

SECTION 1 GENERAL



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SECTION 1 GENERAL

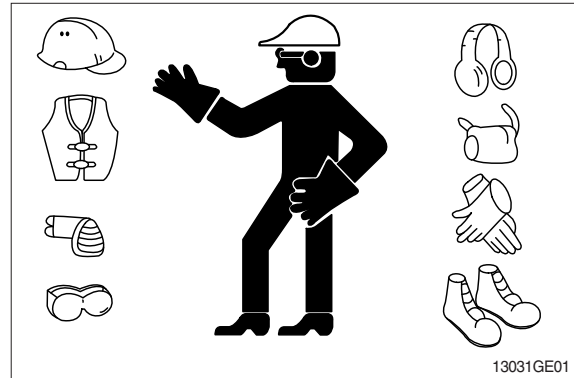
GROUP 1 SAFETY

FOLLOW SAFE PROCEDURE

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

WEAR PROTECTIVE CLOTHING

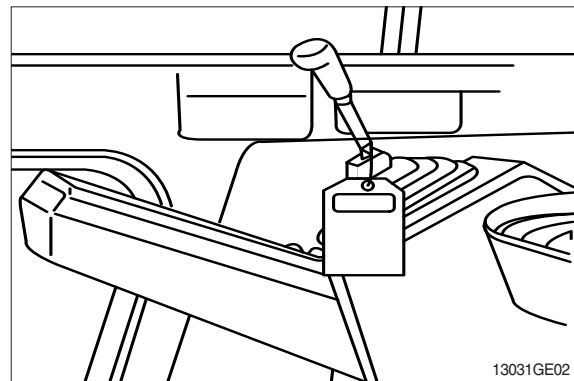
Wear close fitting clothing and safety equipment appropriate to the job.



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.



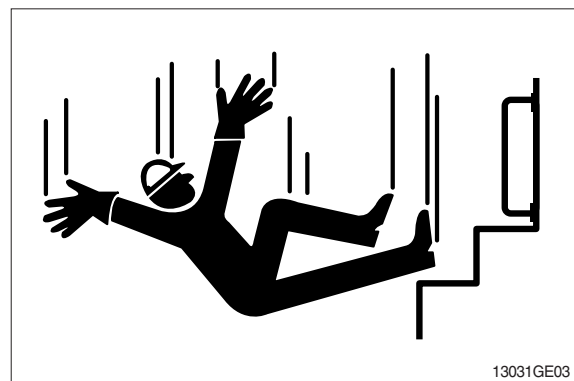
USE HANDHOLDS AND STEPS

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.

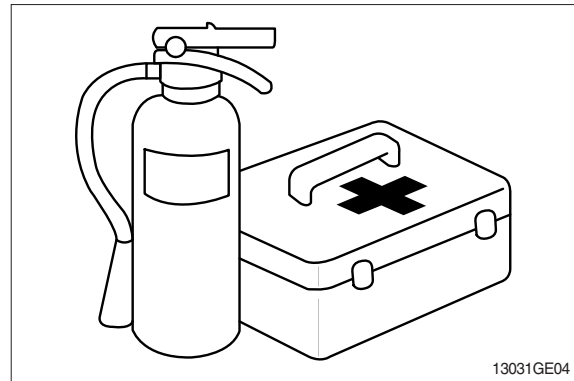


PREPARE FOR EMERGENCIES

Be prepared if a fire starts.

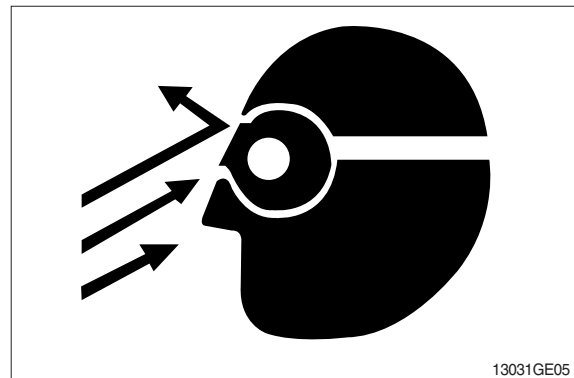
Keep a first aid kit and fire extinguisher handy.

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



PROTECT AGAINST FLYING DEBRIS

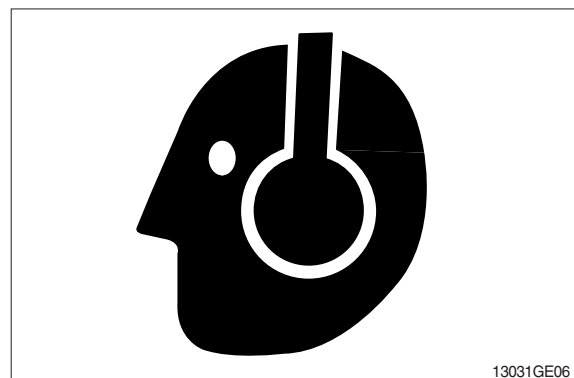
Guard against injury from flying pieces of metal or debris; Wear goggles or safety glasses.



PROTECT AGAINST NOISE

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

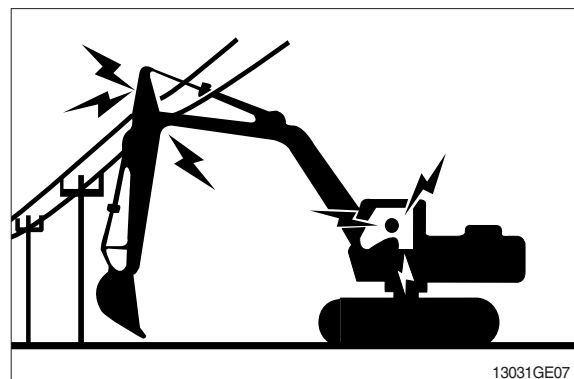
Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.



AVOID POWER LINES

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

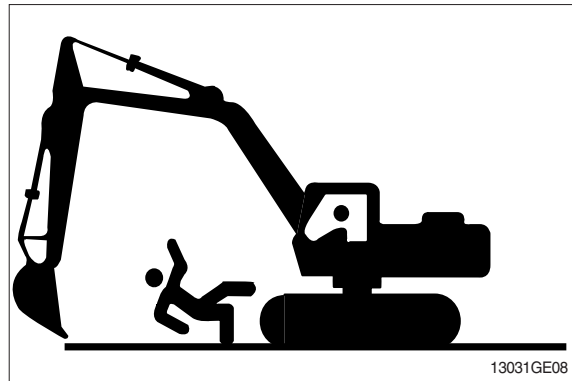
Never move any part of the machine or load closer to electric line than 3m(10ft) plus twice the line insulator length.



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.

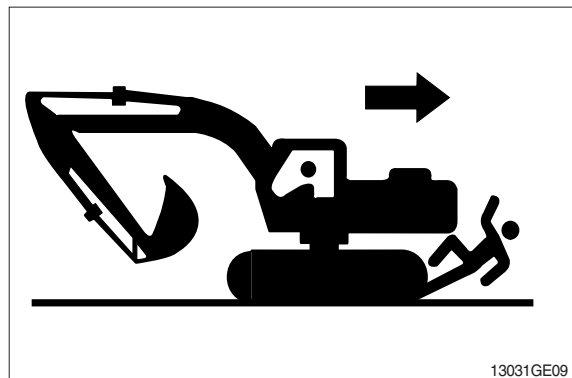


MOVE AND OPERATE MACHINE SAFELY

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:

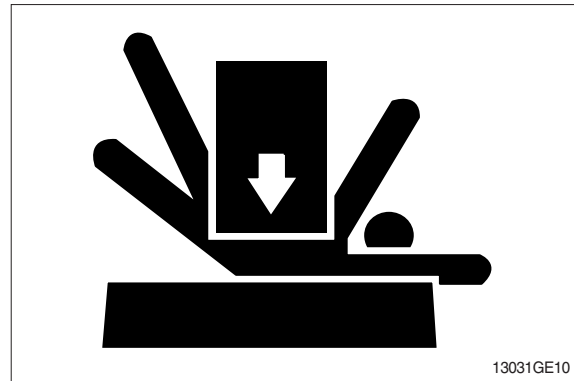
- Park machine on a level surface.
- Lower bucket to the ground.
- Turn auto idle switch off.
- Run engine at low idle speed without load for 5 minutes.
- Turn key switch to OFF to stop engine. Remove key from switch.
- Place safety lever to locked position.
- Allow engine to cool.

