Service Manual

JS200W TIER III

Service Manual - JS200W TIER III

Section 1 - General Information

Section 2 - Care and Safety

Section 3 - Maintenance

Section B - Body & Framework

Section C - Electrics

Section E - Hydraulics

Section F - Transmission

Section K - Engine



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Schematic Diagram

JS200W

The item numbers in the following table are identified on the Wiring schematic diagram. ⇨ *Fig 5. (C-7).*

Table 1. Component Identification

Item	Part Number	Description	Location
1	728/80099	Electronic control unit	Behind the rear cab panel.
2	728/80073	Electronic monitor system	Front right corner of cab.
3	701/80544	Facia switch panel	Right hand side of cab.
4		Fuse box (16 fuses)	Behind the rear cab panel.
5	716/30155	Throttle dial	On right hand console.
6	701/80184	Key switch	On right hand console.
7	701/80214	Switch (redundancy)	Behind the drivers seat.
8	30/926997	Air conditioner	Below the rear cab panel.
9	30/927074	Heater	Below the rear cab panel.
10	30/927075	Controller (air con)	On right hand console.
11	701/60030	Switch body	Under right hand console.
12	701/58826	Switch cap (worklamp)	On right hand console.
13	717/12900	Cigar lighter (12v)	On right hand console.
14	717/20346	Radio cassette	Rear of cab in the roof.
15	701/80215	Limit switch (lever)	Below the lever lock bar.
16	701/60041	Switch (cab light)	Outer side of left hand console.
18	700/50170	Work lamp	Toolbox
20	332/J0669	Breaker pilot switch	Under the cab on the breaker pedal.
21	25/221891	LH Lever switch	Left hand control.
22	25/222892	RH Lever switch	Right hand control
23	717/20154	Volt dropper	Behind the rear cab panel on top of the heater box.
25	6900/0624	Wiper	Front windscreen.
26	6900/0587	Cab interior lamp	Rear of cab in the roof.
27	716/30205	Battery relay	In the left hand side compartment.
28	708/04100	Battery	In the left hand side compartment.
29		Fuse link (25A)	In the left hand side compartment.
30		Fuse link (60A)	In the left hand side compartment.
32	25/223240	Valve, solenoid	In the right hand side pump bay.
34	01/145259	Engine	Rear of machine.
35	701/80374	Pilot switch, upper	Bottom switch on right hand side of Main Control Valve.
39	17/926100	Fuel pump	Fuel tank

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Fault Finding

Symptom	Possible cause	Remedy
Low secondary pressure.	Primary pressure is low.	Apply the correct primary pressure.
	Spring **4** is damaged.	Renew the spring.
	Clearance between the spool and seating is too large.	Renew the remote control valve assembly.
	The handle unit is loose.	Dismantle, reassemble or renew the handle unit.
Unstable secondary pressure.	Sliding parts are sticking.	Release the sticking part.
	Fluctuations in the tank line pressure.	Check return line and filter for blockage.
	Air is trapped in the piping.	Operate the valve several times to remove the air.
High secondary pressure.	The tank line pressure is too high.	Check return line and filter for blockage.
		Release the sticking part.

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Fig 68.

2 Determine dimension II, from face (arrow) of sun gear to mounting face of hub.

Dimension Y, e.g 257.75 mm



Fig 69.

CALCULATION EXAMPLE: Dimension X e.g = 260.65 mm. Dimension Y e.g = - 257.75 mm. Difference = 2.90mm. Required axial play (average) e.g - 0.90 mm. Result = required thrust washer(s) e.g. s = 2.00 mm.

3 Insert thrust washer(s) (e.g. s = 2.00 mm) into planetary carrier and press into contact position.



Fig 70.

4 Reassemble planetary gear.

Check version of gear assemblies.



Fig 71. MS-E 3050



Fig 72. MS-E 3060/3070

5 Warm up bearing inner ring and install pre-assembled planetary gear fully home. Ensure you fit planetary gear or bearing inner ring with large radius facing downwards.

