



## INSTALLATION INSTRUCTIONS FOR A REPLACEMENT TANK

# THE LONG RANGER

THE BIG TANK FOR A BIG COUNTRY



### Diesel Mazda BT/Ford Ranger

**TR73L -140lt**, Sits 17mm below the standard bash plate (46mm below chassis).

**TR73S -122lt**, Sits flush with chassis.

Both tanks suit 2WD Hi-Rider and 4WD Mazda BT/PX Ranger Dual Cab/Extra Cab/Single Cab, Diesel

### GENERAL NOTES

- Fitting time is approximately three hours. No major vehicle modifications are required. This LONG RANGER tank locates under the vehicle in place of the standard tank.
- A hoist is not essential but will speed the job up significantly.
- The original filler, fuel level sender unit, pick-up unit, are reused in this installation. Extreme care and cleanliness is recommended when handling fuel level sender and submerged fuel pump units. Inspect any components that are to be reused from the original tank installation for serviceability and replace any item found to be defective.
- Check if the vehicle owner wants to retain the original tank and any associated parts.
- LONG RANGER tanks are coated with a high-performance primer. For added protection, a topcoat may be added. If the vehicle has been rustproofed, it is suggested that the tank (and any changes made to the vehicle during fitting) be touched up after installation.
- The trip meter distance to empty will no longer work as intended by the manufacturer.
- This tank will fit with the Hayman Reese 5<sup>th</sup> wheel hitch rail mount #FW2050, but the rear right tank mount will need to be fitted with 2off M12 x 120 socket head cap screws in place of the ubolts.

*Observe safety precautions during the installation of the LONG RANGER fuel tank*



