SERVICE MANUAL

TD5.65 / TD5.75 / TD5.85
TD5.95 / TD5.105 / TD5.115

Tractor

Part number 47445474
English
August 2013

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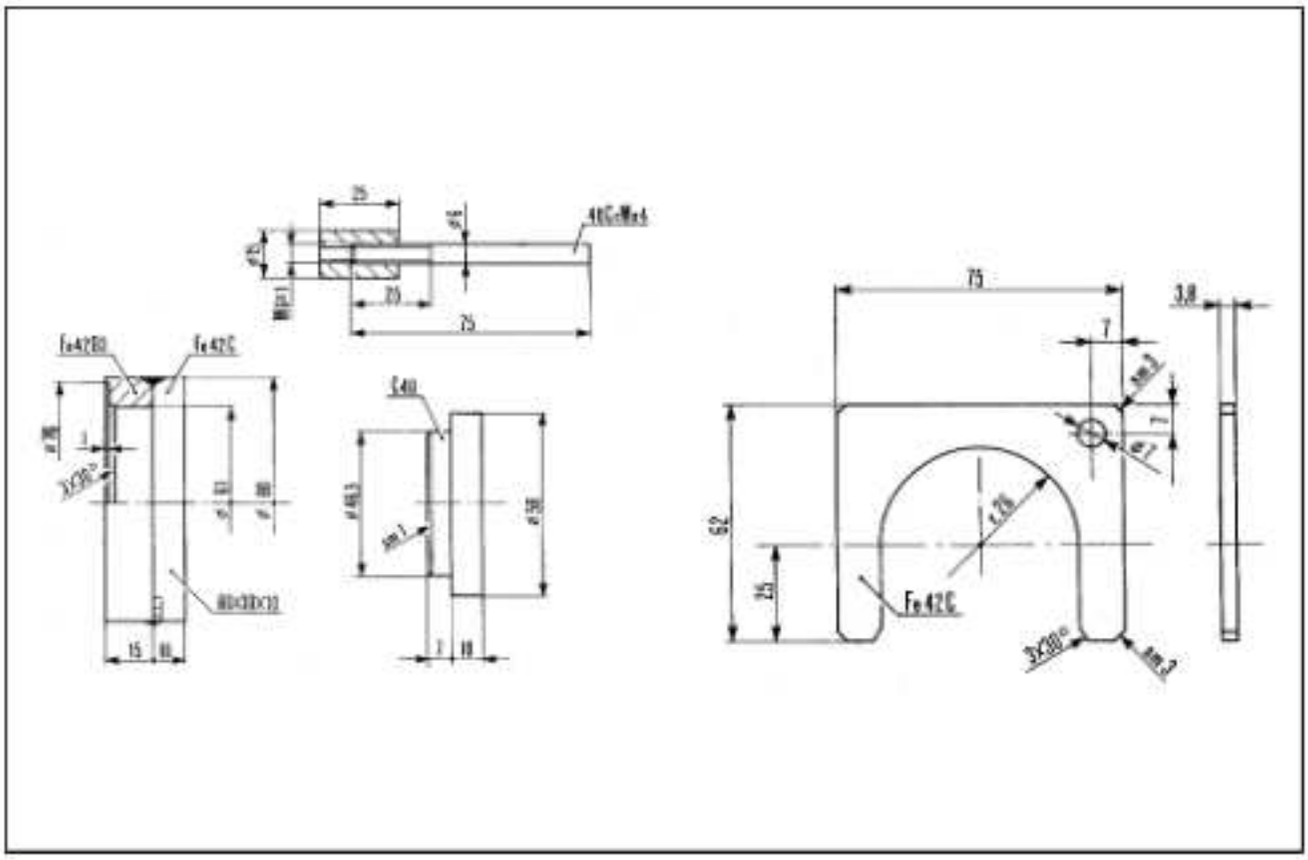
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Problem	Possible Cause	Correction
	Impurities accumulating in fuel lines	Clean fuel lines and replace severely dented pipes. Clean injection pump if necessary
	Incorrect injection pump timing	Adjust injection pump timing
	Crankshaft knocking due to excessive play in one or more main or big-end bearings or excessive endfloat	Re-grind crankshaft journals and crankpins. Fit oversize shell bearings and thrust washers
	Crankshaft out of balance	Check crankshaft alignment and balance; if necessary, replace
	Flywheel bolts loose	Replace any bolts that have worked loose and tighten all bolts to the specified preliminary and angular torque values
	Connecting rod axes not parallel	Straighten connecting rods, check axes parallelism; replace con rods if necessary
	Piston knock due to excessive wear	Rebore cylinder liners and fit oversize pistons
	Noise caused by excessive play of gudgeon pins in small-end and piston bushings, or loose fit of small-end bushing	Fit oversize gudgeon pin, rebore piston seats and small-end bushings. Replace bushings
	Excessive tappet/valve noise	Check for broken springs or excessive play between valve stems and guides, cam followers and bores. Adjust valve clearance
Engine produces excessive black or dark grey smoke	Maximum delivery of injection pump too high	Adjust injection pump on test bench to the values specified in calibration chart
