WHEEL LOADER

SERVICE MANUAL

SL765

HYUNDAI

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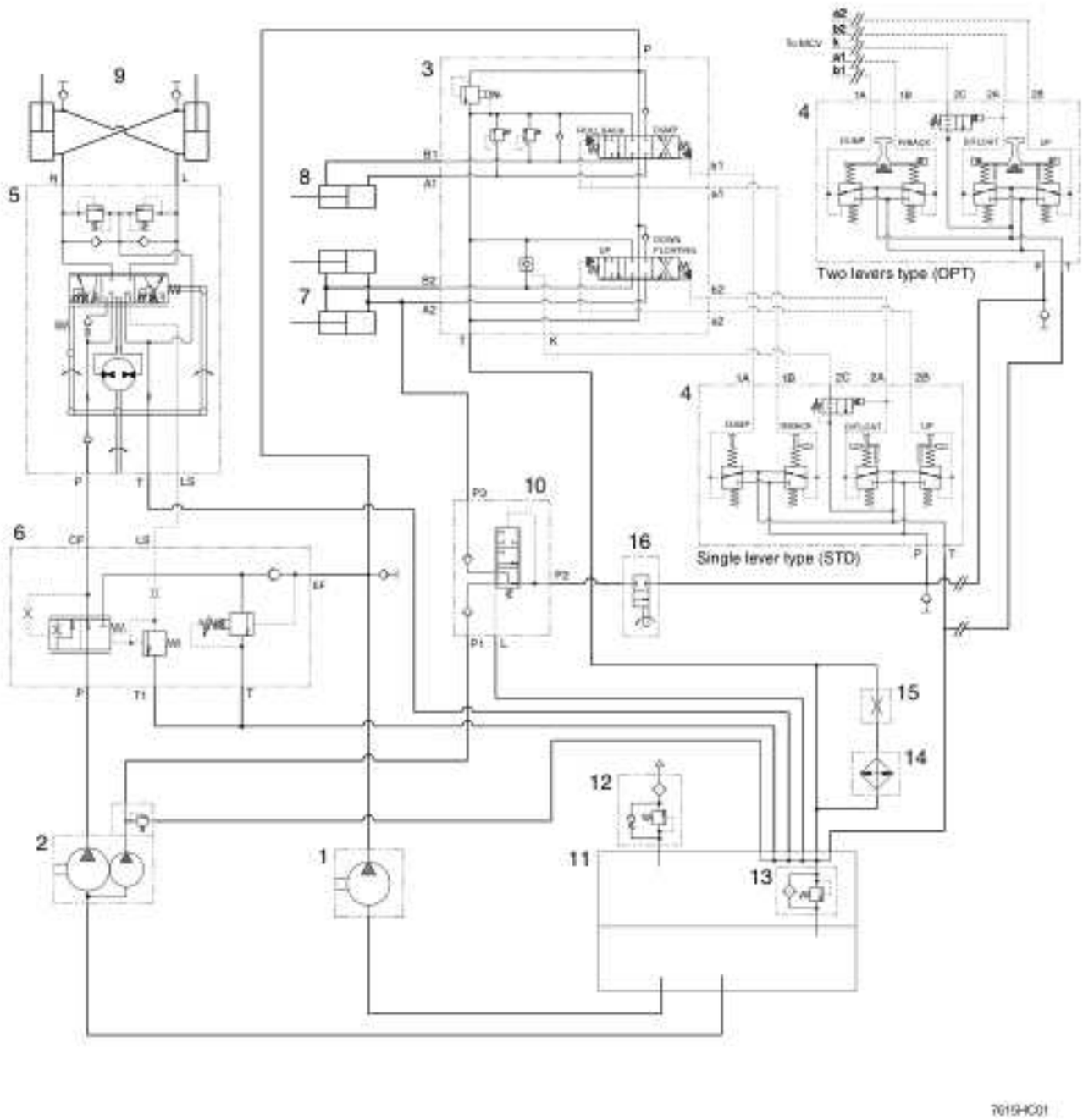
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1. HYDRAULIC CIRCUIT



