

# SECTION 1 GENERAL



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## SECTION 1 GENERAL

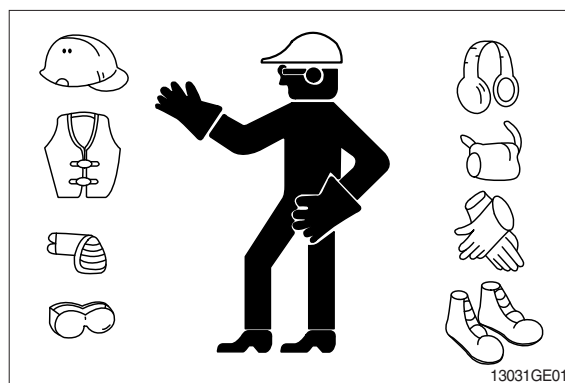
### GROUP 1 SAFETY

#### FOLLOW SAFE PROCEDURE

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

#### WEAR PROTECTIVE CLOTHING

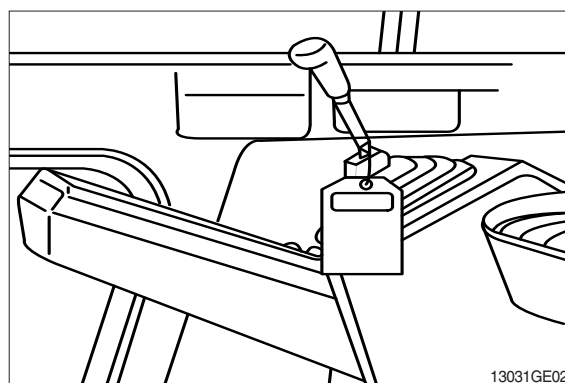
Wear close fitting clothing and safety equipment appropriate to the job.



#### 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.



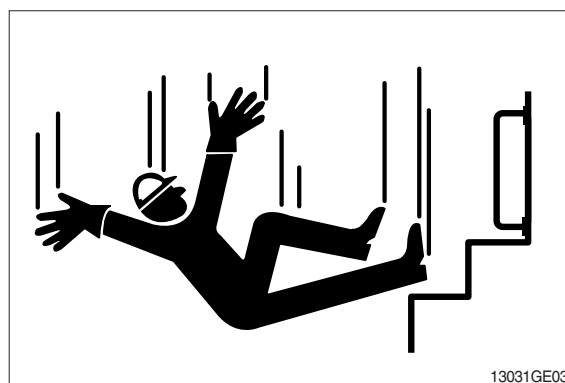
#### USE HANDHOLDS AND STEPS

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.

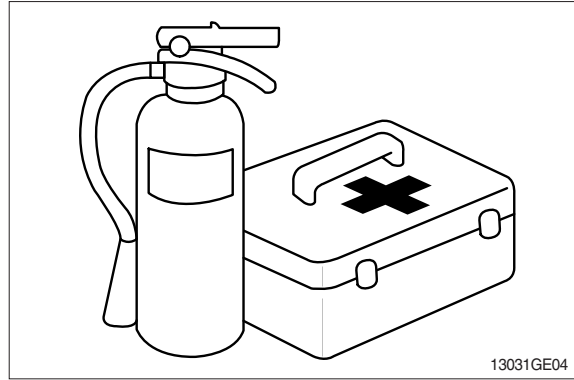


## PREPARE FOR EMERGENCIES

Be prepared if a fire starts.

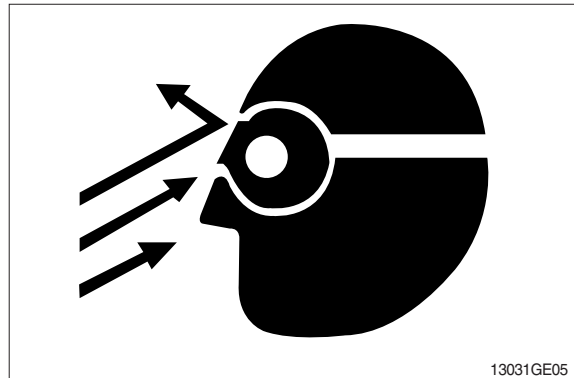
Keep a first aid kit and fire extinguisher handy.

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



## PROTECT AGAINST FLYING DEBRIS

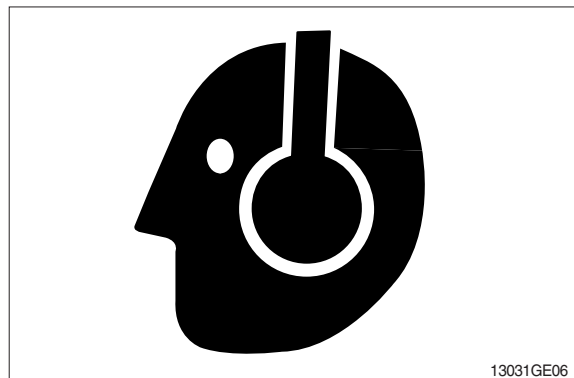
Guard against injury from flying pieces of metal or debris; wear goggles or safety glasses.



## PROTECT AGAINST NOISE

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

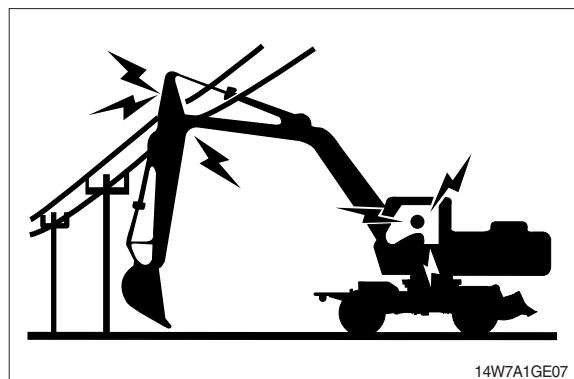
Wear a suitable hearing protective device such as ear-muffs or earplugs to protect against objectionable or uncomfortable loud noises.



## AVOID POWER LINES

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

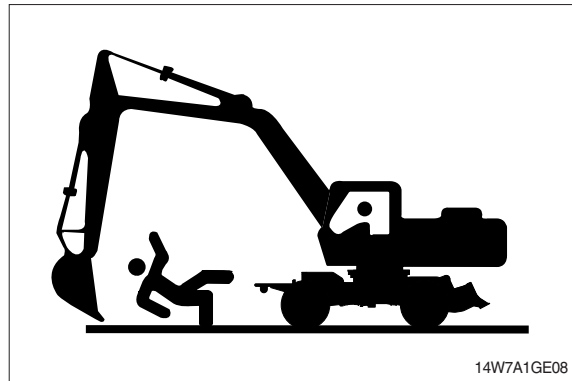
Never move any part of the machine or load closer to electric line than 3m(10ft) plus twice the line insulator length.



## 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.

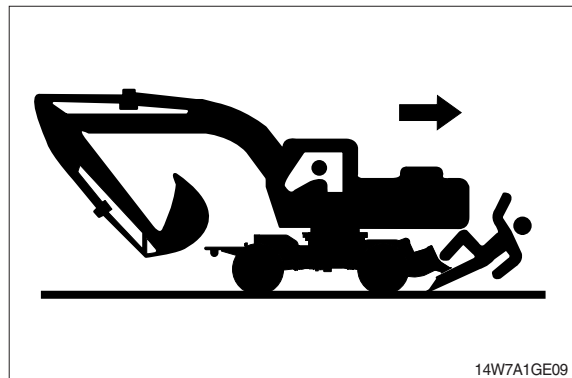


## MOVE AND OPERATE MACHINE SAFELY

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:

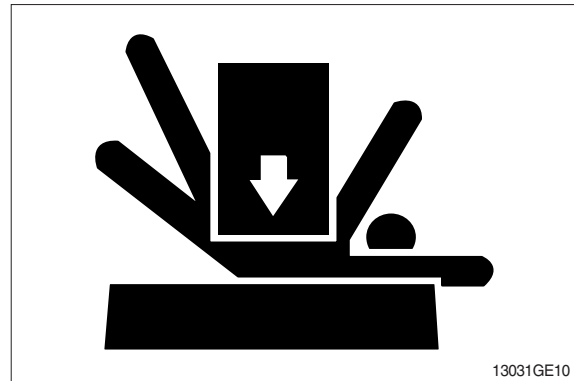
- Park machine on a level surface.
- Lower bucket to the ground.
- Turn auto idle switch off.
- Run engine at 1/2 speed without load for 2 minutes.
- Turn key switch to OFF to stop engine. Remove key from switch.
- Move pilot control shutoff lever to locked position.
- Allow engine to cool.

## 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.

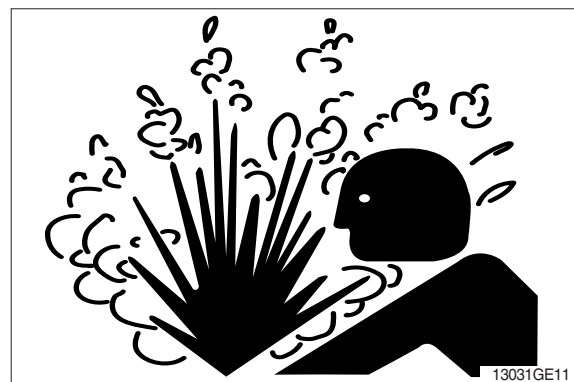
Do not work under a machine that is supported solely by a jack. Follow recommended procedures in this manual.



## SERVICE COOLING SYSTEM SAFELY

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

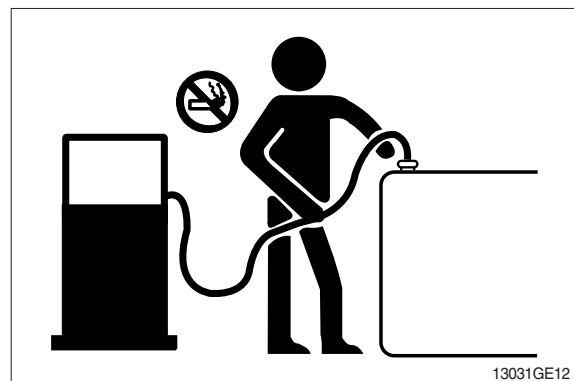
Shut off engine. Only remove filler cap when cool enough to touch with bare hands.



## 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.

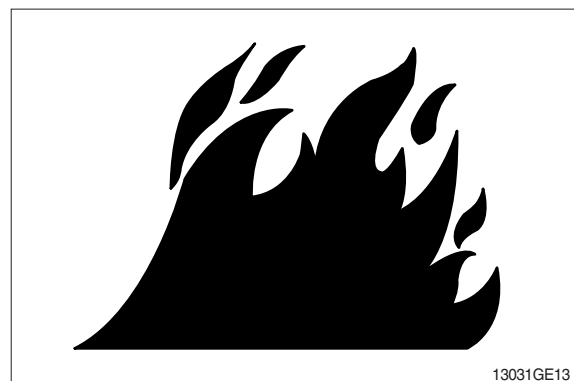
Fill fuel tank outdoors.