	Injection pump delivery excessively retarded or automatic advance regulator damaged	Adjust injection pump/engine timing or check automatic advance regulator
	Injection pump delivery excessively advanced	Adjust injection pump/engine timing
	Injectors partially or totally obstructed or incorrectly adjusted	Clean and overhaul injectors and adjust pressure setting, replace if necessary
	Air cleaner restricted	Clean air cleaner and replace filter element if necessary
	Loss of engine compression due to: Piston rings sticking Cylinder liner wear Worn or incorrectly adjusted valves	Replace damaged parts or, if necessary, overhaul the engine
	Damaged high-pressure fuel lines	Inspect and replace if necessary
Blue, grey-blue or grey-white smoke	Injection pump delivery excessively retarded or automatic advance regulator damaged	Adjust injection pump/engine timing or check automatic advance regulator
	Injectors obstructed or damaged	Clean and overhaul injectors and adjust pressure setting, replace if necessary
	Oil leaking past piston rings due to sticking rings or cylinder liner wear	Replace damaged parts or, if necessary, overhaul the engine
	Oil leaking through the inlet valve guides due to guide or valve stem wear	Recondition cylinder head
	Engine does not reach correct operating temperature (thermostat faulty)	Replace the thermostat
Engine runs on after switching Off	Engine stop solenoid damaged	Replace solenoid
	All-speed governor damaged	Overhaul injection pump and adjust on test bench to the values specified in calibration table

