

# Brown Davis Automotive Pty. Ltd.

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

TANK P/N: FEVR1

#### FORD EVEREST WAGON – TURBO DIESEL 118ltr REPLACEMENT TANK

Item	Description	Quantity	Part number	Р	С
1	TANK – REPLACEMENT	1	FEVR1		
2	HOSE CLAMP – STAINLESS - 8-16mm	4			
3	HOSE CLAMP – STAINLESS - 32-50mm	4			
4	DRAIN PLUG – MAGNETIC – M14 (fitted to tank)	1	DP-M14		
5	BRASS – ELBOW - 5/8" x 3/8" BSP	1			
6	WIRING LOOM - FUEL GAUGE EXTENSION – 120mm (FEVWLE1)	1			
7	SET SCREW - HEX - M10 x 25mm - PLATED 8.8	2			
8	NUT – STANDARD PLATED - M10	4			
9	WASHER – SHAKEPROOF INTERNAL PLATED - M10	4			
10	WASHER - PANEL PLATED - M10	2			
11	WARRANTY CARD & INFORMATION SHEET	1			
12	BROWN DAVIS AUTOMOTIVE STICKER	1			

\*\*FEVR1 Loom Extension Reference image below\*\*



Packed by ( <b>P</b> ):			Checked by ( <b>C</b> ):		
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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 **3 Year Warranty**. Construction in 2.0 mm cold rolled, aluminium coated steel ensures maximum strength and durability and minimum corrosion susceptibility. More than 30 years of testing within the field has shown that 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 ensure 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 general off road use in mind and are designed not to compromise ground clearance, entry, exit or ramp over angles.

Please remember it is the driver's responsibility to operate their vehicle in a sensible manner in 4WD conditions, Brown Davis Automotive cannot be held responsible for the abuse of your vehicle and subsequent possible fuel tank damage.

**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.

ANY QUESTIONS OR INFORAMTION REQUIRED IN RELATION THE BELOW INSTRUCTIONS PLEASE DO NOT HESTITE TO CONTACT BROWN DAVIS HEAD OFFICE OR ONE OF OUR DISTRIBUTORS.

PLEASE ENSURE ALL CONNECTIONS AND MOUNTINGS ARE CHECKED A SECOND TIME AFTER FINISHING YOUR INSTALLATION TO CONFIRM THERE ARE NO LEAKS AND THAT ALL BOLTS ARE TIGHT. ALWAYS ROAD TEST THE VEHICLE AND MAKE SURE THERE IS COMPLETE SUSPENSION TRAVEL CLEARANCE.

BROWN DAVIS CAN TAKE NO RESPONSIBILITY FOR AFTER MARKET SUSPENSION SYSTEMS INTERACTING WITH THE TANK, IF FITTED.



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# **FITTING**

1. With the tank entirely drained of fuel, begin by undoing and removing the tailshaft from the diff. Undo all four bolts to remove. Proceed to undo the two small silver screws retaining the tailshaft ring also and remove.



2. Undo the factory fuel breather line from the passenger side outer chassis rail.



3. Remove the fuel pickup and return lines from the tank on the underside of the car. Mark these hoses so orientation is known for later fitting.



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4. Undo the fuel filler hose and fast fill breather. It can be accessed from behind above the diff, or between the chassis rail entering through the right rear wheel arch.





5. The tank is now ready for removal. Before going ahead, there is an important note to make:

As the tank is being removed, the fuel gauge sender unit wiring loom needs to be unplugged from the sender unit boss on top of the tank.

Proceed to undo both the front and rear tank mounts, supporting the tank from underneath to prevent it falling.



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6. The tank should now be removed from the vehicle with the gauge sender unit unclipped.





7. The tank can now be prepared for installation. Remove the gauge sender unit from the standard tank and fit to Brown Davis tank making note of orientation. Also install the brass fitting as pictured, using thread seal before fitment. Lastly, fit the expansion box breather check valve to the tank as shown with the supplied 6mm fuel hose fitted now also.





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8. Prior to lifting the tank into position, in order to make the installation easier, clip the fuel gauge sender unit extension loom onto the tank gauge sender unit boss now. As there is little room for hand access once the tank is lifted into position this will make the connection easier when lifting the tank into position.





9. The tank is now ready to be lifted into position. Due to the shape of the tank there is a to slide it into position which involves lifting the side with the 'wing' section pointing upwards to slide over the muffle/exhaust system before lifting the opposite side up and level. Note pictures below.

It is important to make sure that both the fuel gauge sender unit loom is connected, and that the hose off the expansion box check valve is routed over the chassis rail now as the tank is going in.



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10. The tank should now be ready to lift fully into place and bolt in position. Using the factory mount bolts fit the tank into place. Brown Davis also supplies extra M10 nuts in order to double up the mounting bolts to ensure the nuts do not come loose. The two larger bolts shown are retained from removing the standard fuel tank guard shield when removing factory tank.





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11. With the tank now firmly bolted in place, proceed to connect up the filler neck and breather hoses at the top of the tank. Access can be gained from both above the diff from under the car, or through the passenger side rear wheel arch. Using the factory clamp for the breather and 32-50mm hose clamp supplied for the filler, slide the hoses into position and tighten clamps.



12. Connect up the breather line running to the factory breather connection on the passenger chassis rail. Trim hose if required.



13. The fuel delivery and return hoses now need to be trimmed to suit and fitted to the factory fuel lines. Be sure to get the right hoses on the right position, these should have been marked earlier when they where undone.



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13. The tank and all hoses/fittings should not be installed. The tailshaft can now be bolted back into position. Ensure that the tailshaft ring is re-installed with the two small silver screws before proceeding to bolt the tailshaft in.



14. The installation is now complete. It is very important to now fill the tank and check for any leaks prior to doing a road test to ensure the vehicle has no problems.



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## Reference Images











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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.