

SECTION 1 GENERAL



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SECTION 1 GENERAL

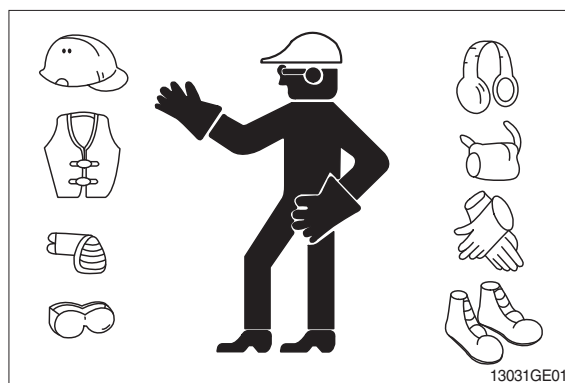
GROUP 1 SAFETY

FOLLOW SAFE PROCEDURE

Unsafe work practices are dangerous. Understand service procedure before doing work; do not attempt shortcuts.

WEAR PROTECTIVE CLOTHING

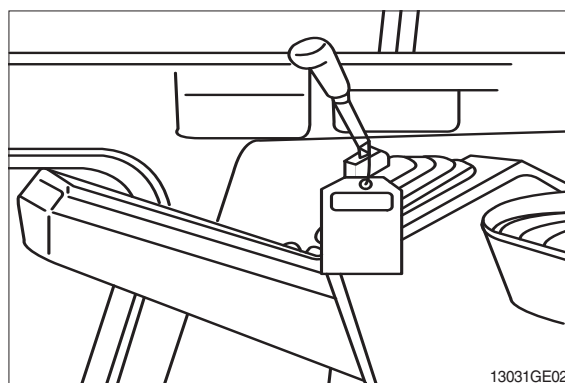
Wear close fitting clothing and safety equipment appropriate to the job.



WARN OTHERS OF SERVICE WORK

Unexpected machine movement can cause serious injury.

Before performing any work on the excavator, attach a 「Do Not Operate」 tag on the right side control lever.



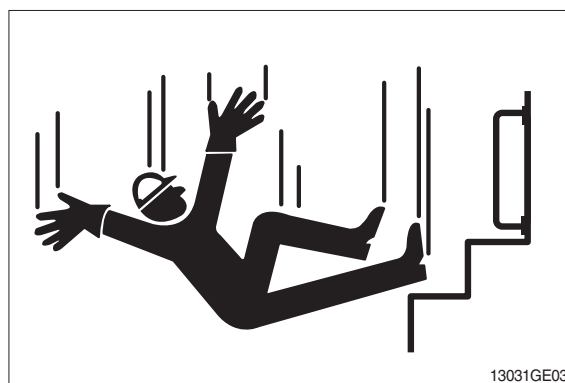
USE HANDHOLDS AND STEPS

Falling is one of the major causes of personal injury.

When you get on and off the machine, always maintain a three point contact with the steps and handrails and face the machine. Do not use any controls as handholds.

Never jump on or off the machine. Never mount or dismount a moving machine.

Be careful of slippery conditions on platforms, steps, and handrails when leaving the machine.

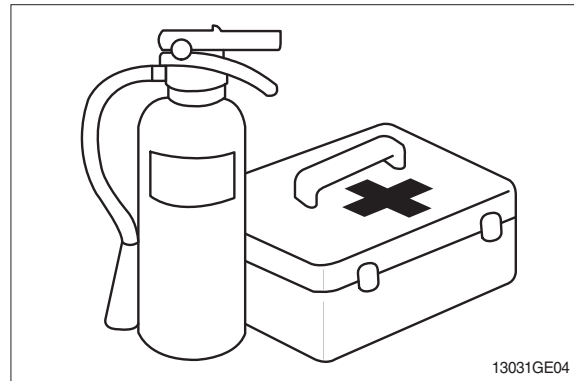


PREPARE FOR EMERGENCIES

Be prepared if a fire starts.

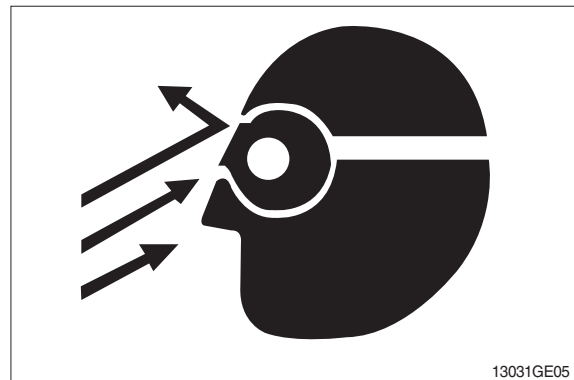
Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.



PROTECT AGAINST FLYING DEBRIS

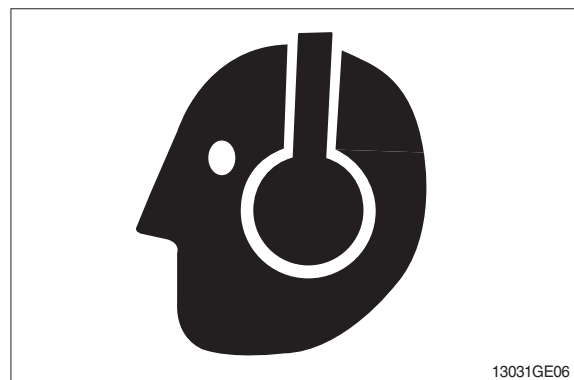
Guard against injury from flying pieces of metal or debris; wear goggles or safety glasses.



PROTECT AGAINST NOISE

Prolonged exposure to loud noise can cause impairment or loss of hearing.

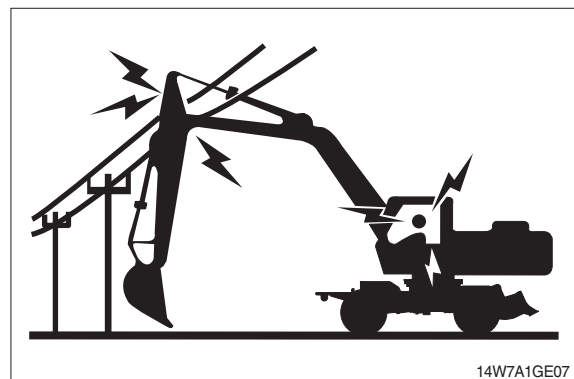
Wear a suitable hearing protective device such as ear-muffs or earplugs to protect against objectionable or uncomfortable loud noises.



AVOID POWER LINES

Serious injury or death can result from contact with electric lines.

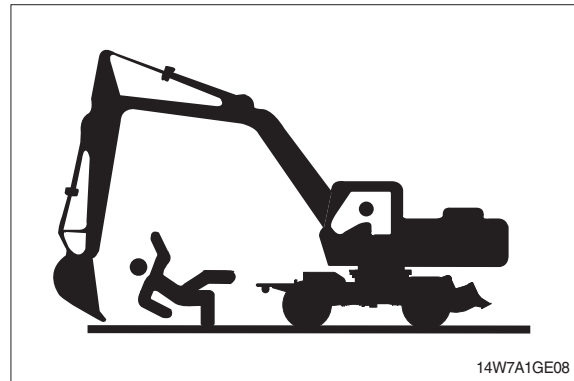
Never move any part of the machine or load closer to electric line than 3m(10ft) plus twice the line insulator length.



KEEP RIDERS OFF EXCAVATOR

Only allow the operator on the excavator. Keep riders off.

Riders on excavator are subject to injury such as being struck by foreign objects and being thrown off the excavator. Riders also obstruct the operator's view resulting in the excavator being operated in an unsafe manner.

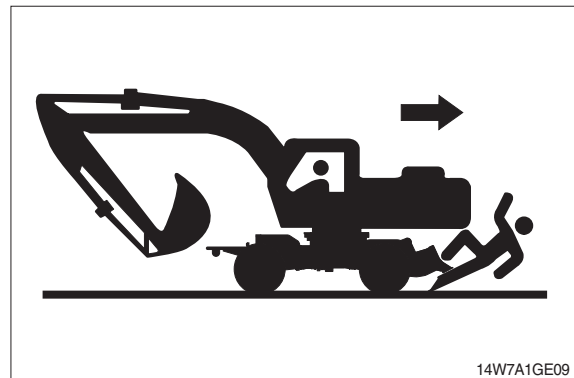


MOVE AND OPERATE MACHINE SAFELY

Bystanders can be run over. Know the location of bystanders before moving, swinging, or operating the machine.

Always keep the travel alarm in working condition. It warns people when the excavator starts to move.

Use a signal person when moving, swinging, or operating the machine in congested areas. Coordinate hand signals before starting the excavator.



OPERATE ONLY FROM OPERATOR'S SEAT

Avoid possible injury machine damage. Do not start engine by shorting across starter terminals.

NEVER start engine while standing on ground. Start engine only from operator's seat.



PARK MACHINE SAFELY

Before working on the machine:

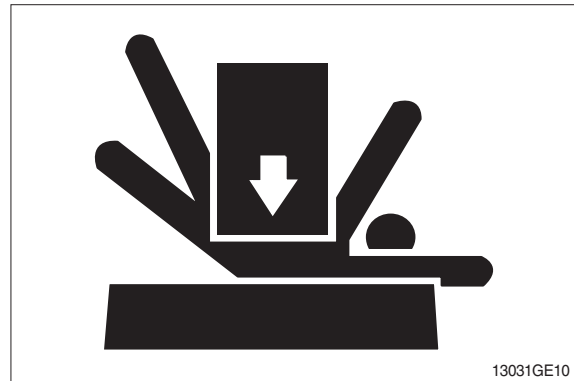
- Park machine on a level surface.
- Lower bucket to the ground.
- Turn auto idle switch off.
- Run engine at 1/2 speed without load for 2 minutes.
- Turn key switch to OFF to stop engine.
Remove key from switch.
- Move pilot control shutoff lever to locked position.
- Allow engine to cool.

SUPPORT MACHINE PROPERLY

Always lower the attachment or implement to the ground before you work on the machine. If you must work on a lifted machine or attachment, securely support the machine or attachment.

Do not support the machine on cinder blocks, hollow tiles, or props that may crumble under continuous load.

Do not work under a machine that is supported solely by a jack. Follow recommended procedures in this manual.



SERVICE COOLING SYSTEM SAFELY

Explosive release of fluids from pressurized cooling system can cause serious burns.

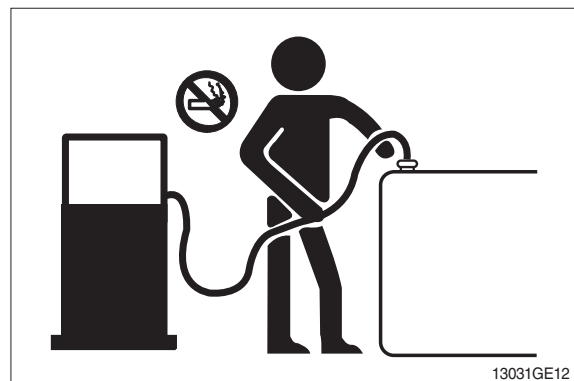
Shut off engine. Only remove filler cap when cool enough to touch with bare hands.



HANDLE FLUIDS SAFELY-AVOID FIRES

Handle fuel with care; it is highly flammable. Do not refuel the machine while smoking or when near open flame or sparks. Always stop engine before refueling machine.

Fill fuel tank outdoors.



Store flammable fluids away from fire hazards. Do not incinerate or puncture pressurized containers.

Make sure machine is clean of trash, grease, and debris.

Do not store oily rags ; they can ignite and burn spontaneously.



BEWARE OF EXHAUST FUMES

Prevent asphyxiation. Engine exhaust fumes can cause sickness or death.

If you must operate in a building, be positive there is adequate ventilation. Either use an exhaust pipe extension to remove the exhaust fumes or open doors and windows to bring enough outside air into the area.

REMOVE PAINT BEFORE WELDING OR HEATING

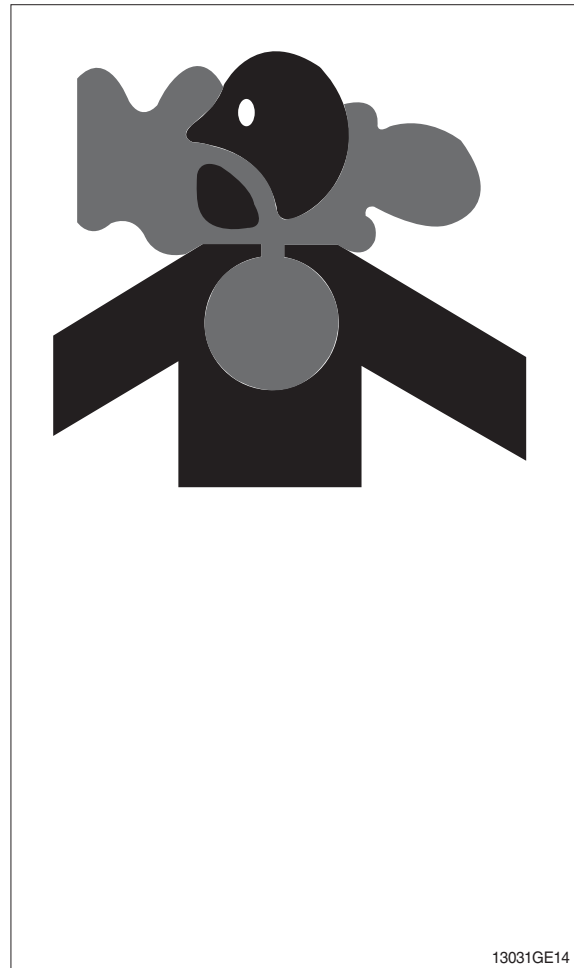
Avoid potentially toxic fumes and dust.

Hazardous fumes can be generated when paint is heated by welding, soldering, or using a torch.

Do all work outside or in a well ventilated area. Dispose of paint and solvent properly.

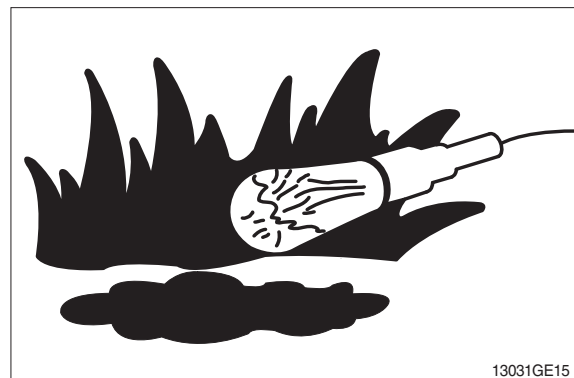
Remove paint before welding or heating:

- If you sand or grind paint, avoid breathing the dust.
Wear an approved respirator.
- If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from area. Allow fumes to disperse at least 15 minutes before welding or heating.



ILLUMINATE WORK AREA SAFELY

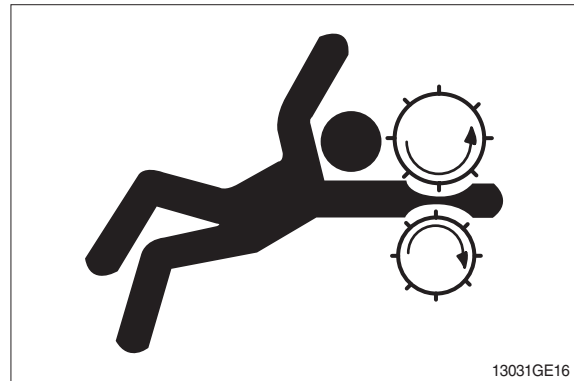
Illuminate your work area adequately but safely. Use a portable safety light for working inside or under the machine. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.



SERVICE MACHINE SAFELY

Tie long hair behind your head. Do not wear a necktie, scarf, loose clothing or necklace when you work near machine tools or moving parts. If these items were to get caught, severe injury could result.

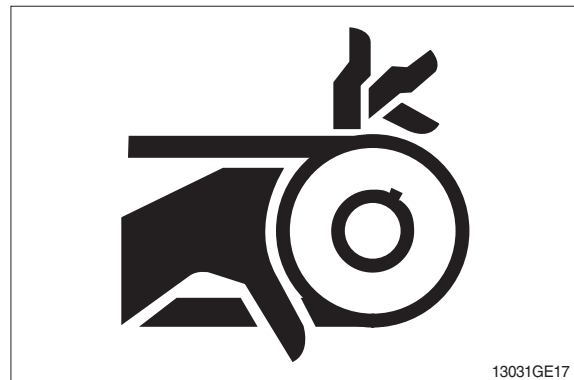
Remove rings and other jewelry to prevent electrical shorts and entanglement in moving parts.



STAY CLEAR OF MOVING PARTS

Entanglements in moving parts can cause serious injury.

To prevent accidents, use care when working around rotating parts.



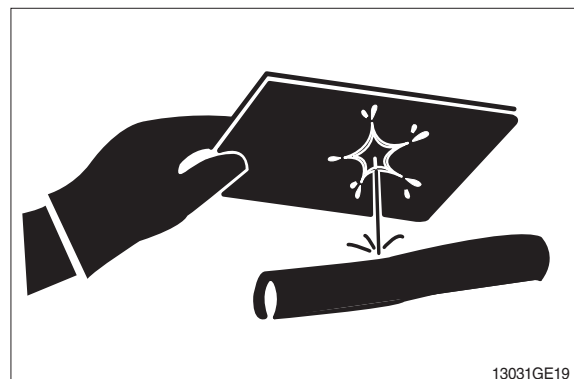
AVOID HIGH PRESSURE FLUIDS

Escaping fluid under pressure can penetrate the skin causing serious injury.

Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.

Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.



AVOID HEATING NEAR PRESSURIZED FLUID LINES

Flammable spray can be generated by heating near pressurized fluid lines, resulting in severe burns to yourself and bystanders. Do not heat by welding, soldering, or using a torch near pressurized fluid lines or other flammable materials.