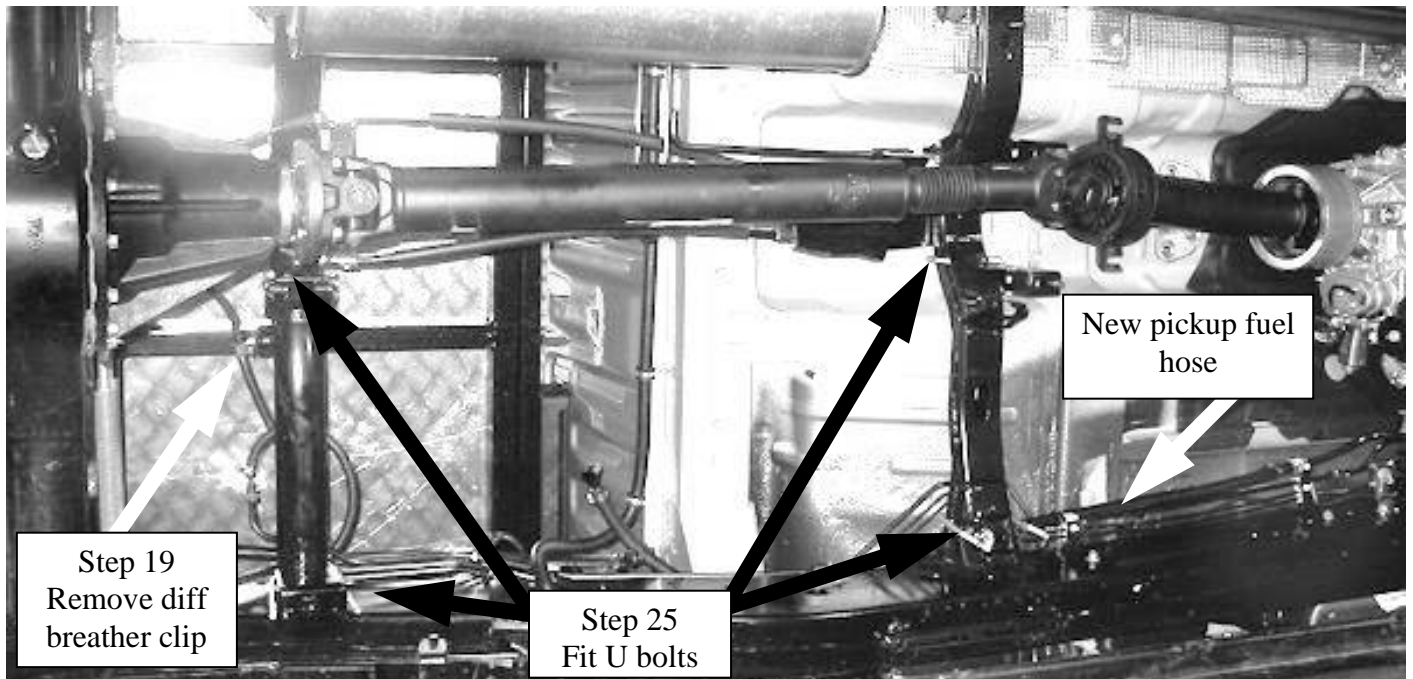
## INSTALLATION KIT TR73

**QTY DESCRIPTION** This LONG RANGER installation kit has been check by \_\_\_\_\_

- 1 LONG RANGER Tank #TR73L (40 KG)
- 1 LONG RANGER Tank #TR73S (36 KG)
- 1 Plastic bag 550mm long
- 1 Rollover valve #VAROLL07 (*Factory fitted in top of tank.*)
- 1 Rollover valve grommet #VAROLL08 (*Factory fitted in top of tank.*)
- 1 Clamp ring #R63CR
- 1 Replacement float arm #FLARTR71L *318 between centers (Not required on TR73S)*
- 1 Replacement float arm #FLARTR71S *283 between centers (Not required on TR73L)*
- 1 U-bolt long #FAUBOLTR71A
- 1 U-bolt long #FAUBOLTR71B
- 1 U-bolt long #FAUBOLTR71C
- 1 U-bolt long #FAUBOLTR71D
- 1 #SF02 M8 captive bolt
- 1 Nut plain M8
- 1 Spring washers M8
- 1 Flat washers M8
- 8 Self-locking nuts M10 (ubolts)
- 8 Flat washers 10 x 30 x 2.5mm (ubolts)
- 2 Flat washers 10 x 20 (rear right ubolt)
- 8 Screw M5 x 10mm
- 5 Cable tie 5mm x 300mm
- 5 Cable tie 5mm x 200mm
- 6 Hose clamp MH4
- 4 Hose clamp MH6 (fuel pickup and link breather)
- 1 Plastic joiner/reducer 8x6mm (PLJORE0806MM)
- 1 Fuel hose 6.5mm x 600mm (Rollover Valve)
- 1 Fuel hose 8mm x 700mm (fuel cooler bottom fitting to Engine return on tank pickup unit)
- 1 Fuel hose 13mm x 1250mm (engine pickup unit to steel pipe at front of tank)
- 1 Fuel hose 13mm x 400mm (link breather )
- 1 Fitting instructions
- 1 Warranty information sheet and return card
- 1 LONG RANGER sticker
- 1 Owner's manual update sticker

### INSTALLATION GUIDE

1. Take a few minutes to read through this installation guide before proceeding.
2. Check that all items listed in the Long Ranger kit have been received, and that nothing has been damaged in transit.
3. Although the Long Ranger tank has been cleaned and sealed at the factory, it is recommended that its interior be vacuumed again as an added precaution against blocked filters and/or fuel pump damage.
4. If parts are missing or damaged, if foreign matter is found in the tank, or if any problems arise during installation, contact the factory office without delay for advice phone (02) 4953 3288, fax (02) 4953 1916 or visit [www.thelongranger.com.au](http://www.thelongranger.com.au)



Step 19  
Remove diff  
breather clip

Step 25  
Fit U bolts

New pickup fuel  
hose

Photo 1: Preparing tank space

5. Apply the owner's manual update sticker below the original fuel tank capacities to page 32 of the warranty and service guide.
6. Remove the inner guard to access filler.  
*Note: The rear can not be removed, leave it hang down on the rear two rivets.*
7. Disconnect filler, filler breather and system breather hoses from filler neck.
8. Disconnect fuel supply line at front of tank, refer to plumbing diagram. *Hint: use small screwdriver under clip to release. (in 2011, pickup had blue clip and return red clip)*

