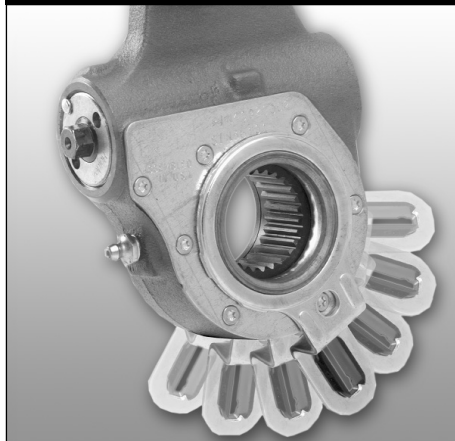


Parts and Cross Reference Guide



L00090 Rev. 7/07



AA1 and S-ABA Brake Adjusters

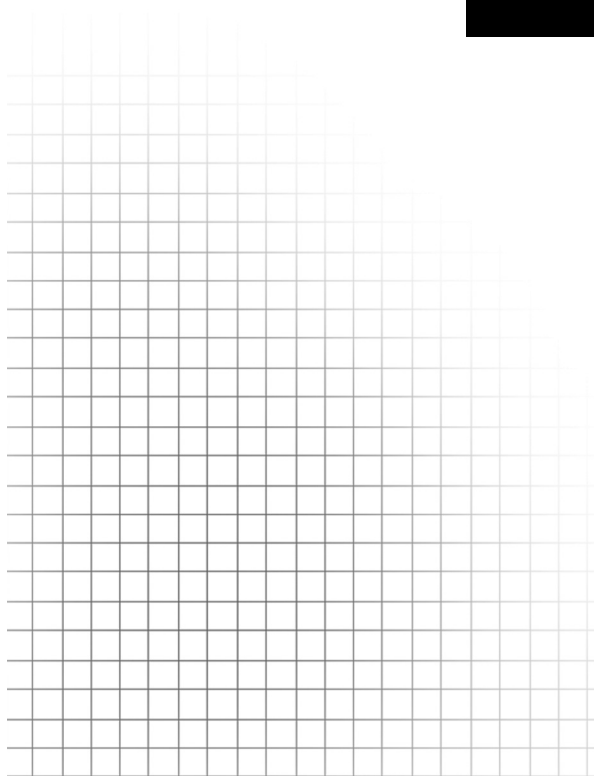


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Warning: Haldex strongly recommends routine visual checks be performed at EACH maintenance service interval. Foundation brake operational checks utilizing CVSA level 1 applied stroke criteria should always be utilized. Manual adjustment of automatic adjusters can disguise hidden problems within the foundation brake. Brake components such as s-cams, bushings, return springs, actuators, drums and adjuster installation MUST be within manufacturer's specifications. Adjuster control arms, wear bushings or attaching hardware that demonstrate visual damage, or which fail the operational checks, MUST be replaced immediately. Automatic Adjusters should NEVER be operated as manual adjusters except as may be necessary to get the vehicle off the road for service.

The description and specifications contained in this service publication are current at the time of printing. Haldex Brake Products Corp. reserves the right to discontinue or modify its models and/or procedures and to change specifications at any time without notice.

Haldex ABA

Features

Haldex automatic brake adjusters cover more applications than any other brand.

Backed by the industry's longest warranty.

Compatible with all major brand clevises.

Reliable "O" rings and gaskets seal out moisture and contaminants.

