

SECTION 1 GENERAL

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SECTION 1 GENERAL

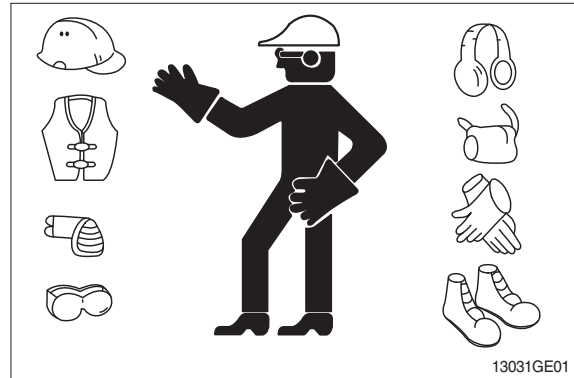
GROUP 1 SAFETY

FOLLOW SAFE PROCEDURE

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

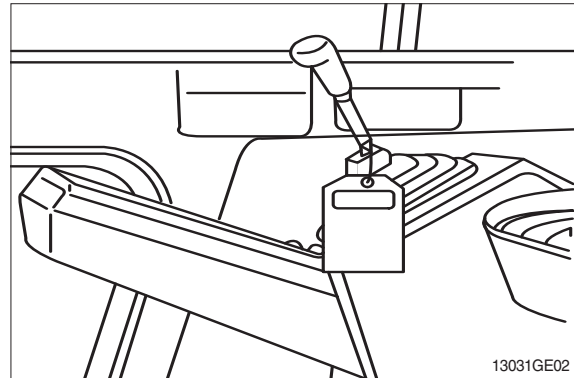
WEAR PROTECTIVE CLOTHING

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



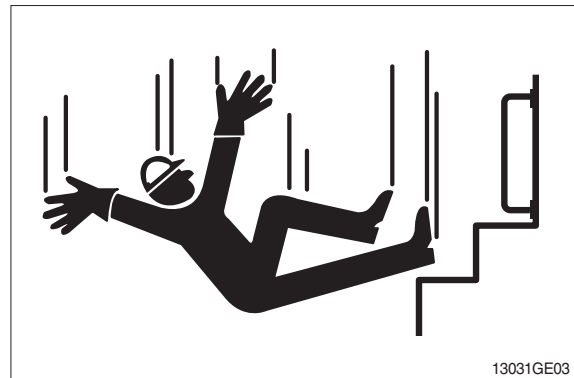
WARN OTHERS OF SERVICE WORK

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.

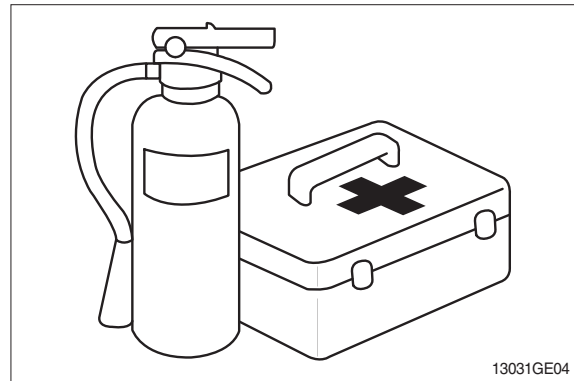


PREPARE FOR EMERGENCIES

Be prepared if a fire starts.

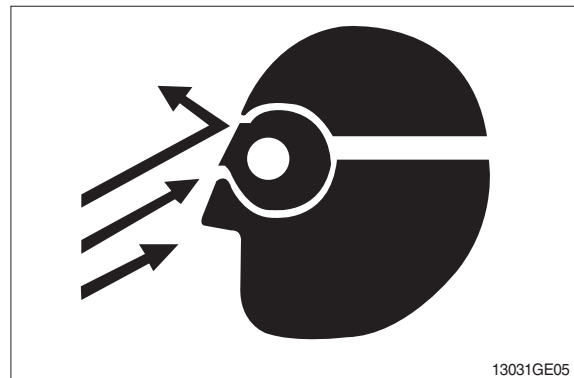
Keep a first aid kit and fire extinguisher handy.

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.

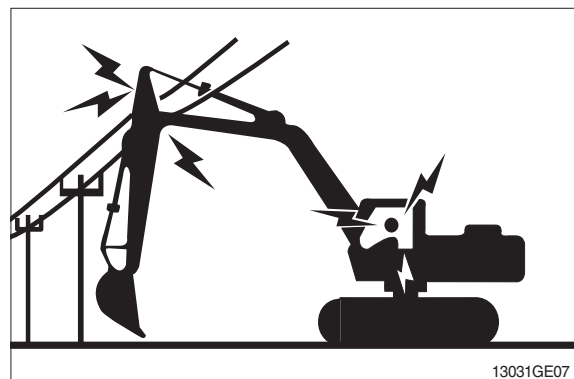
Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.



AVOID POWER LINES

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

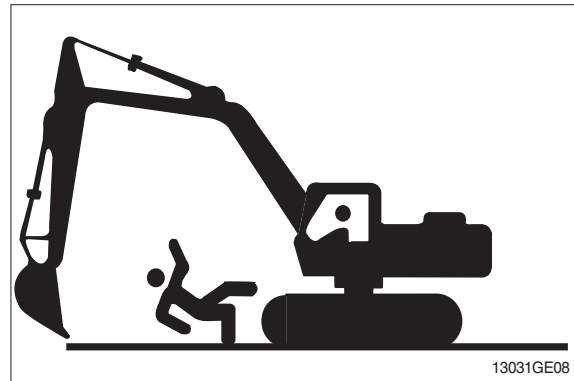
Never move any part of the machine or load closer to electric line than 3m(10ft) plus twice the line insulator length.



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.

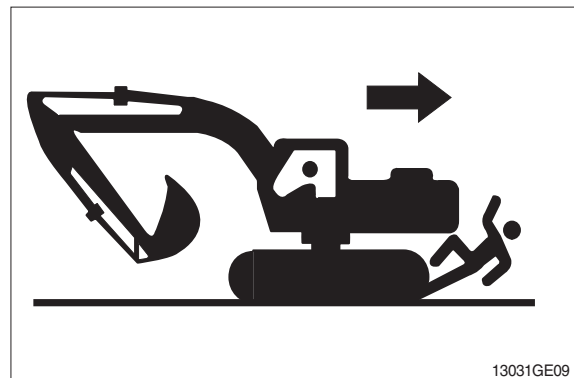


MOVE AND OPERATE MACHINE SAFELY

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:

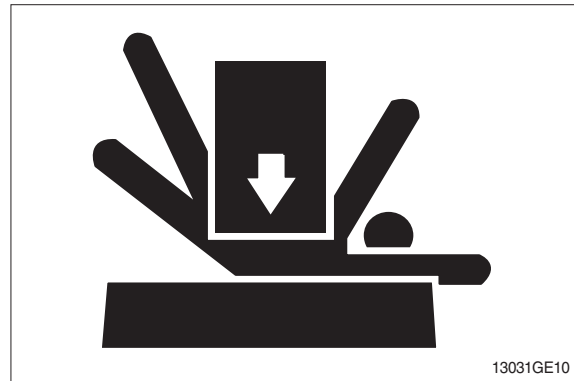
- Park machine on a level surface.
- Lower bucket to the ground.
- Turn auto idle switch off.
- Run engine at low idle speed without load for 5 minutes.
- Turn key switch to OFF to stop engine. Remove key from switch.
- Place safety lever to locked position.
- Allow engine to cool.

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

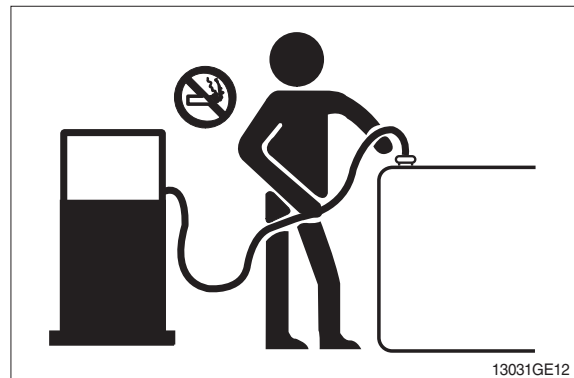
Explosive release of fluids from pressurized cooling system can cause serious burns.

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.

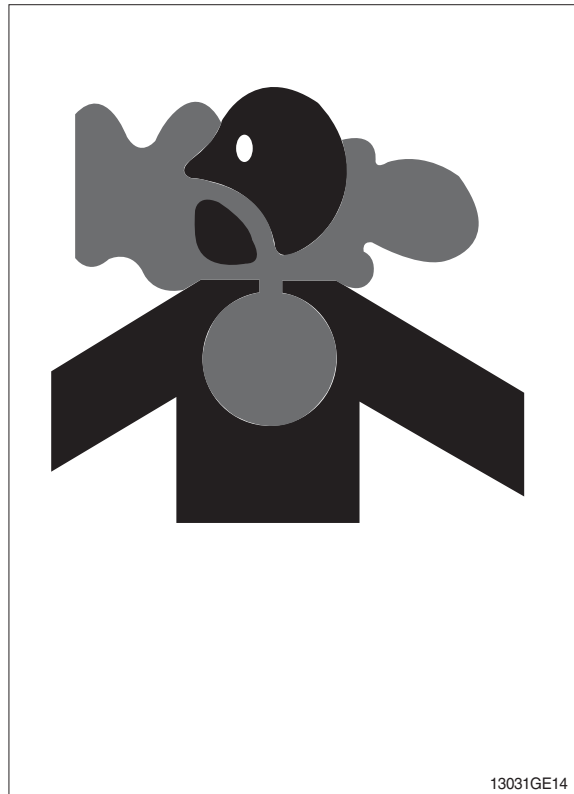
Do all work outside or in a well ventilated area. Dispose of paint and solvent properly.

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

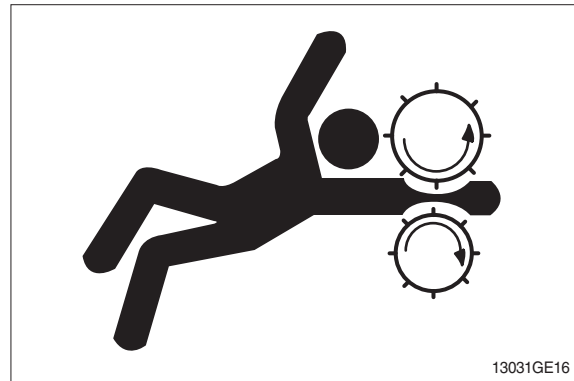
Illuminate your work area adequately but safely. Use a portable safety light for working inside or under the machine. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.



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.

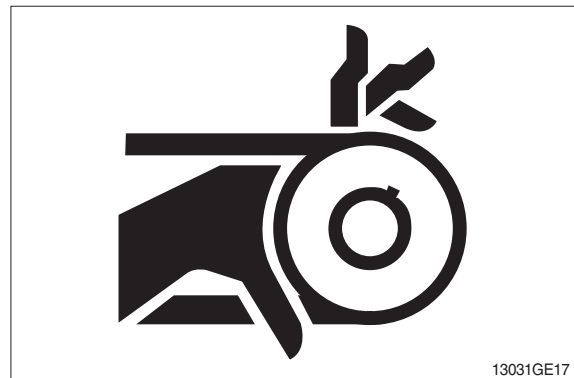
Remove rings and other jewelry to prevent electrical shorts and entanglement in moving parts.



STAY CLEAR OF MOVING PARTS

Entanglements in moving parts can cause serious injury.

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



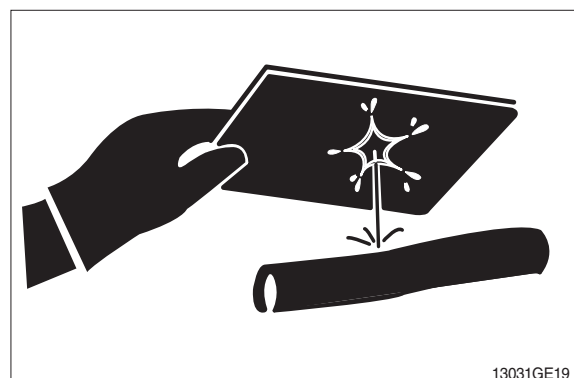
AVOID HIGH PRESSURE FLUIDS

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

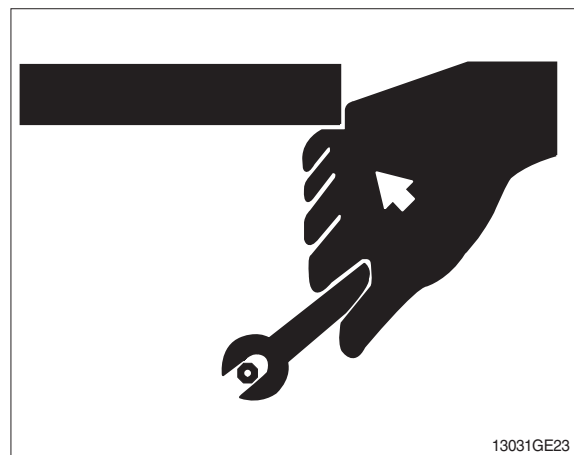
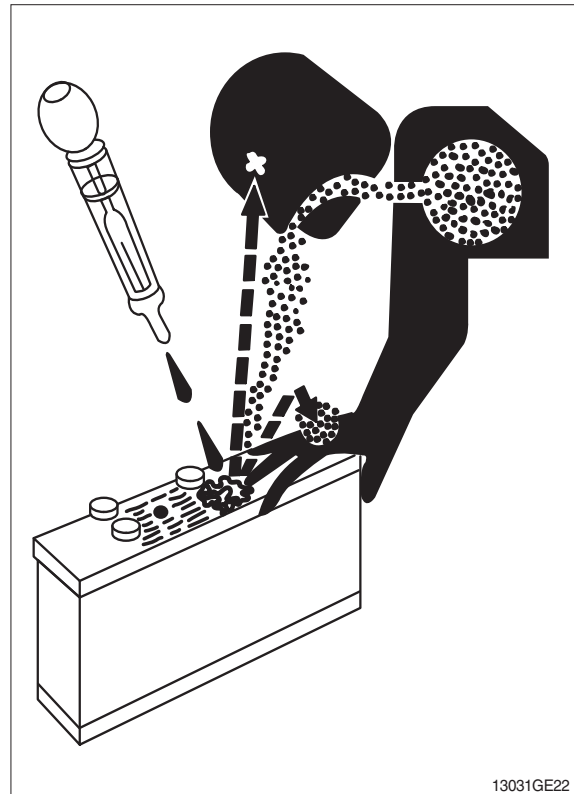
Use tools appropriate to the work. Makeshift tools, parts, and procedures can create safety hazards.

