

PARTS LIST BRAKE SYSTEMS & COMPONENTS

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TABLE OF CONTENTS

INTRODUCTION	3
ABBREVIATIONS	3
DRUM BRAKES	4
15" & 16.5" DRUM FOUNDATION BRAKE	5
HXS™ Brakes	5
P-TYPE DRUM FOUNDATION BRAKE	7
INTRAAX® ENCLOSED S-CAM, EARLY TYPE (PRE-2000)	8
INTRAAX® NON-ENCLOSED S-CAM EARLY TYPE (PRE-2000)	9
INTRAAX® 15" SEVERE DUTY CAM TUBE	10
INTRAAX® 16.5" SEVERE DUTY CAM TUBE	11
DRUM BRAKE CHAMBER GENERAL INFORMATION	12
INTRAAX® Drum Brake Chamber Application	12
DRUM BRAKE CHAMBERS	12
Common Drum Brake Chambers	13
BRAKE ADJUSTERS	14
DISC BRAKES	15
CALLIPER IDENTIFICATION	15
MAXX22T HDT-415 Calliper	15
Wabco HDT-377 & -430 Calliper	15
Knorr-Bremse SN7 Calliper	15
Knorr-Bremse SB7 Calliper	15
CONMET BRAKE ROTOR IDENTIFICATION	16
Early Type Parallel Brake Rotor	16
Late Type Offset Brake Rotor	16
TOOWOOMBA IRON HUB ROTOR KIT	17
WABCO HTD-377™ SYSTEM – 19.5 [CTA-044547 SARN 44547 FB]	18
WABCO HTD-377™ CALLIPER – 19.5 [CTA-044547 SARN 44547 FB]	19
MAXX22T HTD-415™ SYSTEM – 22.5 [CTA-047436 SARN 47436 FB]	20
MAXX22T HTD-415™ CALLIPER – 22.5 [CTA-047436 SARN 47436 FB]	21
WABCO HTD-430™ SYSTEM – 22.5 [CTA-044548 SARN 44548 FB]	22
WABCO HTD-430™ CALLIPER – 22.5 [CTA-044548 SARN 44548 FB]	23
KNORR-BREMSE HTD-430™ SYSTEM – 22.5 [SARN 29348 FB]	24
KNORR-BREMSE HTD-430™ CALLIPER – 22.5 [SARN 29348 FB]	25
DISC BRAKE CHAMBERS	26
ABS TONE RINGS – 430 MM	27
SPECIAL TOOLS	29

Document Interactivity

The interactive **Table of Contents** allows users to quickly navigate to the appropriate page with a single mouse click. The **INDEX** button at the bottom of each page returns you to the **Table of Contents**. Other links within the document are identified by black underlined text, whereas links to external websites are identified by blue underlined text.



INTRODUCTION

The purpose of this parts list is to document the repair parts, accessories and special tools available for the disc and drum brake systems installed to the Hendrickson INTRAAX® and TRLAXLE® families of axles as follows:

- Knorr-Bremse Disc Brake
- Hendrickson Extended Service™ (HXS™) and conventional drum brake
- HTD-377™ 377 mm and HTD-430™ 430 mm Wabco Disc Brake
- MAXX22T HTD-415™ 415 mm Hendrickson Disc Brake
- P-Type Drum Brake

However, due to their unique nature, S-cams and associated components for CONNEX™ ST and TRLAXLE® loose axles are detailed separately. For more details regarding wheel end components or the aforementioned axles refer to:

- [97114-072](#) TRLAXLE® Loose Axle Parts Bulletin
- [97114-100](#) Wheel End Parts Bulletin
- [97114-127](#) CONNEX™ ST Top Mount Part Bulletin
- [97114-130](#) CONNEX ST Underslung Part Bulletin

ABS PULSE RING NOTE:

ABS pulse rings that are attached to wheel end hubs vary according to hub type and design. Therefore, hub-attached tone rings are listed in the Hendrickson Trailer Wheel End [Parts List 97114-100](#), along with other wheel end components.

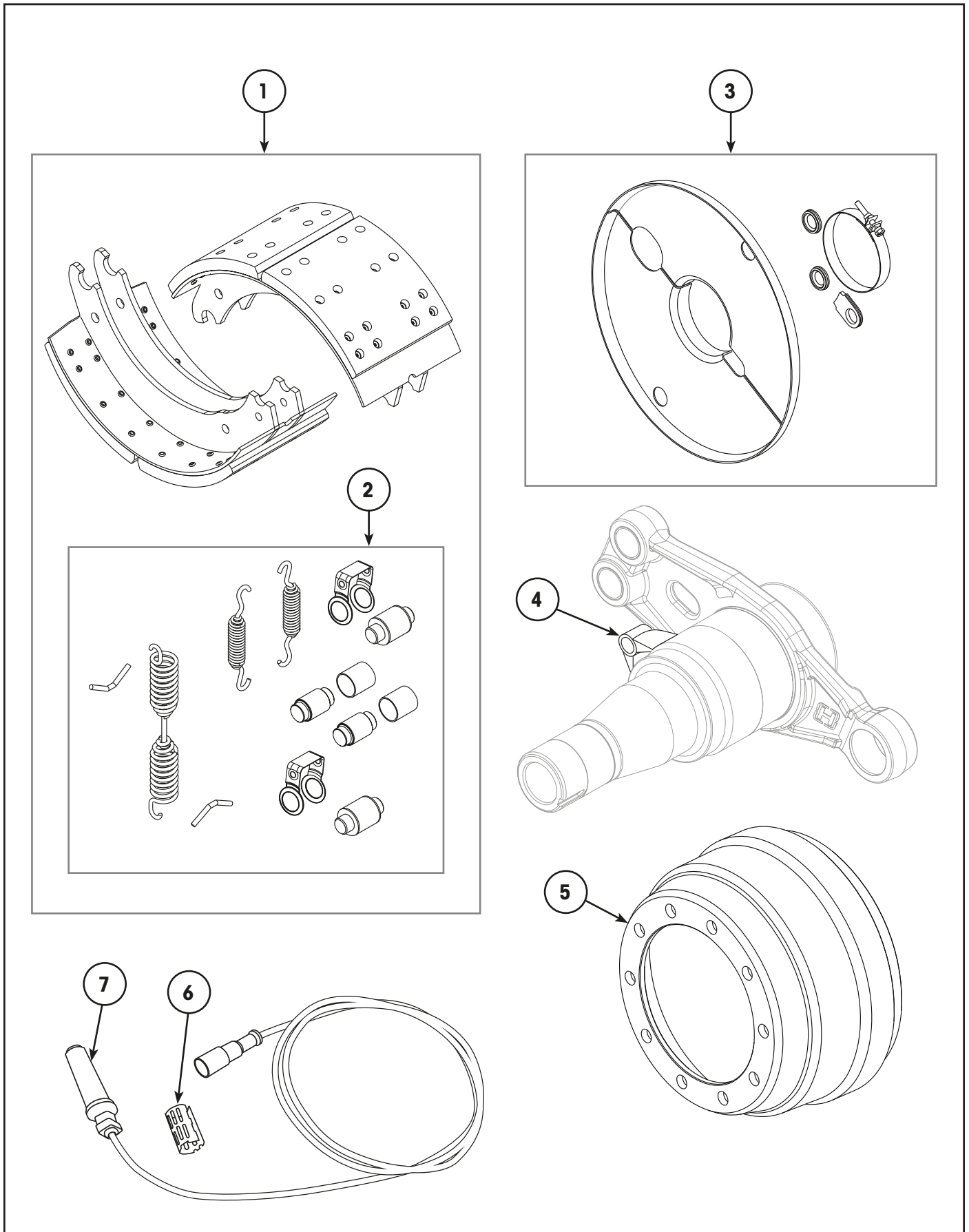
NOTICE: All quantities listed within this parts list are as applicable for one axle assembly.

ABBREVIATIONS

Abbreviations used in this document include the following terms:

- AR – As Required
- ADI – Austempered Ductile Iron
- DDSB – Double Diaphragm Spring Brake
- Exc – Except
- HXS – Hendrickson Extended Service brakes
- NLA – No Longer Available
- NSS – Not Serviced Separately
- PCD – Pitch Circle Diameter

DRUM BRAKES



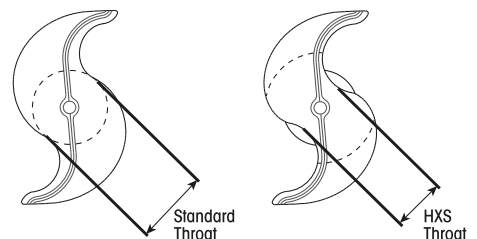
15" & 16.5" DRUM FOUNDATION BRAKE

Item	Part Number	Description	Qty	Notes
1	S-27783-1	Brake Overhaul Kit, 15" x 8-5/8" – HXS™	2	CTA-033672 (SARN 33672 FB) See box "HXS™ Brakes". Includes item 2.
	S-23753-1	Brake Overhaul Kit, 16.5" x 7" – HXS (Exc CONNEX-ST)	2	CTA-016549 (SARN 16549 FB) See box "HXS™ Brakes". Includes brake hardware – item 2.
	S-37632-1	Brake Overhaul Kit, 16.5" x 7" – CONNEX™-ST HXS	2	
	98881-042	Brake Overhaul Kit, 16.5" x 8-5/8" – HXS	2	
2	S-23752	Kit, Brake Hardware – 15" & 16.5" (Exc kits listed below)	2	Includes springs, rollers, bushes, pins & clips. Included in item 1.
	S-37633	Kit, Brake Hardware – CONNEX-ST 16.5"	2	
	98881-043	Kit, Brake Hardware – 16.5" x 8-5/8"	2	
3	S-28500-1550	15" Brake Dust Shield Kit 5" Axle	2	Includes dust shield, clamp, grommet & inspection plugs. (Refer to website for CONNEX™ ST)
	S-28500-1650	16.5" Brake Dust Shield Kit 5" Axle	2	
	S-28500-1657	16.5" Brake Dust Shield Kit 5.75" Axle	2	
4	S-27117	Bracket, ABS Sensor Mounting – 5" Axle	2	Suits 127 mm (5") axle.
	S-28757	Bracket, ABS Sensor Mounting – 5.75" Axle	2	Suits 146 mm (5.75") axle.
5	S-27826	Brake Drum, 15" x 8-5/8" – 8 Stud 275 PCD	2	Lightweight.
	S-26390	Brake Drum, 15" x 8-5/8" – 10 Stud 285 PCD	2	Lightweight.
	E38176	Brake Drum, 16.5" x 7" – 10 Stud 285 PCD	2	Lightweight Hendrickson.
	D-30114	Brake Drum, 16.5" x 7" – 10 Stud 285 PCD	2	Cast.
	C-31699	Brake Drum, 16.5" x 7" – 10 Stud 335 PCD	2	Cast.
	98815-028	Brake Drum, 16.5" x 7" – 5 Spoke	2	Drum only. Included in 98792-013.
	98792-013		2	HN hub & drum assembly.
	98815-025	Brake Drum, 16.5" x 8-5/8" – 10 Stud 285 PCD	2	Cast.
	E39848	Brake Drum, 16.5" x 8-5/8" – 10 Stud 285 PCD	2	Lightweight Hendrickson.
	C-30652	Brake Drum, 16.5" x 8-5/8" – 10 Stud 335 PCD	2	Cast.
6	99008-001	Clip, ABS Sensor Retainer	2	
7	98831-001	Sensor, Straight ABS with 1.7m lead	2	
	A-23619-3	Sensor, 90° ABS with 1m lead (Not Illustrated)	2	Suits steer axles axle.

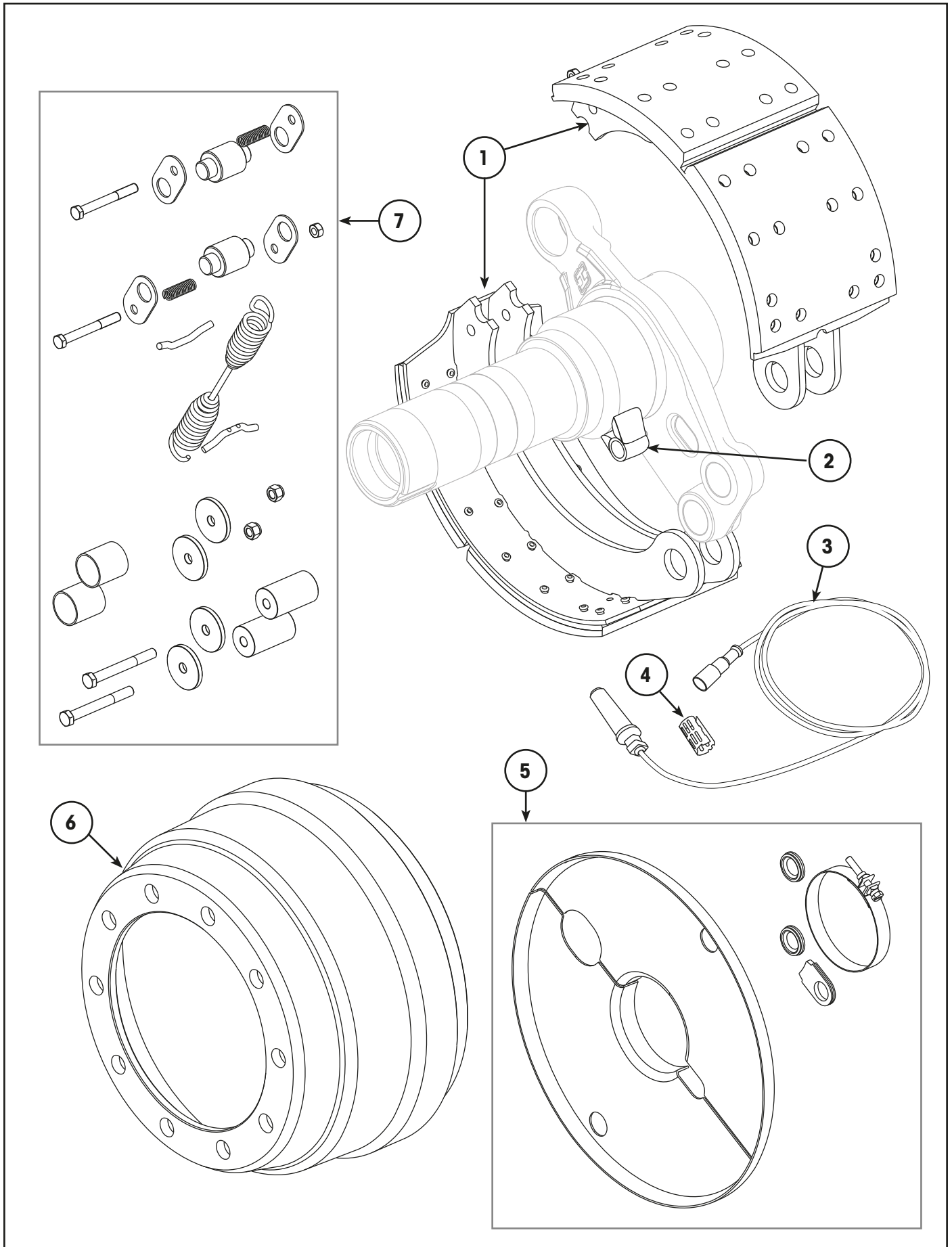
HXS™ Brakes

Hendrickson Extended Service™ (HXS™) brakes use thicker lining blocks, which extends the distance travelled between brake services. They can only be fitted to HXS S-cams because the throat is smaller to allow for the thicker linings. Older standard thickness brake linings are no longer available from Hendrickson.

