Part Number: PTR09-34070

Kit Contents

Item #	Quantity Reqd.	Description
1	1	Brake Rotor, LH Front
2	1	Brake Rotor, RH Front
3	1	Brake Caliper Assembly, LH Front, with Pads &Attachment Bolts
4	1	Brake Caliper Assembly, RH Front, with Pads & Attachment Bolts

Hardware Contents

Item #	Quantity Reqd.	Description
1	2	Stainless Steel Brake Hose
2	2	Rubber End Cap
3	1	Spare Tire Warning Label
4	1	Installation Instructions
5	1	Mirror Hanging Tag
6	1	Owner's Document

Additional Items Required For Installation

Item #	Quantity Reqd.	Description
1	Toyota Brake Fluid	#00475-1BF03 or Fluid: SAE J1703 or FMVSS No. 116 DOT3

Conflicts

Models equipped with 18" wheels.

CAUTION: If the OE wheels are not used, then see the brake caliper template available from your dealer via Toyota's TIS system or TRD.com. The brake caliper template must be used to insure there is adequate clearance between new brake components and non-OE wheels and balancing weights.

Recommended Tools

Personal & Vehicle Protection	**Notes**
Safety Glasses	Safety Glasses /face shield
Vehicle Protection	Seat & Floor Covers
	Fender Covers
Work Gloves	
Special Tools	**Notes**
Chassis Lift or	(Hydraulic Jack & Jack Stands)
Fluid Drip Trays	One per side
Flare Crow Foot 10mm	SPX 09023-00101
TRD Brake Bleeding Machine	
Installation Tools	**Notes**
22mm Deep Socket	½" Drive
Air Impact Gun	½" For parts removal only
10mm Flare Nut Wrench	
Needle Nose Pliers	
17mm Deep Socket	½" Drive
Torque Wrenches	½" Drive & 3/8" Drive
Soft Mallet	
11mm Combination Wrench	
Channel Lock Pliers	
12mm Socket	3/8" Drive
Gap Gauge	5mm or ¼"
Special Chemicals	**Notes**
Toyota Brake Cleaner	#00289-2BC00-CA

NOTE: Part number of this accessory may not be the same as the part number shown.

General Applicability

All Tundra Models equipped with 20" or 22" wheels

Recommended Sequence of Application

Item #	Accessory
1	Front Brake Upgrade
2	Accessory Wheels/Tires

*Mandatory

Vehicle Service Parts (may be required for reassembly)

Item #	Quantity Reqd.	Description

Legend

STOP: Damage to the vehicle may occur. Do not proceed until process has been complied with.

OPERATOR SAFETY: Use caution to avoid risk of injury.

CAUTION: A process that must be carefully observed in order to reduce the risk of damage to the accessory/vehicle and to ensure a quality installation.

TOOLS & EQUIPMENT: Used in Figures calls out the specific tools and equipment recommended for this process.

Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure a quality installation.

These guidelines can be found in the "Accessory Installation Practices" document.

This document covers such items as:-

- Vehicle Protection (use of covers and blankets, cleaning chemicals, etc.).
- Safety (eye protection, rechecking torque procedure, etc.).
- Vehicle Disassembly/Reassembly (panel removal, part storage, etc.).
- Electrical Component Disassembly/Reassembly (battery disconnection, connector removal, etc.).

Please see your Toyota dealer for a copy of this document.

1. Vehicle Preparation.

(a) Open hood.

(b) Place a fender cover over the driver's side fender to protect the vehicle paint.

2. Check Kit Contents.

(a) Check the Front Brake Upgrade kit for contents and damage.

3. Attach Brake Fluid Fill Adaptor.

(a) Remove brake reservoir cap.

(b) Fix adaptor in place.

(1) Route chain all the way under the master cylinder as shown in (Fig. 3-1).

(2) Tighten wing nut snug, do not over tighten.

