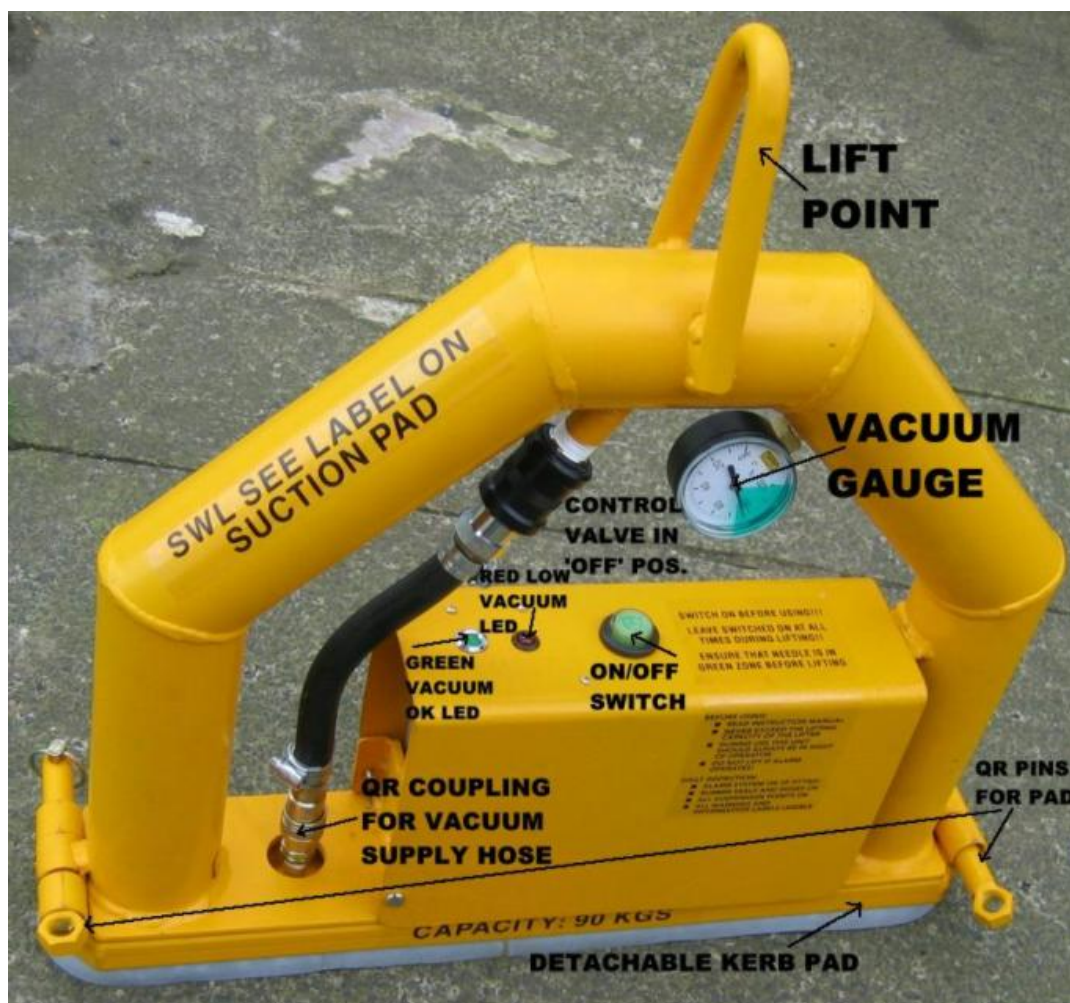
Performance Test Records, Statutory Inspection Records, Test Certificates, Load Radius Charts (duty charts) and Product Acceptance Certificate etc.

Technical Specification

	Model	1600 / 3500 Lux	Handy
Lifting capacity (kg)		160 / 350	1000
Temperature range (°C)		0° to 40° max	0° to 40° max
Height (mm)		2300	1000
Width (mm)		420	580
Length (mm)		1580	330
Weight (kg)		350 / 390	67
Suction pad diameter std		440	440
Suction pad eff. area (cm ²)		1017	1017
Range of Reach (mm)		6000	Host machine dependant
Lifting Height (mm)		1140	Host machine dependant

OTPA-34-2

Vacuum Lifter



Manufacturer GGR UNIC **Model** NR V1000

Description

The attachment is designed for horizontal lifting of both porous or polished stone and concrete products such as sleepers. The slab lifter has a constant running vacuum system and closed cell foam ring pad that is flexible enough to work with irregular or textured stone surfaces or for other porous materials such as rubber, plastic, drywall, plasterboard and SIPs.

