

SECTION 1 GENERAL



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## SECTION 1 GENERAL

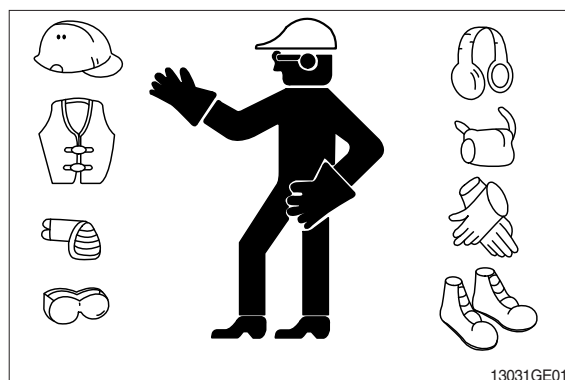
### GROUP 1 SAFETY

#### FOLLOW SAFE PROCEDURE

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

#### WEAR PROTECTIVE CLOTHING

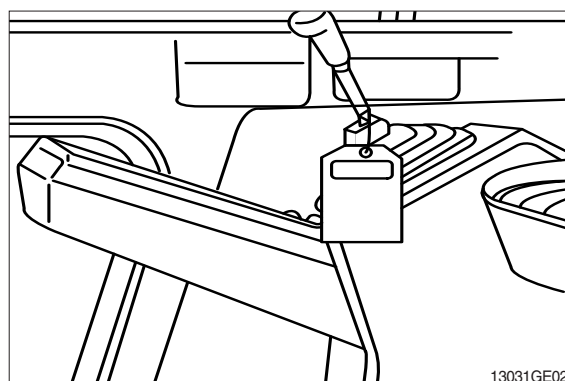
Wear close fitting clothing and safety equipment appropriate to the job.



#### 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.



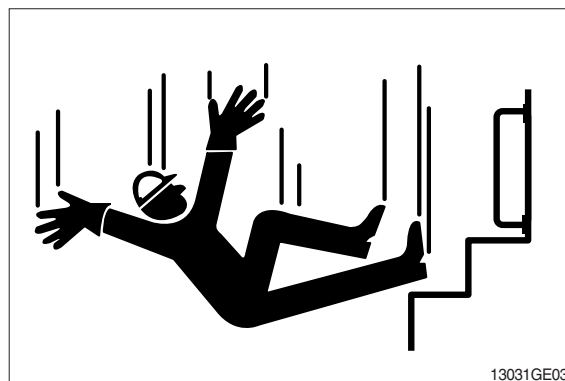
#### USE HANDHOLDS AND STEPS

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.

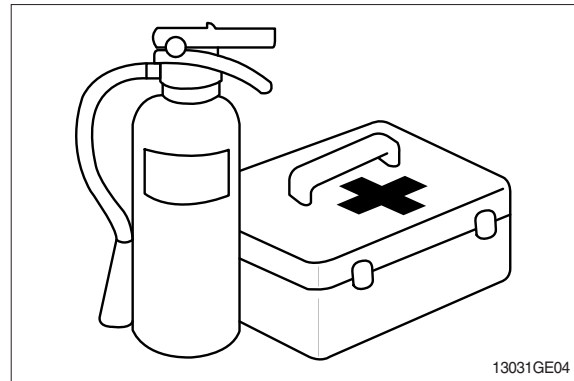


## PREPARE FOR EMERGENCIES

Be prepared if a fire starts.

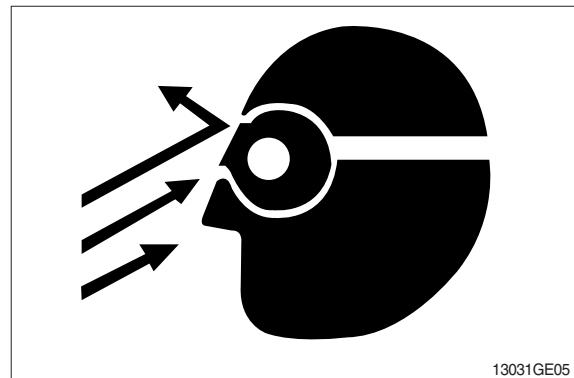
Keep a first aid kit and fire extinguisher handy.

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



## PROTECT AGAINST FLYING DEBRIS

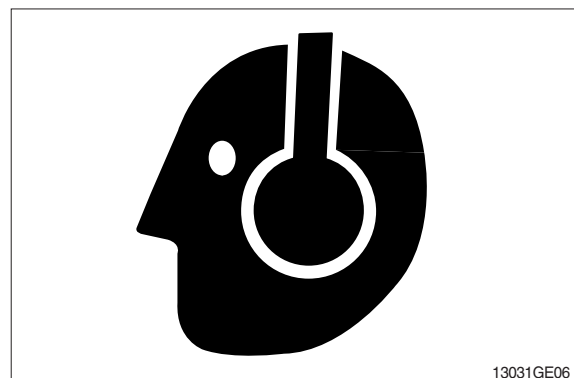
Guard against injury from flying pieces of metal or debris; wear goggles or safety glasses.



## PROTECT AGAINST NOISE

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

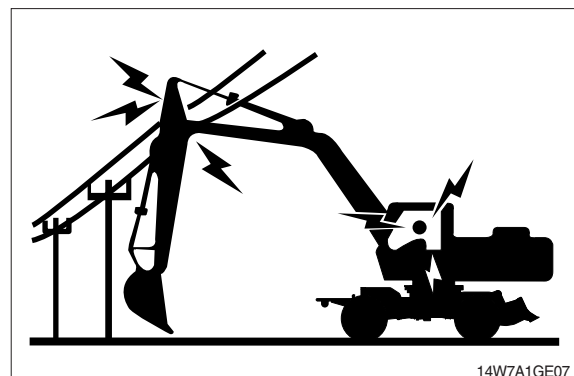
Wear a suitable hearing protective device such as ear-muffs or earplugs to protect against objectionable or uncomfortable loud noises.



## AVOID POWER LINES

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

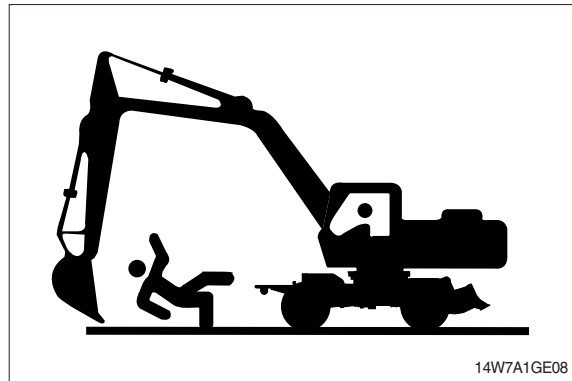
Never move any part of the machine or load closer to electric line than 3 m (10 ft) plus twice the line insulator length.



## 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.

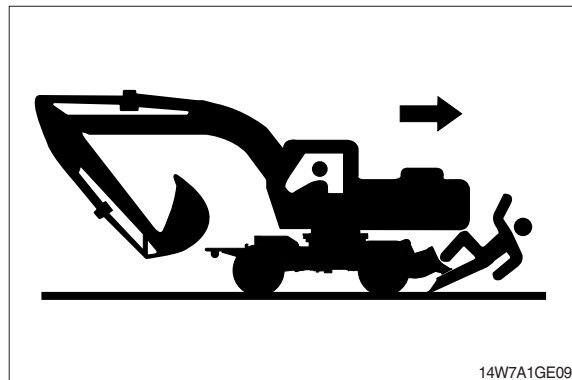


## MOVE AND OPERATE MACHINE SAFELY

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:

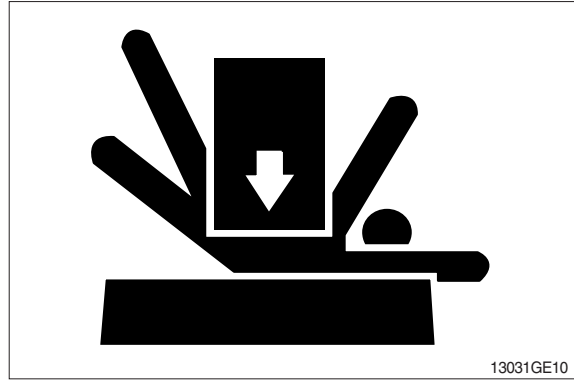
- Park machine on a level surface.
- Lower bucket to the ground.
- Turn auto idle switch off.
- Run engine at 1/2 speed without load for 2 minutes.
- Turn key switch to OFF to stop engine.  
Remove key from switch.
- Move pilot control shutoff lever to locked position.
- Allow engine to cool.

### **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.

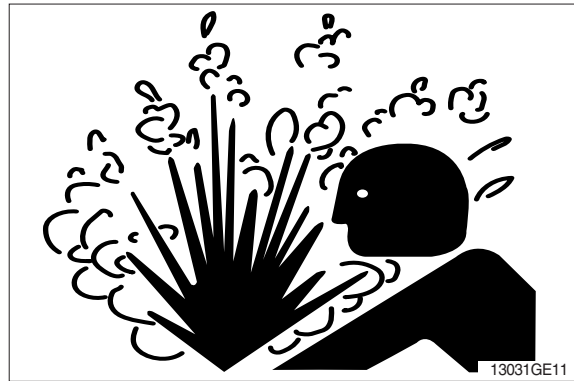
Do not work under a machine that is supported solely by a jack. Follow recommended procedures in this manual.