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

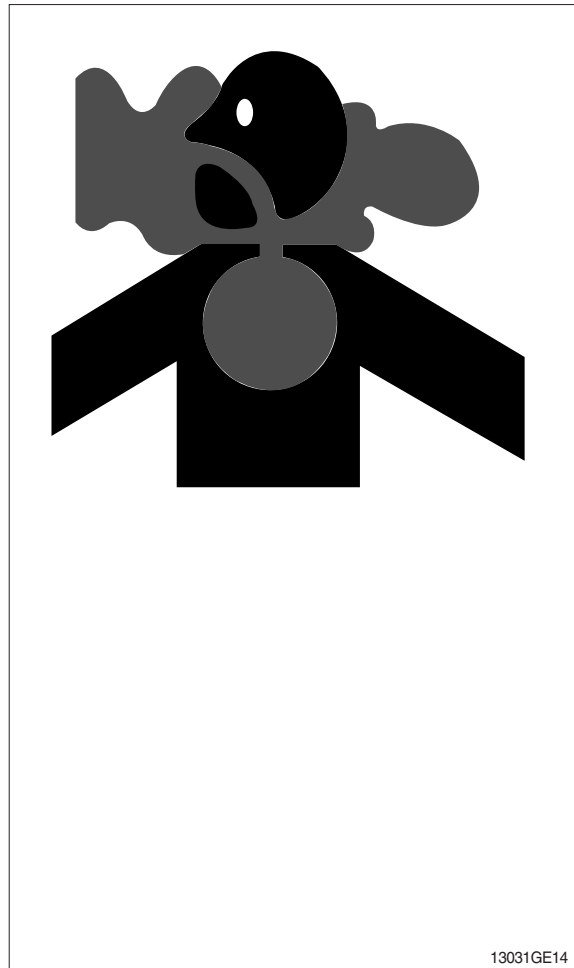
Avoid potentially toxic fumes and dust.

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.

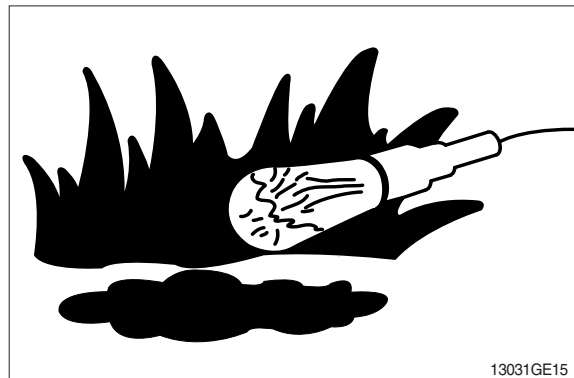
Remove paint before welding or heating:

- 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

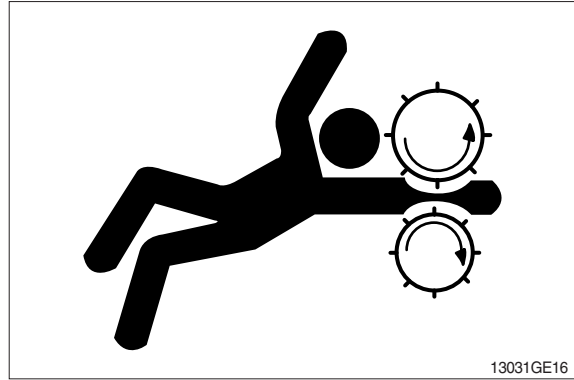
Illuminate your work area adequately but safely. Use a portable safety light for working inside or under the machine. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.



## 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.

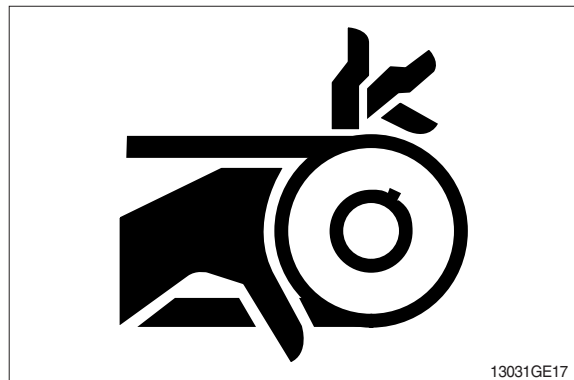
Remove rings and other jewelry to prevent electrical shorts and entanglement in moving parts.



## STAY CLEAR OF MOVING PARTS

Entanglements in moving parts can cause serious injury.

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



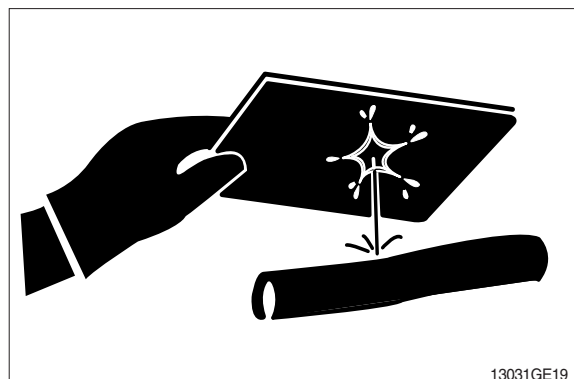
## AVOID HIGH PRESSURE FLUIDS

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:

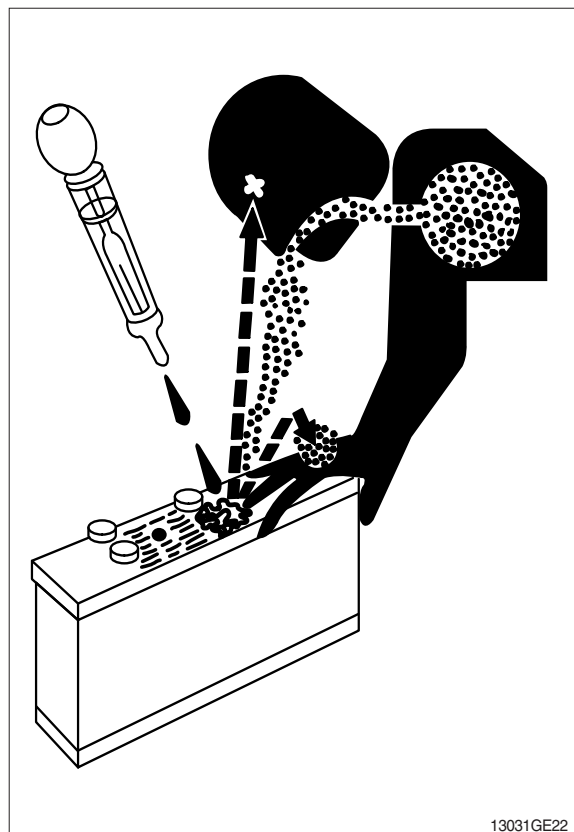
1. Filling batteries in a well-ventilated area.
2. Wearing eye protection and rubber gloves.
3. Avoiding breathing fumes when electrolyte is added.
4. Avoiding spilling or dripping electrolyte.
5. Use proper jump start procedure.

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.





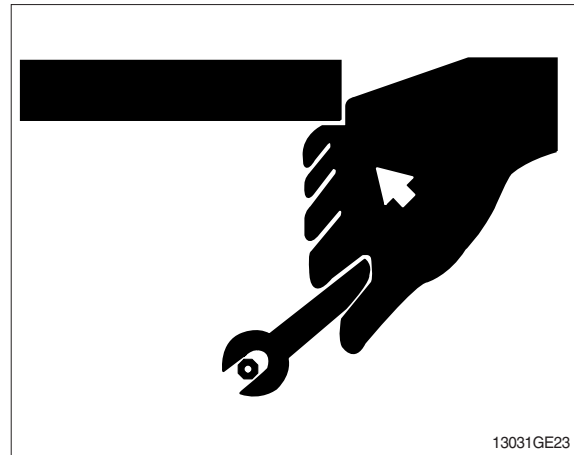
## USE TOOLS PROPERLY

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.)

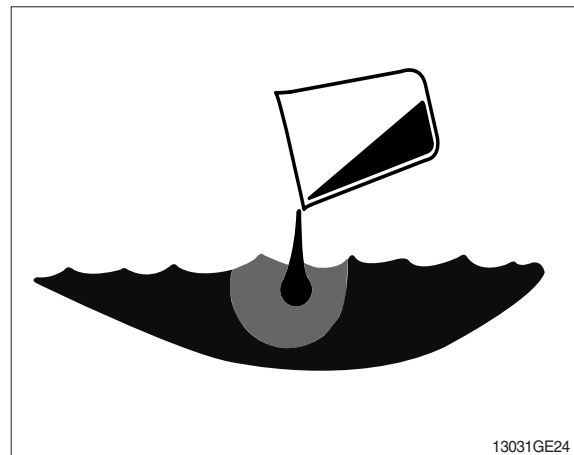


## DISPOSE OF FLUIDS PROPERLY

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.

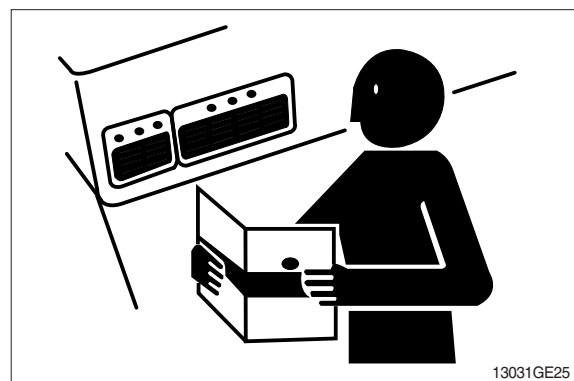
Use proper containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.

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.

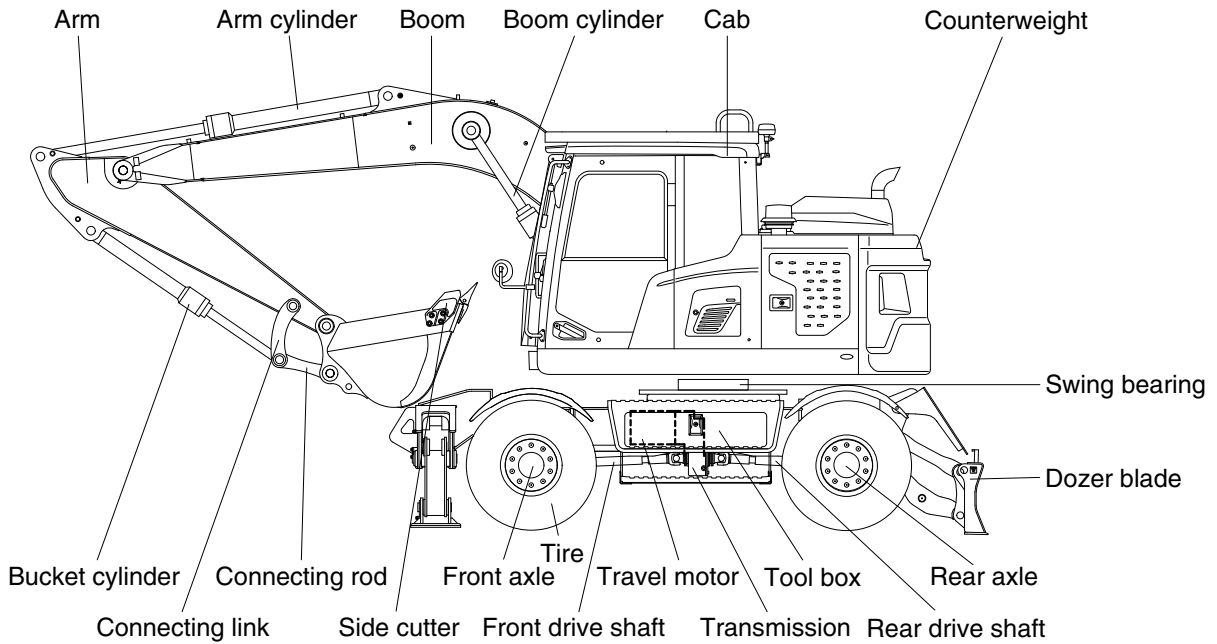
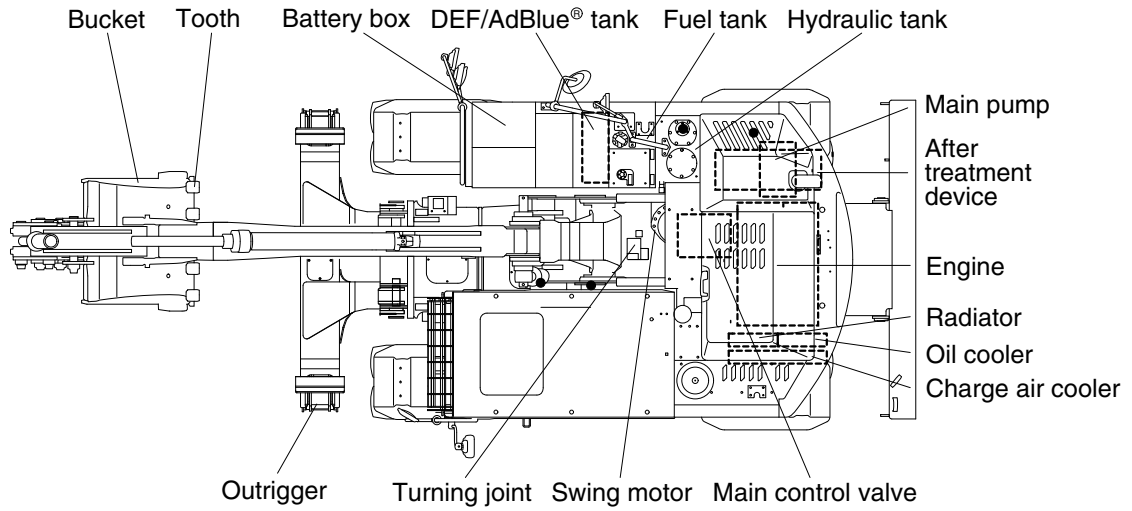


