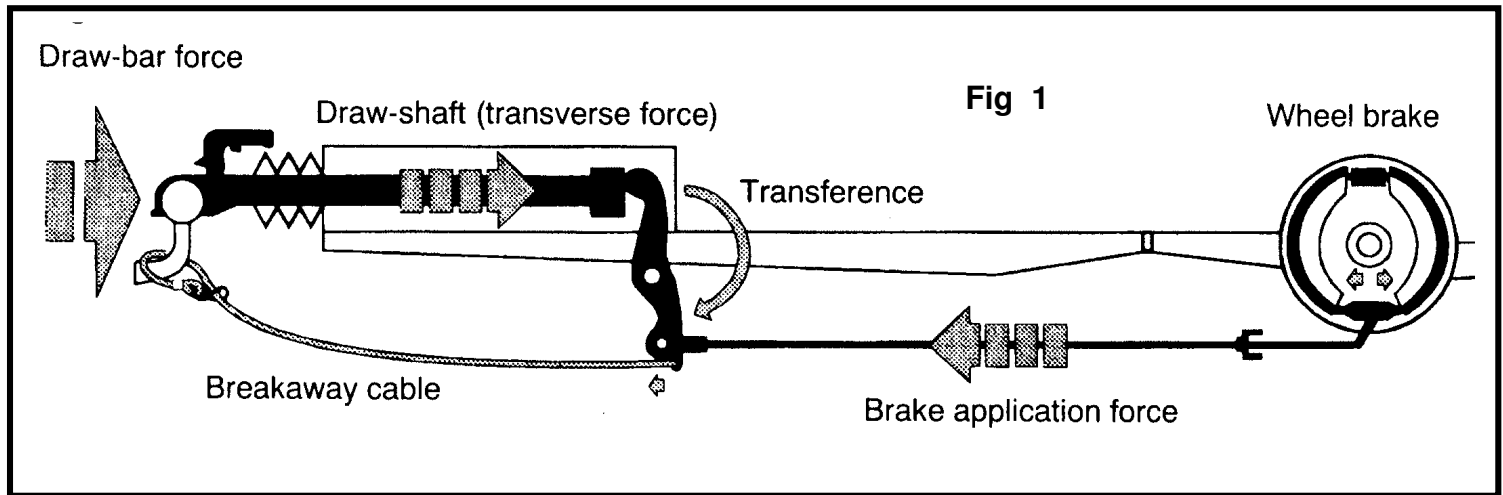
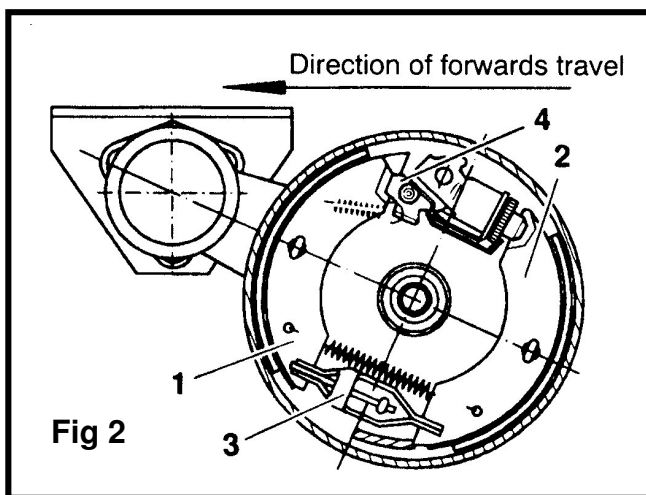


Operation of the overrun braking system.



The overrun device can be described as the control device of the overrun brake system. A draw-bar force is produced at the coupling point by reducing the speed of the towing vehicle. After the threshold level has been passed, the draw shaft is pushed in, thus actuating the overrun lever, the wheel brakes (1 & 2) are then applied via the expanding clutch (3) (Fig 2)



Reversing.

When reversing, the towing vehicle pushes in the draw shaft of the overrun device. The brake shoes (1,2) are pressed against the brake drum via brake linkage, Bowden cable and expander clutch (3). The brake drum turns backwards, taking the trailing shoe (1) with it. The transmission lever (4) swings back and allows the draw shaft to complete its full travel. The braking effect is virtually cancelled out and the wheels can revolve freely in reverse (Fig 3).

Parking.

On the spring cylinder version, engage the handbrake lever right up to the last tooth (90°). On the gas strut handbrake version, pull the handbrake lever over centre. The brake shoes (1 and 2) are pressed against the brake drum by the brake linkage etc. and this applies the trailer brakes.

When the caravan/trailer has been reversed, the brake drum will also rotate backwards. The trailing brake shoe (1) is taken with it and moves the transmission lever (4) back. This lever then pushes the adjuster assembly (5) which in turn pushes the leading brake shoe (2) against the stop (6). The caravan/trailer is then braked.