This below-the-hook vacuum lifter comes with a range of pads suitable for lifting products from 90 kg to 1000 kg depending on the shape and size of the load.

A range of higher capacity stone vacuum lifters is available for loads up to 1600 kg.

Scope of Use Lifting sleepers and level crossing slabs

Competencies Machine Controller, Crane Controller & OTPA-23

Product Approval No. PA05/04734

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

OTPA-34-2

Vacuum Lifter

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

The attachment must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

Equipment can be used under live OLE when used on a machine fitted with a suitable approved height limitation system and the safe system of work is in place to cover this.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Product Acceptance and LOLER Certification (including Limitations of Use) and Logbook

Additional documents may include:

Performance Test Records, Statutory Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Width	70
Height	590
Length	620

Suction Pad

	VK60/25	VK70/12
Pad Dimensions	600 X 250 mm	700 X 120 mm
Lifting Capacity (kg @ 60%)	300	90
Operating temperature	-20° to 60° C	
Max. Hoist Acceleration - Lifting or Lowering	1 ms ²	
Maximum Lift inclination from horizontal	30°	

Vacuum Excavators

35

#	Description	Issue	Date
OTPA-35-1	Tube Cube TC1 - BSB	1	2014
OTPA-35-2	Trailer Excavator Unit - G Brown	1	2014
OTPA-35-3	Multi-Vac - GOS / Philmor	1	2014

OTPA-35-1

Vacuum Excavator Unit



Contents Discharge

Manufacturer BSB-Saubagger und Zweiwegetechnik **Model** Tubecube - TC1

Description

The tubecube attachment is a solid material suction excavator, hydraulically driven from the host RRV excavators' hydraulic supply.

The tube cube has 3 chambers, a separator container, a fine screening chamber and the fan chamber. The fan produces the suction air flow that lifts material through a flexible tube.

In the 1st chamber (separator), heavier material is deposited while finer material passes through a sieve and into the second chamber (fine screening). Air continues through the fan and out into the environment. When full, the contents are emptied through the two hydraulically operated discharge doors at the bottom of the containers.

Typically, it is used for track construction of foundation trenches, silt clearance of pits, exchange of sleeper ballast, cleaning of contaminated ground, cleaning oil slicks in watercourses and cleaning of ditches.

Scope of Use Track excavation, construction and cleaning work

Competencies Machine Controller, Crane Controller & OTPA-10

Product Approval No. PA05/02638

Suppliers / Operators Tasty Plant, L & W Plant & W Bradshaw Plant

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

OTPA-35-1

Vacuum Excavator Unit

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use:

1. The Vacuum Unit must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
3. Staff shall be briefed on the safe operation of the machine prior to its use.
4. The limitations of the RRV to which the machine is attached shall apply.
5. It must not be used in live conductor rail areas.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Product Acceptance Certificate (including Limitations of Use) and Logbook.

Additional documents may include:

Statutory Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Dimensions (L x W x H)	2700 x 2000 x 2500 mm
Weight	1400 kg
Suction Capacity of Radial Ventilator	17000 m ³ /h
Suction Head of Radial Ventilator	800 - 900 mmWS
Volume of Storage Tank	1m ³
Suction Depth	1500 mm
Suction Tube Diameter	250 mm
Hydraulic Pump Flow Rate (minimum)	100 l/min
Operating Pressure (minimum)	280 bar

OTPA-35-2

Vacuum - Jetter Trailer Unit



Manufacturer / Supplier GBL & Sons Ltd **Model** Unimog U400 Vactor Unit

Description

The RRV trailer mounted Vactor/Jetter Combination unit is a versatile piece of equipment which is ideal for clean up work and picking up debris. The Vactor unit is designed to be used in remote locations. Its size and power enables jobs to be completed quicker than using conventional techniques.

Typically, it is used for drainage works, sucking up ballast, silt clearance, cleaning of contaminated ground, cleaning oil slicks in watercourses and cleaning of ditches.

Scope of Use Drainage and Ballast Removal

Competencies Machine Controller, OTPO-08.02 & OTPO-24

E. A.C. No. IF/0547/11

Vehicle No. 99709970986-4

Suppliers GBL & Sons Ltd

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

OTPA-35-2

Vacuum - Jetter Trailer Unit

Control Measures Required:

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use:

1. The Vacuum Unit must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
3. Staff shall be briefed on the safe operation of the machine prior to its use.
4. The limitations of the RRV to which the machine is attached shall apply.
5. It must not be used in live conductor rail areas.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Engineering Acceptance Certificate (including Limitations of Use) and Logbook.

Additional documents may include:

Statutory Inspection Records, Test Certificates etc.

