

POWER STEERING OIL PUMP ASSEMBLY

REMOVAL AND INSTALLATION

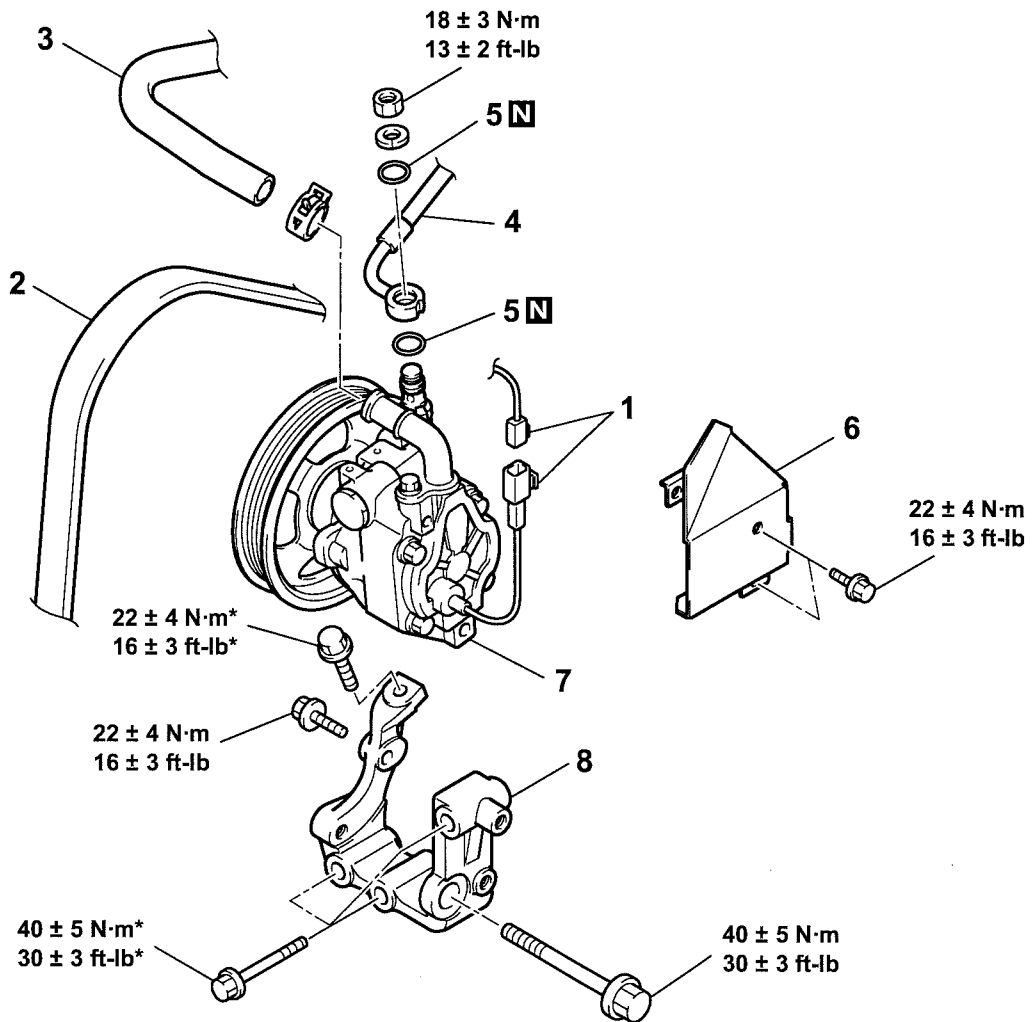
M1372005200254

Pre-removal Operation

- Power Steering Fluid Draining (Refer to P.37-18).

Post-installation Operation

- Power Steering Fluid Supplying and Bleeding (Refer to P.37-19).
- Drive Belt Tension Adjusting (Refer to GROUP 00, Maintenance Service – Drive Belts P.00-37).



