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## Notes on Fitting D016S Rear Hub Bearing Lock Nuts

The hexagonal nuts supplied are now 50mm AF: the change to this size has been forced on us by the extreme rarity of sockets in the 1 1/4" BSW size formerly used. However, 50mm sockets are universally available being used on several modern vehicles: additionally 2" AF and 1 1/4" BSW sockets (especially the single hexagonal type, rather than bi-hex) although loose, will tighten these nuts.

These new "improved" type incorporate a lip-seal to keep the oil where it should be - inside the differential casing. Half-shafts have splines which are longer than the hubs, So a small stainless steel sleeve has to be fitted to give a smooth surface for the lip-seal to run on. If you have the special taper-fit half-shafts then this sleeve is not absolutely necessary, although you can fit it if you wish. just remember to change the seat for one with a 1" bore if you leave the sleeve off.

Sleeves must be mounted with EPOXY resin (Araldite, or JB weld in the U.S.A.) after getting everything clean with paraffin (= Kerosene) or degreaser. Fill the splines with glue. pass the sleeve over the shaft, push it up against the inside of the hub, and twist it a little to spread the glue. Try not to get too much on the outside of the sleeve, but if you do, remove it before it sets hard.

N.B. sleeves are made to be a sliding fit on a standard 1" shaft, but some older shafts can be oversize. Before asking for larger sleeves, check that the edges of the inner (diff.) splines are not raised up. A few strokes with a fine file will often suffice.

Left hand threaded nuts have a notch cut in them: they fit on the left of the car (near-side) whereas the wheel spinners have the left-hand threads on the right of the car. Its all to do with self-tightening, which is obviously a lot safer than the other way about! Fit the older type of nut with the chamfer facing towards the bearing so the tab washer does not get flattened. Lip-sealed nuts are also chamfered, but can only screw on with the seal facing out.

Preferably use a proper socket and an extension (to clear the wing) with a torque wrench to tighten these nuts. Do them up to 130 lbf. or if you only have a tommy-bar, then a pull of 65 lbs. at 2 feet from the socket will come to the same thing. This is about as hard as you can pull with one hand.

The new lip-seal nuts are wider than the originals and this should be no problem in T-type hubs, although some machining may be required in MMM ones. If in doubt, offer the hub up with a ring of Plasticine to gauge the clearance. The tab washers supplied are a modern metric size, so you will have to file the inner tab slightly to make it a good fit in the axle slot. Don't forget to turn up two or three outer tabs onto the nut. Finally, smear some grease on the lip-seat, and some more on the sleeve, before easing the half-shaft through.

These lip-seated nuts have proved very effective at keeping oil in the diff. and off the brakes, but poor hub bearings or worn splines will allow excessive movement and premature failure. Regular checking (on an annual basis say) is thoroughly recommended.

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