### **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

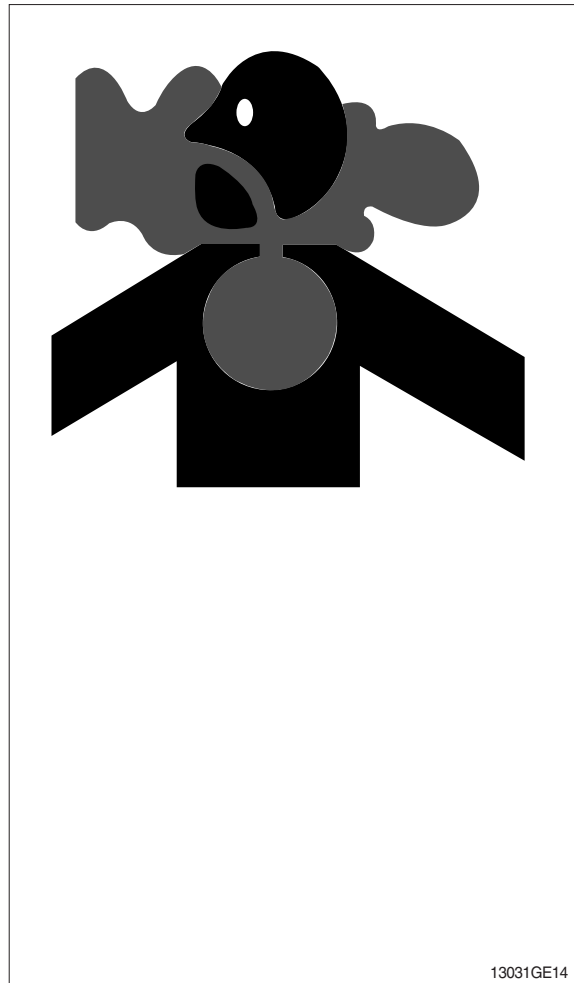
Avoid potentially toxic fumes and dust.

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

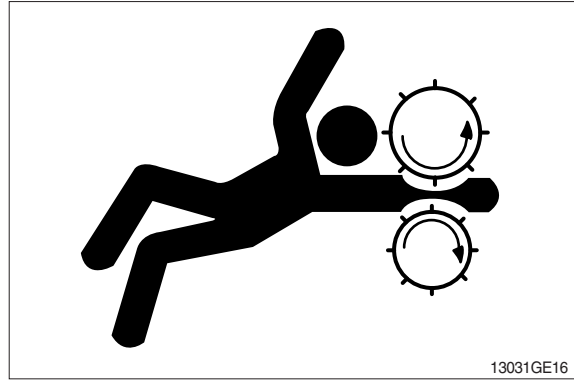
Illuminate your work area adequately but safely. Use a portable safety light for working inside or under the machine. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.



## 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.

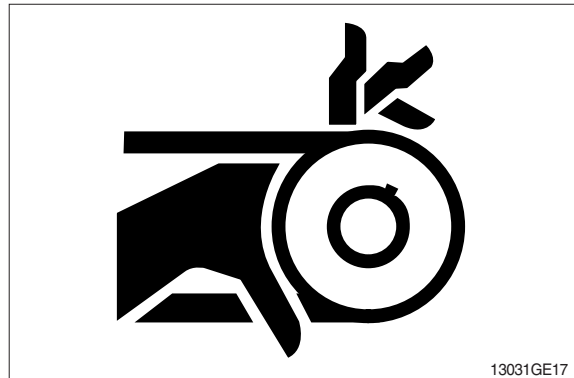
Remove rings and other jewelry to prevent electrical shorts and entanglement in moving parts.



## STAY CLEAR OF MOVING PARTS

Entanglements in moving parts can cause serious injury.

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



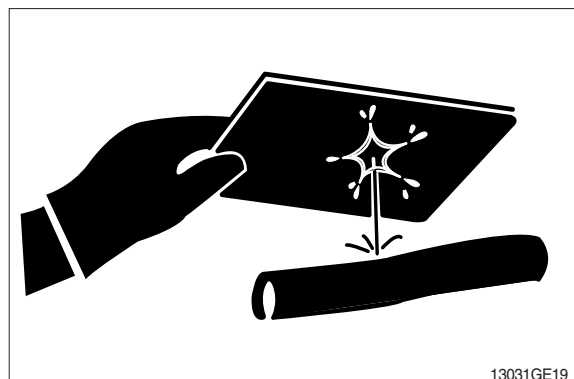
## AVOID HIGH PRESSURE FLUIDS

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:

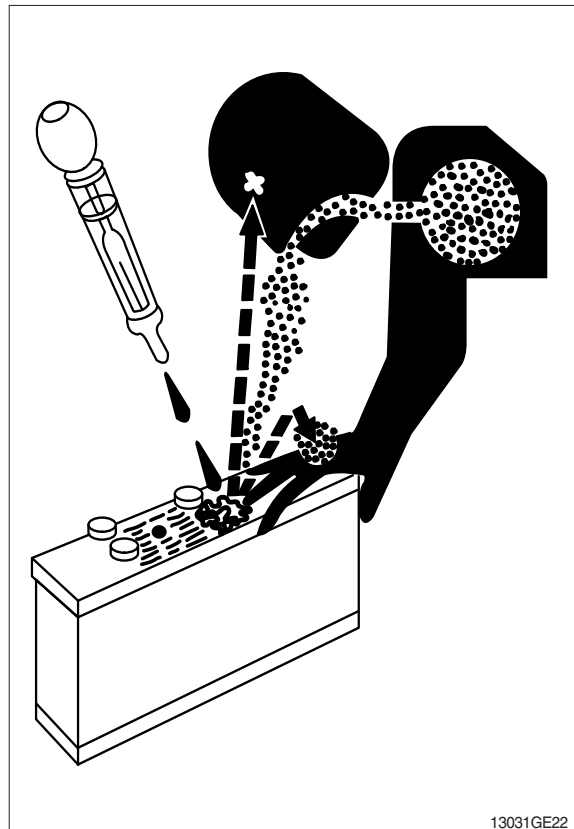
1. Filling batteries in a well-ventilated area.
2. Wearing eye protection and rubber gloves.
3. Avoiding breathing fumes when electrolyte is added.
4. Avoiding spilling or dripping electrolyte.
5. Use proper jump start procedure.

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.





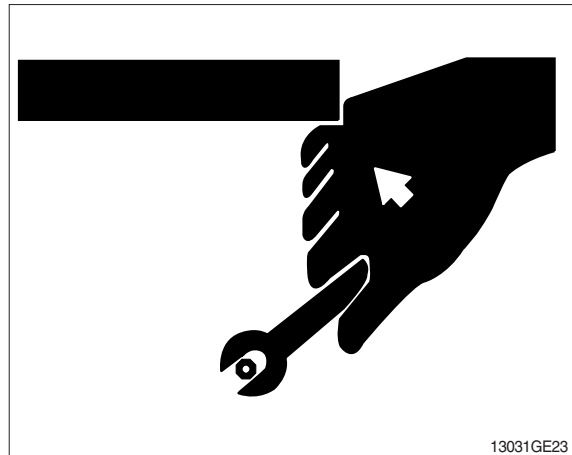
## USE TOOLS PROPERLY

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.)

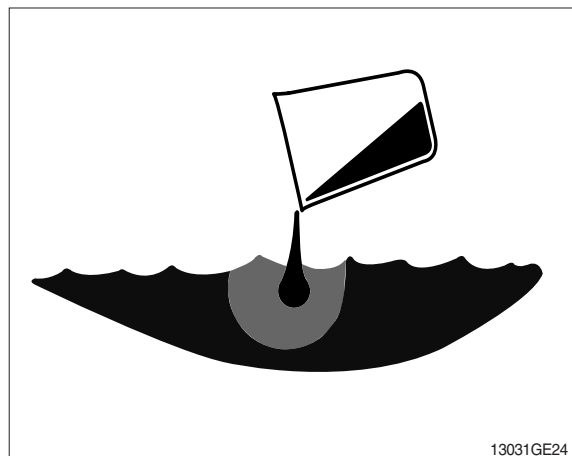


## DISPOSE OF FLUIDS PROPERLY

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.

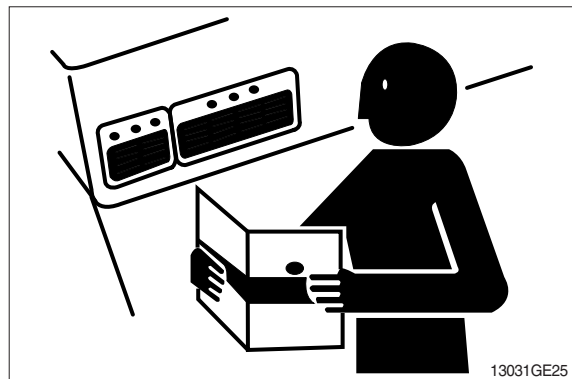
Use proper containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.

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.