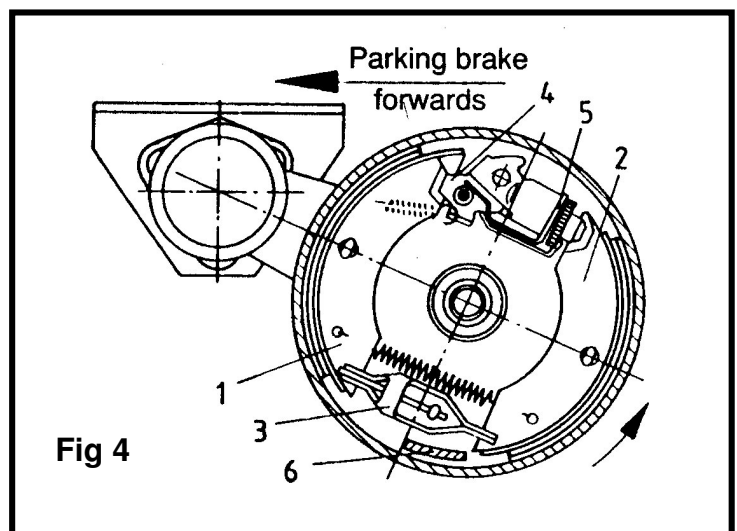
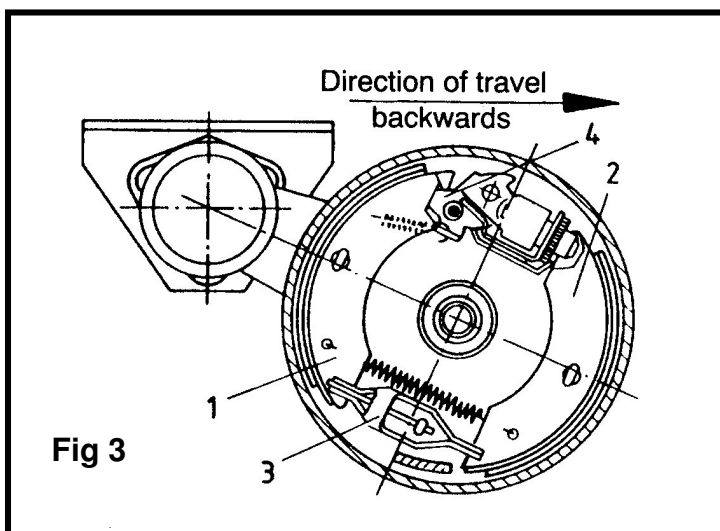
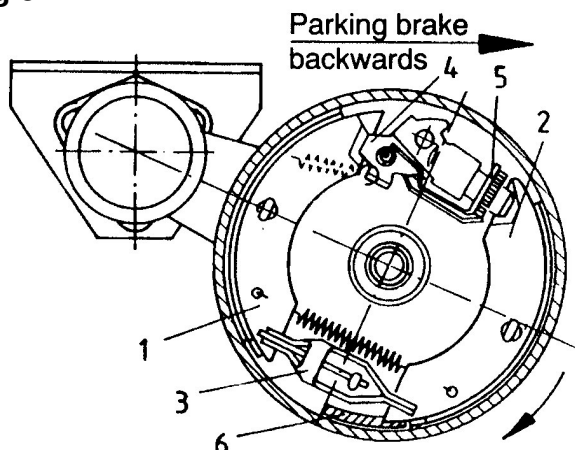
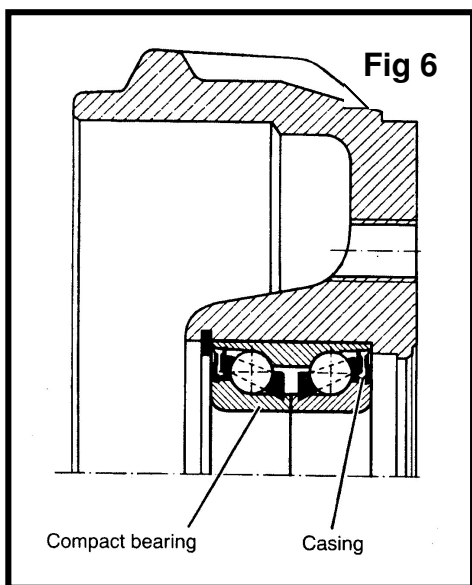


Fig 5



It must be noted that when the handbrake is applied, the vehicle may roll approximately 25 cm (10 inches) backwards before the parking brake force is used to it's fullest extent.

Wheel Bearing



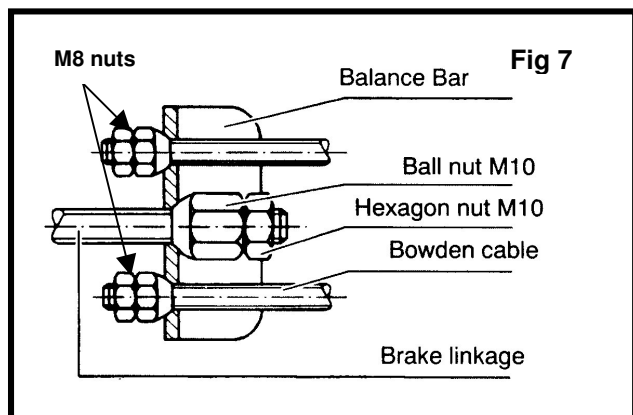
The wheel bearing is a double-row inclined ball bearing. It has the following advantages over normal bearings.

- No adjustments necessary.
- Easy to maintain (lubricated for life and sealed)
- Protected against dirt ingress (sealed unit)
- Less sensitive to seizure than a taper roller bearing.



The bearing must not be pressed out of the drum as this may damage the bearing and brake drum.

Adjusting the wheel brakes.



