3214O–01

OVERHAUL

HINT:

If work that does not involve brake fluid bleeding, such as disc brake pad replacement, is started 2 minutes or more after the power switch is turned off, brake control (ECB) prohibition is not necessary.

1. REMOVE FRONT WHEEL

2. BRAKE CONTROL (ECB) OFF (SEE PAGE 32–29)

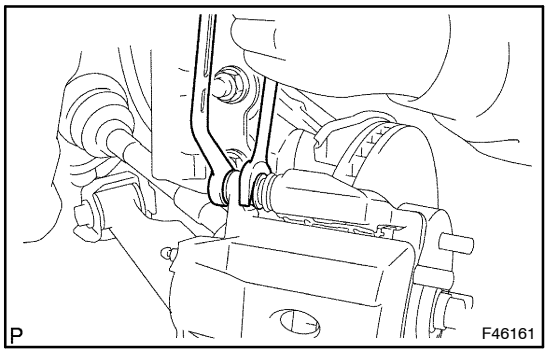
NOTICE:

Prohibit the brake control (ECB) certainly before bleeding the brake fluid.

3. DRAIN BRAKE FLUID

NOTICE:

Wash brake fluid off immediately if it adheres to any painted surface.



4. REMOVE FRONT DISC BRAKE CYLINDER SUB–ASSY

(a) Remove the union bolt and gasket, and separate the flexible hose No.1 from the front disc brake cylinder assy.

(b) Hold the front disc brake cylinder slide pin using a wrench. Remove the 2 bolts and separate the front disc brake cylinder.

5. REMOVE DISC BRAKE PAD KIT FRONT (PAD ONLY)

(a) Remove the 2 front disc brake pads from the front disc brake cylinder mounting.

6. REMOVE ANTI SQUEAL SHIM KIT FRONT

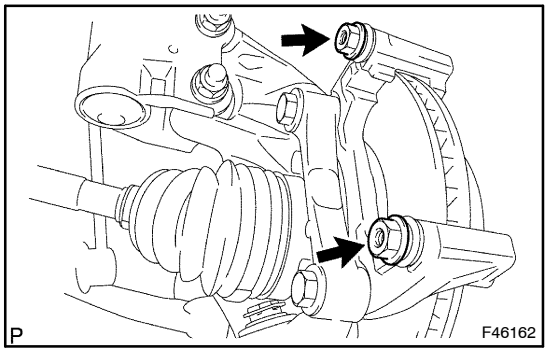
(a) Remove the 2 anti squeal shims No.1 and 2 anti squeal shims No.2 from the front disc brake pads.

7. REMOVE FRONT DISC BRAKE PAD SUPPORT PLATE NO.1

(a) Remove the pad support plate No.1 from the front disc brake cylinder mounting.

8. REMOVE FRONT DISC BRAKE PAD SUPPORT PLATE NO.2

(a) Remove the pad support plate No.2 from the front disc brake cylinder mounting.

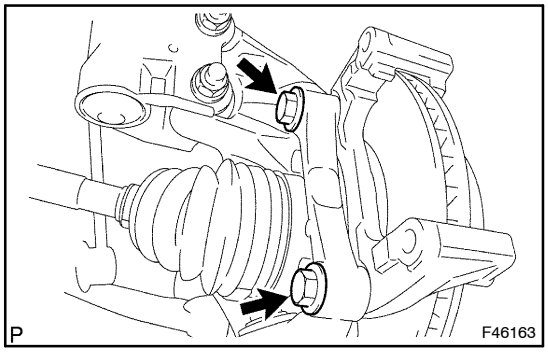


9. REMOVE FRONT DISC BRAKE CYLINDER SLIDE PIN

(a) Pull off the 2 front disc brake cylinder slide pins from the front disc brake cylinder mounting.

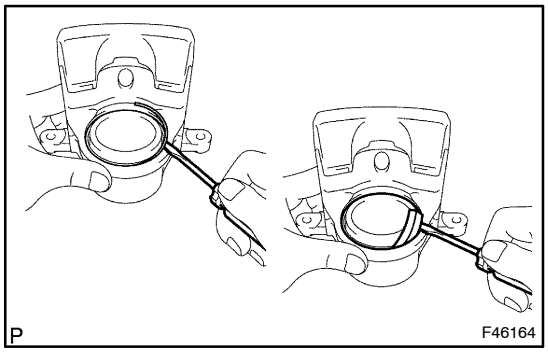
10. REMOVE FRONT DISC BRAKE BUSH DUST BOOT

(a) Remove the 2 bush dust boots from the front disc brake cylinder mounting.



