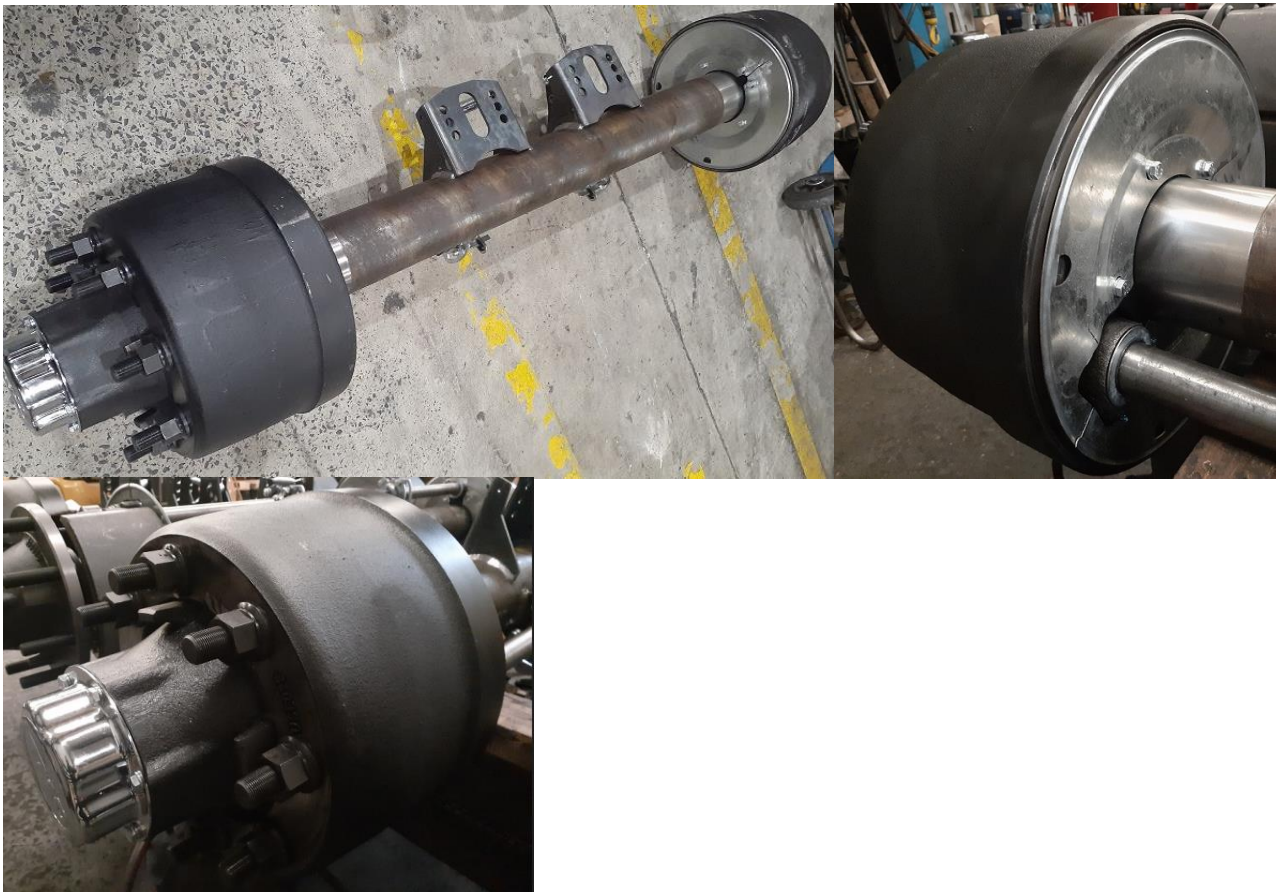




TMC Australia Pty Ltd
TMC Trailer Axle Service Manual

TMC TRAILER AXLE SERVICE MANUAL

8 Stud x 275 PCD Hub - 335 x 160 Brake



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We Engineer Quality and Performance

RECOMMENDED SERVICE SCHEDULE

First Service 500 km or on Delivery:

- Check torque settings of all wheel nuts
- On delivery.
 - After all wheel changes.

After first 5000 Km:

Check and adjust all wheel bearings.