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.)

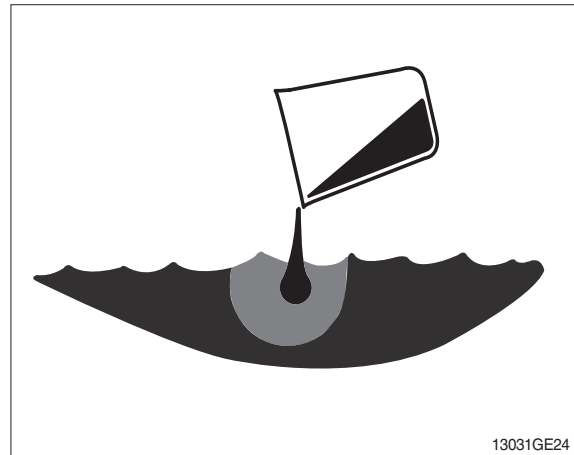


DISPOSE OF FLUIDS PROPERLY

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.

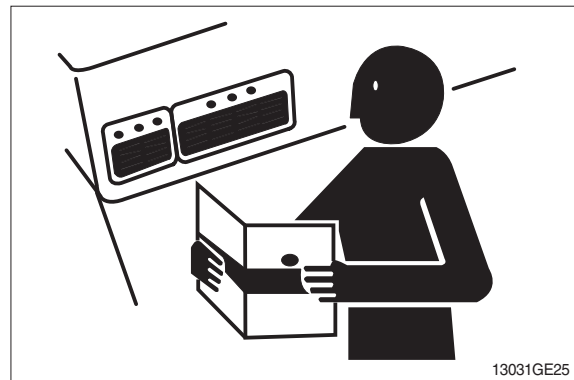
Use proper containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.

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.

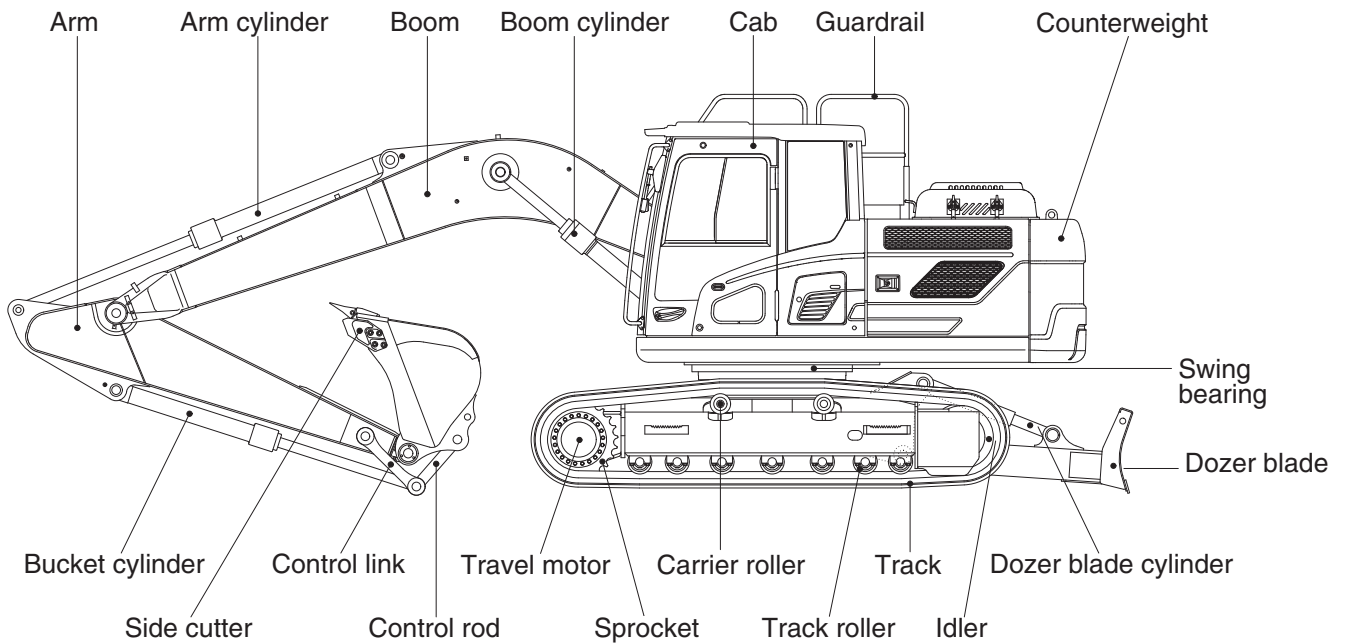
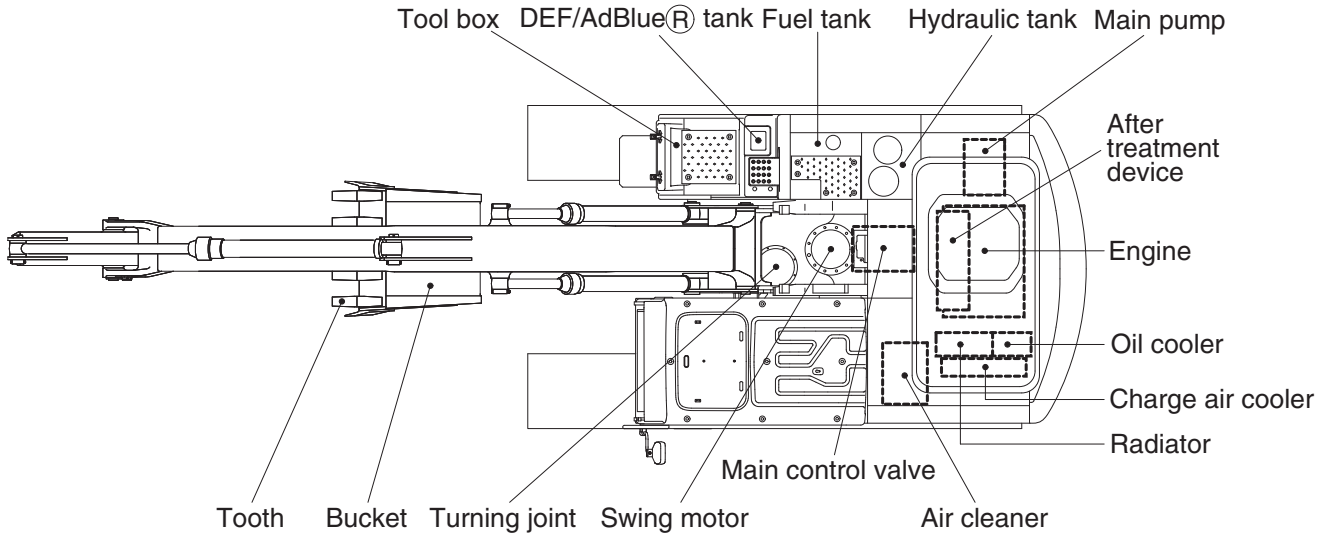


LIVE WITH SAFETY

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

GROUP 2 SPECIFICATIONS (HX160 L)

1. MAJOR COMPONENT

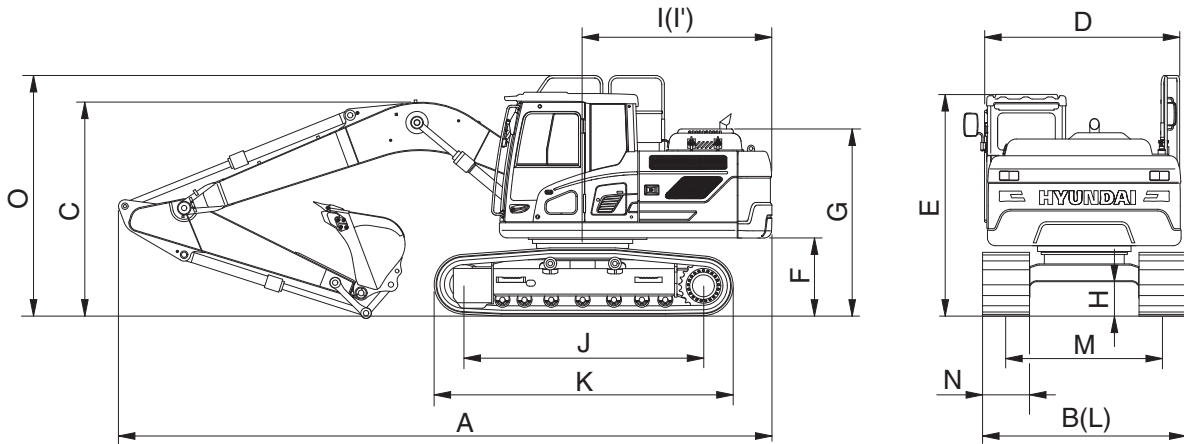


160F2SP01

2. SPECIFICATIONS

1) HX160 L

- 5.1 m (16' 9") BOOM and 2.6 m (8' 6") ARM

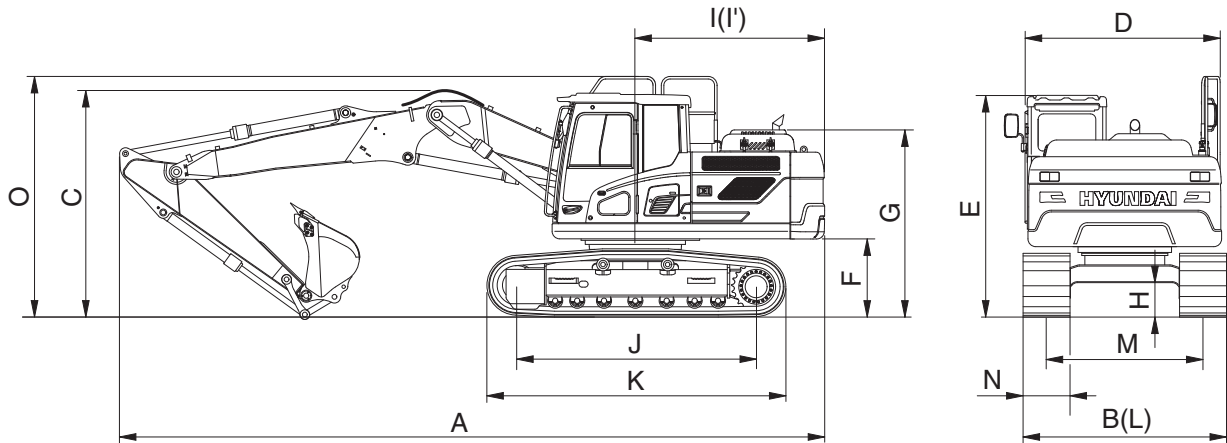


180F2SP02

Description		Unit	Specification
Operating weight		kg (lb)	18100 (39900)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	0.70 (0.92)
Overall length	A	mm (ft-in)	8650 (28' 5")
Overall width, with 600 mm shoe	B		2590 (8' 6")
Overall height of boom	C		2990 (9' 10")
Superstructure width	D		2475 (8' 1")
Overall height of cab	E		2980 (9' 9")
Ground clearance of counterweight	F		1055 (3' 6")
Engine cover height	G		2525 (8' 3")
Minimum ground clearance	H		460 (1' 6")
Rear-end distance	I		2480 (8' 2")
Rear-end swing radius	I'		2480 (8' 2")
Distance between tumbler	J		3170 (10' 5")
Undercarriage length	K		3926 (12' 11")
Undercarriage width	L		2590 (8' 6")
Track gauge	M		1990 (6' 6")
Track shoe width, standard	N		600 (24")
Overall height of guardrail	O		3220 (10' 6")
Travel speed (low/high)			km/hr (mph)
Swing speed		rpm	10.3
Gradeability		Degree (%)	35 (70)
Ground pressure (600 mm shoe)		kgf/cm ² (psi)	0.44 (6.26)
Max traction force		kg (lb)	17000 (37500)

