

INSTRUCTION SHEET

Brake Lining Replacement

Form MHD56142

These instructions will assist personnel to correctly install new brake lining(s) on brake band(s). For removal and installation of brake band(s) refer to the appropriate Parts, Operation and Maintenance Manuals.

IMPORTANT

Once a brake band becomes stretched beyond the point that it cannot be adjusted to hold a load, it must be replaced.

RECOMMENDED TOOLS

Drill Drill Bit (see specific section for size)
Hammer Tape or Clamps Tape Measure
Punch

INSTALLATION INSTRUCTIONS

General Brake Lining Removal

Step 1. Remove the external rivet heads. This can be done by either using a drill bit a little larger than that specified in the installation instructions to drill off the head of the rivet, or by using a hand grinder to grind off the head.

NOTICE

• Use care not to drill or gouge the brake band.

Step 2. Punch out rivets and remove the old brake lining.

Inspection of Brake Band

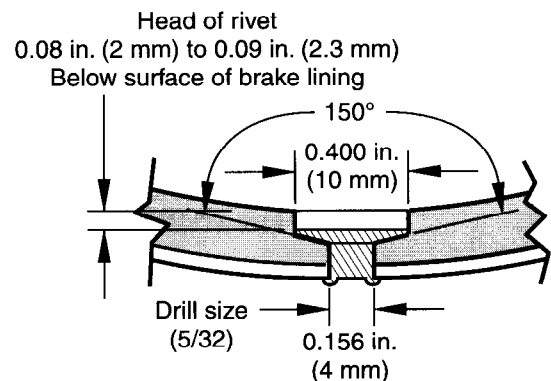
Step 3. Visually check the brake band for signs of wear or corrosion. Inspect all the rivet holes, if any appear oval-shaped, replace brake band (when the rivet hole is oval-shaped the brake band has been stretched). Check the rivets in the brake band loop and those holding any bracket(s). If any are loose, replace them with new rivets.

General Brake Lining Installation

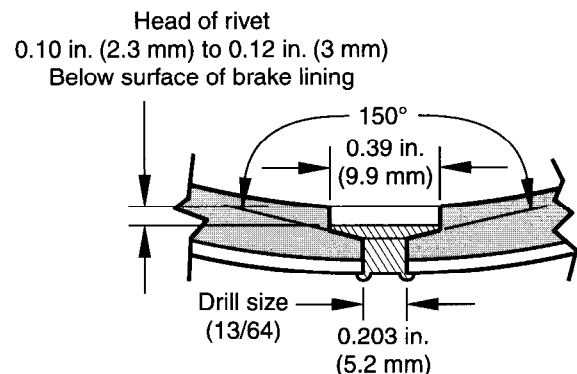
1. Insert new brake lining into brake band. Using tape or clamps, temporarily fasten lining to band, working towards loop end of band. Make sure tape or clamps DO NOT cover any of the rivet holes.
2. Using the brake band as a template, carefully drill through brake band and lining.
3. Mark the inside surface of the brake lining and remove the brake lining from the band. Place the lining on a suitable surface for the next step.
4. From the inside surface of the brake lining, countersink drill each hole, see "Model Specifications." Remove burrs and debris from both sides of the lining and the brake band.
5. Place the brake lining back into the brake band, aligning holes, and secure lining to band.
6. Insert rivets. See "Model Specifications" for location and quantities. Peen rivets into place. See "Peening Instructions".

NOTICE

• Use the following drawings to determine how far to place the rivet head into the surface of the brake band. If rivet head is too close to surface, brake lining life will be shortened. If rivet heads are too deep, the lining could separate from brake band.



(Dwg. MHP1292)



(Dwg. MHP1293)

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INGERSOLL-RAND
MATERIAL HANDLING

INSTALLATION INSTRUCTIONS (CONTINUED)

Model Specifications

BU7A Brake Lining Removal

Follow steps 1 through 3 under “General Brake Lining Removal”. There are 17 rivets to remove on the BU7A brake band.

BU7A Brake Band Inspection

Measure between all rivet holes (measure from the same side of every hole), along the length of the brake band, if the distance between any two holes is greater than 2.125 in. (54 mm), the band must be replaced.