AC211828 AB

REMOVAL STEPS

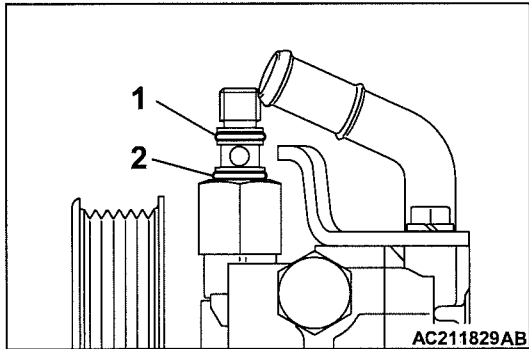
1. PRESSURE SWITCH CONNECTOR
2. DRIVE BELT
- >>B<< 3. SUCTION HOSE
- >>B<< 4. PRESSURE HOSE
- >>A<< 5. O RING

REMOVAL STEPS (Continued)

6. HEAT PROTECTOR
7. OIL PUMP ASSEMBLY
8. POWER STEERING PUMP BRACKET

INSTALLATION SERVICE POINT

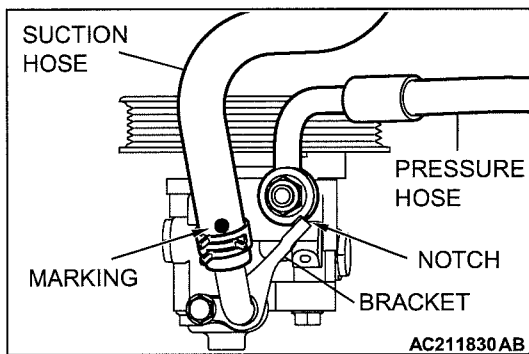
>>A<< O RING INSTALLATION



No.	ID × Width mm (in)
1	11.0 × 1.9 (0.43 × 0.07)
2	13.0 × 1.9 (0.51 × 0.07)

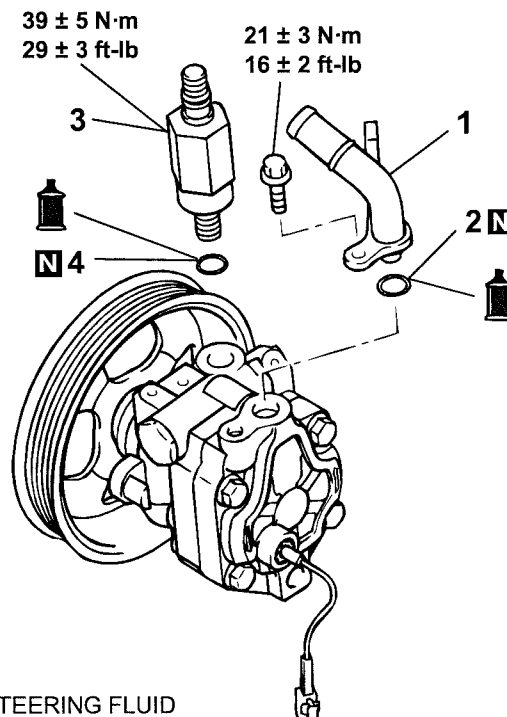
>>B<< PRESSURE HOSE/SUCTION HOSE INSTALLATION

1. Install the pressure hose so that the notch is fixed with bracket as shown in the illustration.
2. Install the suction hose so that the marking is positioned as shown in the illustration.



DISASSEMBLY AND ASSEMBLY

M1372005400269



 : GENUINE MITSUBISHI POWER STEERING FLUID

AC211831AB

- DISASSEMBLY STEPS**
1. SUCTION CONNECTOR
 2. O-RING

- DISASSEMBLY STEPS (Continued)**
3. CONNECTOR
 4. GASKET

INSPECTION

M1372005300143

- Check the drive belt for cracks.
- Check the pulley for uneven rotation.