HXS S-cams have been standard on all Hendrickson axles since 14 March 2000 and are standard for replacement camshafts. They can be identified by the letters HXS stamped into the spine end of the S-cam. HXS brake shoes are prominently stamped with the letters HXS. Standard brake shoes can be fitted to Hendrickson HXS S-cams.



The end of the S-cam will be marked with the letters HXS.



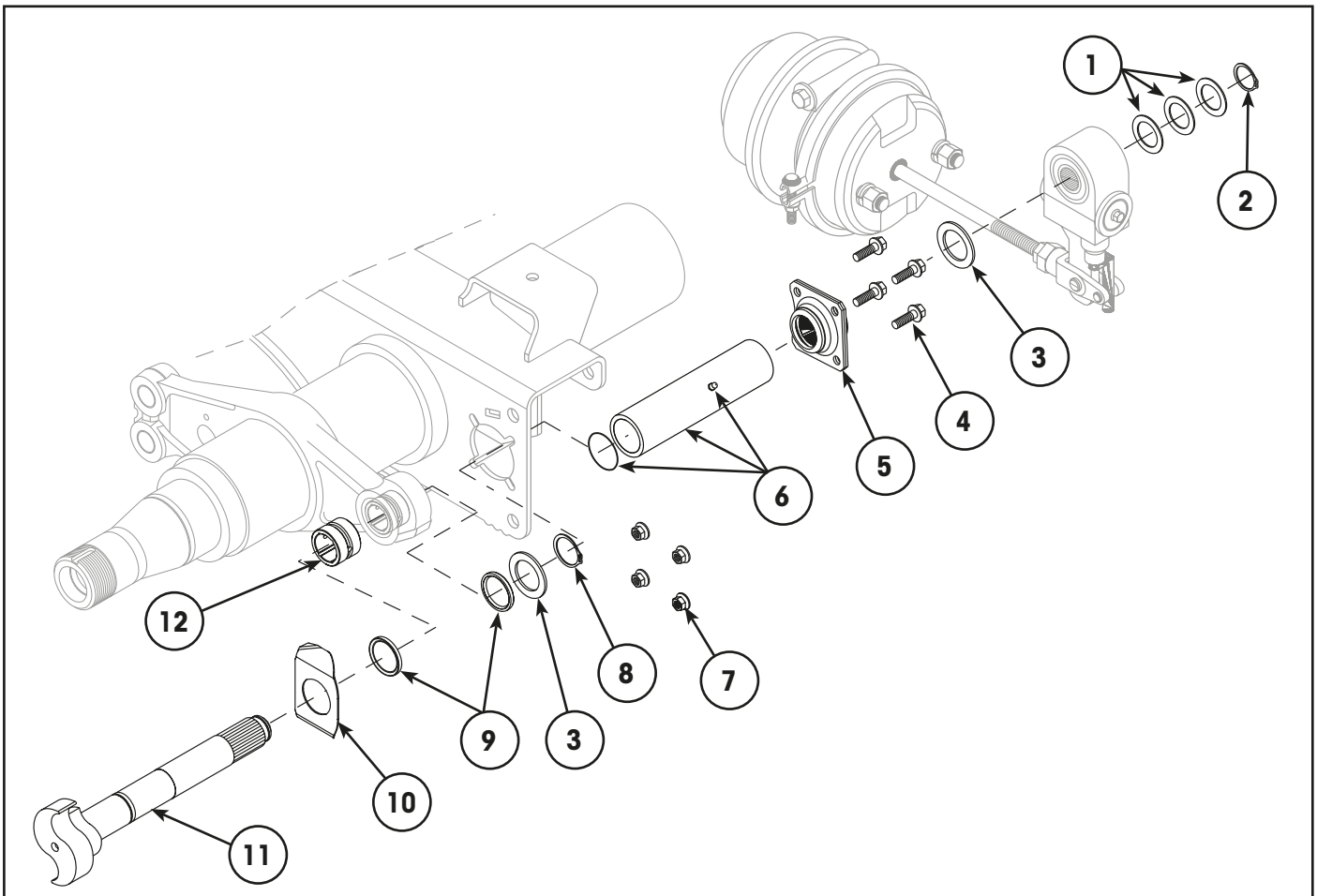


P-TYPE DRUM FOUNDATION BRAKE

Item	Part Number	Description	Qty	Notes
1	98881-029	Brake Shoe, P-Type – 16.5" x 7" HXS – H20 Lining	4	CTA-01 6549 (SARN 16549 FB) See box "HXSTM Brakes" on page 5. Shoe assemblies only, use with brake hardware – item 7.
	98881-007	Brake Shoe, P-Type – 16.5" x 7" HXS – MB21 Lining	4	SARN 16550 FB. See box "HXSTM Brakes" on page 5. Shoe assemblies only, use with brake hardware – item 7.
2	S-27117	Bracket, ABS Sensor Mounting – 5" Axle	2	Suits 127 mm (5") axle.
	S-28757	Bracket, ABS Sensor Mounting – 5.75" Axle	2	Suits 146 mm (5.75") axle.
3	98831-001	Sensor, Straight ABS with 1.7m lead	2	
4	99008-001	Clip, Retaining – ABS Sensor	2	
5	S-28500-1650	Kit, Dust Shield – 16.5" Brake with 5" Axle	2	Includes dust shield, clamp, grommet & inspection plugs.
	S-28500-1657	Kit, Dust Shield – 16.5" Brake with 5.75" Axle	2	
6	D-30114	Brake Drum, 16.5" x 7" – 10 Stud 285 PCD	2	Cast.
	E38176	Brake Drum, 16.5" x 7" – 10 Stud 285 PCD	2	Lightweight Hendrickson.
	C-31699	Brake Drum, 16.5" x 7" – 10 Stud 335 PCD	2	Cast.
7	98881-039	Kit, Brake Hardware	2	Includes springs, pins, rollers, bushes, bolts, nuts, washers, plates & spacers.

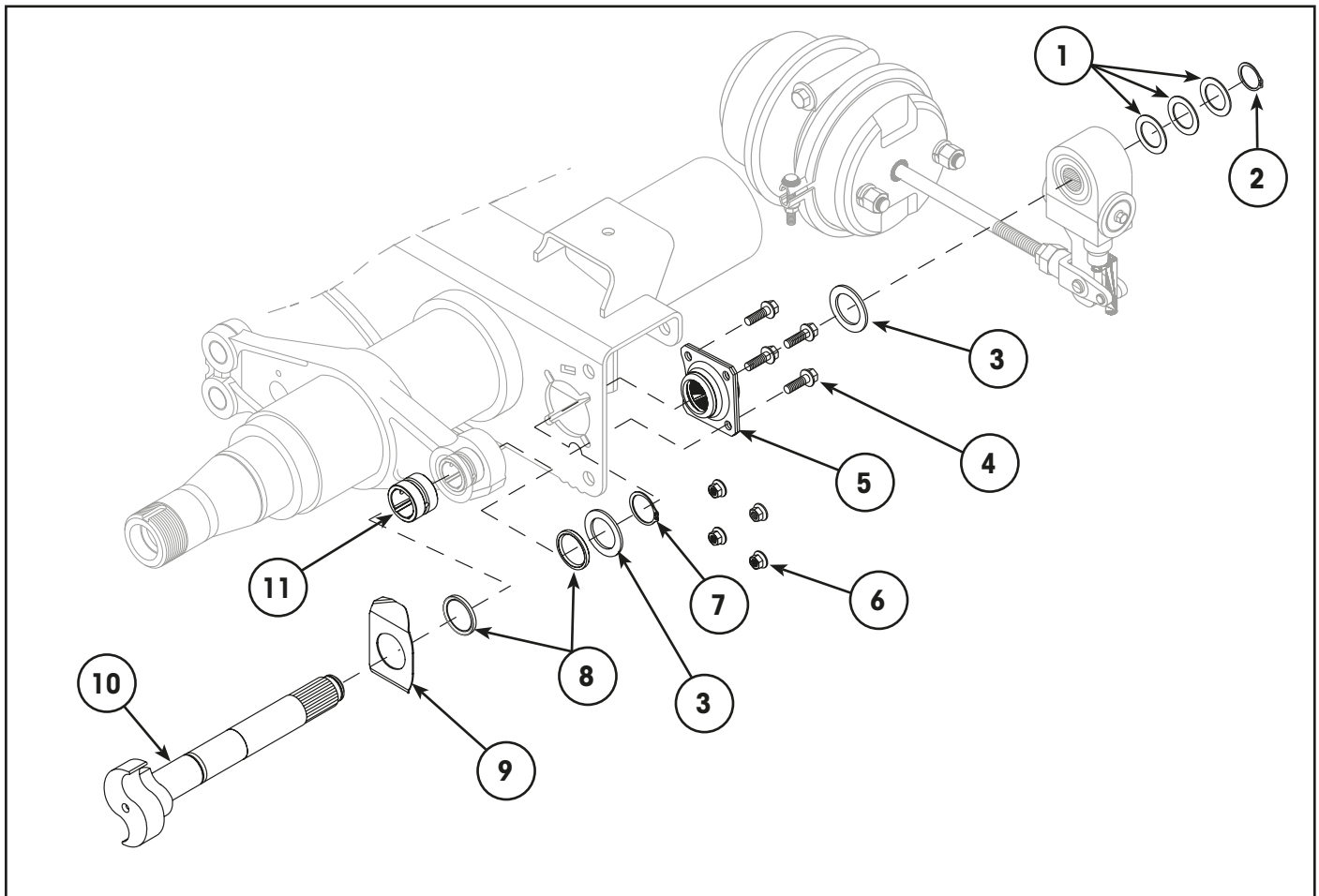


INTRAAX® ENCLOSED S-CAM, EARLY TYPE (PRE-2000)



Item	Part Number	Description	Qty	Notes
1	A-20812	Washer, Outer – Brake Adjuster	6	
2	A-20811	Ring, Retaining – Brake Adjuster	2	
3	A-31650	Washer, Inner - S-Cam Shaft	4	
4	SA-6900-5	Screw, Flanged – 3/8" x 1.25"	8	
5	S-25440	Support Bushing Assembly, S-Cam	2	
6	98933-011	Kit, S-Cam Tube – Nylon	2	Includes grease nipple and O-ring.
7	SA-7000-3	Nut, Prevailing Torque – 3/8"	8	
8	A-20808	Ring, Retaining – S-Cam Shaft	2	
9	A-20807	Seal, Brake Spider – S-Cam Journal	4	[1] Suits 1-7/8" journal.
10	C-32017	Washer, S-Cam – Under Head	2	
11	S-25024-1L	S-Cam, Brake – LH. HXS™ profile.	1	15" brake with HXS S-cam profile. See box "HXS™ Brakes" on page 5.
	S-25024-1R	S-Cam, Brake – RH. HXS profile.	1	
	S-24636-1L	S-Cam, Brake – LH. HXS profile.	1	16.5" brake with HXS S-cam profile. See box "HXS™ Brakes" on page 5.
	S-24636-1R	S-Cam, Brake – RH. HXS profile.	1	
12	S-20823	Bush, Brake Spider – S-Cam Journal	4	*See Note. Suits 1-7/8" journal.

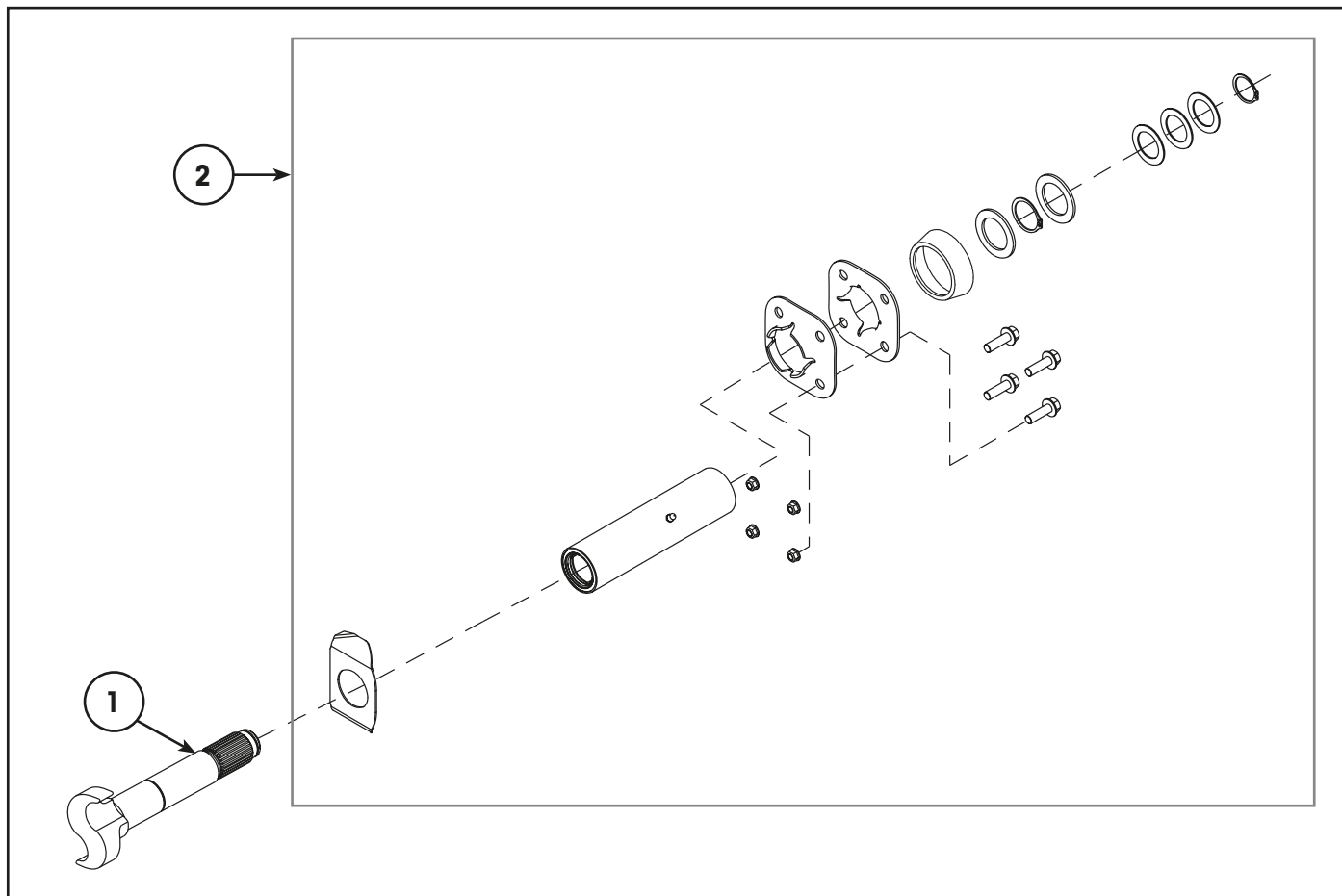
[1] NOTE: Enclosed S-Cam system is only suitable for INTRAAX® axles with 1-7/8" journal and is not available for INTRAAX axles with 2" journals.

