

TECHNICAL PROCEDURE

TRAILER SUSPENSION SYSTEMS AIR DISC BRAKE (ADB)

SUBJECT: Hub and Rotor Assembly
Caliper Mounting Procedures

LIT NO: T71004

DATE: September 2023

REVISION: G

ROTOR TO HUB ASSEMBLY

Not all hub and rotor assemblies are the same. Refer to the applicable procedure listed in this section.

NOTE: The hub and rotor assembly must be installed before mounting the ADB caliper.

NOTICE: Thoroughly inspect rotor condition before reuse. For details, refer to T72009 MAXX22T™ Installation & Maintenance or rotor manufacturer.

IMPORTANT: Hendrickson does not recommend reusing fasteners.

CAUTION: DO NOT lift an ADB caliper assembly by the brake pad retainer bracket.

Other relative literature may include:

LIT NO.	DESCRIPTION
T12007	General Safety Precautions & Information for Technical Procedures
T72009	MAXX22T Installation & Maintenance Procedures
T82006	Recommended Stud Replacement Procedures

TOOLS REQUIRED

The following tools may be required during the performance of some maintenance procedures:

TOOL	WHERE USED	TORQUE
Torque Wrench 10 to 250 ft-lb	Used with sockets listed in this table	N/A
15/16 inch socket	Outboard Mounted Rotor 5/8 inch flange nuts Figure 1	220 ft-lb
24mm socket or 15/16 inch socket	Flanged Mounted Hub and U-Shaped Rotor M16mm screws or 5/8 inch screws Figure 3	220 ft-lb
13mm socket	Bendix Splined Disc Rotor Assembly M8mm screws Figure 5	22 ft-lb
15/16 inch socket	ConMet Flat Rotor and Hub Assembly 5/8 inch flange nuts Figure 6	200 ft-lb

Table 1: Tools Required

OUTBOARD MOUNTED ROTOR

1. Ensure both hub and rotor mounting surfaces are free of loose dirt, corrosion, grease, and debris.

NOTE: Applying a light film of lube to the rotor flange ID may help ease sliding the rotor flange ID over the hub rotor pilot.

2. With hub mounted on the axle, slide the new rotor assembly onto the hub until the rotor flange ID engages the hub rotor pilot (Figure 1).

NOTE: Ensure the hub fill port (Figure 1) is not directly under a wheel stud.

3. Install the 12 flange nuts and hand tighten.

4. Once all the nuts are hand tightened, properly constrain assembly and tighten the flange nuts, in the sequence shown in Figure 2 on page 2, to 220±10 ft. lbs. (300±10Nm) of torque.

IMPORTANT: DO NOT APPLY anti-seize compound or additional lubricant to fastener threads.

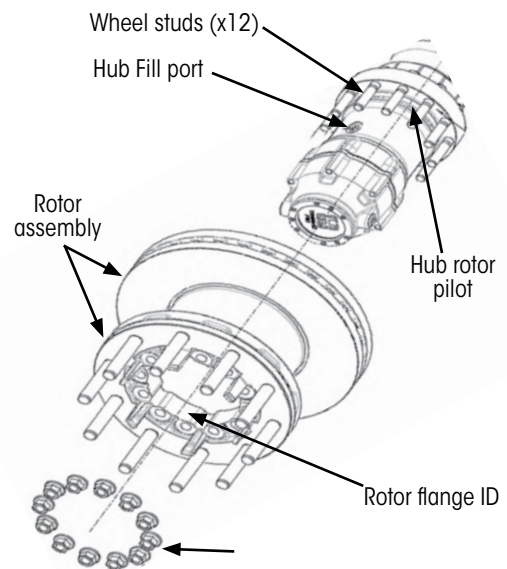


Figure 1: Outboard Mounted Rotor

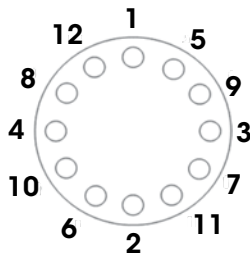
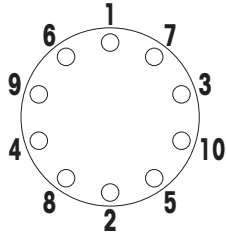


