

2002 Ford Windstar

2002 STEERING Power Steering - Windstar

2002 STEERING**Power Steering - Windstar****SPECIFICATIONS****GENERAL SPECIFICATIONS****GENERAL SPECIFICATIONS**

Item	Specification
Lubricants	
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	-

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Inner tie-rod

100 | 74 | -

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

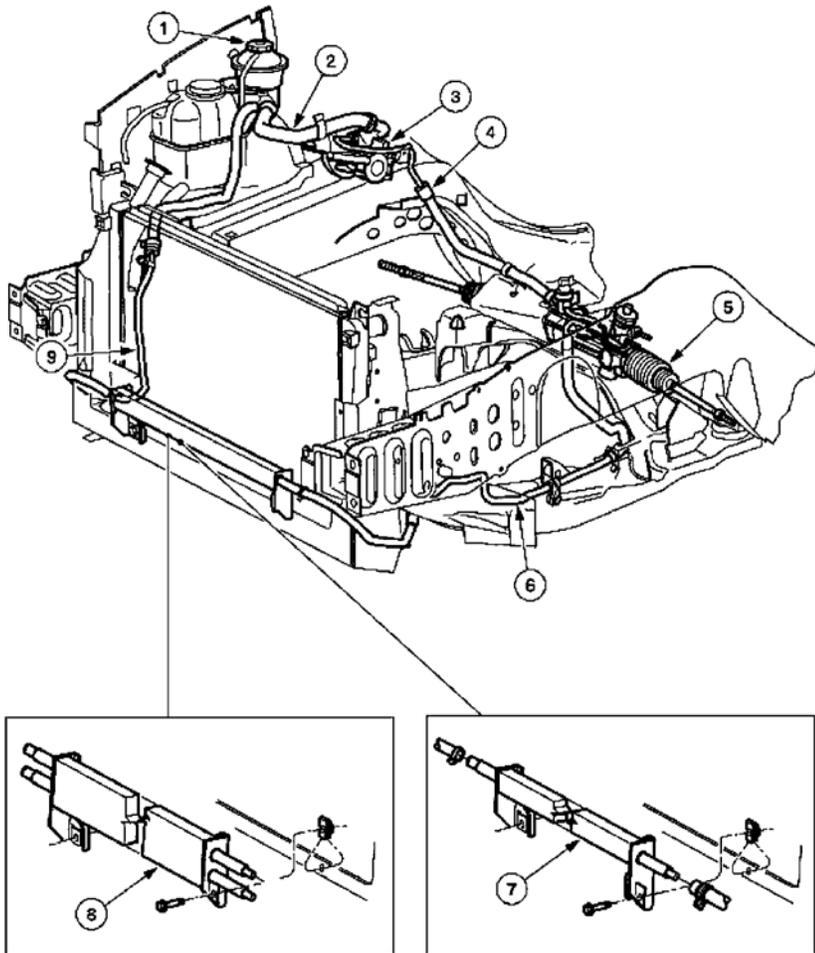
DESCRIPTION AND OPERATION

POWER STEERING

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

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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