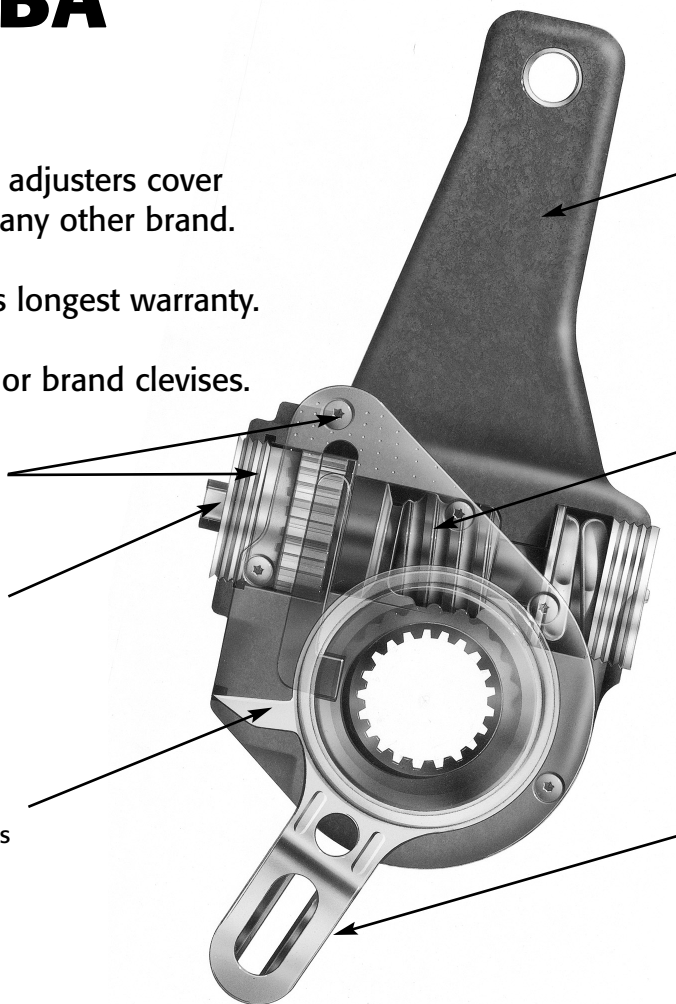
Easily accessible hex nut simplifies adjustment.

Built-in installation indicator eliminates templates, assures proper installation.

Housing is heat treated for wear and corrosion resistance.

Exclusive after-rolled process for the wormshaft increases fatigue strength.

Control arm eliminates linkage concerns and provides greater application flexibility.



Haldex S-ABA

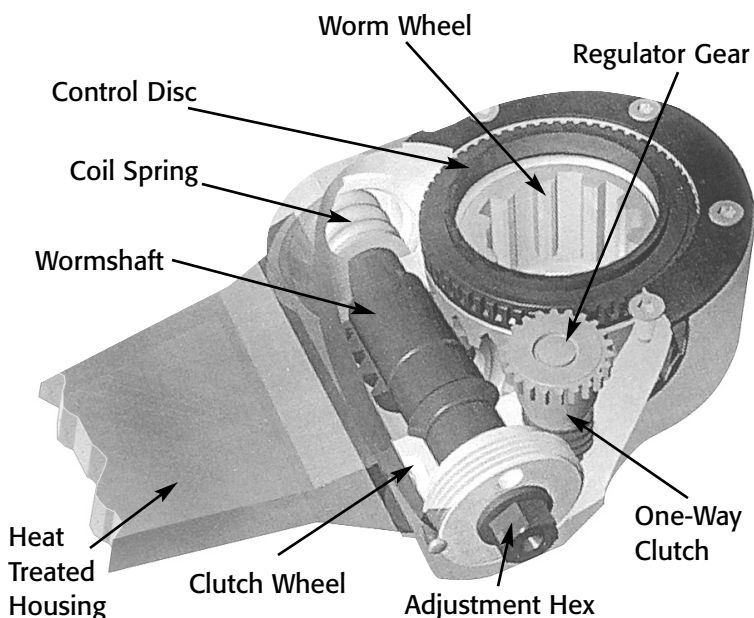
Features

Self-Setting control arm can be positioned from -16° to $+130^{\circ}$.

Reduces the potential for installation errors.

Saves time.

Sensitive adjustment rate provides optimal lining to drum clearance.



Selecting Your Haldex Automatic Brake Adjuster

If you currently have a Haldex ABA, refer to the Haldex ABA to Kit Cross Reference on pages 6 and 7, otherwise use the following procedures.

Step 1

Determine what axle the adjuster will be used on; see typical applications on the following pages.

