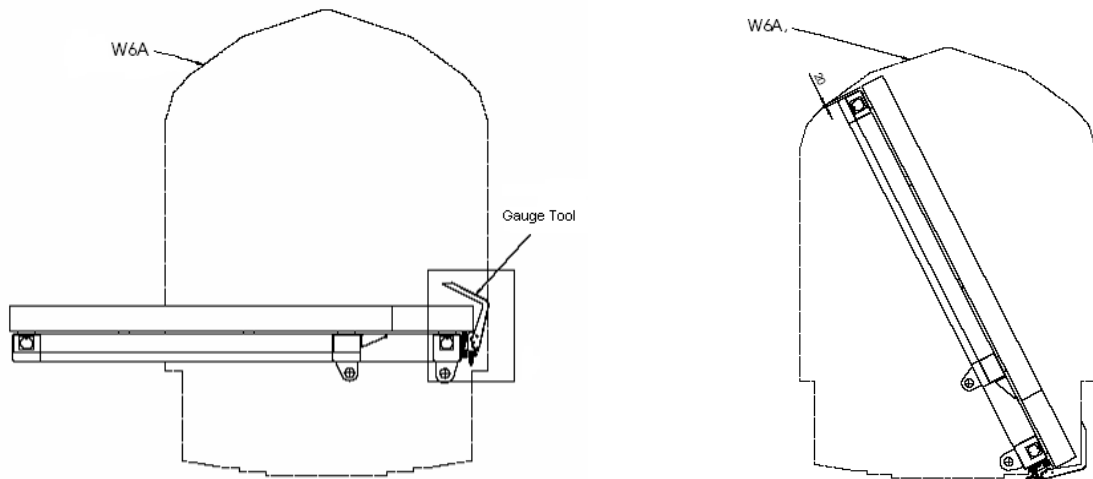


WAGON TYPE	COMMODITY
IFA Switch and Crossing Panel Vehicle (SCPV)	Modular Switch and Crossing Panels CEN60 and CEN56 rail only
Carrying Capacity: Gross Laden Weight 67.5 tonnes Carrying Capacity 26.5 tonnes (This will be panel weight only) Tare 41 tonnes (this includes the cross and connection beams, plus the extension frames if fitted) For Exact Loading Limits see Individual wagon on TOPS.	
Load Positioning : <div style="display: flex; justify-content: space-around;">   </div> <p>Approved modular switch panels shall be loaded on to the loading platform in the horizontal position. The straight edge of the panel shall always be positioned on the B side (high side) of the loading platform. The variable edge of the panel shall always be loaded on the A side (low side) of the loading platform. Once the modular panel is positioned correctly and locked in to position the loading platform shall be raised to the 63 degree transit position.</p> <p>The maximum loading width in the centre area is 3700 mm The maximum loading width in the bogie area is 3050 mm</p> <p>A permitted overhang of up to 45 mm is permitted on the B side (high side) If panels are fitted with Under Bearer Pads (UBP) then the overhang permitted reduces to 39 mm.</p> <p>All modular panels shall be contained within the loading platform length. On the Drawbar to Drawbar (D-D) wagon the rail ends may overhang the extension frame up to 300 mm The D-D wagon can be fitted with 1800 mm extension frames at each end of the loading platform to accommodate the long 'F' panel. (see page 5 for additional securing requirements)</p> <p>Use the gauge checking carriage on the A side (low side) of the loading platform so that the modular panel does not impede the loading gauge. The area between the loading platforms needs to be checked visually.</p> <p>To avoid conflict with the wagon bogie during tilting, the modular panel shall not exceed the profile ruler built in to the loading platform end sections.</p>	

Unsupported sleepers may be positioned between the loading platforms in the centre of the wagon. Any unsupported sleeper needs to be primarily attached to the rail by the rail fastenings.