Every 5,000 km:

Check and adjust the brakes, check brake linings for wear.

Every 25,000 km:

Lubricate slack adjusters and camshaft bushings using an EP2 type grease or equivalent.
With the axle end lifted rotate the wheels and determine if the wheel bearing's need adjustment.
Re adjust the wheel bearings as necessary.

Every 100,000 km:

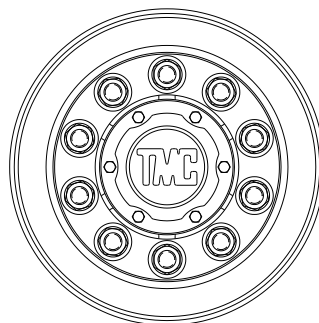
Remove the hubcaps and inspect the wheel bearings and lubricant.
Replace the lubricant if it appears badly contaminated.
Re adjust the wheel bearings and re torque the axle lock nut.
Replace the hubcaps and ensure the correct amount of lubricant is in the hub end.
Check that the hubcap gasket is not damaged. Replace as necessary.
Check the axle for brake wear, check the rest of the axle components for wear or damage.
Repair, adjust or replace as necessary.

Every 300,000 km:

Remove wash and inspect the wheel bearings, replace as necessary.
When re assembling the wheel bearings ensure they are correctly lubricated and adjusted.
See TMC Australia's recommended wheel bearing adjustment procedures.

Note:

These are the minimum recommended service requirements, dependant on service conditions more frequent service and maintenance schedules may be required for correct operation of the trailer axle.



10 Stud x 225 pcd Hub
335 x 160 Brake

TMC Australia Pty Ltd policy is one of continuous development we therefore reserve the right to change or modify the specifications without notification.

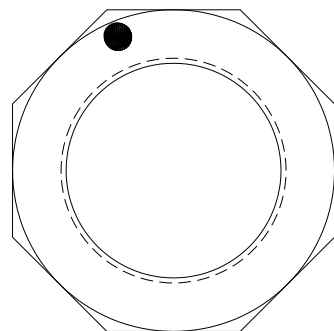
WHEEL BEARING ADJUSTMENT PROCEDURE**Double Axle Lock Nuts and Lock Washer – TN Wheel Bearings.**

It is recommended that the wheel bearing in new axles (or whenever the wheel bearings are replaced in service) are adjusted after the first 5000 km. The wheel bearings should then be adjusted at 100,000 km intervals for the axle's service life. These are the minimum recommended service requirements, dependent on service conditions more frequent service and maintenance schedules may be required for correct operation of the trailer axle.

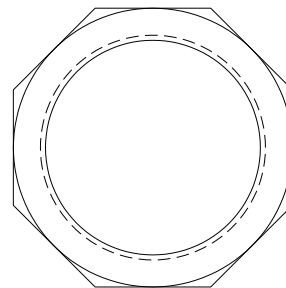
Recommended wheel bearing adjustment procedure:

1. Ensure that the hub rotates freely in both directions. If any brake drag (binding) is felt temporarily back off the brake adjustment to ensure free rotation of the hub.
2. Rotate the hub in both directions and at the same time tighten the wheel bearing adjusting nut until a torque setting of 150/180 Nm is reached.
3. Then back off the adjusting nut six (6) holes, use the axle lock washer as a guide. Refit the axle lock washer, taking care that the wheel bearing adjustment is not disturbed. Fit the axle locknut and tighten to a torque of 350/400 Nm.

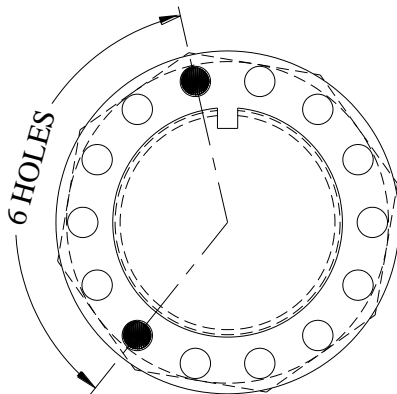
Check the bearing end float is 0.08mm to 0.20mm. Finally check that the hub rotates freely. If it does not rotate freely it may be necessary to redo the wheel bearing adjustment procedure. If Necessary, now re adjust the brakes.



