DRIVE SHAFT - 24

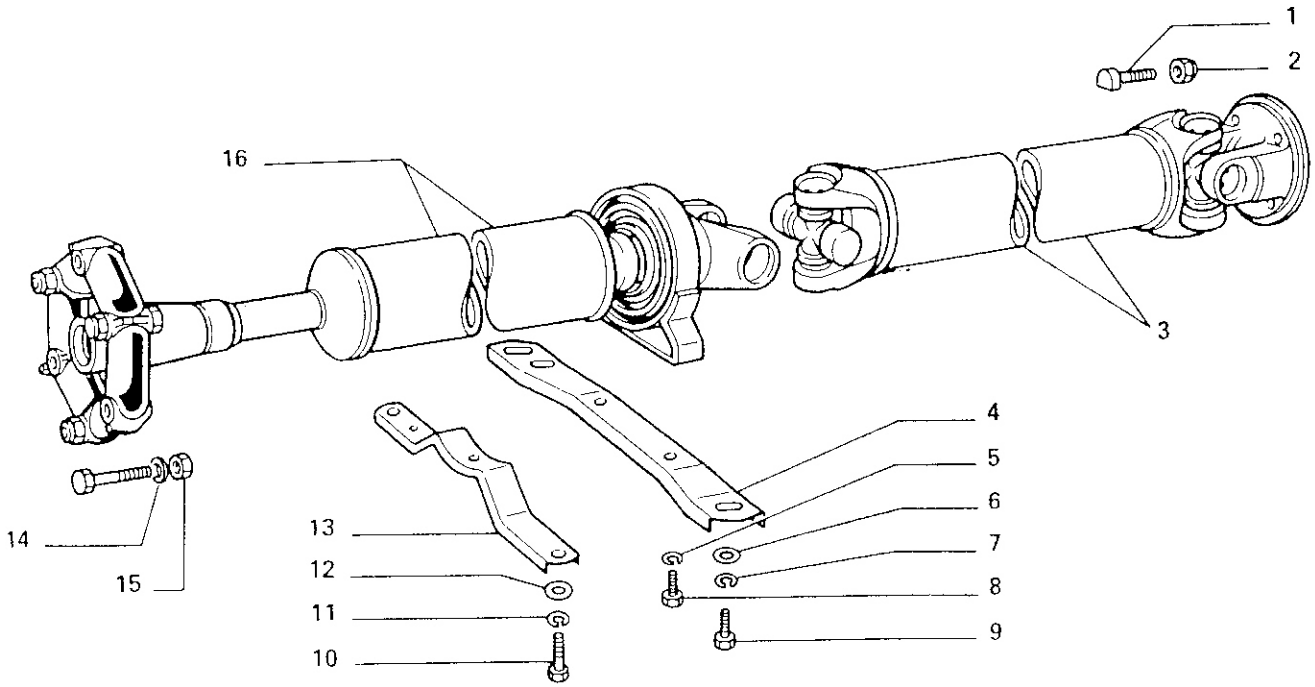
SPECIFICATIONS

Drive Shaft: dual with center pillow block with rubber-cushioned bearing. Universal joints on rear section. Flexible joint at transmission end.

Front Shaft	
— Type	tubular, with splined ends
— Diameter	2.756 in. (70 mm)
— Length, manual trans. (measured between stub ends)	14.5 in. (368.3 mm)
— Length, auto. trans. (measured between stub ends)	10.5 in. (266.7 mm)
Rear Shaft	
— Type	tubular, with universal joint yokes
— Diameter	2.756 in (70 mm)
— Length, auto. and manual (measured between universal joint centers)	30.5 in (774.7 mm)
Center Pillow Block	flexible, with sealed ball bearing
Joints	
— Front	flexible
— Center	universal
— Rear	universal
Fit clearance between universal joint spider journals and needle bearings	0.004 to 0.016 inch (0.01 to 0.04 mm)
Thickness range of service snap rings for adjusting clearance between universal spider journals and needle bearings	0.0591, 0.0602, 0.0614, 0.0626, 0.0638, 0.0649 inch (1.5, 1.53, 1.56, 1.59, 1.62, 1.65 mm)

