wagner
a division of allied systems company

SERVICE BULLETIN

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BULLETIN NO. E0054

DATE: 2-1-83

SYSTEM DRIVELINES (06)

MODEL(S) ALL UNITS

SUBJECT: DRIVELINE INSTALLATION & LUBRICANTS

The installation procedures illustrated on the next page are reproductions of General Service Instructions from, "Mechanics", a division of Borg-Warner.

NOTE: We wish to call particular attention to the last paragraph under "Installation". This paragraph points out the importance of having the Yoke Assembly in alignment on reinstallation.

Lubrication must be done with low pressure only. High pressure will rupture cork and felt seals. Four wheel drive units should be lubed with chassis and bogie in a straight line position, otherwise extreme pressure within the slip will be developed if the slip is filled with grease when fully extended.

INTERCHANGEABILITY

Not Applicable

PARTS STOCK

Not Applicable

EFFECTIVE SERIAL NUMBERS

Not Applicable

INSTALLATION AND LUBRICATION INSTRUCTIONS TYPE "C" UNIVERSAL JOINT AND SHAFT ASSEMBLY

INSTALLATION

The first operation is to attach the fitting yokes to the two shafts to be connected. Care should be used when doing this, so as not to nick or bend the flanges to which the bearings are fastened. Then the yoke retaining nut tightened to prevent it coming off the shaft: see fig. 1.

The next operation is to bring one end of the universal joint and shaft up against one of the fitting yokes: see Fig. 2. It will be noted that one of the bearings is inserted in the key-way in the yoke with the male arcuate pilot of the bearing, resting on the female pilot of the yoke. Due to the fact that there are cork packings between each of the bearings and the trunnions on which they fit, this cork packing must be compressed a certain amount, before it is possible to enter the male arcuate surface of the other bearing with the yoke pilot on the opposite side.

This should be done by clamping the two opposite bearings with a "C" clamp. Then push the bearings into the yoke pilot and keyway. Do not attempt to put the bolts through into the bearing until both of the bearings have found their seat on the yoke surface. The bolts are then inserted through the yoke and screwed into the bearing: see Fig. 3. It will be noted that the pair of bearings at each end of the shaft that are to assemble to the end yokes, are held in place by means of a weld wire.

The weld wire has no effect on the universal joint action and need not be removed. Rather it should remain in place to hold the bearings on the spider trunnions should the universal joint have to be disassembled. Then tighten the four bolts securely. After one end of the shaft has been put in place, the shaft can be compressed in the slip joint to permit raising the other end of the shaft and then, coming forward against the yoke member, proceed exactly the same as stated above.

Should it be necessary to disassemble the joint-for some reason or another-for instance-to replace a spider or bearing—it is only necessary to remove the eight bolts (4 per each yoke), compress the shaft assembly in the slip joint and remove the spider and the four bearing assemblies.

It may be that some of the bearings are tight in their respective pilots and key seats, which will make it necessary to tap the top of the bearing slightly, in order to release it-then, the spider and bearing assembly can be replaced in part, or as a complete unit.

When installing a double universal joint assembly, it is important that both of the universal joints operate at equal angles. It is also important that the slip joint be assembled to the slip stub so that the slip yoke and the yoke welded to the tube are in the same plane: see fig. 4 & 5.

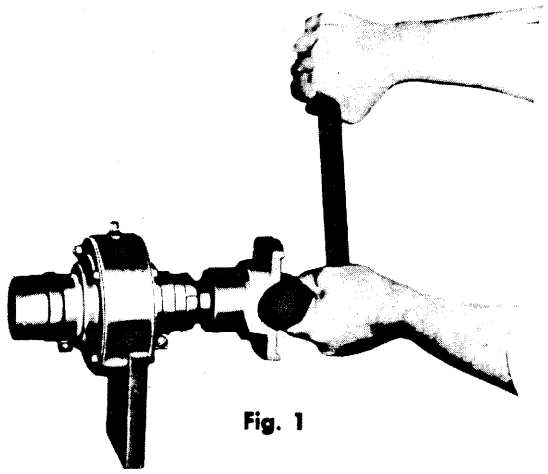

Fig. 1

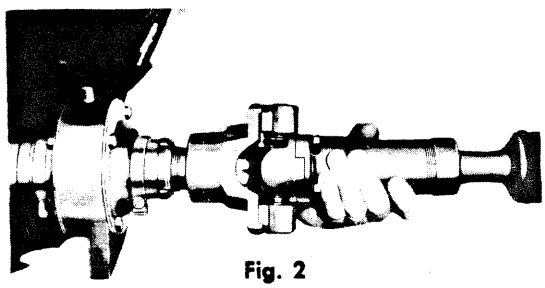

Fig. 2

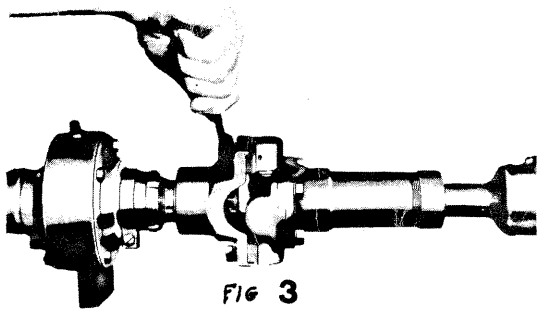

FIG 3

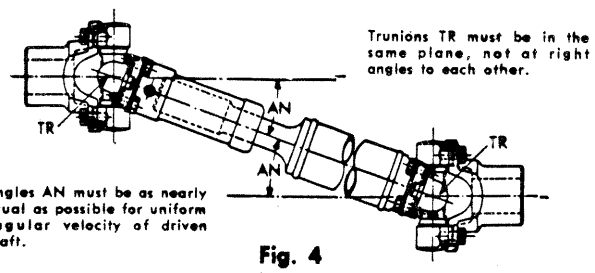

Fig. 4

LUBRICATION

The interval between lubrications depends on the types of service. An interval of 400 hours between lubrications is generally satisfactory for normal service. A 100 hour interval is recommended for heavy duty service.

When subjected to extremely severe conditions, more frequent lubrication may be required.

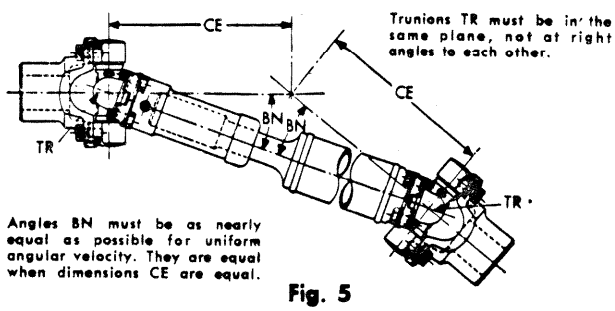

Fig. 5