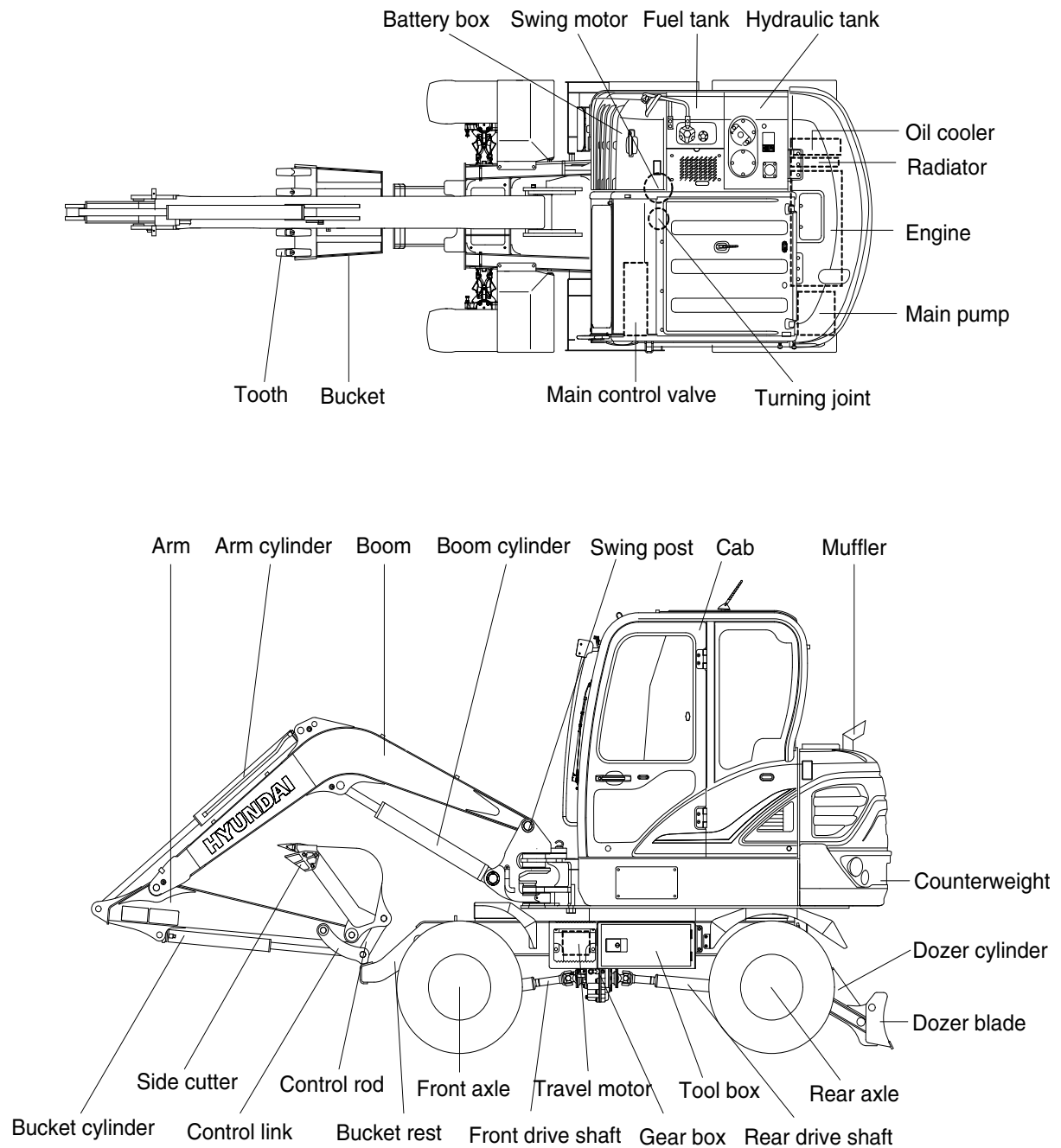


## LIVE WITH SAFETY

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

## GROUP 2 SPECIFICATIONS

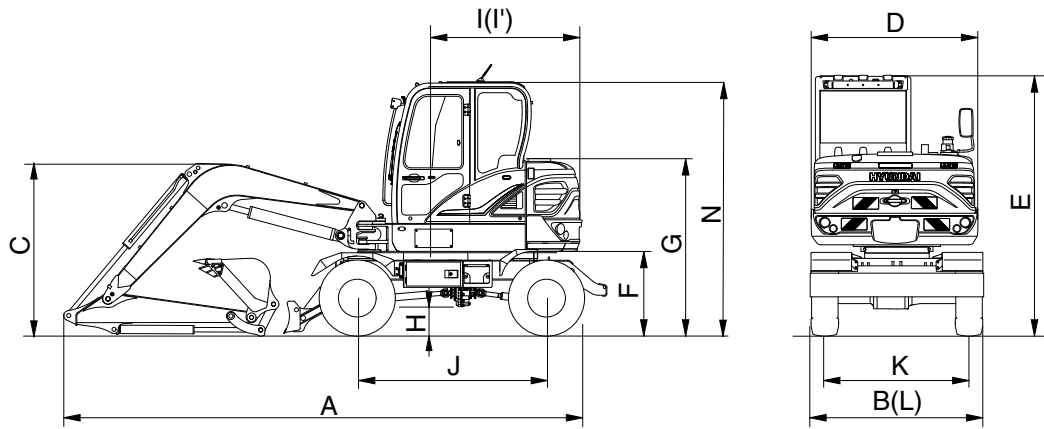
### 1. MAJOR COMPONENT



HW602SP01A

## 2. SPECIFICATIONS

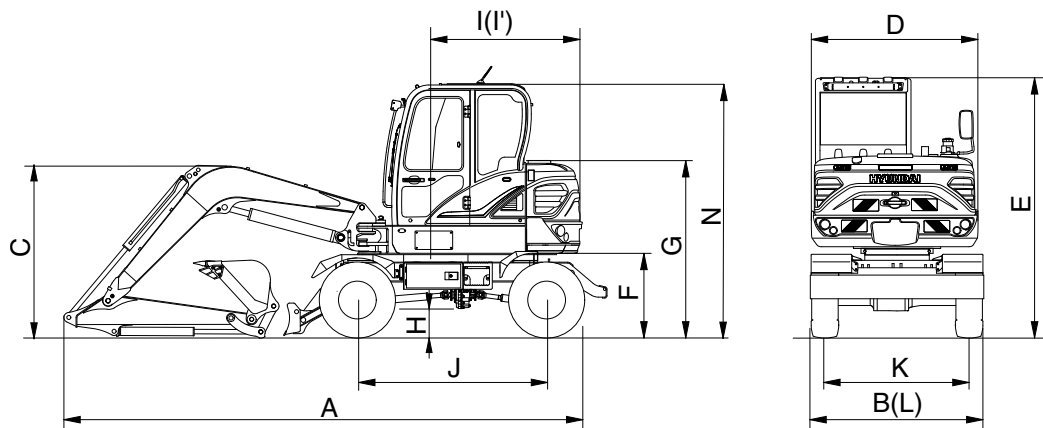
### 1) 3.0 m (9'10") MONO BOOM, 1.6 m (5' 3") ARM WITH BOOM SWING SYSTEM



HW65AH2SP02

Description		Unit		Specification	
		m (ft-in)	Boom	3.0 ( 9' 10")	
			Arm	1.60 ( 5' 3")	
		Tire		Single 1200	Double 700
Axle		STD	HD		
Operating weight		kg (lb)	6065 (13370)	6355 (14010)	
Overall length (travel)	A	mm (ft-in)	6200 (20' 4")	6200 (20' 4")	
Overall length (shipping)			6055 (19' 1")	6055 (19' 1")	
Overall width	B		1925 ( 6' 4")	2100 (6' 11")	
Overall height of boom (travel)	C		2800 ( 9' 2")	2800 ( 9' 2")	
Overall height of boom (shipping)			2280 ( 7' 6")	2280 ( 7' 6")	
Upperstructure width	D		1850 ( 6' 1")	1850 ( 6' 1")	
Overall height of cab	E		2905 ( 9' 6")	2865 ( 9' 5")	
Ground clearance of counterweight	F		1000 ( 3' 3")	960 ( 3' 2")	
Overall height of engine hood	G		2005 ( 6' 7")	1965 ( 6' 5")	
Minimum ground clearance	H		315 ( 1. 0")	275 ( 0.11")	
Rear-end distance	I		1650 ( 5' 5")	1653 ( 5' 5")	
Rear-end swing radius	I'		1650 ( 5' 5")	1650 ( 5' 5")	
Wheel base	J		2100 ( 6' 11")	2100 ( 6' 11")	
Tread	K		1600 ( 5' 3")	1660 ( 5' 5")	
Dozer blade width	L		1925 ( 6' 4")	2100 ( 6' 11")	
Height of blade	O		350 ( 1' 2")	350 ( 1' 2")	
Ground clearance of blade up	P		430 ( 1' 5")	430 ( 1' 5")	
Depth of blade down	Q		154 ( 0' 6")	154 ( 0' 6")	
Travel speed	Low	km/hr (mph)	11 ( 6.8 )	13.1 (8.1)	
	High		32 ( 19.9)	30 (18.6)	
Swing speed		rpm	8.26	8.26	
Gradeability		Degree (%)	30 (58)	30 (58)	
Max traction force		kg (lb)	3042 (6710)	3042 (6710)	

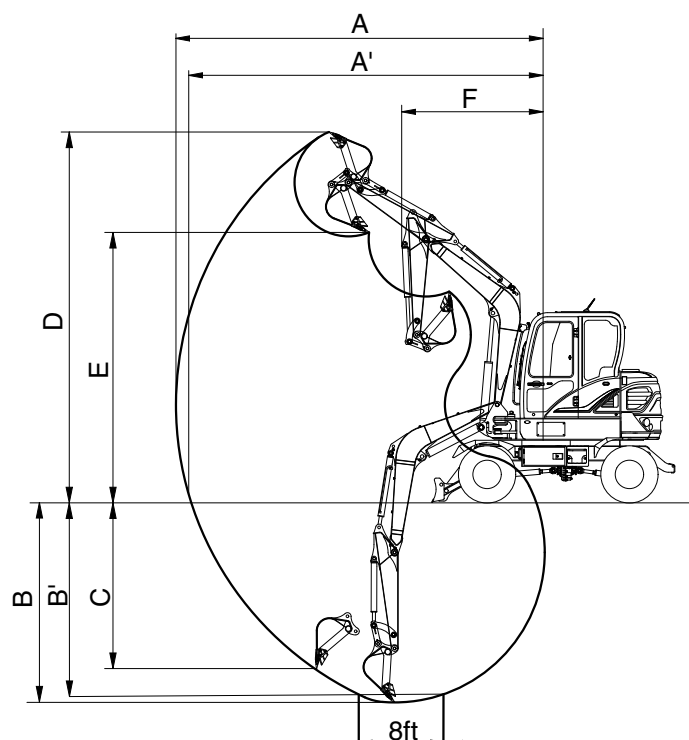
## 2) 3.0 m (9'10") MONO BOOM, 1.9 m (6' 3") ARM WITH BOOM SWING SYSTEM



