SECTION 1 GENERAL

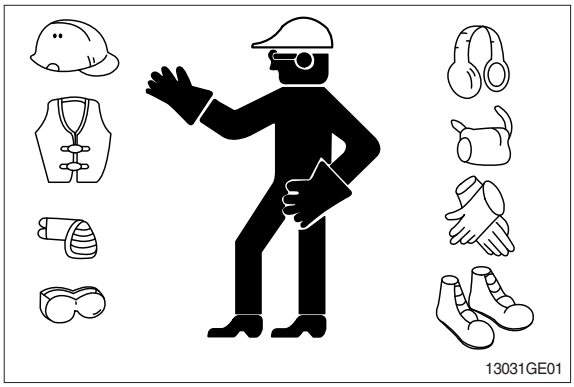
GROUP 1 SAFETY

FOLLOW SAFE PROCEDURE

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

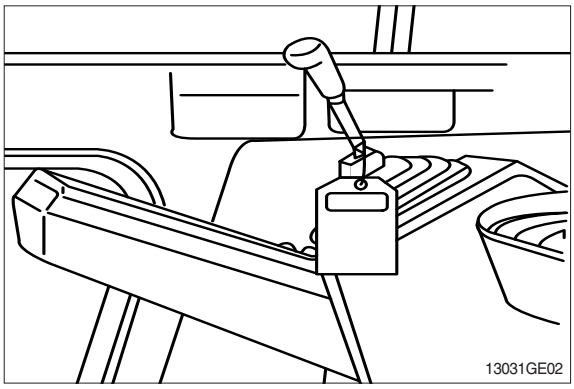
WEAR PROTECTIVE CLOTHING

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



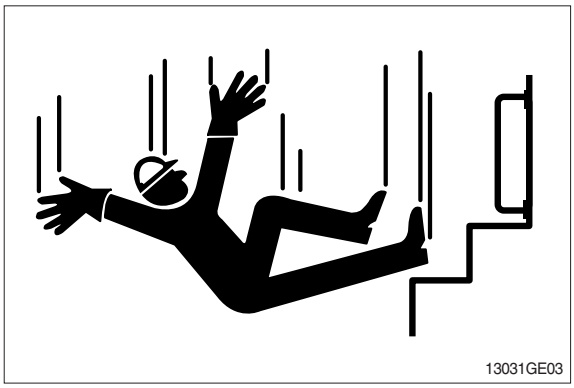
WARN OTHERS OF SERVICE WORK

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.

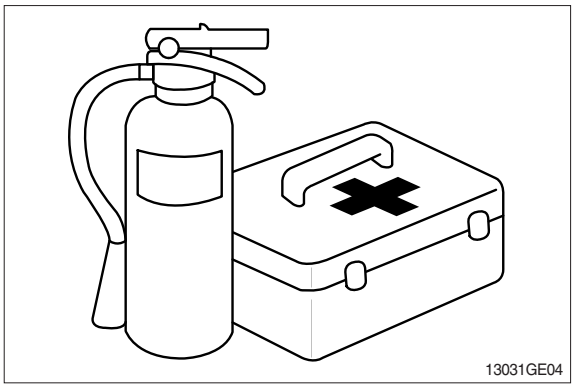


PREPARE FOR EMERGENCIES

Be prepared if a fire starts.

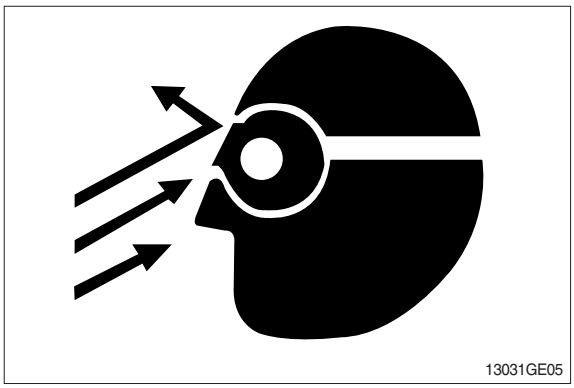
Keep a first aid kit and fire extinguisher handy.

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



PROTECT AGAINST FLYING DEBRIS

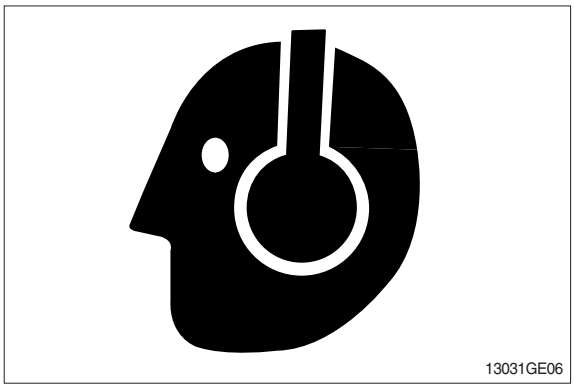
Guard against injury from flying pieces of metal or debris; Wear goggles or safety glasses.



PROTECT AGAINST NOISE

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

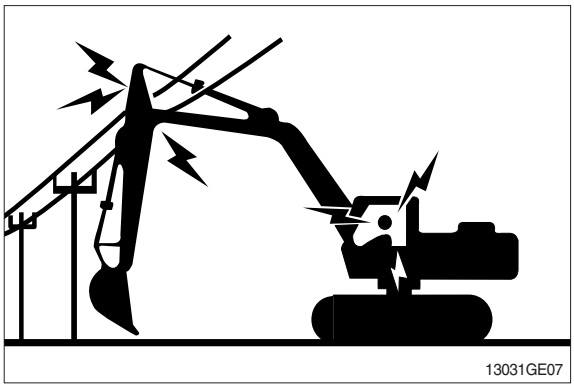
Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.



AVOID POWER LINES

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

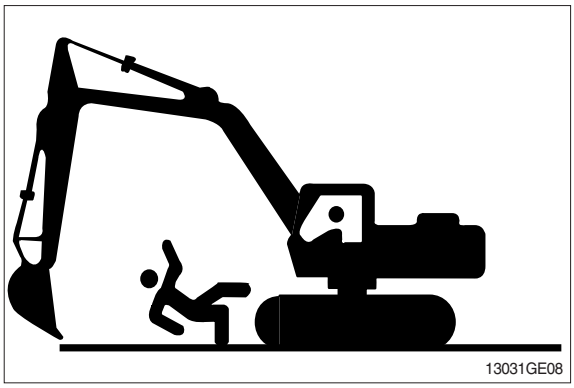
Never move any part of the machine or load closer to electric line than 3m(10ft) plus twice the line insulator length.



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.

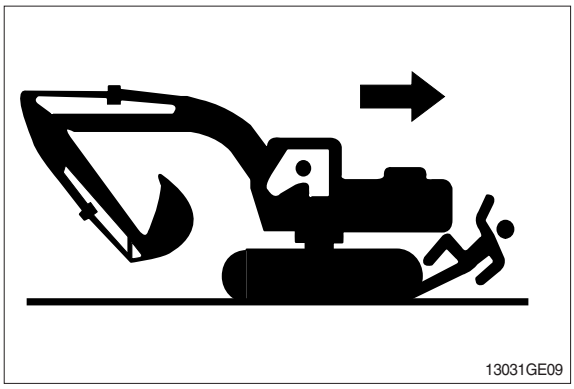

13031GE08

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.

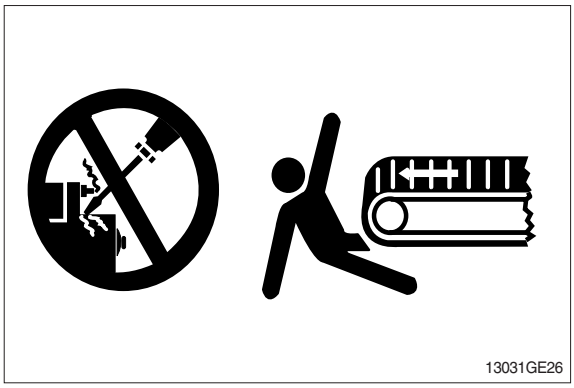
Use a signal person when moving, swinging, or operating the machine in congested areas. Coordinate hand signals before starting the excavator.


13031GE09

OPERATE ONLY FORM 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.


13031GE26

PARK MACHINE SAFELY

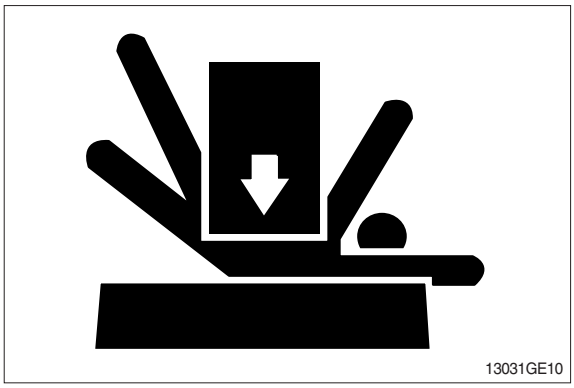
Before working on the machine:

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

SUPPORT MACHINE PROPERLY

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

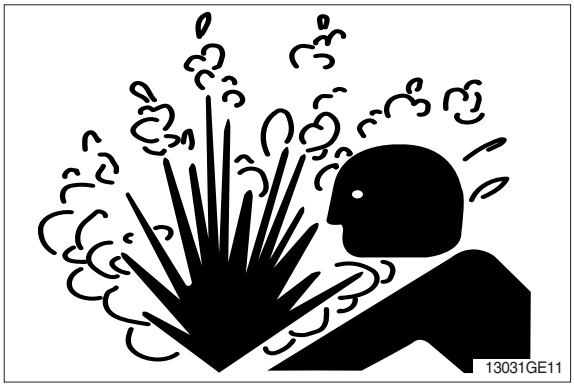
Do not support the machine on cinder blocks, hollow tiles, or props that may crumble under continuous load.
Do not work under a machine that is supported solely by a jack. Follow recommended procedures in this manual.


13031GE10

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.


13031GE11

HANDLE FLUIDS SAFELY-AVOID FIRES

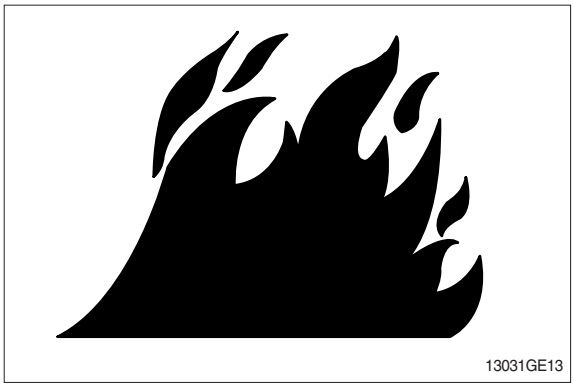
Handle fuel with care; It is highly flammable. Do not refuel the machine while smoking or when near open flame or sparks. Always stop engine before refueling machine.
Fill fuel tank outdoors.


