

## Steering Gearbox [LHD Model]

POWER ASSISTED SYSTEM (POWER STEERING)

### 5. Steering Gearbox [LHD Model]

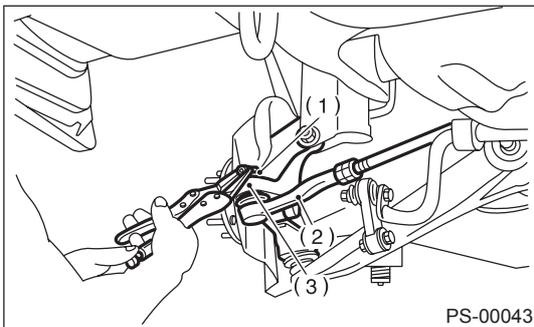
#### A: REMOVAL

- 1) Set the vehicle on a lift.
- 2) Disconnect the ground cable from battery.
- 3) Loosen the front wheel nuts.
- 4) Lift-up the vehicle and remove the front wheels.
- 5) Remove the under cover. <Ref. to EI-26, REMOVAL, Front Under Cover.>
- 6) Remove the front exhaust pipe assembly. (Non-turbo model) <Ref. to EX(H4SO 2.0)-7, REMOVAL, Front Exhaust Pipe.>

#### WARNING:

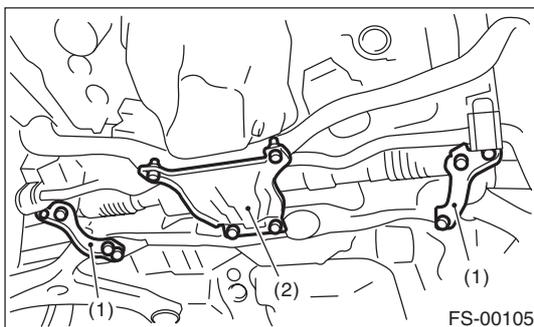
**Be careful, not to burn your hand because the exhaust pipe is hot.**

- 7) Using a puller, remove the tie-rod end from the knuckle arm after pulling off cotter pin and removing castle nut.



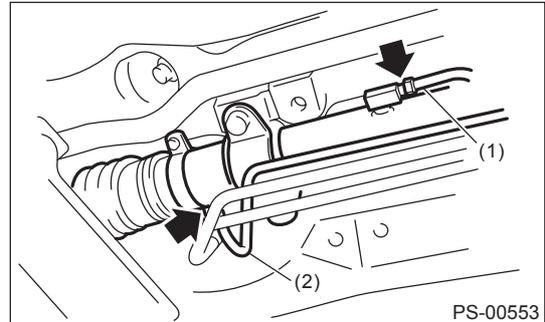
- (1) Castle nut
- (2) Tie-rod end
- (3) Knuckle arm

- 8) Remove the front crossmember support plate, jack-up plate and front stabilizer. <Ref. to FS-16, REMOVAL, Front Stabilizer.>



- (1) Crossmember support plate
- (2) Jack-up plate

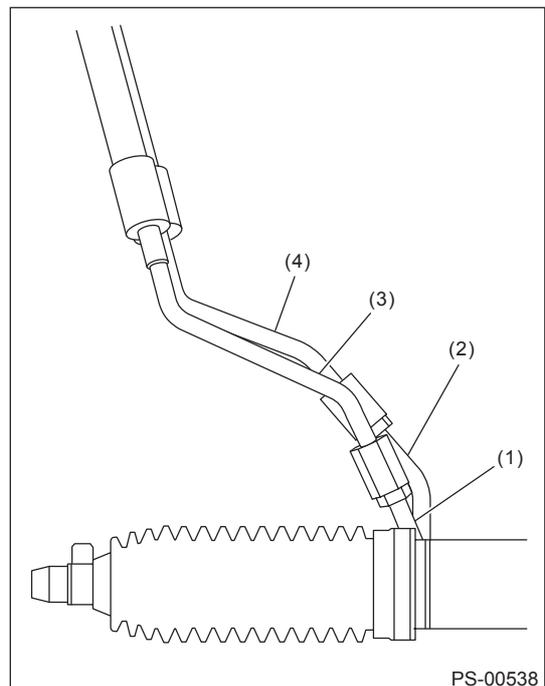
- 9) Remove the one pipe joint at the center of gearbox, and connect the vinyl hose to the pipe and the joint. Discharge the fluid by turning steering wheel fully clockwise and counterclockwise. Discharge the fluid similarly from other pipes.



- (1) Pipe A
- (2) Pipe B

- 10) Remove the universal joint. <Ref. to PS-21, REMOVAL, Universal Joint.>

- 11) Disconnect the pipe C from pressure hose first, and pipe D from return hose second.

