

Part Number: PTR13-35140**Kit Contents**

Item #	Quantity Req'd.	Description
1	2	Coil, Front
2	2	Shock, Front
3	2	Shock, Rear
4	2	Hardware Bag

Hardware Bag #1 Contents

Item #	Quantity Req'd.	Description
1	2	Reservoir Bracket
2	2	Reservoir Bracket Adapter
3	2	Right-Angle Stud, 1/4"-20 x 3/4", 18-8 Stainless
4	2	Retaining Washer
5	2	Washer
6	6	Split Lock Washer, For M8 SHCS, 18-8 Stainless
7	6	Socket Head Cap Screw, M8x1.25, L=25mm, 18-8 Stainless
8	2	Split Lock Washer, For 1/4" Screw, 18-8 Stainless
9	2	Thin Hex Locknut, 1/4"-20, Nylon Insert, 18-8 Stainless
10	2	Socket Head Cap Screw, M6x1, L=25mm, 18-8 Stainless
11	2	Retaining Ring

Hardware Bag #2 Contents

Item #	Quantity Req'd.	Description
1	2	Alignment Cushion, Upper Stem Mount
2	4	Locknut, M12x1.25
3	2	Spring Seat

Additional Items Required For Installation

Item #	Quantity Req'd.	Description

General Applicability

FJ Cruiser 4x4 (2010~2014)

Conflicts

FJ Cruiser 4x2

Recommended Sequence of Application

Item #	Accessory
1	TRD Suspension
2	TRD Skid Plate

*Mandatory

Recommended Tools

Personal & Vehicle Protection	Notes
Special Tools	Notes
Spring Compressor	
Alignment Equipment	Turn plates needed
Paint Marker	To mark the alignment cam position
Installation Tools	Notes
Sockets	11mm, 12mm, 14mm, 17mm, 19mm, 21mm & 22mm
Hex Sockets	5mm & 6mm
Ratchet	3/8" & 1/2"
Crows Foot	14mm, 18mm, 19mm & 22mm
Wrench	19mm & 22mm
Ratcheting Wrench	14mm, 17mm & 19mm
Adjustable wrench	Regular & small
Torque Wrench	3/8" & 1/2"
Screw Driver	Long Phillips
Air tools	NOTE: Do not use for final assembly
Special Chemicals	Notes
Medium Strength Thread Locker	Permatex® BLUE Gel

Vehicle Service Parts (may be required for reassembly)

Item #	Quantity Req'd.	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.**REVISION MARK:** This mark highlights a change in installation with respect to previous issue.**SAFETY TORQUE:** This mark indicates that torque is related to safety.

Procedure

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. Remove the Front OE Shock Assemblies.

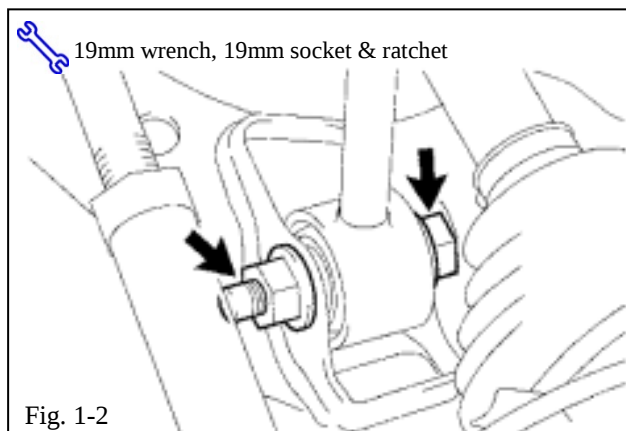
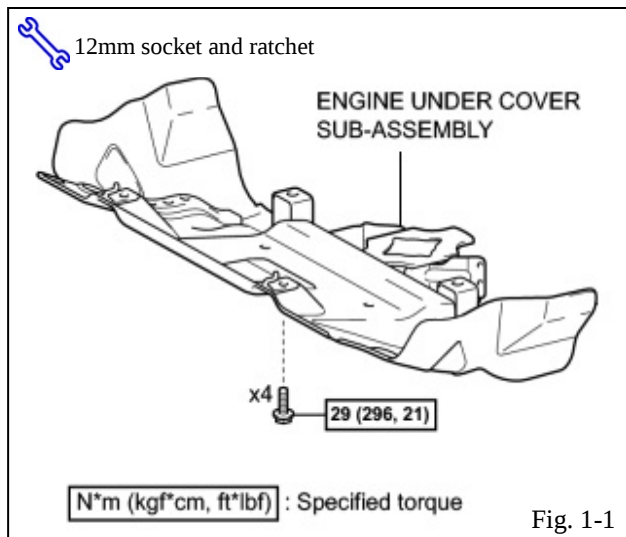
- (a) Place the vehicle in Park (AT) or in gear (MT).
- (b) Put a brake hold tool in place.
- (c) Raise the vehicle.
- (d) Remove the front wheels.
- (e) Use a 12mm socket to remove the four bolts from the engine under cover sub-assembly (Fig. 1-1) Remove the cover and retain it and the bolts for reinstallation.

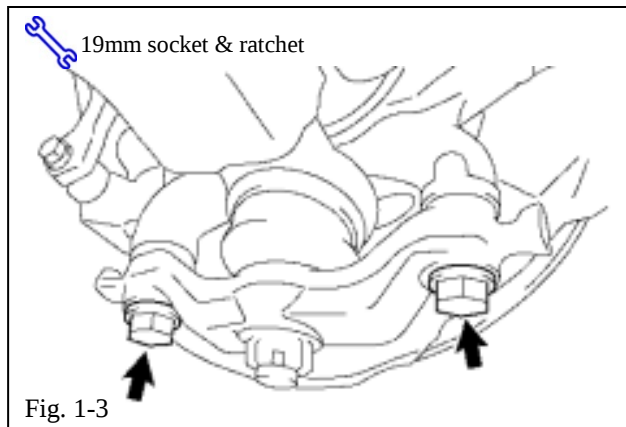
NOTE: Dispose of the engine under cover and fasteners **IF** working with an Ultimate Trail Edition. They will not be reused and will be replaced with the TRD Skid Plate.

- (f) Remove the front shock absorber with coil spring assembly.

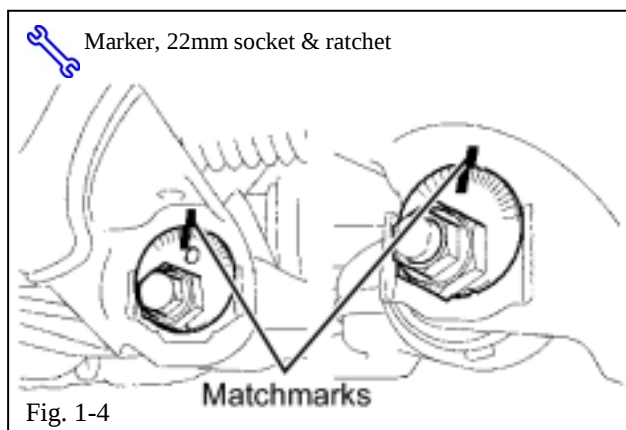
- (1) Use a 19mm wrench and 19mm socket to remove the lower bolt, nut and washer (Fig. 1-2). Retain them for reinstallation.

HINT: Push down on the brake caliper slightly to allow the bolt to slide out.





- (2) Use a 19mm socket to remove the two bolts from the lower ball joint assembly (Fig. 1-3). Retain them for reinstallation.

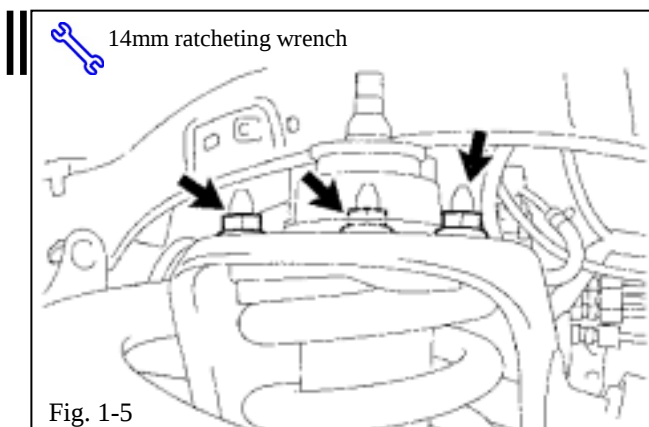


-  (3) Place matchmarks at top of the front and rear alignment cams to indicate the original position before loosening them (Fig. 1-4).

-  (4) Use a 22mm socket to loosen (**do not remove**) the lower control arm cam bolts & nuts to allow the lower control arm to swing down freely.

(a) At the front of the arm, loosen the bolt head facing forward.

(b) At the rear of the arm, loosen the nut facing rearward.



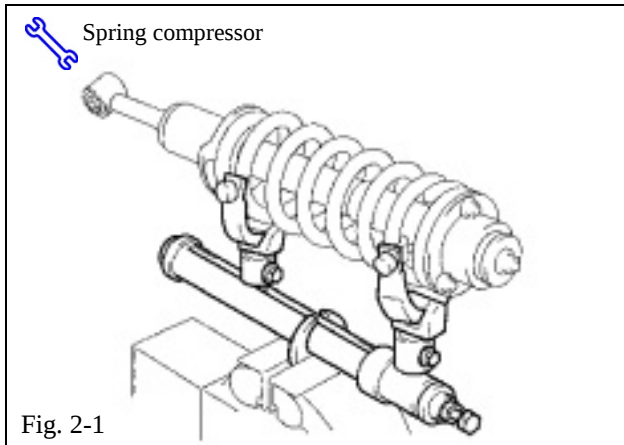
-  (5) Use a 14mm ratcheting wrench to remove the three nuts on the upper side of the front shock absorber with coil spring assembly (Fig. 1-5). Remove the assembly from the vehicle.

-  **CAUTION:** Take care not to damage the axle CV boot or steering rack boot while lowering the assembly.

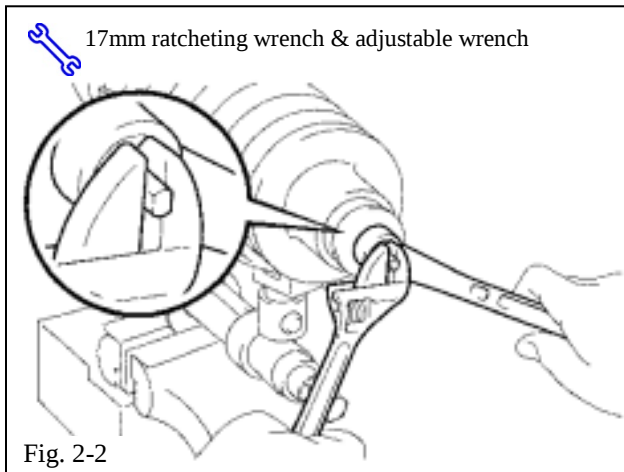
2. Assemble the TRD Front Shock Assembly.

