Maintenance Instructions

Rubery Owen light trailer, undergear

RUBERY OWEN

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INDEX

GENERAL INSTRUCTIONS

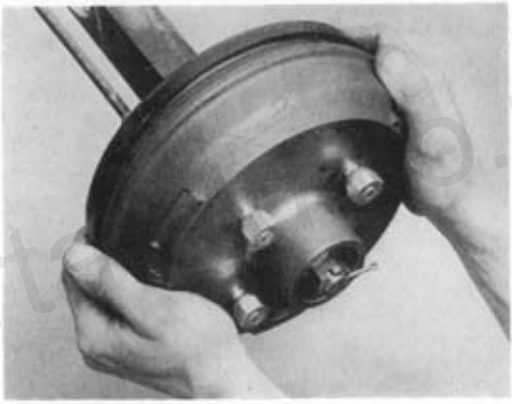
WHEELS

Weekly or prior to a journey check tightness of wheel nuts and tyre pressures.

Maintain the pressures at maker's recommendation. Any unusual pressure loss should be investigated as under-inflation causes rapid tyre wear and may damage the cords of the fabric.

To ensure satisfactory operation of all working parts the following instructions should be carried out at intervals of 10,000 miles or 12 months whichever is the sooner.

HUBS



Check taper roller bearing adjustment by rocking hub. There should be little or no perceptible shake but should be complete freedom to rotate. (For lubrication of taper roller bearings see "Assembly of hubs fitted with taper roller bearings"). If excessive play is present new bearing assemblies must be fitted.

ASSEMBLY OF HUBS FITTED WITH TAPER ROLLER BEARINGS

PREPARATION

(*a*) The hub or the hub portion of a combined brake drum and hub will have the taper roller bearing cups securely and accurately in position.

(*b*) The interior of the hubs must be clean before coating periphery of hub between bearing cups with good quality high melting point taper roller bearing grease, i.e. Retinax 'A', Nulsec 'L' or equivalent.

(*c*) The operating diameters of the axle must be clean.

(*d*) The taper roller bearing cones must be greased (spec. as (b)) **ensuring that the grease penetrates inside the roller cage, between the rollers and the cones.**

FITTING

(*e*) The inner bearing cone must be placed inside the inner bearing cup and the grease seal placed into position inside the hub.

(*f*) The hub sub-assembly must then be carefully positioned on the axle and supported squarely until the outer bearing cone has been placed in position inside its cup, the washer placed against it, and the slotted nut hand-tightened against the washer.

If this procedure is not adhered to the grease seal could be damaged as shown at top of page 5 right.

ADJUSTMENT

(*g*) The slotted nut must then be tightened using a spanner.

IMPORTANT:

Whilst this is being done the hub must be rotated by hand until it is locked by the tightening action of the nut, then slacken off the slotted nut through 120° (i.e. two flats) or until .003" to .007" end float is attained. Periodic checks must be made to ensure that the end float is maintained.

NOTE! The hubs must not be struck with a mallet.

The selection of the appropriate slot to line up with the split pin hole must be made so that the end float is nearer to the .003" where possible. End float must never be less than .003" since too little will pre-load the bearings and result in premature failure.

(*h*) The split pin must be inserted and the outside leg bent over as shown. The inside leg must be cut short.

(j) The hub cap is placed into position and secured by tapping with a mallet.

BRAKE ADJUSTMENT

Before attempting brake adjustment lift each wheel clear of the ground with a jack, and slacken off the hitch to brake linkage.

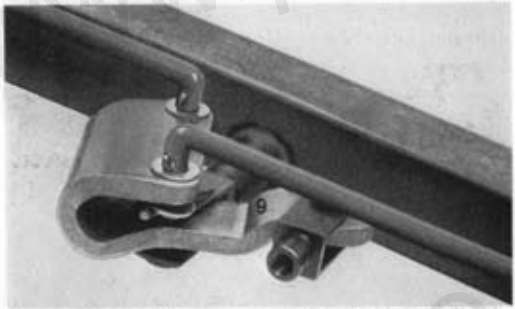
AXLES FITTED WITH GIRLING BRAKES

Adjustment is effected by rotating the adjusting screw (A) at the rear of each brake backplate in a clockwise direction until the shoes are in contact with the drums and preventing rotation of the hub; the screw is then rotated three clicks in an anti-clockwise direction or until free rotation of wheel is obtained; re-set main brake linkage.