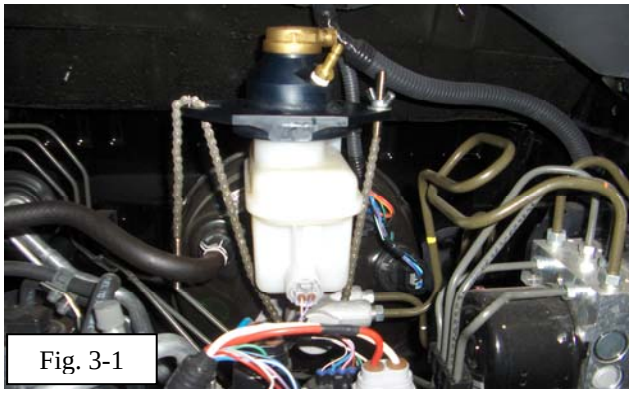

Fig. 3-1

(c) Attach the locking vacuum line to the adaptor (Fig. 3-2).

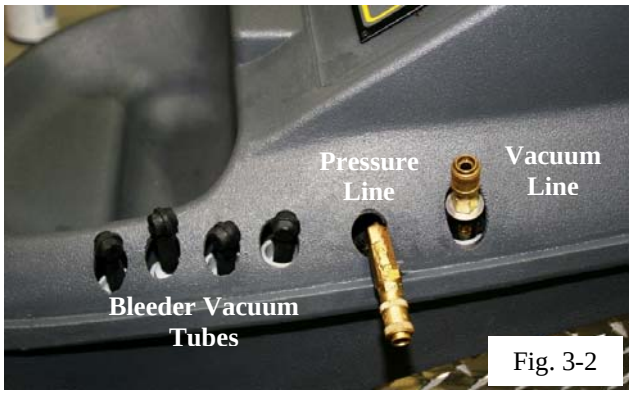

Fig. 3-2

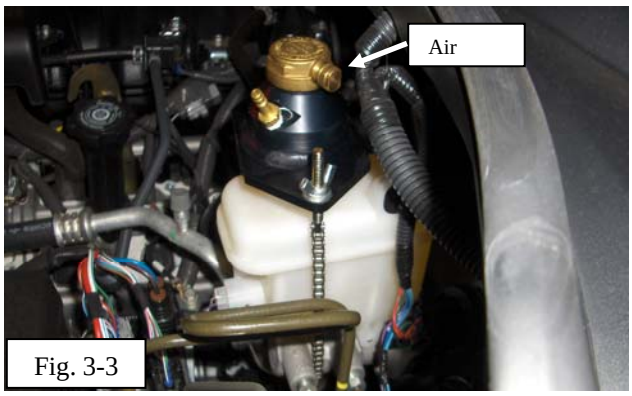

Fig. 3-3

(d) Close the air valve on the adaptor.

(1) Turn valve clockwise until closed (Fig. 3-3).

Fig. 3-4

(e) Press B-1 button then START (Fig. 3-4).

(1) After alarm sounds press STOP button

NOTE: You may continue to the next step while waiting for the alarm to sound.

4. Remove front wheels

(a) Use a vehicle hoist to lift the vehicle using the vehicle jacking points. If a vehicle hoist is not available, use a hydraulic jack to lift the front of the vehicle and set it on jack stands. Use the owner's manual to locate the proper vehicle jacking points.

Caution: Always use jack stands to support the vehicle, never work on a vehicle using only the jack.

(b) Use a 22mm deep socket and ½" air impact gun to remove all front wheel lug nuts.

(c) Remove both front wheel/tire assemblies and save for reuse.