Step 2

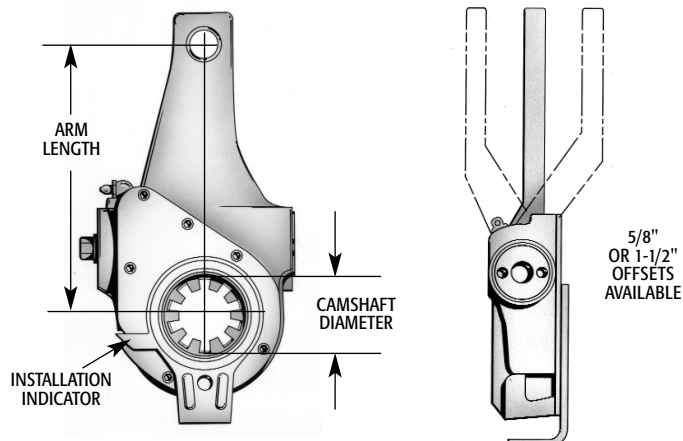
Determine the camshaft diameter and number of splines.

Step 3

Determine the adjuster arm length.

Step 4

Select the proper kit number. The kit includes: Haldex Automatic Brake Adjuster, anchor bracket, anti-seize lubricant and installation instructions.



Haldex ABA (AA1) Identification

Part Number:

409-10___ = Reduced maintenance adjuster
429-10___ = No-Lube adjuster

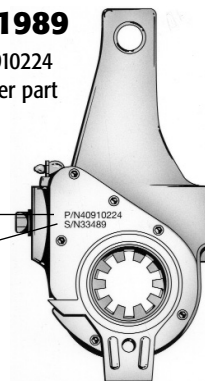
Serial Number:

First 3 digits = Day of year built
Last 2 digits = Year of build

After Sept. 1989

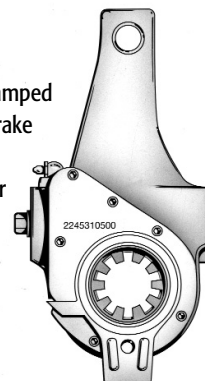
The Part No. P/N40910224 would be our adjuster part number 409-10224.

Part Number
P/N40910224
Serial Number
S/N33489



Prior to Sept. 1989

The first three numbers stamped on the cover plate is the brake adjuster part number. For example: 224 would be our adjuster part number 409-10224.



Haldex S-ABA Identification

Part Number:

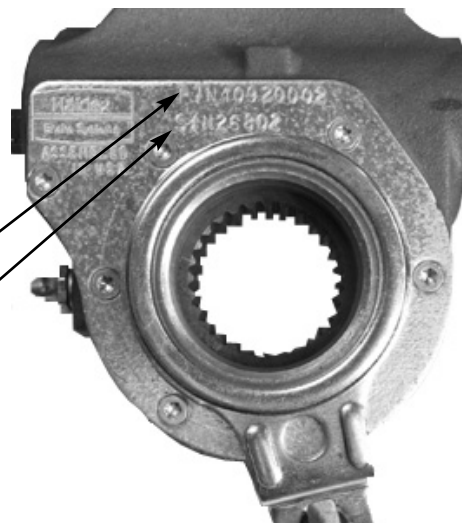
409-20___ = S-ABA Brake Adjuster

Serial Number:

First 3 digits = Day of year built
Last 2 digits = Year of build

The Part No. P/N40920002 would be our adjuster part number 409-20002.

Part Number
P/N40920002
Serial Number
S/N26802



Steer Axle Applications

Spline	Offset	Arm Length	Kit Number	Type	Anchor Bracket Style (See illustrations at left)
--------	--------	------------	------------	------	---

Standard Applications

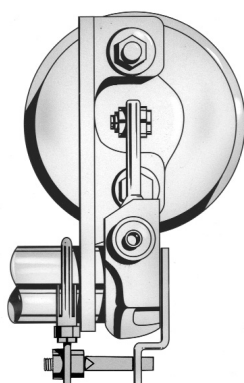
1-1/4-10	—	5-1/2"	400-10001	ABA (AA1)	Clamp
1-1/4-10	—	5-1/2"	400-10072	ABA (AA1)	Strap
1-1/4-10	—	5-1/2"	400-20235	S-ABA	Strap
1-1/4-10	5/8" RH	5-1/2"	400-10002	ABA (AA1)	Clamp
1-1/4-10	5/8" LH	5-1/2"	400-10003	ABA (AA1)	Clamp
1-1/4-24	—	5-1/2"	400-10004	ABA (AA1)	Clamp
1-1/4-24	—	5-1/2"	400-10073	ABA (AA1)	Strap
1-1/4-24	5/8" RH	5-1/2"	400-10040	ABA (AA1)	Clamp
1-1/4-24	5/8" LH	5-1/2"	400-10041	ABA (AA1)	Clamp
1-1/2-10	—	5-1/2"	400-10005	ABA (AA1)	Clamp
1-1/2-10	—	5-1/2"	400-10071	ABA (AA1)	Strap
1-1/2-10	—	5-1/2"	400-20236	S-ABA	Strap
1-1/2-28	—	5-1/2"	400-10008	ABA (AA1)	Clamp
1-1/2-28	—	5-1/2"	400-20241	S-ABA	Clamp
1-1/2-28	—	5-1/2"	400-10070	ABA (AA1)	Strap