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4JJ

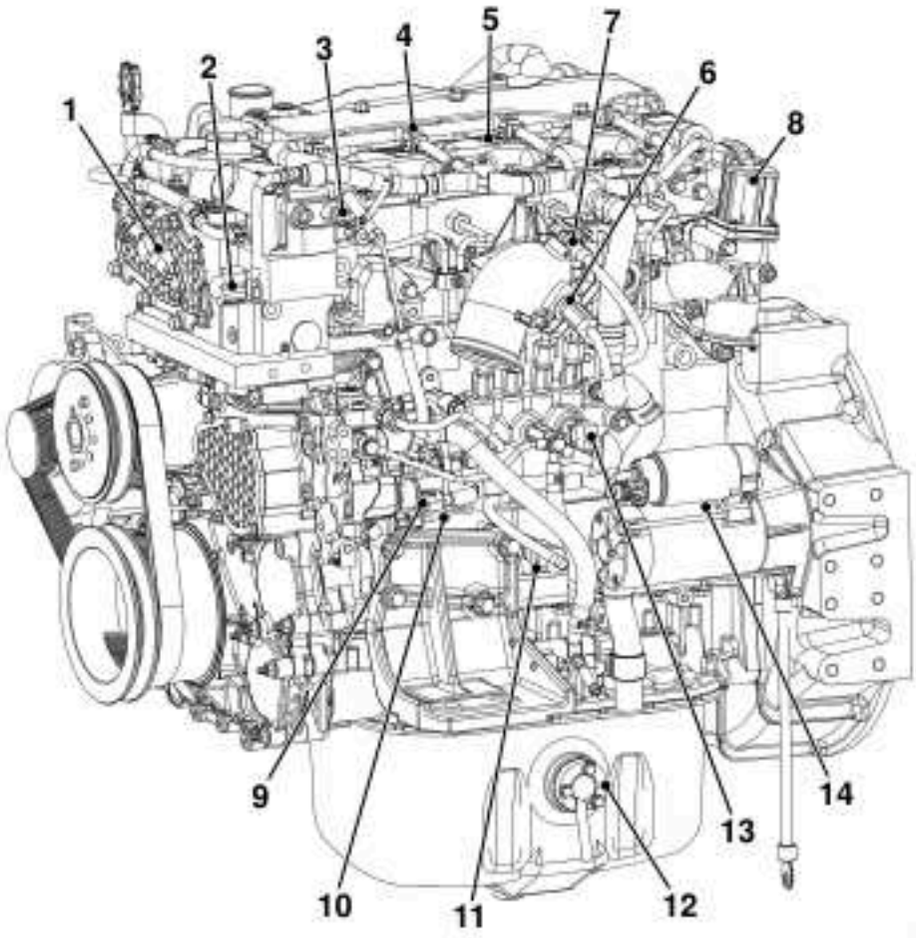


Fig 2.

Item	Description
1	Camshaft Position (CMP) Sensor. ⇨ *Camshaft Position (CMP) Sensor - 4JJ (K-24)*.
2	Engine Coolant Temperature Sensor ⇨ *Engine Coolant Temp Sensor (K-11)*.
3	Overheat Switch. ⇨ *Overheat Switch (K-13)*.
4	Injectors. ⇨ *Injector (K-37)*.
5	Glow Plugs ⇨ *Glow Plug (K-38)*.
6	Boost Temperature Sensor. ⇨ *Boost Temperature Sensor (K-33)*
7	Boost Pressure Sensor. ⇨ *Boost Pressure Sensor (K-35)*
8	Suction Control Valve. ⇨ *Suction Control Valve (K-29)*.
9	Exhaust Gas Re-circulation (EGR) Valve. ⇨ *Exhaust Gas Re-circulation (EGR) Valve (K-26)*.
10	Fuel Temperature (FT) Sensor. ⇨ *Fuel Temperature (FT) Sensor (K-31)*.

Item	Description
11	Engine Oil Pressure Sensor. ⇨ *Engine Oil Pressure Sensor (K-16)*
12	Engine Oil Level Sensor. ⇨ *Engine Oil Level Sensor (K-40)*.
13	Common Rail Pressure Sensor. ⇨ *Common Rail Pressure Sensor (K-14)*.
14	Crankshaft Position (CKP) Sensor. ⇨ *Crankshaft Position Sensor - 4JJ (K-20)*.
15	Barometric Pressure (in battery bay - early models, in cab - late models). ⇨ *Barometric Pressure Switch (K-43)*.
16	Air Intake Temperature (in air intake hose behind air filter). ⇨ *Air Intake Temperature Sensor (K-41)*.