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AMLT21TR90187PA 3

Tool to be made for removal of rear bearing of range gear driving shaft and the driving gear for the slow speeds (tool to be stamped no. **50028** - Measurements in mm).

Make in **UNI C40**.

NOTE: *Make two parts from the tool shown at Fig.* ***3****, uppermost one.*

Mechanical transmission - Torque Drive lines

TD5.

Main specification

Reduction ratio	34/24x24/34 = 1 to 1
Relay lever pad width	**7.978 - 8.000 mm (0.3141 - 0.3150 in)**
Pad seat width in driven gear	**8.280 - 8.370 mm (0.3260 - 0.3295 in)**
Pad clearance in seat	**0.280 - 0.460 mm (0.0110 - 0.0181 in)**
Relay lever pivot diameter	**15.973 - 16.000 mm (0.6289 - 0.6299 in)**
Pivot housing bore in casing	**16.016 - 16.059 mm (0.6306 - 0.6322 in)**
Pivot clearance in housing	**0.016 - 0.086 mm (0.0006 - 0.0034 in)**
Relay lever detent spring length:	
Free	**130 mm (5.1181 in)**
Under **178.2 - 197.8 N (40 - 44 lb)**	**142.5 mm (5.6102 in)**

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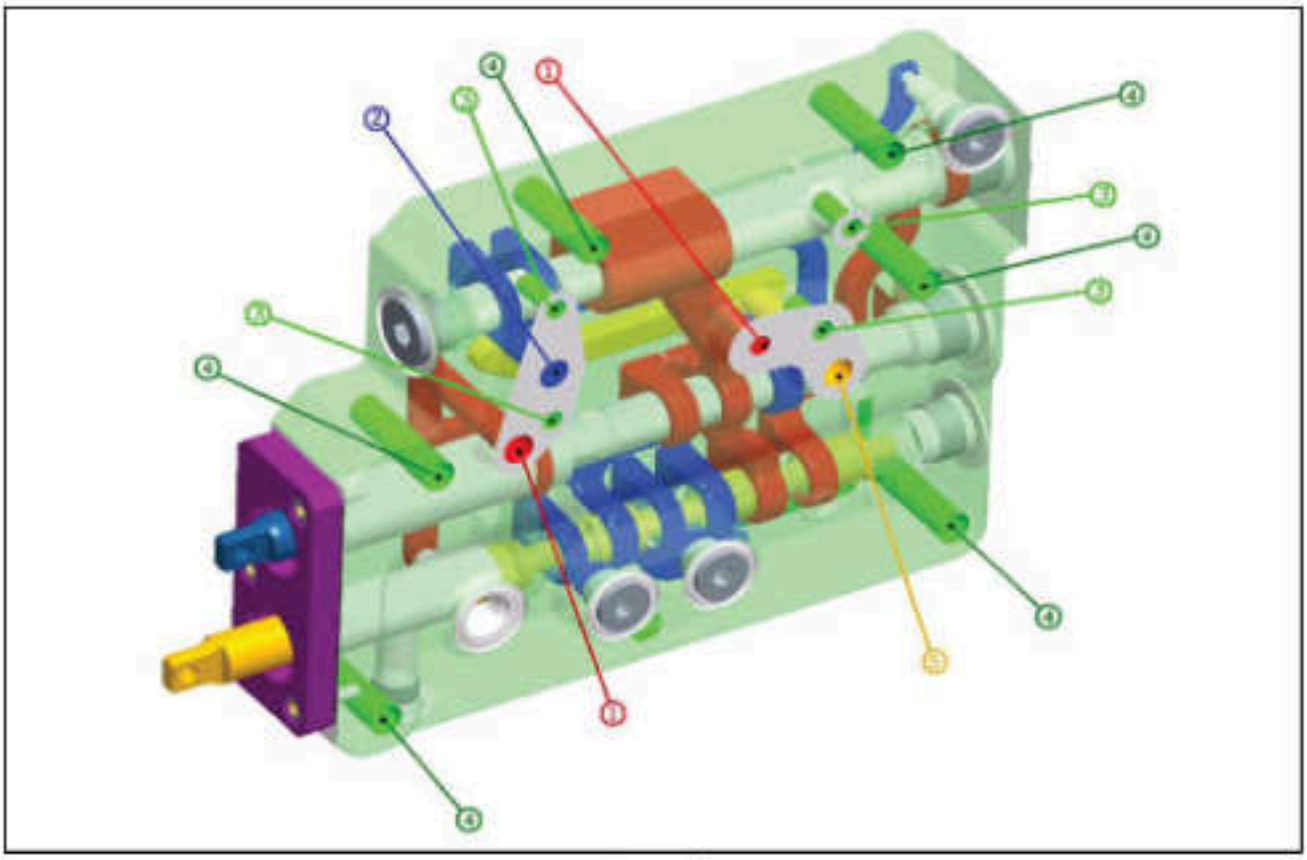
Wire harnesses - Electrical schematic frame 10

TD5.