INTRAAX® NON-ENCLOSED S-CAM EARLY TYPE (PRE-2000)


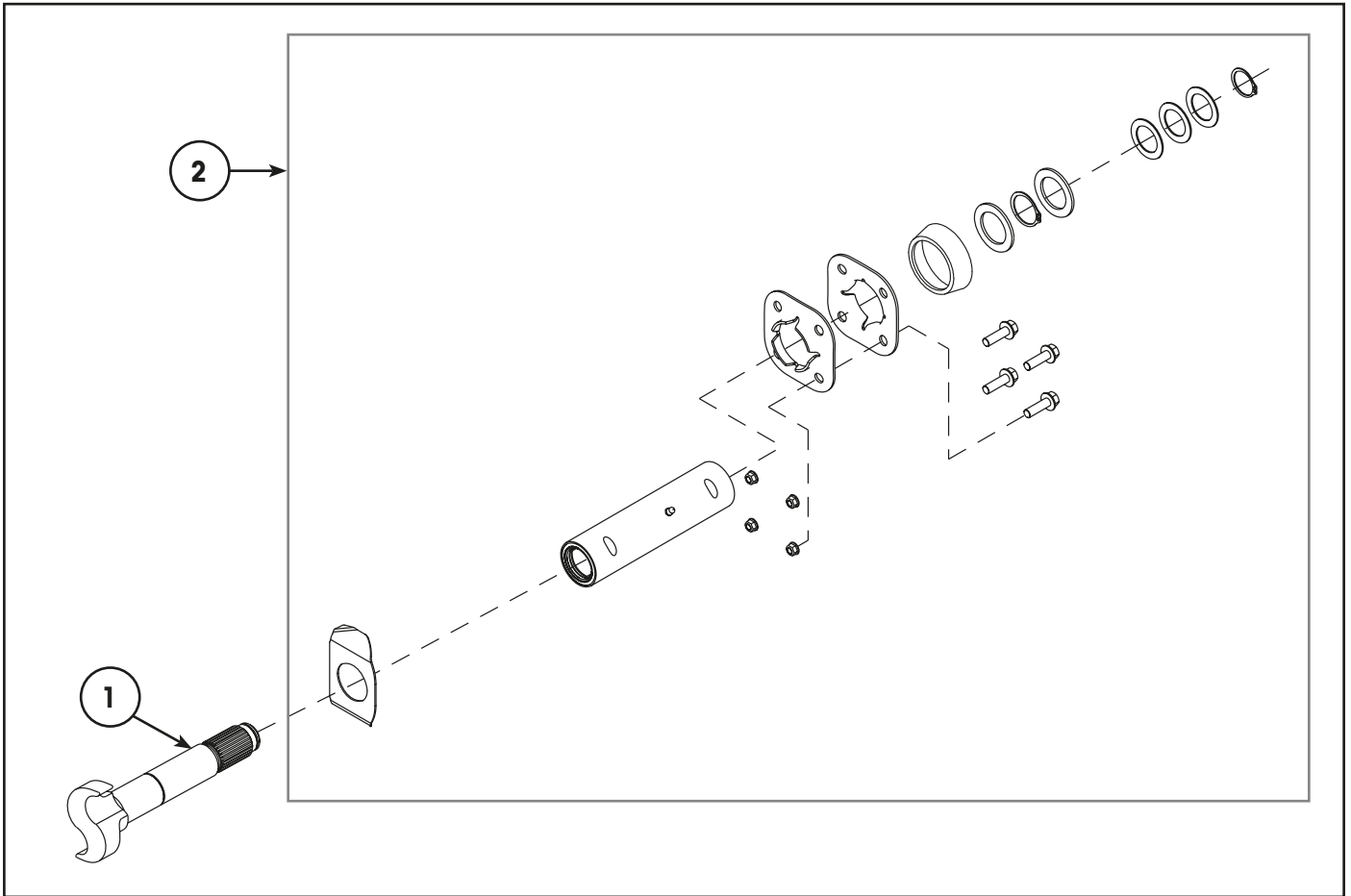
Item	Part Number	Description	Qty	Notes
1	A-20812	Washer, Outer – Brake Adjuster	6	
2	A-20811	Ring, Retaining – Brake Adjuster	2	
3	A-31650	Washer, Inner - S-Cam Shaft	4	
4	SA-6900-5	Screw, Flanged – 3/8" x 1.25"	8	
5	S-25440	Support Bushing Assembly, S-Cam	2	
6	SA-7000-3	Nut, Prevailing Torque – 3/8"	8	
7	A-20808	Ring, Retaining – S-Cam Shaft	2	
8	A-20807	Seal, Brake Spider – S-Cam Journal	4	Suits 1-7/8" journal.
	S-22885	Seal, Brake Spider – S-Cam Journal	4	Suits 2" journal.
9	C-32017	Washer, S-Cam – Under Head	2	
10	S-25024-1L	S-Cam, Brake – LH. HXS™ profile.	1	15" brake with HXS S-cam profile. See box "HXS™ Brakes" on page 5.
	S-25024-1R	S-Cam, Brake – RH. HXS profile.	1	
	S-24636-1L	S-Cam, Brake – LH. HXS profile.	1	16.5" brake with HXS S-cam profile. See box "HXS™ Brakes" on page 5.
	S-24636-1R	S-Cam, Brake – RH. HXS profile.	1	
11	S-20823	Bush, Brake Spider – S-Cam Journal	4	Suits 1-7/8" journal.
	S-22898	Bush, Brake Spider – S-Cam Journal	4	Suits 2" journal.



INTRAAX® 15" SEVERE DUTY CAM TUBE



Item	Part Number	Description	Qty	Notes
1	S-25024-1L	HXS™ S-Cam, Brake – LH.	1	HXS S-cam profile. See box "HXS™ Brakes" on page 5.
	S-25024-1R	HXS S-Cam, Brake – RH.	1	
2	S-31706	Kit, Cam Tube – 15" Brake	2	Includes items tubes, seals, supports and associate hardware.
3	98881-027	Overhaul Kit – S-Cam & Tube, LH	1	Includes items 1 & 2 (S-25024-1L & S-31706). Not illustrated.
	98881-028	Overhaul Kit – S-Cam & Tube, RH	1	
4	98881-026	Overhaul Kit – S-Cam & Tube, Axle	1	Includes both items 3 (98881-027 & 98881-028). Not illustrated.

INTRAAX® 16.5" SEVERE DUTY CAM TUBE


Item	Part Number	Description	Qty	Notes
1	S-24636-1L	HXS™ S-Cam, Brake – LH	1	HXS S-cam profile. See box "HXS™ Brakes" on page 5.
	S-24636-1R	HXS S-Cam, Brake – RH	1	
2	S-31703	Kit, Cam Tube – 16.5" Brake	2	Includes items tubes, seals, supports and associate hardware.
3	98881-023	Overhaul Kit – S-Cam & Tube, LH	1	Includes items 1 & 2 (S-31703 & S-24636-1L). Not illustrated.
	98881-024	Overhaul Kit – S-Cam & Tube, RH	1	
4	98881-025	Overhaul Kit – S-Cam & Tube, Axle	1	Includes both items 3 (98881-023 & 98881-024). Not illustrated.

DRUM BRAKE CHAMBER GENERAL INFORMATION

INTRAAX® Drum Brake Chamber Application

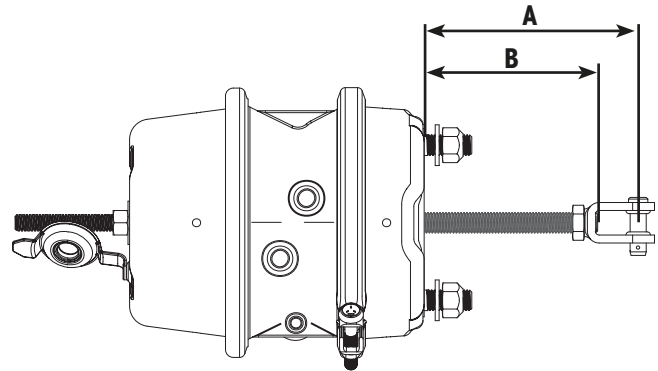
The applicable brake chambers for INTRAAX suspension systems are determined by the following:

- Brake adjuster length from the centre of the S-cam spline to the centre of the brake chamber clevis pin
- Brake chamber pushrod stroke
- Brake chamber pushrod length

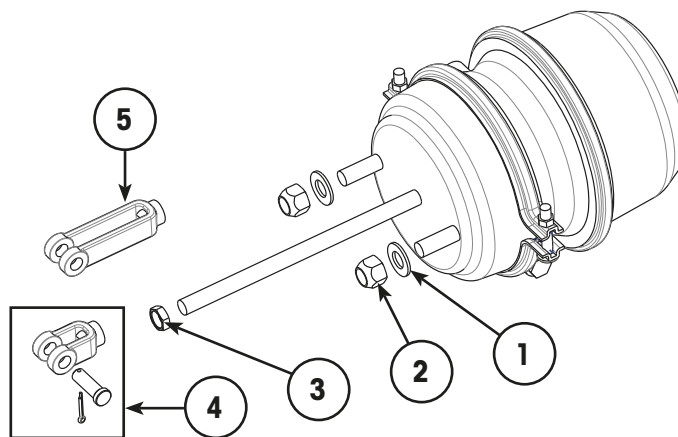
UBL NOTE: The Under Beam Lift kit UBL-401 for AANT axles cannot be paired with some brake chambers. This is due to insufficient clearance that restricts correct movement. The TSE UltraLife 30/30 3" stroke brake chamber is known to interfere. However, other similar sized long stroke brake chambers may also cause obstruction.

Brake Chamber Measurements

- A Clevis.** This is the distance between the brake chamber face and the centre of the clevis pin opening.
- B Rod.** This is the length of the rod measured from the brake chamber face to the end of the rod.



DRUM BRAKE CHAMBERS



Item	Part Number	Description	Notes
1	22962-004	Washer, Hardened – 5/8	[1]
2	47764-000	Nut, Lock – 5/8 UNC, 2B	[1]
3	SA-1300-55	Jam Nut, Clevis – 5/8 UNF, 2A	[1]
4	A-21420	Kit, Brake Clevis, Split Pin & Clevis Pin – 50 mm	[1]
5	98870-001	Clevis, Brake Adjuster – 100 mm	Optional [1]

[1] NOTE: All drum brake chambers are supplied complete with new fasteners and 50 mm clevis to suit manual and/or Haldex automatic brake adjusters. Refer to “[Brake Adjusters](#)” on page 14 for further details regarding brake adjusters.



Common Drum Brake Chambers

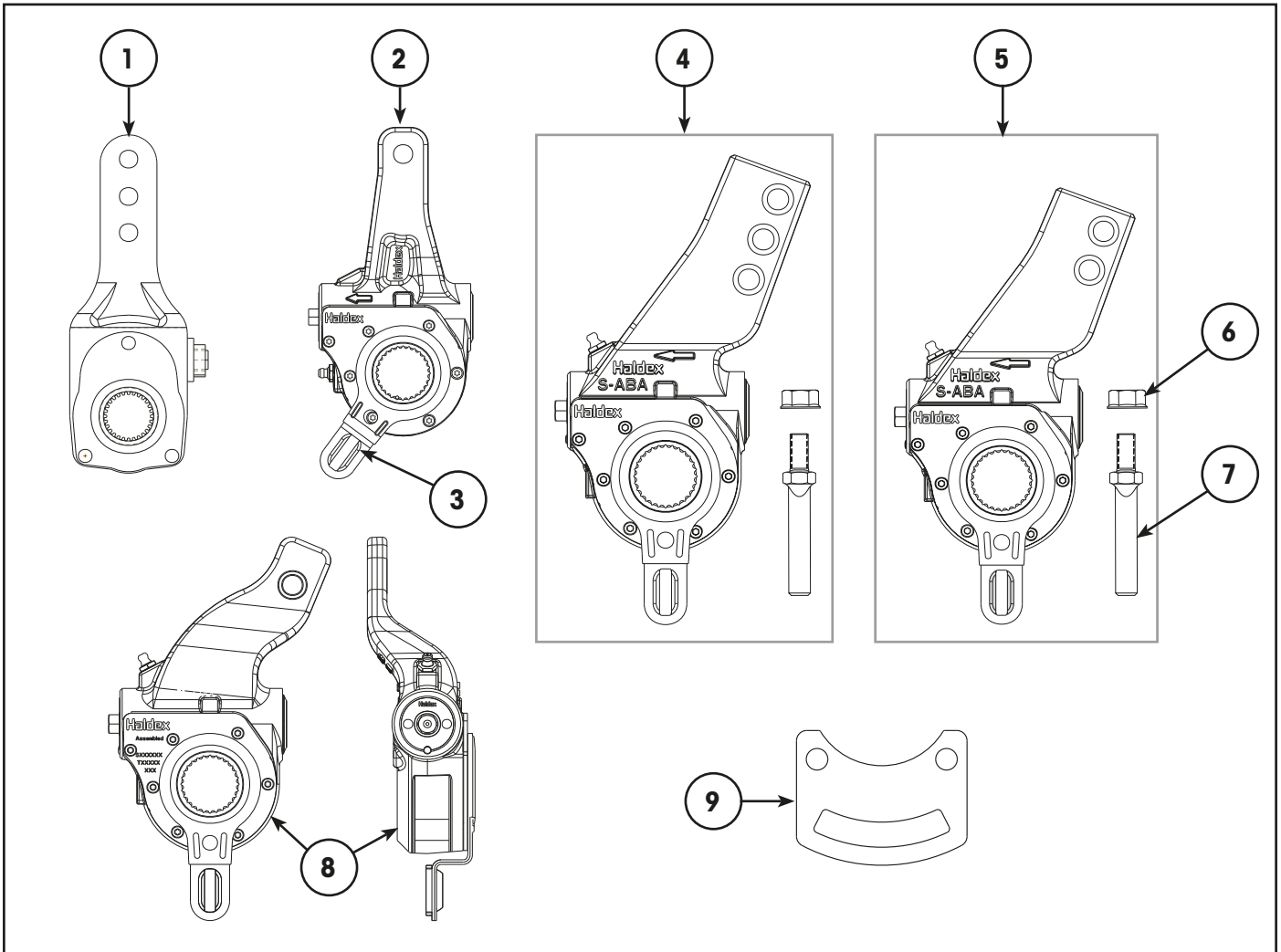
Stroke	Slack	Model	To Clevis	Rod (Approx.)	Size	Part Number ^[2]	Notes
2½ INCH	5", 5.5", 6"	D22/P22	-	8" 203mm	24	98832-005	Clevis not attached
					30	98832-003	Clevis not attached
					24/30	98832-007	Clevis not attached
					30/30	98832-004	Clevis not attached
		AAL/AANL/ EDL/EDT	6.9" 175mm	5.6" 142mm	24	98832-129	
					30	98832-128	
					24/30	98832-126	
					30/30	98832-127	
		AAT/AANT	11" 279mm	10" 254mm	24	98832-005	[3] Refer note below.
					30	98832-006	
					24/30	98832-065	
					30/30	98832-066	
3 INCH	6"	AAT/AANT	11" 279mm	9.75" 248mm	30	98832-102	Replaces 98832-063
					24/30	98832-105	Replaces 98832-062
					30/30	98832-116	Replaces 98832-061
		AAL/AANL	7" 178mm	5.75" 156mm	30	98832-103	Replaces 98832-071
					24/30	98832-106	Replaces 98832-070
					30/30	98832-117	Replaces 98832-069
	6.5", 7"	AAT/AANT	9.8" 249mm	8.6" 218mm	24	98832-138	Replaces 98832-064
					30	98832-137	Replaces 98832-063
					24/30	98832-136	Replaces 98832-062
					30/30	98832-135	Replaces 98832-061
		AAL/EDL/EDT	6.3" 160mm	5.1" 130mm	24	98832-142	Replaces 98832-072
					30	98832-141	Replaces 98832-071
					24/30	98832-140	Replaces 98832-070
					30/30	98832-139	Replaces 98832-069
	5.5", 6"	CONNEX ST	2.45" 62mm	-	24	98832-118	Welded clevis
				-	30	C-38863	Welded clevis
-				24/30	98832-119	Welded clevis	
-				30/30	98832-144	Welded clevis	