(a) Remove the upper spring support.

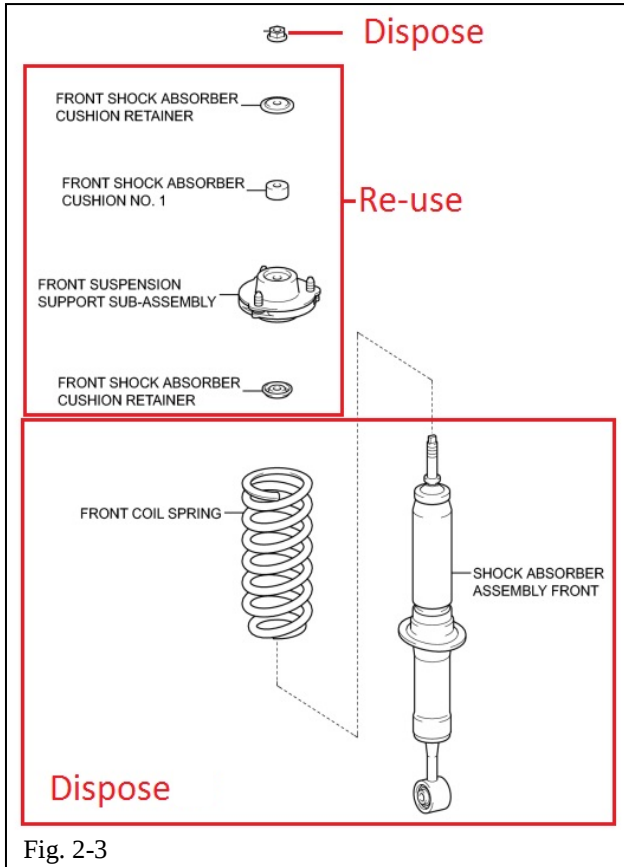
- +** (1) Use a spring compressor to compress the coil spring just far enough to remove pressure from the assembly (Fig. 2-1).



- (2) Use a 17mm ratcheting wrench to remove the shock nut while holding the shock absorber rod with an adjustable wrench (Fig. 2-2). Discard the nut as it will not be reused.



NOTE: Using an impact gun to remove the nut should prevent the need to hold the center stud.



- (b) Remove the front shock absorber cushion retainer and upper cushion (Fig. 2-3).
- (c) Remove the front suspension support sub-assembly.
- (d) Remove the lower cushion retainer.
- (e) Dispose of the shock absorber and spring.



- (f) Save the retainers, cushion and support assembly for reinstallation (Fig. 2-3a).



Spring compressor



Fig. 2-4



Fig. 2-5

Driver's Side

Passenger's Side

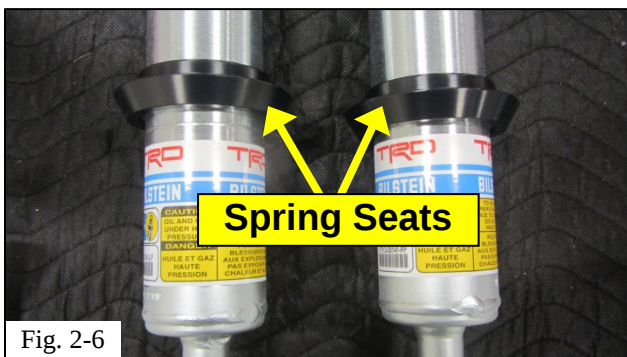


Fig. 2-6

Spring Seats

(g) Place a TRD spring and OE upper support into the spring compressor (Fig. 2-4).

(1) Confirm that the “TRD” logo is right side up and facing out.



(2) Compress the assembly.

(h) Place the springs on the TRD shock absorber assembly.

(1) Remove the dust boot from the TRD shock absorber.

(2) The front shock absorber assemblies are marked left and right. Be sure to confirm the correct installation location based on the snap ring location (Fig. 2-5).

High position snap ring = Driver's side

Low position snap ring = Passenger's side



CAUTION: Confirm the snap ring is fully seated in its groove.

(3) Install the spring seats onto the TRD shock absorber as shown (Fig. 2-6).



CAUTION: Be sure to install the spring seats correctly. The step faces up.



Incorrect



Fig. 2-7

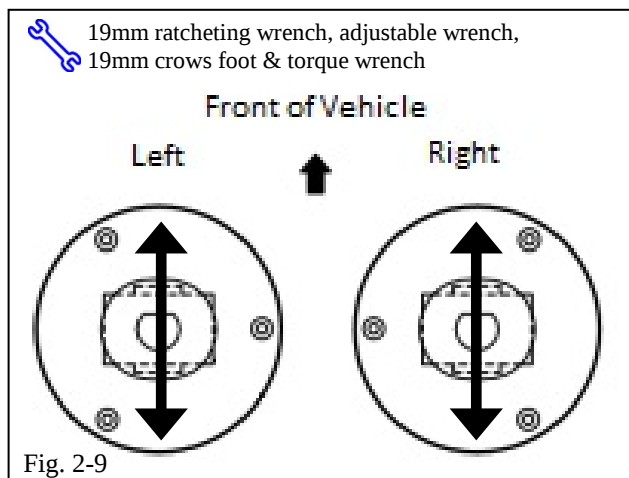
- (4) Reinstall the dust boot onto the TRD shock absorber (Fig. 2-7).
- (5) Place the lower retainer onto the shock stud (Fig. 2-7).



Fig. 2-8

- (6) Install the TRD shock absorber into the center of the spring and into the upper spring support assembly (Fig. 2-8).
- (7) Install the upper cushion, retainer and a new nut.

NOTE: Make sure to remove all spring tension from the support before placing the nut.



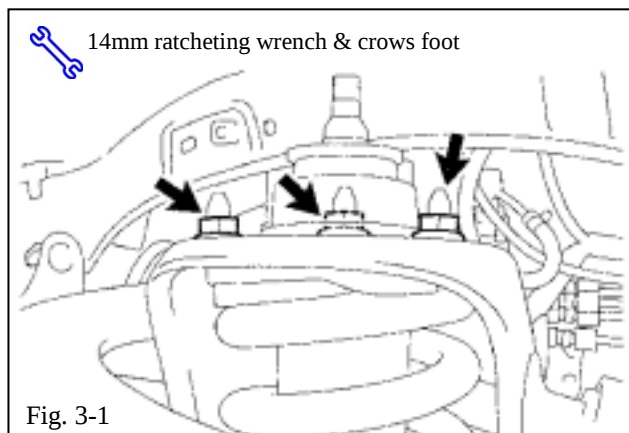
- (i) Index the shock absorber with the support as shown in Fig. 2-9.

NOTE: Align the lower bolt eye with the two outer studs on the upper spring support. The eye should have the openings to the front and rear of the vehicle.

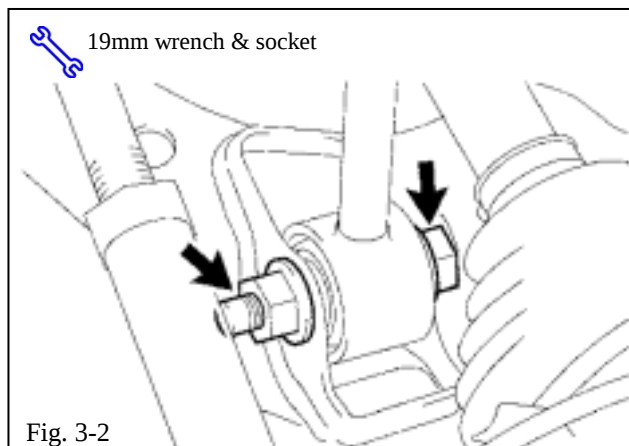
- (j) Use a 19mm ratcheting wrench to tighten the new nut while holding the shock absorber rod with an adjustable wrench.
- (k) Use a 19mm crows foot and a torque wrench to tighten the shock absorber nut.

S Torque: 25 N·m (255 kgf·cm, 18ft·lbf)

3. Install the TRD Shock Absorber Assembly.



- (a) Use a 14mm ratcheting wrench to temporarily install the three nuts onto the upper side of the front shock absorber with coil spring assembly (Fig. 3-1).
- (b) Raise the lower control arm and assemble it to the lower shock mount.

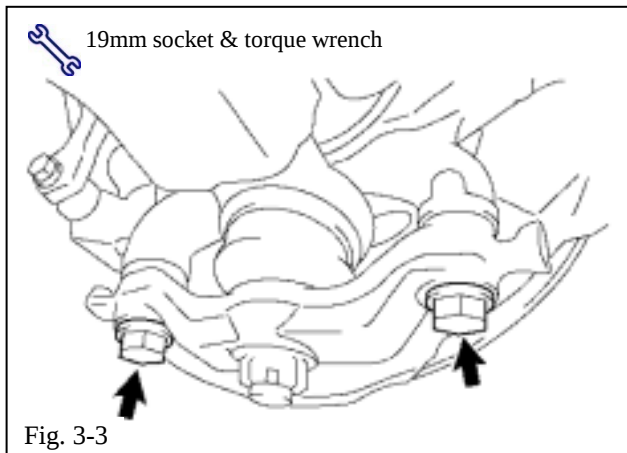


- (c) Use a 19mm wrench and a 19mm socket to temporarily tighten the lower bolt, nut and washer as shown in Fig. 3-2.

NOTE: Hand tighten for moving the vehicle to alignment.

- (d) Use a 14mm crows foot to torque the three nuts on the upper side of the front shock absorber with coil spring assembly (Fig. 3-1).

S Torque: 64 N·m (653 kgf·cm, 47·lbf)



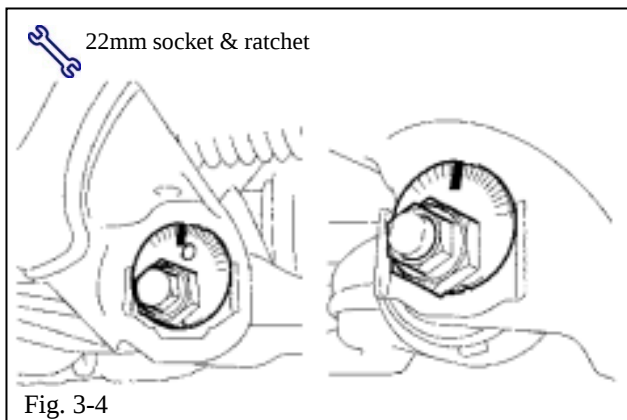
- (e) Push down on the steering knuckle so that it aligns with the lower ball joint assembly.
- (f) Use a 19mm socket to install and torque the front lower ball joint attachment with the two bolts (Fig. 3-3).



WARNING: You **MUST** hand start these bolts before using an air tool.



