

2002 Ford Windstar
2002 STEERING Power Steering - Windstar

2002 STEERING

Power Steering - Windstar

SPECIFICATIONS

GENERAL SPECIFICATIONS

GENERAL SPECIFICATIONS

Item	Specification
<b>Lubricants</b>	
Steering Gear Grease C3AZ-19578-A	ESW-M1C87-A
Multi-Purpose (ATF) Transmission Fluid XT-2-QDX	Mercon(R)
Silicone Dielectric Compound D7AZ-19A331-A	ESE-M1C171-A

TORQUE SPECIFICATIONS

TORQUE SPECIFICATIONS

Description	N.m	lb-ft	lb-in
Front wheel spindle tie-rod-to-steering gear	100	74	-
Intermediate steering shaft bolt pinch	40	30	-
Power steering fluid cooler mounting bolts (3.0L engine)	8	-	71
Power steering fluid cooler mounting bolts (3.8L engine without trailer tow package)	8	-	71
Power steering pressure (PSP) switch	11	8	-
Power steering pump bracket bolts and nut (CII pump)	47	35	-
Power steering pump mounting bolts (CII pump)	47	35	-
Power steering pump mounting bolts (CIII pump)	25	18	-
Power steering pump reservoir mounting bolt (CIII pump)	7	-	62
Pressure line at pump (CII pump)	40	30	-
Pressure line fitting at pump (CIII pump)	40	30	-
Pressure line at steering gear	40	30	-
Return line at steering gear	40	30	-
Steering gear-to-subframe mounting nut	133	98	-
Subframe to body bolts	133	98	-
Tie-rod end jam nut	55	41	-
Tie-rod end to nut	56 (1)	41 (1)	-
Transmission and power steering fluid cooler mounting bolts (3.8L engine with trailer tow packages)	8	-	71
Stabilizer bar link -to-strut nuts	90	66	-
Exhaust flex pipe-to-manifold bolts	40	30	-

2002 Ford Windstar
2002 STEERING Power Steering - Windstar

Inner tie-rod	100	74	-
(1) Once torque is reached, continue turning to align slot in nut with cotter pin hole in tie rod.			

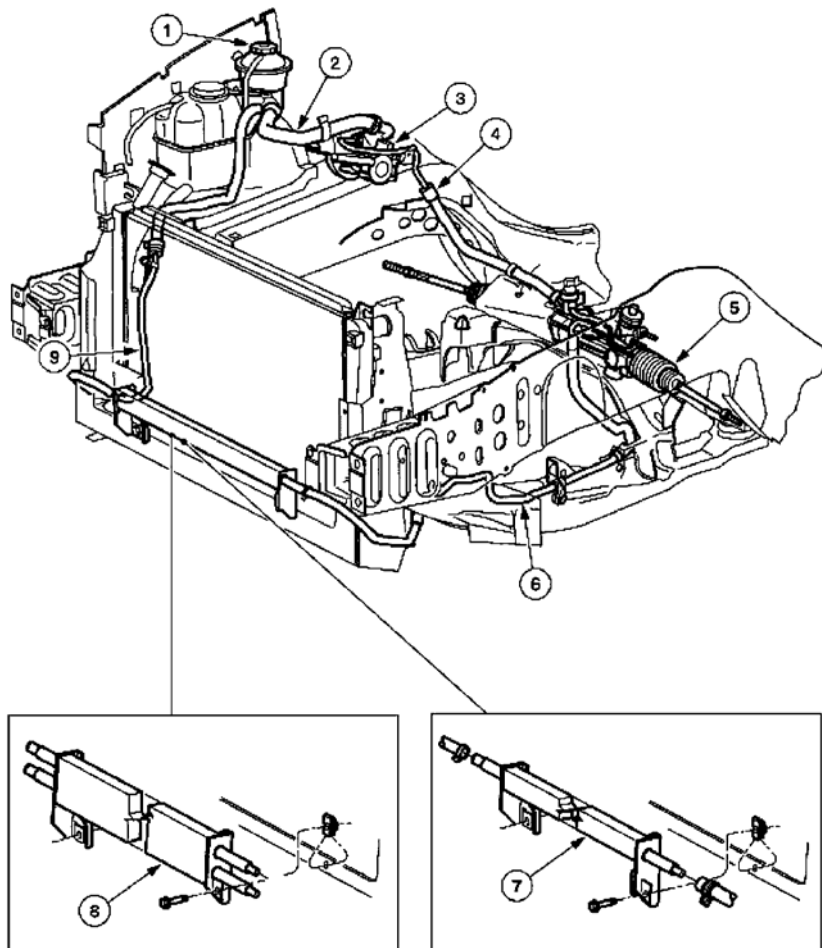
DESCRIPTION AND OPERATION

POWER STEERING

Steering System Components - 3.8L Engine (CIII Power Steering Pump)