2) HX160 L

- 5.1 m (16' 9") HYDRAULIC ADJUSTABLE BOOM AND 2.6 m (8' 6") ARM

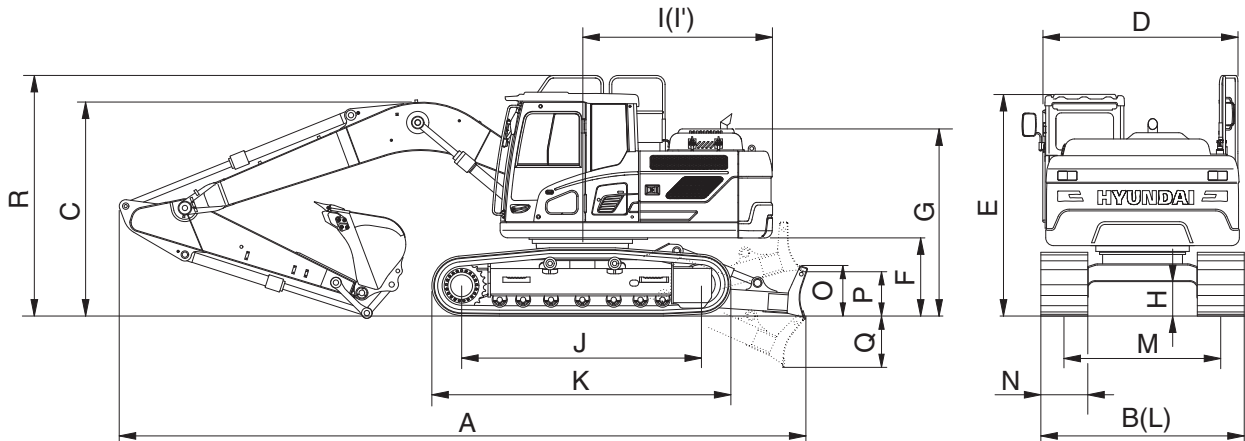


180F2SP03

Description		Unit	Specification
Operating weight		kg (lb)	19000 (41890)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	0.70 (0.92)
Overall length	A	mm (ft-in)	8610 (28' 3")
Overall width, with 600 mm shoe	B		2590 (8' 6")
Overall height of boom	C		3060 (10' 0")
Superstructure width	D		2475 (8' 1")
Overall height of cab	E		2980 (9' 9")
Ground clearance of counterweight	F		1055 (3' 6")
Engine cover height	G		2525 (8' 3")
Minimum ground clearance	H		460 (1' 6")
Rear-end distance	I		2480 (10' 5")
Rear-end swing radius	I'		2480 (8' 2")
Distance between tumblers	J		3170 (10' 5")
Undercarriage length	K		3926 (12' 11")
Undercarriage width	L		2590 (8' 6")
Track gauge	M		1990 (6' 6")
Track shoe width, standard	N		600 (24")
Overall height of guardrail	O	3220 (10' 6")	
Travel speed (low/high)		km/hr (mph)	3.2/5.3 (2.0/3.3)
Swing speed		rpm	10.3
Gradeability		Degree (%)	35 (70)
Ground pressure (600 mm shoe)		kgf/cm ² (psi)	0.46 (6.54)
Max traction force		kg (lb)	17000 (37500)

3) HX160 L

· 5.1 m (16' 9") BOOM and 2.6 m (8' 6") ARM WITH DOZER

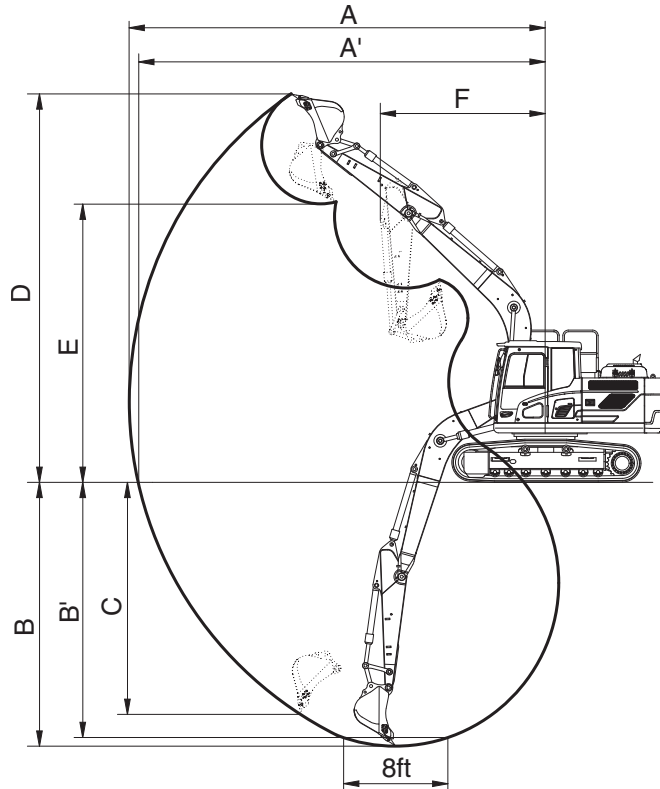


180F2SP04A

Description		Unit	Specification
Operating weight		kg (lb)	18900 (41670)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	0.70 (0.92)
Overall length	A	mm (ft-in)	9100 (29' 10")
Overall width, with 600 mm shoe	B		2590 (8' 6")
Overall height of boom	C		2990 (9' 10")
Superstructure width	D		2475 (8' 1")
Overall height of cab	E		2980 (9' 9")
Ground clearance of counterweight	F		1055 (3' 6")
Engine cover height	G		2525 (8' 3")
Minimum ground clearance	H		460 (1' 6")
Rear-end distance	I		2480 (8' 2")
Rear-end swing radius	I'		2480 (8' 2")
Distance between tumblers	J		3170 (10' 5")
Undercarriage length	K		3926 (12' 11")
Undercarriage width	L		2590 (8' 6")
Track gauge	M		1990 (6' 6")
Track shoe width, standard	N		600 (24")
Height of blade	O		645 (2' 1")
Ground clearance of blade up	P		615 (2' 0")
Depth of blade down	Q		675 (2' 3")
Overall height of guardrail	R		3220 (10' 6")
Travel speed (low/high)			km/hr (mph)
Swing speed		rpm	10.3
Gradeability		Degree (%)	35 (70)
Ground pressure (600 mm shoe)		kgf/cm ² (psi)	0.46 (6.54)
Max traction force		kg (lb)	17000 (37500)

3. WORKING RANGE

1) 5.1 m (16' 9") MONO BOOM

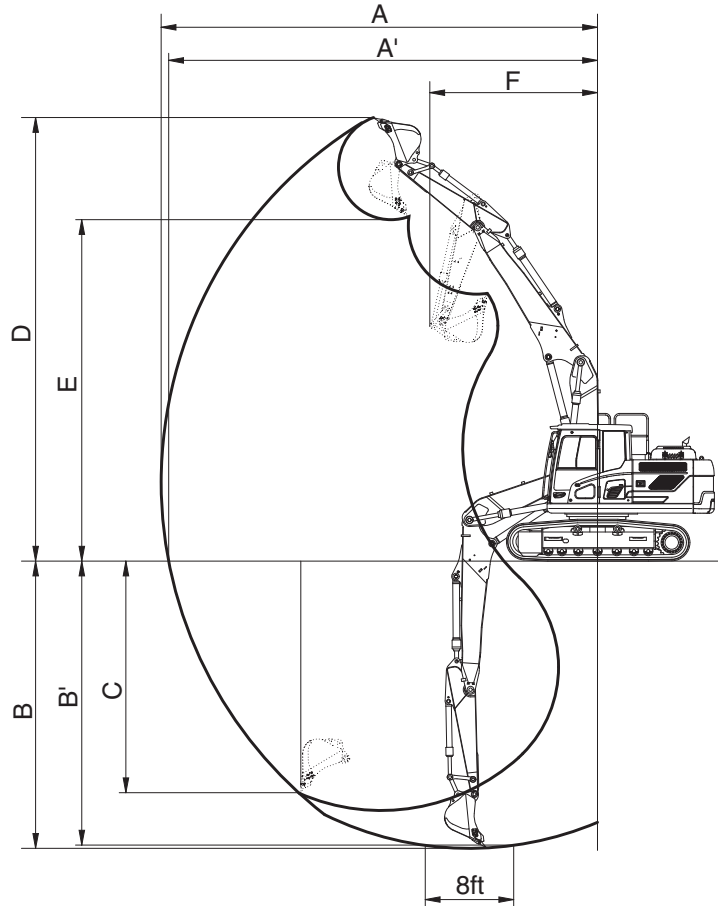


180F2SP06

Description		2.2 m (7' 3") Arm	2.6 m (8' 6") Arm	3.1 m (10' 2") Arm
Max digging reach	A	8690 mm (28' 6")	9020 mm (29' 7")	9450 mm (31' 0")
Max digging reach on ground	A'	8530 mm (27'12")	8860 mm (29' 1")	9300 mm (30' 6")
Max digging depth	B	5660 mm (18' 7")	6060 mm (19'11")	6560 mm (21' 6")
Max digging depth (8ft level)	B'	5430 mm (17'10")	5850 mm (19' 2")	6370 mm (20'11")
Max vertical wall digging depth	C	5120 mm (16'10")	5380 mm (17' 8")	5710 mm (18' 9")
Max digging height	D	8750 mm (28' 8")	8840 mm (29' 0")	8980 mm (29' 6")
Max dumping height	E	6110 mm (20' 1")	6220 mm (20' 5")	6390 mm (21' 0")
Min swing radius	F	3180 mm (10' 5")	3170 mm (10' 5")	3170 mm (10' 5")
Bucket digging force	SAE	107.9 [117.2] kN	107.9 [117.2] kN	107.9 [117.2] kN
		11000 [11940] kgf	11000 [11940] kgf	11000 [11940] kgf
		24250 [26330] lbf	24250 [26330] lbf	24250 [26330] lbf
	ISO	123.6 [134.2] kN	123.6 [134.2] kN	123.6 [134.2] kN
		12600 [13680] kgf	12600 [13680] kgf	12600 [13680] kgf
		27780 [30160] lbf	27780 [30160] lbf	27780 [30160] lbf
Arm crowd force	SAE	87.2 [94.7] kN	77.3 [83.9] kN	69.0 [74.9] kN
		8890 [9650] kgf	7880 [8560] kgf	7030 [7630] kgf
		19600 [21280] lbf	17370 [18860] lbf	15500 [16830] lbf
	ISO	91.0 [98.8] kN	80.3 [87.2] kN	71.4 [77.5] kN
		9280 [10080] kgf	8190 [8890] kgf	7280 [7900] kgf
		20460 [22210] lbf	18060 [19600] lbf	16050 [17430] lbf

[] : Power boost

2) 5.1 m (16' 9") HYDRAULIC ADJUSTABLE BOOM



180F2SP08

Description		2.2 m (7' 3") Arm	2.6 m (8' 6") Arm
Max digging reach	A	8760 mm (28' 9")	9110 mm (29'11")
Max digging reach on ground	A'	8590 mm (28' 2")	8950 mm (29' 4")
Max digging depth	B	5430 mm (17' 10")	5830 mm (19' 2")
Max digging depth (8ft level)	B'	5330 mm (17' 6")	5730 mm (18'10")
Max vertical wall digging depth	C	4630 mm (15' 2")	4980 mm (16' 4")
Max digging height	D	9420 mm (30' 11")	9610 mm (31' 6")
Max dumping height	E	6710 mm (22' 0")	6910 mm (22' 8")
Min swing radius	F	3100 mm (10' 2")	2970 mm (9' 9")
Bucket digging force	SAE	107.9 [117.2] kN	107.9 [117.2] kN
		11000 [11940] kgf	11000 [11940] kgf
		24250 [26330] lbf	24250 [26330] lbf
	ISO	123.6 [134.2] kN	123.6 [134.2] kN
		12600 [13680] kgf	12600 [13680] kgf
		27780 [30160] lbf	27780 [30160] lbf
Arm crowd force	SAE	87.2 [94.7] kN	77.3 [83.9] kN
		8890 [9650] kgf	7880 [8560] kgf
		19600 [21280] lbf	17370 [18860] lbf
	ISO	91.0 [98.8] kN	80.3 [87.2] kN
		9280 [10080] kgf	8190 [8890] kgf
		20460 [22210] lbf	18060 [19600] lbf

[] : Power boost

4. WEIGHT

Item	HX160 L		HX160 L (with dozer)	
	kg	lb	kg	lb
Upper structure assembly				
· Main frame weld assembly	1440	3170	←	
· Engine assembly	589	1300	←	
· Fan clutch assembly	45	100	←	
· Main pump assembly	89	200	←	
· Main control valve assembly	140	310	←	
· Swing motor assembly	250	550	←	
· Hydraulic oil tank assembly	150	330	←	
· Fuel tank assembly	130	290	←	
· Counterweight	2600	5730	←	
· Cab assembly	500	1100	←	
Lower chassis assembly				
· Track frame weld assembly	2290	5050	2270	5000
· Swing bearing	260	570	←	
· Travel motor assembly	300	660	←	
· Turning joint	60	130	←	
· Track recoil spring	132	290	←	
· Idler	151	330	←	
· Sprocket	54	120	←	
· Carrier roller	20	45	←	
· Track roller	40	90	←	
· Track-chain assembly (600 mm standard triple grouser shoe)	1180	2600	←	
Front attachment assembly				
· 5.1 m boom assembly	1060	2340	←	
· 2.6 m arm assembly	540	1190	←	
· 0.7 m ³ SAE heaped bucket	600	1320	←	
· Boom cylinder assembly	155	340	←	
· Arm cylinder assembly	180	400	←	
· Bucket cylinder assembly	125	280	←	
· Bucket control link assembly	120	265	←	
· Dozer blade assembly	-	-	655	1445
· Dozer blade cylinder assembly	-	-	66	146

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

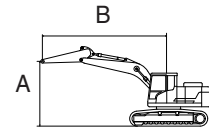
※ Refer to Transportation for actual weight information and Specifications for operating weight.













