WHEEL LOADER

SERVICE MANUAL

HL740-7S

HYUNDAI

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GROUP 2 OPERATIONAL CHECKS AND TROUBLESHOOTING

1. OPERATIONAL CHECKS

This procedure is designed so the mechanic can make a quick check of the system using a minimum amount of diagnostic equipment. If you need additional information, read structure and function, Group 1.
A location will be required which is level and has adequate space to complete the checks.

The engine and all other major components must be at operating temperature for some checks.

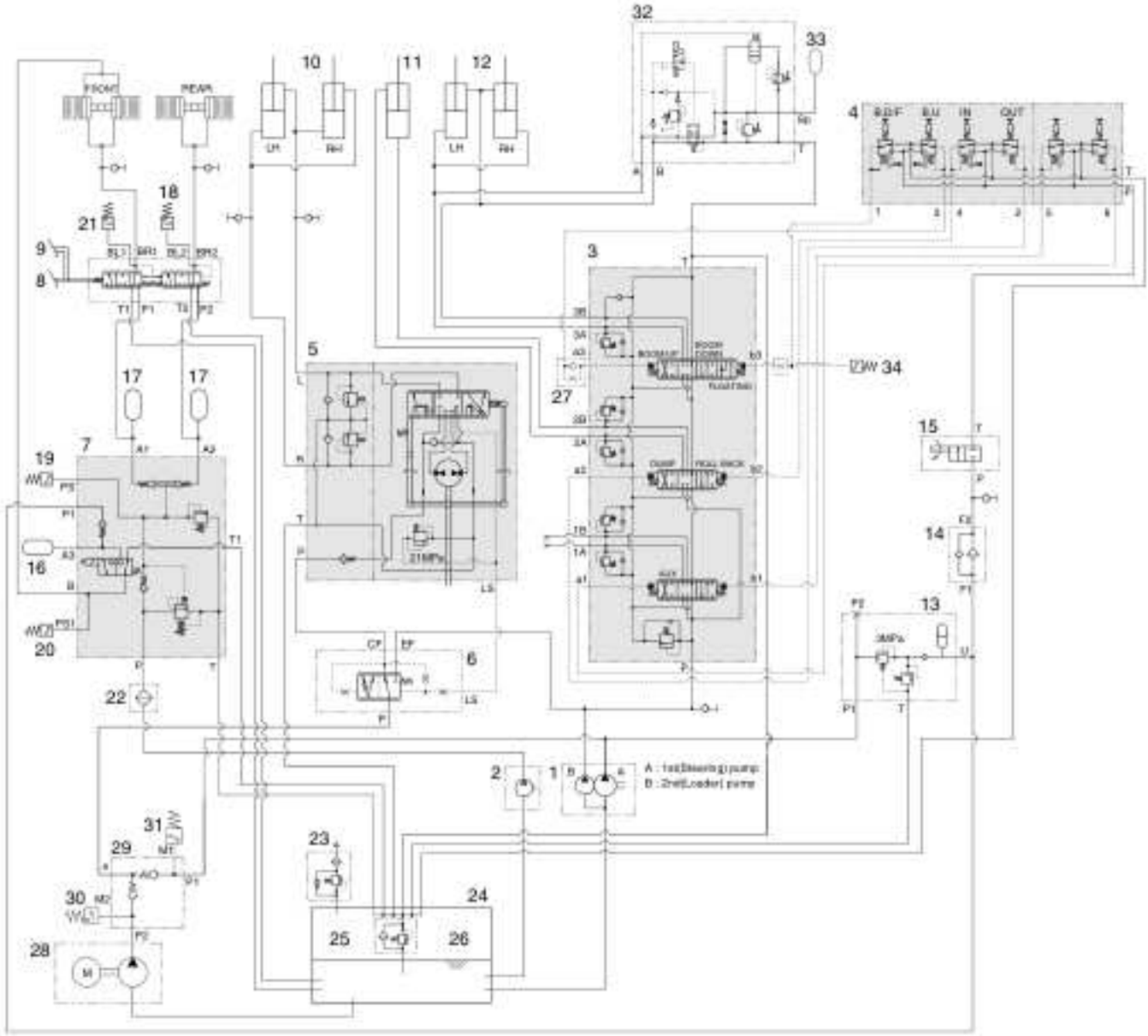
Locate system check in the left column and read completely, following the sequence from left to right. Read each check completely before performing.