## LIVE WITH SAFETY

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

# GROUP 2 SPECIFICATIONS

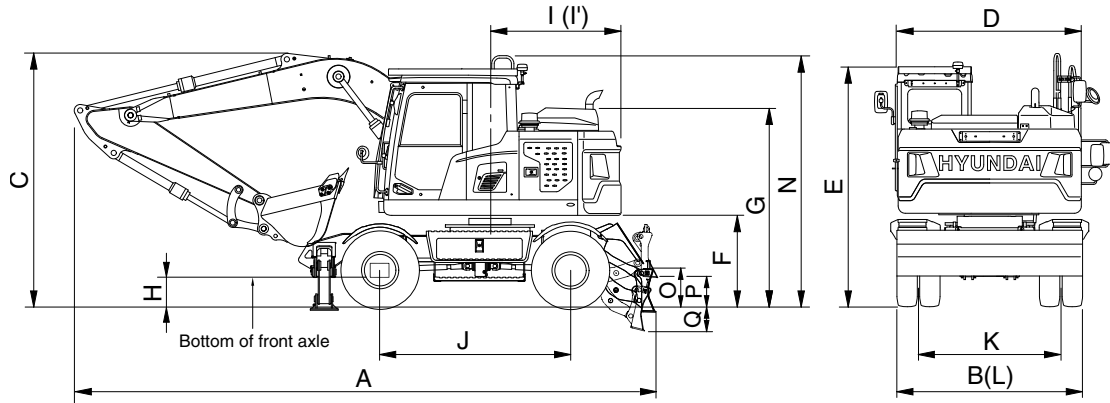
## 1. MAJOR COMPONENT



150WA2SP01

## 2. SPECIFICATIONS

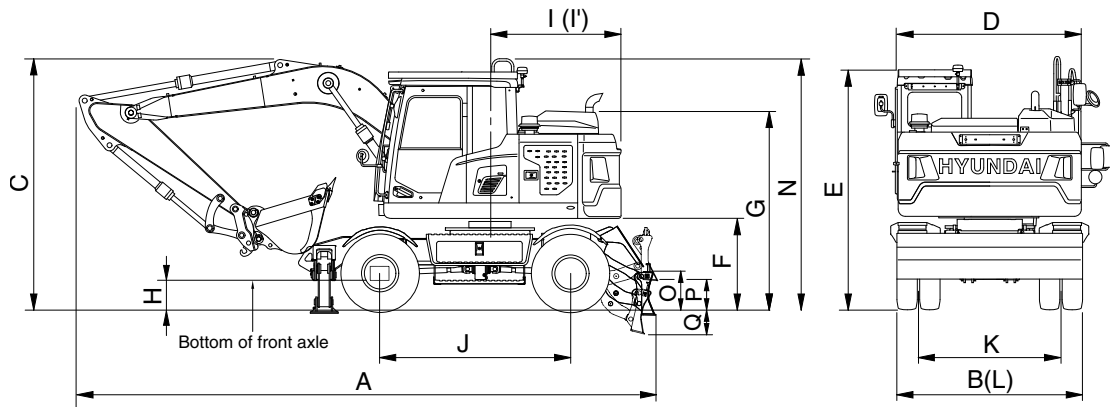
### 1) 4.6 m (15' 1") MONO BOOM, WITHOUT QUICK COUPLER



150WA2SP02

Description	Unit		Specification		
	m (ft-in)	Boom Arm	4.6 m (15' 1")		
Operating weight	kg (lb)		16870 (37190)	16810 (37060)	16890 (37240)
Bucket capacity (SAE heaped), standard	m <sup>3</sup> (yd <sup>3</sup> )		0.58 (0.76)	0.58 (0.76)	0.58 (0.76)
Overall length (travel)	A	mm (ft-in)	7710 (25' 4")	7885 (25' 10")	7610 (25' 0")
Overall length (shipping)			7830 (25' 8")	7780 (25' 6")	7845 (25' 9")
Overall width	B		2530 (8' 4")	2530 (8' 4")	2530 (8' 4")
Overall height of boom (travel)	C		3790 (12' 5")	3270 (10' 9")	3930 (12' 11")
Overall height of boom (shipping)			2990 (9' 10")	2820 (9' 3")	3110 (10' 2")
Overall width of upperstructure	D		2510 (8' 3")	2510 (8' 3")	2510 (8' 3")
Overall height of cab	E		3230 (10' 7")	3230 (10' 7")	3230 (10' 7")
Ground clearance of counterweight	F		1265 (4' 2")	1265 (4' 2")	1265 (4' 2")
Overall height of engine hood	G		2730 (8' 11")	2730 (8' 11")	2730 (8' 11")
Minimum ground clearance	H		370 (1' 3")	370 (1' 3")	370 (1' 3")
Rear-end distance	I		1790 (5' 10")	1790 (5' 10")	1790 (5' 10")
Rear-end swing radius	I'		1800 (5' 11")	1800 (5' 11")	1800 (5' 11")
Wheel base	J		2600 (8' 6")	2600 (8' 6")	2600 (8' 6")
Tread	K		1944 (6' 5")	1944 (6' 5")	1944 (6' 5")
Blade width	L		2530 (8' 4")	2530 (8' 4")	2530 (8' 4")
Overall height of guardrail	N		3450 (11' 4")	3450 (11' 4")	3450 (11' 4")
Height of blade	O		625 (2' 1")	625 (2' 1")	625 (2' 1")
Ground clearance of blade up	P		405 (1' 4")	405 (1' 4")	405 (1' 4")
Depth of blade down	Q		170 (0' 7")	170 (0' 7")	170 (0' 7")
Travel speed	Low		km/hr (mph)	10 (6.2)	10 (6.2)
	High	35 (21.7)		35 (21.7)	35 (21.7)
	Creep	3 (1.9)		3 (1.9)	3 (1.9)
Swing speed		rpm	9.5	9.5	9.5
Gradeability		Degree (%)	30 (58)	30 (58)	30 (58)
Max traction force		kg (lb)	9234 (20360)	9234 (20360)	9234 (20360)

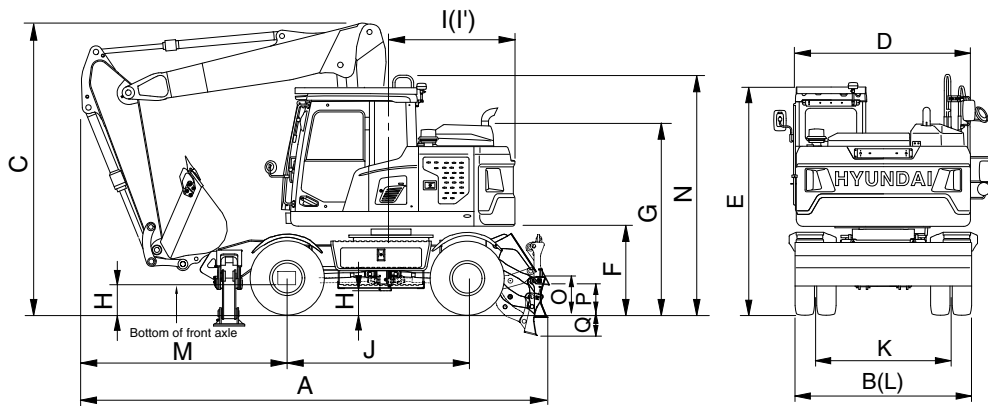
## 2) 4.6 m (15' 1") MONO BOOM, WITH QUICK COUPLER



150WA2SP03

Description	Unit		Specification		
	m (ft-in)	Boom Arm	4.6 m (15' 1")		
			2.45 (8' 0")	2.00 (6' 7")	2.60 (8' 6")
Operating weight	kg (lb)		17050 (37590)	16990 (37460)	17070 (37630)
Bucket capacity (SAE heaped), standard	m <sup>3</sup> (yd <sup>3</sup> )		0.58 (0.76)	0.58 (0.76)	0.58 (0.76)
Overall length (travel)	A	mm (ft-in)	7640 (25' 1")	7800 (25' 7")	7580 (24' 10")
Overall length (shipping)			7840 (25' 9")	7780 (25' 6")	7810 (25' 7")
Overall width	B		2530 (8' 4")	2530 (8' 4")	2530 (8' 4")
Overall height of boom (travel)	C		3870 (12' 8")	3650 (12' 0")	3930 (12' 11")
Overall height of boom (shipping)			3140 (10' 4")	2820 (9' 3")	3270 (10' 9")
Overall width of upperstructure	D		2510 (8' 3")	2510 (8' 3")	2510 (8' 3")
Overall height of cab	E		3230 (10' 7")	3230 (10' 7")	3230 (10' 7")
Ground clearance of counterweight	F		1265 (4' 2")	1265 (4' 2")	1265 (4' 2")
Overall height of engine hood	G		2730 (8' 11")	2730 (8' 11")	2730 (8' 11")
Minimum ground clearance	H		370 (1' 3")	370 (1' 3")	370 (1' 3")
Rear-end distance	I		1790 (5' 10")	1790 (5' 10")	1790 (5' 10")
Rear-end swing radius	I'		1800 (5' 11")	1800 (5' 11")	1800 (5' 11")
Wheel base	J		2600 (8' 6")	2600 (8' 6")	2600 (8' 6")
Tread	K		1944 (6' 5")	1944 (6' 5")	1944 (6' 5")
Blade width	L		2530 (8' 4")	2530 (8' 4")	2530 (8' 4")
Overall height of guardrail	N		3275 (10' 9")	3275 (10' 9")	3275 (10' 9")
Height of blade	O		625 (2' 1")	625 (2' 1")	625 (2' 1")
Ground clearance of blade up	P		405 (1' 4")	405 (1' 4")	405 (1' 4")
Depth of blade down	Q		170 (0' 7")	170 (0' 7")	170 (0' 7")
Travel speed	Low		km/hr (mph)	10 (6.2)	10 (6.2)
	High	35 (21.7)		35 (21.7)	35 (21.7)
	Creep	3 (1.9)		3 (1.9)	3 (1.9)
Swing speed	rpm	9.5	9.5	9.5	
Gradeability	Degree (%)	30 (58)	30 (58)	30 (58)	
Max traction force	kg (lb)	9234 (20360)	9234 (20360)	9234 (20360)	