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.

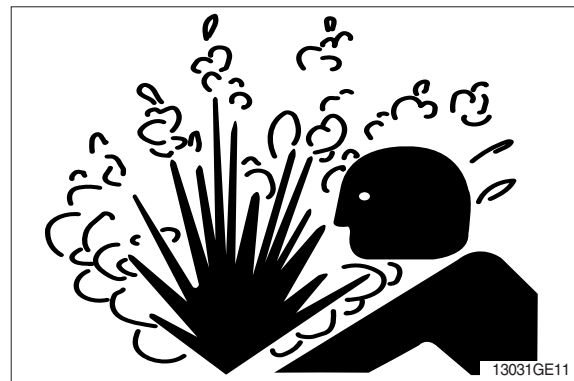
Do not work under a machine that is supported solely by a jack. Follow recommended procedures in this manual.



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

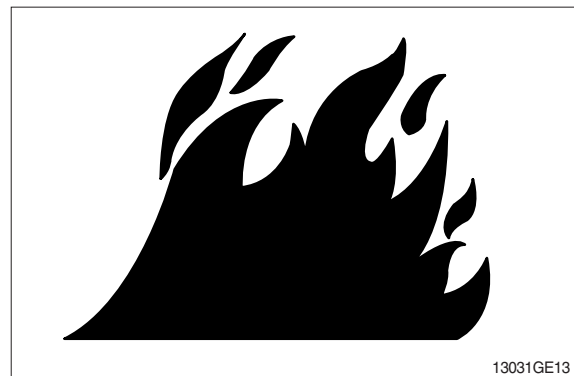
Handle fuel with care; It is highly flammable. Do not refuel the machine while smoking or when near open flame or sparks. Always stop engine before refueling machine. Fill fuel tank outdoors.



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

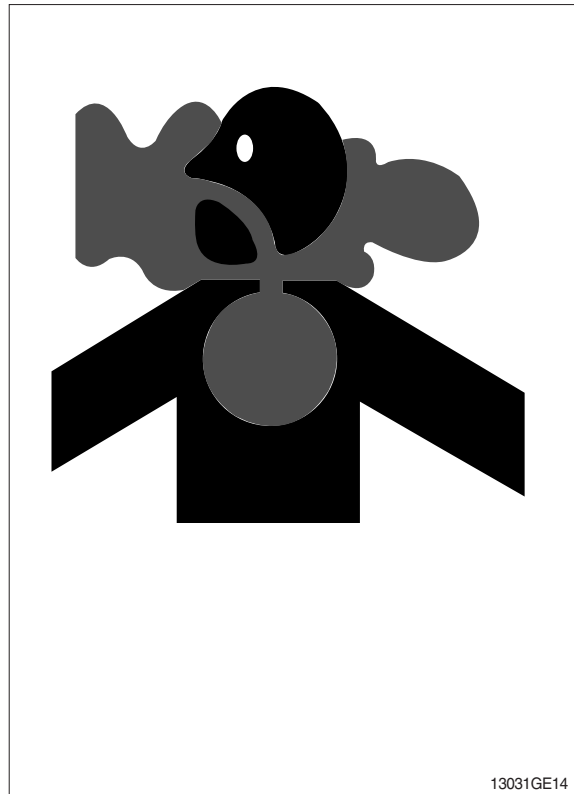
Avoid potentially toxic fumes and dust.

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

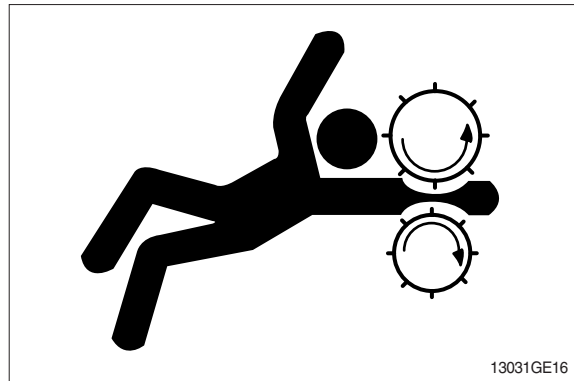
Illuminate your work area adequately but safely. Use a portable safety light for working inside or under the machine. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.



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.

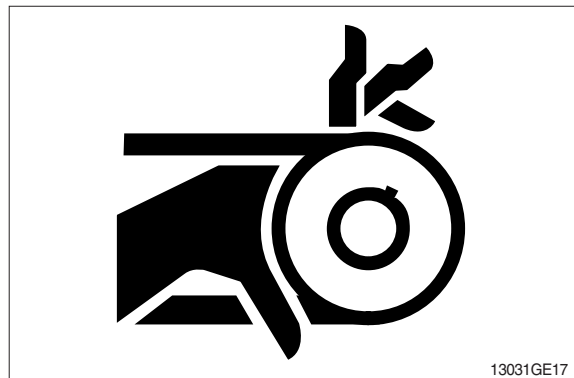
Remove rings and other jewelry to prevent electrical shorts and entanglement in moving parts.



STAY CLEAR OF MOVING PARTS

Entanglements in moving parts can cause serious injury.

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



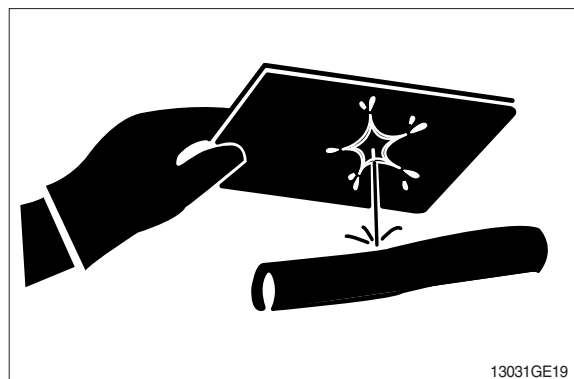
AVOID HIGH PRESSURE FLUIDS

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.

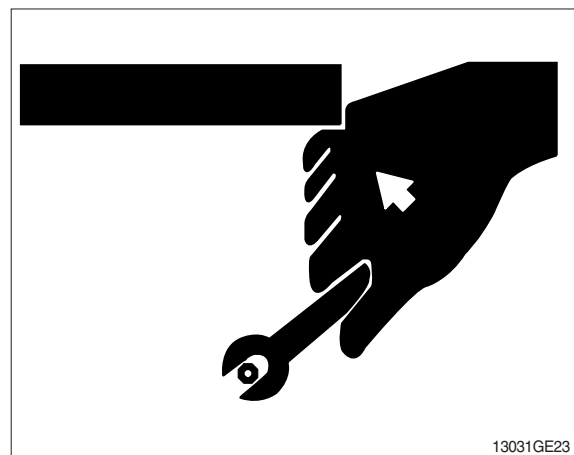
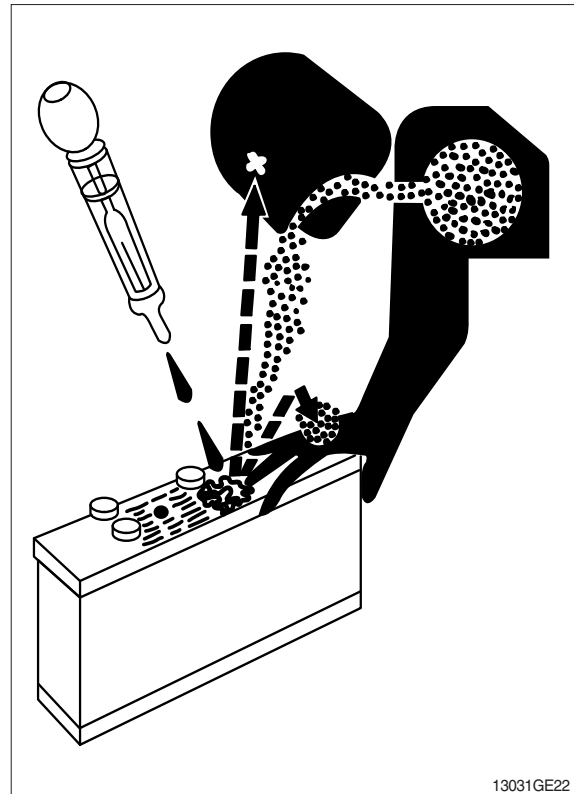
USE TOOLS PROPERLY

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.)