Description		Unit		Specification		
		m (ft-in)	Boom	3.0 ( 9' 10")		
			Arm	1.90 ( 6' 3")		
		Tire		Single 1200	Double 700	
		Axle		STD	HD	
Operating weight		kg (lb)		6195 (13660)	6485 (14300)	
Overall length (travel)	A	mm (ft-in)		6060 (19' 11")	6060 (19' 11")	
Overall length (shipping)				6123 ( 20' 10")	6123 ( 20' 10")	
Overall width	B			1925 ( 6' 4")	2100 ( 6' 11")	
Overall height of boom (travel)	C			3070 ( 10' 1")	3070 ( 10' 1")	
Overall height of boom (shipping)				2590 ( 8' 6")	2590 ( 8' 6")	
Upperstructure width	D			1850 ( 6' 1")	1850 ( 6' 1")	
Overall height of cab	E			2905 ( 9' 6")	2865 ( 9' 5")	
Ground clearance of counterweight	F			1000 ( 3' 3")	960 ( 3' 2")	
Overall height of engine hood	G			2005 ( 6' 7")	1965 ( 6' 5")	
Minimum ground clearance	H			315 ( 1.0")	275 ( 0.11")	
Rear-end distance	I			1675 ( 5' 6")	1675 ( 5' 6")	
Rear-end swing radius	I'			1680 ( 5' 6")	1680 ( 5' 6")	
Wheel base	J			2100 ( 6' 11")	2100 ( 6' 11")	
Tread	K			1600 ( 5' 3")	1660 ( 5' 5")	
Dozer blade width	L			1925 ( 6' 4")	2100 ( 6' 11")	
Height of blade	O			350 ( 1' 2")	350 ( 1' 2")	
Ground clearance of blade up	P			430 ( 1' 5")	430 ( 1' 5")	
Depth of blade down	Q			154 ( 0' 6")	154 ( 0' 6")	
Travel speed	Low	km/hr (mph)	11 (6.8)	13.1 (8.1)		
	High		32 (19.9)	30 (18.6)		
Swing speed		rpm	8.26	8.26		
Gradeability		Degree (%)	30 (58)	30 (58)		
Max traction force		kg (lb)	3042 (6710)	3042 (6710)		

### 3. WORKING RANGE

#### 1) 3.0 m (9'10") MONO BOOM WITH BOOM SWING SYSTEM



HW65AH2SP03

Description	m (ft-in)	Boom	3.0 m (9' 10")	
		Arm	1.6 m (5' 3")	1.9 m (6' 3")
Max digging reach	mm (ft-in)	A	6150 mm (20' 2")	6450 mm (21' 2")
Max digging reach on ground		A'	5950 mm (19' 6")	6250 mm (20' 6")
Max digging depth		B	3490 mm (11' 5")	3790 mm (12' 5")
Max digging depth (8 ft level)		B'	3100 mm (10' 2")	3440 mm (11' 3")
Max vertical wall digging depth		C	3950 mm (13' 0")	3320 mm (10' 11")
Max digging height		D	6045 mm (19' 1")	6260 mm (20' 6")
Max dumping height		E	4290 mm (14' 1")	4490 mm (14' 1")
Min swing radius		F	2380 mm (7' 10")	2410 mm (7' 11")
Bucket digging force	kN	SAE	36.9 [40.2]	36.9 [40.2]
	kgf		3763 [4100]	3763 [4100]
	lbf		8295 [9039]	8290 [9039]
	kN	ISO	42.1 [45.9]	42.1 [45.9]
	kgf		4292 [4680]	4290 [4680]
	lbf		9461 [10318]	9462 [10318]
Arm crowd force	kN	SAE	27.3 [29.7]	24.3 [26.5]
	kgf		2779 [3030]	2476 [2476]
	lbf		6126 [6680]	5459 [5459]
	kN	ISO	28.3 [30.9]	25.1 [27.4]
	kgf		2886 [3150]	2561 [2790]
	lbf		6335 [6945]	5646 [6151]

#### 4. WEIGHT

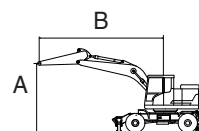
Item	HW65AH	
	kg	lb
Upperstructure assembly		
Main frame weld assembly	764	1684
Engine assembly	264	582
Aftertreatment assy	11	25
Main pump assembly	35	77
Main control valve assembly	50	110
Swing motor assembly	76	168
Hydraulic oil tank assembly	95	208
Hydraulic oil (max)	61	135
Fuel tank assembly	67	148
Fuel oil (max)	106	233
Counterweight (STD)	210	463
Counterweight (Heavy)	330	728
Cab assembly	350	772
Lower chassis assembly		
Lower frame weld assembly (single tire)	753	1660
Lower frame weld assembly (double tire)	769	1695
Swing bearing	102	225
Travel motor assembly	43	95
Turning joint	60	132
Transmission assembly	100	220
Front axle assembly	280	617
Rear axle assembly	240	529
Dozer blade assembly (single tire)	230	507
Dozer blade assembly (double tire)	242	534
Front attachment assembly		
3.0 m boom assembly	247	545
1.6 m arm assembly	130	287
1.9 m arm assembly	135	298
0.18 m³ SAE heaped bucket assembly	162	357
0.07 m³ SAE heaped bucket assembly	110	243
Boom cylinder assembly	78	172
Arm cylinder assembly	65	143
Bucket cylinder assembly	37	82
Dozer cylinder assembly	31	68
Bucket control linkage total	46	102











## 5. LIFTING CAPACITIES

Model	Type		Boom	Arm	Counterweight	Wheel	Dozer		Outrigger	
HW65AH	MONO BOOM	SINGLE TIRE	Length [mm]	Length [mm]	weight [kg]	width [mm]	Front	Rear	Front	Rear
			3000	1600	210	-	-	Down	-	-

·  : Rating over-front

·  : Rating over-side or 360 degree



Lift-point height (A)		Lift-point radius (B)								At max. reach		
		2.0 m (6.6 ft)		3.0 m (9.8 ft)		4.0 m (13.1 ft)		5.0 m (16.4 ft)		Capacity		Reach
												m (ft)
5.0 m (16.4 ft)	kg lb									*1310 *2890	*1310 *2890	3.51 (11.5)
4.0 m (13.1 ft)	kg lb					*1210 *2670	*1210 *2670			*1270 *2800	1100 2430	4.45 (14.6)
3.0 m (9.8 ft)	kg lb			*1490 *3280	*1490 *3280	*1320 *2910	1290 2840			*1230 *2710	910 2010	4.96 (16.3)
2.0 m (6.6 ft)	kg lb			*2140 *4720	1900 4190	*1570 *3460	1240 2730	*1350 *2980	890 1960	*1260 *2780	840 1850	5.19 (17.0)
1.0 m (3.3 ft)	kg lb			*2670 *5890	1790 3950	*1810 *3990	1190 2620	1340 2950	870 1920	1270 2800	820 1810	5.19 (17.0)
0.0 m (0.0 ft)	kg lb	*1930 *4250	*1930 *4250	*2820 *6220	1750 3860	1840 4060	1160 2560			1340 2950	860 1900	4.96 (16.3)
-1.0 m (-3.3 ft)	kg lb	*3740 *8250	3470 7650	*2630 *5800	1750 3860	*1800 *3970	1160 2560			*1500 *3310	1000 2200	4.46 (14.6)
-2.0 m (-6.6 ft)	kg lb	*3130 *6900	*3130 *6900	*2000 *4410	1790 3950					*1520 *3350	1420 3130	3.53 (11.6)

### ※ 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.

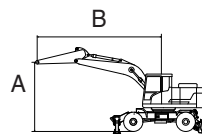
Consult your HD Hyundai Construction Equipment dealer regarding the lifting capacities for specific work tools and attachments.











### ▲ 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	Wheel	Dozer		Outrigger	
HW65AH	MONO BOOM	SINGLE TIRE	Length [mm]	Length [mm]	weight [kg]	width [mm]	Front	Rear	Front	Rear
			3000	1600	210	-	-	Up	-	-

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



Lift-point height (A)		Lift-point radius (B)								At max. reach		
		2.0 m (6.6 ft)		3.0 m (9.8 ft)		4.0 m (13.1 ft)		5.0 m (16.4 ft)		Capacity		Reach
												m (ft)
5.0 m (16.4 ft)	kg lb									*1310 *2890	*1310 *2890	3.51 (11.5)
4.0 m (13.1 ft)	kg lb					*1210 *2670	1140 2510			*1270 *2800	950 2090	4.45 (14.6)
3.0 m (9.8 ft)	kg lb			*1490 *3280	*1490 *3280	*1320 *2910	1110 2450			*1230 *2710	790 1740	4.96 (16.3)
2.0 m (6.6 ft)	kg lb			*2140 *4720	1620 3570	*1570 *3460	1060 2340	*1350 *2980	760 1680	*1260 *2780	720 1590	5.19 (17.0)
1.0 m (3.3 ft)	kg lb			*2670 *5890	1510 3330	*1810 *3990	1020 2250	1340 2950	740 1630	1270 2800	700 1540	5.19 (17.0)
0.0 m (0.0 ft)	kg lb	*1930 *4250	*1930 *4250	*2820 *6220	1470 3240	1840 4060	990 2180			1340 2950	740 1630	4.96 (16.3)
-1.0 m (-3.3 ft)	kg lb	*3740 *8250	2810 6190	*2630 *5800	1470 3240	*1800 *3970	990 2180			*1500 *3310	860 1900	4.46 (14.6)
-2.0 m (-6.6 ft)	kg lb	*3130 *6900	2880 6350	*2000 *4410	1510 3330					*1520 *3350	1210 2670	3.53 (11.6)

※ Note

1. Lifting capacity are based on SAE J1097 and ISO 10567.
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3. The lift-point is bucket pivot mounting pin on the arm (without bucket mass).
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






▲ 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	Wheel	Dozer		Outrigger	
HW65AH	MONO BOOM	SINGLE TIRE	Length [mm]	Length [mm]	weight [kg]	width [mm]	Front	Rear	Front	Rear
			3000	1600	330	-	-	Down	-	-



