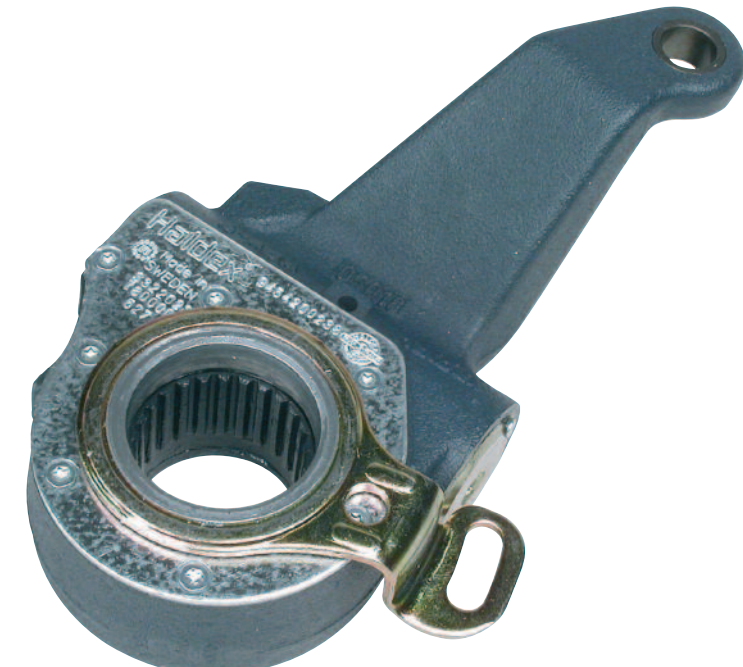




ABA Answers



Automatic Brake Adjuster - and the annual test

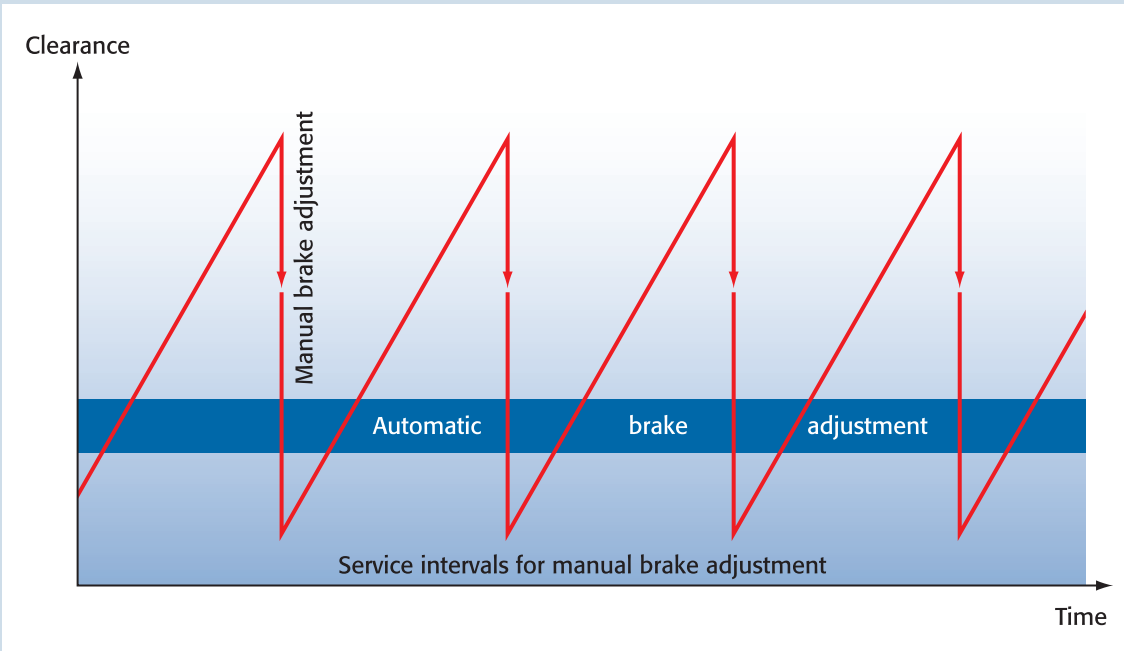
ABA laws currently in operation came about by European Directive 91/422/EEC. Member states have introduced this into local law by various statutes over time. We are now in a situation where generally Test Stations will fail a vehicle on annual test for non fitment and you need to be aware that side of road tests can be subject to immediate prohibition for incorrect function of the ABA as well as the brake.