AXLES FITTED WITH LOCKHEED BRAKES

Adjustment is effected by first removing the wheel, revealing the plastic cap in the brake drum. Remove the cap and rotate the drum until the adjusting screw appears in the hole. Using a screwdriver, rotate screw until shoes contact drum and prevent rotation of hub. Rotate screw in opposite direction for three 'clicks', or until free rotation of the hub is obtained. Replace plastic cap and wheel. Re-set main brake linkage.

Correct setting of compensated brake linkage for torsion bar axle.

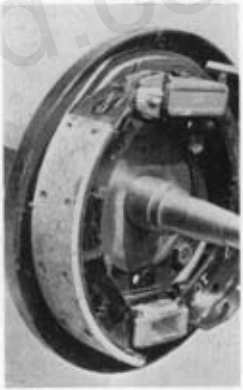


Correct setting of compensated brake linkage on square beam axles.

BRAKE LININGS

Inspect the brake linings for wear. If a lining is worn to the rivets it should be replaced. If a lining is badly contaminated with grease, oil etc., it must be replaced, since contamination of this type cannot be sanded or dissolved out.

IMPORTANT. Always replace brake linings in sets—on both brakes on the same axle.



TORSION BAR AXLES

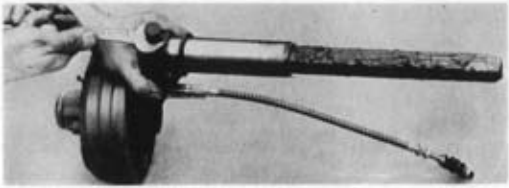
TORSION BAR REPLACEMENT

To replace a torsion bar lift the side required with a jack.

Remove the wheel. Remove brake cable end fitting from abutments on underside of axle tube.

On the required side and near the centre front, slacken the locknut on the axle tube. Remove the cone screw and locknut.

Remove swing arm sub-assembly and torsion bar by tapping with mallet the inside face of swing arm close to the tube.



Remove swing arm cone screw and locknut. Remove bar from the swing arm sub-assembly. Prior to re-building clean assembly and tube bearing bushes, smear torsion bar, sleeve and bearing bushes with recommended grease. Taking care to place dimple for screw location in the torsion bar adjacent to screw hole, fit new torsion bar and replace locknut and screw, tightening both to torque of 55-60 lb. ft. Refit swing arm sub-assembly and replace locknut and screw, applying 55-60 lb. ft. torque. Re-connect brake cable end fitting and adjust as necessary. Replace wheel.

MAINTENANCE. Every 10,000 miles or 12 months whichever is the sooner.
The following are necessary as an anti-corrosive measure. Remove swing arm sub-assembly on each side as outlined above.
Grease torsion bar and grounds sleeve attached to swing arm. The recommended lubricants for all applications are Retinax 'A', Nulsec 'L' or equivalent.

BOAT TRAILER AXLES
Special attention should be given to boat trailer axles which are subjected to immersion during boat launchings. To ensure the satisfactory operation of all working parts the following instructions should be carried out at intervals of six months or before trailer is stored.
1. Carry out normal torsion bar and square beam axle maintenance as previously stated.
2. Remove wheels. Remove plastic caps and wash out brake drums with clean fresh water. Refit plastic caps and wheels. A short run after this operation, using the brakes as much as possible, will ensure thorough drying out for storage.
3. Remove hub caps. Inspect internal fittings for corrosion. Repack with grease if required. Replace hub cap.

4. SPECIAL NOTE FOR CONTINUED SUBMERSION IN SEA WATER.
Where there has been submersion in sea water for periods of more than one hour, washing out of brakes after each submersion as outlined in (2) is essential for continued satisfactory operation.

This handbook is intended to give concise and essential information on the care and maintenance of Rubery Owen light trailer undergear, thus assuring continuous satisfactory performance from the equipment.

Compliance with these instructions as to sequence of operations and accuracy of fitting and adjustment will secure the best results.