

Asia Pacific Region Only

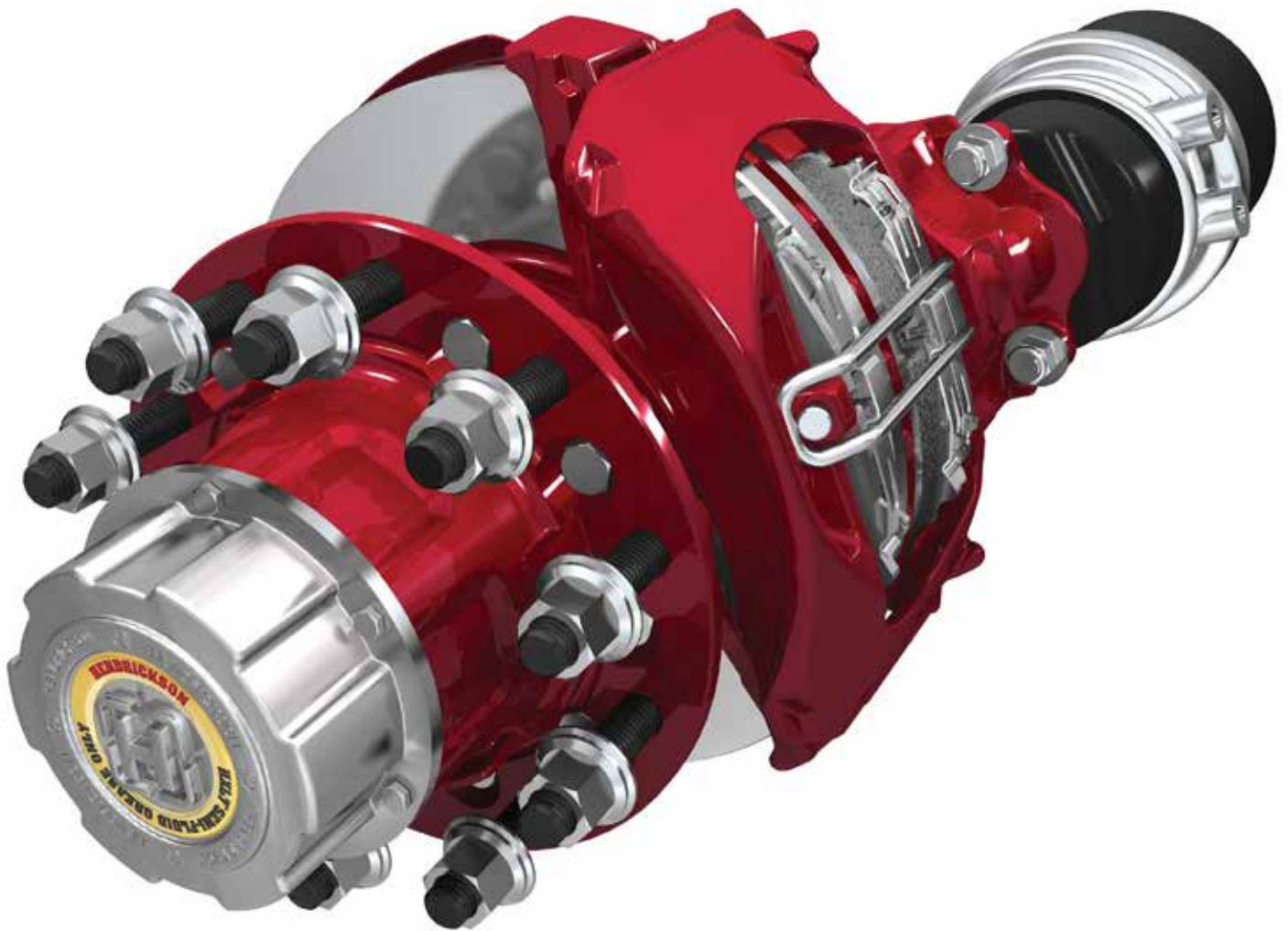
# **PARTS LIST** BRAKE SYSTEMS & COMPONENTS

LIT NO: 97114-097

DATE: June 2026

REVISION: 0

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### 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:

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

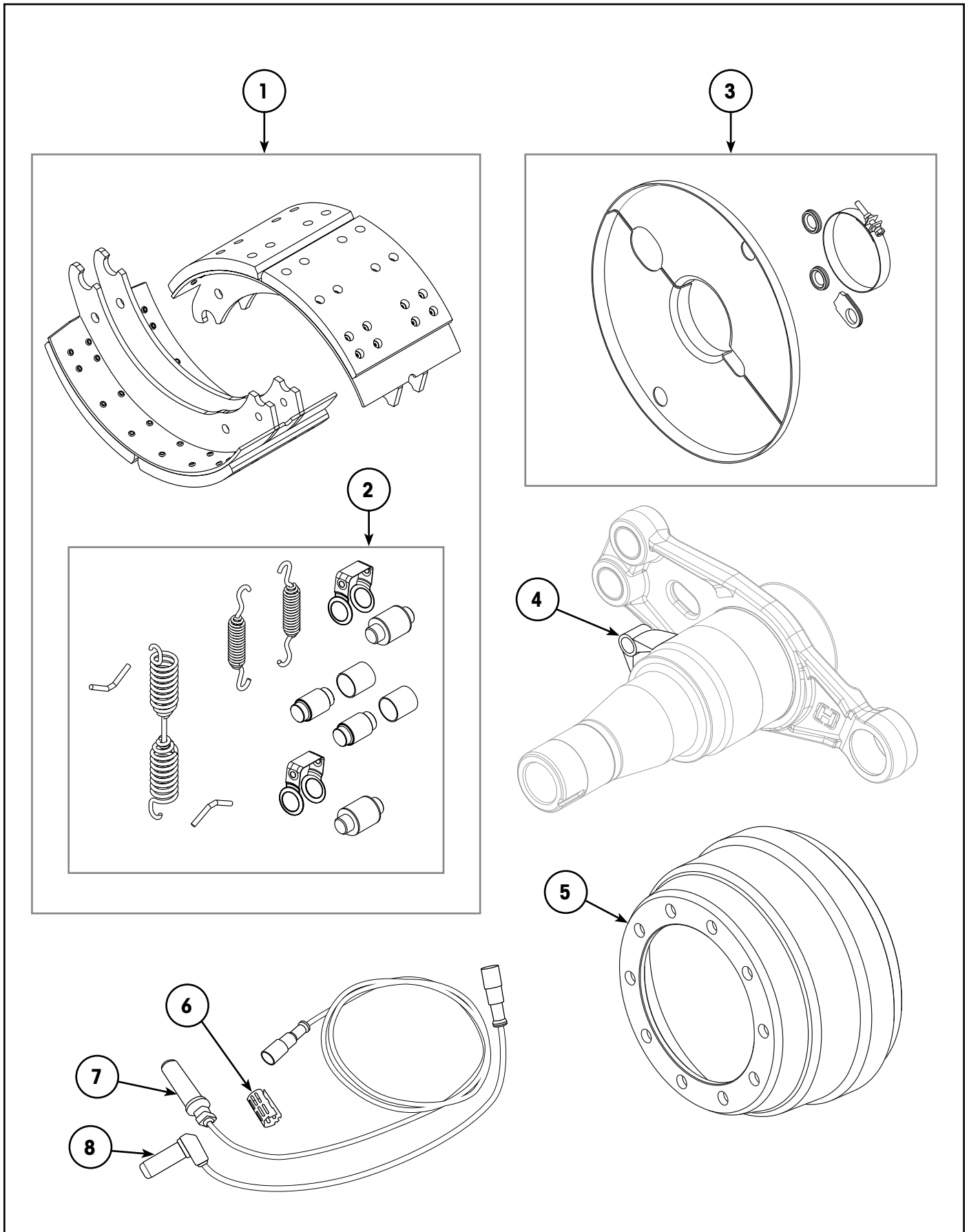
**NOTICE:** All quantities listed within this parts list are as applicable for one axle assembly.

## **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
- Incl. – Includes
- NLA – No Longer Available
- NSS – Not Serviced Separately
- PCD – Pitch Circle Diameter

# DRUM BRAKES





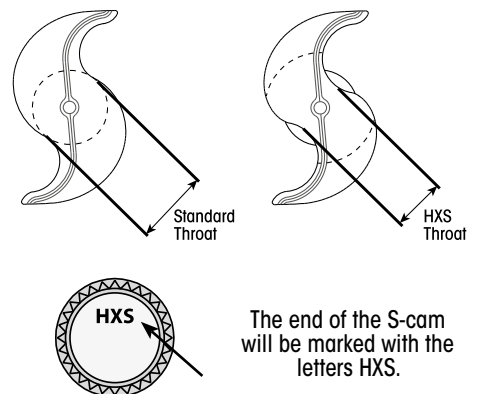
15" & 16.5" DRUM FOUNDATION BRAKE

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-21184-1	Brake Overhaul Kit, 16.5" x 7" – Standard Early Pre-HXS	2	CTA-016549 (SARN 16549 FB) See box "HXS™ Brakes". Includes brake hardware – item 2.
	S-23753-1	Brake Overhaul Kit, 16.5" x 7" – HXS (Exc CONNEX-ST)	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 <a href="#">website</a> 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 CentriFuse®.
	S-26390	Brake Drum, 15" x 8-5/8" – 10 Stud 285 PCD	2	Lightweight CentriFuse.
	98815-035	Brake Drum, 16.5" x 7" – 10 Stud 285 PCD	2	Lightweight. Replaces E38176.
	98815-037	Brake Drum, 16.5" x 7" – 10 Stud 285 PCD	2	Cast. Replaces D-30114.
	E41872	Brake Drum, 16.5" x 7" – 10 Stud 335 PCD	2	Cast. Replaces C-31699.
	98815-028	Brake Drum, 16.5" x 7" – Suits 5 Spoke Wheel	2	Drum only.
	98815-038	Brake Drum, 16.5" x 8-5/8" – 10 Stud 285 PCD	2	Cast. Replaces 98815-025.
	98815-036	Brake Drum, 16.5" x 8-5/8" – 10 Stud 285 PCD	2	Lightweight. Replaces E39848.
	E41871	Brake Drum, 16.5" x 8-5/8" – 10 Stud 335 PCD	2	Cast. Replaces C-30652.
6	99008-001	Clip, ABS Sensor Retainer	2	
7	98831-001	Sensor, Straight ABS with 1.7m lead	2	
8	A-23619-3	Sensor, 90° ABS with 0.4m lead	2	Suits steer axles.