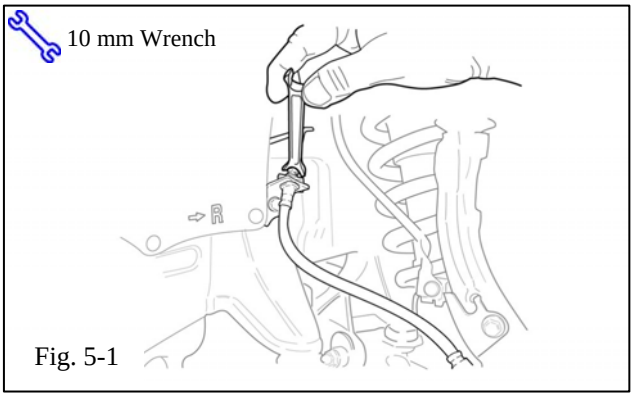

Fig. 5-1

5. Disconnect & Remove the Front Brake Hose.

(a) Place a drip tray directly below the inboard brake line connection. This connection is where the rubber hose attaches to the steel brake line as shown in (Fig. 5-1).

Caution: Brake fluid will damage most painted surfaces. Immediately clean any spilled brake fluid from all painted surfaces.

(b) Use a 10mm flare nut wrench to loosen the steel line fitting where it attaches to the rubber brake hose (Fig. 5-1).

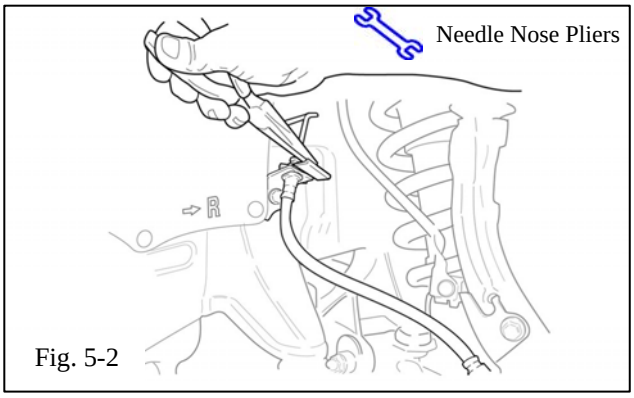

Fig. 5-2

(c) Use a pair of needle-nose pliers to remove the brake line retaining clip (Fig 5-2). Retain this clip for re-use.

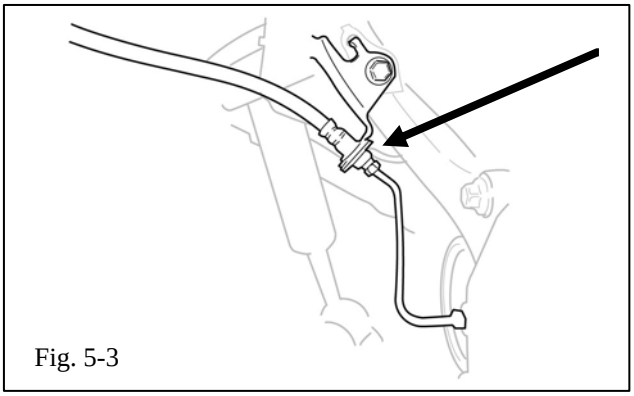
Fig. 5-3

(d) Repeat steps 5(b) & 5(c) for the connection on the lower end of the rubber brake hose (Fig. 5-3). Remove and discard the rubber brake hose but retain the clip.

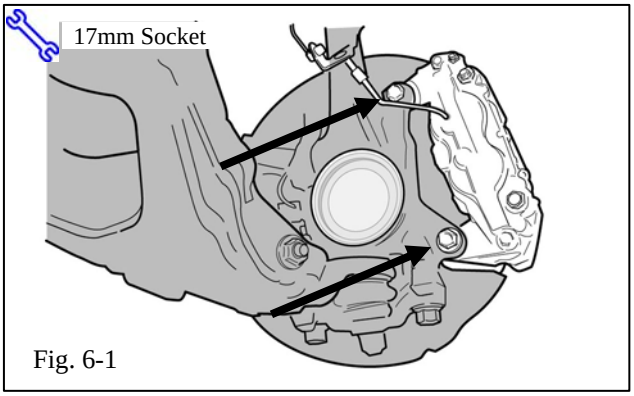

Fig. 6-1

6. Remove Factory Brake Caliper, & Rotor.

(a) Using a 17mm socket, loosen and remove the two bolts from the original equipment (OE) caliper (Fig. 6-1). Discard these bolts as they will be replaced by longer bolts.