## 2002 Ford Windstar

### 2002 STEERING Power Steering - Windstar



Item	Part Number	Description
1	3R700	Power steering pump reservoir
2	3E525	Power steering reservoir pump hose
3	3A674	Power steering pump
4	3A719	Power steering hose
5	3504	Steering gear
6	3A713	Power steering hose
7	3D746	Power steering fluid cooler (vehicles without trailer tow package)
8	3F749	Transmission and power steering fluid cooler assembly (vehicles with trailer tow package)
9	3493	Power steering hose

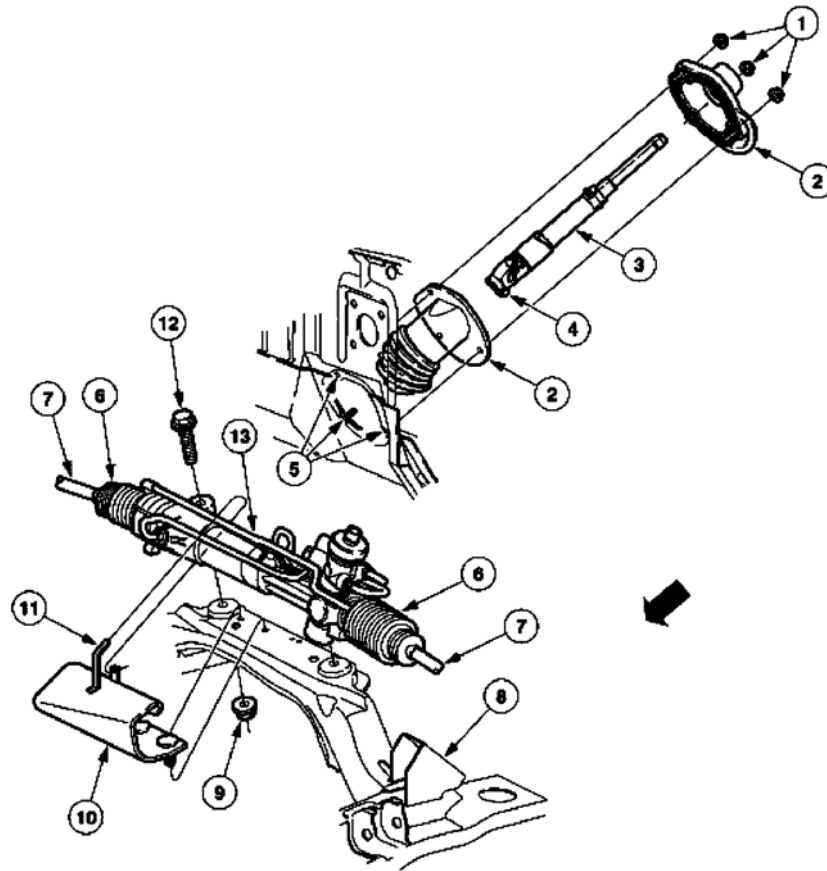
G03424531

**Fig. 1: Identifying Steering System Components - 3.8L Engine (CIII Power Steering Pump)**  
Courtesy of FORD MOTOR CO.

Steering Gear Mounting

## 2002 Ford Windstar

### 2002 STEERING Power Steering - Windstar



Item	Part Number	Description
1	N804795	Nut (3 req'd)
2	3E735	Steering column opening weather seal
3	3C662	Intermediate steering shaft
4	W705118-S428	Pinch bolt
5	—	Studs (PIA to the body)
6	3332	Front suspension steering ball stud dust seal
7	3280	Front wheel spindle tie-rod
8	5C145	Front sub -frame
9	N803956-S1036	Lock nut (2 req'd)
10	3F570	Heat shield
11	95873-S101	Tie strap
12	N805382-S190	Bolt (2 req'd)
13	3504	Steering gear