13031GE12

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

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

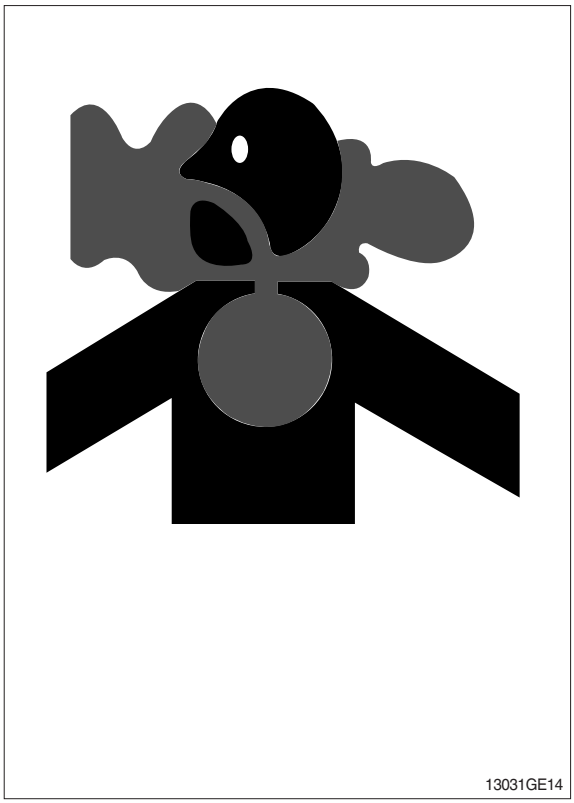
Do not store oily rags; They can ignite and burn spontaneously.


13031GE13

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.


13031GE14

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.

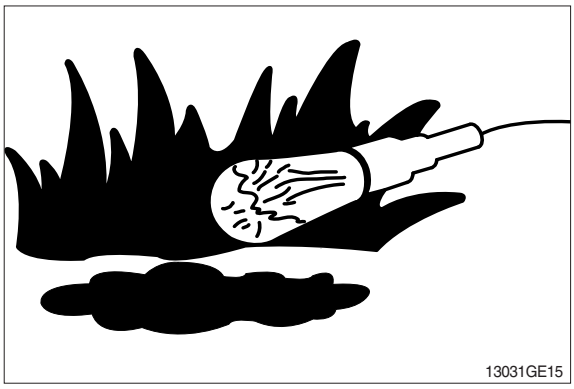
Do all work outside or in a well ventilated area. Dispose of paint and solvent properly.

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

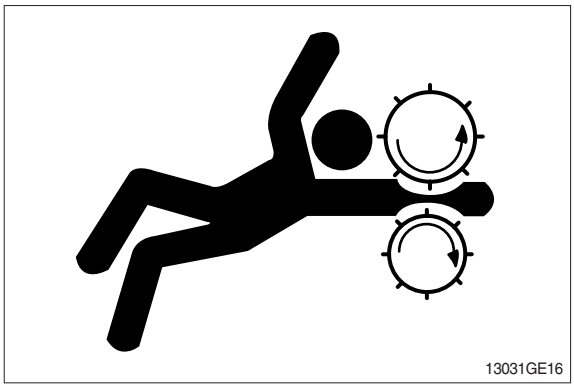
Illuminate your work area adequately but safely. Use a portable safety light for working inside or under the machine. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.


13031GE15

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.

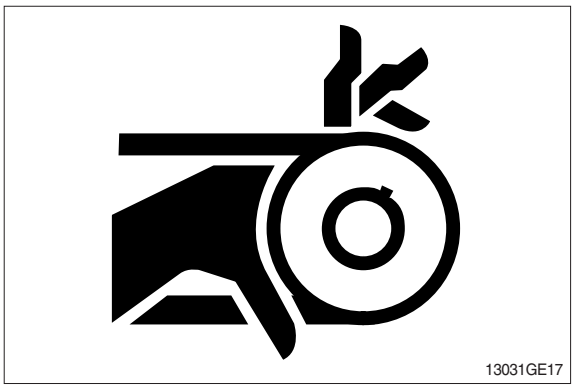
Remove rings and other jewelry to prevent electrical shorts and entanglement in moving parts.



STAY CLEAR OF MOVING PARTS

Entanglements in moving parts can cause serious injury.

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



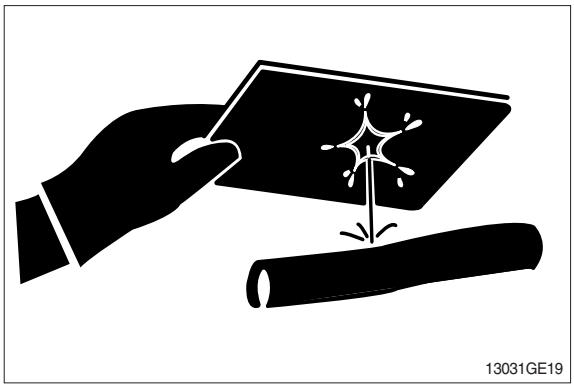
AVOID HIGH PRESSURE FLUIDS

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:

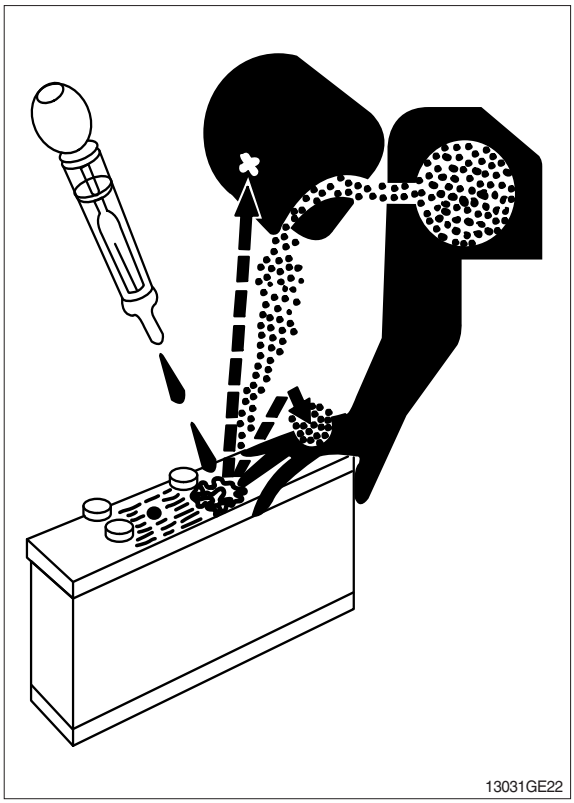
1. Filling batteries in a well-ventilated area.
2. Wearing eye protection and rubber gloves.
3. Avoiding breathing fumes when electrolyte is added.
4. Avoiding spilling of dripping electrolyte.
5. Use proper jump start procedure.

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.



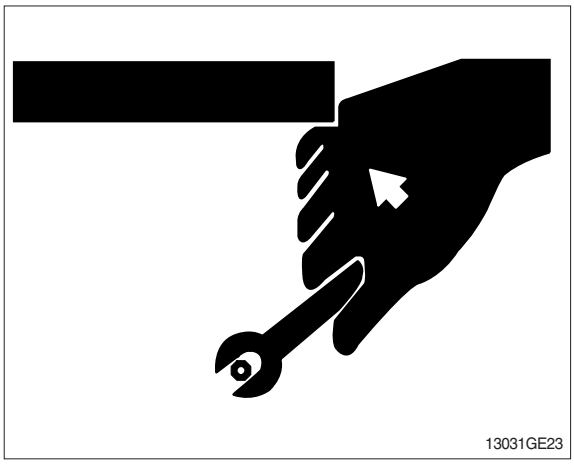
USE TOOLS PROPERLY

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 catalogue.)

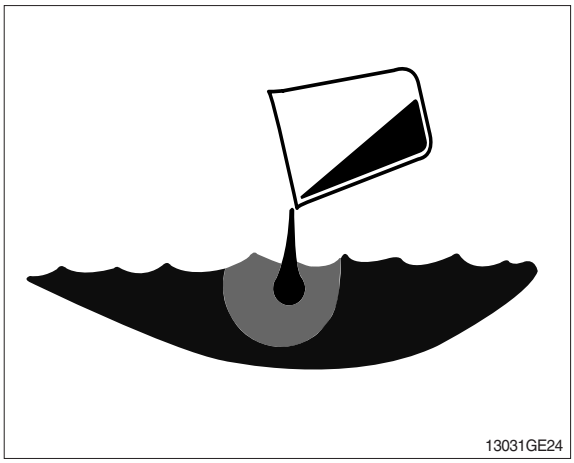


DISPOSE OF FLUIDS PROPERLY

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.

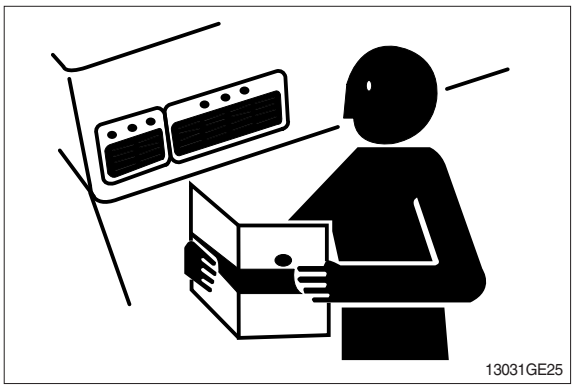
Use proper containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.

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.


