WHEEL LOADER

SERVICE MANUAL

HL760

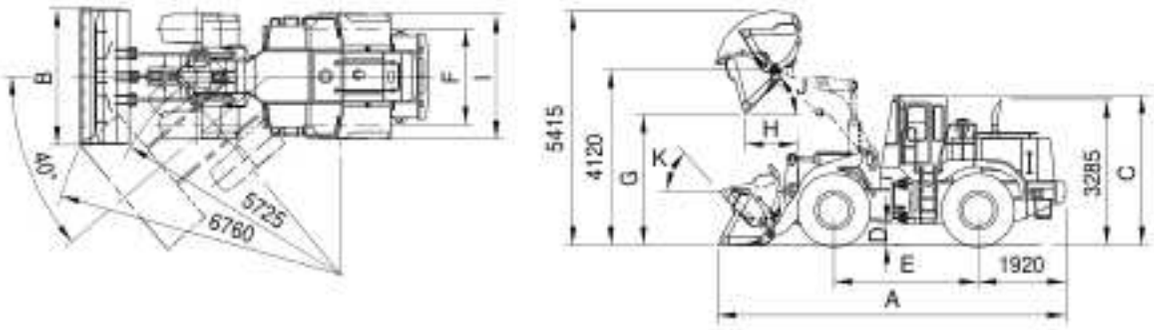
HYUNDAI

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2. SPECIFICATIONS

1) WITHOUT TOOTH AND CUTTING EDGE TYPE BUCKET



Description		Unit	Specification
Operating weight		kg(lb)	17660(38930)
Bucket capacity	Struck	m³(yd³)	2.6(3.4)
	Heaped		3.0(3.9)
Overall length	A	mm(ft-in)	7860(25' 9")
Overall width	B		3100(10' 2")
Overall height	C		3460(11' 4")
Ground clearance	D		420(1' 5")
Wheelbase	E		3300(10' 10")
Tread	F		2160(7' 1")
Dump clearance at 45°	G		3080(10' 1")
Dump reach	H		1130(3' 8")
Width over tires	I		2770(9' 1")
Dump angle	J	Degree (°)	45
Roll back angle(Carry position)	K		47.8
Cycle time	Lift(With load)	sec	6.6
	Dump(With load)		1.5
	Lower(Empty)		3.0
Maximum travel speed		km/hr(mph)	36(22)
Braking distance		m(ft-in)	11(36' 1")
Minimum turning radius(Outside bucket)			6.76(22' 2")
Gradability		Degree (°)	30
Travel speed	Forward	First gear	km/hr(mph) 7.4(4.6)
		Second gear	12.1(7.5)
		Third gear	23.9(14.9)
		Fourth gear	36.0(22.4)
	Reverse	First gear	7.4(4.6)
		Second gear	12.1(7.5)
		Third gear	23.9(14.9)

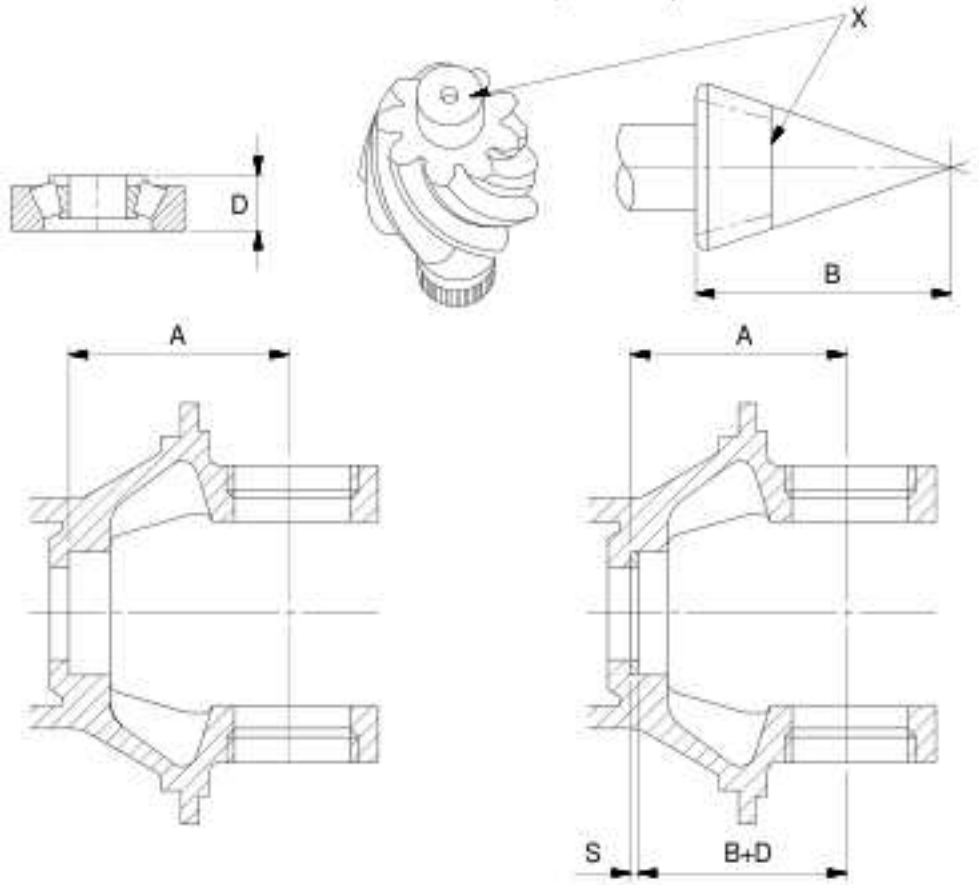
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3. WEIGHT

