

HUB BEARING

PRIOR TO CARRYING OUT THESE TASKS PLEASE REFER TO PRECAUTIONS

There are many varieties of hub bearing / seal arrangement, usually specific to each manufacturer. These instructions refer to the Knott bearing arrangements although others are similar. Always refer to the trailer manufacturer's handbook.

Place the trailer on stands with all wheels free. **WARNING!** The handbrake should be released and the handbrake locking bolt fitted. See Fig. A (overleaf). Some couplings do not have provision for the locking bolt. In this case or if a bolt cannot be used the handbrake lever should be secured in the off position to prevent the handbrake lever operating.

1. Rock the road wheel to see if there is play in the bearing.
2. Remove the wheels and hub cap. Slacken off the brake adjuster if needed.
3. Remove the axle nut, this may be a castellated nut retained with a split pin or alternatively it may be a high torque lock nut.
4. Remove the brake drum (hub puller may be required and adjustment may require slackening) taking care not to displace the bearings. **WARNING!** Avoid inhaling brake dust. Do not use a compressed air line to clean the drum. Carefully remove the dust using a small brush or brake cleaner.
5. Check the condition of the brake drum, replace the drum and bearing if deep score marks are visible.
6. Unitised bearings used in Knott hubs are a single non-adjustable assembly with integral seals. If the check in (1) above indicated excess play in the bearing then the bearing should be pressed/drifted out having removed the circlip and replaced.
- 6.1 The new bearing should be pressed/gently drifted into place ensuring that it remains square to the bore and seats against the shoulder, the circlip is then re-fitted.
- 6.2 Fit the drum to the axle shaft and tighten the nut to the correct torque (280 Nm). This will either be noted inside the centre hub cap or be specified in the trailer manual. This type of bearing uses a very high torque nut which may only be used twice so if history is not known it must be replaced.
7. Individual taper roller bearings comprise inner and outer bearing and a separate seal. These are adjustable but before adjustment is carried out the condition of the bearings must be identified.
- 7.1 Wash grease and oil from the bearing with a suitable solvent, inspect each roller, inner and outer races. If any pitting, damage or corrosion is present then the bearing must be replaced. **NOTE.** If any one part shows damage or wear we always recommend replacing all bearings in the hub and fitting a new oil seal.
- 7.2 Using a brass drift carefully drive out the outer races working around the circumference.
- 7.3 Clean the hub and carefully tap in the new bearing outer races with a brass drift. Be sure they are seated against the shoulders.
- 7.4 Grease the bearings and fit with a new seal. Force grease into the bearing between each roller, apply a light coat of grease to the bearing races. Refer to the trailer manual for grease specification.
- 7.5 Fit the drum to the axle shaft and tighten to 70Nm rotating the drum slowly. Loosen the nut, do not rotate the drum and finger tighten the nut, back off to the first castellation and fit a new split pin.
8. Refit the hub cap and replace wheels securing wheel nuts as specified in the trailer manufacturer's handbook. Check for excessive play at the wheel rim and repeat 8.5 if necessary.
9. Adjust the brake linkage (refer to SPREADLEVER BRAKE ADJUSTMENT in document KF 088).

AVONRIDE HEAD LOCK

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These instructions cover adding lock to a coupling head originally supplied without one, and also replacement of an existing lock.

1. Operate the latch and lift the handle to expose the latch pin. Block in position. See Fig.B.

Fig. B



Fig. C



2. Using a punch drift the pin out allowing the lock housing to lift off. See Fig.C.
3. If the housing is not currently fitted with a lock remove the spring for re-use. Remove the washers and the plastic blanking plug and discard.
4. If the housing has a lock fitted remove the spring, centre screw, washer and actuator lever for re-use. Followed by the lock barrel ring nut.
5. Fit the plastic cover to the new lock, insert lock into casting and secure with the ring nut.
6. Fit the actuator lever with washer and centre screw and locate the spring.
7. Place the assembly into position on the coupling body, line up the pivot hole and gently drift in the pin.
8. Check all parts are secure, that the lock mechanism operates and that the safety catch moves freely securing the handle.

DRAWTUBE

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Please refer to DAMPERS on KF088

REMOVAL

1. Follow the instructions for DAMPERS (section 1 to 8) taking due note of the introductory notes.
2. Once the damper is removed the lever which transmits the force from the drawtube to the brake rod can be rotated to allow the drawtube to be removed rearwards.
3. If the drawtube has been bent it will prevent removal so the front portion must be sawn off and the remainder removed from the rear of the coupling housing. Once sawn all burrs must be removed and care exercised to prevent swarf being trapped such that it will jam the mechanism.
4. Clean the bearing surfaces inside the housing.

REPLACEMENT

1. Lubricate the drawtube and insert into the housing ensuring that it is free to slide and that there is not excess clearance between the tube and bearing surfaces. Contact the trailer manufacturer for guidance if there are any doubts.
2. Fit the rear damper mounting to the new damper and slide the damper loosely into position.
3. Refer to COUPLING HEADS/TOWING EYES on KF088 and follow the procedure section (5) onwards.

KNOTT-AVONRIDE
LIMITED

MAINTENANCE & SERVICING INFORMATION (SEE ALSO KF088 FOR ADDITIONAL PROCEDURES)

For Avonride Head Lock and Drawtube Hub Bearing

PRECAUTIONS

The correct assembly and adjustment of all equipment is critical to the safe operation of the trailer. Therefore the procedures must only be carried out by competent persons. If you have any doubts about your ability to complete the procedure, we recommend this task is performed by your local service centre. You are advised to wear suitable protective equipment such as safety glasses, gloves and face mask.

It is recommended that the opportunity is taken to inspect associated items for wear or damage and replace if necessary, they can be obtained through your local stockist.

All procedures should be carried out with the trailer on level ground with either the parking brake applied or wheel chocks front and rear. In addition the drawbar should be supported with the trailer horizontal. Where required consult your trailer handbook for the recommended jacking points and positions for stands.

The components are used in a wide variety of trailers and reference to the trailer manufacturer's manual must always be made for procedures and data relevant to the particular unit.

The instructions relate to ALL Knott overrun couplings including KFG 13, 20, 27, 30, 35, KR 7.5, 13, 20, 27, and KRV 7.5, 13, 20, 27, 30.

We have used "Plain English" descriptions throughout this text. If you are unsure of the meaning, if the procedure is unclear or you require any further information please use the following contact numbers;

Tel : +44 (0) 1283 531541
Fax : +44 (0) 1283 534840
Email : technical@knottuk.com

If in doubt, ask.
Use only Knott original replacement parts.

The text includes guidance to assist in the safe execution of the procedures:

WARNING ! Risk of Injury.
CAUTION ! Risk of damage to equipment.
NOTE Safety requirement.

KF089A

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