

WAGON TYPE	COMMODITY
RAIL DELIVERY TRAIN (RDT)	Long Welded Rail

Carrying Capacity:
The RDT comprises of self-contained roller bank and clamping units mounted on container wagons. The RDT can carry up to 32 CEN 56E1 or CEN 60E2 rails or up to 24 Conductor 75 kg rails.

Delivery Section

←

Carrier Section

→

Class 66

Chute

Unloader

Lead

Clamp 1

Clamp 2

Roller

Roller

Roller

Roller

Roller

Roller

Roller

Roller

Loco

Load Positioning:
CEN 56E1 and CEN 60E2 rail can be loaded in 4 tiers of up to 8 rails.
Conductor 75 kg rail can only be loaded in 4 tiers of up to 6 rails, the outer rail positions 1 and 8 shall remain empty.

Only rails of approved lengths can be loaded: 108 m /180 m /183 m /216 m. (when loading rail of 180 m or 183 m a special check shall be made to confirm that the rail end is supported by an additional roller bank positioned centrally on the 3rd wagon from the locomotive end as shown in the diagram above)

The lead wagon is fitted with safe marker areas to position the rail ends for various lengths of rails. This consists of a band painted blue across the wagon with an appropriate label identifying the corresponding rail length. Rails shall be loaded so that the rail ends are positioned over the safe rail end area on the lead wagon and subsequent wagons at the other end of the train.

Rail ends shall not overhang roller banks by more than 5.2 m.

Short rails may be carried in any position, however wherever possible they should be positioned above the longer rail. Mixed lengths should be avoided on any one tier in order to maintain the ‘pairing’. Mixed lengths shall not be carried on the top tier due to insufficient Rail Restraining Devices.

Rails shall not be loaded in high positions if lower positions are available. The load shall be kept as low as possible.

To maintain even weight distribution when unloading, rails shall be unloaded from the upper tiers first before commencing to unload lower tiers. The load should be distributed as evenly as possible, however it is permissible for only one roller bank on a wagon to be part or fully loaded.

Following instances of a failed rail delivery and providing the load is evenly distributed on each tier, it is permitted to unload rails from lower positions resulting in rails remaining in high positions.

CEN 56E1 and CEN 60E2 rails are normally delivered in pairs and in order to avoid



any possibility of the manipulators clashing, there is always a 'gap' of three rails between the pairings. Rail Pairings are as follows –
 Rails 1 and 5, Rails 2 and 6, Rails 3 and 7, Rails 4 and 8.

It may be necessary to adjust the rail slightly so that welds do not coincide with the rail clamps.

Once the rail has been positioned correctly it is then clamped into place. Each rail type has its own clamp type, which are identified by different colours.

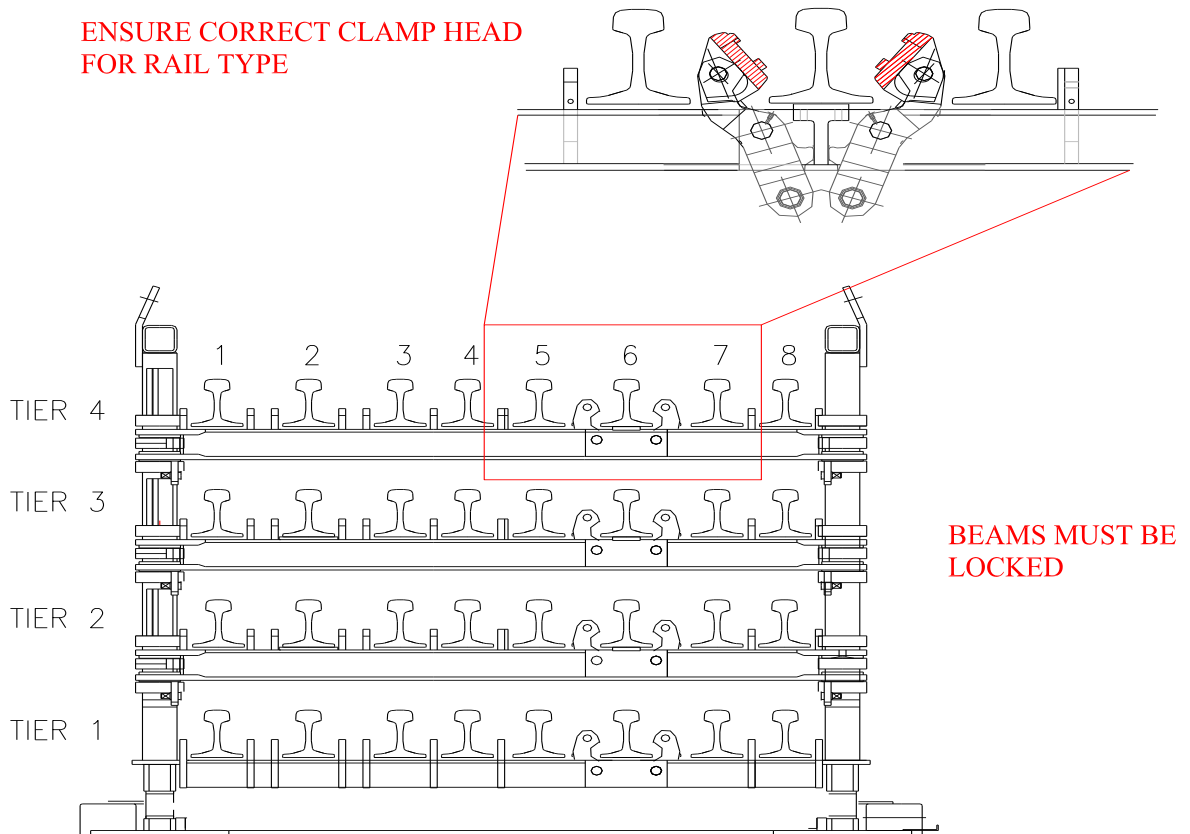
CEN 60E2 (Blue) CEN 56E1 (Red) 75 kg Conductor (White)

