

Brown Davis Automotive Pty. Ltd.
ABN: 72 657 573 544

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LANDROVER DISCOVERY - SERIES 3 - 2005-2009 – 110lt AUXILIARY TANK AUXILIARY FUEL TANK PARTS LIST AND FITTING INSTRUCTIONS PART NUMBER: LDI3A1

Item #	Description	Quantity	Part No.	P	C
1	TANK—REPLACEMENT	1	LDI3A1	-	-
2	DRAIN PLUG—MAGNETIC—M14 (FITTED TO THE TANK)	1		-	-
3	HOSE – FUEL AND EMISSION - 8mm	1.2m			
4	HOSE – FUEL AND EMISSION - 16mm	1m			
5	HOSE – FILLER – 38mm	120mm (x3)			
6	HOSE CLAMP – STAINLESS – 8-16mm	6			
7	HOSE CLAMP – STAINLESS – 12-22mm	3			
8	HOSE CLAMP – STAINLESS – 32-50mm	6			
9	FUEL PICK UP – 5/16" x 1/4" BSP ELBOW *CUT TO SIZE*	1			
10	BRASS FITTING - ELBOW - 5/16" x 1/4" BSP	1			
11	BRASS FITTING - ELBOW - 5/8" x 3/8" BSP	1			
12	BRASS FITTING - TAIL BARB - 1/8" x 5/16" BSP	2			
13	CABLE TIE - 8" BLACK	5			
14	FUEL GUAGE/SWITCH – CP 309GS LED DASH UNIT	1			
15	LOOM WITH BUZZER	1			
16	WIRE – TWIN CORE – 3.0mm – BROWN/WHITE—WITH PLUG	7m			
17	CRIMP FITTING – SPADE FEMALE 6mm - INSULATED - RED	1			
18	CRIMP FITTING – SPADE FEMALE 4mm - RED	1			
19	CRIMP FITTING - RING 5MM - RED	1			
20	CRIMP FITTING – JOINER 3mm - RED	1			
21	SCOTCH LOCK	1			
22	SENDER UNIT - VDO 220-004—FITTED TO TANK	1			
23	FUEL PUMP – POSI-FLO	1			
24	FUEL FILTER – INLINE – 8mm	1			
25	SCREW - SELF TAPPER	4			
26	SET SCREW – PAN HEAD – M4 x 10mm – PLATED 8.8	5			
27	WASHER – SPRING PLATED – M4	5			
28	SET SCREW – HEX – M6 x 50mm – PLATED 8.8	1			
29	WASHER – FLAT PLATED – M6	1			
30	NUT– PLATED - NYLOC – M6	1			
31	SET SCREW – HEX – M10 x 30mm – PLATED 8.8	4			
32	SET SCREW – HEX – M10 x 30mm – ON WIRE	4			
33	NUT- PLATED – M10	14			

KIT CONTINUES ON NEXT PAGE



LONG RANGE FUEL TANKS
LDI3A1

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Item #	Description	Quantity	Part No.	P	C
34	WASHER – SHAKE PROOF PLATED – M10	8			
35	WASHER – FLAT PLATED – M10	8			
36	WASHER – PANEL PLATED – M10	8			
37	TANK BRACKET	1	TB-LDI3A1		
38	TWIN FILLER <i>*WITH FUEL CAP THREAD GLUED IN*</i>	1	TF-LDI3A1		
39	TWIN FILLER MOUNTING BRACKET	1	TF-LDI3A1-MB		
40	FILLER TUBE	1	FT-LDI3A1		
41	FUEL CAP—DIESEL	1	TFNL234D		
42	WARRANTY CARD & INFORMATION	1			
43	BROWN DAVIS AUTOMOTIVE STICKER	1			

	STAFF MEMBERS INITIALS	DATE
KIT PACKED BY		
KIT CHECKED BY		



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PART NUMBER: LDI3A1 AUXILIARY FUEL TANK PARTS LIST AND FITTING INSTRUCTIONS



WARNING:

THIS FUEL TANK IS HEAVY. DO NOT ATTEMPT TO LIFT THIS FUEL TANK WITHOUT APPROPRIATE ASSISTANCE OR SERIOUS INJURY MAY RESULT



WARNING:

ENSURE A FIRE EXTINGUISHER IS AVAILABLE WHILST WORKING NEAR EXPOSED FUEL



- CHECK CONTENTS OF KIT BEFORE COMMENCING FITMENT
- DRAIN VEHICLE FUEL TANK TO LOWEST LEVEL POSSIBLE BEFORE COMMENCING FITMENT
- BEFORE INSTALLATION THE BROWN DAVIS LONG RANGE TANK SHOULD BE WASHED OUT WITH THE SAME FUEL TYPE AS THE VEHICLE IT'S BEING FITTED TO

Any questions or information required in relation to the below instructions please do not hesitate to contact Brown Davis head office or one of our distributors.