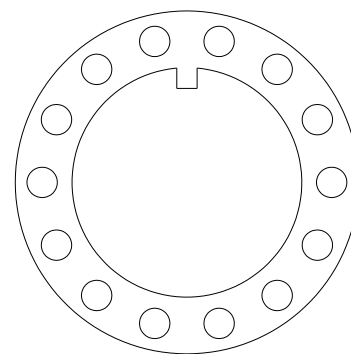
SPINDLE ADJUSTING NUT



SPINDLE LOCK NUT



USE THE LOCK WASHER
AS A GUIDE, SLACKEN
BACK BY 6 HOLES



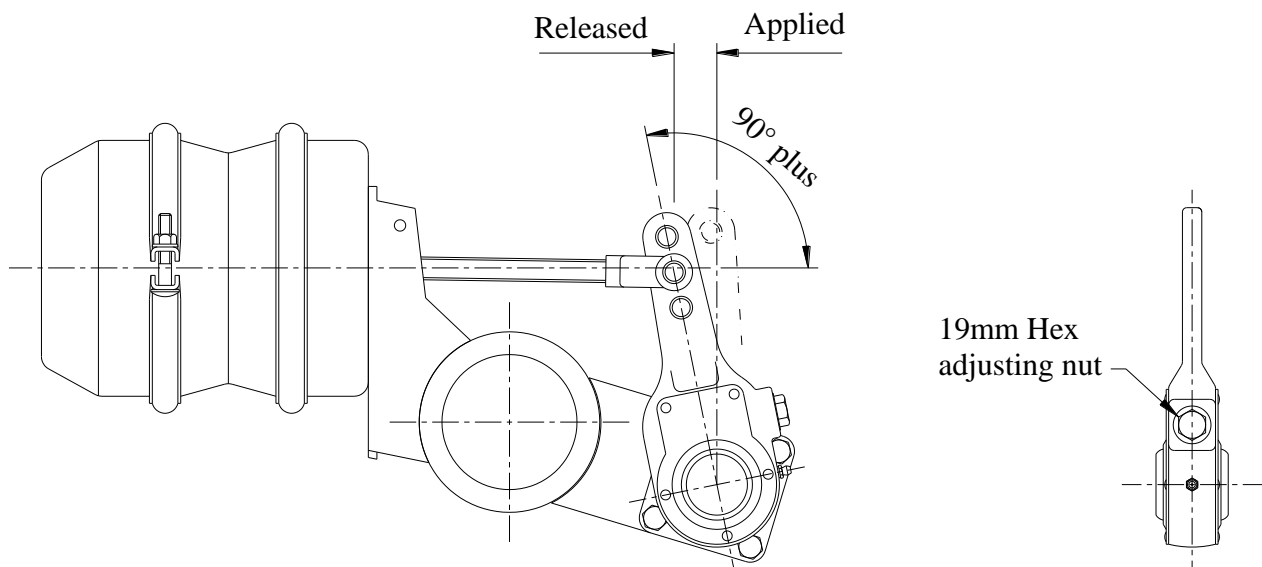
LOCK WASHER

**CHECK WHEEL BEARING END FLOAT IS 0.08mm TO 0.20mm.
RE ADJUST IF NECESSARY.**

BRAKE ADJUSTMENT – MANUAL SLACK ADJUSTERS

‘S’ Cam brakes are adjusted by the manual slack adjusters fitted to the camshafts on the axle.

1. With the brakes released, adjust the slack adjuster until the brake linings contact the brake drum. This is done by rotating the 19mm hexagonal nut clockwise.
2. Adjust the 19mm hexagonal nut back one half turn or until the hub rotates freely with no brake drag evident.
3. Finally check that with the brakes released and applied that the angle between the brake chamber push rod and slack adjuster is greater than 90 degrees. The angle can be adjusted by screwing the push rod clevis backwards or forwards along the push rod thread to achieve the correct angle. When finished always check that the push rod clevis lock nut is tightened.

