

# UNIVERSAL JOINTS

## SPICER (FORD) TYPE

### Used On:

Ford, All Passenger Cars & Comm'l. (1934-42)  
 Ford Trucks, All Models (1934-39)  
 Lincoln-Zephyr, H ('36), HB ('37), 86H ('38), 96H ('39)  
 Lincoln, Zephyr Models 06H ('40), 16H ('41)  
 Lincoln, Zephyr Model 26H (1942)  
 Lincoln, Continental Models 06H ('40), 16H ('41)  
 Lincoln, Continental Model 26H (1942)  
 Lincoln, Custom Models 168H (1941), 268H (1942)  
 Lincoln, V12 Models (1934 to 1940)  
 Mercury, Model 99A ('39), 09A ('40), 19A ('41)  
 Mercury, Model 29A (1942)

**NOTE:**—These models have Torque Tube Drive with a single universal within a ball housing at the rear of the transmission case. Ball housing flange mounting screws must be taken out and axle assembly pulled back to expose universal.

**Ford Truck Models (1934-39).** These models have additional universal mounted at intermediate bearing on frame cross-member. Both universals are needle bearing type (see Needle Bearing Service Note below).

**NOTE:**—Rear yoke of front universal integral with a companion flange which is bolted to flange on splined sleeve which engages front propeller shaft. After cover screws are taken out and cover pushed back on shaft, screws can be taken out of companion flange and splined sleeve pushed back on shaft (against spring tension) to disconnect front drive-shaft. This will allow transmission to be removed without disturbing intermediate universal joint or rear propeller shaft.

**Ford Truck Models (1940-42).** Hotchkiss drive is used. These trucks are equipped with Spicer Needle Bearing type universals. See Spicer Needle Bearing universal joint article (following) for complete data.

**Lincoln (Zephyr) 1938-42.** Universal joint is needle bearing type. See Needle Bearing Service Note below for data on this universal joint.

**DESCRIPTION:**—Universal has conventional cross or spider. Special bearing bushings are installed individually in ends of yokes on cross journals. Bushings are retained in yokes by locking rings (yokes are open end type and locking rings are inserted in yoke ends to engage recess in bushing and yoke).

**Needle Bearing Types.** These types have loose needle bearings assembled in retainer cup or bushing which is retained in yoke end by locking ring in same manner as bushing on hardened-bushing types. Serviced in same manner except that loose needle bearings will fall out of retainer cup when removed and care must be taken not to lose them.

**REMOVAL:**—Rear axle ordinarily removed by pulling drive shaft out of splined joint at rear of universal after ball housing flange bolts have been taken out (rear universal yoke integral with stub splined shaft, front yoke bolted directly on end of transmission main shaft). Universal can be disassembled or removed by taking out mounting bolt in front yoke (accessible through hole in cross).

**SERVICING:**—Disassembly—Remove locking ring from each yoke bushing. Drive out bushings with flat nosed punch inserted from opposite side of yoke being careful to keep bushing lined up with cross journal so that bearing surface will not be marred.

**NOTE:**—On needle bearing types take care not to lose needle bearings which will fall out of bearing

retainers or bushing when removed from cross journal. Pack needle bearings with grease before installing.

**Assembly:**—Tap bushings in place with soft nosed hammer being careful to keep bushings lined up with cross journal to avoid marring cross journals. Line up locking ring groove in yoke and bushing, install locking rings. If universal front yoke has been removed, see that transmission rear bearing is against shoulder on shaft and that yoke shoulder is against bearing. Tighten mounting screw securely and see that washer under screw head is seated in counterbore in yoke. When correctly assembled, transmission main shaft should have no endplay.

**NOTE:**—Universal is not oiled from transmission case and should be lubricated with special universal lubricant after assembly completed.

## SPICER NEEDLE BEARING TYPE

### Used On:

Buick, Series 40A, 40B, 50 (1941-42) See Note  
 Chevrolet Trucks, AL; YR,S,T,U,V,W ('41) See Note  
 Chevrolet Trucks, BL; MR,S,T,U,V,W ('42) See Note  
 Chevrolet Cab-over-Engine, WD ('40), MT ('41)  
 Chevrolet Cab-over-Engine, MU, MV, MW ('42)  
 Chrysler Six, Model C6 (1935)  
 Chrysler Airstream Eight, Model CZ (1935)  
 Chrysler Airflow, Models C1,C2,C3 (1935)  
 Chrysler Custom Imperial, Model CW\* (1935)  
 Crosley, CB41 (1941), CB42 (1942) See Note  
 DeSoto, Airstream SF, Airflow SG (1935)  
 Ford Trucks, All Models (1940-41-42)  
 Graham 6, 73, 74 ('35), 80,A,90,A,110 ('36), 85 ('37)  
 Graham Eight, Model 72 (1935)  
 Graham Schgd. Eight, Model 75 (1935)  
 Graham, Hollywood Supercharger 109 (1940)  
 Graham Hollywood, Models 109,113 (1941)  
 Hudson Six, GH ('35), 63 ('36), 73 ('37)  
 Hudson Six, 83 (1938), 91, 2, 3 (1939)  
 Hudson '112', 89 (1938), 90, 98 (1939)  
 Hudson Eight, Models HT,HU,HHU ('35), 64,5,6,7 ('36)  
 74, 5, 6, 7 ('37), 84, 5, 7 ('38)  
 Hudson Eight, Models 95, 97 (1939)  
 Hudson Six, Models 40F, 40T, 41, 43, 48 (1940)  
 Hudson Eight, Models 44, 45, 47 (1940)  
 Hudson Six, Models 10, 11, 12, 18 (1941)  
 Hudson Eight, Models 14, 15, 17 (1941)  
 Hudson Six, Models 20, 21, 22, 28 (1942)  
 Hudson Eight, Models 24, 25, 27 (1942)  
 Hupmobile Six, 518-D ('35), 618-G ('36)  
 Hupmobile Six, 822-E (1938), 922-E (1939)  
 Hupmobile Skylark, Model R (1939-40)  
 La Salle, 350 Series 50 ('34-35)  
 Packard Eight, Models 1100,1,2 (1934)  
 Packard Super 8, 1103,4,5 (1934), 1203,4,5 (1935)  
 Packard Super 8, Models 1403,4,5 (1936)  
 Packard Twelve, 1107, 8 (1934), 1207, 8 (1935)  
 Packard Twelve, 1407, 8 (1936), 1506, 7, 8 (1937)  
 Packard Twelve, Models 1607, 8 (1938)