Unused clamps are stowed in the stowage compartment on the lead wagon.

The clamps are torqued to the following settings.

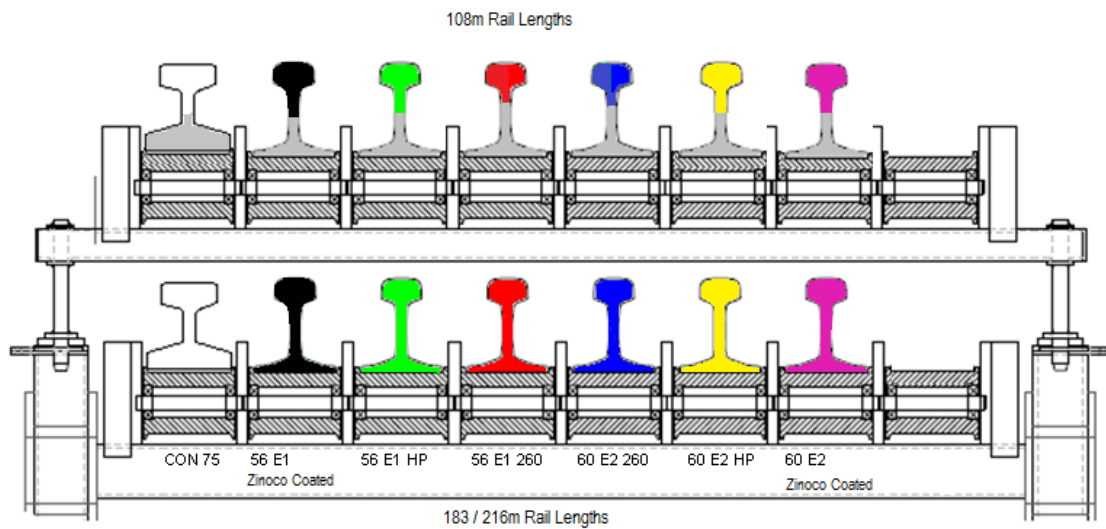
CEN 56E1 & CEN 60E2 - 800N-m (590 lbs-ft)

Conductor 75 kg – 700N-m (516 lbs-ft)



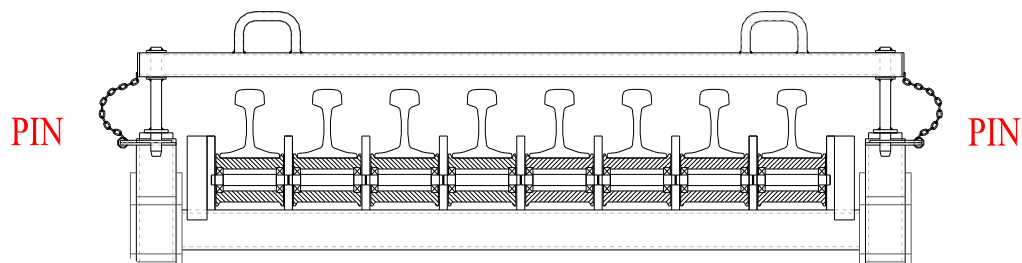
When rails have been secured, the rail should be marked with chalk either side of the clamps. This is so that any rail movement can be reported at the destination.

Rail ends on the lead wagon are also painted to identify different rail types and lengths to the manipulator operator as detailed below:



Once the top tier has been loaded it is necessary at opposite ends of the train to:

- Close the top rail restraint on the leading roller bank and secure.
- Close the two restraining bars and secure on the last two occupied roller banks at the loco end of the train.