**BRAKE ADJUSTMENT - MANUAL SLACK ADJUSTER.****BRAKE ADJUSTMENT – AUTOMATIC SLACK ADJUSTERS**

‘S’ cam brakes fitted with automatic slack adjusters should require no manual adjustment after the initial installation on the axle or initial re adjustment of the brakes after brake relines. All automatic slack adjusters have a specific set up and installation procedure as specified by the automatic slack adjuster manufacturer. This procedure must be adhered to. If in doubt contact the manufacturer of the automatic slack adjusters or the manufacturer’s agent for these specific procedures.

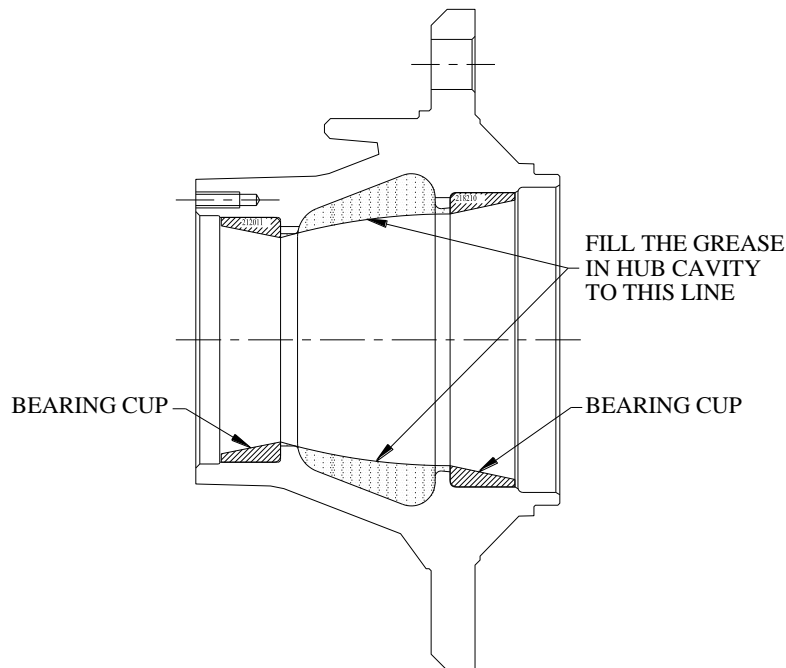
Generally, automatic slack adjusters must be re adjusted similarly to the manual slack adjusters on initial installation or after brake relines.

Caution: Please refer to the manufacturer’s recommendations.

AXLE HUB LUBRICATION

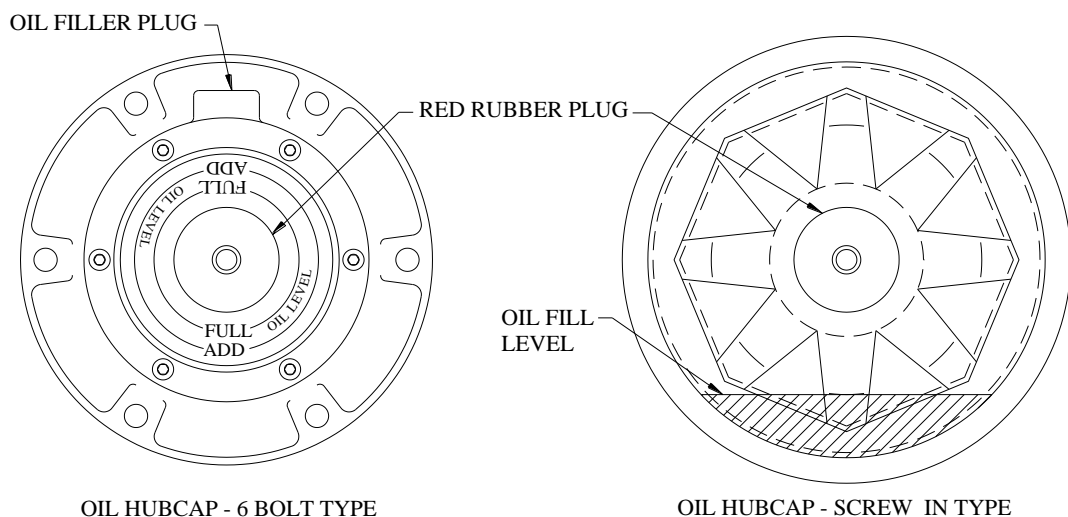
Grease Filled Hubs:

1. The wheel bearings must be fully packed with grease, it is recommended that a wheel bearing packer or suitable equipment is used to correctly pack the wheel bearings with grease.
2. Fill the hub cavity with grease as shown. The cavity is to be filled to a line running from inner bearing cup inner diameter to outer bearing cup inner diameter.
Caution: Do not overfill the hub cavity.
3. After the final assembly of the hub onto the axle end, a smear of grease should be applied to the inside of the hubcap and over the axle spindle nut/s and lock washer.