Item	HL760	
	kg	lb
Front frame assembly	1723	3799
Rear frame assembly	1902	4193
Front fender	86	190
Rear fender	147	324
Counterweight	700	1543
Cab	580	1279
Engine assembly	617	1360
Transmission	385	849
Drive shaft(T/M to F/D Front)	67	148
Drive shaft(T/M to F/D, Rear)	19	42
Front axle(Include differential)	920	2028
Rear axle(Include differential)	801	1766
Tire	1980	4365
Hydraulic tank	237	522
Fuel tank	300	661
Main pump assembly	21	46
Main control valve	34	75
Boom	1333	2939
Bell crank	305	672
Bucket link	58	128
3.1m³ bucket, with bolt on cutting edge	1568	3457
3.0m³ bucket, with tooth	1638	3611
3.0m³ bucket, without tooth and cutting edge	1325	2921
Boom cylinder assembly	176	388
Bucket cylinder assembly	175	386
Steering cylinder assembly	27	60
Air tank	147	324
Seat	40	88
Battery	88	194

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11) DETERMINING THICKNESS OF ADJUSTMENT SHIMS(Rear axle)



(1) Some dimensions should be recorded before starting reassembly of bevel pinion to determine thickness of spacer to be fitted between inner(Underhead) pinion bearing and backing of relevant seat in differential support.
Record dimension from ring gear axis to seat of inner(Underhead) pinion bearing(That will be identified as **A**).
Example : In our case **A** = 225.1mm

(2) A number **X** prefixed by symbol ± is marked on bevel pinion face.
Said value, expressed in tenth of millimeter, indicate the deviation from the theoretical distance from pinion underhead to ring gear axis :
i.e. : + 1 = 0.1mm
Consequently, the true distance(Identified as **B**) will be :
B = 184 ± Deviation
In our case : **B** = 184 + 0.1 = 184.1mm

(3) Measure thickness of pinion head bearing and identify as **D**.
Example : In our case **D** = 37.15mm

(4) Compute thickness of shim **S** for proper axial position of bevel pinion :
S = A - (B + D)
Example : In our case **S** = 225.1 - (184.1 + 37.15) = 3.85mm

(5) Increase by 0.05mm the computed thickness value to compensate subsequent bearing pre-load.
Round off to the nearest tenth of millimeter to the computed thickness value :
i.e. : 4.02 rounded off = 4mm
3.88 rounded off = 3.9mm

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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.**
Aggressive brakes	Internal restriction in circuit.	Remove lines and components.
	Clutch cut-off switch out of adjustment.	Adjust switch.
	Brake valve malfunction.	Disassemble and inspect.
	Low oil level.	Check oil level.
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.
Brakes lock up	Brake valve malfunction.	Clean or replace brake valve.

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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-Main 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)	S814-008000	S814-108000
CN-10	SWP	4	I/conn(Cowl harness-Frame harness)	S814-004000	S814-104000
CN-11	SWP	6	I/conn(Frame harness-Gauge harness)	S814-006000	S814-106000
CN-12	SWP	2	I/conn(Gauge harness-Main harness)	S814-012000	S814-112000
CN-13	Fasten	2	I/conn(Main harness-AC AVA Assy)	S810-008202	
CN-15	-	15	I/conn(Main harness-T/M harness)	AMP1-480710	
CN-20	-	1	Horn	S819-010122	
CN-21	-	1	Front wiper motor	2-250129-2	
CN-22	-	2	Front washer tank	S819-040222	
CN-23	Shur	1	Speaker(LH)	S822-014000	S822-114004
CN-24	Shur	1	Speaker(RH)	S822-014000	S822-114004
CN-25	-	1	Horn	S819-010122	
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	BS	2	Receiver drier	S812-002001	
CN-30	PA	13	Air conditioner controller	S811-013002	
CN-36	-	20	Fuse box	21L6-00230	
CN-45	Ring term	-	Starter	S820-414000	
CN-48	-	2	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	
CN-78	Shur	2	Ether	S822-014000	
CN-79	Ring term	-	Fuel cut off solenoid		S820-105000
CN-83	-	2	Air conditioner fan	MG640188-4	
CN-100	J	3	Boom kick out	S816-003001	
CN-101	J	3	Bucket leveler	S816-003001	

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