BU7A Brake Lining Installation

Use the following instructions specific to this model in conjunction with the “General Brake Lining Installation”:

1. Align edge of lining with edge of brake band and bracket.
2. Use a 0.156 (5/32 or 3.96 mm) diameter drill, follow instructions from “General Brake Lining Installation” step 2.
3. Refer to Dwg. MHP1292.
4. Insert 13 (short) rivets through brake lining and band. Insert the other 4 (long) rivets through the brake lining and bracket. Peen rivets into place. Ensure that the heads of all rivets are 0.08 to 0.09 in. (2 to 2.3 mm) below brake lining surface.

D6U, EU, and EUL Brake Lining Removal

Follow steps 1 through 3 under “General Brake Lining Removal”. There are 34 rivets to remove on the DU, EU, and EUL brake band.

D6U, EU, and EUL Brake Band Inspection

Measure the length of the brake band (from end of loop to end of band), if it is longer than 37.313 in. (948 mm) then replace the brake band.

D6U, EU, and EUL Brake Lining Installation

Use the following instructions specific to this model in conjunction with the “General Brake Lining Installation”:

1. Butt the lining up against the threaded bracket at the end of the brake band.
2. Use a 0.156 (5/32 or 3.96 mm) diameter drill, follow instructions from “General Brake Lining Installation” step 2.
3. Refer to Dwg. MHP1292.
4. Insert rivets through brake lining and band. Peen rivets into place. Ensure that the heads of all rivets are 0.08 to 0.09 in. (2 to 2.3 mm) below brake lining surface.

HU40 and HUL40 (Short Band) Brake Lining Removal

Follow steps 1 through 3 under “General Brake Lining Removal”. There are 13 rivets to remove on the HU40 and HUL40 short brake band.

HU40 and HUL40 (Short Band) Brake Band Inspection

Measure the length of the brake band (from end of loop to end of band). If it is longer than 16.156 in. (410 mm), replace the band.

HU40 and HUL40 (Short Band) Brake Band Installation

Use the following instructions specific to this model in conjunction with the “General Brake Lining Installation”:

1. Align edge of the brake lining with the edge of the brake band and bracket.

2. Use a 0.203 (13/64 or 5.16 mm) diameter drill, follow instructions from “General Brake Lining Installation” step 2.
3. Refer to Dwg. MHP1293.
4. Insert rivets through brake lining and band. Peen rivets into place. Ensure that the heads of all rivets are 0.08 to 0.09 in. (2 to 2.3 mm) below brake lining surface.

HU40 and HUL40 (Long Band) Brake Lining Removal

Follow steps 1 through 3 under “General Brake Lining Removal”. There are 23 rivets to remove on the HU40 and HUL40 long brake band.

HU40 and HUL40 (Long Band) Brake Band Inspection

Measure the length of the brake band (from end of loop to end of band), if it is longer than 35.808 in. (910 mm), replace the band.

HU40 and HUL40 (Long Band) Brake Band Installation

Use the following instructions specific to this model in conjunction with the “General Brake Lining Installation”:

1. Align edge of the brake lining with the edge of the brake band and bracket.
2. Use a 0.203 (13/64 or 5.16 mm) diameter drill, follow instructions from “General Brake Lining Installation” step 2.
3. Refer to Dwg. MHP1293.
4. Insert rivets through brake lining and band. Peen rivets into place. Ensure that the heads of all rivets are 0.10 to 0.12 in. (2.5 to 3 mm) below brake lining surface.

HU, HUL, H5U, and H5UL Brake Lining Removal

Follow steps 1 through 3 under “General Brake Lining Removal”. There are 28 rivets to remove on the HU, HUL, H5U, and H5UL brake band.

HU, HUL, H5U, and H5UL Brake Band Inspection

Measure the length of the brake band, if it is longer than 46.7 in. (1190 mm), replace the band.