This amendment requires vehicles to be fitted with Automatic Brake Adjustment if first used or manufactured after 1st April 1995.

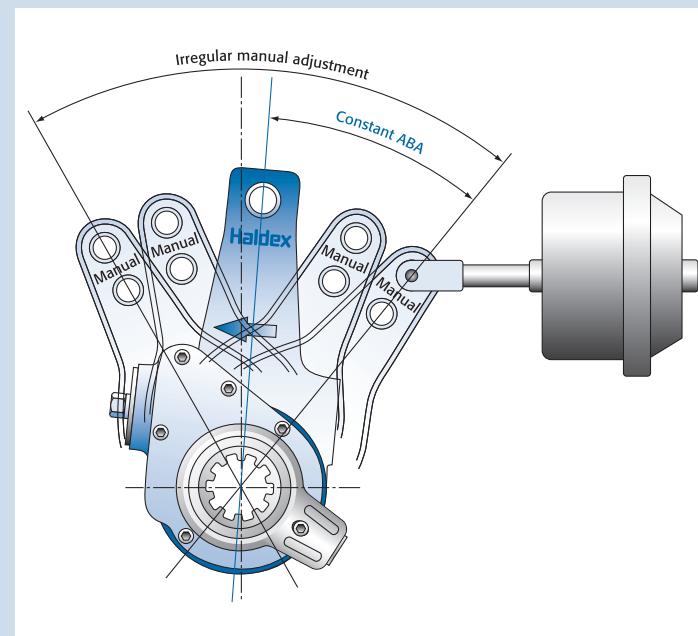
- That means almost all goods vehicles above 3.5 tonnes gross mass, together with large passenger carrying vehicles and all trailers above 3.5 tonnes gross mass manufactured after that date. Light goods vehicles, first used after that date, are only required to have automatic brake adjustment on the front axle.

An Operator's Guide to best practice for Automatic Brake Adjusters and legislation. Save time with these simple checks and when you have to, replace your ABA with Haldex. You will reduce by up to half the number of units you have to replace annually.

Q WHAT SHOULD YOU KNOW ABOUT ABA?



A That the free-running clearance on an ABA is GREATER than the initial set-up of a manual brake adjuster. HOWEVER, the pre-set ABA clearance remains CONSTANT.



Note that a properly maintained ABA will NOT allow "over-stroking".