POWER STEERING HOSES

REMOVAL AND INSTALLATION

M1372005700323

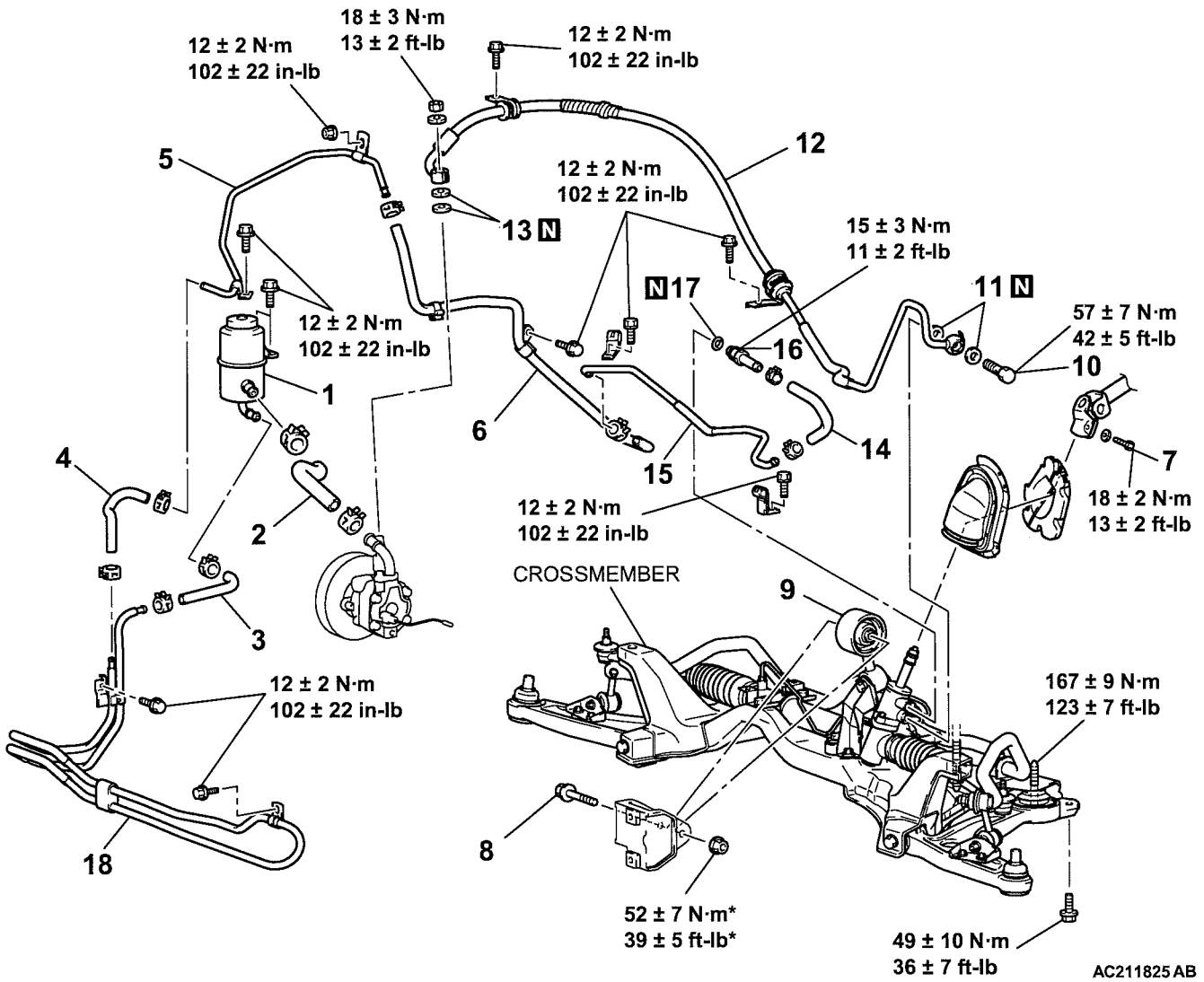
Pre-removal Operation

- Front Under Cover Removal (Refer to GROUP 51, Front Bumper P.51-2).
- Crossmember Bar Removal (Refer to GROUP 33A, Crossmember BarP.33A-23).
- Center Member Removal (Refer to GROUP 32, Engine Roll Stopper and Center MemberP.32-6).
- Front Exhaust Pipe Removal (Refer to GROUP 15, Exhaust Pipe and Main MufflerP.15-23).
- Power Steering Fluid Draining (Refer to P.37-18).
- Front Bumper Removal (Refer toP.51-2).
- Charge Air Cooler Removal (Refer to GROUP 15, Charge Air CoolerP.15-8).
- Strut Tower Bar Removal (Refer to GROUP 42, Strut Tower BarP.42-12).

