

SECTION 1 GENERAL



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SECTION 1 GENERAL

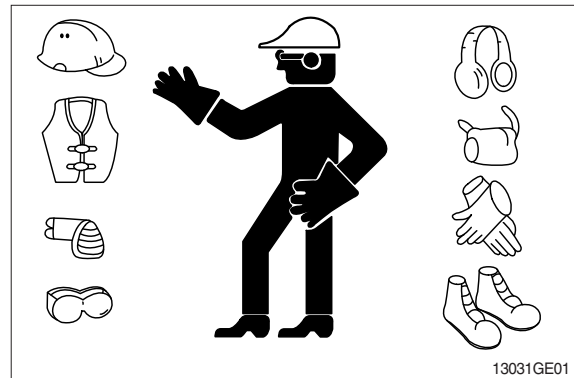
GROUP 1 SAFETY

FOLLOW SAFE PROCEDURE

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

WEAR PROTECTIVE CLOTHING

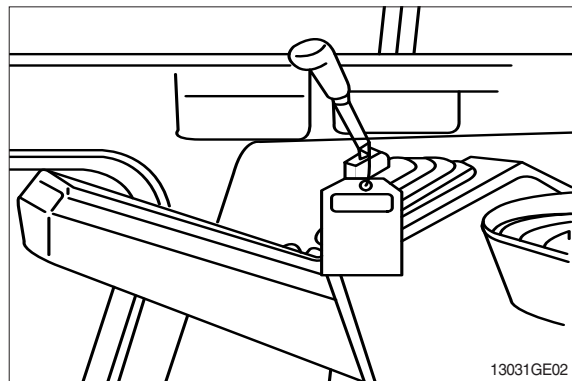
Wear close fitting clothing and safety equipment appropriate to the job.



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.



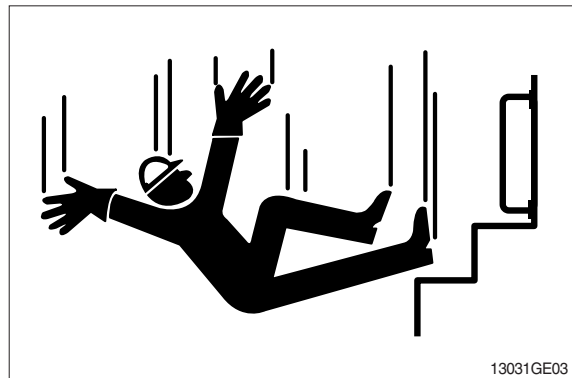
USE HANDHOLDS AND STEPS

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.

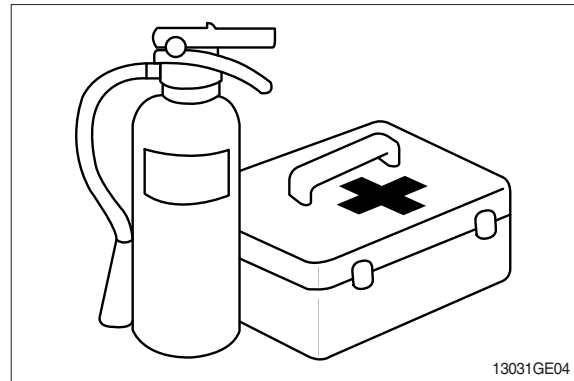


PREPARE FOR EMERGENCIES

Be prepared if a fire starts.

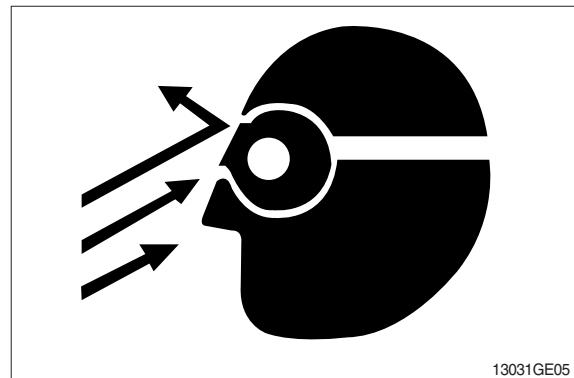
Keep a first aid kit and fire extinguisher handy.

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



PROTECT AGAINST FLYING DEBRIS

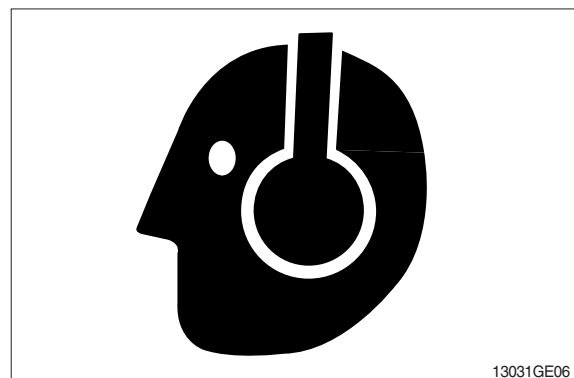
Guard against injury from flying pieces of metal or debris; Wear goggles or safety glasses.



PROTECT AGAINST NOISE

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

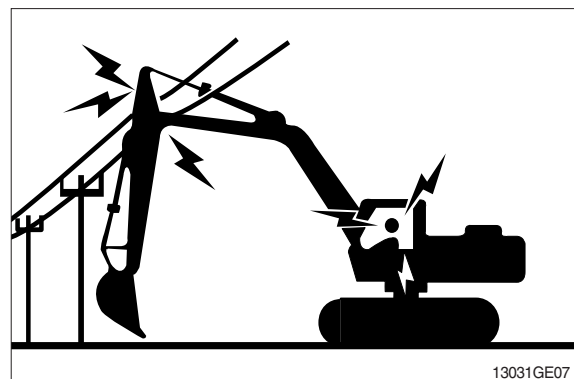
Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.



AVOID POWER LINES

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

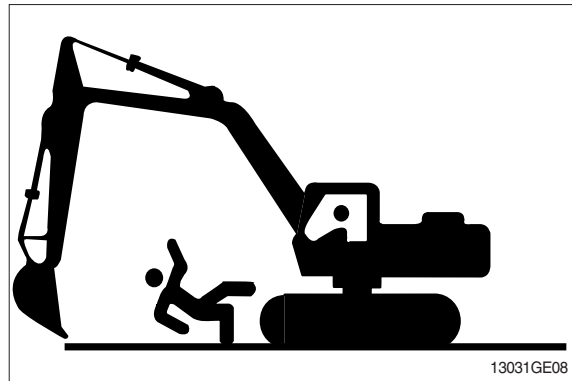
Never move any part of the machine or load closer to electric line than 3m(10ft) plus twice the line insulator length.



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.

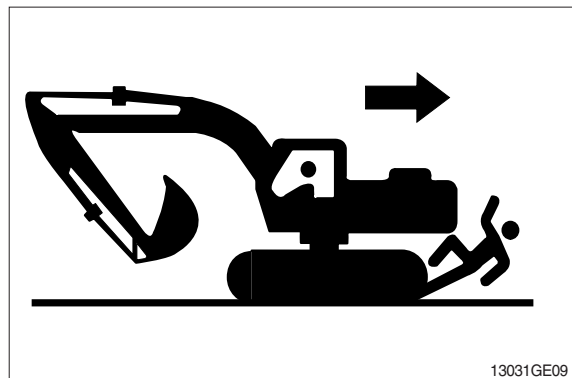


MOVE AND OPERATE MACHINE SAFELY

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:

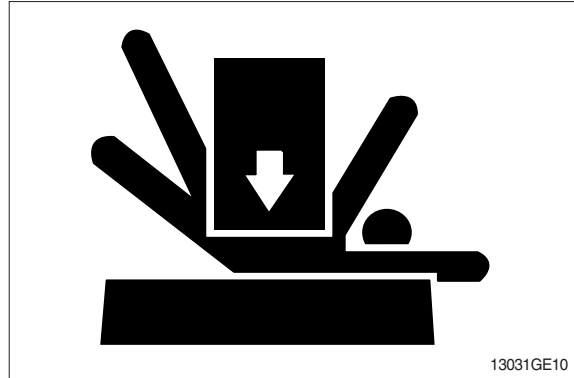
- Park machine on a level surface.
- Lower bucket to the ground.
- Turn auto idle switch off.
- Run engine at low idle speed without load for 5 minutes.
- Turn key switch to OFF to stop engine. Remove key from switch.
- Place safety lever to locked position.
- Allow engine to cool.

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.

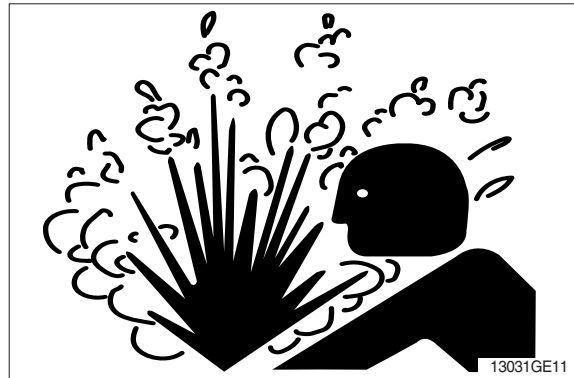
Do not work under a machine that is supported solely by a jack. Follow recommended procedures in this manual.



SERVICE COOLING SYSTEM SAFELY

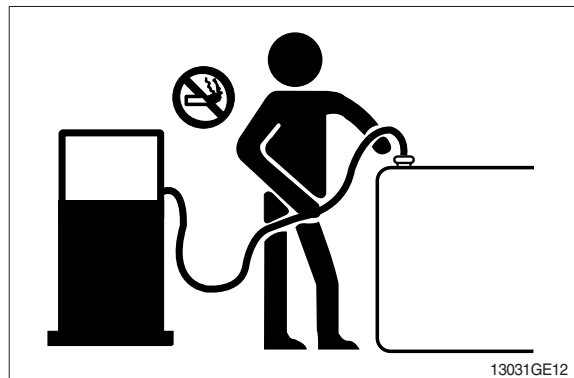
Explosive release of fluids from pressurized cooling system can cause serious burns.

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



HANDLE FLUIDS SAFELY-AVOID FIRES

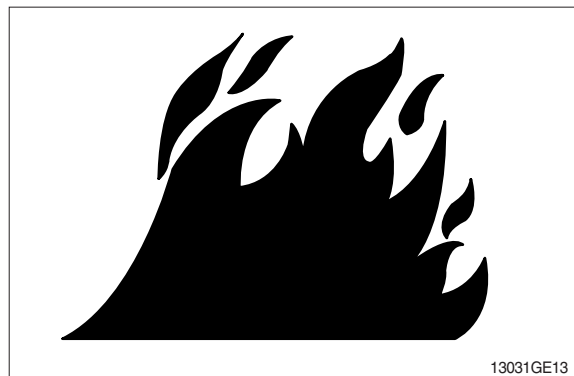
Handle fuel with care; It is highly flammable. Do not refuel the machine while smoking or when near open flame or sparks. Always stop engine before refueling machine. Fill fuel tank outdoors.



