

# **Brown Davis Automotive Pty. Ltd.**

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Last edited: 1/09/2010

# **Fuel Tank Part List and Installation Instructions**

TANK P/N: **TH66R4** 

## TOYOTA HILUX 65/106 (2WD) TWIN/EXTRA CAB 100ltr REPLACEMENT TANK

| Item | Description                                  | Quantity | Part number | Р | С |
|------|----------------------------------------------|----------|-------------|---|---|
|      |                                              |          |             |   |   |
| 1    | TANK – REPLACEMENT                           | 1        | TH66R4      |   |   |
| 2    | HOSE - TMP - 6mm                             | 1.5m     |             |   |   |
| 3    | HOSE - FUEL AND EMISSION - 8mm               | 1.5m     |             |   |   |
| 4    | HOSE CLAMP – STAINLESS - 8-16mm              | 4        |             |   |   |
| 5    | FUEL PICK UP – 3/8" x 1/4" BSP ELBOW         | 1        |             |   |   |
| 6    | BRASS – TAIL BARB - 5/8" x 1/4" BSP          | 1        |             |   |   |
| 7    | BRASS – ELBOW - 1/4" x 1/4" BSP              | 2        |             |   |   |
| 8    | BRASS – PLUG - 1/4" BSP                      | 1        |             |   |   |
| 9    | DRAIN PLUG – MAGNETIC – M14 (fitted to tank) | 1        | DP-M14      |   |   |
| 10   | SET SCREW - HEX - M10 x 30mm - PLATED 8.8    | 2        |             |   |   |
| 11   | NUT – STANDARD PLATED – M10                  | 4        |             |   |   |
| 12   | WASHER – SHAKEPROOF INTERNAL PLATED – M10    | 2        |             |   |   |
| 13   | WARRANTY CARD & INFORMATION SHEET            | 1        |             |   |   |
| 14   | BROWN DAVIS AUTOMOTIVE STICKER               | 1        |             |   |   |

| Packed by ( <b>P</b> ): |   |   | Checked by ( <b>C</b> ): |  |  |
|-------------------------|---|---|--------------------------|--|--|
| Date Packed:            | / | / |                          |  |  |



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All Brown Davis Automotive fuel tank kits are manufactured to Australian Standards and the Australian Design Rules where applicable and carry a full <u>3 Year Warranty</u>. Construction in 2.0 mm (14 gauge) cold rolled, aluminium coated, steel ensures maximum strength and durability and minimum corrosion susceptibility. This gauge of steel is sufficiently impact resistant that an additional tank guard is not necessary (most standard tank guards are thinner than 1.5 mm).

All tanks are M.I.G. (Metal Inert Gas) welded to assure the strongest possible seams and are baffled to prevent fuel surge. They are then pressure tested using two different techniques to eliminate the possibility of leaks. Drain plugs are fitted horizontally to prevent them being damaged if the tank is scraped over rocks and are magnetic to collect any metallic dirt that may enter your fuel system.

In all cases, Brown Davis Automotive fuel tanks are designed with severe off road use in mind and will not compromise ground clearance, entry, exit or ramp over angles.

**REPLACEMENT TANKS** This tank is a replacement for the standard tank and fits in the same location. The standard filler is retained as is the fuel gauge sender unit which still works in the same manner except it takes longer to reach empty. Rearrangement of the exhaust system **IS NOT** necessary with this fitment.

# **FITTING**

- 1 Place vehicle on hoist (or similar) and raise to convenient working height.
- 2 Remove rear section of tailshaft, taking care to mark the correct alignment for refitting.
- Remove the exhaust system where the new tank is to be located. Undo the passenger side rear spring front eye bolt and tap outwards until flush with chassis bracket.
- The filler neck and associated hoses can be disconnected. Drain and unbolt the standard tank then carefully lower it, until you can access the fuel gauge wiring and unplug it. Then lower tank to the ground. Bend the rear tank support bracket backwards to match the angle on the back of the new tank.
- Confirm that the Brown Davis long range tank is perfectly clean inside before assembly and installation by rinsing out the inside thoroughly, as should always be done with any new component installed into the fuel system of any vehicle. Use 4 to 5 litres of petrol, kerosene or methylated spirits for this rinsing process which should be drained and discarded afterwards, and to confirm absolute cleanliness it is not a bad idea for a second rinse. Remove the fuel gauge sender unit from the standard tank. Position unit in new tank and adjust float arm length to ensure the accuracy of the fuel gauge (The float should stop



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about 2mm off the top and bottom of the tank and ensure that it does not foul on the sides) extend the float arm (Refer Diagram), Fix unit into tank reusing original screws.