[2] NOTE: TSE brake chambers

[3] NOTE: When replacing a Type-24 brake chamber fitted to either an AAT or AANT INTRAAX axle (10" rod and 2.5" stroke), use part number **98832-005** (8" rod and 2.5" stroke) and extended clevis part no. **98870-001**.



BRAKE ADJUSTERS



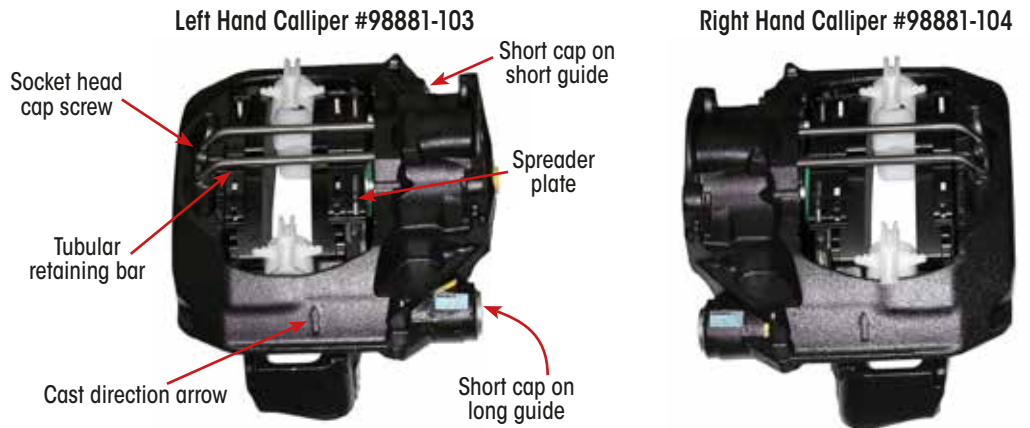
Item	Part Number	Description	Qty	Notes
1	98834-004	Brake Adjuster, Manual – 5", 6" & 7"	2	
	98834-008	Brake Adjuster, Manual – 5.5" & 6.5"	2	
2	S-37277	Brake Adjuster, Auto – 5.5"	2	Includes grommet, item 3.
	S-37279	Brake Adjuster, Auto – 6"	2	
3	98515-004	Grommet, Stud – Haldex Brake Adjuster	2	Includes grommet, item 3.
4	98834-028	Kit, Auto Brake Adjuster – 5", 6" & 7"	2	Includes stud, nut & grommet, items 3, 6 & 7.
5	98834-029	Kit, Auto Brake Adjuster – 5.5" & 6.5"	2	
6	S-24597	Nut, Flanged – Auto Brake Adjuster Anchor	2	
7	S-24596	Stud – Auto Brake Adjuster Anchor	2	
8	98834-036	Brake Adjuster, 5.5" Offset Auto – Left Hand	1	Suits CONNEX™ ST Underslung Includes grommet, item 3.
	98834-037	Brake Adjuster, 5.5" Offset Auto – Right Hand	1	
	98834-034	Brake Adjuster, 6" Offset Auto – Left Hand	1	Suits CONNEX™ ST Underslung Includes grommet, item 3.
	98834-035	Brake Adjuster, 6" Offset Auto – Right Hand	1	
9	98870-188	Support Plate, Auto Brake Anchor	2	

DISC BRAKES CALLIPER IDENTIFICATION

NOTICE: To avoid excessive and tapered brake pad wear, it is important not to swap the Left and Right brake callipers.

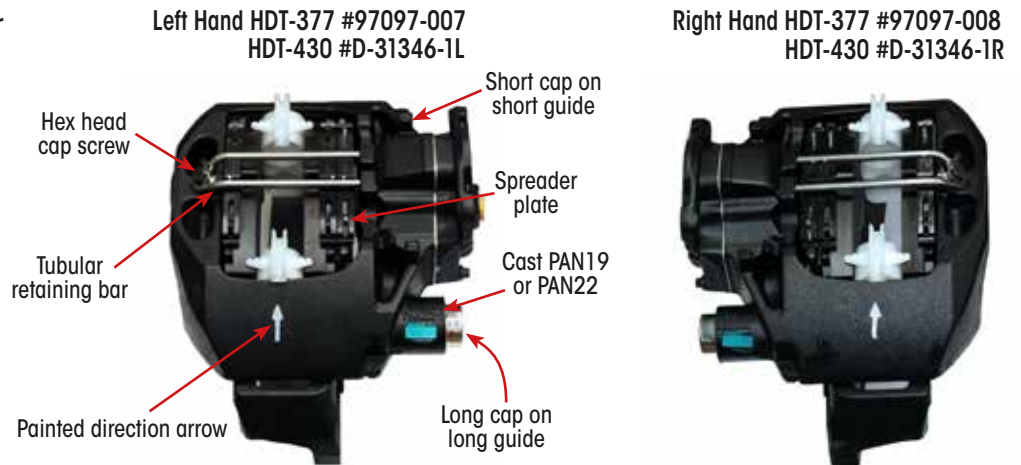
MAXX22T HDT-415 Calliper

- 415 mm rotor.
- Direction of rotation is from long guide to short guide.
- Tubular retaining guide.
- Single piston design with spreader plate.
- Cast direction arrow.
- Both guides have short caps.



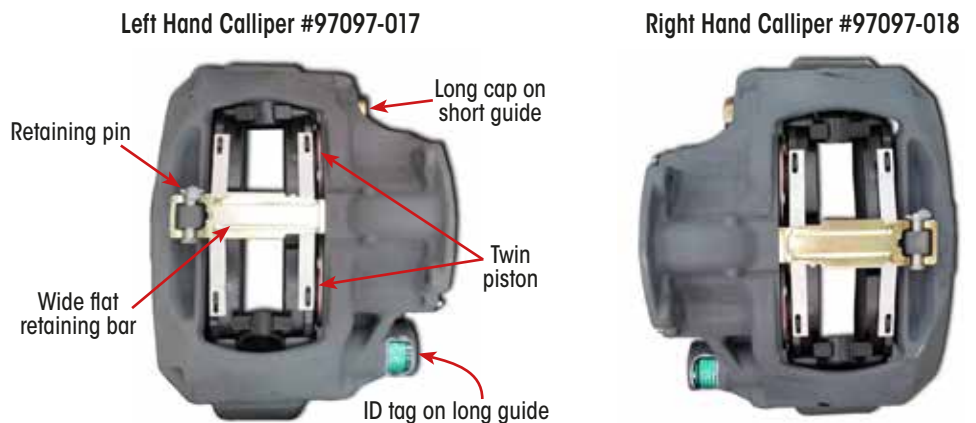
Wabco HDT-377 & -430 Calliper

- 377 or 430 mm rotor.
- Direction of rotation is from long guide to short guide.
- Tubular retaining guide.
- Single piston design with spreader plate.
- Painted direction arrow.
- Short guide has short cap, longer guide has longer cap.



Knorr-Bremse SN7 Calliper

- 430 mm rotor.
- Direction of rotation is from long guide to short guide.
- Wide flat retaining guide.
- Twin piston without spreader plate.
- No direction arrow.



Two-piece design SB7 calliper



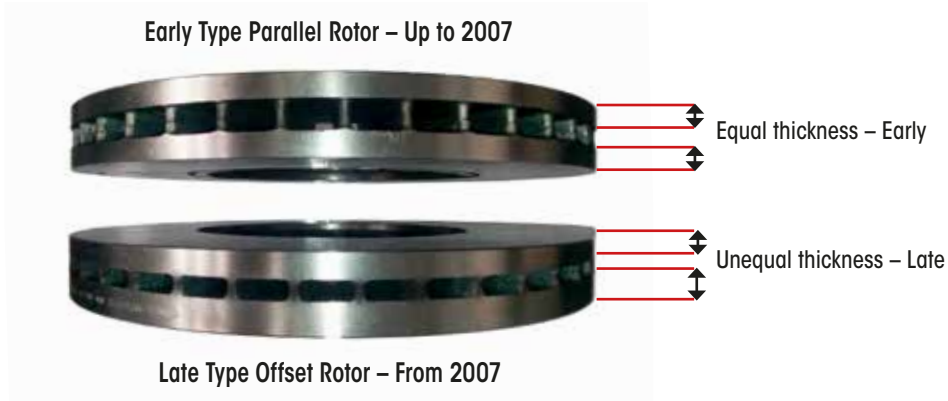
Knorr-Bremse SB7 Calliper

SB7 was a two-piece calliper. The newer SN7 is a mono-block design that was introduced during June 2006. Visually, the two calliper designs can be identified by comparing calliper housings. Refer to the **SB7** image (left) and the **SN7** images shown above.



CONMET BRAKE ROTOR IDENTIFICATION

During July 2007, Hendrickson introduced a new offset brake rotor design for all pre-set disc brake applications to replace the parallel rotor design. Visually the two rotor designs can be identified as shown below. When servicing these rotors, it is important to order the correct service kit, as these rotors are **not interchangeable**.



Early Type Parallel Brake Rotor

This rotor is no longer available from the supplier. Use the updated rotor and hub assembly **98801-076**. For details of these replacement rotors and hubs refer to Wabco HTD-430 brake system on [page 23](#) and Hendrickson [Wheel End Parts Bulletin 97114-100](#).

The parallel rotor used prior to July 2007 can be identified as follows:

- Both braking plate thickness are the same
- ConMet part no. 10009970 is cast onto the face of the rotor



Up to 2007 early type – part number 10009970 cast into rotor

NOTE: Early type (parallel) and late type (offset) rotors are not interchangeable.

Late Type Offset Brake Rotor

The offset rotor used after July 2007 can be identified as follows:

- Both braking plate thickness are different
- ConMet part number stamped onto the outer edge of the rotor. This number will be 10016195 from 2007 to 2018, 10083615 during 2018 and 10084701 from 2019 onwards.



Offset rotor with one rotor plate thicker than the other. The part number is stamped onto edge
 10016195 – 2007 to 2018 – ABS ring 10 Bolt
 10083615 – 2018 – ABS ring 5 Bolt
 10084701 – 2019 onwards – ABS ring with Circlip

Rotor rebuild kit part number **98815-031** is the latest design with the ABS ring held by circlip. This kit consists of the following:

- Rotor, Stepped – 430 x 45 mm
- Nut, Hex Flanged – 5/8" x 18 UNF Grade 8 (x10)
- Stainless snap ring – circlip
- ABS Pulse Ring

Insulator Note: The stainless steel insulator installed between aluminium hub and rotor should be cleaned and reused. It is only available as part of the complete hub and rotor assembly. Refer wheel end parts list [97114-100](#).



TOOWOOMBA IRON HUB ROTOR KIT

Toowoomba hubs can usually be identified by the letters **TWP** or **Toowoomba Wheel Products** cast into the hub.

The Toowoomba iron hub and rotor assembly is no longer available in either 285 or 335 PCD configuration. However, Hendrickson has developed a kit to enable the replacement of a damaged or worn rotor.

NOTE: A Toowoomba hub replacement procedure is available in Hendrickson technical publication [97117-254](#).