13031GE24

REPLACE SAFETY SIGNS

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

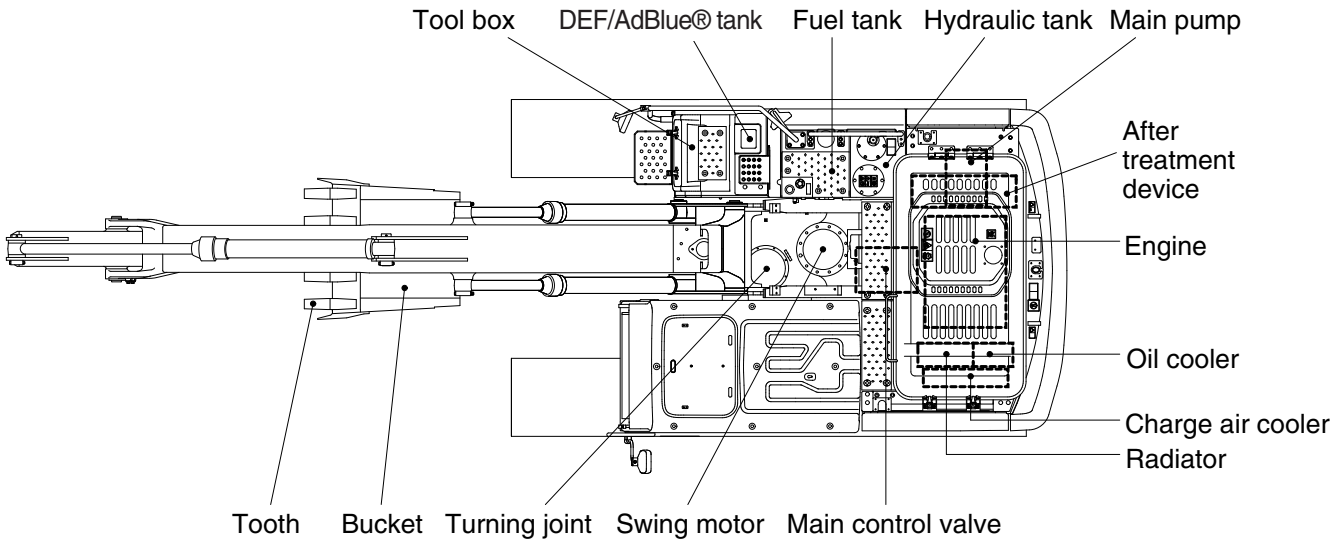

13031GE25

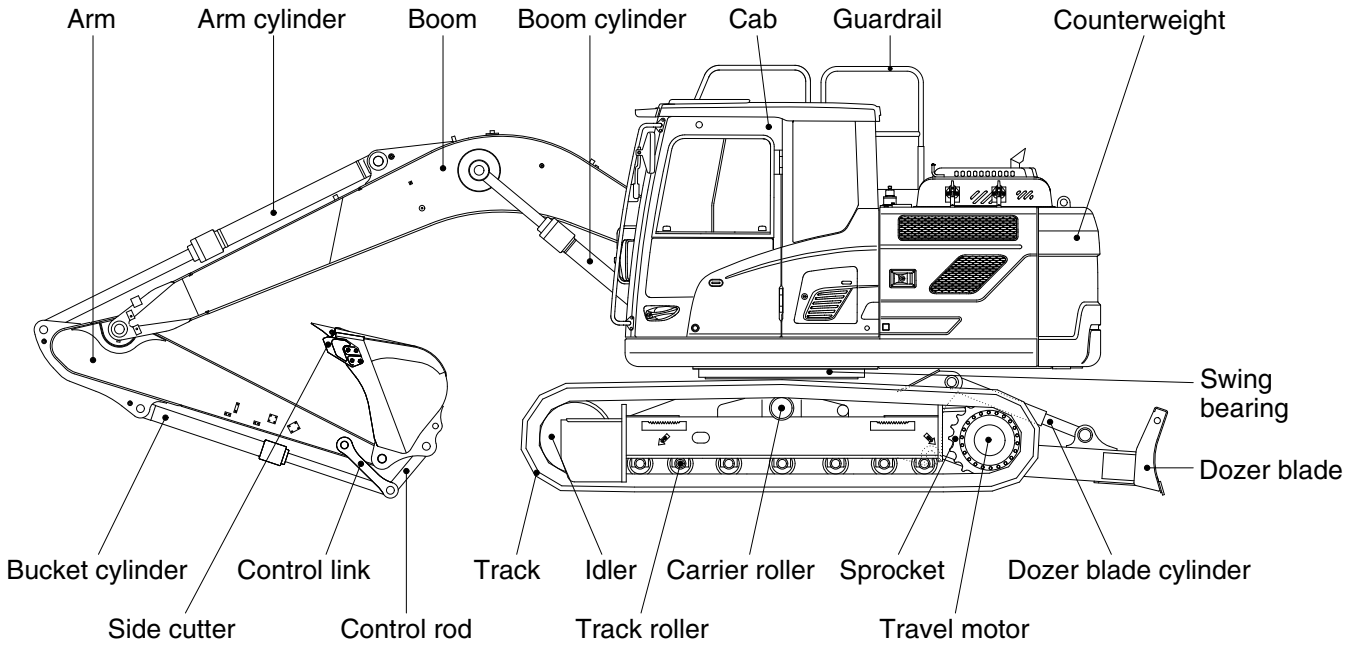
LIVE WITH SAFETY

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



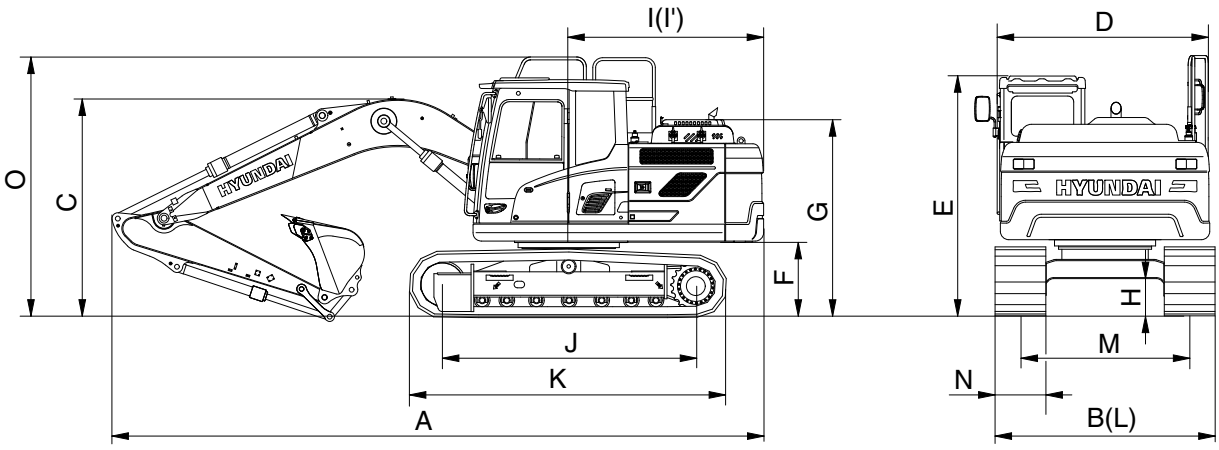


140F2SP01

2. SPECIFICATIONS

1) HX140 L

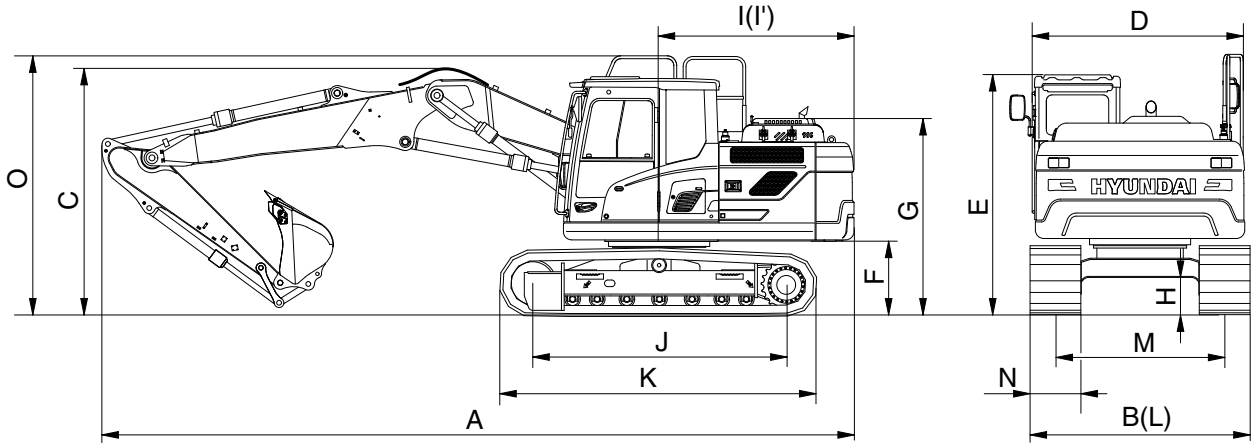
· 4.60 m (15' 1") BOOM and 2.50 m (8' 2") ARM



140F2SP02

Description		Unit	Specification
Operating weight		kg (lb)	14200 (31310)
Bucket capacity (SAE heaped), standard		m^3 (yd^3)	0.58 (0.76)
Overall length	A	mm (ft-in)	7820 (25' 8")
Overall width, with 600 mm shoe	B		2600 (8' 6")
Overall height of boom	C		2780 (9' 1")
Superstructure width	D		2475 (8' 1")
Overall height of cab	E		2860 (9' 4")
Ground clearance of counterweight	F		940 (3' 1")
Engine cover height	G		2390 (7' 10")
Minimum ground clearance	H		440 (1' 5")
Rear-end distance	I		2330 (7' 8")
Rear-end swing radius	I'		2330 (7' 8")
Distance between tumblers	J		3000 (9' 10")
Undercarriage length	K		3708 (12' 1")
Undercarriage width	L		2600 (8' 6")
Track gauge	M		2000 (6' 7")
Track shoe width, standard	N		600 (24")
Overall height of guardrail	O		3100 (10' 2")
Travel speed (low/high)		km/hr (mph)	3.3/5.6 (2.1/3.5)
Swing speed		rpm	11.6
Gradeability		Degree (%)	35 (70)
Ground pressure (600 mm shoe)		kgf/cm^2(psi)	0.37 (5.26)
Max traction force		kgf (lbf)	12000 (26460)

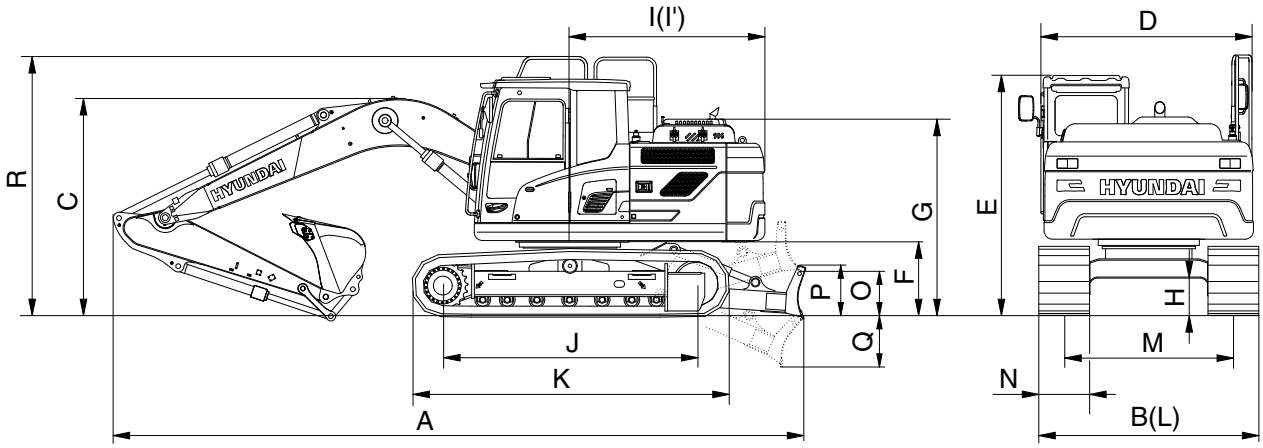
2) HX140 L, 4.90 m (16' 1") HYDRAULIC ADJUSTABLE BOOM and 2.10 m (6' 11") ARM