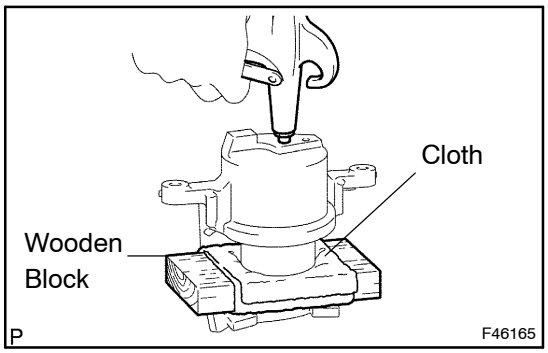
11. REMOVE FRONT DISC BRAKE CYLINDER MOUNTING LH

(a) Remove the 2 bolts and front disc brake cylinder mounting.



12. REMOVE CYLINDER BOOT

(a) Remove the set ring and cylinder boot from the front disc brake cylinder assy.



13. REMOVE FRONT DISC BRAKE PISTON

(a) Place a wooden block wrapped in a cloth between the front disc brake piston and front disc brake cylinder to prevent them from being damaged.

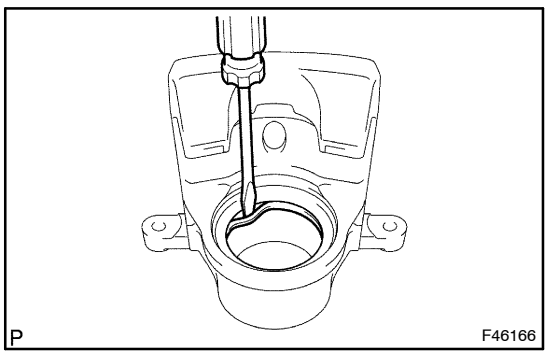
(b) Put air into the front disc brake cylinder gradually so that the piston does not protrude using compressed air.

CAUTION:

Be careful not to pinch fingers.

NOTICE:

Do not spatter fluid.



14. REMOVE PISTON SEAL

(a) Remove the piston seal from the front disc brake cylinder using a screwdriver.

NOTICE:

Do not damage the inside of the cylinder or the seal groove.

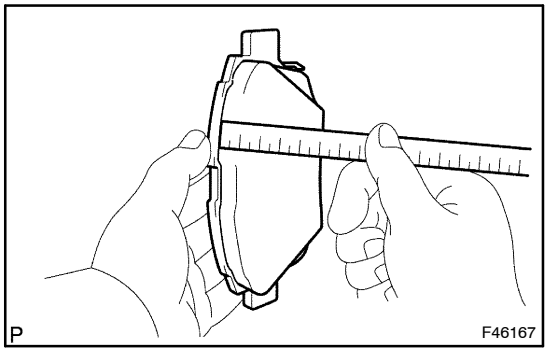
15. REMOVE FRONT DISC BRAKE BLEEDER PLUG CAP

16. REMOVE FRONT DISC BRAKE BLEEDER PLUG

17. INSPECT BRAKE CYLINDER AND PISTON

(a) Check that the side of the front disc brake piston and the inside of the cylinder are not damaged.

If necessary, replace the front disc brake cylinder sub–assy and front disc brake piston.



18. INSPECT PAD LINING THICKNESS

(a) Using a ruler, measure the pad lining thickness.
Standard thickness: 11.0 mm (0.433 in.)
Minimum thickness: 1.0 mm (0.039 in.)

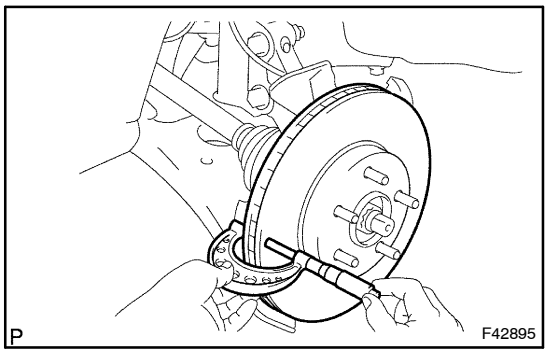
HINT:
If the disc brake pad thickness is at the minimum or less, replace the disc brake pad.

19. INSPECT FRONT DISC BRAKE PAD SUPPORT PLATE NO.1

(a) Clean the area where the front disc brake support plate No.1 contacts the brake pad using brake cleaner. Check that there are no deformations, cracks or rust.
(b) Check that there is no looseness or deformation with the front disc brake cylinder mounting installed.
(c) Make sure that the support has sufficient rebound when installing the pad. Check that the pad does not easily drop after installation.