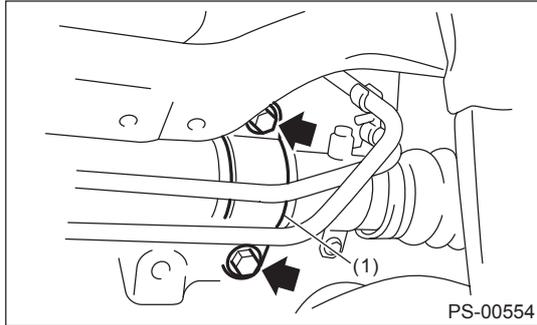


- (1) Pipe C
- (2) Pipe D
- (3) Pressure hose
- (4) Return hose

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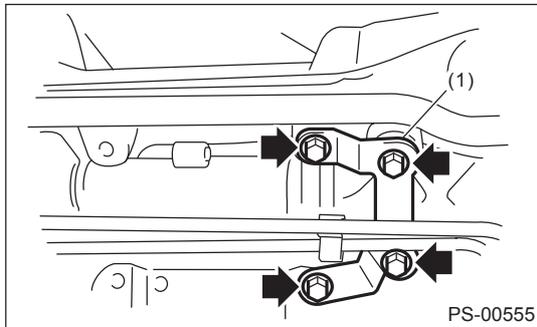
### POWER ASSISTED SYSTEM (POWER STEERING)

12) Remove the clamp bolts securing gearbox to crossmember, and remove the clamp.



(1) Clamp

13) Remove the bolts which secure gearbox bracket, and remove the bracket and gearbox.

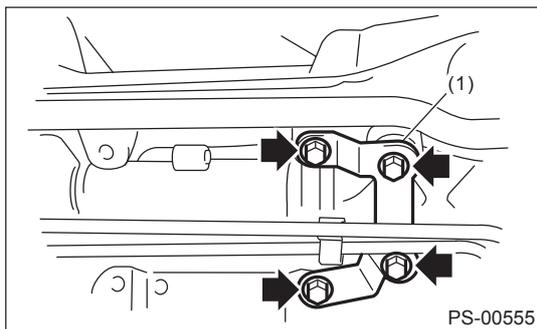


(1) Bracket

## B: INSTALLATION

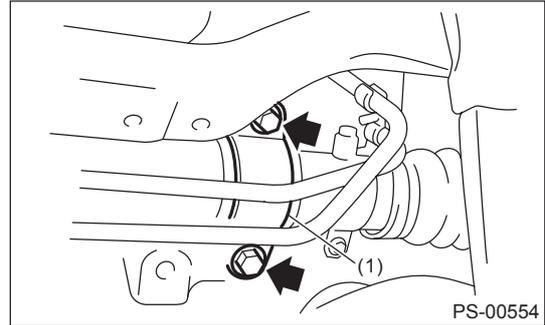
1) Insert the gearbox into crossmember, being careful not to damage gearbox boot.

2) Install the gearbox and bracket. Tighten the bolt temporarily.



(1) Bracket

3) Tighten the gearbox to the crossmember bracket via clamp with bolt temporarily.



(1) Clamp

4) Tighten the bolts which temporary tightening the clamp and bracket of gearbox to specified torque.

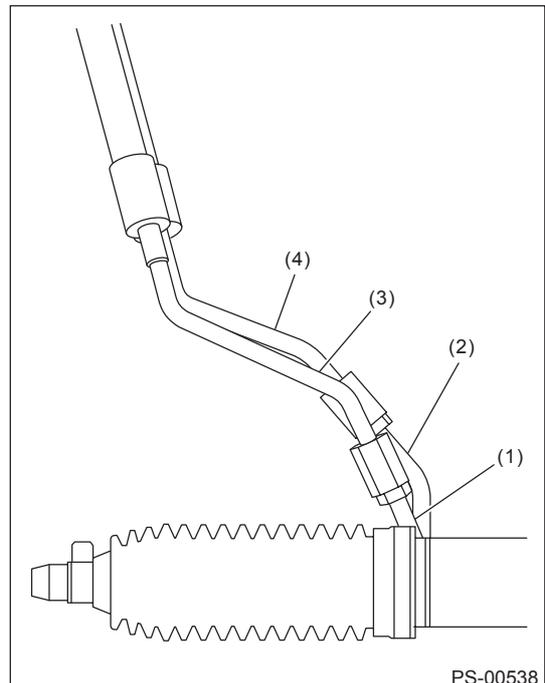
**Tightening torque:**

**60 N·m (6.1 kgf-m, 44.1 ft-lb)**

5) Connect the pipe D to return hose first, and the pipe C to pressure hose second.