At the end of each check, if no problem is found (OK), that check is complete or an additional check is needed. If problem is indicated (NOT OK), you will be given repair required and group location.
If verification is needed, you will be given next best source of information:

Chapter 2 : Troubleshooting
Group 3 : Tests and adjustments

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2. HYDRAULIC CIRCUIT



1	Main pump	13	Pilot supply unit	25	Return filter
2	Brake pump	14	Line filter	26	Bypass valve
3	Main control valve	15	Safety valve	27	Shockless valve
4	Remote control valve	16	Accumulator	28	Pump motor (opt)
5	Steering unit	17	Accumulator	29	Check valve (opt)
6	Priority valve	18	Pressure switch	30	Pressure switch (opt)
7	Cut off valve	19	Pressure switch	31	Pressure switch (opt)
8	Brake valve	20	Pressure switch	32	Ride control valve (opt)
9	Dual brake pedal (opt)	21	Pressure switch	33	Accumulator (opt)
10	Steering cylinder	22	Line filter	34	Pressure switch (opt)
11	Bucket cylinder	23	Air breather		
12	Boom cylinder	24	Hydraulic tank		

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6. LOADER SYSTEM AND PORT RELIEF VALVE PRESSURE TEST

- SPECIFICATION

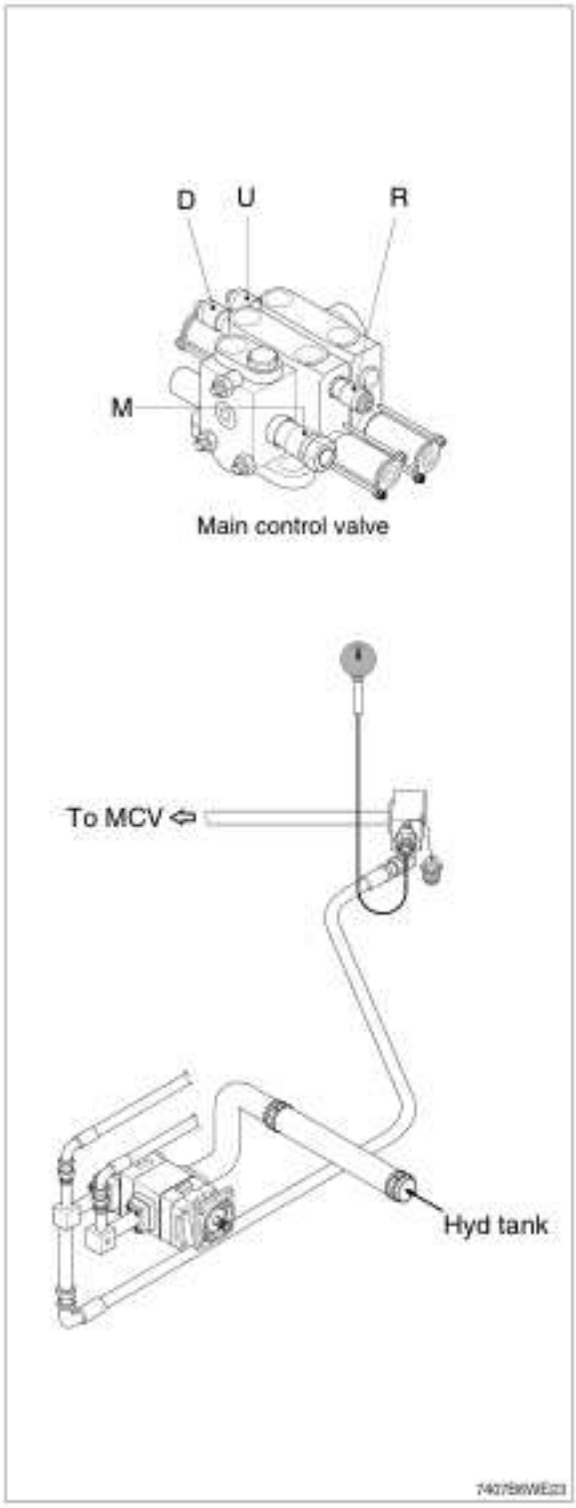
Oil temperature (40~50°C)

Relief valve	Engine speed	Relief pressure
System (M)	High	210±10 kg/cm² (2990±140 psi)
Boom raise (U)	Low	240±10 kg/cm² (3410±140 psi)
Bucket rollback (R)	Low	240±10 kg/cm² (3410±140 psi)
Bucket dump (D)	Low	240±10 kg/cm² (3410±140 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
U : Boom raise 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 high 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.