Torque: 160 N·m (1631 kgf·cm, 118ft·lbf)



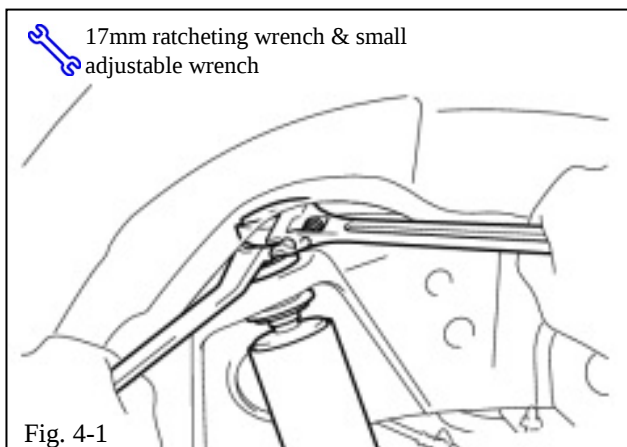
- (g) Align the adjustment cams to the marks made in Step 1(f)(3) (Fig. 3-4).
- (h) Use a 22mm socket to temporarily tighten the lower control arm bolts (Fig. 3-4). Snug with a ratchet is fine until alignment.
- (i) Install the front wheels.

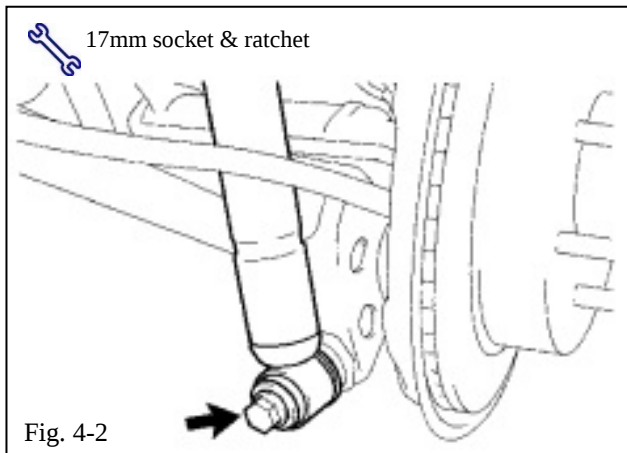


Torque: 113 N·m (1152 kgf·cm, 83ft·lbf)

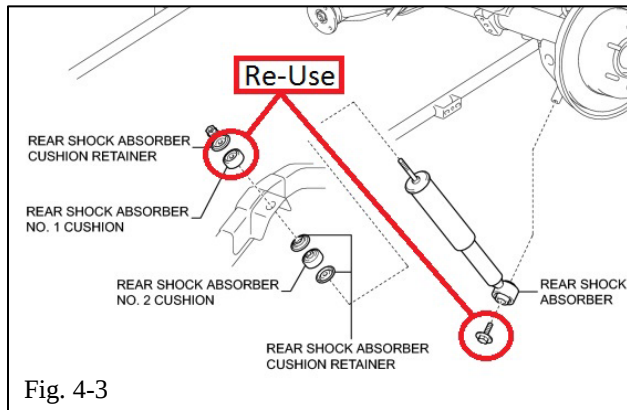
4. Remove the Rear OE shocks.

- (a) Remove the rear wheels.
- (b) Support the rear axle housing using a tall stand or a floor jack if working low to the ground.
- (c) Use a 17mm ratcheting wrench to remove the nut while keeping the piston rod from rotating with an adjustable wrench (Fig. 4-1).
- (d) Remove the nut, upper cushion and retainer.
 - (1) Retain the upper cushion and retainer.
 - (2) The nut will not be reused.





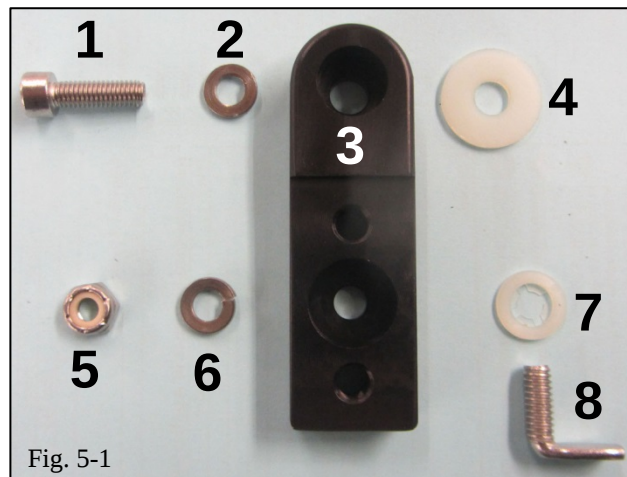
- (e) Use a 17mm socket to remove the lower shock absorber bolt and separate the shock absorber (Fig. 4-2).



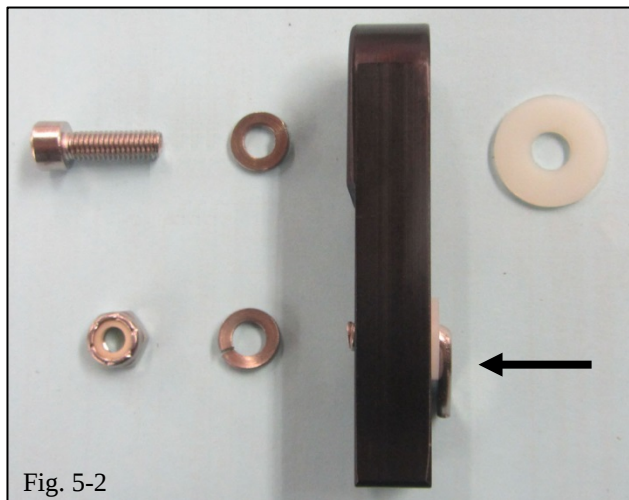
- (f) Retain the top cushion, retainer and lower bolt (Fig. 4-3).
- (g) Discard the nut, lower cushion and shock absorber.

5. Install the Reservoir Bracket Adapter.

- (a) Lay out the reservoir bracket adapter and hardware for each side (Fig. 5-1).

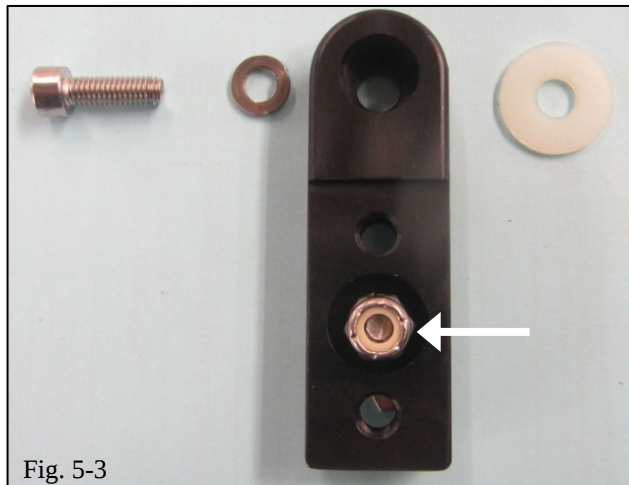


- (1) M8 SHCS
- (2) Split lock washer for M8 SHCS
- (3) Reservoir bracket adapter
- (4) Nylon washer
- (5) 1/4" thin hex locknut, nylon
- (6) Split lock washer for 1/4"
- (7) Nylon retaining washer
- (8) Right angle weld stud



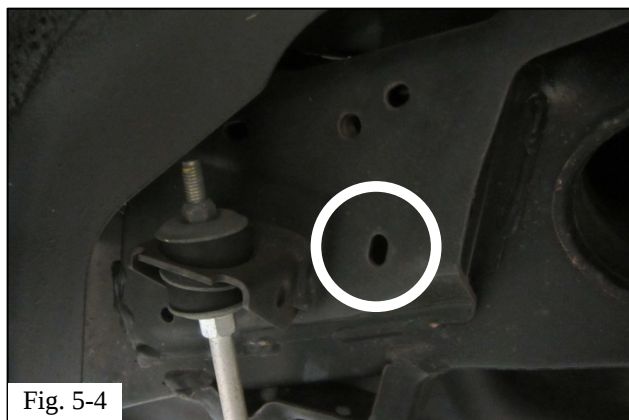
- (b) Slide the nylon retaining washer over the right angle weld stud, and then insert the threaded end of the stud into the reservoir bracket adapter (Fig. 5-2).

NOTE: Be sure to insert the weld stud into the smooth side of the bracket adapter.



- (c) Slide a split lock washer for $\frac{1}{4}$ " over the right angle weld stud, and then thread on the $\frac{1}{4}$ " thin hex nylon locknut by hand until the threads of the right angle weld stud reach the nylon in the locknut (Fig. 5-3).

NOTE: Be sure to fit the locknut into the counter bore of the bracket adapter.



- (d) Locate the slot in Fig. 5-4.

NOTE: Driver's side shown. Use the sway bar end link attachment for reference.

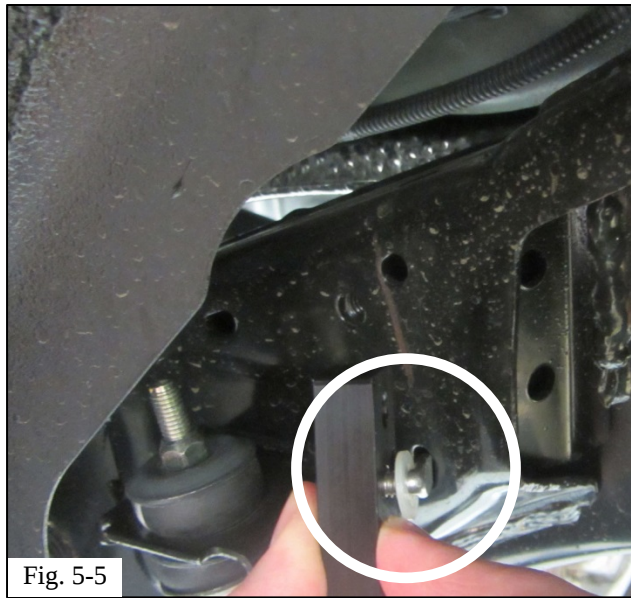


Fig. 5-5

- (e) With the reservoir bracket adapter hanging upside down, slide the right angle weld stud into the slot located in Step 5(d) (Fig. 5-5).

NOTE: Orient the tab such that it angles towards the front of the vehicle as it enters the slot.

