Fault Diagnosis

FAULT DIAGNOSIS

Fault	Possible Cause	Rectification
ENGINE WILL NOT START	 (a) Weak battery. (b) Corroded or loose battery connections. (c) Faulty coil or Control Unit. (d) Faulty pickup coil. (e) Moisture on ignition wires and distributor cap. (f) Incorrect spark plug gap. (g) Incorrect ignition timing. (h) Faulty ignition cables. (i) Dirt or water in fuel line or carburettor. (j) Carburettor flooded. (k) Faulty fuel pump. (l) Carburettor percolating. No fuel in carburettor. (m) Faulty starting motor. 	 (a) Test the battery specific gravity and recharge or replace as necessary. (b) Clean and tighten the battery connections. Apply a coat of petroleum to the terminals. (c) Test and replace if necessary. (d) Test and replace if necessary. (e) Wipe wires and cap clean and dry. (f) Set the gap. (g) Refer to "Ignition Timing." (h) Replace any cracked or shorted cables. (i) Clean the lines and carburettor. (j) Adjust the float level—check seats. (k) Install a new fuel pump. (l) Measure the float level. Adjust the bowl vent. Inspect the operation of the manifold control valve. (m) Refer to "Starting Motor".
ENGINE STALLS	 (a) Idle speed set too low. (b) Idle mixture too lean or too rich. (c) Incorrect carburettor float setting. (d) Incorrect choke adjustment. (e) Leak in intake manifold. (f) Worn or burnt distributor rotor. (g) Incorrect ignition wiring. (h) Faulty coil. 	 (a) Adjust carburettor. (b) Adjust carburettor. (c) Adjust float setting. (d) Adjust choke. (e) Inspect intake manifold and gasket. Replace as necessary. (f) Install a new rotor. (g) Install the correct wiring. (h) Test and replace if necessary.
ENGINE LOSS OF POWER	 (a) Incorrect ignition timing. (b) Worn or burned distributor rotor. (c) Leaking vacuum diaphragm. (d) Worn distributor shaft. (e) Dirty or incorrectly gapped spark plugs. (f) Dirt or water in fuel line or carburettor. (g) Incorrect carburettor float setting. (h) Faulty fuel pump. (i) Incorrect valve timing. (j) Blown cylinder head gasket. (k) Low compression. (l) Burned, warped, pitted valves. (m) Plugged or restricted exhaust system. (n) Faulty ignition cables. (o) Faulty coil. 	(a) Refer to "Ignition Timing". (b) Install a new rotor. (c) Install a new vacuum advance unit. (d) Remove and repair distributor. (e) Clean plugs and set gap. (f) Clean lines and carburettor. (g) Adjust float level. (h) Install a new pump. (i) Refer to "Checking Valve Timing". (j) Install a new head gasket. (k) Test the compression of each cylinder. (l) Install new valves. (m) Install new parts as necessary. (n) Replace any cracked or shorted cables. (o) Test and replace as necessary.

Description and Modifications

DESCRIPTION AND MODIFICATIONS

This may seem a little out of place but I have heard about problems with people stealing work and selling it - for example on eBay.

If you're reading this and you bought this manual anywhere then you have been ripped off.

Please contact me via my email mikejamson@hotmail.com Otherwise I can be found on the dodge50 facebook page, if not then get in contact with Greg and he can pass the message on to me.

I have note done this pdf manual for my own personal gain and wish to see the community of 50 series owners benefit from the information here, and I do not want to see the community get taken advantage of and somebody else gain from it unfairly.

The information in pdf format will hopefully allow more of these wonderful trucks to stay on the road by providing information to everybody.

This has been quite a long and involved process to scan the manual and to convert it into a pdf format. I do aplogise as I have used several different scanners and several different computers to do it, so there are no doubt some errors hidden throughout, as well as some editing errors.

I have aimed to balance quality and file size and hope that this balance meets to everybody's approval.

If you see an error please let me know and I will fix it as soon as I can.

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Fault Diagnosis

Fault	Possible Cause	Rectification
ENGINE MISSES ON ACCELERATION	 (a) Dirty, or gap too wide in spark plugs. (b) Incorrect ignition timing. (c) Dirt in carburettor. (d) Acceleration pump in carburettor. (e) Burned, warped or pitted valves. (f) Faulty coil. 	 (a) Clean the spark plugs and set gap. (b) Refer to "Ignition Timing". (c) Clean the carburettor. (d) Install a new pump. (e) Install new valves. (f) Test and replace if necessary.
NOISY VALVES	 (a) High or low oil level in crankcase. (b) Low oil pressure. (c) Bent push rods. (d) Worn rocker arms. (e) Worn tappets. (f) Worn valve guides. (g) Excessive run-out of valve seats or valve faces. (h) Incorrect tappet gap. 	 (a) Check for correct oil level. (b) Check the engine oil level. (c) Install new push rods. (d) Inspect the oil supply to rockers. (e) Install new tappets. (f) Ream and install new valves. (g) Grind the valve seats and valves. (h) Adjust.
CONNECTING ROD NOISE	 (a) Insufficient oil supply. (b) Low oil pressure. (c) Thin or diluted oil. (d) Excessive bearing clearance. (e) Connecting rod journals out-of-round. (f) Misaligned connecting rods. 	 (a) Check engine oil level. (b) Check the engine oil level. (c) Change oil to correct viscosity. (d) Measure the bearings for correct clearances or failures. (e) Remove the crankshaft and regrind journals. (f) Remove the bent connecting rods.
MAIN BEARING NOISE	 (a) Insufficient oil supply. (b) Low oil pressure. (c) Thin or diluted oil. (d) Excessive bearing clearance. (e) Excessive end play. (f) Crankshaft journals out-of-round or worn. (g) Loose flywheel. 	 (a) Check the engine oil level. (b) Check the engine oil level. Inspect the oil pump relief valve, damper and spring. (c) Change the oil to correct viscosity. (d) Check the bearings for correct clearances or failures. (e) Check No. 3 main bearing for wear on flanges. (f) Remove the crankshaft and regrind journals. (g) Tighten to the correct torque.
OIL PUMPING AT RINGS	(a) Worn, scuffed, or broken rings.(b) Carbon in oil ring slots.(c) Rings fitted too tight in grooves.	 (a) Hone cylinder bores and install new rings. (b) Install new rings. (c) Remove the rings. Check the grooves. If groove is not proper width, replace the pistons.
OIL PRESSURE DROP	 (a) Low oil level. (b) Faulty oil pressure sending unit. (c) Thin or diluted oil. (d) Oil pump relief valve stuck. (e) Oil pump suction tube loose, bent or cracked. (f) Clogged oil filter. (g) Excessive bearing clearance. 	 (a) Check the engine oil level. (b) Install a new sending unit. (c) Change the oil to correct viscosity. (d) Remove the valve and inspect. (e) Remove the oil pan and install a new tube if necessary. (f) Install a new oil filter. (g) Check the bearings.
ENGINE MISSES AT HIGH SPEED	 (a) Dirt or water in fuel line or carburettor. (b) Dirty jets in carburettor. (c) Dirty or gap too wide in spark plugs. (d) Worn distributor shaft. (e) Worn or burned distributor rotor. (f) Faulty coil. (g) Incorrect ignition timing. 	 (a) Clean the lines and the carburettor. (b) Clean the jets. (c) Clean the spark plugs and set gap. (d) Remove and repair the distributor. (e) Install a new rotor. (f) Test and replace as necessary. (g) Refer to "Ignition Timing".