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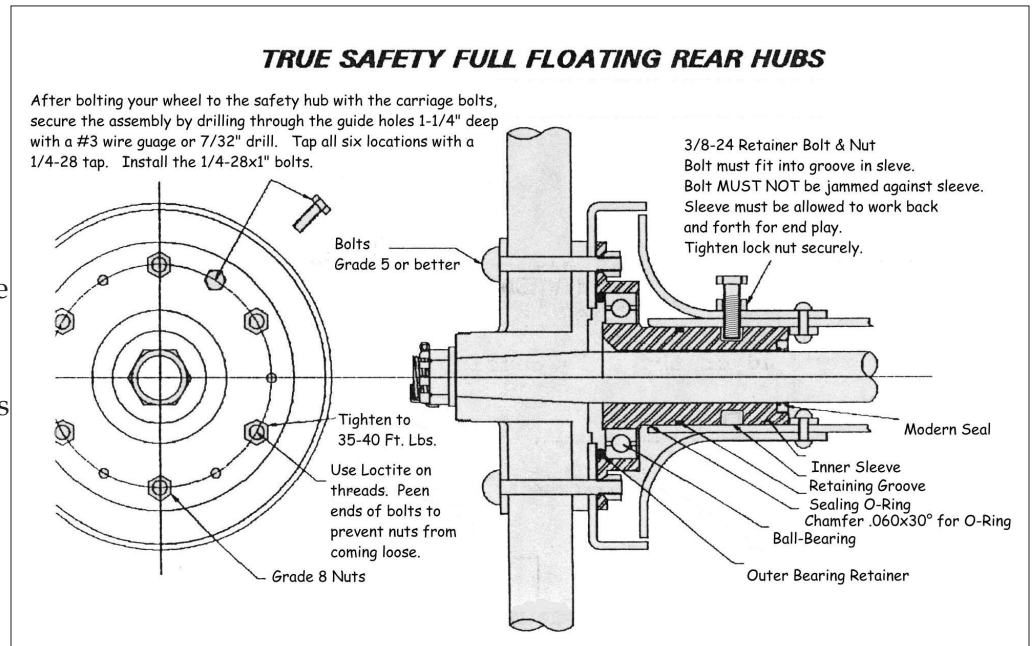
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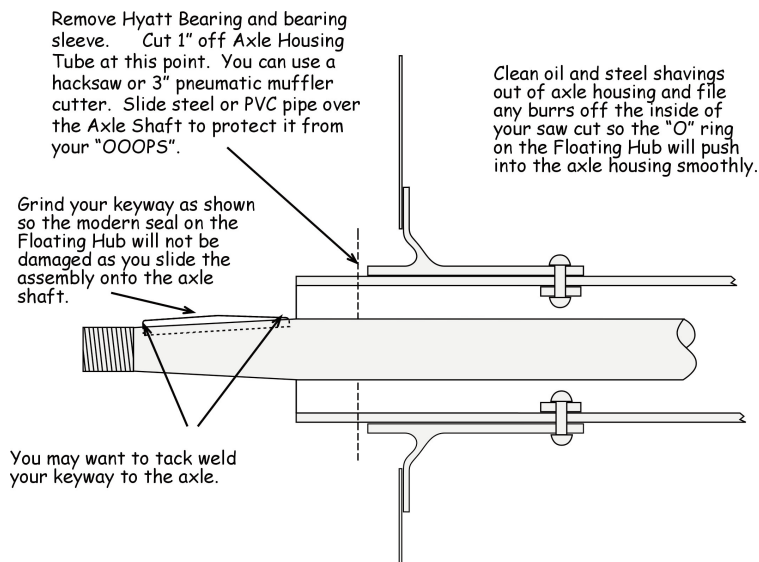
Floating Safety Hub Installation Instructions

Item# T2887-Wood

An important factor in making an easy running and reliable highway car is a ball-bearing rear axle. In the regular Ford construction, the load is transmitted from the housings through the roller bearings to the axle shaft and to the wheel hub. The weight of the car is supported by the axle shaft. This causes severe bending strains in the axle shaft. The ball-bearings of this safety hub replace the outer roller bearings, but with the radical difference that the Ball-bearings transmitt the weight of the car directly from the axle housing through the ball-bearings to the rear wheels.