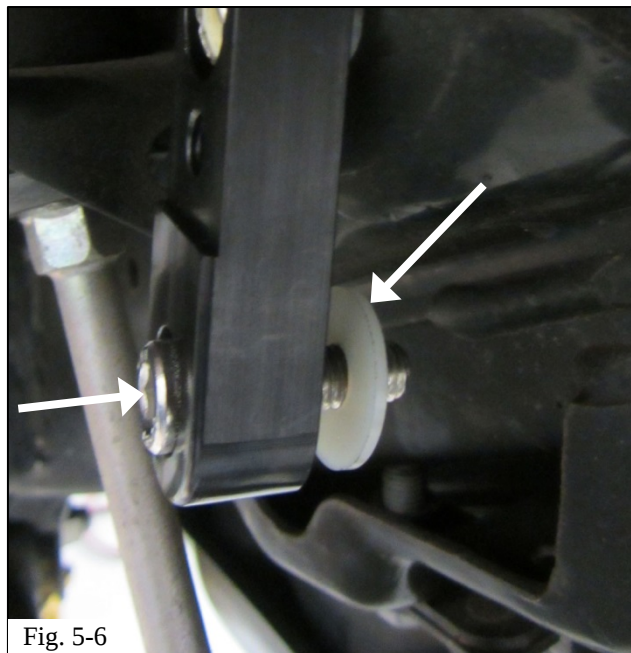


Fig. 5-6

- (f) With the reservoir bracket adapter hanging upside down, slide the M8 SHCS through a split lock washer for M8 SHCS, and then into the remaining countersunk hole (Fig. 5-6).

- (g) Slide the nylon washer over the exposed thread of the M8 SHCS (Fig. 5-6).

- !** (h) Apply Permatex Blue Gel to the exposed M8 threads.

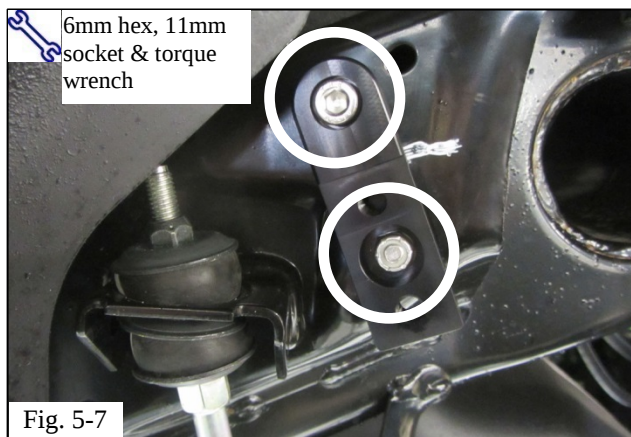


Fig. 5-7

- (i) Swing the reservoir bracket adapter right side up and torque the M8 SHCS into the threaded hole in the chassis using a 6mm hex socket (top, Fig. 5-7).

Torque: 18 N·m (184 kgf·cm, 160 in·lbf)

- (j) Use an 11mm socket to torque the 1/4" nut (bottom, Fig. 5-7).

Torque: 7 N·m (72 kgf·cm, 62 in·lbf)

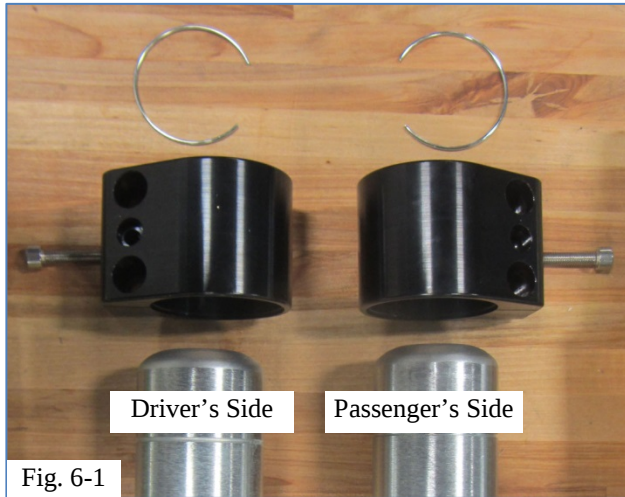


Fig. 6-1

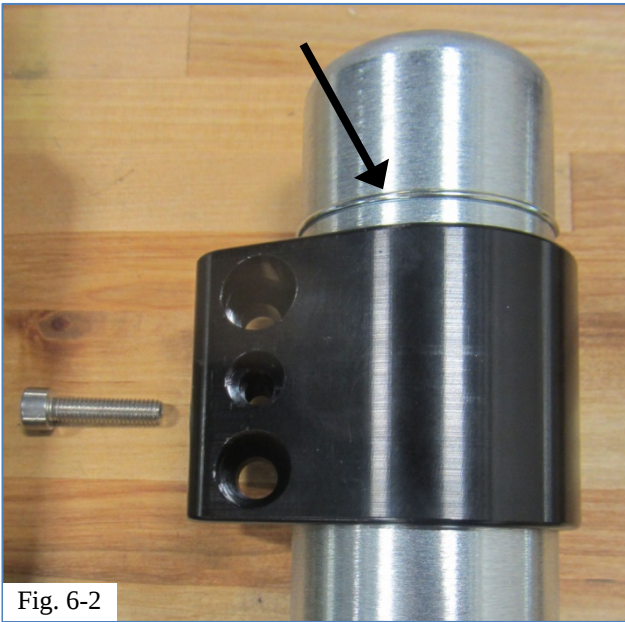


Fig. 6-2

6. Install the Reservoir Bracket.

- (a) Lay out the reservoir bracket and the appropriate hardware for each side (Fig. 6-1).

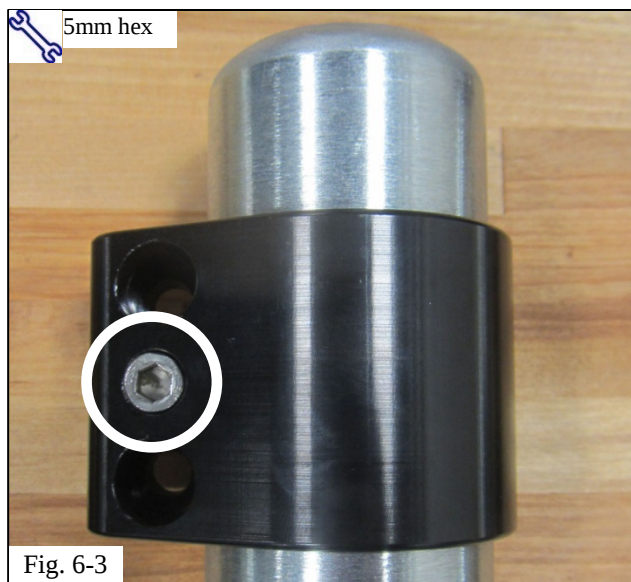
NOTE: The driver's side is on the left and the passenger's side is on the right.

- (1) Snap ring.
- (2) M6 SHCS.
- (3) Reservoir bracket.

⚠ NOTE: The stepped side of the bracket is facing down as it will mate with the bracket adaptor installed in Step 5. This orientation is critical.

- (b) Slide the reservoir bracket down over the reservoir tube then install the snap ring into the groove (Fig. 6-2).

NOTE: Confirm the snap ring is completely seated in the groove.

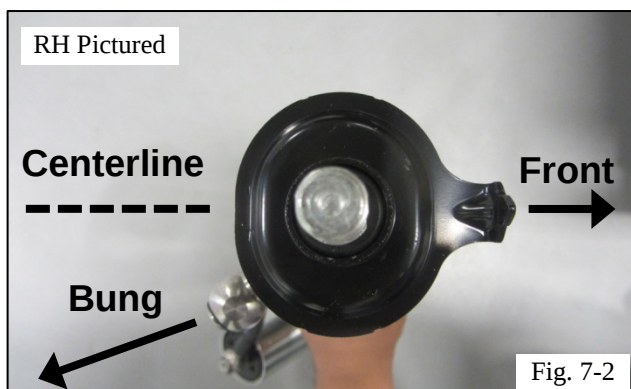


- (c) Slide the reservoir bracket up over the snap ring until it bottoms out (Fig. 6-3).
- (d) Apply Permatex Blue Gel to M6 SHCS.
- (e) Use a 5mm hex socket to torque the M6 SHCS.

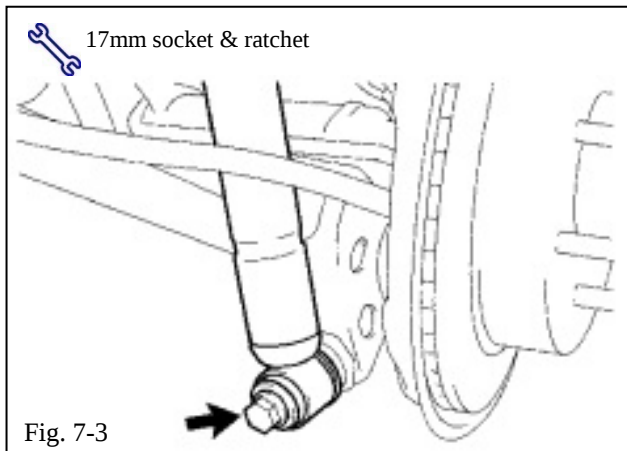
Torque: 7 N·m (72 kgf·cm, 62 in·lbf)

7. Install the TRD Rear Shock Absorbers.

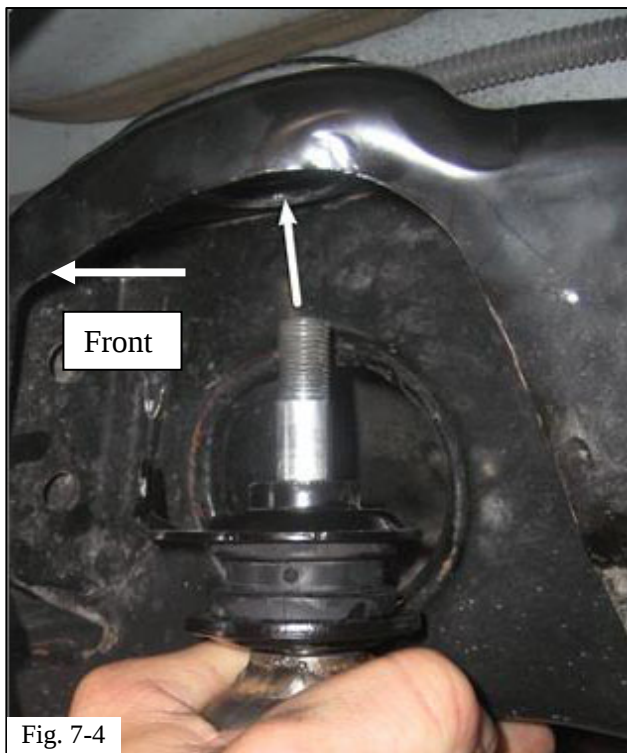
- (a) Install a new supplied alignment cushion onto the shock stud. Make sure that the alignment stake is pointed away from the hose bung (Fig. 7-1).