(b) Remove and retain the steel brake line from the OE caliper. Discard the OE Caliper.

(c) Remove the OE rotor from the hub and discard.

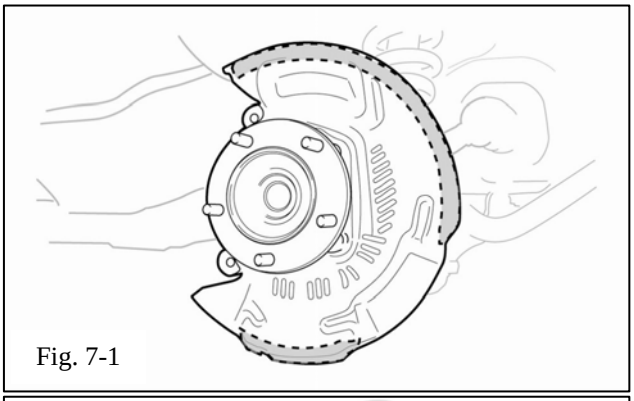
Fig. 7-1

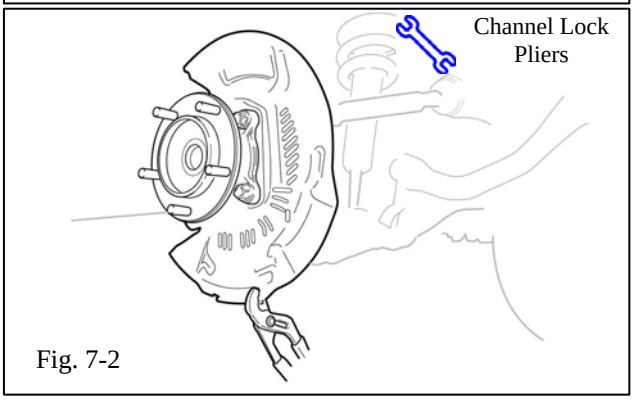

Fig. 7-2

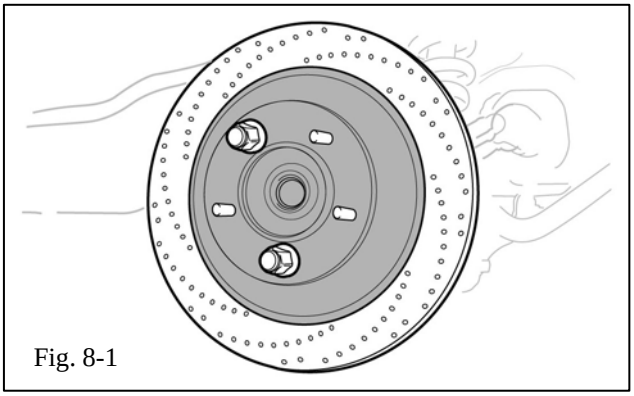
Fig. 8-1

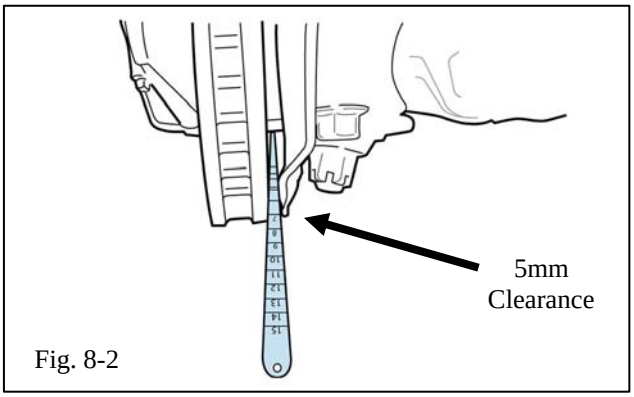

Fig. 8-2

7. Modifying the Rotor Dust Shield.

(a) The shaded areas of the flange on the dust shield need to be bent back to allow for the new larger TRD Rotors (Fig. 7-1).