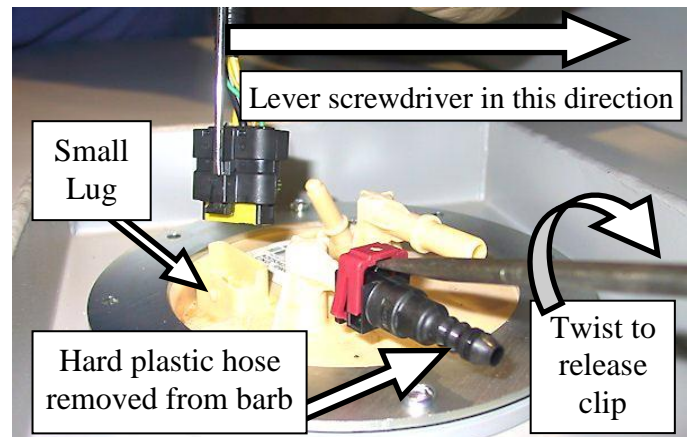


Photo 2: Pickup unit mounting

9. Disconnect fuel line from bottom of fuel cooler at rear of tank.
10. Remove plastic tank guard (4wd models only)
11. Support tank and remove tank straps.
12. **Refer to Photo 2:** Lower tank approx. 200mm, disconnect the wiring harness from pickup unit, then complete tank removal. *Hint: for electrical plug place a small screwdriver into plug and lever in direction shown to release the clip, for fuel line place a larger screwdriver into clip and twist to release retaining clip. Note: this is not the usual "squeeze" style connector.*
13. **Refer to Photo 3:** Relocate fuel cooler back 25mm, flatten rear fold in bracket and redrill hole as shown. Fit to existing captive nut for rear hole and drill new hole for front. Use the supplied SF02 for front hole mounting.



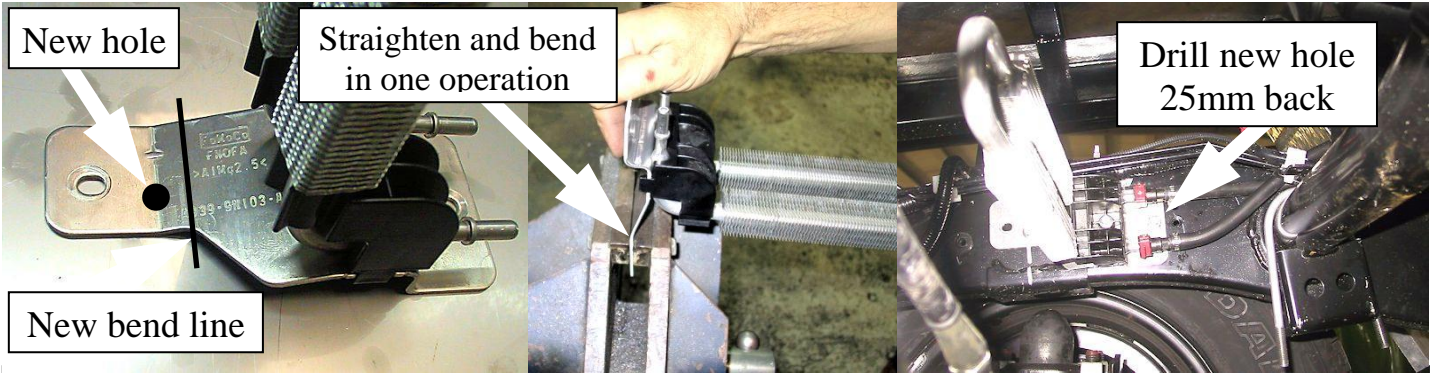


Photo 3: Relocating fuel cooler

14. **As Per Photo 1, 2 and Plumbing diagram:** fit new fuel pickup and return line, cut hard plastic hose away from the quick disconnect fitting to expose the barb, fit new hose and clamps.

15. **Refer to Photo 1 & 6:** Remove diff breather bracket, and fit plastic saddle clip to hole in rear right mount of new tank.

16. Clean around pickup unit and remove from original fuel tank. **WARNING:** Cleanliness and care in handling the fuel pickup unit is essential. Contamination or rough handling may damage the unit.

17. **Refer to Photo 4&5:** Carefully unclip the float arm and replace with the new longer one supplied.

18. **Refer to Photo 5:** Place pickup unit on flat surface with a 45mm packer under the unit and check float is touching flat surface, if not then bend float arm to suit. **NOTE:** If this step is not done the customer will not be able to use approximately the last 10lt of fuel.

19. **Refer to Photo 2:** Carefully fit the pickup unit using the new screws and clamp ring supplied. **NOTE:** The unit can only be fitted in one orientation, ensure the float does not foul on internal baffling.

20. **Refer to Photo 6:** Transfer the filler and fast fill breather to the new tank.

21. **Refer to Photo 6:** Fit new hose to rollover valve.