Lift-point height (A)		Lift-point radius (B)								At max. reach		
		2.0 m (6.6 ft)		3.0 m (9.8 ft)		4.0 m (13.1 ft)		5.0 m (16.4 ft)		Capacity		Reach
												m (ft)
5.0 m (16.4 ft)	kg lb									*1310 *2890	*1310 *2890	3.51 (11.5)
4.0 m (13.1 ft)	kg lb					*1210 *2670	*1210 *2670			*1270 *2800	1160 2560	4.45 (14.6)
3.0 m (9.8 ft)	kg lb			*1490 *3280	*1490 *3280	*1320 *2910	*1320 *2910			*1230 *2710	970 2140	4.96 (16.3)
2.0 m (6.6 ft)	kg lb			*2140 *4720	2000 4410	*1570 *3460	1310 2890	*1350 *2980	940 2070	*1260 *2780	880 1940	5.19 (17.0)
1.0 m (3.3 ft)	kg lb			*2670 *5890	1890 4170	*1810 *3990	1260 2780	1400 3090	920 2030	1330 2930	870 1920	5.19 (17.0)
0.0 m (0.0 ft)	kg lb	*1930 *4250	*1930 *4250	*2820 *6220	1850 4080	*1920 *4230	1230 2710			1410 3110	920 2030	4.96 (16.3)
-1.0 m (-3.3 ft)	kg lb	*3740 *8250	3660 8070	*2630 *5800	1850 4080	*1800 *3970	1230 2710			*1500 *3310	1060 2340	4.46 (14.6)
-2.0 m (-6.6 ft)	kg lb	*3130 *6900	*3130 *6900	*2000 *4410	1890 4170					*1520 *3350	1500 3310	3.53 (11.6)

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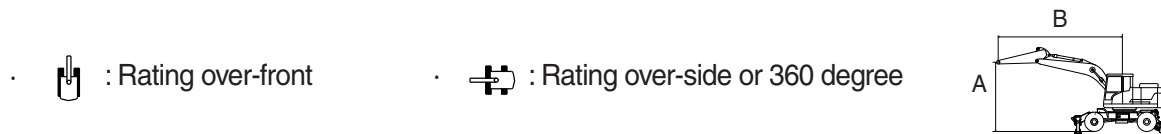
The difference between the weight of a work tool attachment must be subtracted.











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

Model	Type		Boom	Arm	Counterweight	Wheel	Dozer		Outrigger	
HW65AH	MONO BOOM	SINGLE TIRE	Length [mm]	Length [mm]	weight [kg]	width [mm]	Front	Rear	Front	Rear
			3000	1600	330	-	-	Up	-	-



Lift-point height (A)		Lift-point radius (B)								At max. reach		
		2.0 m (6.6 ft)		3.0 m (9.8 ft)		4.0 m (13.1 ft)		5.0 m (16.4 ft)		Capacity		Reach
												m (ft)
5.0 m (16.4 ft)	kg lb									*1310 *2890	*1310 *2890	3.51 (11.5)
4.0 m (13.1 ft)	kg lb					*1210 *2670	1200 2650			*1270 *2800	1000 2200	4.45 (14.6)
3.0 m (9.8 ft)	kg lb			*1490 *3280	*1490 *3280	*1320 *2910	1180 2600			*1230 *2710	840 1850	4.96 (16.3)
2.0 m (6.6 ft)	kg lb			*2140 *4720	1710 3770	*1570 *3460	1130 2490	*1350 *2980	810 1790	*1260 *2780	760 1680	5.19 (17.0)
1.0 m (3.3 ft)	kg lb			*2670 *5890	1610 3550	*1810 *3990	1080 2380	1400 3090	790 1740	1330 2930	750 1650	5.19 (17.0)
0.0 m (0.0 ft)	kg lb	*1930 *4250	*1930 *4250	*2820 *6220	1560 3440	*1920 *4230	1050 2310			1410 3110	790 1740	4.96 (16.3)
-1.0 m (-3.3 ft)	kg lb	*3740 *8250	2980 6570	*2630 *5800	1560 3440	*1800 *3970	1050 2310			*1500 *3310	910 2010	4.46 (14.6)
-2.0 m (-6.6 ft)	kg lb	*3130 *6900	3050 6720	*2000 *4410	1600 3530					*1520 *3350	1280 2820	3.53 (11.6)

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

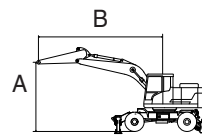
Consult your HD Hyundai Construction Equipment dealer regarding the lifting capacities for specific work tools and attachments.













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

Model	Type		Boom	Arm	Counterweight	Wheel	Dozer		Outrigger	
HW65AH	MONO BOOM	SINGLE TIRE	Length [mm]	Length [mm]	weight [kg]	width [mm]	Front	Rear	Front	Rear
			3000	1900	210	-	-	Down	-	-

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



Load point height		Load radius										At max. reach		
		1.0 m (3 ft)		2.0 m (7 ft)		3.0 m (10 ft)		4.0 m (13 ft)		5.0 m (16 ft)		Capacity		Reach
														m (ft)
5.0 m (16.4 ft)	kg											*1180	*1180	3.97
	lb											*2600	*2600	(13.0)
4.0 m (13.1 ft)	kg							*1060	*1060			*1050	980	4.80
	lb							*2340	*2340			*2310	2160	(15.7)
3.0 m (9.8 ft)	kg							*1200	*1200	*1180	920	*1010	840	5.27
	lb							*2650	*2650	*2600	2030	*2230	1850	(17.3)
2.0 m (6.6 ft)	kg					*1930	*1930	*1460	1260	*1270	900	*1030	770	5.49
	lb					*4250	*4250	*3220	2780	*2800	1980	*2270	1700	(18.0)
1.0 m (3.3 ft)	kg					*2550	1820	*1740	1200	1340	870	*1110	760	5.49
	lb					*5620	4010	*3840	2650	2950	1920	*2450	1680	(18.0)
0.0 m (0.0 ft)	kg			*1860	*1860	*2810	1760	1840	1160	1320	850	1230	790	5.27
	lb			*4100	*4100	*6190	3880	4060	2560	2910	1870	2710	1740	(17.3)
-1.0 m (-3.3 ft)	kg	*2260	*2260	*3220	*3220	*2720	1740	1830	1150			*1400	900	4.81
	lb	*4980	*4980	*7100	*7100	*6000	3840	4030	2540			*3090	1980	(15.8)
-2.0 m (-6.6 ft)	kg	*3620	*3620	*3640	3500	*2260	1770					*1440	1180	3.98
	lb	*7980	*7980	*8020	7720	*4980	3900					*3170	2600	(13.1)
-3.0 m (-9.8 ft)	kg													
	lb													

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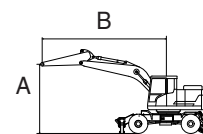
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Make adjustments to the rated load as necessary for non-standard configurations.

Model	Type		Boom	Arm	Counterweight	Wheel	Dozer		Outrigger	
HW65AH	MONO BOOM	SINGLE TIRE	Length [mm]	Length [mm]	weight [kg]	width [mm]	Front	Rear	Front	Rear
			3000	1900	210	-	-	Up	-	-

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



Load point height		Load radius										At max. reach		
		1.0 m (3 ft)		2.0 m (7 ft)		3.0 m (10 ft)		4.0 m (13 ft)		5.0 m (16 ft)		Capacity		Reach
														m (ft)
5.0 m (16.4 ft)	kg											*1180	1160	3.97
	lb											*2600	2560	(13.0)
4.0 m (13.1 ft)	kg							*1060	*1060			*1050	850	4.80
	lb							*2340	*2340			*2310	1870	(15.7)
3.0 m (9.8 ft)	kg							*1200	1130	*1180	790	*1010	720	5.27
	lb							*2650	2490	*2600	1740	*2230	1590	(17.3)
2.0 m (6.6 ft)	kg					*1930	1650	*1460	1080	*1270	770	*1030	660	5.49
	lb					*4250	3640	*3220	2380	*2800	1700	*2270	1460	(18.0)
1.0 m (3.3 ft)	kg					*2550	1540	*1740	1030	1340	750	*1110	650	5.49
	lb					*5620	3400	*3840	2270	2950	1650	*2450	1430	(18.0)
0.0 m (0.0 ft)	kg			*1860	*1860	*2810	1480	1840	990	1320	730	1230	680	5.27
	lb			*4100	*4100	*6190	3260	4060	2180	2910	1610	2710	1500	(17.3)
-1.0 m (-3.3 ft)	kg	*2260	*2260	*3220	2790	*2720	1470	1830	980			*1400	770	4.81
	lb	*4980	*4980	*7100	6150	*6000	3240	4030	2160			*3090	1700	(15.8)
-2.0 m (-6.6 ft)	kg	*3620	*3620	*3640	2850	*2260	1490					*1440	1010	3.98
	lb	*7980	*7980	*8020	6280	*4980	3280					*3170	2230	(13.1)
-3.0 m (-9.8 ft)	kg													
	lb													

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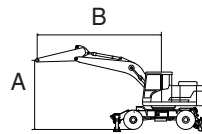
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










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

Model	Type		Boom	Arm	Counterweight	Wheel	Dozer		Outrigger	
HW65AH	MONO BOOM	SINGLE TIRE	Length [mm]	Length [mm]	weight [kg]	width [mm]	Front	Rear	Front	Rear
			3000	1900	330	-	-	Down	-	-