(b) Using a pair of channel lock pliers, carefully bend back the flange on the OE dust shield (Fig. 7-2).

8. Install the New Rotor.

(a) Install the appropriate rotor assembly, seating it squarely on the hub face. Place two wheel nuts on opposite studs (finger tight) to prevent the rotor from falling off the hub (Fig. 8-1).

⚠ **Caution: The rotor hats have a small L (left) or R (right) sticker. Install "L" on the driver side and "R" on the passenger side.**

(b) Inspect the air gap to the dust shield, re-bend this area of the dust shield if necessary. There should be 5mm of clearance between the rotor and the dust shield (Fig. 8-2). Also, confirm the dust shield does not contact the ball joint rubber seals.

(c) Once the rotor is in place, remove the "L" or "R" sticker and clean any adhesive residue.

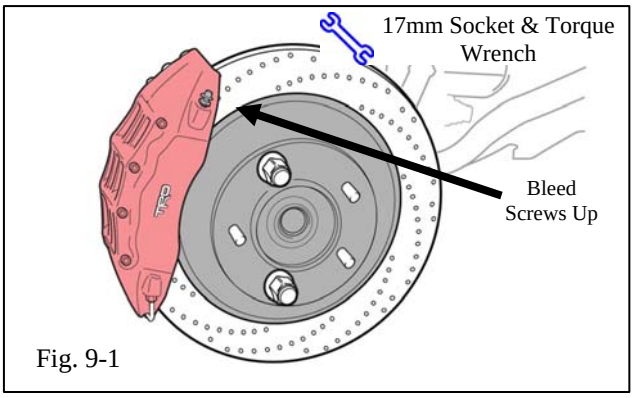

Fig. 9-1

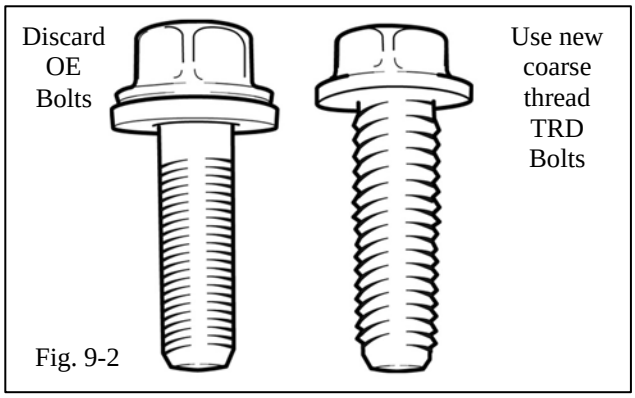

Fig. 9-2

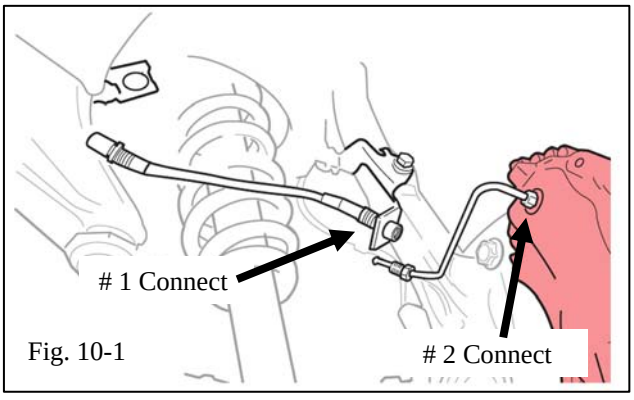

Fig. 10-1

NOTE: Air tool use is NOT allowed for re-installation of any components.