⇨ *Schematics (K-44)*.

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Basic Operation

Automatic Temperature Control (ATC) System

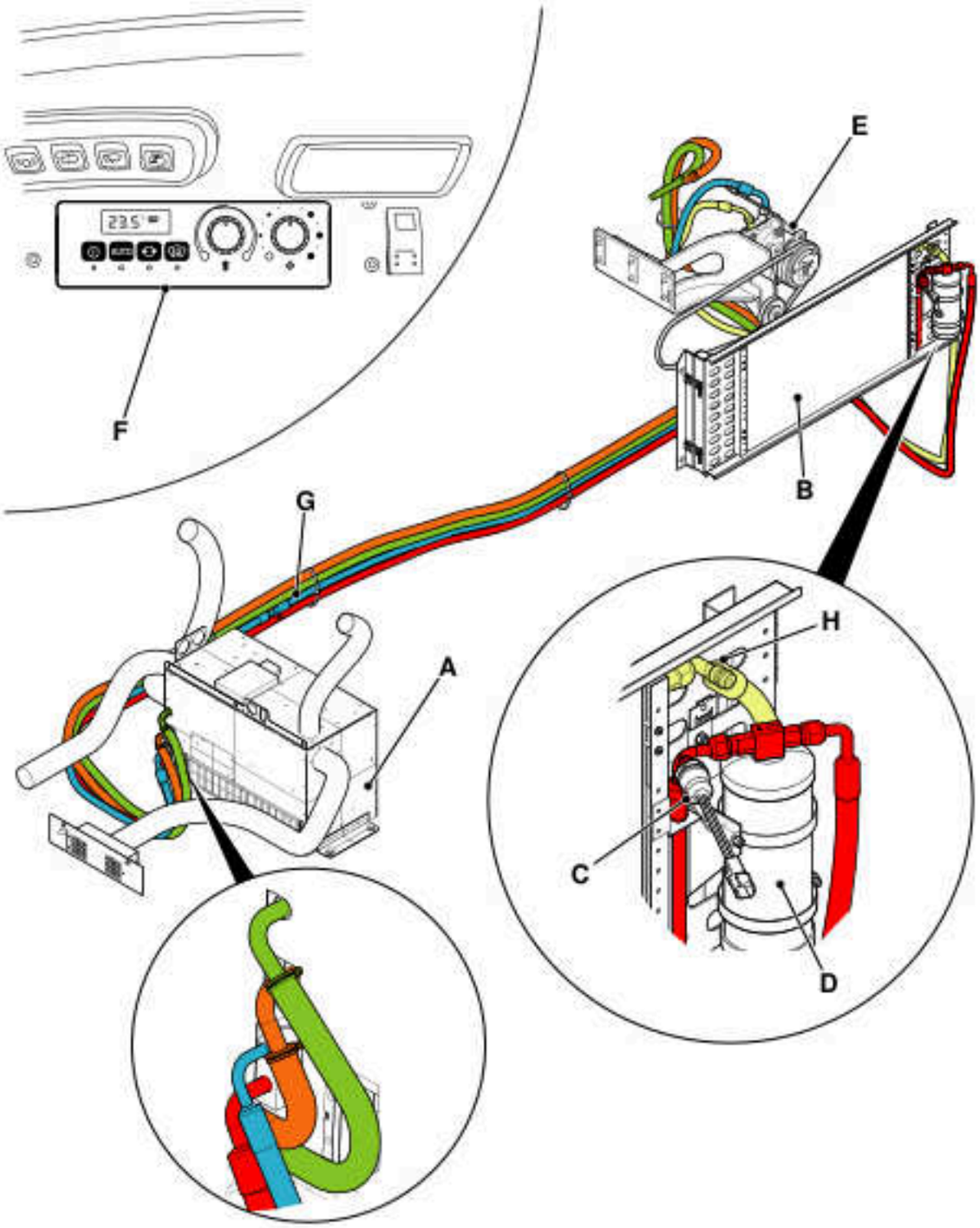


Fig 1.

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