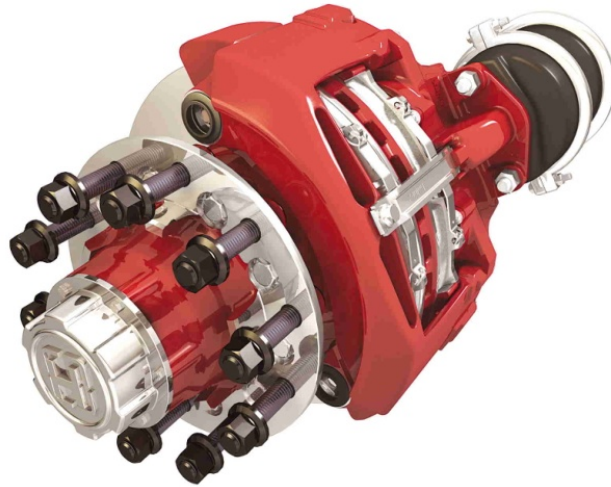


TECHNICAL BULLETIN

TOOWOOMBA IRON HUB – DISC ROTOR REPLACEMENT

LIT NO: 97117-254

DATE: January 2020 REVISION: C



SECTION

PAGE

Contents

| | |
|---|---|
| Introduction | 2 |
| Prerequisites..... | 2 |
| Hub Rotor Removal..... | 2 |
| Replacement Rotor Parts list..... | 2 |
| Hub Rotor Replacement | 3 |
| ABS Sensor Bracket | 3 |
| ABS Sensor Bracket Replacement..... | 3 |
| Replacement Hub and Rotor Assembly..... | 5 |



Introduction

1. The demise of the Toowoomba Iron Foundry has resulted in the unavailability of the Toowoomba iron hub and rotor assembly in both 285 and 335 PCD configurations.
2. Hendrickson Asia Pacific has now developed a kit to enable the replacement of a damaged-worn rotor. The purpose of this Technical Publication is to provide detailed instruction on replacement kits to suit the following conditions:
 - a. Rotor replacement only.
 - i. 285 PCD
 - ii. 335 PCD
 - b. Complete hub and rotor assembly.
3. Rotor replacement should be conducted in accordance with procedures in the following Hendrickson technical bulletin [97117-250](#) Wheel-End Maintenance Procedures.

Prerequisites

4. Procedure to replace the Toowoomba iron hub rotor is dependent on the following prerequisites.
 - a. Trailer positioned on level ground
 - b. Axle group raised and supported on safety stands.
 - c. Trailer emergency brakes 'chambered'.

Hub Rotor Removal

5. Preparation and inspection of hub rotor mating surface.
 - a. Separate the hub and rotor assembly and discard all fasteners.
 - b. Inspect the condition of the hub and rotor mount bolt surface. Finish the surface to remove any evidence of burrs to ensure clean, flat mating surface.
 - c. Ensure that the hub mounting bolt thread form is free of burrs.

Replacement Rotor Parts list

6. Service kit part number **98815-026** includes the following parts:

| Description | Qty |
|--|-----|
| M16 X 2 mm Pitch X 45 mm Metric Hex Head Bolt | 10 |
| Flat Washer | 10 |
| 430 mm Rotor Assembly | 1 |
| ABS Sensor bracket – WELD ON | 1 |

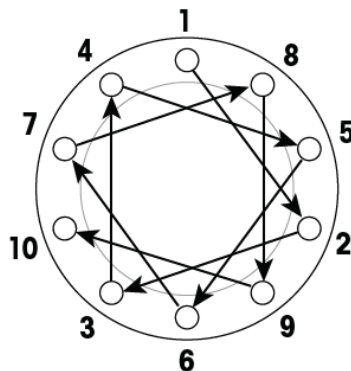


Hub Rotor Replacement

7. Connection of hub to rotor.

Torque the hub to rotor in star sequence following the sequence shown in the following diagram.

| Stage | Application | Torque | |
|----------------|--|--------|-----------|
| Initial Torque | All | 100 Nm | 70 ft-lb |
| Final Torque | Silver Zinc Coated Washer and/or Bolt | 270 Nm | 200 ft-lb |
| | Black Phosphate Oil Coated Bolt and Washer | 300 Nm | 220 ft-lb |



ABS Sensor Bracket

8. The new rotor interface shall require repositioning of the ABS sensor bracket. If the vehicle is **NOT** equipped with ABS, then the ABS sensor bracket will only require removal.

If the vehicle is ABS equipped then the existing ABS bracket will need to be removed and a new ABS sensor bracket installed in a new location to accommodate the new rotor configuration.

To assist customers in the replacement of the sensor, please refer to the following replacement procedure.

CAUTION

This procedure is only intended for installation on Hendrickson 5" diameter axle INTRAAX[®] disc brake suspensions with Toowoomba steel hubs conducting a rotor change to new type rotors.

It is not to be installed on any other make, model or suspension type.

ABS Sensor Bracket Replacement

9. The following actions cover the replacement of the ABS sensor bracket.
 - a. Remove the existing ABS bracket.
 - b. Predetermine the approximate location for the new bracket; refer to Figure 1 and 2.
 - c. Prepare the mating surfaces for welding. The mounting area on the axle and the ABS bracket must be free of moisture, dirt, scale, paint and grease.
 - d. The axle and the ABS bracket must also have a minimum temperature of 16° C.



