

**Core Work:** Replace brake lever pin mounting block bushes (LUL part no. 415/6003 -Sketch CK-M-025 item 2)

**Arising Work:** If damaged during bush/pin removal, remove Mounting block by cutting through section in 2 places, grind surface to prepare for re-assembly. fabricate replacement section, jig locate and Weld assemble

**Core Work:** Replace brake lever pivot pin (LUL part number 415/6000- Sketch CK-M-020. Item1).

**c) Brake Operating Link (IPL 10-05-01 item 3):**

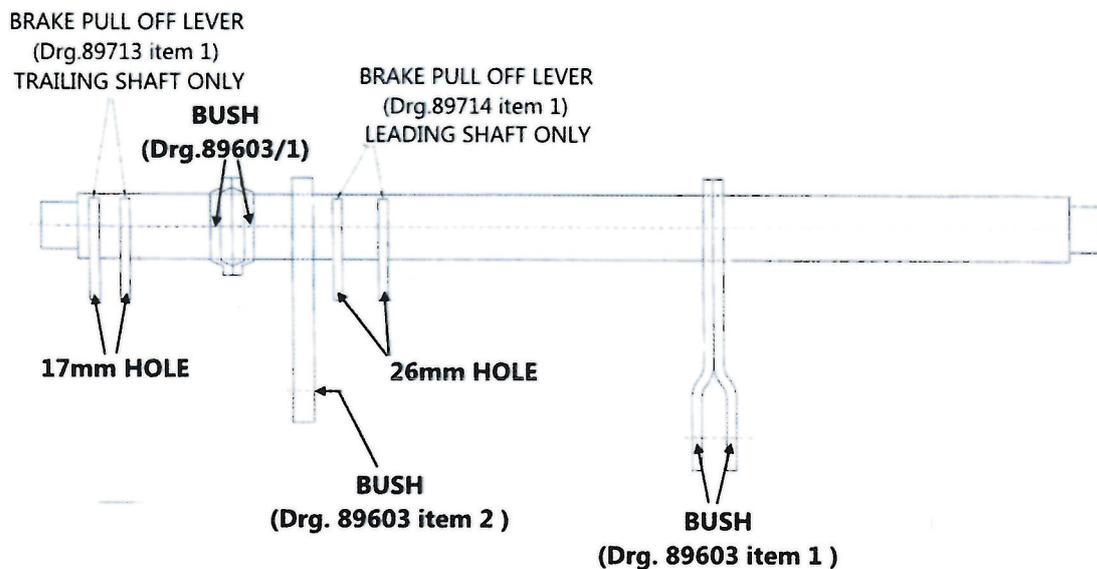
**Core Work:** Inspect Brake Operating Links for damage/distortion (see drg. 89602 item 1).

**Core Work:** Inspect the Brake Operating Link bush holes for wear (drg. 89602 item 3).

**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.

**d) Main Brake Shafts (leading and trailing)**



**BRAKE RIGGING SHAFT (DRAWING 89611)**

**Core Work:** Inspect Main Brake Shafts for damage/distortion (see drg 89611).

**Core Work:** Inspect the Main Brake shaft Bush holes for wear (drg. 89611 items 9,10 & 11).

**Core Work:** Inspect brake shaft pull off lever pin holes for wear..

**Wear limits:** Trailing shaft pull of lever pin holes – Maximum permissible diameter is 18mm.  
Leading shaft pull off lever pin holes – Maximum permissible diameter is 27mm.

**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.

Repair to shaft diameter to be achieved by turning down of affected diameter and the installation of a turned, Interference fit sleeve with a minimum wall thickness of 1.5mm from S275 material.