Figure 2: Outboard Mounted Rotor torque sequence

FLANGED MOUNTED HUB AND U-SHAPED ROTOR



Rotor torque sequence for all U-shaped rotors

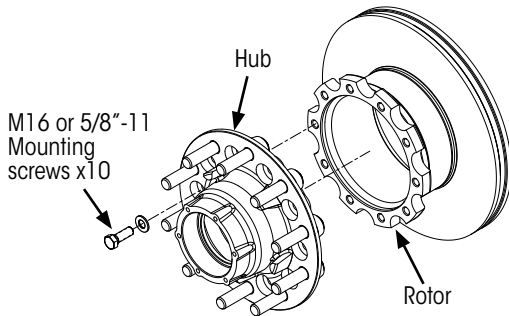


Figure 3: Flange mounted hub & U-shaped rotor assembly

1. Ensure both hub and rotor mounting surfaces are clean and free of loose dirt, corrosion, grease, and debris.
2. Place the rotor onto a stable work surface with the outboard mounting surface facing upward.
3. Carefully lower the hub onto the rotor until the hub mounting pilot engages the rotor bore.

IMPORTANT: DO NOT APPLY anti-seize compound or additional lubricant to fastener threads.

4. Align fastener holes and insert new screws and washers.
5. Hand tighten.
6. Properly constrain assembly and tighten mounting screws, in the sequence shown in Figure 3, to 220±10 ft. lbs. (300±10 Nm) of torque.

NOTE: Ensure the heads of the new screws are recessed below the flange wheel mounting surface.

STUD MOUNTED ROTOR

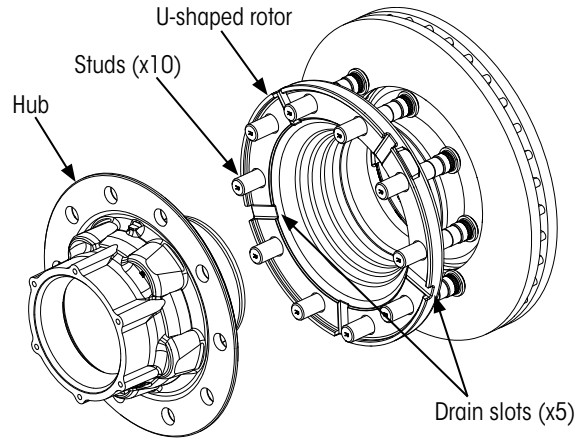


Figure 4: Hendrickson stud mounted hub & U-shaped rotor assembly

Refer to T82006 for disassembly or stud replacement procedures.

BENDIX SPLINED DISC® ROTOR ASSEMBLY

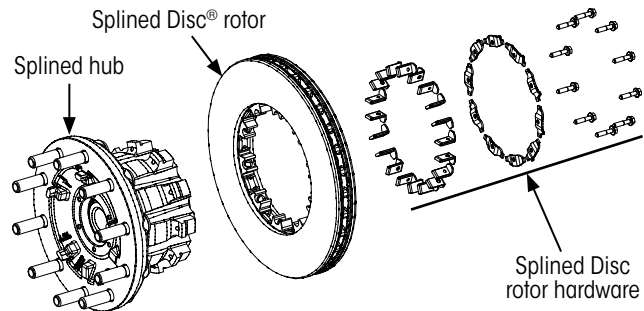


Figure 5: ConMet hub & Bendix Splined Disc rotor assembly

For rotor information, refer to the [Bendix website](#).