Pressurized lines can be accidentally cut when heat goes beyond the immediate flame area. Install fire resisting guards to protect hoses or other materials.



PREVENT BATTERY EXPLOSIONS

Keep sparks, lighted matches, and flame away from the top of battery. Battery gas can explode.

Never check battery charge by placing a metal object across the posts. Use a volt-meter or hydrometer.

Do not charge a frozen battery; it may explode. Warm battery to 16°C (60°F).



PREVENT ACID BURNS

Sulfuric acid in battery electrolyte is poisonous. It is strong enough to burn skin, eat holes in clothing, and cause blindness if splashed into eyes.

Avoid the hazard by:

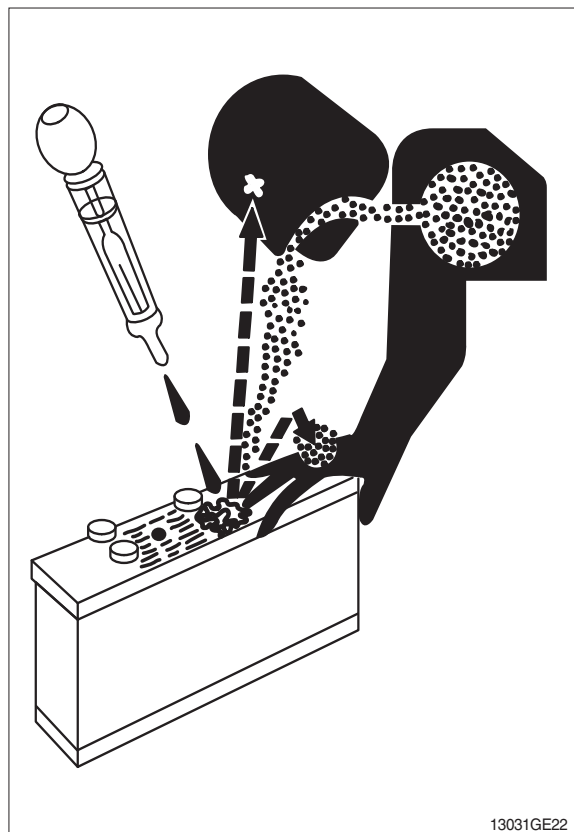
1. Filling batteries in a well-ventilated area.
2. Wearing eye protection and rubber gloves.
3. Avoiding breathing fumes when electrolyte is added.
4. Avoiding spilling or dripping electrolyte.
5. Use proper jump start procedure.

If you spill acid on yourself:

1. Flush your skin with water.
2. Apply baking soda or lime to help neutralize the acid.
3. Flush your eyes with water for 10-15 minutes. Get medical attention immediately.

If acid is swallowed:

1. Drink large amounts of water or milk.
2. Then drink milk of magnesia, beaten eggs, or vegetable oil.
3. Get medical attention immediately.



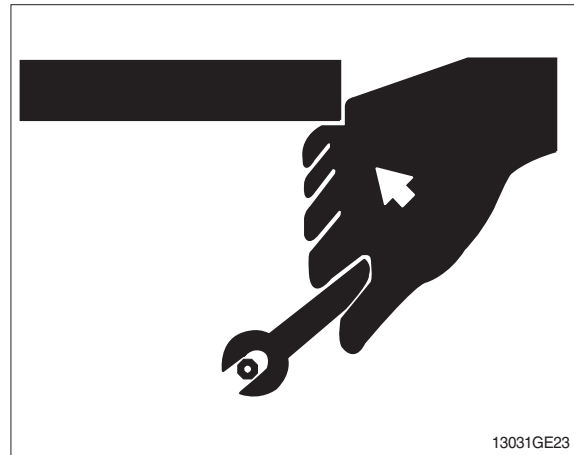
USE TOOLS PROPERLY

Use tools appropriate to the work. Makeshift tools, parts, and procedures can create safety hazards.

Use power tools only to loosen threaded tools and fasteners.

For loosening and tightening hardware, use the correct size tools. DO NOT use U.S. measurement tools on metric fasteners. Avoid bodily injury caused by slipping wrenches.

Use only recommended replacement parts. (See Parts manual.)

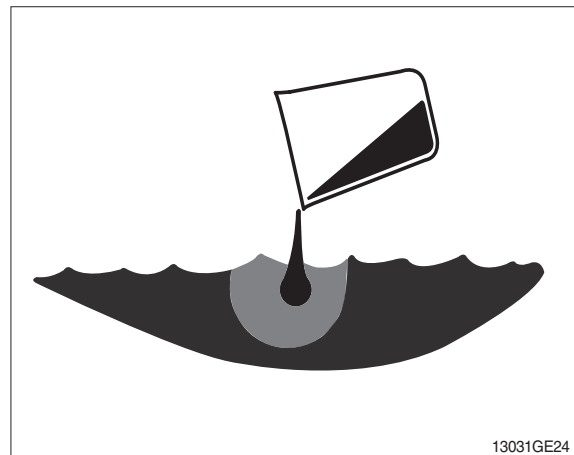


DISPOSE OF FLUIDS PROPERLY

Improperly disposing of fluids can harm the environment and ecology. Before draining any fluids, find out the proper way to dispose of waste from your local environmental agency.

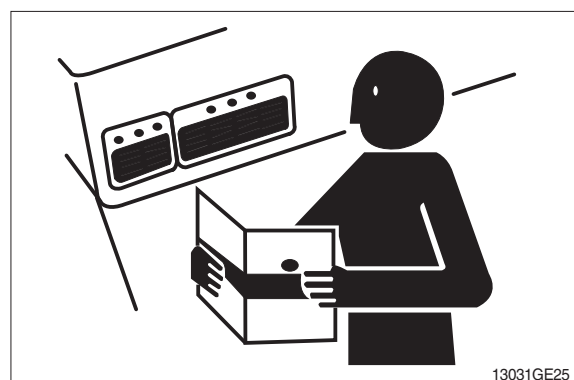
Use proper containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.

DO NOT pour oil into the ground, down a drain, or into a stream, pond, or lake. Observe relevant environmental protection regulations when disposing of oil, fuel, coolant, brake fluid, filters, batteries, and other harmful waste.



REPLACE SAFETY SIGNS

Replace missing or damaged safety signs. See the machine operator's manual for correct safety sign placement.

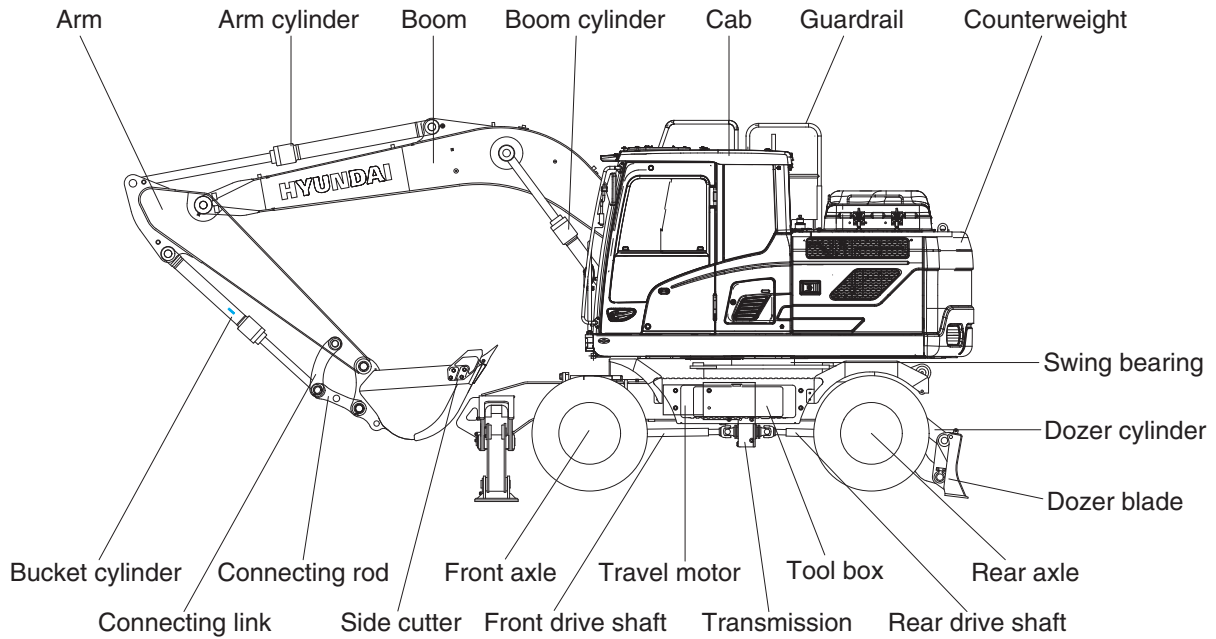
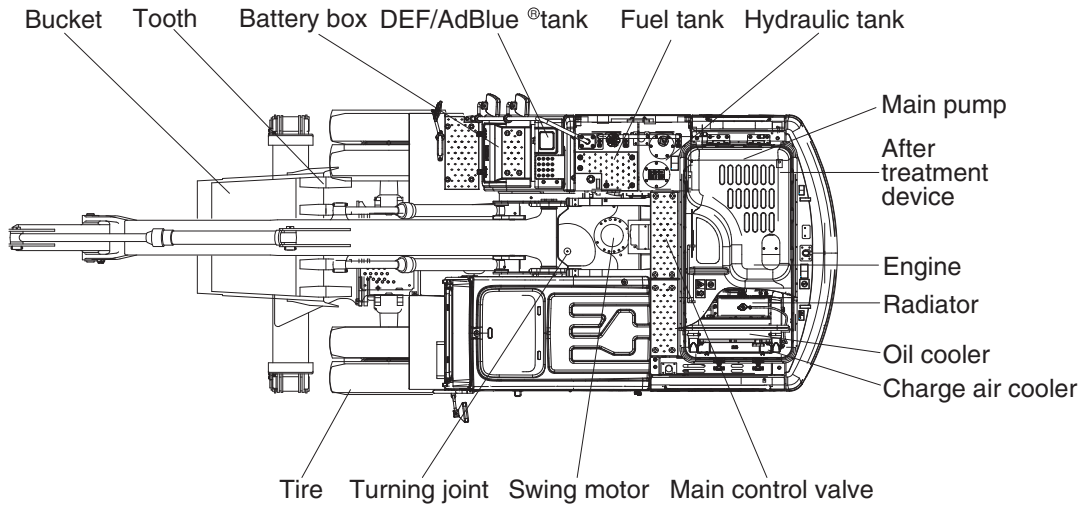


LIVE WITH SAFETY

Before returning machine to customer, make sure machine is functioning properly, especially the safety systems. Install all guards and shields.

GROUP 2 SPECIFICATIONS (HW160)

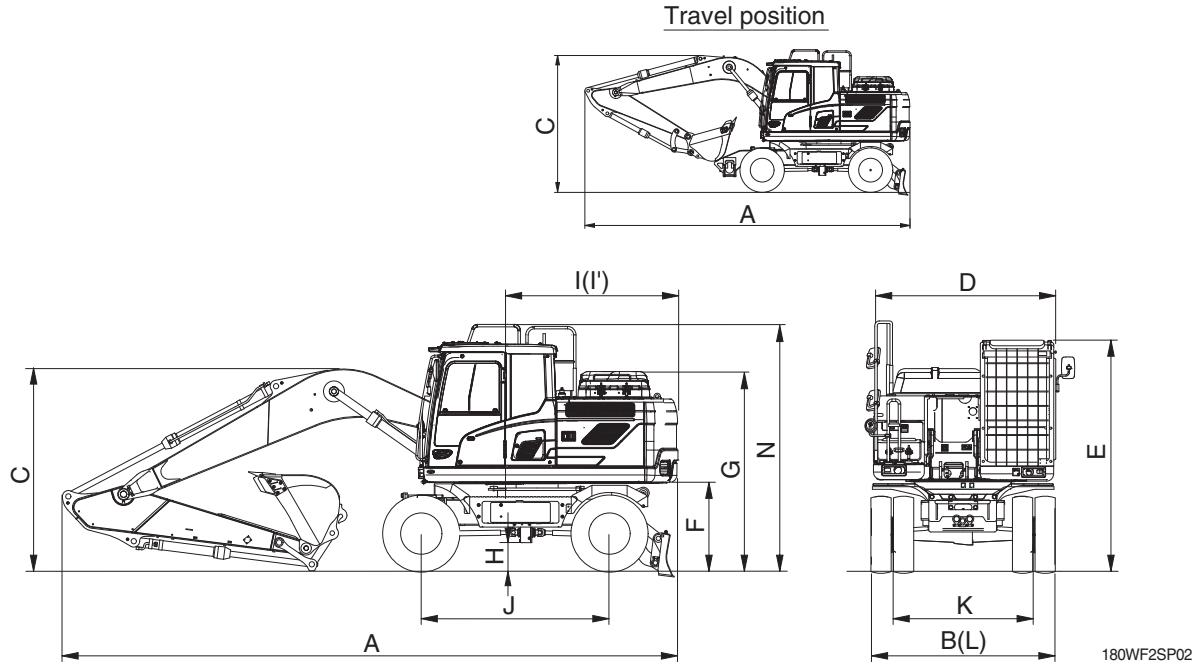
1. MAJOR COMPONENT



180WF2SP01

2. SPECIFICATIONS

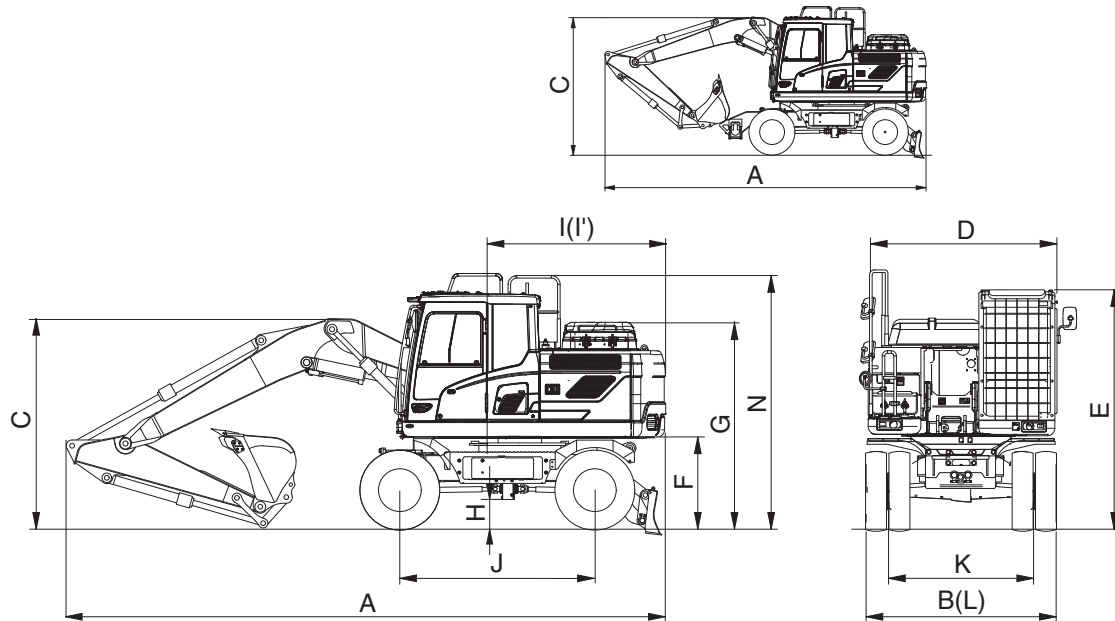
1) 5.0 m (16' 5") MONO BOOM, 2.2 m (7' 3") ARM AND REAR DOZER BLADE



Description		Unit	Specification	
Operating weight		kg (lb)	17100 (37700)	
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	0.70 (0.92)	
Overall length (travel / shipping)	A	mm (ft-in)	8400 (27' 7") / 8490 (27' 7")	
Overall width	B		2500 (8' 2")	
Overall height of boom (travel / shipping)	C		3460 (11' 4") / 3180 (10' 5")	
Upperstructure width	D		2475 (8' 1")	
Cab height	E		3190 (10' 6")	
Ground clearance of counterweight	F		1270 (4' 2")	
Overall height of engine hood	G		2800 (9' 2")	
Minimum ground clearance	H		340 (1' 1")	
Rear-end distance	I		2430 (8' 0")	
Rear-end swing radius	I'		2430 (8' 0")	
Wheel base	J		2600 (8' 6")	
Tread	K		1914 (6' 3")	
Dozer blade width	L		2500 (8' 2")	
Overall height of guardrail	N		3420 (11' 3")	
Travel speed	Low		km/hr (mph)	9.5 (5.9)
	High			35 (21.7)
	Creep	3.0 (1.9)		
Swing speed		rpm	9.3	
Gradeability		Degree (%)	35 (70)	
Max traction force		kgf (lbf)	10720 (23630)	