·  : Rating over-front

·  : Rating over-side or 360 degree



Load point height		Load radius										At max. reach		
		1.0 m (3 ft)		2.0 m (7 ft)		3.0 m (10 ft)		4.0 m (13 ft)		5.0 m (16 ft)		Capacity		Reach
														m (ft)
5.0 m (16.4 ft)	kg											*1180	*1180	3.97
	lb											*2600	*2600	(13.0)
4.0 m (13.1 ft)	kg							*1060	*1060			*1050	1040	4.80
	lb							*2340	*2340			*2310	2290	(15.7)
3.0 m (9.8 ft)	kg							*1200	*1200	*1180	970	*1010	890	5.27
	lb							*2650	*2650	*2600	2140	*2230	1960	(17.3)
2.0 m (6.6 ft)	kg					*1930	*1930	*1460	1320	*1270	950	*1030	820	5.49
	lb					*4250	*4250	*3220	2910	*2800	2090	*2270	1810	(18.0)
1.0 m (3.3 ft)	kg					*2550	1920	*1740	1270	*1390	920	*1110	800	5.49
	lb					*5620	4230	*3840	2800	*3060	2030	*2450	1760	(18.0)
0.0 m (0.0 ft)	kg			*1860	*1860	*2810	1860	*1900	1230	1390	900	*1270	840	5.27
	lb			*4100	*4100	*6190	4100	*4190	2710	3060	1980	*2800	1850	(17.3)
-1.0 m (-3.3 ft)	kg	*2260	*2260	*3220	*3220	*2720	1840	*1870	1220			*1400	950	4.81
	lb	*4980	*4980	*7100	*7100	*6000	4060	*4120	2690			*3090	2090	(15.8)
-2.0 m (-6.6 ft)	kg	*3620	*3620	*3640	*3640	*2260	1870					*1440	1250	3.98
	lb	*7980	*7980	*8020	*8020	*4980	4120					*3170	2760	(13.1)
-3.0 m (-9.8 ft)	kg													
	lb													

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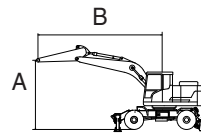
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










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

Model	Type		Boom	Arm	Counterweight	Wheel	Dozer		Outrigger	
HW65AH	MONO BOOM	SINGLE TIRE	Length [mm]	Length [mm]	weight [kg]	width [mm]	Front	Rear	Front	Rear
			3000	1900	330	-	-	Up	-	-

·  : Rating over-front

·  : Rating over-side or 360 degree



Load point height		Load radius										At max. reach		
		1.0 m (3 ft)		2.0 m (7 ft)		3.0 m (10 ft)		4.0 m (13 ft)		5.0 m (16 ft)		Capacity		Reach
														m (ft)
5.0 m (16.4 ft)	kg lb											*1180 *2600	*1180 *2600	3.97 (13.0)
4.0 m (13.1 ft)	kg lb							*1060 *2340	*1060 *2340			*1050 *2310	900 1980	4.80 (15.7)
3.0 m (9.8 ft)	kg lb							*1200 *2650	1190 2620	*1180 *2600	840 1850	*1010 *2230	770 1700	5.27 (17.3)
2.0 m (6.6 ft)	kg lb					*1930 *4250	1740 3840	*1460 *3220	1140 2510	*1270 *2800	820 1810	*1030 *2270	710 1570	5.49 (18.0)
1.0 m (3.3 ft)	kg lb					*2550 *5620	1630 3590	*1740 *3840	1090 2400	*1390 *3060	790 1740	*1110 *2450	690 1520	5.49 (18.0)
0.0 m (0.0 ft)	kg lb			*1860 *4100	*1860 *4100	*2810 *6190	1570 3460	*1900 *4190	1050 2310	1390 3060	780 1720	*1270 *2800	720 1590	5.27 (17.3)
-1.0 m (-3.3 ft)	kg lb	*2260 *4980	*2260 *4980	*3220 *7100	2960 6530	*2720 *6000	1560 3440	*1870 *4120	1040 2290			*1400 *3090	820 1810	4.81 (15.8)
-2.0 m (-6.6 ft)	kg lb	*3620 *7980	*3620 *7980	*3640 *8020	3010 6640	*2260 *4980	1580 3480					*1440 *3170	1070 2360	3.98 (13.1)
-3.0 m (-9.8 ft)	kg lb													

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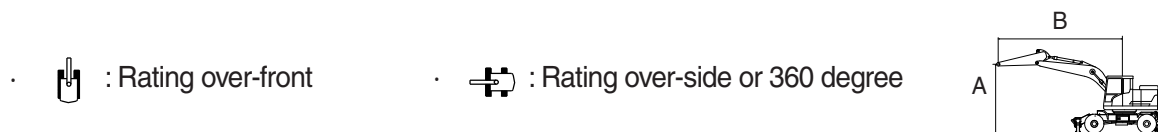
The difference between the weight of a work tool attachment must be subtracted.











Consult your HD Hyundai Construction Equipment 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	Wheel	Dozer		Outrigger	
HW65AH	MONO BOOM	DOUBLE TIRE	Length [mm]	Length [mm]	weight [kg]	width [mm]	Front	Rear	Front	Rear
			3000	1600	210	-	-	Down	-	-



Lift-point height (A)		Lift-point radius (B)								At max. reach		
		2.0 m (6.6 ft)		3.0 m (9.8 ft)		4.0 m (13.1 ft)		5.0 m (16.4 ft)		Capacity		Reach
												m (ft)
5.0 m (16.4 ft)	kg lb									*1310 *2890	*1310 *2890	3.48 (11.4)
4.0 m (13.1 ft)	kg lb					*1210 *2670	*1210 *2670			*1270 *2800	1190 2620	4.43 (14.5)
3.0 m (9.8 ft)	kg lb			*1480 *3260	*1480 *3260	*1320 *2910	*1320 *2910			*1230 *2710	990 2180	4.95 (16.2)
2.0 m (6.6 ft)	kg lb			*2130 *4700	2060 4540	*1560 *3440	1340 2950	*1340 *2950	960 2120	*1260 *2780	910 2010	5.19 (17.0)
1.0 m (3.3 ft)	kg lb			*2670 *5890	1950 4300	*1800 *3970	1290 2840	1400 3090	940 2070	1320 2910	890 1960	5.19 (17.0)
0.0 m (0.0 ft)	kg lb	*1890 *4170	*1890 *4170	*2820 *6220	1900 4190	*1920 *4230	1260 2780			1400 3090	940 2070	4.97 (16.3)
-1.0 m (-3.3 ft)	kg lb	*3690 *8140	*3690 *8140	*2640 *5820	1900 4190	*1810 *3990	1260 2780			*1500 *3310	1080 2380	4.47 (14.7)
-2.0 m (-6.6 ft)	kg lb	*3170 *6990	*3170 *6990	*2020 *4450	1940 4280					*1520 *3350	1520 3350	3.56 (11.7)

※ Note

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

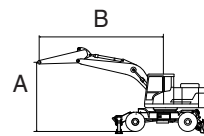
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


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



Model	Type		Boom	Arm	Counterweight	Wheel	Dozer		Outrigger	
HW65AH	MONO BOOM	DOUBLE TIRE	Length [mm]	Length [mm]	weight [kg]	width [mm]	Front	Rear	Front	Rear
			3000	1600	210	-	-	Up	-	-

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



Lift-point height (A)		Lift-point radius (B)								At max. reach		
		2.0 m (6.6 ft)		3.0 m (9.8 ft)		4.0 m (13.1 ft)		5.0 m (16.4 ft)		Capacity		Reach
												m (ft)
5.0 m (16.4 ft)	kg lb									*1310 *2890	*1310 *2890	3.48 (11.4)
4.0 m (13.1 ft)	kg lb					*1210 *2670	*1210 *2670			*1270 *2800	1050 2310	4.43 (14.5)
3.0 m (9.8 ft)	kg lb			*1480 *3260	*1480 *3260	*1320 *2910	1220 2690			*1230 *2710	870 1920	4.95 (16.2)
2.0 m (6.6 ft)	kg lb			*2130 *4700	1790 3950	*1560 *3440	1170 2580	*1340 *2950	840 1850	*1260 *2780	790 1740	5.19 (17.0)
1.0 m (3.3 ft)	kg lb			*2670 *5890	1680 3700	*1800 *3970	1130 2490	1400 3090	820 1810	1320 2910	780 1720	5.19 (17.0)
0.0 m (0.0 ft)	kg lb	*1890 *4170	*1890 *4170	*2820 *6220	1640 3620	*1920 *4230	1100 2430			1400 3090	820 1810	4.97 (16.3)
-1.0 m (-3.3 ft)	kg lb	*3690 *8140	3150 6940	*2640 *5820	1640 3620	*1810 *3990	1090 2400			*1500 *3310	950 2090	4.47 (14.7)
-2.0 m (-6.6 ft)	kg lb	*3170 *6990	*3170 *6990	*2020 *4450	1680 3700					*1520 *3350	1320 2910	3.56 (11.7)

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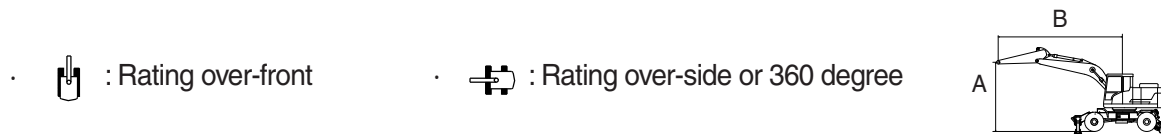
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






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Model	Type		Boom	Arm	Counterweight	Wheel	Dozer		Outrigger	
HW65AH	MONO BOOM	DOUBLE TIRE	Length [mm]	Length [mm]	weight [kg]	width [mm]	Front	Rear	Front	Rear
			3000	1600	330	-	-	Down	-	-



Lift-point height (A)		Lift-point radius (B)								At max. reach		
		2.0 m (6.6 ft)		3.0 m (9.8 ft)		4.0 m (13.1 ft)		5.0 m (16.4 ft)		Capacity		Reach
												m (ft)
5.0 m (16.4 ft)	kg lb									*1310 *2890	*1310 *2890	3.48 (11.4)
4.0 m (13.1 ft)	kg lb					*1210 *2670	*1210 *2670			*1270 *2800	1250 2760	4.43 (14.5)
3.0 m (9.8 ft)	kg lb			*1480 *3260	*1480 *3260	*1320 *2910	*1320 *2910			*1230 *2710	1040 2290	4.95 (16.2)
2.0 m (6.6 ft)	kg lb			*2130 *4700	*2130 *4700	*1560 *3440	1410 3110	*1340 *2950	1010 2230	*1260 *2780	960 2120	5.19 (17.0)
1.0 m (3.3 ft)	kg lb			*2670 *5890	2050 4520	*1800 *3970	1360 3000	*1430 *3150	990 2180	*1370 *3020	940 2070	5.19 (17.0)
0.0 m (0.0 ft)	kg lb	*1890 *4170	*1890 *4170	*2820 *6220	2000 4410	*1920 *4230	1330 2930			*1440 *3170	990 2180	4.97 (16.3)
-1.0 m (-3.3 ft)	kg lb	*3690 *8140	*3690 *8140	*2640 *5820	2000 4410	*1810 *3990	1330 2930			*1500 *3310	1140 2510	4.47 (14.7)
-2.0 m (-6.6 ft)	kg lb	*3170 *6990	*3170 *6990	*2020 *4450	*2020 *4450					*1520 *3350	*1520 *3350	3.56 (11.7)

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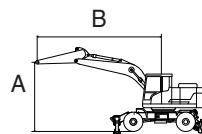
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Make adjustments to the rated load as necessary for non-standard configurations.