**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.





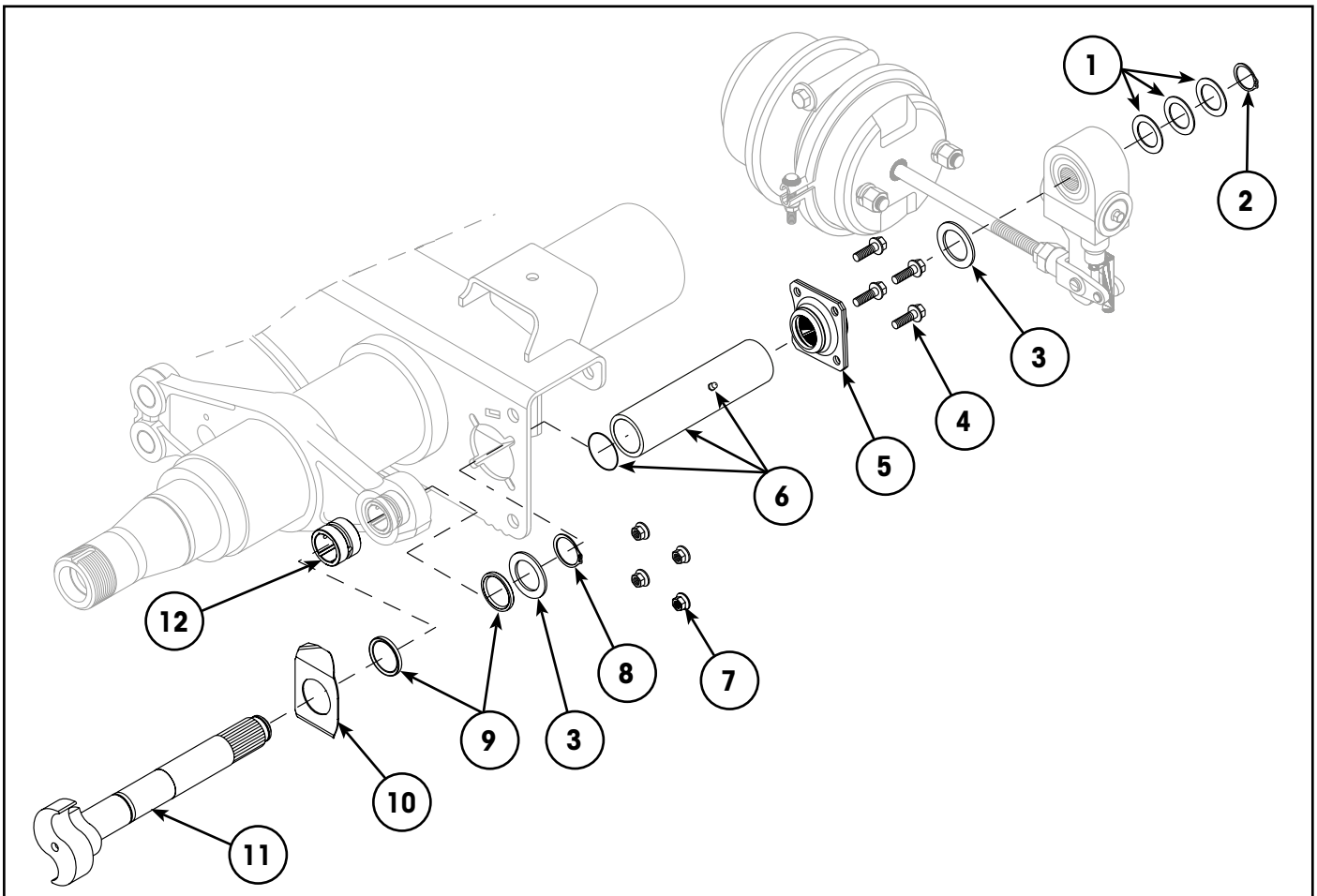


## P-TYPE DRUM FOUNDATION BRAKE

Item	Part Number	Description	Qty	Notes
1	98881-029	Brake Shoe, P-Type – 16.5" x 7" HXS – H2O Lining	4	CTA-016549 (SARN 16549 FB) See box "HXS™ 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 "HXS™ 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	98815-037	Brake Drum, 16.5" x 7" – 10 Stud 285 PCD	2	Cast. Replaces D-30114.
	98815-035	Brake Drum, 16.5" x 7" – 10 Stud 285 PCD	2	Lightweight. Replaces E38176.
	E41872	Brake Drum, 16.5" x 7" – 10 Stud 335 PCD	2	Cast. Replaces C-31699.
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)**

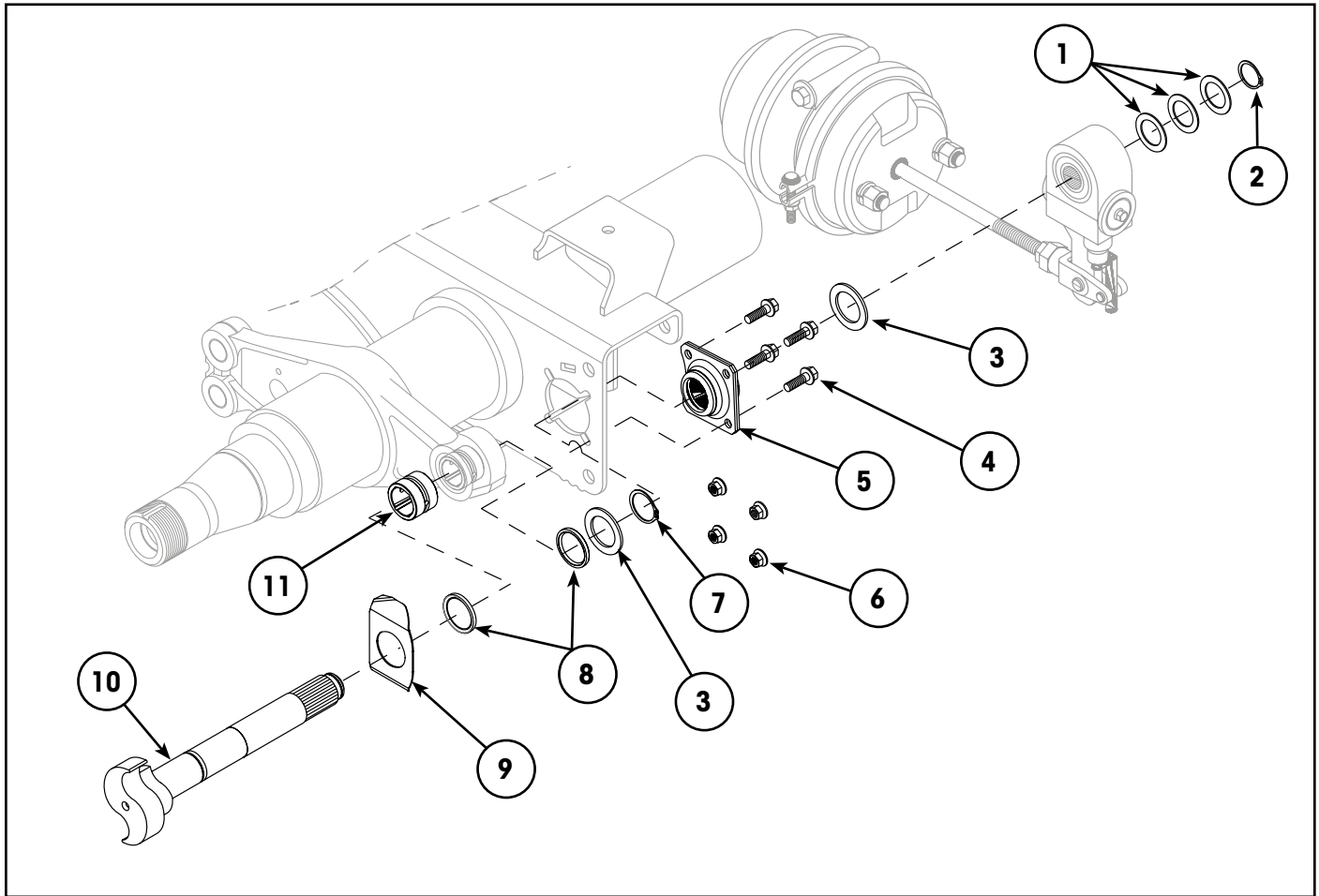


Item	Part Number	Description	Qty	Notes
1	A-20812	Washer, Outer – Brake Adjuster	6	
2	A-20811	Ring, Retaining – Brake Adjuster	2	
3	A-31650	Washer, Inner - S-Cam Shaft	4	
4	SA-6900-5	Screw, Flanged – 3/8" x 1.25"	8	
5	S-25440	Support Bushing Assembly, S-Cam	2	
6	98933-011	Kit, S-Cam Tube – Nylon	2	Includes 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	2	*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.



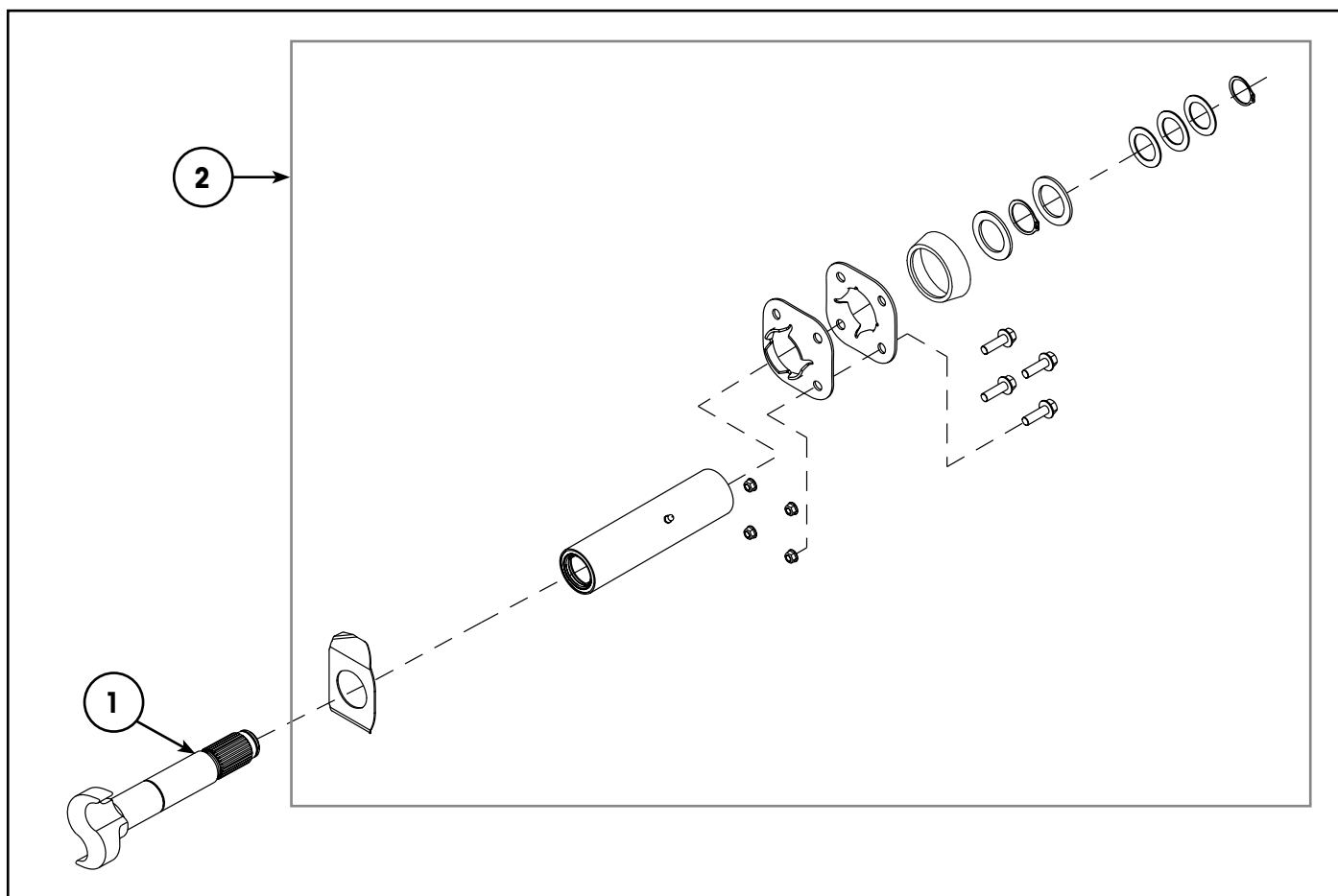
INTRAAX® NON-ENCLOSED S-CAM EARLY TYPE (PRE-2000)



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	2	Suits 1-7/8" journal.
	S-22898	Bush, Brake Spider – S-Cam Journal	2	Suits 2" journal.