Phone: +61 (3) 9762 8722
Email: info@browndavis.com.au

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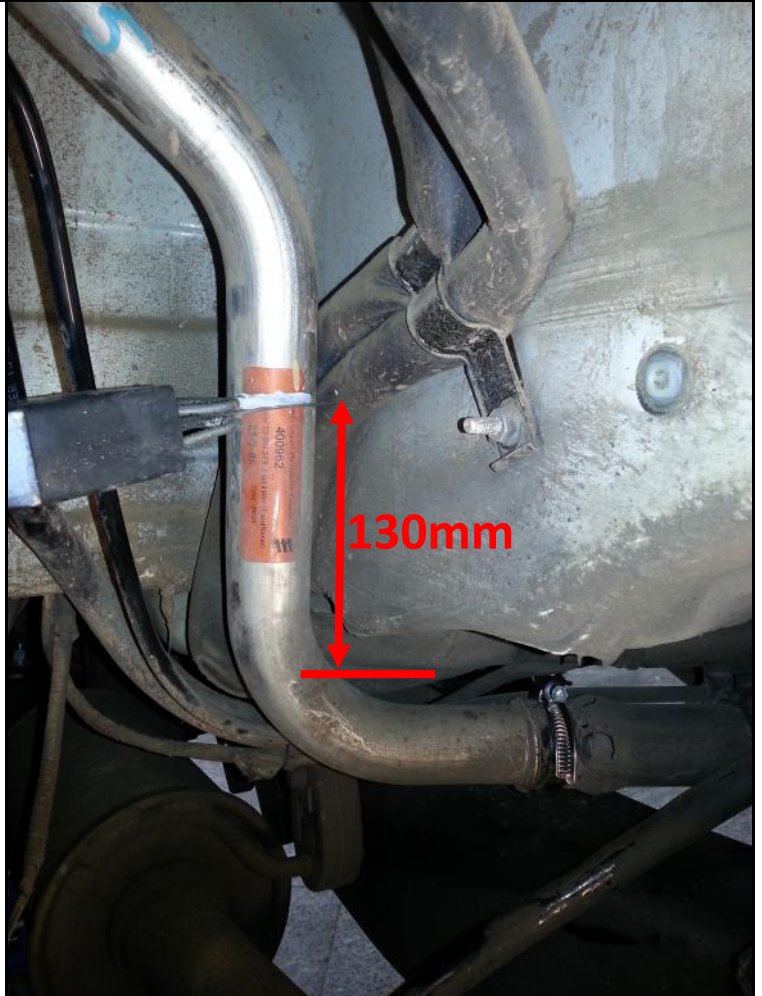
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SETUP FOR AUXILIARY TANK

1. Remove the passenger side wheel to get better access to fuel system.
 - Disconnect the fuel lines.



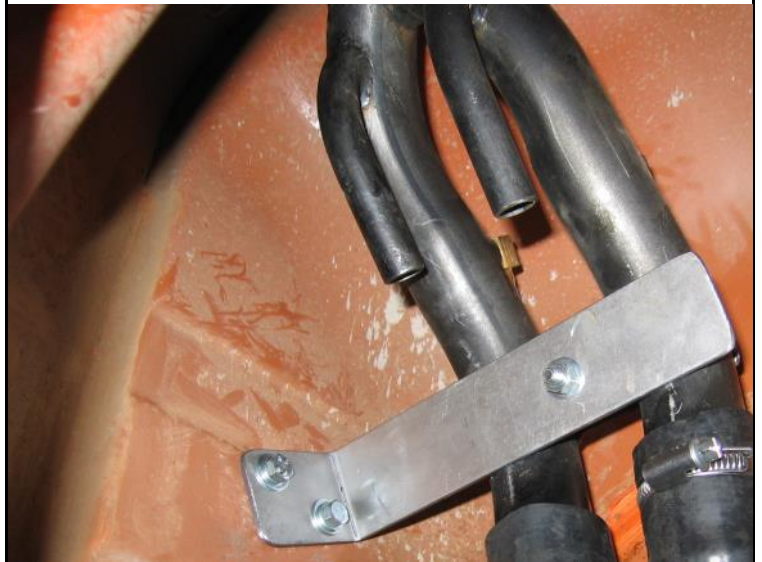
2. Mark the standard filler 130mm up from the standard fillers bend.
 - Cut the filler on the lines, then remove the fill side to make room for the new Y Filler supplied, leaving the tube running to the standard tank.