140F2SP03

Description		Unit	Specification
Operating weight		kg (lb)	14550 (32080)
Bucket capacity (SAE heaped), standard		m^3 (yd^3)	0.58 (0.76)
Overall length	A	mm (ft-in)	7820 (25' 8")
Overall width, with 600 mm shoe	B		2600 (8' 6")
Overall height of boom	C		2940 (9' 8")
Superstructure width	D		2475 (8' 1")
Overall height of cab	E		2860 (9' 4")
Ground clearance of counterweight	F		940 (3' 1")
Engine cover height	G		2390 (7' 10")
Minimum ground clearance	H		440 (1' 5")
Rear-end distance	I		2330 (7' 8")
Rear-end swing radius	I'		2330 (7' 8")
Distance between tumblers	J		3000 (9' 10")
Undercarriage length	K		3708 (12' 1")
Undercarriage width	L		2600 (8' 6")
Track gauge	M		2000 (6' 7")
Track shoe width, standard	N		600 (24")
Overall height of guardrail	O		3100 (10' 2")
Travel speed (low/high)		km/hr (mph)	3.3/5.6 (2.1/3.5)
Swing speed		rpm	11.6
Gradeability		Degree (%)	35 (70)
Ground pressure (600 mm shoe)		kgf/cm^2 (psi)	0.37 (5.26)
Max traction force		kgf (lbf)	12000 (26460)

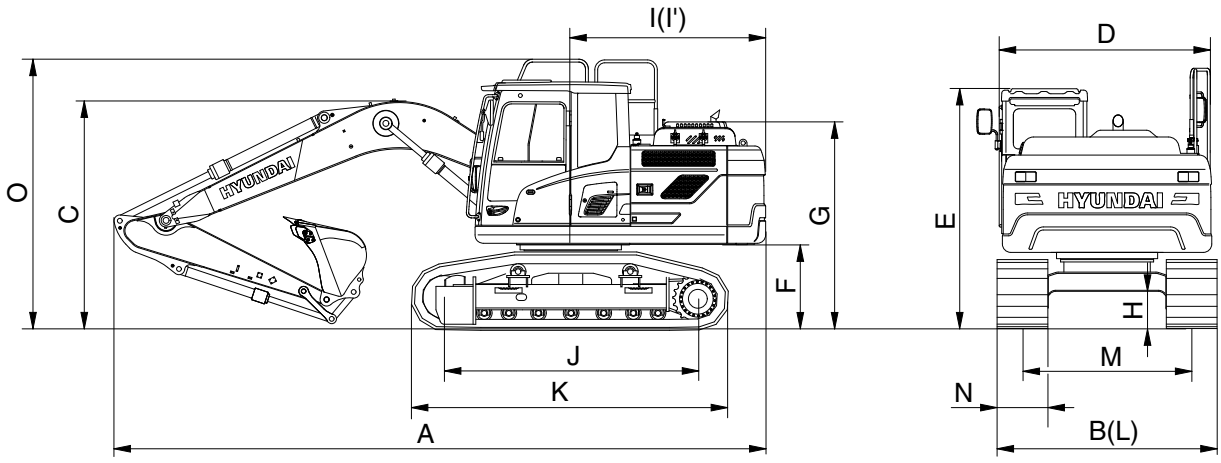
3) HX140 L DOZER BLADE



140F2SP04

Description		Unit	Specification
Operating weight		kg (lb)	15020 (33110)
Bucket capacity (SAE heaped), standard		m^3 (yd^3)	0.58 (0.76)
Overall length	A	mm (ft-in)	7820 (25' 8")
Overall width, with 600 mm shoe	B		2600 (8' 6")
Overall height of boom	C		2780 (9' 1")
Superstructure width	D		2475 (8' 1")
Overall height of cab	E		2860 (9' 4")
Ground clearance of counterweight	F		940 (3' 1")
Engine cover height	G		2390 (7' 10")
Minimum ground clearance	H		440 (1' 5")
Rear-end distance	I		2330 (7' 8")
Rear-end swing radius	I'		2330 (7' 8")
Distance between tumblers	J		3000 (9' 10")
Undercarriage length	K		3708 (12' 1")
Undercarriage width	L		2600 (8' 6")
Track gauge	M		2000 (6' 7")
Track shoe width, standard	N		600 (24")
Height of blade	O		550 (1' 8")
Ground clearance of blade up	P		560 (1' 8")
Depth of blade down	Q		500 (1' 6")
Overall height of guardrail	R		3100 (10' 2")
Travel speed (low/high)		km/hr (mph)	3.3/5.6 (2.1/3.5)
Swing speed		rpm	11.6
Gradeability		Degree (%)	35 (70)
Ground pressure (600 mm shoe)		kgf/cm^2(psi)	0.39 (5.55)
Max traction force		kgf (lbf)	12000 (26460)

4) HX140 HW



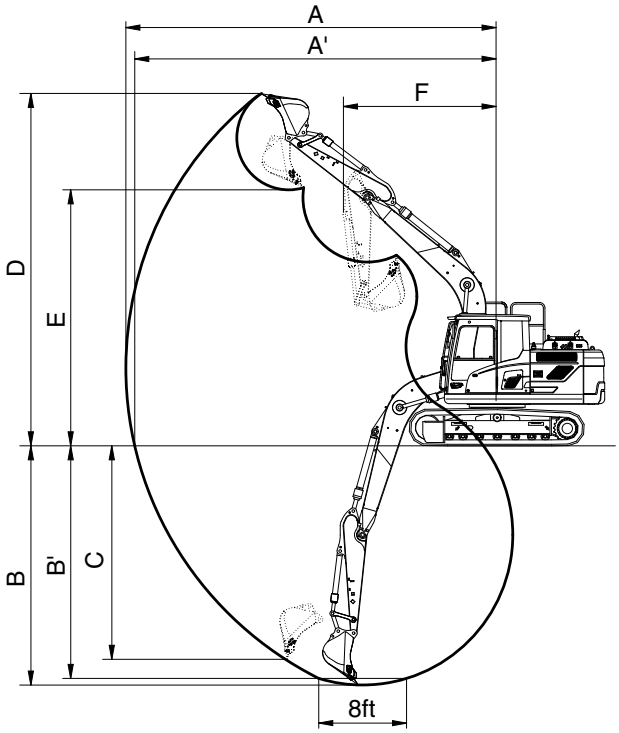
140F2SP05

Description		Unit	Specification
Operating weight		kg (lb)	17100 (37700)
Bucket capacity (SAE heaped), standard		m^3 (yd^3)	0.58 (0.76)
Overall length	A	mm (ft-in)	7790 (25' 6")
Overall width, with 800 mm shoe	B		2840 (9' 4")
Overall height of boom	C		2830 (9' 3")
Superstructure width	D		2475 (8' 1")
Overall height of cab	E		3120 (10' 2")
Ground clearance of counterweight	F		1200 (3' 11")
Engine cover height	G		2650 (8' 8")
Minimum ground clearance	H		600 (2' 0")
Rear-end distance	I		2330 (7' 8")
Rear-end swing radius	I'		2330 (7' 8")
Distance between tumblers	J		3030 (9' 6")
Undercarriage length	K		3860 (12' 8")
Undercarriage width	L		2840 (9' 4")
Track gauge	M		2040 (6' 8")
Track shoe width, standard	N		800 (32")
Overall height of guardrail	O		3360 (11' 0")
Travel speed (low/high)		km/hr (mph)	3.3/5.6 (2.1/3.5)
Swing speed		rpm	11.6
Gradeability		Degree (%)	35 (70)
Ground pressure (800 mm shoe)		kgf/cm^2(psi)	0.33 (4.69)
Max traction force		kgf (lbf)	12000 (26460)