-  (b) Identify the left and right shock absorbers. The reservoir hose bung points **OUT** from the centerline of the vehicle, towards the installer (RH shown, Fig. 7-2). This orientation is critical.



- (c) Use a 17mm socket to temporarily install the shock absorber lower mount with the bolt removed in Step 4(e) (Fig. 7-3).



- (d) Insert the stud into shock mount (Fig. 7-4).

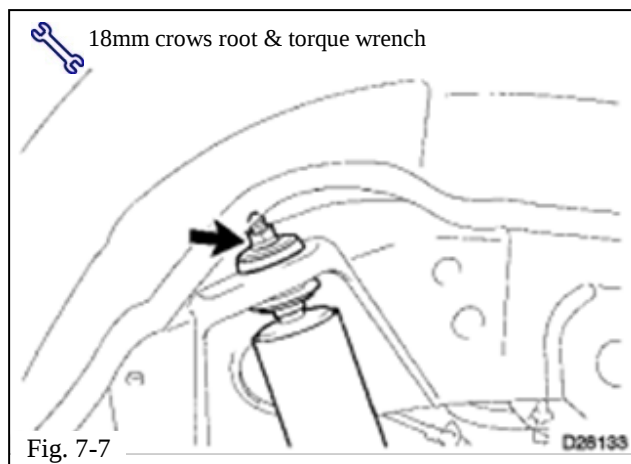
NOTE: To fit the shock absorber, SLOWLY compress it making sure to press perfectly in line with the shock shaft. Any pressure off axis will make it very difficult to compress.



- (e) Ensure that the shock stud and alignment cushion is centered properly in the chassis shock mount, and the alignment stake is located in the hole directly forward of the shock stud hole (Fig. 7-5).

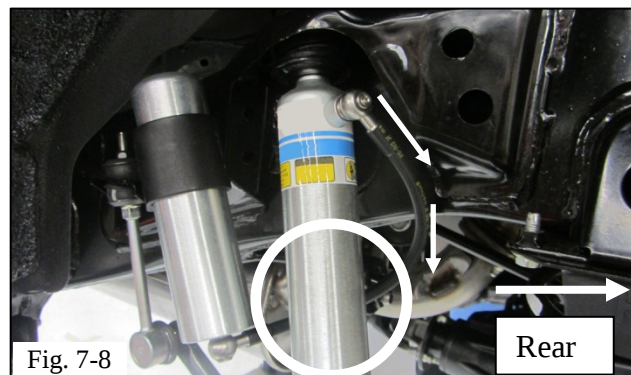


- (f) Make sure that once installed, the hose bung is pointed outboard from the center, and towards the rear of the vehicle (Fig. 7-6).

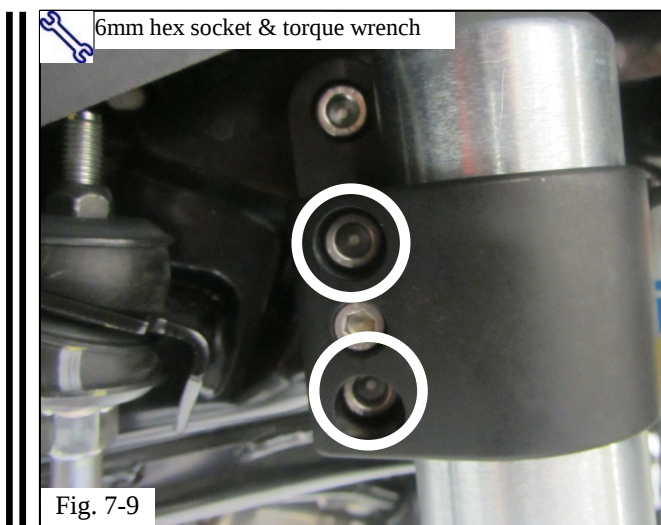


- (g) Reinstall the upper cushion and retainer onto the shock stud and tighten **the new supplied nut** (Fig. 7-7).

S Torque: 25 N·m (255 kgf·cm, 18 in·lbf)



- (h) With the main shock body in place, route the reservoir and reservoir hose toward the center of the vehicle, behind the main shock body, towards the front of the vehicle (Fig. 7-8).
- (i) Slide two M8 SHCS through two split lock washers for M8 SHCS, then through the two holes in the reservoir bracket.
- (j) Apply Permatex Blue Gel to the exposed threads of the M8 SHCS.



- (k) Use a 6mm hex socket to secure the reservoir bracket to the reservoir bracket adapter (Fig. 7-9).

Torque: 17 N·m (173 kgf·cm, 150 in·lbf)

- (l) Install the rear wheels.

⚠ Torque: 113 N·m (1137 kgf·cm, 83 lb·lbf)

8. Adjust the Wheel Alignment.

- (a) Confirm the alignment system has been calibrated (once per shift).

- (b) Install the wheel clamps (Fig. 8-1).

- ⚠** (1) Place the lower feet onto the inside lip of the bead lock ring (the feet should have tubing to protect the lock ring).

- (2) Expand the clamp until the upper mounting feet grip the inside lip of the bead lock ring.

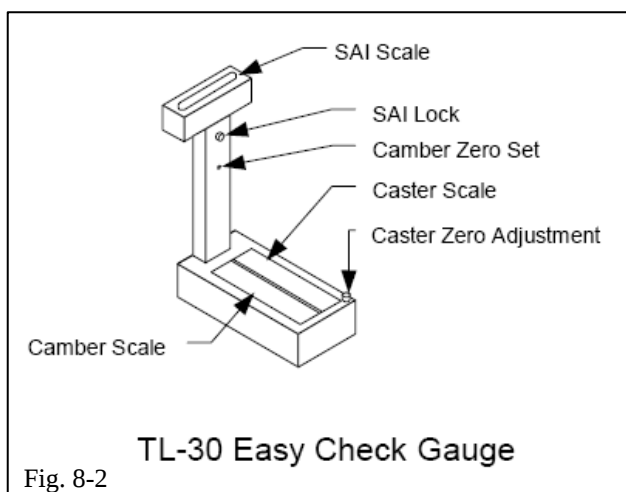
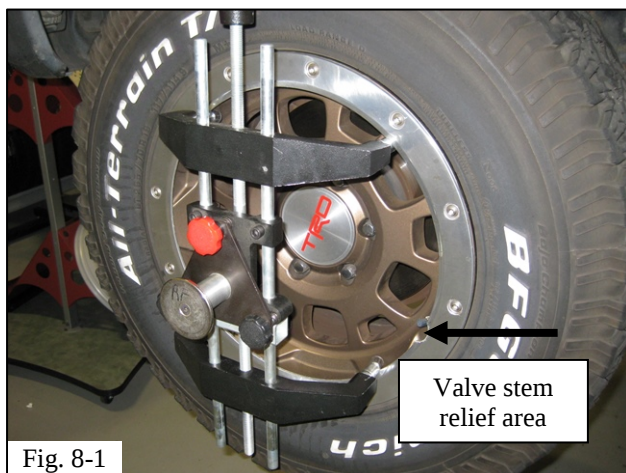
- (3) The clamp should be attached firmly.

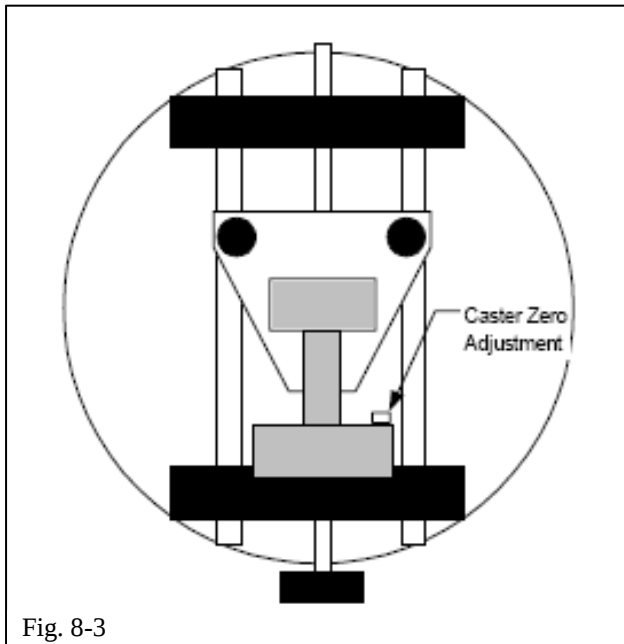
- (4) Confirm that no feet are placed in the air valve stem relief area.

- (c) Perform the run-out procedure (Fig. 8-2).

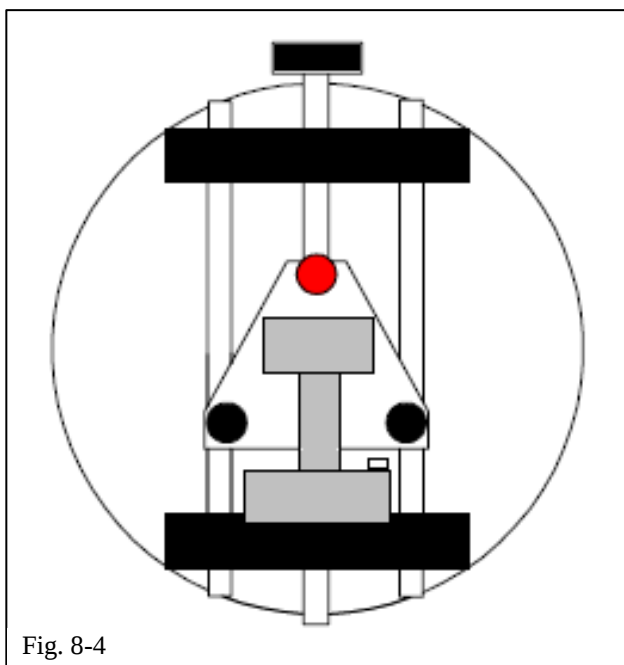
- (1) Place the TL-30 on the disc extending from the wheel clamp.

- (2) Level the TL-30 using the SAI scale on the top of the post. Make sure the TL-30 can move easily so that it stays relatively level when the wheel clamp is rotated.





- (3) Rotate the wheel with the clamp until the installation knob is at the 6 o'clock position. Set the caster bubble to zero on the caster scale (see Fig. 8-6); this is done with the caster adjustment knob which is located on the body of the TL-30 (Fig. 8-3).



- (4) Rotate the wheel with the clamp $\frac{1}{2}$ turn. The installation knob should be at the 12 o'clock position (Fig. 8-4).
- (5) Level the TL-30 and read the number on the caster scale.
- (6) Adjust the bubble to the point halfway between 0 and the current reading using the RED knob on the TL-28. When making this adjustment, it is important not to move the bubble with the caster adjustment knob.