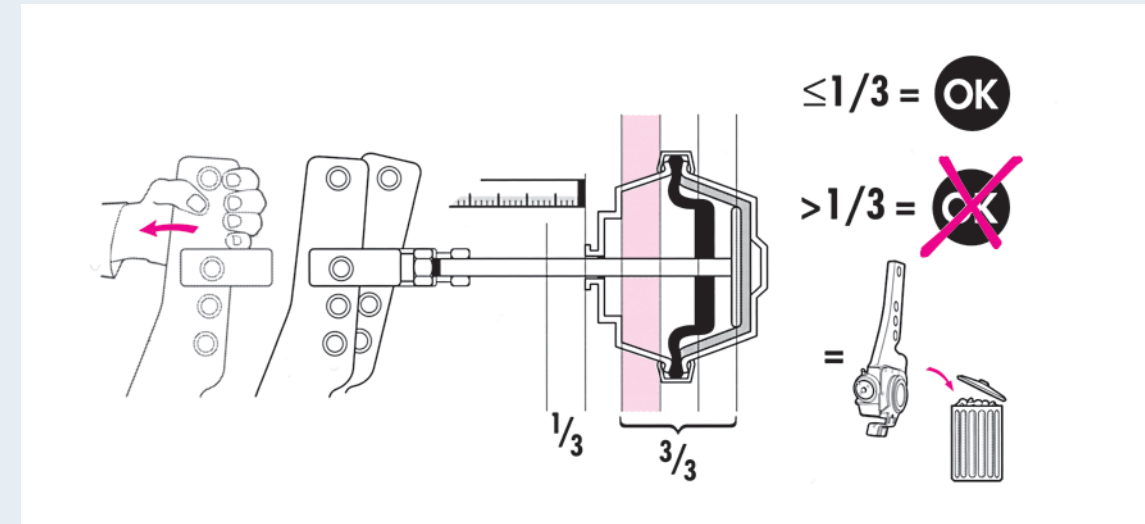
Solutions

- Do NOT attempt to override the pre-set clearance.
- Learn to TRUST the ABA from day one.
- Periodically check the ABA function as they wear.

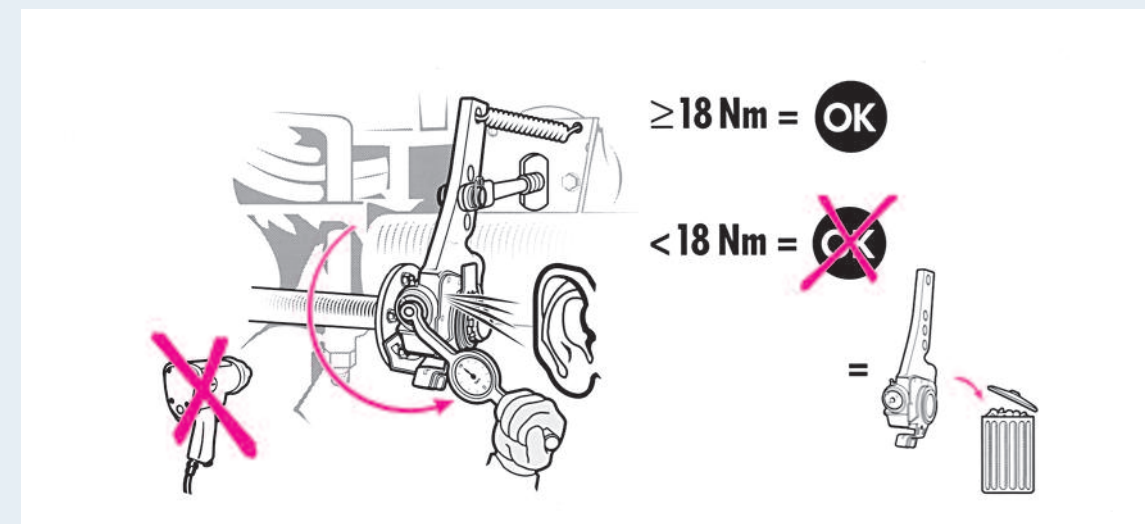
Typical times are:
MONTHLY or every 10,000 miles for CITY BUSES.*
THREE MONTHLY or every 25,000 miles for TRUCKS & TRAILERS.*

* These periods refer to Haldex ABA. For detailed information on other units consult the manufacturer.

Q WHEN SHOULD ABA BE REPLACED?



A GENERALLY: Replace when re-adjustment is required due to the free travel EXCEEDING one third of the total brake chamber stroke. (NB—The 'free travel' refers to the clearance between the lining and the brake drums). Prior to replacement, check all ABA linkages, camshaft bearings and brake fixtures.