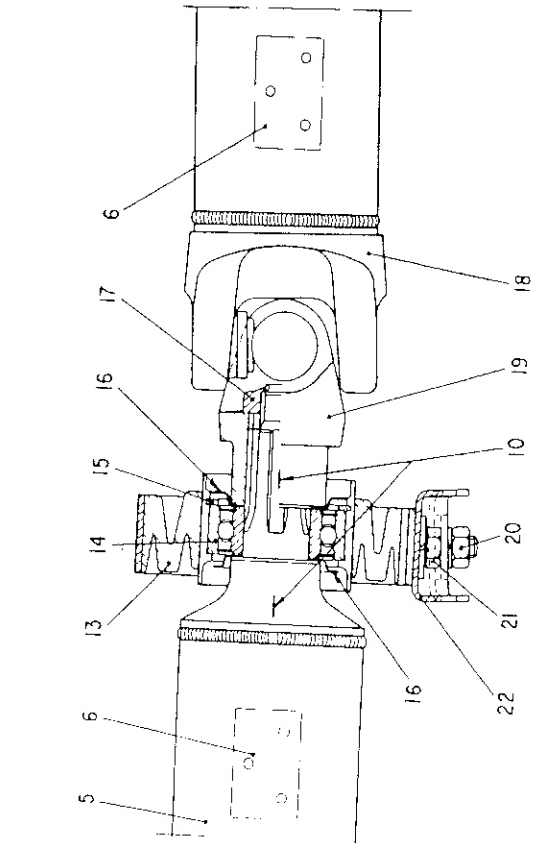
TORQUE SPECIFICATION

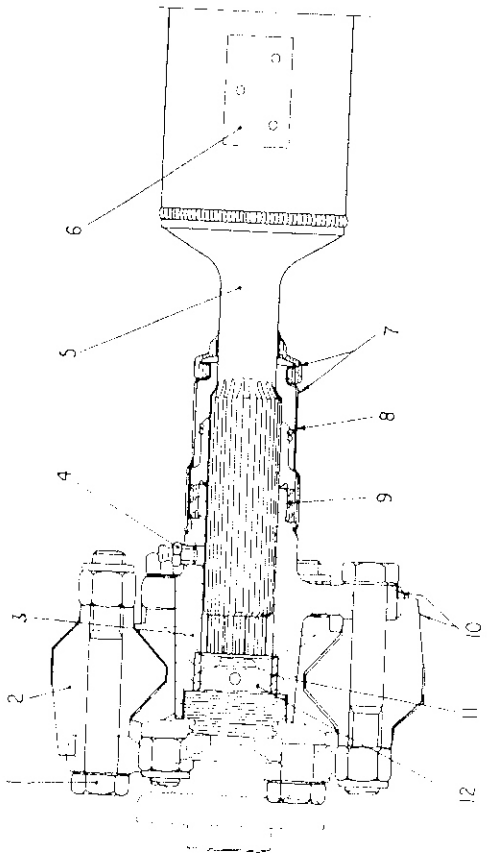
DESCRIPTION	THREAD (METRIC)	TORQUE N·m	TORQUE FT. LB.	TORQUE Kgm
Flange nut, yoke to support	M16 x 1.5	29.4	21	3
Self-locking nut, flexible joint to transmission and drive shaft bolt	M12 x 1.25	68.6	51	7
Self-locking nut, drive shaft to rear axle bolt	M8	34.3	25	3.5
Bolt, drive shaft pillow block to crossmember	M8	25	18	2.5
Bolt, pillow block to body	M8	25	18	2.5
Nut, sleeve to shaft	—	95	69	9.5