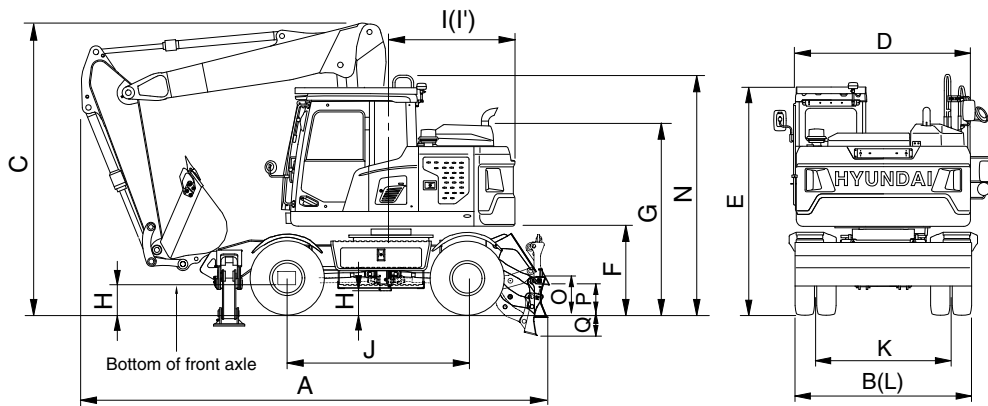
### 3) 2-PIECE BOOM, WITHOUT QUICK COUPLER



150WA2SP04

Description	Unit		Specification		
	m (ft-in)	Boom Arm	4.71 m (15' 5") 2-piece boom		
			2.45 (8' 0")	2.00 (6' 7")	2.60 (8' 6")
Operating weight	kg (lb)		17170 (37850)	17110 (37720)	17190 (37900)
Bucket capacity (SAE heaped), standard	m <sup>3</sup> (yd <sup>3</sup> )		0.58 (0.76)	0.58 (0.76)	0.58 (0.76)
Overall length (travel)	A	mm (ft-in)	5940 (19' 6")	5980 (19' 7")	5920 (19' 5")
Overall length (shipping)			7945 (26' 1")	7940 (26' 1")	7950 (26' 1")
Overall width	B		2530 (8' 4")	2530 (8' 4")	2530 (8' 4")
Overall height of boom (travel)	C		3970 (13' 0")	3980 (13' 1")	3980 (13' 1")
Overall height of boom (shipping)			2990 (9' 10")	2940 (9' 8")	3040 (10' 0")
Overall width of upperstructure	D		2510 (8' 3")	2510 (8' 3")	2510 (8' 3")
Overall height of cab	E		3230 (10' 7")	3230 (10' 7")	3230 (10' 7")
Ground clearance of counterweight	F		1265 (4' 2")	1265 (4' 2")	1265 (4' 2")
Overall height of engine hood	G		2730 (8' 11")	2730 (8' 11")	2730 (8' 11")
Minimum ground clearance	H		370 (1' 3")	370 (1' 3")	370 (1' 3")
Rear-end distance	I		1790 (5' 10")	1790 (5' 10")	1790 (5' 10")
Rear-end swing radius	I'		1800 (5' 11")	1800 (5' 11")	1800 (5' 11")
Wheel base	J		2600 (8' 6")	2600 (8' 6")	2600 (8' 6")
Tread	K		1944 (6' 5")	1944 (6' 5")	1944 (6' 5")
Blade width	L		2530 (8' 4")	2530 (8' 4")	2530 (8' 4")
End of attachment to steering wheel	M		2665 (8' 9")	2695 (8' 10")	2635 (8' 8")
Overall height of guardrail	N		3450 (11' 4")	3450 (11' 4")	3275 (10' 9")
Height of blade	O		625 (2' 1")	625 (2' 1")	625 (2' 1")
Ground clearance of blade up	P		405 (1' 4")	405 (1' 4")	405 (1' 4")
Depth of blade down	Q		170 (0' 7")	170 (0' 7")	170 (0' 7")
Travel speed	Low	km/hr (mph)	10 (6.2)	10 (6.2)	10 (6.2)
	High		35 (21.7)	35 (21.7)	35 (21.7)
	Creep		3 (1.9)	3 (1.9)	3 (1.9)
Swing speed	rpm	9.5	9.5	9.5	
Gradeability	Degree (%)	30 (58)	30 (58)	30 (58)	
Max traction force	kg (lb)	9234 (20360)	9234 (20360)	9234 (20360)	

#### 4) 2-PIECE BOOM, WITH QUICK COUPLER

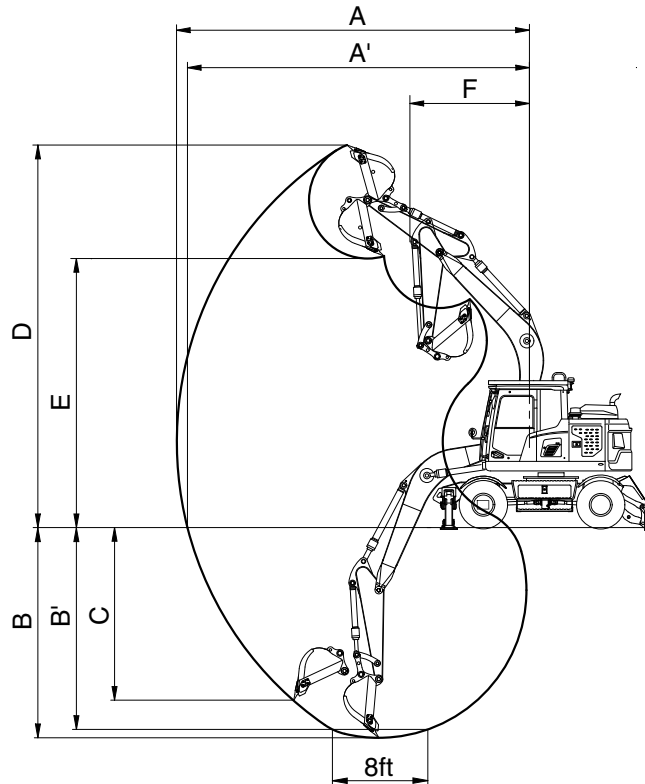


150WA2SP04

Description	Unit		Specification		
	m (ft-in)	Boom Arm	4.71 m (15' 5") 2-piece boom		
			2.45 (8' 0")	2.00 (6' 7")	2.60 (8' 6")
Operating weight	kg (lb)		17350 (38250)	17290 (38120)	17370 (38290)
Bucket capacity (SAE heaped), standard	m <sup>3</sup> (yd <sup>3</sup> )		0.58 (0.76)	0.58 (0.76)	0.58 (0.76)
Overall length (travel)	A	mm (ft-in)	5950 (19' 6")	5970 (19' 7")	5925 (19' 5")
Overall length (shipping)			7945 (26' 1")	7950 (26' 1")	7950 (26' 1")
Overall width	B		2530 (8' 4")	2530 (8' 4")	2530 (8' 4")
Overall height of boom (travel)	C		3970 (13' 0")	3980 (13' 1")	3980 (13' 1")
Overall height of boom (shipping)			2990 (9' 10")	2990 (9' 10")	3140 (10' 4")
Overall width of upperstructure	D		2510 (8' 3")	2510 (8' 3")	2510 (8' 3")
Overall height of cab	E		3230 (10' 7")	3230 (10' 7")	3230 (10' 7")
Ground clearance of counterweight	F		1265 (4' 2")	1265 (4' 2")	1265 (4' 2")
Overall height of engine hood	G		2730 (8' 11")	2730 (8' 11")	2730 (8' 11")
Minimum ground clearance	H		370 (1' 3")	370 (1' 3")	370 (1' 3")
Rear-end distance	I		1790 (5' 10")	1790 (5' 10")	1790 (5' 10")
Rear-end swing radius	I'		1800 (5' 11")	1800 (5' 11")	1800 (5' 11")
Wheel base	J		2600 (8' 6")	2600 (8' 6")	2600 (8' 6")
Tread	K		1944 (6' 5")	1944 (6' 5")	1944 (6' 5")
Blade width	L		2530 (8' 4")	2530 (8' 4")	2530 (8' 4")
Overall height of guardrail	N		3275 (10' 9")	3275 (10' 9")	3275 (10' 9")
Height of blade	O		625 (2' 1")	625 (2' 1")	625 (2' 1")
Ground clearance of blade up	P		405 (1' 4")	405 (1' 4")	405 (1' 4")
Depth of blade down	Q		170 (0' 7")	170 (0' 7")	170 (0' 7")
Travel speed	Low		km/hr (mph)	10 (6.2)	10 (6.2)
	High	35 (21.7)		35 (21.7)	35 (21.7)
	Creep	3 (1.9)		3 (1.9)	3 (1.9)
Swing speed		rpm	9.5	9.5	9.5
Gradeability		Degree (%)	30 (58)	30 (58)	30 (58)
Max traction force		kg (lb)	9234 (20360)	9234 (20360)	9234 (20360)

