

## FORD MODEL C-II

Ford (All Exc. Lincoln &amp; Mark V)

**NOTE** — Some models use Saginaw Vane type pump. See Saginaw Vane in this section.

## DESCRIPTION

The C-II pump is belt driven with an integral fiberglass nylon reservoir. Spring loaded slippers within cam and rotor create pumping action. A flow control/relief valve maintains pump volume and pressure. An identification tag attached to the reservoir body indicates the pump model. Use model code when requesting service parts in case of differences in internal components.

## LUBRICATION, TROUBLE SHOOTING &amp; TESTING

See Power Steering General Servicing in this section.

## REMOVAL &amp; INSTALLATION

## POWER STEERING PUMP

Drain reservoir fluid by disconnecting fluid return line at reservoir. Disconnect pressure hose at pump and remove bolts from mounting bracket. Remove drive belt from pulley and pump from bracket. To install, reverse removal procedure, adjust belt tension, refill and bleed pump. See Power Steering General Servicing in this section for correct procedures.

**NOTE** — Do not pry against the reservoir to tighten belt. Pressure on the fiberglass may crack the reservoir.

## POWER STEERING PUMP PULLEY

Drain as much fluid as possible from pump through filler pipe. Install a  $\frac{3}{8}$  - 16 inch capscrew in end of pump shaft to prevent damage to shaft end by tool screw. Install a suitable pulley remover (T69L-10300-A) on pulley hub and remove pulley.

**CAUTION** — Pulley must be removed without in and out pressure on shaft to prevent damage to internal thrust areas. To install, use a suitable tool to press pulley onto hub.