Heating and air-conditioning system circuit (For 8000 series engines)

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5. Pressure regulator valve (**15.7 bar** (**227.65 psi**))
10. Bypass oil cooler valve



NEW IMAGE 2

Cross-sectional view of Power-Shuttle control valve block

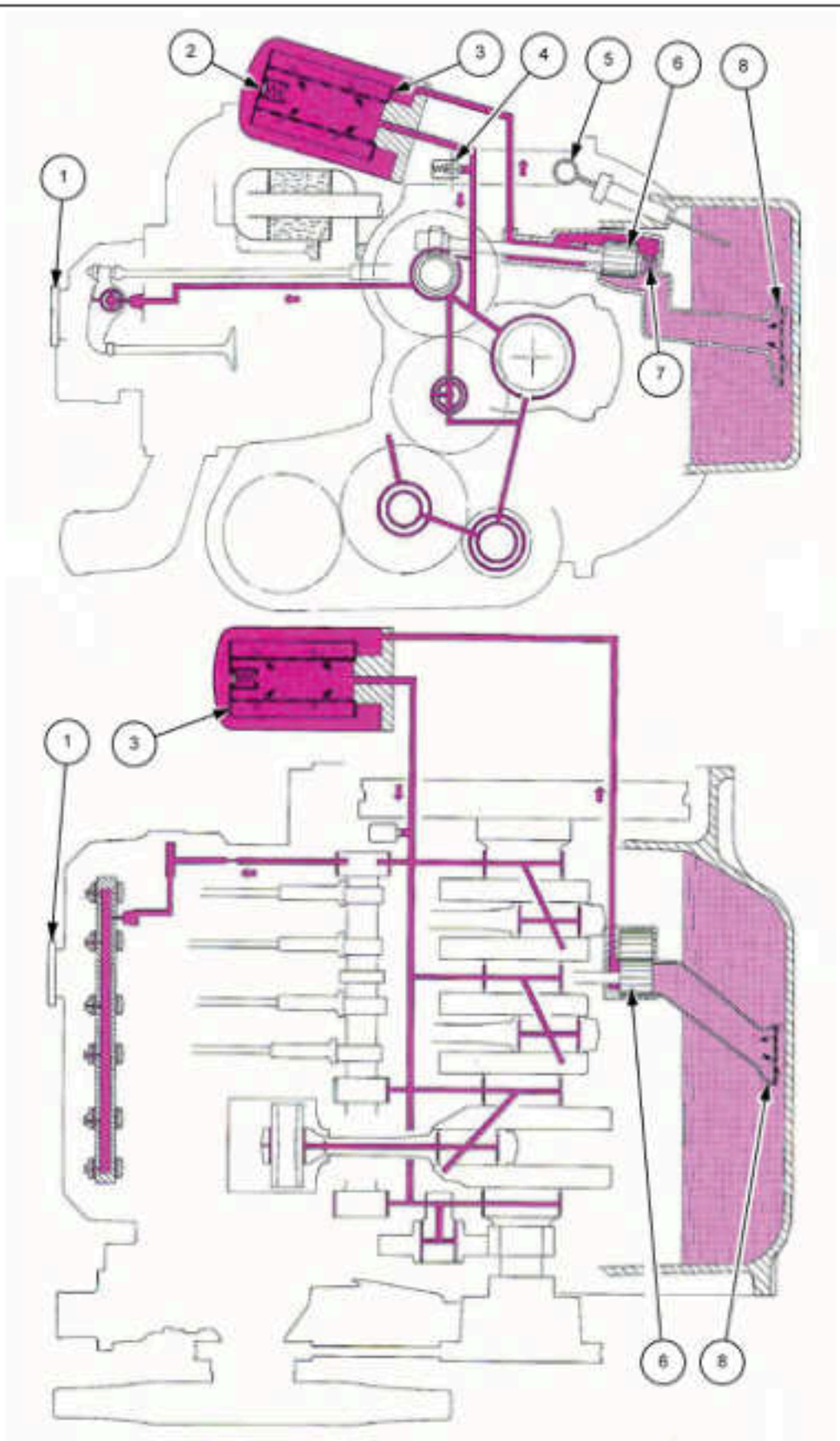
Lubrication oil

Return oil

Pressure oil

1. Return line from pressure control valve block to main valve block
2. Pressure line from pressure control valve block to main valve block
3. Assembly holes of pressure control valve block to main valve block
4. Assembly holes of main valve block to gearbox
5. Lubrication oil passage port