1	Main pump	7	Boom cylinder	13	Return filter
2	Steering and pilot pump	8	Bucket cylinder	14	Oil cooler
3	Main control valve	9	Steering cylinder	15	Orifice fitting
4	Remote control valve	10	Pressure select valve	16	Safety valve
5	Steering unit	11	Hydraulic tank		
6	Steering valve	12	Air breather		

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4) TROUBLESHOOTING

Problem	Cause	Remedy
Noise in pump	Air in system.	Fasten up all the connectors.
	Insufficient oil supply.	Refill oil to an adequate level.
	Cold oil.	Run slowly.
	Contaminated suction filter.	Clean or replace the filter.
	Too thin suction pipe.	Use a larger pipe.
	Suction pipe is clogged.	Remove the obstruction.
	Clogged air filter in oil tank.	Clean or replace the air filter.
	Poor concentricity of pump and input shaft.	Inspect.
	Severe resonance with tank, peripheral parts of piping.	Check piping, elements and bolts for being securely fastened.
Pump lags in response or no response	Insufficient oil supply.	Refill oil to an adequate level.
	Improper pressure setting of relief valve.	Regulate the pressure of relief valve.
	Worn or damaged pump.	Repair or replace.
	Worn, leaking or stuck valve.	Repair or replace.
High oil temperature	Too low pressure setting at overflow valve.	Regulate pressure of overflow valve.
	Too low viscosity of hydraulic oil.	Use recommended hydraulic oil.
	Too low oil level.	Refill oil to an adequate level.
	Small tank.	Add an oil cooler or replace with larger tank.
	Worn or damaged pump.	Repair or replace.
Foam forms in oil	Air has entered into oil tank through suction pipe.	Fasten up all the connectors.
	Incorrect selection of oil.	Use recommended oil.
	Too low oil level.	Refill oil to an adequate level.
	Worn or damaged lip seal for main shaft.	Replace the lip seal for main shaft.

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5. LOADER SYSTEM AND PORT RELIEF VALVE PRESSURE TEST

- SPECIFICATION

  Oil temperature (40~50°C)

Relief valve	Engine speed	Relief pressure
System (M)	Low	190 ± 5 kg/cm² (2700 ± 70 psi)
Bucket rollback (R)	Low	200 ± 5 kg/cm² (2840 ± 70 psi)
Bucket dump (D)	Low	130 ± 5 kg/cm² (1850 ± 70 psi)

- Gauge and tool

  Gauge 0~35 MPa (0~350 bar, 0~5000 psi)