22. **Refer photo 1:** Hang the mounting U-bolts over the cross members. *Hint: Short round over rear right cross member, long round over rear left mount, short square over front right cross member.*

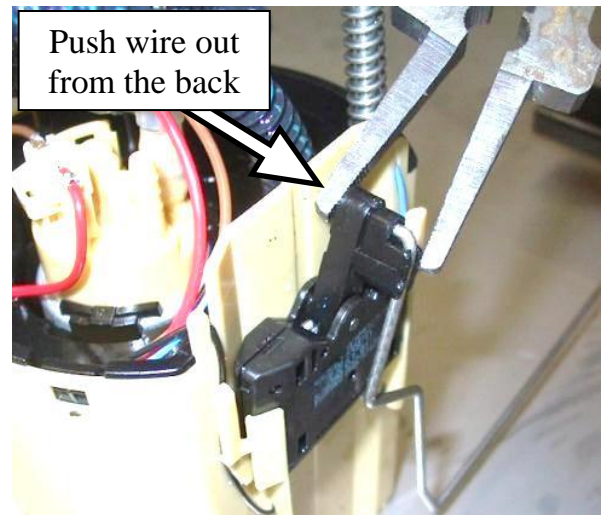


Photo 4: remove float

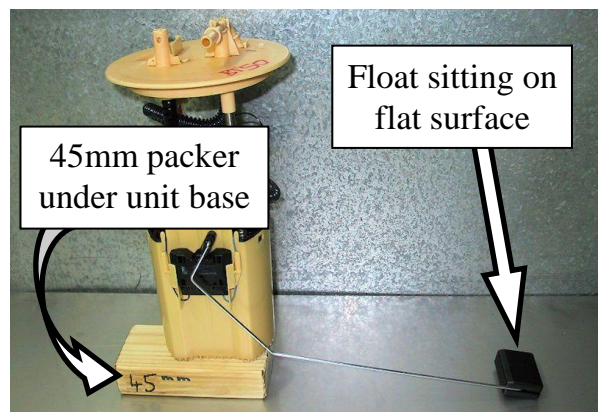


Photo 5: Replace float



Photo 6: Fit hoses and breather clip

23. Lift the Long Ranger tank into position, while doing this connect the pickup unit's wiring and plumbing, feed filler and breathers up through inner guard over chassis, support tank in place and loosely fit two original bolts in LHS mounts and loosely fit U-bolts with M10 x 30 washers and nyloc nuts.
24. Check tank is approximately 15mm from chassis at front and check for clearance all around tank, tighten all tank mounting bolts.
25. Refit Diff breather, clip into plastic clip fitted to rear right tank mount.
26. **Refer to plumbing diagram:** Fit 13mm link breather to tank over chassis cross member with new clamps supplied.
27. **As Per Plumbing diagram:** Connect short system breather hose from filler neck to rollover valve hose with supplied 8x6mm plastic joiner. *Warning: Do not connect to fill panel overflow drain.*
28. Connect filler and filler breather to fill neck.  
***IMPORTANT:** Ensure there are no low points in the fast-fill breather where fuel can lie. Liquid trapped in breather hoses may cause slow filling.*
29. Check that all bolts and hose clamps are tensioned correctly.
30. Refit inner guard.
31. Transfer the fuel removed earlier to the new Long Ranger tank.
32. We suggest that the tank is filled with a test load of fuel, test drive vehicle and inspect all fittings for leaks (not included in the quoted price).
33. Visually check the job over, make sure all bolts and clamps are fastened correctly, ensure all fuel hoses and electrical wiring will not chafe on nearby components and moving suspension, detail the area involved in the work before returning the vehicle to its owner.