Post-installation Operation

- Strut Tower Bar Installation (Refer to GROUP 42, Strut Tower BarP.42-12).
- Charge Air Cooler Installation (Refer to GROUP 15, Charge Air CoolerP.15-8).
- Front Bumper Installation (Refer toP.51-2).
- Power Steering Fluid Supplying and Bleeding (Refer to P.37-19).
- Front Exhaust Pipe Installation (Refer to GROUP 15, Exhaust Pipe and Main MufflerP.15-23).
- Center Member Installation (Refer to GROUP 32, Engine Roll Stopper and Center MemberP.32-6).
- Crossmember Bar Installation (Refer to GROUP 33A, Crossmember BarP.33A-23).
- Front Under Cover Installation (Refer to GROUP 51, Front Bumper P.51-2).

**POWER STEERING
POWER STEERING HOSES**



AC211825AB

- REMOVAL STEPS**
- 1. OIL RESERVOIR
 - >>B<< 2. SUCTION HOSE
 - 3. RETURN HOSE
 - 4. RETURN HOSE
 - 5. RETURN TUBE
 - >>C<< 6. RETURN HOSE
 - 7. STEERING SHAFT ASSEMBLY AND GEAR BOX CONNECTING BOLT
 - 8. ENGINE REAR ROLL STOPPER ROD CONNECTING BOLT

- REMOVAL STEPS (Continued)**
- 9. ENGINE REAR ROLL STOPPER ROD (REFER TO GROUP32, ENGINE ROLL STOPPER AND CENTERMEMBERP.32-6.)
 - <<A>> 10. EYE BOLT
 - 11. GASKET
 - >>B<< 12. PRESSURE HOSE
 - 13. O-RING
 - >>A<< 14. RETURN HOSE
 - 15. RETURN TUBE
 - <<A>> 16. RETURN TUBE
 - 17. O-RING
 - 18. COOLER TUBE ASSEMBLY

REMOVAL SERVICE POINTS

<<A>> EYE BOLT/RETURN TUBE REMOVAL

- 1. Loosen the crossmember mounting bolts and nuts, and lower the crossmember to a position so that the eye bolts or return tube at the steering gear side can be removed.

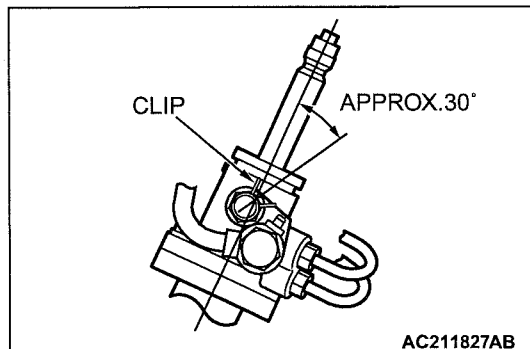
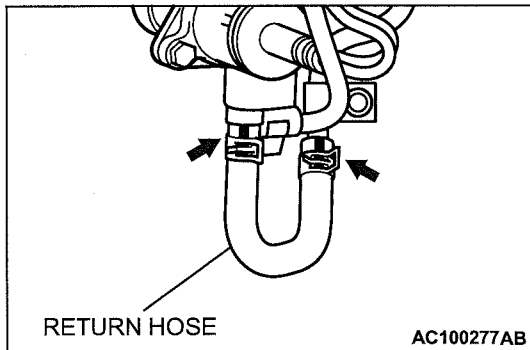
NOTE: In this case, do not remove the crossmember mounting bolts and nuts.

- 2. Remove the eye bolts or return tube.