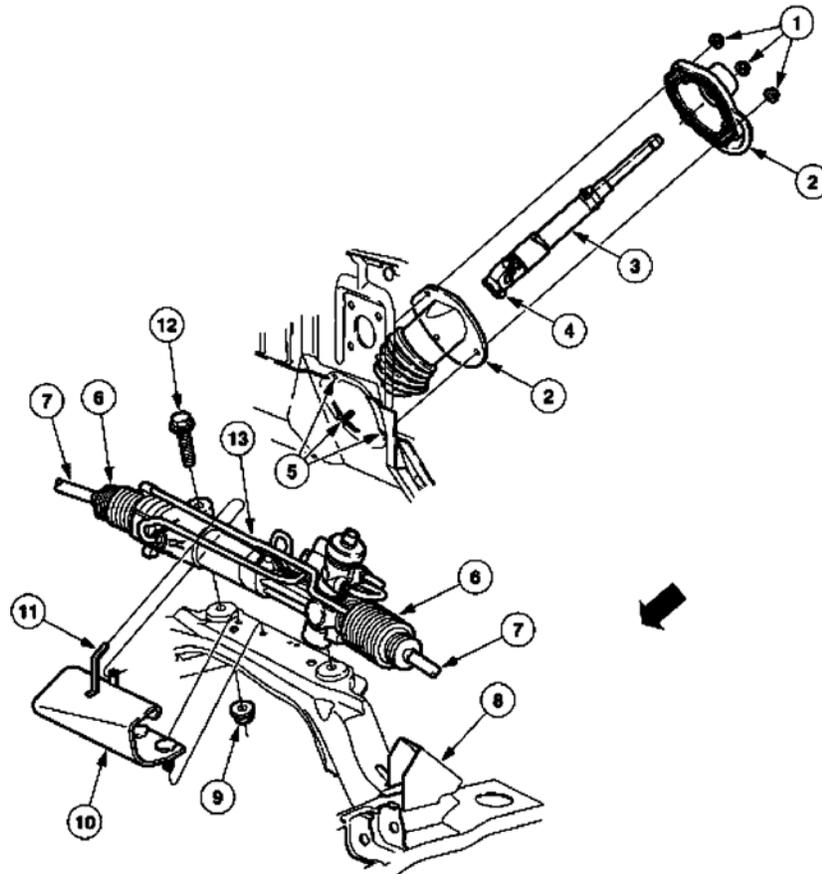
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Fig. 1: Identifying Steering System Components - 3.8L Engine (CIII Power Steering Pump)
 Courtesy of FORD MOTOR CO.

Steering Gear Mounting

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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

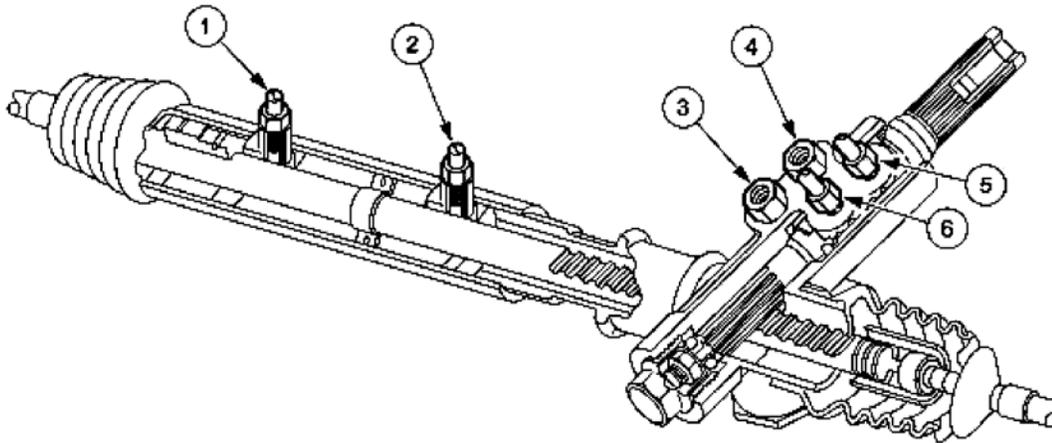
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Fig. 2: View Of Steering Gear Mounting Component
 Courtesy of FORD MOTOR CO.

Steering Gear (Typical)