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(9) Assemble drive gear set.
Spread hydraulic fluid around gear set.



(10) Assemble thrust plate.
Rotate the shaft gear and check status of gear set.
Assemble dowel pins and connector shaft.



(11) Assemble the rear cover.
Check the contact status of square seal.



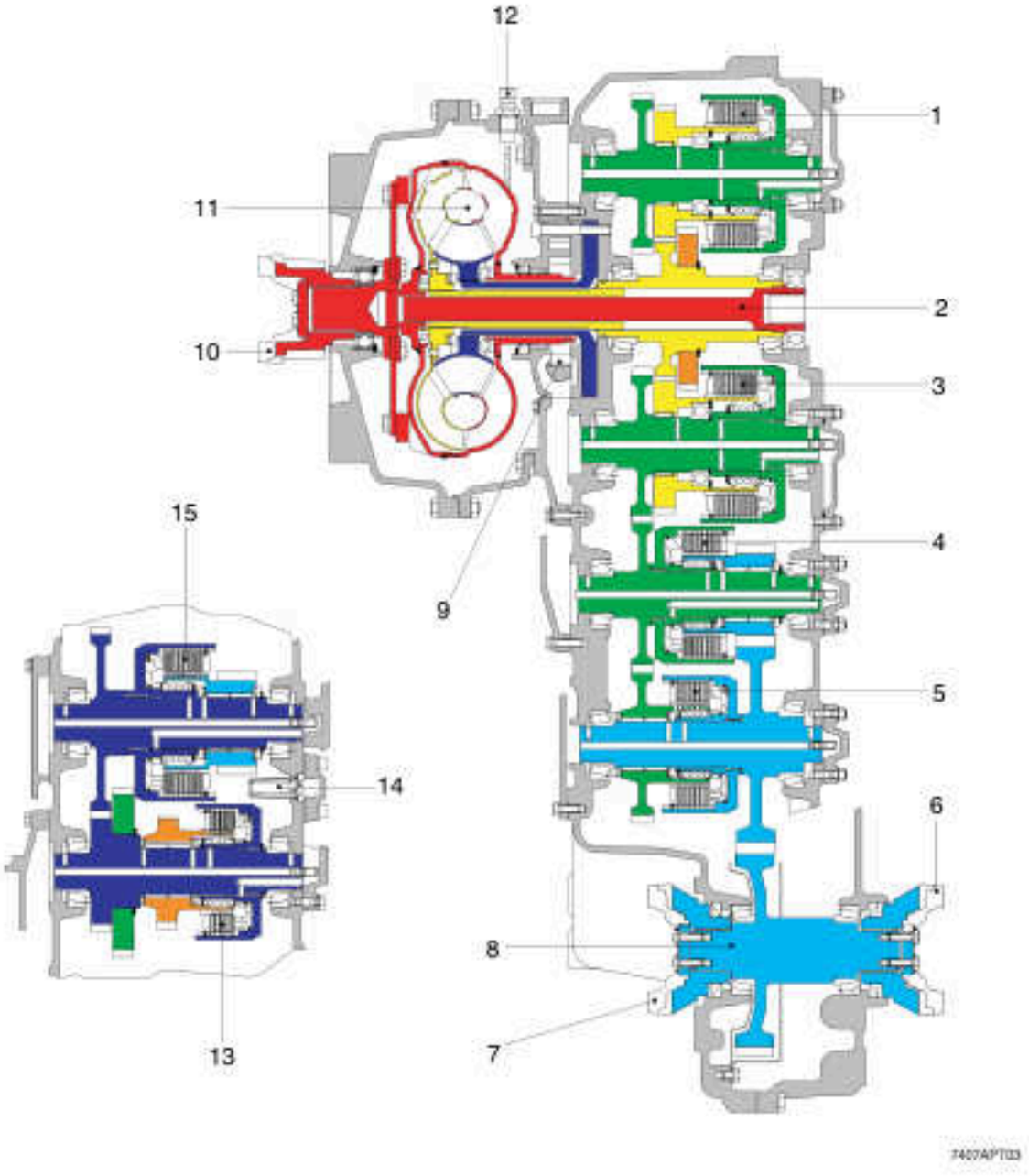
(12) Assemble stud bolt and washer.
※ Washer : smooth - convex side up
※ Keep bolts in dry condition after washing.



