

The World's Most Specified and Trusted **Automatic Brake Adjuster**



**Automatic Brake
Adjusters**

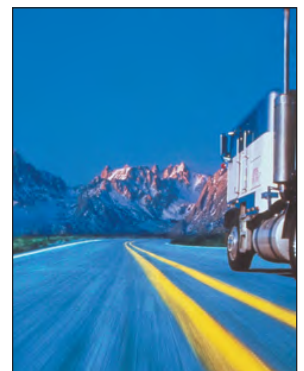
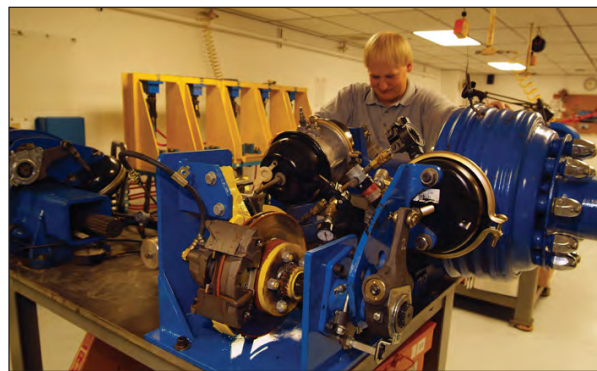


Innovative Vehicle Solutions



Automatic Brake Adjusters

Haldex ABAs are designed and built better than any other automatic brake adjuster.



Year after year, in market after market, Haldex Automatic Brake Adjusters outsell all other brands. What makes Haldex the leader in North America and in every other major market for commercial vehicles globally? It's simple. Haldex ABAs are designed and built better than any other automatic brake adjuster. Beginning with clearance-sensing technology that was pioneered by Haldex over 40 years ago, Haldex ABAs incorporate design features that provide reliable and accurate brake adjustment longer.

Haldex ABA Advantage

Haldex ABAs deliver unmatched performance over years of service and hundreds of thousands of miles – all the while requiring only minimal maintenance – making them the most cost-effective ABA you can specify. And, they're backed by the industry's best ABA warranty.

By constantly maintaining optimum brake lining-to-drum clearance, Haldex ABAs reduce stopping distances and increase driver control and confidence under all conditions. Optimum brake adjustment helps prevent uneven tire and brake wear; reducing a fleet's operating expenses and downtime costs.



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The unique, fully-sealed control arm eliminates the exposed linkage and rubber boots of linkage style adjusters, improving durability and reliability. Its clearance-sensing design prevents excessive brake wear and failed roadside inspections, which reduces operating and downtime costs. It adjusts during brake release, when forces on the adjuster are at their lowest, to prolong life. And, by eliminating the high cost and maintenance of linkage-style adjusters, the design simplifies installation. The versatile Haldex design is available to fit more applications than any other adjuster with its two ABA models: the S-ABA, a self-setting automatic brake adjuster; and the standard AA1.

S-ABA Revolutionizes Correct Fit

The unique design of the Haldex S-ABA is revolutionizing correct fit with easy installation, improved performance, extended service life and streamlined inventories. The S-ABA is a self-setting adjuster that establishes its own reference point. The S-ABA control arm will set itself at any angle within the total range of permissible control arm positions allowed with current adjusters and function properly.



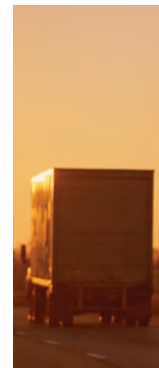
S-ABA provides the proper lining-to-drum clearance – regardless of the control arm installation angle, which solves adjustment problems caused by incorrect installation.

For improved performance, the S-ABA has a more sensitive adjustment rate to permit the clearance sensing design to maintain optimal lining-to-drum clearance. The clearance-sensing design maintains a constant and uniform distance between the brake drum and lining. The gradual adjustment of the S-ABA lowers the risk of over-adjusting during prolonged braking. This optimal brake adjustment helps prevent brake wear, reducing operating and downtime costs.

Warranty Information

Refer to appropriate warranty policy for complete details:

- L20221 Aftermarket
- L20242 OE



New Technology - Optimized Housing Brake Adjuster

In response to customer demand, Haldex introduces the all new Optimized Housing which improves performance and reliability and has the added bonus of reducing weight in key areas.

S-ABA Automatic Adjuster



The S-ABA incorporates several life extending design advances including: centralized clutch location to further improve protection from moisture, dirt and road salt; internal gears made of high-strength, high alloy steel and heat treated to minimize wear and increase the shaft's fatigue life.

Inventories are streamlined since the flexibility of the S-ABA control arm position or location can effectively replace several other fixed control arm brake adjusters, lowering handling and storage costs. And, as with other Haldex automatic brake adjusters, it is easy to check the function of the S-ABA.

Heat-treated wormshaft for increased fatigue strength.

Heat-treated internal gears made of high-strength, high alloy steel to minimize wear.



Standard AA1 Brake Adjuster



The AA1 has heat-treated internal gears made of high-strength, high alloy steel to withstand wear, and reliable o-ring seals for improved protection from moisture, dirt and road salt. Its easily accessible adjustment hex simplifies adjustment during installation and brake lining replacement – requiring no locking pawls to remove or disengage. And, a built-in visual indicator verifies proper installation at a glance, eliminating the cumbersome templates needed to check other ABAs.