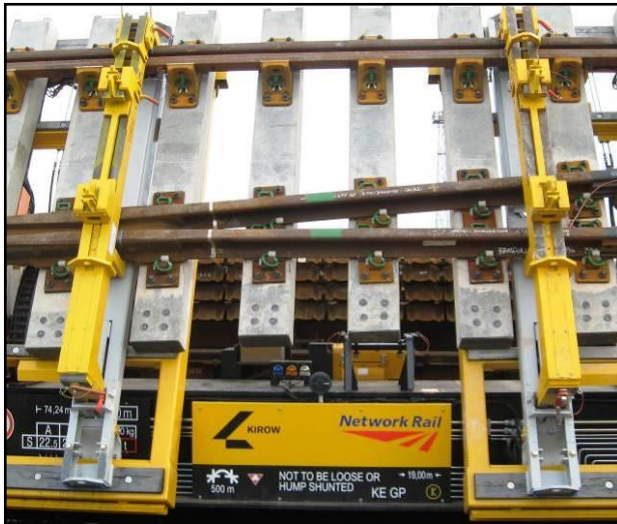
Panels made up using the smaller CEN56 type rail require an additional spacer to be inserted on the underside of each crossbeam. There are 2 types of spacer. One has 2 wing nuts and a length of chain and is used on the low side of the wagon. The other is secured by 2 bolts and is used on the high side.



Confirm spaces are in the correct position and wing nuts are hand tight. The secondary securing chain shall be placed around the crossbeam. The chain is not to be placed across the lifting beam housing as this would prevent the lifting beam from connecting correctly to the crossbeams and would damage the securing chain.

When the panel has been unloaded the low side spacer needs to be secured by 2 wing nuts and its chain to be safe to travel.

Modular switch panel split bearers can be fitted with connecting shrouds and securing bolts. One shroud per sleeper is normal practise but sometimes due to loading constraints it is acceptable to position two. The shroud shall be positioned tight against the rail housing on the down slope of the sleeper; the eight securing bolts shall be bagged with the bag positioned on the top of the shroud. Two bandings need to be used to securely hold in position. Crimped banding fasteners are not permitted.



Certain panels require the point motor bearers to be removed prior to loading. It is permitted to load such panels with a void of up to 2000 mm or 2 sleepers. Any associated cable can be secured with a minimum of 2 cable ties; one shall be positioned around the bearer with the other attached to the rail fastening.



Any other loose material or rail needs to be approved and documented in this procedure before being permitted to travel.

Stanchions : N/A

Bolsters : Loading platforms are fitted with longitudinal hardwood timber facia along the length of the frame. These need to be checked as being present and in good condition prior to loading.

Connecting beams (CoB) are fitted and secured to the loading platform as detailed in the loading plan diagram. If fitting more than 8 x CoB's the combined weights of the CoB's, CrB's and the panel need to be approved so as the wagon carrying capacity is not exceeded.

The CoB fixing bolts shall be tightened using the appropriate torque wrench to 195Nm
There are four types of connecting beams – CoB 1S (orange) CoB 1L (green) CoB 2 (blue) CoB 3 (purple)



Dunnage : Each CoB is paired with a corresponding Cross Beam (CrB)
There are three types of cross beam – CrB 1 (orange/green) CrB 2 (blue) CrB 3 (purple).
Whether loaded with or without a panel each CrB shall be locked in to the CoB with the hydraulically operated bar.



The CrB lifting support winding handles on the A side shall be stowed in the correct position with the handle located on the stowage lock and secured with 'R' clips. The lifting support fixed handles on the B side shall be in the down position and secured with 'R' clips.

Unsecured Loads :Not permitted

Securing Equipment: The integral wagon load fixing device system shall be engaged when loaded with both a modular panel and CrB's or when loaded with just CrB's. The hydraulic bar needs to engage through both fastenings to provide locking.

Where an 'F' type switch panel has more than 2 x bearers positioned on the D - D wagon extension frames, the panel ends shall be additionally secured with an endless type ratchet strap. This is to be positioned over the panel and under the extension frame.



