WHEEL LOADER

SERVICE MANUAL

HL740TM-3

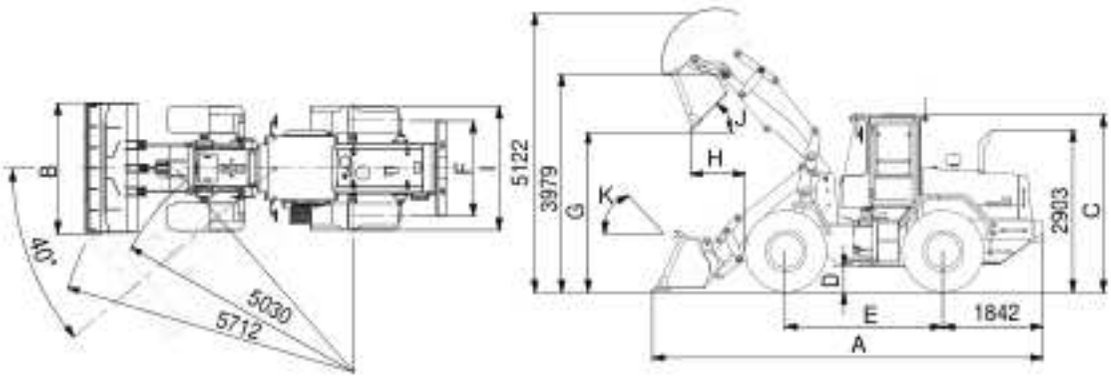
HYUNDAI

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2. SPECIFICATIONS

1) WITHOUT CUTTING EDGE TYPE BUCKET



Description		Unit	Specification
Operating weight		kg(lb)	11530(25410)
Bucket capacity	Struck	m³(yd³)	1.6(2.1)
	Heaped		1.9(2.5)
Overall length	A	mm(ft-in)	7125(23' 5")
Overall width	B		2550(8' 4")
Overall height	C		3237(10' 7")
Ground clearance	D		417(1' 4")
Wheelbase	E		2900(9' 6")
Tread	F		1900(6' 3")
Dump clearance at 45°	G		2972(9' 9")
Dump reach	H		991(3' 3")
Width over tires	I		2430(8' 0")
Dump angle	J	Degree (°)	45
Roll back angle(Carry position)	K		56
Cycle time	Lift(With load)	sec	5.6
	Dump(With load)		1.4
	Lower(Empty)		2.7
Maximum travel speed		km/hr(mph)	39(24.2)
Braking distance		m(ft-in)	13(42' 8")
Minimum turning radius(Center of outside tire)			5.03(16' 6")
Gradability		Degree (°)	30
Travel speed	Forward - First gear	km/hr(mph)	6.5(4.0)
	Forward - Second gear		13.5(8.4)
	Forward - Third gear		27.1(16.8)
	Forward - Fourth gear		39(24.2)
	Reverse - First gear		6.5(4.0)
	Reverse - Second gear		13.5(8.4)
	Reverse - Third gear		27.1(16.8)

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3. WEIGHT

Item	kg	lb
Front frame assembly	916	2019
Rear frame assembly	1223	2696
Front fender	23	51
Rear fender	34	75
Counterweight	805	1775
Cab assembly	1000	2205
Engine assembly	435	959
Transmission	350	772
Drive shaft(Engine to transmission)	5.9	13
Drive shaft(Front)	14	31
Drive shaft(Center)	11	24
Drive shaft(Rear)	10	22
Front axle(Include differential)	575	1268
Rear axle(Include differential)	560	1235
Tire(4EA)	1320	2910
Hydraulic tank	100	220
Fuel tank	220	485
Main pump assembly	20	44
Main control valve	22	49
Boom	638	1407
Bucket link	40	88
Quick coupler assy	210	463
2.0m³ bucket, with bolt on cutting edge	895	1973
1.9m³ bucket, without cutting edge	775	1709
Boom cylinder assembly(2EA)	132	291
Bucket cylinder assembly(2EA)	94	207
Steering cylinder assembly(2EA)	36	80
Quick coupler cylinder assembly(1EA)	5.5	12
Seat	40	88
Battery	44	97