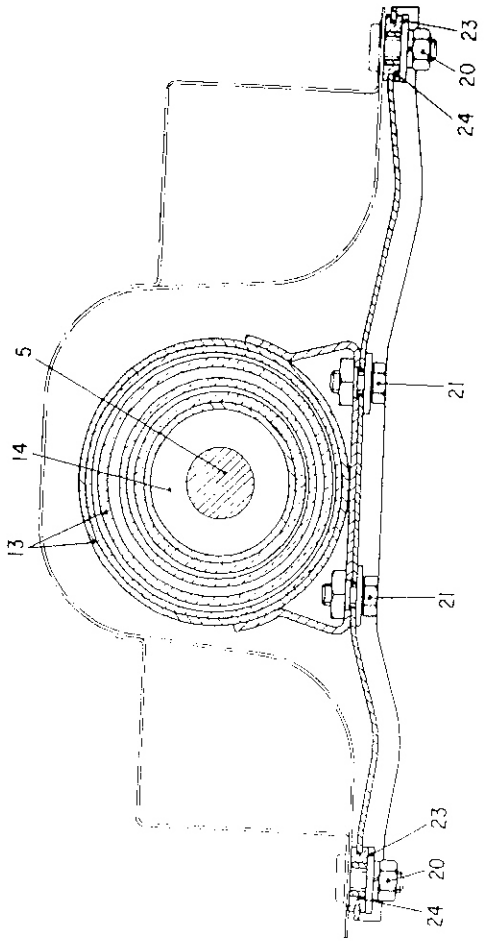


1. Bolt
2. Nut
3. Rear shaft
4. Crossmember
5. Lock washer
6. Flat washer
7. Lock washer
8. Bolt
9. Bolt
10. Bolt
11. Lock washer
12. Flat washer
13. Protection bracket
14. Bolt
15. Nut
16. Front shaft

DRIVE SHAFT ASSEMBLY







1. Bolt and nut fixing flexible coupling to transmission 2. Flexible coupling 3. Sliding sleeve 4. Sliding sleeve lubrication fitting 5. Front drive shaft 6. Shaft balancing plate 7. Gasket and socket 8. Play take-up ring spring 9. Rubber ring 10. Assembly reference marks 11. Location bushing 12. Location ring 13. Center pillow block 14. Ball bearing 15. Snap ring 16. Bearing shield 17. Nut, securing universal joint yoke to front drive shaft 18. Rear drive shaft 19. Universal joint yoke 20. Nuts securing crossmember to body 21. Nuts securing pillow block to crossmember 22. Crossmember 23. Flat washers 24. Rubber grommets

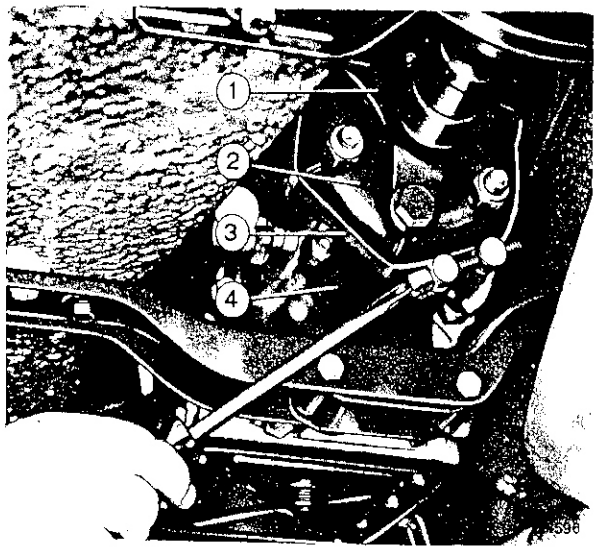
LONGITUDINAL SECTIONS OF DRIVE SHAFT THROUGH FLEXIBLE COUPLING AND CENTER PILLOW BLOCK

DRIVE SHAFT

REMOVAL AND INSTALLATION

Install compressor (3) on flexible coupling (2). Remove nuts and bolts holding coupling (2) to transmission flange.