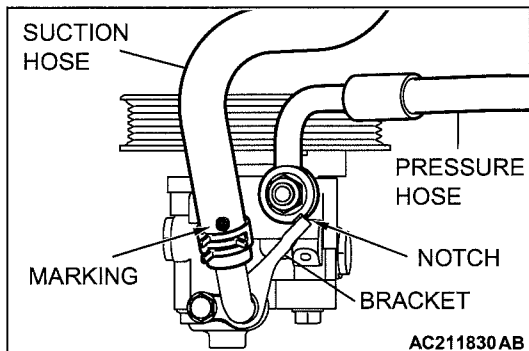
INSTALLATION SERVICE POINTS

>>A<< RETURN HOSE INSTALLATION

- 1. Install the return hose so that the marking is positioned as shown in the illustration.

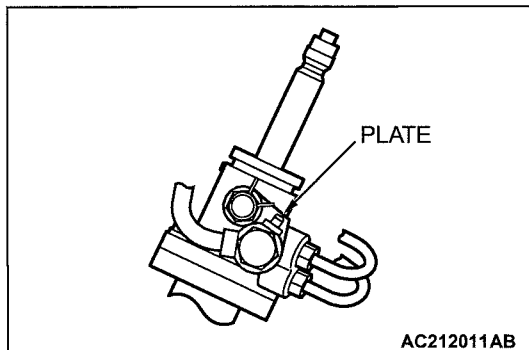


- 2. Install the clip as shown in the illustration.

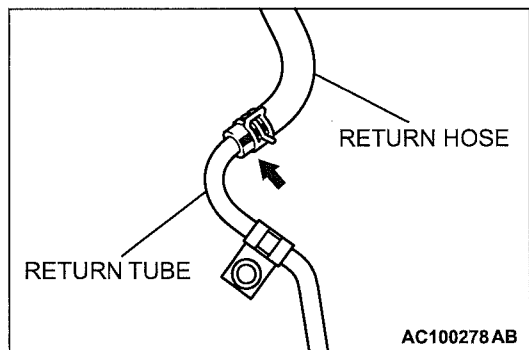


>>B<< PRESSURE HOSE/SUCTION HOSE INSTALLATION

1. Install the pressure hose on pump side so that the notch is fixed with bracket as shown in the illustration.
2. Install the suction hose so that the marking is positioned as shown in the illustration.



3. Install the pressure hose on gear box side so that its plate part is positioned as shown in the illustration.



>>C<< RETURN HOSE INSTALLATION

Install the return hose so that the marking is positioned as shown in the illustration.

SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

M1372008400280

ITEM	SPECIFICATION
Power steering gear box and linkage	
Crossmember mounting bolt	167 ± 9 N·m (123 ± 7 ft-lb)
Crossmember mounting bolt	49 ± 10 N·m (37 ± 7 ft-lb)
Crossmember mounting nut	167 ± 9 N·m (123 ± 7 ft-lb)
Engine rear roll stopper rod connecting nut	52 ± 7 N·m (39 ± 5 ft-lb)
Engine rear roll stopper rod bracket mounting bolt	45 ± 5 N·m (34 ± 3 in-lb)
Lower arm and crossmember connecting bolt	186 ± 10 N·m (138 ± 7 ft-lb)
Pressure hose connecting bolt	57 ± 7 N·m (42 ± 5 ft-lb)
Return tube flare nut	15 ± 3 N·m (11 ± 2 ft-lb)
Return tube mounting bolt	12 ± 2 N·m (102 ± 22 in-lb)
Stabilizer link connecting nut	39 ± 5 N·m (29 ± 3 ft-lb)
Steering gear mounting bolt	70 ± 10 N·m (52 ± 7 ft-lb)
Tie rod end jam nut	52 ± 2 N·m (38 ± 2 ft-lb)
End plug	59 ± 10 N·m (44 ± 7 ft-lb)
Jam nut	59 ± 10 N·m (44 ± 7 ft-lb)
Jam nut	25 ± 4 N·m (18 ± 4 ft-lb)
Rack support cover	23 ± 2 N·m (17 ± 1 ft-lb)
Tie rod end	88 ± 10 N·m (65 ± 7 ft-lb)
Valve housing bolt	22 ± 4 N·m (16 ± 3 ft-lb)
Power steering hose	
Cooler tube clamp bolt	12 ± 2 N·m (102 ± 22 in-lb)
Oil pump eye bolt	57 ± 7 N·m (42 ± 5 ft-lb)
Oil reservoir bolt	12 ± 2 N·m (102 ± 22 in-lb)
Pressure hose, return hose, return tube clamp bolt	12 ± 2 N·m (102 ± 22 in-lb)
Return tube flare nut	15 ± 3 N·m (11 ± 2 ft-lb)
Power steering oil pump	
Connector	39 ± 5 N·m (29 ± 3 ft-lb)
Heat protector mounting bolt	22 ± 4 N·m (16 ± 3 ft-lb)
Oil pump mounting bolt	22 ± 4 N·m (16 ± 3 ft-lb)
Power steering pump bracket mounting bolt	40 ± 5 N·m (30 ± 3 ft-lb)
Pressure hose connecting nut	18 ± 3 N·m (13 ± 2 ft-lb)
Suction connector mounting bolt	21 ± 3 N·m (16 ± 2 ft-lb)
Steering shaft	
Shaft cover mounting bolt	5.0 ± 1.0 N·m (44 ± 9 in-lb)
Steering column shaft assembly and steering gear connecting bolt	18 ± 2 N·m (13 ± 2 ft-lb)
Steering column shaft assembly bolt	12 ± 2 N·m (102 ± 22 in-lb)

