AL-KO KOBER CORPORATION 21611 Protecta Drive • Elkhart, IN 46516 (574) 294-6651

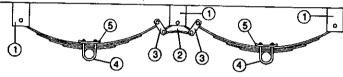
Leaf Spring Suspension

Service Manual

Slipper Suspension (Bottom Mount Shown)

Double Eye Suspension

(Top Mount Shown)



① Spring Hanger ② Equalizer ③ Shackle Link ④ U-Bolt ⑤ Tie Plate

Torque Values Torque (Ft. Lbs.) Description Minimum Maximum 3/8" U - Bolt 30 40 1/2" U - Bolt 45 60 Spring Eye Bolt Parts must be able to rotate freely. Shackle Bolt Tighten to snug fit only. Equalizer Bolt Shoulder Bolt 50

All suspension components should be visually inspected at least every 6,000 miles or 12 months. Check for loose fasteners and tighten to proper torque values. Excessively worn or damaged parts should be replaced with original AL-KO parts as follows:

- Lift trailer per the trailer manufacturer's recommendations. Do not support the trailer weight on suspension components.
- 2. Check springs for loss of camber, replace if flattened.
- 3. Place suitable blocks under all axles to support the weight of the axles when disconnected.
- Disassemble the U-bolts, nuts and tie plates and rest axle assemblies on blocks.
- Replace springs, spring eye bushings, shackle links, equalizers and/or fasteners as required.
- Reinstall repaired or replaced parts using proper torque values. Although routine lubrication is not required, pivotal suspension points may be greased if desired.

GENERAL MAINTENANCE FOR BRAKES & HUBS

The best brake system is only as good as the way you use it. Your vehicle's brakes were designed to stop it in a safe effective manner, just as your trailer brakes were. Neither will replace the other.

When one does the stopping for both, the overload causes heat which increases the wear of brake linings. The overload will also cause brake fade, a direct loss of breaking power. Jack-knifing can occur is the tow vehicle's brakes are used alone, allowing the trailer to push the vehicle.

Proper brake synchronization is obtained when the trailer brakes have a slight lead over the tow vehicle's brakes. After this adjustment, there should be no sensation of the trailer pushing the vehicle, nor should there be an excessive sensation of the trailer pulling the vehicle during a stop.

BRAKE ADJUSTMENT PROCEDURE

- · Jack trailer up until wheel rotates freely.
- Secure the trailer with jack stands.
- Locate the adjusting slot in the backing plate and remove the protective plug.
- With a standard adjusting tool or screw driver, rotate the star wheel until the brake drag makes it difficult for the wheel to turn.
- The star wheel must now be turned the opposite direction to allow the wheel to turn 3/4 to 1 revolution freely, when spun.
- · Replace the protective plug.
- · Lower trailer.

WHEEL BEARINGS

Every time the wheel hub is removed, the wheel bearings must be adjusted. Turn the hub slowly to seat the bearings while tightening the spindle nut until the hub will no longer turn. Loosen spindle nut so it may be turned by hand. Tighten nut finger tight then loosen to first hub slot allowing alignment. Install cotter pin.

NOTE: Do not move hub during this step.

The spindle nut and hub should be free to move with the cotter pin being the only restraint.

BRAKE LINING

Inspect the lining for wear or contamination from oil or grease.

If the lining is worn to within 1/32" of the rivet or to a minimum thickness of 1/16" on bonded linings, shows irregular wear, or contamination from a foreign substance, the shoes should be replaced with original parts.

NOTE: Brake shoes should always be replaced in pairs, both brakes on the same axle.

In order to maintain the safe reliable stopping power of your braking system, it is recommended to service the running gear at the regular intervals shown.

When replacing components always use genuine AL-KO parts.

SERVICE SCHEDULE

Check	Function Required	Daily	Weekly	Every 3000 Miles or 3 Mos.	
Brakes	Test for proper function	•			
Air Pressure	Inflate tires to specifications	•			
* Lug Boits or Nuts	Tighten to proper torque specs.			•	
Break-Away Switch	Test switch operations, inspect connections			•	
Break-Away Battery	Maintain charge, inspect connections		•		
Wheel Rims	Inspect for dents, damage, or out of round			•	
** Brake Shoes	Test for drag and adjust if required			•	
Break Magnets	Inspect for uneven wear				•
*** Wheel Bearings and Cup	Inspect for wear or damage and repack		-		•
Hub/Drum	Inspect for heavy scoring or wear				•
Seals	Inspect for damage or wear				•

* Tighten wheel bolts or nuts every 50 miles for the first 200 miles and after every change in wheel mounting. Be sure to use a torque wrench to insure proper settings.

Torque 1/2", 60 degree cone wheel nuts to 85 - 95 ft./lbs.
Torque 9/16", 60 degree cone wheel nuts to 120 - 140 ft./lbs.

NOTE: Trailer or wheel manufacturer recommendations may differ from above. Always use the trailer or wheel manufacturers recommendations, but do not exceed 120 ft./lbs. on 1/2" or 150 ft./lbs. on 9/16". Always use a torque wrench to verify torque settings.

- ** Adjust brakes after first 200 miles, then at above intervals.
- *** Prepare bearings by cleaning with solvents to remove old grease. Repack by pressing fresh bearing grease into bearing roller area. Repack bearings more often if subject to extremely wet conditions. If trailer has not been used for more than 2 months, bearings should be inspected and repacked if necessary.

Repack bearings using a high temperature, automotive type, wheel bearing grease produced by a reputable manufacturer. The soap type should be polyurea, lithium complex or equivalent. Use an NLGI Grade 2 product with a minimum dropping point of 440°F.