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3. Fit the **Y-FILLER** into place by pushing it through the rubber grommet.
 - Using the supplied **FILLER HOSE - 38mm** join the standard filler tube to the Y filler.
 - Secure the **Y-FILLER** by mounting the supplied bracket to the wheel arch wall using the self tappers supplied.
 - **NOTE:** The supplied **BRASS FITTING—ELBOW—5/16"x1/4" BSP** should be fitted to the **Y FILLER** before mounting it in place. Use thread sealant and ensure the barb of the fitting is aimed down towards the



4. Remove the spare wheel from the cavity at the rear of the vehicle.
 - Also remove the stone guard and winding mechanism.



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5. Locate somewhere on the dash to mount the **FUEL GUAGE/SWITCH – CP 309GS LED DASH UNIT**. **photo is for reference only**

- Drill a 20mm (approx.) to install.



6. Locate 12 volt ignition wire

7. Connect the single red wire from the **LOOM WITH BUZZER** to the 12 volt ignition wire using the supplied SCOTCH LOCK or by soldering.



8. Fit the **LOOM WITH BUZZER** behind the driver side kick panel or dash.

- Earth the ring (circled in photo) by fastening it to a metal surface.



9. Connect the plugs from the **FUEL GUAGE/SWITCH – CP 309GS LED DASH UNIT** to the **LOOM WITH BUZZER**.



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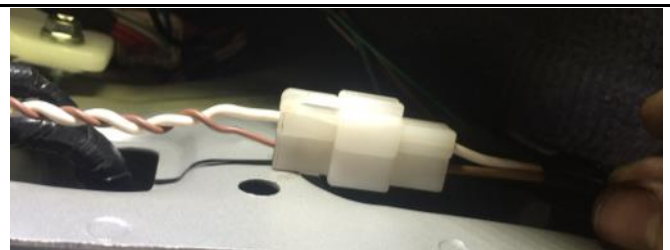
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10. Mount the **FUEL PUMP – POSI-FLO** in a suitable location close to the tank. Brown Davis recommends fitting it above the chassis rail. ***Note: the photo shown shows an old style pump.*
- Connect the black wire to the chassis or tank bracket to earth the pump.



11. Run the **WIRE – TWIN CORE – 3.0mm – BROWN/WHITE—WITH PLUG** from the dash to the tank location, ensuring the wire is safe. Feed the wire through an existing loom or grommet.
- The end with the plug should be in the vehicles cab at the dash.
 - Brown Davis recommends to follow existing wiring where possible or other wise, follow fuel lines or air conditioning lines.

12. Connect the white plugs from both the **LOOM WITH BUZZER** and the **WIRE – TWIN CORE – 3.0mm – BROWN/WHITE—WITH PLUG**.



13. Connect the **CRIMP FITTING – JOINER 3mm - RED** to the red wire on the **FUEL PUMP – POSI-FLO**.
- Join the white wire to the opposite end of the **CRIMP FITTING – JOINER 3mm - RED**.
 - NOTE: The white wire should be trimmed first to avoid excess wire. Keep off cut wire for later step.

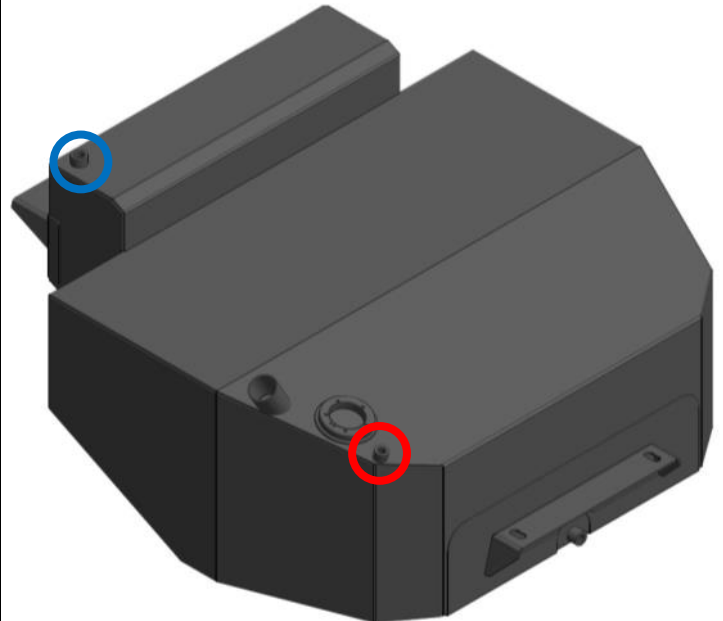
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14. Install all brass fittings into the new auxiliary fuel tank using Teflon tape, thread sealant or the likes on all threads.