### 3. WORKING RANGE AND DIGGING POWER

#### 1) 4.6 m (15' 1") MONO BOOM, WITHOUT QUICK COUPLER



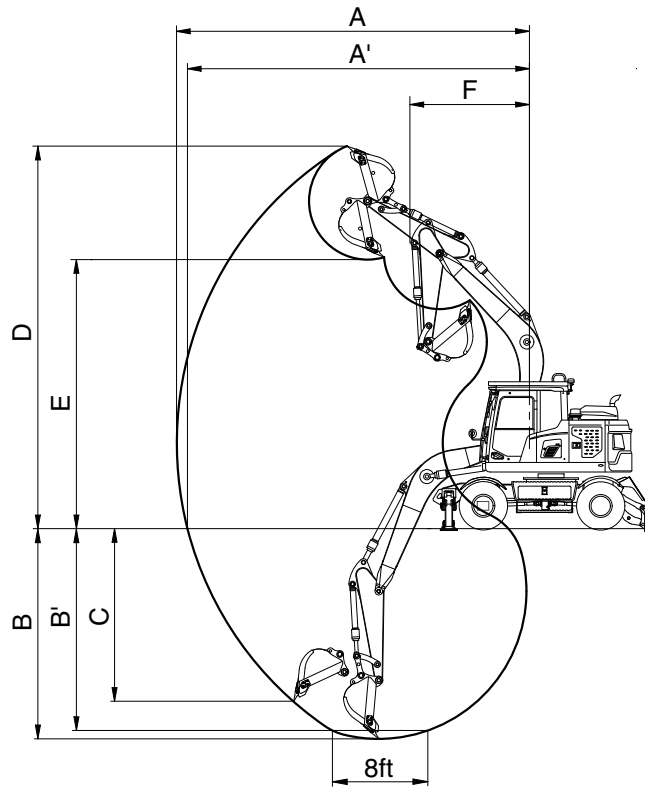
150WA2SP06

Description		m (ft-in)	2.45 (8' 0") Arm	2.00 (6' 7") Arm	2.60 (8' 6") Arm
Max digging reach	A	mm (ft-in)	8370 (27' 6")	7940 (26' 1")	8520 (27' 11")
Max digging reach on ground	A'		8150 (26' 9")	7710 (25' 4")	8300 (27' 3")
Max digging depth	B		5130 (16' 10")	4680 (15' 4")	5280 (17' 4")
Max digging depth (8 ft level)	B'		4920 (16' 2")	4425 (14' 6")	5070 (16' 8")
Max vertical wall digging depth	C		4675 (15' 4")	4220 (13' 10")	4820 (15' 10")
Max digging height	D		8830 (29' 0")	8520 (27' 11")	8920 (29' 3")
Max dumping height	E		6380 (20' 11")	6080 (19' 11")	6470 (21' 3")
Min swing radius	F		2740 (9' 0")	2650 (8' 8")	2755 (9' 0")
Bucket digging force	SAE	kN	87.9 [95.4]	87.8 [95.3]	87.9 [95.4]
		kgf	8961 [9730]	8957 [9720]	8961 [9730]
		lbf	19755 [21451]	19747 [21429]	19755 [21451]
	ISO	kN	102.9 [111.7]	102.9 [111.7]	102.9 [111.7]
		kgf	10494 [11390]	10489 [11390]	10494 [11390]
		lbf	23135 [25111]	23125 [25111]	23135 [25111]
Arm digging force	SAE	kN	63.6 [69.0]	74.2 [80.6]	61.1 [66.3]
		kgf	6485 [7040]	7569 [8220]	6230 [6760]
		lbf	14297 [15521]	16688 [18122]	13735 [14903]
	ISO	kN	66.3 [72.0]	77.9 [84.5]	63.6 [69.0]
		kgf	6764 [7340]	7942 [8620]	6486 [7040]
		lbf	14911 [16182]	17509 [19004]	14299 [15521]

[ ] : Power boost



## 2) 4.6 m (15' 1") MONO BOOM, WITH QUICK COUPLER



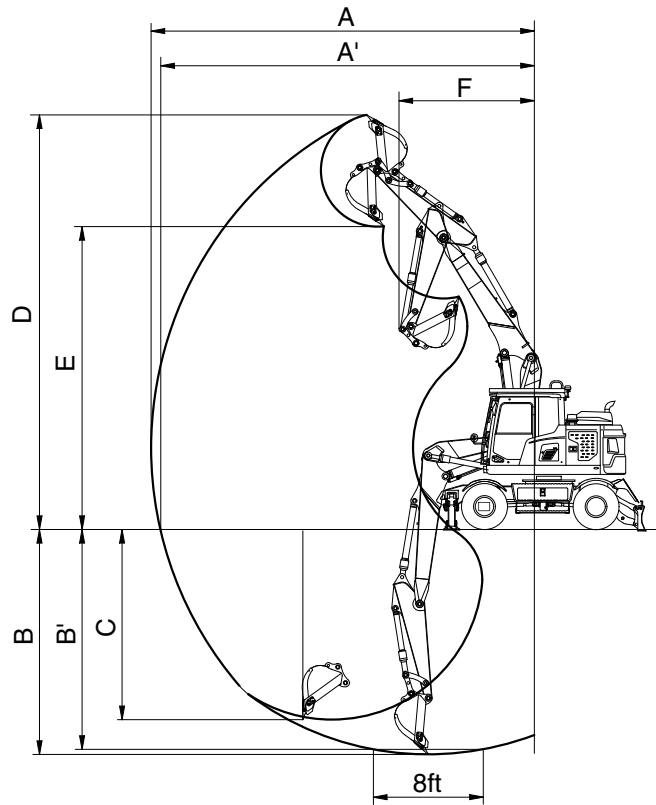
150WA2SP06

Description		m (ft-in)	2.45 (8' 0") Arm	2.00 (6' 7") Arm	2.60 (8' 6") Arm
Max digging reach	A	mm (ft-in)	8600 (28' 3")	8170 (26' 10")	8740 (28' 8")
Max digging reach on ground	A'		8390 (27' 6")	7940 (26' 1")	8530 (28' 0")
Max digging depth	B		5350 (17' 7")	4900 (16' 1")	5500 (18' 1")
Max digging depth (8 ft level)	B'		5160 (16' 11")	4680 (15' 4")	5320 (17' 5")
Max vertical wall digging depth	C		4500 (14' 9")	3950 (13' 0")	4650 (15' 3")
Max digging height	D		9060 (29' 9")	8750 (28' 8")	9150 (30' 0")
Max dumping height	E		6150 (20' 2")	5860 (19' 3")	6250 (20' 6")
Min swing radius	F		2740 (9' 0")	2735 (9' 0")	2755 (9' 0")
Bucket digging force	SAE	kN	76.5 [83.1]	76.5 [83.1]	76.5 [83.1]
		kgf	7801 [8470]	7797 [8470]	7801 [8470]
		lbf	17199 [18673]	17190 [18673]	17199 [18673]
	ISO	kN	85.8 [93.2]	85.7 [93.1]	85.8 [93.2]
		kgf	8748 [9500]	8743 [9490]	8748 [9500]
		lbf	19285 [20944]	19275 [20922]	19285 [20944]
Arm digging force	SAE	kN	59.8 [64.9]	69.2 [75.1]	57.5 [62.5]
		kgf	6094 [6620]	7053 [7660]	5868 [6370]
		lbf	13435 [14595]	15549 [16887]	12937 [14043]
	ISO	kN	61.9 [67.2]	71.9 [78.2]	59.5 [64.6]
		kgf	6311 [6850]	7336 [7970]	6068 [6590]
		lbf	13912 [15102]	16174 [17571]	13377 [14528]

[ ] : Power boost



### 3) 2-PIECE BOOM, WITHOUT QUICK COUPLER

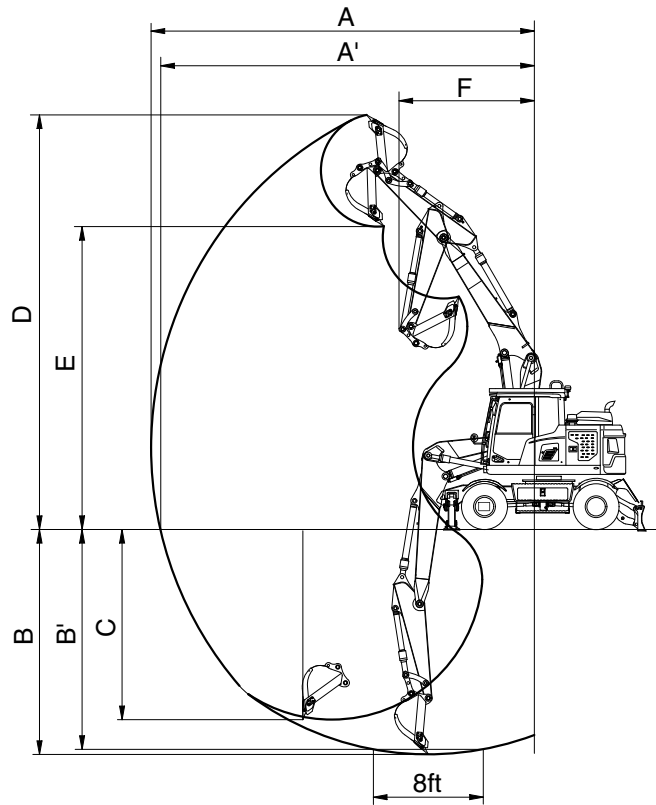


150WA2SP08

Description		m (ft-in)	2.45 (8' 0") Arm	2.00 (6' 7") Arm	2.60 (8' 6") Arm
Max digging reach	A	mm (ft-in)	8550 (28' 1")	8110 (26' 7")	8700 (28' 7")
Max digging reach on ground	A'		8340 (27' 4")	7890 (25' 11")	8490 (27' 10")
Max digging depth	B		5020 (16' 6")	4570 (15' 0")	5170 (17' 0")
Max digging depth (8 ft level)	B'		4910 (16' 1")	4450 (14' 7")	5060 (16' 7")
Max vertical wall digging depth	C		4430 (14' 6")	3950 (13' 0")	4575 (15' 0")
Max digging height	D		9460 (31' 0")	9110 (29' 11")	9580 (31' 5")
Max dumping height	E		6970 (22' 10")	6630 (21' 9")	7090 (23' 3")
Min swing radius	F		2670 (8' 9")	2660 (8' 9")	2710 (8' 11")
Bucket digging force	SAE	kN	87.9 [95.4]	87.8 [95.3]	87.9 [95.4]
		kgf	8961 [9730]	8957 [9720]	8961 [9730]
		lbf	19755 [21451]	19747 [21429]	19755 [21451]
	ISO	kN	102.9 [111.7]	102.9 [111.7]	102.9 [111.7]
		kgf	10494 [11390]	10489 [11390]	10494 [11390]
		lbf	23135 [25111]	23125 [25111]	23135 [25111]
Arm digging force	SAE	kN	63.6 [69.0]	74.2 [80.6]	61.1 [66.3]
		kgf	6485 [7040]	7569 [8220]	6230 [6760]
		lbf	14297 [15521]	16688 [18122]	13735 [14903]
	ISO	kN	66.3 [72.0]	77.9 [84.5]	63.6 [69.0]
		kgf	6764 [7340]	7942 [8620]	6486 [7040]
		lbf	14911 [16182]	17509 [19004]	14299 [15521]

[ ] : Power boost

#### 4) 2-PIECE BOOM, WITH QUICK COUPLER



150WA2SP08

Description		m (ft-in)	2.45 (8' 0") Arm	2.00 (6' 7") Arm	2.60 (8' 6") Arm
Max digging reach	A	mm (ft-in)	8780 (28' 10")	8340 (27' 4")	8925 (29' 3")
Max digging reach on ground	A'		8570 (28' 1")	8120 (26' 8")	8719 (28' 7")
Max digging depth	B		5250 (17' 3")	4800 (15' 9")	5400 (17' 9")
Max digging depth (8 ft level)	B'		5140 (16' 10")	4680 (15' 4")	5290 (17' 4")
Max vertical wall digging depth	C		4240 (13' 11")	3750 (12' 4")	4380 (14' 4")
Max digging height	D		9690 (31' 9")	9340 (30' 8")	9810 (32' 2")
Max dumping height	E		6750 (22' 2")	6400 (21' 0")	6870 (22' 6")
Min swing radius	F		2670 (8' 9")	2660 (8' 9")	2710 (8' 11")
Bucket digging force	SAE	kN	76.5 [83.1]	76.5 [83.1]	76.5 [83.1]
		kgf	7801 [8470]	7797 [8470]	7801 [8470]
		lbf	17199 [18673]	17190 [18673]	17199 [18673]
	ISO	kN	85.8 [93.2]	85.7 [93.1]	85.8 [93.2]
		kgf	8748 [9500]	8743 [9490]	8748 [9500]
		lbf	19285 [20944]	19275 [20922]	19285 [20944]
Arm digging force	SAE	kN	59.8 [64.9]	69.2 [75.1]	57.5 [62.5]
		kgf	6094 [6620]	7053 [7660]	5868 [6370]
		lbf	13435 [14595]	15549 [16887]	12937 [14043]
	ISO	kN	61.9 [67.2]	71.9 [78.2]	59.5 [64.6]
		kgf	6311 [6850]	7336 [7970]	6068 [6590]
		lbf	13912 [15102]	16174 [17571]	13377 [14528]