2) 5.1 m (16' 9") 2-PIECE BOOM, 2.2 m (7' 3") ARM AND REAR DOZER BLADE

Travel position

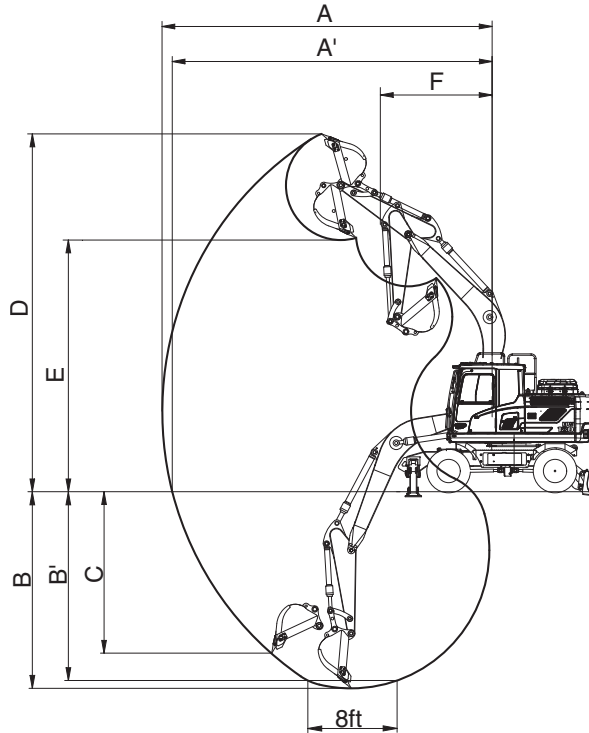


180WF2SP03

Description		Unit	Specification
Operating weight		kg (lb)	17570 (38740)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	0.70 (0.92)
Overall length (travel / shipping)	A	mm (ft-in)	6580 (21' 7") / 8520 (27' 11")
Overall width (axle / wide axle)	B		2500 (8' 2") / 2700 (8' 9")
Overall height of boom (travel / shipping)	C		3990 (13' 1") / 3010 (9' 11")
Upperstructure width	D		2475 (8' 1")
Cab height	E		3190 (10' 6")
Ground clearance of counterweight	F		1270 (4' 2")
Overall height of engine hood	G		2800 (9' 2")
Minimum ground clearance	H		340 (1' 1")
Rear-end distance	I		2430 (8' 0")
Rear-end swing radius	I'		2430 (8' 0")
Wheel base	J		2600 (8' 6")
Tread (axle / wide axle)	K		1914 (6' 3") / 2114 (6' 9")
Dozer blade width	L		2500 (8' 2")
Overall height of guardrail	N		3420 (11' 3")
Travel speed	Low		km/hr (mph)
	High	35 (21.7)	
	Creep	3.0 (1.9)	
Swing speed		rpm	9.3
Gradeability		Degree (%)	35 (70)
Max traction force		kgf (lbf)	10720 (23630)

3. WORKING RANGE

1) 5.0 m (16' 5") MONO BOOM

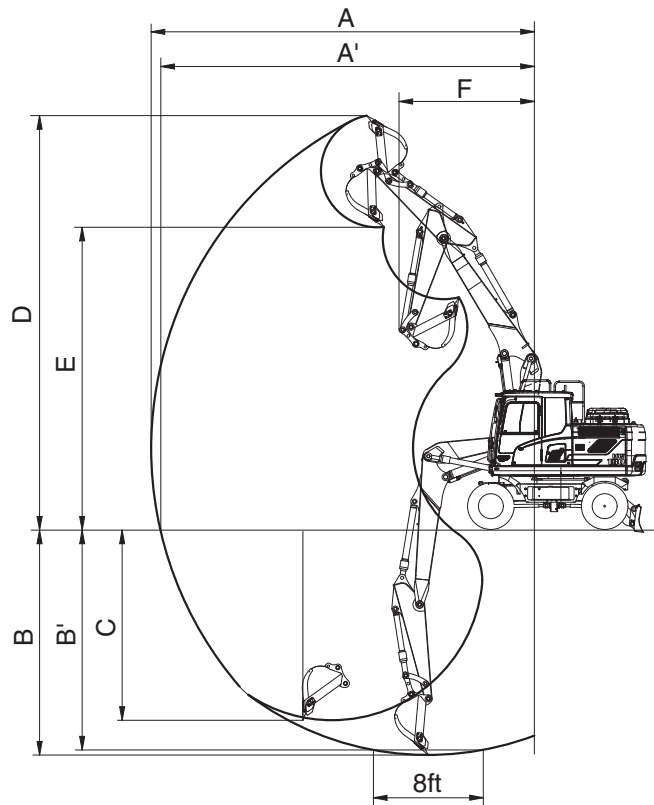


180WF2SP04

Description		2.2 m (7' 3") Arm	2.5 m (8' 2") Arm
Max digging reach	A	8570 mm (28' 1")	8860 mm (29' 1")
Max digging reach on ground	A'	8360 mm (27' 5")	8650 mm (28' 5")
Max digging depth	B	5350 mm (17' 7")	5650 mm (18' 6")
Max digging depth (8 ft level)	B'	5120 mm (16' 10")	5450 mm (17' 11")
Max vertical wall digging depth	C	4710 mm (15' 5")	5100 mm (16' 9")
Max digging height	D	8830 mm (29' 0")	9040 mm (29' 8")
Max dumping height	E	6210 mm (20' 4")	6400 mm (21' 0")
Min swing radius	F	3310 mm (10' 10")	3170 mm (10' 5")
Bucket digging force	SAE	98.1 [106.5] kN	98.1 [106.5] kN
		10000 [10860] kgf	10000 [10860] kgf
		22050 [23940] lbf	22050 [23940] lbf
	ISO	113.4 [123.1] kN	113.4 [123.1] kN
		11560 [12550] kgf	11560 [12550] kgf
		25490 [27670] lbf	25490 [27670] lbf
Arm digging force	SAE	76.0 [82.5] kN	66.4 [72.1] kN
		7750 [8410] kgf	6770 [7350] kgf
		17090 [18550] lbf	14930 [16210] lbf
	ISO	79.4 [86.2] kN	69.1 [75.1] kN
		8100 [8790] kgf	7050 [7650] kgf
		17860 [19390] lbf	15540 [16870] lbf

* : Standard [] : Power boost

2) 5.1 m (16' 9") 2-PIECE BOOM



180WF2SP05

Description		2.2 m (7' 3") Arm	2.5 m (8' 2") Arm
Max digging reach	A	8750 mm (28' 8")	9040 mm (29' 8")
Max digging reach on ground	A'	8540 mm (28' 0")	8840 mm (29' 0")
Max digging depth	B	5220 mm (17' 2")	5520 mm (18' 1")
Max digging depth (8 ft level)	B'	5100 mm (16' 9")	5410 mm (17' 9")
Max vertical wall digging depth	C	4400 mm (14' 5")	4740 mm (15' 7")
Max digging height	D	9610 mm (31' 6")	9860 mm (32' 4")
Max dumping height	E	6900 mm (22' 8")	7140 mm (23' 5")
Min swing radius	F	3380 mm (11' 1")	3130 mm (10' 3")
Bucket digging force	SAE	98.1 [106.5] kN	98.1 [106.5] kN
		10000 [10860] kgf	10000 [10860] kgf
		22050 [23940] lbf	22050 [23940] lbf
	ISO	113.4 [123.1] kN	113.4 [123.1] kN
		11560 [12550] kgf	11560 [12550] kgf
		25490 [27670] lbf	25490 [27670] lbf
Arm digging force	SAE	76.0 [82.5] kN	66.4 [72.1] kN
		7750 [8410] kgf	6770 [7350] kgf
		17090 [18550] lbf	14930 [16210] lbf
	ISO	79.4 [86.2] kN	69.1 [75.1] kN
		8100 [8790] kgf	7050 [7650] kgf
		17860 [19390] lbf	15540 [16870] lbf



[]: Power boost

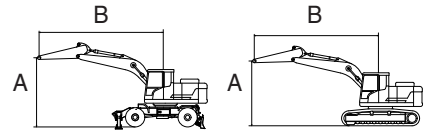
4. WEIGHT











Item	HW160	
	kg	lb
Upperstructure assembly	4445	9800
Main frame weld assembly	1390	3060
Engine assembly	520	1150
Main pump assembly	90	200
Main control valve assembly	135	300
Swing motor assembly	240	530
Hydraulic oil tank assembly	150	330
Fuel tank assembly	155	340
Counterweight	2650	5840
Cab assembly	500	1100
Lower frame weld assembly	1640	3620
Swing bearing	260	570
Travel motor assembly	80	176
Turning joint	120	265
Transmission assembly	135	298
Front axle assembly	637	1404
Front wide axle assembly	655	1444
Rear axle assembly	534	1177
Rear wide axle assembly	547	1206
Front attachment assembly (5.0 m boom, 2.2 m arm, 0.70 m ³ SAE heaped bucket)	2965	6540
5.0 m boom assembly	1040	2290
2.2 m arm assembly	490	1080
0.70 m ³ SAE heaped bucket assembly	600	1320
Boom cylinder assembly	155 × 2EA	340 × 2EA
Arm cylinder assembly	180	400
Bucket cylinder assembly	125	260
Bucket control link assembly	120	265
Oscillating cylinder assembly	30	70
Dozer blade assembly	830	1830
Blade cylinder assembly	55 × 2EA	120 × 2EA
Front outrigger assembly	1000	2200
Rear outrigger assembly	1010	2230
Outrigger cylinder assembly	80	180

5. LIFTING CAPACITIES

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HW160	MONO BOOM	5000	2200	2650	-	500	-	Down	-	-

 : Rating over-front
  : Rating over-side or 360 degree



Lift-point height (A)	Lift-point radius (B)								At max. reach			
	1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		Capacity		Reach	
											m (ft)	
6.0 m (19.7 ft)	kg									*3330	*3330	5.88
	lb									*7340	*7340	(19.3)
4.5 m (14.8 ft)	kg				*4960	*4960	*4380	3300	*3180	2730		6.71
	lb				*10930	*10930	*9660	7280	*7010	6020		(22.0)
3.0 m (9.8 ft)	kg				*6080	4880	4390	3170	*3230	2430		7.12
	lb				*13400	10760	9680	6990	*7120	5360		(23.4)
1.5 m (4.9 ft)	kg				6610	4590	4250	3040	3240	2330		7.20
	lb				14570	10120	9370	6700	7140	5140		(23.6)
Ground Line	kg				6440	4440	4160	2960	3370	2420		6.95
	lb				14200	9790	9170	6530	7430	5340		(22.8)
-1.5 m (-4.9 ft)	kg	*5550	*5550	*10030	8540	6420	4420	4150	2950	3860	2760	6.33
	lb	*12240	*12240	*22110	18830	14150	9740	9150	6500	8510	6080	(20.8)
-3.0 m (-9.8 ft)	kg			*8130	*8130	*5730	4540			*4590	3710	5.21
	lb			*17920	*17920	*12630	10010			*10120	8180	(17.1)

Note 1. Lifting capacity are based on SAE J1097 and ISO 10567.

2. Lifting capacity of the HX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.

3. The Lift-point is bucket pivot mounting pin on the arm (without bucket mass).

4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

Lifting capacities will vary with different work tools, ground conditions and attachments.

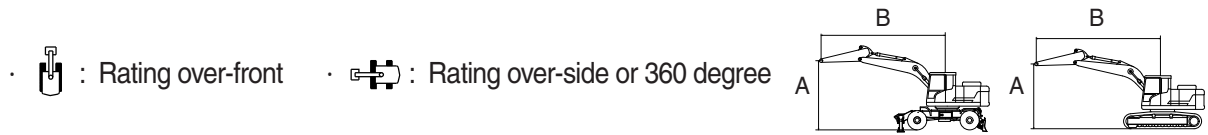
The difference between the weight of a work tool attachment must be subtracted.











Consult your Hyundai dealer regarding the lifting capacities for specific work tools and attachments.

▲ Failure to comply to the rated load can cause possible personal injury or property damage.

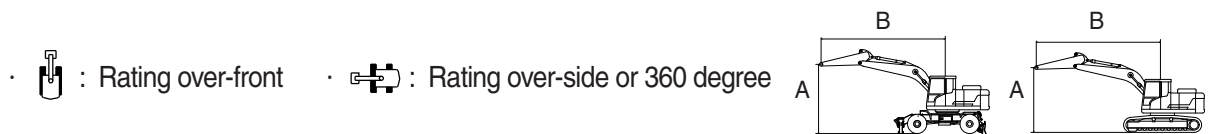
Make adjustments to the rated load as necessary for non-standard configurations.











Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HW160	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5000	2200	2650	-	500	-	Up	-	-



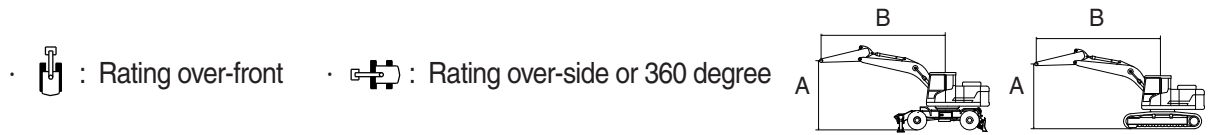
Lift-point height (A)		Lift-point radius (B)								At max. reach		
		1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		Capacity		Reach
												m (ft)
6.0 m (19.7 ft)	kg									*3330	*3330	5.88
	lb									*7340	*7340	(19.3)
4.5 m (14.8 ft)	kg				*4960	*4960	*4380	3300		*3180	2730	6.71
	lb				*10930	*10930	*9660	7280		*7010	6020	(22.0)
3.0 m (9.8 ft)	kg				*6080	4880	4390	3170		*3230	2430	7.12
	lb				*13400	10760	9680	6990		*7120	5360	(23.4)
1.5 m (4.9 ft)	kg				6610	4590	4250	3040		3240	2330	7.20
	lb				14570	10120	9370	6700		7140	5140	(23.6)
Ground Line	kg				6440	4440	4160	2960		3370	2420	6.95
	lb				14200	9790	9170	6530		7430	5340	(22.8)
-1.5 m (-4.9 ft)	kg	*5550	*5550	*10030	8540	6420	4420	4150	2950	3860	2760	6.33
	lb	*12240	*12240	*22110	18830	14150	9740	9150	6500	8510	6080	(20.8)
-3.0 m (-9.8 ft)	kg			*8130	*8130	*5730	4540			*4590	3710	5.21
	lb			*17920	*17920	*12630	10010			*10120	8180	(17.1)











Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HW160	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5000	2200	3150	-	500	-	Down	-	-



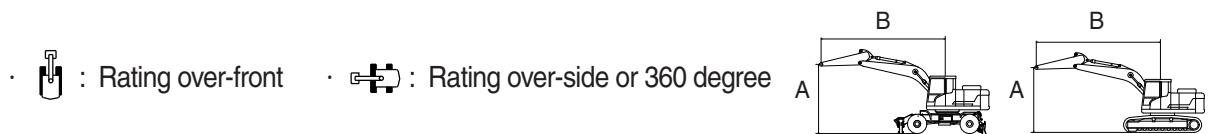
Lift-point height (A)		Lift-point radius (B)								At max. reach		
		1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		Capacity		Reach
												m (ft)
6.0 m (19.7 ft)	kg									*3330	*3330	5.88
	lb									*7340	*7340	(19.3)
4.5 m (14.8 ft)	kg				*4960	*4960	*4380	3580		*3180	2980	6.71
	lb				*10930	*10930	*9660	7890		*7010	6570	(22.0)
3.0 m (9.8 ft)	kg				*6080	5300	4730	3460		*3230	2660	7.12
	lb				*13400	11680	10430	7630		*7120	5860	(23.4)
1.5 m (4.9 ft)	kg				*7070	5000	4580	3320		*3450	2560	7.20
	lb				*15590	11020	10100	7320		*7610	5640	(23.6)
Ground Line	kg				6950	4850	4490	3240		3650	2660	6.95
	lb				15320	10690	9900	7140		8050	5860	(22.8)
-1.5 m (-4.9 ft)	kg	*5550	*5550	*10030	9310	6940	4840	4490	3240	4180	3030	6.33
	lb	*12240	*12240	*22110	20530	15300	10670	9900	7140	9220	6680	(20.8)
-3.0 m (-9.8 ft)	kg			*8130	*8130	*5730	4950			*4590	4050	5.21
	lb			*17920	*17920	*12630	10910			*10120	8930	(17.1)













Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HW160	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5000	2200	3150	-	500	-	Up	-	-





Lift-point height (A)		Lift-point radius (B)								At max. reach		
		1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		Capacity		Reach
												m (ft)
6.0 m (19.7 ft)	kg									*3330	*3330	5.88
	lb									*7340	*7340	(19.3)
4.5 m (14.8 ft)	kg					*4960	*4960	*4380	3580	*3180	2980	6.71
	lb					*10930	*10930	*9660	7890	*7010	6570	(22.0)
3.0 m (9.8 ft)	kg					*6080	5300	4730	3460	*3230	2660	7.12
	lb					*13400	11680	10430	7630	*7120	5860	(23.4)
1.5 m (4.9 ft)	kg					*7070	5000	4580	3320	*3450	2560	7.20
	lb					*15590	11020	10100	7320	*7610	5640	(23.6)
Ground Line	kg					6950	4850	4490	3240	3650	2660	6.95
	lb					15320	10690	9900	7140	8050	5860	(22.8)
-1.5 m (-4.9 ft)	kg	*5550	*5550	*10030	9310	6940	4840	4490	3240	4180	3030	6.33
	lb	*12240	*12240	*22110	20530	15300	10670	9900	7140	9220	6680	(20.8)
-3.0 m (-9.8 ft)	kg			*8130	*8130	*5730	4950			*4590	4050	5.21
	lb			*17920	*17920	*12630	10910			*10120	8930	(17.1)

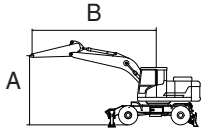
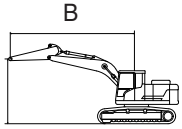
Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HW160	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5000	2500	2650	-	500	-	Down	-	-















Lift-point height (A)		Lift-point radius (B)										At max. reach		
		1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach
														m (ft)
6.0 m (19.7 ft)	kg											*2530	*2530	6.24
	lb											*5580	*5580	(20.5)
4.5 m (14.8 ft)	kg					*4770	*4770	*4280	3440			*2430	*2430	7.02
	lb					*10520	*10520	*9440	7580			*5360	*5360	(23.0)
3.0 m (9.8 ft)	kg					*5840	4980	4500	3270			*2460	2370	7.42
	lb					*12870	10980	9920	7210			*5420	5220	(24.3)
1.5 m (4.9 ft)	kg					6600	4580	4310	3100			*2600	2280	7.49
	lb					14550	10100	9500	6830			*5730	5030	(24.6)
Ground Line	kg			*5760	*5760	6360	4360	4180	2980			*2890	2340	7.25
	lb			*12700	*12700	14020	9610	9220	6570			*6370	5160	(23.8)
-1.5 m (-4.9 ft)	kg	*5600	*5600	*9590	8150	6320	4330	4170	2960			*3480	2620	6.66
	lb	*12350	*12350	*21140	17970	13930	9550	9190	6530			*7670	5780	(21.9)
-3.0 m (-9.8 ft)	kg	*9610	*9610	*8550	8420	*6080	4460					*4510	3360	5.61
	lb	*21190	*21190	*18850	18560	*13400	9830					*9940	7410	(18.4)



Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HW160	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5000	2500	2650	-	500	-	Up	-	-

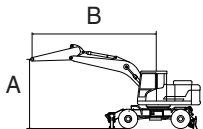
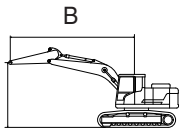
 : Rating over-front
  : Rating over-side or 360 degree
















Lift-point height (A)		Lift-point radius (B)										At max. reach		
		1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach
														m (ft)
6.0 m (19.7 ft)	kg							*3420	*3420			*2530	*2530	6.24
	lb							*7540	*7540			*5580	*5580	(20.5)
4.5 m (14.8 ft)	kg					*4770	*4770	*4280	3440			*2430	*2430	7.02
	lb					*10520	*10520	*9440	7580			*5360	*5360	(23.0)
3.0 m (9.8 ft)	kg					*5840	4980	4500	3270			*2460	2370	7.42
	lb					*12870	10980	9920	7210			*5420	5220	(24.3)
1.5 m (4.9 ft)	kg					6600	4580	4310	3100			*2600	2280	7.49
	lb					14550	10100	9500	6830			*5730	5030	(24.6)
Ground Line	kg			*5760	*5760	6360	4360	4180	2980			*2890	2340	7.25
	lb			*12700	*12700	14020	9610	9220	6570			*6370	5160	(23.8)
-1.5 m (-4.9 ft)	kg	*5600	*5600	*9590	8150	6320	4330	4170	2960			*3480	2620	6.66
	lb	*12350	*12350	*21140	17970	13930	9550	9190	6530			*7670	5780	(21.9)
-3.0 m (-9.8 ft)	kg	*9610	*9610	*8550	8420	*6080	4460					*4510	3360	5.61
	lb	*21190	*21190	*18850	18560	*13400	9830					*9940	7410	(18.4)

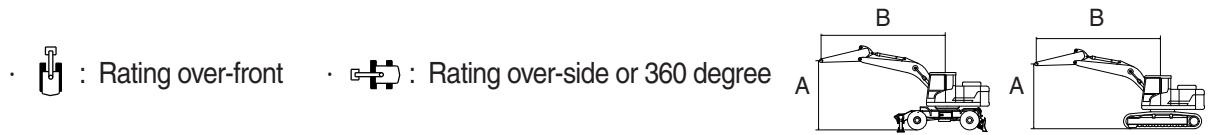
Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HW160	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5000	2500	3150	-	500	-	Down	-	-













 : Rating over-front
  : Rating over-side or 360 degree

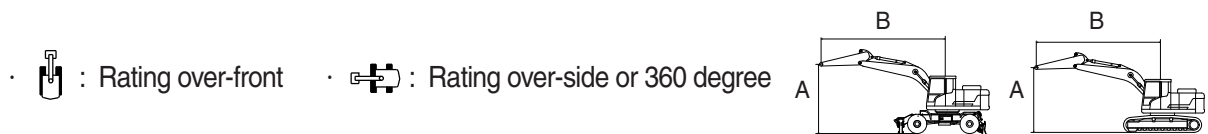
Lift-point height (A)		Lift-point radius (B)										At max. reach		
		1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach
														m (ft)
6.0 m (19.7 ft)	kg							*3420	*3420			*2530	*2530	6.24
	lb							*7540	*7540			*5580	*5580	(20.5)
4.5 m (14.8 ft)	kg					*4770	*4770	*4280	3730			*2430	*2430	7.02
	lb					*10520	*10520	*9440	8220			*5360	*5360	(23.0)
3.0 m (9.8 ft)	kg					*5840	5400	*4710	3560			*2460	*2460	7.42
	lb					*12870	11900	*10380	7850			*5420	*5420	(24.3)
1.5 m (4.9 ft)	kg					*6850	4990	4650	3380			*2600	2500	7.49
	lb					*15100	11000	10250	7450			*5730	5510	(24.6)
Ground Line	kg			*5760	*5760	6870	4780	4520	3260			*2890	2570	7.25
	lb			*12700	*12700	15150	10540	9960	7190			*6370	5670	(23.8)
-1.5 m (-4.9 ft)	kg	*5600	*5600	*9590	8920	6830	4740	4500	3250			*3480	2870	6.66
	lb	*12350	*12350	*21140	19670	15060	10450	9920	7170			*7670	6330	(21.9)
-3.0 m (-9.8 ft)	kg	*9610	*9610	*8550	*8550	*6080	4870					*4510	3670	5.61
	lb	*21190	*21190	*18850	*18850	*13400	10740					*9940	8090	(18.4)











Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HW160	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5000	2500	3150	-	500	-	Up	-	-





Lift-point height (A)		Lift-point radius (B)										At max. reach		
		1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach m (ft)
														
6.0 m (19.7 ft)	kg							*3420	*3420			*2530	*2530	6.24 (20.5)
	lb							*7540	*7540			*5580	*5580	
4.5 m (14.8 ft)	kg					*4770	*4770	*4280	3730			*2430	*2430	7.02 (23.0)
	lb					*10520	*10520	*9440	8220			*5360	*5360	
3.0 m (9.8 ft)	kg					*5840	5400	*4710	3560			*2460	*2460	7.42 (24.3)
	lb					*12870	11900	*10380	7850			*5420	*5420	
1.5 m (4.9 ft)	kg					*6850	4990	4650	3380			*2600	2500	7.49 (24.6)
	lb					*15100	11000	10250	7450			*5730	5510	
Ground Line	kg			*5760	*5760	6870	4780	4520	3260			*2890	2570	7.25 (23.8)
	lb			*12700	*12700	15150	10540	9960	7190			*6370	5670	
-1.5 m (-4.9 ft)	kg	*5600	*5600	*9590	8920	6830	4740	4500	3250			*3480	2870	6.66 (21.9)
	lb	*12350	*12350	*21140	19670	15060	10450	9920	7170			*7670	6330	
-3.0 m (-9.8 ft)	kg	*9610	*9610	*8550	*8550	*6080	4870					*4510	3670	5.61 (18.4)
	lb	*21190	*21190	*18850	*18850	*13400	10740					*9940	8090	

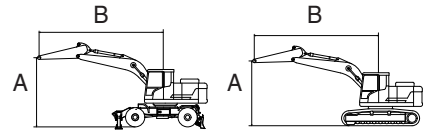
Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HW160	2-PIECE BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5100	2200	2650	-	500	-	Down	-	-













Lift-point height (A)		Lift-point radius (B)								At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach m (ft)
												
7.5 m (24.6 ft)	kg			*5170	*5170					*4710	*4710	4.71 (15.4)
	lb			*11400	*11400					*10380	*10380	
6.0 m (19.7 ft)	kg			*4870	*4870	4590	3330			*3980	3210	6.11 (20.0)
	lb			*10740	*10740	10120	7340			*8770	7080	
4.5 m (14.8 ft)	kg			*5640	5220	4550	3290			3570	2580	6.90 (22.6)
	lb			*12430	11510	10030	7250			7870	5690	
3.0 m (9.8 ft)	kg			6950	4850	4390	3150			3210	2300	7.31 (24.0)
	lb			15320	10690	9680	6940			7080	5070	
1.5 m (4.9 ft)	kg			6580	4520	4240	3000			3110	2210	7.38 (24.2)
	lb			14510	9960	9350	6610			6860	4870	
Ground Line	kg			6410	4370	4140	2910			3240	2300	7.14 (23.4)
	lb			14130	9630	9130	6420			7140	5070	
-1.5 m (-4.9 ft)	kg	*9770	8460	6400	4360	4140	2910			3690	2620	6.54 (21.4)
	lb	*21540	18650	14110	9610	9130	6420			8140	5780	



Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HW160	2-PIECE BOOM	5100	2200	2650	-	500	-	Up	-	-

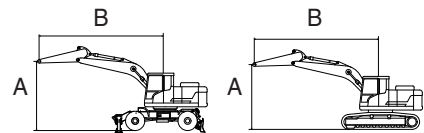
 : Rating over-front
  : Rating over-side or 360 degree













Lift-point height (A)		Lift-point radius (B)								At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach m (ft)
												
7.5 m (24.6 ft)	kg			*5170	*5170					*4710	*4710	4.71
	lb			*11400	*11400					*10380	*10380	(15.4)
6.0 m (19.7 ft)	kg			*4870	*4870	4590	3330			*3980	3210	6.11
	lb			*10740	*10740	10120	7340			*8770	7080	(20.0)
4.5 m (14.8 ft)	kg			*5640	5220	4550	3290			3570	2580	6.90
	lb			*12430	11510	10030	7250			7870	5690	(22.6)
3.0 m (9.8 ft)	kg			6950	4850	4390	3150			3210	2300	7.31
	lb			15320	10690	9680	6940			7080	5070	(24.0)
1.5 m (4.9 ft)	kg			6580	4520	4240	3000			3110	2210	7.38
	lb			14510	9960	9350	6610			6860	4870	(24.2)
Ground Line	kg			6410	4370	4140	2910			3240	2300	7.14
	lb			14130	9630	9130	6420			7140	5070	(23.4)
-1.5 m (-4.9 ft)	kg	*9770	8460	6400	4360	4140	2910			3690	2620	6.54
	lb	*21540	18650	14110	9610	9130	6420			8140	5780	(21.4)

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HW160	2-PIECE BOOM	5100	2200	3150	-	500	-	Down	-	-

 : Rating over-front
  : Rating over-side or 360 degree

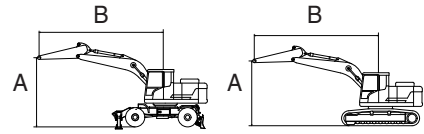












Lift-point height (A)		Lift-point radius (B)								At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach m (ft)
												
7.5 m (24.6 ft)	kg			*5170	*5170					*4710	*4710	4.71
	lb			*11400	*11400					*10380	*10380	(15.4)
6.0 m (19.7 ft)	kg			*4870	*4870	*4690	3610			*3980	3490	6.11
	lb			*10740	*10740	*10340	7960			*8770	7690	(20.0)
4.5 m (14.8 ft)	kg			*5640	5640	4880	3570			*3730	2820	6.90
	lb			*12430	12430	10760	7870			*8220	6220	(22.6)
3.0 m (9.8 ft)	kg			*6950	5260	4730	3430			3470	2520	7.31
	lb			*15320	11600	10430	7560			7650	5560	(24.0)
1.5 m (4.9 ft)	kg			7090	4940	4570	3280			3360	2440	7.38
	lb			15630	10890	10080	7230			7410	5380	(24.2)
Ground Line	kg			6920	4780	4480	3200			3500	2530	7.14
	lb			15260	10540	9880	7050			7720	5580	(23.4)
-1.5 m (-4.9 ft)	kg	*9770	9230	6920	4780	4480	3190			3990	2870	6.54
	lb	*21540	20350	15260	10540	9880	7030			8800	6330	(21.4)

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HW160	2-PIECE BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5100	2200	3150	-	500	-	Up	-	-

·  : Rating over-front

·  : Rating over-side or 360 degree

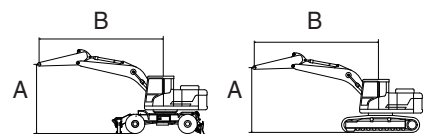












Lift-point height (A)		Lift-point radius (B)								At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach
												m (ft)
7.5 m (24.6 ft)	kg			*5170	*5170					*4710	*4710	4.71
	lb			*11400	*11400					*10380	*10380	(15.4)
6.0 m (19.7 ft)	kg			*4870	*4870	*4690	3610			*3980	3490	6.11
	lb			*10740	*10740	*10340	7960			*8770	7690	(20.0)
4.5 m (14.8 ft)	kg			*5640	5640	4880	3570			*3730	2820	6.90
	lb			*12430	12430	10760	7870			*8220	6220	(22.6)
3.0 m (9.8 ft)	kg			*6950	5260	4730	3430			3470	2520	7.31
	lb			*15320	11600	10430	7560			7650	5560	(24.0)
1.5 m (4.9 ft)	kg			7090	4940	4570	3280			3360	2440	7.38
	lb			15630	10890	10080	7230			7410	5380	(24.2)
Ground Line	kg			6920	4780	4480	3200			3500	2530	7.14
	lb			15260	10540	9880	7050			7720	5580	(23.4)
-1.5 m (-4.9 ft)	kg	*9770	9230	6920	4780	4480	3190			3990	2870	6.54
	lb	*21540	20350	15260	10540	9880	7030			8800	6330	(21.4)

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HW160	2-PIECE BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5100	2500	2650	-	500	-	Down	-	-



·  : Rating over-front

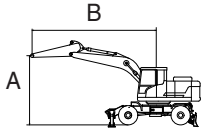
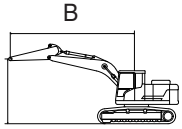
·  : Rating over-side or 360 degree













Lift-point height (A)		Lift-point radius (B)								At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach
												m (ft)
7.5 m (24.6 ft)	kg			*4790	*4790					*3430	*3430	5.17
	lb			*10560	*10560					*7560	*7560	(17.0)
6.0 m (19.7 ft)	kg			*4680	*4680	*4650	3510			*2980	*2980	6.47
	lb			*10320	*10320	*10250	7740			*6570	*6570	(21.2)
4.5 m (14.8 ft)	kg			*5420	*5420	4710	3430			*2810	2500	7.22
	lb			*11950	*11950	10380	7560			*6190	5510	(23.7)
3.0 m (9.8 ft)	kg			*6670	4940	4510	3250	3190	2310	*2800	2250	7.61
	lb			*14700	10890	9940	7170	7030	5090	*6170	4960	(25.0)
1.5 m (4.9 ft)	kg			6570	4510	4300	3050	3120	2240	*2900	2170	7.68
	lb			14480	9940	9480	6720	6880	4940	*6390	4780	(25.2)
Ground Line	kg			6320	4280	4160	2930			3120	2230	7.44
	lb			13930	9440	9170	6460			6880	4920	(24.4)
-1.5 m (-4.9 ft)	kg	*9520	8050	6290	4260	4140	2910			3490	2490	6.87
	lb	*20990	17750	13870	9390	9130	6420			7690	5490	(22.5)



Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HW160	2-PIECE BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5100	2500	2650	-	500	-	Up	-	-

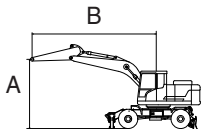
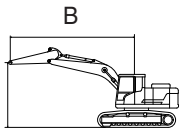
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



Lift-point height (A)		Lift-point radius (B)								At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach
												m (ft)
7.5 m (24.6 ft)	kg			*4790	*4790					*3430	*3430	5.17
	lb			*10560	*10560					*7560	*7560	(17.0)
6.0 m (19.7 ft)	kg			*4680	*4680	*4650	3510			*2980	*2980	6.47
	lb			*10320	*10320	*10250	7740			*6570	*6570	(21.2)
4.5 m (14.8 ft)	kg			*5420	*5420	4710	3430			*2810	2500	7.22
	lb			*11950	*11950	10380	7560			*6190	5510	(23.7)
3.0 m (9.8 ft)	kg			*6670	4940	4510	3250	3190	2310	*2800	2250	7.61
	lb			*14700	10890	9940	7170	7030	5090	*6170	4960	(25.0)
1.5 m (4.9 ft)	kg			6570	4510	4300	3050	3120	2240	*2900	2170	7.68
	lb			14480	9940	9480	6720	6880	4940	*6390	4780	(25.2)
Ground Line	kg			6320	4280	4160	2930			3120	2230	7.44
	lb			13930	9440	9170	6460			6880	4920	(24.4)
-1.5 m (-4.9 ft)	kg	*9520	8050	6290	4260	4140	2910			3490	2490	6.87
	lb	*20990	17750	13870	9390	9130	6420			7690	5490	(22.5)



Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HW160	2-PIECE BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5100	2500	3150	-	500	-	Down	-	-

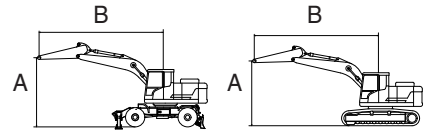
 : Rating over-front
  : Rating over-side or 360 degree














Lift-point height (A)		Lift-point radius (B)								At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach
												m (ft)
7.5 m (24.6 ft)	kg			*4790	*4790					*3430	*3430	5.17
	lb			*10560	*10560					*7560	*7560	(17.0)
6.0 m (19.7 ft)	kg			*4680	*4680	*4650	3800			*2980	*2980	6.47
	lb			*10320	*10320	*10250	8380			*6570	*6570	(21.2)
4.5 m (14.8 ft)	kg			*5420	*5420	*4830	3720			*2810	2730	7.22
	lb			*11950	*11950	*10650	8200			*6190	6020	(23.7)
3.0 m (9.8 ft)	kg			*6670	5360	4840	3530	3440	2520	*2800	2460	7.61
	lb			*14700	11820	10670	7780	7580	5560	*6170	5420	(25.0)
1.5 m (4.9 ft)	kg			7080	4920	4630	3340	3370	2460	*2900	2380	7.68
	lb			15610	10850	10210	7360	7430	5420	*6390	5250	(25.2)
Ground Line	kg			6830	4700	4500	3210			*3150	2450	7.44
	lb			15060	10360	9920	7080			*6940	5400	(24.4)
-1.5 m (-4.9 ft)	kg	*9520	8820	6800	4670	4480	3190			*3650	2730	6.87
	lb	*20990	19440	14990	10300	9880	7030			*8050	6020	(22.5)

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HW160	2-PIECE BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5100	2500	3150	-	500	-	Up	-	-