Model	Type		Boom	Arm	Counterweight	Wheel	Dozer		Outrigger	
HW65AH	MONO BOOM	DOUBLE TIRE	Length [mm]	Length [mm]	weight [kg]	width [mm]	Front	Rear	Front	Rear
			3000	1600	330	-	-	Up	-	-

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



Lift-point height (A)		Lift-point radius (B)								At max. reach		
		2.0 m (6.6 ft)		3.0 m (9.8 ft)		4.0 m (13.1 ft)		5.0 m (16.4 ft)		Capacity		Reach
												m (ft)
5.0 m (16.4 ft)	kg lb									*1310 *2890	*1310 *2890	3.48 (11.4)
4.0 m (13.1 ft)	kg lb					*1210 *2670	*1210 *2670			*1270 *2800	1110 2450	4.43 (14.5)
3.0 m (9.8 ft)	kg lb			*1480 *3260	*1480 *3260	*1320 *2910	1290 2840			*1230 *2710	920 2030	4.95 (16.2)
2.0 m (6.6 ft)	kg lb			*2130 *4700	1880 4140	*1560 *3440	1240 2730	*1340 *2950	890 1960	*1260 *2780	840 1850	5.19 (17.0)
1.0 m (3.3 ft)	kg lb			*2670 *5890	1780 3920	*1800 *3970	1190 2620	*1430 *3150	870 1920	*1370 *3020	820 1810	5.19 (17.0)
0.0 m (0.0 ft)	kg lb	*1890 *4170	*1890 *4170	*2820 *6220	1730 3810	*1920 *4230	1160 2560			*1440 *3170	870 1920	4.97 (16.3)
-1.0 m (-3.3 ft)	kg lb	*3690 *8140	3330 7340	*2640 *5820	1730 3810	*1810 *3990	1160 2560			*1500 *3310	1000 2200	4.47 (14.7)
-2.0 m (-6.6 ft)	kg lb	*3170 *6990	*3170 *6990	*2020 *4450	1770 3900					*1520 *3350	1400 3090	3.56 (11.7)

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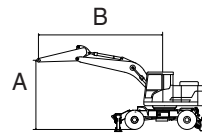
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










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

Model	Type		Boom	Arm	Counterweight	Wheel	Dozer		Outrigger	
HW65AH	MONO BOOM	DOUBLE TIRE	Length [mm]	Length [mm]	weight [kg]	width [mm]	Front	Rear	Front	Rear
			3000	1900	210	-	-	Down	-	-

·  : Rating over-front

·  : Rating over-side or 360 degree



Load point height		Load radius										At max. reach		
		1.0 m (3 ft)		2.0 m (7 ft)		3.0 m (10 ft)		4.0 m (13 ft)		5.0 m (16 ft)		Capacity		Reach
														m (ft)
5.0 m (16.4 ft)	kg lb											*1190 *2620	*1190 *2620	3.94 (12.9)
4.0 m (13.1 ft)	kg lb							*1060 *2340	*1060 *2340			*1050 *2310	*1050 *2310	4.78 (15.7)
3.0 m (9.8 ft)	kg lb							*1190 *2620	*1190 *2620	*1180 *2600	990 2180	*1010 *2230	910 2010	5.26 (17.3)
2.0 m (6.6 ft)	kg lb					*1910 *4210	*1910 *4210	*1460 *3220	1360 3000	*1270 *2800	970 2140	*1030 *2270	840 1850	5.48 (18.0)
1.0 m (3.3 ft)	kg lb					*2540 *5600	1970 4340	*1730 *3810	1300 2870	*1380 *3040	940 2070	*1110 *2450	820 1810	5.49 (18.0)
0.0 m (0.0 ft)	kg lb			*1830 *4030	*1830 *4030	*2800 *6170	1910 4210	*1900 *4190	1260 2780	1390 3060	930 2050	*1260 *2780	860 1900	5.28 (17.3)
-1.0 m (-3.3 ft)	kg lb	*2230 *4920	*2230 *4920	*3190 *7030	*3190 *7030	*2730 *6020	1890 4170	*1870 *4120	1250 2760			*1400 *3090	970 2140	4.82 (15.8)
-2.0 m (-6.6 ft)	kg lb	*3580 *7890	*3580 *7890	*3670 *8090	*3670 *8090	*2280 *5030	1920 4230	*1450 *3200	1270 2800			*1440 *3170	1270 2800	4.01 (13.1)
-3.0 m (-9.8 ft)	kg lb													

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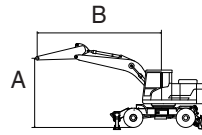
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










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

Model	Type		Boom	Arm	Counterweight	Wheel	Dozer		Outrigger	
HW65AH	MONO BOOM	DOUBLE TIRE	Length [mm]	Length [mm]	weight [kg]	width [mm]	Front	Rear	Front	Rear
			3000	1900	210	-	-	Up	-	-

·  : Rating over-front

·  : Rating over-side or 360 degree



Load point height		Load radius										At max. reach		
		1.0 m (3 ft)		2.0 m (7 ft)		3.0 m (10 ft)		4.0 m (13 ft)		5.0 m (16 ft)		Capacity		Reach
														m (ft)
5.0 m (16.4 ft)	kg											*1190	*1190	3.94
	lb											*2620	*2620	(12.9)
4.0 m (13.1 ft)	kg							*1060	*1060			*1050	940	4.78
	lb							*2340	*2340			*2310	2070	(15.7)
3.0 m (9.8 ft)	kg							*1190	*1190	*1180	870	*1010	800	5.26
	lb							*2620	*2620	*2600	1920	*2230	1760	(17.3)
2.0 m (6.6 ft)	kg					*1910	1820	*1460	1190	*1270	850	*1030	730	5.48
	lb					*4210	4010	*3220	2620	*2800	1870	*2270	1610	(18.0)
1.0 m (3.3 ft)	kg					*2540	1700	*1730	1140	*1380	830	*1110	720	5.49
	lb					*5600	3750	*3810	2510	*3040	1830	*2450	1590	(18.0)
0.0 m (0.0 ft)	kg			*1830	*1830	*2800	1640	*1900	1100	1390	810	*1260	750	5.28
	lb			*4030	*4030	*6170	3620	*4190	2430	3060	1790	*2780	1650	(17.3)
-1.0 m (-3.3 ft)	kg	*2230	*2230	*3190	3130	*2730	1630	*1870	1090			*1400	850	4.82
	lb	*4920	*4920	*7030	6900	*6020	3590	*4120	2400			*3090	1870	(15.8)
-2.0 m (-6.6 ft)	kg	*3580	*3580	*3670	3190	*2280	1650	*1450	1110			*1440	1110	4.01
	lb	*7890	*7890	*8090	7030	*5030	3640	*3200	2450			*3170	2450	(13.1)
-3.0 m (-9.8 ft)	kg													
	lb													

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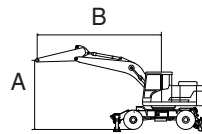
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










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

Model	Type		Boom	Arm	Counterweight	Wheel	Dozer		Outrigger	
HW65AH	MONO BOOM	DOUBLE TIRE	Length [mm]	Length [mm]	weight [kg]	width [mm]	Front	Rear	Front	Rear
			3000	1900	330	-	-	Down	-	-

·  : Rating over-front

·  : Rating over-side or 360 degree



Load point height		Load radius										At max. reach		
		1.0 m (3 ft)		2.0 m (7 ft)		3.0 m (10 ft)		4.0 m (13 ft)		5.0 m (16 ft)		Capacity		Reach
														m (ft)
5.0 m (16.4 ft)	kg lb											*1190 *2620	*1190 *2620	3.94 (12.9)
4.0 m (13.1 ft)	kg lb							*1060 *2340	*1060 *2340			*1050 *2310	*1050 *2310	4.78 (15.7)
3.0 m (9.8 ft)	kg lb							*1190 *2620	*1190 *2620	*1180 *2600	1040 2290	*1010 *2230	960 2120	5.26 (17.3)
2.0 m (6.6 ft)	kg lb					*1910 *4210	*1910 *4210	*1460 *3220	1420 3130	*1270 *2800	1020 2250	*1030 *2270	880 1940	5.48 (18.0)
1.0 m (3.3 ft)	kg lb					*2540 *5600	2070 4560	*1730 *3810	1370 3020	*1380 *3040	1000 2200	*1110 *2450	870 1920	5.49 (18.0)
0.0 m (0.0 ft)	kg lb			*1830 *4030	*1830 *4030	*2800 *6170	2010 4430	*1900 *4190	1330 2930	*1440 *3170	980 2160	*1260 *2780	910 2010	5.28 (17.3)
-1.0 m (-3.3 ft)	kg lb	*2230 *4920	*2230 *4920	*3190 *7030	*3190 *7030	*2730 *6020	2000 4410	*1870 *4120	1320 2910			*1400 *3090	1030 2270	4.82 (15.8)
-2.0 m (-6.6 ft)	kg lb	*3580 *7890	*3580 *7890	*3670 *8090	*3670 *8090	*2280 *5030	2020 4450	*1450 *3200	1340 2950			*1440 *3170	1340 2950	4.01 (13.1)
-3.0 m (-9.8 ft)	kg lb													

#### ※ 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 HD Hyundai Construction Equipment dealer regarding the lifting capacities for specific work tools and attachments.