Rockwell Air Disc Brake

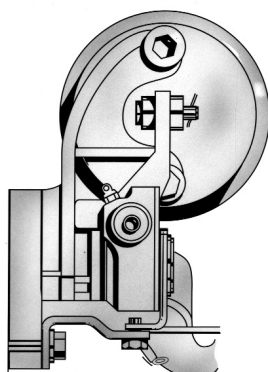
1-1/2-28	—	5-1/2"	400-10402	ABA (AA1)	Strap
----------	---	--------	-----------	-----------	-------

Mack 16,000# and greater

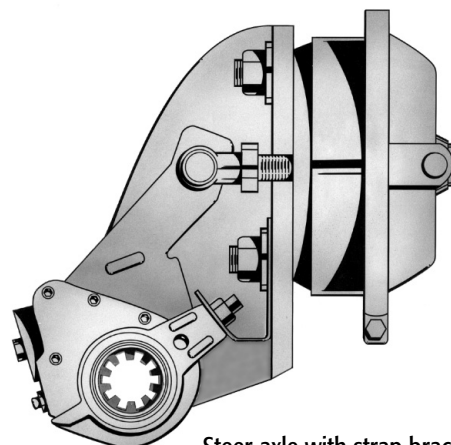
1-1/2-28	1-1/2" RH	5-1/2"	400-10009	ABA (AA1)	Spider Mounted
1-1/2-28	1-1/2" LH	5-1/2"	400-10010	ABA (AA1)	Spider Mounted



Steer axle with clamp bracket



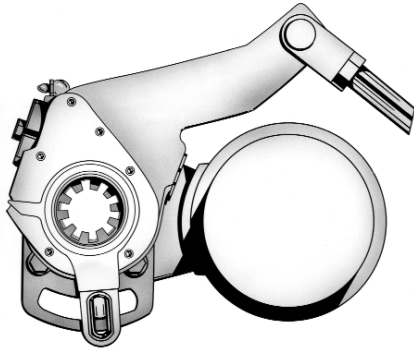
Mack 16,000# or higher rated steer axles with spider mounted bracket



Steer axle with strap bracket

Trailer Axle Applications

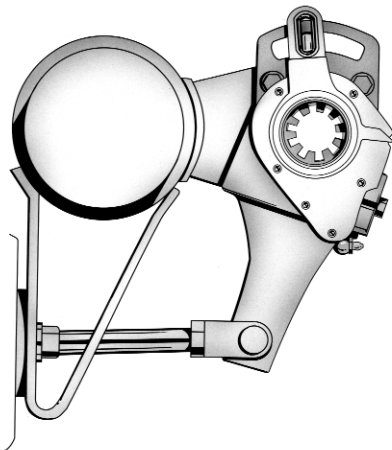
(For 12-1/4" Brake Assemblies)



Spline	Arm Length	Kit Number	Type	Anchor Bracket Style (See illustration at left)
1-1/2-28	5-1/2"	400-10304	ABA (AA1)	Plate & Flat Stud
1-1/2-28	5-1/2"	400-20304	S-ABA	Plate & Flat Stud
1-1/2-28	6"	400-10305	ABA (AA1)	Plate & Flat Stud
1-1/2-28	6"	400-20305	S-ABA	Plate & Flat Stud
1-1/2-10	6"	400-10306	ABA (AA1)	Plate & Flat Stud
1-1/2-10	6"	400-20306	S-ABA	Plate & Flat Stud
1-5/8-37	6"	400-10307	ABA (AA1)	Plate & Flat Stud