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Problem	Cause	Remedy
Excessive transmission noise(Under load or no load)	Too low engine low idle.	Check engine low idle speed.
	Worn parts or damaged in transmission.	Remove transmission suction screen. Inspect for metal particles. Repair as necessary.
	Warped drive line between engine and torque converter.	Inspect drive line.
	Low or no lube.	Do converter-out and lube pressure test. Do transmission pump flow test.
Foaming oil	Incorrect type of oil.	Change oil.
	High oil level.	Transmission overfilled or hydraulic pump seal leaking.
	Low oil level.	Add oil.
	Air leak on suction side of pump.	Check oil pickup tube on side of transmission.
Oil ejected from dipstick	Plugged breather.	Inspect breather on top of transmission. Replace.
Machine vibrates	Aerated oil.	Add oil.
	Low engine speed.	Check engine speed.
	Failed universal joints on transmission drive shaft or differential drive shafts.	Check universal joints.
Machine lacks power and acceleration	Engine high idle speed set too low.	Check high idle adjustment.
	Incorrect transmission oil.	Change oil.
	Aerated oil.	Add oil.
	Low transmission pressure.	Do transmission system pressure test.
	Warped transmission clutch.	Do transmission clutch drag checks.
	Torn transmission control valve gasket.	Inspect gasket.
	Brake drag.	Do brake drag check.
	Failed torque converter.	Do torque converter stall speed test.
	Low engine power.	Do engine power test.
Torque converter stall RPM too high	Aerated oil.	Put clear hose on thermal bypass outlet port. Run machine to check for bubbles in oil.
	Stuck open converter relief valve.	Do converter-out pressure test.
	Leakage in torque converter seal.	Do converter-out pressure test.
	Torque converter not transferring power(Bent fins, broken starter).	Replace torque converter.

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10. PILOT CONTROL VALVE PRESSURE TEST

- **SPECIFICATION**

Oil temperature	40±6°C(100±10°F)
Engine speed	Low idle
Begin metering	1/4" of lever travel
Pressure in detent :	
Boom float detent	1.38MPa(13.8bar)
Pressure at feel position*:	
Boom power down	13.4~13.8bar
Boom raise	13.4~17.2bar
Bucket rollback	13.4~17.2bar
Bucket dump	13.4~17.2bar

- **GAUGE AND TOOL**

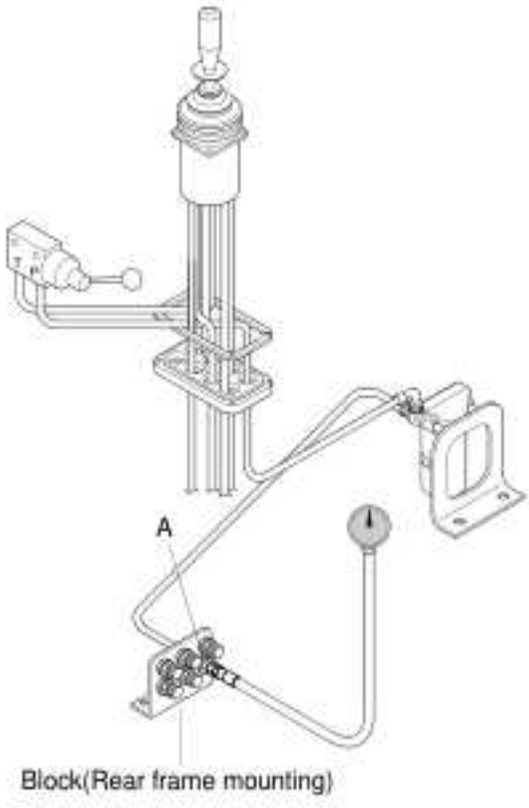
Gauge 0~7MPa(0~70bar, 0~1000psi)

★ As the control lever is moved from neutral, the pilot pressure will suddenly jump up to approximately 5.8bar at 1/4in travel. The pressure should then increase smoothly to the specification at the FEEL position(or 3/4 lever travel), and then jump up about 315psi as the lever is moved into detent.