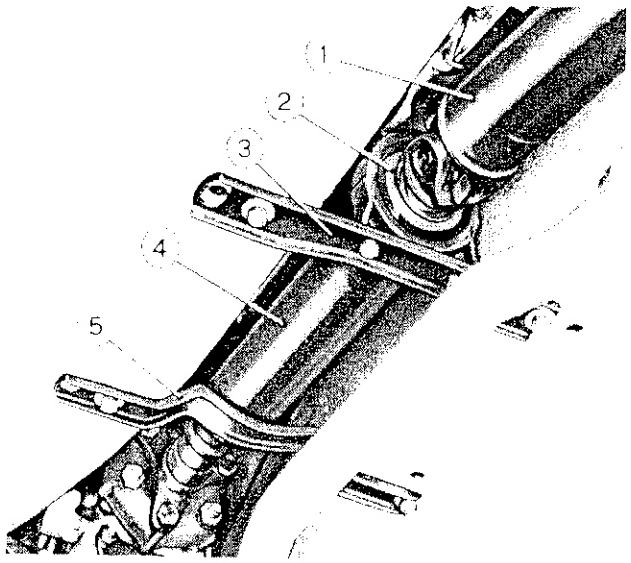
1. Drive shaft yoke 2. Flexible coupling 3. Compressor
4. Transmission mount



Remove bolts holding crossmember (3) for pillow block (2).

Remove bolts holding protection bracket (5) for front shaft (4).

1. Rear shaft 2. Pillow block 3. Crossmember 4. Front shaft
5. Protection bracket

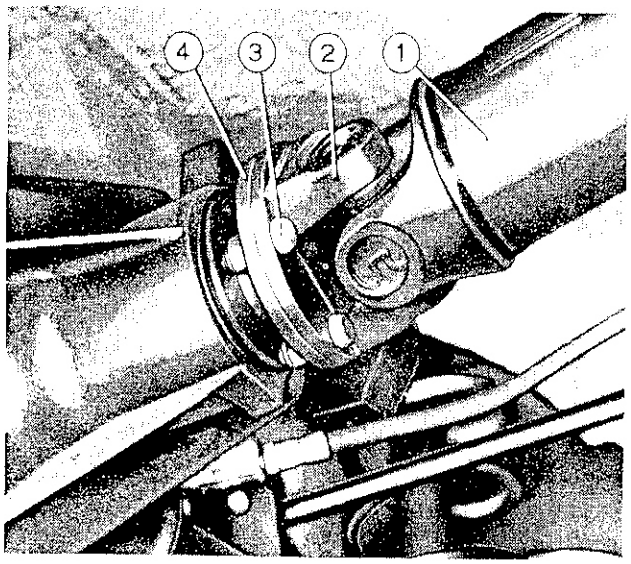


Remove nuts holding rear shaft yoke (2) to differential flange (4). Remove drive shaft.

NOTE: If installing new flexible joint do not remove metal band until all 6 bolts are installed.

When connecting flexible joint, make sure all bolts are installed with bolt heads against flanges.

1. Rear shaft 2. Yoke 3. Bolts 4. Differential flange



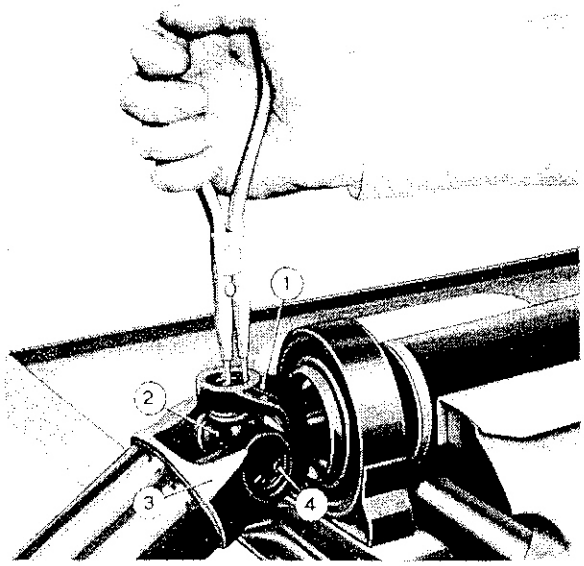
CENTER PILLOW BLOCK

REMOVING

Remove drive shaft. Remove 2 bolts holding cross member to block.