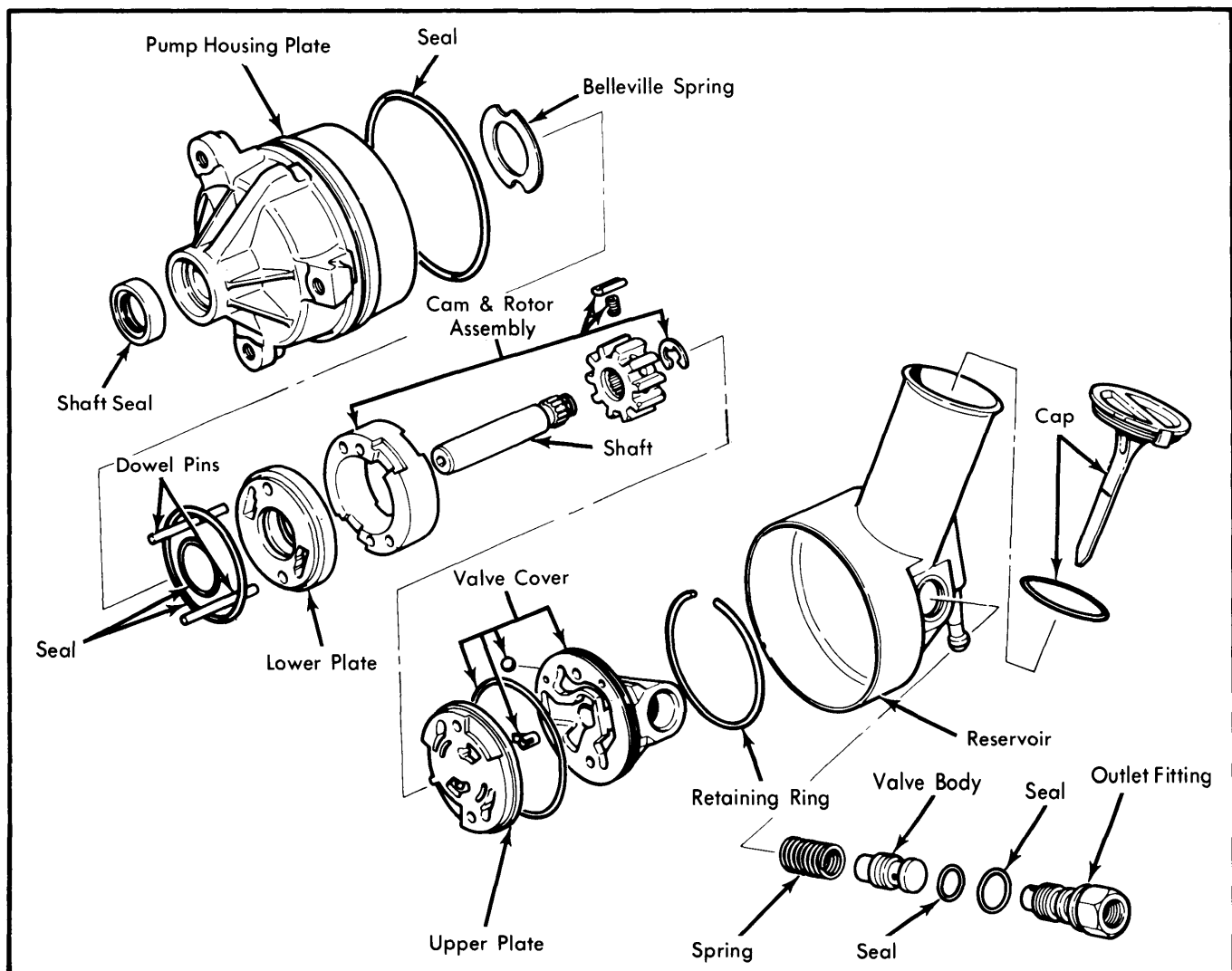


Fig. 1 Ford Model C-II Steering Pump

## FORD MODEL C-II (Cont.)

### ROTOR SHAFT SEAL

Remove pulley and install pump assembly in a vise, pulley end of shaft up. Clean any rust or dirt from shaft. To prevent scoring of shaft, wrap .005" shim stock (free of burrs) around rotor shaft and push it into ID of the seal until it is against bushing. Using a sharp tool, carefully pierce the metal seal body face and pry old seal out. **CAUTION**— Do not damage bushing, housing or rotor shaft. Remove shim stock. Position new seal on end of Seal Protector, Tool (T68P-3B592-B), position tool and seal on shaft. Use seal installer tool, (T68P-3B592-A) and a soft hammer to tap lightly against seal until it is completely installed flush with end of seal bore.

### OVERHAUL

**Disassembly** — Remove outlet fitting, flow control valve and spring, and remove reservoir from pump. Mount large "C" clamp vertically in vice with screw at top. Place rotor shaft in lower support plate tool T78P-3733-A2 and compressor plate tool T78P-3733-A1 (or equivalent tools) into upper portion of "C" clamp. Insert pump (shaft down) into clamp and tighten until slight bottoming of valve cover is felt. Push inward on retaining ring through hole in side of pump housing to lift and remove retaining ring. Remove pump from clamp and lift cover off. Push on rotor shaft to remove shaft, upper plate, rotating group assembly and two dowel pins. To remove cover plate and Belleville spring, slam pump housing on flat surface. Pry rotor shaft seal from housing.

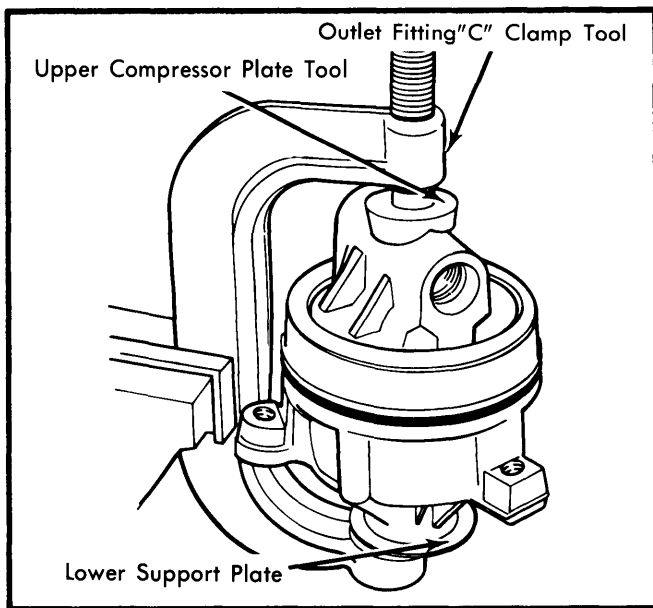


Fig. 2 Pump Positioned in "C" Clamp

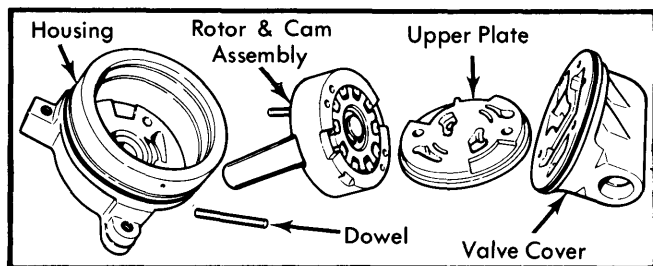


Fig. 3 Disassembled Pump

**Reassembly** — 1) If rotating group was disassembled, place rotor on shaft with triangle detent (See Fig. 4) facing upwards and install retaining ring at end of shaft. Place insert cam over rotor with recessed notch on cam facing upwards.

2) With rotor extended approximately half way out of cam, insert springs and slippers (groove facing outward) into rotor cavities beneath recessed cam flats. Index cam either one space right or left at a time about rotor and insert remaining springs and slippers until all 10 cavities are filled. Use care when turning rotor that previously installed springs and slippers do not fall out.