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

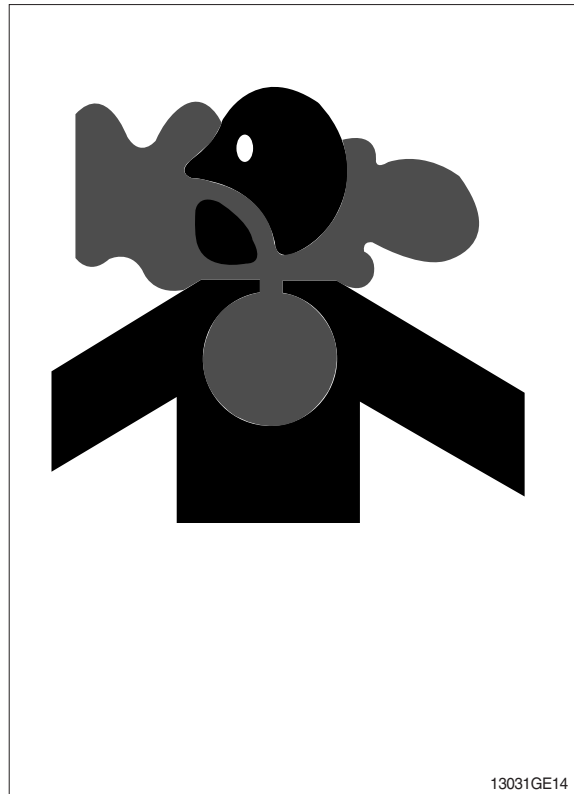
Avoid potentially toxic fumes and dust.

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

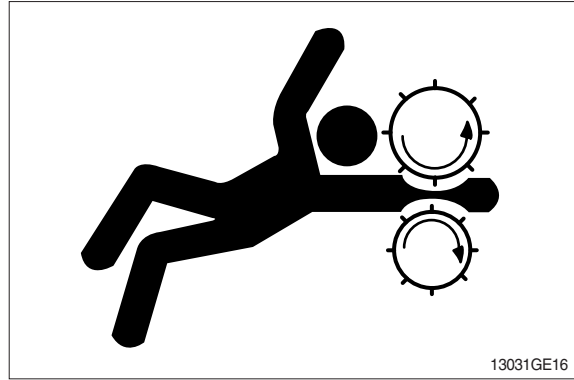
Illuminate your work area adequately but safely. Use a portable safety light for working inside or under the machine. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.



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.

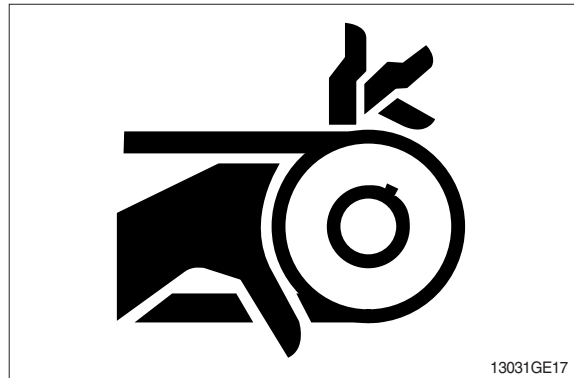
Remove rings and other jewelry to prevent electrical shorts and entanglement in moving parts.



STAY CLEAR OF MOVING PARTS

Entanglements in moving parts can cause serious injury.

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



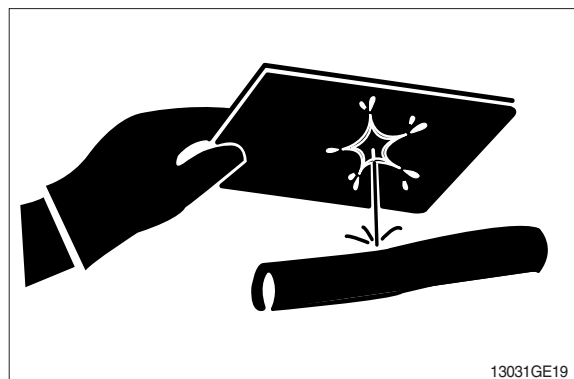
AVOID HIGH PRESSURE FLUIDS

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:

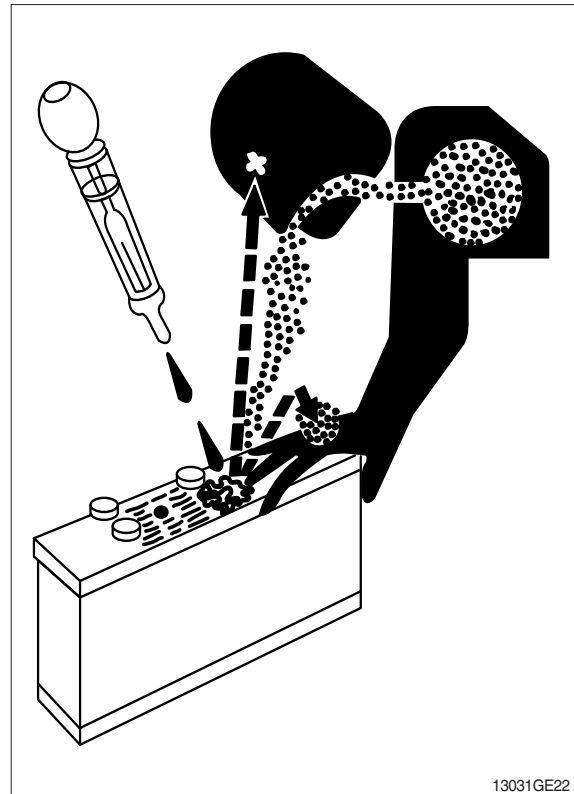
1. Filling batteries in a well-ventilated area.
2. Wearing eye protection and rubber gloves.
3. Avoiding breathing fumes when electrolyte is added.
4. Avoiding spilling or dripping electrolyte.
5. Use proper jump start procedure.

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.



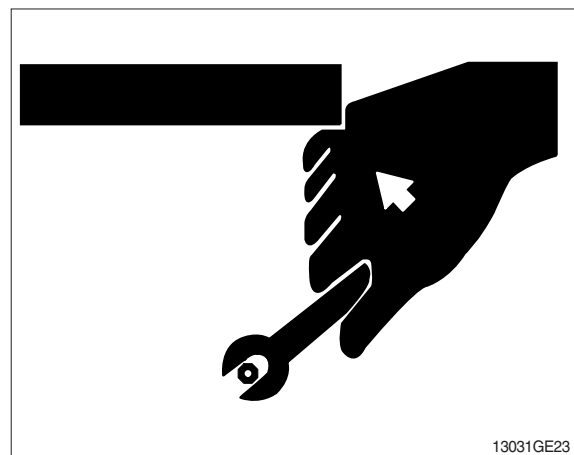
USE TOOLS PROPERLY

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.)

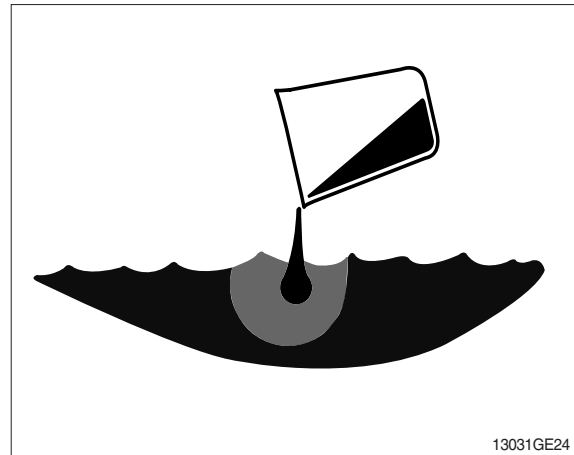


DISPOSE OF FLUIDS PROPERLY

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.

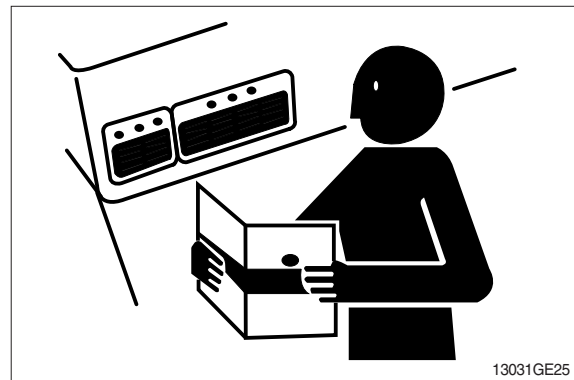
Use proper containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.