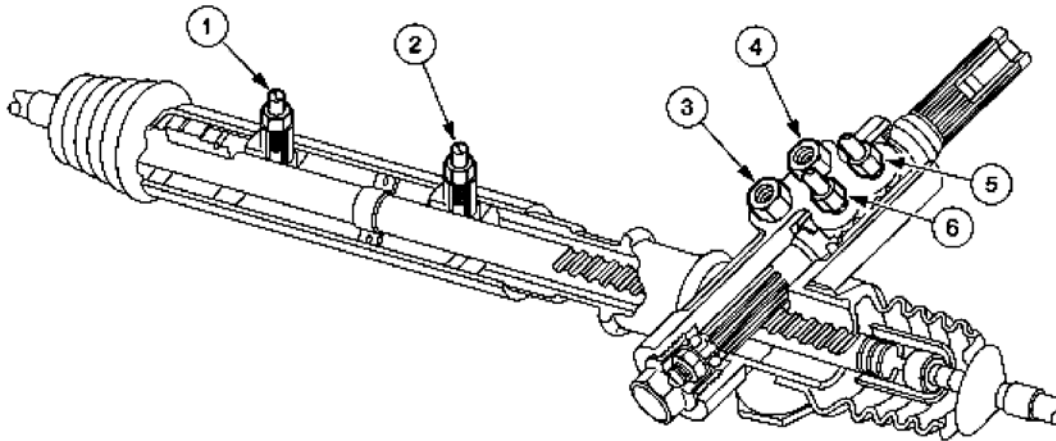
G03424532

**Fig. 2: View Of Steering Gear Mounting Component**  
Courtesy of FORD MOTOR CO.

Steering Gear (Typical)

