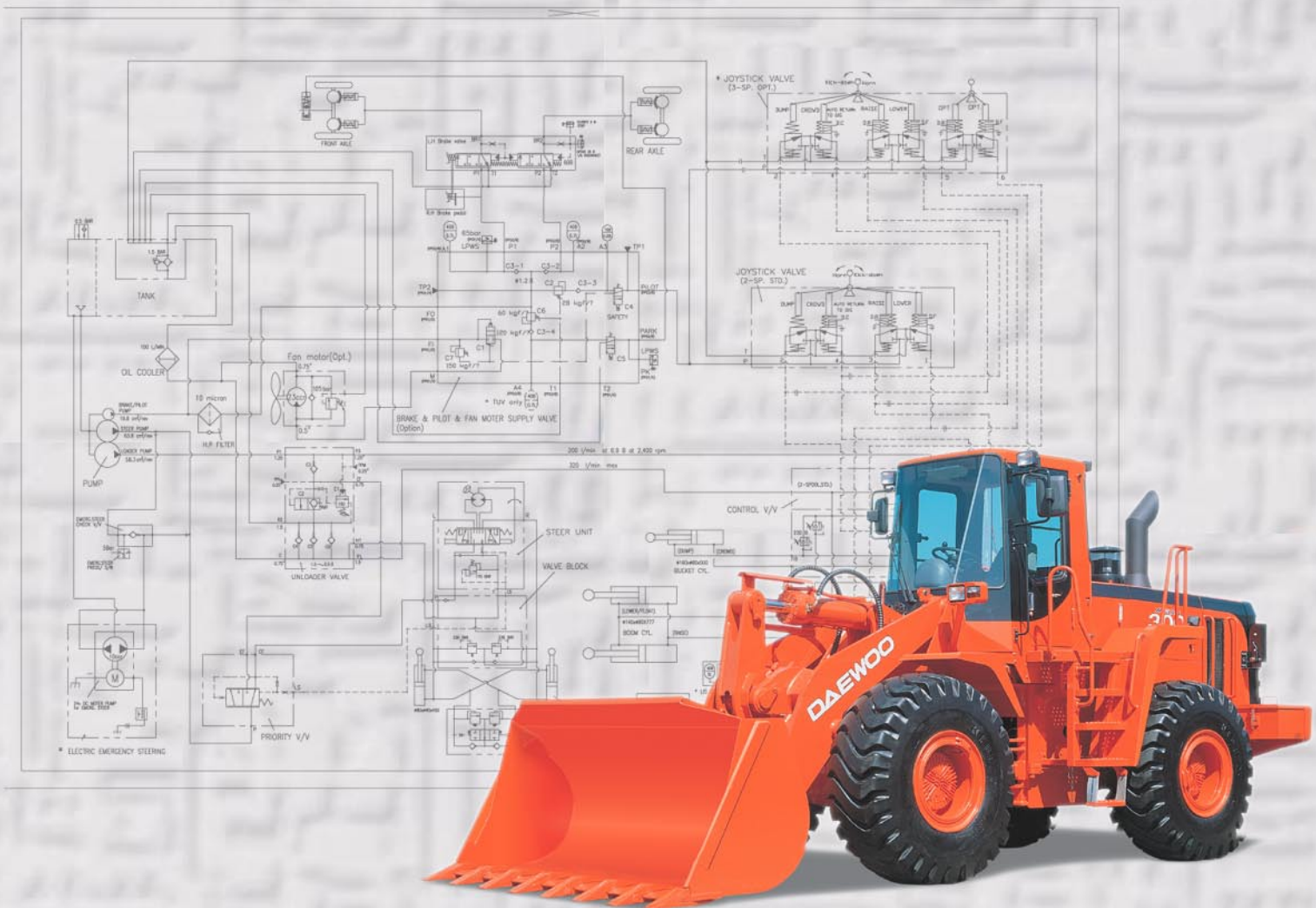


MEGA-V

DAEWOO NEW WHEEL LOADER

Hydraulic System Theory



Technical Training Text

1. General.....	1
2. Hydraulic system differences between models	3
3. Reservoir and main filters	4
4. Hydraulic pumps.....	7
5. Brake/Pilot supply system	15
6. Brake/Pilot Supply System (M300-V, M400-V, M500-V)	30
7. Priority valve (M160-V, M200-V, M250-V, M300-V)	33
8. Steering unit M160-V, M200-V, M300-V).....	35
9. Steering overload relief valves	40
10. Cushion valves (M160-V, M200-V, M300-V)	41
11. Flow amplifier (M400-V, M500-V)	44
12. Unloader valve(M160-V, M200-V, M250-V, M300-V, M400-V)	48
13. Loader control valve (M160-V, M200-V, M250-V, M300-V).....	53

Technical Training Text

Technical Training Text

1. General

1. The hydraulic system of the Mega - III series Wheel Loaders is comprised of actually four principal circuits. The Loading circuit, the Steering circuit, the Brake circuit and the Pilot Control circuit. All circuits rely upon a common hydraulic reservoir.
2. The system is designed to utilize a dedicated, anti-wear hydraulic fluid of the appropriate viscosity for the operating environment temperature.
3. From -23° C (-10° F) to 0° C (32° F) an Anti Wear, ISO viscosity grade 32 hydraulic fluid should be used in the system.
4. From 0° C (32° F) to 30° C (85° F) an Anti Wear ISO viscosity grade 46 hydraulic fluid should be used in the system.
5. From 30° C (85° F) to 45° C (113° F) an Anti Wear ISO viscosity grade 68 hydraulic fluid should be used in the system.
6. Due to formulation and additive differences, motor oil is not recommended for use in the machine's hydraulic system.
7. The use of more premium grades of hydraulic oil products can broaden the temperature range recommendations previously stated.
8. Heat generated through the use of the machine's hydraulics is rejected by an oil to air cooler constructed beside the engine coolant cooler in the machine's radiator assembly. The normal operating temperature range of the hydraulic system is between 71~ 88° C (160 ~ 190° F).

Technical Training Text

9. A centralized hydraulic circuit test manifold is located below the operator's platform on the forward right side of the machine. This test manifold is available on all models. The test ports are arranged as follows:

- A. Main loader pump.
- B. Pilot system circuit.
- C. Steering pump.
- D. Transmission charge circuit.
- E. Brake charge circuit.

