WHEEL LOADER

SERVICE MANUAL

HL757-7A

HYUNDAI

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2) MAIN PUMP

Item	Specification
Type	Fixed displacement double helical gear pump
Capacity	56+56cc/rev
Maximum operating pressure	210kgf/cm²(2990psi)
Rated oil quantity	230 ℓ /min(60.8U.S.gpm / 50.6U.K.gpm)
Rated speed	2100rpm

3) FAN + BRAKE PUMP

Item	Specification	
	Fan	Brake
Type	Fixed displacement tandem gear pump	
Capacity	19cc/rev	11.9cc/rev
Maximum operating pressure	115kgf/cm²(1640psi)	180kgf/cm²(2560psi)
Rated oil quantity	39 ℓ /min(10.3U.S.gpm)	24 ℓ /min(6.3 U.S.gpm)
Rated speed	2100rpm	

4) MAIN CONTROL VALVE

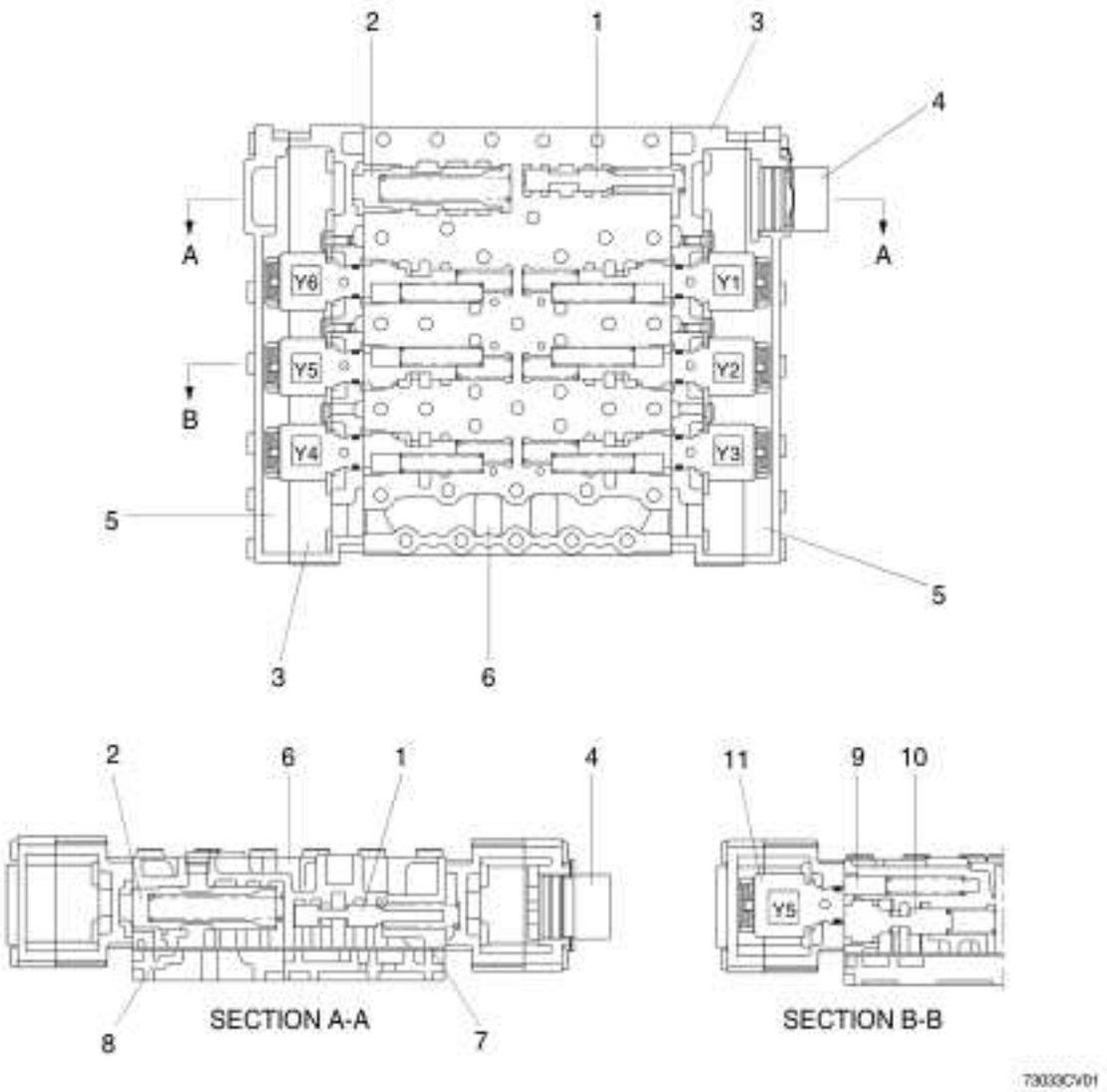
Item	Specification
Type	2 spool
Operating method	Hydraulic pilot assist
Main relief valve pressure	210kgf/cm²(2990psi)
Overload relief valve pressure	240kgf/cm²(3410psi)