CONMET FLAT ROTOR AND HUB ASSEMBLY

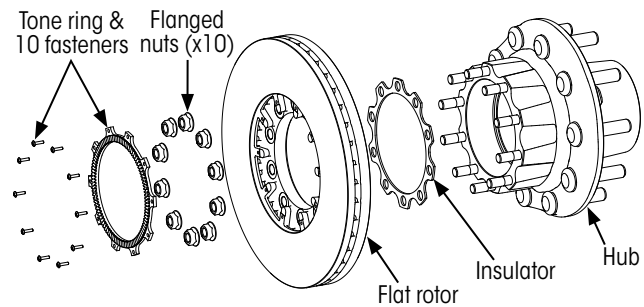


Figure 6: ConMet hub & flat rotor assembly

Refer to [ConMet website](#).



MOUNTING CALIPER TO TORQUE PLATE

1. Ensure both torque plate and caliper mounting surfaces are clean and free of loose dirt, corrosion, grease and debris.
2. Align and place caliper over rotor and against torque plate.

NOTE: If included with pre-assembled pads, pad spacers should pop out as caliper is positioned onto rotor.

3. Insert and hand tighten the six new mounting screws and washers.
4. Visually inspect to ensure proper placement.
5. Select the applicable socket listed in Table 2.
6. Tighten mounting screws, in sequence shown in Figure 7, to the specified torque listed in Table 2.
7. If not pre-assembled, install brake pads and complete installation according to caliper manufacturer's procedures.

BRAKE	TORQUE PLATE	FASTENER (socket size)	TORQUE	
			ft. lbs	Nm
Hendrickson MAXX221™	A	27 mm	280±11	380±14
Bendix ADB22X-LT™	See Bendix Technical Bulletin TCH-023-002 and SD-23-7541 located in the Bendix Document Library at www.Bendix.com			
WABCO PAN™ 19 & 22 Haldex ModulT & ModulX	B	30 mm	350±25	475±33
WABCO PAN 17	C	22 mm	140±15	190±20

Table 2: Torque plate/caliper fastener specifications

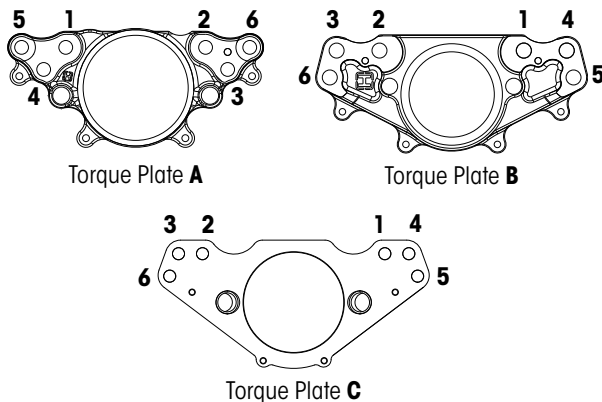


Figure 7: Torque plate torque sequence

IMPORTANT: DO NOT APPLY anti-seize compound or additional lubricant to fastener threads.

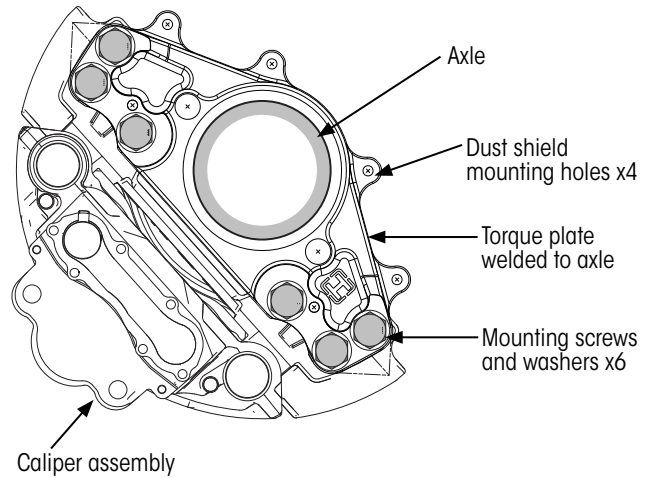


Figure 8: Typical torque plate/caliper assembly

Call Hendrickson at **866.RIDEAIR (743.3247)** for additional information.



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