3. WORKING RANGE

1) HX140 L

(1) 4.60 m (15' 1") MONO BOOM

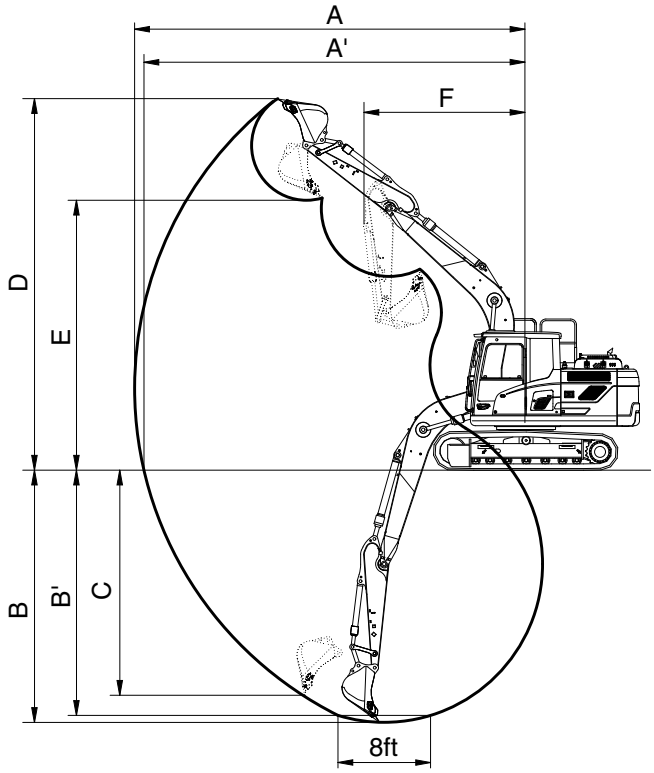


140F2SP06

Description		1.90 m (6' 3") Arm	2.10 m (6' 11") Arm	※2.50 m (8' 2") Arm	3.00 m (9' 10") Arm
Max digging reach	A	7750 mm (25' 5")	7920 mm (25'11")	8330 mm (27' 4")	8790 mm (28'10")
Max digging reach on ground	A'	7600 mm (24'11")	7770 mm (25' 6")	8180 mm (26'10")	8650 mm (28' 4")
Max digging depth	B	4950 mm (16' 2")	5150 mm (16' 10")	5550 mm (18' 3")	6050 mm (19' 10")
Max digging depth (8ft level)	B'	4680 mm (15' 4")	4900 mm (16' 1")	5340 mm (17' 6")	5870 mm (19' 3")
Max vertical wall digging depth	C	4650 mm (15' 3")	4900 mm (16' 1")	5330 mm (17' 6")	5850 mm (19' 2")
Max digging height	D	8100 mm (26' 7")	8180 mm (26' 10")	8500 mm (27'11")	8780 mm (28' 10")
Max dumping height	E	5670 mm (18' 7")	5750 mm (18' 10")	6060 mm (19'11")	6330 mm (20' 9")
Min swing radius	F	2630 mm (8' 8")	2670 mm (8' 9")	2650 mm (8' 8")	2680 mm (8' 10")
Bucket digging force	SAE	87.3 [94.8] kN	87.3 [94.8] kN	87.3 [94.8] kN	87.3 [94.8] kN
		8900 [9660] kgf	8900 [9660] kgf	8900 [9660] kgf	8900 [9660] kgf
		19620 [21300] lbf	19620 [21300] lbf	19620 [21300] lbf	19620 [21300] lbf
	ISO	102 [110.8] kN	102 [110.8] kN	102 [110.8] kN	102 [110.8] kN
		10400 [11290] kgf	10400 [11290] kgf	10400 [11290] kgf	10400 [11290] kgf
		22930 [24890] lbf	22930 [24890] lbf	22930[24890] lbf	22930 [24890] lbf
Arm crowd force	SAE	76.5 [83.1] kN	73.6 [79.9] kN	62.8 [68.2] kN	55.9 [60.7] kN
		7800 [8470] kgf	7500 [8140] kgf	6400 [6950] kgf	5700 [6190] kgf
		17200 [18670] lbf	16530 [17950] lbf	14110 [15320] lbf	12570 [13640] lbf
	ISO	80.4 [87.3] kN	77.5 [84.1] kN	65.7 [71.4] kN	57.9 [62.8] kN
		8200 [8900] kgf	7900 [8580] kgf	6700 [7270] kgf	5900 [6410] kgf
		18080 [19630] lbf	17420 [18910] lbf	14770 [16040] lbf	13010 [14120] lbf

※ : STD [ ] : Power boost

(2) 4.10 m (13' 5") MONO BOOM

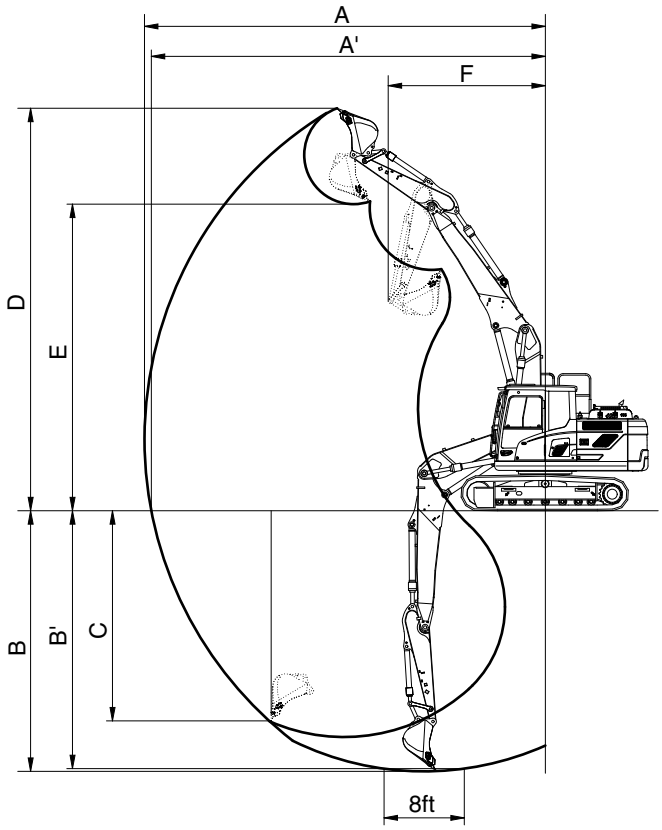


140F2SP06

Description		1.90 m (6' 3") Arm	2.10 m (6' 11") Arm
Max digging reach	A	7260 mm (23' 10")	7420 mm (24' 4")
Max digging reach on ground	A'	7090 mm (23' 3")	7260 mm (23'10")
Max digging depth	B	4540 mm (14' 11")	4740 mm (15' 7")
Max digging depth (8ft level)	B'	4280 mm (14' 1")	4490 mm (14' 9")
Max vertical wall digging depth	C	4240 mm (13' 11")	4350 mm (14' 3")
Max digging height	D	7700 mm (25' 3")	7770 mm (25' 6")
Max dumping height	E	5260 mm (17' 3")	5340 mm (17' 6")
Min swing radius	F	2350 mm (7' 9")	2460 mm (8' 1")
Bucket digging force	SAE	87.3 [94.8] kN	87.3 [94.8] kN
		8900 [9660] kgf	8900 [9660] kgf
		19620 [21300] lbf	19620 [21300] lbf
	ISO	102 [110.8] kN	102 [110.8] kN
		10400 [11290] kgf	10400 [11290] kgf
		22930 [24890] lbf	22930 [24890] lbf
Arm crowd force	SAE	76.5 [83.1] kN	73.6 [79.9] kN
		7800 [8470] kgf	7500 [8140] kgf
		17200 [18670] lbf	16530 [17950] lbf
	ISO	80.4 [87.3] kN	77.5 [84.1] kN
		8200 [8900] kgf	7900 [8580] kgf
		18080 [19630] lbf	17420 [18910] lbf

[ ] : Power boost

(3) 4.90 m (16' 1") ADJUST BOOM



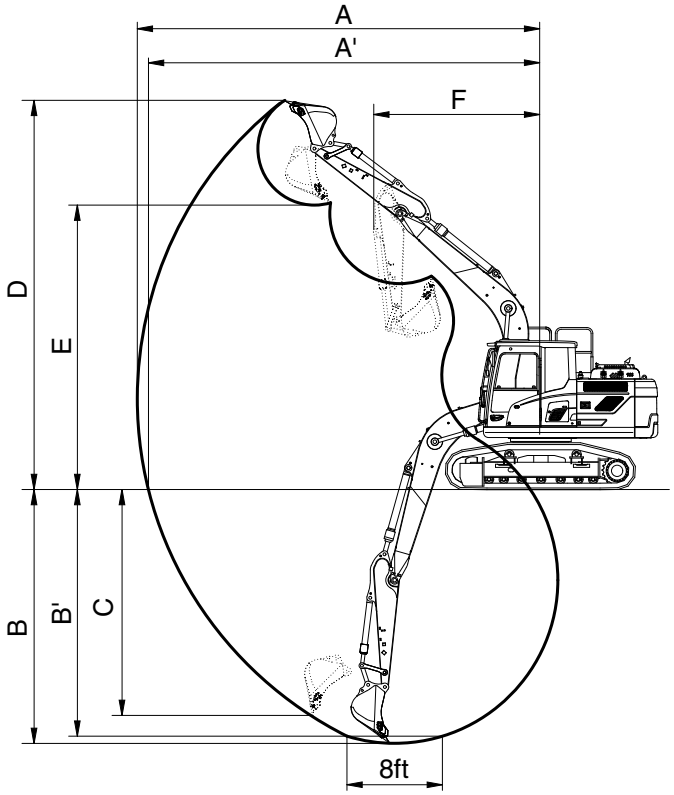
140F2SP08

Description		1.90 m (6' 3") Arm	2.10 m (6' 11") Arm	2.50 m (8' 2") Arm
Max digging reach	A	8140 mm (26' 8")	8320 mm (27' 4")	8720 mm (28' 7")
Max digging reach on ground	A'	8000 mm (26' 3")	8180 mm (26'10")	8590 mm (28' 2")
Max digging depth	B	5110 mm (16' 9")	5310 mm (17' 5")	5710 mm (18' 9")
Max digging depth (8ft level)	B'	5000 mm (16' 5")	5190 mm (17' 0")	5610 mm (18' 5")
Max vertical wall digging depth	C	4490 mm (14' 9")	4660 mm (15' 3")	5120 mm (16' 10")
Max digging height	D	8810 mm (28' 11")	8890 mm (29' 2")	9270 mm (30' 5")
Max dumping height	E	6330 mm (20' 9")	6410 mm (21' 0")	6780 mm (22' 3")
Min swing radius	F	2670 mm (8' 9")	2830 mm (9' 3")	2690 mm (8' 10")
Bucket digging force	SAE	87.3 [94.8] kN	87.3 [94.8] kN	87.3 [94.8] kN
		8900 [9660] kgf	8900 [9660] kgf	8900 [9660] kgf
		19620 [21300] lbf	19620 [21300] lbf	19620 [21300] lbf
	ISO	102 [110.8] kN	102 [110.8] kN	102 [110.8] kN
		10400 [11290] kgf	10400 [11290] kgf	10400 [11290] kgf
		22930 [24890] lbf	22930 [24890] lbf	22930[24890] lbf
Arm crowd force	SAE	76.5 [83.1] kN	73.6 [79.9] kN	62.8 [68.2] kN
		7800 [8470] kgf	7500 [8140] kgf	6400 [6950] kgf
		17200 [18670] lbf	16530 [17950] lbf	14110 [15320] lbf
	ISO	80.4 [87.3] kN	77.5 [84.1] kN	65.7 [71.4] kN
		8200 [8900] kgf	7900 [8580] kgf	6700 [7270] kgf
		18080 [19630] lbf	17420 [18910] lbf	14770 [16040] lbf

[ ] : Power boost

2) HX140 HW

(1) 4.6 m (15' 1") MONO BOOM



140F2SP09

Description		1.90 m (6' 3") Arm	2.10 m (6' 11") Arm	※2.50 m (8' 2") Arm	3.00 m (9' 10") Arm
Max digging reach	A	7750 mm (25' 5")	7920 mm (26' 0")	8330 mm (27' 4")	8790 mm (28'10")
Max digging reach on ground	A'	7540 mm (24' 9")	7710 mm (25' 4")	8110 mm (26' 7")	8580 mm (28' 2")
Max digging depth	B	4690 mm (15' 5")	4890 mm (16' 1")	5290 mm (17' 4")	5790 mm (19' 0")
Max digging depth (8ft level)	B'	4420 mm (14' 6")	4640 mm (15' 3")	5080 mm (16' 8")	5610 mm (18' 5")
Max vertical wall digging depth	C	4390 mm (14' 9")	4640 mm (15' 3")	5070 mm (16' 8")	5590 mm (18' 4")
Max digging height	D	8360 mm (27' 5")	8440 mm (27' 8")	8760 mm (28' 9")	9040 mm (29' 7")
Max dumping height	E	5930 mm (19' 5")	6010 mm (19' 8")	6320 mm (20' 9")	6590 mm (21' 7")
Min swing radius	F	2630 mm (8' 8")	2670 mm (8' 9")	2650 mm (8' 8")	2680 mm (8' 10")
Bucket digging force	SAE	87.3 [94.8] kN	87.3 [94.8] kN	87.3 [94.8] kN	87.3 [94.8] kN
		8900 [9660] kgf	8900 [9660] kgf	8900 [9660] kgf	8900 [9660] kgf
		19620 [21300] lbf	19620 [21300] lbf	19620 [21300] lbf	19620 [21300] lbf
	ISO	102 [110.8] kN	102 [110.8] kN	102 [110.8] kN	102 [110.8] kN
		10400 [11290] kgf	10400 [11290] kgf	10400 [11290] kgf	10400 [11290] kgf
		22930 [24890] lbf	22930 [24890] lbf	22930[24890] lbf	22930 [24890] lbf
Arm crowd force	SAE	76.5 [83.1] kN	73.6 [79.9] kN	62.8 [68.2] kN	55.9 [60.7] kN
		7800 [8470] kgf	7500 [8140] kgf	6400 [6950] kgf	5700 [6190] kgf
		17200 [18670] lbf	16530 [17950] lbf	14110 [15320] lbf	12570 [13640] lbf
	ISO	80.4 [87.3] kN	77.5 [84.1] kN	65.7 [71.4] kN	57.9 [62.8] kN
		8200 [8900] kgf	7900 [8580] kgf	6700 [7270] kgf	5900 [6410] kgf
		18080 [19630] lbf	17420 [18910] lbf	14770 [16040] lbf	13010 [14120] lbf