[ ] : Power boost

## 4. WEIGHT

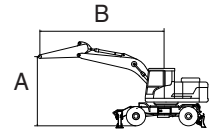
Item	Mono boom		2-piece boom	
	kg	lb	kg	lb
Upperstructure assembly				
· Main frame weld assembly	1220	2690	1220	2690
· Engine assembly	378	833	378	833
· Aftertreatment assembly	64	141	64	141
· Main pump assembly	91	201	91	201
· Main control valve assembly	145	319	145	319
· Swing motor assembly	148	326	148	326
· Hydraulic oil tank WA	156	344	156	344
· Hydraulic oil (max)	89	197	89	197
· Fuel oil tank WA	135	298	135	298
· Fuel oil (max)	170	375	170	375
· Counterweight (STD)	3250	7165	3250	7165
· Cab assembly	495	1091	495	1091
Lower chassis assembly				
· Lower frame weld assembly	1552	3422	1552	3422
· Swing bearing	260	573	260	573
· Travel motor assembly	80	176	80	176
· Turning joint	117	258	117	258
· Transmission assembly	135	298	135	298
· Front axle assembly	637	1404	637	1404
· Front axle assembly (wide)	655	1444	655	1444
· Rear axle assembly	534	1177	534	1177
· Rear axle assembly (wide)	547	1206	547	1206
· Dozer blade assembly (front)	771	1700	770	1698
· Dozer blade assembly (rear)	771	1700	770	1698
· Front outrigger assembly	982	2165	982	2165
· Rear outrigger assembly	982	2165	982	2165
Front attachment assembly (4.6 m boom, 2.45 m arm, 0.58 m³ SAE heaped bucket)				
· 4.6 m boom assembly	822	1812	-	-
· 4.71 m boom assembly	-	-	939	2070
· 2.45 m arm assembly	428	944	428	944
· 2.00 m arm assembly	371	818	371	818
· 2.60 m arm assembly	448	988	448	988
· 0.58 m³ SAE heaped bucket assembly	484	1067	484	1067
· 0.52 m³ SAE heaped bucket assembly	461	1016	461	1016
· 0.65 m³ SAE heaped bucket assembly	513	1131	513	1131
· 0.71 m³ SAE heaped bucket assembly	536	1182	536	1182
· 0.55 m³ SAE heaped bucket assembly	585	1290	585	1290
· 0.45 m³ SAE heaped bucket assembly	410	904	410	904
· 0.50 m³ SAE heaped bucket assembly	439	968	439	968
· 0.61 m³ SAE heaped bucket assembly	490	1080	490	1080
· Boom cylinder assembly (2EA)	119	262	-	-
· Arm cylinder assembly	145	320	145	320
· Bucket cylinder assembly	104	229	104	229
· 2-piece cylinder assembly (2EA)	-	-	123	271
· 2-piece adjust cylinder assembly	-	-	168	370
· Dozer cylinder assembly (2EA)	43	95	43	95
· Outrigger cylinder assembly (2EA)	91	202	91	282
· Bucket control link total	88	194	88	194











## 5. LIFTING CAPACITIES

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HW150A CR	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		4600	2000	3250	-	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 lb					*4420 *9740	4350 9590			*3340 *7360	*3340 *7360	5.19 (17.0)
4.5 m (14.8 ft)	kg lb					*4810 *10600	4240 9350	*3870 *8530	2710 5970	*3120 *6880	2610 5750	6.13 (20.1)
3.0 m (9.8 ft)	kg lb					*5800 *12790	4020 8860	4190 9240	2640 5820	*3150 *6940	2290 5050	6.59 (21.6)
1.5 m (4.9 ft)	kg lb					6280 13850	3800 8380	4090 9020	2550 5620	*3380 *7450	2190 4830	6.68 (21.9)
0.0 m (0.0 ft)	kg lb			*6020 *13270	*6020 *13270	6150 13560	3680 8110	4030 8880	2500 5510	3670 8090	2290 5050	6.42 (21.0)
-1.5 m (-4.9 ft)	kg lb	*6310 *13910	*6310 *13910	*9650 *21270	6750 14880	6150 13560	3680 8110			4310 9500	2670 5890	5.74 (18.8)
-3.0 m (-9.8 ft)	kg lb			*7160 *15790	6940 15300					*4610 *10160	3860 8510	4.46 (14.6)

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.**

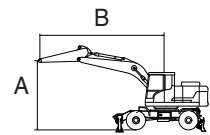
**Consult with your local HD Hyundai Construction Equipment dealer regarding the lifting capacities for specific work tools and attachments.**











▲ **Failure to comply to the rated load can cause serious injury, death, 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
HW150A CR	MONO BOOM	4600	2000	3250	-	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)		Capacity		Reach	
											m (ft)	
6.0 m (19.7 ft)	kg					*4420	3930			*3340	3100	5.19
	lb					*9740	8660			*7360	6830	(17.0)
4.5 m (14.8 ft)	kg					*4810	3830	*3870	2440	*3120	2350	6.13
	lb					*10600	8440	*8530	5380	*6880	5180	(20.1)
3.0 m (9.8 ft)	kg					*5800	3610	4190	2380	*3150	2050	6.59
	lb					*12790	7960	9240	5250	*6940	4520	(21.6)
1.5 m (4.9 ft)	kg					6280	3390	4090	2290	*3380	1970	6.68
	lb					13850	7470	9020	5050	*7450	4340	(21.9)
0.0 m (0.0 ft)	kg			*6020	5860	6150	3280	4030	2240	3670	2050	6.42
	lb			*13270	12920	13560	7230	8880	4940	8090	4520	(21.0)
-1.5 m (-4.9 ft)	kg	*6310	*6310	*9650	5920	6150	3280			4310	2390	5.74
	lb	*13910	*13910	*21270	13050	13560	7230			9500	5270	(18.8)
-3.0 m (-9.8 ft)	kg			*7160	6090					*4610	3450	4.46
	lb			*15790	13430					*10160	7610	(14.6)

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.**

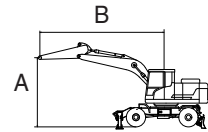
**Consult with your local HD Hyundai Construction Equipment dealer regarding the lifting capacities for specific work tools and attachments.**











▲ **Failure to comply to the rated load can cause serious injury, death, 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
HW150A CR	MONO BOOM	4600	2450	3250	-	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)	
7.5 m (24.6 ft)	kg									*2900	*2900	4.19
	lb									*6390	*6390	(13.7)
6.0 m (19.7 ft)	kg									*2400	*2400	5.74
	lb									*5290	*5290	(18.8)
4.5 m (14.8 ft)	kg				*4340	4300	*3870	2740	*2250	*2250	6.60	
	lb				*9570	9480	*8530	6040	*4960	*4960	(21.7)	
3.0 m (9.8 ft)	kg		*8000	7500	*5370	4060	4200	2650	*2260	2060	7.03	
	lb		*17640	16530	*11840	8950	9260	5840	*4980	4540	(23.1)	
1.5 m (4.9 ft)	kg		*5100	*5100	6300	3810	4080	2540	*2410	1980	7.12	
	lb		*11240	*11240	13890	8400	8990	5600	*5310	4370	(23.3)	
0.0 m (0.0 ft)	kg		*6320	*6320	6130	3660	4000	2470	*2730	2050	6.87	
	lb		*13930	*13930	13510	8070	8820	5450	*6020	4520	(22.5)	
-1.5 m (-4.9 ft)	kg	*5450	*5450	*10200	6650	6090	3620	3990	2460	*3420	2340	6.24
	lb	*12020	*12020	*22490	14660	13430	7980	8800	5420	*7540	5160	(20.5)
-3.0 m (-9.8 ft)	kg		*8180	6800	*5500	3700			*4460	3140	5.10	
	lb		*18030	14990	*12130	8160			*9830	6920	(16.7)	

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.

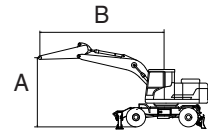
Consult with your local HD Hyundai Construction Equipment dealer regarding the lifting capacities for specific work tools and attachments.












▲ Failure to comply to the rated load can cause serious injury, death, 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
HW150A CR	MONO BOOM	4600	2450	3250	-	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)		Capacity		Reach
												
7.5 m (24.6 ft)	kg lb									*2900 *6390	*2900 *6390	4.19 (13.7)
6.0 m (19.7 ft)	kg lb									*2400 *5290	*2400 *5290	5.74 (18.8)
4.5 m (14.8 ft)	kg lb					*4340 *9570	3880 8550	*3870 *8530	2470 5450	*2250 *4960	2100 4630	6.60 (21.7)
3.0 m (9.8 ft)	kg lb			*8000 *17640	6630 14620	*5370 *11840	3640 8020	4200 9260	2380 5250	*2260 *4980	1850 4080	7.03 (23.1)
1.5 m (4.9 ft)	kg lb			*5100 *11240	*5100 *11240	6300 13890	3400 7500	4080 8990	2280 5030	*2410 *5310	1780 3920	7.12 (23.3)
0.0 m (0.0 ft)	kg lb			*6320 *13930	5800 12790	6130 13510	3260 7190	4000 8820	2200 4850	*2730 *6020	1840 4060	6.87 (22.5)
-1.5 m (-4.9 ft)	kg lb	*5450 *12020	*5450 *12020	*10200 *22490	5820 12830	6090 13430	3220 7100	3990 8800	2200 4850	*3420 *7540	2090 4610	6.24 (20.5)
-3.0 m (-9.8 ft)	kg lb			*8180 *18030	5960 13140	*5500 *12130	3300 7280			*4460 *9830	2810 6190	5.10 (16.7)

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.

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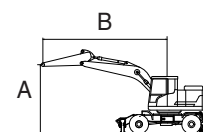
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Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HW150A CR	MONO BOOM	4600	2600	3250	-	500	-	Down	-	-

·  : 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)	
7.5 m (24.6 ft)	kg									*2670	*2670	4.43
	lb									*5890	*5890	(14.5)
6.0 m (19.7 ft)	kg									*2230	*2230	5.92
	lb									*4920	*4920	(19.4)
4.5 m (14.8 ft)	kg				*4190	*4190	*3770	2750	*2100	*2100	6.76	
	lb				*9240	*9240	*8310	6060	*4630	*4630	(22.2)	
3.0 m (9.8 ft)	kg		*7640	7570	*5230	4080	4210	2660	*2120	2000	7.18	
	lb		*16840	16690	*11530	8990	9280	5860	*4670	4410	(23.5)	
1.5 m (4.9 ft)	kg		*5810	*5810	6310	3820	4080	2540	*2250	1920	7.26	
	lb		*12810	*12810	13910	8420	8990	5600	*4960	4230	(23.8)	
0.0 m (0.0 ft)	kg		*6390	*6390	6130	3650	3990	2460	*2540	1990	7.01	
	lb		*14090	*14090	13510	8050	8800	5420	*5600	4390	(23.0)	
-1.5 m (-4.9 ft)	kg	*5220	*5220	*10050	6610	6070	3610	3970	2440	*3130	2250	6.40
	lb	*11510	*11510	*22160	14570	13380	7960	8750	5380	*6900	4960	(21.0)
-3.0 m (-9.8 ft)	kg	*9280	*9280	*8470	6750	*5700	3670			*4400	2960	5.30
	lb	*20460	*20460	*18670	14880	*12570	8090			*9700	6530	(17.4)

Note 1. Lifting capacity are based on ISO 10567.