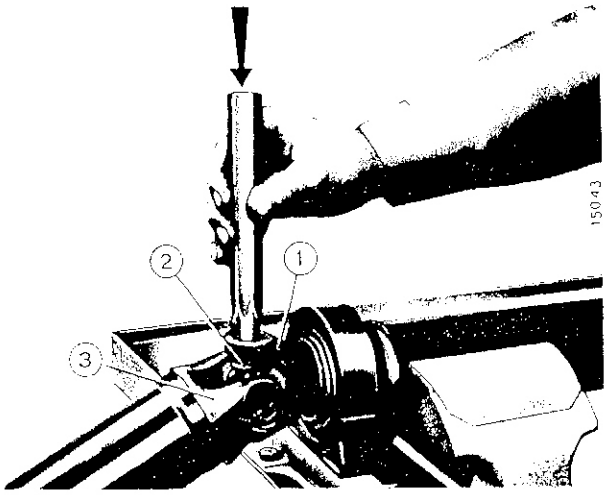
Remove snap rings (4) holding spider (2) in front shaft.

1. Sleeve 2. Spider 3. Rear shaft 4. Snap ring



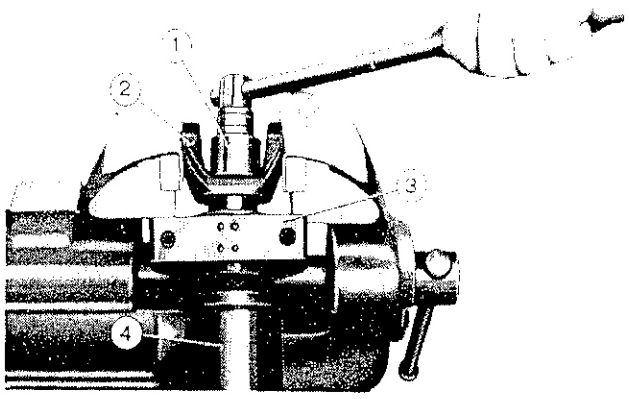
Tap spider out of sleeve. Use a driver.

1. Sleeve 2. Spider 3. Rear shaft



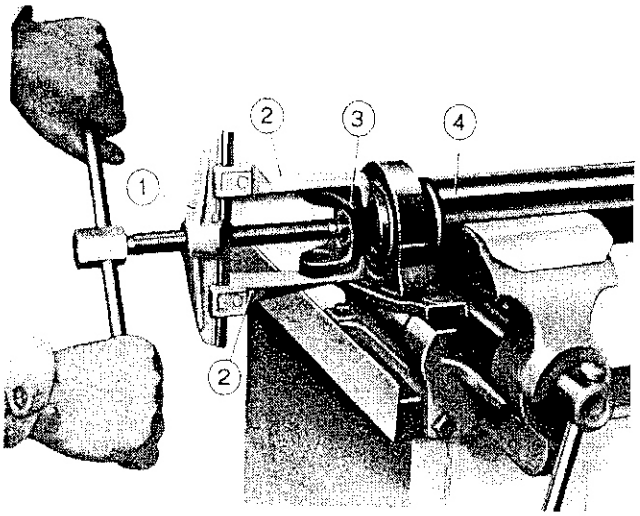
Mark shaft and sleeve for reassembly. Place sleeve in front shaft in vice. Remove nut holding sleeve to shaft.

1. Socket 2. Sleeve 3. Pillow block 4. Front shaft



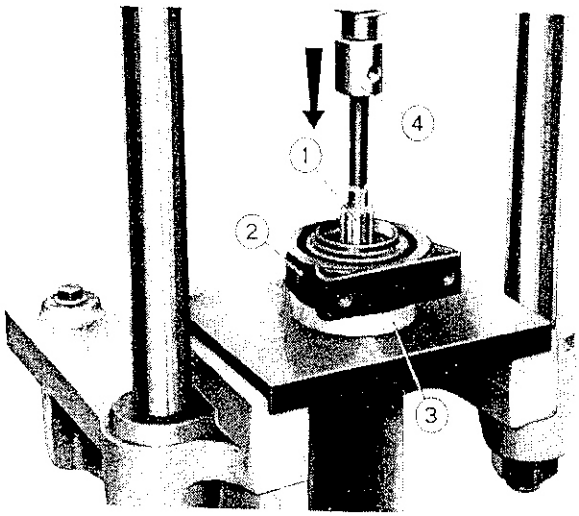
Remove sleeve and dust cover. Use a puller.