5) REMOTE CONTROL VALVE

Item		Specification
Type		Pressure reducing type
Operating	Minimum	5.8kgf/cm²(82.5psi)
	Maximum	19kgf/cm²(270psi)
Single operation stroke	Lever	70mm(2.8in)

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4) ELECTRO-HYDRAULIC SHIFT CONTROL WITH PROPORTIONAL VALVE



1	Pressure reducing valve(9+0.5bar)	7	Intermediate sheet
2	System pressure valve(16+2bar)	8	Duct plate
3	Housing	9	Oscillation damper
4	Cable harness	10	Follow-on slide
5	Cover	11	Pressure regulator
6	Valve block		

Transmission control, see schedule of hydraulic circuit, electro-hydraulic control unit and measuring points at page 3-2, 3-14 and 3-73.

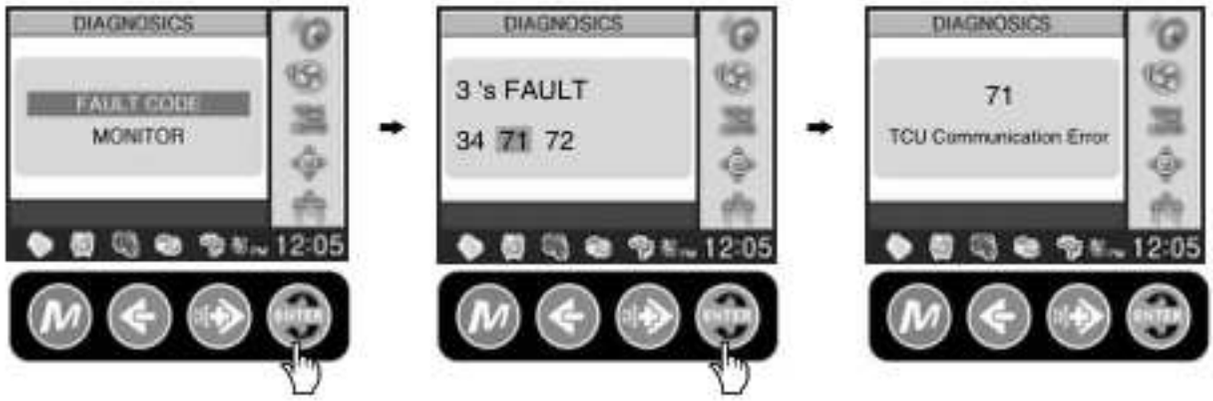
The six clutches of the transmission are selected via the 6 proportional valves P1 to P6. The proportional valve(Pressure regulator unit) is composed of pressure regulator(e.g. Y1), follow-on slide and vibration damper.

The control pressure of 9 bar for the actuation of the follow-on slides is created by the pressure reducing valve. The pressure oil (16+2bar) is directed via the follow-on slide to the respective clutch.

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(3) Machine fault code

When selecting the fault code menu, it shows all of the fault codes which mean abnormal conditions of present time.



7707A3CD36

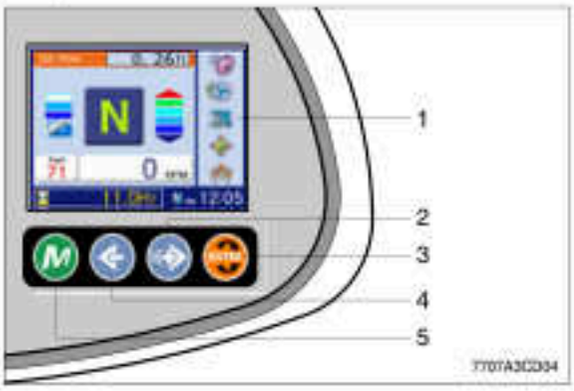
- To go out from fault explanation window, press ◀ button.
  (Press 🌐 , Ⓜ to go out to main.)
- **No error** will be indicated in case that there's no fault.