Technical Specification

Dimensions (L x W x H)	14.5 m x 2.5 m x 3.7 m
Weight	Unimog Un-laden 8.9t Vactor Unit Un-laden 15.4t
Suction Capacity	5000 cmi
Suction Head	Inter-changeable
Volume of Storage Tank	10 tonnes
Suction Depth	Dependant on material being lifted
Suction Tube Diameter	8" with adaptors down to 4"
Jetter Pump Flow Rate (min.)	70 gallon per min.
Operating Pressure (min.)	2000psi

OTPA-35-3

Vacuum Excavator Trailer Mounted Unit



Manufacturer / Supplier GOS Engineering / Philmor **Model** Multi-Vac

Description

The Rail Trailer mounted vacuum excavator unit is a versatile piece of equipment that is ideal for clean up work and sucking up debris, ballast and water.

The excavator is designed to be used in remote locations. Its size and power enables jobs to be completed quicker than using conventional techniques. It is easily mounted onto a standard 5 metre trailer and will take around 20 minutes to fill up.

Typically, it is used for track construction of foundation trenches, silt clearance of pits, exchange of sleeper ballast, cleaning of contaminated ground, cleaning oil slicks in watercourses and cleaning of ditches.

Scope of Use Track excavation, construction and cleaning work

Competencies Machine Controller, Crane Controller & OTPO-24

Product Approval No. -

Suppliers GOS Tool & Engineering

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

OTPA-35-3 Vacuum Excavator Trailer Mounted Unit

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. The Vacuum Unit must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions.
2. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.
3. Staff shall be briefed on the safe operation of the machine prior to its use.
4. The limitations of the RRV to which the machine is attached shall apply.
5. It must not be used in live conductor rail areas.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Product Acceptance Certificate (including Limitations of Use) and Logbook.

Additional documents may include:

Statutory Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification

Length	3 m
Width	2.5 m
Height	2 m

Note : All dimensions above are approximate

Volume of Storage Tank	2 cubic metres
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Wood Chippers

36

#	Description	Issue	Date
OTPA-36-1	Farmi - 260	1	2014
OTPA-36-2	Jenson - A141ZX PTO	1	2014

OTPA-36-1

Wood Chipper

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for All operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and the safe system of work.
2. It shall NOT be used under live OLE or on live 3rd rail lines.
3. Maximum operating cant (host RRV) is 150 mm and maximum gradient is 1:30
4. Staff shall be briefed on the safe operation of the machine prior to its use.
5. The limitations of the RRV to which the machine is attached shall apply.
6. The chipper must not be disconnected from RRV whilst on track.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions

Additional documents may include:

Product Acceptance Certificate (including Limitations of Use), Performance Test Records, Inspection Records, Calibration & Test Certificates, etc.

Technical Specification

	260 HFEM	260 HF231	260 F
Output (m ³ /h)	40 -10	30 -10	10 - 30
Max. timber / feed opening (mm)	260 x 320	250 x 260	250 x 260
Thickness of chip, (mm)	3 - 25	3 - 25	3 - 25
Recommended power (kW)	40 - 115	40 - 115	40 - 115
Diameter of rotor (mm) / No. Knives	1050 / 2	1050 / 2	1050 / 3
PTO revolution (rpm)	540 / 1000	540 / 1000	540 / 1000
Discharge chute standard (m) (optional)	(2.4) 3.0 (3.5)	(2.4) 3.0 (3.5)	(2.4) 3.0 (3.5)
Rotor weight (kg)	240	240	240
Chipper weight (kg)	890	830	690
Twig breakers	Standard	Standard	Standard

OTPA-36-2

Wood Chipper



Manufacturer: Jenson **Model** A141ZX PTO

Description:

This type of manual hand feed wood chipper is designed to be mounted and fixed directly onto either the front or back of a Road Rail Vehicle.

This powerful chipper shown above is mounted on the rear of a Road Rail Unimog and is driven directly via the vehicle's power take-off shaft. It capable of chipping up to 300 mm diameter timber. Perfect for all types of road, rail and site clearance work and it's equally effective with wet and green material.

This model has a strong in-feed hopper with top and side mounted stop bar and automatic load sensing regulator. The chippings are collected in a rear mounted chipper box which is mounted on the host vehicle.

Scope of Use Chipping of small trees and branches

Competencies: Machine Controller & OTPA-7

Product Approval No.: -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-04 and MP07

OTPA-36-2

Wood Chipper

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for All operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

1. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and the safe system of work.
2. It shall NOT be used under live OLE or on live 3rd rail lines.
3. Maximum operating cant is 150 mm and the maximum gradient is 1:30.
4. Staff shall be briefed on the safe operation of the machine prior to its use.
5. The limitations of the RRV to which the machine is attached shall apply.
6. The chipper must not be disconnected from RRV whilst on track.