1. Puller 2. Puller jaws 3. Sleeve 4. Shaft



Place shaft in press. Press shaft out of pillow block.

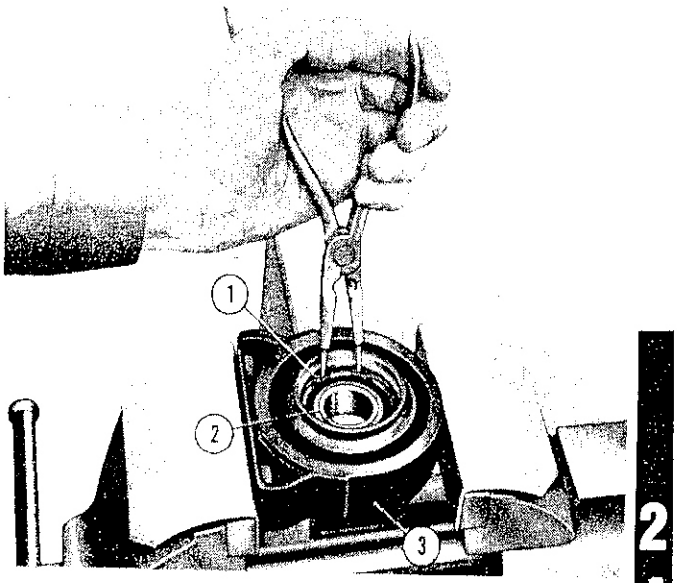
1. Shaft end 2. Pillow block 3. Adapter 4. Press



DISASSEMBLING

Remove snap ring (1) holding bearing (2) in pillow block (3). Pull bearing out of pillow block. Use a universal puller.

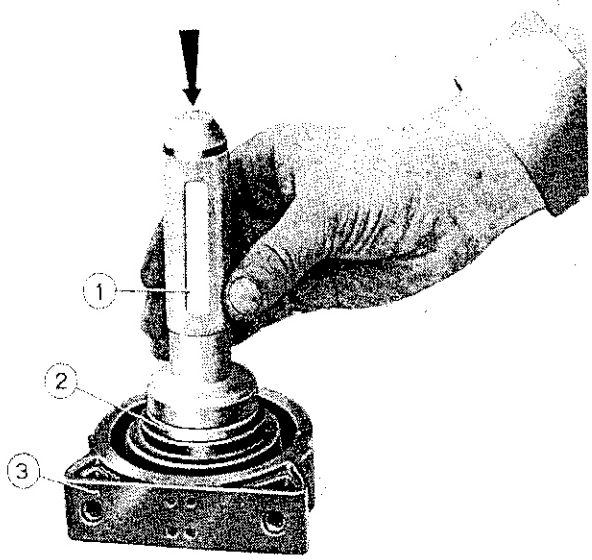
1. Snap ring 2. Bearing 3. Pillow block



ASSEMBLING

Press bearing (2) into pillow block (3). Use a drift (1). Install bearing retainer snap ring.