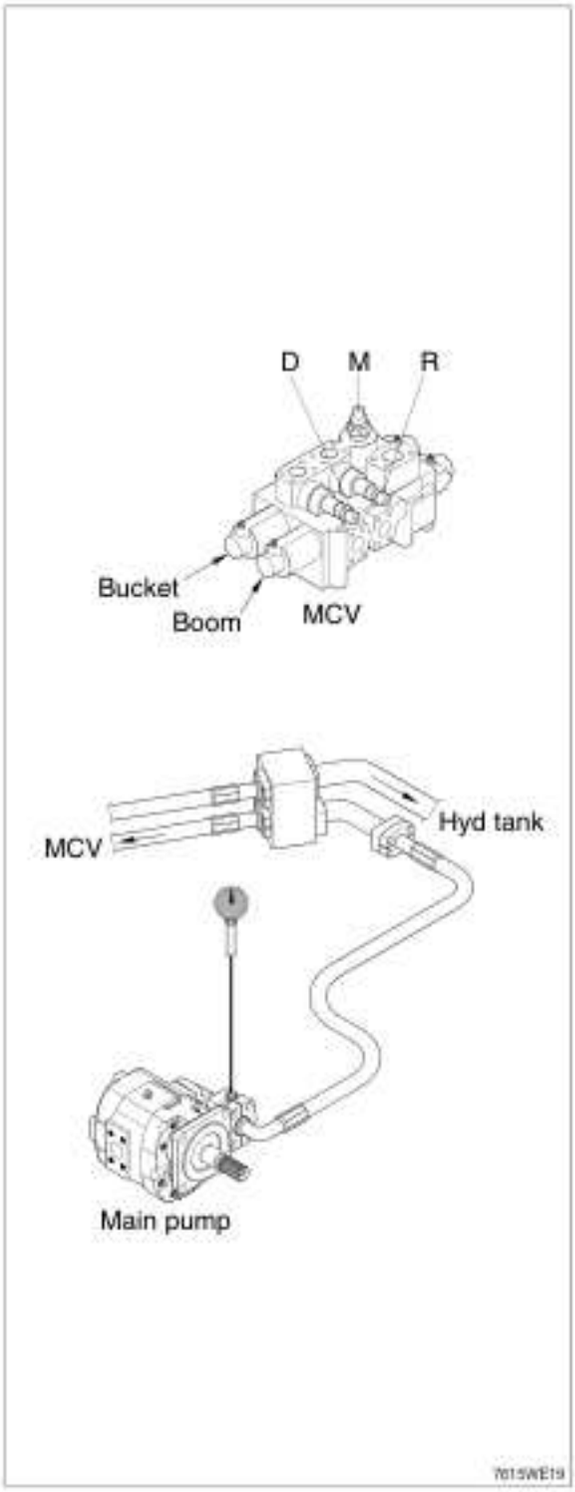
  M : System (main) relief valve

  R : Bucket rollback relief

  D : Bucket dump relief

1) Install fitting and pressure gauge to test port in pump delivery line.
2) Install temperature reader.
   (see temperature reader installation procedure in this group)
3) Heat hydraulic oil to specifications.
   (see hydraulic oil warm up procedure in this group)
4) To check the system relief (M), run engine at low idle. Lower boom to bottomed position.
   Slowly activate boom down function while watching pressure gauge. If pressure is not to specification, loosen lock nut on system relief valve (M) and adjust to specification.

※ Do not adjust the system relief valve above 190 kg/cm² (2760 psi). Damage to the pump will result from excessive pressure settings.

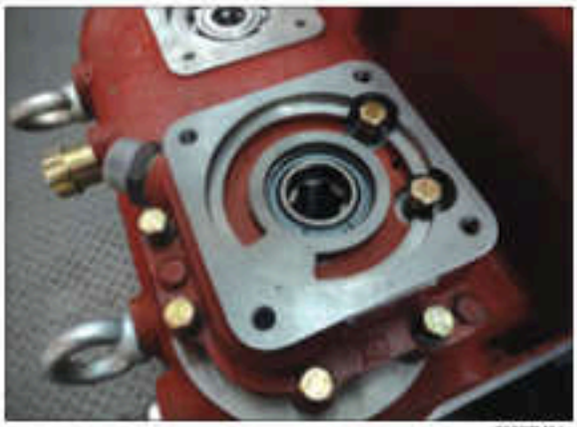


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8. DISASSEMBLY AND ASSEMBLY

1) DISASSEMBLY

(1) Remove the bolts 6-M10×55, 2-M10×80 for connecting oil pumps and housing, then take down the oil pump by knocking at the outside of the pump with copper rod.



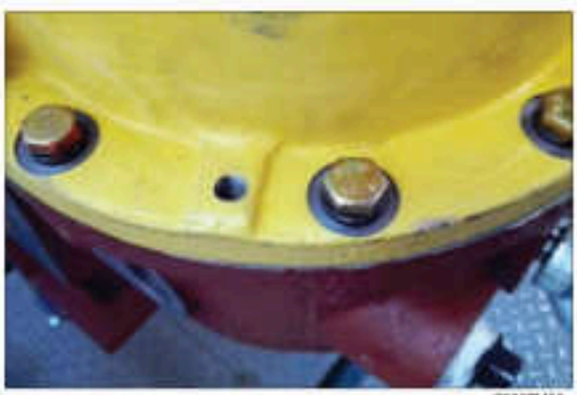
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(2) Unscrew the bolts 13-M10×70 with socket M16 and remove the valve.



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(3) Unscrew the bolts 26-M10×30 and 5-M10×70 with sockets M16 and separate the housing and the torque converter through screwing the bolts 3-M10×70.