Stanchions: All shall be present

Bolsters: N/A

Dunnage: All roller banks and clamp banks shall be closed and locked for transit.

Unsecured Loads: Not permitted

Securing Equipment: Each loaded rail is secured by a single clamp position. The rail clamps are located on four separate clamp banks.



Clamp bank 'A' and 'B' are located on Clamp Wagon 1 with Clamp Bank 'C' and 'D' on Clamp Wagon 2. Each clamp bank position secures two rails on each tier.

A check shall be made to confirm all clamp banks (A -D) are present and are correctly marshalled in the train.

Each loaded rail shall be clamped at the required torque setting.

Unused clamps can be left attached to the clamp banks or stowed in the stowage area on the lead wagon, check these covers are closed.

Voids: Not permitted

Doors/Sides: N/A

Special Equipment:

The rail carrying modules are located and secured to the wagon by four twistlocks; these shall be in the locked position for transit.

Confirm all loose equipment has been removed. All roller banks shall be closed and secured.

Confirm all beams are locked

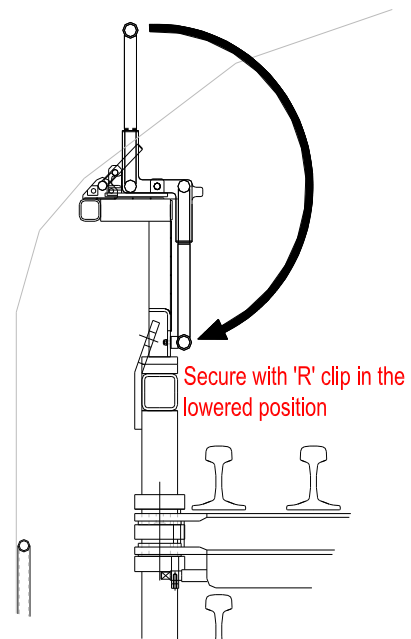
Confirm that the folding hand rails are locked in the lowered position

Access points in the clamp wagon shall be secured

Check you have received a correctly completed and signed Certificate of Readiness (COR) from the loading depot. (See page 5)

Note; COR are only available from Rail Loading Points

See the specific Load Examination labels on page 6 which should be used.



Competency: LE RDT

Safety: A rail clamping certificate shall be completed for all loaded trains. (see attached certificate)

Wear P.P.E at all times.

LOCATION _____

RDT SET NUMBER _____

RDT JOB NUMBER _____

RAIL CLAMPS TORQUE CHECK

This Form Certifies That The RDT Train has been Clamped In Accordance With Network Rail Loading Pattern 4.9.

Torque Setting Applied

N-m

Initial Box When Respective Clamp Torque has been Set to the indicated Value.

Should any discrepancies be noted whilst undertaking this work, such abnormalities shall be noted in the Comments Section below.

Tier	A2	A6	B1	B5	C4	C8	D3	D7
1								
2								
3								
4								

COMMENTS:

All Rail Handling Equipment Has Been Stowed Correctly and Locked

Clamp Module Handrails have been lowered and Stowed correctly. Access Ladders have been removed and stowed

All Rails Have Been Secured, Clamped and Torque Tightened to the specified setting.

(PRINT)

Name

Signature

(Use 24 hr clock format)

DATE

TIME

UNCONTROLLED WHEN PRINTED

1.

Network Rail		USE BLOCK LETTERS					
LOAD EXAMINED LWRT & RDT RAIL CARRIERS ONLY		THIS LOAD HAS BEEN EXAMINED & CERTIFIED AS BEING PROPERLY LOADED AND SECURED					
	Location of examination	No of Rails	Weight	Length of rails	Date	Signature	Print Name
Journey 1							
Journey 2							
Journey 3							
Journey 4							
Journey 5							
Journey 6							
Wagon Numbers First & Last				NO AUTHORITY OTHER THAN THE SIGNATURE OF THE EXAMINER OR OFFICER CERTIFYING THE LOAD AS PROPERLY LOADED AND SECURED IS NECESSARY FOR THE MOVEMENT OF THIS LOAD			
THIS LABEL IS VALID FOR 1 MONTH FROM FIRST JOURNEY. RE-EXAMINATION IS THEN REQUIRED.							

This label should be used on the LWRT and the RDT.

- The label is valid for up to 5 drops or one month.
- At the rail loading depot the examiner should start the above label. (Journey 1) and fill in the first and last wagon numbers.
- When rail has been dropped at in an engineer's possession the next line of the label should be completed. (journey 2)
- When more rail has been dropped the next line of the label shall be completed. (journey 3, 4 or 5)
- When the train has completed 5 drops the 6th journey shall be back to a rail loading depot.
- When the train has been reloaded a new label shall be used.