**Tightening torque:**

**15 N·m (1.5 kgf-m, 10.8 ft-lb)**



- (1) Pipe C
- (2) Pipe D
- (3) Pressure hose
- (4) Return hose

6) Install the universal joint. <Ref. to PS-21, INSTALLATION, Universal Joint.>

7) Connect the tie-rod end and knuckle arm, and tighten with castle nut.

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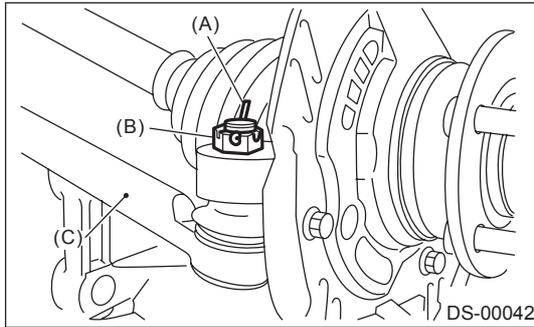
POWER ASSISTED SYSTEM (POWER STEERING)

**Castle nut tightening torque:**  
**27 N·m (2.75 kgf-m, 19.9 ft-lb)**

### CAUTION:

**When connecting, do not hit cap at the bottom of tie-rod end with hammer.**

8) After tightening the castle nut to specified tightening torque, tighten it further within 60° until cotter pin hole is aligned with slot in the nut. Fit the cotter pin into nut, and then bend the pin to lock.



- (A) Cotter pin
- (B) Castle nut
- (C) Tie-rod end

9) Install the front stabilizer. <Ref. to FS-16, INSTALLATION, Front Stabilizer.>

10) Install the front crossmember support plate and jack-up plate.

11) Install the front exhaust pipe assembly. (Non-turbo model) <Ref. to EX(H4SO 2.0)-8, INSTALLATION, Front Exhaust Pipe.>

12) Install the under cover. <Ref. to EI-26, INSTALLATION, Front Under Cover.>

13) Install the front wheels.

14) Tighten the wheel nuts to specified torque.

### Tightening torque:

**90 N·m (9.1 kgf-m, 65.8 ft-lb)**

15) Lower the vehicle.

16) Remove the steering wheel. <Ref. to PS-20, REMOVAL, Steering Wheel.>

17) Align the center of roll connector. <Ref. to AB-23, ADJUSTMENT, Roll Connector.>

18) Install the steering wheel. <Ref. to PS-20, INSTALLATION, Steering Wheel.>

19) Connect the battery ground cable to battery.

20) Pour fluid into the oil tank, and bleed air. <Ref. to PS-84, Power Steering Fluid.>

21) Check for fluid leaks.

22) Check the fluid level in oil tank.

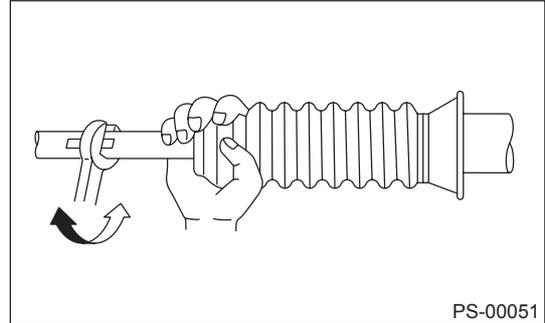
23) After adjusting toe-in and steering angle, tighten the lock nut on tie-rod end.

### Tightening torque:

**85 N·m (8.7 kgf-m, 62.7 ft-lb)**

### NOTE:

When adjusting toe-in, hold the boot as shown to prevent it from being rotated or twisted. If twisted, straighten it.



## C: DISASSEMBLY

### 1. RACK HOUSING ASSEMBLY

1) Disconnect the four pipes from gearbox.

### NOTE:

Remove the pipes C and D, which are fixed to clamp plate, as a single unit.

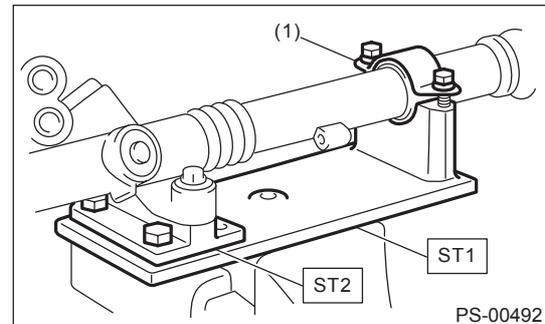
2) Secure the gearbox removed from vehicle in vice using ST.

ST1 926200000 STAND

ST2 34199AG000 BOSS D

### CAUTION:

**Secure the gearbox in a vise using ST as shown. Do not attempt to secure it without this ST.**



(1) Clamp

3) Remove the tie-rod end and lock nut from gearbox.