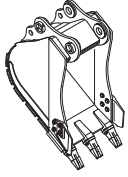
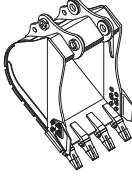
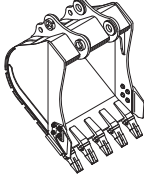
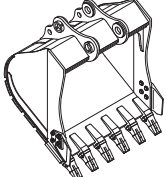
 : Rating over-front
 ·  : Rating over-side or 360 degree



Lift-point height (A)		Lift-point radius (B)								At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach
												m (ft)
7.5 m (24.6 ft)	kg			*4790	*4790					*3430	*3430	5.17 (17.0)
	lb			*10560	*10560					*7560	*7560	
6.0 m (19.7 ft)	kg			*4680	*4680	*4650	3800			*2980	*2980	6.47 (21.2)
	lb			*10320	*10320	*10250	8380			*6570	*6570	
4.5 m (14.8 ft)	kg			*5420	*5420	*4830	3720			*2810	2730	7.22 (23.7)
	lb			*11950	*11950	*10650	8200			*6190	6020	
3.0 m (9.8 ft)	kg			*6670	5360	4840	3530	3440	2520	*2800	2460	7.61 (25.0)
	lb			*14700	11820	10670	7780	7580	5560	*6170	5420	
1.5 m (4.9 ft)	kg			7080	4920	4630	3340	3370	2460	*2900	2380	7.68 (25.2)
	lb			15610	10850	10210	7360	7430	5420	*6390	5250	
Ground Line	kg			6830	4700	4500	3210			*3150	2450	7.44 (24.4)
	lb			15060	10360	9920	7080			*6940	5400	
-1.5 m (-4.9 ft)	kg	*9520	8820	6800	4670	4480	3190			*3650	2730	6.87 (22.5)
	lb	*20990	19440	14990	10300	9880	7030			*8050	6020	

6. BUCKET SELECTION GUIDE

1) GENERAL BUCKET

			
0.39 m ³ SAE heaped bucket	0.50 m ³ SAE heaped bucket	0.64, 0.70, 0.76 m ³ SAE heaped bucket	0.89, 1.05 m ³ SAE heaped bucket

Capacity		Width		Weight	Recommendation			
					5.0 m (16' 5") Mono boom		5.1 m (16' 9") 2-piece boom	
SAE heaped	CECE heaped	Without side cutter	With side cutter		2.2 m arm (7' 3")	2.5 m arm (8' 2")	2.2 m arm (7' 3")	2.5 m arm (8' 2")
0.39 m ³ (0.51 yd ³)	0.34 m ³ (0.44 yd ³)	650 mm (25.6")	740 mm (29.1")	410 kg (900 lb)	●	●	●	●
0.50 m ³ (0.65 yd ³)	0.44 m ³ (0.58 yd ³)	790 mm (31.1")	880 mm (34.6")	470 kg (1040 lb)	●	●	●	●
0.64 m ³ (0.84 yd ³)	0.55 m ³ (0.72 yd ³)	950 mm (37.4")	1040 mm (40.9")	510 kg (1120 lb)	●	●	●	●
0.70 m ³ (0.92 yd ³)	0.60 m ³ (0.78 yd ³)	1020 mm (40.2")	1110 mm (43.7")	600 kg (1320 lb)	●	◉	◉	◉
0.76 m ³ (0.99 yd ³)	0.65 m ³ (0.85 yd ³)	1090 mm (42.9")	1180 mm (46.5")	620 kg (1370 lb)	◉	○	◉	○
0.89 m ³ (1.16 yd ³)	0.77 m ³ (1.01 yd ³)	1250 mm (49.2")	1340 mm (52.8")	610 kg (1340 lb)	○	○	○	○
1.05 m ³ (1.37 yd ³)	0.90 m ³ (1.18 yd ³)	1430 mm (56.3")	1520 mm (59.8")	680 kg (1500 lb)	○		○	

● Applicable for materials with density of 2000 kg/m³ (3370 lb/yd³) or less

◉ Applicable for materials with density of 1600 kg/m³ (2700 lb/yd³) or less

○ Applicable for materials with density of 1100 kg/m³ (1850 lb/yd³) or less

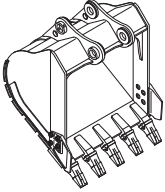
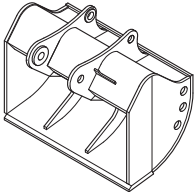
※ These recommendations are for general conditions and average use.

Work tools and ground conditions have effects on machine performance.

Select an optimum combination according to the working conditions and the type of work that is being done.

Consult your Hyundai dealer for information on selecting the correct boom-arm-bucket combination.

2) SPECIAL BUKET

<p>Heavy duty bucket</p> 	<p>Ditch cleaning bucket</p> 
<p>◎ 0.69 m³, 0.72 m³, 0.87 m³ SAE heaped bucket</p>	<p>★ 0.75 m³ SAE heaped bucket</p>

Capacity		Width		Weight	Recommendation			
					5.0 m (16' 5") Mono boom		5.1 m (16' 9") 2-piece boom	
SAE heaped	CECE heaped	Without side cutter	With side cutter	2.2m arm (7' 3")	2.5m arm (8' 2")	2.2m arm (7' 3")	2.5m arm (8' 2")	
◎ 0.69 m ³ (0.90 yd ³)	0.62 m ³ (0.81 yd ³)	1050 mm (41.3")	-	720 kg (1590 lb)	◎	◎	◎	◎
◎ 0.72 m ³ (0.94 yd ³)	0.65 m ³ (0.85 yd ³)	940 mm (37.0")	985 mm (38.8")	640 kg (1410 lb)	◎	◎	◎	◎
◎ 0.87 m ³ (1.18 yd ³)	0.78 m ³ (1.02 yd ³)	1090 mm (42.9")	1140 mm (44.9")	680 kg (1500 lb)	○	○	○	○
★ 0.75 m ³ (0.98 yd ³)	0.65 m ³ (0.85 yd ³)	1820 mm (71.7")	-	540 kg (1190 lb)	●	◎	●	◎

◎ : Heavy duty bucket

★ : Ditch cleaning bucket

● Applicable for materials with density of 2000 kg/m³ (3370 lb/yd³) or less

◎ Applicable for materials with density of 1600 kg/m³ (2700 lb/yd³) or less

○ Applicable for materials with density of 1100 kg/m³ (1850 lb/yd³) or less

7. SPECIFICATIONS FOR MAJOR COMPONENTS

1) ENGINE

Item	Specification
Model	Cummins QSB 6.7
Type	4-cycle turbocharged diesel engine, low emission
Cooling method	Water cooling
Number of cylinders and arrangement	6 cylinders, in-line
Firing order	1-5-3-6-2-4
Combustion chamber type	Direct injection type
Cylinder bore × stroke	107 × 124 mm (4.2" × 4.9")
Piston displacement	6700 cc (409 cu in)
Compression ratio	17.3 : 1
Rated net horse power (SAE J1349)	171 Hp (127 kW) at 1800 rpm
Rated gross horse power (SAE J1995)	180 Hp (134 kW) at 1800 rpm
Maximum torque	85.7 kgf · m (620 lbf · ft) at 1500 rpm
Engine oil quantity	23.7 ℓ (6.3 U.S. gal)
Dry weight	520 kg (1150 lb)
High idling speed	2200 ± 50 rpm
Low idling speed	850 ± 100 rpm
Rated fuel consumption	163.0 g/Hp · hr at 2200 rpm
Starting motor	Nippon denso (24 V-4.8 kW)
Alternator	Nippon denso (24 V-95 A)
Battery	2 × 12 V × 100 Ah

2) MAIN PUMP

Item	Specification
Type	Variable displacement tandem axis piston pumps
Capacity	2 × 80 cc/rev
Maximum pressure	350 kgf/cm ² (4980 psi) [380 kgf/cm ² (5400 psi)]
Rated oil flow	2 × 172 ℓ /min (45.4 U.S. gpm / 37.8 U.K. gpm)
Rated speed	2200 rpm

[]: Power boost

3) GEAR PUMP

Item	Specification
Type	Fixed displacement gear pump single stage
Capacity	15cc/rev
Maximum pressure	40 kgf/cm ² (570 psi)
Rated oil flow	33.0 ℓ /min (8.7 U.S. gpm/7.3 U.K. gpm)

4) MAIN CONTROL VALVE

Item	Specification
Type	11 spools two-block
Operating method	Hydraulic pilot system
Main relief valve pressure	350 kgf/cm ² (4980 psi) [380 kgf/cm ² (5400 psi)]
Overload relief valve pressure	400 kgf/cm ² (5690 psi)

[]: Power boost

5) SWING MOTOR

Item	Specification	
	Type 1	Type 2
Type	Fixed displacement axial piston motor	
Capacity	117.8 cc/rev	142.8 cc/rev
Relief pressure	285 kgf/cm ² (4054 psi)	
Braking system	Automatic, spring applied hydraulic released	
Braking torque	59 kgf · m (427 lbf · ft)	66.5 kgf · m (481 lbf · ft)
Brake release pressure	33~50 kgf/cm ² (469~711 psi)	22.3~36.6 kgf/cm ² (317~521 psi)
Reduction gear type	2 - stage planetary	

6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement bent-axis axial piston motor
Relief pressure	380 kgf/cm ² (5400 psi)
Counter balance valve	Applied
Capacity (max/min)	140 cc/rev

7) POWER TRAIN

Item	Description	Specification	
Transmission	Type	2 speed power shift transmission	
	Gear ratio	1st	4.87
		2nd	1.20
	Clutch pressure		30~32 kgf /cm ² (427~455 psi)
Parking brake	Type	Multi disc brake integrated in transmission	
	Maximum braking torque		3044 kgf · m (22020 lbf · ft)
Axle (Wide axle)	Type		4 wheel drive with differential
	Gear ratio		16.0
	Brake		Multi disc brake
	Brake pressure		61.2 kgf /cm ² (870 psi)
	Steering pressure		204 kgf /cm ² (2900 psi)

8) POWER TRAIN GEAR PUMP

Item	Description
Type	Fixed displacement gear pump (tanedm)
Capacity	Steering + brake : 16.6 + 8.2 cc / rev (pump PTO) [22.4] + 8.2 cc / rev (pump PTO)
Rated flow	Steering + brake : 30.7 + 15.2 lpm (pump PTO) (8.1 + 4.0 U.S.gpm / 6.8 + 3.3 U.K.gpm) [41.4] + 15.2 lpm (pump PTO) ([10.9] + 4.0 U.S.gpm / [9.1] + 3.3 U.K.gpm)

※ [] Rotating option

9) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	Ø 110 × Ø 75 × 1090mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	Ø 115 × Ø 80 × 1235mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	Ø 105 × Ø 75 × 995mm
	Cushion	Extend only
Dozer cylinder	Bore dia × Rod dia × Stroke	Ø 110 × Ø 65 × 235mm
	Cushion	-
Outrigger cylinder	Bore dia × Rod dia × Stroke	Ø 125 × Ø 75 × 463mm
	Cushion	-
Adjust cylinder	Bore dia × Rod dia × Stroke	Ø 160 × Ø 95 × 650mm
	Cushion	-
2-piece boom cylinder	Bore dia × Rod dia × Stroke	Ø 110 × Ø 75 × 960mm
	Cushion	Extend only

※ Discoloration of cylinder rod can occur when the friction reduction additive of lubrication oil spreads on the rod surface.

※ Discoloration does not cause any harmful effect on the cylinder performance.

10) BUCKET

Item	Capacity		Tooth quantity	Width	
	SAE heaped	CECE heaped		Without side cutter	With side cutter
HW160	0.70 m ³ (0.92 yd ³)	0.60 m ³ (0.78 yd ³)	5	1020 mm (40.2")	1110 mm (43.7")
	0.39 m ³ (0.51 yd ³)	0.34 m ³ (0.44 yd ³)	3	650 mm (25.6")	740 mm (29.1")
	0.50 m ³ (0.65 yd ³)	0.44 m ³ (0.58 yd ³)	4	790 mm (31.1")	880 mm (34.6")
	0.64 m ³ (0.84 yd ³)	0.55 m ³ (0.72 yd ³)	5	950 mm (37.4")	1040 mm (40.9")
	0.76 m ³ (0.99 yd ³)	0.65 m ³ (0.85 yd ³)	5	1090 mm (42.9")	1180 mm (46.5")
	0.89 m ³ (1.16 yd ³)	0.77 m ³ (1.01 yd ³)	6	1250 mm (49.2")	1340 mm (52.8")
	1.05 m ³ (1.37 yd ³)	0.90 m ³ (1.18 yd ³)	6	1430 mm (56.3")	1520 mm (59.8")
	◎ 0.69 m ³ (0.90 yd ³)	0.62 m ³ (0.81 yd ³)	5	1050 mm (41.3")	-
	◎ 0.72 m ³ (0.94 yd ³)	0.65 m ³ (0.85 yd ³)	5	940 mm (37.0")	985 mm (38.8")
	◎ 0.87 m ³ (1.18 yd ³)	0.78 m ³ (1.02 yd ³)	5	1090 mm (42.9")	1140 mm (44.9")
	★ 0.75 m ³ (0.98 yd ³)	0.65 m ³ (0.85 yd ³)	-	1820 mm (71.7")	-

◎ : Heavy duty bucket

★ : Ditch cleaning bucket

8. RECOMMENDED OILS

HYUNDAI genuine lubricating oils have been developed to offer the best performance and service life for your equipment. These oils have been tested according to the specifications of HYUNDAI and, therefore, will meet the highest safety and quality requirements.

We recommend that you use only HYUNDAI genuine lubricating oils and grease officially approved by HYUNDAI.

Service point	Kind of fluid	Capacity ℓ (U.S. gal)	Ambient temperature °C (°F)						
			-50 (-58)	-30 (-22)	-20 (-4)	-10 (14)	0 (32)	10 (50)	20 (68)
Engine oil pan	Engine oil	23.7 (6.3)	★SAE 5W-40			SAE 30			
Transmission case		2.5 (0.7)	SAE 10W			SAE 10W-30			
			SAE 15W-40						
DEF/ AdBlue® tank	Mixture of urea and deionized water	27.0 (7.1)	ISO 22241, High-purity urea + deionized water (32.5:67.5)						
Swing drive	Gear oil	TYPE 1 : 5.0 (1.32)	★SAE 75W-90						
		TYPE 2 : 6.2 (1.64)	SAE 80W-90						
Front axle	Gear oil	Center : 10.5 (2.8) Hub : 2.5×2 (0.7×2)	SAE 85W-90 LSD or UTTO						
Rear axle		Center : 12.5 (3.3) Hub : 2.5×2 (0.7×2)							
Front wide axle	Gear oil	Center : 11.6 (3.06) Hub : 2.5×2 (0.7×2)	SAE 85W-90 LSD or UTTO						
Rear wide axle		Center : 14.0 (3.70) Hub : 2.5×2 (0.7×2)							
Hydraulic tank	Hydraulic oil	Tank: 125 (33.0)	★ISO VG 15			ISO VG 32			
		System: 270 (71.3)	ISO VG 46, HBHO VG 46★ ³				ISO VG 68		
Fuel tank	Diesel fuel★ ¹	290 (76.6)	★ASTM D975 NO.1			ASTM D975 NO.2			
Fitting (Grease nipple)	Grease	As required	★NLGI NO.1			NLGI NO.2			
Radiator (Reservoir tank)	Mixture of antifreeze and soft water★ ²	19.5 (5.2)	Ethylene glycol base permanent type (50 : 50)						
			★Ethylene glycol base permanent type (60 : 40)						

SAE : Society of Automotive Engineers

API : American Petroleum Institute

ISO : International Organization for Standardization

NLGI : National Lubricating Grease Institute

ASTM : American Society of Testing and Material

UTTO : Universal Tractor Transmission Oil

DEF : Diesel Exhaust Fluid, DEF compatible with AdBlue®

★ : Cold region

Russia, CIS, Mongolia

★¹ : Ultra low sulfur diesel

- sulfur content ≤ 15 ppm

★² : Soft water

City water or distilled water

★³ : Hyundai Bio Hydraulic Oil

- For more information, contact HYUNDAI dealers.

※ Using any lubricating oils other than HYUNDAI genuine products may lead to a deterioration of performance and cause damage to major components.