Before adjusting the wheel brakes always rotate the wheel(s) in the forward direction

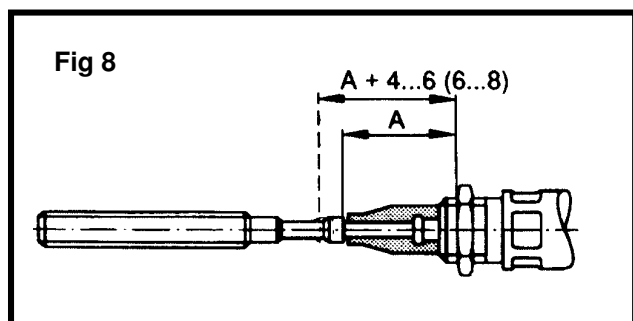
- Lift the caravan/trailer using a suitable jack.
- Ensure the coupling head and overrun shaft are fully extended.
- Release the handbrake completely.
- Release the brake linkage from the balance bar(Fig 7)
- On newer models the M8 nuts are quick fit nipples.
- Check the free play in the wheel brake.

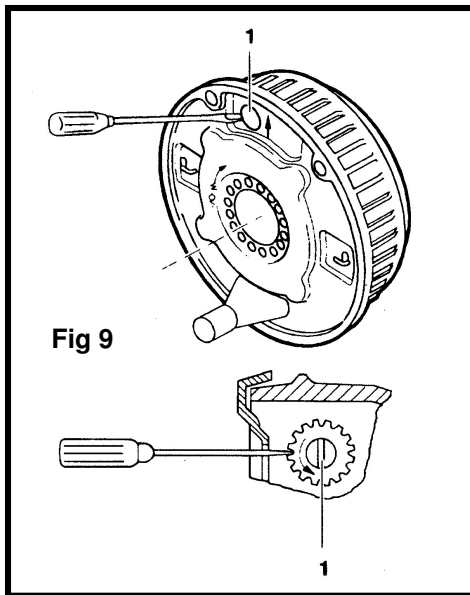
The free play should be as uniform as possible for 2 or 4 wheel brakes respectively.

Nominal : 4 - 6mm on single axles.

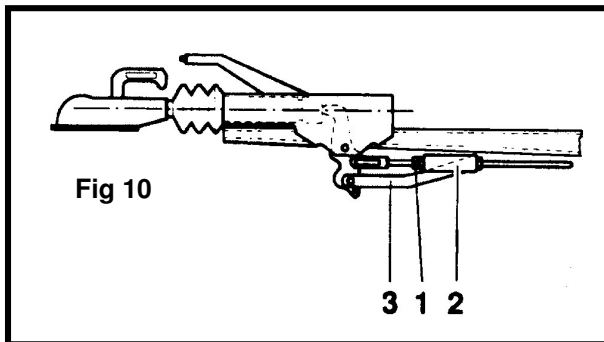
6 – 8mm on tandem axles.

Measured on the inner cable where attached to the axle abutment bracket .





- Only ever set or adjust the wheel brake by means of the adjuster screw (1)(Fig 9). Adjust in the direction of the arrow, and release against the direction of the arrow.
- Reconnect the brake linkage to the balance bar, and apply the handbrake hard several times, to allow the braking adjustment to settle.
- On the spring cylinder type (2), adjust the locking nuts M10 (1)(Fig 10) to allow 1mm of free play between the nut and the spring cylinder. The cylinder should be able to rotate freely but not slide on the brakerod.
N.B On some chassis the locking nuts are replaced with a single Nyloc nut.



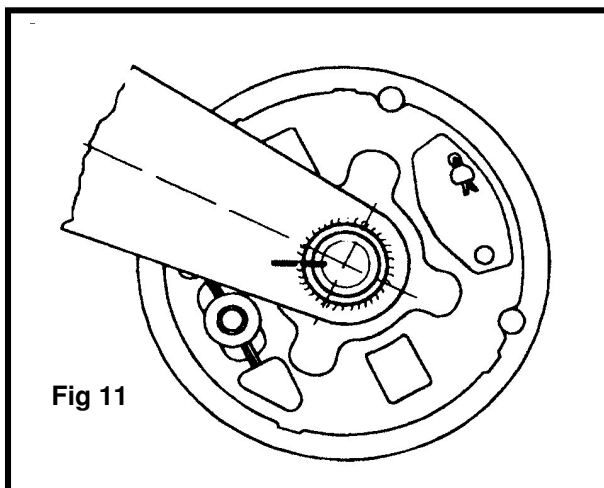
Check the setting

- Apply the handbrake lever up to the first or second tooth, and check that there is equal braking resistance on each wheel.
- On the gas strut version the handbrake lever has to be held on the first tooth manually.



When adjusting the wheel brake, only turn the wheels in a forward direction so that reverse mode is not actuated.

Servicing the wheel brakes.

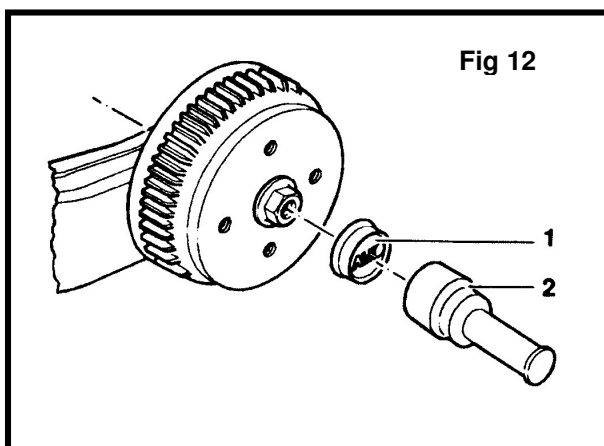


Dismantling the brake drum.