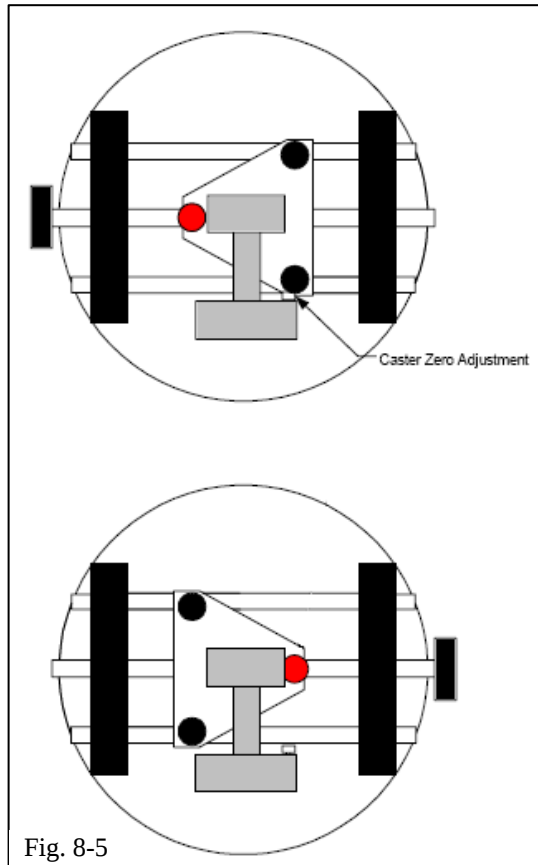


Fig. 8-5

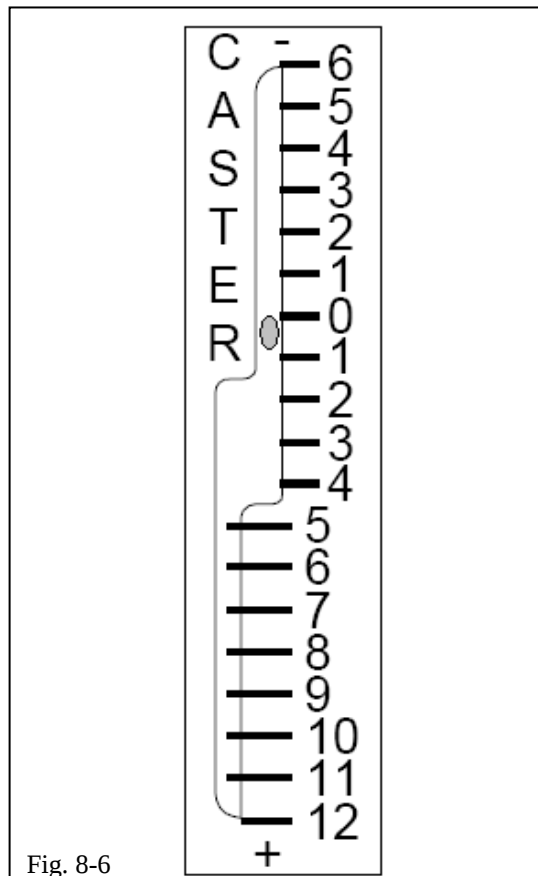


Fig. 8-6

- (7) Rotate the wheel $\frac{1}{4}$ turn to the left, so the installation knob is at the 9 o'clock position (Fig. 8-5).
- (8) Level the TL-30 and set the caster bubble to zero with caster adjustment knob.
- (9) Rotate the wheel $\frac{1}{2}$ turn, until the installation knob is at the 3 o'clock position.
- (10) Level the TL-30 and read the number on the caster scale.
- (11) Adjust the caster bubble to the point halfway between 0 and the current reading using the two BLACK knobs on the wheel clamp.
- (12) Rotate the wheel until the installation knob is at the 12 o'clock position. Level the TL-30 and adjust the caster knob until the caster bubble reads zero (Fig. 8-6).
- (13) With the TL-30 held in a level position with one hand (do not grasp or hold tightly), rotate the wheel one full turn while watching the caster bubble. The bubble should not move more than $\frac{1}{8}$ of a bubble. If the bubble does move, repeat the run out procedure.
- (14) Place TL-30 back onto the cart.

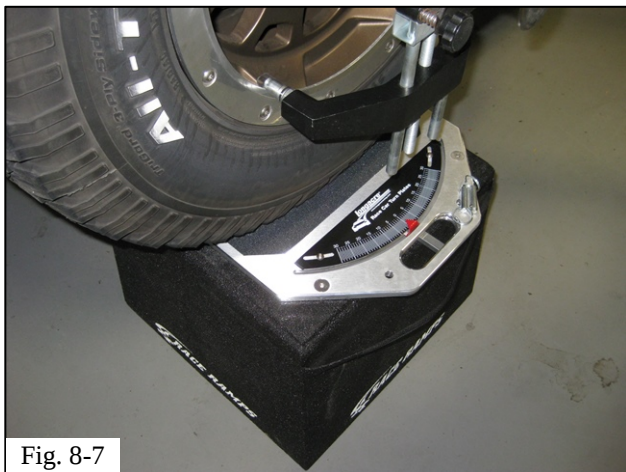


Fig. 8-7

(d) Lower the vehicle onto vehicle stands (Fig. 8-7).

(1) Confirm the turn plates are in place on the front wheel stands.

(2) Place spacers under the rear tires so that the vehicle is level.

(3) Remove the locking pins from the turn plates.

9. Adjust / Measure the Camber.

(a) Make note of which rear cam has the least amount of adjustment available to turn the bolt to the outside of the vehicle.

(b) Turn the above noted cam to the full outboard position (Fig. 9-1).

(c) Turn the other cam the same number of marks that was available on the first cam towards the outboard direction.

(d) Tighten the bolts to prevent movement.

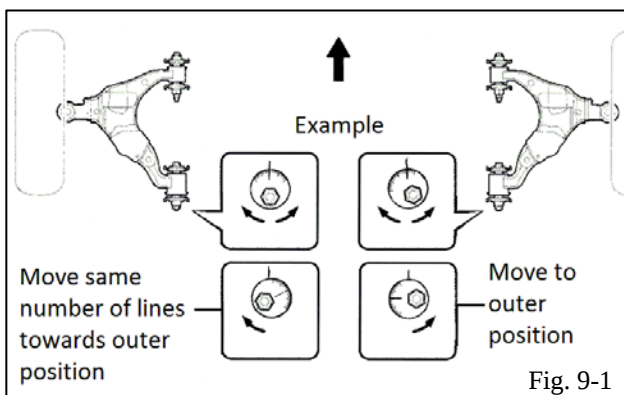


Fig. 9-1

(e) Place the TL-30 gauge onto one of the front wheel clamps. Nominal is 0.00° and the range is from -0.50° to $+0.50^\circ$ (Fig. 9-2).

(f) Place the TL-30 gauge onto the other front wheel clamp. Nominal is 0.00° and the range is from -0.50° to $+0.50^\circ$.

(g) The difference left to right must be 0.50° or less.

(h) Make adjustments if necessary.

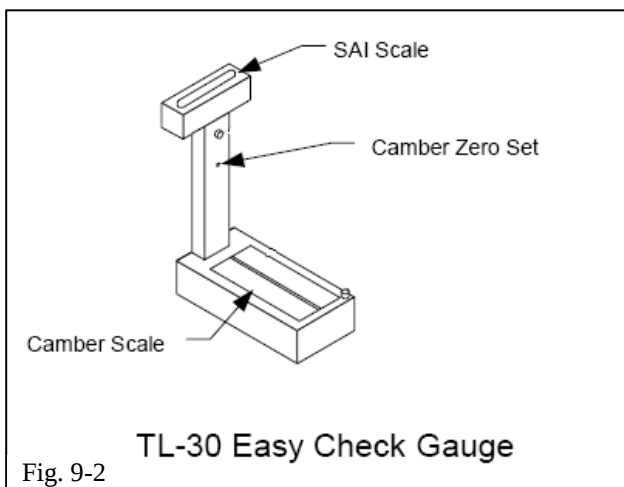
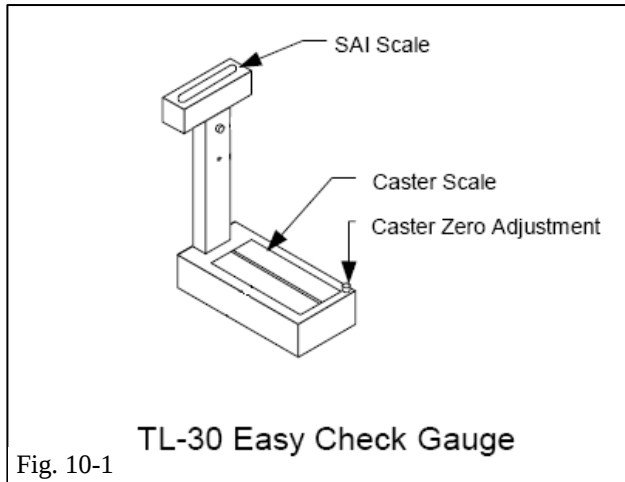


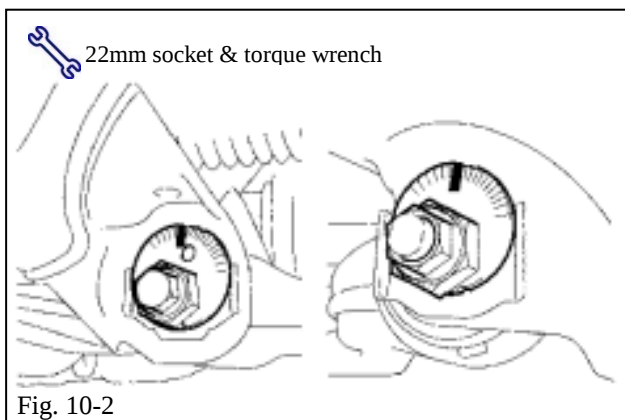
Fig. 9-2

TL-30 Easy Check Gauge



10. Adjust / Measure Caster.

- (a) Confirm the front cams are in the original factory position by checking the marks made during disassembly in Step 1(f)(3).
- (b) Confirm the brake holding tool is still in place.
- (c) Turn the wheel with the TL-30 gauge outwards 20° (Fig. 10-1).
- (d) Straighten out the gauge by using the 0 position on the SAI bubble found on top of the TL-30.
- (e) Zero out the caster gauge by using the caster zero adjustment knob.
- (f) Turn the wheel inward 20° or a total of 40° from the current position.
- (g) Straighten out the gauge by using the 0 position on the SAI bubble found on top of the TL-30.
- (h) The caster nominal reading is +3.25°. The range can be from +2.75° to +3.75°.
- (i) Repeat Steps (a) through (h) for the other side.
- (j) The difference left to right must be 0.50° or less.
- (k) Make adjustments with the front cams as necessary.
- (l) Use a 22mm socket to torque the front and rear lower control arm bolts (Fig. 10-2).