**e) Main Brake Shaft Hanger Brackets (IPL 10-05-01 items 8):**

**Core Work:** Inspect the main brake shaft Hanger Brackets for damage and distortion.

**Core Work:** Inspect shaft hanger pivot holes for wear.

**Wear Limits:** +1.25mm over as built diameter.

**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 Shaft 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.

**f) Air Reservoirs (See Drg. DB9720/217)**

**Core Work:** Visually Inspect the Air Reservoirs for damage:

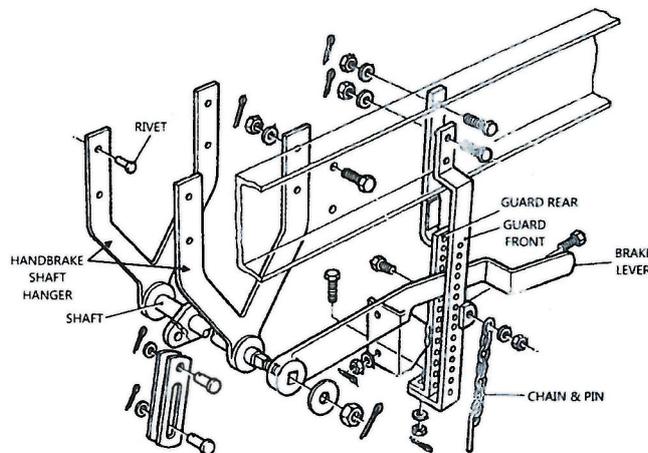
**Core Work:** Visually inspect the Air Reservoirs both internally and externally for corrosion.

**Arising Work:** Wall reduction due to corrosion must not exceed 1mm, and damage to the cylinder greater than 50mm diameter will require replacement of the cylinder.

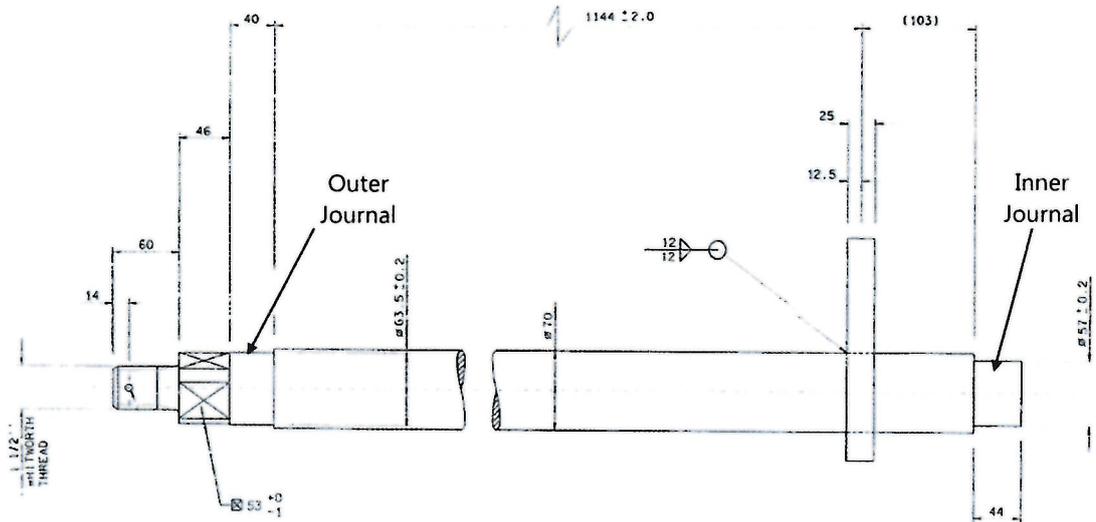
**g) Brake linkage Pins**

**Core Work:** Replace all brake rigging pins with new.

### 3.5.3 Handbrake Rigging:



a) **Inspect the Handbrake Shaft for damage and wear (IPL 10-03-01 item 12).**



**HANDBRAKE SHAFT**

Core Work: Inspect the Handbrake shaft for damage and distortion (see drg. 89612).

Core Work: Inspect the link pivot pin hole bush for wear (drg 89612 item 4).

Core Work: Inspect the diameter of the inner & outer hanger bracket journals for wear.

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.