HU, HUL, H5U, and H5UL Brake Band Installation

Use the following instructions specific to this model in conjunction with the “General Brake Lining Installation”:

1. Align edge of the brake lining with the edge of the brake band and bracket.
2. Use a 0.203 (13/64 or 5.16 mm) diameter drill, follow instructions from “General Brake Lining Installation” step 2.
3. Refer to Dwg. MHP1293.
4. Insert rivets through brake lining and band. Peen rivets into place. Ensure that the heads of all rivets are 0.10 to 0.12 in. (2.5 to 3 mm) below brake lining surface.

K6U and K6UL (Long Band) Brake Lining Removal

Follow steps 1 through 3 under “General Brake Lining Removal”. There are 41 rivets to remove on the K6U, K6UL long brake band.

K6U and K6UL (Long Band) Brake Band Inspection

Measure the length of the brake band (from end of loop to end of band), if it is longer than 45.06 in. (1145 mm), replace the band.

K6U and K6UL (Long Band) Brake Band Installation

Use the following instructions specific to this model in conjunction with the “General Brake Lining Installation”:

INSTALLATION INSTRUCTIONS (CONTINUED)

1. Align edge of the brake lining with the edge of the brake band and bracket.
2. Use a 0.203 (13/64 or 5.16 mm) diameter drill, follow instructions from "General Brake Lining Installation" step 2.
3. Refer to Dwg. MHP1293.
4. Insert rivets through brake lining and band. Peen rivets into place. Ensure that the heads of all rivets are 0.10 to 0.12 in. (2.5 to 3 mm) below brake lining surface.

K6U and K6UL (Short Band) Brake Lining Removal

Follow steps 1 through 3 under "General Brake Lining Removal". There are 26 rivets to remove on the K6U and K6UL brake band.

K6U and K6UL (Short Band) Brake Band Inspection

Measure the length of the brake band (from end of loop to end of band), if it is longer than 25.68 in. (652 mm), replace the band.

K6U and K6UL (Short Band) Brake Band Installation

Use the following instructions specific to this model in conjunction with the "General Brake Lining Installation":

1. Align edge of the brake lining with the edge of the brake band and bracket.
2. Use a 0.203 (13/64 or 5.16 mm) diameter drill, follow instructions from "General Brake Lining Installation" step 2.
3. Refer to Dwg. MHP1293.

4. Insert rivets through brake lining and band. Peen rivets into place. Ensure that the heads of all rivets are 0.10 to 0.12 in. (2.5 to 3 mm) below brake lining surface.

FA5 Brake Lining Removal

Follow steps 1 through 3 under "General Brake Lining Removal". There are 38 rivets to remove on each half of FA5 brake band.

FA5 Brake Band Inspection

Check the welds on each end bracket, if any cracks are seen replace the band. Measure the distance between all rivet holes (measure from the same side of every hole), that are between the two brackets. If any pair of holes are more than 2.063 in. (52 mm) apart then replace the band.

FA5 Brake Band Installation

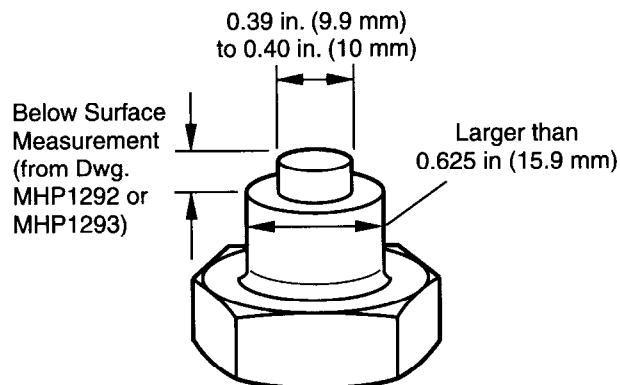
Use the following instructions specific to this model in conjunction with the "General Brake Lining Installation": The brake lining comes predrilled for the center 28 rivets. The rivet holes going through the brackets will have to be drilled.

1. Align the center holes in the brake lining with the holes in the brake band.
2. Use a 0.203 (13/64 or 5.16 mm) diameter drill, follow instructions from "General Brake Lining Installation" step 2.
3. Refer to Dwg. MHP1293.
4. Insert rivets through brake lining and band. Peen rivets into place. Ensure that the heads of all rivets are 0.10 to 0.12 in. (2.5 to 3 mm) below brake lining surface.