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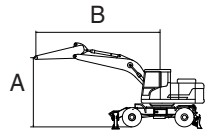
Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HW150A CR	MONO BOOM	4600	2600	3250	-	500	-	Up	-	-



: 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)		Capacity		Reach	
											m (ft)	
7.5 m (24.6 ft)	kg									*2670	*2670	4.43
	lb									*5890	*5890	(14.5)
6.0 m (19.7 ft)	kg									*2230	*2230	5.92
	lb									*4920	*4920	(19.4)
4.5 m (14.8 ft)	kg				*4190	3900	*3770	2480	*2100	2030		6.76
	lb				*9240	8600	*8310	5470	*4630	4480		(22.2)
3.0 m (9.8 ft)	kg		*7640	6690	*5230	3660	4210	2390	*2120	1800		7.18
	lb		*16840	14750	*11530	8070	9280	5270	*4670	3970		(23.5)
1.5 m (4.9 ft)	kg		*5810	*5810	6310	3410	4080	2280	*2250	1720		7.26
	lb		*12810	*12810	13910	7520	8990	5030	*4960	3790		(23.8)
0.0 m (0.0 ft)	kg		*6390	5780	6130	3250	3990	2200	*2540	1780		7.01
	lb		*14090	12740	13510	7170	8800	4850	*5600	3920		(23.0)
-1.5 m (-4.9 ft)	kg	*5220	*5220	*10050	5780	6070	3200	3970	2180	*3130	2010	6.40
	lb	*11510	*11510	*22160	12740	13380	7050	8750	4810	*6900	4430	(21.0)
-3.0 m (-9.8 ft)	kg	*9280	*9280	*8470	5910	*5700	3270			*4400	2650	5.30
	lb	*20460	*20460	*18670	13030	*12570	7210			*9700	5840	(17.4)

Note 1. Lifting capacity are based on ISO 10567.

- 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.
- The Lift-point is bucket pivot mounting pin on the arm (without bucket mass).
- \*Indicates load limited by hydraulic capacity.

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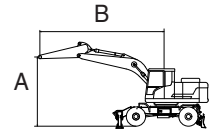
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## 2) 2-PIECE BOOM

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HW150A CR	2-PIECE BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		4710	2000	3250	-	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 lb						*4440 *9790	*4440 *9790	3.71 (12.2)	
6.0 m (19.7 ft)	kg lb		*4210 *9280	*4210 *9280			*3480 *7670	3200 7050	5.41 (17.8)	
4.5 m (14.8 ft)	kg lb	*5850 *12900	*5850 *12900	*4650 *10250	4240 9350	*4240 *9350	2710 5970	*3210 *7080	2470 5450	6.32 (20.7)
3.0 m (9.8 ft)	kg lb			*5640 *12430	3990 8800	4190 9240	2630 5800	*3180 *7010	2180 4810	6.77 (22.2)
1.5 m (4.9 ft)	kg lb			6270 13820	3760 8290	4080 8990	2530 5580	*3350 *7390	2090 4610	6.86 (22.5)
0.0 m (0.0 ft)	kg lb			6140 13540	3640 8020	4020 8860	2470 5450	3530 7780	2190 4830	6.60 (21.6)
-1.5 m (-4.9 ft)	kg lb	*9690 *21360	6710 14790	6140 13540	3640 8020			4110 9060	2530 5580	5.94 (19.5)

Note 1. Lifting capacity are based on ISO 10567.

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4. \*Indicates load limited by hydraulic capacity.

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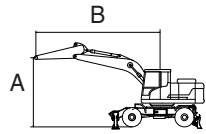
Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HW150A CR	2-PIECE BOOM	4710	2000	3250	-	500	-	Up	-	-



: 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							*4440	*4440	3.71
	lb							*9790	*9790	(12.2)
6.0 m (19.7 ft)	kg		*4210	3940				*3480	2880	5.41
	lb		*9280	8690				*7670	6350	(17.8)
4.5 m (14.8 ft)	kg	*5850	*5850	*4650	3820	*4240	2440	*3210	2220	6.32
	lb	*12900	*12900	*10250	8420	*9350	5380	*7080	4890	(20.7)
3.0 m (9.8 ft)	kg		*5640	3570	4190	2360	*3180	1950	6.77	
	lb		*12430	7870	9240	5200	*7010	4300	(22.2)	
1.5 m (4.9 ft)	kg		6270	3350	4080	2260	*3350	1870	6.86	
	lb		13820	7390	8990	4980	*7390	4120	(22.5)	
0.0 m (0.0 ft)	kg		6140	3240	4020	2210	3530	1950	6.60	
	lb		13540	7140	8860	4870	7780	4300	(21.6)	
-1.5 m (-4.9 ft)	kg	*9690	5860	6140	3240		4110	2260	5.94	
	lb	*21360	12920	13540	7140		9060	4980	(19.5)	

Note 1. Lifting capacity are based on ISO 10567.

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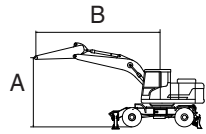
Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HW150A CR	2-PIECE BOOM	4710	2450	3250	-	500	-	Down	-	-



: 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						*3050	*3050	4.49	
	lb						*6720	*6720	(14.7)	
6.0 m (19.7 ft)	kg		*3710	*3710			*2510	*2510	5.97	
	lb		*8180	*8180			*5530	*5530	(19.6)	
4.5 m (14.8 ft)	kg		*4210	*4210	*3880	2730	*2330	2210	6.80	
	lb		*9280	*9280	*8550	6020	*5140	4870	(22.3)	
3.0 m (9.8 ft)	kg		*5230	4040	4200	2630	*2310	1970	7.21	
	lb		*11530	8910	9260	5800	*5090	4340	(23.7)	
1.5 m (4.9 ft)	kg		6290	3770	4080	2520	*2410	1890	7.30	
	lb		13870	8310	8990	5560	*5310	4170	(23.9)	
0.0 m (0.0 ft)	kg	*4890	*4890	6120	3620	3990	2440	*2670	1960	7.05
	lb	*10780	*10780	13490	7980	8800	5380	*5890	4320	(23.1)
-1.5 m (-4.9 ft)	kg	*8930	6600	6080	3590	3980	2430	*3210	2230	6.45
	lb	*19690	14550	13400	7910	8770	5360	*7080	4920	(21.1)

Note 1. Lifting capacity are based on 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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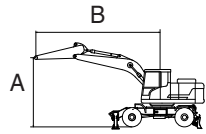
Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HW150A CR	2-PIECE BOOM	4710	2450	3250	-	500	-	Up	-	-



: 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						*3050	*3050	4.49	
	lb						*6720	*6720	(14.7)	
6.0 m (19.7 ft)	kg		*3710	*3710			*2510	2480	5.97	
	lb		*8180	*8180			*5530	5470	(19.6)	
4.5 m (14.8 ft)	kg		*4210	3870	*3880	2460	*2330	1980	6.80	
	lb		*9280	8530	*8550	5420	*5140	4370	(22.3)	
3.0 m (9.8 ft)	kg		*5230	3620	4200	2360	*2310	1760	7.21	
	lb		*11530	7980	9260	5200	*5090	3880	(23.7)	
1.5 m (4.9 ft)	kg		6290	3360	4080	2250	*2410	1690	7.30	
	lb		13870	7410	8990	4960	*5310	3730	(23.9)	
0.0 m (0.0 ft)	kg	*4890	*4890	6120	3210	3990	2180	*2670	1750	7.05
	lb	*10780	*10780	13490	7080	8800	4810	*5890	3860	(23.1)
-1.5 m (-4.9 ft)	kg	*8930	5760	6080	3180	3980	2160	*3210	1980	6.45
	lb	*19690	12700	13400	7010	8770	4760	*7080	4370	(21.1)

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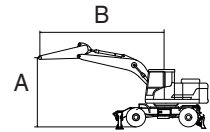
**Consult with your local HD Hyundai Construction Equipment dealer regarding the lifting capacities for specific work tools and attachments.**









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Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HW150A CR	2-PIECE BOOM	4710	2600	3250	-	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			*3420	*3420			*2810	*2810	4.73
	lb			*7540	*7540			*6190	*6190	(15.5)
6.0 m (19.7 ft)	kg			*3560	*3560	*2880	2760	*2330	*2330	6.15
	lb			*7850	*7850	*6350	6080	*5140	*5140	(20.2)
4.5 m (14.8 ft)	kg			*4060	*4060	*3780	2750	*2170	2130	6.95
	lb			*8950	*8950	*8330	6060	*4780	4700	(22.8)
3.0 m (9.8 ft)	kg	*7590	7510	*5090	4060	*4180	2640	*2160	1910	7.36
	lb	*16730	16560	*11220	8950	*9220	5820	*4760	4210	(24.2)
1.5 m (4.9 ft)	kg			*6200	3780	4080	2520	*2250	1840	7.44
	lb			*13670	8330	8990	5560	*4960	4060	(24.4)
0.0 m (0.0 ft)	kg	*4980	*4980	6110	3610	3990	2430	*2480	1900	7.20
	lb	*10980	*10980	13470	7960	8800	5360	*5470	4190	(23.6)
-1.5 m (-4.9 ft)	kg	*8600	6560	6060	3570	3960	2420	*2960	2140	6.61
	lb	*18960	14460	13360	7870	8730	5340	*6530	4720	(21.7)
-3.0 m (-9.8 ft)	kg			*5860	3640					
	lb			*12920	8020					

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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.

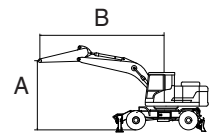
Consult with your local HD Hyundai Construction Equipment dealer regarding the lifting capacities for specific work tools and attachments.









▲ Failure to comply to the rated load can cause serious injury, death, 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
HW150A CR	2-PIECE BOOM	4710	2600	3250	-	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			*3420	*3420			*2810	*2810	4.73
	lb			*7540	*7540			*6190	*6190	(15.5)
6.0 m (19.7 ft)	kg			*3560	*3560	*2880	2490	*2330	*2330	6.15
	lb			*7850	*7850	*6350	5490	*5140	*5140	(20.2)
4.5 m (14.8 ft)	kg			*4060	3900	*3780	2470	*2170	1910	6.95
	lb			*8950	8600	*8330	5450	*4780	4210	(22.8)
3.0 m (9.8 ft)	kg	*7590	6620	*5090	3640	*4180	2370	*2160	1710	7.36
	lb	*16730	14590	*11220	8020	*9220	5220	*4760	3770	(24.2)
1.5 m (4.9 ft)	kg			*6200	3370	4080	2250	*2250	1640	7.44
	lb			*13670	7430	8990	4960	*4960	3620	(24.4)
0.0 m (0.0 ft)	kg	*4980	*4980	6110	3200	3990	2170	*2480	1690	7.20
	lb	*10980	*10980	13470	7050	8800	4780	*5470	3730	(23.6)
-1.5 m (-4.9 ft)	kg	*8600	5720	6060	3160	3960	2150	*2960	1910	6.61
	lb	*18960	12610	13360	6970	8730	4740	*6530	4210	(21.7)
-3.0 m (-9.8 ft)	kg			*5860	3230					
	lb			*12920	7120					

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

▲ Failure to comply to the rated load can cause serious injury, death, or property damage. Make adjustments to the rated load as necessary for non-standard configurations.