Quality and safety are foremost at AL-KO when producing running gear. It is equally important for you to follow certain guidelines before embarking on a trip or before and after storing your trailer for a long period of time.

TRIP PREPARATION

Planning is essential. It will add to the life of your running gear and help to create a safe environment for you and your fellow motorists. The following criteria should be observed.

- DO NOT EXCEED THE MAXIMUM LOAD rating for your trailer or tow vehicle. Consult your trailer vehicle identification plate for the maximum GVWR (gross vehicle weight rating) for your trailer. Be sure that this does not exceed the capacity of your tow vehicle.
- 2. The maintenance outlined on the preceding pages should be performed properly and according to schedule.
- Check coupler and hitch for wear and correct any abnormalities. Make sure that the attachment is secure.
- 4. Breakaway cables and safety chains should be functional and attached properly. Breakaway battery should be fully charged.
- 5. Trailer should be in a level position.
- 6. All lights and reflectors should be intact and functioning properly.

BEFORE STORAGE

- Store breakaway battery inside, out of the weather and disconnect the terminals.
- 2. Park trailer in level position using jacks as required.
- 3. Lubricate hitch and moving suspension parts.
- Hub components that have been immersed in water during use must be cleaned, dried, and repacked.

AFTER STORAGE

- 1. Remove hub or hub and drum.
- Protect bearing from contamination and remove any rust from the armature and brake surface with emery cloth.
- Check brake linings, magnets and drums for excessive wear. Repair or replace as necessary.
- 4. Check magnets for 3.2 OHM reading.
- 5. Remove, clean and relubricate bearings.
- 6. Inspect seals and replace if necessary.
- Install bearings, seals and drums following bearing adjustment procedure.
- 8. Install wheels and torque to appropriate specification.

LIMITED WARRANTY - RV (Effective 7-1-98)

AL-KO Kober Corporation warrants to the original purchaser of a recreational vehicle manufactured by RVIA (Recreational Vehicle Industry Association) members for private, non-commercial use or service that all workmanship and materials utilized in the construction of axles by AL-KO Kober Corporation will be free from substantial defects in material and workmanship for a period of two (2) years or 24,000 miles from the date of purchase of said product, with the following exception: In place of the two (2) years or 24,000 miles limited warranty, rubber suspension axles manufactured by AL-KO Kober Corporation exclusive of hubs, drums, brakes, bearings and seals are warranted as provided herein for a period of five (5) years. AL-KO Kober Corporation warrants to the original purchaser that the hubs, drums, brakes, bearings and seals that are part of rubber suspension axles manufactured by AL-KO Kober Corporation will be free from substantial defects in material and workmanship for a period of two (2) years or 24,000 miles from the date of purchase by the original purchaser.

Notwithstanding anything set forth herein, AL-KO Kober Corporation makes no warranties whatsoever, whether implied or express, including any implied warranties of merchantability or fitness for a particular purpose as to said products. In addition thereto, the following items are specifically excluded from coverage by the terms of Limited Warranty, to-wit: damage or defects which result from accident, collision, abuse, normal wear and tear, neglect, improper maintenance, improper installation, alignment, improper wheel nut torque, hub imbalance or any damage caused thereby, alteration, or overloading.



This warranty extends only to the original installation of AL-KO Kober Corporation's products and is not transferable to any other parties, AL-KO Kober Corporation does not assume responsibility for any promises, warranties, or representations beyond those expressed in this written document.



AL-KO Kober Corporation's obligations and undertakings in this warranty are limited to the repair or replacement, as its option, of any defective products manufactured by AL-KO Kober Corporation, and in no event shall AL-KO Kober Corporation be liable for any consequential, indirect, or incidental costs or damages, including loss of use or any other damages of any type arising out of such defective parts or products.



Some states do not allow exclusion or limitation of incidental or consequential damages or implied warranties. In addition you may have other rights which vary from state to state. Any terms of this warranty which conflict with the laws of your state are deemed amended by the law of your state.



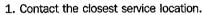
In the event you believe any product manufactured by AL-KO Kober Corporation has a defect or malfunction or failure to conform to this written warranty, you should contact AL-KO Kober Corporation at one of its service location addresses:



21611 Protecta Drive Elkhart, IN 46516 (219) 294-6651 301 N. Kennedy Shawnee, OK 74801 (405) 273-9315 315 Road 911 Baldwyn, MS 38824 (601) 365-5566



in accordance with the following procedure:





2. A "Returned Merchandise Authorization" (RMA) number will be assigned to you.



 Return the product to AL-Ko Kober Corporation at the service location chosen by you, freight prepaid. PLEASE RETURN ONLY THE DEFECTIVE PART OR PARTS AS DIRECTED WITH APPROPRIATE PRECAUTIONS AGAINST DAMAGE.



- 4. Supply the following information with the returned merchandise:
 - Name, address, and telephone number of the original purchaser of the product, and include the date of purchase.



- Serial number and model or make of unit to which the axle is attached.
- c. Serial number of the axle itself.



AL-KO Kober Corporation will replace or repair any defective products within a reasonable period of time and return them to you. If AL-KO Kober Corporation determines there is no failure to conform to this Limited Warranty, you will be notified to retrieve your product from the service facility. AL-KO Kober Corporation assumes no responsibility for merchandise not retrieved within thirty (30) days of notification to the original purchaser or owner of the product.



This warranty has been drafted to comply with Federal legislation and rules promulgated by the Federal Trade Commission. You may have additional legal rights in addition to those set forth in this written Limited Warranty.