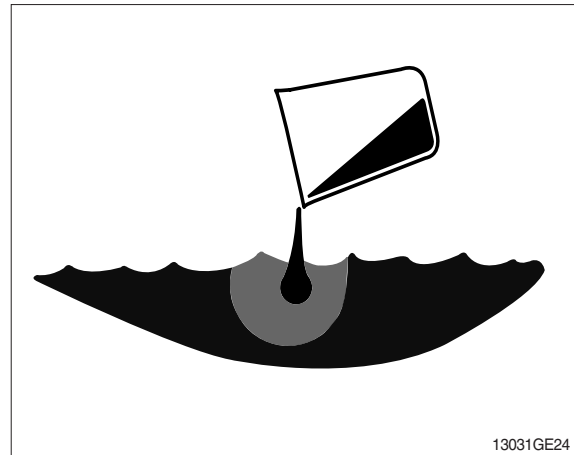


DISPOSE OF FLUIDS PROPERLY

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.

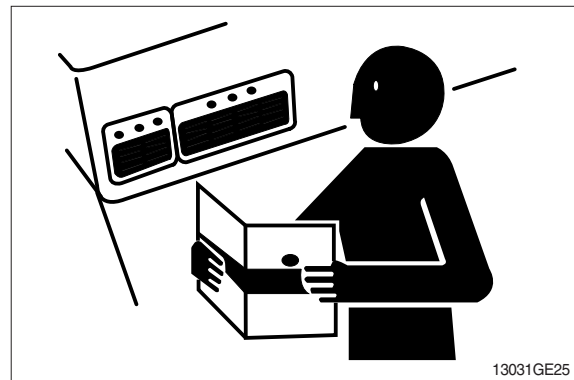
Use proper containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.

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.

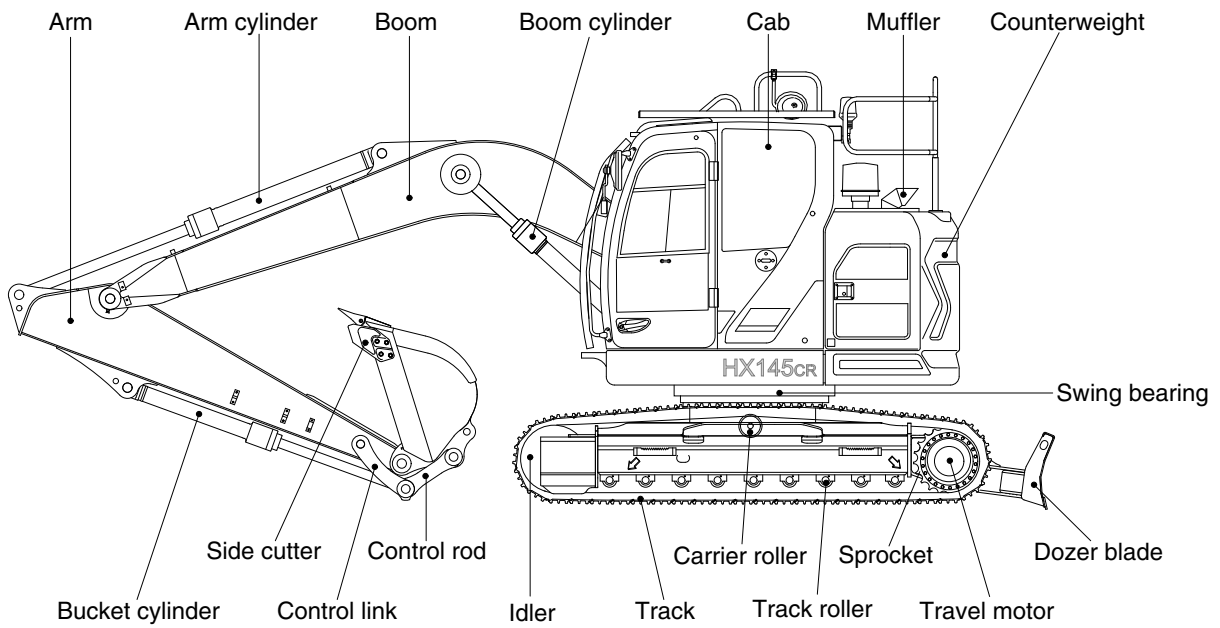
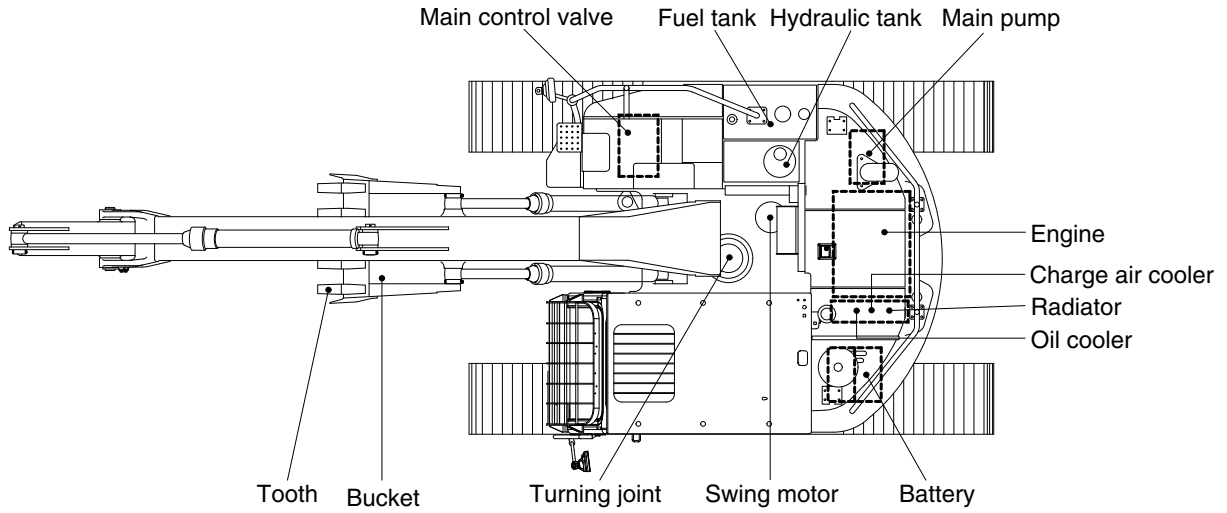