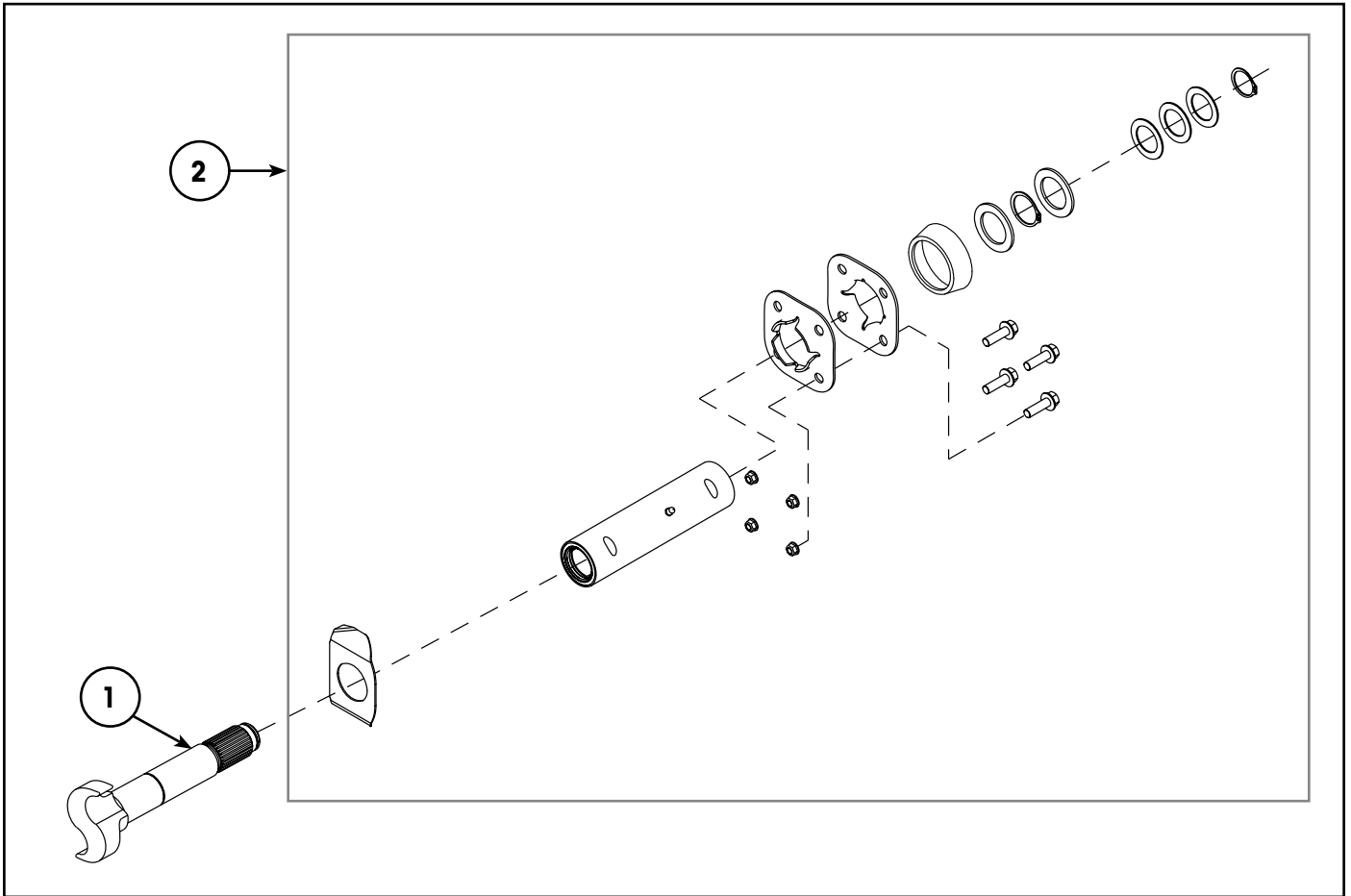
**INTRAAX® 15" SEVERE DUTY CAM TUBE**



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

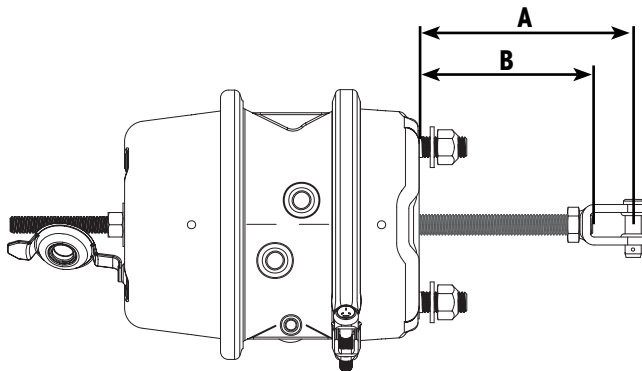
The applicable brake chambers for INTRAAX suspension systems are determined by the following:

- 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 [1]

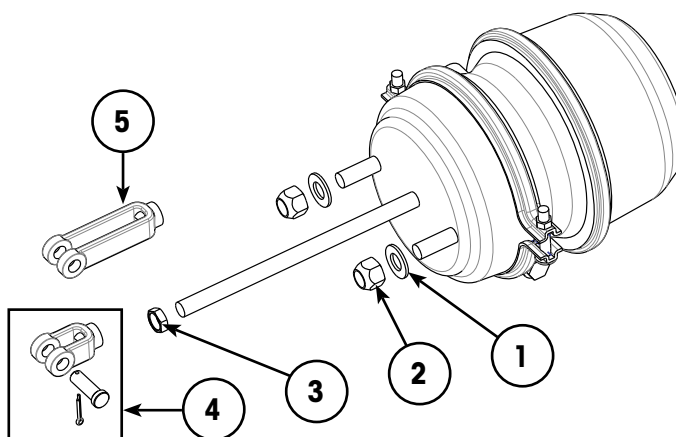
**UBL NOTE:** The Under Beam Lift kit UBL-401 for AANT axles cannot be paired with some brake chambers. This is due to insufficient clearance that restricts correct movement. The TSE UltraLife 30/30 3" stroke brake chamber is known to interfere. However, other similar sized long stroke brake chambers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

#### Brake Chamber Measurements [1]

- 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	[2]
2	47764-000	Nut, Lock – 5/8 UNC, 2B	[2]
3	SA-1300-55	Jam Nut, Clevis – 5/8 UNF, 2A	[2]
4	A-21420	Kit, Brake Clevis, Split Pin & Clevis Pin – 50 mm	[2]
5	98870-001	Clevis, Brake Adjuster – 100 mm	Optional [2]



**Common Drum Brake Chambers**

Stroke	Slack	Model	To Clevis	Rod <sup>[1]</sup> (Approx)	Size	Part Number <sup>[3]</sup>	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	<b>[4]</b> 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	

**[1] NOTE:** Brake chamber rod and clevis position measurements are taken with the chamber fully retracted.

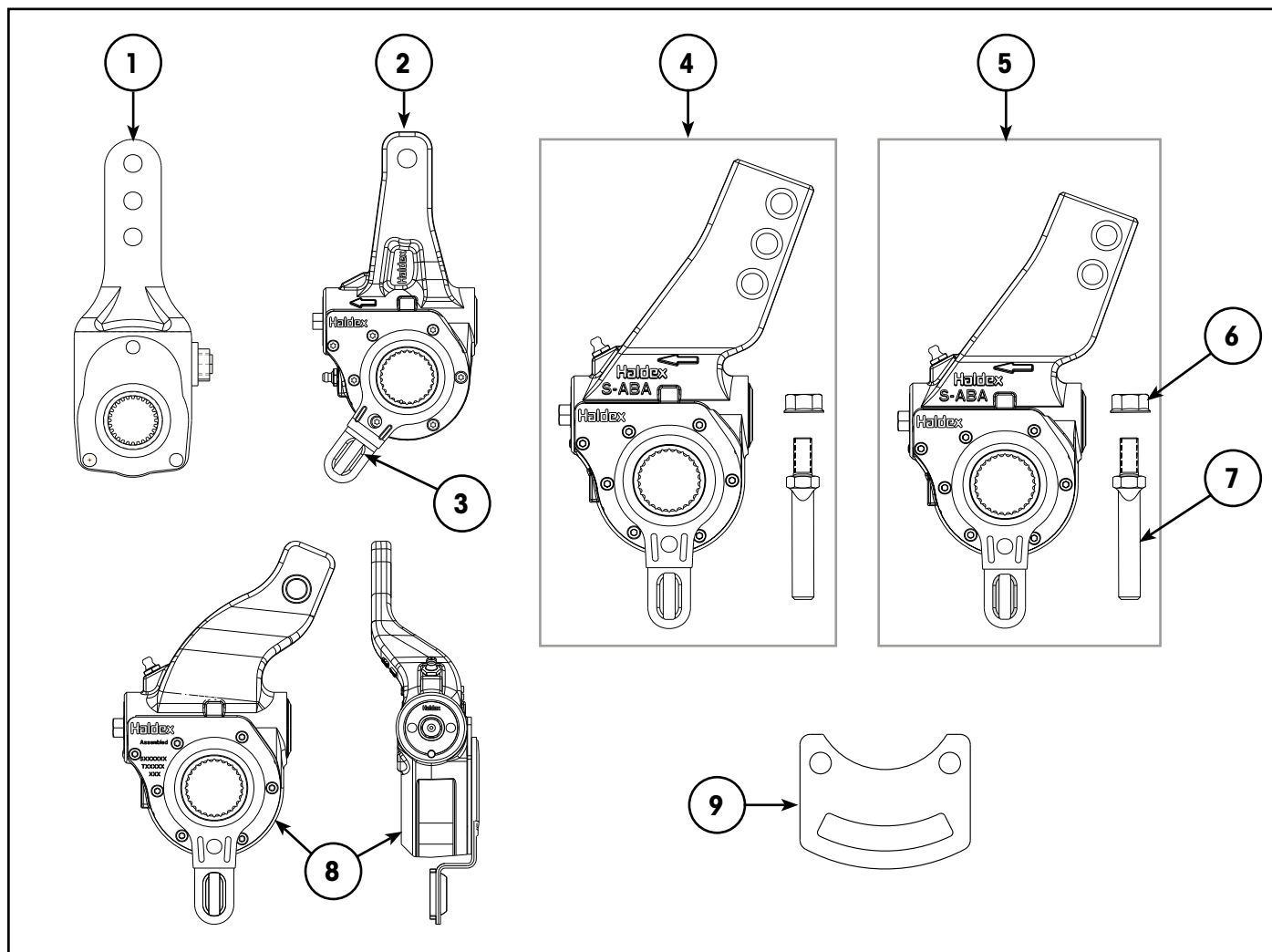
**[2] NOTE:** All drum brake chambers are supplied complete with new fasteners and 50 mm clevis to suit manual and/or Haldex automatic brake adjusters. Refer to "Brake Adjusters" on page 14 for further details regarding brake adjusters.