Trailer Axle Applications

(For 16-1/2" Brake Assemblies)



Spline	Arm Length	Kit Number	Type	Anchor Bracket Style (See illustration at left)
1-1/2-28	6"	400-10212	ABA (AA1)	Plate & Flat Stud
1-1/2-28	6"	400-20212	S-ABA	Plate & Flat Stud
1-1/2-28	5-1/2"	400-10211	ABA (AA1)	Plate & Flat Stud
1-1/2-28	5-1/2"	400-20211	S-ABA	Plate & Flat Stud
1-1/2-10	6"	400-10216	ABA (AA1)	Plate & Flat Stud
1-1/2-10	6"	400-20216	S-ABA	Plate & Flat Stud
1-1/2-10	5-1/2"	400-10215	ABA (AA1)	Plate & Flat Stud
1-1/2-10	5-1/2"	400-20215	S-ABA	Plate & Flat Stud
1-5/8-37	6"	400-10214	ABA (AA1)	Plate & Flat Stud
1-5/8-37	6"	400-20214	S-ABA	Plate & Flat Stud
1-5/8-37	5-1/2"	400-10213	ABA (AA1)	Plate & Flat Stud
1-5/8-37	5-1/2"	400-20213	S-ABA	Plate & Flat Stud

Drive Axle Applications

Spline	Arm Length	Kit Number	Type	Anchor Bracket Style (See illustrations at left)
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Standard Applications

1-1/2-28	5," 6"	400-10140	ABA (AA1)	Strap
1-1/2-28	5-1/2"	400-10141	ABA (AA1)	Strap
1-1/2-28	5-1/2"	400-20240	S-ABA	Strap
1-1/2-10	5," 6"	400-10142	ABA (AA1)	Strap
1-1/2-10	5-1/2," 6-1/2"	400-10143	ABA (AA1)	Strap
1-1/2-10	5-1/2"	400-20239	S-ABA	Strap

Rockwell Air Disc Brake

1-1/2-28	5-1/2"	400-10402	ABA (AA1)	Strap
----------	--------	-----------	-----------	-------

Mack Truck Applications*

1-1/2-28	6"	400-10144	ABA (AA1)	Clamp
1-1/2-28	6"	400-20243	S-ABA	Clamp
1-1/2-10	6"	400-10145	ABA (AA1)	Clamp
1-1/2-10	6"	400-20244	S-ABA	Clamp
1-1/2-28	5-1/2," 6-1/2"	400-10146	ABA (AA1)	Clamp
1-1/2-28	5-1/2"	400-20242	S-ABA	Clamp
1-1/2-28	5," 6"	400-10067**	ABA (AA1)	Spider Mounted

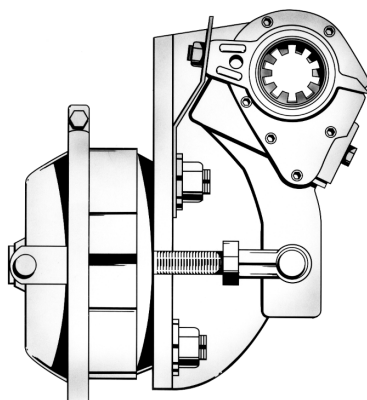
*With 3" and longer camshaft tubes

**For short camshaft tube Mack, 2" or less

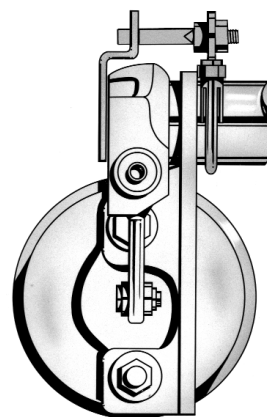
Kenworth with 8 Bag Air Ride

1-1/2-10	5-1/2"	400-10155*	ABA (AA1)	Strap
1-1/2-10	5-1/2"	400-20236	S-ABA	Strap
1-1/2-28	5-1/2"	400-10156*	ABA (AA1)	Strap

*To avoid interference with air bag supports



Drive axle with strap bracket



Mack drive axle with clamp bracket and flat stud

Haldex ABA to Kit Cross Reference

Reference the O.E. part number that is stamped into the ABA side cover to the 400 series replacement service number below.