5. LIFTING CAPACITIES

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX160 L	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5100	2600	2600	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											*3400	*3400	4.85
	lb											*7500	*7500	(15.9)
6.0 m (19.7 ft)	kg						*3830	3420				*2960	*2960	6.27
	lb						*8440	7540				*6530	*6530	(20.6)
4.5 m (14.8 ft)	kg				*4890	*4890	*4450	3370				*2840	2550	7.10
	lb				*10780	*10780	*9810	7430				*6260	5620	(23.3)
3.0 m (9.8 ft)	kg		*9410	9100	*6140	4940	*4960	3240	*3100	2290		*2870	2270	7.54
	lb		*20750	20060	*13540	10890	*10930	7140	*6830	5050		*6330	5000	(24.7)
1.5 m (4.9 ft)	kg				*7420	4610	5040	3090	3610	2230		*3050	2160	7.66
	lb				*16360	10160	11110	6810	7960	4920		*6720	4760	(25.1)
0.0 m (0.0 ft)	kg		*5280	*5280	7610	4410	4910	2980				*3420	2200	7.47
	lb		*11640	*11640	16780	9720	10820	6570				*7540	4850	(24.5)
-1.5 m (-4.9 ft)	kg	*5070	*5070	*9170	8030	7530	4350	4860	2930			3960	2420	6.95
	lb	*11180	*11180	*20220	17700	16600	9590	10710	6460			8730	5340	(22.8)
-3.0 m (-9.8 ft)	kg	*9350	*9350	*10230	8160	*7160	4400	4930	2990			4910	2980	6.01
	lb	*20610	*20610	*22550	17990	*15790	9700	10870	6590			10820	6570	(19.7)
-4.5 m (-14.8 ft)	kg		*6920	*6920								*4590	*4590	4.39
	lb		*15260	*15260								*10120	*10120	(14.4)

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.

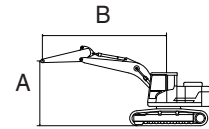
▲ Failure to comply to the rated load can cause possible personal injury or property damage.











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

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX160 L	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5100	2200	2600	600	-	-	-	-	-

·  : Rating over-front

·  : Rating over-side or 360 degree

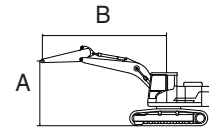














Lift-point height (A)		Lift-point radius (B)								At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach
												m (ft)
7.5 m (24.6 ft)	kg lb									*3790 *8360	*3790 *8360	4.35 (14.3)
6.0 m (19.7 ft)	kg lb									*3140 *6920	*3140 *6920	5.90 (19.4)
4.5 m (14.8 ft)	kg lb			*5320 *11730	5180 11420	*4740 *10450	3320 7320			*2940 *6480	2710 5970	6.77 (22.2)
3.0 m (9.8 ft)	kg lb			*6530 *14400	4860 10710	5160 11380	3200 7050			*2930 *6460	2390 5270	7.23 (23.7)
1.5 m (4.9 ft)	kg lb			*7690 *16950	4550 10030	5010 11050	3060 6750			*3070 *6770	2280 5030	7.36 (24.1)
0.0 m (0.0 ft)	kg lb	*3900 *8600	*3900 *8600	7570 16690	4380 9660	4900 10800	2960 6530			*3410 *7520	2340 5160	7.16 (23.5)
-1.5 m (-4.9 ft)	kg lb	*9210 *20300	8060 17770	7530 16600	4350 9590	4880 10760	2940 6480			*4080 *8990	2600 5730	6.62 (21.7)
-3.0 m (-9.8 ft)	kg lb	*9400 *20720	8230 18140	*6720 *14820	4430 9770					*4890 *10780	3310 7300	5.62 (18.5)

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX160 L	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5100	3100	2600	600	-	-	-	-	-

·  : Rating over-front

·  : Rating over-side or 360 degree

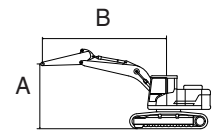










Lift-point height (A)		Lift-point radius (B)										At max. reach					
		1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach			
														kg	lb	m (ft)	
7.5 m (24.6 ft)	kg														*2690	*2690	5.51
	lb														*5930	*5930	(18.1)
6.0 m (19.7 ft)	kg							*3680	3470						*2410	*2410	6.79
	lb							*8110	7650						*5310	*5310	(22.3)
4.5 m (14.8 ft)	kg							*4040	3400	*2550	2340				*2330	2300	7.56
	lb							*8910	7500	*5620	5160				*5140	5070	(24.8)
3.0 m (9.8 ft)	kg			*7980	*7980	*5570	5020	*4610	3260	3680	2290				*2370	2060	7.97
	lb			*17590	*17590	*12280	11070	*10160	7190	8110	5050				*5220	4540	(26.2)
1.5 m (4.9 ft)	kg			*6730	*6730	*6970	4660	5050	3090	3600	2210				*2520	1970	8.09
	lb			*14840	*14840	*15370	10270	11130	6810	7940	4870				*5560	4340	(26.5)
0.0 m (0.0 ft)	kg			*6140	*6140	7610	4400	4890	2950	3530	2150				*2810	1990	7.91
	lb			*13540	*13540	16780	9700	10780	6500	7780	4740				*6190	4390	(25.9)
-1.5 m (-4.9 ft)	kg	*4780	*4780	*8740	7920	7480	4290	4810	2880						*3360	2160	7.42
	lb	*10540	*10540	*19270	17460	16490	9460	10600	6350						*7410	4760	(24.3)
-3.0 m (-9.8 ft)	kg	*8060	*8060	*11010	8010	7490	4310	4830	2900						4270	2580	6.56
	lb	*17770	*17770	*24270	17660	16510	9500	10650	6390						9410	5690	(21.5)
-4.5 m (-14.8 ft)	kg			*8340	8260	*5690	4450								*4680	3750	5.11
	lb			*18390	18210	*12540	9810								*10320	8270	(16.8)

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HX160 L	2-PIECE BOOM	5100	2200	3250	600	-	-	-	-	-

·  : Rating over-front

·  : Rating over-side or 360 degree

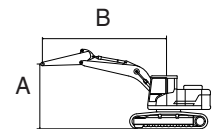












Lift-point height (A)		Lift-point radius (B)						At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		Capacity		Reach
										m (ft)
7.5 m (24.6 ft)	kg lb							*4040 *8910	*4040 *8910	4.46 (14.6)
6.0 m (19.7 ft)	kg lb			*4490 *9900	*4490 *9900			*3260 *7190	*3260 *7190	5.98 (19.6)
4.5 m (14.8 ft)	kg lb			*5090 *11220	*5090 *11220	*4540 *10010	3630 8000	*2980 *6570	2910 6420	6.84 (22.5)
3.0 m (9.8 ft)	kg lb			*6250 *13780	5310 11710	*4980 *10980	3500 7720	*2910 *6420	2580 5690	7.30 (23.9)
1.5 m (4.9 ft)	kg lb			*7410 *16340	4970 10960	5440 11990	3350 7390	*3000 *6610	2480 5470	7.42 (24.3)
0.0 m (0.0 ft)	kg lb			*7990 *17610	4790 10560	5330 11750	3250 7170	*3240 *7140	2540 5600	7.23 (23.7)
-1.5 m (-4.9 ft)	kg lb	*8220 *18120	*8220 *18120	*7850 *17310	4770 10520	5310 11710	3240 7140	*3760 *8290	2830 6240	6.69 (21.9)

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HX160 L	2-PIECE BOOM	5100	2600	3250	600	-	-	-	-	-

·  : Rating over-front

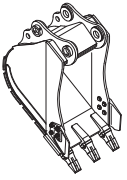
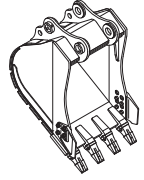
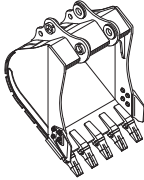
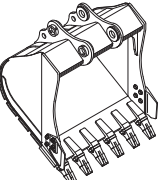
·  : Rating over-side or 360 degree



Lift-point height (A)		Lift-point radius (B)								At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach
												m (ft)
7.5 m (24.6 ft)	kg lb			*4310 *9500	*4310 *9500					*3560 *7850	*3560 *7850	5.00 (16.4)
6.0 m (19.7 ft)	kg lb					*4130 *9110	3740 8250			*3040 *6700	*3040 *6700	6.39 (21.0)
4.5 m (14.8 ft)	kg lb			*4680 *10320	*4680 *10320	*4250 *9370	3690 8140			*2860 *6310	2720 6000	7.20 (23.6)
3.0 m (9.8 ft)	kg lb			*5880 *12960	5400 11900	*4750 *10470	3540 7800	*3650 *8050	2510 5530	*2840 *6260	2440 5380	7.63 (25.0)
1.5 m (4.9 ft)	kg lb			*7140 *15740	5040 11110	*5340 *11770	3380 7450	3930 8660	2450 5400	*2960 *6530	2330 5140	7.75 (25.4)
0.0 m (0.0 ft)	kg lb			*7900 *17420	4830 10650	5340 11770	3260 7190	*3830 *8440	2410 5310	*3240 *7140	2380 5250	7.56 (24.8)
-1.5 m (-4.9 ft)	kg lb	*8270 *18230	*8270 *18230	*7970 *17570	4760 10490	5290 11660	3220 7100			*3790 *8360	2620 5780	7.05 (23.1)
-3.0 m (-9.8 ft)	kg lb			*7220 *15920	4830 10650							

6. BUCKET SELECTION GUIDE

1) GENERAL AND HEAVY DUTY BUCKET

			
0.39 m ³ SAE heaped bucket	0.50 m ³ SAE heaped bucket	0.64, *0.70, 0.76 m ³ SAE heaped bucket	0.89, 1.05 m ³ SAE heaped bucket

Capacity		Width		Weight	Recommendation				
					5.1 m (16' 9") Mono boom			5.1 m (16' 9") Hyd adjustable boom	
SAE heaped	CECE heaped	Without side cutter	With side cutter		2.2 m arm (7' 3")	2.6 m arm (8' 6")	3.1 m arm (10' 2")	2.2 m arm (7' 3")	2.6 m arm (8' 6")
0.39 m ³ (0.51 yd ³)	0.34 m ³ (0.44 yd ³)	620 mm (24.4")	740 mm (29.1")	410 kg (900 lb)	○	○	○	○	○
0.50 m ³ (0.65 yd ³)	0.44 m ³ (0.58 yd ³)	760 mm (29.9")	880 mm (34.6")	470 kg (1040 lb)	○	○	○	○	○
0.64 m ³ (0.84 yd ³)	0.55 m ³ (0.72 yd ³)	920 mm (36.2")	1040 mm (40.9")	510 kg (1120 lb)	○	○	◉	○	◉
*0.70 m ³ (0.92 yd ³)	0.60 m ³ (0.78 yd ³)	990 mm (39.0")	1110 mm (43.7")	600 kg (1320 lb)	○	◉	●	◉	●
0.76 m ³ (0.99 yd ³)	0.65 m ³ (0.85 yd ³)	1060 mm (41.7")	1180 mm (46.5")	620 kg (1370 lb)	◉	●		◉	●
0.89 m ³ (1.16 yd ³)	0.77 m ³ (1.01 yd ³)	1220 mm (48.0")	1340 mm (52.8")	610 kg (1340 lb)	◉	●		●	
1.05 m ³ (1.37 yd ³)	0.90 m ³ (1.18 yd ³)	1400 mm (55.1")	1520 mm (59.8")	680 kg (1500 lb)	●			●	

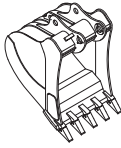
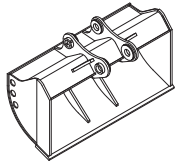
* : Standard bucket

○ 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) HEAVY DUTY BUCKET

	
◆ 0.69, 0.72, 0.87 m ³ SAE heaped bucket	◎ 0.75 m ³ SAE heaped bucket

Capacity		Width		Weight	Recommendation				
					5.1 m (16' 9") Mono boom			5.1 m (16' 9") Hyd adjustable boom	
SAE heaped	CECE heaped	Without side cutter	With side cutter		2.2 m arm (7' 3")	2.6 m arm (8' 6")	3.1 m arm (10' 2")	2.2 m arm (7' 3")	2.6 m arm (8' 6")
◆0.69 m ³ (0.90 yd ³)	0.62 m ³ (0.81 yd ³)	990 mm (39.0")	-	720 kg (1590 lb)	○	◉	●	◉	●
◆0.72 m ³ (0.94 yd ³)	0.65 m ³ (0.85 yd ³)	940 mm (37.0")	985 mm (38.8")	640 kg (1410 lb)	○	◉	●	◉	●
◎0.75 m ³ (0.98 yd ³)	0.65 m ³ (0.85 yd ³)	1820 mm (71.7")	-	540 kg (1190 lb)	○	◉	●	○	◉
◆0.87 m ³ (1.18 yd ³)	0.78 m ³ (1.02 yd ³)	1090 mm (42.9")	1140 mm (44.9")	680 kg (1500 lb)	◉	●		●	

◆ : Heavy duty bucket

◎ : Ditch cleaning 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

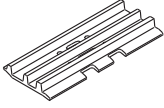
● Applicable for materials with density of 1100 kg/m³ (1850 lb/yd³) or less

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		
					
HX160 L	Shoe width	mm (in)	500 (20)	※ 600 (24)	700 (28)
	Operating weight	kg (lb)	17855 (39360)	18100 (39900)	18345 (40440)
	Ground pressure	kgf/cm ² (psi)	0.52 (7.39)	0.44 (6.26)	0.38 (5.40)
	Overall width	mm (ft-in)	2490 (8' 2")	2590 (8' 6")	2690 (8' 10")
HX160 L (with dozer)	Shoe width	mm (in)	500 (20)	※ 600 (24)	700 (28)
	Operating weight	kg (lb)	18655 (41130)	18900 (41670)	19145 (42210)
	Ground pressure	kgf/cm ² (psi)	0.55 (7.82)	0.46 (6.54)	0.40 (5.69)
	Overall width	mm (ft-in)	2490 (8' 2")	2590 (8' 6")	2690 (8' 10")