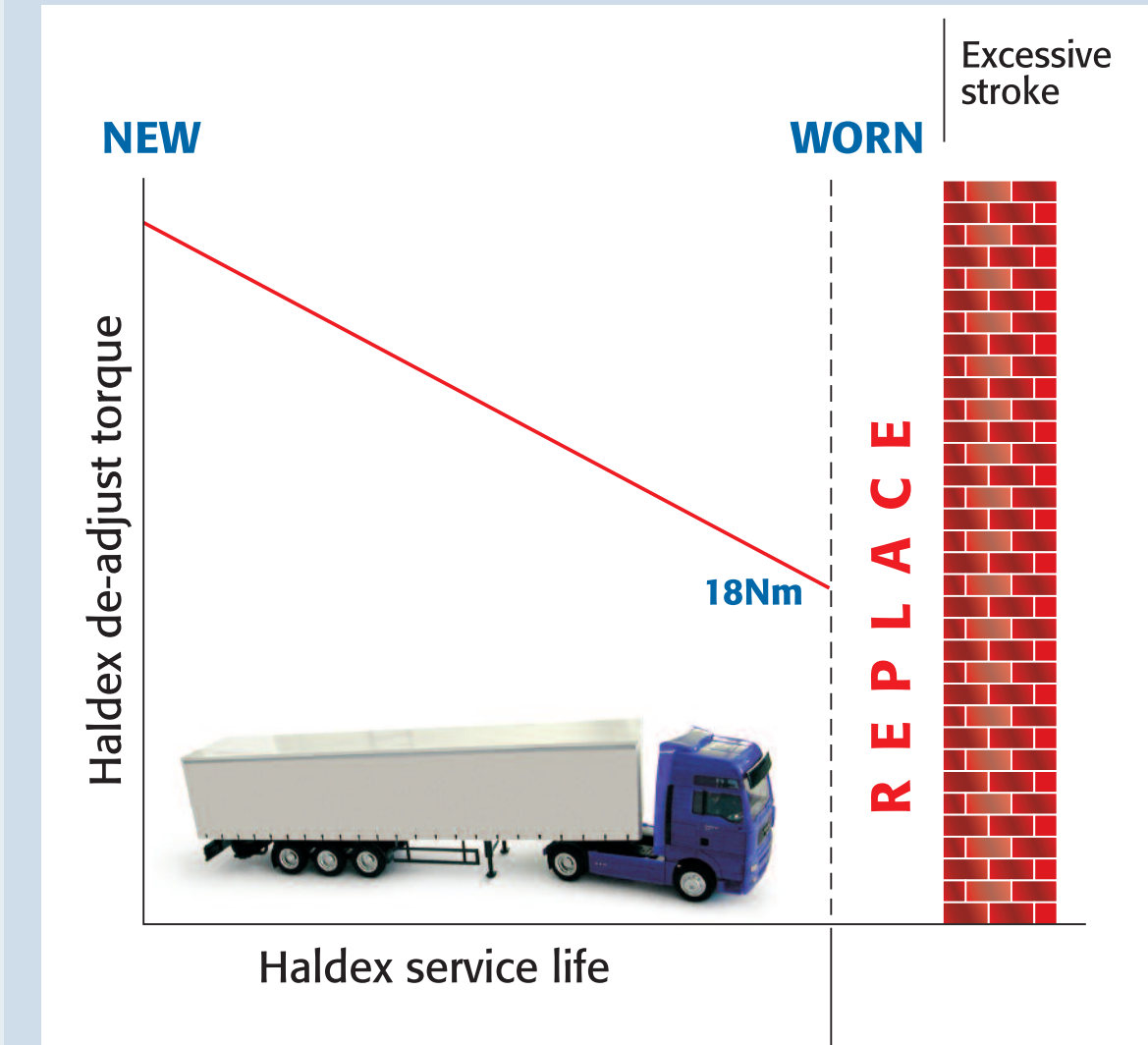


A On HALDEX CLEARANCE SENSING ABA: Replace when the de-adjustment torque is BELOW 18Nm (13lb/ft). This is BEFORE any risk of over-stroke.

Solutions

- On trucks and trailers replace the ABA with a new Haldex adjuster, to be sure to get through the next 6 years without having to fit another one.
- On city buses replace the ABA with a new Haldex adjuster, to be sure to get through the next 3 years without having to fit another one.

Q WHERE DO YOU DRAW THE LINE ON REPLACEMENT?



A HALDEX ABA requires replacement when the de-adjust torque is BELOW 18Nm

18Nm (13lb/ft) Check them now!

Solutions

- Avoid going beyond the replacement zone!
- Predict when ABA ceases to operate – it's preferable to overstroking.
- Make today day one and check the de-adjust torque NOW. Thereafter, do it every 12 MONTHS OR 100,000 MILES (160,000KM).

GOT A PROBLEM OR QUERY? Go on line to www.haldex.com and make contact with your local Haldex Sales & Service Office