**[3] NOTE:** TSE brake chambers

**[4] 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, 28-Spline Manual – 5", 6" & 7"	2	
	98834-008	Brake Adjuster, 28-Spline Manual – 5.5" & 6.5"	2	
2	S-37277	Brake Adjuster, 28-Spline Auto – 5.5"	2	Includes anchor stud bush, item 3.
	S-37279	Brake Adjuster, 28-Spline Auto – 6"	2	
3	98515-004	Anchor Stud Bush – Haldex Brake Adjuster	2	
4	98834-028	Kit, 28-Spline Auto Brake Adjuster – 5", 6" & 7"	2	Includes stud, nut & bush, items 3, 6 & 7.
5	98834-029	Kit, 28-Spline 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 28-Spline Auto – Left Hand	1	Suits CONNEX™ ST Underslung Includes bush, item 3.
	98834-037	Brake Adjuster, 5.5" Offset 28-Spline Auto – Right Hand	1	
	98834-034	Brake Adjuster, 6" Offset 28-Spline Auto – Left Hand	1	Suits CONNEX™ ST Underslung Includes bush, item 3.
	98834-035	Brake Adjuster, 6" Offset 28-Spline Auto – Right Hand	1	
9	98870-188	Support Plate, Auto Brake Anchor	2	

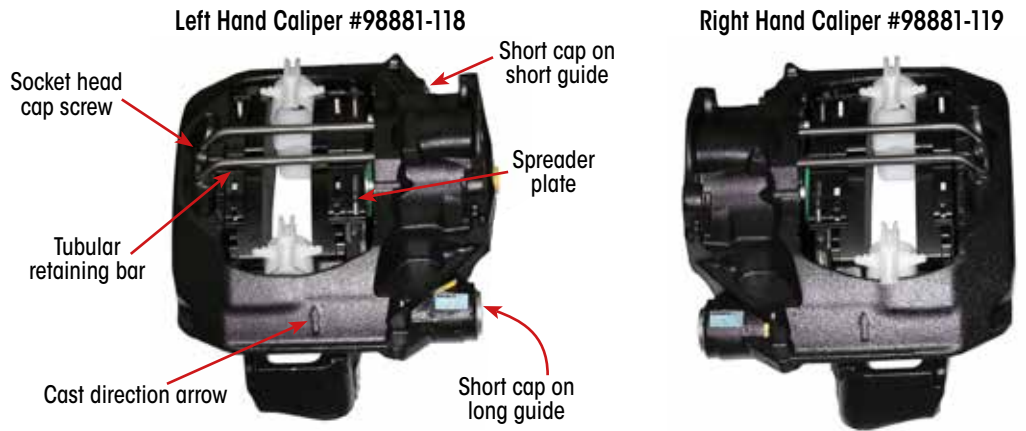
**DISC BRAKES**

**CALIPER IDENTIFICATION**

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

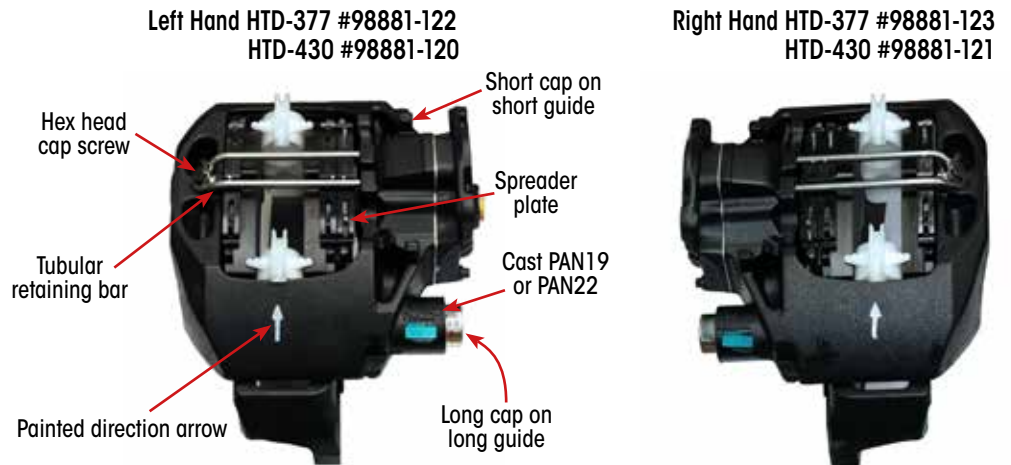
**MAXX22T HTD-415 Caliper**

- 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.



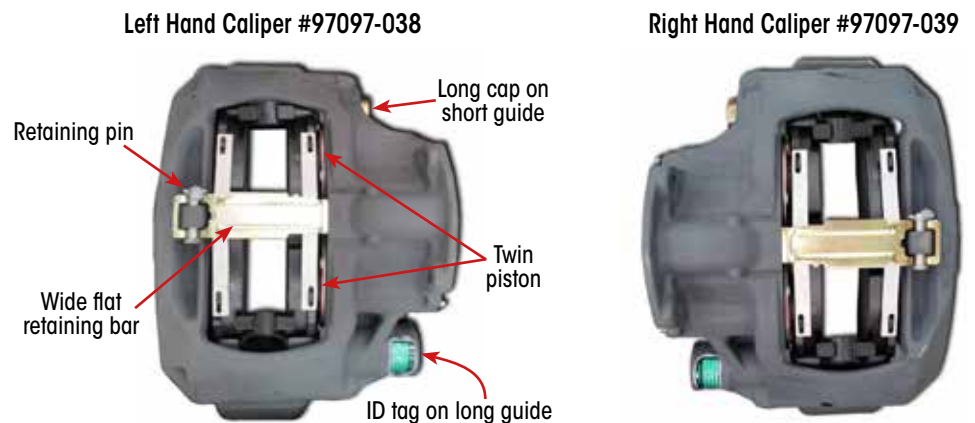
**Wabco HTD-377 & -430 Caliper**

- 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, long guide has longer cap.



**Knorr-Bremse SN7 Caliper**

- 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 caliper**

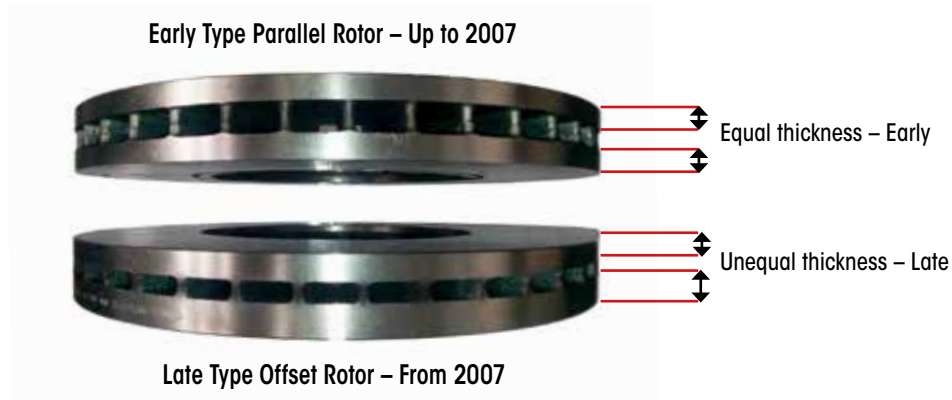


**Knorr-Bremse SB7 Caliper**

SB7 was a two-piece caliper. The newer SN7 is a mono-block design that was introduced during June 2006. Visually, the two caliper designs can be identified by comparing caliper 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.

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



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

**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](#).

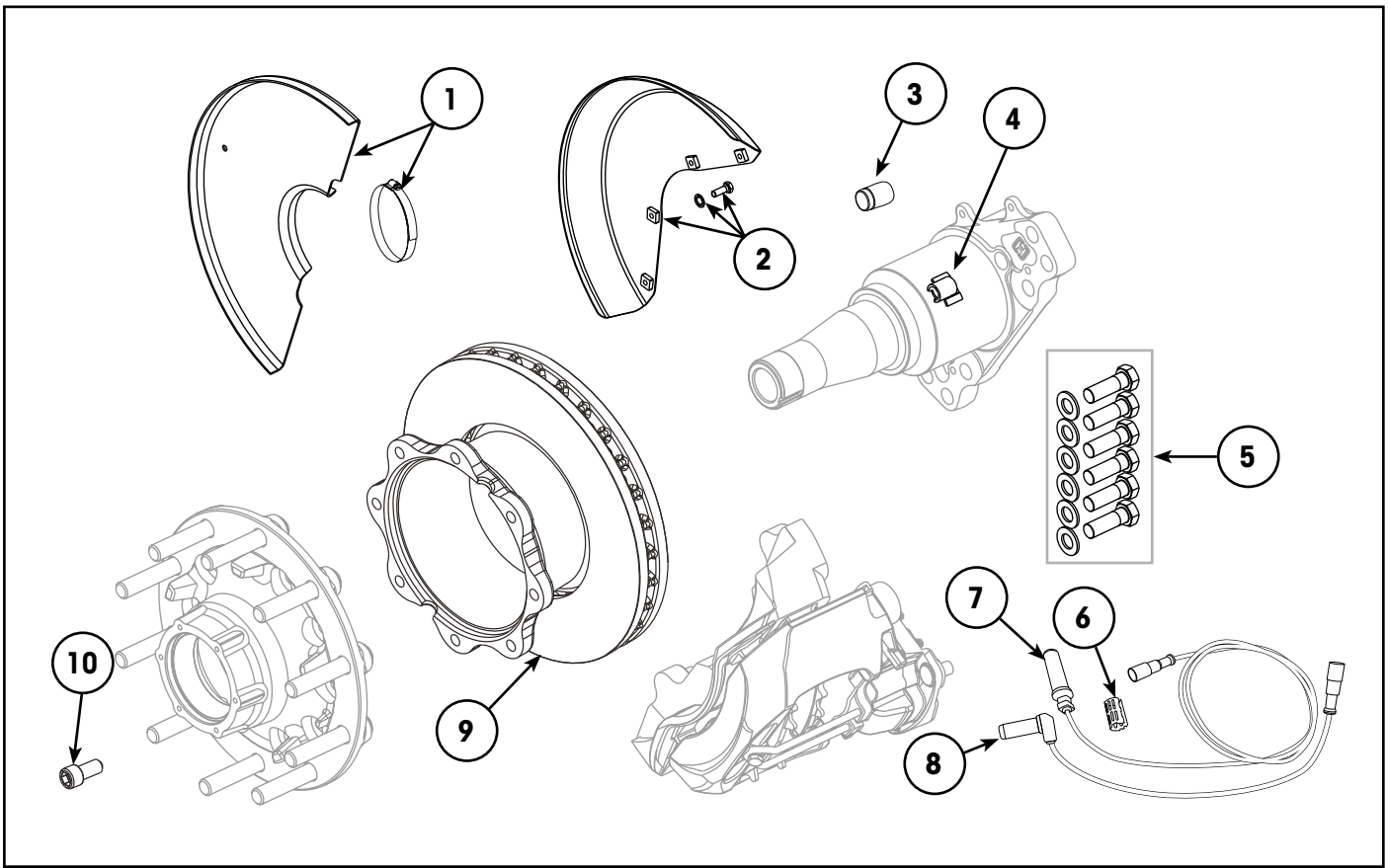
Rotor service kit part number **98815-026** includes the following parts:

- 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 – 377MM ROTOR 19.5

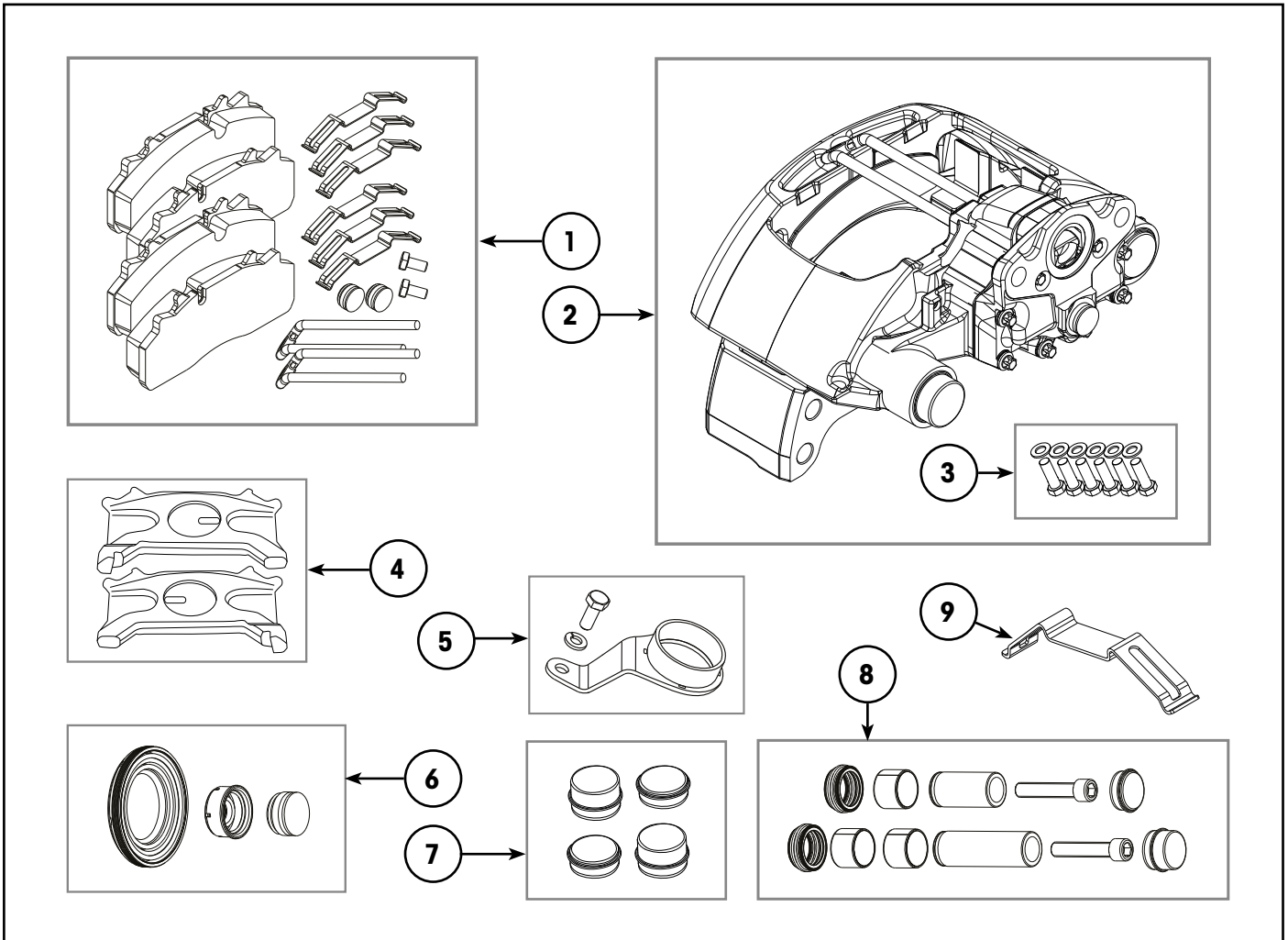


Item	Part Number	Description	Qty	Notes
1	NLA	Kit, Clamp On Type Dust Shield – Disc Brake	2	
2	S-36224-4375	Kit, Dust Shield – Disc Brake	2	Bolt on type. Includes bolts & washers.
3	B-36165	Bush, ABS Sensor Mounting	2	Suits 146 mm (5.75") axle.
4	98814-005	Bracket, ABS Sensor Mounting – Pressed	2	Suits 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 Caliper to Axle – M20 x 2.5 x 60	2	Suits all except below.
	98881-110	Kit, Bolt & Washer Caliper 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.
8	A-23619-3	Sensor, 90-Degree ABS with 0.4m lead	2	Suits trailer disc steerable.
9	98815-032	Kit, Rotor & Hardware, 377 mm	2	[1] Includes item 9.
10	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™ CALIPER – 19.5

Content Type Approval numbers; CTA-044547 SARN 44547 FB

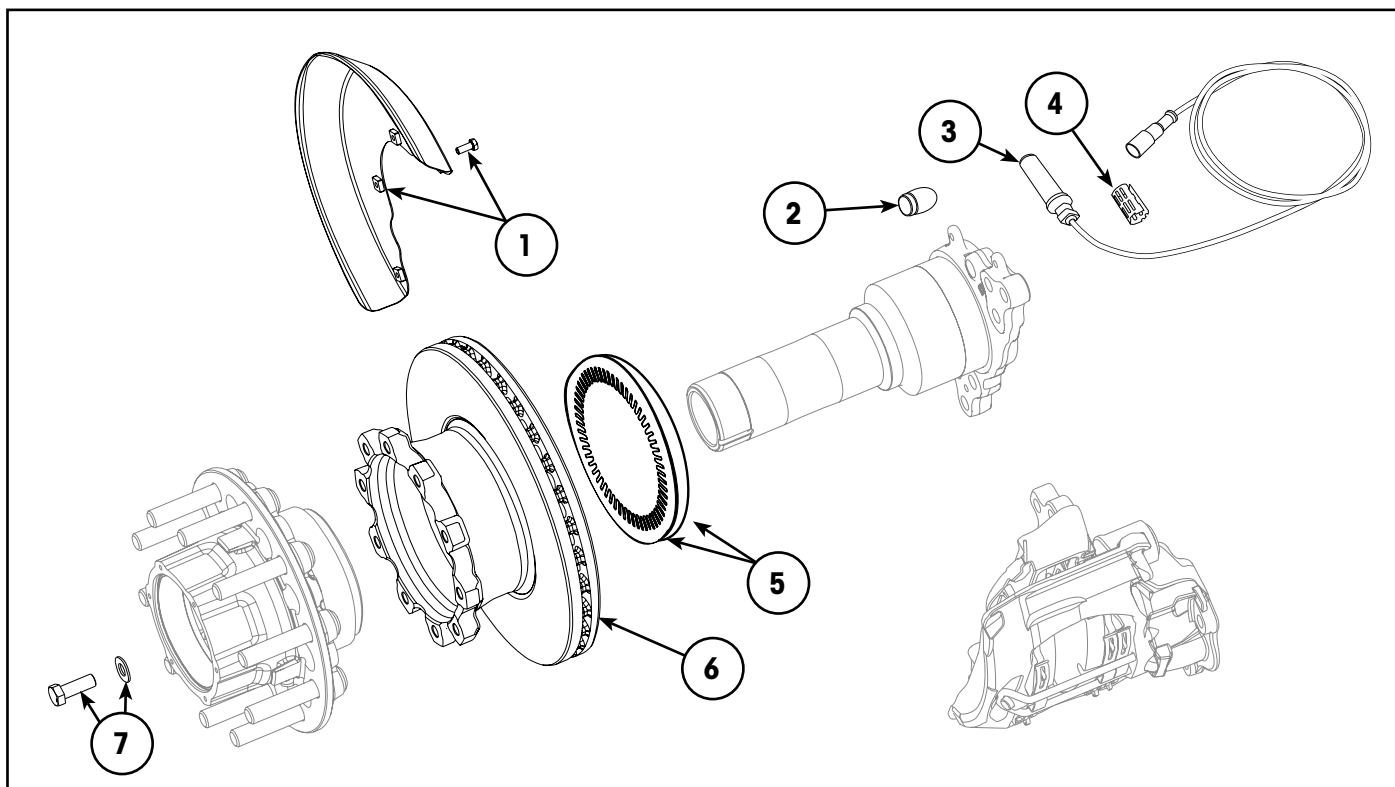


Item	Part Number	Description	Qty	Notes
1	D-42480-1	Brake Pad Kit	1	Includes adjuster plug & pad retaining hardware. Replaces 98881-021 pad kit.
2	98881-122	Caliper Assembly, LH	1	<b>[1]</b> Kit includes caliper, pads, retainer, clips & fastener kit. Replaces 97097-007/008 calipers.
	98881-123	Caliper Assembly, RH	1	
3	98881-105	Kit, Bolt & Washer Caliper – M20 x 2.5 x 60	2	Included in caliper kit, item 2.
4	97097-026	Kit, Brake Pad Pressure Plate	1	Includes LH & RH side.
5	97805-001	Kit, Caliper Guide Pin Cover	1	Includes LH & RH side. One side shown.
6	D-32676-3	Repair Kit, Caliper Piston Seal	2	Single caliper kit.
7	98881-040	Kit, Caliper Cap – Heavy Duty	1	Includes LH & RH side. Cannot be used with guide pin cover, item 5.
8	D-32676-15	Repair Kit, Caliper Guide Pin and Bush	2	Single caliper kit.
9	S-40670/2	Brake Pad Clip – Heavy Duty	6	

**[1] NOTE:** Brake caliper assemblies include brake pads, pad retaining hardware and pressure plate. They do not include the guide pin covers, item 5.



MAXX22T HTD-415™ SYSTEM 415MM ROTOR – 22.5



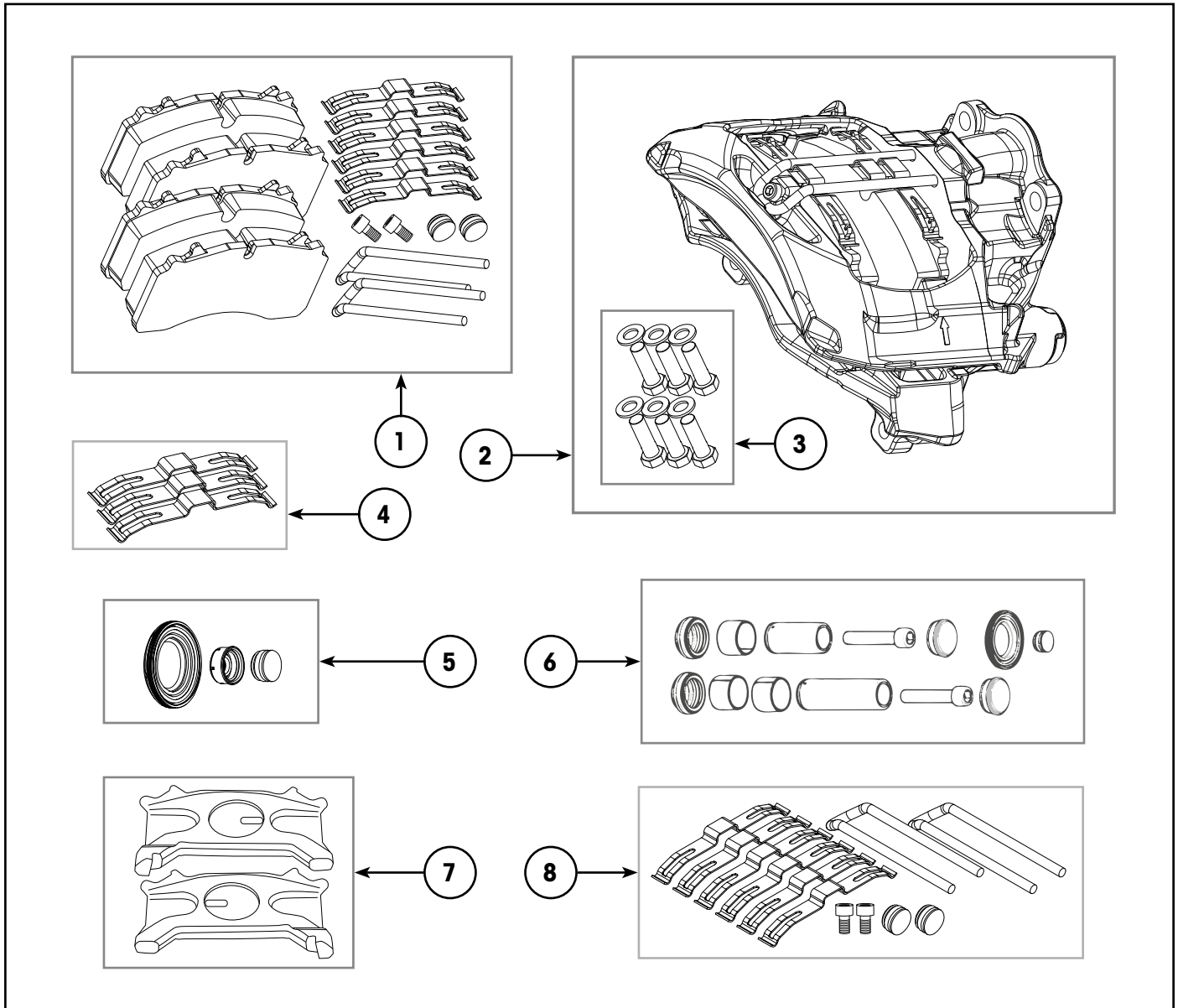
Item	Part Number	Description	Qty	Notes
1	S-35720-4415	Kit, Dust Shield – Disc Brake	2	Includes fasteners.
2	B-36165	Bush, ABS Sensor Mounting	2	
3	98831-001	Sensor, Straight ABS with 1.7m lead	2	
4	99008-001	Clip, Retaining – ABS Sensor	2	
5	98814-023	Pulse Ring, ABS & Clip Kit	2	Included in items 6 & 8.
6	98815-027	Rotor Kit, 415 mm	2	Kit includes rotor, ABS & fasteners, items 5 & 7. Included in item 8.
7	98881-109	Kit, Bolt & Washer Rotor to Hub – Zinc M16x2	2	Includes 10 bolts & instructions. Not illustrated. Included in items 6 & 8.
8	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™ CALIPER – 22.5