S Torque: 175 N·m (1785 kgf·cm, 129 lb·lbf)

11. Adjust the Toe.

- (a) Install a steering wheel holding tool. Insure that the steering wheel is completely straight.

HINT: Line up the horn pad with the plastic garnish covering the steering column (Fig. 11-1).

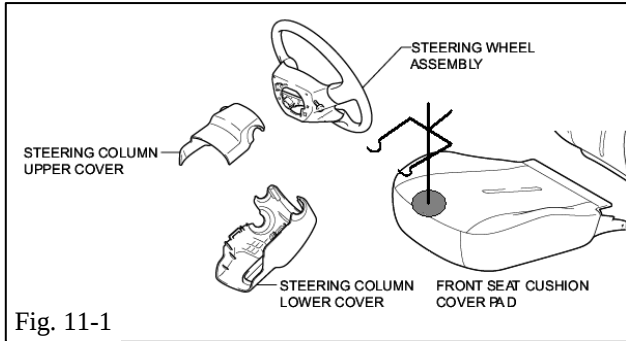


Fig. 11-1

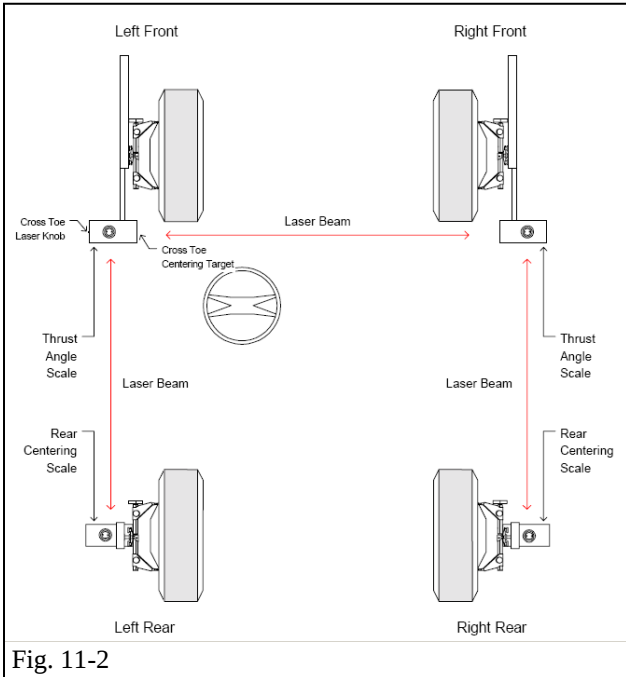


Fig. 11-2

- (b) Place the alignment heads onto the wheel clamps as shown in Fig. 11-2.
- (1) The front alignment heads should have the laser boxes facing the rear of the vehicle.
- (c) The rear combi gauges should hang straight down.
- (d) Confirm that the rear combi gauges are set at zero toe.
- (1) Turn the large toe setting adjusting knobs to 0mm.

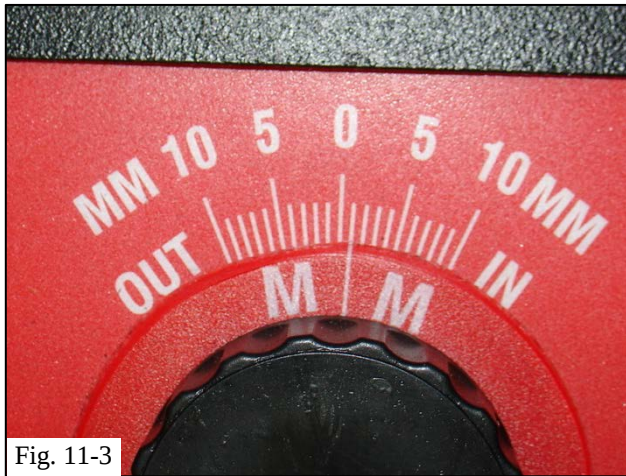


Fig. 11-3

- (e) Set the front laser guns' toe knobs to 1mm IN (Fig. 11-3).
- (f) Turn the lasers on by pressing the white ON buttons.
- (g) Confirm the front lasers are striking the rear combi gauges and that you can see the laser light up the centering scale as well as the mirror.

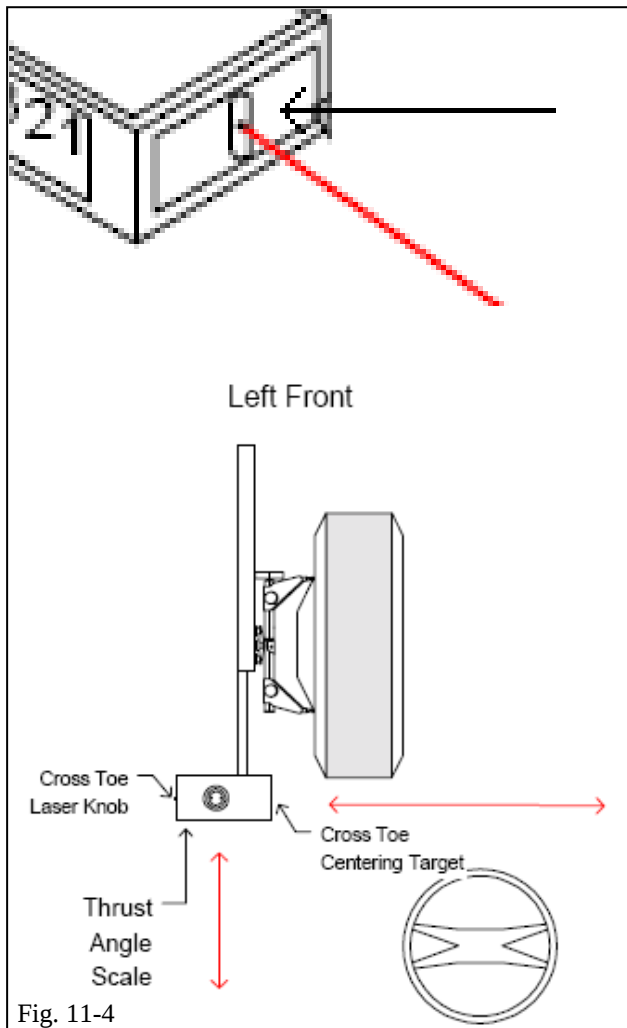
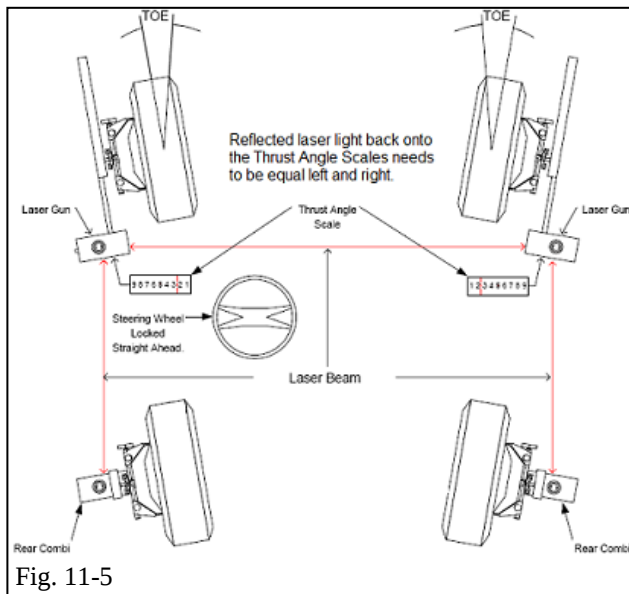
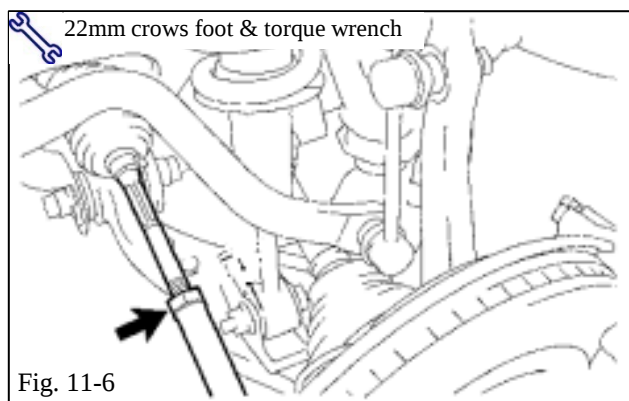


Fig. 11-4

- (h) Check to make sure that the cross-toe laser from the left laser box is hitting the cross-toe mirror in the right side laser box. If not, adjust the cross toe vertical pivot knob, found on the left laser box, until the laser hits the mirror (Fig. 11-4).
- (i) Adjust the tie rod ends so that the laser light reflects onto the "1" on the thrust angle scales. (This is to get the settings in roughly the correct location.)



- (j) Adjust the tie rod ends so that the cross laser “falls in the hole” **and** the positions on the thrust angle scales match left and right (Fig. 11-5).

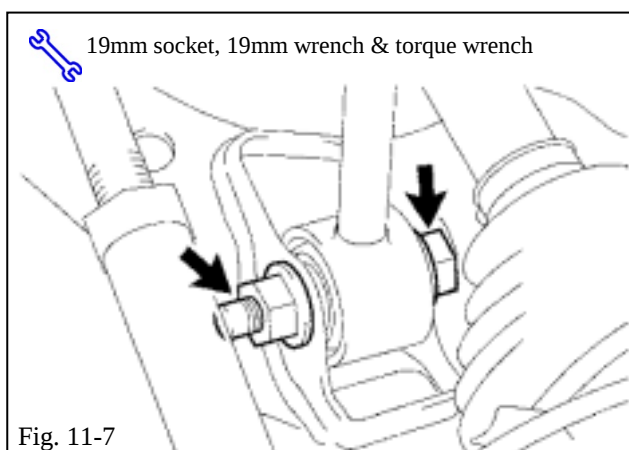


- (k) Use a 22mm crows foot to torque the locking nut and be sure not to upset the final readings (Fig. 11-6).

S Torque: 88 N·m (897 kgf·cm, 65 lb·lbf)

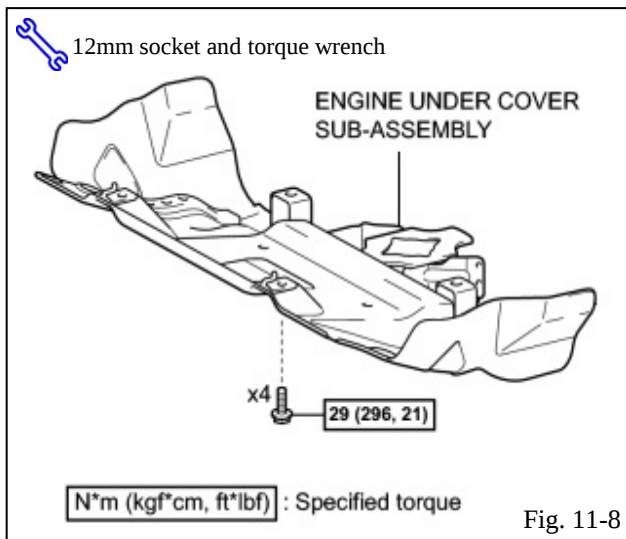
- (l) Remove the alignment heads and return them to the cart.