※ : Standard

3) NUMBER OF ROLLERS AND SHOES ON EACH SIDE

Item	Quantity
Carrier rollers	2 EA
Track rollers	7 EA
Track shoes	49 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) 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

※ **Table 2**

Category	Applications	Applications
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

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 (268.5 cu in)
Compression ratio	16.5 : 1
Rated net horse power (SAE J1349)	128Hp (96 kW) at 2050 rpm
Rated gross horse power (SAE J1995)	137Hp (102.1 kW) at 2050 rpm
Maximum torque	57.1 kgf · m (413 lbf · ft) at 1400 rpm
Engine oil quantity	10.5 l (2.8 U.S. gal)
Dry weight	589 kg (1300 lb)
High idling speed	2100 ± 50 rpm
Low idling speed	800 ± 100 rpm
Rated fuel consumption	164 g/Hp · hr at 2050 rpm
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 tandem axis piston pumps
Capacity	2 × 80 cc/rev
Maximum pressure	350 kgf/cm ² (4980 psi) [380 kgf/cm ² (5400 psi)]
Rated oil flow	2 × 164 l/min (43.3 U.S. gpm / 36.1 U.K. gpm)
Maximum speed	2100 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	31.5 l /min (8.3 U.S. gpm / 6.9 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)]
Overload relief valve pressure	400 kgf/cm ² (5690 psi)

[] : Power boost

5) SWING MOTOR

Item	Specification
Type	Axial pistons motor
Capacity	142.8 cc/rev
Relief pressure	285 kgf/cm ² (4053 psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	66.5 kgf · m (481 lbf · ft)
Brake release pressure	22.3~36.6 kgf/cm ² (317~521 psi)
Reduction gear type	2 - stage planetary

6) TRAVEL MOTOR

Item	Specification
Type	Two speed axial pistons motor with brake valve and parking brake
Relief pressure	350 kgf/cm ² (4980 psi)
Reduction gear type	Planetary & differential type
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	11 kgf/cm ² (156 psi)
Braking torque	49.3 kgf · m (357 lbf · ft)

7) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	ø 115 × ø 80 × 1090 mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	ø 120 × ø 85 × 1355 mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	ø 110 × ø 75 × 995 mm
	Cushion	Extend only
Adjust cylinder(opt)	Bore dia × Rod dia × Stroke	ø 160 × ø 85 × 650 mm
	-	-
Adjust boom cylinder(opt)	Bore dia × Rod dia × Stroke	ø 115 × ø 80 × 960 mm
	-	-
Dozer cylinder(opt)	Bore dia × Rod dia × Stroke	ø 110 × ø 85 × 320 mm
	-	-

※ 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
HX160 L	Option	500 mm (20")	0.52 kgf/cm ² (7.39 psi)	49	2490 mm (8' 2")
	Standard	600 mm (24")	0.44 kgf/cm ² (6.26 psi)	49	2590 mm (8' 6")
	Option	700 mm (28")	0.38 kgf/cm ² (5.40 psi)	49	2690 mm (8' 10")

9) BUCKET

Item	Capacity		Tooth quantity	Width	
	SAE heaped	CECE heaped		Without side cutter	With side cutter
HX160 L	0.39 m ³ (0.51 yd ³)	0.34 m ³ (0.44 yd ³)	3	620 mm (24.4")	740 mm (29.1")
	0.50 m ³ (0.65 yd ³)	0.44 m ³ (0.58 yd ³)	4	760 mm (29.9")	880 mm (34.6")
	0.64 m ³ (0.84 yd ³)	0.55 m ³ (0.72 yd ³)	5	920 mm (36.2")	1040 mm (40.9")
	0.70 m ³ (0.92 yd ³)	0.60 m ³ (0.78 yd ³)	5	990 mm (39.0")	1110 mm (43.7")
	0.76 m ³ (0.99 yd ³)	0.65 m ³ (0.85 yd ³)	5	1060 mm (41.7")	1180 mm (46.5")
	0.89 m ³ (1.16 yd ³)	0.77 m ³ (1.01 yd ³)	6	1220 mm (48.0")	1340 mm (52.8")
	1.05 m ³ (1.37 yd ³)	0.90 m ³ (1.18 yd ³)	6	1400 mm (55.1")	1520 mm (59.8")
	◆0.69 m ³ (0.90 yd ³)	0.62 m ³ (0.81 yd ³)	5	990 mm (39.0")	-
	★0.75 m ³ (0.98 yd ³)	0.65 m ³ (0.85 yd ³)	-	1820 mm (71.7")	-

◆ : Heavy duty bucket

★ : Ditch cleaning 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)
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 : 5.0 (1.32)	★SAE 75W-90						
		TYPE 2 : 6.2 (1.64)							
Final drive		5.8×2 (1.5×2)	SAE 80W-90						
Hydraulic tank	Hydraulic oil	Tank : 125 (33.0) System : 240 (63.4)	★ISO VG 15						
			ISO VG 32						
			ISO VG 46, HBHO VG 46★ ³						
			ISO VG 68						
Fuel tank	Diesel fuel★ ¹	290 (76.6)	★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	27.5 (7.3)	Ethylene glycol base permanent type (50 : 50)						
			★Ethylene glycol base permanent type (60 : 40)						

SAE : Society of Automotive Engineers

API : American Petroleum Institute

ISO : International Organization for Standardization

NLGI : National Lubricating Grease Institute

ASTM : American Society of Testing and Material

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 Hydarulic 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.

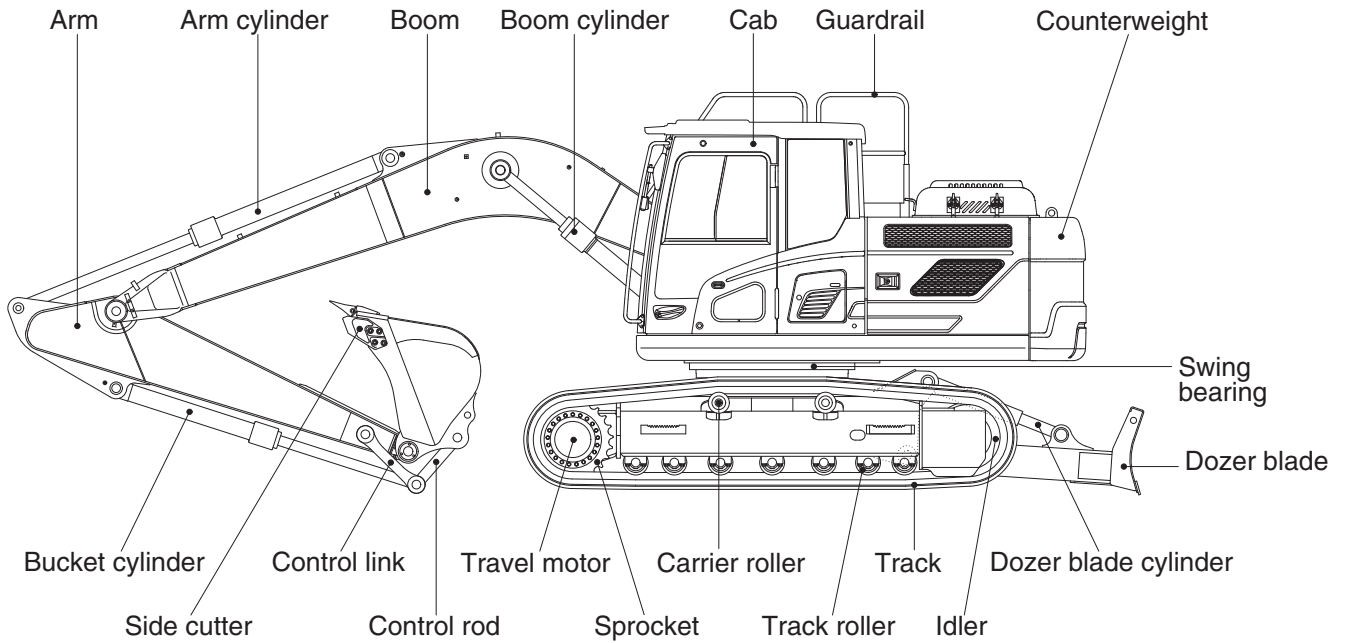
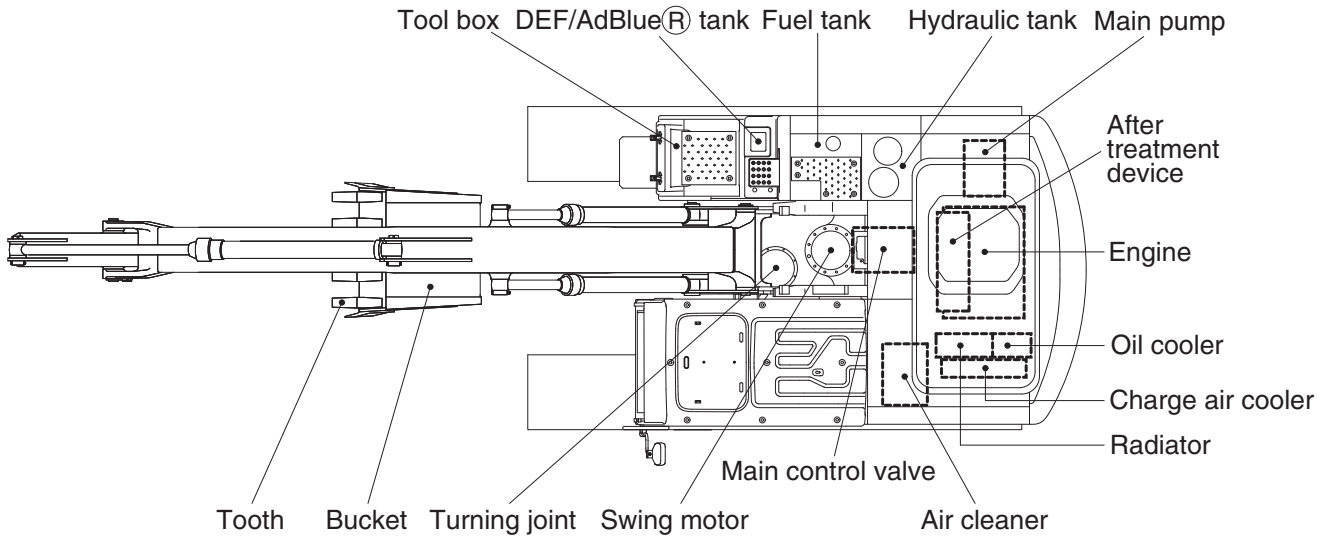
※ Do not mix HYUNDAI genuine oil with any other lubricating oil as it may result in damage to the systems of major components.

※ 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.

GROUP 3 SPECIFICATIONS (HX180 L)