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 LABELS

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

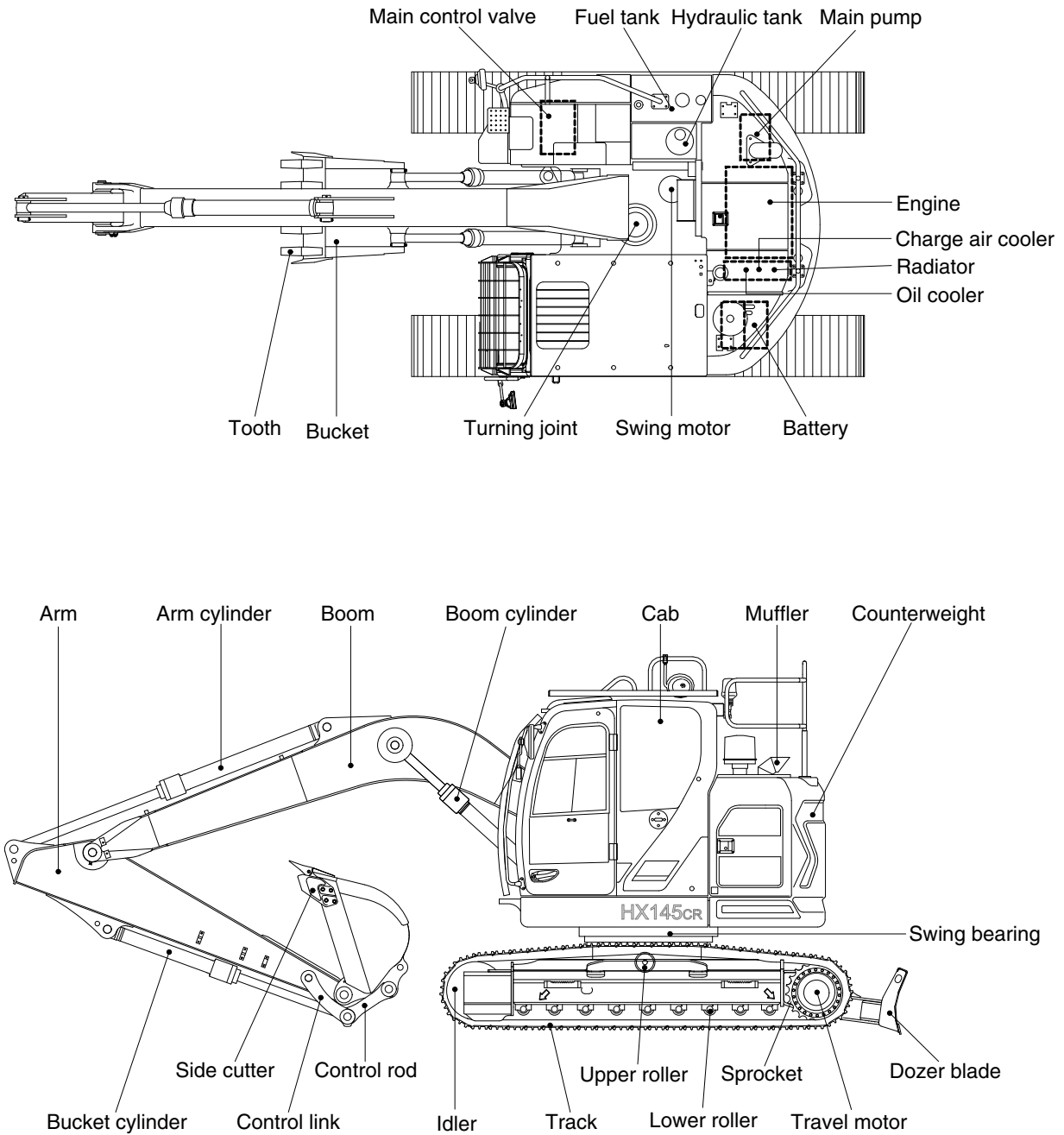


LIVE WITH SAFETY

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

GROUP 2 SPECIFICATIONS

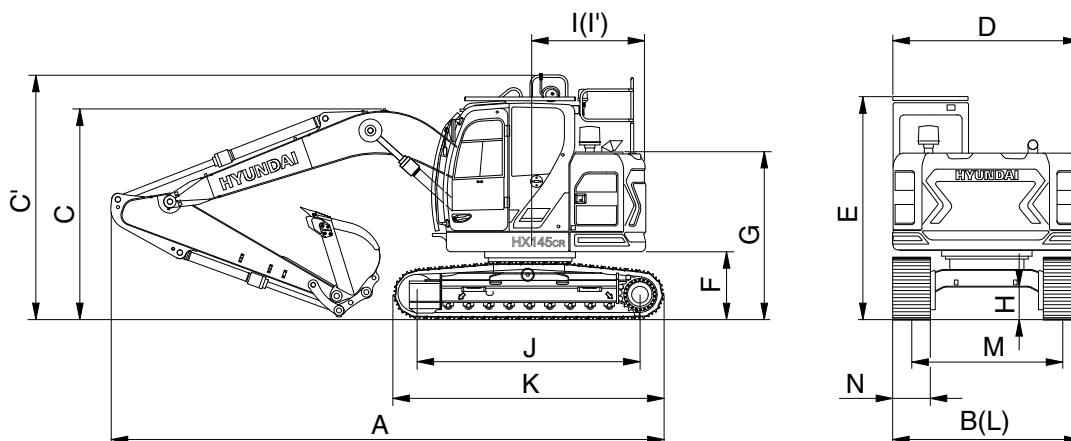
1. MAJOR COMPONENT



145SA2SP01

2. SPECIFICATIONS

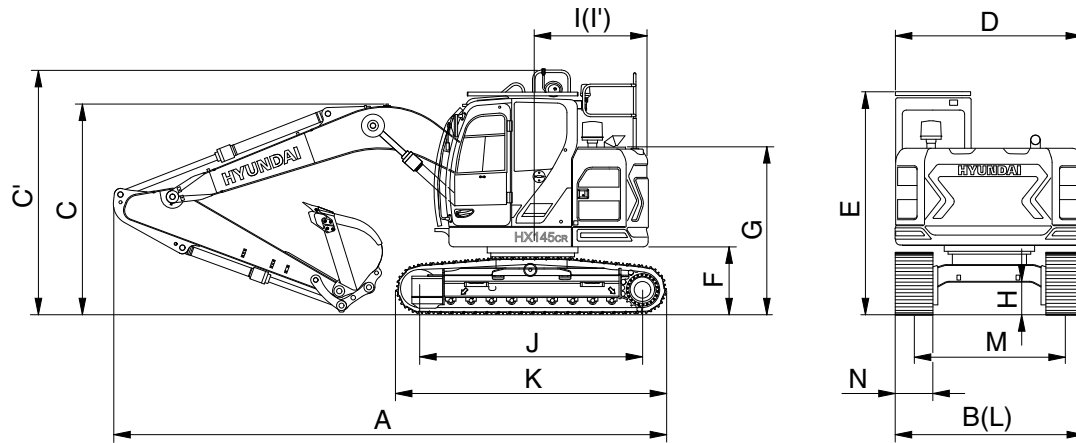
1) HX145CRT3, STD CRAWLER



145SA2SP02

Description	Unit		Specification	
	m (ft-in)	Boom	4.60 (15' 1")	
		Arm	2.50 (8' 2")	3.00 (9' 10")
	mm (in)	Shoe	600 (24")	
Operating weight	kg (lb)		14880 (32800)	14,930 (32910)
Bucket capacity (SAE heaped), standard	m ³ (yd ³)		0.52 (0.68)	0.52 (0.68)
Overall length	A	mm (ft-in)	7320 (24' 0")	7435 (24' 5")
Overall width	B		2600 (8' 6")	2600 (8' 6")
Overall height of boom	C		2730 (8' 11")	3165 (10' 5")
Superstructure width	D		2485 (8' 2")	2485 (8' 2")
Overall height of cab	E		2810 (9' 3")	2810 (9' 3")
Ground clearance of counterweight	F		915 (3' 0")	915 (3' 0")
Overall height of engine hood	G		2270 (7' 5")	2270 (7' 5")
Overall height of handrail	G'		3430 (11' 3")	3430 (11' 3")
Minimum ground clearance	H		425 (1' 5")	425 (1' 5")
Rear-end distance	I		1500 (4' 11")	1500 (4' 11")
Rear-end swing radius	I'		1500 (4' 11")	1500 (4' 11")
Distance between tumblers	J		2950 (9' 8")	2950 (9' 8")
Undercarriage length	K		3620 (11' 11")	3620 (11' 11")
Undercarriage width	L		2600 (8' 6")	2600 (8' 6")
Track gauge	M		2000 (6' 7")	2000 (6' 7")
Track shoe width, standard	N		600 (2' 0")	600 (2' 0")
Travel speed (low/high)	km/hr (mph)		3.1/5.4 (1.9/3.4)	3.1/5.4 (1.9/3.4)
Swing speed	rpm		11.40	11.40
Gradeability	Degree (%)		35 (70)	35 (70)
Ground pressure	kgf/cm ² (psi)		0.39 (5.59)	0.39 (5.61)
Max traction force	kg (lb)		12672 (27937)	12672 (27937)

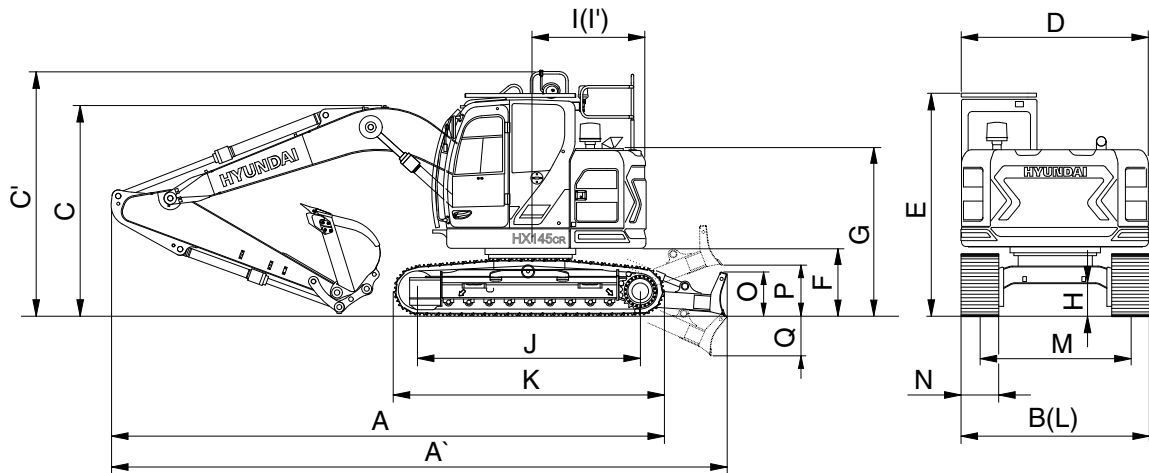
2) HX145LCRT3, LONG CRAWLER



145SA2SP02

Description		Unit		Specification	
		m (ft-in)	Boom	4.60 (15' 1")	
			Arm	2.50 (8' 2")	3.00 (9' 10")
		mm (in)	Shoe	600 (24")	
Operating weight		kg (lb)		15130 (33360)	15170 (33440)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)		0.52 (0.68)	0.52 (0.68)
Overall length	A	mm (ft-in)		7320 (24' 0")	7435 (24' 5")
Overall width	B			2600 (8' 6")	2600 (8' 6")
Overall height of boom	C			2730 (8' 11")	3165 (10' 5")
Superstructure width	D			2500 (8' 2")	2500 (8' 2")
Overall height of cab	E			2810 (9' 3")	2810 (9' 3")
Ground clearance of counterweight	F			915 (3' 0")	915 (3' 0")
Overall height of engine hood	G			2270 (7' 5")	2270 (7' 5")
Overall height of handrail	G'			3430 (11' 3")	3430 (11' 3")
Minimum ground clearance	H			425 (1' 5")	425 (1' 5")
Rear-end distance	I			1500 (4' 11")	1500 (4' 11")
Rear-end swing radius	I'			1500 (4' 11")	1500 (4' 11")
Distance between tumblers	J			3120 (10' 3")	3120 (10' 3")
Undercarriage length	K			3790 (12' 5")	3790 (12' 5")
Undercarriage width	L			2600 (8' 6")	2600 (8' 6")
Track gauge	M			2000 (6' 7")	2000 (6' 7")
Track shoe width, standard	N			600 (2' 0")	600 (2' 0")
Travel speed (low/high)		km/hr (mph)		3.1/5.4 (1.9/3.4)	3.1/5.4 (1.9/3.4)
Swing speed		rpm		11.40	11.40
Gradeability		Degree (%)		35 (70)	35 (70)
Ground pressure		kgf/cm ² (psi)		0.38 (5.38)	0.38 (5.39)
Max traction force		kg (lb)		12672 (27937)	12672 (27937)