- (m) Remove the wheel clamps.



- (n) Use a 19mm wrench and 19mm socket to torque the front lower shock bolts (Fig. 11-7).

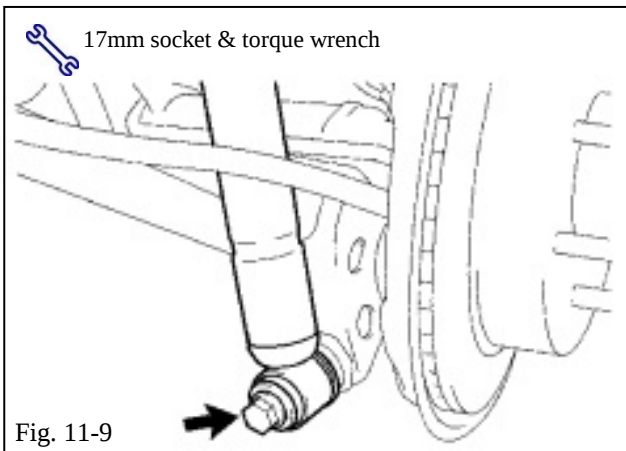
S Torque: 95 N·m (969 kgf·cm, 70 lb·lbf)



- (o) Use a 12mm socket to install the engine under cover and torque the bolts (Fig. 11-8).

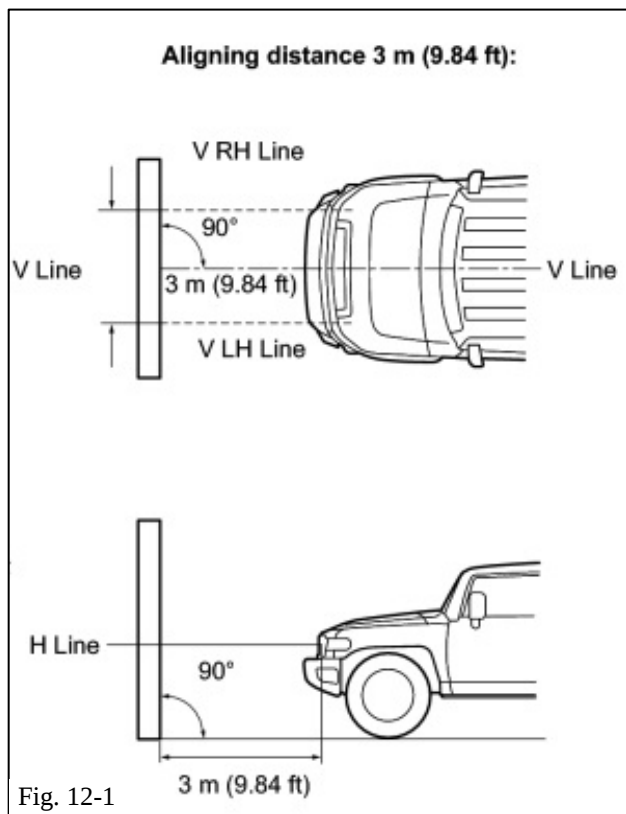
S Torque: 29 N·m (296 kgf·cm, 21 lb·lbf)

NOTE: If the vehicle will be outfitted with the TRD Skid Plate, do not install the factory engine under cover and install the TRD Skid Plate now.



- (p) Use a 17mm socket to torque the rear lower shock bolts (Fig. 11-9).

S Torque: 98 N·m (1000 kgf·cm, 72 lb·lbf)



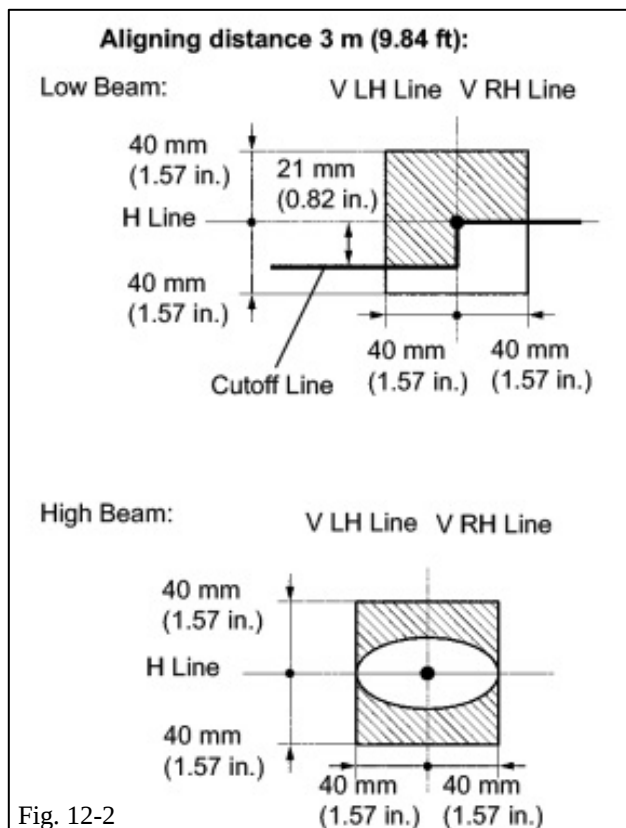
12. Adjust the Vertical Headlamp Aim.

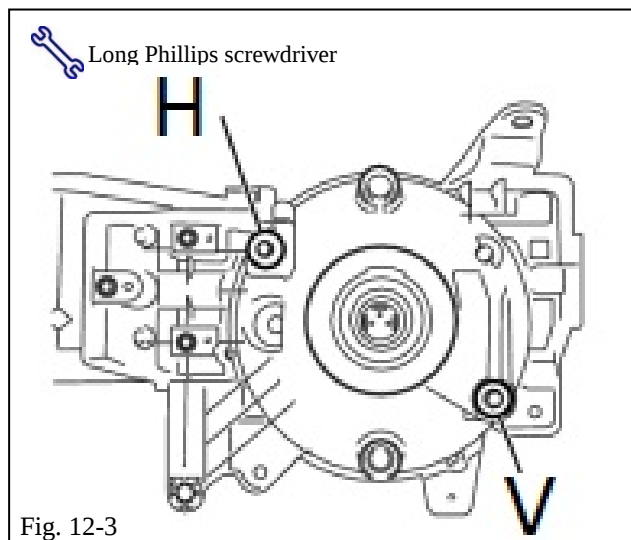
- (a) Prepare the vehicle in accordance with the following conditions (Fig. 12-1):
 - (1) Place the vehicle in a location that is dark enough to clearly observe the cutoff line. The cutoff line is a distinct line, below which light from the headlights can be observed and above which it cannot.
 - (2) Place the vehicle at a 90° angle to the wall.
 - (3) Keep a 3 m (9.84 ft) distance between the center of the headlight bulb and the wall.
 - (4) Place the vehicle on a level surface.
 - (5) Measure the height to the center mark on the headlight lens. This is your H Line height.
 - (6) Mark this height on the wall in front of the vehicle (ex: use masking tape).
- (b) Adjust the vertical aim of the lamps (Fig. 12-2).
 - (1) Cover the headlight on the opposite side to prevent light from the headlight not being adjusted from affecting the headlight aiming process.



NOTICE: Do not keep the headlight covered for more than 3 minutes. The headlight cover can be damaged due to high heat.

- (2) Turn on the headlamps.





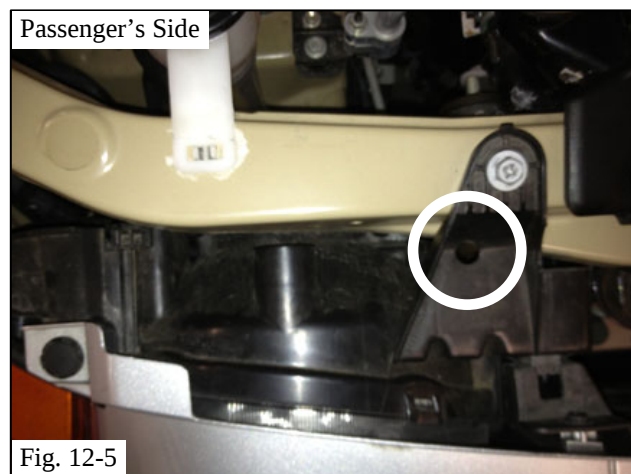
- (3) Adjust the headlight aim to within the specified range by turning aiming screw “V” with a screwdriver (Fig 12-3).



- (c) Both the left and right adjustment screws are accessed through holes in the headlight mount (Fig. 12-4 & Fig. 12-5).

NOTE: The final turn with the screwdriver should be in the clockwise direction. If you pass the correct adjustment point, loosen the screw and then retighten it, so that the final turn of the screw is in the clockwise direction.

NOTE: Do not adjust the “H” adjustment.



⚠ NOTE: Since the low-beam light and the high-beam light are a unit, if the aim on one is correct, the other should be correct. The high-beam should only need verification and no adjustment, but check and adjust if necessary.

Check:	Look For:
<u>Accessory Function Checks</u>  ☐ Inspect the torques. ☐ Verify the rear shock hoses are facing away from the frame and to the rear. ☐ Confirm the rear shock reservoirs are fixed in place.	Nut, front shock absorber, top: 25 N·m (255 kgf·cm, 18ft·lbf) Bolt, front shock absorber, lower: 95 N·m (969 kgf·cm, 70 ft·lbf) Nut, rear shock absorber, top: 25 N·m (255 kgf·cm, 18 ft·lbf) Bolt, rear shock absorber, lower: 98 N·m (1000 kgf·cm, 72 ft·lbf)
<u>Vehicle Function Checks</u> ☐ Inspect the bolt torques. ☐ Check the steering wheel. ☐ Verify the headlight aim.	Spring support to vehicle, front: 64 N·m (653 kgf·cm, 47·lbf) Ball joint to steering knuckle, lower: 160 N·m (1631 kgf·cm, 118 ft·lbf) Control arm bolts/nuts, lower (F&R): 175 N·m (1785 kgf·cm, 129 ft·lbf) Locking nut, tie rod end: 88 N·m (897 kgf·cm, 65 ft·lbf) Engine under cover: 29 N·m (296 kgf·cm, 21 ft·lbf) The steering wheel should be straight. The headlight aim should be in spec.
<u>Vehicle Appearance Check</u> ☐ After accessory installation and removal of protective cover(s), perform a visual inspection.	Ensure no damage (including scuffs and scratches) was caused during the installation process. (For PPO installations, refer to TMS Accessory Quality Shipping Standard.)