3) Using suitable adhesive on outside of seal and primer in seal bore, drive rotor shaft seal into bore with driver tool T78P-3733-A3 (or equivalent). With pulley side of housing facing down, insert two dowel pins and Belleville spring (dished surface upward) into housing.

4) Lubricate inner and outer "O" rings with power steering fluid and install on lower pressure plate. Insert lower pressure plate over dowels and into housing with seals facing front of pump. Use driver tool (T78P-3733-A3) and "C" clamp to press lower plate into housing until it is felt to bottom.

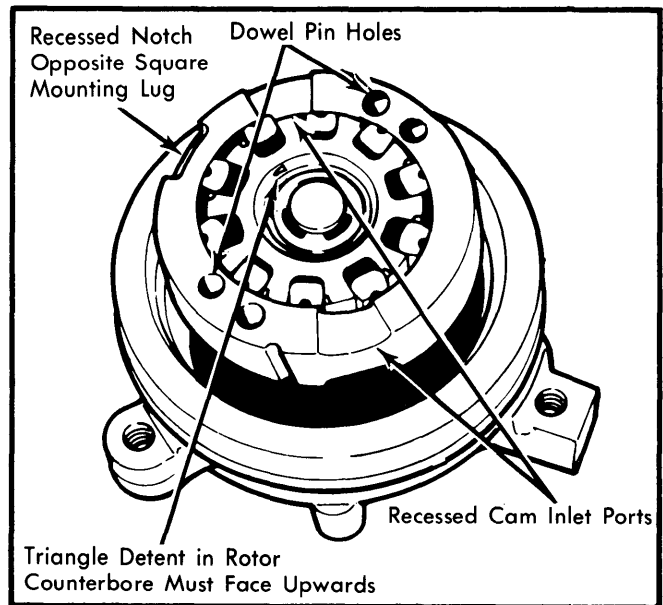


Fig. 4 Assembling Cam and Rotating Assembly

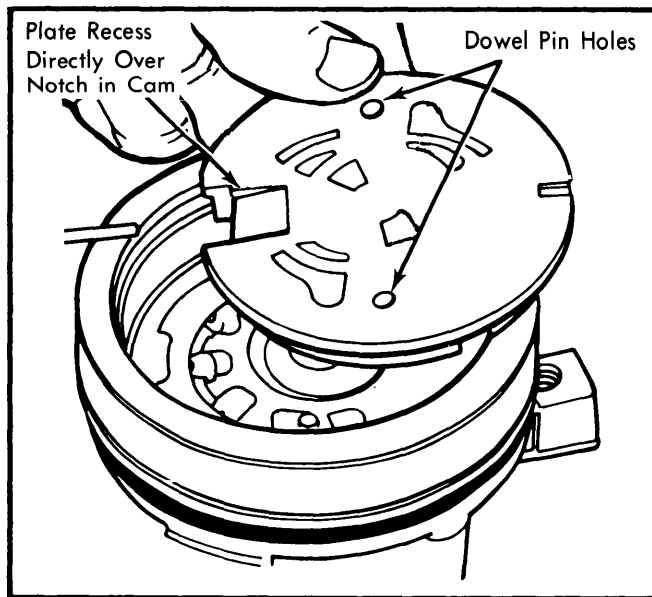
5) Install rotating assembly over dowel pins into housing. (See Fig. 4)

**NOTE** — Stepped holes must be used for dowel pins and the recessed notch in cam insert must face toward the reservoir approximately 180° opposite the square mounting lug on housing.

Place upper pressure plate over dowel pins with recess directly over recessed notch on cam insert. (See Fig. 5)

# Power Steering Pumps

## FORD MODEL C-II (Cont.)



**Fig. 5 Upper Pressure Plate Installation**

6) Lubricate and place new "O" ring on valve cover. If plastic baffle is loose in valve cover, apply petroleum jelly to baffle and install into position on valve cover. Insert valve cover over dowel pins with outlet fitting hole directly in line with square

mounting lug on housing. Place assembly in "C" clamp and compress valve cover into pump housing. Install retaining ring with ends near access hole in housing.

7) Lubricate and install "O" ring on pump housing and install reservoir. Install flow control valve and spring into valve cover. Use new "O" ring seals on outlet fitting and install into valve cover to specified torque.

**NOTE** — If flow control valve is cocked, it may become stuck in valve cover. Do not force valve forward since chips may shear off and carry into valve bore.

### TIGHTENING SPECIFICATIONS

Application	Ft. Lbs.
Pivot Bolt .....	12-15
Pump to Bracket .....	30-45
Bracket to Engine .....	30-45
Pressure Hose to Pump Nut .....	12-15
Outlet Fitting .....	25-34
Belt Adjusting Bolts .....	ⓐ25-40

ⓐ — Adjusting Nut to Proper Belt Tension