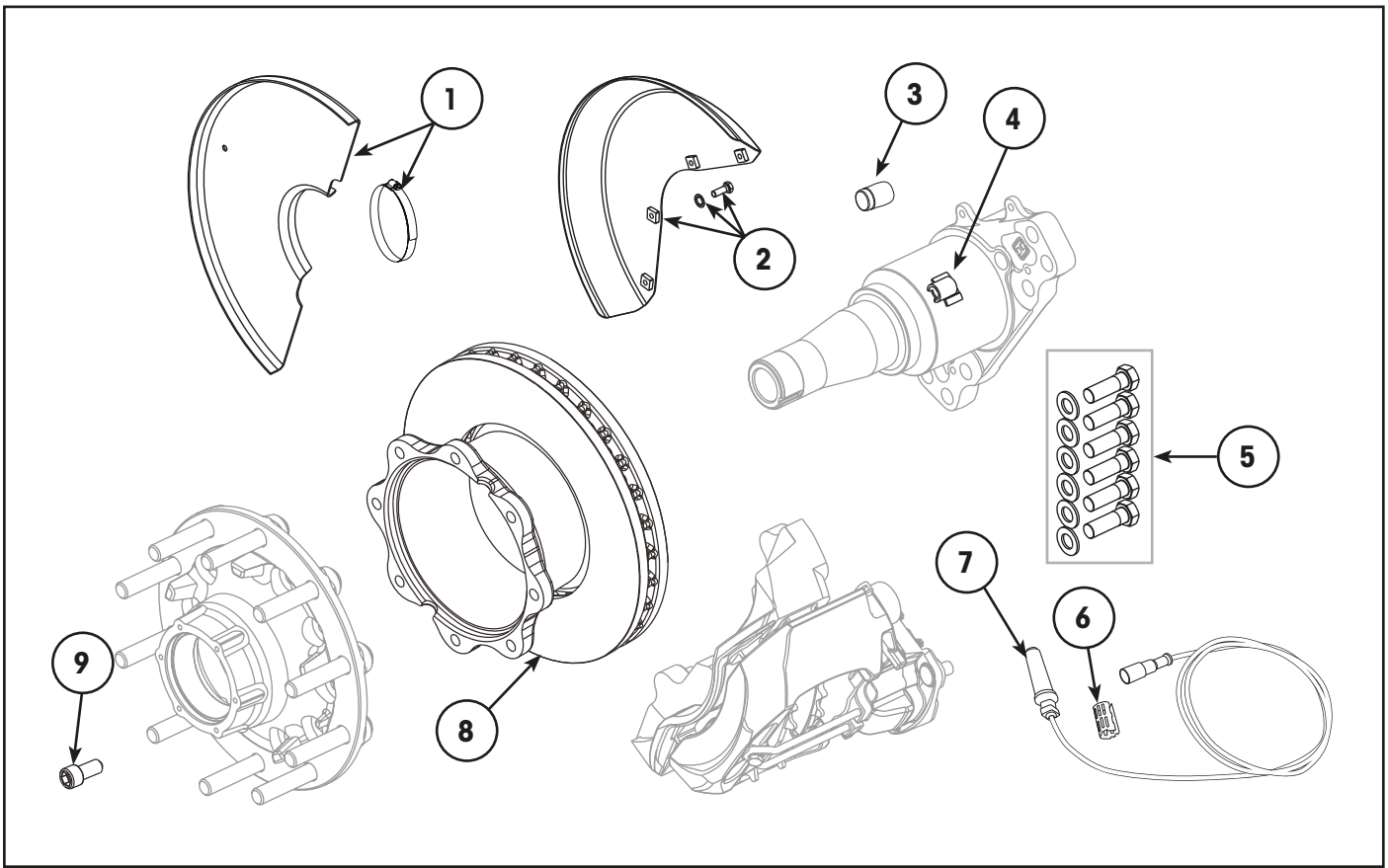
Rotor service kit part number **98815-026** includes the following parts:

- M16 x 2 Thread x 45 mm Metric Hex Head Bolts
- Flat Washers
- 430 mm Rotor Assembly
- ABS Sensor bracket – Weld On

ABS NOTE: If required, a separate ABS tone ring is available to suit the Toowoomba iron hub with part number **98814-013**. Refer to [“ABS Tone Rings – 430 mm” on page 27](#).

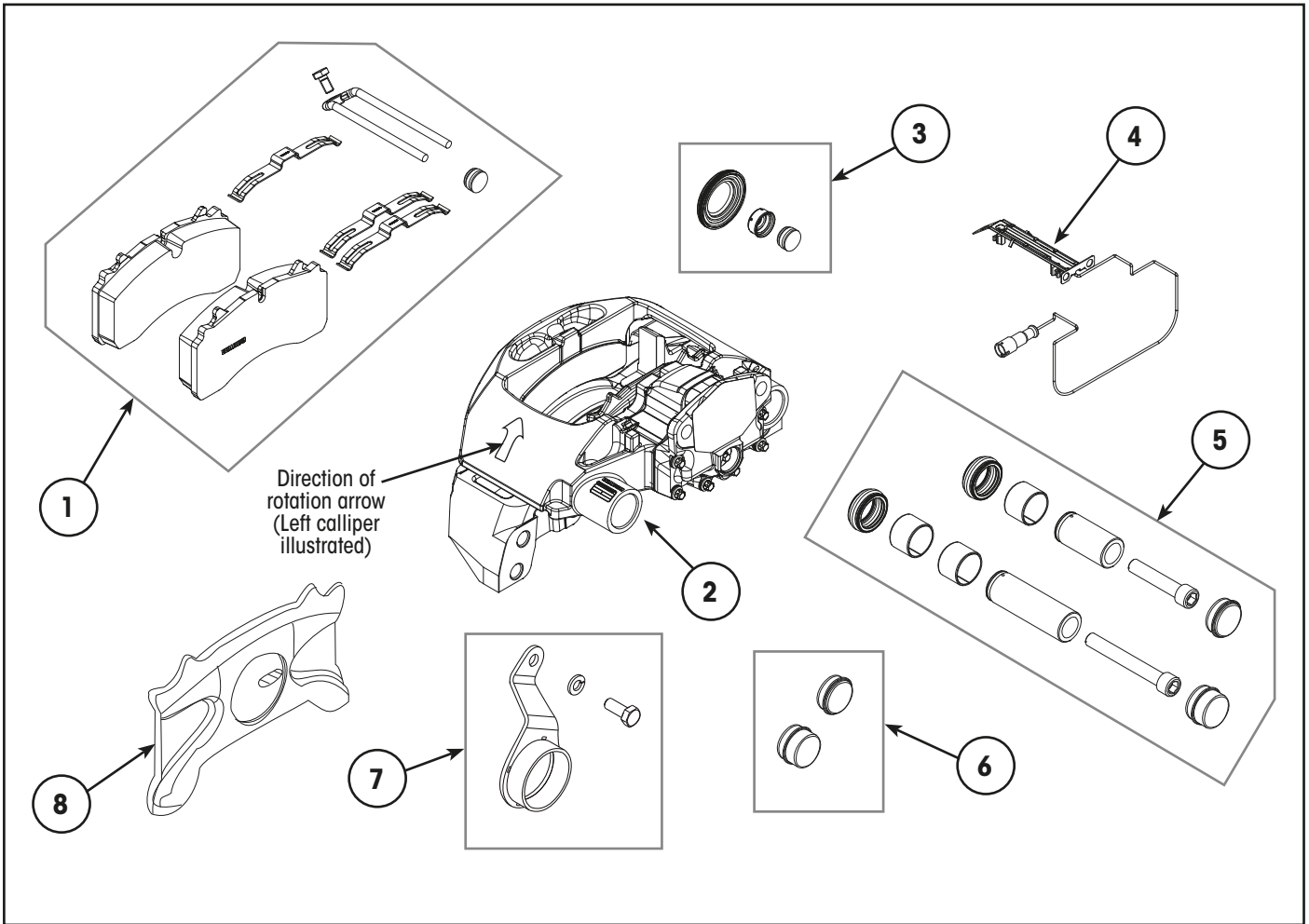
WABCO HTD-377™ SYSTEM – 19.5 [CTA-044547 SARN 44547 FB]

377 mm Rotor



Item	Part Number	Description	Qty	Notes
1	S-28570-3750	Kit, Clamp On Type Dust Shield – Disc Brake	2	Suits 127 mm (5") axle. Includes clamp.
	NLA	Kit, Clamp On Type Dust Shield – Disc Brake	2	Suits 146 mm (5.75") axle.
2	S-36224-4375	Kit, Dust Shield – Disc Brake	2	Bolt on type. Includes bolts & washers.
3	B-36165	Bush, ABS Sensor Mounting	2	Suits 146 mm (5.75") axle.
4	98814-005	Bracket, ABS Sensor Mounting – Pressed	2	Suits 127 mm (5") axle.
	S-28757	Bracket, ABS Sensor Mounting – Cast	2	Suits 146 mm (5.75") LDA axle.
5	98881-105	Kit, Bolt & Washer Calliper to Axle – M20 x 2.5 x 60	2	Suits all except below.
	98881-110	Kit, Bolt & Washer Calliper to Axle – M20 x 2.5 x 60	2	Suits trailer disc steerable.
6	99008-001	Clip, Retaining – ABS Sensor	2	
7	98831-001	Sensor, Straight ABS with 1.7m lead	2	Suits all except below.
	A-23619-3	Sensor, 90-Degree ABS with 1.7m lead	2	Suits trailer disc steerable.
8	98815-032	Kit, Rotor & Hardware, 377 mm	2	[1] Includes item 9.
9	98881-107	Kit, Socket Head Bolt – M16 x 2 x 35	2	Includes 8 bolts & instructions. Not illustrated.

[1] NOTE: Refer to Hendrickson [parts bulletin 97114-100](#) for more details regarding hub assemblies and components.

WABCO HTD-377™ CALLIPER – 19.5 [CTA-044547 SARN 44547 FB]


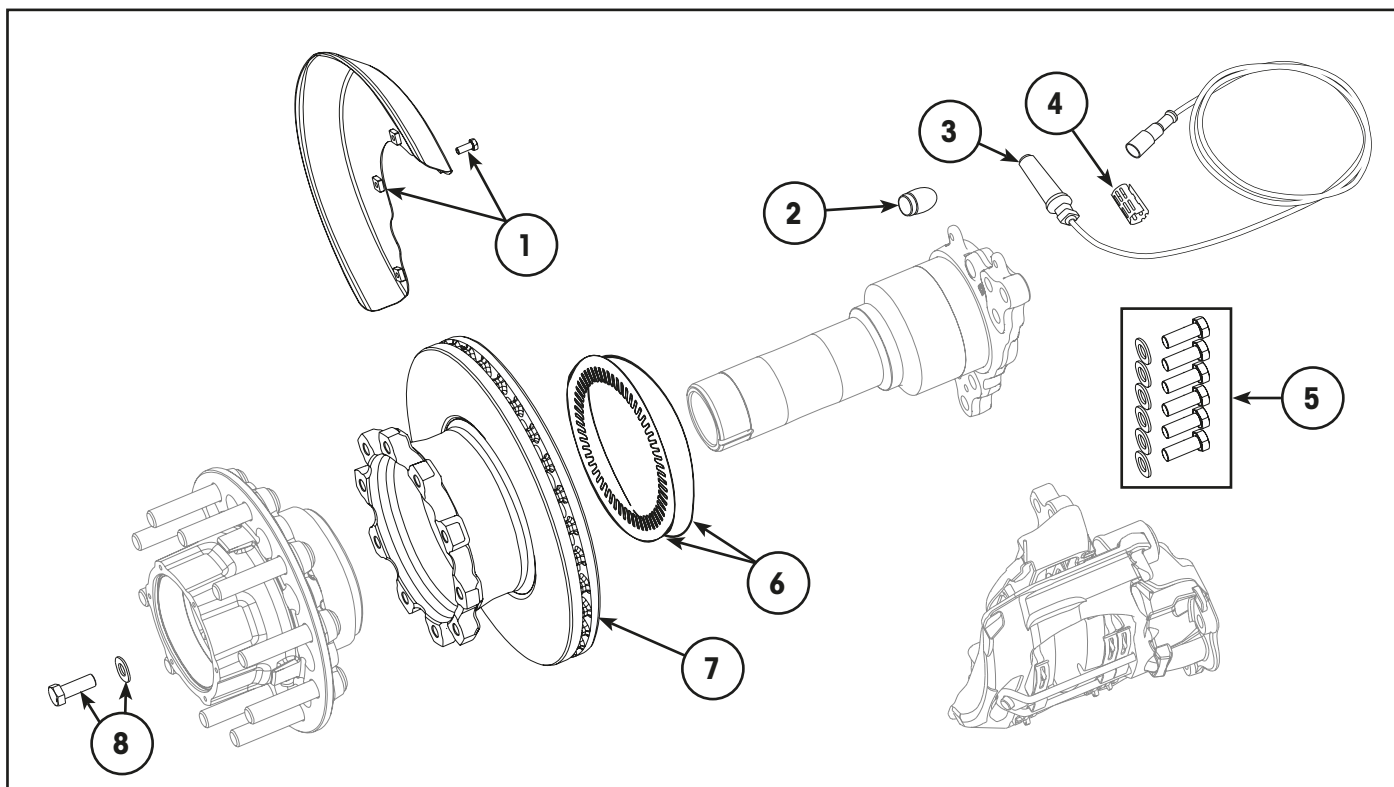
Item	Part Number	Description	Qty	Notes
1	98881-021	Brake Pad Kit	1	Includes pad retaining hardware.
2	97097-007	Calliper Assembly, LH	1	[1] Calliper and pad assembly.
	97097-008	Calliper Assembly, RH	1	
3	D-32676-3	Repair Kit, Calliper Piston Seal	2	Single calliper kit.
4	98881-020	Repair Kit, Pad Wear Indicator	1	
5	D-32676-15	Repair Kit, Calliper Guide Pin and Bush	2	[2] Single calliper kit.
6	98881-040	Kit, Calliper Cap – Heavy Duty	1	Includes LH & RH side. Cannot be used with guide pin cover, item 7.
7	97805-001	Kit, Calliper Guide Pin Cover	1	Includes LH & RH side.
8	97097-026	Pressure Plate, Brake Pad	1	Includes LH & RH side.

[1] NOTE: Brake calliper assemblies include brake pads, pad retaining hardware and pressure plate, items 1, 3, 5 & 8. They do not include the wear indicators or guide pin covers, items 4 & 7.

[2] NOTE: The calliper guide pin and bush kit (item 5) includes standard calliper caps.

