WHEEL LOADER

SERVICE MANUAL

HL770

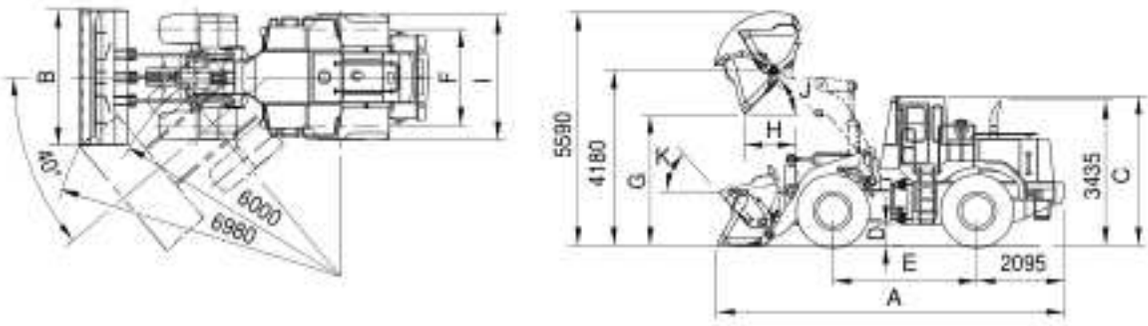
HYUNDAI

MidWestTech | Hyundai HL770 Wheel Loader Service Manual | Publication HL770

Order the manual at mid-west-tech.com >

2. SPECIFICATIONS

1) WITHOUT TOOTH AND CUTTING EDGE TYPE BUCKET



Description			Unit	Specification
Operating weight			kg(lb)	22150(48830)
Bucket capacity		Struck	m³(yd³)	3.1(4.1)
		Heaped		3.6(4.7)
Overall length		A	mm(ft-in)	8310(27' 3")
Overall width		B		3250(10' 8")
Overall height		C		3500(11' 5")
Ground clearance		D		505(1' 8")
Wheelbase		E		3440(11' 3")
Tread		F		2300(7' 7")
Dump clearance at 45°		G		3112(10' 3")
Dump reach		H		1245(4' 1")
Width over tires		I		2975(9' 9")
Dump angle		J	Degree (°)	45
Roll back angle(carry position)		K		48
Cycle time		Lift(with load)	sec	5.9
		Dump(with load)		1.6
		Lower(empty)		3.0
Maximum travel speed			km/hr(mph)	37(23)
Braking distance			m(ft-in)	11.5(37' 9")
Minimum turning radius				7(23' 0")
Gradability			Degree (°)	30
Travel speed	Forward	First gear	km/hr(mph)	7.5(4.7)
		Second gear		12.5(7.8)
		Third gear		26.7(16.6)
		Fourth gear		37.0(23.0)
	Reverse	First gear		7.5(4.7)
		Second gear		12.5(7.8)
		Third gear		26.7(16.6)

MidWestTech | Hyundai HL770 Wheel Loader Service Manual | Publication HL770 Order the manual at mid-west-tech.com >

3. WEIGHT

Item	kg	lb
Front frame assembly	2022	4458
Rear frame assembly	2150	4740
Front fender	112	247
Rear fender	183	403
Counterweight	870	1918
Cab	580	1279
Engine assembly	936	2064
Transmission	750	1653
Drive shaft(T/M to F/D Front)	59	130
Drive shaft(T/M to F/D, Rear)	11	24
Front axle(include differential)	1165	2568
Rear axle(include differential)	1036	2284
Tire	2480	5467
Hydraulic tank	230	507
Fuel tank	346	763
Main pump assembly	34	75
Main control valve	73	161
Flow amplifier	29	64
Boom	1802	3973
Bell crank	425	937
Bucket link	68	150
3.8m³ bucket, with bolt on cutting edge	2160	4762
3.6m³ bucket, with tooth	2080	4586
3.6m³ bucket, without tooth and cutting edge	1830	4034
Boom cylinder assembly	230	507
Bucket cylinder assembly	240	529
Steering cylinder assembly	44	97
Air tank	145	320
Seat	40	88
Battery	100	220

MidWestTech | Hyundai HL770 Wheel Loader Service Manual | Publication HL770 Order the manual at mid-west-tech.com >

2. TROUBLESHOOTING

1) TRANSMISSION

※ **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 group 3 in section 1.)
Step 2. Operational checks (In this group.)
Step 3. Troubleshooting
Step 4. Tests and / or adjustments (see group 3.)