9. Install new caliper.

(a) Remove the foam insert from between the brake pads before installing the caliper.

(b) Install the appropriate caliper/pad assembly onto the rotor with the bleed screws up and fasten using the supplied M12x40mm bolts (Fig. 9-1). Torque the bolts to 73 lbf·ft (99 N·m) using a 17mm socket.

Caution: The calipers have a small L (left) or R (right) sticker. Install "L" on the driver side and "R" on the passenger side.

Caution: As shown in (Fig. 9-2), the new bolts are longer than the OE bolts and have a coarser thread pitch. DO NOT attempt to reuse the OE bolts as they will destroy the calipers.

(c) Once the caliper is in place, remove the "L" or "R" sticker and clean any adhesive residue.

10. Install the Stainless Steel Brake Hose.

(a) Using one of the OE brake hose fitting clips removed earlier, align the flats on the stainless hose fitting and attach it to the steering knuckle bracket (Fig. 10-1) If necessary, a soft mallet can be used to tap the clip in place.

(b) Attach the hard steel brake line removed from the OE caliper to the new TRD caliper finger tight (Fig. 10-1).

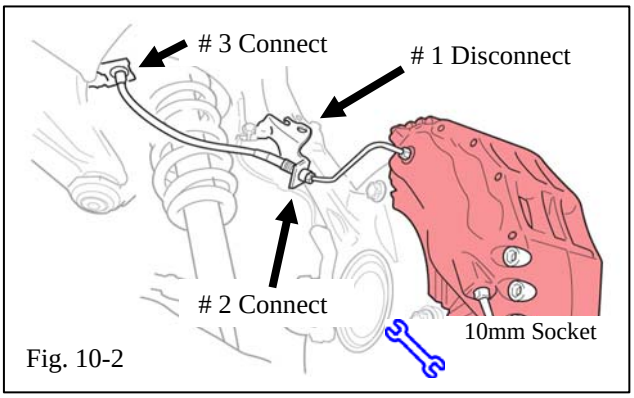

Fig. 10-2

(c) Disconnect the steering arm bracket that holds the lower end of the stainless brake hose from the steering knuckle. Attach the open end of the hard steel brake line to the lower end of the stainless hose **finger tight.** Finally, thread the upper end of the stainless steel brake hose through the chassis bracket and attach it to the steel brake line after removing the rubber cap. **Finger tighten** the fitting. Install the other clip once the flats on the fitting are aligned with the chassis bracket (Fig. 10-2).

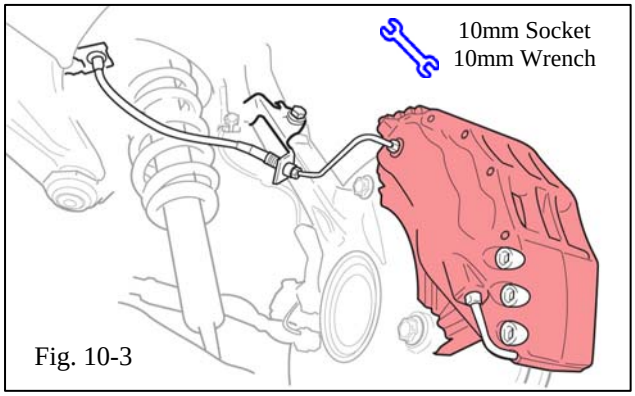

Fig. 10-3

(d) Carefully push the bracket back onto the knuckle. The hard brake line will bend slightly to allow the bracket to sit in its proper location, torque the bolt to 21 lbf·ft (29 N·m) (Fig. 10-3). After centering the steering wheel, use a 10mm flare nut crow-foot socket and tighten all three brake hose fittings to 11 lbf·ft (15 N·m).