Use the 400 service replacement ABA kits for all aftermarket requirements. 400 series kits include new hardware and may update the ABA design.

Multiple O.E listings indicate variations by bracket kit. See bracket kit section to assure service replacement kit number.

Note: 300 & 419 series ABA's are transit/coach applications and are not included in this catalog. Contact Haldex Commercial Vehicle Systems for numbers not listed.

O.E. PART NO.	SERVICE PART NO.	O.E. PART NO.	SERVICE PART NO.	O.E. PART NO.	SERVICE PART NO.	O.E. PART NO.	SERVICE PART NO.
409-10011	40010145	409-10249	40010003	409-10466	40010156	409-10664	40010041
409-10051	40010145	409-10250	40010002	409-10471	40010211	409-10665	40010040
409-10070	40010144	409-10255	40010013	409-10472	40010212	409-10673	40010212
409-10075	40010208	409-10257	40010005	409-10473	40010213	409-10674	40010214
409-10085	40010155	409-10258	40010008	409-10474	40010214	409-10675	40010216
409-10086	40010207	409-10263	40010006	409-10475	40010215	409-10678	40010144
409-10091	40010146	409-10264	40010007	409-10476	40010216	409-10679	40010146
409-10093	40010140	409-10265	40010048	409-10490	40010304	409-10680	40010145
409-10094	40010156	409-10266	40010049	409-10491	40010305	409-10682	40010146
409-10099	40010208	409-10279	40010306	409-10492	40010306	409-10683	40010211
409-10101	40010155	409-10282	40010304	409-10493	40010307	409-10684	40010213
409-10102	40010142	409-10287	40010145	409-10495	40010001	409-10685	40010215
409-10108	40010005	409-10288	40010144	409-10496	40010004	409-10687	40010227
409-10110	40010303	409-10294	40010155	409-10497	40010003	409-10731	40010142
409-10111	40010302	409-10298	40010054	409-10498	40010002	409-10732	40010140
409-10111	40010306	409-10298	40010055	409-10499	40010005	409-10733	40010143
409-10112	40010007	409-10299	40010056	409-10502	40010008	409-10741	40010142
409-10113	40010006	409-10299	40010057	409-10526	40010227	409-10742	40010140
409-10114	40010003	409-10304	40010009	409-10530	40010141	409-10747	40010157
409-10115	40010002	409-10305	40010010	409-10531	40010140	409-10748	40010158
409-10124	40010145	409-10310	40010403	409-10532	40010141	409-10759	40010070
409-10125	40010140	409-10311	40010404	409-10533	40010142	409-10760	40010071
409-10126	40010156	409-10312	40010156	409-10535	40010041	409-10761	40010072
409-10128	40010001	409-10314	40010140	409-10536	40010040	409-10762	40010073
409-10130	40010142	409-10315	40010142	409-10548	40010143	409-10767	40010300
409-10134	40010143	409-10318	40010306	409-10551	40010141	409-10774	40010006
409-10135	40010143	409-10319	40010004	409-10552	40010140	409-10775	40010007
409-10146	40010067	409-10325	40010003	409-10553	40010141	409-10808	40010078
409-10146	40010144	409-10326	40010002	409-10561	40010140	409-10821	40010168
409-10147	40010057	409-10334	40010041	409-10564	40010142	409-20000	40020215
409-10148	40010055	409-10335	40010040	409-10565	40010143	409-20002	40020211
409-10149	40010040	409-10351	40010205	409-10566	40010140	409-20004	40020216
409-10150	40010041	409-10352	40010212	409-10579	40010144	409-20006	40020212
409-10151	40010305	409-10360	40010140	409-10580	40010146	409-20024	40020213
409-10163	40010013	409-10361	40010073	409-10581	40010145	409-20025	40020214
409-10164	40010010	409-10362	40010156	409-10584	40010402	429-10649	40010157
409-10165	40010009	409-10363	40010304	409-10587	40010161	429-10650	40010158
409-10168	40010008	409-10364	40010004	409-10588	40010162	429-10655	40010305
409-10172	40010013	409-10365	40010206	409-10599	40010009	429-10656	40010306
409-10174	40010156	409-10365	40010216	409-10600	40010010	429-10673	40010212
409-10176	40010010	409-10370	40010155	409-10601	40010054	429-10674	40010214
409-10177	40010009	409-10384	40010008	409-10601	40010055	429-10675	40010216
409-10178	40010140	409-10385	40010052	409-10602	40010056	429-10683	40010211
409-10211	40010306	409-10386	40010211	409-10602	40010057	429-10684	40010213
409-10215	40010141	409-10387	40010121	409-10605	40010071	429-10685	40010215
409-10218	40010214	409-10390	40010141	409-10606	40010065	429-10759	40010070
409-10222	40010156	409-10391	40010001	409-10612	40010048	429-10760	40010071
409-10223	40010155	409-10392	40010206	409-10613	40010049	429-10761	40010072
409-10224	40010001	409-10392	40010216	409-10615	40010140	429-10762	40010073
409-10225	40010140	409-10394	40010215	409-10626	40010142		
409-10226	40010142	409-10396	40010200	409-10627	40010143		
409-10227	40010137	409-10398	40010211	409-10628	40010141		
409-10228	40010008	409-10404	40010140	409-10635	40010155		
409-10229	40010141	409-10405	40010140	409-10637	40010008		
409-10230	40010206	409-10406	40010141	409-10638	40010068		
409-10230	40010216	409-10408	40010141	409-10639	40010069		
409-10231	40010206	409-10410	40010142	409-10648	40010156		
409-10231	40010216	409-10416	40010156	409-10649	40010143		
409-10232	40010215	409-10417	40010155	409-10650	40010141		
409-10233	40010215	409-10418	40010306	409-10654	40010304		
409-10234	40010212	409-10426	40010140	409-10655	40010305		
409-10235	40010212	409-10429	40010141	409-10656	40010306		
409-10236	40010211	409-10430	40010211	409-10657	40010307		
409-10237	40010211	409-10442	40010145	409-10658	40010001		
409-10238	40010143	409-10443	40010144	409-10659	40010004		
409-10239	40010142	409-10444	40010146	409-10660	40010003		
409-10240	40010141	409-10457	40010140	409-10661	40010002		
409-10241	40010140	409-10458	40010142	409-10662	40010005		
409-10247	40010216	409-10465	40010053	409-10663	40010008		