- Remove the wheel and tyre.
- Mark the position of the plastic cap on the swing arm with a felt tip pen so that any movement on the stub axle can be detected (Fig 11)



If the stub axle or back nut are moved this will alter the toe-in and camber . Should such movement take place the axle should be removed and returned to AL-KO to be realigned.



- Remove dust cap with Former Tool (603751).
- Unscrew the flange nut. **Always use a new nut when refitting.**
- Before fitting new nut apply a small amount of mineral grease (800052) to the stub axle thread.
- Release the handbrake and remove the drum.
- Replace worn or corroded brake drums.

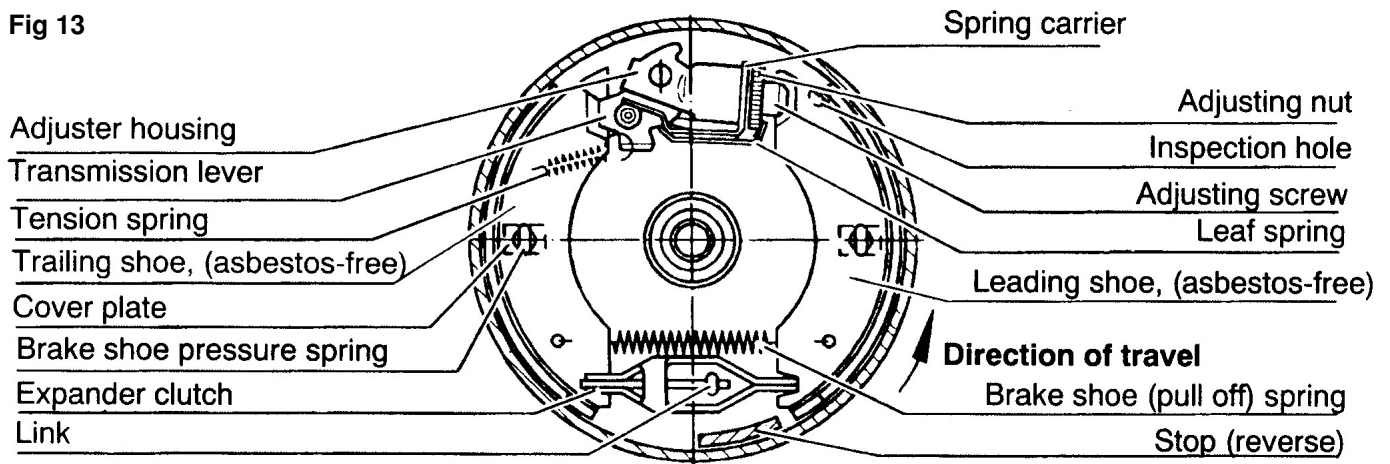


Note the torque setting (290Nm +/- 10Nm).

Brake drums must not be reskimmed.

Visual checks.

Fig 13



Check the condition of the brake shoes.

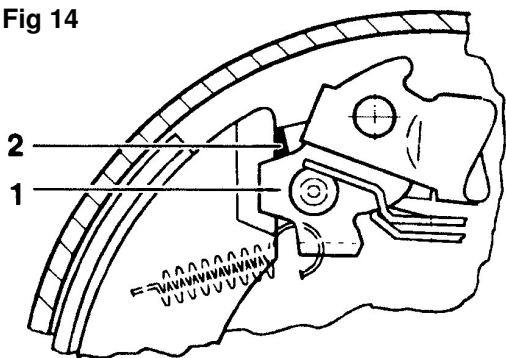
The wear on the shoes is greatest where the inspection hole is located on the backplate. The leading shoe usually wears faster than the trailing shoe.



Always replace brake shoes as a pair.

- Check that the expander clutch, adjuster nut and transmission lever are lubricated and running smoothly (use Molybdenum Disulphide grease).
- Check the tension on the leaf spring and that the adjusting nut is engaged onto the brakeshoe.
- Check the pressure of the brakeshoe retaining springs.

Fig 14



- Transmission lever (1) must abut the adjuster housing stop (2).

- If any parts are to be removed from the wheel brake the Bowden cable must be unhooked from the expander clutch.
- Replace brakeshoes where linings are less than 2mm thickness.
- If replacing pressure springs also replace cover plates.
- On type 1637, the left and right shoes are different. The embossed markings (see arrows Fig 15) must be followed.



If the shoes are fitted to the wrong side the brake will not function.

- 2051 and 2361 brake shoes are **NOT** handed.

Fig 15

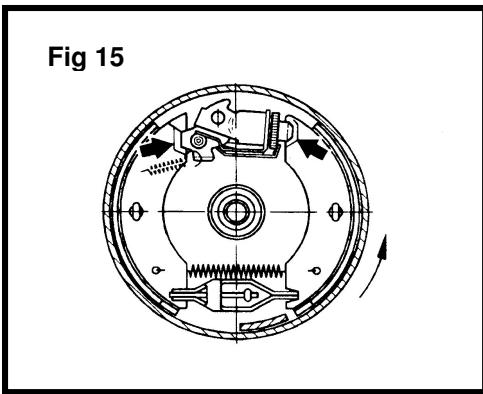
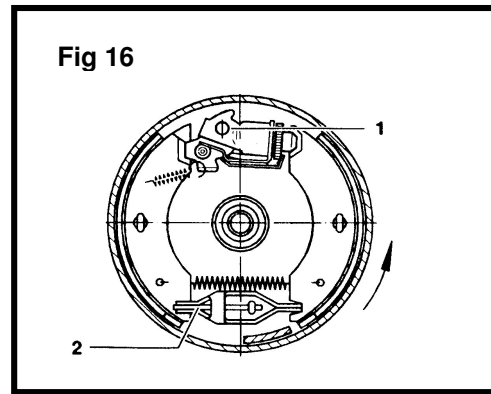


Fig 16



Expanding clutch.