Repeat steps 3(a) through 7(d) for the opposite side of the vehicle.

(e) Turn the steering knuckle while observing the stainless steel brake hose for any binding. Also confirm clearance to all suspension components.

11. Attach brake machine pressure line.

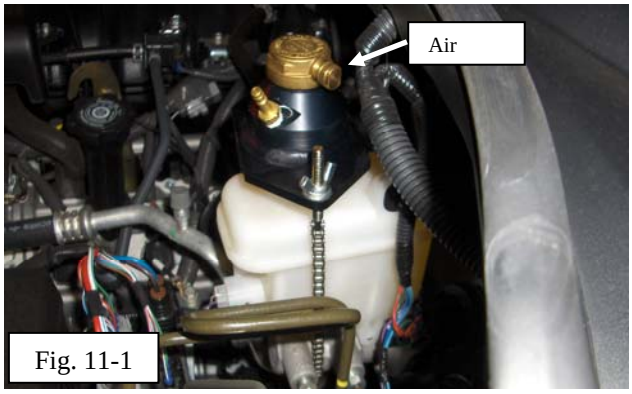

Fig. 11-1

(a) Lower vehicle to gain access to the brake fluid fill adaptor.

(b) Disconnect vacuum line

(c) Connect pressure line

(d) Open air bleed valve

(1) Turn valve counterclockwise (Fig. 11-1).

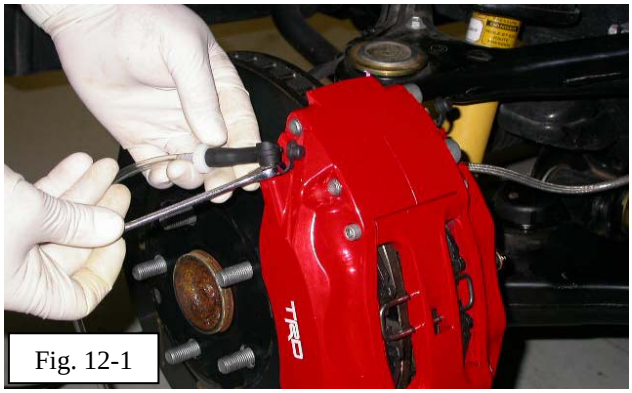

Fig. 12-1

12. Bleed Brakes.

(a) Raise vehicle

(b) Attach all four collection vacuum lines to the bleeder screws (Fig. 12-1).

(c) Loosen the bleeder screws ¼ to ½ turn.

(d) Press B-3 button then START button on bleeder machine. Bleed until a stream of fluid is coming through the clear tubing.

NOTE: Tap calipers with a rubber mallet to free any trapped air.

NOTE: If you do not see fluid confirm bleed screw is open.

(e) Close bleeder screws once you see solid fluid flowing. (8 lbf·ft)

(f) Press STOP button on the machine once all 4 screws are closed.

(g) Hold a rag to wipe any dripping when removing the four vacuum lines.

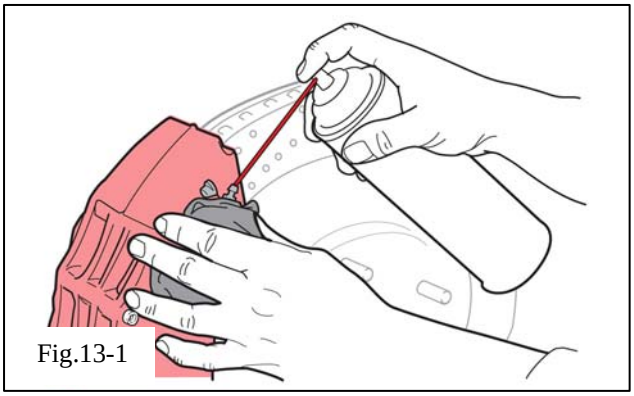
Fig.13-1

13. Clean Calipers.

(a) Remove any traces of brake fluid which may remain in the bleed screw nipples by spraying brake cleaner into each one, and using a cloth to wipe away any excess (Fig. 13-1).