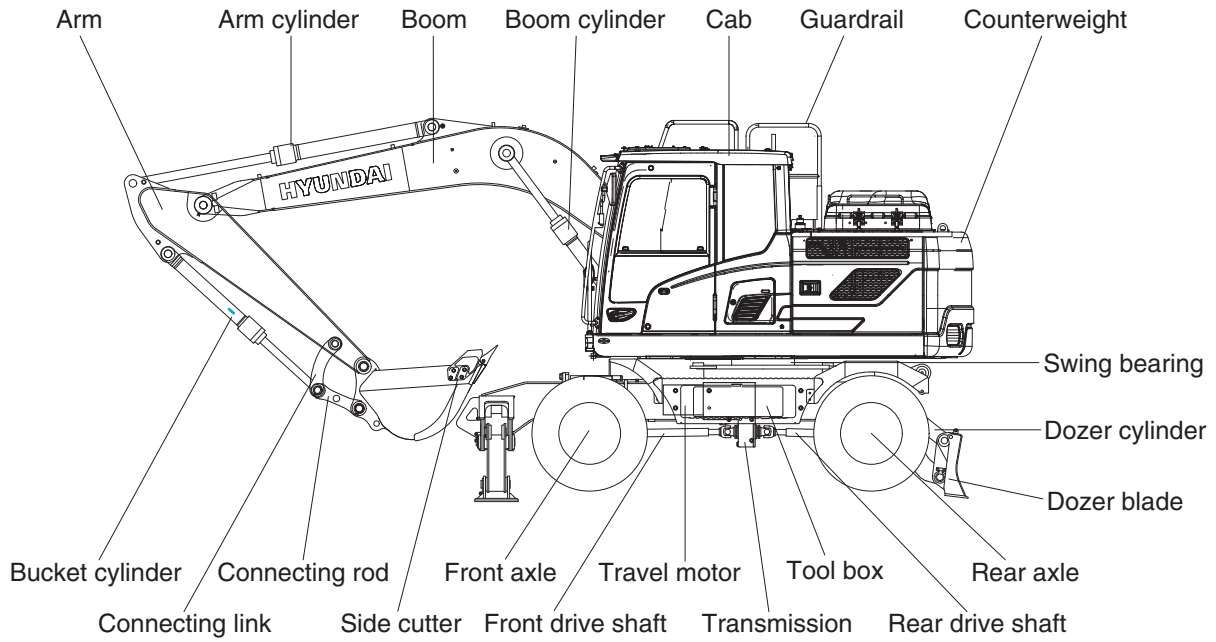
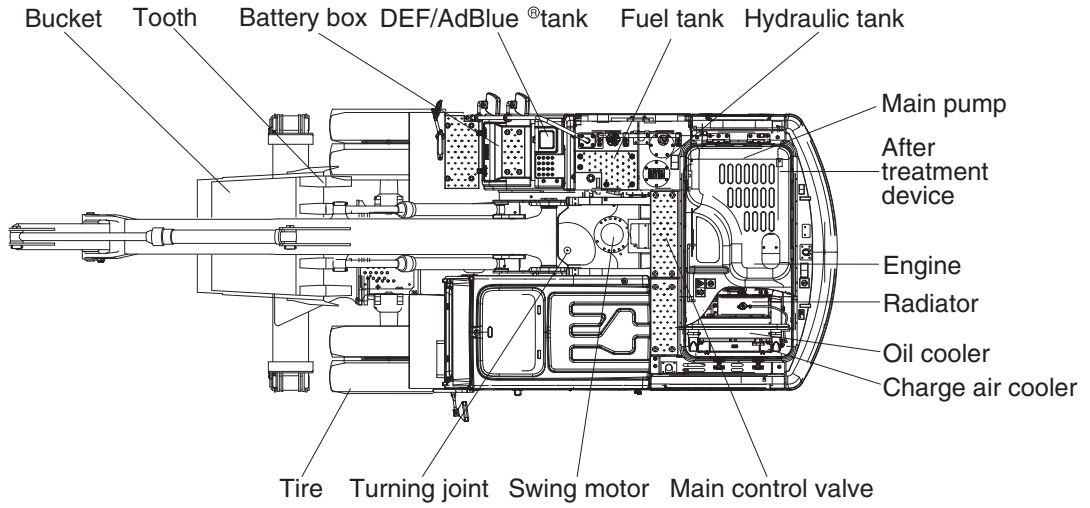
※ Do not mix HYUNDAI genuine oil with any other lubricating oil as it may result in damage to the systems of major components.

※ Do not use any engine oil other than that specified above, as it may clog the diesel particulate filter(DPF).

※ For HYUNDAI genuine lubricating oils and grease for use in regions with extremely low temperatures, please contact HYUNDAI dealers.

GROUP 3 SPECIFICATIONS (HW180)

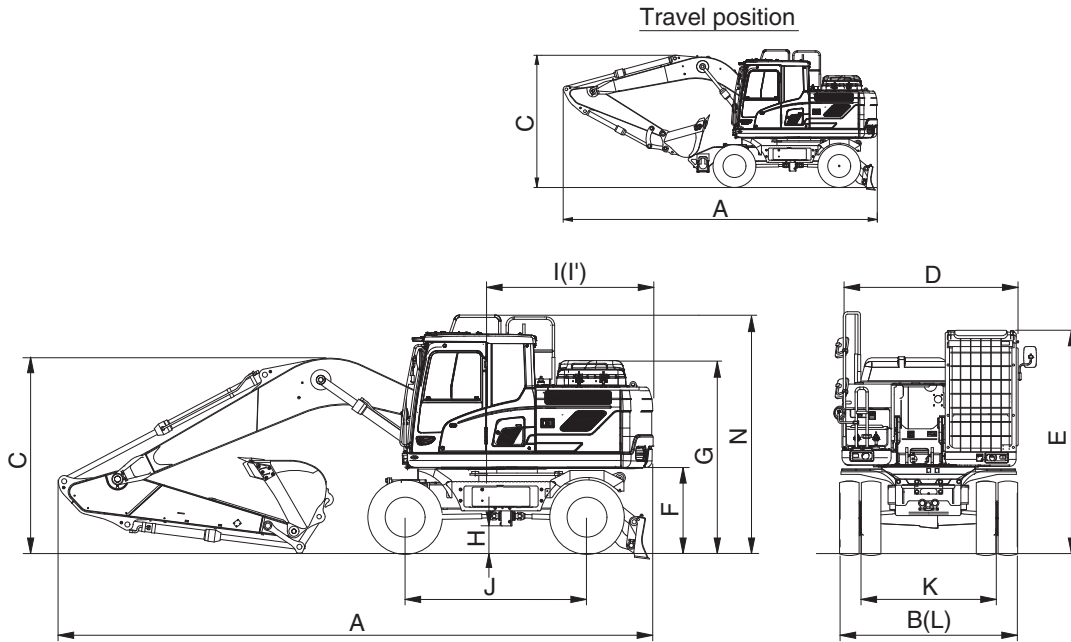
1. MAJOR COMPONENT



180WF2SP01

2. SPECIFICATIONS

1) 5.2 m (17' 1") MONO BOOM, 2.6 m (8' 6") ARM AND REAR DOZER BLADE

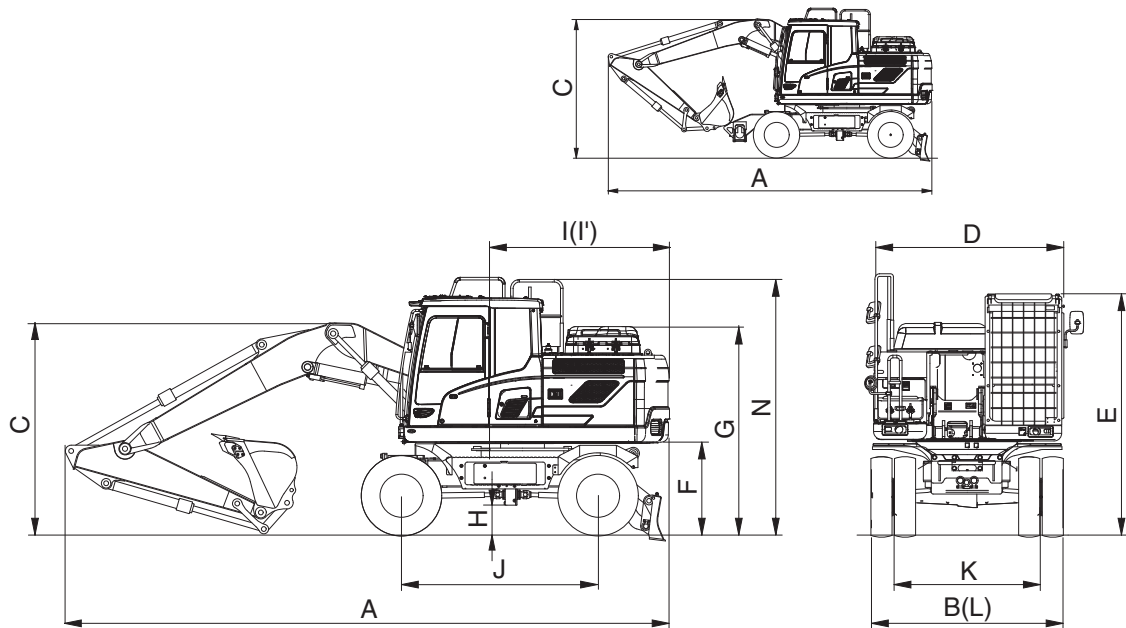


180WF2SP02

Description		Unit	Specification
Operating weight		kg (lb)	17800 (39240)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	0.76 (0.99)
Overall length (travel / shipping)	A	mm (ft-in)	8710 (28' 7") / 8760 (28' 9")
Overall width	B		2500 (8' 2")
Overall height of boom (travel / shipping)	C		3540 (11' 7") / 3180 (10' 5")
Upperstructure width	D		2475 (8' 1")
Cab height	E		3190 (10' 6")
Ground clearance of counterweight	F		1270 (4' 2")
Overall height of engine hood	G		2800 (9' 2")
Minimum ground clearance	H		340 (1' 1")
Rear-end distance	I		2430 (8' 0")
Rear-end swing radius	I'		2430 (8' 0")
Wheel base	J		2600 (8' 6")
Tread	K		1944 (6' 5")
Dozer blade width	L		2500 (8' 2")
Overall height of guardrail	N		3420 (11' 3")
Travel speed	Low		km/hr (mph)
	High	35 (21.7)	
	Creep	3.0 (1.9)	
Swing speed		rpm	9.3
Gradeability		Degree (%)	35 (70)
Max traction force		kgf (lbf)	10320 (22750)

2) 5.1 m (16' 9") 2-PIECE BOOM, 2.6 m (8' 6") ARM AND REAR DOZER BLADE

Travel position

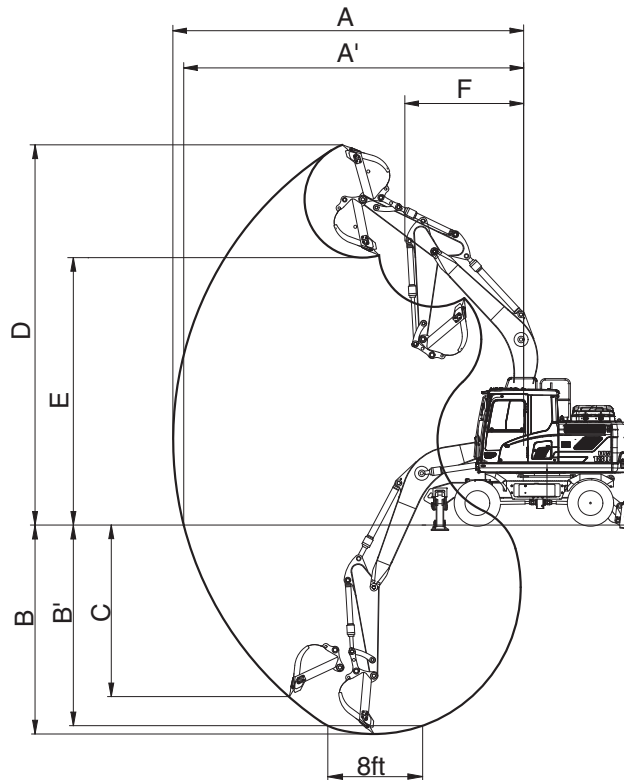


180WF2SP03

Description		Unit	Specification	
Operating weight		kg (lb)	18270 (40280)	
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	0.76 (0.99)	
Overall length (travel / shipping)	A	mm (ft-in)	6620 (21' 9") / 8750 (28' 8")	
Overall width (axle / wide axle)	B		2500 (8' 2") / 2700 (8' 9")	
Overall height of boom (travel / shipping)	C		3960 (13' 0") / 2920 (9' 7")	
Upperstructure width	D		2475 (8' 1")	
Cab height	E		3190 (10' 6")	
Ground clearance of counterweight	F		1270 (4' 2")	
Overall height of engine hood	G		2610 (8' 7")	
Minimum ground clearance	H		340 (1' 1")	
Rear-end distance	I		2430 (8' 0")	
Rear-end swing radius	I'		2430 (8' 0")	
Wheel base	J		2600 (8' 6")	
Tread (axle / wide axle)	K		1914 (6' 3") / 2114 (6' 9")	
Dozer blade width	L		2500 (8' 2")	
Overall height of guardrail	N		3420 (11' 3")	
Travel speed	Low		km/hr (mph)	9.5 (5.9)
	High			35 (21.7)
	Creep			3.0 (1.9)
Swing speed		rpm	9.3	
Gradeability		Degree (%)	35 (70)	
Max traction force		kgf (lbf)	10320 (22750)	

3. WORKING RANGE

1) 5.2 m (17' 1") MONO BOOM

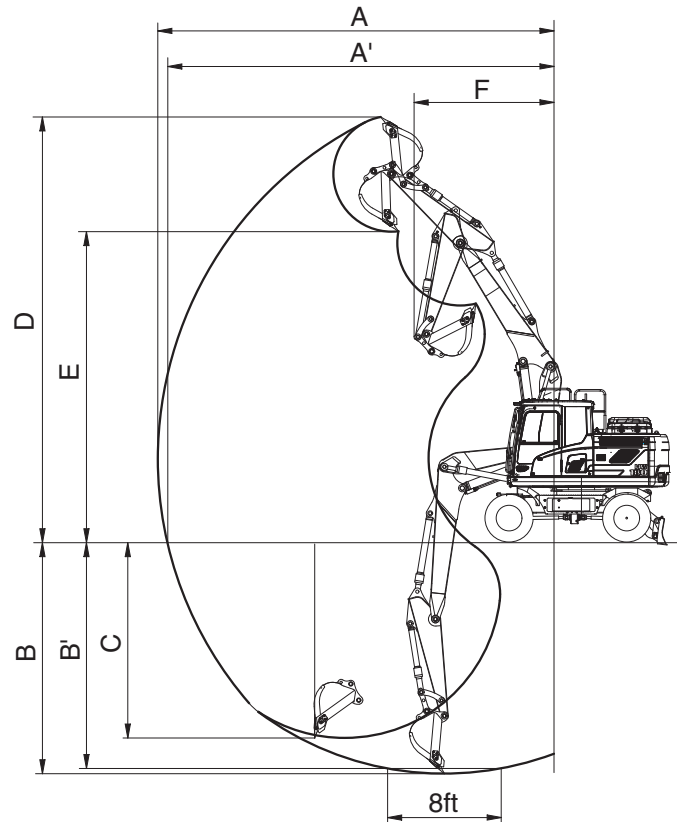


180WF2SP04

Description		2.2 m (7' 3") Arm	2.6 m (8' 6") Arm	3.1 m (10' 2") Arm
Max digging reach	A	8820 mm (29' 1")	9200 mm (30' 3")	9450 mm (31' 0")
Max digging reach on ground	A'	8615 mm (28' 4")	9000 mm (29' 7")	9250 mm (30' 4")
Max digging depth	B	5500 mm (18' 2")	5900 mm (19' 5")	6320 mm (20' 9")
Max digging depth (8 ft level)	B'	5280 mm (17' 5")	5700 mm (18' 9")	6130 mm (20' 1")
Max vertical wall digging depth	C	4850 mm (16' 1")	5310 mm (17' 6")	5470 mm (17' 11")
Max digging height	D	9180 mm (30' 3")	9300 mm (30' 7")	9220 mm (30' 3")
Max dumping height	E	6520 mm (21' 5")	6660 mm (21' 10")	6620 mm (21' 9")
Min swing radius	F	3290 mm (10' 9")	3230 mm (10' 8")	3160 mm (10' 4")
Bucket digging force	SAE	107.9 [117.2] kN	107.9 [106] kN	107.9 [117.2] kN
		11000 [11940] kgf	11000 [10860] kgf	11000 [11940] kgf
		24250 [26330] lbf	24250 [23940] lbf	24250 [26330] lbf
	ISO	123.6 [134.2] kN	123.6 [123] kN	123.6 [134.2] kN
		12600 [13680] kgf	12600 [12550] kgf	12600 [13680] kgf
		27780 [30160] lbf	27780 [27670] lbf	27780 [30160] lbf
Arm digging force	SAE	87.2 [94.7] kN	77.3 [72] kN	69.0 [74.9] kN
		8890 [9650] kgf	7880 [7350] kgf	7030 [7630] kgf
		19600 [21280] lbf	17370 [16210] lbf	15500 [16830] lbf
	ISO	91.0 [98.8] kN	80.3 [75] kN	71.4 [77.5] kN
		9280 [10080] kgf	8190 [7650] kgf	7280 [7900] kgf
		20460 [22210] lbf	18060 [16870] lbf	16050 [17430] lbf

[] : Power boost

2) 5.1 m (16' 9") 2-PIECE BOOM



180WF2SP05

Description		2.2 m (7' 3") Arm	2.6 m (8' 6") Arm
Max digging reach	A	8760 mm (28' 9")	9110 mm (29' 11")
Max digging reach on ground	A'	8550 mm (28' 1")	8910 mm (29' 3")
Max digging depth	B	5220 mm (17' 2")	5620 mm (18' 5")
Max digging depth (8 ft level)	B'	5120 mm (16' 10")	5520 mm (18' 1")
Max vertical wall digging depth	C	4430 mm (14' 6")	4780 mm (15' 8")
Max digging height	D	9630 mm (31' 7")	9820 mm (32' 3")
Max dumping height	E	6930 mm (22' 9")	7130 mm (23' 5")
Min swing radius	F	3100 mm (10' 2")	2970 mm (9' 9")
Bucket digging force	SAE	107.9 [117.2] kN	107.9 [117.2] kN
		11000 [11940] kgf	11000 [11940] kgf
		24250 [26330] lbf	24250 [26330] lbf
	ISO	123.6 [134.2] kN	123.6 [134.2] kN
		12600 [13680] kgf	12600 [13680] kgf
		27780 [30160] lbf	27780 [30160] lbf
Arm digging force	SAE	87.2 [94.7] kN	77.3 [83.9] kN
		8890 [9650] kgf	7880 [8560] kgf
		19600 [21280] lbf	17370 [18860] lbf
	ISO	91.0 [98.8] kN	80.3 [87.2] kN
		9280 [10080] kgf	8190 [8890] kgf
		20460 [22210] lbf	18060 [19600] lbf