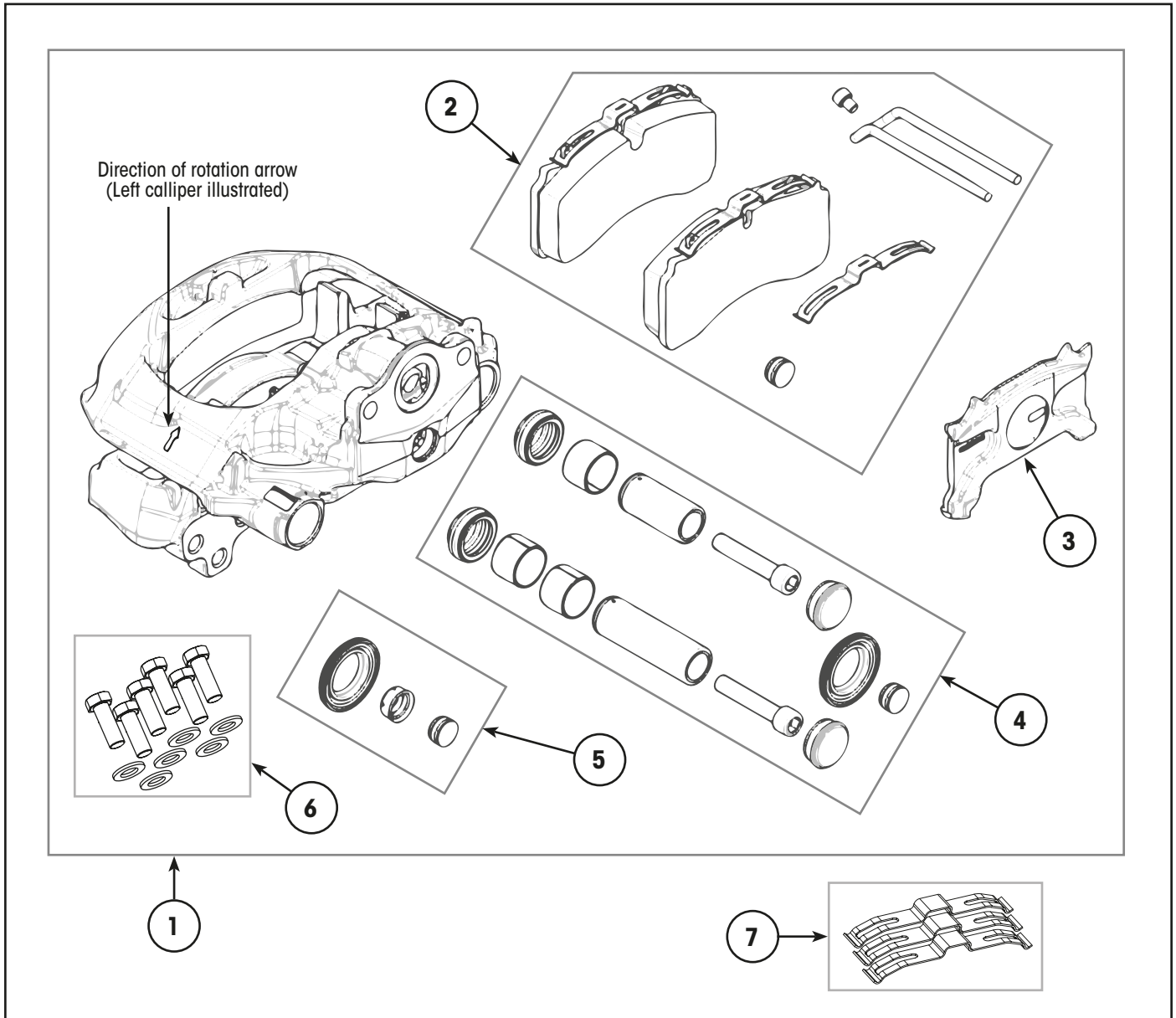
MAXX22T HTD-415™ SYSTEM – 22.5 [CTA-047436 SARN 47436 FB]

415 mm Rotor



Item	Part Number	Description	Qty	Notes
1	S-35720-4415	Kit, Dust Shield – Disc Brake	2	Includes fasteners.
2	B-36165	Bush, ABS Sensor Mounting	2	
3	98831-001	Sensor, Straight ABS with 1.7m lead	2	
4	99008-001	Clip, Retaining – ABS Sensor	2	
5	98881-106	Kit, Bolt & Washer Calliper to Axle – M18 x 2.5	2	
6	98814-023	Pulse Ring, ABS & Clip Kit	2	Included in items 7 & 9.
7	98815-027	Rotor Kit, 415 mm	2	Kit includes rotor, ABS & fasteners, items 6 & 8. Included in item 9.
8	98881-109	Kit, Bolt & Washer Rotor to Hub – Zinc M16 x 2	2	Includes 10 bolts & instructions. Not illustrated. Included in items 7 & 9.
9	98818-062	Rotor & Hub Replacement Kit, 285 PCD	2	[1] Kit includes hub with rotor, hub nut, gasket, bearings & fasteners. Not illustrated.
	98818-063	Rotor & Hub Replacement Kit, 335 PCD	2	

[1] NOTE: Refer to Hendrickson [parts bulletin 97114-100](#) for more details regarding hub assemblies and components.

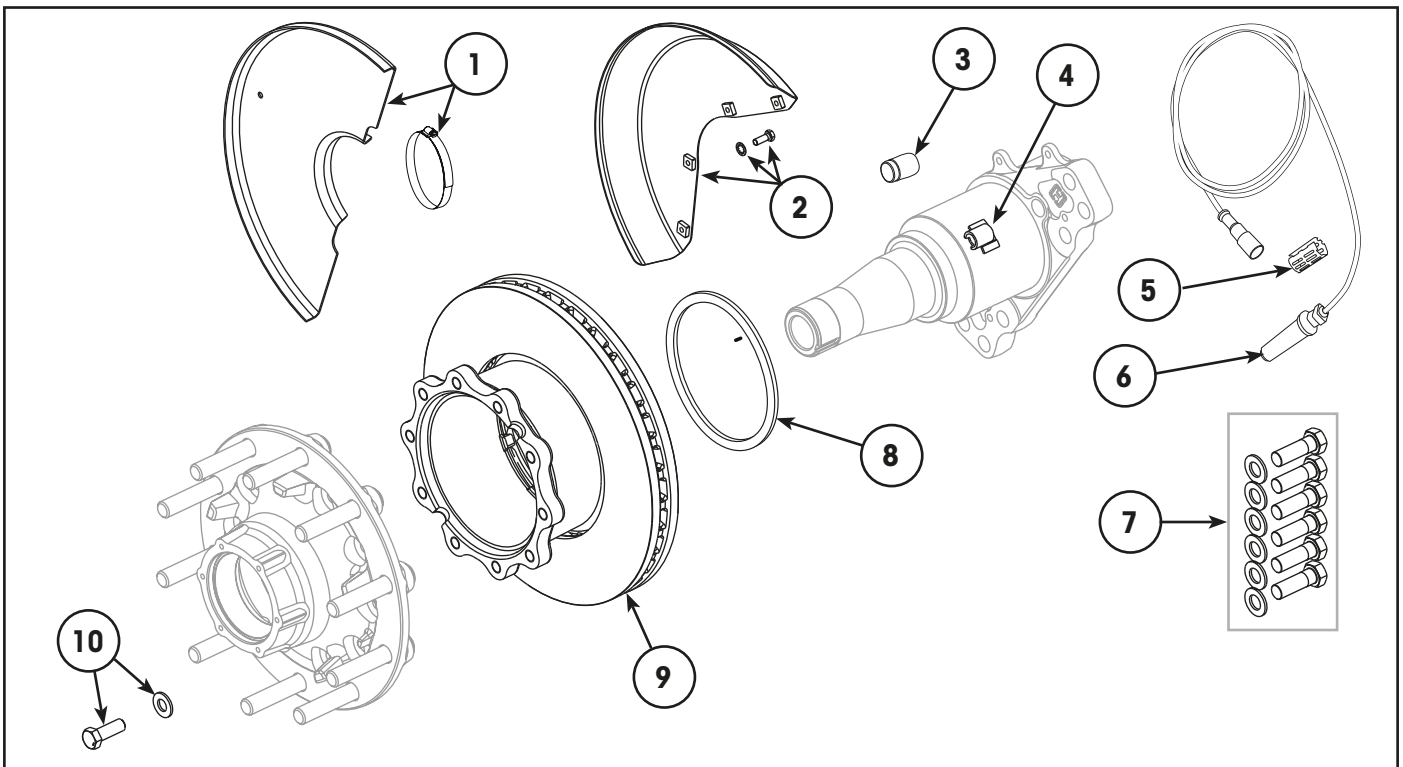
MAXX22T HTD-415™ CALLIPER – 22.5 [CTA-047436 SARN 47436 FB]


Item	Part Number	Description	Qty	Notes
1	98881-103	Calliper Assembly, LH	1	Includes pads, retainer, clips & fasteners. See previous page for fasteners only.
	98881-104	Calliper Assembly, RH	1	
2	S-35303-1	Brake Pad Kit	1	Includes pads, springs, holder brackets, screws & plugs.
3	S-35303-9	Pressure Plate, Brake Pad	1	Includes both LH & RH plates.
4	S-35303-4	Repair Kit - Calliper Guide Pin and Bush	2	Includes plug, inner seals, outer seals, sliding bolts, metal caps, screws & guide pin bushes.
5	D-32676-3	Repair Kit - Calliper Piston Seal	2	Includes plug, inner seal & outer seal.
6	98881-106	Kit, Bolt & Washer Calliper to Axle – M18 x 2.5	2	
7	S-40670/2	Kit, Brake Pad Clip – Heavy Duty	2	Includes 3 heavy duty pad clips.



WABCO HTD-430™ SYSTEM – 22.5 [CTA-044548 SARN 44548 FB]

430 mm Rotor

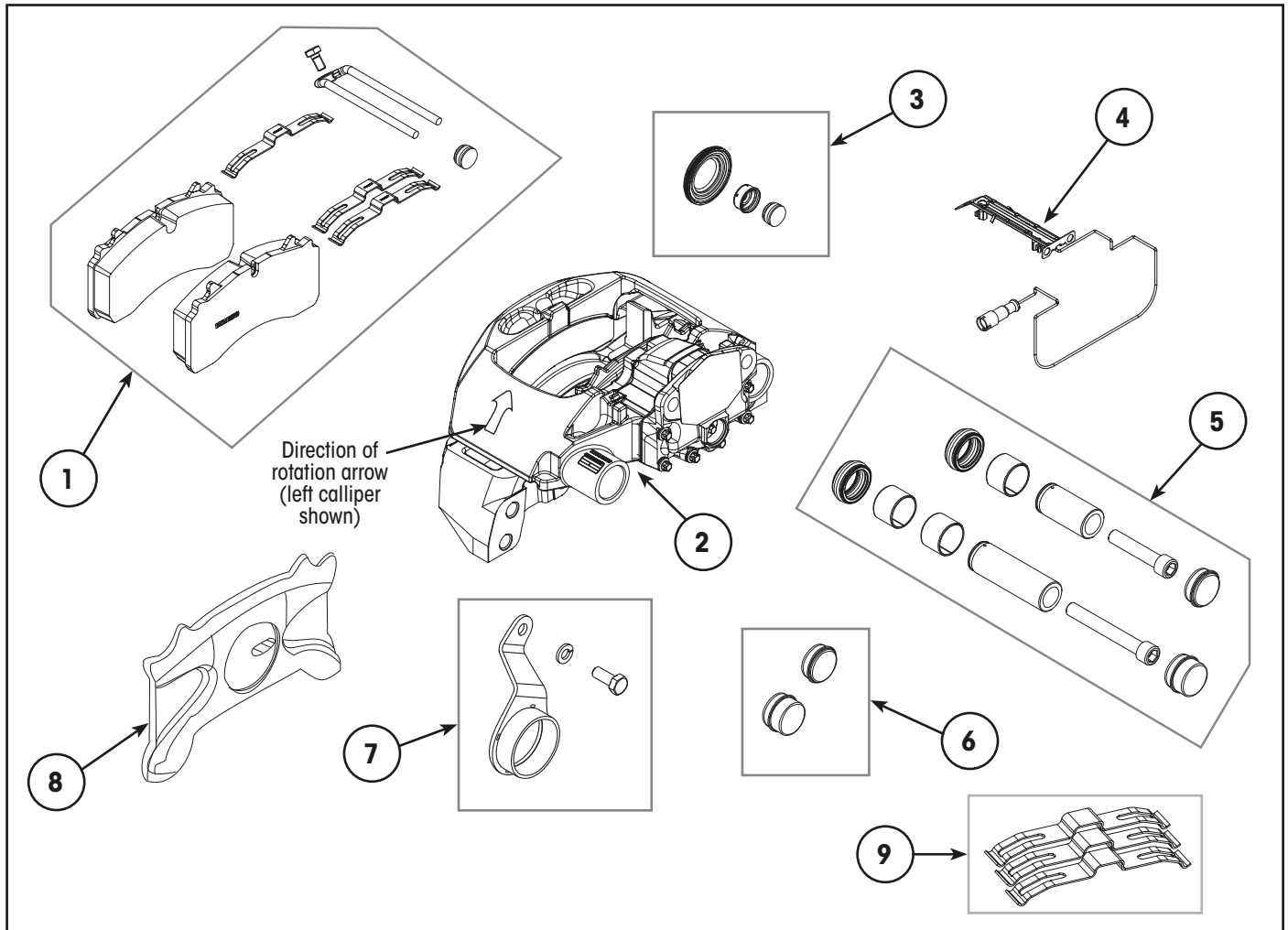


Item	Part Number	Description	Qty	Notes
1	S-28570-4350	Kit, Dust Shield Clamp On Type.	2	Suits 127 mm (5") axle. Includes clamp.
	S-28570-4357	Kit, Dust Shield Clamp On Type.	2	Suits 146 mm (5.75") axle. Includes clamp.
2	S-36224-4430	Kit, Dust Shield – Bolt-On Disc Brake	2	Bolt on type. Includes fastener bolts & washers.
3	B-36165	Bush, ABS Sensor Mounting	2	Suits 146 mm (5.75") axle.
4	98814-004	Bracket, ABS Sensor Mounting – Pressed	2	[1] Suits 127 mm (5") axle with Toowoomba iron hub.
	98814-005	Bracket, ABS Sensor Mounting – Pressed	2	Suits 127 mm (5") axle with Alloy hub.
	S-28757	Bracket, ABS Sensor Mounting – Cast	2	Suits 146 mm (5.75") LDA axle.
5	99008-001	Clip, Retaining – ABS Sensor	2	
6	98831-001	Sensor, Straight ABS with 1.7m lead	2	Suits all except below.
	A-23619-3	Sensor, 90-Degree ABS with 1.7m lead	2	Suits trailer disc steerable.
7	98881-105	Kit, Bolt & Washer Calliper to Axle – M20 x 2.5	2	Suits all except below.
	98881-110	Kit, Bolt & Washer Calliper to Axle – M20 x 2.5	2	Suit trailer disc steerable.
8	—	ABS Tone Ring	2	Refer to "ABS Tone Rings – 430 mm" on page 27.
9	98815-031	ConMet Offset Rotor Assembly, 430 mm	2	[2] Includes ABS Ring & Hardware. Not illustrated.
	98815-033	KIC Rotor Kit, 430 mm	2	Includes items 8 & 10. Rotor is part of item 11.
	98815-026	KIC Rotor Kit, 430 mm for Toowoomba iron hub	2	[1] Includes items 4, 8 & 10. Rotor is part of item 11.
10	NSS	Nut, ConMet Hub to Rotor. 5/8"-18 UNF	20	[2] Suits ConMet rotor. Use item 9. Not illustrated.
	98881-108	Kit, Bolt & Washer Hub to Rotor – Zinc M16 x 2	2	Suits KIC rotor. Incl. 10 bolts & instructions. Not illustrated.
11	98801-076	Hub & Rotor Assembly – ConMet HN PreSet	2	[2] [3] Inc. bearings, spacer & seal. Not illustrated.
	98818-069	Hub & Rotor Assembly, 430 Rotor & HXL7®	2	[3] Incl. HXL7 hub, 430 mm rotor & hardware only. Not ill.