## 6. BUCKET SELECTION GUIDE

### 1) MONO BOOM, 3250 kg COUNTERWEIGHT



General bucket



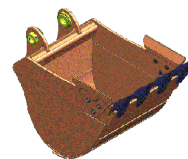
Heavy duty



Ditch cleaning



Slope finishing



Hammerless tooth

Type	Capacity		Width		Weight kg (lb)	Tooth  EA	MONO			
	SAE Heaped  m <sup>3</sup> (yd <sup>3</sup> )	CECE heaped  m <sup>3</sup> (yd <sup>3</sup> )	Without side cutter  mm (in)	With side cutter  mm (in)			Recommendation		mm (ft-in)	
							4.6 m (15' 1") Boom			
General bucket	0.58 (0.76)	0.50 (0.65)	950 (37.4")	1110 (43.7")	480 (1060)	5	●	◐	◑	
	0.52 (0.68)	0.45 (0.59)	870 (34.3")	1020 (40.2")	460 (1010)	5	●	●	●	
	0.65 (0.85)	0.55 (0.72)	1060 (41.7")	1210 (47.6")	513 (1130)	5	◐	■	■	
Heavy duty	0.71 (0.93)	0.60 (0.78)	1140 (44.9")	1300 (51.2")	536 (1180)	5	◐	■	■	
Ditch cleaning	0.45 (0.59)	0.40 (0.52)	1520 (59.8")	-	410 (900)	0	●	●	●	
Slope finishing	0.55 (0.72)	0.45 (0.59)	1800 (70.9")	-	585 (1290)	0	●	◐	◑	
Hammer- less tooth	0.50 (0.65)	0.45 (0.59)	762 (30.0")	821 (32.3")	439 (970)	4	●	●	●	
	0.61 (0.80)	0.54 (0.71)	914 (36.0")	974 (38.3")	490 (1080)	5	●	◐	◑	



Applicable for materials with density of 2100 kg/m<sup>3</sup> (3500 lb/yd<sup>3</sup>) or less



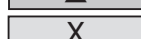
Applicable for materials with density of 1800 kg/m<sup>3</sup> (3000 lb/yd<sup>3</sup>) or less



Applicable for materials with density of 1500 kg/m<sup>3</sup> (2500 lb/yd<sup>3</sup>) or less



Applicable for materials with density of 1200 kg/m<sup>3</sup> (2000 lb/yd<sup>3</sup>) or less



Not recommended

※ 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 HD Hyundai Construction Equipment dealer for information on selecting the correct boom–arm–bucket combination.



## 2) 2-PIECE BOOM, 3250 kg COUNTERWEIGHT



General bucket



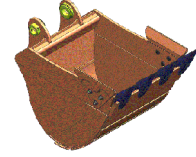
Heavy duty



Ditch cleaning



Slope finishing



Hammerless tooth

Type	Capacity		Width		Weight kg (lb)	Tooth EA	2-PIECE		
	SAE Heaped	CECE heaped	Without side cutter	With side cutter			Recommendation mm (ft-in)		
							4.71 m (15' 5") Boom		
	m <sup>3</sup> (yd <sup>3</sup> )	m <sup>3</sup> (yd <sup>3</sup> )	mm (in)	mm (in)			2.0 m (6' 7") Arm	2.45 m (8' 0") Arm	2.6 m (8' 6") Arm
General bucket	0.58 (0.76)	0.50 (0.65)	950 (37.4")	1110 (43.7")	480 (1060)	5	●	◐	■
	0.52 (0.68)	0.45 (0.59)	870 (34.3")	1020 (40.2")	460 (1010)	5	●	●	◐
	0.65 (0.85)	0.55 (0.72)	1060 (41.7")	1210 (47.6")	513 (1130)	5	◐	■	■
Heavy duty	0.71 (0.93)	0.60 (0.78)	1140 (44.9")	1300 (51.2")	536 (1180)	5	■	▲	▲
Ditch cleaning	0.45 (0.59)	0.40 (0.52)	1520 (59.8")	-	410 (900)	0	●	●	●
Slope finishing	0.55 (0.72)	0.45 (0.59)	1800 (70.9")	-	585 (1290)	0	●	◐	■
Hammer- less tooth	0.50 (0.65)	0.45 (0.59)	762 (30.0")	821 (32.3")	439 (970)	4	●	●	●
	0.61 (0.80)	0.54 (0.71)	914 (36.0")	974 (38.3")	490 (1080)	5	◐	■	■

- Applicable for materials with density of 2100 kg/m<sup>3</sup> (3500 lb/yd<sup>3</sup>) or less
- ◐ Applicable for materials with density of 1800 kg/m<sup>3</sup> (3000 lb/yd<sup>3</sup>) or less
- Applicable for materials with density of 1500 kg/m<sup>3</sup> (2500 lb/yd<sup>3</sup>) or less
- ▲ Applicable for materials with density of 1200 kg/m<sup>3</sup> (2000 lb/yd<sup>3</sup>) or less
- X Not recommended

※ 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 HD Hyundai Construction Equipment dealer for information on selecting the correct boom–arm–bucket combination.

## 7. SPECIFICATIONS FOR MAJOR COMPONENTS

### 1) ENGINE

Item	Specification
Maker / Model	CUMMINS / B4.5
Type	4-cycle, turbocharged, charge air cooled, electronic/mechanical controlled diesel engine
Cooling method	Water cooled
Number of cylinders and arrangement	4 cylinders, in-line
Firing order	1-3-2-4
Combustion chamber type	Direct injection type
Cylinder bore × stroke	107 × 124 mm (4.21" × 4.88")
Displacement	4.5 ℓ (275 cu in)
Compression ratio	17.2 : 1
Gross power	174 Hp (129 kW ) at 2200 rpm
Net power	171 Hp (127 kW) at 2200 rpm
Max. power	174 Hp (129 kW) at 2200 rpm
Peak Torque	780 N · m (575 lb · ft) at 1500 rpm
Engine oil quantity	11 ℓ (2.9 U.S. gal)
Wet weight or Dry weight	378 kg (833 lb)
Starter motor	24 V-4.8 kW
Alternator	24 V-95 A
Battery	2 × 12 × 100 Ah

### 2) MAIN PUMP

Item	Specification
Type	Variable displacement piston pump
Capacity	145 cc/rev
Maximum pressure	350 kgf/cm <sup>2</sup> (4980 psi)
Maximum pressure (power boost)	380 kgf/cm <sup>2</sup> (5400 psi)
Rated oil flow	260 ℓ /min (68.7 U.S. gpm / 57.2 U.K. gpm)
Rated speed	1800 rpm

### 3) STEERING PUMP

Item	Specification
Type	Fixed displacement gear pump single stage
Capacity	35cc/rev
Maximum pressure	210 kgf/cm <sup>2</sup> (2990 psi)
Rated oil flow	60 ℓ /min (15.9 U.S. gpm/13.2 U.K. gpm)

### 4) MAIN CONTROL VALVE

Item	Specification
Type	Section block
Operating method	Hydraulic pilot system
Main relief valve pressure	350 kgf/cm <sup>2</sup> (4980 psi)
Main relief valve pressure (power boost)	380 kgf/cm <sup>2</sup> (5400 psi)
Overload relief valve pressure	420 kgf/cm <sup>2</sup> (5970 psi)

### 5) SWING UNIT

Item	Specification
Type	Fixed displacement radial piston motor
Capacity	1687 cc/rev
Relief pressure	270 kgf/cm <sup>2</sup> (3840 psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	746 kgf · m (5394 lbf · ft)
Brake release pressure	15~40 kgf/cm <sup>2</sup> (213~569 psi)
Reduction gear type	-

### 6) TRAVEL MOTOR

Item	Specification	
	Type 1	Type 2
Type	Variable displacement bent-axis axial piston motor	
Relief pressure	400 kgf/cm <sup>2</sup> (5690 psi)	400 kgf/cm <sup>2</sup> (5690 psi)
Counter balance valve	Applied	Applied
Capacity (max/min)	140/51.8 cc/rev	140/102 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	30~35 kgf /cm <sup>2</sup> (427~498 psi)	
Parking brake	Type	Multi disc brake integrated in transmission	
	Maximum braking torque	2466 kgf · m (17837 lbf · ft)	
Axle	Type	4 wheel drive with differential	
	Gear ratio	16.0	
	Brake	Multi disc brake	
	Brake pressure	81.6 kgf /cm <sup>2</sup> (1160 psi)	
	Steering pressure	204 kgf /cm <sup>2</sup> (2900 psi)	

## 8) POWER TRAIN GEAR PUMP

Item	Description
Capacity	Steering + brake : 19.4 + 11.9 cc / rev (Engine PTO)
Rated flow	Steering + brake : 34 + 21 lpm (Engine PTO) (9.0 + 5.5 U.S. gpm / 7.5 + 4.6 U.K. gpm)

## 9) REMOTE CONTROL VALVE

Item	Specification	
Type	Pressure reducing	
Operating pressure	Min	5 kgf /cm <sup>2</sup> (80 psi)
	Max	40 kgf /cm <sup>2</sup> (570 psi)
Single operation stroke	Lever (port 1, 3)	86 mm (3.4 in)
	Lever (port 2, 4)	109 mm (4.3 in)

## 10) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Stroke	Ø 105 × 1105 mm
	Cushion	Extend and retract
2-piece boom cylinder	Bore dia × Stroke	Ø 105 × 992 mm
	Cushion	Extend and retract
Adjust cylinder	Bore dia × Stroke	Ø 145 × 634 mm
	Cushion	Extend and retract
Arm cylinder	Bore dia × Stroke	Ø 115 × 1138 mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Stroke	Ø 100 × 850 mm
	Cushion	Extend only
Dozer cylinder	Bore dia × Stroke	Ø 110 × 235 mm
	Cushion	-
Outrigger cylinder	Bore dia × Stroke	Ø 125 × 463 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.

## 8. RECOMMENDED OILS

HD Hyundai Construction Equipment 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 HD Hyundai Construction Equipment and, therefore, will meet the highest safety and quality requirements.

We recommend that you use only HD Hyundai Construction Equipment genuine lubricating oils and grease officially approved by HD Hyundai Construction Equipment.

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	11 (2.9)	★SAE 5W-40						
			SAE 30						
Transmission case	Engine oil	2.5 (0.7)	SAE 10W						
			SAE 10W-30						
DEF/ AdBlue® tank	Mixture of urea and deionized water	48 (12.7)	SAE 15W-40						
			ISO 22241, High-purity urea + deionized water (32.5:67.5)						
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 (3.1) Hub : 2.5×2 (0.7×2)							
Front wide axle		Center : 11.6 (3.1) Hub : 2.5×2 (0.7)							
Rear wide axle		Center : 14.0 (3.7) Hub : 2.5×2 (0.7)							
Hydraulic tank	Hydraulic oil	Tank: 103 (27.2)	★ISO VG 15						
		System: 187 (49.4)	ISO VG 32						
Fuel tank	Diesel fuel★1	200 (52.8)	ISO VG 46, HBHO★3						
			ISO VG 68						
Fitting (Grease nipple)	Grease	As required	★ASTM D975 NO.1						
			ASTM D975 NO.2						
Radiator (Reservoir tank)	Mixture of antifreeze and soft water★2	19.5 (5.2)	★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

**DEF** : Diesel Exhaust Fluid, DEF compatible with AdBlue®

★ : Cold region (Russia, CIS, Mongolia)

★1 : Ultra low sulfur diesel  
- sulfur content ≤ 10 ppm

★2 : Soft water  
City water or distilled water

★3 : HD Hyundai Construction  
Equipment Bio Hydraulic Oil

※ 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 your local HD Hyundai Construction Equipment dealers.