Repair to shaft diameter to be achieved by turning down of affected diameter and the installation of a turned, Interference fit sleeve with a minimum wall thickness of 1.5mm from S275 material.

b) **Inspect the handbrake shaft Hanger Brackets:**

Core Work: Inspect the inner & outer shaft hanger brackets for damage & distortion.

Core Work: Inspect the shaft support holes for wear.

Arising Work: Observed Cracks to be repaired by grinding out and Welding, dressing back and Dye penetrant Inspection.

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 Shaft 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.

**c) Inspect the Handbrake Lever (IPL 10-03-01 item 13):**

**Core Work:** Inspect the handbrake lever for wear and distortion (drg. 89690).

**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.

**d) Inspect the Handbrake lever Guards (IPL 10-03-01 item 14 &15):**

**Core Work:** Inspect the inner & outer handbrake guards/locking guides for damage & distortion.

**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.

**e) Inspect the handbrake lever locking pin & chain (IPL 10-03-01 item 11):**

**Core Work:** Inspect the locking pin for damage and distortion.

**Arising Work:** If pin is damaged or distorted such that it will not pass through the holes in the inner / outer guards, replace with new pin manufacture from pattern from S275

**Bill of Materials**

Description	Quantity (Per Wagon)	LU Cat No.	Drawing Number	Location	Supplier No.
Brake Lever Pins	6	TBA	89604	IPL10-05-01 Item 5	TBA
Brake shaft Pins	2	TBA	89607A	IPL 10-05-01	TBA
Brake Lever Pivot Pin	2	415/6000	CK-M-020 Item1	IPL 10-05-01 Item 4	TBA
Brake Lever Pin Bushes	2	415/6002	CK-M-025 Item 1	IPL 10-05-01 Item 2	TBA
Brake Lever Pin Mounting Block Bushes	4	415/6003	CK-M-025 Item 2	IPL 10-05-01	TBA
Brake Lever Mounting Block	4	415/6001	CK-M-021B	IPL 10-05-01	TBA
Washer	8	TBA	89627 Item 7	IPL 10-05-01 Item 6	TBA

### 3.5.4 Re-assemble Brake Equipment

**Core Work:** Assemble and refit brake equipment to wagon .

- a) Fit the overhauled items removed in 3.5.1
- b) Refit items removed in 3.5.2

- c) The following components must be replaced with new:
- Pivot pins.
  - Washers.
  - Split Pins.
- d) On completion a functional brake test must be conducted (see 3.8).

### 3.6 Wheelsets

**Core Work:**

- Steam Clean Wheelsets.
- Measure Wheel Diameters and record sizes.
- Remove axle boxes and bearings in accordance with agreed procedure.
- UAT Axle in accordance with AIB-UTCS-144.
- Rebuild axle boxes with either Overhauled or new Axle Bearings and fit to wheelset.
- Wheelsets are to be checked for damage and corrosion. Report all findings to the Company Representative.

**Menu work:**

- Inspect Axle Bearings in accordance with RIS-2709-RST.
- Paint & Protect Axle (incl. stencilling)
- Re-Profile Wheels to LT5 Profile

**Bill of Materials**

Description	Quantity (Per Wagon)	LU Cat No.	Supplier No.
Wheelset including Axle Bearings	4	TBA	TBA

### 3.7 Coupler / Drawgear Assembly

#### 3.7.1 Remove Drawgear Assembly:

**Core Work:** Remove Instantor Couplers for inspection (see 3.10.3).

**Core Work:** Remove and discard coupler assembly consisting of:

- Drawhook (IPL 15-05-02 Item 1)
- Pivot Plate (IPL 15-05-02 Item 4)
- Rubber Spring Units (IPL 15-05-02 Item 7)
- Interleave Plates (IPL 15-05-02 Item 6)
- Drawgear washer plate (IPL 15-05-02 Item 8)
- Washer (IPL 15-05-02 Item 9)
- Nut (IPL 15-05-02 Item 10)
- Split Pin (IPL 15-05-02 Item 11)

#### 3.7.2 Re-assemble Drawgear:

**Core Work:** Install Drawgear on wagon (using new components) in the following order (from headstock aperture):