This test will determine if adequate pilot pressure is available to move the loader control valve spools.

※ **The FEEL position is when lever is moved to feel the ramp of the detent before lever passes into detent position.**

1) Lower boom to ground.
2) Connect gauge to the pilot pressure port(A) of function to be checked.
3) Install temperature reader.(See temperature reader installation procedure in this group.)
4) Heat hydraulic oil to specification.(See hydraulic oil warm up procedure in this group.)



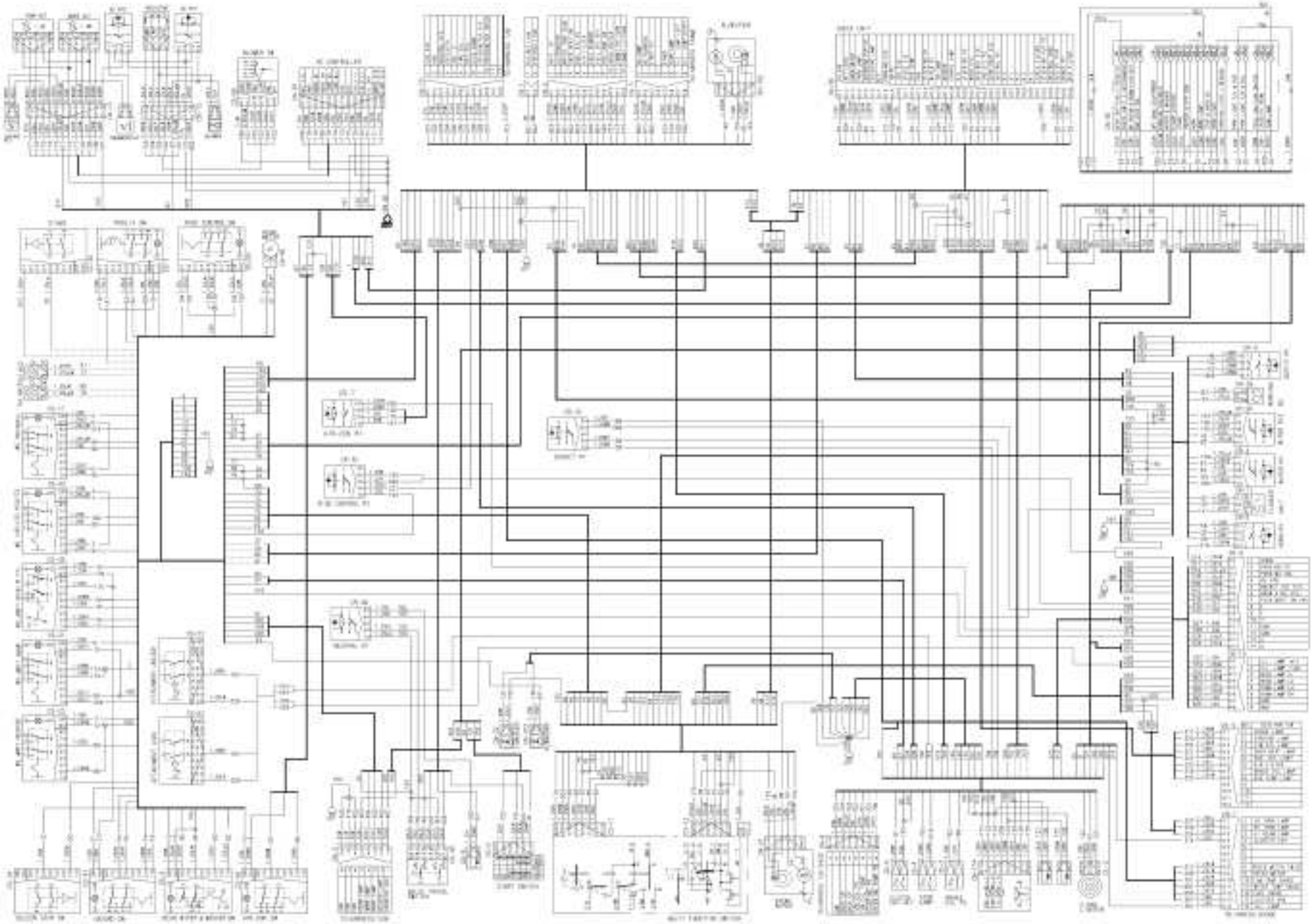
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GROUP 5 CONNECTORS

