Manual No. :KM-146E
Vol. No. :TO146E-01

Technical Manual

(Operational Principle)

EX3600-5

Excavator

Service Manual (Manual No. KM-146E) consists of the following three separate volumes;

Technical Manual (Operational Principle)	:Vol. No. TO146E
Technical Manual (Troubleshooting)	:Vol. No. TT146E
Workshop Manual	: Vol. No. W146E

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RADIATOR FAN MOTOR SPEED CONTROL

Function: Controls the radiator fan motor speed in two stages to maintain the coolant and intake air temperature in the proper temperature range.

Operation:

1. In response to the detected temperature, coolant sensor 2 (radiator fan motor speed control) and intake air temperature sensors 1 and 2 send electrical signals to MC(A).
2. Corresponding to the delivered signals, MC(A) regulates the radiator fan motor speed control solenoid valve, supplying the pilot pressure oil to the radiator fan drive pump regulator. (Refer to the COMPONENT OPERATION / Pump Device group for regulator operation.)
3. Then, the flow rate from the radiator fan drive pump is controlled, causing the radiator fan motor speed to change.

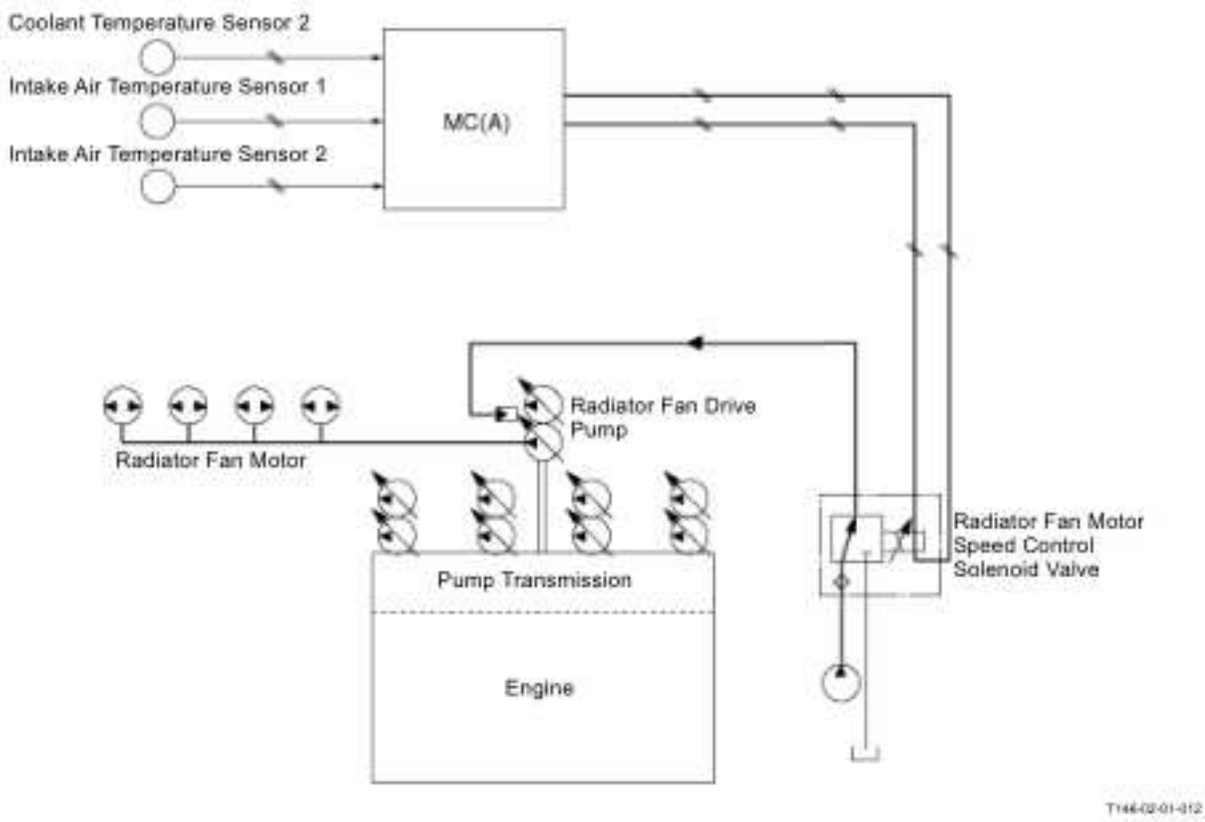
Operating Conditions in Slow Speed Mode:
Coolant Temperature: 60 °C (140 °F) or lower
Intake Air Temperature: 35 °C (95 °F) or lower