- Lubricate expander pivot points.
- Replace corroded expanders.
- **N.B** Note the correct position for fitting:
Expander lever pivot arm (2) to transmission lever pivot bolt (1). These points **must always** be on the same side (Fig 16).

Return springs.

- Replace relaxed or damaged return (pull off) springs.

Transmission lever.

- Lubricate pivot points.
- Replace corroded or damaged levers and pivot bolts.
- If the lever does not abut the adjuster housing stop, replace extension spring (Fig 14).

Adjusting assembly.

- Lubricate adjusting nuts.
- Unscrew the adjuster screw and lubricate the thread.
- Replace corroded or damaged screws or nuts.

Leaf springs (adjuster housing).

- Replace corroded or relaxed leaf springs.

N.B The adjuster screw, nut and leaf spring are only supplied as a complete assembly.

Part No.s are as follows:

1637 Brakes - 387706
2051 Brakes - 387323
2361 Brakes - 387323



All friction points on the wheel brake must be lubricated with Molybdenum Disulphide Grease (AL-KO Part No. 800098)



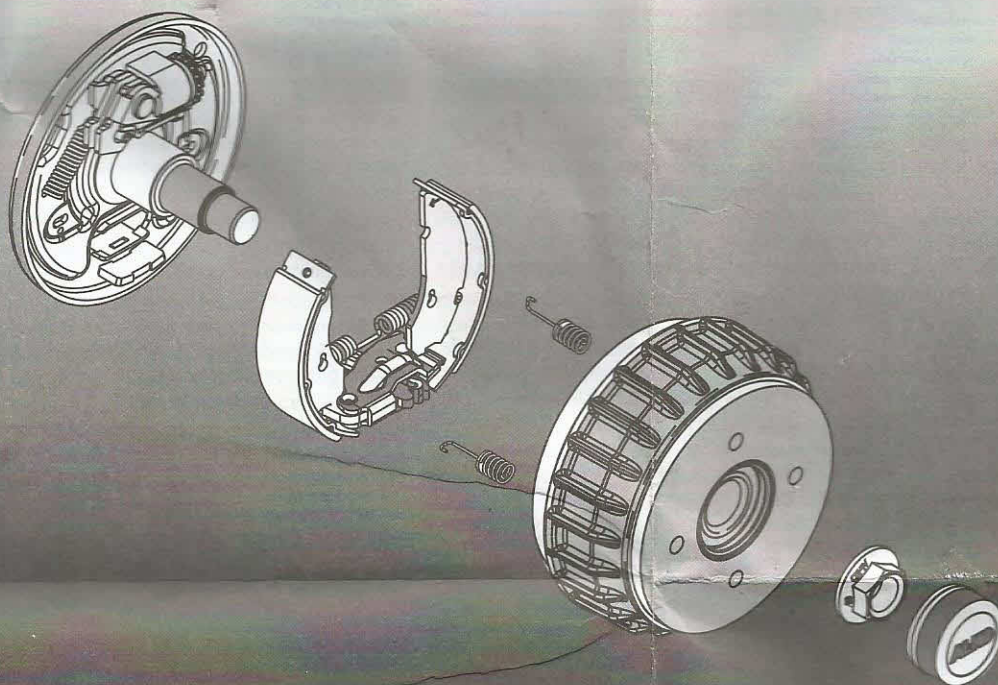
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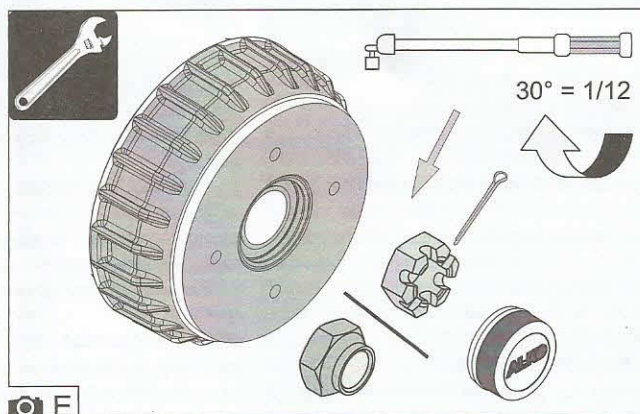
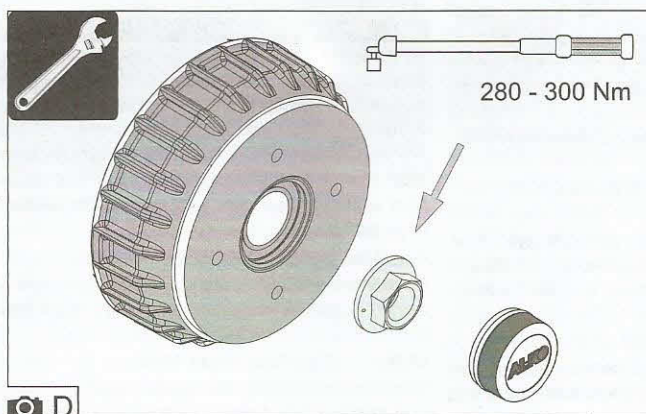
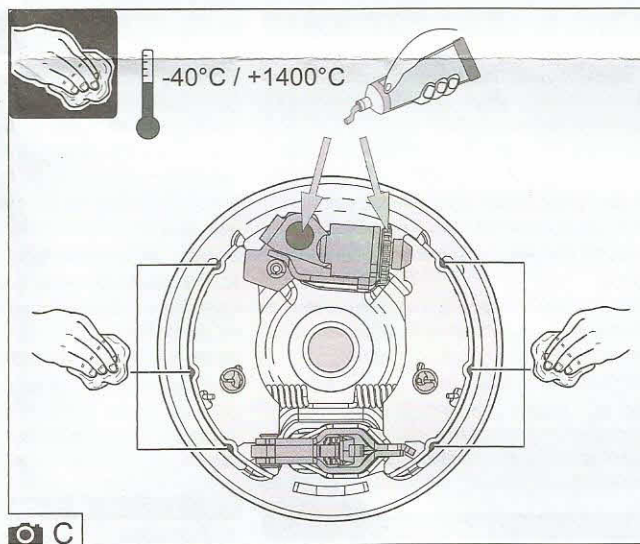
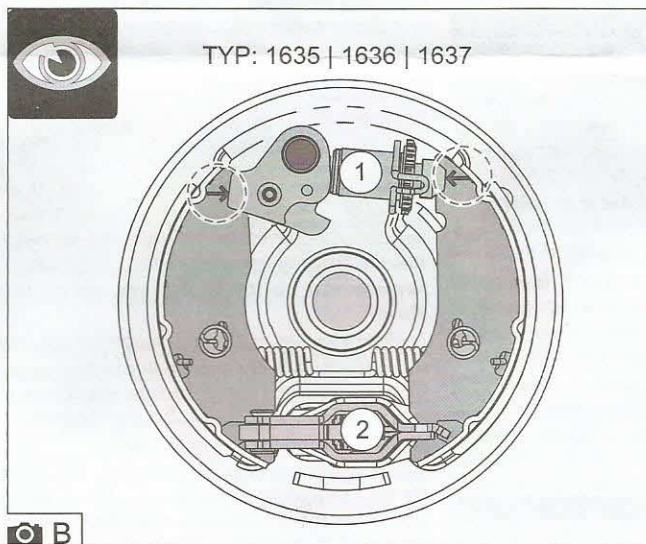
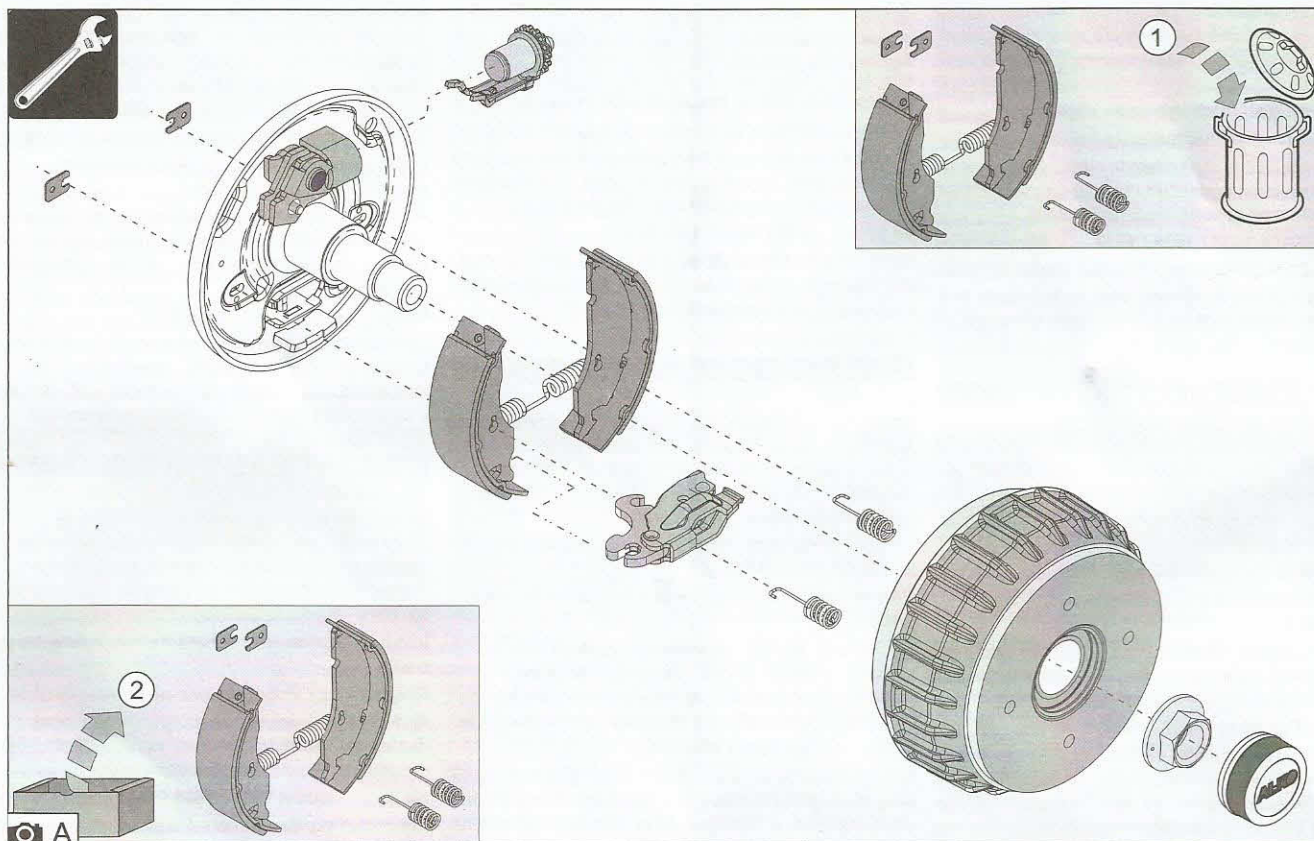
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INFORMATION | MANUALS | SERVICE