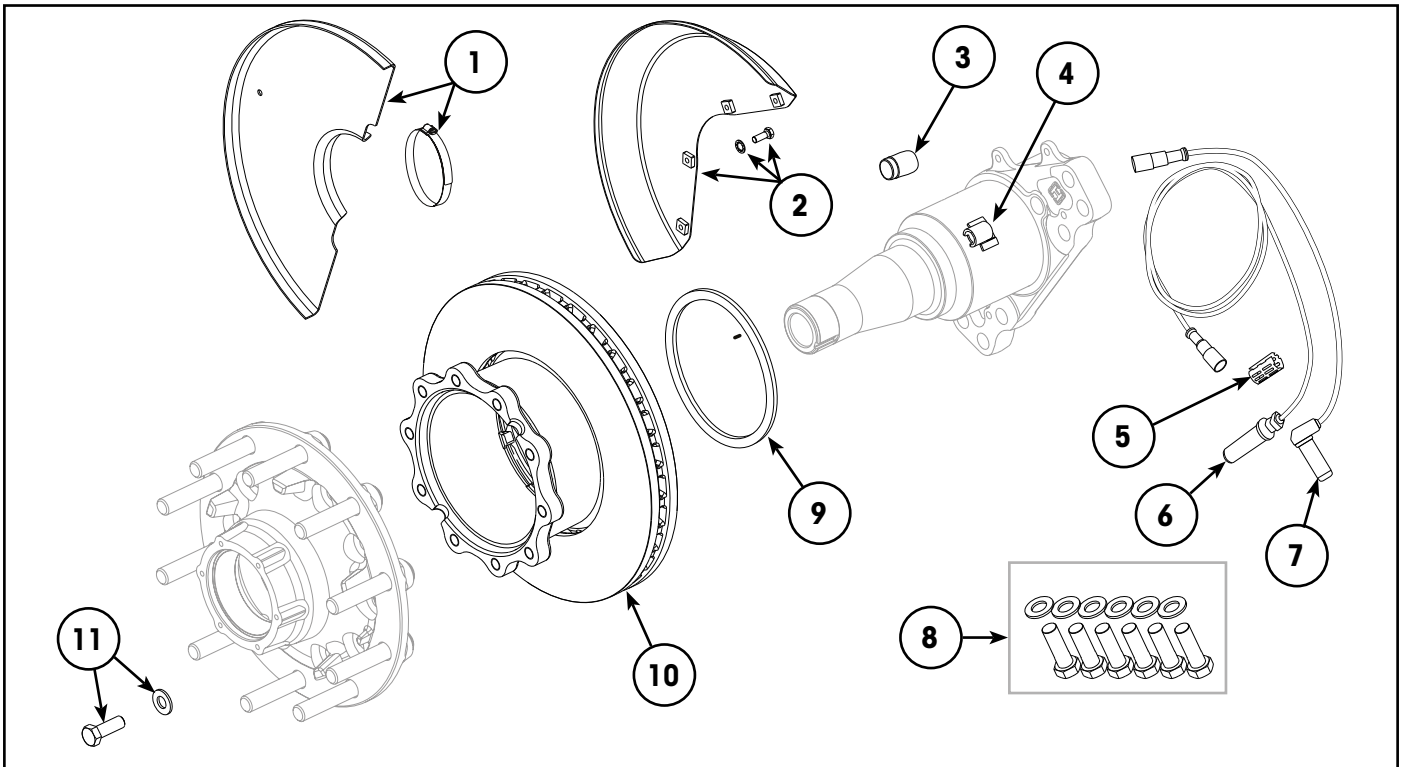
Content Type Approval numbers; CTA-061844, CTA-047436, SARN 47436 FB



Item	Part Number	Description	Qty	Notes
1	98881-117	Brake Pad Kit	1	Includes pads, springs, brackets, screws & plugs. Includes LH & RH side. Replaces S-35303-1.
2	98881-118	Kit, Caliper Assembly, LH	1	Kit includes caliper, pads, retainer, clips & fastener kit. Replaces 98881-103/104 calipers.
	98881-119	Kit, Caliper Assembly, RH	1	
3	98881-106	Kit, Bolt & Washer Caliper to Axle – M18 x 2.5	2	
4	S-40670/2	Kit, Brake Pad Clip – Heavy Duty	2	Includes 3 heavy duty pad clips.
5	D-32676-3	Repair Kit - Caliper Piston Seal	2	Includes plug, inner seal & outer seal.
6	S-35303-4	Repair Kit - Caliper Guide Pin and Bush	2	Includes adjuster plug, guide pin boots, piston boot, guides, guide caps, screws & bushes.
7	S-35303-9	Pressure Plate, Brake Pad	1	Includes LH & RH side. One side shown.
8	S-41717-1	Kit, Brake Pad Retaining – Heavy Duty	1	Includes, retainers, fasteners & heavy-duty clips.



WABCO HTD-430™ SYSTEM – 430MM ROTOR 22.5



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	<b>[1]</b> 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.
7	A-23619-3	Sensor, 90-Degree ABS with 0.4m lead	2	Suits trailer disc steerable.
8	98881-105	Kit, Bolt & Washer Caliper to Axle – M20 x 2.5	2	Suits all except below.
	98881-110	Kit, Bolt & Washer Caliper to Axle – M20 x 2.5	2	Suits trailer disc steerable.
9	—	ABS Tone Ring	2	Refer to "ABS Tone Rings – 430 mm" on page 27.
10	98815-031	ConMet Offset Rotor Assembly, 430 mm	2	<b>[2]</b> Includes ABS Ring & Hardware. Not illustrated.
	98815-033	KIC Rotor Kit, 430 mm	2	Includes items 9 & 11. Rotor is part of item 12.
	98815-026	KIC Rotor Kit, 430 mm for Toowoomba iron hub	2	<b>[1]</b> Includes items 4, 9 & 11. Rotor is part of item 12.
11	NSS	Nut, ConMet Hub to Rotor. 5/8"-18 UNF	20	<b>[2]</b> Suits ConMet rotor. Use item 9. Not illustrated.
	98881-108	Kit, Bolt & Washer Hub to Rotor – Zinc M16 x 2	2	Suits KIC rotor. Inc. 10 bolts & instructions. Not illustrated.
12	98801-076	Hub & Rotor Assembly – ConMet HN PreSet	2	<b>[2] [3]</b> Inc. bearings, spacer & seal. Not illustrated.
	98818-069	Hub & Rotor Assembly, 430 Rotor & HXL7®	2	<b>[3]</b> Inc. hub, 430mm rotor & hardware only. Not illust.

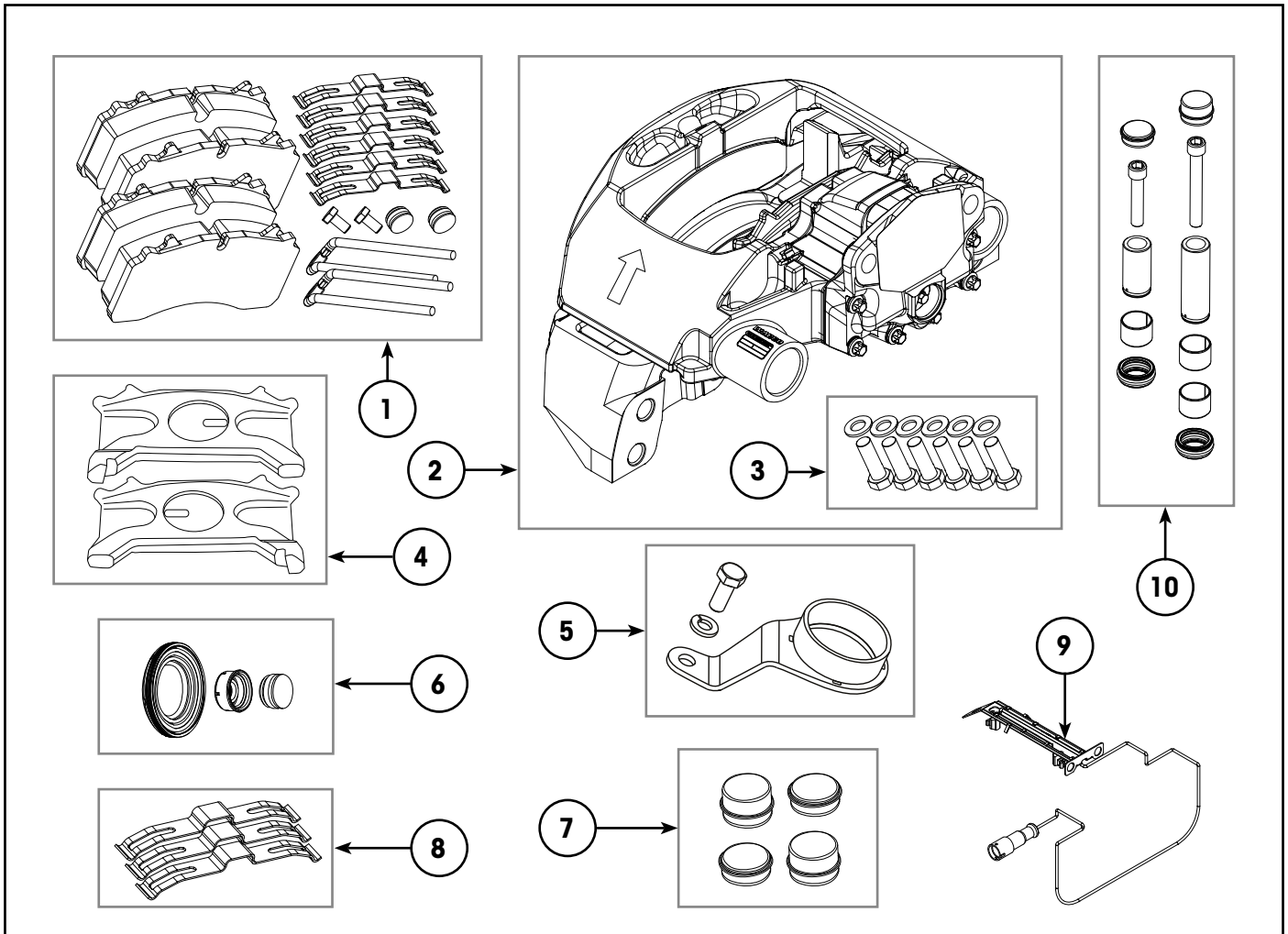
**[1] NOTE:** Kit services HP 430 disc Toowoomba hubs. Refer to "Toowoomba Iron Hub Rotor Kit" on page 17.