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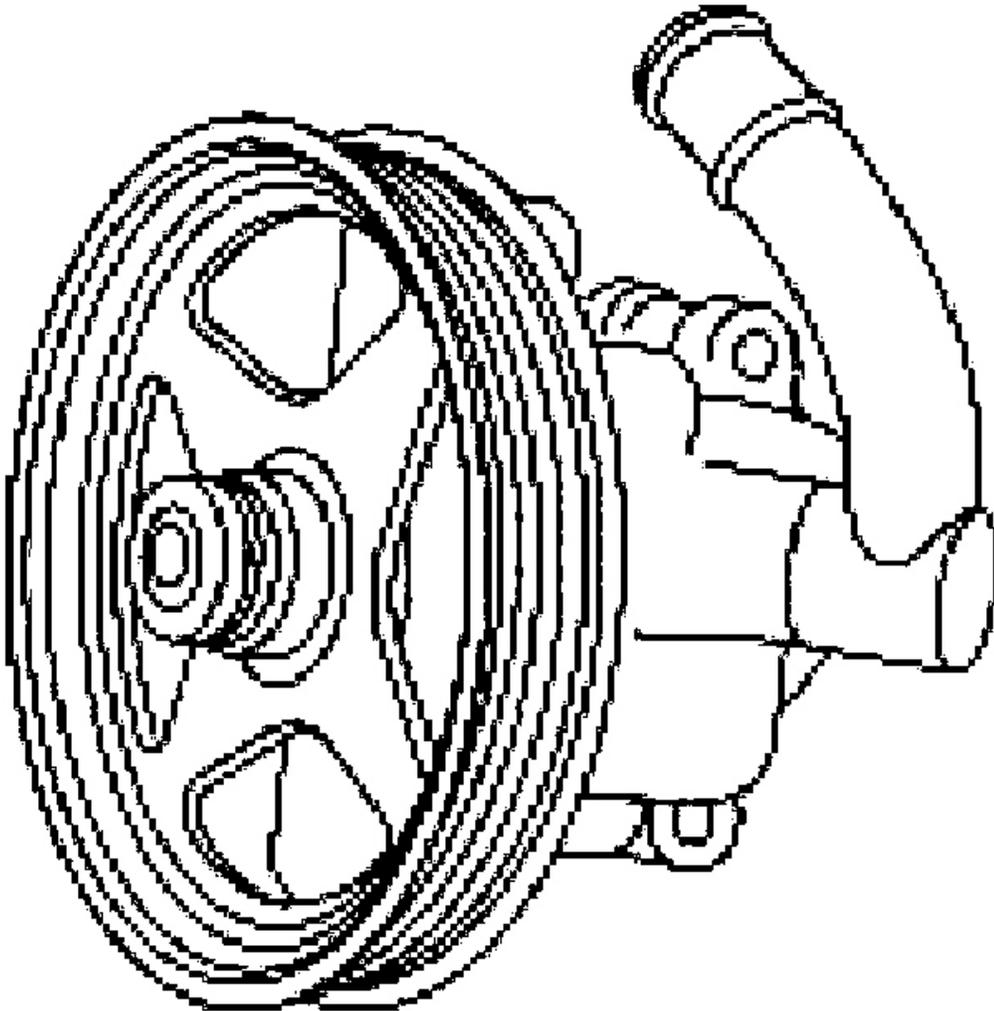


Item	Part Number	Description
1	—	Oil flow — right turn
2	—	Oil flow — left turn
3	—	Return port (out)
4	—	Pressure port (in)
5	—	To left turn port
6	—	To right turn port

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

Power Steering Pump (CIII) - 3.8L Engine



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

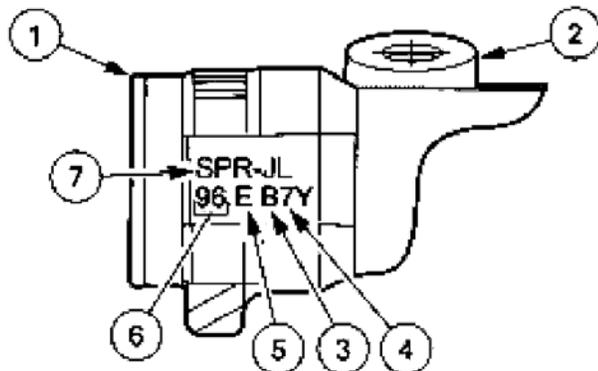
Power Steering Pressure (PSP) Switch

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

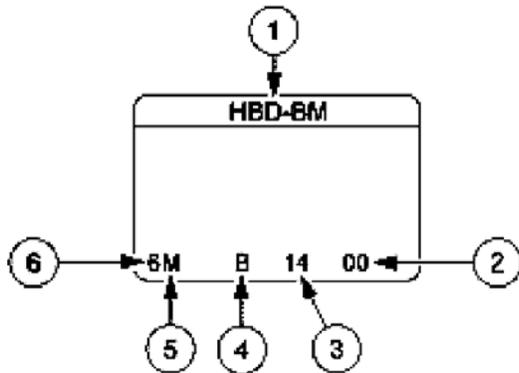
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Fig. 5: Identifying Steering Gear Identification Code Stamped Into Housing
Courtesy of FORD MOTOR CO.

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.