※ : STD [ ] : Power boost

4. WEIGHT

1) HX140 L

Item	HX140 L		HX140 L DOZER BLADE	
	kg	lb	kg	lb
Upper structure assembly				
· Main frame weld assembly	1120	2470	←	
· Engine assembly	558	1230	←	
· Aftertreatment	30	65	←	
· Main pump assembly	100	220	←	
· Main control valve assembly	140	310	←	
· Swing motor assembly	120	260	←	
· Hydraulic oil tank assembly	160	350	←	
· Fuel tank assembly	130	290	←	
· Counterweight	2000	4410	←	
· Cab assembly	500	1100	←	
Lower chassis assembly				
· Track frame weld assembly	1590	3510	1840	4060
· Swing bearing	260	570	←	
· Travel motor assembly	480	1060	←	
· Turning joint	50	110	←	
· Track recoil spring	87	192	←	
· Idler	108	238	←	
· Carrier roller	19	42	←	
· Track roller	33	73	←	
· Track-chain assembly (600 ㎜ standard triple grouser shoe)	1027	2265	←	
· Dozer blade assembly	-		550	1220
Front attachment assembly				
· 4.6 m boom assembly	830	1830	←	
· 2.5 m arm assembly	435	960	←	
· 0.58 m^3 SAE heaped bucket	480	1060	←	
· Boom cylinder assembly	121	267	←	
· Arm cylinder assembly	171	377	←	
· Bucket cylinder assembly	123	271	←	
· Bucket control rod assembly	90	200	←	
· Dozer blade cylinder assembly	-		52	115

※ This information is different with operating and transportation weight because it is not including harness, pipe, oil, fuel so on.

※ Refer to Transportation for actual weight information and Specifications for operating weight.

2) HX140 HW

Item	HX140 HW	
	kg	lb
Upper structure assembly		
· Main frame weld assembly	1120	2470
· Engine assembly	558	1230
· Aftertreatment	30	65
· Main pump assembly	100	220
· Main control valve assembly	140	310
· Swing motor assembly	120	260
· Hydraulic oil tank assembly	160	350
· Fuel tank assembly	130	290
· Counterweight	2000	4410
· Cab assembly	480	1060
Lower chassis assembly		
· Track frame weld assembly	2180	4810
· Swing bearing	260	570
· Travel motor assembly	305	670
· Turning joint	50	110
· Tension cylinder assembly	132	291
· Idler assembly	151	333
· Carrier roller assembly	40	88
· Track roller assembly	40	88
· Track-chain assembly (800 ㎜ standard triple grouser shoe)	1370	3020
Front attachment assembly		
· 4.6 ㎡ boom assembly	830	1830
· 2.5 ㎡ arm assembly	435	960
· 0.58 m^3 SAE heaped bucket	480	1060
· Boom cylinder assembly	121	267
· Arm cylinder assembly	171	377
· Bucket cylinder assembly	123	271
· Bucket control rod assembly	90	200

※ This information is different with operating and transportation weight because it is not including harness, pipe, oil, fuel so on.

※ Refer to Transportation for actual weight information and Specifications for operating weight.

5. LIFTING CAPACITIES

1) HX140 L

(1) 4.60 m (15' 1") boom, 2.50 m (8' 2") arm equipped with 0.58 m³ (SAE heaped) bucket and 600 mm (24") triple grouser shoe.

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

Load point height		Load radius								At max. reach		
		1.5 m (5 ft)		3.0 m (10 ft)		4.5 m (15 ft)		6.0 m (20 ft)		Capacity		Reach
												m (ft)
6.0 m (20.0 ft)	kg									*2820	1930	6.69
	lb									*6220	4250	(21.9)
4.5 m (15.0 ft)	kg					*3170	*3170	*2560	2230	2440	1500	7.53
	lb					*6990	*6990	*5640	4920	5380	3310	(24.7)
3.0 m (10.0 ft)	kg			*5450	*5450	*4050	3500	3470	2150	2180	1310	7.95
	lb			*12020	*12020	*8930	7720	7650	4740	4810	2890	(26.1)
1.5 m (5.0 ft)	kg			*8460	6060	*5190	3230	3340	2040	2100	1250	8.03
	lb			*18650	13360	*11440	7120	7360	4500	4630	2760	(26.3)
Ground Line	kg			*8800	5710	5130	3030	3240	1940	2190	1300	7.77
	lb			*19400	12590	11310	6680	7140	4280	4830	2870	(25.5)
-1.5 m (-5.0 ft)	kg	*6330	*6330	*9780	5660	5040	2950	3200	1900	2500	1500	7.15
	lb	*13960	*13960	*21560	12480	11110	6500	7050	4190	5510	3310	(23.5)
-3.0 m (-10 ft)	kg	*9650	*9650	*8690	5750	5080	2990			3340	2040	6.01
	lb	*21270	*21270	*19160	12680	11200	6590			7360	4500	(19.7)

Note 1. Lifting capacity are based on SAE J1097 and ISO 10567.
2. Lifting capacity of the HX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
3. The load point is a hook located on the back of the bucket.
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 necessory for non-standard configurations.

(2) 4.60 m (15' 1") boom, 1.90 m (6' 3") arm equipped with 0.58 m³ (SAE heaped) bucket and 600 mm (24") triple grouser shoe.

Load point height		Load radius								At max. reach		
		1.5 m (5 ft)		3.0 m (10 ft)		4.5 m (15 ft)		6.0 m (20 ft)		Capacity		Reach
												m (ft)
6.0 m	kg									*3170	2350	5.95
(20.0 ft)	lb									*6990	5180	(19.5)
4.5 m	kg					*3780	3660			2830	1760	6.90
(15.0 ft)	lb					*8330	8070			6240	3880	(22.6)
3.0 m	kg			*6770	*6600	*4630	3450	3450	2140	2480	1520	7.37
(10.0 ft)	lb			*14930	*14550	*10210	7610	7610	4720	5470	3350	(24.2)
1.5 m	kg			*7280	5900	5320	3210	3350	2050	2390	1450	7.45
(5.0 ft)	lb			*16050	13010	11730	7080	7390	4520	5270	3200	(24.4)
Ground	kg			*8500	5750	5150	3060	3270	1980	2520	1530	7.17
Line	lb			*18740	12680	11350	6750	7210	4370	5560	3370	(23.5)
-1.5 m	kg	*7630	*7630	*9450	5770	5110	3020			2970	1810	6.48
(-5.0 ft)	lb	*16820	*16820	*20830	12720	11270	6660			6550	3990	(21.3)
-3.0 m	kg			*7890	5930							
(-10 ft)	lb			*17390	13070							

2) HX140 L, ADJUST BOOM

(1) 4.90 m (16' 1") adjust boom, 1.90 m (6' 3") arm equipped with 0.58 m³ (SAE heaped) bucket and 600 mm (24") triple grouser shoe.

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

Load point height		Load radius						At max. reach		
		3.0 m (10 ft)		4.5 m (15 ft)		6.0 m (20 ft)		Capacity		Reach
										m (ft)
6.0 m (20.0 ft)	kg			*3150	*3150			*2880	2010	6.45
	lb			*6940	*6940			*6350	4430	(21.2)
4.5 m (15.0 ft)	kg			*3480	*3480	*3290	2180	2530	1550	7.33
	lb			*7670	*7670	*7250	4810	5580	3420	(24.0)
3.0 m (10.0 ft)	kg	*6970	*6320	*4400	3370	3430	2100	2250	1340	7.76
	lb	*15370	*13930	*9700	7430	7560	4630	4960	2950	(25.5)
1.5 m (5.0 ft)	kg			5230	3090	3310	1980	2170	1280	7.84
	lb			11530	6810	7300	4370	4780	2820	(25.7)
Ground Line	kg	*5470	*5470	5060	2940	3220	1900	2270	1340	7.58
	lb	*12060	*12060	11160	6480	7100	4190	5000	2950	(24.9)
-1.5 m (-5.0 ft)	kg	*9260	5620	5030	2910	3210	1890	2640	1570	6.93
	lb	*20410	12390	11090	6420	7080	4170	5820	3460	(22.7)
-3.0 m (-10 ft)	kg			5130	3000					
	lb			11310	6610					

Note 1. Lifting capacity are based on SAE J1097 and ISO 10567.
2. Lifting capacity of the HX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
3. The load point is a hook located on the back of the bucket.
4. *indicates load limited by hydraulic capacity.

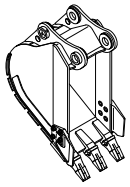
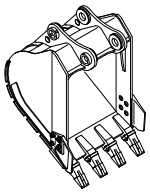
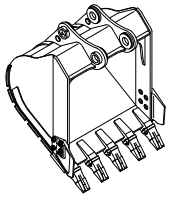
(2) 4.90 m (16' 1") adjust boom, 2.10 m (6' 11") arm equipped with 0.58 m³ (SAE heaped) bucket and 600 mm (24") triple grouser shoe.