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3. TRANSMISSION

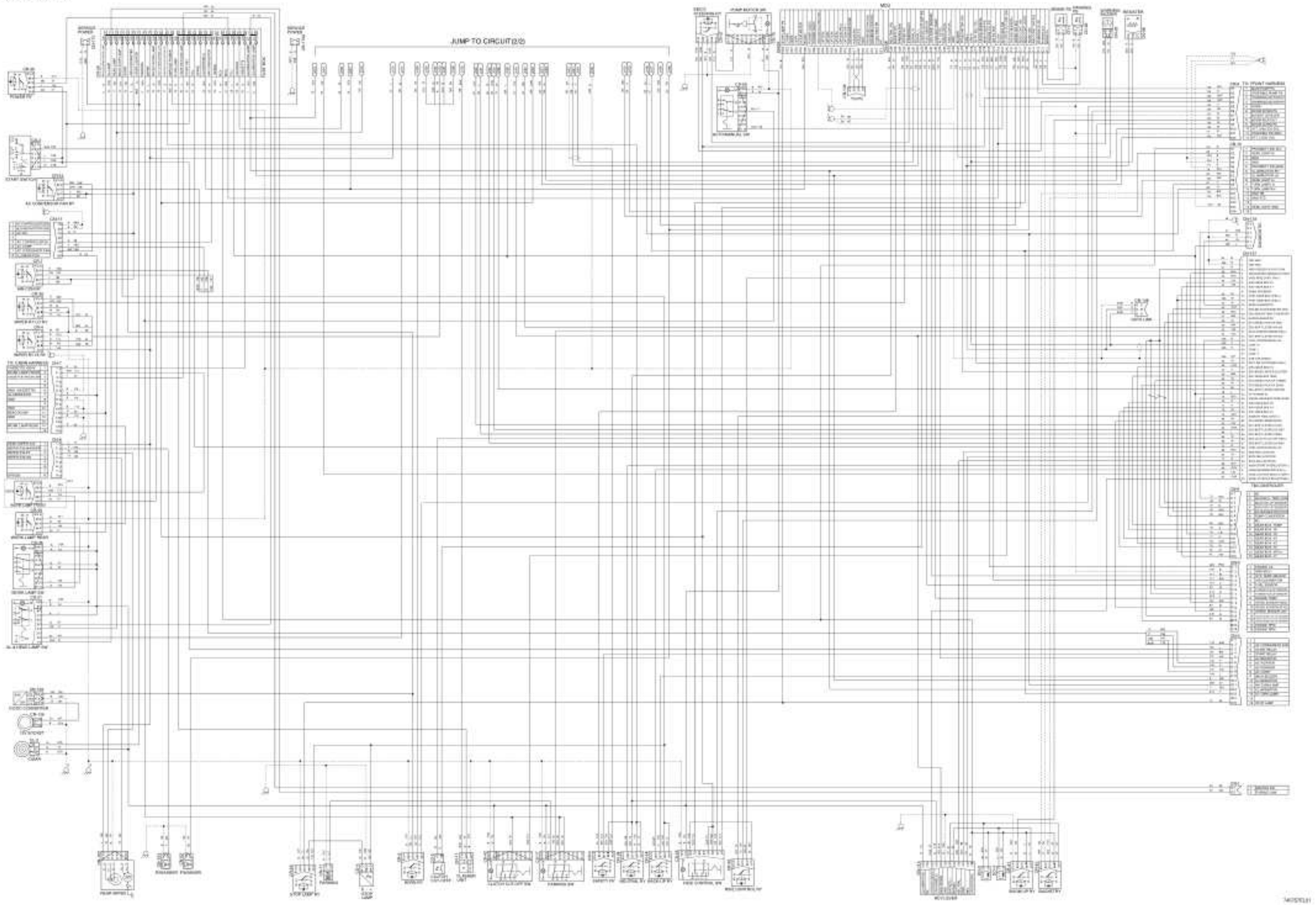
1) LAYOUT



1	Reverse clutch (KR)	6	Rear output flange	11	Converter
2	Engine-dependent power take-off	7	Converter side output flange	12	Inductive transmitter for engine speed
3	Forward clutch (KV)	8	Output shaft	13	4th clutch (K4)
4	2nd clutch (K2)	9	Transmission pump	14	Converter relief valve
5	3rd clutch (K3)	10	Input flange	15	1st clutch (K1)

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· Cap type (1/2, opt)



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