Oil Filled Hubs:

1. Remove the rubber plug or screwed plug from the hubcap so that the oil can be added to the hub.
2. Fill the hub with oil to the full level on the sight glass in the hubcap window.
3. Allow time for the oil to flow through the wheel bearings. Top up the hub with oil to the full mark. **Caution: Do not overfill the hub.**
4. Refit the rubber plug or screwed plug back into the hubcap. Check that the plug seals.





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WHEEL BEARING LUBRICANTS

Grease: Mobil HP or an approved equivalent grease.
Oil: Mobil 85W/140 or an approved equivalent oil.

WELDING TO TMC AXLE BEAMS

Recommended welding procedures:

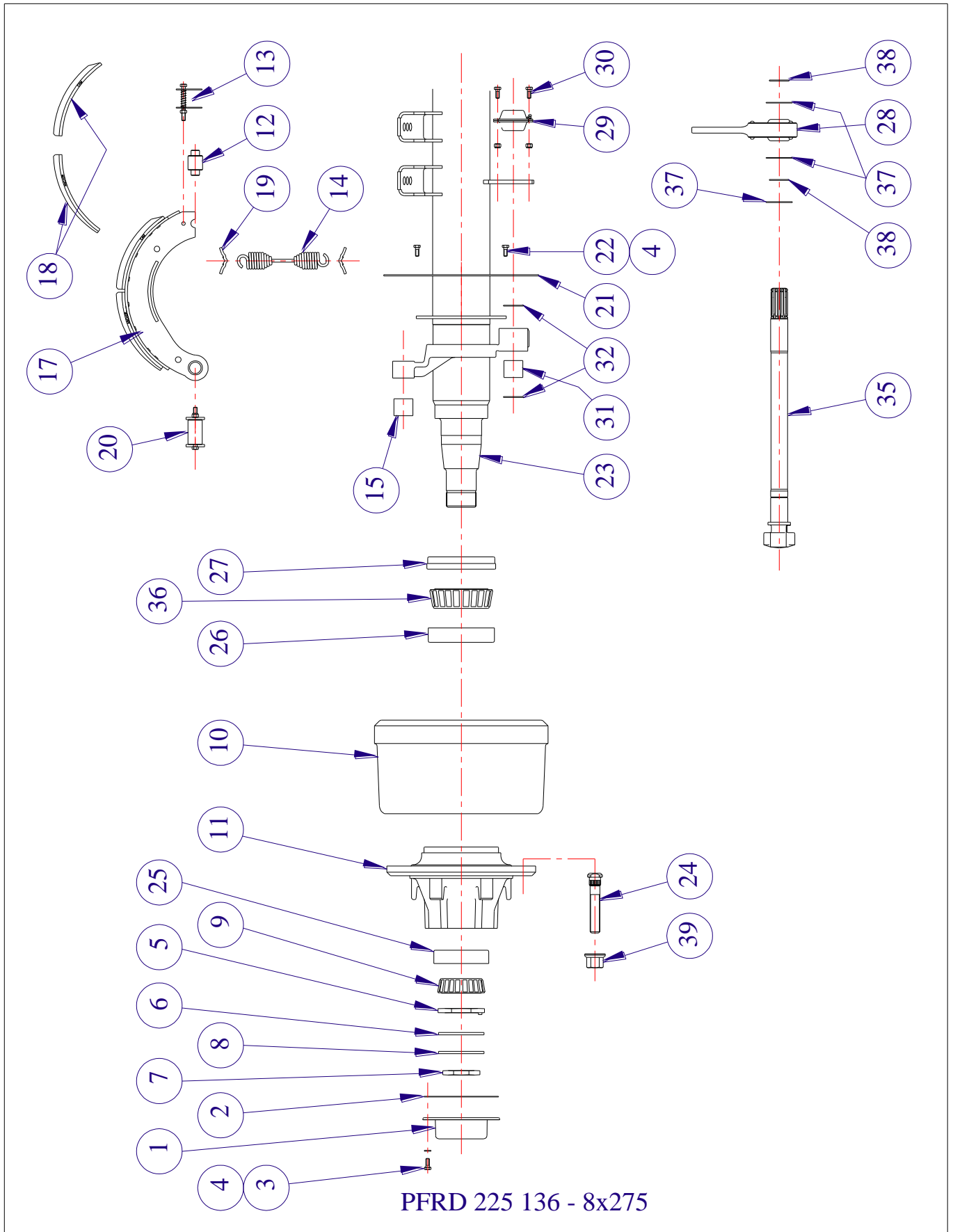
1. Before any welding is conducted on the axle tube, the axle tube must be pre heated to 100 – 150°C locally at the area to which the welding is to be done.
Caution: Do not apply excessive heat to the axle tube.
2. All welding is to be applied to the axle tube as near as possible to the axle's neutral axis. Do not weld circumferentially around the axle tube.
3. It is recommended that all welds are applied using small multiple fillet weld runs to achieve the desired finished weld fillet size.
4. All welds must be conducted using low hydrogen rods or an approved equivalent MIG process.