Load point height		Load radius						At max. reach		
		3.0 m (10 ft)		4.5 m (15 ft)		6.0 m (20 ft)		Capacity		Reach
										m (ft)
6.0 m (20.0 ft)	kg			*2930	*2930			*2760	1900	6.68
	lb			*6460	*6460			*6080	4190	(21.9)
4.5 m (15.0 ft)	kg			*3280	*3280	*3160	2200	2420	1470	7.52
	lb			*7230	*7230	*6970	4850	5340	3240	(24.7)
3.0 m (10.0 ft)	kg	*6430	*6430	*4200	3380	3430	2100	2160	1280	7.94
	lb	*14180	*14180	*9260	7450	7560	4630	4760	2820	(26.0)
1.5 m (5.0 ft)	kg			5230	3090	3300	1980	2080	1220	8.02
	lb			11530	6810	7280	4370	4590	2690	(26.3)
Ground Line	kg	*5820	5510	5040	2920	3200	1890	2170	1270	7.77
	lb	*12830	12150	11110	6440	7050	4170	4780	2800	(25.5)
-1.5 m (-5.0 ft)	kg	*9380	5550	4980	2870	3170	1860	2490	1480	7.14
	lb	*20680	12240	10980	6330	6990	4100	5490	3260	(23.4)
-3.0 m (-10 ft)	kg	*8320	5690	5060	2940					
	lb	*18340	12540	11160	6480					

6. BUCKET SELECTION GUIDE

1) HX140 L

(1) General bucket

		
0.23 m³ SAE heaped bucket	0.40, 0.46 m³ SAE heaped bucket	0.52, ※0.58, 0.65, 0.71 m³ SAE heaped bucket

Capacity		Width		Weight	Recommendation					
					4.6 m (15' 1") boom				4.1 m (13' 5") boom	
SAE heaped	CECE heaped	Without side cutter	With side cutter		1.9 m arm (6' 3")	2.1 m arm (6' 11")	2.5 m arm (8' 2")	3.0 m arm (9' 10")	1.9 m arm (6' 3")	2.1 m arm (6' 11")
0.23 m³ (0.30 yd³)	0.20 m³ (0.26 yd³)	520 mm (20.5")	620 mm (24.4")	335 kg (740 lb)	○	○	○	⊙	○	○
0.40 m³ (0.52 yd³)	0.35 m³ (0.46 yd³)	760 mm (29.9")	860 mm (33.9")	410 kg (900 lb)	○	○	○	⊙	○	○
0.46 m³ (0.60 yd³)	0.40 m³ (0.52 yd³)	850 mm (33.5")	950 mm (37.4")	435 kg (960 lb)	○	○	○	●	○	○
0.52 m³ (0.68 yd³)	0.45 m³ (0.59 yd³)	935 mm (36.8")	1035 mm (40.8")	460 kg (1010 lb)	○	○	○		○	○
※0.58 m³ (0.76 yd³)	0.50 m³ (0.65 yd³)	1030 mm (40.6")	1130 mm (44.5")	480 kg (1060 lb)	○	○	⊙		○	○
0.65 m³ (0.85 yd³)	0.55 m³ (0.72 yd³)	1110 mm (43.7")	1210 mm (47.6")	500 kg (1100 lb)	⊙	⊙	●		○	⊙
0.71 m³ (0.93 yd³)	0.60 m³ (0.78 yd³)	1205 mm (47.4")	1305 mm (51.4")	540 kg (1190 lb)	●	●			⊙	●

※ : Standard bucket

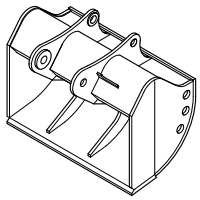
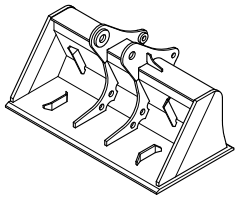
○ Applicable for materials with density of 2000 kg/m³ (3370 lb/yd³) or less

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

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

※ These recommendations are for general conditions and average use.
Work tools and ground conditions have effects on machine performance.
Select an optimum combination according to the working conditions and the type of work that is being done.
Consult your Hyundai dealer for information on selecting the correct boom-arm-bucket combination.

(2) Special bucket

Ditch cleaning bucket	Slope finishing bucket
	
★0.45 m³ SAE heaped bucket	◆0.55 m³ SAE heaped bucket

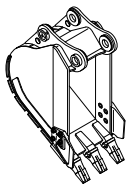
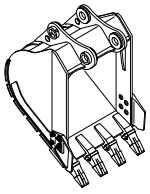
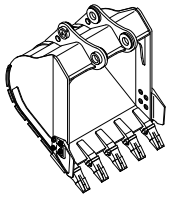
Capacity		Width		Weight	Recommendation					
					4.6 m (15' 1") boom				4.1 m (13' 5") boom	
SAE heaped	CECE heaped	Without side cutter	With side cutter		1.9 m arm (6' 3")	2.1 m arm (6' 11")	2.5 m arm (8' 2")	3.0 m arm (9' 10")	1.9 m arm (6' 3")	2.1 m arm (6' 11")
★0.45 m³ (0.59 yd³)	0.40 m³ (0.52 yd³)	1520 mm (59.8")	-	410 kg (900 lb)	○	○	⊙		○	○
◆0.55 m³ (0.72 yd³)	0.45 m³ (0.59 yd³)	1800 mm (70.9")	-	585 kg (1290 lb)	⊙	⊙	●		○	○

★ : Ditch cleaning bucket
◆ : Slope finishing bucket

○ Applicable for materials with density of 2000 kgf/m³ (3370 lbf/yd³) or less
⊙ Applicable for materials with density of 1600 kgf/m³ (2700 lbf/yd³) or less
● Applicable for materials with density of 1100 kgf/m³ (1850 lbf/yd³) or less

2) HX140 L, ADJUST BOOM

(1) General bucket

		
0.23 m³ SAE heaped bucket	0.40, 0.46 m³ SAE heaped bucket	0.52, ※0.58, 0.65, 0.71 m³ SAE heaped bucket

Capacity		Width		Weight	Recommendation		
					4.9 m (16' 1") adjust boom		
SAE heaped	CECE heaped	Without side cutter	With side cutter		1.9 m arm (6' 3")	2.1 m arm (6' 11")	2.5 m arm (8' 2")
0.23 m³ (0.30 yd³)	0.20 m³ (0.26 yd³)	520 mm (20.5")	620 mm (24.4")	335 kg (740 lb)	○	○	○
0.40 m³ (0.52 yd³)	0.35 m³ (0.46 yd³)	760 mm (29.9")	860 mm (33.9")	410 kg (900 lb)	○	○	○
0.46 m³ (0.60 yd³)	0.40 m³ (0.52 yd³)	850 mm (33.5")	950 mm (37.4")	435 kg (960 lb)	○	○	⊙
0.52 m³ (0.68 yd³)	0.45 m³ (0.59 yd³)	935 mm (36.8")	1035 mm (40.8")	460 kg (1010 lb)	○	⊙	⊙
※0.58 m³ (0.76 yd³)	0.50 m³ (0.65 yd³)	1030 mm (40.6")	1130 mm (44.5")	480 kg (1060 lb)	⊙	●	●
0.65 m³ (0.85 yd³)	0.55 m³ (0.72 yd³)	1110 mm (43.7")	1210 mm (47.6")	500 kg (1100 lb)	●	●	
0.71 m³ (0.93 yd³)	0.60 m³ (0.78 yd³)	1205 mm (47.4")	1305 mm (51.4")	540 kg (1190 lb)	●		

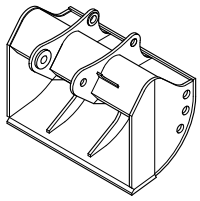
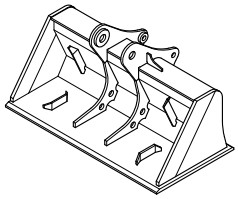
※ : Standard bucket

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

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

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

(2) Special bucket

Ditch cleaning bucket	Slope finishing bucket
	
★0.45 m³ SAE heaped bucket	◆0.55 m³ SAE heaped bucket

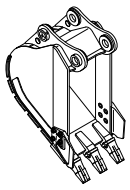
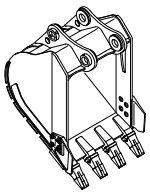
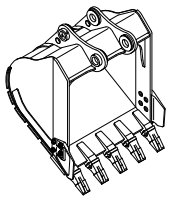
Capacity		Width		Weight	Recommendation		
					4.9 m (16' 1") boom		
SAE heaped	CECE heaped	Without side cutter	With side cutter		1.9 m arm (6' 3")	2.1 m arm (6' 11")	2.5 m arm (8' 2")
★0.45 m³ (0.59 yd³)	0.40 m³ (0.52 yd³)	1520 mm (59.8")	-	410 kg (900 lb)	⊙	⊙	●
◆0.55 m³ (0.72 yd³)	0.45 m³ (0.59 yd³)	1800 mm (70.9")	-	585 kg (1290 lb)	⊙	●	●

★ : Ditch cleaning bucket
◆ : Slope finishing bucket

○ Applicable for materials with density of 2000 kgf/m³ (3370 lbf/yd³) or less
⊙ Applicable for materials with density of 1600 kgf/m³ (2700 lbf/yd³) or less
● Applicable for materials with density of 1100 kgf/m³ (1850 lbf/yd³) or less

3) HX140 HW

(1) General bucket

		
0.23 m³ SAE heaped bucket	0.40, 0.46 m³ SAE heaped bucket	0.52, ※0.58, 0.65, 0.71 m³ SAE heaped bucket

Capacity		Width		Weight	Recommendation			
					4.6 m (15' 1") boom			
SAE heaped	CECE heaped	Without side cutter	With side cutter		1.9 m arm (6' 3")	2.1 m arm (6' 11")	2.5 m arm (8' 2")	3.0 m arm (9' 10")
0.23 m³ (0.30 yd³)	0.20 m³ (0.26 yd³)	520 mm (20.5")	620 mm (24.4")	335 kg (740 lb)	○	○	○	○
0.40 m³ (0.52 yd³)	0.35 m³ (0.46 yd³)	760 mm (29.9")	860 mm (33.9")	410 kg (900 lb)	○	○	○	⊙
0.46 m³ (0.60 yd³)	0.40 m³ (0.52 yd³)	850 mm (33.5")	950 mm (37.4")	435 kg (960 lb)	○	○	○	⊙
0.52 m³ (0.68 yd³)	0.45 m³ (0.59 yd³)	935 mm (36.8")	1035 mm (40.7")	460 kg (1010 lb)	○	○	○	●
※0.58 m³ (0.76 yd³)	0.50 m³ (0.65 yd³)	1030 mm (40.6")	1130 mm (44.5")	480 kg (1060 lb)	○	○	○	
0.65 m³ (0.85 yd³)	0.55 m³ (0.72 yd³)	1110 mm (43.7")	1210 mm (47.6")	500 kg (1100 lb)	○	⊙	⊙	
0.71 m³ (0.93 yd³)	0.60 m³ (0.78 yd³)	1205 mm (47.4")	1305 mm (51.4")	540 kg (1190 lb)	⊙	⊙	●	

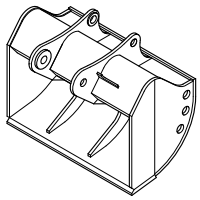
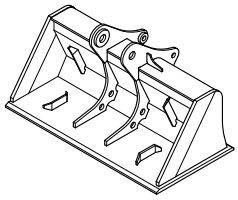
※ : Standard bucket

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

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

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

(2) Special bucket

Ditch cleaning bucket	Slope finishing bucket
	
★0.45 m³ SAE heaped bucket	◆0.55 m³ SAE heaped bucket

Capacity		Width		Weight	Recommendation		
					4.9 m (16' 1") boom		
SAE heaped	CECE heaped	Without side cutter	With side cutter		1.9 m arm (6' 3")	2.1 m arm (6' 11")	2.5 m arm (8' 2")
★0.45 m³ (0.59 yd³)	0.40 m³ (0.52 yd³)	1520 mm (59.8")	-	410 kg (900 lb)	⊙	⊙	●
◆0.55 m³ (0.72 yd³)	0.45 m³ (0.59 yd³)	1800 mm (70.9")	-	585 kg (1290 lb)	⊙	●	●

★ : Ditch cleaning bucket
◆ : Slope finishing bucket

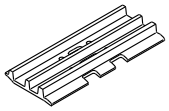
○ Applicable for materials with density of 2000 kgf/m³ (3370 lbf/yd³) or less
⊙ Applicable for materials with density of 1600 kgf/m³ (2700 lbf/yd³) or less
● Applicable for materials with density of 1100 kgf/m³ (1850 lbf/yd³) or less

7. UNDERCARRIAGE

1) TRACKS

X-leg type center frame is integrally welded with reinforced box-section track frames. The design includes dry tracks, lubricated rollers, idlers, sprockets, hydraulic track adjusters with shock absorbing springs and assembled track-type tractor shoes with triple grousers.

