

Arising work: Observed Cracks to be repaired by grinding out and Welding, dressing back and NDT.

Any Distortion to be corrected by manipulation with the limited use of heat to prevent worsening of the distortion.

Holes with greater than 3mm wear in relation to Pin are to be repaired by either welding and re-drilling of bush lining ensuring industry standards related to minimum wall thickness and interference fit are utilised

f) Inspect the Fulcrum Pull Rod Adaptor for wear

Core work: Inspect the Fulcrum Pull Rod Adaptor (IPL 10-05-02 item 15):  
Visually check for wear, damage and distortion.  
Inspect Pin Holes for Wear.

Arising Work: Holes with greater than 3mm wear in relation to Pin are to be repaired by either welding and re-drilling of bush lining ensuring industry standards related to minimum wall thickness and interference fit are utilised

g) Inspect the Brake Blocks

Core work: Inspect the Brake Blocks (IPL 10-05-02 item 20):  
Visually inspect the brake blocks for wear and damage.  
Discard if damaged or worn outside of permissible wear limits.

h) Inspect the Brake Block Keys

Core work: Inspect the Brake Block keys (IPL 10-05-02 item 21):  
Visually inspect the brake block keys for wear and damage.  
Discard if damaged or worn outside of permissible wear limits.

## Bill of Materials

Description	Quantity (Per Wagon)	LU Cat No.	Drawing Number	Location	Supplier No.
Brake linkage pin	4	TBA	89604 Item 1	IPL 10-05-01 Item 5	TBA
Brake pivot pin	2	TBA	89604 Item 1	IPL 10-05-02 Item 3	TBA
Brake lever pin	2	415/6000	106466	IPL 10-05-01 Item 4	TBA
Brake fulcrum lever pin	4	TBA	SW/SW/7118	IPL 10-05-02 Item 6	TBA
Slack adjuster pin	4	TBA	TBA	IPL 10-04-01 Item 4	TBA
Brake beam guide liners	8	TBA	SW/SW/952	IPL 10-05-02 Item 2	TBA
Brake Blocks	8	58/9905	TBA	IPL 10-05-02 Item 20	TBA

## 3.4.4 Repair / Replace Bogie Frame Components: (After Inspection at 3.4.2)

### a) Side Frames:

Arising Work: Repair side-frame axle box pads:

Restore side-frame axlebox aperture dimensions. Where dimension is greater than 1/8" larger than nominal, correct by localised build-up of Weld and dressing back to ensure surface finish is maintained

Arising Work: Repair side-frame 'bolster gib' pads:

Restore 'bolster gib' pad dimensions if observed wear is greater than 3mm (differential of lowest to highest reading) correct by localised build-up of Weld and dressing back to ensure surface finish is maintained.

Arising Work: Repair friction wedge guides;

Restore friction wedge guide dimensions if observed wear using a straight edge is greater than 3mm (differential of lowest to highest reading) correct by localised build-up of Weld and dressing back to ensure surface finish is maintained.

Arising Work: If failed inspection restore brake beam guides If observed wear is greater than 3mm (differential of lowest to highest reading) correct by localised build-up of Weld and dressing back to ensure surface finish is maintained (two per side-frame).

Core Work: Paint side-frames:

Paint side-frames with agreed paint system.

### b) Bolster:

Arising Work: Repair Centre pivot casting:

Restore Centre pivot casting if damage greater than 3mm, to be rectified by weld build up and dressing back to match observed surface finish..

Arising Work: Repair bogie side bearers:

Restore side bearer height dimensions if observed wear is greater than 4mm (differential height of lowest to highest reading) correct by localised build-up of Weld and dressing back to ensure surface finish is maintained.

Arising Work: Repair Bolster Gibs:

Restore Bolster Gib dimensions if observed wear is greater than 3mm (differential of lowest to highest reading) correct by localised build-up of Weld and dressing back to ensure surface finish is maintained.

Arising Work: Repair Bolster cracks:

Repair any cracks / fractures. Observed Cracks to be repaired by grinding out and Welding, dressing back and NDT.

Core Work: Paint Bolster:

Paint Bolster with agreed paint system.

## 3.4.5 Re-Assemble bogie:

Core Work: Re-Assemble Bogie:

### a) Re-Assemble Bogie Frame:

Re-Assemble Bogie frame including suspension components and brake beams:

Re-assemble bogie frame and fit the brake beams, the following components must be replaced with new or repaired items:

- Primary Suspension springs (eight per bogie).(NEW)
- Ride Control Friction Wedges (four per bogie). (NEW OR REPAIRED)
- Ride Control Friction Wedge Springs (four per bogie).(NEW)
- Centre pivot liner (One per bogie). (NEW)
- Centre pivot dust seal gasket (One per bogie).(NEW)

### b) Fit wheelsets to bogie:

Fit wheel sets into bogie frame and fit axle box retaining keys. The following components must be replaced with new:

- Retaining key bolt.
- Retaining key Aero Nut.

### c) Fit brake components to bogie:

The following components must be replaced with new:

- Pivot pins.
- Washers.
- Split Pins.
- Connecting link guide bracket fasteners.