Description	Code	Meaning	Remark
Electrical system	010	Power input voltage low	Below 18V
	011	Power input voltage high	Above 38V
	012	Alternator voltage low	Below 5V
	013	Alternator voltage high	Above 36V
	014	Buzzer circuit open or short to ground	
	015	Buzzer circuit short to power	
Hydraulic system	020	Hydraulic oil temperature sensor open or short to power	
	021	Hydraulic oil temperature sensor short to ground	
Engine system	030	Fuel level sensor open or short to power	
	031	Fuel level sensor short to ground	
	034	Cooling fan driving valve open or short to ground	
	035	Cooling fan driving valve short to power	
T/M system	050	Auto select switch supply power open or short to power	
	051	Auto select switch supply power short to ground	
	052	Clutch cutoff supply power open or short to power	
	053	Clutch cutoff supply power short to ground	
Steering system	060	Emergency steering relay open or short to ground	Option
	061	Emergency steering relay short to power	Option
Communication	070	MCU communication error	
	071	TCU communication error	
	072	ECM communication error	

MCU : Machine control unit TCU : Transmission control unit ECM : Engine control module

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26) LCD



1 LCD
2 ( ) Right, Buzzer stop
Move to the next selection
3 ( ) Select(Enter)
Activate the currently chosen item
4 ( ) Escape
Return to the previous menu
5 ( ) Main, Menu
- Display menu
- Return to the main display

(1) Main display



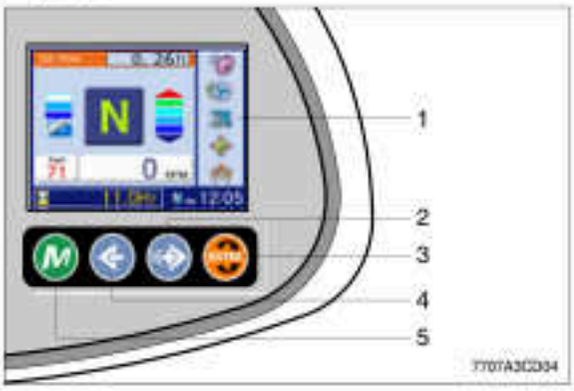
7707A3CD10

No	Symbol	Meaning	Remark	
1	Job Time 1.26h	Monitoring information	Job timer, Odometer, Hydraulic temperature, Battery voltage, Coolant temperature, T/M oil temperature.	
2		State information	Buzzer, Fan state, Ride state(option), Steering joystic(option), Warming up	
3	a	Wiper display	When operating intermittently, it shows an operating time interval	
	b		Wiper motor intermittently operating	
4	△·▽·□	Actual gear display	Forward, reverse, neutral	LCD type 1
	F, R, N		Forward, reverse, neutral	LCD type 2
	1, 2, 3, 4		Actual gear	
	P		Parking brake mode active	
5	c, d	Select gear display	Up and down shifting / c: Forward, d: Reverse	Automatic mode
	e		Pre-selected gear	
6	71	Fault code display	Fault code state display	
7	0 RPM	Engine rpm display	Now engine rpm state display	
8	11.0Hr	Hour meter display	Hour meter state display	
9	PM 12:05	Timer & alarm display	Now time & alarm state display	

※ Both type1 and type2 are LCD modes and they can be changed each other by operator's selection. (Adjustment/Display, see page 7-29)

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6) LCD



1 LCD
2 ( ) Right, Buzzer stop
Move to the next selection
3 ( ) Select(Enter)
Activate the currently chosen item
4 ( ) Escape
Return to the previous menu
5 ( ) Main, Menu
- Display menu
- Return to the main display