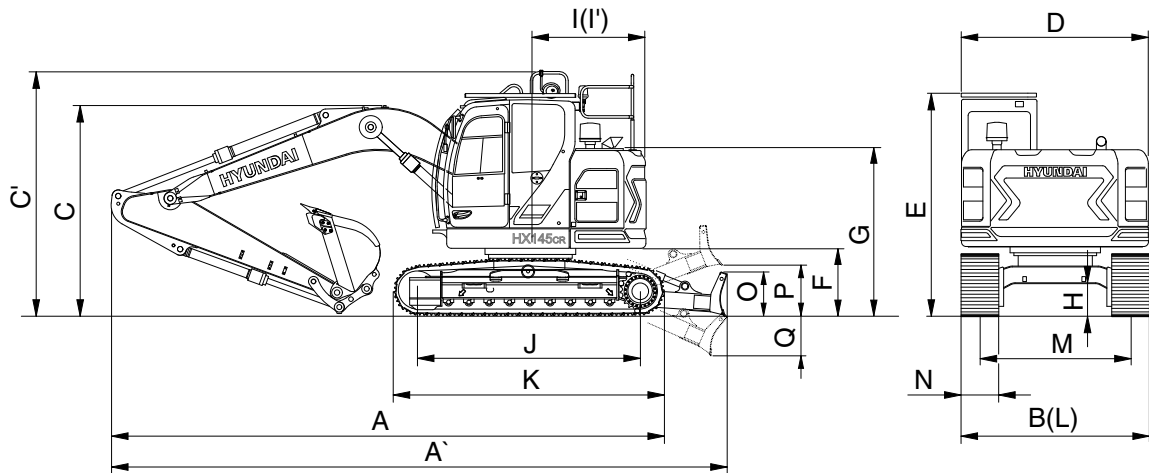
3) HX145CRT3, STD CRAWLER WITH DOZER



145SA2SP03A

Description	Unit		Specification	
	m (ft-in)	Boom	4.60 (15' 1")	
		Arm	2.50 (8' 2")	3.00 (9' 10")
	mm (in)	Shoe	600 (24")	
Operating weight	kg (lb)		15700 (34610)	15740 (34700)
Bucket capacity (SAE heaped), standard	m ³ (yd ³)		0.52 (0.68)	0.52 (0.68)
Overall length	A	mm (ft-in)	7320 (24' 0")	7435 (24' 5")
Overall length (with dozer)	A'		7755 (25' 5")	7870 (25' 10")
Overall width	B		2600 (8' 6")	2600 (8' 6")
Overall height of boom	C		2730 (8' 11")	3165 (10' 5")
Superstructure width	D		2485 (8' 2")	2485 (8' 2")
Overall height of cab	E		2810 (9' 3")	2810 (9' 3")
Ground clearance of counterweight	F		915 (3' 0")	915 (3' 0")
Overall height of engine hood	G		2270 (7' 5")	2270 (7' 5")
Overall height of handrail	G'		3430 (11' 3")	3430 (11' 3")
Minimum ground clearance	H		270 (0' 11")	270 (0' 11")
Rear-end distance	I		1500 (4' 11")	1500 (4' 11")
Rear-end swing radius	I'		1500 (4' 11")	1500 (4' 11")
Distance between tumblers	J		2950 (9' 8")	2950 (9' 8")
Undercarriage length	K		3620 (11' 11")	3620 (11' 11")
Undercarriage width	L		2600 (8' 6")	2600 (8' 6")
Track gauge	M		2000 (6' 7")	2000 (6' 7")
Track shoe width, standard	N		600 (2' 0")	600 (2' 0")
Height of blade	O		575 (1' 11")	575 (1' 11")
Ground clearance of blade up	P		425 (1' 5")	425 (1' 5")
Depth of blade down	Q		430 (1' 5")	430 (1' 5")
Travel speed (low/high)	km/hr (mph)		3.1/5.4 (1.9/3.4)	3.1/5.4 (1.9/3.4)
Swing speed	rpm		11.40	11.40
Gradeability	Degree (%)		35 (70)	35 (70)
Ground pressure	kgf/cm ² (psi)		0.41 (5.90)	0.42 (5.91)
Max traction force	kg (lb)		12672 (27937)	12672 (27937)

4) HX145LCRT3, LONG CRAWLER WITH DOZER

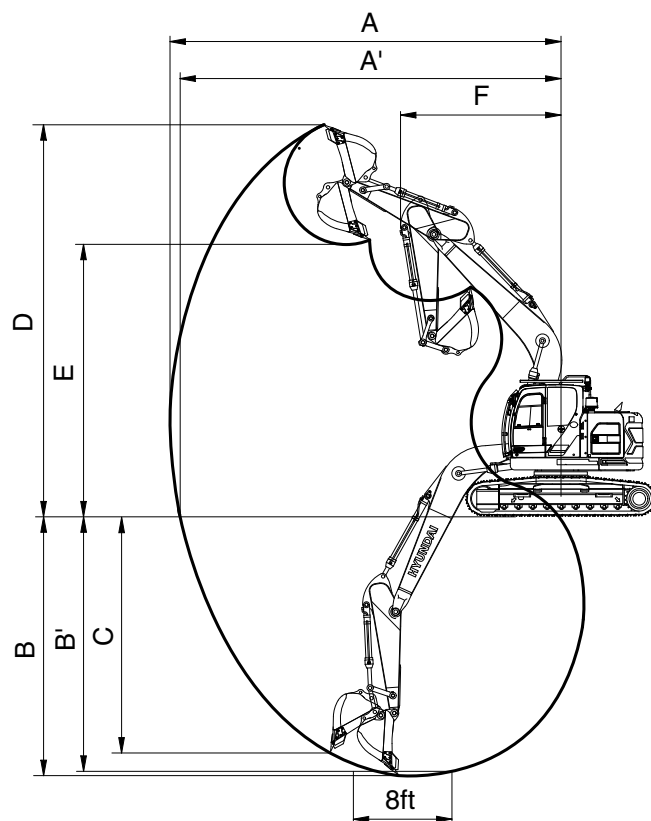


145SA2SP03A

Description	Unit		Specification	
	m (ft-in)	Boom	4.60 (15' 1")	
		Arm	2.50 (8' 2")	3.00 (9' 10")
	mm (in)	Shoe	600 (24")	
Operating weight	kg (lb)		15920 (35100)	15960 (35190)
Bucket capacity (SAE heaped), standard	m ³ (yd ³)		0.52 (0.68)	0.52 (0.68)
Overall length	A	mm (ft-in)	7320 (24' 0")	7435 (24' 5")
Overall length (with dozer)	A'		7755 (25' 5")	7870 (25' 10")
Overall width	B		2600 (8' 6")	2600 (8' 6")
Overall height of boom	C		2730 (8' 11")	3165 (10' 5")
Superstructure width	D		2485 (8' 2")	2485 (8' 2")
Overall height of cab	E		2810 (9' 3")	2810 (9' 3")
Ground clearance of counterweight	F		915 (3' 0")	915 (3' 0")
Overall height of engine hood	G		2270 (7' 5")	2270 (7' 5")
Overall height of handrail	G'		3430 (11' 3")	3430 (11' 3")
Minimum ground clearance	H		270 (0' 11")	270 (0' 11")
Rear-end distance	I		1500 (4' 11")	1500 (4' 11")
Rear-end swing radius	I'		1500 (4' 11")	1500 (4' 11")
Distance between tumblers	J		3120 (10' 3")	3120 (10' 3")
Undercarriage length	K		3790 (12' 5")	3790 (12' 5")
Undercarriage width	L		2600 (8' 6")	2600 (8' 6")
Track gauge	M		2000 (6' 7")	2000 (6' 7")
Track shoe width, standard	N		600 (2' 0")	600 (2' 0")
Height of blade	O		575 (1' 11")	575 (1' 11")
Ground clearance of blade up	P		425 (1' 5")	425 (1' 5")
Depth of blade down	Q		430 (1' 5")	430 (1' 5")
Travel speed (low/high)	km/hr (mph)		3.1/5.4 (1.9/3.4)	3.1/5.4 (1.9/3.4)
Swing speed	rpm		11.40	11.40
Gradeability	Degree (%)		35 (70)	35 (70)
Ground pressure	kgf/cm ² (psi)		0.40 (5.66)	0.40 (5.67)
Max traction force	kg (lb)		12672 (27937)	12672 (27937)