⇒ **FUEL PICK UP – 5/16" x 1/4" BSP ELBOW - Circled in Red**

⇒ **BRASS – ELBOW - 5/8" x 3/8" BSP - Circled in Blue**



15. Fit the **HOSE - FUEL AND EMISSION - 16mm** to the **BRASS – ELBOW - 5/8" x 3/8" BSP** fitted in previous step.



16. Fit the supplied mounting bracket to the existing holes at the front of the spare wheel cavity using M10 hardware supplied.



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17. Using a lifting device, start to lift the tank into position.

- Complete next 2 steps before tank in in final position.



18. Attach the **CRIMP FITTING – SPADE FEMALE 6mm - INSULATED - RED** to the brown wire so it can be plugged to the center plug on the **SENDER UNIT - VDO 220-004** (circled in photo) that is fitted to the tank.

- NOTE: The brown wire should be trimmed first to avoid excess wire.



19. The sender unit must also be earthed.

- Using the white off cut wire connect the **CRIMP FITTING - RING 5MM - RED** to one end and the **CRIMP FITTING – SPADE FEMALE 4mm - RED** to the other.
- Plug the **CRIMP FITTING – SPADE FEMALE 4mm - RED** to the **SENDER UNIT - VDO 220-004** (circled in photo).
- Connect the **CRIMP FITTING - RING 5MM - RED** to the chassis.



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20. Line up the front tank bracket with the mounting bracket already fitted to chassis.

- Fastening in place using M10 hardware supplied.
- Double nut for extra security.



21. Drill two holes through each of the rear tank brackets and into the chassis.

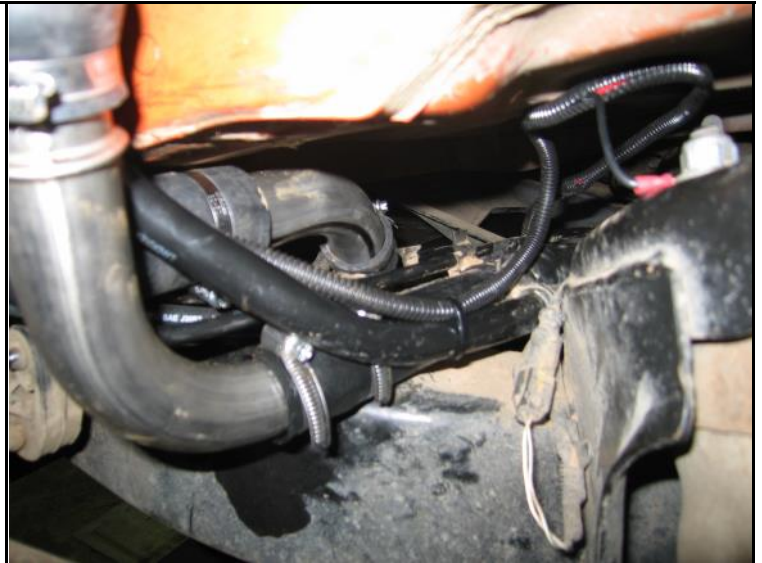
- Feed the supplied bolts on wire through a hole in the chassis and out the drilled holes.
- Fastening in place using M10 hardware supplied.
- Double nut for extra security.