Problem	Cause	Remedy
Transmission slippage	Low oil level	Add oil.
	Wrong oil grade	Change oil.
	Restricted transmission pump suction screen	Remove and clean screen.
	Leak in transmission control valve or gasket	Remove valve and inspect gaskets.
	Low transmission pump flow due to worn pump.	Do transmission pump flow test.
	Weak or broken pressure regulating valve spring	Do transmission system pressure test.
	Malfunctioning reset valve	Remove and inspect reset valve.
	Malfunctioning check valve	Remove and inspect check valve.

MidWestTech | Hyundai HL770 Wheel Loader Service Manual | Publication HL770 Order the manual at mid-west-tech.com >

10. PILOT CONTROL VALVE PRESSURE TEST

- **SPECIFICATION**

Oil temperature	40±6℃(100±10℉)
Engine speed	Low idle
Begine metering	1/4" of lever travel
Pressure in detent :	
Boom float detent	2.2MPa(22bar)
Pressure at feel position :	
Boom power down	19~22bar
Boom raise	19~22bar
Bucket rollback	19~22bar
Bucket dump	19~22bar

- **GAUGE AND TOOL**

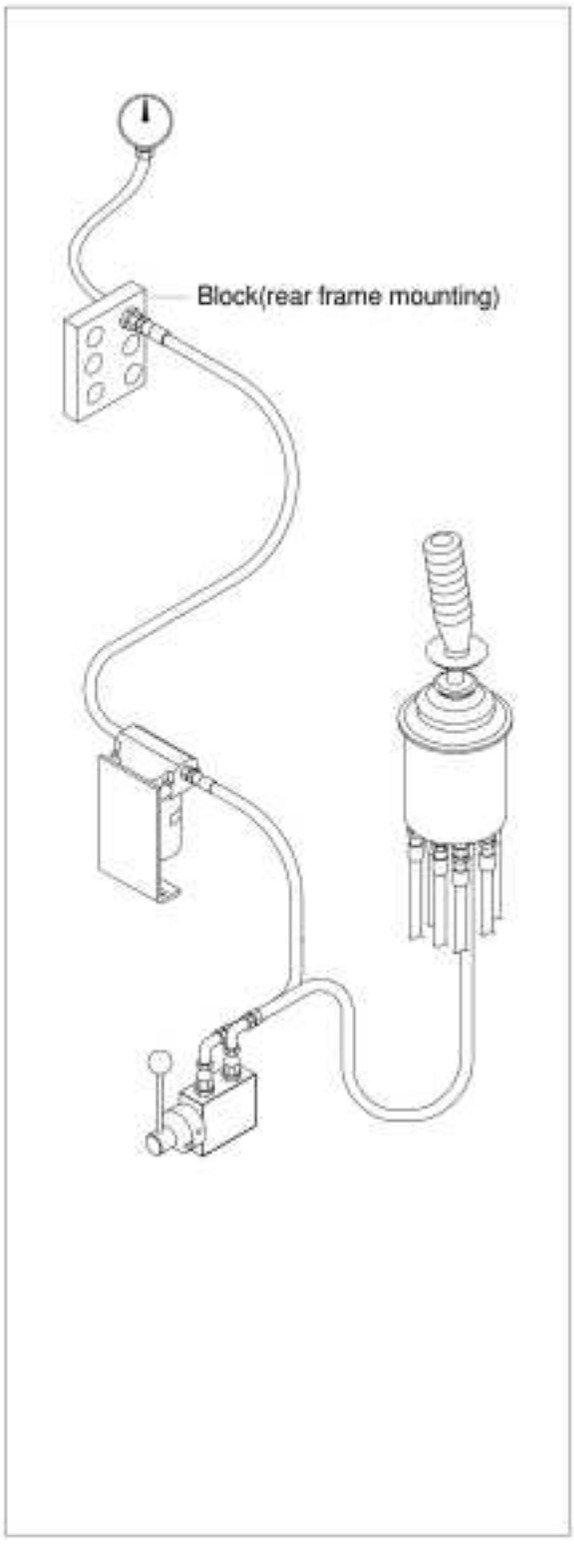
Gauge 0~7MPa(0~70bar, 0~1000psi)

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 430psi as the lever is moved into detent.