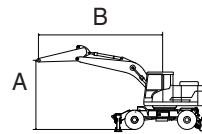
▲ Failure to comply to the rated load can cause possible personal injury or property damage.













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

Model	Type		Boom	Arm	Counterweight	Wheel	Dozer		Outrigger	
HW65AH	MONO BOOM	DOUBLE TIRE	Length [mm]	Length [mm]	weight [kg]	width [mm]	Front	Rear	Front	Rear
			3000	1900	330	-	-	Up	-	-

·  : Rating over-front

·  : Rating over-side or 360 degree



Load point height		Load radius										At max. reach		
		1.0 m (3 ft)		2.0 m (7 ft)		3.0 m (10 ft)		4.0 m (13 ft)		5.0 m (16 ft)		Capacity		Reach
														m (ft)
5.0 m (16.4 ft)	kg											*1190	*1190	3.94
	lb											*2620	*2620	(12.9)
4.0 m (13.1 ft)	kg							*1060	*1060			*1050	990	4.78
	lb							*2340	*2340			*2310	2180	(15.7)
3.0 m (9.8 ft)	kg							*1190	*1190	*1180	920	*1010	840	5.26
	lb							*2620	*2620	*2600	2030	*2230	1850	(17.3)
2.0 m (6.6 ft)	kg					*1910	*1910	*1460	1250	*1270	900	*1030	780	5.48
	lb					*4210	*4210	*3220	2760	*2800	1980	*2270	1720	(18.0)
1.0 m (3.3 ft)	kg					*2540	1800	*1730	1200	*1380	880	*1110	760	5.49
	lb					*5600	3970	*3810	2650	*3040	1940	*2450	1680	(18.0)
0.0 m (0.0 ft)	kg			*1830	*1830	*2800	1740	*1900	1160	*1440	860	*1260	800	5.28
	lb			*4030	*4030	*6170	3840	*4190	2560	*3170	1900	*2780	1760	(17.3)
-1.0 m (-3.3 ft)	kg	*2230	*2230	*3190	*3190	*2730	1720	*1870	1150			*1400	900	4.82
	lb	*4920	*4920	*7030	*7030	*6020	3790	*4120	2540			*3090	1980	(15.8)
-2.0 m (-6.6 ft)	kg	*3580	*3580	*3670	3360	*2280	1750	*1450	1180			*1440	1170	4.01
	lb	*7890	*7890	*8090	7410	*5030	3860	*3200	2600			*3170	2580	(13.1)
-3.0 m (-9.8 ft)	kg													
	lb													

#### ※ 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).
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※ Lifting capacities are based upon a standard machine conditions.

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

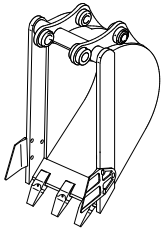
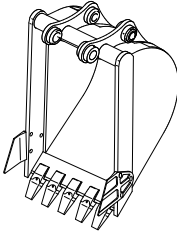
The difference between the weight of a work tool attachment must be subtracted.

Consult your HD Hyundai Construction Equipment 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.

## 6. BUCKET SELECTION GUIDE

	
0.07m³ SAE heaped bucket	0.18 m³ SAE heaped bucket

Capacity		Width		Weight	Recommendation
					3.0 m (9' 10") boom
SAE heaped	CECE heaped	Without side cutter	With side cutter		1.6 m (5' 3") arm
0.07 m³ (0.09 yd³)	0.06 m³ (0.08 yd³)	270 mm (10.6")	360 mm (14.2")	115 kg (255 lb)	Applicable for materials with density of 1600 kgf/m³ (2700 lb/yd³) or less
0.18 m³ (0.24 yd³)	0.15 m³ (0.20 yd³)	620 mm (24.4")	730 mm (28.7")	170 kg (375 lb)	

## 7. SPECIFICATIONS FOR MAJOR COMPONENTS

### 1) ENGINE

Item	Specification
Model	Hyundai DM02VB
Type	4-cycle, turbocharged, intercooled, electronic controlled diesel engine
Cooling method	Air cooled
Number of cylinders and arrangement	4 cylinders, in-line
Firing order	1-3-4-2
Combustion chamber type	Direct injection type
Cylinder bore × stroke	90 × 94 mm (3.5" × 3.7")
Piston displacement	2392 cc (145 cu in)
Compression ratio	16.9 : 1
Gross power	65.9 Hp (48.5 kW)
Net power	63.9 Hp (47 kW)
Max. power	65.9 Hp (48.5 kW)
Peak torque	25 kgf·m (183 lbf·ft)
Engine oil quantity	8.6 ℓ (2.3 U.S. gal)
Dry weight (wet weight)	253 kg (558 lb)
Starting motor	12 V - 2.5 kW
Alternator	13.5 V - 90 A

### 2) MAIN PUMP

Item	Specification
Type	AP2D28
Capacity	2 × 25 cc/rev
Maximum pressure	220 kgf/cm <sup>2</sup> (3130 psi)
Rated oil flow	2 × 60 ℓ /min (15.9 U.S. gpm / 13.2 U.K. gpm)
Rated speed	2400 rpm



### 3) GEAR PUMP

Item	Specification
Type	GSP2H-16
Capacity	16.2 cc/rev
Maximum pressure	200 kgf/cm <sup>2</sup> (2845 psi)
Rated oil flow	38.9 ℓ /min (10.2 / 8.5 U.S. gpm)

### 4) MAIN CONTROL VALVE

Item		Specification
Type		11 spools, two- block
Operating method		Hydraulic pilot system
Main relief valve pressure		220 kgf/cm² (3130 psi)
Port felief valve pressure	Boom	240 kgf/cm² (3420 psi)
	Arm	240 kgf/cm² (3420 psi)
	Bucket	240 kgf/cm² (3420 psi)

### 5) SWING MOTOR

Item	Specification
Type	Fixed displacement axial piston motor
Capacity	591.7 cc/rev
Relief pressure	230 kgf/cm <sup>2</sup> (3280 psi)
Braking system	Automatic, spring applied hydraulic released
Swing brake	Multi wet disc
Braking torque	272.5 kgf·m (1970 lbf·ft)
Brake release pressure	20~40 kgf/cm <sup>2</sup> (284~570 psi)
Swing bearing lubrication	Grease-bathed
Reduction gear type	2 - stage planetary

### 6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement axial piston motor
Capacity	80 / 30.2 cc/rev
Relief pressure	235 kgf/cm <sup>2</sup> (3350 psi)

## 7) POWER TRAIN

Item	Description		Specification
Transmission	Type		2 Speed Powershift transmission
	Gear ratio	1st	4.06
		2nd	1.31
	Clutch pressure		26~32 kgf/cm <sup>2</sup> (370~455 psi)
Parking brake	Type		SAHR (Spring Applied Hydraulic Release)
	Maximum braking power		810 kgf · m (5856 lbf · ft)
Axle	Type		4 wheel drive with differential
	Gear ratio		13.65
	Brake		Wet Type Multiple disc
	Brake pressure		52 kgf/cm <sup>2</sup> (740 psi)
	Steering pressure		148 kgf/cm <sup>2</sup> (2210 psi)

## 8) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	Ø 110 × Ø 60 × 715 mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	Ø 90 × Ø 55 × 850 mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	Ø 80 × Ø 50 × 660 mm
	Cushion	-
Dozer cylinder	Bore dia × Rod dia × Stroke	Ø 110 × Ø 60 × 224 mm
	Cushion	-

※ 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
HW65AH	STD	0.18 m <sup>3</sup> (0.24 yd <sup>3</sup> )	0.15 m <sup>3</sup> (0.20 yd <sup>3</sup> )	5	620 mm (24.4")	730 mm (28.7")
	OPT	0.07 m <sup>3</sup> (0.09 yd <sup>3</sup> )	0.06 m <sup>3</sup> (0.08 yd <sup>3</sup> )	3	270 mm (10.6")	360 mm (14.2")

## 8. RECOMMENDED LUBRICANTS

Use only oils listed below or equivalent.

Do not mix different brand oil.

Service point	Kind of fluid	Capacity ℓ (U.S. gal)	Ambient temperature °C ( °F)						
			-20 (-4)	-10 (14)	0 (32)	10 (50)	20 (68)	30 (86)	40 (104)
Engine oil pan	Engine oil	8.6 (2.3)				SAE 30			
			SAE 10W						
			SAE 10W-30						
				SAE 15W-40					
Swing drive	Gear oil	1.5 (0.4)		SAE 80W-90					
	Grease	0.2 (0.1)	NLGI NO.1						
				NLGI NO.2					
Gear box case	Gear oil	1.8 (0.5)							
Front axle		Center: 5 (1.3) Hub: 0.4×2 (0.11×2)	SAE 75W-90						
Rear axle		Center: 5 (1.3) Hub: 0.4×2 (0.11×2)		SAE 85W-90					
Hydraulic tank	Hydraulic oil	Tank; 70 (18.5) System; 120 (31.7)	ISO VG 15						
				ISO VG 46					
					ISO VG 68				
Fuel tank	Diesel fuel★ <sup>1</sup>	125 (33)	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 water★ <sup>2</sup>	11 (2.9)							
			Ethylene glycol base permanent type (50 : 50)						

**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

★<sup>1</sup> : Ultra low sulfur diesel

- sulfur content ≤ 15 ppm

★<sup>2</sup> : Soft water

City water or distilled water

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

※ Do not mix HD Hyundai Construction Equipment 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 HD Hyundai Construction Equipment genuine lubricating oils and grease for use in regions with extremely low temperatures, please contact HD Hyundai Construction Equipment dealers.