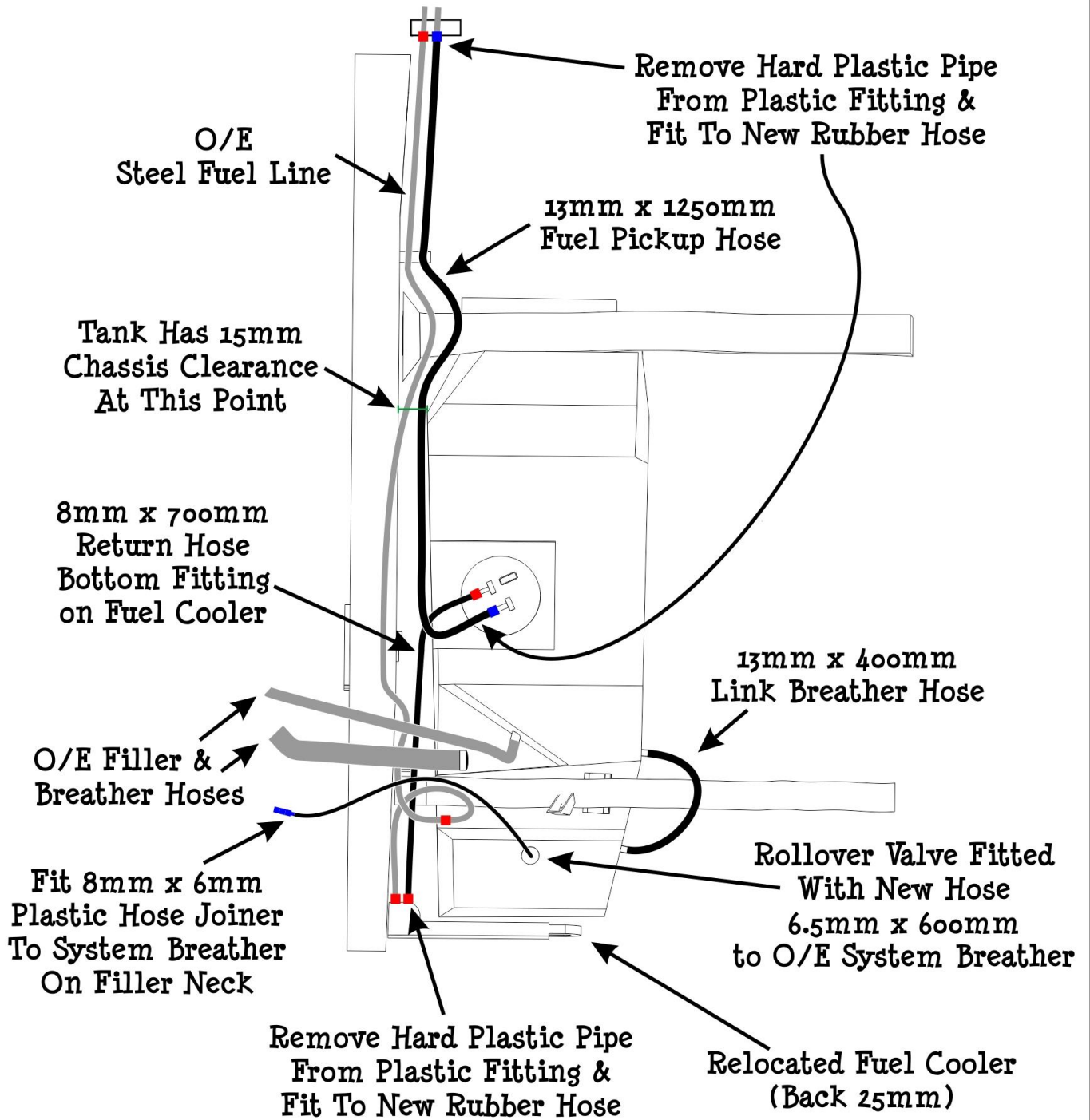
## **Explain to the owner the operation of the LONG RANGER TANK.**

- a) The LONG RANGER tank will fill in a similar fashion to the tank it replaces, but the operator has the option of carrying a substantially larger quantity of fuel.
- b) Due to the different shape of the LONG RANGER tank, the gauge will measure a larger quantity of fuel and will remain on *FULL* for a longer distance before slowly moving to *EMPTY*. The top half of the new tank is bigger than the bottom half.
- c) The **trip computer** with distance (driving range) to empty will no longer accurately show the distance left to travel. The computer still thinks the tank only has 80lt and will not give a larger range reading with the new tank installed. It is suggested that the readings be cautiously interpreted along with the gauge until familiar with the new readings. As a rough guide the DTE will be approximately 100% greater with a 140lt tank fitted and approximately 70% greater with a 122lt tank installed.
- d) The quoted capacity of the LONG RANGER tank was determined by a bench test. The actual operating capacity may vary slightly from vehicle to vehicle.
- e) The vehicle manufacturer selected springs without accounting for a bigger fuel tank. Several suspension modification options are available.
- f) The LONG RANGER tank is a premium quality accessory that will provide many years of satisfactory service provided that the Care and Maintenance items listed below are taken care of each time the vehicle is serviced.

Hand these instructions, together with the Warranty Registration card and warranty information, to the owner. Neatly apply the LONG RANGER sticker to the rear bumper or window.

## **CARE AND MAINTENANCE**

1. After the first 1,000 kilometres, clean or replace the fuel filter, check that there is no rubbing or chafing of the tank, fuel hoses or associated components.
2. At each of the vehicle manufacturer's recommended services, check all fastenings for the correct tension, that rust preventative has been correctly applied where applicable, release the tank drain plug and confirm that there is no water present, and replace the fuel filter according to manufacturer's recommendations.



# PLUMBING DIAGRAM