WHEEL LOADER

SERVICE MANUAL

HL730-3

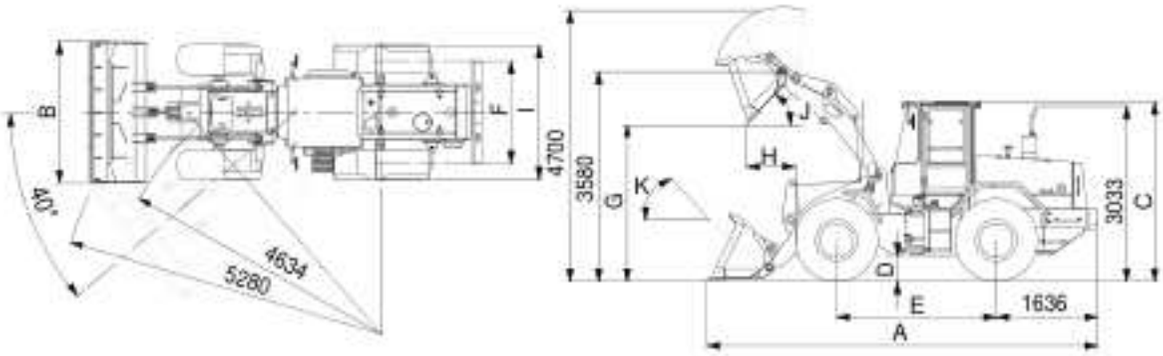
HYUNDAI

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2. SPECIFICATIONS

1) WITHOUT TOOTH AND CUTTING EDGE TYPE BUCKET



Description		Unit	Specification
Operating weight		kg(lb)	8930(19690)
Bucket capacity	Struck	m³(yd³)	1.2(1.6)
	Heaped		1.5(2.0)
Overall length	A	mm(ft-in)	6556(21' 6")
Overall width	B		2400(7' 10")
Overall height	C		3180(10' 5")
Ground clearance	D		373(1' 3")
Wheelbase	E		2700(8' 10")
Tread	F		1850(6' 1")
Dump clearance at 45°	G		2792(9' 2")
Dump reach	H		935(3' 1")
Width over tires	I		2295(7' 6")
Dump angle	J	Degree (°)	45
Roll back angle(Carry position)	K		48
Cycle time	Lift(With load)	sec	5.4
	Dump(With load)		1.0
	Lower(Empty)		2.5
Maximum travel speed		km/hr(mph)	38.1(23.7)
Braking distance		m(ft-in)	13.9(45' 7")
Minimum turning radius(Center of outside tire)			4.66(15' 3")
Gradability		Degree (°)	30
Travel speed	Forward - First gear	km/hr(mph)	7.1(4.4)
	Forward - Second gear		12.3(7.6)
	Forward - Third gear		22.6(14.0)
	Forward - Fourth gear		38.1(23.6)
	Reverse - First gear		7.4(4.6)
	Reverse - Second gear		13.0(8.1)
	Reverse - Third gear		23.8(14.7)

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3. WEIGHT

Item	kg	lb
Front frame assembly	808	1781
Rear frame assembly	801	1766
Front fender(2EA)	28	62
Rear fender(2EA)	38	84
Counterweight	295	650
Cab assembly	1000	2205
Engine assembly	380	838
Transmission	360	794
Drive shaft(Engine to transmission)	7	15
Drive shaft(Front)	16	35
Drive shaft(Center)	17	37
Drive shaft(Rear)	10	22
Front axle(Include differential)	475	1047
Rear axle(Include differential)	485	1069
Tire(4EA)	816	1799
Hydraulic tank	92	203
Fuel tank	158	348
Main pump assembly	25	55
Main control valve	55	121
Boom	546	1204
Bell crank	133	293
Bucket link	25	55
1.6m³ bucket, with bolt on cutting edge	688	1517
1.5m³ bucket, with tooth	625	1378
1.5m³ bucket, without tooth and cutting edge	553	1219
Boom cylinder assembly(2EA)	160	353
Bucket cylinder assembly	75	165
Steering cylinder assembly(2EA)	36	79
Seat	40	88
Battery	44	97

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2. TROUBLESHOOTING

1) SERVICE BRAKE

Diagnose malfunction charts are arranged from most probable and simplest to verify, to least likely, more difficult to verify. Remember the following steps when troubleshooting a problem :