Operating Conditions in Fast Speed Mode:
Coolant Temperature: 65 °C (149 °F) or higher
Intake Air Temperature: 45 °C (113 °F) or higher

Radiator Fan Motor Speed

	Pilot Pressure from Solenoid Valve [Electric Current : From MC(A) to Solenoid Valve]	Radiator Fan Motor Speed (min^{-1})
Slow Speed Mode	3.9 MPa (40 kgf/cm^2, 569 psi) [700 mA]	400
Fast Speed Mode	0	1830±70

NOTE: The radiator fan motor speeds shown above are those driven at the engine rated speed (1600 min^{-1}).

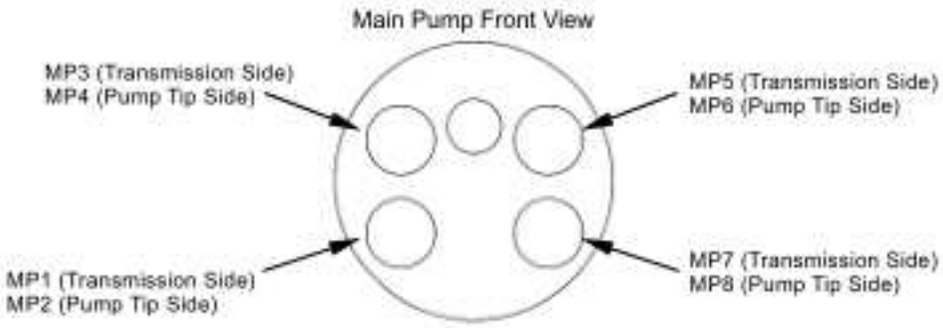


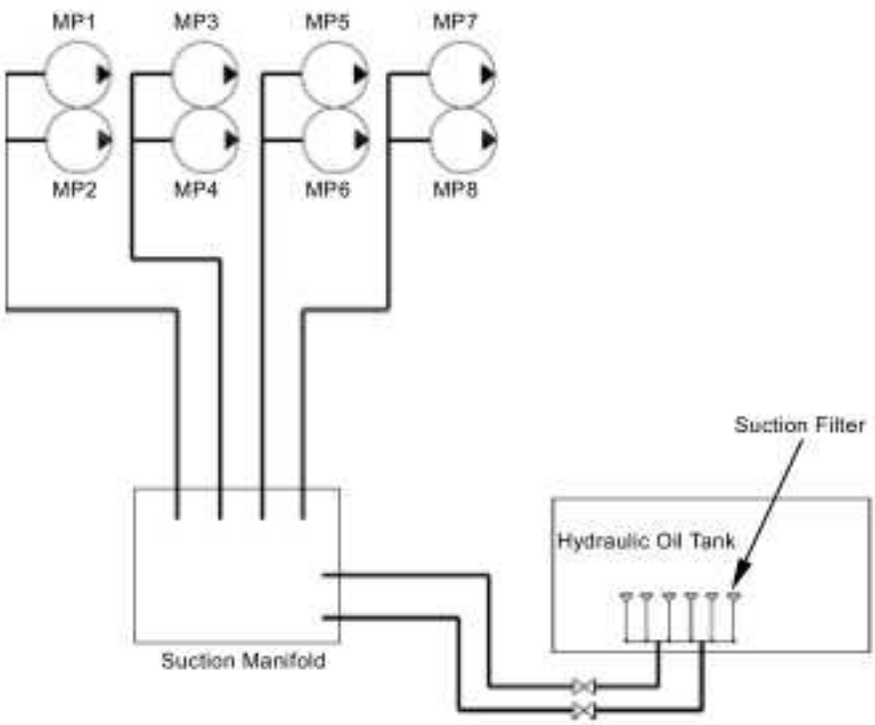
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MAIN CIRCUIT