EINBAU / AUSTAUSCH BREMSBACKEN



1303 600_c | 07/2010



D Einbauhinweise

⚠ Achtung!

Bremsbacken sind ein Sicherheitselement der Bremsanlage. Nach einem Wechsel der Bremsbacken muss die komplette Bremsanlage neu eingestellt werden!

Montage und Austausch sollte nur von autorisierten Fachwerkstätten durchgeführt werden.

Bremsbacken immer achsweise austauschen!

Technische Unterlagen des Fahrzeugs beachten.

AL-KO haftet nicht für Unfälle oder Verletzungen, die aus Nichtbeachten dieser Dokumentation oder einer fehlerhaften Montage entstehen.

📷 B: **Typ 1635 / 1636 / 1637**

Einbaulage von Spreizschloss (2) und Rückmatic-Hebel (1) beachten. Bei falscher Lage werden die Zuspännwege verändert und die Bremswirkung beeinträchtigt!

GB Installation instructions

⚠ Caution!

Brake shoes are a safety element of the braking system. Following the replacement of the brake shoes, the entire braking system must be fine-tuned.

The assembly and replacement of brake shoes should only be carried out by an authorized specialist workshop.

Always replace brake shoes in axle pairs!

Pay attention to the technical documentation of the vehicle.

AL-KO accepts no liability for accidents or injuries resulting from the non-observance of this documentation or from the incorrect assembly of the brake shoes.

📷 B: **Types 1635 / 1636 / 1637**

Note the installation position of the expander lock (2) and automatic return mechanism (1). If they are installed in the wrong position, the application paths are changed and the braking effect is impeded!

NL Inbouw instructies

⚠ Let op!

Remklauwen zijn een veiligheidselement van de reminstallatie. Na een vervanging van de remklauwen moet de complete reminstallatie opnieuw ingesteld worden! Montage en aansluiting mogen alleen door bevoegde gespecialiseerde werkplaatsen uitgevoerd worden.

De remklauwen altijd asgewijs vervangen!

De technische documenten van het voertuig raadplegen.

AL-KO aanvaardt geen aansprakelijkheid voor ongevallen of verwondingen die ontstaan door de niet-naleving van deze documentatie of door een foutieve montage.

📷 B: **Type 1635 / 1636 / 1637**

Op de inbouwpositie van het spreidslot (2) en de Rückmatic-hefboom (1) letten. Bij foutieve positie worden de toespanwegen veranderd en neemt het remwerking af!

F Indications de montage

⚠ Attention!

Les plaquettes de frein constituent un élément de sécurité du système de freinage. Après un remplacement des plaquettes de frein, tout le système de freinage doit être reréglé. Le montage et le remplacement ne doivent être réalisés que par des ateliers autorisés.

Toujours remplacer les plaquettes de frein pour un essieu complet!

Respecter les documents techniques du véhicule.

AL-KO décline toute responsabilité pour des accidents ou blessures résultant du non-respect de la présente documentation ou d'un montage défectueux.

📷 B: **Type 1635 / 1636 / 1637**

Respecter la position de montage du verrou d'écartement (2) et du levier de retour (1). Un mauvais positionnement altère les parcours de serrage ainsi que l'efficacité de freinage!

E Instrucciones de montaje

⚠ ¡Atención!

Las zapatas de freno son un elemento de seguridad del sistema de freno. ¡Después de haber cambiado las zapatas de freno debe volver a ajustarse el sistema de freno por completo! El montaje y cambio de las zapatas sólo debería llevarse a cabo por talleres técnicos autorizados.

¡Siempre cambiar las zapatas de freno de todo el eje! *Observar la documentación técnica del vehículo.*

AL-KO no se hace responsable por accidentes o lesiones que resulten de la inobservancia de la presente documentación o de un montaje incorrecto.

📷 B: **Tipo 1635 / 1636 / 1637**

Prestar atención a la posición de montaje del cierre (2) y de la palanca Rückmatic (1). ¡Si se montan en posición equivocada, cambiarán el recorrido de las zapatas y la eficacia de los frenos!

P Instruções para a instalação

⚠ Atenção!

As sapatas de travões são elementos de segurança do sistema de travagem. Após a troca das sapatas de travões é necessário reajustar todo o sistema de travagem! Montagem e troca deveriam ser realizadas somente por oficinas técnicas autorizadas.

Sempre trocar todas as sapatas de travões do eixo em questão!

Observar os documentos técnicos do veículo.