3. WORKING RANGE AND DIGGING FORCE

1) HX145CRT3, STD CRAWLER

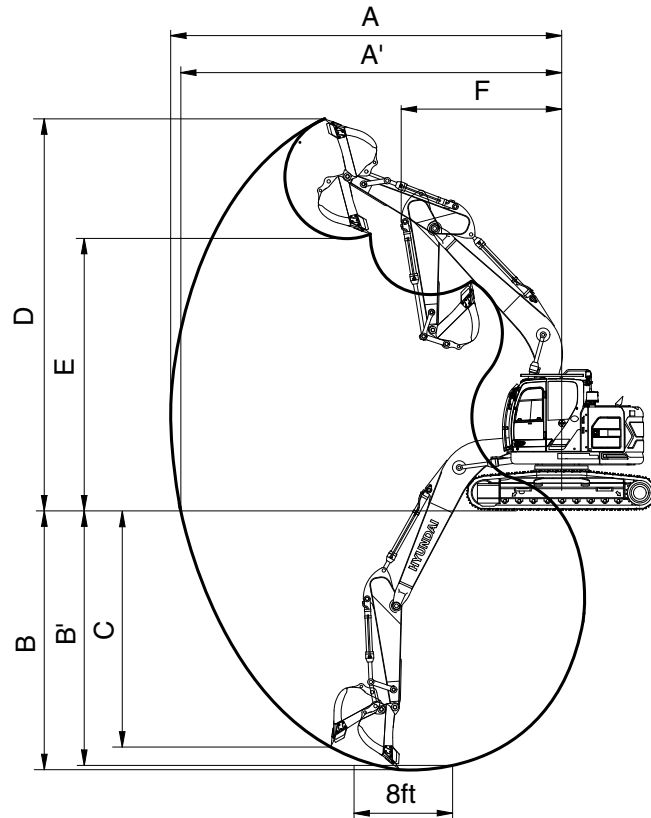


145SA2SP04

Description	m (ft-in)	Boom	4.60 (15' 1")	
		Arm	2.50 (8' 2")	3.00 (9' 10")
Max digging reach	mm (ft-in)	A	8240 (27' 0")	8625 (28' 4")
Max digging reach on ground		A'	8100 (26' 7")	8490 (27' 10")
Max digging depth		B	5225 (17' 2")	5725 (18' 9")
Max digging depth (8 ft level)		B'	5020 (16' 6")	5540 (18' 2")
Max vertical wall digging depth		C	4725 (15' 6")	5000 (16' 5")
Max digging height		D	9205 (30' 2")	9395 (30' 10")
Max dumping height		E	6785 (22' 3")	7000 (23' 0")
Min swing radius		F	1990 (6' 6")	2305 (7' 7")
Bucket digging force	kN	SAE	94.3 [102.4]	94.3 [102.4]
	kgf		9620 [10440]	9620 [10440]
	lbf		21210 [23020]	21210 [23020]
	kN	ISO	111.4 [120.9]	111.4 [120.9]
	kgf		11360 [12330]	11360 [12330]
	lbf		25040 [27180]	25040 [27180]
Arm digging force	kN	SAE	62.0 [67.3]	57.0 [61.9]
	kgf		6320 [6860]	5810 [6310]
	lbf		13930 [15120]	12810 [13910]
	kN	ISO	64.6 [70.1]	59.0 [64.1]
	kgf		6590 [7150]	6020 [6540]
	lbf		14530 [15760]	13270 [14420]

[] : Power boost

2) HX145LCRT3, LONG CRAWLER



145SA2SP04

Description	m (ft-in)	Boom		
		Arm	4.60 (15' 1")	
			2.50 (8' 2")	3.00 (9' 10")
Max digging reach	mm (ft-in)	A	8240 (27' 0")	8625 (28' 4")
Max digging reach on ground		A'	8100 (26' 7")	8490 (27' 10")
Max digging depth		B	5225 (17' 2")	5725 (18' 9")
Max digging depth (8 ft level)		B'	5020 (16' 6")	5540 (18' 2")
Max vertical wall digging depth		C	4725 (15' 6")	5000 (16' 5")
Max digging height		D	9205 (30' 2")	9395 (30' 10")
Max dumping height		E	6785 (22' 3")	7000 (23' 0")
Min swing radius		F	1990 (6' 6")	2305 (7' 7")
Bucket digging force	kN	SAE	94.3 [102.4]	94.3 [102.4]
	kgf		9620 [10440]	9620 [10440]
	lbf		21210 [23020]	21210 [23020]
	kN	ISO	111.4 [120.9]	111.4 [120.9]
	kgf		11360 [12330]	11360 [12330]
	lbf		25040 [27180]	25040 [27180]
Arm digging force	kN	SAE	62.0 [67.3]	57.0 [61.9]
	kgf		6320 [6860]	5810 [6310]
	lbf		13930 [15120]	12810 [13910]
	kN	ISO	64.6 [70.1]	59.0 [64.1]
	kgf		6590 [7150]	6020 [6540]
	lbf		14530 [15760]	13270 [14420]

[] : Power boost

4. WEIGHT

1) HX145CRT3, STD CRAWLER

Item	HX145CRT3 W/O DOZER		HX145CRT3 W/DOZER	
	kg	lb	kg	lb
Upperstructure assembly	4,050	8,930	4,050	8,930
Main frame weld assembly	1,230	2,710	1,230	2,710
Engine assembly	370	820	370	820
Main pump assembly	88	190	88	190
Main control valve assembly	140	310	140	310
Swing motor assembly	122	270	120	260
Hydraulic oil tank WA	160	350	160	350
Fuel tank WA	150	330	150	330
Counterweight	2,800	6,170	2,800	6,170
Cab assembly	450	990	450	990
Lower chassis assembly	3,726	8,210	4,407	9,710
Track frame weld assembly	1,544	3,400	1,713	3,780
Swing bearing	214	470	214	470
Travel motor assembly (2EA)	278	610	280	620
Turning joint	60	130	60	130
Sprocket (2EA)	79	170	79	170
Track recoil spring (2EA)	189	420	189	420
Idler (2EA)	211	460	211	460
Upper roller (2EA)	38	80	38	80
Lower roller (14EA)	491	1,080	491	1,080
Dozer blade	-	-	510	1,120
Track-chain assembly (500 mm TRACK PAD shoe) (2EA)	1,124	2,480	1,124	2,480
Track-chain assembly (500 mm triple grouser shoe) (2EA)	902	1,990	902	1,990
Track-chain assembly (600 mm triple grouser shoe) (2EA)	1,004	2,210	1,004	2,210
Track-chain assembly (700 mm triple grouser shoe) (2EA)	1,107	2,440	1,107	2,440
Front attachment assembly	2,480	5,470	2,480	5,470
4.6 m boom assembly	834	1,840	810	1,790
2.5 m arm assembly	446	980	440	970
0.58 m³ SAE heaped bucket	468	1,030	450	990
Boom cylinder assembly (2EA)	240	530	240	530
Arm cylinder assembly	150	330	150	330
Bucket cylinder assembly	100	220	100	220
Bucket control linkage total	115	250	110	240

2) HX145LCRT3, LONG CRAWLER

Item	HX145LCRT3 W/O DOZER		HX145LCRT3 W/DOZER	
	kg	lb	kg	lb
Upperstructure assembly	4,050	8,930	4,050	8,930
Main frame weld assembly	1,230	2,710	1,230	2,710
Engine assembly	370	820	370	820
Main pump assembly	88	190	88	190
Main control valve assembly	140	310	140	310
Swing motor assembly	120	260	120	260
Hydraulic oil tank WA	160	350	160	350
Fuel tank WA	150	330	150	330
Counterweight	2,800	6,170	2,800	6,170
Cab assembly	450	990	450	990
Lower chassis assembly	3,868	8,530	4,543	10,020
Track frame weld assembly	1,606	3,540	1,771	3,900
Swing bearing	214	470	214	470
Travel motor assembly (2EA)	280	620	280	620
Turning joint	60	130	60	130
Sprocket (2EA)	79	170	79	170
Track recoil spring (2EA)	189	420	189	420
Idler (2EA)	211	460	211	460
Upper roller (2EA)	77	170	77	170
Lower roller (14EA)	491	1,080	491	1,080
Dozer blade	-	-	510	1,120
Track-chain assembly (500 mm RUBBER PAD shoe) (2EA)	930	2,050	930	2,050
Track-chain assembly (500 mm triple grouser shoe) (2EA)	942	2,080	942	2,080
Track-chain assembly (600 mm triple grouser shoe) (2EA)	1,049	2,310	1,049	2,310
Track-chain assembly (700 mm triple grouser shoe) (2EA)	1,156	2,550	1,156	2,550
Front attachment assembly	2,480	5,470	2,480	5,470
4.6 m boom assembly	810	1,790	810	1,790
2.5 m arm assembly	440	970	440	970
0.58 m³ SAE heaped bucket	450	990	450	990
Boom cylinder assembly (2EA)	240	530	240	530
Arm cylinder assembly	150	330	150	330
Bucket cylinder assembly	100	220	100	220
Bucket control linkage total	110	240	110	240

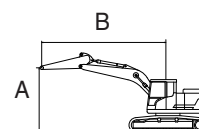
5. LIFTING CAPACITIES











1) HX145CRT3

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX145CRT3	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		4600	2500	2800	600	-	-	-	-	-

·  : 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 lb			*3760 *8290	*3760 *8290					*2770 *6110	*2770 *6110	3.56 (11.7)
6.0 m (19.7 ft)	kg lb					*3650 *8050	*3650 *8050			*2180 *4810	*2180 *4810	5.37 (17.6)
4.5 m (14.8 ft)	kg lb			*4000 *8820	*4000 *8820	*4260 *9390	3720 8200	*3100 *6830	2330 5140	*2020 *4450	*2020 *4450	6.34 (20.8)
3.0 m (9.8 ft)	kg lb			*7400 *16310	6670 14700	*5270 *11620	3530 7780	3430 7560	2270 5000	*2010 *4430	1820 4010	6.86 (22.5)
1.5 m (4.9 ft)	kg lb			*8670 *19110	5980 13180	5170 11400	3300 7280	3330 7340	2170 4780	*2120 *4670	1710 3770	7.02 (23.0)
0.0 m (0.0 ft)	kg lb			*7060 *15560	5680 12520	4980 10980	3130 6900	3250 7170	2100 4630	*2370 *5220	1740 3840	6.85 (22.5)
-1.5 m (-4.9 ft)	kg lb	*4940 *10890	*4940 *10890	*8670 *19110	5650 12460	4910 10820	3070 6770	3220 7100	2070 4560	*2900 *6390	1940 4280	6.32 (20.7)
-3.0 m (-9.8 ft)	kg lb			*6550 *14440	5760 12700	*4580 *10100	3120 6880			*3410 *7520	2490 5490	5.33 (17.5)

Note 1. Lifting capacity are based on ISO 10567.

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

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

4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

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

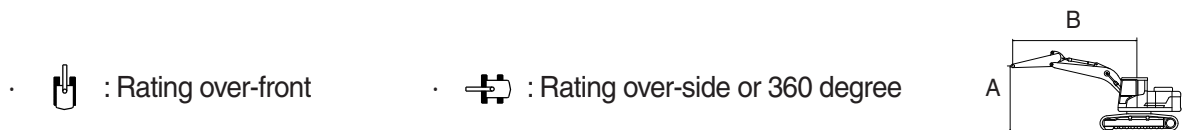
The difference between the weight of a work tool attachment must be subtracted.











Consult your 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	Shoe	Wheel	Dozer		Outrigger	
HX145CRT3	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		4600	3000	2800	600	-	-	-	-	-



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 lb									*2450 *5400	*2450 *5400	4.28 (14.0)
6.0 m (19.7 ft)	kg lb					*3290 *7250	*3290 *7250			*2070 *4560	*2070 *4560	5.86 (19.2)
4.5 m (14.8 ft)	kg lb					*3580 *7890	*3580 *7890	*3180 *7010	2380 5250	*1960 *4320	1930 4250	6.76 (22.2)
3.0 m (9.8 ft)	kg lb			*5770 *12720	*5770 *12720	*4880 *10760	3600 7940	3470 7650	2300 5070	*1980 *4370	1680 3700	7.25 (23.8)
1.5 m (4.9 ft)	kg lb			*8900 *19620	6140 13540	5220 11510	3340 7360	3350 7390	2190 4830	*2100 *4630	1580 3480	7.40 (24.3)
0.0 m (0.0 ft)	kg lb			*8300 *18300	5700 12570	4990 11000	3140 6920	3240 7140	2090 4610	*2360 *5200	1600 3530	7.24 (23.7)
-1.5 m (-4.9 ft)	kg lb	*4720 *10410	*4720 *10410	*9180 *20240	5590 12320	4890 10780	3040 6700	3190 7030	2040 4500	2710 5970	1750 3860	6.74 (22.1)
-3.0 m (-9.8 ft)	kg lb	*7780 *17150	*7780 *17150	*7460 *16450	5650 12460	4900 10800	3050 6720			3360 7410	2160 4760	5.82 (19.1)

Note 1. Lifting capacity are based on ISO 10567.