14. Check for Leaks.

(a) Lower vehicle to access master cylinder.

(b) Remove pressure line from fluid adding adaptor. Hold a rag around the line, a small amount of fluid will drip from the connection.

(c) Remove the adaptor and replace the reservoir cap. Fluid should already be set at the proper level, please confirm.

(d) Depress brake pedal slowly 3-4 times and hold brake pedal down. Check all connections at both ends of front brake hoses, and all bleed screws.

(e) Cover all 4 bleed screws with the attached rubber caps.

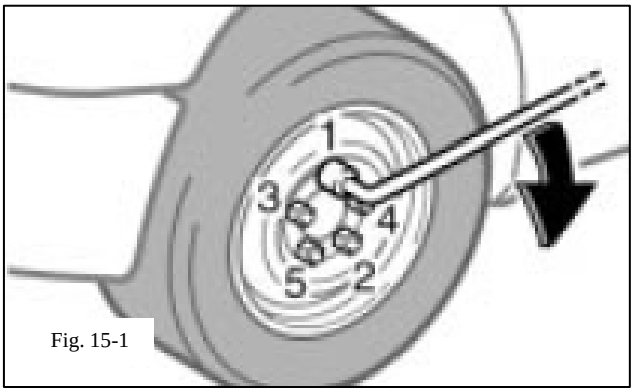

Fig. 15-1

15. Install Wheels

(a) Torque the lug nuts to 97 lbf·ft (131 N·m) using a 22mm socket and torque wrench in the order shown. (Fig. 15-1)

(b) Lower truck from lift or jack stands and apply brakes to ensure they are functioning properly before driving vehicle away.

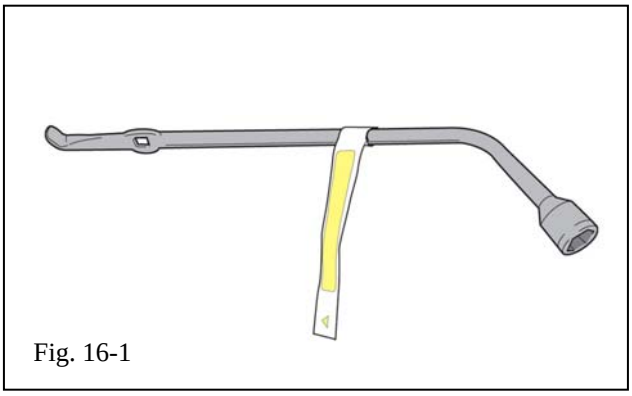
Fig. 16-1

16. Place Warning Label and Documents in vehicle and Move Vehicle.

(a) Place break-in procedure tag on inside mirror, and owner's document in glove box.

(b) Attached the spare tire warning label to the vehicle lug wrench as shown (Fig. 16-1) and replace the lug wrench in its storage bag and replace the storage bag in its proper location.

(c) Carefully move vehicle at low speed and apply brakes gently several times to ensure that all components are working correctly.

Warning: Do not apply brakes aggressively while driving until rotors have been properly bedded or broken-in.

Checklist - these points **MUST** be checked to ensure a quality installation.

Check:	Look For:
Accessory Function Checks	
☐ Check for Leaks	There should be no brake fluid leaks at the hose ends and or bleeder Screws.
☐ Document Check	The TRD Big Brake Kit Mirror Tag should be hanging from the vehicle mirror and the TRD Big Brake Kit Owners Manual should be in the vehicle glove box. The spare tire warning label should be on the vehicle lug wrench.
Vehicle Function Checks	
☐ Brake Fluid Level	The vehicle brake fluid level should be full.
☐ Brake Pedal Feel	The vehicle brake pedal should be firm and solid when depressed and held.