1. MAJOR COMPONENT

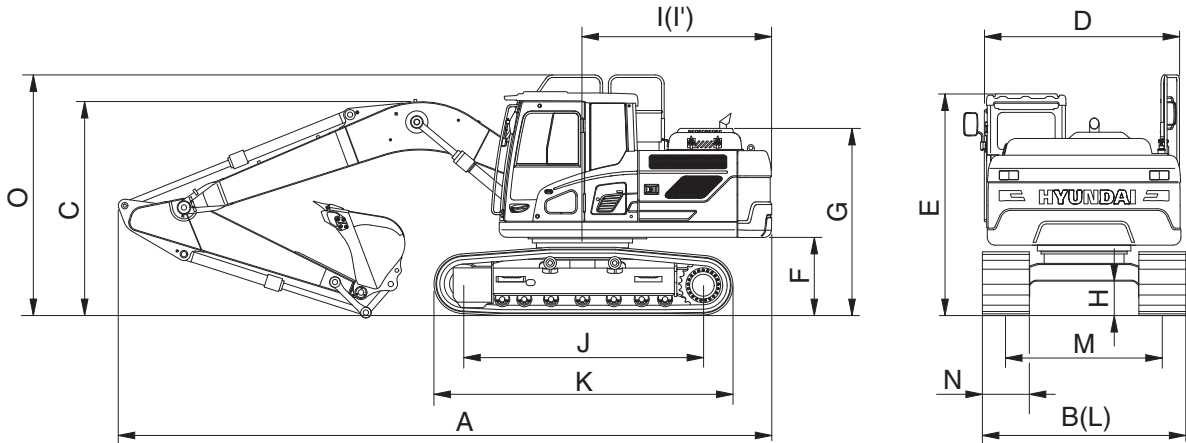


180F2SP01

2. SPECIFICATIONS

1) HX180 L

· 5.1 m (16' 9") BOOM and 2.6 m (8' 6") ARM

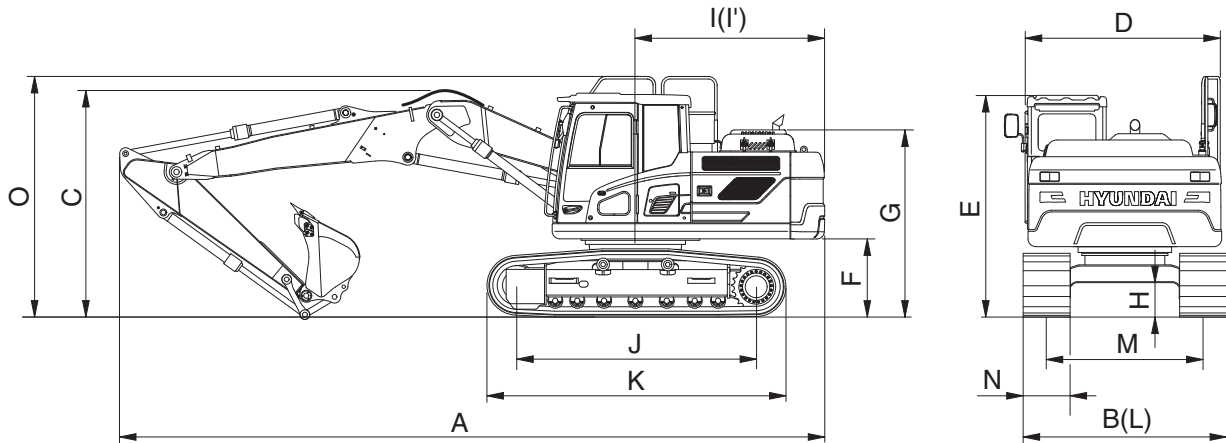


180F2SP02

Description		Unit	Specification
Operating weight		kg (lb)	18800 (41450)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	0.76 (0.99)
Overall length	A	mm (ft-in)	8650 (28' 5")
Overall width, with 600 mm shoe	B		2850 (9' 4")
Overall height of boom	C		2990 (9' 10")
Superstructure width	D		2475 (8' 1")
Overall height of cab	E		2980 (9' 9")
Ground clearance of counterweight	F		1055 (3' 6")
Engine cover height	G		2525 (8' 3")
Minimum ground clearance	H		460 (1' 6")
Rear-end distance	I		2480 (8' 2")
Rear-end swing radius	I'		2480 (8' 2")
Distance between tumbler	J		3360 (11' 0")
Undercarriage length	K		4116 (13' 6")
Undercarriage width	L		2850 (9' 4")
Track gauge	M		2250 (7' 5")
Track shoe width, standard	N		600 (24")
Overall height of guardrail	O	3220 (10' 6")	
Travel speed (low/high)		km/hr (mph)	3.2/5.3 (2.0/3.3)
Swing speed		rpm	10.3
Gradeability		Degree (%)	35 (70)
Ground pressure (600 mm shoe)		kgf/cm ² (psi)	0.43 (6.11)
Max traction force		kg (lb)	17000 (37500)

2) HX180 L

· 5.1 m (16' 9") HYDRAULIC ADJUSTABLE BOOM AND 2.6 m (8' 6") ARM

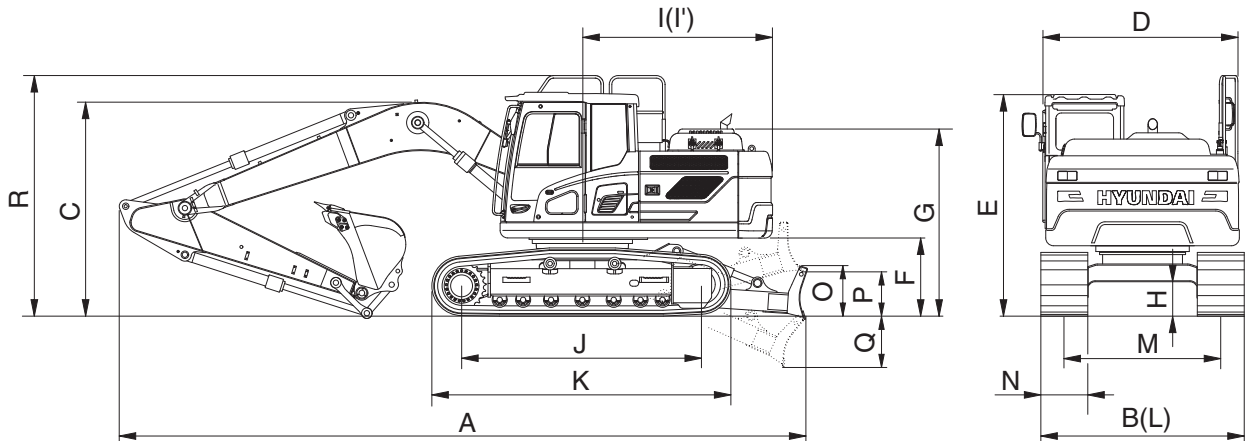


180F2SP03

Description		Unit	Specification
Operating weight		kg (lb)	19700 (43430)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	0.76 (0.99)
Overall length	A	mm (ft-in)	8610 (28' 3")
Overall width, with 600 mm shoe	B		2850 (9' 4")
Overall height of boom	C		3060 (10' 0")
Superstructure width	D		2475 (8' 1")
Overall height of cab	E		2980 (9' 9")
Ground clearance of counterweight	F		1055 (3' 6")
Engine cover height	G		2525 (8' 3")
Minimum ground clearance	H		460 (1' 6")
Rear-end distance	I		2480 (8' 2")
Rear-end swing radius	I'		2480 (8' 2")
Distance between tumblers	J		3360 (11' 0")
Undercarriage length	K		4116 (13' 6")
Undercarriage width	L		2850 (9' 4")
Track gauge	M		2250 (7' 5")
Track shoe width, standard	N		600 (24")
Overall height of guardrail	O		3220 (10' 6")
Travel speed (low/high)		km/hr (mph)	3.2/5.3 (2.0/3.3)
Swing speed		rpm	10.3
Gradeability		Degree (%)	35 (70)
Ground pressure (600 mm shoe)		kgf/cm ² (psi)	0.45 (6.40)
Max traction force		kg (lb)	17000 (37500)

3) HX180 L

· 5.1 m (16' 9") BOOM and 2.6 m (8' 6") ARM WITH DOZER

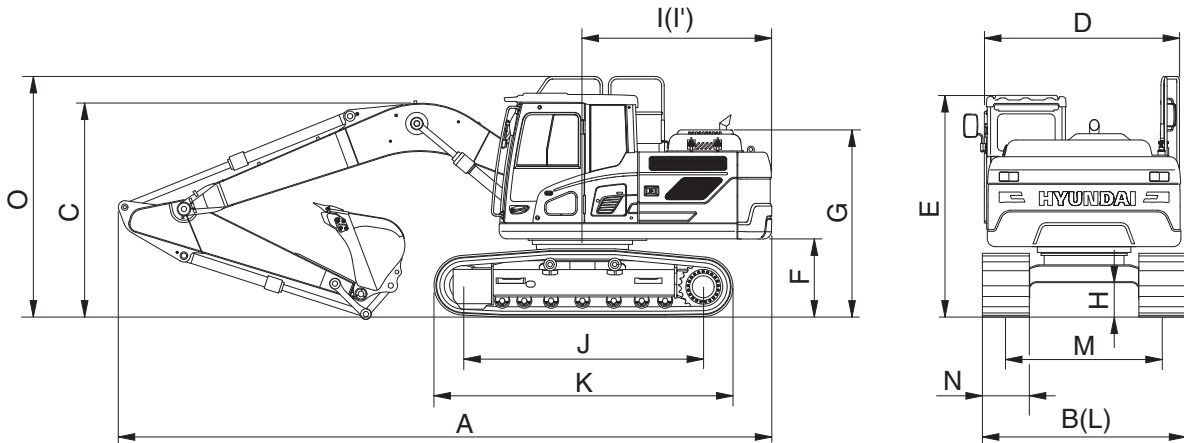


180F2SP04A

Description		Unit	Specification
Operating weight		kg (lb)	19700 (43430)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	0.76 (0.99)
Overall length	A	mm (ft-in)	9100 (29' 10")
Overall width, with 600 mm shoe	B		2850 (9' 4")
Overall height of boom	C		2990 (9' 10")
Superstructure width	D		2475 (8' 1")
Overall height of cab	E		2980 (9' 9")
Ground clearance of counterweight	F		1055 (3' 6")
Engine cover height	G		2525 (8' 3")
Minimum ground clearance	H		460 (1' 6")
Rear-end distance	I		2480 (8' 2")
Rear-end swing radius	I'		2480 (8' 2")
Distance between tumblers	J		3360 (11' 0")
Undercarriage length	K		4116 (13' 6")
Undercarriage width	L		2850 (9' 4")
Track gauge	M		2250 (7' 5")
Track shoe width, standard	N		600 (24")
Height of blade	O		645 (2' 1")
Ground clearance of blade up	P		615 (2' 0")
Depth of blade down	Q		675 (2' 3")
Overall height of guardrail	R		3220 (10' 6")
Travel speed (low/high)		km/hr (mph)	3.2/5.3 (2.0/3.3)
Swing speed		rpm	10.3
Gradeability		Degree (%)	35 (70)
Ground pressure (600 mm shoe)		kgf/cm ² (psi)	0.45 (6.40)
Max traction force		kg (lb)	17000 (37500)

4) HX180 NL

· 5.1 m (16' 9") BOOM and 2.6 m (8' 6") ARM

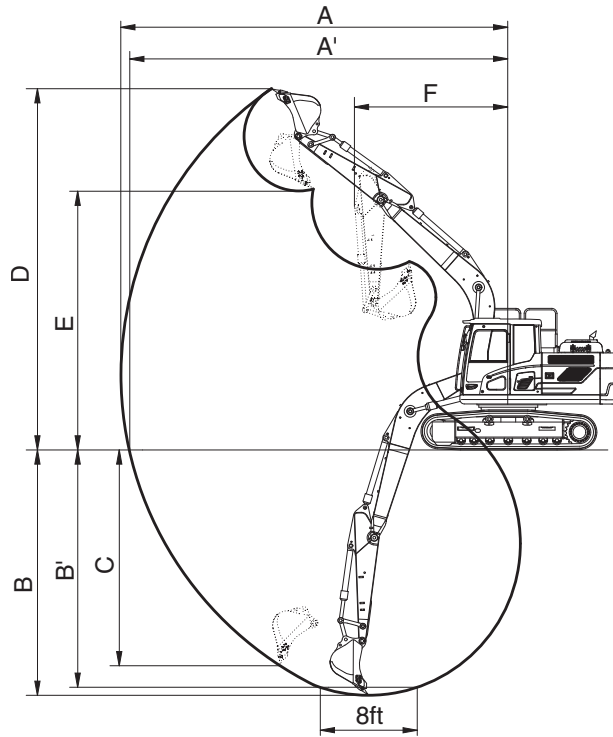


180F2SP02

Description		Unit	Specification
Operating weight		kg (lb)	18700 (41230)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	0.76 (0.99)
Overall length	A	mm (ft-in)	8650 (28' 5")
Overall width, with 600 mm shoe	B		2600 (8' 6")
Overall height of boom	C		2990 (9' 10")
Superstructure width	D		2475 (8' 1")
Overall height of cab	E		2980 (9' 9")
Ground clearance of counterweight	F		1055 (3' 6")
Engine cover height	G		2525 (8' 3")
Minimum ground clearance	H		460 (1' 6")
Rear-end distance	I		2480 (8' 2")
Rear-end swing radius	I'		2480 (8' 2")
Distance between tumblers	J		3360 (11' 0")
Undercarriage length	K		4116 (13' 6")
Undercarriage width	L		2600 (8' 6")
Track gauge	M		2000 (6' 7")
Track shoe width, standard	N		600 (24")
Overall height of guardrail	O		3220 (10' 6")
Travel speed (low/high)		km/hr (mph)	3.2/5.3 (2.0/3.3)
Swing speed		rpm	10.3
Gradeability		Degree (%)	35 (70)
Ground pressure (600 mm shoe)		kgf/cm ² (psi)	0.43 (6.11)
Max traction force		kg (lb)	17000 (37500)