A AL-KO não se responsabiliza por acidentes ou ferimentos causados pela não observância desta documentação ou por uma montagem incorrecta.

📷 B: **Tipo 1635 / 1636 / 1637**

Observar a posição de instalação do fecho de expansão (2) e da alavanca Rückmatic (1). Em caso de montagem em posição incorrecta, alteram-se os cursos de actuação dos travões e o efeito de travagem é prejudicado!

I Istruzioni di montaggio

⚠ Attenzione!

Le ganasce sono un elemento di sicurezza dell'impianto frenante. Dopo il cambio delle ganasce si deve nuovamente regolare l'intero impianto frenante! Il montaggio e la sostituzione dovrebbero essere eseguiti solo da officine specializzate autorizzate.

Sostituire le ganasce sempre per tutto l'asse!

Osservare la documentazione tecnica del veicolo.

AL-KO non si assume nessuna responsabilità per incidenti o lesioni dovuti al mancato rispetto di quanto riportato nella documentazione oppure a un montaggio non corretto.

📷 B: **modello 1635 / 1636 / 1637**

Osservare la posizione di montaggio del blocchetto di espansione (2) e della leva Rückmatic (1). Se la posizione è errata, cambiano le corse di chiusura e viene pregiudicato l'effetto della frenata!

SLO Napotki za vgradnjo

⚠ Pozor!

Zavorne čeljusti so varnostni element zavornega sistema. Po zamenjavi zavornih čeljusti se mora celotni zavorni sistem nastaviti znova.

Montažo in zamenjavo smejo izvajati le pooblaščen strokovne delavnice.

Zavorne čeljusti vedno zamenjajte na oseh!

Upoštevatje tehnično dokumentacijo vozila.

AL-KO ne odgovarja za nesreče ali poškodbe, ki nastanejo zaradi neupoštevanja te dokumentacije ali nepravilne montaže.

📷 B: **tip 1635 / 1636 / 1637**

Upoštevatje položaj vgradnje razpne ključavnice (2) in Rückmatic vzvoda (1). Pri napačni legi se vpenjalne poti spreminjajo in ovirajo zavorno delovanje!

DK Monteringsanvisninger

⚠ Vigtigt!

Bremsebakker er et sikkerhedselement i bremsesystemet. Når bremsebakkerne er blevet skiftet ud, skal hele bremsesystemet genindstilles!

Montering og udskiftning skal udføres af autoriserede værksteder.

Bremsebakker skal altid udskiftes som akselpar!

Se de tekniske dokumenter til køretøjet.

AL-KO bærer intet ansvar for ulykker eller kvæstelser, der måtte være en følge af, at denne dokumentation ikke er blevet iagttaget, eller at montage ikke er blevet udført korrekt.

📷 B: **Type 1635 / 1636 / 1637**

Bemærk monteringsposition for ekspansionsbeslag (2) og Rückmatic-arm (1). Ved forkert position vil tilspændingsvandringerne ændre sig og bremsevirkningen nedsættes!

S Inbyggnadsanvisningar

⚠ Observera!

Bromsbackar är ett säkerhetselement i bromsanläggningen. Vid byte av bromsbackarna måste den kompletta bromsanläggningen ställas in på nytt!

Montage och byte ska bara utföras av auktoriserade fackverkstäder.

Byt alltid bromsbackar axelvis!

Beakta fordonets tekniska underlag.

AL-KO ansvarar inte för olyckor eller skador som uppstår på grund av att denna dokumentation inte följs, eller på grund av felaktigt montage.

📷 B: **Typ 1635 / 1636 / 1637**

Beakta inbyggnadsläget för spännlåset (2) och Rückmatic-spaken (1). Vid felaktigt läge förändras spännvägen och bromsverkan försämras!

N Instruksjoner for montering

⚠ Forsikt!

Bremseko er et sikkerhetselement i bremseanlegget. Etter et skifte av bremsekoene må hele bremseanlegget stilles inn på nytt!

Montering og skifte bør kun utføres av autoriserte fagverksteder.

Det skal alltid byttes bremseko på begge hjul på samme aksel samtidig!

Den tekniske dokumentasjonen til kjøretøyet må følges.

AL-KO er ikke ansvarlig for ulykker eller personskader som måtte oppstå på grunn av ignorering av denne dokumentasjonen, eller på grunn av feil montering.

📷 B: **Type 1635 / 1636 / 1637**

Vær oppmerksom på monteringsposisjonen til spennlåsen (2) og Rückmatic-spaken (1). Ved feil posisjon endres bremsekoens bevegelse og bremseeffekten blir redusert!

FIN Asennusohjeet

⚠ Huomio!

Jarrukengät ovat jarrulaitteiston turvaelementtejä. Jarrukien vaihdon jälkeen koko jarrulaitteisto on säädettävä uudelleen!

Ainoastaan valtuutetut ammattikorjaamot saavat suorittaa asennuksen ja vaihdon.

Vaihda jarrukengät aina akselittain!

Huomioi ajoneuvon koskevat tekniset asiakirjat.

AL-KO ei ole vastuussa onnettomuuksista tai tapaturmista, jotka johtuvat näiden asiakirjojen huomioimatta jättämisestä tai virheellisestä asennuksesta.

📷 B: **Malli 1635 / 1636 / 1637**

Huomioi paisuntalukon (2) ja Rückmatic-vivun (1) asennussijainti. Jos sijainti on väärä, kytkentäetäisyydet muuttuvat ja jarruteho heikkenee!