## 2002 Ford Windstar

### 2002 STEERING Power Steering - Windstar

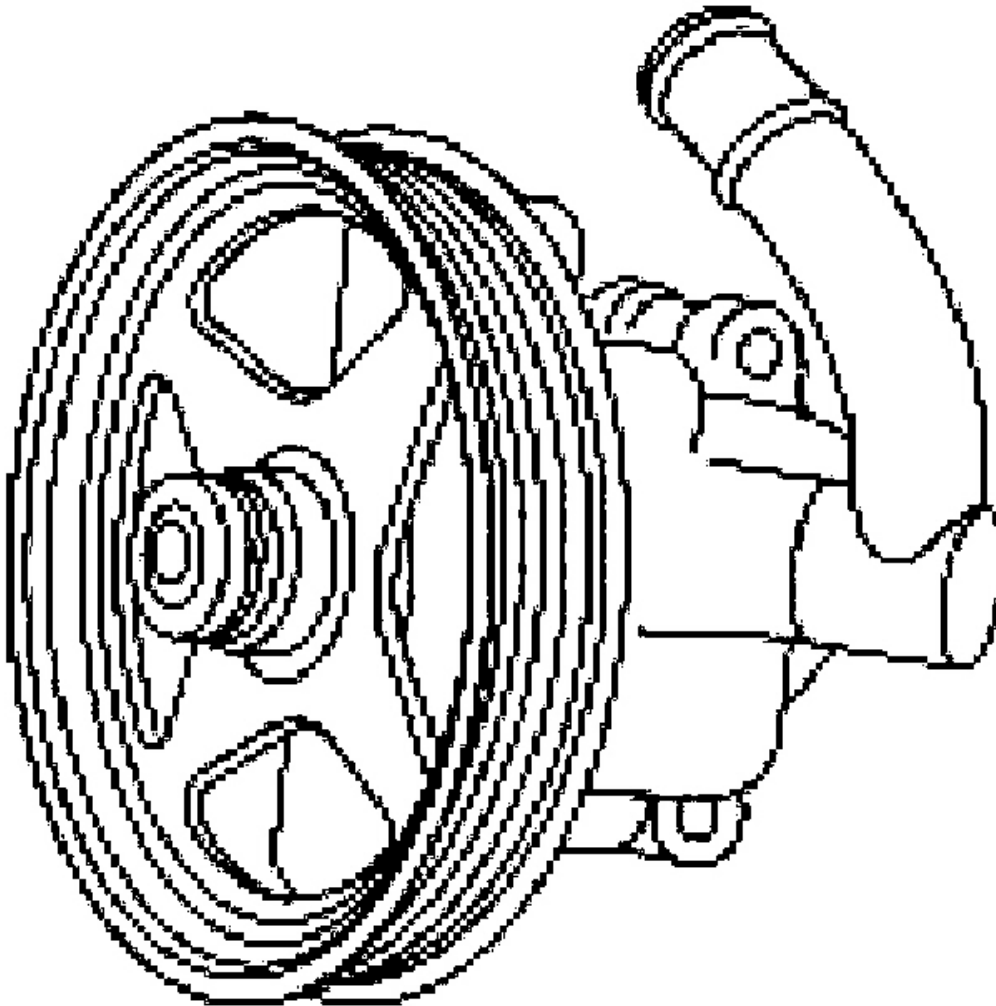


Item	Part Number	Description
1	—	Oil flow — right turn
2	—	Oil flow — left turn
3	—	Return port (out)
4	—	Pressure port (in)
5	—	To left turn port
6	—	To right turn port

G03424533

**Fig. 3: Identifying Steering Gear (Typical) Components**  
Courtesy of FORD MOTOR CO.

Power Steering Pump (CIII) - 3.8L Engine



G03424535

**Fig. 4: Identifying Power Steering Pump (CIII) - 3.8L Engine**  
Courtesy of FORD MOTOR CO.

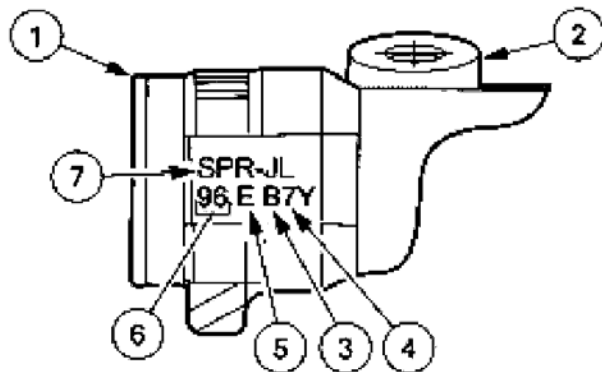
#### **Power Steering Pressure (PSP) Switch**

A power steering pressure (PSP) switch (3N824) is located on the power steering pressure hose. It sends a signal to the powertrain control module (PCM) (12A650) to increase idle speed for idling stability when power steering pump pressure increases above the set pressure value.

#### **Power Steering Gear Identification**

**CAUTION:** Always use the ID code when ordering service parts.

The steering gear identification code is stamped into the housing.



Item	Part Number	Description
1	—	Steering gear housing
2	—	Mounting boss
3	—	Shift code
4	—	Day code
5	—	Month code
6	—	Build year
7	—	Steering gear model code

G03424536

**Fig. 5: Identifying Steering Gear Identification Code Stamped Into Housing**  
 Courtesy of FORD MOTOR CO.

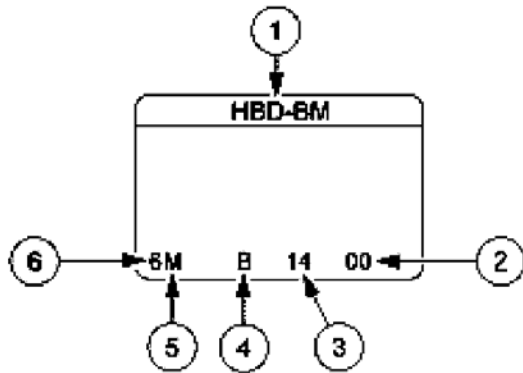
#### Power Steering Pump Identification

**CAUTION:** Always use the ID code when ordering service parts.

The pump identification code is located on a tag attached to the power steering pump.

## 2002 Ford Windstar

### 2002 STEERING Power Steering - Windstar



Item	Part Number	Description
1	—	Model code
2	—	For manufacturing purposes only
3	—	Day of the month (A = Jan., B = Feb., etc., I is not used)
4	—	Shift
5	—	Month
6	—	Year

G03424537

**Fig. 6: Identifying Pump Identification Code Located On A Tag Attached To Power Steering Pump**  
Courtesy of FORD MOTOR CO.

## DIAGNOSIS AND TESTING

### POWER STEERING

Refer to STEERING SYSTEM-GENERAL INFORMATION .