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

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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

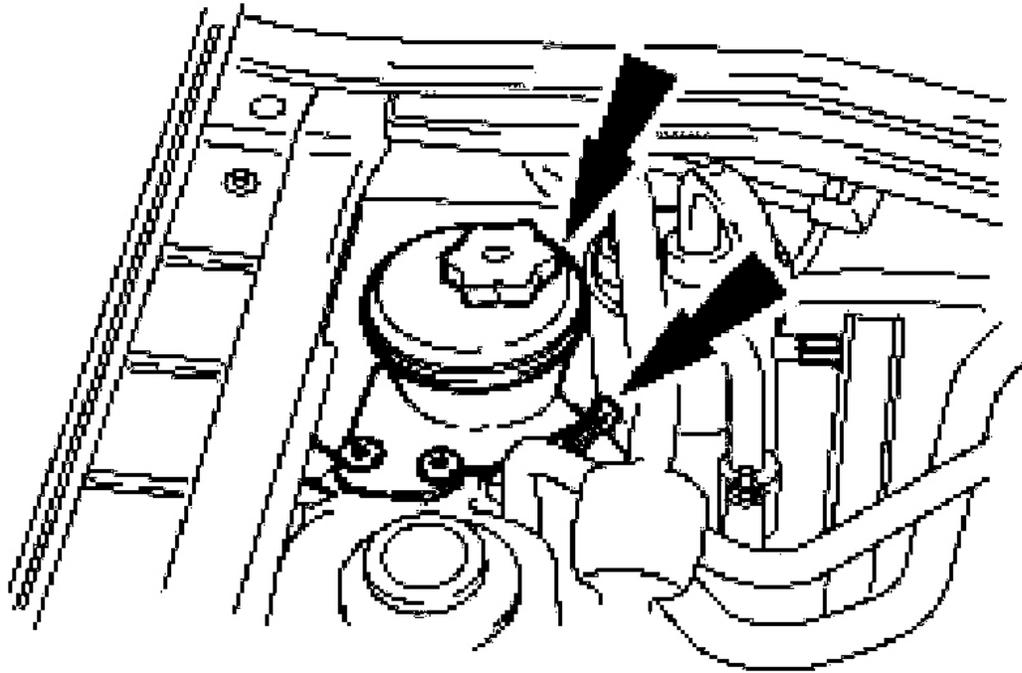
Refer to STEERING SYSTEM-GENERAL INFORMATION .

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).



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

Courtesy of FORD MOTOR CO.

Installation

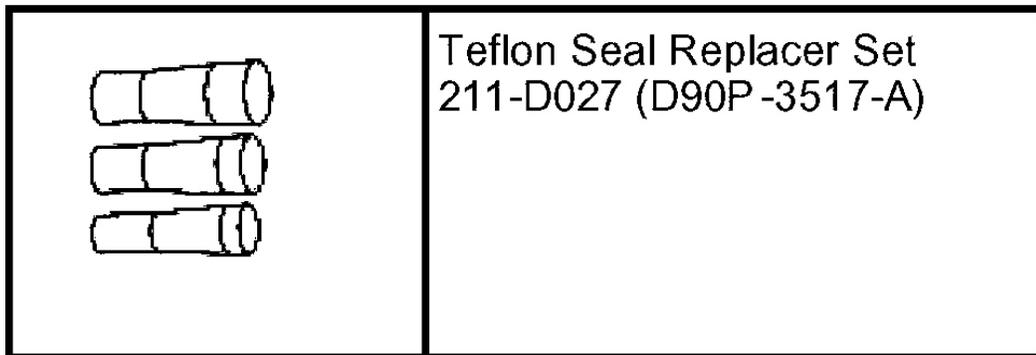
1. Follow the removal procedure in reverse order.
2. Fill and leak check the system. Refer to **STEERING SYSTEM-GENERAL INFORMATION** .

PUMP - CIII

Special Tool(s)