LIVE WITH SAFETY

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

GROUP 2 SPECIFICATIONS

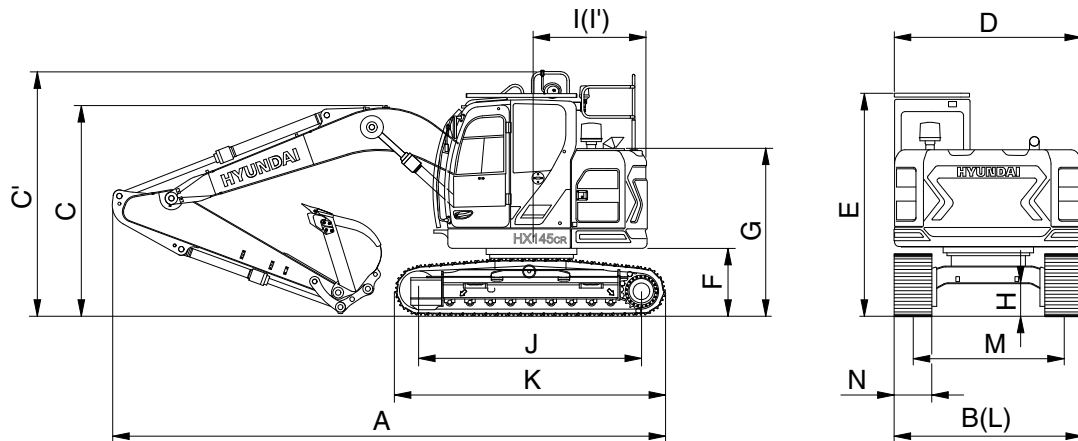
1. MAJOR COMPONENT



145SA2SP01

2. SPECIFICATIONS

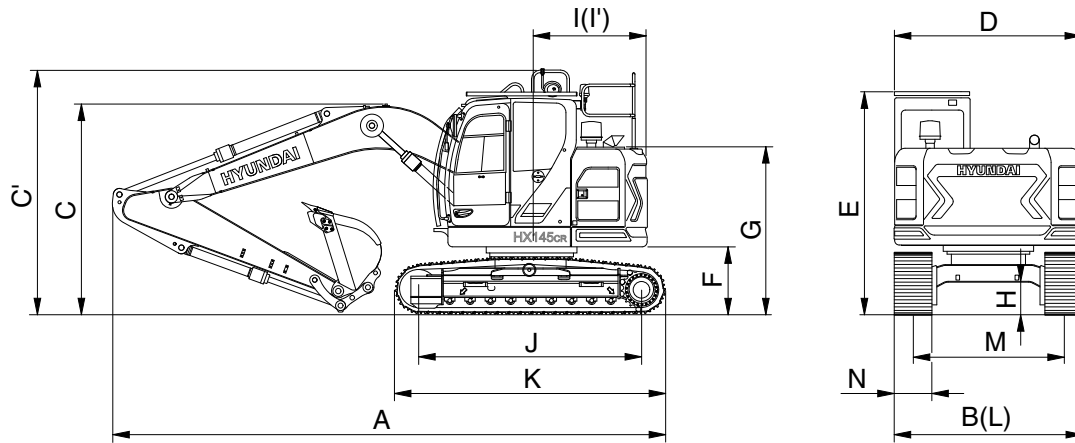
1) HX145LCRT3, STD CRAWLER



145SA2SP02

Description	Unit		Specification	
	m (ft-in)	Boom	4.6 (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	6965 (22' 10")	6885 (22' 7")	
Overall width	B	2600 (8' 6")	2600 (8' 6")	
Overall height of boom	C	2769 (9' 1")	3123 (10' 3")	
Superstructure width	D	2500 (8' 2")	2500 (8' 2")	
Overall height of cab	E	2940 (9' 8")	2940 (9' 8")	
Ground clearance of counterweight	F	930 (3' 1")	930 (3' 1")	
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	440 (1' 5")	440 (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	2910 (9' 7")	2910 (9' 7")	
Undercarriage length	K	3640 (11' 11")	3640 (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)	

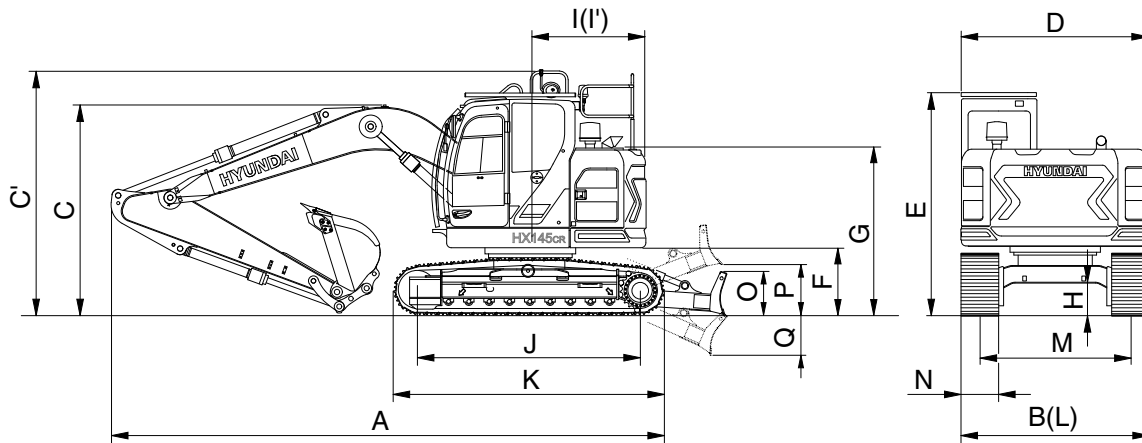
2) HX145LCRT3, LONG CRAWLER



145SA2SP02

Description	Unit		Specification	
	m (ft-in)	Boom	4.6 (15' 1")	
		Arm	2.50 (8' 2")	3.00 (9' 10")
	mm (in)	Shoe	600 (24)	
Operating weight	kg (lb)	15130 (33,360)	15,170 (33,440)	
Bucket capacity (SAE heaped), standard	m ³ (yd ³)	0.52 (0.68)	0.52 (0.68)	
Overall length	A	6965 (22' 10")	6885 (22' 7")	
Overall width	B	2600 (8' 6")	2600 (8' 6")	
Overall height of boom	C	2769 (9' 1")	3123 (10' 3")	
Superstructure width	D	2500 (8' 2")	2500 (8' 2")	
Overall height of cab	E	2940 (9' 8")	2940 (9' 8")	
Ground clearance of counterweight	F	930 (3' 1")	930 (3' 1")	
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	440 (1' 5")	440 (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	3090 (10' 2")	3090 (10' 2")	
Undercarriage length	K	3820 (12' 6")	3820 (12' 6")	
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)	

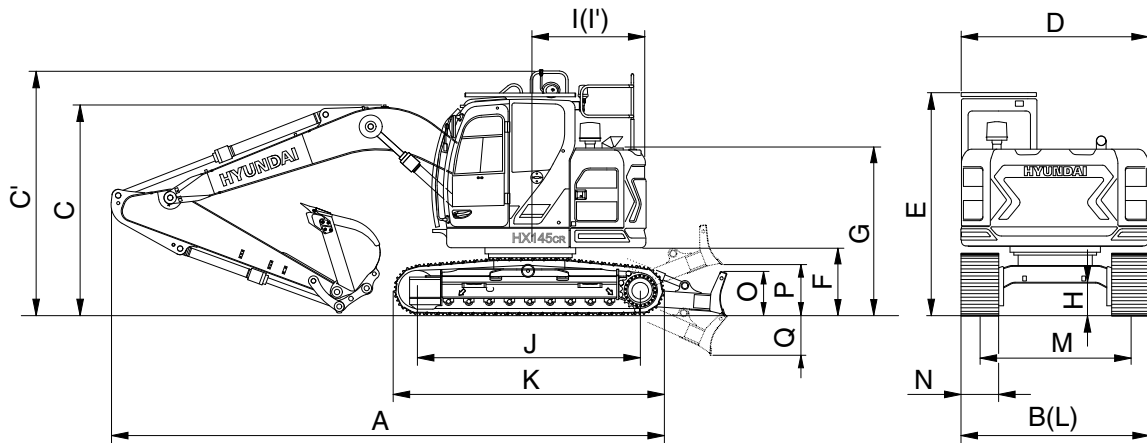
3) HX145LCRT3, STD CRAWLER WITH DOZER



145SA2SP03

Description	Unit		Specification	
	m (ft-in)	Boom	4.6 (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)	6965 (22' 10")	6885 (22' 7")
Overall length (with dozer)	A'		7817 (25' 8")	7738 (25' 5")
Overall width	B		2600 (8' 6")	2600 (8' 6")
Overall height of boom	C		2769 (9' 1")	3123 (10' 3")
Superstructure width	D		2500 (8' 2")	2500 (8' 2")
Overall height of cab	E		2940 (9' 8")	2940 (9' 8")
Ground clearance of counterweight	F		930 (3' 1")	930 (3' 1")
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		440 (1' 5")	440 (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		2910 (9' 7")	2910 (9' 7")
Undercarriage length	K		3640 (11' 11")	3640 (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