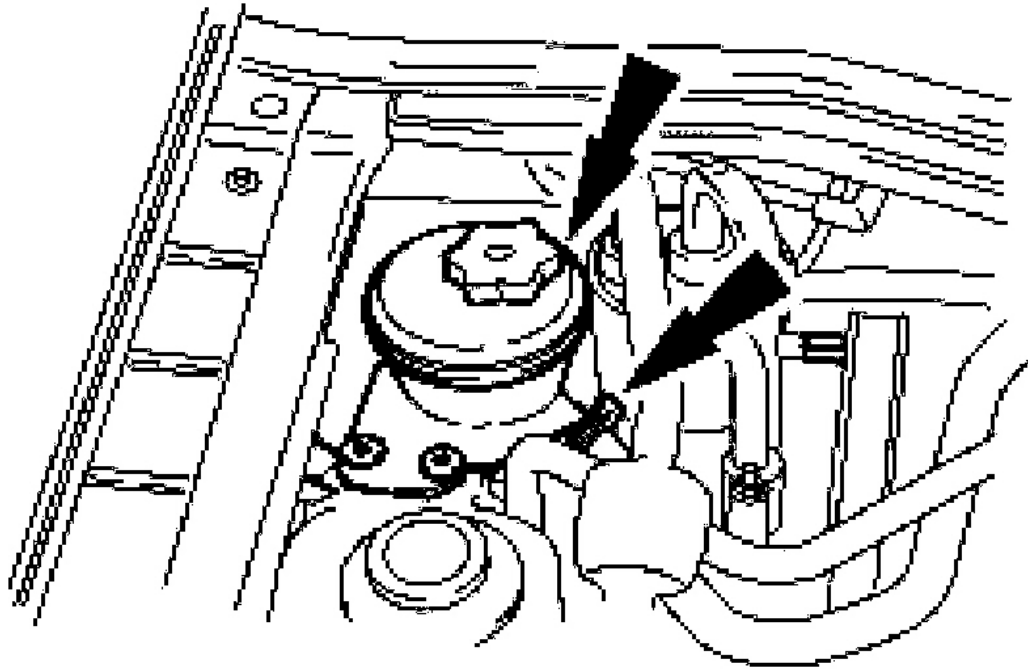
## REMOVAL AND INSTALLATION

### RESERVOIR - CIII PUMP

#### Removal

1. Disconnect the power steering reservoir pump hose (3E525) and power steering hose (3493). Remove the screw and the power steering pump reservoir (3R700).





G03424538

**Fig. 7: Disconnecting Power Steering Reservoir Pump Hose (3E525) And Power Steering Hose (3493)**

Courtesy of FORD MOTOR CO.

#### Installation

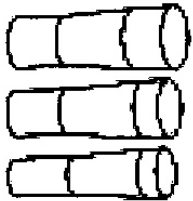
1. Follow the removal procedure in reverse order.
2. Fill and leak check the system. Refer to **STEERING SYSTEM-GENERAL INFORMATION** .

#### PUMP - CIII

#### Special Tool(s)

## 2002 Ford Windstar

2002 STEERING Power Steering - Windstar



Teflon Seal Replacer Set  
211-D027 (D90P-3517-A)