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

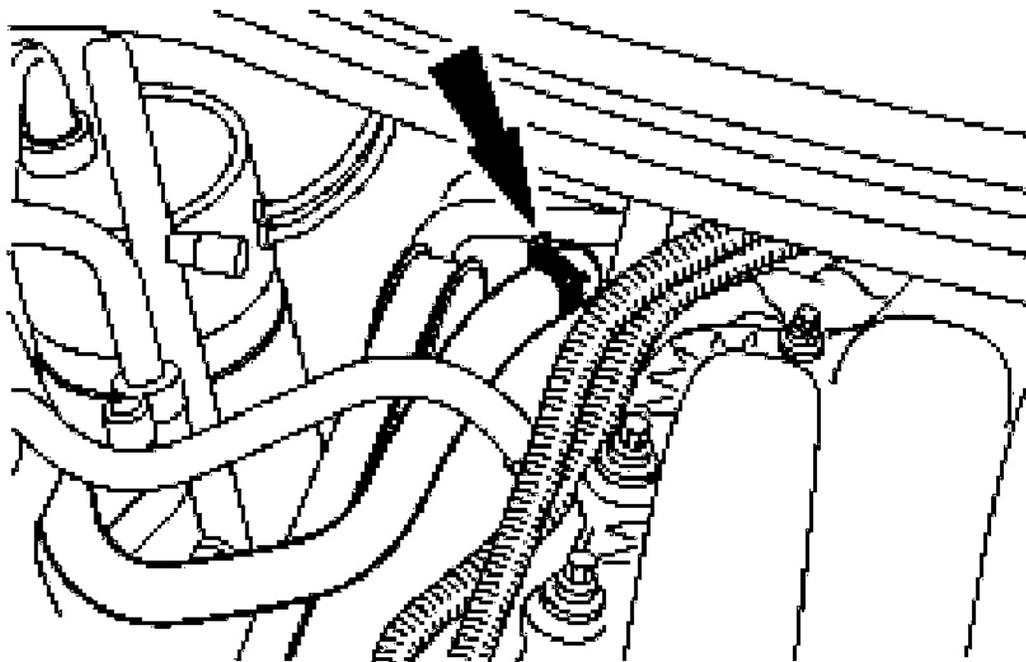
Removal

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:

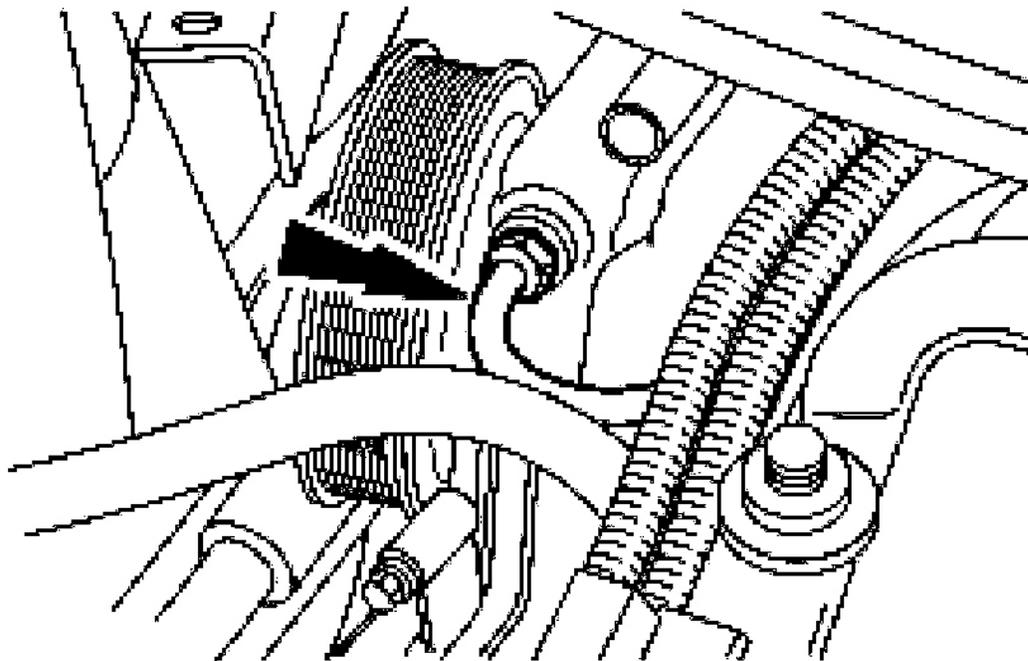
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Fig. 9: Disconnecting Power Steering Reservoir Pump Hose (3E525)
Courtesy of FORD MOTOR CO.