20. INSPECT FRONT DISC BRAKE PAD SUPPORT PLATE NO.2

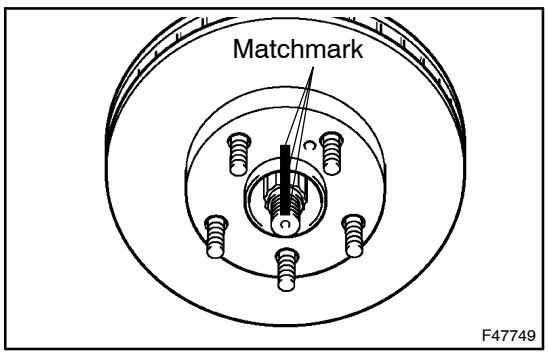
HINT:
Check the pad support plate No.1 and No.2 using the same steps.



21. INSPECT DISC THICKNESS

(a) Using a micrometer, measure the disc thickness.
Standard thickness: 22.0 mm (0.866 in.)
Minimum thickness: 20.0 mm (0.787 in.)

HINT:
If the disc plate thickness is at the minimum or less, replace the disc plate.



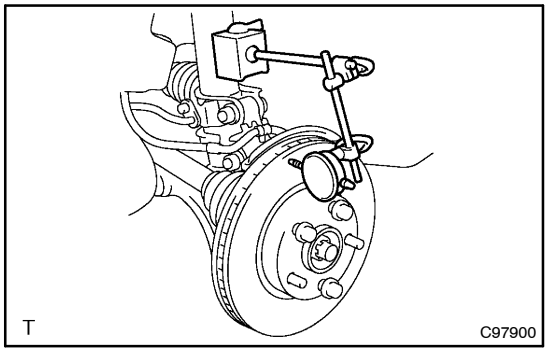
22. REMOVE FRONT DISC

HINT:
Put matchmarks on the disc and axle hub.

23. INSTALL FRONT DISC

(a) Aligning the matchmarks, install the front disc.

NOTICE:
When installing a new disc, select the position where the disc has the minimum runout.



24. INSPECT DISC RUNOUT

(a) Check the looseness of the front wheel bearing and runout in the axle hub before inspecting the disc runout (see page 30–2).

(b) Hold the front disc with the hub nuts.
Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)

(c) Holding a dial indicator 10 mm away from the outer edge of the front disc, measure the disc runout.
Maximum disc runout: 0.05 mm (0.0020 in.)

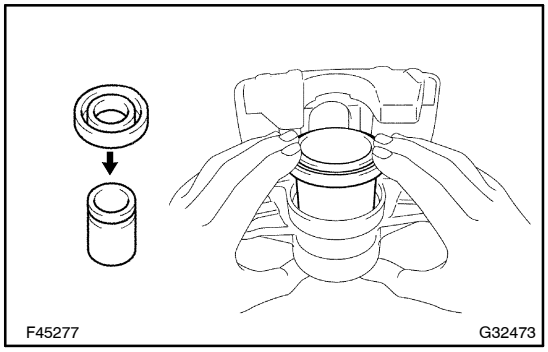
NOTICE:
If the runout exceeds the maximum value, change the installation positions of the disc and axle so that the runout will become minimal. If the runout exceeds even when the installation positions are changed or if disc thickness does not exceed the limit, shave the disc. If disc thickness exceeds the limit, replace the disc.

25. TEMPORARILY TIGHTEN FRONT DISC BRAKE BLEEDER PLUG

26. INSTALL FRONT DISC BRAKE BLEEDER PLUG CAP

27. INSTALL PISTON SEAL

(a) Apply lithium soap base glycol grease around the new piston seal and install it into the brake cylinder groove securely.



28. INSTALL FRONT DISC BRAKE PISTON

(a) Check the side of the front disc brake piston for any scratch.

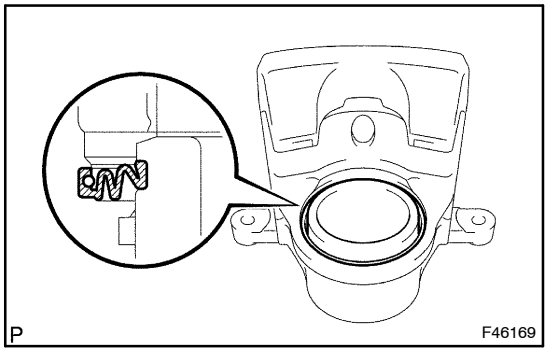
NOTICE:
Replace the front disc brake piston with a new one if there is any scratch on it.

(b) Apply lithium soap base glycol grease to the inside of the new cylinder boot and install it to the front disc brake piston.

NOTICE:
Install the cylinder boot securely into the front disc brake piston groove.

(c) Apply lithium soap base glycol grease around the front disc brake piston and install it to the front disc brake cylinder.

NOTICE:
- **Do not install the piston forcibly into the front disc brake cylinder.**
- **Do not damage the piston tip during installation.**
- **Do not push the piston directly using hard or sharp tools.**



29. INSTALL CYLINDER BOOT

(a) Install the cylinder boot to the disc brake cylinder groove.