G03424552

**Fig. 8: Identifying Special Tool(s)**  
Courtesy of FORD MOTOR CO.

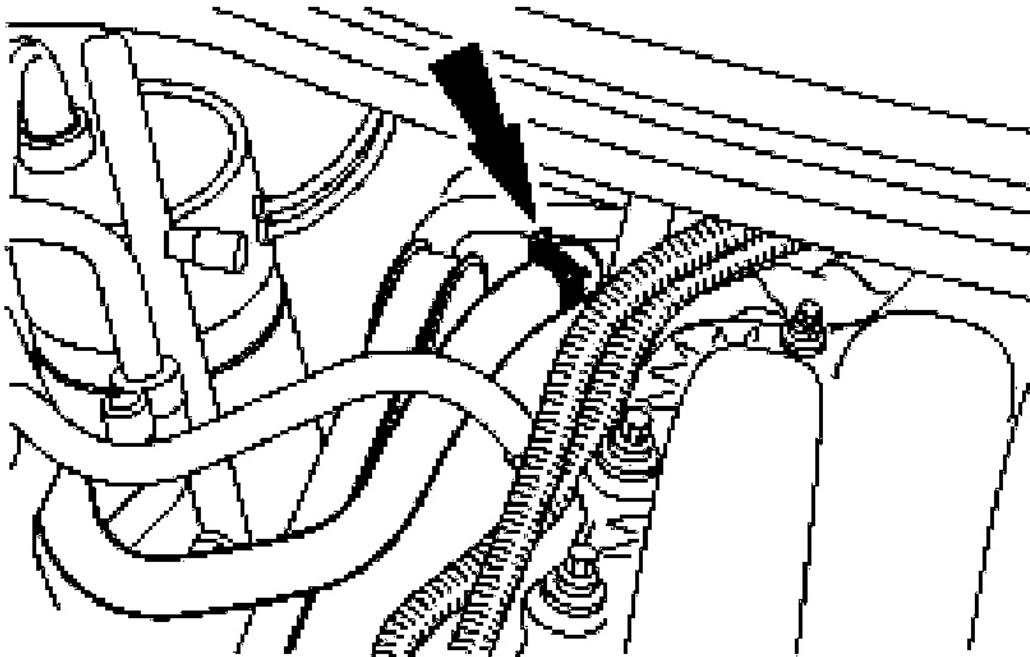
### Removal

1. Remove the drive belt.
2. Disconnect the power steering reservoir pump hose (3E525).

**Thank you very much  
for your reading. Please  
Click Here Then Get  
More Information.**

**NOTE:**

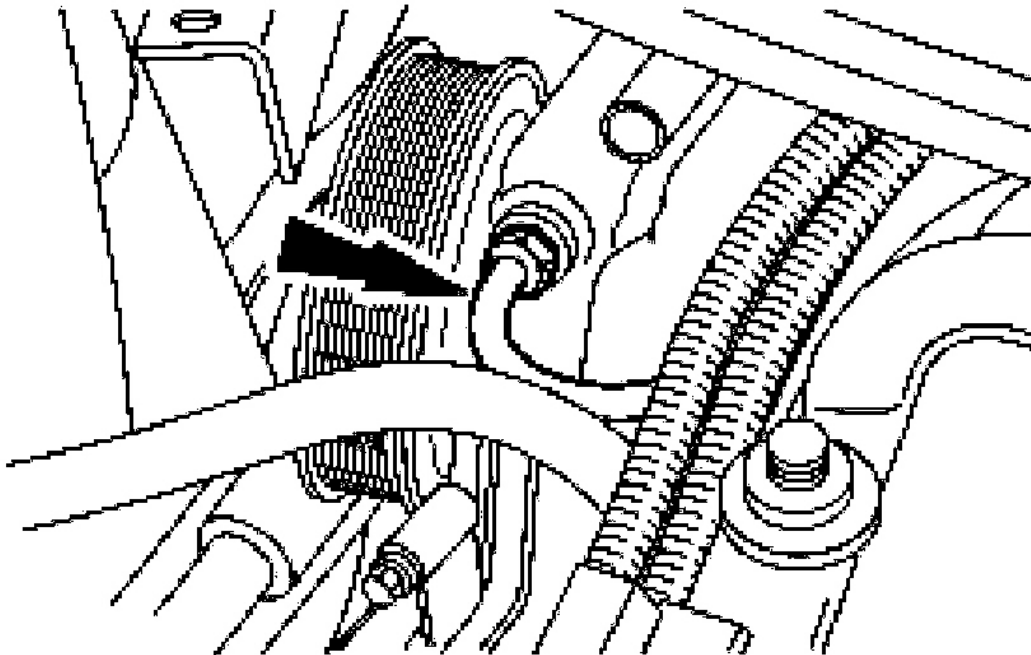
**If there is no response to  
click on the link above,  
please download the PDF  
document first and then  
click on it.**