[] : Power boost

4. WEIGHT

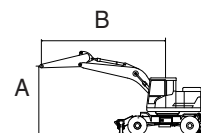
Item	HW180	
	kg	lb
Upperstructure assembly	4590	10120
Main frame weld assembly	1390	3060
Engine assembly	520	1150
Main pump assembly	90	200
Main control valve assembly	135	300
Swing motor assembly	240	530
Hydraulic oil tank assembly	150	330
Fuel tank assembly	155	340
Counterweight	3150	6940
Cab assembly	500	1100
Lower frame weld assembly	1640	3615
Swing bearing	260	570
Travel motor assembly	80	176
Turning joint	120	265
Transmission assembly	135	298
Front axle assembly	637	1404
Front wide axle assembly	655	1444
Rear axle assembly	534	1177
Rear wide axle assembly	547	1206
Front attachment assembly (5.2 m boom, 2.6 m arm, 0.76 m ³ SAE heaped bucket)	3060	6750
5.2 m boom assembly	1060	2340
2.6 m arm assembly	535	1180
0.76 m ³ SAE heaped bucket assembly	620	1370
Boom cylinder assembly	155 × 2EA	340 × 2EA
Arm cylinder assembly	180	400
Bucket cylinder assembly	125	260
Bucket control link assembly	120	265
Oscillating cylinder assembly	30	70
Dozer blade assembly	830	1830
Blade cylinder assembly	55 × 2EA	120 × 2EA
Front outrigger assembly	1000	2200
Rear outrigger assembly	1010	2230
Outrigger cylinder assembly	80	180













5. LIFTING CAPACITIES

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HW180	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5200	2200	3150	500	-	-	Down	-	-

·  : Rating over-front

·  : Rating over-side or 360 degree



Lift-point height (A)	Lift-point radius (B)										At max. reach			
	1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach	
													m (ft)	
7.5 m (24.6 ft)	kg									*2060	*2060	5.12	*2990	5.32
	lb									*4540	*4540	(16.8)	*6590	(17.4)
6.0 m (19.7 ft)	kg				*3240	*3240				*1790	*1790	6.43	*2640	6.59
	lb				*7140	*7140				*3950	*3950	(21.1)	*5820	(21.6)
4.5 m (14.8 ft)	kg		*4660	*4660	*4050	3240				*1730	*1730	7.19	*2540	7.34
	lb		*10270	*10270	*8930	7140				*3810	*3810	(23.6)	*5600	(24.1)
3.0 m (9.8 ft)	kg	*9320	9270	*5910	4880	*4570	3070	*2300	2070	*1780	*1780	7.58	2370	7.72
	lb	*20550	20440	*13030	10760	*10080	6770	*5070	4560	*3920	*3920	(24.9)	5220	(25.3)
1.5 m (4.9 ft)	kg		7030	4510	4410	2900	*3050	2010	*1940	1930	7.66	2290	7.79	
	lb		15500	9940	9720	6390	*6720	4430	*4280	4250	(25.1)	5050	(25.6)	
0.0 m (0.0 ft)	kg	*5670	*5670	6800	4320	4280	2790			*2270	2000	7.43	2350	7.57
	lb	*12500	*12500	14990	9520	9440	6150			*5000	4410	(24.4)	5180	(24.8)
-1.5 m (-4.9 ft)	kg	*9680	8400	6760	4280	4250	2760			*2910	2270	6.86	2610	7.01
	lb	*21340	18520	14900	9440	9370	6080			*6420	5000	(22.5)	5750	(23.0)
-3.0 m (-9.8 ft)	kg	*9080	8610	*6330	4370					*4390	2960	5.85	3250	6.03
	lb	*20020	18980	*13960	9630					*9680	6530	(19.2)	7170	(19.8)

Note 1. Lifting capacity are based on ISO 10567.

2. Lifting capacity of the HX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.

3. The Lift-point is bucket pivot mounting pin on the arm (without bucket mass).

4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

Lifting capacities will vary with different work tools, ground conditions and attachments.

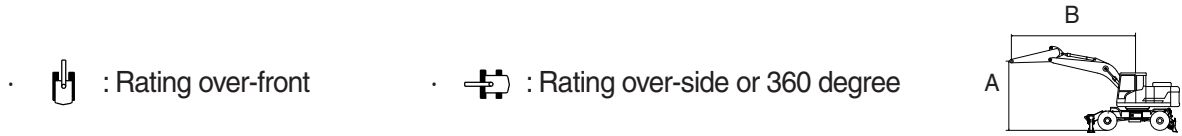
The difference between the weight of a work tool attachment must be subtracted.









Consult your Hyundai dealer regarding the lifting capacities for specific work tools and attachments.

▲ Failure to comply to the rated load can cause possible personal injury or property damage.

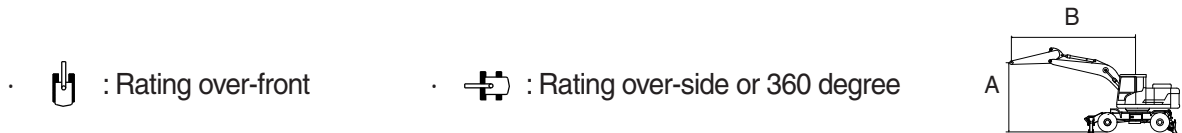
Make adjustments to the rated load as necessary for non-standard configurations.









Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HW180	MONO BOOM	5200	2200	3150	500	-	-	Up	-	-



Lift-point height (A)	Lift-point radius (B)						At max. reach			
	3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		Capacity		Reach	
									m (ft)	
7.5 m (24.6 ft)	kg						*3180	*3180	4.85	
	lb						*7010	*7010	(15.9)	
6.0 m (19.7 ft)	kg				*4030	3460	*2680	*2680	6.22	
	lb				*8880	7630	*5910	*5910	(20.4)	
4.5 m (14.8 ft)	kg		*5470	5300	*4740	3410	*2510	*2510	7.01	
	lb		*12060	11680	*10450	7520	*5530	*5530	(23.0)	
3.0 m (9.8 ft)	kg		*6730	4950	4960	3270	*2500	2370	7.41	
	lb		*14840	10910	10930	7210	*5510	5220	(24.3)	
1.5 m (4.9 ft)	kg		7450	4650	4810	3130	*2610	2280	7.49	
	lb		16420	10250	10600	6900	*5750	5030	(24.6)	
0.0 m (0.0 ft)	kg		7280	4510	4710	3040	*2880	2360	7.25	
	lb		16050	9940	10380	6700	*6350	5200	(23.8)	
-1.5 m (-4.9 ft)	kg	*9430	8420	7270	4490	4700	3030	*3430	2660	6.67
	lb	*20790	18560	16030	9900	10360	6680	*7560	5860	(21.9)
-3.0 m (-9.8 ft)	kg	*8980	8610	*6470	4600			*4630	3430	5.62
	lb	*19800	18980	*14260	10140			*10210	7560	(18.4)

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HW180	MONO BOOM	5200	2200	3150	500	-	-	Down	-	-



Lift-point height (A)	Lift-point radius (B)						At max. reach			
	3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		Capacity		Reach	
									m (ft)	
7.5 m (24.6 ft)	kg						*3180	*3180	4.85	
	lb						*7010	*7010	(15.9)	
6.0 m (19.7 ft)	kg				*4030	3650	*2680	*2680	6.22	
	lb				*8880	8050	*5910	*5910	(20.4)	
4.5 m (14.8 ft)	kg		*5470	*5470	*4740	3590	*2510	*2510	7.01	
	lb		*12060	*12060	*10450	7910	*5530	*5530	(23.0)	
3.0 m (9.8 ft)	kg		*6730	5250	4960	3450	*2500	*2500	7.41	
	lb		*14840	11570	10930	7610	*5510	*5510	(24.3)	
1.5 m (4.9 ft)	kg		7450	4940	4810	3310	*2610	2420	7.49	
	lb		16420	10890	10600	7300	*5750	5340	(24.6)	
0.0 m (0.0 ft)	kg		7280	4790	4710	3220	*2880	2500	7.25	
	lb		16050	10560	10380	7100	*6350	5510	(23.8)	
-1.5 m (-4.9 ft)	kg	*9430	9060	7270	4780	4700	3210	*3430	2810	6.67
	lb	*20790	19970	16030	10540	10360	7080	*7560	6190	(21.9)
-3.0 m (-9.8 ft)	kg	*8980	*8980	*6470	4890			*4630	3630	5.62
	lb	*19800	*19800	*14260	10780			*10210	8000	(18.4)

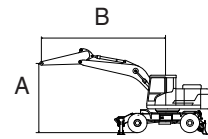
Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HW180	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5200	2600	3150	500	-	-	Up	-	-



: Rating over-front



: Rating over-side or 360 degree



Lift-point height (A)	Lift-point radius (B)										At max. reach			
	1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach	
													m (ft)	
7.5 m (24.6 ft)	kg											*2990	*2990	5.32
	lb											*6590	*6590	(17.4)
6.0 m (19.7 ft)	kg						*4230	3530				*2640	*2640	6.59
	lb						*9330	7780				*5820	*5820	(21.6)
4.5 m (14.8 ft)	kg				*5050	*5050	*4470	3460				*2540	2480	7.34
	lb				*11130	*11130	*9850	7630				*5600	5470	(24.1)
3.0 m (9.8 ft)	kg				*6360	5040	5010	3310	3540	2350		*2570	2240	7.72
	lb				*14020	11110	11050	7300	7800	5180		*5670	4940	(25.3)
1.5 m (4.9 ft)	kg				7520	4710	4840	3160	3470	2290		*2730	2160	7.79
	lb				16580	10380	10670	6970	7650	5050		*6020	4760	(25.6)
0.0 m (0.0 ft)	kg		*5200	*5200	7310	4530	4720	3050	3430	2250		*3040	2220	7.57
	lb		*11460	*11460	16120	9990	10410	6720	7560	4960		*6700	4890	(24.8)
-1.5 m (-4.9 ft)	kg	*5380	*5380	*9280	8380	7260	4490	4680	3020			*3660	2460	7.01
	lb	*11860	*11860	*20460	18470	16010	9900	10320	6660			*8070	5420	(23.0)
-3.0 m (-9.8 ft)	kg	*9680	*9680	*9840	8530	*6950	4550	*4760	3090			*4700	3070	6.03
	lb	*21340	*21340	*21690	18810	*15320	10030	*10490	6810			*10360	6770	(19.8)

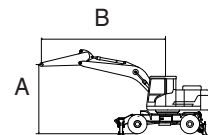
Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HW180	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5200	3100	3150	500	-	-	Up	-	-



: Rating over-front





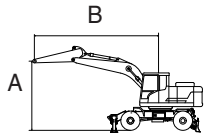
: Rating over-side or 360 degree















Lift-point height (A)	Lift-point radius (B)										At max. reach			
	1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach	
													m (ft)	
7.5 m (24.6 ft)	kg											*2380	*2380	5.95
	lb											*5250	*5250	(19.5)
6.0 m (19.7 ft)	kg						*3760	3580				*2150	*2150	7.10
	lb						*8290	7890				*4740	*4740	(23.3)
4.5 m (14.8 ft)	kg						*4080	3490	*3060	2410		*2090	*2090	7.80
	lb						*8990	7690	*6750	5310		*4610	*4610	(25.6)
3.0 m (9.8 ft)	kg		*8740	*8740	*5800	5120	*4680	3330	3540	2350		*2120	2040	8.16
	lb		*19270	*19270	*12790	11290	*10320	7340	7800	5180		*4670	4500	(26.8)
1.5 m (4.9 ft)	kg				*7150	4750	4840	3160	3460	2270		*2250	1970	8.23
	lb				*15760	10470	10670	6970	7630	5000		*4960	4340	(27.0)
0.0 m (0.0 ft)	kg		*5890	*5890	7300	4520	4700	3020	3390	2210		*2510	2010	8.02
	lb		*12990	*12990	16090	9960	10360	6660	7470	4870		*5530	4430	(26.3)
-1.5 m (-4.9 ft)	kg	*5000	*5000	*8730	8250	7200	4430	4630	2960			*2990	2200	7.49
	lb	*11020	*11020	*19250	18190	15870	9770	10210	6530			*6590	4850	(24.6)
-3.0 m (-9.8 ft)	kg	*8300	*8300	*10660	8370	7230	4460	4660	2990			*3990	2650	6.59
	lb	*18300	*18300	*23500	18450	15940	9830	10270	6590			*8800	5840	(21.6)
-4.5 m (-14.8 ft)	kg		*7860	*7860	*5360	4630						*4390	3910	5.09
	lb		*17330	*17330	*11820	10210						*9680	8620	(16.7)



Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HW180	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5200	3100	3150	500	-	-	Down	-	-

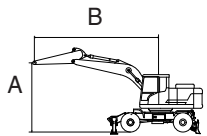
 : Rating over-front
  : Rating over-side or 360 degree











Lift-point height (A)		Lift-point radius (B)										At max. reach		
		1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach
														m (ft)
7.5 m (24.6 ft)	kg											*2380	*2380	5.95
	lb											*5250	*5250	(19.5)
6.0 m (19.7 ft)	kg						*3760	*3760				*2150	*2150	7.10
	lb						*8290	*8290				*4740	*4740	(23.3)
4.5 m (14.8 ft)	kg						*4080	3670	*3060	2540		*2090	*2090	7.80
	lb						*8990	8090	*6750	5600		*4610	*4610	(25.6)
3.0 m (9.8 ft)	kg			*8740	*8740	*5800	5420	*4680	3510	3540	2480	*2120	*2120	8.16
	lb			*19270	*19270	*12790	11950	*10320	7740	7800	5470	*4670	*4670	(26.8)
1.5 m (4.9 ft)	kg					*7150	5040	4840	3340	3460	2400	*2250	2080	8.23
	lb					*15760	11110	10670	7360	7630	5290	*4960	4590	(27.0)
0.0 m (0.0 ft)	kg			*5890	*5890	7300	4800	4700	3210	3390	2340	*2510	2130	8.02
	lb			*12990	*12990	16090	10580	10360	7080	7470	5160	*5530	4700	(26.3)
-1.5 m (-4.9 ft)	kg	*5000	*5000	*8730	*8730	7200	4710	4630	3140			*2990	2330	7.49
	lb	*11020	*11020	*19250	*19250	15870	10380	10210	6920			*6590	5140	(24.6)
-3.0 m (-9.8 ft)	kg	*8300	*8300	*10660	9010	7230	4740	4660	3170			*3990	2810	6.59
	lb	*18300	*18300	*23500	19860	15940	10450	10270	6990			*8800	6190	(21.6)
-4.5 m (-14.8 ft)	kg			*7860	*7860	*5360	4920					*4390	4150	5.09
	lb			*17330	*17330	*11820	10850					*9680	9150	(16.7)

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HW180	2-PIECE BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5100	2200	3150	500	-	-	Up	-	-

 : Rating over-front
  : Rating over-side or 360 degree

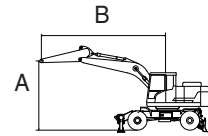










Lift-point height (A)		Lift-point radius (B)						At max. reach				
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		Capacity		Reach		
										m (ft)		
7.5 m (24.6 ft)	kg			*4820	*4820					*3860	*3860	4.73
	lb			*10630	*10630					*8510	*8510	(15.5)
6.0 m (19.7 ft)	kg			*4520	*4520	*4120	3440			*3200	*3200	6.13
	lb			*9960	*9960	*9080	7580			*7050	*7050	(20.1)
4.5 m (14.8 ft)	kg	*6850	*6850	*5220	*5220	*4580	3400			*2960	2660	6.93
	lb	*15100	*15100	*11510	*11510	*10100	7500			*6530	5860	(22.7)
3.0 m (9.8 ft)	kg			*6430	4960	5000	3260			*2920	2380	7.33
	lb			*14180	10930	11020	7190			*6440	5250	(24.1)
1.5 m (4.9 ft)	kg			7500	4640	4840	3120			*3020	2300	7.41
	lb			16530	10230	10670	6880			*6660	5070	(24.3)
0.0 m (0.0 ft)	kg			7320	4490	4740	3030			*3300	2390	7.17
	lb			16140	9900	10450	6680			*7280	5270	(23.5)
-1.5 m (-4.9 ft)	kg	*9130	8400	7320	4480	4740	3030			*3870	2710	6.58
	lb	*20130	18520	16140	9880	10450	6680			*8530	5970	(21.6)

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HW180	2-PIECE BOOM	5100	2200	3150	500	-	-	Down	-	-

·  : Rating over-front

·  : Rating over-side or 360 degree

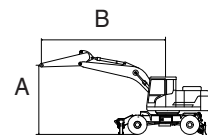












Lift-point height (A)	Lift-point radius (B)						At max. reach			
	3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		Capacity		Reach	
									m (ft)	
7.5 m (24.6 ft)	kg			*4820	*4820			*3860	*3860	4.73
	lb			*10630	*10630			*8510	*8510	(15.5)
6.0 m (19.7 ft)	kg			*4520	*4520	*4120	3630	*3200	*3200	6.13
	lb			*9960	*9960	*9080	8000	*7050	*7050	(20.1)
4.5 m (14.8 ft)	kg	*6850	*6850	*5220	*5220	*4580	3590	*2960	2810	6.93
	lb	*15100	*15100	*11510	*11510	*10100	7910	*6530	6190	(22.7)
3.0 m (9.8 ft)	kg			*6430	5260	5000	3450	*2920	2520	7.33
	lb			*14180	11600	11020	7610	*6440	5560	(24.1)
1.5 m (4.9 ft)	kg			7500	4940	4840	3300	*3020	2440	7.41
	lb			16530	10890	10670	7280	*6660	5380	(24.3)
0.0 m (0.0 ft)	kg			7320	4780	4740	3210	*3300	2530	7.17
	lb			16140	10540	10450	7080	*7280	5580	(23.5)
-1.5 m (-4.9 ft)	kg	*9130	9060	7320	4770	4740	3210	*3870	2870	6.58
	lb	*20130	19970	16140	10520	10450	7080	*8530	6330	(21.6)

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HW180	2-PIECE BOOM	5100	2600	3150	500	-	-	Up	-	-