TORQUE SETTINGS CHART

Wheel nuts:
M22 ISO wheel studs - 550/600 Nm.

Hub Cap Bolts:
M8 studs - 20/25 Nm.

SPARE PARTS - AXLE MODEL PFRD-225-136 - 8x275





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SPARE PARTS - AXLE MODEL PFRD-225-136 – 8x275

Item	Model PFRD-225-136 Part Number	Description
1	810146/01	Hub cap – grease
	810146/02	Hubcap blank - grease
	810176	Hub cap – oil
2	810147	Hub cap gasket
3	9HBM08125020	Hub cap stud M8 x 20 long
4	9SWM08	Spring washer
5	810124	Axle spindle adjusting nut
6	810123	Axle spindle lock washer
7	810125	Axle spindle lock nut
8	810284	Lock tab washer
9	81HM212049	Outer bearing cone
10	813129	Brake drum – 8 stud x 275 pcd 335x160
11 #	810196	Hub assembly – 8 stud x 275 ISO steel
12	810094 *	Cam roller
13	810093 *	Cam roller retainer – bolt on
14	810101 *	Brake return spring
15	800002 *	Anchor pin bush
17	813126	Brake shoe lined – P brake 335x160
18	813110-07/08	Brake lining set
19	800013 *	Brake return spring retainer pin
20	810092/01 *	Anchor pin – P brake bolt on
	810092/07 *	Shim spacer – suits anchor pin
21	812024	Dust cover
22	9HBM08125025	Dust cover bolt M8 x 25 long
23	813100/contact TMC	Axle beam assembly
24	810144	Wheel stud – M22 ISO x 100mm (short)
	810148	Wheel stud – M22 ISO x 124mm (long)
25	81HM212011 #	Outer bearing cup
26	81HM218210 #	Inner bearing cup
27	810135/02	Hub seal
28	810320	Slack adjuster – 10 spline 5/6” curved
	8180769	Slack adjuster – 10 spline multi auto straight
29	810059	Inner cam bush assy
30	9HBM10150030	Bolt M10 x 30 long
31	810061	Outer cam bush
32	810081	Camshaft seal
35	810105/525L	Camshaft 10 spline – 525 long left hand
	810105/525R	Camshaft 10 spline – 525 long right hand
36	81HM218248	Inner bearing cone
37	810122	Camshaft washer 1 ½”
38	810121	Camshaft circlip 1 ¼”
39	810145 #	Wheel nut – M22 ISO
**	810001	Brake hardware kit (per wheel end)
		Optional
	810300/80	ABS axle kit – 80 tooth
	810169-80	ABS pole wheel – 80 tooth

Note:

- 1) Parts marked with # are supplied in # 810196 hub assembly.
- 2) Parts marked with * are supplied in # 810001 brake hardware kit.



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