3. WORKING RANGE

1) 5.1 m (16' 9") MONO BOOM

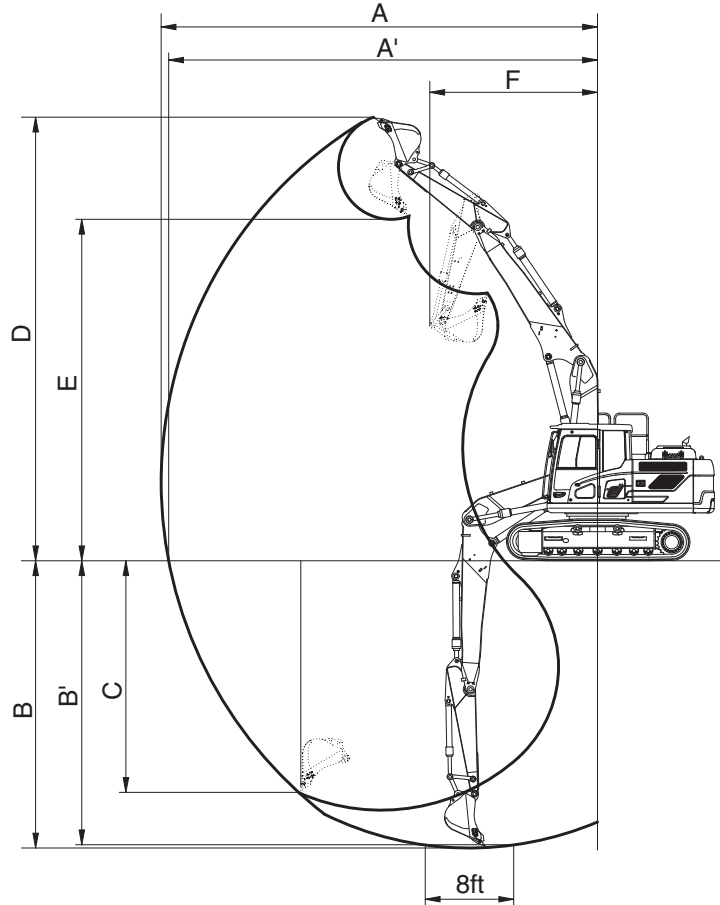


180F2SP06

Description		2.2 m (7' 3") Arm	2.6 m (8' 6") Arm	3.1 m (10' 2") Arm
Max digging reach	A	8690 mm (28' 6")	9020 mm (29' 7")	9450 mm (31' 0")
Max digging reach on ground	A'	8530 mm (27' 12")	8860 mm (29' 1")	9300 mm (30' 6")
Max digging depth	B	5660 mm (18' 7")	6060 mm (19' 11")	6560 mm (21' 6")
Max digging depth (8ft level)	B'	5430 mm (17' 10")	5850 mm (19' 2")	6370 mm (20' 11")
Max vertical wall digging depth	C	5120 mm (16' 10")	5380 mm (17' 8")	5710 mm (18' 9")
Max digging height	D	8750 mm (28' 8")	8840 mm (29' 0")	8980 mm (29' 6")
Max dumping height	E	6110 mm (20' 1")	6220 mm (20' 5")	6390 mm (21' 0")
Min swing radius	F	3180 mm (10' 5")	3170 mm (10' 5")	3170 mm (10' 5")
Bucket digging force	SAE	107.9 [117.2] kN	107.9 [117.2] kN	107.9 [117.2] kN
		11000 [11940] kgf	11000 [11940] kgf	11000 [11940] kgf
		24250 [26330] lbf	24250 [23660] lbf	24250 [26330] lbf
	ISO	123.6 [134.2] kN	123.6 [134.2] kN	123.6 [134.2] kN
		12600 [13680] kgf	12600 [13680] kgf	12600 [13680] kgf
		27780 [30160] lbf	27780 [30160] lbf	27780 [30160] lbf
Arm crowd force	SAE	87.2 [94.7] kN	77.3 [83.9] kN	69.0 [74.9] kN
		8890 [9650] kgf	7880 [8560] kgf	7030 [7630] kgf
		19600 [21280] lbf	17370 [18860] lbf	15500 [16830] lbf
	ISO	91.0 [98.8] kN	80.3 [87.2] kN	71.4 [77.5] kN
		9280 [10080] kgf	8190 [8890] kgf	7280 [7900] kgf
		20460 [22210] lbf	18060 [19600] lbf	16050 [17430] lbf

[] : Power boost

2) 5.1 m (16' 9") HYDRAULIC ADJUSTABLE BOOM



180F2SP08

Description		2.2 m (7' 3") Arm	2.6 m (8' 6") Arm
Max digging reach	A	8760 mm (28' 9")	9110 mm (29' 11")
Max digging reach on ground	A'	8590 mm (28' 2")	8950 mm (29' 4")
Max digging depth	B	5430 mm (17' 10")	5830 mm (19' 2")
Max digging depth (8ft level)	B'	5330 mm (17' 6")	5730 mm (18' 10")
Max vertical wall digging depth	C	4630 mm (15' 2")	4980 mm (16' 4")
Max digging height	D	9420 mm (30' 11")	9610 mm (31' 6")
Max dumping height	E	6710 mm (22' 0")	6910 mm (22' 8")
Min swing radius	F	3100 mm (10' 2")	2970 mm (9' 9")
Bucket digging force	SAE	107.9 [117.2] kN	107.9 [117.2] kN
		11000 [11940] kgf	11000 [11940] kgf
		24250 [26330] lbf	24250 [26330] lbf
	ISO	123.6 [134.2] kN	123.6 [134.2] kN
		12600 [13680] kgf	12600 [13680] kgf
		27780 [30160] lbf	27780 [30160] lbf
Arm crowd force	SAE	87.2 [94.7] kN	77.3 [83.9] kN
		8890 [9650] kgf	7880 [8560] kgf
		19600 [21280] lbf	17370 [18860] lbf
	ISO	91.0 [98.8] kN	80.3 [87.2] kN
		9280 [10080] kgf	8190 [8890] kgf
		20460 [22210] lbf	18060 [19600] lbf

[] : Power boost

4. WEIGHT

Item	HX180 L		HX180 L (with dozer)		HX180 NL	
	kg	lb	kg	lb	kg	lb
Upper structure assembly						
· Main frame weld assembly	1440	3170	←		←	
· Engine assembly	589	1300	←		←	
· Fan clutch assembly	45	100	←		←	
· Main pump assembly	89	200	←		←	
· Main control valve assembly	140	310	←		←	
· Swing motor assembly	250	550	←		←	
· Hydraulic oil tank assembly	150	330	←		←	
· Fuel tank assembly	130	290	←		←	
· Counterweight	2900	6390	←		←	
· Cab assembly	500	1100	←		←	
Lower chassis assembly						
· Track frame weld assembly	2130	4700	2370	5230	1980	4370
· Swing bearing	260	570	←		←	
· Travel motor assembly	300	660	←		←	
· Turning joint	60	130	←		←	
· Track recoil spring	132	290	←		←	
· Idler	151	330	←		←	
· Sprocket	54.4	120	←		←	
· Carrier roller	20	45	←		←	
· Track roller	40	90	←		←	
· Track-chain assembly (600 mm standard triple grouser shoe)	1230	2710	←		←	
Front attachment assembly						
· 5.1 m boom assembly	1060	2340	←		←	
· 2.6 m arm assembly	540	1190	←		←	
· 0.76 m ³ SAE heaped bucket	620	1370	←		←	
· Boom cylinder assembly	155	340	←		←	
· Arm cylinder assembly	180	400	←		←	
· Bucket cylinder assembly	125	260	←		←	
· Bucket control link assembly	120	265	←		←	
· Dozer blade assembly	-	-	715	1575	-	-
· Dozer blade cylinder assembly	-	-	66	146	-	-

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

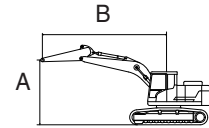
※ Refer to Transportation for actual weight information and Specifications for operating weight.













5. LIFTING CAPACITIES

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX180 L	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5100	2600	2900	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											*3400	*3400	4.85
	lb											*7500	*7500	(15.9)
6.0 m (19.7 ft)	kg						*3830	*3830				*2960	*2960	6.27
	lb						*8440	*8440				*6530	*6530	(20.6)
4.5 m (14.8 ft)	kg				*4890	*4890	*4450	4170				*2840	*2840	7.10
	lb				*10780	*10780	*9810	9190				*6260	*6260	(23.3)
3.0 m (9.8 ft)	kg		*9410	*9410	*6140	*6140	*4960	4030	*3100	2870		*2870	2850	7.54
	lb		*20750	*20750	*13540	*13540	*10930	8880	*6830	6330		*6330	6280	(24.7)
1.5 m (4.9 ft)	kg				*7420	5830	*5550	3880	*4030	2820		*3050	2730	7.66
	lb				*16360	12850	*12240	8550	*8880	6220		*6720	6020	(25.1)
0.0 m (0.0 ft)	kg		*5280	*5280	*8120	5610	5790	3760				*3420	2790	7.47
	lb		*11640	*11640	*17900	12370	12760	8290				*7540	6150	(24.5)
-1.5 m (-4.9 ft)	kg	*5070	*5070	*9170	*9170	*8060	5550	5740	3720			*4130	3060	6.95
	lb	*11180	*11180	*20220	*20220	*17770	12240	12650	8200			*9110	6750	(22.8)
-3.0 m (-9.8 ft)	kg	*9350	*9350	*10230	*10230	*7160	5600	*4940	3780			*4920	3770	6.01
	lb	*20610	*20610	*22550	*22550	*15790	12350	*10890	8330			*10850	8310	(19.7)
-4.5 m (-14.8 ft)	kg				*6920	*6920						*4590	*4590	4.39
	lb				*15260	*15260						*10120	*10120	(14.4)

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.

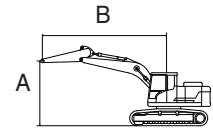
▲ Failure to comply to the rated load can cause possible personal injury or property damage.









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
HX180 L	MONO BOOM	5100	2200	2900	600	-	-	-	-	-

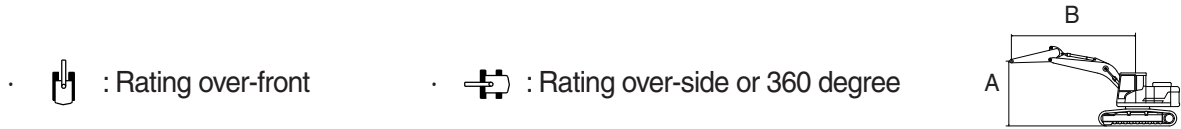
·  : Rating over-front













·  : Rating over-side or 360 degree



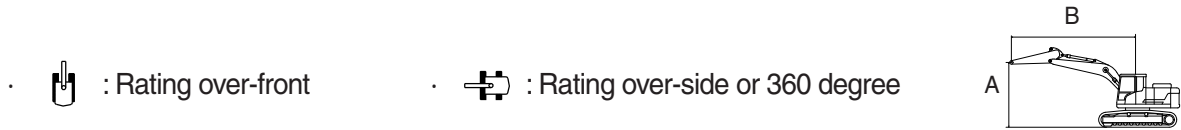
Lift-point height (A)		Lift-point radius (B)						At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		Capacity		Reach
										m (ft)
7.5 m (24.6 ft)	kg lb							*3790 *8360	*3790 *8360	4.35 (14.3)
6.0 m (19.7 ft)	kg lb							*3140 *6920	*3140 *6920	5.90 (19.4)
4.5 m (14.8 ft)	kg lb			*5320 *11730	*5320 *11730	*4740 *10450	4120 9080	*2940 *6480	*2940 *6480	6.77 (22.2)
3.0 m (9.8 ft)	kg lb			*6530 *14400	6080 13400	*5190 *11440	3990 8800	*2930 *6460	*2930 *6460	7.23 (23.7)
1.5 m (4.9 ft)	kg lb			*7690 *16950	5750 12680	*5700 *12570	3850 8490	*3070 *6770	2880 6350	7.36 (24.1)
0.0 m (0.0 ft)	kg lb	*3900 *8600	*3900 *8600	*8180 *18030	5580 12300	5770 12720	3750 8270	*3410 *7520	2960 6530	7.16 (23.5)
-1.5 m (-4.9 ft)	kg lb	*9210 *20300	*9210 *20300	*7910 *17440	5550 12240	5750 12680	3730 8220	*4080 *8990	3290 7250	6.62 (21.7)
-3.0 m (-9.8 ft)	kg lb	*9400 *20720	*9400 *20720	*6720 *14820	5640 12430			*4890 *10780	4170 9190	5.62 (18.5)









Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HX180 L	MONO BOOM	5100	3100	2900	600	-	-	-	-	-



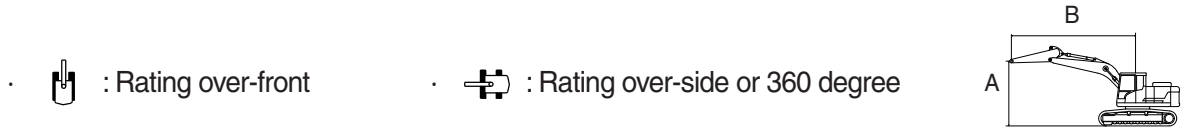
Lift-point height (A)	Lift-point radius (B)										At max. reach			
	1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach	
													m (ft)	
7.5 m (24.6 ft)	kg											*2690	*2690	5.51
	lb											*5930	*5930	(18.1)
6.0 m (19.7 ft)	kg						*3680	*3680				*2410	*2410	6.79
	lb						*8110	*8110				*5310	*5310	(22.3)
4.5 m (14.8 ft)	kg						*4040	*4040	*2550	*2550		*2330	*2330	7.56
	lb						*8910	*8910	*5620	*5620		*5140	*5140	(24.8)
3.0 m (9.8 ft)	kg		*7980	*7980	*5570	*5570	*4610	4050	*3770	2880		*2370	*2370	7.97
	lb		*17590	*17590	*12280	*12280	*10160	8930	*8310	6350		*5220	*5220	(26.2)
1.5 m (4.9 ft)	kg		*6730	*6730	*6970	5870	*5270	3880	4230	2800		*2520	2500	8.09
	lb		*14840	*14840	*15370	12940	*11620	8550	9330	6170		*5560	5510	(26.5)
0.0 m (0.0 ft)	kg		*6140	*6140	*7890	5610	*5770	3740	4160	2740		*2810	2540	7.91
	lb		*13540	*13540	*17390	12370	*12720	8250	9170	6040		*6190	5600	(25.9)
-1.5 m (-4.9 ft)	kg	*4780	*4780	*8740	*8740	*8090	5500	5690	3670			*3360	2750	7.42
	lb	*10540	*10540	*19270	*19270	*17840	12130	12540	8090			*7410	6060	(24.3)
-3.0 m (-9.8 ft)	kg	*8060	*8060	*11010	10490	*7510	5510	*5400	3680			*4500	3280	6.56
	lb	*17770	*17770	*24270	23130	*16560	12150	*11900	8110			*9920	7230	(21.5)
-4.5 m (-14.8 ft)	kg		*8340	*8340	*5690	5660						*4680	*4680	5.11
	lb		*18390	*18390	*12540	12480						*10320	*10320	(16.8)











Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HX180 L	2-PIECE BOOM	5100	2200	3250	600	-	-	-	-	-