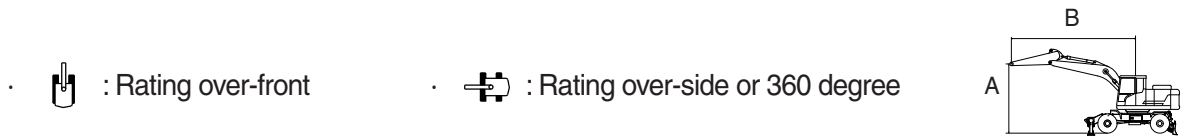
·  : Rating over-front











·  : Rating over-side or 360 degree



Lift-point height (A)	Lift-point radius (B)								At max. reach			
	3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach	
											m (ft)	
7.5 m (24.6 ft)	kg			*4190	*4190					*3450	*3450	5.24
	lb			*9240	*9240					*7610	*7610	(17.2)
6.0 m (19.7 ft)	kg					*4110	3530			*3000	*3000	6.53
	lb					*9060	7780			*6610	*6610	(21.4)
4.5 m (14.8 ft)	kg			*4820	*4820	*4310	3460			*2850	2490	7.28
	lb			*10630	*10630	*9500	7630			*6280	5490	(23.9)
3.0 m (9.8 ft)	kg			*6060	5060	*4830	3310	3550	2330	*2850	2250	7.67
	lb			*13360	11160	*10650	7300	7830	5140	*6280	4960	(25.2)
1.5 m (4.9 ft)	kg			*7280	4710	4870	3150	3490	2270	*2990	2170	7.74
	lb			*16050	10380	10740	6940	7690	5000	*6590	4780	(25.4)
0.0 m (0.0 ft)	kg	*4760	*4760	7350	4510	4750	3040	*3430	2240	*3300	2230	7.51
	lb	*10490	*10490	16200	9940	10470	6700	*7560	4940	*7280	4920	(24.6)
-1.5 m (-4.9 ft)	kg	*8980	8350	7300	4470	4710	3010			3850	2490	6.95
	lb	*19800	18410	16090	9850	10380	6640			8490	5490	(22.8)
-3.0 m (-9.8 ft)	kg			*7020	4550							
	lb			*15480	10030							

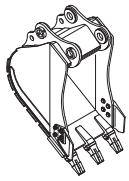
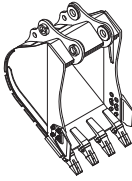
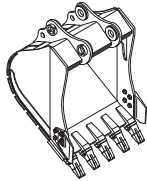
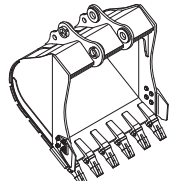
Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HW180	2-PIECE BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5100	2600	3150	500	-	-	Down	-	-



Lift-point height (A)		Lift-point radius (B)								At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach
												m (ft)
7.5 m (24.6 ft)	kg lb			*4190 *9240	*4190 *9240					*3450 *7610	*3450 *7610	5.24 (17.2)
6.0 m (19.7 ft)	kg lb					*4110 *9060	3530 7780			*3000 *6610	*3000 *6610	6.53 (21.4)
4.5 m (14.8 ft)	kg lb			*4820 *10630	*4820 *10630	*4310 *9500	3460 7630			*2850 *6280	2490 5490	7.28 (23.9)
3.0 m (9.8 ft)	kg lb			*6060 *13360	5060 11160	*4830 *10650	3310 7300	3550 7830	2330 5140	*2850 *6280	2250 4960	7.67 (25.2)
1.5 m (4.9 ft)	kg lb			*7280 *16050	4710 10380	4870 10740	3150 6940	3490 7690	2270 5000	*2990 *6590	2170 4780	7.74 (25.4)
0.0 m (0.0 ft)	kg lb	*4760 *10490	*4760 *10490	7350 16200	4510 9940	4750 10470	3040 6700	*3430 *7560	2240 4940	*3300 *7280	2230 4920	7.51 (24.6)
-1.5 m (-4.9 ft)	kg lb	*8980 *19800	8350 18410	7300 16090	4470 9850	4710 10380	3010 6640			3850 8490	2490 5490	6.95 (22.8)
-3.0 m (-9.8 ft)	kg lb			*7020 *15480	4550 10030							

6. BUCKET SELECTION GUIDE

1) GENERAL BUCKET

			
0.39 m ³ SAE heaped bucket	0.50 m ³ SAE heaped bucket	0.64, 0.70, 0.76 m ³ SAE heaped bucket	0.89, 1.05 m ³ SAE heaped bucket

Capacity		Width		Weight	Recommendation				
					5.2 m (17' 1") Mono boom			5.1 m (16' 9") 2-piece boom	
SAE heaped	CECE heaped	Without side cutter	With side cutter		2.2 m arm (7' 3")	2.6 m arm (8' 6")	3.1 m arm (10' 2")	2.2 m arm (7' 3")	2.6 m arm (8' 6")
0.39 m ³ (0.51 yd ³)	0.34 m ³ (0.44 yd ³)	650 mm (25.6")	740 mm (29.1")	410 kg (900 lb)	●	●	●	●	●
0.50 m ³ (0.65 yd ³)	0.44 m ³ (0.58 yd ³)	790 mm (31.1")	880 mm (34.6")	470 kg (1040 lb)	●	●	●	●	●
0.64 m ³ (0.84 yd ³)	0.55 m ³ (0.72 yd ³)	950 mm (37.4")	1040 mm (40.9")	510 kg (1120 lb)	◉	◉	○	◉	◉
0.70 m ³ (0.92 yd ³)	0.60 m ³ (0.78 yd ³)	1020 mm (40.2")	1110 mm (43.7")	600 kg (1320 lb)	◉	◉	○	◉	○
0.76 m ³ (0.99 yd ³)	0.65 m ³ (0.85 yd ³)	1090 mm (42.9")	1180 mm (46.5")	620 kg (1370 lb)	◉	○	○	◉	○
0.89 m ³ (1.16 yd ³)	0.77 m ³ (1.01 yd ³)	1250 mm (49.2")	1340 mm (52.8")	610 kg (1340 lb)	○	○		○	○
1.05 m ³ (1.37 yd ³)	0.90 m ³ (1.18 yd ³)	1430 mm (56.3")	1520 mm (59.8")	680 kg (1500 lb)	○			○	

● Applicable for materials with density of 2000 kg/m³ (3370 lb/yd³) or less

◉ Applicable for materials with density of 1600 kg/m³ (2700 lb/yd³) or less

○ Applicable for materials with density of 1100 kg/m³ (1850 lb/yd³) or less

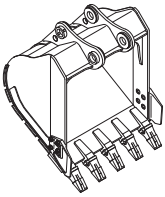
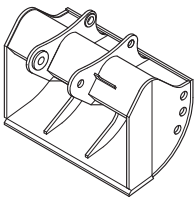
※ These recommendations are for general conditions and average use.

Work tools and ground conditions have effects on machine performance.

Select an optimum combination according to the working conditions and the type of work that is being done.

Consult your Hyundai dealer for information on selecting the correct boom-arm-bucket combination.

2) SPECIAL BUCKET

<p>Heavy duty bucket</p> 	<p>Ditch cleaning bucket</p> 
<p>⊙ 0.69 m³, 0.72 m³, 0.87 m³ SAE heaped bucket</p>	<p>★ 0.75 m³ SAE heaped bucket</p>

Capacity		Width		Weight	Recommendation				
					5.2 m (17' 1") Mono boom			5.1 m (16' 9") 2-piece boom	
SAE heaped	CECE heaped	Without side cutter	With side cutter		2.2 m arm (7' 3")	2.6 m arm (8' 6")	3.1 m arm (10' 2")	2.2 m arm (7' 3")	2.6 m arm (8' 6")
⊙ 0.69 m ³ (0.90 yd ³)	0.62 m ³ (0.81 yd ³)	1050 mm (41.3")	-	720 kg (1590 lb)	●	○	○	●	○
⊙ 0.72 m ³ (0.94 yd ³)	0.65 m ³ (0.85 yd ³)	940 mm (37.0")	985 mm (38.8")	640 kg (1410 lb)	●	○	○	●	○
⊙ 0.87 m ³ (1.18 yd ³)	0.78 m ³ (1.02 yd ³)	1090 mm (42.9")	1140 mm (44.9")	680 kg (1500 lb)	○	○		○	○
★ 0.75 m ³ (0.98 yd ³)	0.65 m ³ (0.85 yd ³)	1820 mm (71.7")	-	540 kg (1190 lb)	●	●	●	●	○

⊙ : Heavy duty bucket

★ : Ditch cleaning bucket

● Applicable for materials with density of 2000 kg/m³ (3370 lb/yd³) or less

○ Applicable for materials with density of 1600 kg/m³ (2700 lb/yd³) or less

○ Applicable for materials with density of 1100 kg/m³ (1850 lb/yd³) or less

7. SPECIFICATIONS FOR MAJOR COMPONENTS

1) ENGINE

Item	Specification
Model	Cummins QSB 6.7
Type	4-cycle turbocharged diesel engine, low emission
Cooling method	Water cooling
Number of cylinders and arrangement	6 cylinders, in-line
Firing order	1-5-3-6-2-4
Combustion chamber type	Direct injection type
Cylinder bore × stroke	107 × 124 mm (4.2" × 4.9")
Piston displacement	6700 cc (409 cu in)
Compression ratio	17.3 : 1
Rated net horse power (SAE J1349)	171 Hp (127 kW) at 1800 rpm
Rated gross horse power (SAE J1995)	180 Hp (134 kW) at 1800 rpm
Maximum torque	85.7 kgf · m (620 lbf · ft) at 1500 rpm
Engine oil quantity	23.7 ℓ (6.3 U.S. gal)
Dry weight	520 kg (1150 lb)
High idling speed	2200 ± 50 rpm
Low idling speed	850 ± 100 rpm
Rated fuel consumption	163.0 g/Hp · hr at 2200 rpm
Starting motor	Nippon denso (24 V - 4.8 kW)
Alternator	Nippon denso (24 V - 95 A)
Battery	2 × 12 V × 100 Ah

2) MAIN PUMP

Item	Specification
Type	Variable displacement tandem axis piston pumps
Capacity	2 × 80 cc/rev
Maximum pressure	350 kgf/cm ² (4980 psi) [380 kgf/cm ² (5400 psi)]
Rated oil flow	2 × 172 ℓ /min (45.4 U.S. gpm / 37.8 U.K. gpm)
Rated speed	2200 rpm

[]: Power boost

3) GEAR PUMP

Item	Specification
Type	Fixed displacement gear pump single stage
Capacity	15cc/rev
Maximum pressure	40 kgf/cm ² (570 psi)
Rated oil flow	33.0 ℓ /min (8.7 U.S. gpm/7.3 U.K. gpm)

4) MAIN CONTROL VALVE

Item	Specification
Type	11 spools two-block
Operating method	Hydraulic pilot system
Main relief valve pressure	350 kgf/cm ² (4980 psi) [380 kgf/cm ² (5400 psi)]
Overload relief valve pressure	400 kgf/cm ² (5690 psi)

[]: Power boost

5) SWING MOTOR

Item	Specification	
	Type 1	Type 2
Type	Fixed displacement axial piston motor	
Capacity	117.8 cc/rev	142.8 cc/rev
Relief pressure	285 kgf/cm ² (4054 psi)	
Braking system	Automatic, spring applied hydraulic released	
Braking torque	59 kgf · m (427 lbf · ft)	66.5 kgf · m (481 lbf · ft)
Brake release pressure	33~50 kgf/cm ² (469~711 psi)	22.3~36.6 kgf/cm ² (317~521 psi)
Reduction gear type	2 - stage planetary	

6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement bent-axis axial piston motor
Relief pressure	380 kgf/cm ² (5400 psi)
Counter balance valve	Applied
Capacity (max/min)	140 cc/rev

7) POWER TRAIN

Item	Description	Specification	
Transmission	Type	2 speed power shift transmission	
	Gear ratio	1st	4.87
		2nd	1.20
	Clutch pressure	30~32 kgf/cm ² (427~455 psi)	
Parking brake	Type	Multi disc brake integrated in transmission	
	Maximum braking torque	3044 kgf · m (22020 lbf · ft)	
Axle / Wide axle	Type	4 wheel drive with differential	
	Gear ratio	16.0	
	Brake	Multi disc brake	
	Brake pressure	61.2 kgf/cm ² (870 psi)	
	Steering pressure	204 kgf/cm ² (2900 psi)	

8) CYLINDER

Item	Specification	
Boom cylinder	Bore dia × Rod dia × Stroke	∅115 × 1090mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	∅120 × 1355mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	∅110 × 995mm
	Cushion	Extend only
Dozer cylinder	Bore dia × Rod dia × Stroke	∅110 × 235mm
	Cushion	-
Outrigger cylinder	Bore dia × Rod dia × Stroke	∅125 × 463mm
	Cushion	-
Adjust cylinder	Bore dia × Rod dia × Stroke	∅160 × ∅95 × 650mm
	Cushion	-
2-piece boom cylinder	Bore dia × Rod dia × Stroke	∅115 × ∅80 × 960mm
	Cushion	Extend only

※ Discoloration of cylinder rod can occur when the friction reduction additive of lubrication oil spreads on the rod surface.

※ Discoloration does not cause any harmful effect on the cylinder performance.

9) BUCKET

Item	Capacity		Tooth quantity	Width	
	SAE heaped	CECE heaped		Without side cutter	With side cutter
HW180	0.76 m ³ (0.99 yd ³)	0.65 m ³ (0.85 yd ³)	5	1090 mm (42.9")	1180 mm (46.5")
	0.39 m ³ (0.51 yd ³)	0.34 m ³ (0.44 yd ³)	3	650 mm (25.6")	740 mm (29.1")
	0.50 m ³ (0.65 yd ³)	0.44 m ³ (0.58 yd ³)	4	790 mm (31.1")	880 mm (34.6")
	0.64 m ³ (0.84 yd ³)	0.55 m ³ (0.72 yd ³)	5	950 mm (37.4")	1040 mm (40.9")
	0.70 m ³ (0.92 yd ³)	0.60 m ³ (0.78 yd ³)	5	1020 mm (40.2")	1110 mm (43.7")
	0.89 m ³ (1.16 yd ³)	0.77 m ³ (1.01 yd ³)	6	1250 mm (49.2")	1340 mm (52.8")
	1.05 m ³ (1.37 yd ³)	0.90 m ³ (1.18 yd ³)	6	1430 mm (56.3")	1520 mm (59.8")
	◆ 0.69 m ³ (0.90 yd ³)	0.62 m ³ (0.81 yd ³)	5	1050 mm (41.3")	-
	★ 0.75 m ³ (0.98 yd ³)	0.65 m ³ (0.85 yd ³)	-	1820 mm (71.7")	-

◆ : Heavy duty bucket ★ : Ditch cleaning bucket

8. RECOMMENDED OILS

HYUNDAI genuine lubricating oils have been developed to offer the best performance and service life for your equipment. These oils have been tested according to the specifications of HYUNDAI and, therefore, will meet the highest safety and quality requirements.

We recommend that you use only HYUNDAI genuine lubricating oils and grease officially approved by HYUNDAI.

Service point	Kind of fluid	Capacity ℓ (U.S. gal)	Ambient temperature °C (°F)								
			-50 (-58)	-30 (-22)	-20 (-4)	-10 (14)	0 (32)	10 (50)	20 (68)	30 (86)	40 (104)
Engine oil pan	Engine oil	23.7 (6.3)	*SAE 5W-40			SAE 30					
Transmission case			2.5 (0.7)	SAE 10W			SAE 10W-30				
				SAE 15W-40							
DEF/ AdBlue® tank	Mixture of urea and deionized water	27.0 (7.1)	ISO 22241, High-purity urea + deionized water (32.5:67.5)								
Swing drive	Gear oil	See page 6-37	*SAE 75W-90			SAE 80W-90					
Front axle			Gear oil	Center : 10.5 (2.8) Hub : 2.5×2 (0.7×2)	SAE 85W-90 LSD or UTTO						
Rear axle		Center : 12.5 (3.3) Hub : 2.5×2 (0.7×2)									
Front wide axle	Gear oil	Center : 11.6 (3.06) Hub : 2.5×2 (0.7×2)	SAE 85W-90 LSD or UTTO								
Rear wide axle				Center : 14.0 (3.70) Hub : 2.5×2 (0.7×2)							
Hydraulic tank	Hydraulic oil	Tank: 125 (33.0) System: 270 (71.3)	*ISO VG 15			ISO VG 32					
			ISO VG 46, HBHO VG 46* ³			ISO VG 68					
Fuel tank	Diesel fuel* ¹	290 (76.6)	*ASTM D975 NO.1			ASTM D975 NO.2					
Fitting (Grease nipple)	Grease	As required	*NLGI NO.1			NLGI NO.2					
Radiator (Reservoir tank)			Mixture of antifreeze and soft water* ²	19.5 (5.2)	Ethylene glycol base permanent type (50 : 50)						
					*Ethylene glycol base permanent type (60 : 40)						

SAE : Society of Automotive Engineers

API : American Petroleum Institute

ISO : International Organization for Standardization

NLGI : National Lubricating Grease Institute

ASTM : American Society of Testing and Material

UTTO : Universal Tractor Transmission Oil

DEF : Diesel Exhaust Fluid, DEF compatible with AdBlue®

* : Cold region

Russia, CIS, Mongolia

*¹ : Ultra low sulfur diesel

- sulfur content ≤ 15 ppm

*² : Soft water

City water or distilled water

*³ : Hyundai Bio Hydraulic Oil

- For more information, contact HYUNDAI dealers.

※ Using any lubricating oils other than HYUNDAI genuine products may lead to a deterioration of performance and cause damage to major components.

※ Do not mix HYUNDAI genuine oil with any other lubricating oil as it may result in damage to the systems of major components.

※ Do not use any engine oil other than that specified above, as it may clog the diesel particulate filter(DPF).

※ For HYUNDAI genuine lubricating oils and grease for use in regions with extremely low temperatures, please contact HYUNDAI dealers.