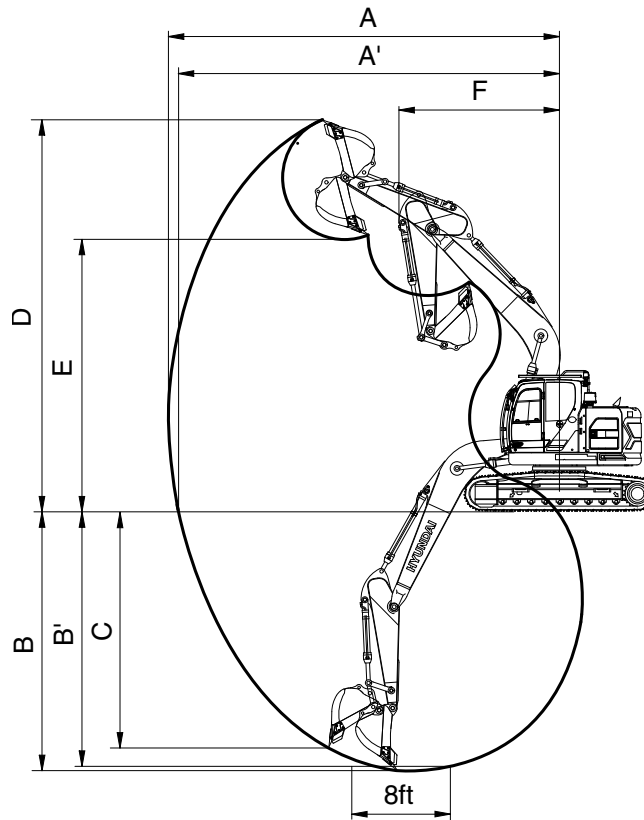


145SA2SP03

Description	Unit		Specification	
	m (ft-in)	Boom	4.6 (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	6965 (22' 10")	6885 (22' 7")	
Overall length (with dozer)	A'	7817 (25' 8")	7738 (25' 5")	
Overall width	B	2600 (8' 6")	2600 (8' 6")	
Overall height of boom	C	2769 (9' 1")	3123 (10' 3")	
Superstructure width	D	2500 (8' 2")	2500 (8' 2")	
Overall height of cab	E	2940 (9' 8")	2940 (9' 8")	
Ground clearance of counterweight	F	930 (3' 1")	930 (3' 1")	
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	440 (1' 5")	440 (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 tumbler	J	3090 (10' 2")	3090 (10' 2")	
Undercarriage length	K	3820 (12' 6")	3820 (12' 6")	
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) HX145LCRT3, STD CRAWLER

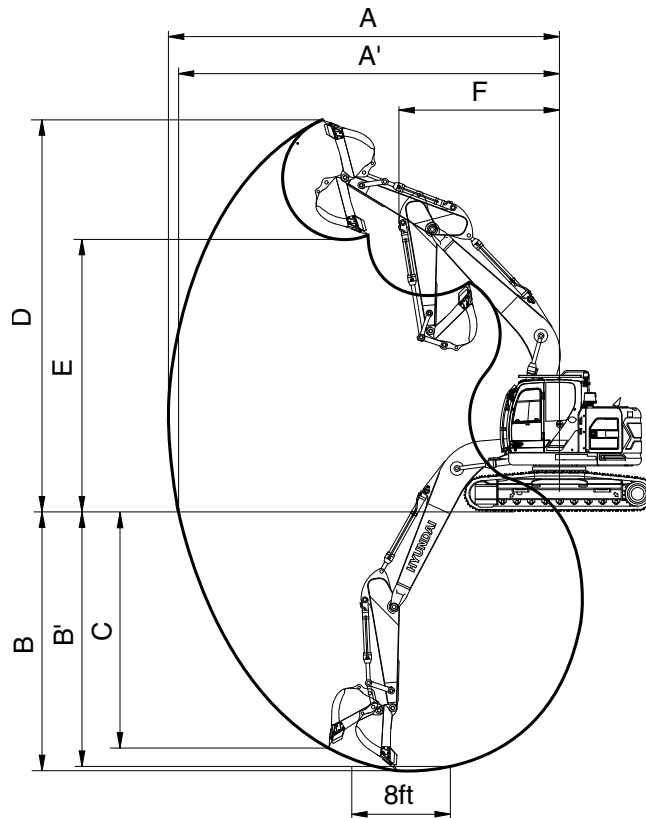


145SA2SP04

Description	m (ft-in)	Boom	4.6 (15' 1")	
		Arm	2.50 (8' 2")	3.00 (9' 10")
Max digging reach	mm (ft-in)	A	8301 (27' 3")	8765 (28' 9")
Max digging reach on ground		A'	8158 (26' 9")	8629 (28' 4")
Max digging depth		B	5437 (17' 10")	5937 (19' 6")
Max digging depth (8 ft level)		B'	5231 (17' 2")	5758 (18' 11")
Max vertical wall digging depth		C	4987 (16' 4")	5492 (18' 0")
Max digging height		D	9370 (30' 9")	9746 (32' 0")
Max dumping height		E	6878 (22' 7")	7255 (23' 10")
Min swing radius		F	2051 (6' 9")	2330 (7' 8")
Bucket digging force	kN	SAE	87.3 [94.7]	87.2 [94.7]
	kgf		8895.7 [9658.2]	8891.8 [9653.9]
	lbf		19611.6 [21292.6]	19603 [21283.3]
	kN	ISO	101.8 [110.5]	101.7 [110.4]
	kgf		10372.7 [11261.8]	10368.1 [11256.8]
	lbf		22867.9 [24828.0]	22857.8 [24817.0]
Arm digging force	kN	SAE	62.6 [67.9]	55.9 [60.7]
	kgf		6378.1 [6924.8]	5700.6 [6189.2]
	lbf		14061.3 [15266.6]	12567.6 [13644.8]
	kN	ISO	65.1 [70.7]	58 [62.9]
	kgf		6639.7 [7208.8]	5907.5 [6413.8]
	lbf		14638 [15892.6]	13023.8 [14140.1]

[] : Power boost

2) HX145LCRT3, LONG CRAWLER



145SA2SP04

Description	m (ft-in)	Boom	4.6 (15' 1")	
		Arm	2.50 (8' 2")	3.00 (9' 10")
Max digging reach	mm (ft-in)	A	8301 (27' 3")	8765 (28' 9")
Max digging reach on ground		A'	8158 (26' 9")	8629 (28' 4")
Max digging depth		B	5437 (17' 10")	5937 (19' 6")
Max digging depth (8 ft level)		B'	5231 (17' 2")	5758 (18' 11")
Max vertical wall digging depth		C	4987 (16' 4")	5492 (18' 0")
Max digging height		D	9370 (30' 9")	9746 (32' 0")
Max dumping height		E	6878 (22' 7")	7255 (23' 10")
Min swing radius		F	2051 (6' 9")	2330 (7' 8")
Bucket digging force	kN	SAE	87.3 [94.7]	87.2 [94.7]
	kgf		8895.7 [9658.2]	8891.8 [9653.9]
	lbf		19611.6 [21292.6]	19603 [21283.3]
	kN	ISO	101.8 [110.5]	101.7 [110.4]
	kgf		10372.7 [11261.8]	10368.1 [11256.8]
	lbf		22867.9 [24828.0]	22857.8 [24817.0]
Arm digging force	kN	SAE	62.6 [67.9]	55.9 [60.7]
	kgf		6378.1 [6924.8]	5700.6 [6189.2]
	lbf		14061.3 [15266.6]	12567.6 [13644.8]
	kN	ISO	65.1 [70.7]	58 [62.9]
	kgf		6639.7 [7208.8]	5907.5 [6413.8]
	lbf		14638 [15892.6]	13023.8 [14140.1]

[] : Power boost

4. WEIGHT

1) HX145LCRT3, STD 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	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 m ³ 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

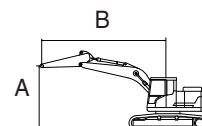
Item	HX145LCRT3 W/O DOZER		HX145LCRT3 W/DOZER	
	kg	lb	kg	lb
Upperstructure assembly	4,050	8,930	4,050	8,930
Main frame weld assembly	1,230	2,710	1,230	2,710
Engine assembly	370	820	370	820
Main pump assembly	88	190	88	190
Main control valve assembly	140	310	140	310
Swing motor assembly	120	260	120	260
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

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
												
7.5 m (24.6 ft)	kg lb			*4060 *8950	*4060 *8950					*2910 *6420	*2910 *6420	3.63 (11.9)
6.0 m (19.7 ft)	kg lb					*3820 *8420	3790 8360			*2260 *4980	*2260 *4980	5.42 (17.8)
4.5 m (14.8 ft)	kg lb			*3950 *8710	*3950 *8710	*4310 *9500	3720 8200	*3330 *7340	2320 5110	*2070 *4560	*2070 *4560	6.38 (20.9)
3.0 m (9.8 ft)	kg lb			*7200 *15870	6650 14660	*5150 *11350	3520 7760	3420 7540	2250 4960	*2040 *4500	1790 3950	6.90 (22.6)
1.5 m (4.9 ft)	kg lb			*8100 *17860	5950 13120	5150 11350	3280 7230	3310 7300	2160 4760	*2130 *4700	1680 3700	7.06 (23.1)
0.0 m (0.0 ft)	kg lb			*6750 *14880	5650 12460	4960 10930	3110 6860	3230 7120	2080 4590	*2350 *5180	1710 3770	6.89 (22.6)
-1.5 m (-4.9 ft)	kg lb	*4740 *10450	*4740 *10450	*8770 *19330	5610 12370	4890 10780	3050 6720	3200 7050	2050 4520	*2830 *6240	1900 4190	6.36 (20.9)
-3.0 m (-9.8 ft)	kg lb	*8830 *19470	*8830 *19470	*6780 *14950	5720 12610	*4710 *10380	3090 6810			*3420 *7540	2440 5380	5.38 (17.6)