PEENING INSTRUCTIONS

Rivet Support

Attach a support bar firmly to a work bench. Fabricate a rivet support tool, referring to Dwg. MHP1385. This tool may be made from an old capscrew, or other material. Maintaining the 'Below Surface Measurement' is important for prolonging the life of the brake lining.



(Dwg. MHP1385)

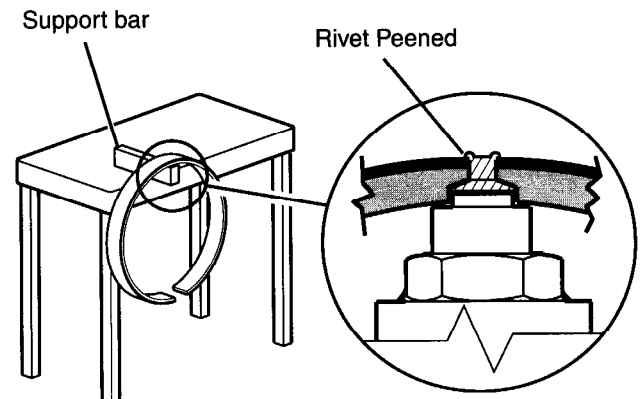
Firmly attach the rivet support tool to the support bar. These components will see high impact loads. Place brake band over support, with rivet head on support tool.

NOTICE

• **Ensure that the rivet head 'Below Surface Measurement' is followed. If rivet head is too close to surface brake lining life will be shortened. Rivet heads that are too deep could cause the lining to separate from brake band.**

Peening Rivet

With a punch or ball peen hammer, flair the end of the rivet over and hammer until rivet is tight. Refer to Dwg. MHP1386.



(Dwg. MHP1386)

LIST OF BRAKE LINING KITS

BU7A Winches

Kit BU-K155 includes	
DESCRIPTION OF PART	QUANTITY TOTAL
Brake Lining	2
Rivet, Short	13
Rivet, Long	4

* BU-A152

D6U, EU, and EUL Winches

Kit DU-K575 includes	
DESCRIPTION OF PART	QUANTITY TOTAL
Brake Lining	1
Rivet, Short	34

* DU-A574 Standard Brake

* DU-B574 Automatic Brake

HU40 and HUL40 Winches

Kit HU40-K155 Short Band includes	
DESCRIPTION OF PART	QUANTITY TOTAL
Brake Lining	1
Rivet, Short	7
Rivet, Long	6

* HU40-152

HU40 and HUL40 Winches

Kit HU40-K255 Long Band includes	
DESCRIPTION OF PART	QUANTITY TOTAL
Brake Lining	1
Rivet, Short	17
Rivet, Long	6

* HU40-252

HU, HUL, H5U, and H5UL Winches

Kit HU-K155 includes	
DESCRIPTION OF PART	QUANTITY TOTAL
Brake Lining	1
Rivet, Short	12
Rivet, Long	16

* H5U-A152

K4U, K4UL, K5U, and K5UL Winches

Kit K4U-155 Short Band includes	
DESCRIPTION OF PART	QUANTITY TOTAL
Brake Lining	1
Rivet, Short	16
Rivet, Medium	17

* K5U-A152A

K6U and K6UL Winches

Kit K6U-155 Short Band includes	
DESCRIPTION OF PART	QUANTITY TOTAL
Brake Lining	1
Rivet, Short	17
Rivet, Long	9

* K6U-152

K6U and K6UL Winches

Kit K6U-255 Long Band includes	
DESCRIPTION OF PART	QUANTITY TOTAL
Brake Lining	1
Rivet, Short	32
Rivet, Long	9

* K6U-252

FA5 Winches

Kit 4103-BLK* FA5 includes	
DESCRIPTION OF PART	QUANTITY TOTAL
Brake Lining	2
Rivet, Short	60
Rivet, Medium	4
Rivet, Long	12

* 4103-Set is 2 Brake Bands with mounted lining

* Complete Brake Band Assembly