Minimum documentation requirement for the host machine are:

- Maintenance and Operating Instructions
- Product Acceptance Certificate (including Limitations of Use)
- Logbook

Additional documents may include:

Performance Test Records, Inspection Records & Test Certificates, etc.

Technical Specification

Length x width x height	2150 x 1600 x 2900 mm
Power requirement	110 hp+
Feed roller aperture	300 x 410 mm (12" x 16")
In-feed hopper aperture	1200 x 850 mm
Approx weight (without crane)	1900 Kg
Output (approx.)	29 m ³ /hr
Chipping disc dimensions	1060 x 45 mm
Disc weight	385 Kg
No. of knives	2
Max. diameter of timber	300 mm

Miscellaneous Attachments

37

#	Description	Issue	Date
OTPA-37-1	Snow Blower - Geismar - CAB 1 & CAB2	1	2014
OTPA-37-2	Stump Grinder - Mulag - BSF 500	1	2014
OTPA-37-3	Tunnel Washing Brush - Mulag - FWB1600	1	2014
OTPA-37-4	Weed Spraying Unit - Avondale	1	2014

OTPA-37-1

Snow Blower



Manufacturer Geismar **Models** CAB 1 and CAB 2

Description

The Geismar snow blower attachment mounts directly onto the end of the Road Rail Vehicle (RRV) boom and has a centrifugal fan that is driven by a directly mounted hydraulic motor.

High velocity air from the fan passes through a converging nozzle to concentrate the air flow onto the track.

Hydraulic cylinders mounted on the frame allow vertical and side to side pivoting of the blower nozzle to direct the high velocity air to blow snow away from all areas of the track.

All operations are hydraulically powered using the host Road Rail Vehicles' hydraulic power supply which is operated by remote controls in the vehicle cab.

Scope of Use Clearing snow from the track

Competencies: Machine Controller, Crane Controller & OTPA-10

Product Approval No.: -

Risk Control Sheet No(s). NR/L3/MTC/RCS0216/MP01-03 MP06, and MP07

OTPA-37-1

Snow Blower

Control Measures Required

Equipment Operator(s) to have Safe Systems of Work in place for all operational circumstances on the Network Rail Managed Infrastructure.

Limitations of Use

The Snow Blower must only be used by authorised and competent personnel in accordance with mandatory rules, regulations and the equipment operating instructions. If adjacent lines are open to traffic, it shall only be used in accordance with the Method Statement for the possession and only if the safe system of work has taken account of gauge exceedance.

Staff shall be briefed on the safe operation of the machine prior to its use.

The limitations of the RRV to which the machine is attached shall apply.

It must not be used under live overhead line equipment or in live conductor rail areas.

Minimum documentation requirement for the host machine are:

Maintenance and Operating Instructions, Product Acceptance Certificate (including Limitations of Use) and Logbook

Additional documents may include:

Performance Test Records, Statutory Inspection Records, Test Certificates, Load Radius Charts (duty charts) etc.

Technical Specification



	CAB-1		CAB-2	
Nozzle Width	812 mm	32 in	990 mm	39 in
Air Flow	370 kph	230 mph	440 kph	275 mph
Hydraulic Pressure	138 bar	2000 psi	275 bar	4000 psi
Hydraulic Flow	227 l/min	50 gpm	245 l/min	55 gpm
Directional Control	+/- 30° ⇔	+/- 45° ⇕	+/- 30° ⇔	+/- 45° ⇕
Length	3300 mm	131 in	3300 mm	131 in
Width	1170 mm	46 in	1170 mm	46 in
Height	1500 mm	58 in	1500 mm	58 in
Weight	1099 kg	2400 lbs	1099 kg	2400 lbs

OTPA-37-2

Stump Grinder



Manufacturer	Mulag	Model	BSF 500
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Description

The Mulag BSF 500 Stump Grinder attachment shown has 6 tungsten carbide grinding teeth and is mounted on a Mulag MHU 800 power arm at the rear of a RRV Unimog.

The MHU 800 power arm has a 8m reach (from running rail) and is fitted with break away arm technology

The host Unimog RRV is approved for single line working with adjacent line open to traffic. The permitted number of personnel in cab = 3 (to include MC).