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

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

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

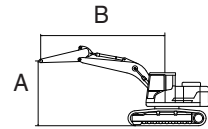
Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX145CRT3	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		4600	3000	2800	600	-	-	-	-	-



: 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)		7.5 m (24.6 ft)		Capacity		Reach			
														m (ft)			
7.5 m (24.6 ft)	kg														*2300	*2300	4.48
	lb														*5070	*5070	(14.7)
6.0 m (19.7 ft)	kg					*3280	*3280	*1920	*1920			*1900	*1900	6.01			
	lb					*7230	*7230	*4230	*4230			*4190	*4190	(19.7)			
4.5 m (14.8 ft)	kg					*3450	*3450	*3230	2360			*1760	*1760	6.89			
	lb					*7610	*7610	*7120	5200			*3880	*3880	(22.6)			
3.0 m (9.8 ft)	kg			*5250	*5250	*4630	3580	3450	2280			*1750	1610	7.37			
	lb			*11570	*11570	*10210	7890	7610	5030			*3860	3550	(24.2)			
1.5 m (4.9 ft)	kg			*8760	6130	5210	3330	3330	2170	*1910	1520	*1820	1520	7.52			
	lb			*19310	13510	11490	7340	7340	4780	*4210	3350	*4010	3350	(24.7)			
0.0 m (0.0 ft)	kg			*7520	5690	4980	3120	3220	2070			*2000	1540	7.36			
	lb			*16580	12540	10980	6880	7100	4560			*4410	3400	(24.1)			
-1.5 m (-4.9 ft)	kg	*4280	*4280	*9250	5570	4870	3020	3170	2020			*2360	1680	6.87			
	lb	*9440	*9440	*20390	12280	10740	6660	6990	4450			*5200	3700	(22.5)			
-3.0 m (-9.8 ft)	kg	*7420	*7420	*7650	5630	4880	3030					*3150	2070	5.97			
	lb	*16360	*16360	*16870	12410	10760	6680					*6940	4560	(19.6)			
-4.5 m (-14.8 ft)	kg			*4480	*4480							*2630	*2630	4.42			
	lb			*9880	*9880							*5800	*5800	(14.5)			

Note 1. Lifting capacity are based on ISO 10567.

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

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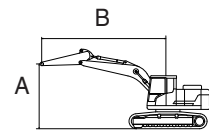
Failure to comply to the rated load can cause possible personal injury or property damage.











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

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HX145LCRT3	MONO BOOM	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			*4060	*4060					*2910	*2910	3.63
	lb			*8950	*8950					*6420	*6420	(11.9)
6.0 m (19.7 ft)	kg					*3820	*3820			*2260	*2260	5.42
	lb					*8420	*8420			*4980	*4980	(17.8)
4.5 m (14.8 ft)	kg			*3950	*3950	*4310	3760	*3330	2350	*2070	*2070	6.38
	lb			*8710	*8710	*9500	8290	*7340	5180	*4560	*4560	(20.9)
3.0 m (9.8 ft)	kg			*7200	6730	*5150	3560	3460	2280	*2040	1810	6.90
	lb			*15870	14840	*11350	7850	7630	5030	*4500	3990	(22.6)
1.5 m (4.9 ft)	kg			*8100	6020	5210	3320	3350	2190	*2130	1710	7.06
	lb			*17860	13270	11490	7320	7390	4830	*4700	3770	(23.1)
0.0 m (0.0 ft)	kg			*6750	5720	5020	3150	3270	2110	*2350	1740	6.89
	lb			*14880	12610	11070	6940	7210	4650	*5180	3840	(22.6)
-1.5 m (-4.9 ft)	kg	*4740	*4740	*8770	5680	4950	3090	3240	2080	*2830	1930	6.36
	lb	*10450	*10450	*19330	12520	10910	6810	7140	4590	*6240	4250	(20.9)
-3.0 m (-9.8 ft)	kg	*8830	*8830	*6780	5790	*4710	3130			*3420	2480	5.38
	lb	*19470	*19470	*14950	12760	*10380	6900			*7540	5470	(17.6)

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

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

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

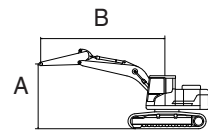
Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HX145LCRT3	MONO BOOM	4600	3000	2800	600	-	-	-	-	-



: 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)		7.5 m (24.6 ft)		Capacity		Reach	
													m (ft)	
7.5 m (24.6 ft)	kg											*2300	*2300	4.48
	lb											*5070	*5070	(14.7)
6.0 m (19.7 ft)	kg					*3280	*3280	*1920	*1920			*1900	*1900	6.01
	lb					*7230	*7230	*4230	*4230			*4190	*4190	(19.7)
4.5 m (14.8 ft)	kg					*3450	*3450	*3230	2390			*1760	*1760	6.89
	lb					*7610	*7610	*7120	5270			*3880	*3880	(22.6)
3.0 m (9.8 ft)	kg			*5250	*5250	*4630	3620	3490	2310			*1750	1630	7.37
	lb			*11570	*11570	*10210	7980	7690	5090			*3860	3590	(24.2)
1.5 m (4.9 ft)	kg			*8760	6200	5270	3370	3370	2200	*1910	1550	*1820	1540	7.52
	lb			*19310	13670	11620	7430	7430	4850	*4210	3420	*4010	3400	(24.7)
0.0 m (0.0 ft)	kg			*7520	5760	5040	3160	3260	2100			*2000	1560	7.36
	lb			*16580	12700	11110	6970	7190	4630			*4410	3440	(24.1)
-1.5 m (-4.9 ft)	kg	*4280	*4280	*9250	5640	4920	3060	3210	2050			*2360	1710	6.87
	lb	*9440	*9440	*20390	12430	10850	6750	7080	4520			*5200	3770	(22.5)
-3.0 m (-9.8 ft)	kg	*7420	*7420	*7650	5700	4930	3070					*3150	2100	5.97
	lb	*16360	*16360	*16870	12570	10870	6770					*6940	4630	(19.6)
-4.5 m (-14.8 ft)	kg			*4480	*4480							*2630	*2630	4.42
	lb			*9880	*9880							*5800	*5800	(14.5)

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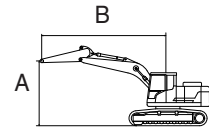
Failure to comply to the rated load can cause possible personal injury or property damage.











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

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HX145CRT3 W/DOZER	MONO BOOM	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			*4060	*4060					*2910	*2910	3.63
	lb			*8950	*8950					*6420	*6420	(11.9)
6.0 m (19.7 ft)	kg					*3820	*3820			*2260	*2260	5.42
	lb					*8420	*8420			*4980	*4980	(17.8)
4.5 m (14.8 ft)	kg			*3950	*3950	*4310	*4310	*3330	2710	*2070	*2070	6.38
	lb			*8710	*8710	*9500	*9500	*7340	5970	*4560	*4560	(20.9)
3.0 m (9.8 ft)	kg			*7200	*7200	*5150	4120	*4270	2640	*2040	*2040	6.90
	lb			*15870	*15870	*11350	9080	*9410	5820	*4500	*4500	(22.6)
1.5 m (4.9 ft)	kg			*8100	7150	*5970	3870	*4560	2550	*2130	1990	7.06
	lb			*17860	15760	*13160	8530	*10050	5620	*4700	4390	(23.1)
0.0 m (0.0 ft)	kg			*6750	*6750	*6350	3700	*4650	2460	*2350	2030	6.89
	lb			*14880	*14880	*14000	8160	*10250	5420	*5180	4480	(22.6)
-1.5 m (-4.9 ft)	kg	*4740	*4740	*8770	6800	*6020	3630	*4240	2440	*2830	2260	6.36
	lb	*10450	*10450	*19330	14990	*13270	8000	*9350	5380	*6240	4980	(20.9)
-3.0 m (-9.8 ft)	kg	*8830	*8830	*6780	*6780	*4710	3680			*3420	2890	5.38
	lb	*19470	*19470	*14950	*14950	*10380	8110			*7540	6370	(17.6)

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.