**[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™ CALIPER – 22.5

Content Type Approval numbers; CTA-044548 SARN 44548 FB

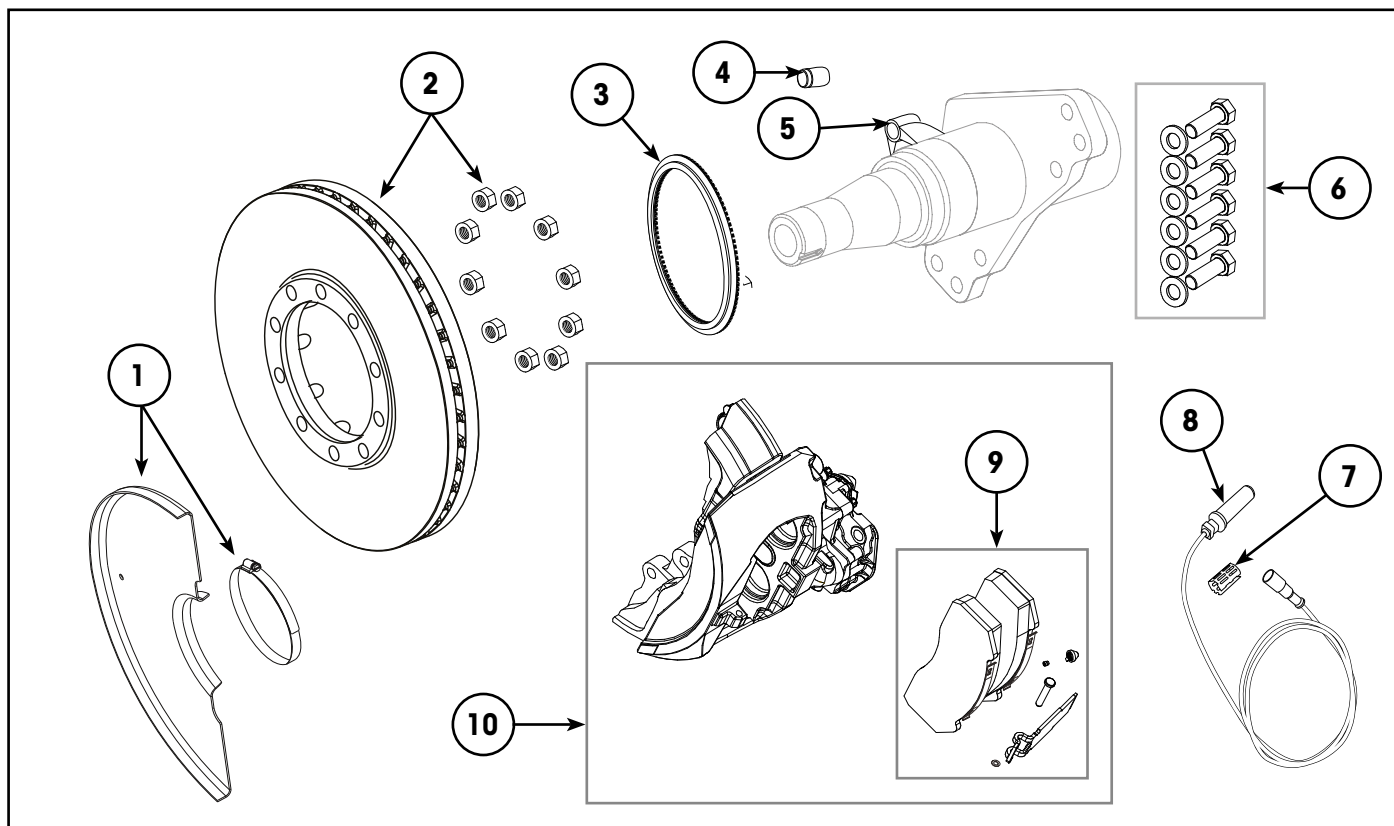


Item	Part Number	Description	Qty	Notes
1	D-42481-1	Brake Pad Kit	1	Includes 4 pads & pad retaining hardware. Replaces D-32676-1.
2	98881-120	Kit, Caliper Assembly, LH	1	<b>[1]</b> Complete with caliper, pads & hardware kit. Replaces D-31346-1L/R calipers.
	98881-121	Kit, Caliper Assembly, RH	1	
3	98881-105	Kit, Caliper Bolt & Washer – M20 x 2.5	2	Included in caliper kit, item 2.
4	97097-027	Pressure Plate, Brake Pad	1	Includes LH & RH side.
5	97802-001	Kit, Caliper Guide Pin Cover	1	Includes LH & RH side. One side shown.
6	D-32676-3	Repair Kit, Caliper Piston Seal	2	Single caliper Kit.
7	98881-040	Kit, Caliper Cap – Heavy Duty	1	Includes LH & RH side. Cannot be used with guide pin cover, item 5.
8	S-40670/2	Kit, Brake Pad Clip – Heavy Duty	2	Includes 3 heavy duty pad clips.
9	D-32676-2	Repair Kit, Pad Wear Indicator	1	Includes LH & RH side. One side shown.
10	D-32676-15	Repair Kit, Caliper Guide Pin and Bush	2	Single caliper repair kit.

**[1] NOTE:** Brake caliper assemblies include brake pads, pad retaining hardware and pressure plate. They do not include the guide pin covers, item 5.



KNORR-BREMSE HTD-430™ SYSTEM – 430MM ROTOR 22.5



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	<b>[2]</b> 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	<b>[1]</b> 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 Caliper 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	97097-042	Brake Pad Kit – Replaces 98881-005	1	Includes adjuster plug, nut & retainer hardware.
10	NLA	Caliper Assembly, SB7	–	Use updated SN7 replacement caliper.
	97097-038	Caliper Assembly, LH – SN7	1	Replaces 97097-017.
	97097-039	Caliper Assembly, RH – SN7	1	Replaces 97097-018.
11	98801-076	Hub & Rotor Assembly – ConMet HN PreSet. Not Illustrated.	2	<b>[2] [3]</b> 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.

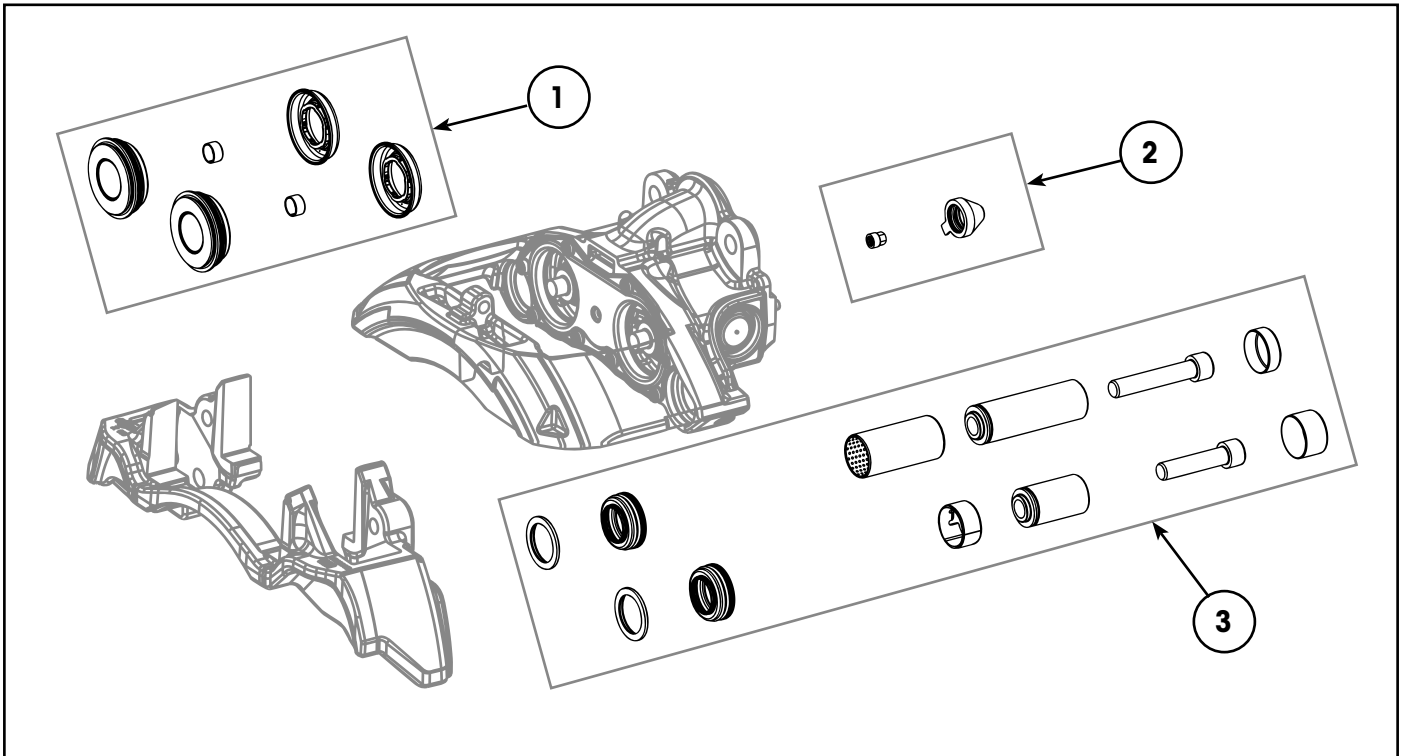
**[2] NOTE:** For ConMet brake rotor identification, refer to "ConMet Brake Rotor Identification" on page 16.