Step 1. Operational check out procedure(See section 1)
Step 2. Operational checks(In this group)
Step 3. Troubleshooting
Step 4. Tests and adjustments(See group 3)

Problem	Cause	Remedy
Poor or no brakes	Brake accumulator charge low.	Do brake accumulator check.
	Brake pump standby pressure low.	Do brake pump standby pressure test.
	Brake pressure low.	Do brake valve pressure test.
	Air in system.	Bleed brakes.
	Worn brake surface material.	Inspect brake surface material.
	Leakage in brake valve.	Do brake valve leakage test.
	Leakage in brake piston seal.	Check for an over filled differential. Apply brakes and check for leakage from check plug. ※ **It is normal for the oil level to be slightly above the check plug.**
	Incorrect oil.	Change oil.
Aggressive brakes	Internal restriction in circuit.	Remove lines and components.
	Brake valve malfunction.	Disassemble and inspect.
	Low oil level.	Check oil level.
	Incorrect oil.	Change oil.
Brakes drag	Brake pedal not returning properly.	Inspect floor mat and pedal.
	Debris holding valve partially open in brake valve.	Do brake valve pressure test.
	Warped brake disk.	Inspect brake disk.
	Stuck brake piston.	Repair.
	Incorrect oil.	Change oil.
Brakes lock up	Brake valve malfunction.	Clean or replace brake valve.

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6. LOADER SYSTEM AND PORT RELIEF VALVE PRESSURE TEST

· **SPECIFICATION**

Oil temperature(45~55°C)

Relief valve	Engine speed	Relief pressure
System(M)	High	215+5kgf/cm² (3130+70psi)
Boom raise(U)	Low	240±5kgf/cm² (3410±70psi)
Bucket rollback(R)	Low	240±5kgf/cm² (3410±70psi)
Bucket dump(D)	Low	240±5kgf/cm² (3410±70psi)

· **Gauge and tool**

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

D : Bucket dump relief valve

M : System(Main) relief valve

R : Bucket rollback relief valve

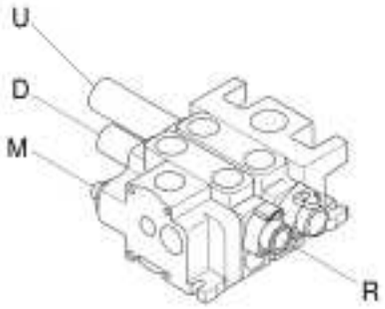
U : Boom raise relief valve

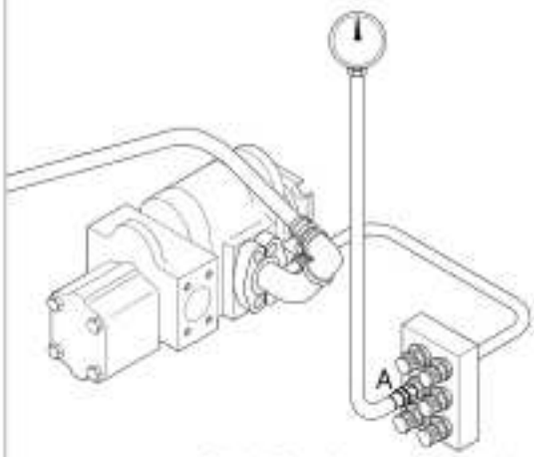
1) Install pressure gauge to block(A) in pump delivery line.

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 valve(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.





Block(Rear frame mounting)