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

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

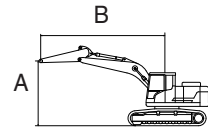
Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HX145CRT3 W/DOZER	MONO BOOM	4600	3000	2800	600	-	Down	-	-	-



: 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)		7.5 m (24.6 ft)		Capacity		Reach
														kg
7.5 m (24.6 ft)	kg											*2300	*2300	4.48
	lb											*5070	*5070	(14.7)
6.0 m (19.7 ft)	kg					*3280	*3280	*1920	*1920			*1900	*1900	6.01
	lb					*7230	*7230	*4230	*4230			*4190	*4190	(19.7)
4.5 m (14.8 ft)	kg					*3450	*3450	*3230	2750			*1760	*1760	6.89
	lb					*7610	*7610	*7120	6060			*3880	*3880	(22.6)
3.0 m (9.8 ft)	kg			*5250	*5250	*4630	4190	*3960	2670			*1750	*1750	7.37
	lb			*11570	*11570	*10210	9240	*8730	5890			*3860	*3860	(24.2)
1.5 m (4.9 ft)	kg			*8760	7340	*5670	3920	*4390	2560	*1910	1810	*1820	1800	7.52
	lb			*19310	16180	*12500	8640	*9680	5640	*4210	3990	*4010	3970	(24.7)
0.0 m (0.0 ft)	kg			*7520	6880	*6250	3710	*4620	2460			*2000	1830	7.36
	lb			*16580	15170	*13780	8180	*10190	5420			*4410	4030	(24.1)
-1.5 m (-4.9 ft)	kg	*4280	*4280	*9250	6760	*6180	3610	*4450	2410			*2360	2000	6.87
	lb	*9440	*9440	*20390	14900	*13620	7960	*9810	5310			*5200	4410	(22.5)
-3.0 m (-9.8 ft)	kg	*7420	*7420	*7650	6820	*5260	3620					*3150	2460	5.97
	lb	*16360	*16360	*16870	15040	*11600	7980					*6940	5420	(19.6)
-4.5 m (-14.8 ft)	kg			*4480	*4480							*2630	*2630	4.42
	lb			*9880	*9880							*5800	*5800	(14.5)

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.

※ 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.

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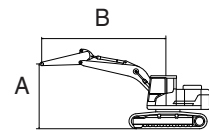
Failure to comply to the rated load can cause possible personal injury or property damage.











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

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HX145LCRT3 W/DOZER	MONO BOOM	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			*4060	*4060					*2910	*2910	3.63
	lb			*8950	*8950					*6420	*6420	(11.9)
6.0 m (19.7 ft)	kg					*3820	*3820			*2260	*2260	5.42
	lb					*8420	*8420			*4980	*4980	(17.8)
4.5 m (14.8 ft)	kg			*3950	*3950	*4310	*4310	*3330	2740	*2070	*2070	6.38
	lb			*8710	*8710	*9500	*9500	*7340	6040	*4560	*4560	(20.9)
3.0 m (9.8 ft)	kg			*7200	*7200	*5150	4160	*4270	2670	*2040	*2040	6.90
	lb			*15870	*15870	*11350	9170	*9410	5890	*4500	*4500	(22.6)
1.5 m (4.9 ft)	kg			*8100	7230	*5970	3910	*4560	2570	*2130	2020	7.06
	lb			*17860	15940	*13160	8620	*10050	5670	*4700	4450	(23.1)
0.0 m (0.0 ft)	kg			*6750	*6750	*6350	3740	*4650	2490	*2350	2060	6.89
	lb			*14880	*14880	*14000	8250	*10250	5490	*5180	4540	(22.6)
-1.5 m (-4.9 ft)	kg	*4740	*4740	*8770	6870	*6020	3670	*4240	2470	*2830	2290	6.36
	lb	*10450	*10450	*19330	15150	*13270	8090	*9350	5450	*6240	5050	(20.9)
-3.0 m (-9.8 ft)	kg	*8830	*8830	*6780	*6780	*4710	3720			*3420	2930	5.38
	lb	*19470	*19470	*14950	*14950	*10380	8200			*7540	6460	(17.6)

Note 1. Lifting capacity are based on ISO 10567.

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

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

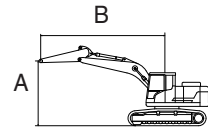
Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX145LCRT3 W/DOZER	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		4600	3000	2800	600	-	Down	-	-	-



: Rating over-front



: Rating over-side or 360 degree



Lift-point height (A)		Lift-point radius (B)										At max. reach				
		1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach		
														kg	lb	m (ft)
7.5 m (24.6 ft)	kg															
	lb												*2300	*2300	4.48	
													*5070	*5070	(14.7)	
6.0 m (19.7 ft)	kg					*3280	*3280	*1920	*1920				*1900	*1900	6.01	
	lb					*7230	*7230	*4230	*4230				*4190	*4190	(19.7)	
4.5 m (14.8 ft)	kg					*3450	*3450	*3230	2780				*1760	*1760	6.89	
	lb					*7610	*7610	*7120	6130				*3880	*3880	(22.6)	
3.0 m (9.8 ft)	kg			*5250	*5250	*4630	4230	*3960	2700				*1750	*1750	7.37	
	lb			*11570	*11570	*10210	9330	*8730	5950				*3860	*3860	(24.2)	
1.5 m (4.9 ft)	kg			*8760	7410	*5670	3960	*4390	2580	*1910	1830		*1820	*1820	7.52	
	lb			*19310	16340	*12500	8730	*9680	5690	*4210	4030		*4010	*4010	(24.7)	
0.0 m (0.0 ft)	kg			*7520	6950	*6250	3750	*4620	2490				*2000	1850	7.36	
	lb			*16580	15320	*13780	8270	*10190	5490				*4410	4080	(24.1)	
-1.5 m (-4.9 ft)	kg	*4280	*4280	*9250	6830	*6180	3650	*4450	2430				*2360	2030	6.87	
	lb	*9440	*9440	*20390	15060	*13620	8050	*9810	5360				*5200	4480	(22.5)	
-3.0 m (-9.8 ft)	kg	*7420	*7420	*7650	6890	*5260	3660						*3150	2480	5.97	
	lb	*16360	*16360	*16870	15190	*11600	8070						*6940	5470	(19.6)	
-4.5 m (-14.8 ft)	kg			*4480	*4480								*2630	*2630	4.42	
	lb			*9880	*9880								*5800	*5800	(14.5)	

Note 1. Lifting capacity are based on ISO 10567.

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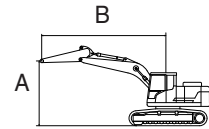
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Make adjustments to the rated load as necessary for non-standard configurations.

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HX145CRT3 W/DOZER	MONO BOOM	4600	2500	2800	600	-	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			*4060	*4060					*2910	*2910	3.63
	lb			*8950	*8950					*6420	*6420	(11.9)
6.0 m (19.7 ft)	kg					*3820	*3820			*2260	*2260	5.42
	lb					*8420	*8420			*4980	*4980	(17.8)
4.5 m (14.8 ft)	kg			*3950	*3950	*4310	3900	*3330	2450	*2070	*2070	6.38
	lb			*8710	*8710	*9500	8600	*7340	5400	*4560	*4560	(20.9)
3.0 m (9.8 ft)	kg			*7200	6980	*5150	3700	3730	2380	*2040	1900	6.90
	lb			*15870	15390	*11350	8160	8220	5250	*4500	4190	(22.6)
1.5 m (4.9 ft)	kg			*8100	6270	5670	3460	3620	2290	*2130	1790	7.06
	lb			*17860	13820	12500	7630	7980	5050	*4700	3950	(23.1)
0.0 m (0.0 ft)	kg			*6750	5970	5480	3290	3540	2210	*2350	1820	6.89
	lb			*14880	13160	12080	7250	7800	4870	*5180	4010	(22.6)
-1.5 m (-4.9 ft)	kg	*4740	*4740	*8770	5940	5400	3230	3510	2180	*2830	2020	6.36
	lb	*10450	*10450	*19330	13100	11900	7120	7740	4810	*6240	4450	(20.9)
-3.0 m (-9.8 ft)	kg	*8830	*8830	*6780	6040	*4710	3280			*3420	2590	5.38
	lb	*19470	*19470	*14950	13320	*10380	7230			*7540	5710	(17.6)

Note 1. Lifting capacity are based on ISO 10567.