In the ball-bearing construction, the axle shafts carry only the driving and braking effects and are only subjected to twisting strains. When using the standard Hyatt bearings, axle shafts have twisting strains and severe bending strains due to the loading and bouncing of the car. The bending strains are responsible for the grooves that develop on the axle with the regular Ford Construction.



To modify the car for improvement, the outer roller bearing and the bearing sleeve are removed. Since about 1 inch of the steel tubing projects outwardly from the brake flange, it is necessary to cut off this portion of the tubing to allow the annular bearing to fit properly into place.

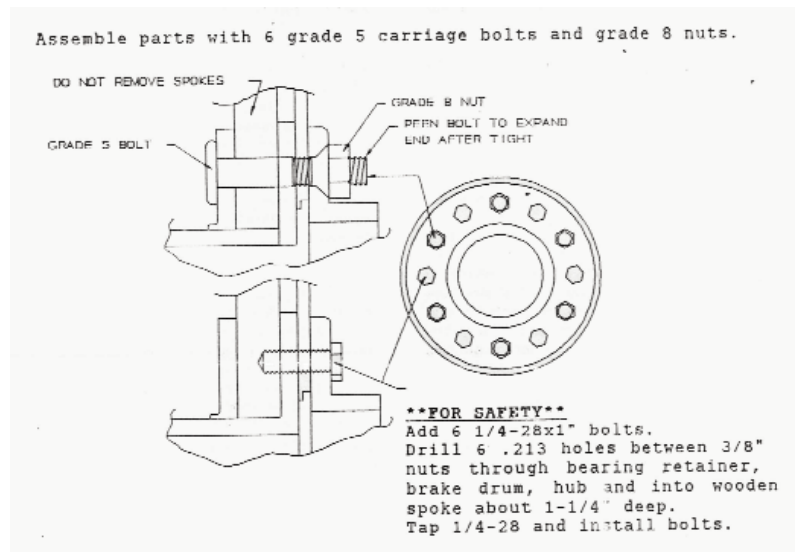
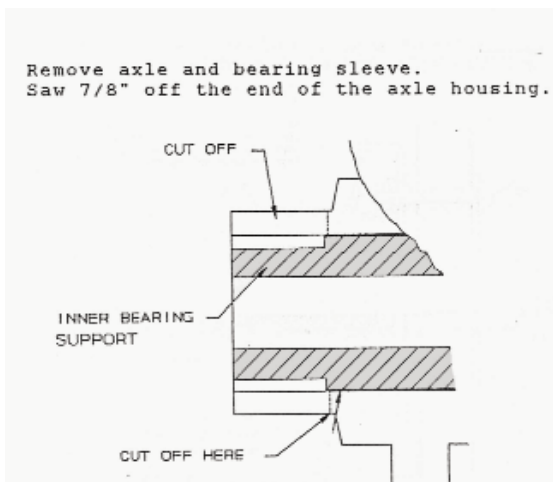
The ball-bearing assembly is bolted to the wheel hub and brake drum. The entire assembly is then placed in position by pushing the ball-bearing carrier into the axle housing until the wheel hub fits tightly on the tapered portion of the axle shaft.

The grease cup is removed so that you may see the location of the Retaining Groove in the Inner Sleeve Bearing Support. Center punch a mark on the outside of the axle housing for drilling a hole for the retaining bolt. The retaining bolt should be centered in the Retaining Groove. The assembly is removed and a hole is drilled and tapped through the steel brake drum housing and the steel tubing as shown in the sketch.

A bolt and lock nut are used to keep the sleeve locked in place. The bolt must not be tightened against the sleeve as this will prohibit the sleeve from finding its alignment position. However, the bolt must penetrate enough to keep the inner sleeve in place. This also keeps the wheel from coming off, even the driving member of the axle shaft breaks.

The steel inner sleeve or bearing support has a hole of sufficient diameter to clear the axle by $1/8$ inch. The outer diameter of the bearing support has very close tolerance to the inside diameter of the steel tubing to eliminate transfer of bending strains to the axle. The ball-bearing is held in place by the steel outer bearing retainer and a ridge on the inner sleeve, as shown in the sketch.

This makes a very safe axle construction and performs still another function in that, when the assembly is put



in position, the axle shaft nut and key are secured in their relative positions.