G03424553

**Fig. 9: Disconnecting Power Steering Reservoir Pump Hose (3E525)**  
Courtesy of FORD MOTOR CO.

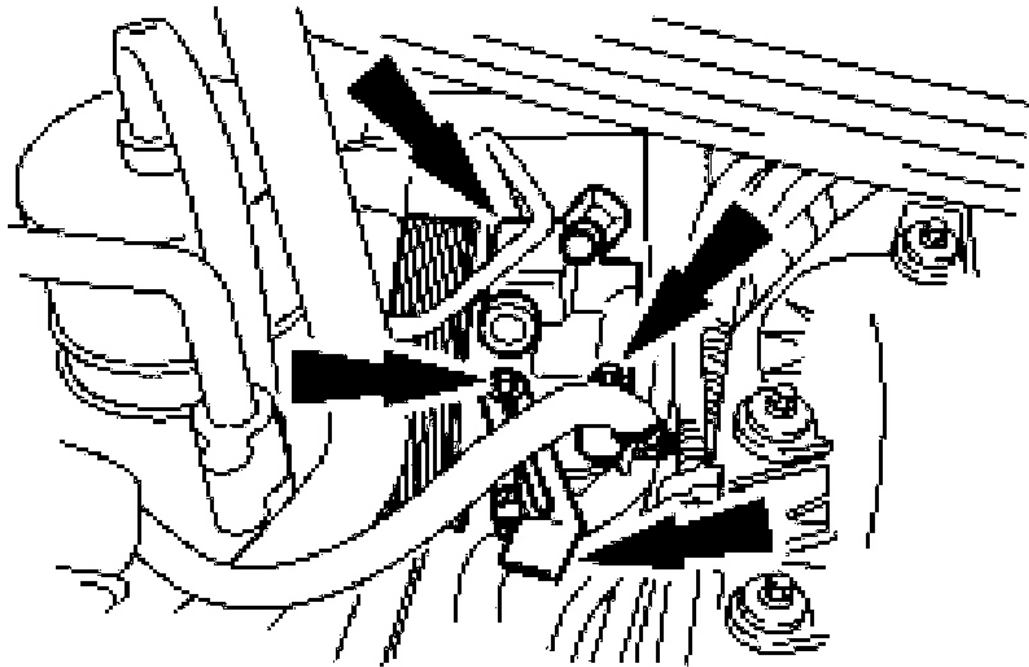
3. Disconnect the power steering hose (3A719). Remove and discard the seal.



G03424554

**Fig. 10: Disconnecting Power Steering Hose (3A719)**  
Courtesy of FORD MOTOR CO.

4. Remove the four bolts, two brackets and power steering pump (3A674).



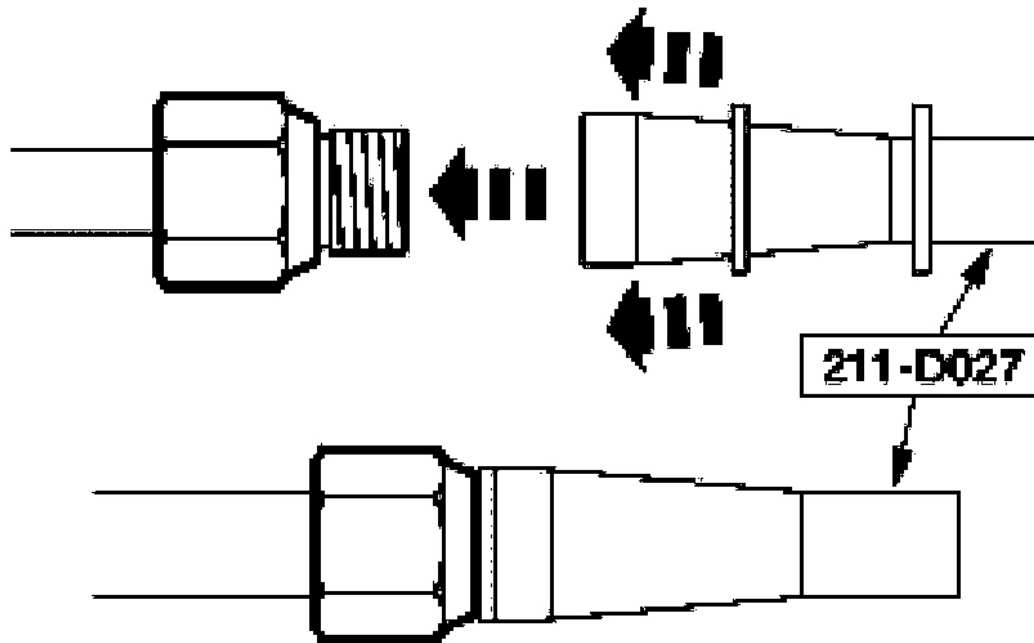
G03424555

**Fig. 11: Removing Bolts, Brackets And Power Steering Pump (3A674)**  
Courtesy of FORD MOTOR CO.

5. Remove the power steering pump pulley. Refer to **PULLEY - CHH PUMP** .

#### **Installation**

1. To install, reverse the removal procedure.
  - Using the special tool, install a new seal on the power steering hose.



G03424556

**Fig. 12: Installing A Seal On Power Steering Hose**  
Courtesy of FORD MOTOR CO.