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

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

4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

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

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

Consult your 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.

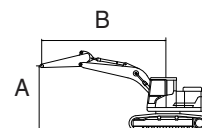
Make adjustments to the rated load as necessary for non-standard configurations.











2) HX145LCRT3

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX145LCRT3	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		4600	2500	2800	600	-	-	-	-	-

·  : 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 lb			*3760 *8290	*3760 *8290					*2770 *6110	*2770 *6110	3.56 (11.7)
6.0 m (19.7 ft)	kg lb					*3650 *8050	*3650 *8050			*2180 *4810	*2180 *4810	5.37 (17.6)
4.5 m (14.8 ft)	kg lb			*4000 *8820	*4000 *8820	*4260 *9390	3760 8290	*3100 *6830	2360 5200	*2020 *4450	*2020 *4450	6.34 (20.8)
3.0 m (9.8 ft)	kg lb			*7400 *16310	6740 14860	*5270 *11620	3570 7870	3470 7650	2300 5070	*2010 *4430	1850 4080	6.86 (22.5)
1.5 m (4.9 ft)	kg lb			*8670 *19110	6050 13340	5230 11530	3340 7360	3370 7430	2200 4850	*2120 *4670	1740 3840	7.02 (23.0)
0.0 m (0.0 ft)	kg lb			*7060 *15560	5750 12680	5040 11110	3170 6990	3280 7230	2120 4670	*2370 *5220	1770 3900	6.85 (22.5)
-1.5 m (-4.9 ft)	kg lb	*4940 *10890	*4940 *10890	*8670 *19110	5720 12610	4970 10960	3110 6860	3260 7190	2100 4630	*2900 *6390	1970 4340	6.32 (20.7)
-3.0 m (-9.8 ft)	kg lb			*6550 *14440	5830 12850	*4580 *10100	3160 6970			*3410 *7520	2530 5580	5.33 (17.5)

Note 1. Lifting capacity are based on ISO 10567.

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

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

4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

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

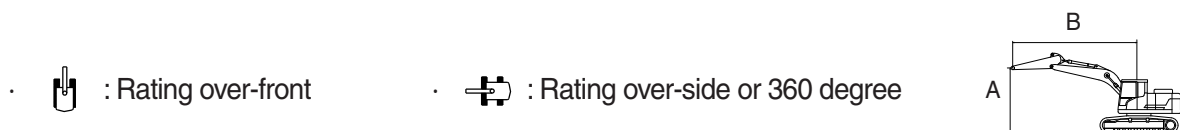
The difference between the weight of a work tool attachment must be subtracted.











Consult your 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	Shoe	Wheel	Dozer		Outrigger	
HX145LCRT3	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		4600	3000	2800	600	-	-	-	-	-



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 lb									*2450 *5400	*2450 *5400	4.28 (14.0)
6.0 m (19.7 ft)	kg lb					*3290 *7250	*3290 *7250			*2070 *4560	*2070 *4560	5.86 (19.2)
4.5 m (14.8 ft)	kg lb					*3580 *7890	*3580 *7890	*3180 *7010	2410 5310	*1960 *4320	1950 4300	6.76 (22.2)
3.0 m (9.8 ft)	kg lb			*5770 *12720	*5770 *12720	*4880 *10760	3640 8020	3510 7740	2330 5140	*1980 *4370	1700 3750	7.25 (23.8)
1.5 m (4.9 ft)	kg lb			*8900 *19620	6210 13690	5280 11640	3380 7450	3390 7470	2220 4890	*2100 *4630	1600 3530	7.40 (24.3)
0.0 m (0.0 ft)	kg lb			*8300 *18300	5770 12720	5050 11130	3180 7010	3280 7230	2120 4670	*2360 *5200	1620 3570	7.24 (23.7)
-1.5 m (-4.9 ft)	kg lb	*4720 *10410	*4720 *10410	*9180 *20240	5660 12480	4940 10890	3080 6790	3230 7120	2070 4560	2740 6040	1770 3900	6.74 (22.1)
-3.0 m (-9.8 ft)	kg lb	*7780 *17150	*7780 *17150	*7460 *16450	5720 12610	4950 10910	3090 6810			3400 7500	2190 4830	5.82 (19.1)

Note 1. Lifting capacity are based on ISO 10567.

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

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

4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

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

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

Consult your 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.

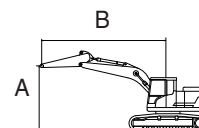
Make adjustments to the rated load as necessary for non-standard configurations.











3) HX145CRT3, WITH DOZER

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX145CRT3 W/DOZER	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		4600	2500	2800	600	-	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 lb			*3760 *8290	*3760 *8290					*2770 *6110	*2770 *6110	3.56 (11.7)
6.0 m (19.7 ft)	kg lb					*3650 *8050	*3650 *8050			*2180 *4810	*2180 *4810	5.37 (17.6)
4.5 m (14.8 ft)	kg lb			*4000 *8820	*4000 *8820	*4260 *9390	*4260 *9390	*3100 *6830	2720 6000	*2020 *4450	*2020 *4450	6.34 (20.8)
3.0 m (9.8 ft)	kg lb			*7400 *16310	*7400 *16310	*5270 *11620	4130 9110	*4340 *9570	2660 5860	*2010 *4430	*2010 *4430	6.86 (22.5)
1.5 m (4.9 ft)	kg lb			*8670 *19110	7180 15830	*6050 *13340	3890 8580	*4610 *10160	2560 5640	*2120 *4670	2030 4480	7.02 (23.0)
0.0 m (0.0 ft)	kg lb			*7060 *15560	6870 15150	*6380 *14070	3720 8200	*4670 *10300	2480 5470	*2370 *5220	2070 4560	6.85 (22.5)
-1.5 m (-4.9 ft)	kg lb	*4940 *10890	*4940 *10890	*8670 *19110	6840 15080	*5990 *13210	3660 8070	*4200 *9260	2460 5420	*2900 *6390	2300 5070	6.32 (20.7)
-3.0 m (-9.8 ft)	kg lb			*6550 *14440	*6550 *14440	*4580 *10100	3710 8180			*3410 *7520	2950 6500	5.33 (17.5)

Note 1. Lifting capacity are based on ISO 10567.

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

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

4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

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

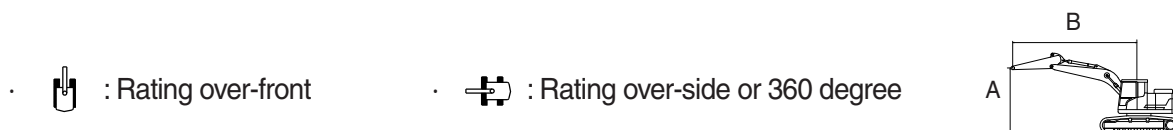
The difference between the weight of a work tool attachment must be subtracted.











Consult your 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	Shoe	Wheel	Dozer		Outrigger	
HX145CRT3 W/DOZER	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		4600	2500	2800	600	-	Up	-	-	-



Lift-point height (A)		Lift-point radius (B)								At max. reach		
		1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		Capacity		Reach
												m (ft)
7.5 m (24.6 ft)	kg lb			*3760 *8290	*3760 *8290					*2770 *6110	*2770 *6110	3.56 (11.7)
6.0 m (19.7 ft)	kg lb					*3650 *8050	*3650 *8050			*2180 *4810	*2180 *4810	5.37 (17.6)
4.5 m (14.8 ft)	kg lb			*4000 *8820	*4000 *8820	*4260 *9390	3910 8620	*3100 *6830	2460 5420	*2020 *4450	*2020 *4450	6.34 (20.8)
3.0 m (9.8 ft)	kg lb			*7400 *16310	6990 15410	*5270 *11620	3710 8180	3740 8250	2400 5290	*2010 *4430	1930 4250	6.86 (22.5)
1.5 m (4.9 ft)	kg lb			*8670 *19110	6300 13890	5690 12540	3480 7670	3640 8020	2300 5070	*2120 *4670	1820 4010	7.02 (23.0)
0.0 m (0.0 ft)	kg lb			*7060 *15560	6010 13250	5500 12130	3320 7320	3550 7830	2220 4890	*2370 *5220	1850 4080	6.85 (22.5)
-1.5 m (-4.9 ft)	kg lb	*4940 *10890	*4940 *10890	*8670 *19110	5980 13180	5430 11970	3260 7190	3530 7780	2200 4850	*2900 *6390	2060 4540	6.32 (20.7)
-3.0 m (-9.8 ft)	kg lb			*6550 *14440	6080 13400	*4580 *10100	3300 7280			*3410 *7520	2640 5820	5.33 (17.5)

Note 1. Lifting capacity are based on ISO 10567.

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

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

4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

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

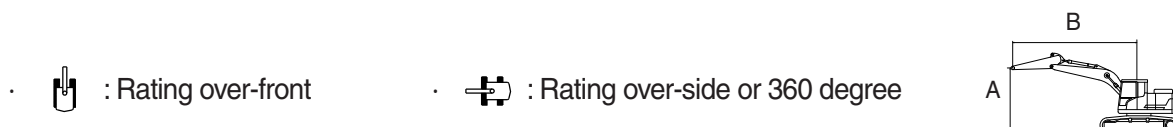
The difference between the weight of a work tool attachment must be subtracted.