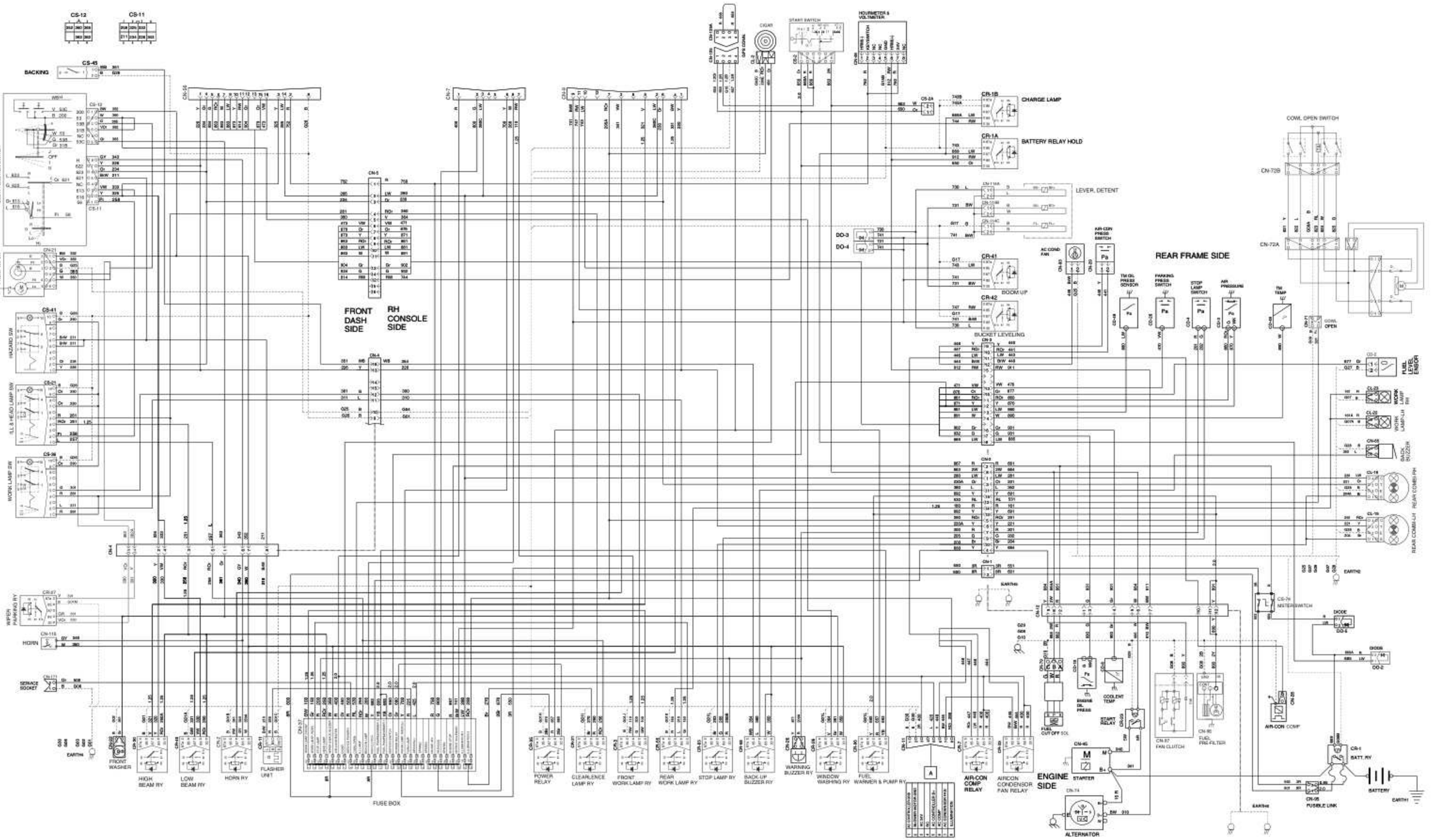
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· ELECTRICAL CIRCUIT (1/2)



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