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



KNORR-BREMSE HTD-430™ CALIPER – 22.5

Content Type Approval numbers; SARN 29348 FB

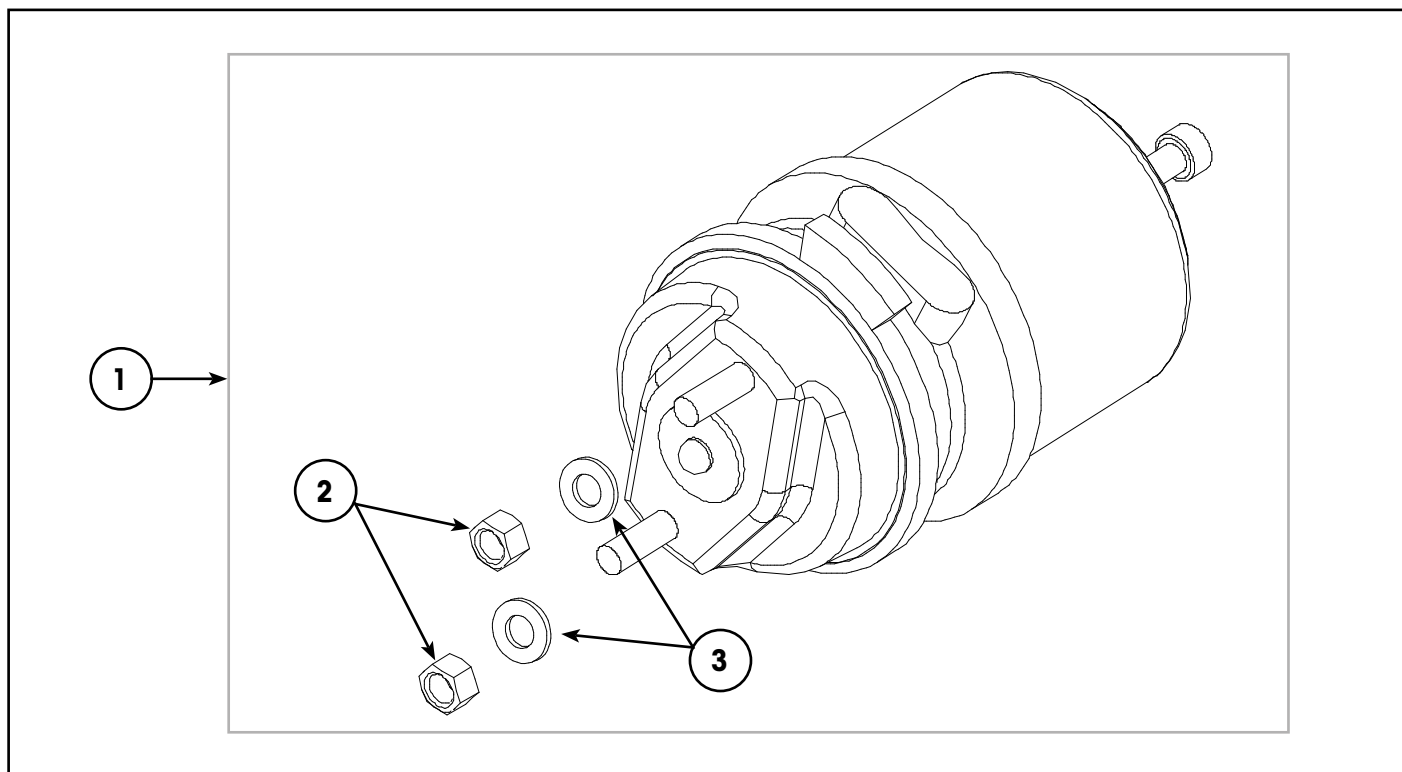


Item	Part Number	Description	Qty	Notes
1	97097-003	Caliper Tappet Kit	2	SB7.
	97097-009	Caliper Tappet Kit	2	SN7.
2	97097-006	Caliper Adjuster Kit	AR	Qty 10. Includes cap and nut.
3	97097-011	Caliper Slide Rebuild Kit	2	SB7.
	97097-013	Caliper Slide Rebuild Kit – Heavy Duty	2	[1] SN7.

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

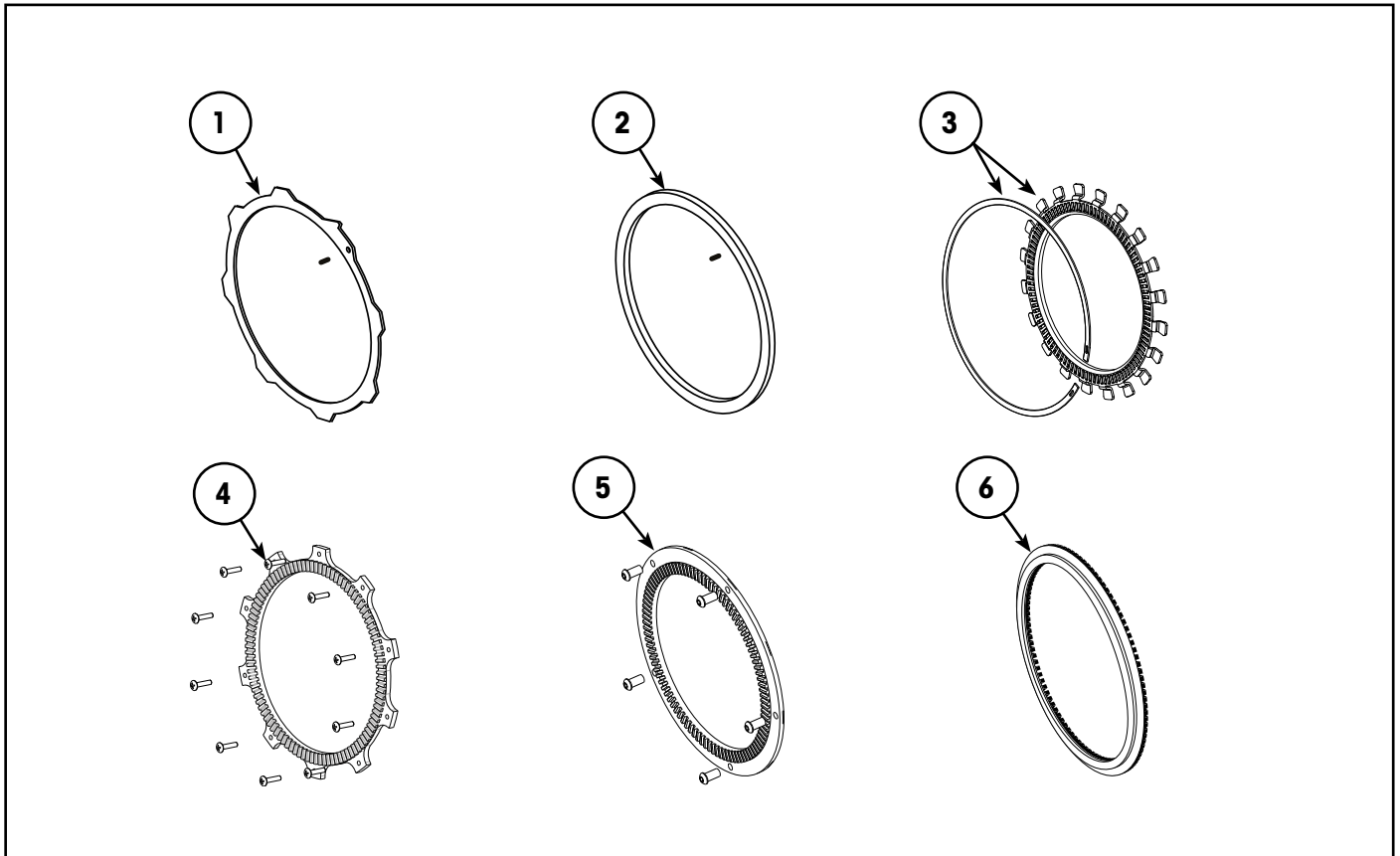


**DISC BRAKE CHAMBERS**



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

**[1] NOTE:** Tone rings no longer 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.

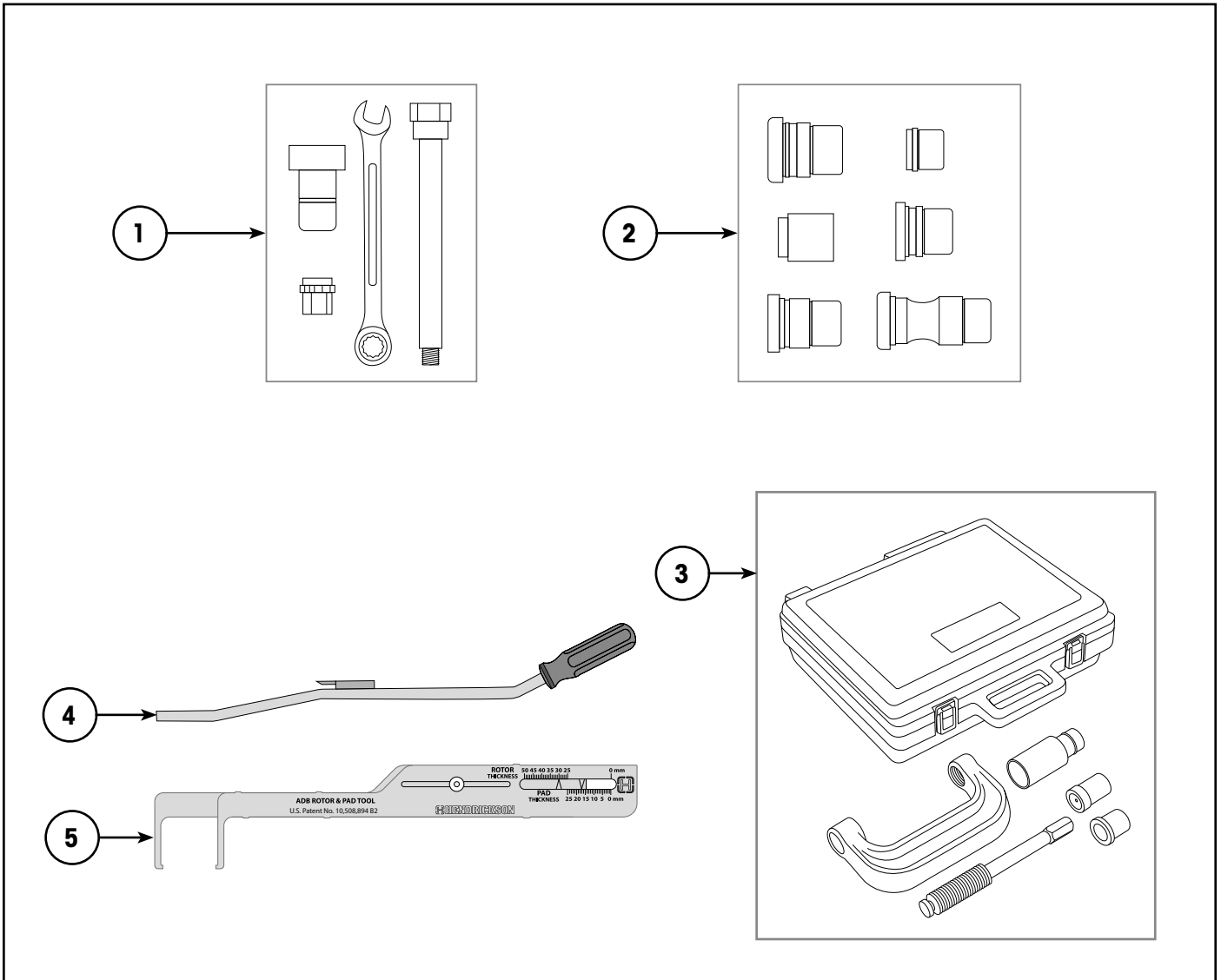
**ABS PULSE RING NOTE:**

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

**[1] NOTE:** The caliper rebuild adaptor tool kits to suit WABCO HTD disc brake calipers, must be used in conjunction with item 1, caliper rebuild basic tool kit (98596-023).



## REVISIONS TABLE

DATE	REV	PAGE	DESCRIPTION
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 caliper bolt kits and ABS sensors, ECN 11903.
Dec-2022	N	15, 16, 17	Expand and enhance caliper identification.
Jun-2026	O	5	Add standard pre-HXS brake kit, ECN 12284.
Jun-2026	O	5, 7	Replace 285 drums, 16.5" drums. ECN 12311, 12327, 12343, 12346, 46817, 12377, 47630.
Jun-2026	O	5, 18, 22	Correct 90° ABS sensor description.
Jun-2026	O	8, 9	Correct required quantity of S-cam bush.
Jun-2026	O	13	Add push rod length note.
Jun-2026	O	15	Add brake pad retaining kit, CN049024.
Jun-2026	O	15, 19, 21, 23, 24	Correct and update brake pad & caliper kit numbers. ECN47470, ECN46801. CN049663, CN048515, & CN047764.
Jun-2026	O	18, 19, 25, 29	Remove NLA components: dust shields, pad wear sensor, grease sachet, KB tool kit.
Jun-2026	O	19	Add HTD-377 heavy duty pad clip, ECN 12332.
Jun-2026	O	27	Tabbed tone ring no longer available. Update figure for 10 screw tone ring.

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