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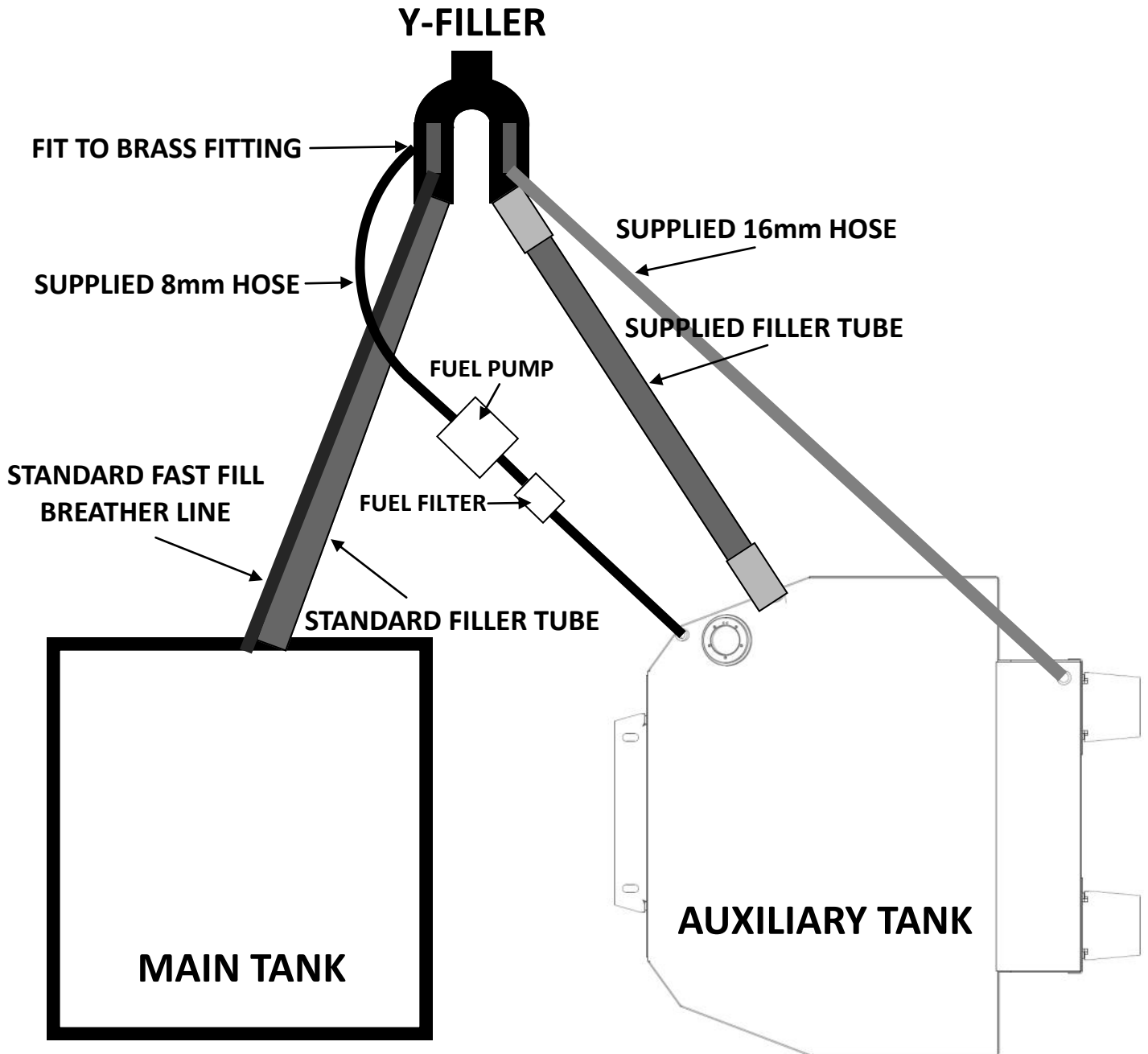
22. Using two of the supplied **HOSE - FILLER - 38mm** connect the supplied **FILLER TUBE** from the new auxiliary tank to the **Y-FILLER**.
- Run the supplied **HOSE - FUEL AND EMISSION - 16mm** from the **BRASS - ELBOW - 5/8" x 3/8" BSP** (fitted to the tank) to the **Y-FILLER**.
 - Run the supplied **HOSE - FUEL AND EMISSIONS - 8mm** from the **FUEL PICK UP - 5/16" x 1/4" BSP ELBOW** (fitted to the tank) to the **FUEL FILTER** then to the **FUEL PUMP**, trimming the hose to size.
 - Finish the 8mm hose by connecting the **FUEL PUMP** to the **BRASS FITTING—ELBOW— 5/16"x1/4" BSP** (fitted to the **Y-FILLER**).
 - ****SEE DIAGRAM ATTACHED****



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FUEL SYSTEM DIAGRAM



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23. Double check all fuel line clamps and security of fuel lines and wiring. Road test and check for rattlers & squeaks.