ITEM	SPECIFICATION
Steering wheel	
Steering wheel mounting bolt	50 ± 5 N·m (37 ± 4 ft-lb)

GENERAL SPECIFICATIONS

M1372000200259

ITEM	SPECIFICATION	
Power steering gear box	Type	Rack and pinion
	Stroke ratio (Rack stroke/Steering wheel maximum turning radius)	68.61
Oil pump	Type	Vane type
	Displacement cm ³ /rev (cu in/rev)	9.6 (0.59)
	Relief set pressure MPa (psi)	8.4–9.0 (1,219–1,306)

SERVICE SPECIFICATIONS

M1372000300331

ITEM	STANDARD VALUE	LIMIT
Steering wheel free play mm (in)	With engine running	–
	With engine stopped	10 (0.4) or less
Steering angle	Inside wheel	31°45' ± 1°30'
	Outside wheel (reference)	27°15'
Toe-in mm (in)	0 ± 2 (0 ± 0.08)	–
Tie rod end ball joint breakaway torque N·m (in-lb)	1.0 – 3.0 (8.9 – 26.6)	–
Tie rod swing resistance N (lb) [Tie rod swing torque N·m (in-lb)]	8 – 27 (1.8 – 6.1) [1.5 – 4.9 (13.2 – 43.4)]	–
Engine idle speed r/min	850 ± 100	–
Stationary steering effort N (lb) [Fluctuation allowance N (lb)]	32 (7.2) or less [6.0 (1.35) or less]	–
Oil pump pressure MPa (psi)	Oil pump relief pressure	8.4 – 9.0 (1,219 – 1,306)
	Pressure under no-load conditions	0.2 – 0.8 (29 – 116)
	Steering gear retention hydraulic pressure	8.4 – 9.0 (1,219 – 1,306)
Oil pressure switch operating pressure MPa (psi)	OFF → ON	1.8 – 2.4 (261 – 348)
	ON → OFF	1.0 – 2.4 (145 – 348)
Steering gear total pinion torque N·m (in-lb) [Change in torque N·m (in-lb)]	0.8 – 1.8 (7.1 – 15.9) [0.49 (4.3) or less]	–

LUBRICANTS

M1372000400316

ITEM		SPECIFIED LUBRICANT	QUANTITY dm ³ (qt)
Gear box	Bearing	GENUINE MITSUBISHI POWER STEERING FLUID	As required
	O-ring		
	Oil seal		
	Special tool (MB991214)		
	Pinion and valve assembly seal ring part		
	Bellows	Silicon grease	As required
Oil pump	Power steering fluid	GENUINE MITSUBISHI POWER STEERING FLUID	1.0 (1.1)

SEALANTS

M1372000500302

ITEM		SPECIFIED SEALANT
Power steering gear box	End plug	3M™ AAD Part No.8661, 8663, 8672, 8678, 8679 or equivalent
	Rack support cover	