Suction Circuit

Four main pump units are arranged in tandem for a total of 8 main pump units are installed on this machine. The suction manifold is connected to the hydraulic oil tank by two suction pipes. The main pumps draw hydraulic oil through the suction manifold. Six filters are located in the suction section of the hydraulic oil tank.



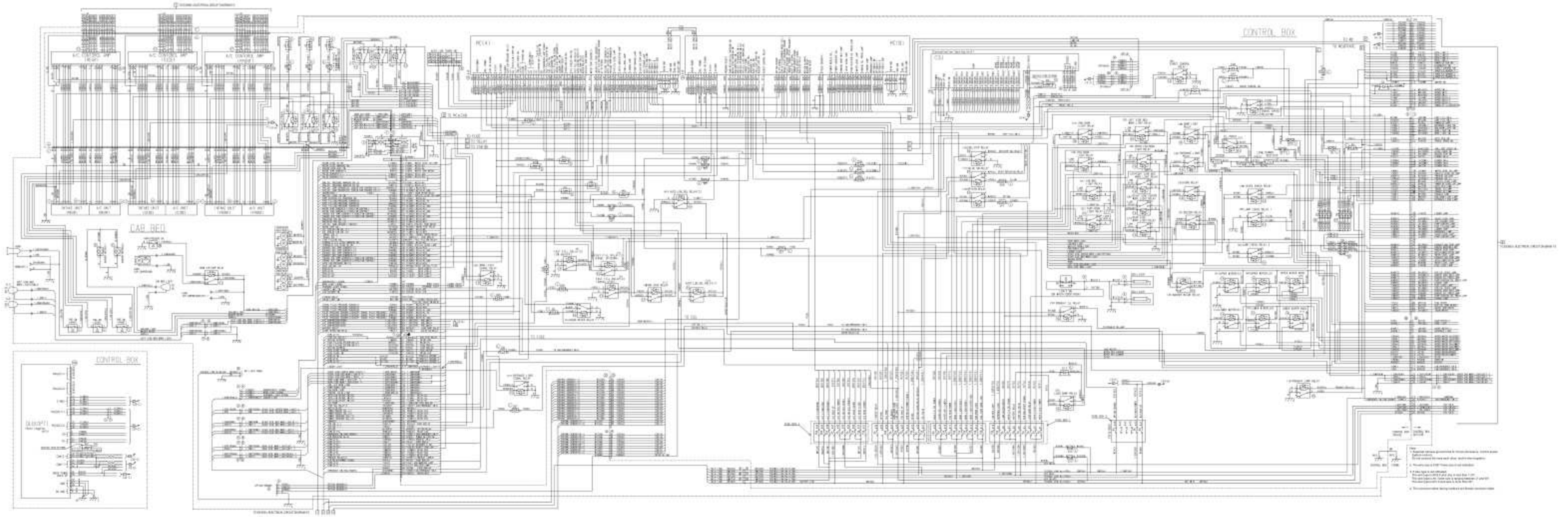


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EX3600-5 ELECTRICAL CIRCUIT DIAGRAM 2/3