Note: The Haldex Automatic Brake Adjuster supplied in the Replacement Kit may differ in appearance from the one originally installed on the vehicle. All Haldex Replacement Kits are engineered to provide the same fit and function as original equipment as long as both the adjuster and bracket supplied in the kit are replaced together.

If your part number is not listed here, contact Haldex at 1-800-643-2374. Or visit our website: www.haldex.com

Haldex ABA Replacement Parts – Hardware and Hardware Kits

Part Description	Part Number	Application Information
 Long Anchor Screw	443-10188	15/16" long used with Slide Nut 443-10101
 Slide Nut	443-10101	Used with Anchor Bracket 427-10497, 427-10155, 427-10457, 427-10548
 Short Anchor Screw	443-10096	3/4" long used when Anchor Bracket is threaded without Slide Nut
 Double Bend Flat Stud Kit, Trailers	427-10558	Includes four each: Plastic Bushing, Anchor Stud, Nut and Installation Instructions to update from Round Pin to Flat Stud
 Double Bend Flat Stud (Universal)	443-10318	Included in kits: 427-10565, 427-10566 and 427-10567, 427-10561, 427-10563
 Serrated Hex Nut	443-10204	Nut (only) for Double Bend Flat Stud

Haldex ABA Replacement Parts – Bushings

Part Description	Part Number	Application Information
 Plastic Bushing (Black Oval)	452-10126	Single Bend Control Lever Replacement Bushing
 Plastic Bushing (Black rectangular)	452-10125	Double Bend Control Lever Replacement Bushing
 Clevis Bushing 1/2"	452-10058	Also Used As An Insert To Convert 5/8" to 1/2"
 Clevis Bushing 5/8"	452-10128	–

Haldex offers proprietary vehicle technology solutions to the global vehicle industry within specific niches. We focus on products to improve safety, the environment and vehicle dynamics.

We are enhancing our competitive capabilities and building long-term customer relationships through high performance, low total costs to the customer through the product's service life, ethical business practices and commitment to long-term partnerships. Haldex operations are divided into three business areas: Commercial Vehicle Systems, Hydraulic Systems and Traction Systems.

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