2) TYPES OF SHOES

Model	Shapes		Triple grouser		
					
HX140 L	Shoe width	mm (in)	500 (20)	※600 (24)	700 (28)
	Operating weight	kg (lb)	13990 (30840)	14200 (31310)	14410 (31770)
	Ground pressure	kgf/cm^2 (psi)	0.43 (6.11)	0.37 (5.26)	0.32 (4.55)
	Overall width	mm (ft-in)	2500 (8' 2")	2600 (8' 6")	2700 (8' 10")
HX140 L DOZER BLADE	Shoe width	mm (in)	500 (20)	※600 (24)	700 (28)
	Operating weight	kg (lb)	14810 (32650)	15020 (33110)	15230 (33580)
	Ground pressure	kgf/cm^2 (psi)	0.46 (6.54)	0.39 (5.35)	0.34 (4.83)
	Overall width	mm (ft-in)	2500 (8' 2")	2600 (8' 6")	2700 (8' 10")
HX140 HW	Shoe width	mm (in)	700 (28)	※800 (32)	-
	Operating weight	kg (lb)	16865 (37180)	17100 (37700)	-
	Ground pressure	kgf/cm^2 (psi)	0.37 (5.26)	0.33 (4.69)	-
	Overall width	mm (ft-in)	2750 (9' 0")	2840 (9' 4")	-

※ : Standard

3) NUMBER OF ROLLERS AND SHOES ON EACH SIDE

Item	Quantity	
	HX140 L	HX140 HW
Carrier rollers	1 EA	2 EA
Track rollers	7 EA	7 EA
Track shoes	46 EA	47 EA

4) 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
600 mm triple grouser	Standard	A
500 mm triple grouser	Option	A
700 mm triple grouser	Option	B
700 mm triple grouser	HX140 HW only	B
810 mm triple grouser	HX140 HW only	B

※ Table 2

Category	Applications	Applications
A	Rocky ground, river beds, normal soil	· Travel at low speed on rough ground with large obstacles such as boulders or fallen trees
B	Normal soil, soft ground	· 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	Perkins 1204F
Type	4-cycle turbocharged charge air cooled diesel engine
Cooling method	Water cooling
Number of cylinders and arrangement	4 cylinders, in-line
Firing order	1-3-4-2
Combustion chamber type	Direct injection type
Cylinder bore × stroke	105 × 127 mm (4.1" × 5.0")
Piston displacement	4400 cc (269 cu in)
Compression ratio	16.5 : 1
Rated net horse power (SAE J1349)	116 Hp (87 kW) at 1950 rpm
Rated gross horse power (SAE J1995)	124 Hp (92.6 kW) at 1950 rpm
Maximum torque	54 kgf · m (391 lbf · ft) at 1400 rpm
Engine oil quantity	10.5 ℓ (2.8 U.S. gal)
Dry weight	558 kg (1230 lb)
High idling speed	2200 ± 50 rpm
Low idling speed	1100 ± 100 rpm
Rated fuel consumption	164.8 g/Hp · hr at 1950 rpm, (100% load)
Starting motor	24 V-4.5 kW
Alternator	24 V-100 A
Battery	2 × 12 V × 100 Ah

2) MAIN PUMP

Item	Specification
Type	Variable displacement axial 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 × 126.8 ℓ/min (33.4 U.S. gpm / 27.8 U.K. gpm)
Rated speed	1950 rpm

[ ]: Power boost

3) GEAR PUMP

Item	Specification
Type	Fixed displacement gear pump single stage
Capacity	15cc/rev
Maximum pressure	40 kgf/cm^2 (570 psi)
Rated oil flow	29.2 ℓ /min (7.7 U.S. gpm / 6.4 U.K. gpm)

4) MAIN CONTROL VALVE

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

[ ]: Power boost

5) SWING MOTOR

Item	Specification
Type	Fixed displacement axial piston motor
Capacity	76.96 cc/rev
Relief pressure	285 kgf/cm^2 (4054 psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	Minimum 30 kgf · m (217 lbf · ft)
Brake release pressure	15~50 kgf/cm^2 (213~711 psi)
Reduction gear type	2 - stage planetary

6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement axial piston motor
Relief pressure	350 kgf/cm^2 (4980 psi)
Capacity (max / min)	77/44.5 cc/rev
Reduction gear type	2-stage planetary
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	14.3 kgf/cm^2 (205 psi)
Braking torque	Min. 19.7 kgf · m (140 lbf · ft)

7) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	Ø120× Ø75× 1290 mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	Ø140× Ø80× 1510 mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	Ø120× Ø70× 1055 mm
	Cushion	Extend only
Dozer cylinder (opt)	Bore dia × Rod dia × Stroke	Ø100× Ø70× 250 mm
	Cushion	-
Adjust cylinder (opt)	Bore dia × Rod dia × Stroke	Ø145× Ø90× 613 mm
	Cushion	-
Adjust boom cylinder (opt)	Bore dia × Rod dia × Stroke	Ø105× Ø75× 975 mm
	Cushion	Extend only

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

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

8) SHOE

Item		Width	Ground pressure	Link quantity	Overall width
HX140 L	Standard	600 mm (24")	0.37 kgf/cm² (5.26 psi)	46	2600 mm (8' 6")
	Option	500 mm (20")	0.43 kgf/cm² (6.11 psi)	46	2500 mm (8' 2")
		700 mm (28")	0.32 kgf/cm² (4.55 psi)	46	2700 mm (8' 10")
HX140 L DOZER BLADE	Standard	600 mm (24")	0.39 kgf/cm² (5.55 psi)	46	2600 mm (8' 6")
	Option	500 mm (20")	0.46 kgf/cm² (6.54 psi)	46	2500 mm (8' 2")
		700 mm (28")	0.34 kgf/cm² (4.83 psi)	46	2700 mm (8' 10")
HX140 HW	Standard	800 mm (32")	0.33 kgf/cm² (4.69 psi)	47	2840 mm (9' 4")
	Option	700 mm (28")	0.37 kgf/cm² (5.26 psi)	47	2850 mm (9' 0")

9) BUCKET

Item		Capacity		Tooth quantity	Width	
		SAE heaped	CECE heaped		Without side cutter	With side cutter
HX140 L	Standard	※0.58 m³ (0.76 yd³)	0.50 m³ (0.65 yd³)	5	1030 mm (40.6")	1130 mm (44.5")
	Option	0.23 m³ (0.30 yd³)	0.20 m³ (0.26 yd³)	3	520 mm (20.5")	620 mm (24.4")
		0.40 m³ (0.52 yd³)	0.35 m³ (0.46 yd³)	4	760 mm (29.9")	860 mm (33.9")
		0.46 m³ (0.60 yd³)	0.40 m³ (0.52 yd³)	4	850 mm (33.5")	950 mm (37.4")
		0.52 m³ (0.68 yd³)	0.45 m³ (0.59 yd³)	5	935 mm (36.8")	1035 mm (40.8")
		0.65 m³ (0.85 yd³)	0.55 m³ (0.72 yd³)	5	1110 mm (43.7")	1210 mm (47.6")
		0.71 m³ (0.93 yd³)	0.60 m³ (0.78 yd³)	5	1205 mm (47.4")	1305 mm (51.4")
		★0.45 m³ (0.59 yd³)	0.40 m³ (0.52 yd³)	-	1520 mm (59.8")	-
		◆0.55 m³ (0.72 yd³)	0.45 m³ (0.59 yd³)	-	1800 mm (70.9")	-

★ : Ditch cleaning bucket

◆ : Slope finishing bucket

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) / 30 (86) / 40 (104)
Engine oil pan	Engine oil	10.5 (2.8)	★SAE 5W-40 SAE 30 SAE 10W SAE 10W-30 SAE 15W-40
DEF/ AdBlue® Tank	Mixture of urea and deionized water	19.0 (5.0)	ISO 22241, High-purity urea + deionized water (32.5:67.5)
Swing drive	Gear oil	TYPE 1 : 3.5 (0.9) TYPE 2 : 2.5 (0.7)	★SAE 75W-90
Final drive		2.3 (0.6)	SAE 80W-90
Hydraulic tank	Hydraulic oil	Tank : 124 (32.8) System : 210 (55.5)	★ISO VG 15 ISO VG 32 ISO VG 46, HBHO VG 46★3 ISO VG 68
Fuel tank	Diesel fuel★1	270 (71.3)	★ASTM D975 NO.1 ASTM D975 NO.2
Fitting (grease nipple)	Grease	As required	★NLGI NO.1 NLGI NO.2
Radiator (reservoir tank)	Mixture of antifreeze and soft water★2	15.5 (4.1)	Ethylene glycol base permanent type (50 : 50) ★Ethylene glycol base permanent type (60 : 40)

SAE : Society of Automotive Engineers
API : American Petroleum Institute
ISO : International Organization for Standardization
NLGI : National Lubricating Grease Institute
ASTM : American Society of Testing and Material
UTTO : Universal Tractor Transmission Oil
DEF : Diesel Exhaust Fluid, DEF compatible with AdBlue®

★ : Cold region
Russia, CIS, Mongolia

★1 : Ultra low sulfur diesel
- sulfur content ≤ 15 ppm

★2 : Soft water
City water or distilled water

★3 : Hyundai Bio Hydraulic Oil
- For more information, contact HYUNDAI dealers.

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

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

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

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