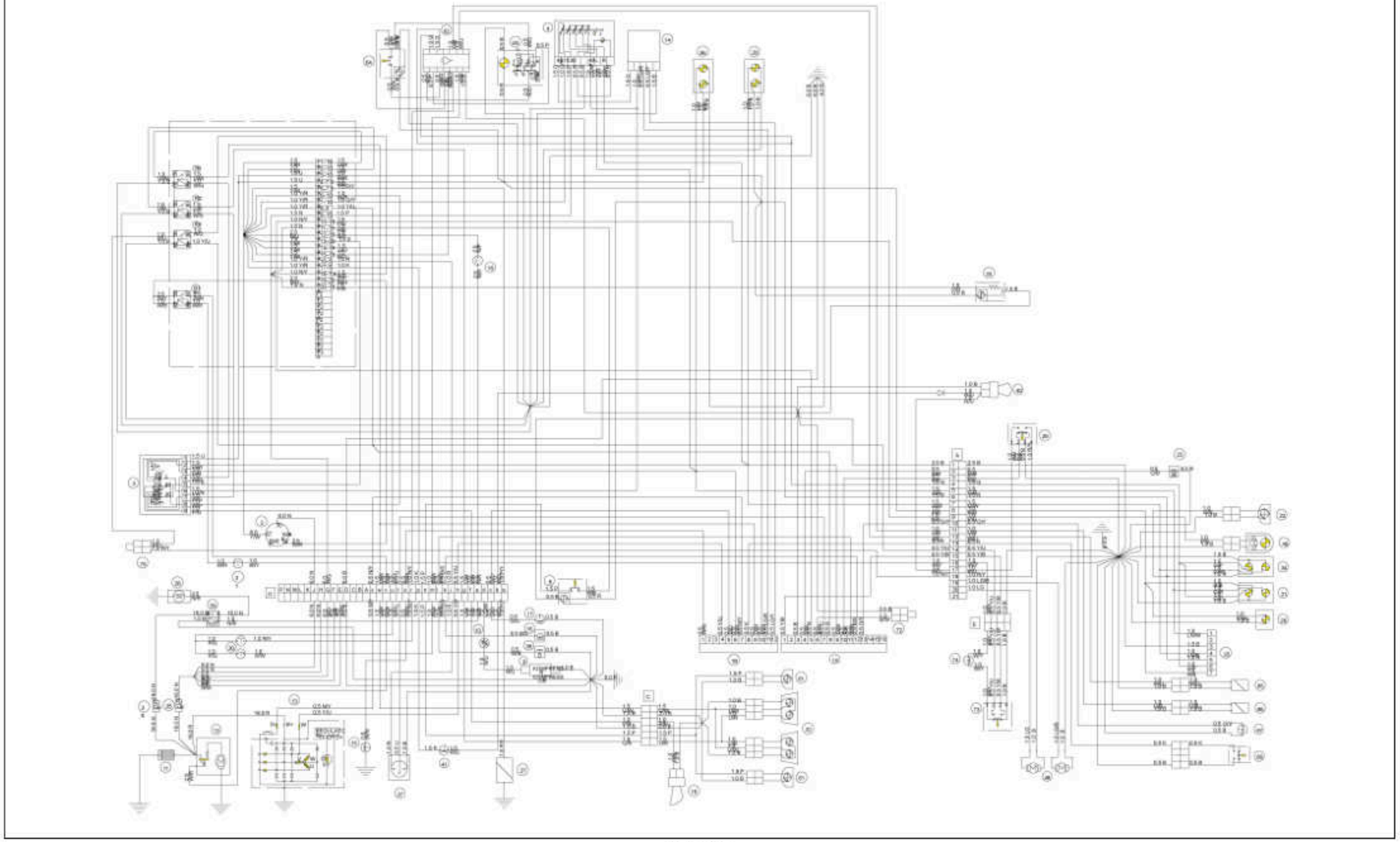
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Lubrication system of normally aspirated 3-cylinder engines

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