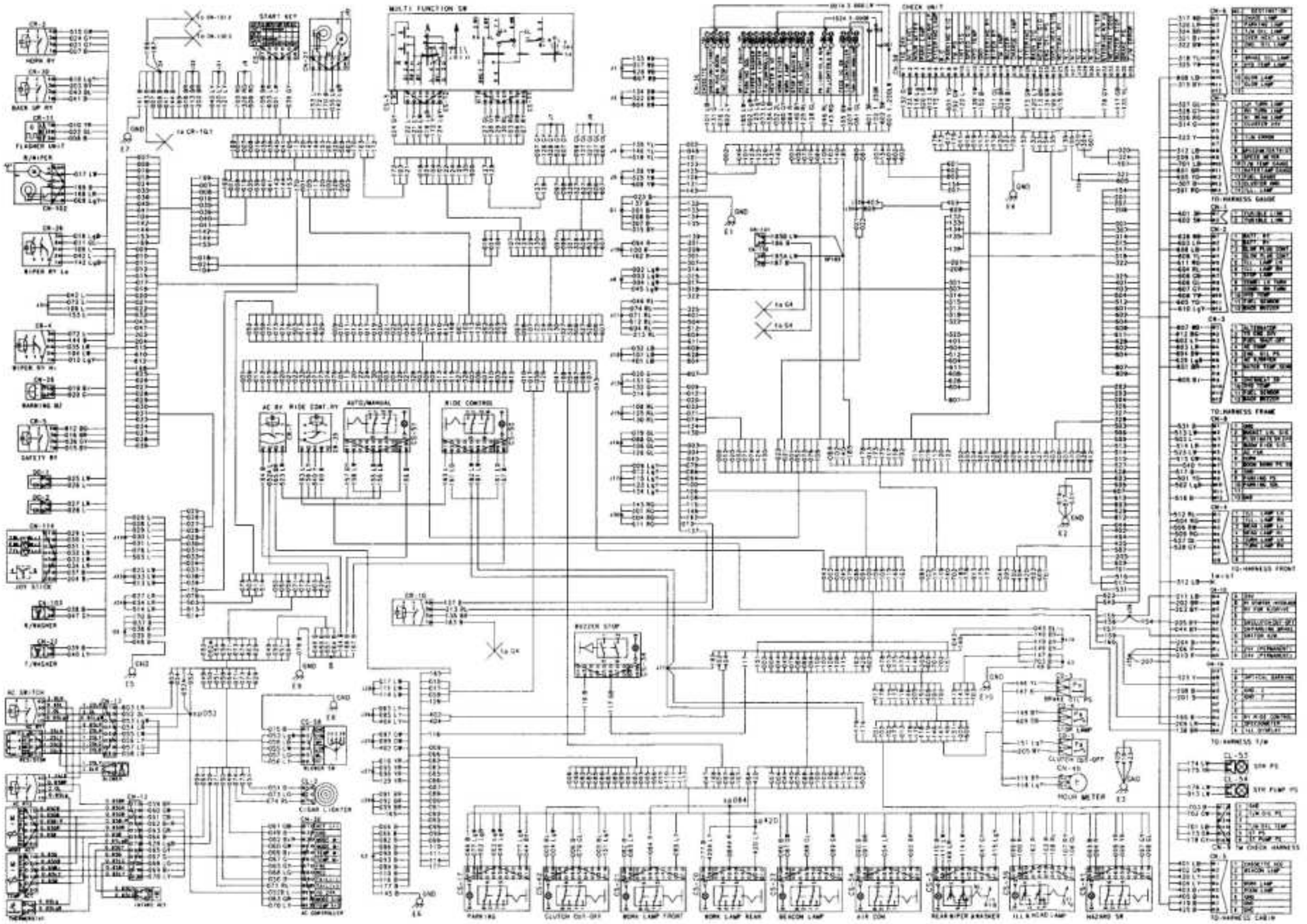
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GROUP 5 CONNECTORS

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	12	I/conn(Frame harness-Main harness)	S814-012000	S814-112000
CN-4	SWP	8	I/conn(Front harness-Main harness)	S814-008000	S814-108000
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	12	I/conn(Front harness-Main harness)	S814-012000	S814-112000
CN-9	SWP	6	I/conn(T/M check harness-Main harness)	S814-006000	S814-106000
CN-12	SWP	12	I/conn(Gauge harness-Main harness)	S814-012000	S814-112000
CN-13	SWP	12	I/conn(Frame-Engine harness)	S814-012000	S814-112000
CN-15	-	10	I/conn(Main harness-T/M harness)	6029199086	6029199085
CN-16	-	10	I/conn(Main harness-T/M harness)	6029199086	6029199085
CN-20	-	2	Horn	35215-0200	
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	S812-002001	
CN-45	Ring term	-	Starter	S820-410000	S820-310000
CN-48	-	1	Hour meter	S819-010112	
CN-58	-	36	Check unit	344111-1	
CN-60	58	2	Fusible link		S813-130200
CN-62	-	5	Glow controller	963013-1	
CN-65	Shur	1	Back up buzzer	S822-014000	
CN-71	J	2	Parking solenoid	S816-002001	
CN-74	Ring term	-	Alternator	S820-408000	S820-104000
CN-79	-	2	Fuel cut off solenoid	827551-2	
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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