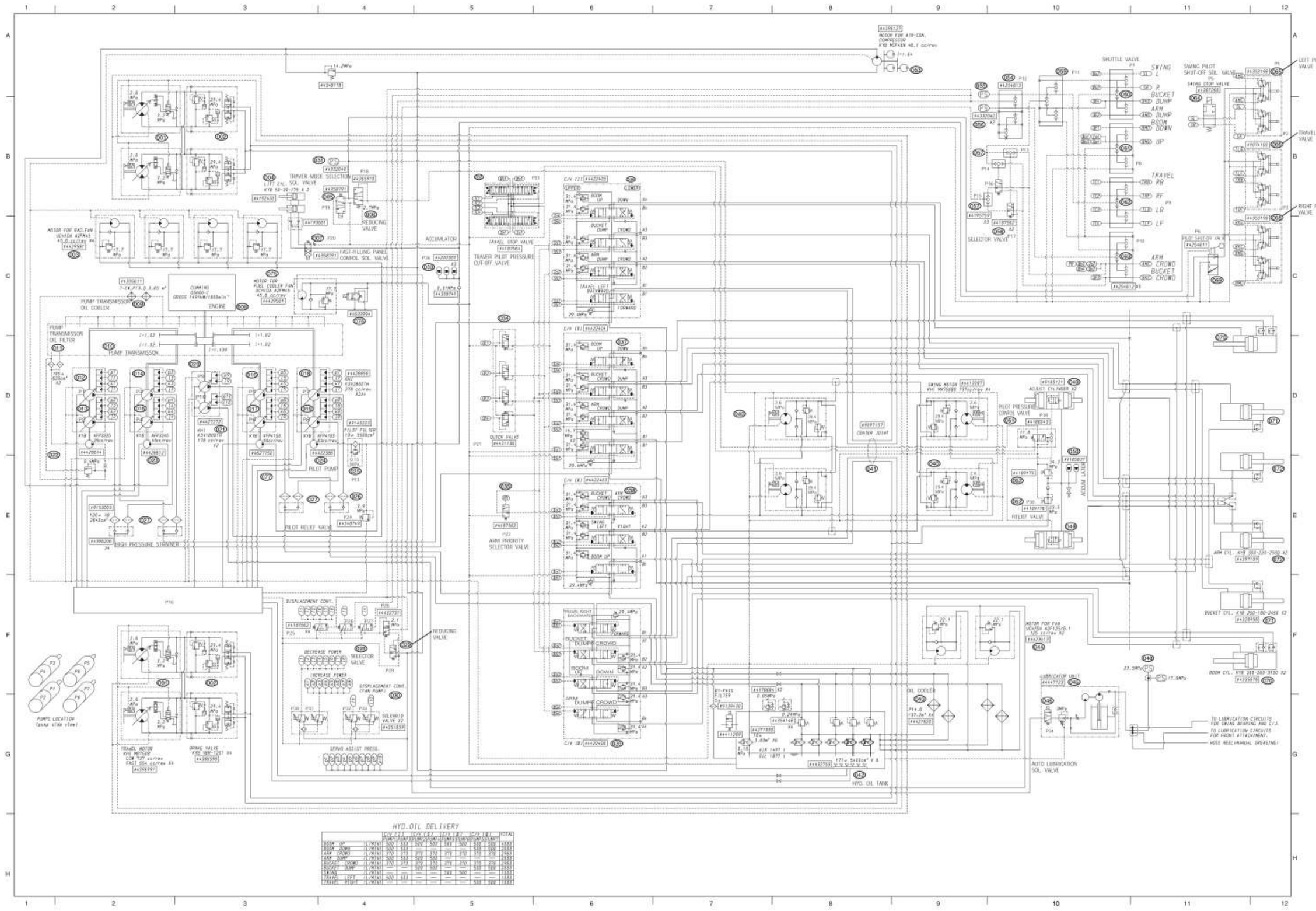
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EX3600-5 HYDRAULIC CIRCUIT DIAGRAM (BACKHOE) (CUMMINS ENGINE SPECIFICATION)

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Parts numbers on the drawing are provided only for reference purpose.
To order parts on the drawing, be sure to consult the Parts Catalog.

IMPORTANT:
The numbers (001) to (077) indicate the No. in the cross reference table.
Refer to the cross reference table in T5-2 group.

NOTE : Refer to the performance standard table in the Technical Manual for the set pressure of each relief valve.



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