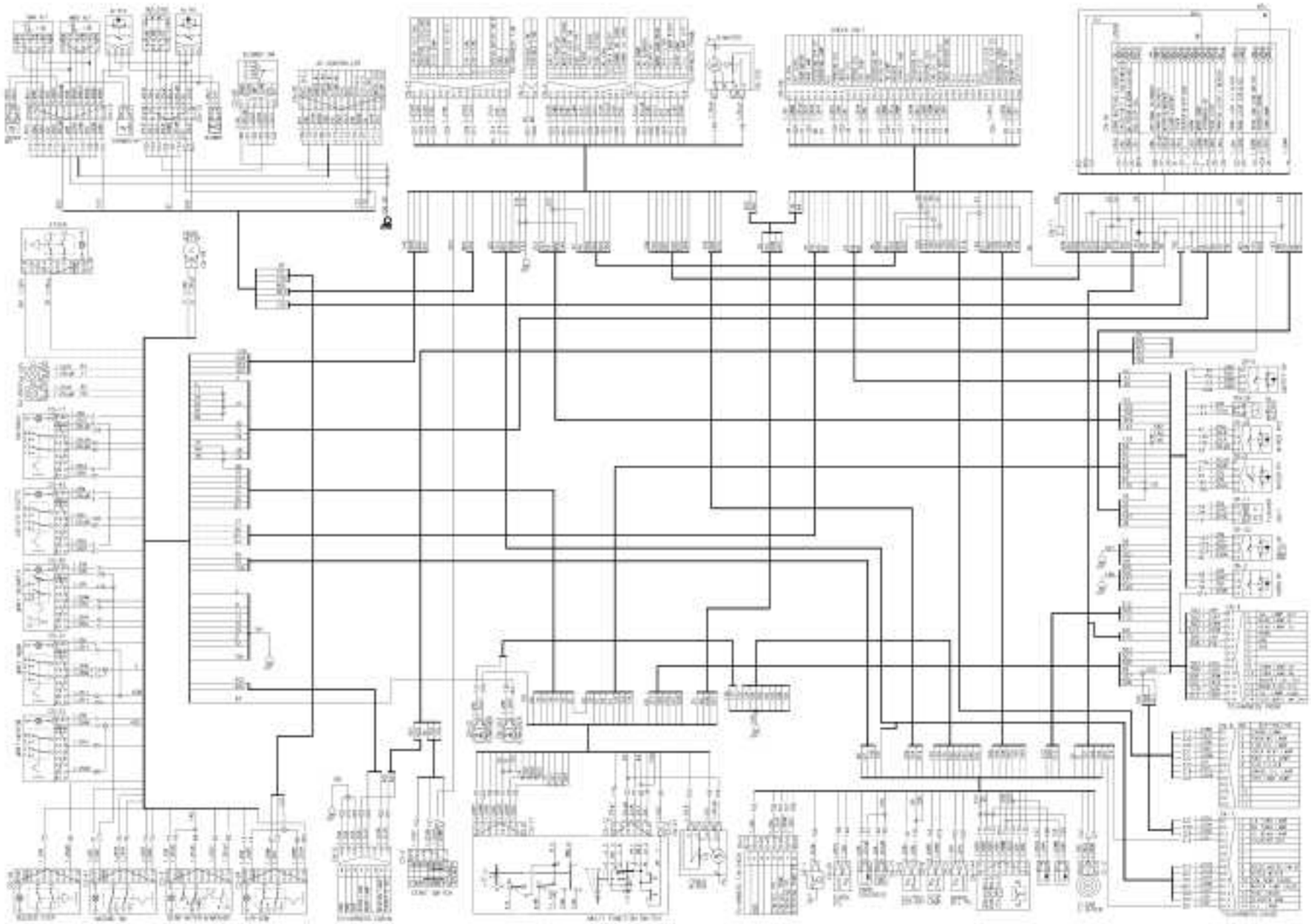
This test will determine if adequate pilot pressure is available to move the loader control valve spools.

※ **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 test fittings and gauge to the pilot pressure port 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.)



MidWestTech | Hyundai HL770 Wheel Loader Service Manual | Publication HL770 Order the manual at mid-west-tech.com >



MidWestTech | Hyundai HL770 Wheel Loader Service Manual | Publication HL770

Order the manual at mid-west-tech.com >