NOTICE:

Install the cylinder boot securely into the disc brake cylinder and piston groove.

(b) Install the new front disc brake piston set ring to the front disc brake cylinder using a screwdriver.

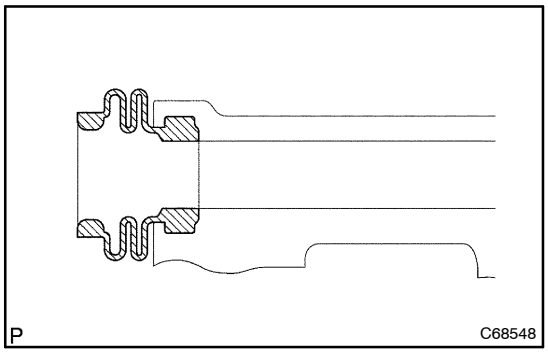
NOTICE:

Do not damage the cylinder boot.

30. INSTALL FRONT DISC BRAKE CYLINDER MOUNTING LH

(a) Install the front disc brake cylinder mounting with the 2 bolts.

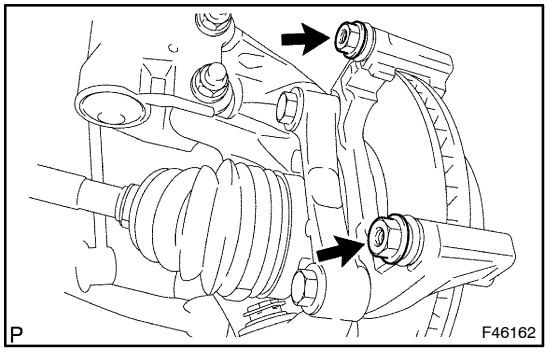
Torque: 109 N·m (1,114 kgf·cm, 81 ft·lbf)



31. INSTALL FRONT DISC BRAKE BUSH DUST BOOT

(a) Apply lithium soap base glycol grease to seal surface of 2 new bush dust boots.

(b) Install the 2 bush dust boots to the front disc brake cylinder mounting.



32. INSTALL FRONT DISC BRAKE CYLINDER SLIDE PIN

(a) Apply lithium soap base glycol grease to the sliding and fitting portion of the front disc brake cylinder slide pin.

(b) Push the front disc brake cylinder slide pin into the disc brake bush dust boot and install it.

33. INSTALL FRONT DISC BRAKE PAD SUPPORT PLATE NO.1

(a) Install the pad support plate No.1 to the front disc brake cylinder mounting.

34. INSTALL FRONT DISC BRAKE PAD SUPPORT PLATE NO.2

(a) Install the pad support plate No.2 to the front disc brake cylinder mounting.

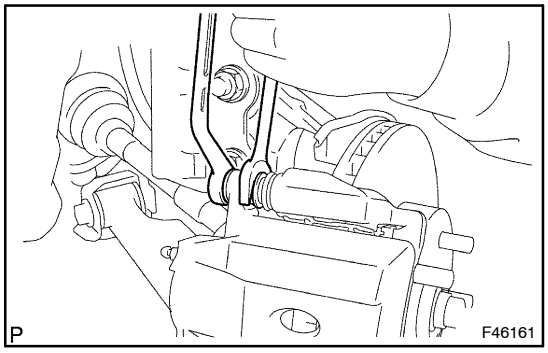
35. INSTALL ANTI SQUEAL SHIM KIT FRONT

(a) Apply disc brake grease to the area where the anti squeal shim No.1 makes contact.

(b) Install the 2 anti squeal shims No.1 and 2 anti squeal shims No.2 to the front disc brake pads.

36. INSTALL DISC BRAKE PAD KIT FRONT (PAD ONLY)

(a) Install the 2 front disc brake pads to the front disc brake cylinder mounting.



37. INSTALL FRONT DISC BRAKE CYLINDER SUB-ASSY

(a) Install the front disc brake cylinder assy with the 2 bolts.
Torque: 34 N·m (347 kgf·cm, 25 ft·lbf)

(b) Placing the new gasket in between, connect the flexible hose No.1 to the front disc brake cylinder assy with the union bolt.
Torque: 33 N·m (337 kgf·cm, 24 ft·lbf)

38. FILL RESERVOIR WITH BRAKE FLUID (SEE PAGE 32–4)
39. BLEED FRONT AND REAR BRAKE SYSTEMS (SEE PAGE 32–4)
40. CHECK BRAKE FLUID LEAKAGE
41. CHECK FLUID LEVEL IN RESERVOIR
42. INSTALL FRONT WHEEL
Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)
43. CHECK AND CLEAR DTC (SEE PAGE 05–738)