Automatic Brake Adjuster - Reliability

Reliability Scale

Best

Haldex AA1 and S-ABA
Clearance Sensing on Return Stroke

This method of adjustment provides the optimum performance maintaining drum to lining clearance, not over adjusting and generates lower amounts of torque and stress on internal adjuster components.

Average

Competitive Adjusters - Bendix® and Guinite
Clearance Sensing on Application Stroke

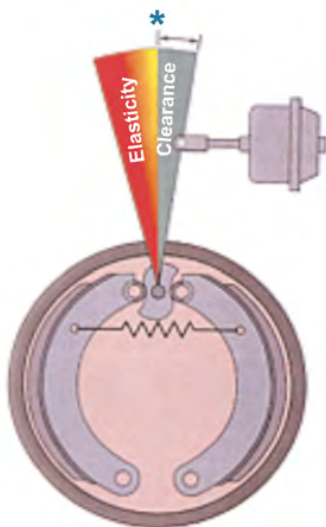
Adjustment on the application stroke creates unnecessary stress on linkage pins and internal adjuster components, lessening overall life of the adjuster.

Worst

Competitive Adjusters - Meritor
Stroke Sensing

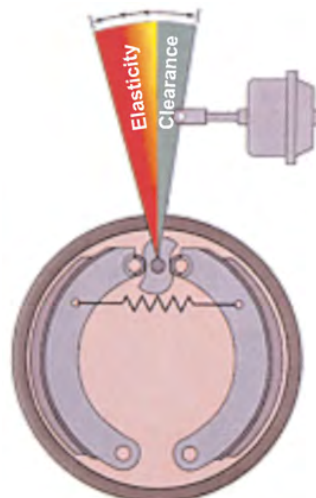
Stroke sensing models are not as reliable or consistent as clearance sensing models and tend to over-adjust during extended braking applications.

Haldex Clearance Sensing Principle



* Point of disengaging the adjustment mechanism

Stroke Sensing Principle



Can not disengage the adjustment mechanism

Haldex develops and provides reliable and innovative solutions with focus on brake and air suspension products to the global commercial vehicle industry.

Listed on the Stockholm Stock Exchange, Haldex has annual sales of approximately 3.9 billion SEK and employs about 2,200 people.

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Innovative Vehicle Solutions

Austria

Haldex Wien Ges.m.b.H.
Vienna
Tel.: +43 1 8 69 27 97
Fax: +43 1 8 69 27 97 27
E-Mail: info.at@haldex.com

Belgium

Haldex N.V.
Balegem
Tel.: +32 9 363 90 00
Fax: +32 9 363 90 09
E-Mail: info.be@haldex.com

Brazil

Haldex do Brasil Ind. E Com. Ltda.
São José dos Campos
Tel.: +55 12 3935 4000
Fax: +55 12 3935 4018
E-Mail: info.brasil@haldex.com

Canada

Haldex Ltd.
Cambridge, Ontario
Tel.: +1 519 621 6722
Fax: +1 519 621 3924
E-Mail: info.ca@haldex.com

China

Haldex Vehicle Products Co. Ltd.
Suzhou
Tel.: +86 512 8885 5301
Fax: +86 512 8765 6066
E-Mail: info.cn@haldex.com

France

Haldex Europe SAS
Weyersheim
Tel.: +33 3 88 68 22 00
Fax: +33 3 88 68 22 09
E-Mail: info.eur@haldex.com

Germany

Haldex Brake Products GmbH
Heidelberg
Tel.: +49 6 221 7030
Fax: +49 6 221 703400
E-Mail: info.de@haldex.com

Hungary

Haldex Hungary Kft.
Szentlőrincváta
Tel.: +36 29 631 400
Fax: +36 29 631 401
E-Mail: info.hu.eu@haldex.com

India

Haldex India Limited
Nasik
Tel.: +91 253 6699501
Fax: +91 253 2380729

Italy

Haldex Italia Srl.
Biassono
Tel.: +39 039 47 17 02
Fax: +39 039 27 54 309
E-Mail: info.it@haldex.com

Korea

Haldex Korea Ltd.
Seoul
Tel.: +82 2 2636 7545
Fax: +82 2 2636 7548
E-Mail: info.hkr@haldex.com

Mexico

Haldex de Mexico S.A. De C.V.
Monterrey
Tel.: +52 81 8156 9500
Fax: +52 81 8313 7090

Poland

Haldex Sp. z.o.o.
Praszka
Tel.: +48 34 350 11 00
Fax: +48 34 350 11 11
E-Mail: info.pl@haldex.com

Russia

OOO "Haldex RUS"
Moscow
Tel.: +7 495 747 59 56
Fax: +7 495 786 39 70
E-Mail: info.ru@haldex.com

Spain

Haldex España S.A.
Granollers
Tel.: +34 93 84 07 239
Fax: +34 93 84 91 218
E-Mail: info.es@haldex.com

Sweden

Haldex Brake Products AB
Landskrona
Tel.: +46 418 47 60 00
Fax: +46 418 47 60 01
E-Mail: info.se@haldex.com

United Kingdom

Haldex Ltd.
Newton Aycliffe
Tel.: +44 1325 310 110
Fax: +44 1325 311 834
E-Mail: info.gb@haldex.com

Haldex Brake Products Ltd.
MIRA Technology Park
Tel.: +44 2476 400 300
Fax: +44 2476 400 301
E-Mail: info.gbre@haldex.com

USA

Haldex Brake Products Corp.
Kansas City
Tel.: +1 816 891 2470
Fax: +1 816 891 9447
E-Mail: info.us@haldex.com



www.haldex.com