Scope of Use	Grind-out lineside stumps (typically on railway cuttings)
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Competencies	OTP Machine Operator with NPTC Certification Machine Controller, NON Crane Controller
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Plant Acceptance Cert. No.	99709 979091-4, 99709 979092-2 & 99709 979094-8
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E.A. Cert. No. (example)	IF/0285/12
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Supplier(s)	Avondale Environmental Services
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OTPA-37-2

Stump Grinder

Control Measures Required:

Pre-site survey identifying off track hazards, cables, scrape, cat scan etc.

Limitations of Use:

Can ONLY operate inside a possession

It shall NOT on/off track travel or work on live conductor rail lines

Permitted to on/off track under live OLE in accordance to Method Statement

It will not activate train operated points

Minimum documentation requirement for the host machine are:

Can only be used with specially adapted RRV Unimogs

Operating Instruction Manual, Engineering Acceptance Certificate (including Limitations of Use) and Logbook

Additional documents may include:

Product Performance Test Records, Statutory Inspection Records, Calibration & Brake Test Certificates etc.

Technical Specification

Diameter of grinding wheel	500 mm
Number of grinding chisels	6
Rotation speed	1400 – 1800 rpm
Rate of cut	40 mm maximum / min.
Hydraulic oil pressure	340 bar maximum
Hydraulic flow rate	62 - 90 l/min
Weight	130 kg
Power Arm Reach	8 m

OTPA-37-3

Tunnel Washing Brush



Manufacturer Mulag **Model** FWB1600

Description

The Mulag FWB 1600 tunnel washer & retaining wall washing unit incorporates a low pressure detergent mix spray bar with adjustable nozzles and a 2 m width agitating brush.

The attachment shown is mounted on a Mulag MHU 800 power arm at the rear of a RRV Unimog and is driven by a directly coupled hydraulic motor which is powered via the RRVs' hydraulic system.

The high pressure rinse spray bar incorporates adjustable nozzles

The host RRV is approved for single line working with adjacent line open to traffic

Permitted number of personnel in cab = 3 (to include MC).

Scope of Use Cleans tunnels, retaining walls and signs to height of 7m

Competencies OTP Machine Operator with NPTC PA1/6ST
Machine Controller NON Crane Controller

Plant Acceptance Cert. No. 99709 979091-4, 99709 979092-2 & 99709 979094-8

E.A. Cert. No. (example) IF/0285/12

Supplier Avondale Environmental Services

OTPA-37-3

Tunnel Washing Brush

Control Measures Required:

Pre-site survey to identify off track hazards, assets, water courses etc

Limitations of Use

Can ONLY operate inside a possession

It shall NOT on/off track travel or work on live conductor rail lines

Permitted to on/off track under live OLE in accordance to Method Statement

It will not activate train operated points

Minimum documentation requirement for the host machine are:

Complete independent unit

Operating Instruction Manual, Engineering Acceptance Certificate (including Limitations of Use) and Logbook.

Additional documents may include:

Product Performance Test Records, Statutory Inspection Records, Calibration & Brake Test Certificates etc.

Technical Specification: (Base Vehicle with attachment in Road / Rail transport mode)

Weight	190 kg
Washing Width	1600 mm
Brush Diameter	1000 mm
Hydraulic Pressure	340 Bar
Hydraulic Flow Rate	62 l/min
Brush Speed	320 rpm
Maximum Working Speed	Up to 10 mph pending surface
Power Arm Reach	8 m
Maximum Rail Cant (base vehicle)	150 mm (6")
Maximum Rail Gradient (base vehicle)	1 in 25

OTPA-37-4

Weed Spraying Unit

Control Measures Required:

Pre site survey identifying off track hazards, assets, water courses, site conservation i.e. SSSI, neighbouring properties etc

Limitations of Use:

Can ONLY operate inside a possession.

It shall NOT on/off track travel or work on live conductor rail lines.

Permitted to on/off track under live OLE in accordance to Method Statement.

Permitted number of personnel in cab = 3 to include the MC.

It will not activate train operated points.

Minimum documentation requirement for the host machine are:

Complete independent unit

Operating Instruction Manual, Engineering Acceptance Certificate (including Limitations of Use) and Logbook

Additional documents may include:

Product Performance Test Records, Statutory Inspection Records, Calibration & Brake Test Certificates etc.

Technical Specification: (Base Vehicle with attachment in Road / Rail transport mode)

Weight	10,600kg
Width	2.00m
Length	5.00m
Transport Height	3.00m
Maximum Working Speed	Up to 15 mph pending wind speed
Maximum Rail Cant	150 mm (6")
Maximum Rail Gradient	1 in 25
Minimum Radius	80 m
Hydraulic Pressure	200 Bar
Hydraulic Flow Rate	120 l/min