1. CONNECTOR DESTINATION

Connector number	Type	No. of pin	Destination	Connector part No.	
				Female	Male
CN-1	58	2	I/conn(Frame harness-Main harness)	S813-030200	S813-130200
CN-2	SWP	12	I/conn(Frame harness-Main harness)	S814-012000	S814-112000
CN-3	SWP	8	I/conn(Frame harness-Main harness)	S814-008000	S814-108000
CN-4	SWP	12	I/conn(Frame harness-Engine harness)	S814-012000	S814-112000
CN-5	SWP	8	I/conn(Cab harness-Main harness)	S814-008000	S814-108000
CN-6	SWP	12	I/conn(Gauge harness-Main harness)	S814-012000	S814-112000
CN-7	SWP	14	I/conn(Gauge harness-Main harness)	S814-014000	S814-114000
CN-8	SWP	14	I/conn(Front harness-Main harness)	S814-014000	S814-114000
CN-9	SWP	8	I/conn(T/M check harness-Main harness)	S814-008001	S814-108001
CN-10	SWP	8	I/conn(Cowl harness-Frame harness)	S814-008000	S814-108000
CN-12	SWP	12	I/conn(Gauge harness-Main harness)	S814-012000	S814-112000
CN-13	Fasten	8	I/conn(Main harness-AC AVA Assy)	S810-008202	
CN-15	-	12	I/conn(Main harness-T/M harness)	S814-012000	S814-112000
CN-20	-	1	Horn	S819-010122	
CN-21	-	6	Front wiper motor	6189-0133	
CN-22	-	2	Front washer tank	S814-002000	
CN-23	Shur	1	Speaker(LH)	S822-014000	S822-114004
CN-24	Shur	1	Speaker(RH)	S822-014000	S822-114004
CN-25	-	2	Horn	35215-0200	
CN-26	Fasten	2	Warning buzzer	S810-002202	
CN-27	PA	9	Cassette and radio	S811-009003	
CN-28	-	2	Compressor(Air conditioner)	0297-3407	
CN-29	Grommet	-	Receiver drier	21L7-12000	
CN-30	PA	13	Air conditioner controller	S811-013002	
CN-36	-	20	Fuse box	21L7-10230	
CN-45	Ring term	-	Starter	S820-414000	
CN-48	-	1	Hour meter	S819-010112	
CN-58	-	36	Check unit	344111-1	
CN-60	58	2	Fusible link		S813-130200
CN-65	Shur	1	Back up buzzer	S822-014000	
CN-71	J	2	Parking solenoid	S816-002001	
CN-74	Ring term	-	Alternator	S820-406000	S814-101000
CN-78	Shur	2	Ether	S822-014000	S822-114000
CN-79	Ring term	3	Fuel cut off solenoid	S818-020311	
CN-83	-	2	Air conditioner fan	PH805-02028	
CN-100	J	3	Boom kick out	S816-003001	
CN-101	J	3	Bucket leveler	S816-003001	

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