Consult your 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	Shoe	Wheel	Dozer		Outrigger	
HX145CRT3 W/DOZER	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		4600	3000	2800	600	-	Down	-	-	-



Lift-point height (A)		Lift-point radius (B)								At max. reach		
		1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		Capacity		Reach
												m (ft)
7.5 m (24.6 ft)	kg lb									*2450 *5400	*2450 *5400	4.28 (14.0)
6.0 m (19.7 ft)	kg lb					*3290 *7250	*3290 *7250			*2070 *4560	*2070 *4560	5.86 (19.2)
4.5 m (14.8 ft)	kg lb					*3580 *7890	*3580 *7890	*3180 *7010	2770 6110	*1960 *4320	*1960 *4320	6.76 (22.2)
3.0 m (9.8 ft)	kg lb			*5770 *12720	*5770 *12720	*4880 *10760	4200 9260	*4010 *8840	2690 5930	*1980 *4370	*1980 *4370	7.25 (23.8)
1.5 m (4.9 ft)	kg lb			*8900 *19620	7350 16200	*5770 *12720	3940 8690	*4460 *9830	2580 5690	*2100 *4630	1870 4120	7.40 (24.3)
0.0 m (0.0 ft)	kg lb			*8300 *18300	6890 15190	*6300 *13890	3730 8220	*4650 *10250	2480 5470	*2360 *5200	1900 4190	7.24 (23.7)
-1.5 m (-4.9 ft)	kg lb	*4720 *10410	*4720 *10410	*9180 *20240	6780 14950	*6170 *13600	3630 8000	*4440 *9790	2430 5360	*2870 *6330	2080 4590	6.74 (22.1)
-3.0 m (-9.8 ft)	kg lb	*7780 *17150	*7780 *17150	*7460 *16450	6840 15080	*5170 *11400	3640 8020			*3520 *7760	2560 5640	5.82 (19.1)

Note 1. Lifting capacity are based on ISO 10567.

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

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

4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

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

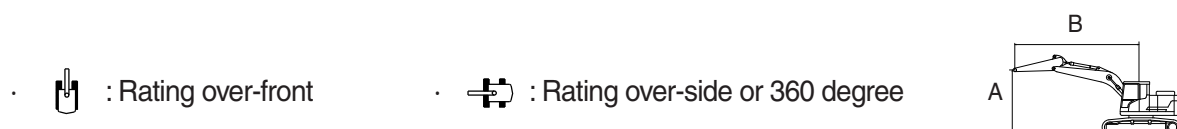
The difference between the weight of a work tool attachment must be subtracted.











Consult your 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	Shoe	Wheel	Dozer		Outrigger	
HX145CRT3 W/DOZER	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		4600	3000	2800	600	-	Up	-	-	-



Lift-point height (A)		Lift-point radius (B)								At max. reach		
		1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		Capacity		Reach
												m (ft)
7.5 m (24.6 ft)	kg lb									*2450 *5400	*2450 *5400	4.28 (14.0)
6.0 m (19.7 ft)	kg lb					*3290 *7250	*3290 *7250			*2070 *4560	*2070 *4560	5.86 (19.2)
4.5 m (14.8 ft)	kg lb					*3580 *7890	*3580 *7890	*3180 *7010	2510 5530	*1960 *4320	*1960 *4320	6.76 (22.2)
3.0 m (9.8 ft)	kg lb			*5770 *12720	*5770 *12720	*4880 *10760	3780 8330	3780 8330	2430 5360	*1980 *4370	1780 3920	7.25 (23.8)
1.5 m (4.9 ft)	kg lb			*8900 *19620	6460 14240	5750 12680	3530 7780	3660 8070	2320 5110	*2100 *4630	1680 3700	7.40 (24.3)
0.0 m (0.0 ft)	kg lb			*8300 *18300	6030 13290	5510 12150	3320 7320	3550 7830	2220 4890	*2360 *5200	1700 3750	7.24 (23.7)
-1.5 m (-4.9 ft)	kg lb	*4720 *10410	*4720 *10410	*9180 *20240	5920 13050	5400 11900	3230 7120	3500 7720	2170 4780	*2870 *6330	1860 4100	6.74 (22.1)
-3.0 m (-9.8 ft)	kg lb	*7780 *17150	*7780 *17150	*7460 *16450	5980 13180	*5170 *11400	3240 7140			*3520 *7760	2290 5050	5.82 (19.1)

Note 1. Lifting capacity are based on ISO 10567.

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

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

4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

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

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

Consult your 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.

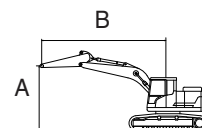
Make adjustments to the rated load as necessary for non-standard configurations.











4) HX145LCRT3, WITH DOZER

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX145LCRT3 W/DOZER	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		4600	2500	2800	600	-	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 lb			*3760 *8290	*3760 *8290					*2770 *6110	*2770 *6110	3.56 (11.7)
6.0 m (19.7 ft)	kg lb					*3650 *8050	*3650 *8050			*2180 *4810	*2180 *4810	5.37 (17.6)
4.5 m (14.8 ft)	kg lb			*4000 *8820	*4000 *8820	*4260 *9390	*4260 *9390	*3100 *6830	2750 6060	*2020 *4450	*2020 *4450	6.34 (20.8)
3.0 m (9.8 ft)	kg lb			*7400 *16310	*7400 *16310	*5270 *11620	4170 9190	*4340 *9570	2680 5910	*2010 *4430	*2010 *4430	6.86 (22.5)
1.5 m (4.9 ft)	kg lb			*8670 *19110	7250 15980	*6050 *13340	3930 8660	*4610 *10160	2590 5710	*2120 *4670	2050 4520	7.02 (23.0)
0.0 m (0.0 ft)	kg lb			*7060 *15560	6950 15320	*6380 *14070	3760 8290	*4670 *10300	2510 5530	*2370 *5220	2090 4610	6.85 (22.5)
-1.5 m (-4.9 ft)	kg lb	*4940 *10890	*4940 *10890	*8670 *19110	6910 15230	*5990 *13210	3700 8160	*4200 *9260	2490 5490	*2900 *6390	2330 5140	6.32 (20.7)
-3.0 m (-9.8 ft)	kg lb			*6550 *14440	*6550 *14440	*4580 *10100	3750 8270			*3410 *7520	2980 6570	5.33 (17.5)

Note 1. Lifting capacity are based on ISO 10567.

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

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

4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

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

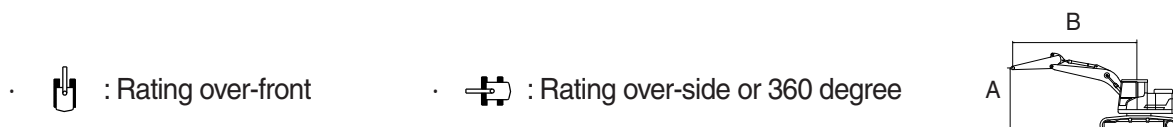
The difference between the weight of a work tool attachment must be subtracted.











Consult your 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	Shoe	Wheel	Dozer		Outrigger	
HX145LCRT3 W/DOZER	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		4600	2500	2800	600	-	Up	-	-	-



Lift-point height (A)		Lift-point radius (B)								At max. reach		
		1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		Capacity		Reach
												m (ft)
7.5 m (24.6 ft)	kg lb			*3760 *8290	*3760 *8290					*2770 *6110	*2770 *6110	3.56 (11.7)
6.0 m (19.7 ft)	kg lb					*3650 *8050	*3650 *8050			*2180 *4810	*2180 *4810	5.37 (17.6)
4.5 m (14.8 ft)	kg lb			*4000 *8820	*4000 *8820	*4260 *9390	3940 8690	*3100 *6830	2480 5470	*2020 *4450	*2020 *4450	6.34 (20.8)
3.0 m (9.8 ft)	kg lb			*7400 *16310	7060 15560	*5270 *11620	3750 8270	3780 8330	2420 5340	*2010 *4430	1950 4300	6.86 (22.5)
1.5 m (4.9 ft)	kg lb			*8670 *19110	6370 14040	5750 12680	3520 7760	3670 8090	2330 5140	*2120 *4670	1840 4060	7.02 (23.0)
0.0 m (0.0 ft)	kg lb			*7060 *15560	6070 13380	5550 12240	3350 7390	3590 7910	2250 4960	*2370 *5220	1870 4120	6.85 (22.5)
-1.5 m (-4.9 ft)	kg lb	*4940 *10890	*4940 *10890	*8670 *19110	6040 13320	5480 12080	3290 7250	3560 7850	2230 4920	*2900 *6390	2080 4590	6.32 (20.7)
-3.0 m (-9.8 ft)	kg lb			*6550 *14440	6150 13560	*4580 *10100	3340 7360			*3410 *7520	2670 5890	5.33 (17.5)

Note 1. Lifting capacity are based on ISO 10567.

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

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

4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

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

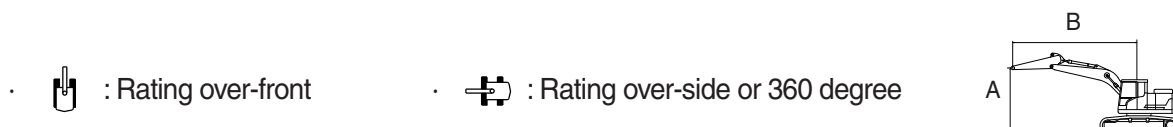
The difference between the weight of a work tool attachment must be subtracted.











Consult your 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	Shoe	Wheel	Dozer		Outrigger	
HX145LCRT3 W/DOZER	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		4600	3000	2800	600	-	Down	-	-	-



Lift-point height (A)		Lift-point radius (B)								At max. reach		
		1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		Capacity		Reach
												m (ft)
7.5 m (24.6 ft)	kg lb									*2450 *5400	*2450 *5400	4.28 (14.0)
6.0 m (19.7 ft)	kg lb					*3290 *7250	*3290 *7250			*2070 *4560	*2070 *4560	5.86 (19.2)
4.5 m (14.8 ft)	kg lb					*3580 *7890	*3580 *7890	*3180 *7010	2800 6170	*1960 *4320	*1960 *4320	6.76 (22.2)
3.0 m (9.8 ft)	kg lb			*5770 *12720	*5770 *12720	*4880 *10760	4240 9350	*4010 *8840	2720 6000	*1980 *4370	*1980 *4370	7.25 (23.8)
1.5 m (4.9 ft)	kg lb			*8900 *19620	7420 16360	*5770 *12720	3980 8770	*4460 *9830	2600 5730	*2100 *4630	1890 4170	7.40 (24.3)
0.0 m (0.0 ft)	kg lb			*8300 *18300	6970 15370	*6300 *13890	3770 8310	*4650 *10250	2510 5530	*2360 *5200	1920 4230	7.24 (23.7)
-1.5 m (-4.9 ft)	kg lb	*4720 *10410	*4720 *10410	*9180 *20240	6850 15100	*6170 *13600	3670 8090	*4440 *9790	2460 5420	*2870 *6330	2100 4630	6.74 (22.1)
-3.0 m (-9.8 ft)	kg lb	*7780 *17150	*7780 *17150	*7460 *16450	6910 15230	*5170 *11400	3680 8110			*3520 *7760	2590 5710	5.82 (19.1)

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).