- 6 Install all brass fittings into the new replacement long range fuel tank using teflon tape or the like on all threads.
- Fit new longer pickup and return hoses from kit to the respective brass fittings on the driver's side rear top corner of the new tank, before lifting it into position. These two hoses should be cut sufficiently long so that when the tank is up in position they can be run along the chassis rail and connected to the steel fuel lines just in front of the tank (The steel lines will need to be cut short and removed from under the floor pan). Transfer the filler and fast fill breather hoses to the new long range tank.
- Lift new tank up into position supporting it on a jack or similar. Bolt the rear tank support to the rear chassis bracket. The mounting bracket for the front of the tank should align with the chassis crossmember at the front, drill this front tank support bracket into the front chassis crossmember. Drill through the passenger side front spring eye bracket and bolt the tank in, using the bolt supplied.
- 9 Tighten bolts including saddle clamp, check clearances, and reconnect hoses and wiring. Refit tailshaft, noting again the alignment.
- Fit new exhaust system as required (not supplied), the standard exhaust muffler, if in good condition, can be refitted alongside gearbox.
- 11 Return vehicle to ground level and remove from hoist (or similar).
- 12 Confirm the drain plug has been sealed into the tank and fill with the fuel drained in step 4. Replace the fuel filter under the bonnet after the first 1000km or 2 to 3 tank fills of the new tank and double check mounting bolts. On some diesel vehicles it is necessary to bleed the fuel system after such a tank installation (refer manufacturers handbook).



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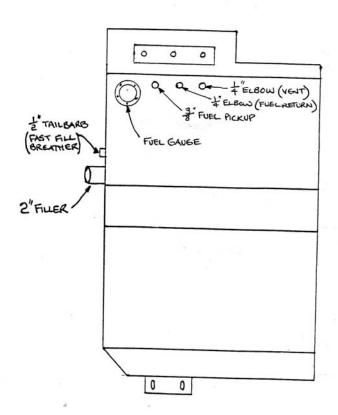
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47 Holloway Drive, Bayswater Vic Phone (03) 9762 8722 Fax (03) 9762 9829

DIAGRAM 2



FRONT

TOP VIEW

2WD



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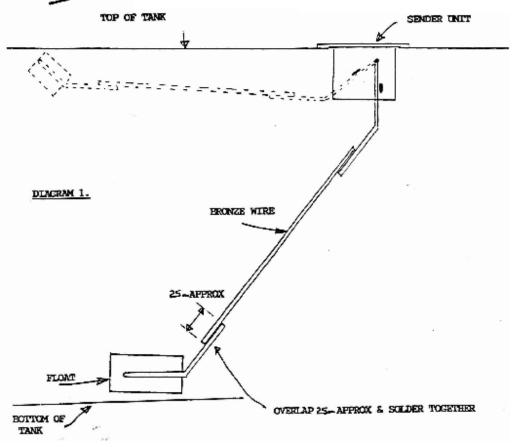
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# **OPERATION INFORMATION**

The operation of your new Brown Davis Automotive long range fuel tank is little different from the original tank.

Simply fill the long range/auxiliary tank exactly as with a standard tank. (It just takes more fuel to fill, and a dual filler will be used for filling auxiliary tanks).

The fuel gauge on the vehicles dash will read as with the standard tank. It should read with the same degree of accuracy as it did with the standard tank other than staying on full for most of the new increase in capacity. For about 20% more than the standard tank held the gauge will now read in proportion from full down to empty. Auxiliary tanks come with a separate tank gauge to show separate fuel level to main tank.

The low fuel light will still function as normal with it coming "on" at about 20% more fuel volume left to go than it used to, to warn you of low fuel.

Remember your new long range tank(s) are carrying a lot more fuel than standard. Remain aware of how much fuel has been used during the initial period of the gauge remaining on full for future reference in estimating fuel usage and consumption.

Maintenance and service of your new Brown Davis Automotive long range fuel tank other than the recommended 1000km check and filter change should be in align with the normal vehicle Manufactures service schedule and guidelines. Remember the long range tank has a magnetic drain plug that the standard tank did not. With the fuel level low the drain plug can be removed and cleaned to remove any metal fragments introduced from the filler bowser scraping on the filler tube when filling or particles and rust flakes from jerry cans used on long trips. This facility is supplied to protect the in-tank fuel pumps fitted to most modern vehicle fuel tanks.

Finally make sure the warranty card is filled out completely and returned to Brown Davis Automotive and that the warranty information is read and understood. If there are any queries about this or any of the above information please contact us at Brown Davis at the attached address or phone and fax numbers for assistance.