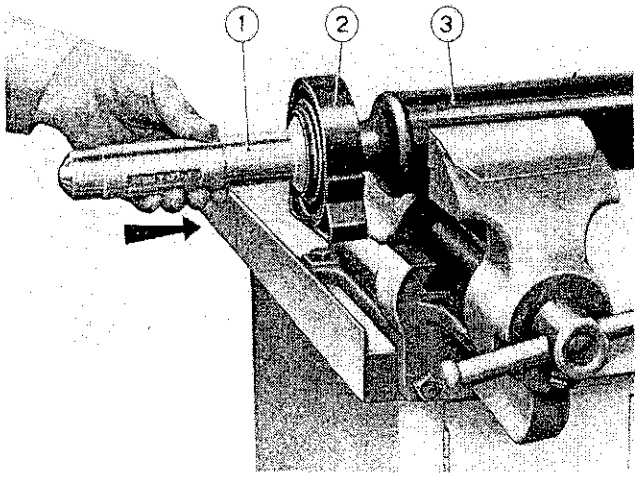
1. Drift 2. Bearing 3. Pillow block



INSTALLING

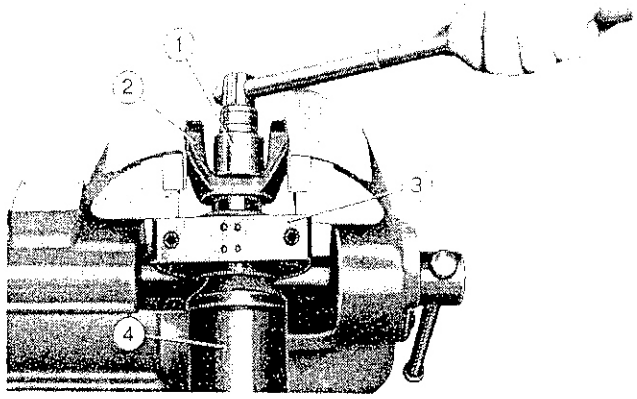
Place dust cover on shaft. Install pillow block (2) on shaft (3). Use a drift (1). Place rear dust cover on shaft.

1. Drift 2. Pillow block 3. Front shaft



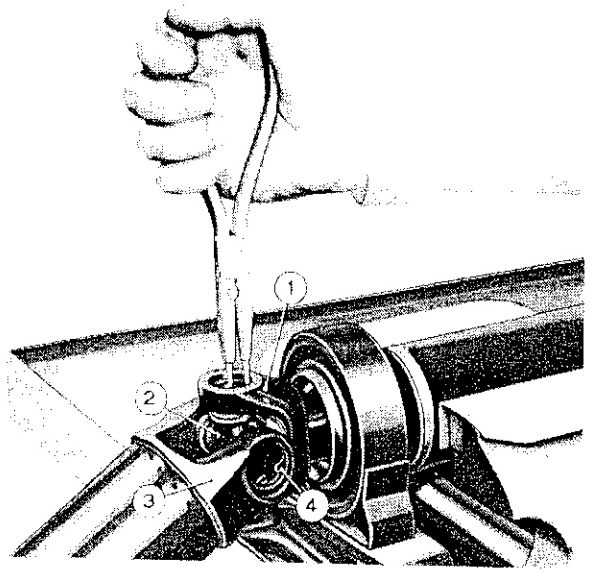
Align mark on sleeve with mark on shaft. Place sleeve on shaft. Install nut on shaft. Torque nut to 69 ft lb. Stake the nut.

1. Socket 2. Sleeve 3. Pillow block 4. Front shaft



Place spider on rear shaft in sleeve on front shaft. Press spider into sleeve. Install two snap rings in sleeve to hold spider.

1. Sleeve 2. Spider 3. Rear shaft 4. Snap ring



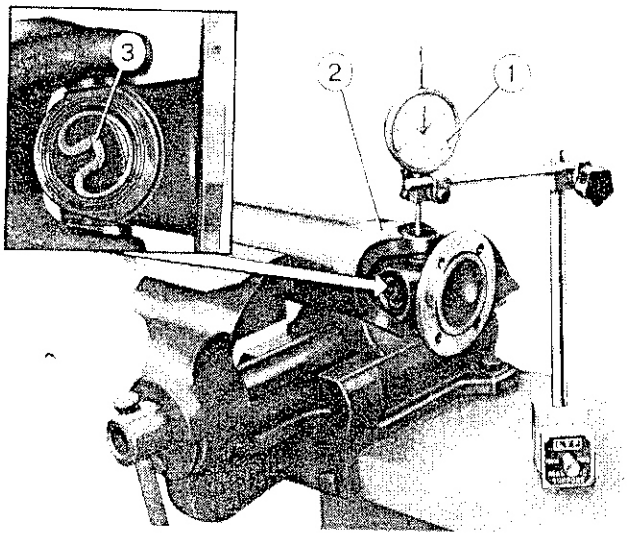
UNIVERSAL JOINT

INSPECTION

Clamp shaft in vice. Using dial indicator, measure play between spider journals and needle bearings.