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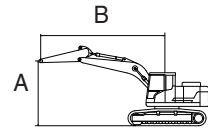
Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HX145CRT3 W/DOZER	MONO BOOM	4600	3000	2800	600	-	Up	-	-	-



: Rating over-front



: Rating over-side or 360 degree



Lift-point height (A)		Lift-point radius (B)										At max. reach			
		1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach	
														m (ft)	
7.5 m (24.6 ft)	kg lb												*2300 *5070	*2300 *5070	4.48 (14.7)
6.0 m (19.7 ft)	kg lb					*3280 *7230	*3280 *7230	*1920 *4230	*1920 *4230				*1900 *4190	*1900 *4190	6.01 (19.7)
4.5 m (14.8 ft)	kg lb					*3450 *7610	*3450 *7610	*3230 *7120	2490 5490				*1760 *3880	*1760 *3880	6.89 (22.6)
3.0 m (9.8 ft)	kg lb			*5250 *11570	*5250 *11570	*4630 *10210	3770 8310	3760 8290	2410 5310				*1750 *3860	1710 3770	7.37 (24.2)
1.5 m (4.9 ft)	kg lb			*8760 *19310	6450 14220	*5670 *12500	3510 7740	3640 8020	2300 5070	*1910 *4210	1620 3570		*1820 *4010	1620 3570	7.52 (24.7)
0.0 m (0.0 ft)	kg lb			*7520 *16580	6010 13250	5500 12130	3310 7300	3530 7780	2200 4850				*2000 *4410	1640 3620	7.36 (24.1)
-1.5 m (-4.9 ft)	kg lb	*4280 *9440	*4280 *9440	*9250 *20390	5900 13010	5380 11860	3210 7080	3480 7670	2150 4740				*2360 *5200	1790 3950	6.87 (22.5)
-3.0 m (-9.8 ft)	kg lb	*7420 *16360	*7420 *16360	*7650 *16870	5950 13120	*5260 *11600	3220 7100						*3150 *6940	2200 4850	5.97 (19.6)
-4.5 m (-14.8 ft)	kg lb			*4480 *9880	*4480 *9880								*2630 *5800	*2630 *5800	4.42 (14.5)

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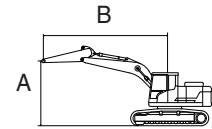
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Make adjustments to the rated load as necessary for non-standard configurations.

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HX145LCRT3 W/DOZER	MONO BOOM	4600	2500	2800	600	-	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			*4060 *5950	*4060 *8950					*2910 *6420	*2910 *6420	3.63 (11.9)
6.0 m (19.7 ft)	kg lb					*3820 *8420	*3820 *8420			*2260 *4980	*2260 *4980	5.42 (17.8)
4.5 m (14.8 ft)	kg lb			*3950 *9710	*3950 *8710	*4310 *9500	3940 8690	*3330 *7340	2470 5450	*2070 *4560	*2070 *4560	6.38 (20.9)
3.0 m (9.8 ft)	kg lb			*7200 *15870	7040 15520	*5150 *11350	3740 8250	3770 8310	2410 5310	*2040 *4500	1920 4230	6.90 (22.6)
1.5 m (4.9 ft)	kg lb			*8100 *17860	6340 13980	5730 12630	3500 7720	3660 8070	2310 5090	*2130 *4700	1810 3990	7.06 (23.1)
0.0 m (0.0 ft)	kg lb			*6750 *14880	6040 13320	5530 12190	3330 7340	3570 7870	2230 4920	*2350 *5180	1840 4060	6.89 (22.6)
-1.5 m (-4.9 ft)	kg lb	*4740 *10450	*4740 *10450	*8770 *19330	6000 13230	5460 12040	3270 7210	3540 7800	2210 4870	*2830 *6240	2050 4520	6.36 (20.9)
-3.0 m (-9.8 ft)	kg lb	*8830 *19470	*8830 *19470	*6780 *14950	6110 13470	*4710 *10380	3310 7300			*3420 *7540	2620 5780	5.38 (17.6)

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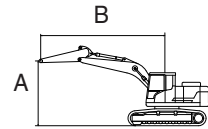
Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HX145LCRT3 W/DOZER	MONO BOOM	4600	3000	2800	600	-	Up	-	-	-



: Rating over-front



: Rating over-side or 360 degree



Lift-point height (A)		Lift-point radius (B)										At max. reach		
		1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach
														m (ft)
7.5 m (24.6 ft)	kg lb											*2300 *5070	*2300 *5070	4.48 (14.7)
6.0 m (19.7 ft)	kg lb					*3280 *7230	*3280 *7230	*1920 *4230	*1920 *4230			*1900 *4190	*1900 *4190	6.01 (19.7)
4.5 m (14.8 ft)	kg lb					*3450 *7610	*3450 *7610	*3230 *7120	2510 5530			*1760 *3880	*1760 *3880	6.89 (22.6)
3.0 m (9.8 ft)	kg lb			*5250 *11570	*5250 *11570	*4630 *10210	3800 8380	3800 8380	2430 5360			*1750 *3860	1730 3810	7.37 (24.2)
1.5 m (4.9 ft)	kg lb			*8760 *19310	6520 14370	*5670 *12500	3550 7830	3680 8110	2320 5110	*1910 *4210	1640 3620	*1820 *4010	1630 3590	7.52 (24.7)
0.0 m (0.0 ft)	kg lb			*7520 *16580	6080 13400	5550 12240	3340 7360	3570 7870	2220 4890			*2000 *4410	1660 3660	7.36 (24.1)
-1.5 m (-4.9 ft)	kg lb	*4280 *9440	*4280 *9440	*9250 *20390	5960 13140	5440 11990	3240 7140	3510 7740	2170 4780			*2360 *5200	1810 3990	6.87 (22.5)
-3.0 m (-9.8 ft)	kg lb	*7420 *16360	*7420 *16360	*7650 *16870	6020 13270	*5260 *11600	3250 7170					*3150 *6940	2220 4890	5.97 (19.6)
-4.5 m (-14.8 ft)	kg lb			*4480 *9880	*4480 *9880							*2630 *5800	*2630 *5800	4.42 (14.5)

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6. BUCKET SELECTION GUIDE

1) BUCKET SELECTION



General bucket



Heavy duty
(without side cutter)



Rock heavy duty

Type	Capacity		Width	Weight	Tooth	MONO	
	SAE Heaped	CECE heaped	Without side cutter			Recommendation	mm (ft-in)
	m ³ (yd ³)	m ³ (yd ³)	mm (in)	kg (lb)	EA	4.6 m (15' 1") Boom	
						2.5 m (6' 7") Arm	2.92 m (9' 7") Arm
General bucket	0.58 (0.76)	0.50 (0.65)	960 (37.8')	468 (1,030)	5	■	▲
	0.52 (0.68)	0.45 (0.59)	875 (34.4')	465 (1,030)	5	■	▲
	0.65 (0.85)	0.55 (0.72)	1065 (41.9")	516 (1,140)	5	▲	X
	0.71 (0.93)	0.60 (0.78)	1,150 (45.3")	539 (1,190)	5	▲	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.

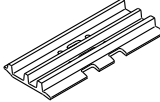
Work tools and ground conditions have effects on machine performance.

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

Consult your Hyundai 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)
HX145LCRT3 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
HX145LCRT3 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 trees Travel at high speed only on flat ground Travel 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 B These shoes cannot be used on rough ground with large obstacles such as boulders or fallen trees Travel at high speed only on flat ground Travel 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	Two 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	Ø105 × 1105 mm
	Cushion	Extend only
Arm cylinder	Bore dia × Stroke	Ø115 × 1138 mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Stroke	Ø100 × 850 mm
	Cushion	Extend only
Dozer cylinder (opt)	Bore dia × Stroke	Ø130 × 240 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

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

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

Service point	Kind of fluid	Capacity ℓ (U.S. gal)	Ambient temperature °C (°F)						
			-50 (-58)	-30 (-22)	-20 (-4)	-10 (14)	0 (32)	10 (50)	20 (68)
Engine oil pan	Engine oil	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	265 (70)	★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	26 (6.9)	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 HYUNDAI genuine products may lead to a deterioration of performance and cause damage to major components.

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

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