[1] NOTE: Kit services HP 430 disc Toowoomba hubs. Refer to "Toowoomba Iron Hub Rotor Kit" on page 17.

[2] NOTE: For ConMet brake rotor identification, refer to "ConMet Brake Rotor Identification" on page 16.

[3] NOTE: Refer to Hendrickson [parts bulletin 97114-100](#) for more details regarding hub assemblies and components.

WABCO HTD-430™ CALLIPER – 22.5 [CTA-044548 SARN 44548 FB]


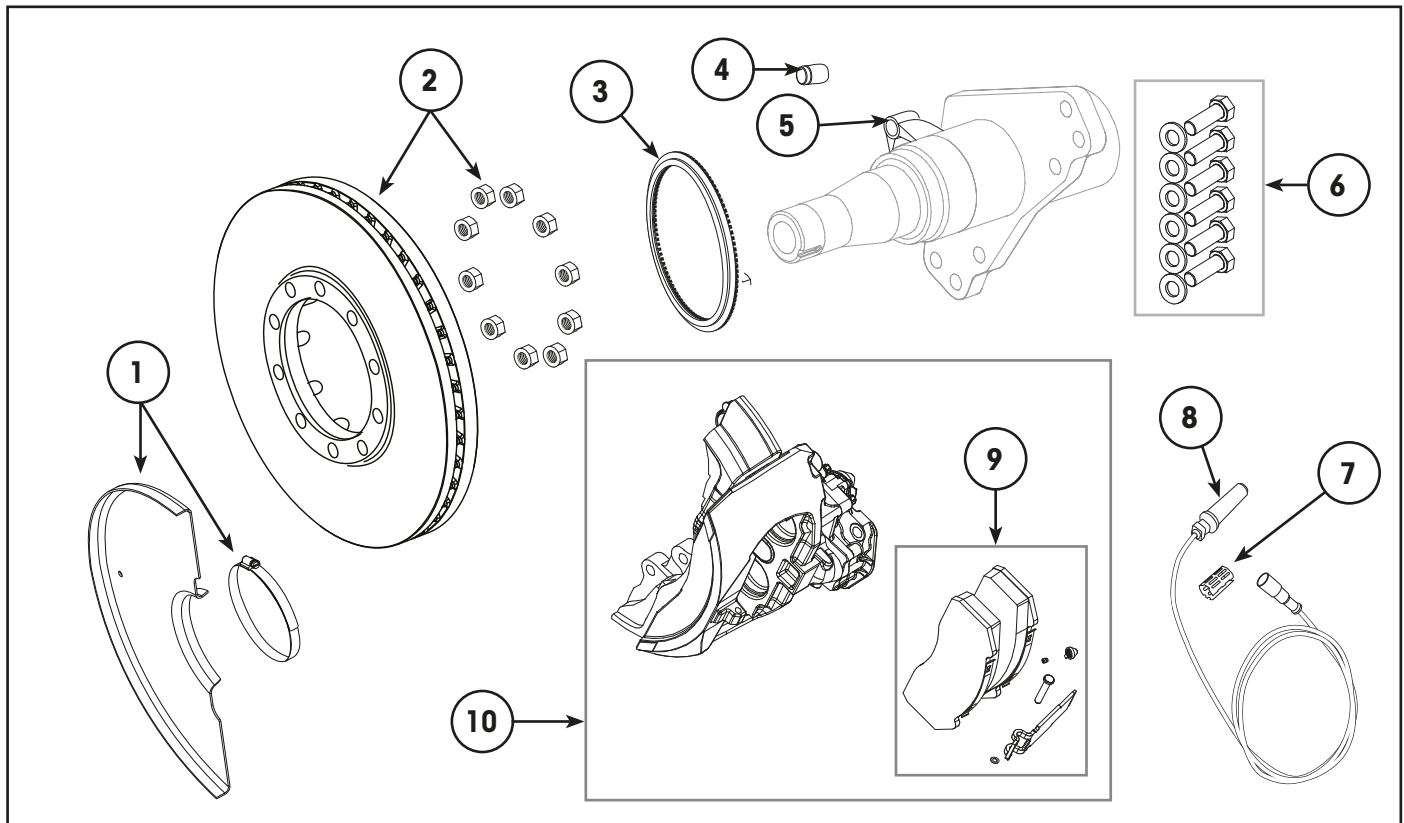
Item	Part Number	Description	Qty	Notes
1	D-32676-1	Brake Pad Kit	1	Includes pad retaining hardware.
2	D-31346-1L	Calliper Assembly, LH	1	[1] Calliper and pad assembly.
	D-31346-1R	Calliper Assembly, RH	1	
3	D-32676-3	Repair Kit, Calliper Piston Seal	2	Single calliper Kit.
4	D-32676-2	Repair Kit, Pad Wear Indicator	1	
5	D-32676-15	Repair Kit, Calliper Guide Pin and Bush	2	[2] Single calliper Kit.
6	98881-040	Kit, Calliper Cap – Heavy Duty	1	Includes LH & RH side. Cannot be used with guide pin cover, item 7.
7	97802-001	Kit, Calliper Guide Pin Cover	1	Includes LH & RH side.
8	97097-027	Pressure Plate, Brake Pad	1	Includes LH & RH side.
9	S-40670/2	Kit, Brake Pad Clip – Heavy Duty	2	Includes 3 heavy duty pad clips.

[1] NOTE: Brake calliper assemblies include brake pads, pad retaining hardware and pressure plate, items 1, 3, 5 & 8. They do not include the wear indicators or guide pin covers, items 4 & 7.

[2] NOTE: The calliper guide pin and bush kit (item 5) includes standard calliper caps.

KNORR-BREMSE HTD-430™ SYSTEM – 22.5 [SARN 29348 FB]

430 mm Rotor



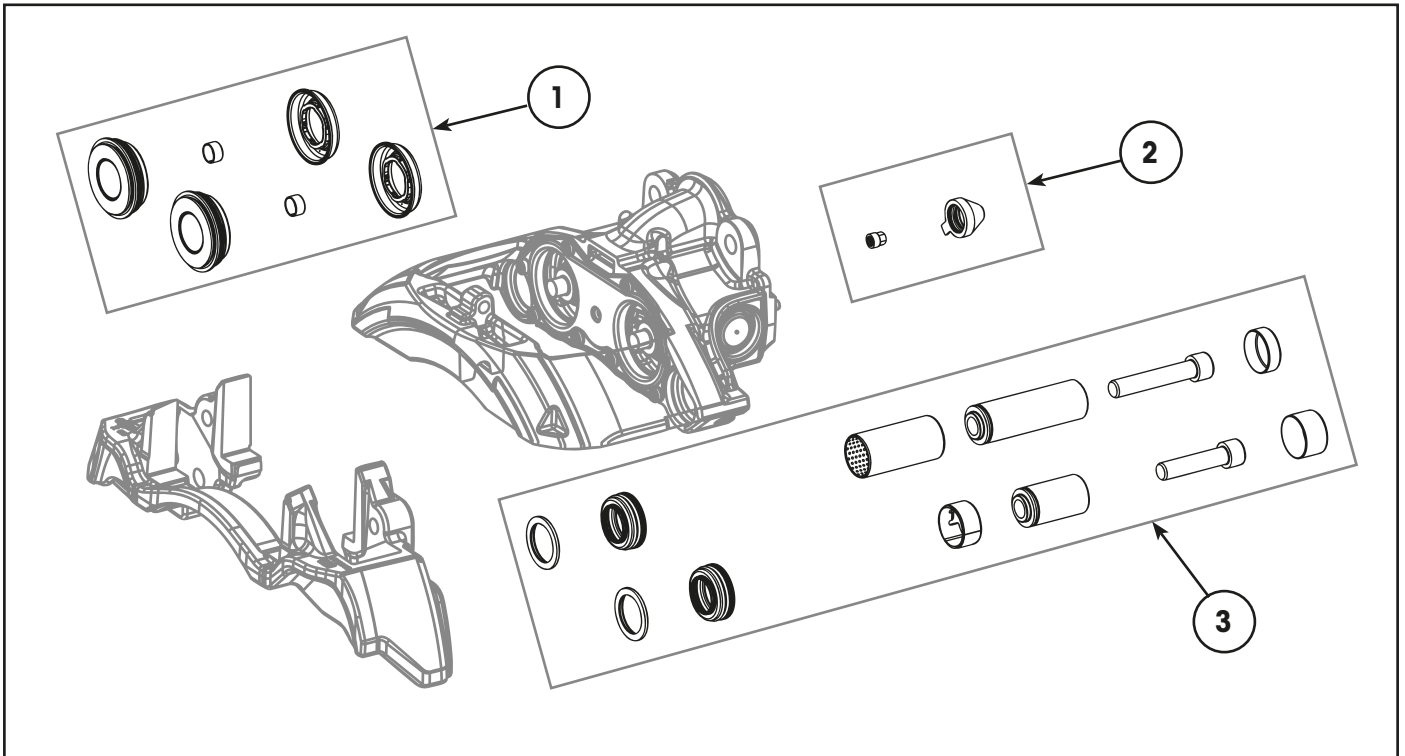
Item	Part Number	Description	Qty	Notes
1	S-28570-4350	Kit, Dust Shield – Disc Brake	2	Suits 127 mm (5") axle. Includes clamp.
	S-28570-4357	Kit, Dust Shield – Disc Brake	2	Suits 146 mm (5.75") axle. Includes clamp.
2	98815-031	ConMet Offset Rotor Assembly, 430 mm	2	[2] Includes ABS Ring & Hardware.
3	—	ABS Tone Ring	2	Refer to "ABS Tone Rings – 430 mm" on page 27.
4	B-36165	Bush, ABS Sensor Mounting	2	Suits 146 mm (5.75") Axle.
5	98814-004	Bracket, ABS Sensor Mounting – Pressed	2	[1] Suits 127 mm (5") axle & Toowoomba iron hub.
	98814-005	Bracket, ABS Sensor Mounting – Pressed	2	Suits 127 mm (5") axle with Alloy hub.
	S-28757	Bracket, ABS Sensor Mounting – Cast	2	Suits 146 mm (5.75") LDA axle.
6	98881-105	Kit, Bolt & Washer Calliper to Axle – M20 x 2.5	2	
7	99008-001	Clip, Retaining – ABS Sensor	2	
8	98831-001	Sensor, Straight ABS with 1.7m lead	1	
9	98881-005	Brake Pad Kit	1	Includes adjuster plug, nut & retainer hardware.
10	NLA	Calliper Assembly, SB7	–	Use updated SN7 replacement calliper.
	97097-017	Calliper Assembly, LH – SN7	1	
	97097-018	Calliper Assembly, RH – SN7	1	
11	98801-076	Hub & Rotor Assembly – ConMet HN PreSet. Not Illustrated.	2	[2] [3] Inc. bearings, spacer & seal. Circlip style ABS.

[1] NOTE: Kit services HP 430 disc & Toowoomba hubs. Refer to "Toowoomba Iron Hub Rotor Kit" on page 17.

[2] NOTE: For ConMet brake rotor identification, refer to "ConMet Brake Rotor Identification" on page 16.

[3] NOTE: Refer to Hendrickson [parts bulletin 97114-100](#) for more details regarding hub assemblies and components.

KNORR-BREMSE HTD-430™ CALLIPER – 22.5 [SARN 29348 FB]

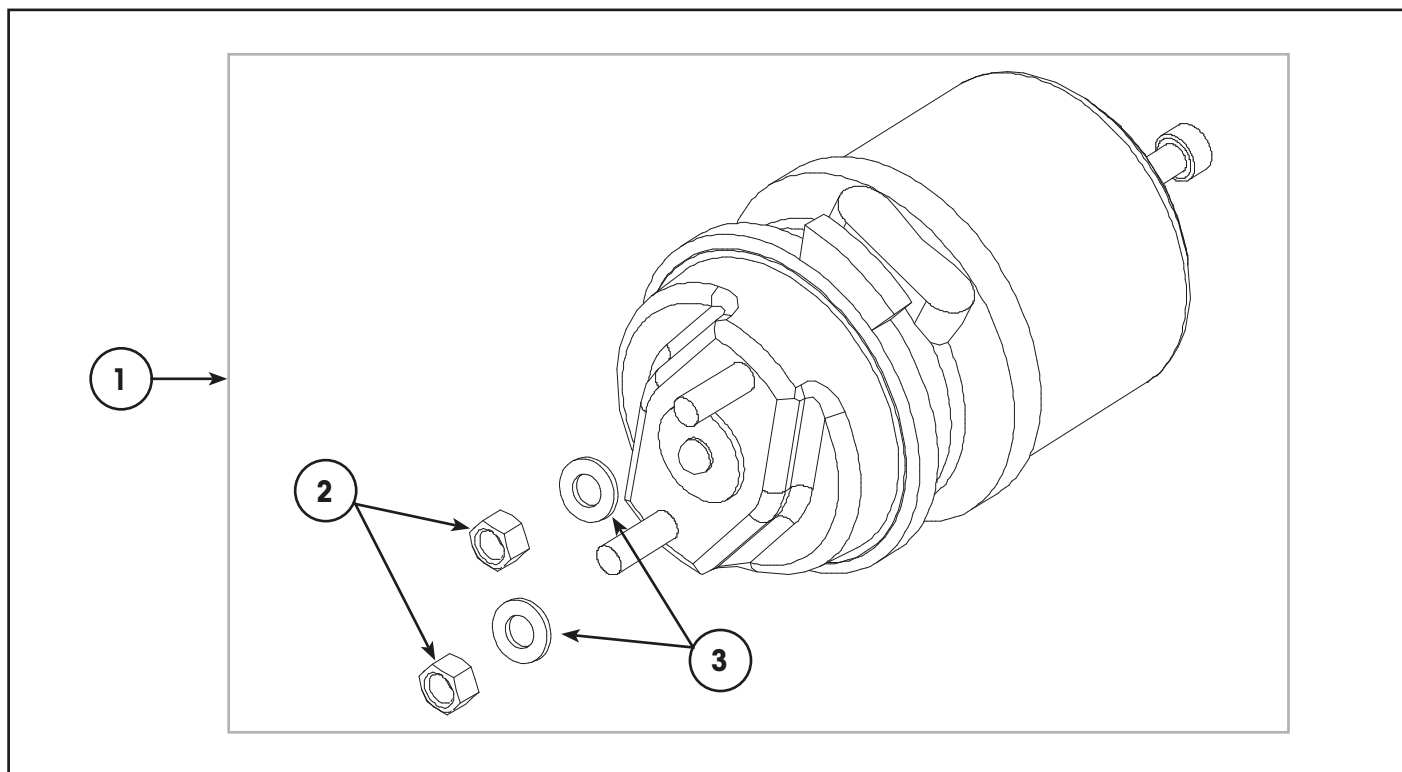


Item	Part Number	Description	Qty	Notes
1	97097-003	Calliper Tappet Kit	2	SB7.
	97097-009	Calliper Tappet Kit	2	SN7.
2	97097-006	Calliper Adjuster Kit	AR	Qty 10. Includes cap and nut.
3	97097-011	Calliper Slide Rebuild Kit	2	SB7.
	97097-013	Calliper Slide Rebuild Kit – Heavy Duty	2	[1] SN7.
4	98793-004	Grease, Synthetic – Calliper Slide	4	Not illustrated. Included in item 3.