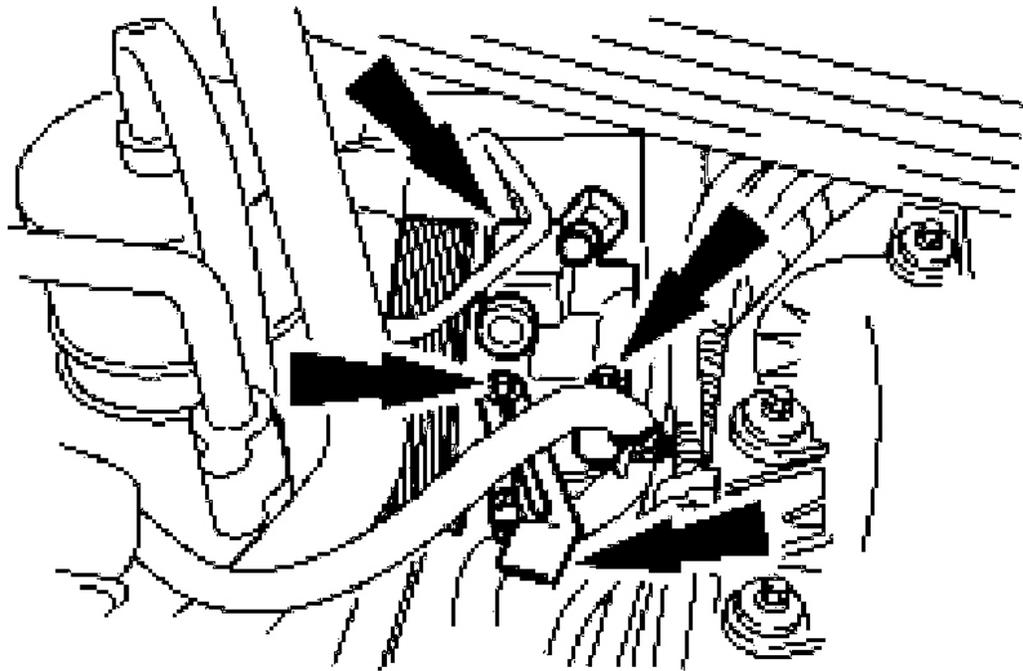
3. Disconnect the power steering hose (3A719). Remove and discard the seal.



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

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



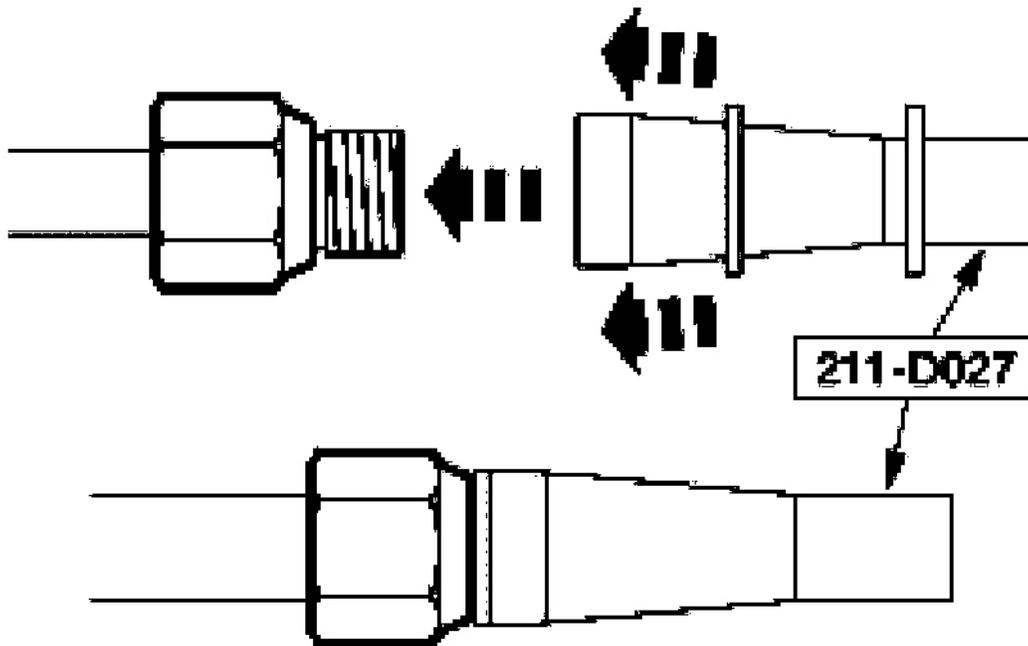
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Fig. 11: Removing Bolts, Brackets And Power Steering Pump (3A674)
Courtesy of FORD MOTOR CO.

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

Installation

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



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