- e. Position the ABS bracket along the length of the axle, measure 32 mm forward (outboard) from the brake calliper torque plate to the outer face of the ABS bracket, refer to figure 1.
- f. Adjust the ABS bracket height by bending both legs symmetrically to achieve a height of 41 mm, refer to figure 1.
- g. Position the ABS bracket around the outside diameter of the axle and align the centre of the ABS bracket hole with the centre of the slot in the Torque plate, refer to figure 2.
- h. Temporarily clamp the bracket in place. Make sure the ABS bracket is flat against the axle and aligned correctly. The ABS bracket must not be tilted or askew.
- i. Verify that the ABS bracket is in the correct location.
- j. Insert an ABS sensor into the bracket to ensure adequate contact with the pulse ring on the rotor.
- k. When the ABS bracket location and the sensor contact area are verified, weld the ABS bracket to the axle with a 3-mm fillet weld, Refer to figure 3 for weld placement.

CAUTION Before welding, cover the entire spindle area to avoid weld splatter damage.

- l. When cool, remove the clamp, clean, prime and paint.

NOTE: Only a properly trained and competent tradesman should perform the welding. Follow all applicable safety rules and regulations for welding, including but not limited to, wearing proper eye protection and other personal protective equipment, working in a well-ventilated area and keeping all flammable and combustible materials out of the work area.

Figure 1

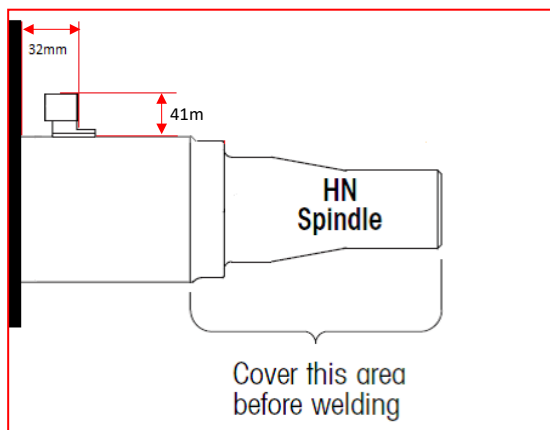


Figure 2

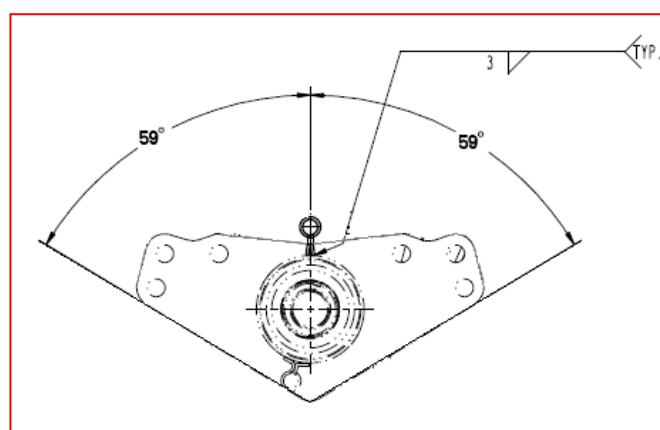
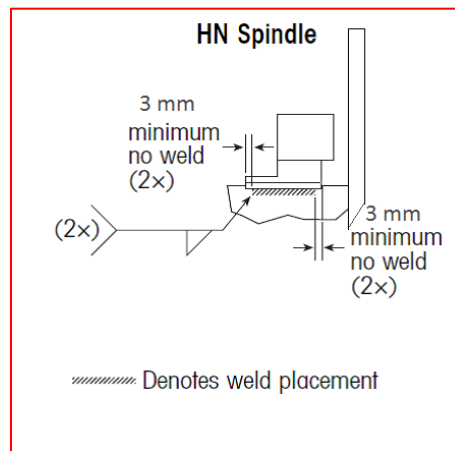


Figure 3



Replacement Hub and Rotor Assembly

If the Toowoomba Iron Hub is determined to be unserviceable, a complete hub and rotor assembly is required.

New brake rotor assemblies are listed in Hendrickson Trailer Brake Systems parts list [97114-097](#).

Refer to Hendrickson Wheel End Parts bulletin [97114-100](#) for a replacement hub and rotor assembly.

Any questions in relation to this Technical Bulletin please forward to the Hendrickson Product Support Group: Telephone (03) 8792 3600 or email to: technicalservice@hendrickson.com.au



Revisions Table

| DATE | REV | PAGE | DESCRIPTION |
|---------------|-----|------|--|
| August 2015 | A | All | Complete manual to reflect availability of TWBA Iron Hubs |
| February 2018 | B | 2 | Update ABS Sensor Bracket & Flat Washer part numbers. ECP 11264 & 11070. |
| January 2020 | C | 2, 3 | Update bolt sequence, torque & remove component numbers, ECN 11658. |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Information contained in this literature was accurate at the time of publication, Product changes may have been made after the publication date that are not reflected here.



Hendrickson Asia Pacific Pty Ltd
 ABN 21 004 992 769
 32-44 Letcon Drive, P.O. Box 1063, Dandenong, Victoria, 3175
 Phone 61.3.8792.3600 Fax 61.3.8792.3699
 www.hendrickson.com.au