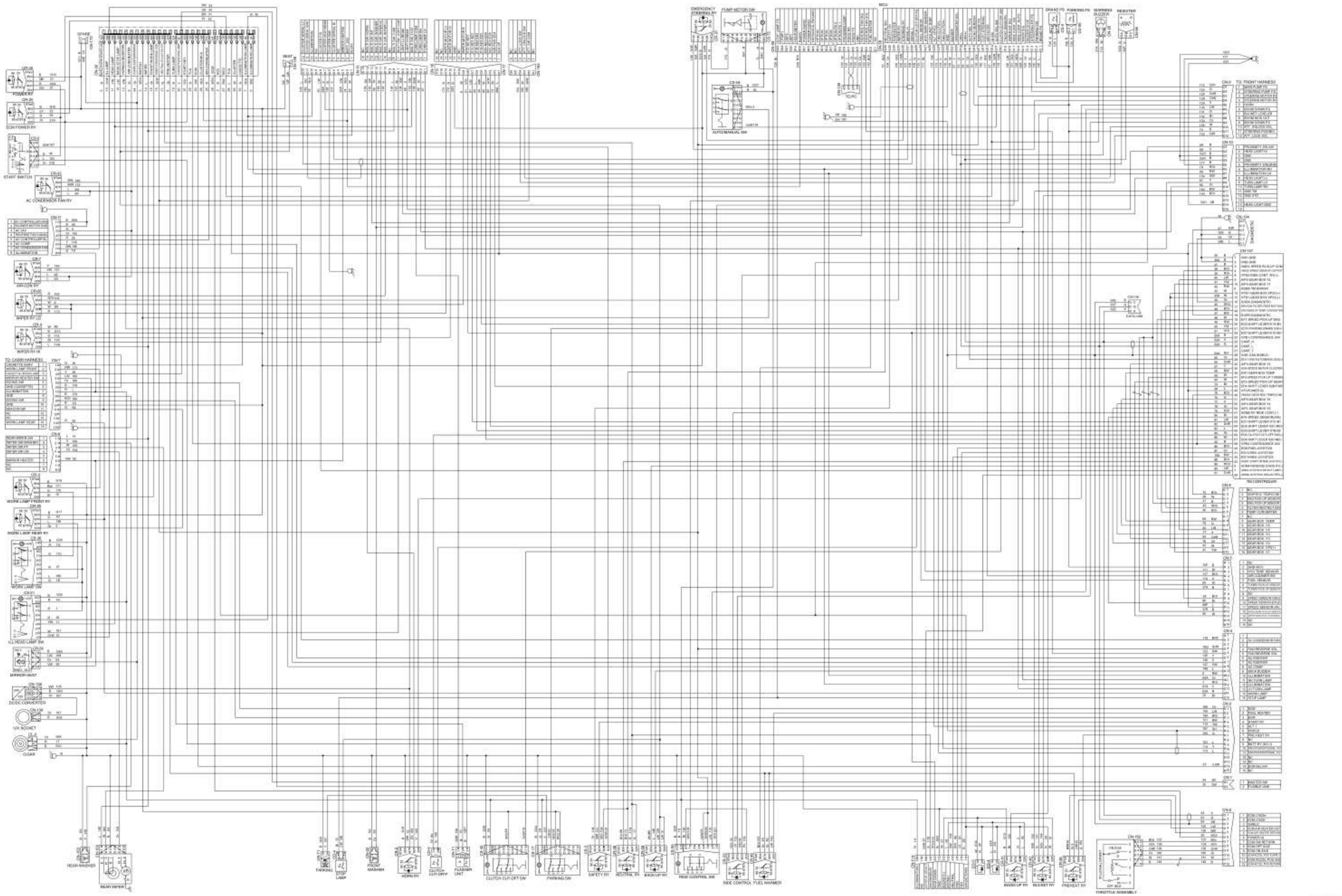
(1) Main display



No	Symbol	Meaning	Remark	
1	Job Time 1.26h	Monitoring information	Job timer, Odometer, Hydraulic temperature, Battery voltage, Coolant temperature, T/M oil temperature.	
2		State information	Buzzer, Fan state, Ride state(option), Steering joystic(option), Warming up	
3	a	Wiper display	When operating intermittently, it shows an operating time interval	
	b		Wiper motor intermittently operating	
4	△·▽·□	Actual gear display	Forward, reverse, neutral	LCD type 1
	F, R, N		Forward, reverse, neutral	LCD type 2
	1, 2, 3, 4		Actual gear	
	P		Parking brake mode active	
5	c, d	Select gear display	Up and down shifting / c: Forward, d: Reverse	Automatic mode
	e		Pre-selected gear	
6	71	Fault code display	Fault code state display	
7	0 RPM	Engine rpm display	Now engine rpm state display	
8	11.0Hr	Hour meter display	Hour meter state display	
9	PM 12:05	Timer & alarm display	Now time & alarm state display	

※ Both type1 and type2 are LCD modes and they can be changed each other by operator's selection. (Adjustment/Display, see page 3-18)

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