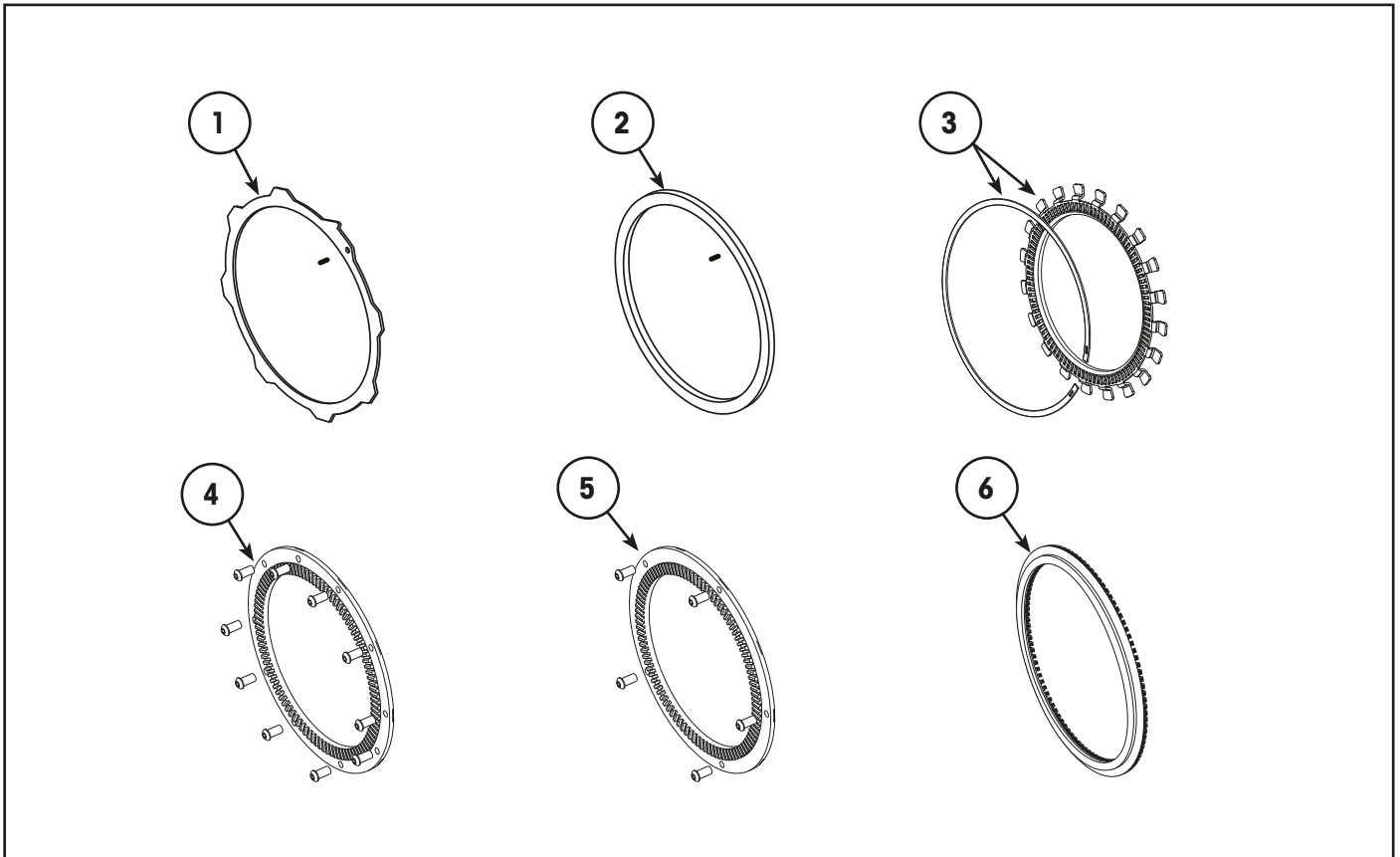
[1] NOTE: Hendrickson recommends the use of 97097-013 (heavy duty calliper slide rebuild kit, item 3) for all SN7 calliper slide bush replacements.



DISC BRAKE CHAMBERS



Item	Part Number	DDSB Terminology	Piston Terminology	Replaces Part Number	Qty	Notes	
1	98832-022	12			2	0° port.	
	98832-107	14			2	0° port.	
	98832-021	16			2	0° port.	
	S-40882-U	18		C-38265-U	2	180° port.	
	98832-108	20			2	0° port.	
	98832-109	22		98832-033	2	0° port.	
	98832-110	24		98832-055	2	0° port.	
	98832-115	12/24	12/16	98832-020	2	0° port.	
	98832-122	14/24	14/16		2	0° port.	
	98832-130	14/30	14/24	98832-030, 98832-031	2	0° port.	
	98832-114	16/24	16/16	98832-017	2	0° port.	
	98832-113	16/30	16/24	S-26927-1	2	0° port.	
	S-40881-L	18/24	18/16	S-38264-L	2	135° port.	
	S-40881-R	18/24	18/16	S-38264-R	2	45° port.	
	S-40885-U	20/24		C-38779-U	2	180° port.	
2	73433-008	Nut, Conelock – M16 x 1.5 Class 10					Included in item 1.
3	97022-001	Washer, Hardened – M16					Included in item 1.

ABS TONE RINGS – 430 MM


Item	Part Number	Description	Qty	Notes
1	98814-017	Kit, Tabbed ABS Tone Ring & Locking Pin	2	KIC rotor with tabbed tone ring, 2013 to 2020.
2	NLA	Kit, Threaded ABS Tone Ring & Locking Pin	2	[1] KIC rotor with threaded tone ring, from 2020.
3	98814-026	ConMet ABS Tone Ring Kit – From 2019	2	[2] ConMet rotors. Locking circlip style. Includes circlip.
4	98814-025	ConMet ABS Tone Ring Kit – Early Up To 2018	2	[2] ConMet rotors. 10-bolt style.
5	98814-024	ConMet ABS Tone Ring Kit – 2018 To 2019	2	[2] ConMet rotors. 5-bolt style.
6	98814-013	ABS Tone Ring – Toowoomba Hub	2	[3] Suits Toowoomba hub.

[1] NOTE: Tone rings not available from supplier and must be replaced with complete rotor assemblies.

[2] NOTE: For ConMet brake rotor identification, refer to “ConMet Brake Rotor Identification” on page 16.

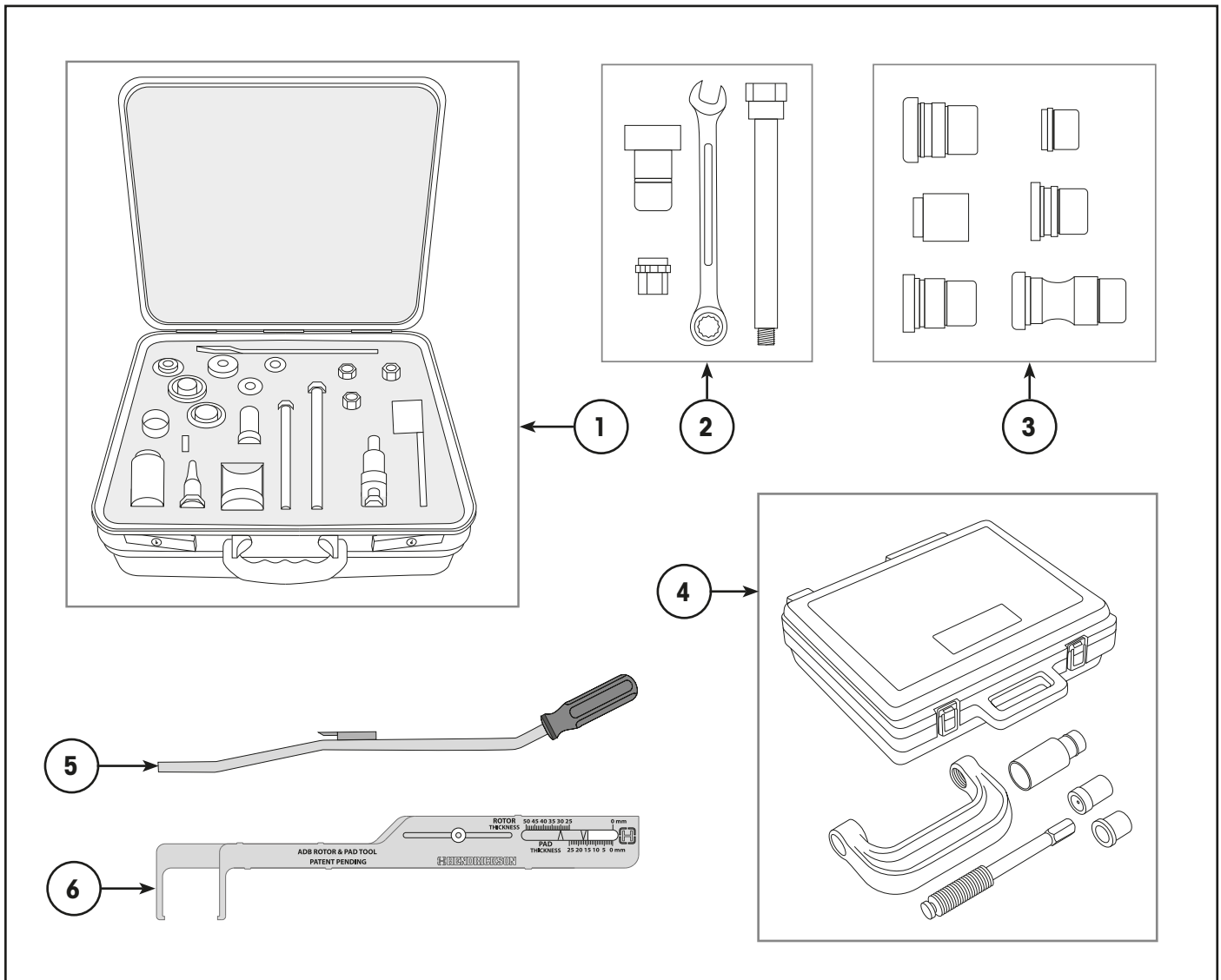
[3] NOTE: For more details regarding Toowoomba hubs refer to “Toowoomba Iron Hub Rotor Kit” on page 17.

ABS PULSE RING NOTE:

ABS pulse rings that are attached to wheel end hubs vary according to hub type and design. Therefore, hub-attached tone rings are listed in the Hendrickson Wheel End [Parts List 97114-100](#), along with other wheel end components.



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SPECIAL TOOLS


Item	Part Number	Description	Notes
1	97097-012	Tool Kit – Calliper Rebuild, Complete	Suits Knorr-Bremse SB7 & SN7.
2	98596-023	Tool Kit – Calliper Rebuild, Basic	[1] Suits MAXX22T HTD-415™ & WABCO HTD-377™ & HTD-430™. Must be used along with an adaptor kit.
3	98596-024	Tool Kit – Calliper Rebuild, Adaptors	[1] Suits WABCO HTD-377 & HTD-430. To be used with item 2.
	S-35303-6	Tool Kit – Calliper Rebuild, Adaptors	[1] Suits MAXX22T HTD-415. To be used with item 2.
4	98596-032	Brake Anchor Pin Tool	Remove & replace brake anchor pins & bushes.
5	98596-033	S-Cam Brake Spring Tool	
6	S-37430	Air Disc Brake Wear Indicator Tool	Measures pad & disc thickness without removing wheels.

[1] NOTE: The calliper rebuild adaptor tool kits to suit WABCO HTD disc brake callipers (98596-024 or S-35303-6), must be used in conjunction with calliper rebuild basic tool kit (98596-023).



REVISIONS TABLE

DATE	REV	PAGE	DESCRIPTION
Jul-2021	M	20, 21	Update MAXX22T HTD-415™ calliper kits & hardware, ECN 11699 & 11798.
Jul-2021	M	22, 24, 27	Update ABS Tone rings onto new page, ECN 11774.
Jul-2021	M	14	Add offset brake adjusters to suit CONNEX™ ST Underslung, ECN 11817.
Jul-2021	M	12, 13	Update brake chambers, 11815 & 11826.
Jul-2021	M	5	Add 15" x 8-5/8" brake drum.
Jul-2021	M	26	Add S-38264-L/R disc brake chamber, ECN 11748.
Jul-2021	M	7	Correct P-brake shoe quantity & hardware part number..
Jul-2021	M	18,20,22,24	Add rotor & hardware kits, ECN 11861.
Jul-2021	M	21, 23	Add heavy duty pad clips, ECN 11861
Dec-2022	N	5	Remove standard shoes which are NLA.
Dec-2022	N	26	Update brake chamber numbers, ECN 11815, 11897.
Dec-2022	N	5, 7, 18, 20, 22	Add CTA approval numbers, ECN 11900, 11902.
Dec-2022	N	27	Threaded ABS ring NLA, ECN 11906.
Dec-2022	N	22, 18	Update calliper bolt kits and ABS sensors, ECN 11903.
Dec-2022	N	15, 16, 17	Expand and enhance calliper identification.

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All applications must comply with applicable Hendrickson specifications and must be approved by the respective vehicle manufacturer with the vehicle in its original, as-built configuration. Contact Hendrickson for additional details regarding specifications, applications, capacities, and operation, service and maintenance instructions.

Need Help? Australia Call +61 3 8792 3600 or Email customerservice@hendrickson.com.au

New Zealand Call +64 9 570 4721 or Email nz-customerservice@hendrickson.co.nz



HENDRICKSON ASIA PACIFIC PTY LTD
 ABN 21 004 992 769
 32- 44 Letcon Drive, P.O. Box 1063
 Dandenong, Victoria, 3175
 61.3.8792.3600 • Fax 61.3.8792.3699

HENDRICKSON NEW ZEALAND
 Unit P, 24 Allright Place
 Mt Wellington, Auckland, 1060
 64.9.570.4721 • Fax 64.9.570.4816

www.hendrickson.com.au