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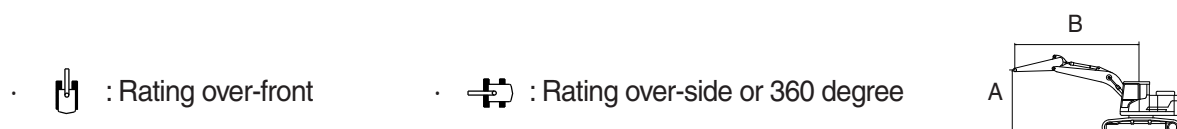
The difference between the weight of a work tool attachment must be subtracted.











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	Shoe	Wheel	Dozer		Outrigger	
HX145LCRT3 W/DOZER	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		4600	3000	2800	600	-	Up	-	-	-



Lift-point height (A)		Lift-point radius (B)								At max. reach		
		1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		Capacity		Reach
												m (ft)
7.5 m (24.6 ft)	kg lb									*2450 *5400	*2450 *5400	4.28 (14.0)
6.0 m (19.7 ft)	kg lb					*3290 *7250	*3290 *7250			*2070 *4560	*2070 *4560	5.86 (19.2)
4.5 m (14.8 ft)	kg lb					*3580 *7890	*3580 *7890	*3180 *7010	2530 5580	*1960 *4320	*1960 *4320	6.76 (22.2)
3.0 m (9.8 ft)	kg lb			*5770 *12720	*5770 *12720	*4880 *10760	3820 8420	3820 8420	2450 5400	*1980 *4370	1800 3970	7.25 (23.8)
1.5 m (4.9 ft)	kg lb			*8900 *19620	6530 14400	*5770 *12720	3560 7850	3690 8140	2340 5160	*2100 *4630	1700 3750	7.40 (24.3)
0.0 m (0.0 ft)	kg lb			*8300 *18300	6090 13430	5570 12280	3360 7410	3590 7910	2240 4940	*2360 *5200	1720 3790	7.24 (23.7)
-1.5 m (-4.9 ft)	kg lb	*4720 *10410	*4720 *10410	*9180 *20240	5980 13180	5460 12040	3260 7190	3530 7780	2200 4850	*2870 *6330	1880 4140	6.74 (22.1)
-3.0 m (-9.8 ft)	kg lb	*7780 *17150	*7780 *17150	*7460 *16450	6040 13320	*5170 *11400	3270 7210			*3520 *7760	2310 5090	5.82 (19.1)

Note 1. Lifting capacity are based on ISO 10567.

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

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

4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

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

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

Consult your 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

1) BUCKET SELECTION



General bucket

Type	Capacity		Width		Weight	Tooth	MONO Recommendation mm (ft-in)	
	SAE Heaped	CECE heaped	Without side cutter	With side cutter			4.6 m (15' 1") Boom	
	m ³ (yd ³)	m ³ (yd ³)	mm (in)	mm (in)			2.5 m (8' 2") Arm	3.0 m (9' 10") Arm
General bucket	0.51 (0.67)	0.45 (0.59)	865 (34.1')	995 (39.2')	395 (870)	5	●	●
	0.59 (0.77)	0.51 (0.67)	955 (37.6')	1085 (42.7')	415 (910)	5	■	■
	0.64 (0.84)	0.55 (0.72)	1040 (40.9")	1170 (46.1")	440 (970)	5	■	▲
	0.76 (0.99)	0.65 (0.85)	1215 (47.8")	1345 (53.0")	490 (1080)	6	▲	X

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

※ These recommendations are for general conditions and average use.

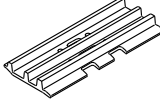
Work tools and ground conditions have effects on machine performance.

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. UNDERCARRIAGE

1) TYPES OF SHOES

Model	Shapes		Triple grouser		
					
-	Shoe width	mm (in)	500 (20)	600 (24)	700 (32)
HX145CRT3 STD CRAWLER WO DOZER	Operating weight	kg (lb)	14660 (32320)	14880 (32800)	15090 (33270)
	Ground pressure	kgf/cm ² (psi)	0.46 (6.61)	0.39 (5.59)	0.34 (4.86)
	Overall width	mm (ft-in)	2500 (8' 2")	2600 (8' 6")	2700 (8' 10")
	Link quantity	EA	45	45	45
HX145LCRT3 LONG CRAWLER WO DOZER	Operating weight	kg (lb)	14900 (32850)	15130 (33360)	15350 (33840)
	Ground pressure	kgf/cm ² (psi)	0.45 (6.36)	0.38 (5.38)	0.33 (4.68)
	Overall width	mm (ft-in)	2500 (8' 2")	2600 (8' 6")	2700 (8' 10")
	Link quantity	EA	47	47	47
HX145CRT3 STD CRAWLER WITH DOZER	Operating weight	kg (lb)	15470 (34110)	15700 (34610)	15910 (35080)
	Ground pressure	kgf/cm ² (psi)	0.49 (6.98)	0.41 (5.90)	0.36 (5.12)
	Overall width	mm (ft-in)	2500 (8' 2")	2600 (8' 6")	2700 (8' 10")
	Link quantity	EA	45	45	45
HX145LCRT3 LONG CRAWLER WITH DOZER	Operating weight	kg (lb)	15680 (34570)	15920 (35100)	16150 (35600)
	Ground pressure	kgf/cm ² (psi)	0.47 (6.69)	0.40 (5.66)	0.35 (4.92)
	Overall width	mm (ft-in)	2500 (8' 2")	2600 (8' 6")	2700 (8' 10")
	Link quantity	EA	47	47	47

2) SELECTION OF TRACK SHOE

Suitable track shoes should be selected according to operating conditions.

Method of selecting shoes

Confirm the category from the list of applications in **table 2**, then use **table 1** to select the shoe. Wide shoes (categories B and C) have limitations on applications. Before using wide shoes, check the precautions, then investigate and study the operating conditions to confirm if these shoes are suitable.

Select the narrowest shoe possible to meet the required flotation and ground pressure. Application of wider shoes than recommendations will cause unexpected problem such as bending of shoes, crack of link, breakage of pin, loosening of shoe bolts and the other various problems.

※ **Table 1**

Track shoe	Specification	Category
500 mm triple grouser	Option	A
600 mm triple grouser	Standard	A
700 mm triple grouser	Option	B

※ **Table 2**

Category	Applications	Precautions
A	Rocky ground, river beds, normal soil	<ul style="list-style-type: none">Travel at low speed on rough ground with large obstacles such as boulders or fallen trees
B	Normal soil, soft ground	<ul style="list-style-type: none">These shoes cannot be used on rough ground with large obstacles such as boulders or fallen treesTravel at high speed only on flat groundTravel slowly at low speed if it is impossible to avoid going over obstacles
C	Extremely soft ground (swampy ground)	<ul style="list-style-type: none">Use the shoes only in the conditions that the machine sinks and it is impossible to use the shoes of category A or BThese shoes cannot be used on rough ground with large obstacles such as boulders or fallen treesTravel at high speed only on flat groundTravel slowly at low speed if it is impossible to avoid going over obstacles

8. SPECIFICATIONS FOR MAJOR COMPONENTS

1) ENGINE

Item	Specification
Model	Cummins, QSB4.5
Type	4-cycle, turbocharged, charge air cooled, electronic controlled diesel engine
Cooling method	Water 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	107 × 124 mm (4.21" × 4.88")
Displacement	4.5 ℓ (275 cu in)
Compression ratio	17.2 : 1
Gross power	130 Hp (97 kW) at 2000 rpm
Net power	127 Hp (95 kW) at 2000 rpm
Max. power	135 Hp (101 kW) at 1800 rpm
Peak Torque	620 N · m (457 lbf · ft) at 1500 rpm
Engine oil quantity	11 ℓ (2.9 U.S. gal)
Wet weight	371 kg (818 lb)
Starter motor	24 V-4.8 kW
Alternator	24 V-70 A

2) MAIN PUMP

Item	Specification
Type	Variable displacement tandem axis piston pumps
Capacity	2 × 65 cc/rev
Maximum pressure	350 kgf/cm ² (4980 psi) [380 kgf/cm ² (5400 psi)]
Rated oil flow	2 × 120 ℓ /min (31.7 U.S. gpm/ 26.4 U.K. gpm)
Rated speed	1850 rpm

[] : Power boost

3) GEAR PUMP

Item	Specification
Type	Fixed displacement gear pump single stage
Capacity	15 cc/rev
Maximum pressure	40 kgf/cm ² (570 psi)
Rated oil flow	27.8 ℓ /min (7.3 U.S. gpm/6.1 U.K. gpm)

4) MAIN CONTROL VALVE

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

[]: Power boost

5) SWING MOTOR

Item	Specification
Type	Fixed displacement axial piston motor
Capacity	72 cc/rev
Relief pressure	280 kgf/cm ² (3983 psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	Minimum 36.8 kgf · m (266 lbf · ft)
Brake release pressure	24 kgf/cm ² (341 psi)
Reduction gear type	2 - stage planetary

6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement axial piston motor
Capacity	77/44.5 cc/rev
Relief pressure	350 kgf/cm ² (4980 psi)
Reduction gear type	2-stage planetary
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	12.5 kgf/cm ² (178 psi)
Braking torque	33.1 kgf · m (240 lbf · ft)

7) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Stroke	Ø 105 × 1085 mm
	Cushion	Extend only
Arm cylinder	Bore dia × Stroke	Ø 115 × 1108 mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Stroke	Ø 100 × 900 mm
	Cushion	Extend only
Dozer cylinder (opt)	Bore dia × Stroke	Ø 100 × 250 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. 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)	30 (86)	40 (104)	
Engine oil pan	Engine oil	11 (2.9)	★SAE 0W-30									
			SAE 5W-30									
			SAE 10W-30									
			SAE CI-4 and 10W-30									
			SAE 5W-40 or 15W-40									
Swing drive	Gear oil	3.5 (0.9)	★SAE 75W-90									
Final drive		2.3×2 (0.6×2)	SAE 80W-90									
Hydraulic tank	Hydraulic oil	Tank : 96 (25.4)	★ISO VG 15									
		System : 180 (47.6)	ISO VG 32									
			ISO VG 68									
Fuel tank	Diesel fuel	210 (55.5)	★ASTM D975 NO.1									
			ASTM D975 NO.2									
Fitting (grease nipple)	Grease	As required	★NLGI NO.1									
			NLGI NO.2									
Radiator (reservoir tank)	Mixture of antifreeze and soft water★ ¹	24 (6.3)	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

★ : Cold region

Russia, CIS, Mongolia

★1 : 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.

※ HD Hyundai Construction Equipment genuine lubricating oils and grease for use in regions with extremely low temperatures, please contact HD Hyundai Construction Equipment dealers.