### Bill of Materials

Description	Quantity (Per Wagon)	LU Cat No.	Drawing Number	Location	Supplier No.
Primary Suspension Springs	8	16/9997	SW/SW/939 item D	IPL 14-01-01 Item 1	EG Steel P/N DL003
Ride Control Springs	8	16/9998	SW/SW/939 item N	IPL 14-01-01 Item 3	EG Steel P/N DL004
Friction Wear Plate	16	TBA	SW/SW/939 item P	IPL 14-01-01 Item 5	TBA
Friction Wedge	16	TBA	SW/SW/939 item M	IPL 14-01-01 Item 4	TBA
Axle Box Wear Pads	16	TBA	Not Available	IPL 14-08-01 Items 9 &10	TBA
Side Bearer (Bogie Bolster)	4	N/A	N/A	N/A	N/A
Centre Pivot liner	2	343/9905	JKHSBW001	IPL 16-03-01	RAILKO DWG 56458.
Centre Pivot gasket	2	TBA	Not Available	IPL 16-03-01 Item 6	TBA
Brake Beams and Palm Ends	4	N/A	Not Available	IPL 10-05-02	TBA
Side Frame Palm End Guides	8	TBA	SW/SW/952	IPL 10-05-02 Item 2	TBA

d) Re-fit bogies to wagon.

### 3.5 Wagon Mounted Brake Equipment

#### 3.5.1 Remove wagon mounted brake equipment:

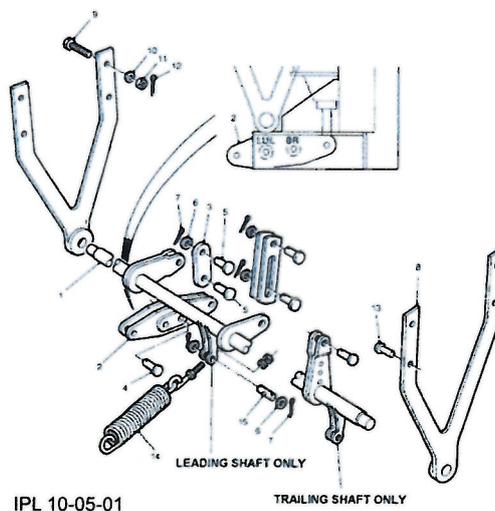
Core Work: Remove brake equipment for overhaul:  
The following equipment is to be removed and dispatched to third party for overhaul:

- a) Distributor Valve.
- b) Variable Load Control Valves
- c) Variable Load Valve
- d) Brake Cylinders.
- e) Slack Adjusters.

#### Bill of Materials

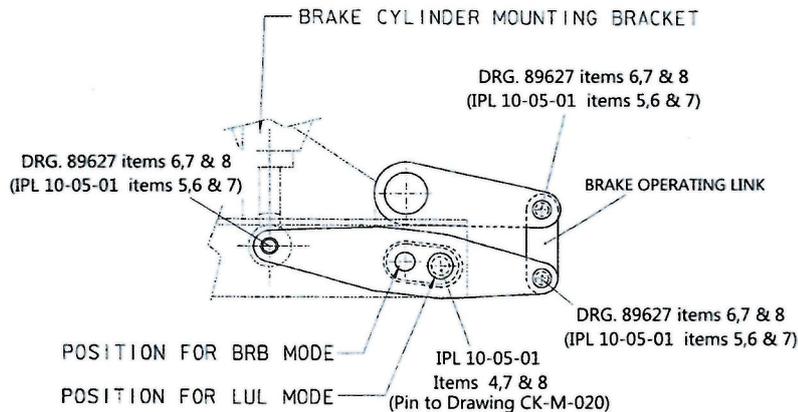
Description	Quantity (Per Wagon)	LU Cat No.	Supplier No.
Distributor Valve	1	638/9911	P78043/002
Variable Load Control Valve	1	638/9912	D77982/003
Variable Load Valve	2	638/9922	D77155/009
Brake Cylinder	2	167/9904	80187/2
Slack Adjuster	2	*4/9902	SAB DRVA

Core Work: Remove brake rigging:



#### 3.5.2 Equipment to be subjected to inspection / overhaul:

a) **Brake lever assemblies.**



**BRAKE LEVER ASSEMBLY IPL 10-05-01  
(POSITION OF PINS)**

**Core Work:** Inspect brake levers for damage / distortion, see drg. 89599 item 1.

**Arising Work:** Any Distortion to be corrected by manipulation with the limited use of heat to prevent worsening of the distortion.

Holes with greater than 3mm wear in relation to Pin are to be repaired by either welding and re-drilling or bush lining ensuring industry standards related to minimum wall thickness and interference fit are utilised.

**Core Work:** Inspect pivot bushes for wear (drg. 89599 item 4).

**Arising Work:** If Hole worn greater than 3mm on diameter wear in relation to Pin replace with suitable bush.

**Core Work:** Replace lever boss bushes (LUL part number 415/6003 – Sketch CK-M-025 item 2).

b) **Brake Lever Pin Mounting Block:**