Play must not exceed 0.0004 to 0.0016 in (0.01 to 0.04 mm). If play exceeds limit, replace snap rings with larger ones. Inspect spider and needle bearings for condition. If interference or looseness between parts is indicated, replace complete spider.

1. Dial indicator 2. Rear drive shaft 3. Snap ring



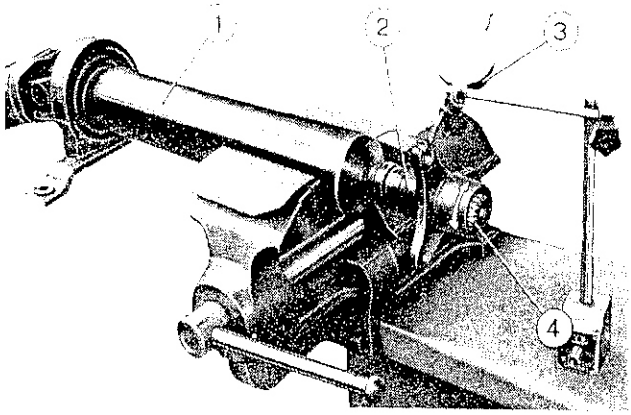
FLEXIBLE JOINT YOKE

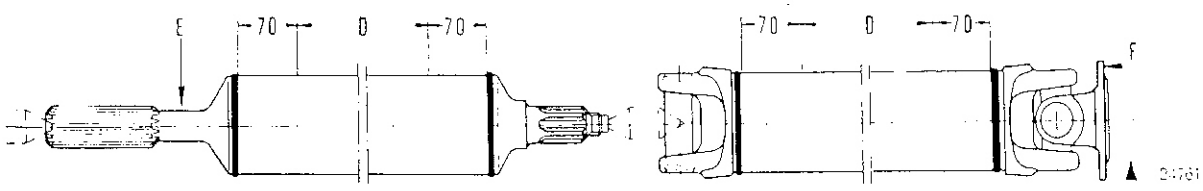
INSPECTION

Set dial indicator as shown. Check lash between yoke (2) and front drive shaft splines (4).

Measure lash at yoke outer edge. Lash should be 0.0069 to 0.0137 in (0.175 to 0.350 mm).

1. Front drive shaft 2. Yoke 3. Dial indicator 4. Front shaft splines





DRIVE SHAFT

INSPECTION

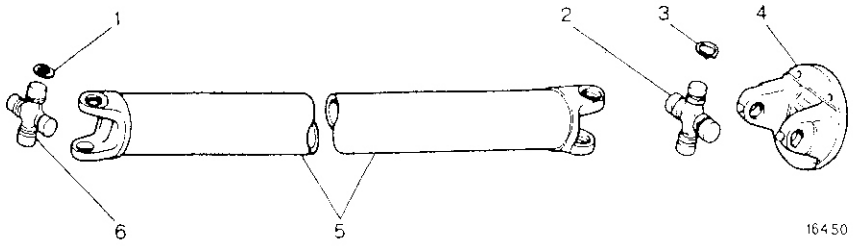
Front Shaft

Support shaft between centers. Set dial indicator on section D and E. Turn shaft by hand and check runout. Runout should not exceed 0.014 in (0.35 mm) at D and 0.006 in (0.15 mm) at E.

Shaft straightening, if required should be done under a press.

Rear Shaft

Install universal joint on shaft. Mount shaft on suitable fixture. Set dial indicator on section D and point F. Turn shaft by hand check runout. Runout should not exceed 0.014 in (0.35 mm) at D and 0.004 in (0.10 mm) at F.



1. Snap ring
2. Needle bearing
3. Snap ring
4. Yoke
5. Drive shaft
6. Needle bearing

NOTE: Number given in parentheses is Kent-Moore catalogue number.

A.70025 (J28087) Compressor, flexible joint removal and installation.