Voids : N/A

Doors/ Sides: All cabinet doors and lockers shall be closed and locked.

Special Equipment: Wagon type DD can be fitted with loading platform extensions that bolt on to the extreme end of the loading platform.

These frames are secured by 8 bolts to 600 Nm torque.

When the extension frames are in use they shall be supported by additional support arms fitted at each end of the wagon. There are 4 bolts for each arm which are tightened to 430 Nm torque.



Competency level: LE SCPV.

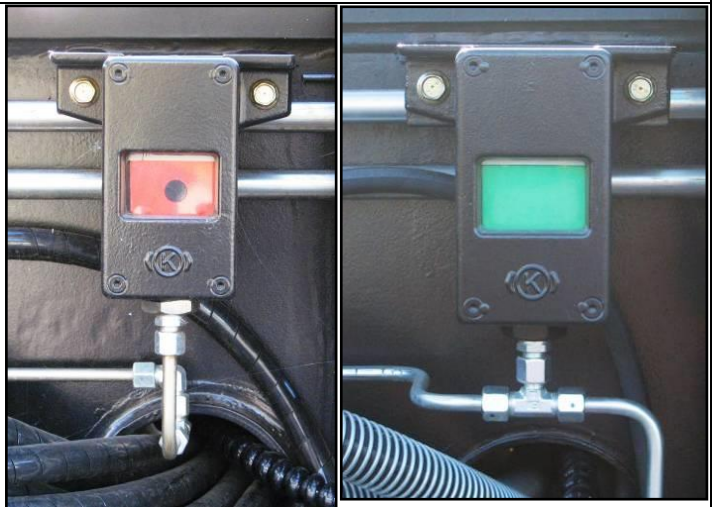
Safety :



The wagon is fitted with a haulage protection indicator.

If this shows **RED** the wagon is not fit for transit on the network.

If it shows **GREEN** then the wagon is fit to travel on the network.

Wear P.P.E at all times.



WAGON TYPE	COMMODITY
YRA Modular Lifting Beam Wagon Mk 1 & Mk 2	Lifting Beam (LiB)
Carrying Capacity: Tare 23.5 tonnes Carrying Capacity 17 tonnes For exact loading limits see individual wagon or TOPS	
Load Positioning: <u>Mark 1 Beam Carrier Wagon</u> The lifting beam sits in 4 purpose built cradles centrally along the wagons length. The beam shall sit centrally in all these cradles.	
	
At each end of the wagon are cradles for the beam extension pieces. These sit across the wagon.	
	
Check the extension pieces are loaded the correct way around and positioned correctly in there cradles. There are 2 stops inside the cradles these place the extension pieces in the correct position.	
The beams have a grey arm on either side that needs to be correctly closed before being loaded into the cradles.	
<u>Mk2 Beam Carrier Wagon</u> The Mk2 beam carrier wagon has been specifically modified so as the LiB can be loaded with the end extension pieces fitted. The lifting beam sits in 4 purpose built cradles centrally along the wagons length. The beam shall sit centrally in all these cradles. Due to the beam overhanging the wagon headstock by 500 mm the beam carrier	

wagon MUST be marshalled between a 3 x IFA wagon set and the single IFA wagon so as they can act as 'Runner' wagons to protect the overhanging load.



No additional securing is required.

Stanchions: N/A

Bolsters: N/A

Dunnage: N/A

Unsecured Loads: Lifting Beam only.

Securing Equipment:

Mark 1 Beam Carrier wagon

Each extension piece is secured by 2 hand ratchet straps.



Voids: N/A/

Doors/Sides: N/A

Special Equipment: None

Competency Level: LE SCPV

Safety:

Be aware of tripping hazards whilst working on wagon platforms

Wagon platform doors to be closed when not in use

Access gate safety chains to be in position when in transit or staff are working on wagon.

Edge protection to be raised for transit.

Generator to be turned off prior to transit movement.

Wear P.P.E. all times.