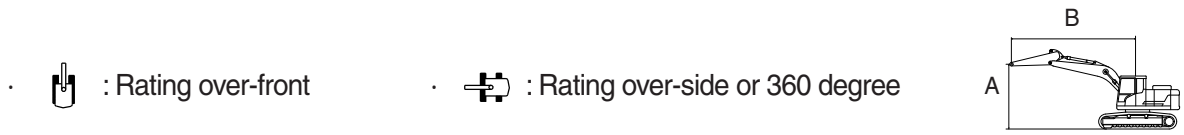
Lift-point height (A)	Lift-point radius (B)						At max. reach			
	3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		Capacity		Reach	
									m (ft)	
7.5 m (24.6 ft)	kg							*4040	*4040	4.46
	lb							*8910	*8910	(14.6)
6.0 m (19.7 ft)	kg			*4490	*4490			*3260	*3260	5.98
	lb			*9900	*9900			*7190	*7190	(19.6)
4.5 m (14.8 ft)	kg			*5090	*5090	*4540	4300	*2980	*2980	6.84
	lb			*11220	*11220	*10010	9480	*6570	*6570	(22.5)
3.0 m (9.8 ft)	kg			*6250	*6250	*4980	4160	*2910	*2910	7.30
	lb			*13780	*13780	*10980	9170	*6420	*6420	(23.9)
1.5 m (4.9 ft)	kg			*7410	5990	*5500	4010	*3000	2970	7.42
	lb			*16340	13210	*12130	8840	*6610	6550	(24.3)
0.0 m (0.0 ft)	kg			*7990	5810	*5840	3910	*3240	3050	7.23
	lb			*17610	12810	*12870	8620	*7140	6720	(23.7)
-1.5 m (-4.9 ft)	kg	*8220	*8220	*7850	5780	*5730	3890	*3760	3400	6.69
	lb	*18120	*18120	*17310	12740	*12630	8580	*8290	7500	(21.9)









Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HX180 L	2-PIECE BOOM	5100	2600	3250	600	-	-	-	-	-



Lift-point height (A)		Lift-point radius (B)								At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach m (ft)
												
7.5 m (24.6 ft)	kg			*4310	*4310					*3560	*3560	5.00
	lb			*9500	*9500					*7850	*7850	(16.4)
6.0 m (19.7 ft)	kg					*4130	*4130			*3040	*3040	6.39
	lb					*9110	*9110			*6700	*6700	(21.0)
4.5 m (14.8 ft)	kg			*4680	*4680	*4250	*4250			*2860	*2860	7.20
	lb			*10320	*10320	*9370	*9370			*6310	*6310	(23.6)
3.0 m (9.8 ft)	kg			*5880	*5880	*4750	4210	*3650	2990	*2840	*2840	7.63
	lb			*12960	*12960	*10470	9280	*8050	6590	*6260	*6260	(25.0)
1.5 m (4.9 ft)	kg			*7140	6070	*5340	4040	4420	2930	*2960	2800	7.75
	lb			*15740	13380	*11770	8910	9740	6460	*6530	6170	(25.4)
0.0 m (0.0 ft)	kg			*7900	5840	*5770	3920	*3830	2890	*3240	2860	7.56
	lb			*17420	12870	*12720	8640	*8440	6370	*7140	6310	(24.8)
-1.5 m (-4.9 ft)	kg	*8270	*8270	*7960	5780	*5820	3880			*3790	3140	7.05
	lb	*18230	*18230	*17550	12740	*12830	8550			*8360	6920	(23.1)
-3.0 m (-9.8 ft)	kg			*7220	5850							
	lb			*15920	12900							

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HX180 NL	MONO BOOM	5100	2200	2900	600	-	-	-	-	-



Lift-point height (A)		Lift-point radius (B)						At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		Capacity		Reach m (ft)
										
7.5 m (24.6 ft)	kg							*3790	*3790	4.35
	lb							*8360	*8360	(14.3)
6.0 m (19.7 ft)	kg							*3140	*3140	5.90
	lb							*6920	*6920	(19.4)
4.5 m (14.8 ft)	kg			*5320	*5320	*4740	3500	*2940	2870	6.77
	lb			*11730	*11730	*10450	7720	*6480	6330	(22.2)
3.0 m (9.8 ft)	kg			*6530	5120	*5190	3380	*2930	2540	7.23
	lb			*14400	11290	*11440	7450	*6460	5600	(23.7)
1.5 m (4.9 ft)	kg			*7690	4810	5590	3240	*3070	2420	7.36
	lb			*16950	10600	12320	7140	*6770	5340	(24.1)
0.0 m (0.0 ft)	kg	*3900	*3900	*8180	4640	5480	3140	*3410	2480	7.16
	lb	*8600	*8600	*18030	10230	12080	6920	*7520	5470	(23.5)
-1.5 m (-4.9 ft)	kg	*9210	8540	*7910	4610	5460	3120	*4080	2760	6.62
	lb	*20300	18830	*17440	10160	12040	6880	*8990	6080	(21.7)
-3.0 m (-9.8 ft)	kg	*9400	8700	*6720	4700			*4890	3500	5.62
	lb	*20720	19180	*14820	10360			*10780	7720	(18.5)

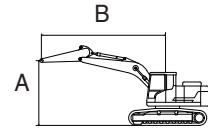
Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX180 NL	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5100	2600	2900	600	-	-	-	-	-



: 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 lb											*3400 *7500	*3400 *7500	4.85 (15.9)
6.0 m (19.7 ft)	kg lb						*3830 *8440	3600 7940				*2960 *6530	*2960 *6530	6.27 (20.6)
4.5 m (14.8 ft)	kg lb					*4890 *10780	*4890 *10780	*4450 *9810	3550 7830			*2840 *6260	2700 5950	7.10 (23.3)
3.0 m (9.8 ft)	kg lb			*9410 *20750	*9410 *20750	*6140 *13540	5210 11490	*4960 *10930	3420 7540	*3100 *6830	2420 5340	*2870 *6330	2400 5290	7.54 (24.7)
1.5 m (4.9 ft)	kg lb					*7420 *16360	4880 10760	*5550 *12240	3270 7210	4020 8860	2370 5220	*3050 *6720	2300 5070	7.66 (25.1)
0.0 m (0.0 ft)	kg lb			*5280 *11640	*5280 *11640	*8120 *17900	4670 10300	5490 12100	3160 6970			*3420 *7540	2340 5160	7.47 (24.5)
-1.5 m (-4.9 ft)	kg lb	*5070 *11180	*5070 *11180	*9170 *20220	8510 18760	*8060 *17770	4610 10160	5440 11990	3110 6860			*4130 *9110	2570 5670	6.95 (22.8)
-3.0 m (-9.8 ft)	kg lb	*9350 *20610	*9350 *20610	*10230 *22550	8640 19050	*7160 *15790	4660 10270	*4940 *10890	3170 6990			*4920 *10850	3160 6970	6.01 (19.7)
-4.5 m (-14.8 ft)	kg lb			*6920 *15260	*6920 *15260							*4590 *10120	*4590 *10120	4.39 (14.4)

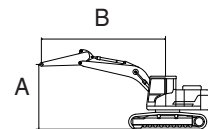
Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX180 NL	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5100	3100	2900	600	-	-	-	-	-



: Rating over-front



: Rating over-side or 360 degree

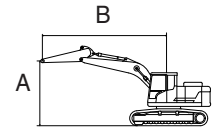










Lift-point height (A)		Lift-point radius (B)										At max. reach		
		1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach
														m (ft)
7.5 m (24.6 ft)	kg lb											*2690 *5930	*2690 *5930	5.51 (18.1)
6.0 m (19.7 ft)	kg lb						*3680 *8110	3650 8050				*2410 *5310	*2410 *5310	6.79 (22.3)
4.5 m (14.8 ft)	kg lb						*4040 *8910	3580 7890	*2550 *5620	2480 5470	*2330 *5140	*2330 *5140	7.56 (24.8)	
3.0 m (9.8 ft)	kg lb			*7980 *17590	*7980 *17590	*5570 *12280	5280 11640	*4610 *10160	3440 7580	*3770 *8310	2430 5360	*2370 *5220	2190 4830	7.97 (26.2)
1.5 m (4.9 ft)	kg lb			*6730 *14840	*6730 *14840	*6970 *15370	4920 10850	*5270 *11620	3270 7210	4010 8840	2350 5180	*2520 *5560	2090 4610	8.09 (26.5)
0.0 m (0.0 ft)	kg lb			*6140 *13540	*6140 *13540	*7890 *17390	4660 10270	5470 12060	3130 6900	3940 8690	2290 5050	*2810 *6190	2120 4670	7.91 (25.9)
-1.5 m (-4.9 ft)	kg lb	*4780 *10540	*4780 *10540	*8740 *19270	8390 18500	*8090 *17840	4560 10050	5390 11880	3060 6750			*3360 *7410	2300 5070	7.42 (24.3)
-3.0 m (-9.8 ft)	kg lb	*8060 *17770	*8060 *17770	*11010 *24270	8490 18720	*7510 *16560	4570 10080	*5400 *11900	3080 6790			*4500 *9920	2750 6060	6.56 (21.5)
-4.5 m (-14.8 ft)	kg lb			*8340 *18390	*8340 *18390	*5690 *12540	4710 10380					*4680 *10320	3970 8750	5.11 (16.8)

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HX180 NL	2-PIECE BOOM	5100	2200	3250	600	-	-	-	-	-

·  : Rating over-front

·  : Rating over-side or 360 degree

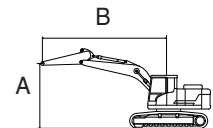












Lift-point height (A)	Lift-point radius (B)						At max. reach			
	3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		Capacity		Reach	
									m (ft)	
7.5 m (24.6 ft)	kg						*4040	*4040	4.46	
	lb						*8910	*8910	(14.6)	
6.0 m (19.7 ft)	kg		*4490	*4490			*3260	*3260	5.98	
	lb		*9900	*9900			*7190	*7190	(19.6)	
4.5 m (14.8 ft)	kg		*5090	*5090	*4540	3660	*2980	2930	6.84	
	lb		*11220	*11220	*10010	8070	*6570	6460	(22.5)	
3.0 m (9.8 ft)	kg		*6250	5350	*4980	3530	*2910	2610	7.30	
	lb		*13780	11790	*10980	7780	*6420	5750	(23.9)	
1.5 m (4.9 ft)	kg		*7410	5010	*5500	3380	*3000	2500	7.42	
	lb		*16340	11050	*12130	7450	*6610	5510	(24.3)	
0.0 m (0.0 ft)	kg		*7990	4830	5720	3280	*3240	2560	7.23	
	lb		*17610	10650	12610	7230	*7140	5640	(23.7)	
-1.5 m (-4.9 ft)	kg	*8220	*8220	*7850	4810	5710	3260	*3760	2860	6.69
	lb	*18120	*18120	*17310	10600	12590	7190	*8290	6310	(21.9)

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HX180 NL	MONO BOOM	5100	2600	3250	600	-	-	-	-	-

·  : Rating over-front

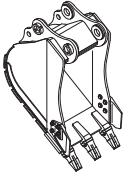
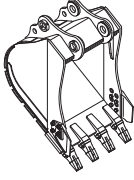
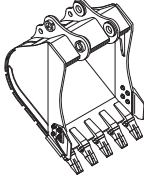
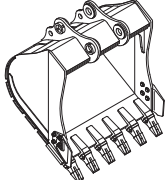
·  : Rating over-side or 360 degree



Lift-point height (A)	Lift-point radius (B)								At max. reach		
	3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach
											m (ft)
7.5 m (24.6 ft)	kg		*4310	*4310					*3560	*3560	5.00
	lb		*9500	*9500					*7850	*7850	(16.4)
6.0 m (19.7 ft)	kg				*4130	3770			*3040	*3040	6.39
	lb				*9110	8310			*6700	*6700	(21.0)
4.5 m (14.8 ft)	kg		*4680	*4680	*4250	3720			*2860	2740	7.20
	lb		*10320	*10320	*9370	8200			*6310	6040	(23.6)
3.0 m (9.8 ft)	kg		*5880	5450	*4750	3570	*3650	2530	*2840	2460	7.63
	lb		*12960	12020	*10470	7870	*8050	5580	*6260	5420	(25.0)
1.5 m (4.9 ft)	kg		*7140	5080	*5340	3410	4200	2470	*2960	2350	7.75
	lb		*15740	11200	*11770	7520	9260	5450	*6530	5180	(25.4)
0.0 m (0.0 ft)	kg		*7900	4870	5740	3290	*3830	2430	*3240	2400	7.56
	lb		*17420	10740	12650	7250	*8440	5360	*7140	5290	(24.8)
-1.5 m (-4.9 ft)	kg	*8270	*8270	*7960	4800	5690	3250		*3790	2640	7.05
	lb	*18230	*18230	*17550	10580	12540	7170		*8360	5820	(23.1)
-3.0 m (-9.8 ft)	kg		*7220	4870							
	lb		*15920	10740							

6. BUCKET SELECTION GUIDE

1) GENERAL BUCKET

			
0.39 m ³ SAE heaped bucket	0.50 m ³ SAE heaped bucket	0.64, 0.70, 0.76 m ³ SAE heaped bucket	0.89, 1.05 m ³ SAE heaped bucket

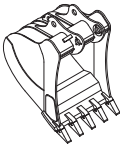
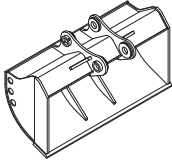
Capacity		Width		Weight	Recommendation				
					5.1 m (16' 9") Mono boom			5.1 m (16' 9") Hyd adjustable boom	
SAE heaped	CECE heaped	Without side cutter	With side cutter		2.2 m arm (7' 3")	2.6 m arm (8' 6")	3.1 m arm (10' 2")	2.2 m arm (7' 3")	2.6 m arm (8' 6")
0.39 m ³ (0.51 yd ³)	0.34 m ³ (0.44 yd ³)	620 mm (24.4")	740 mm (29.1")	410 kg (900 lb)	○	○	○	○	○
0.50 m ³ (0.65 yd ³)	0.44 m ³ (0.58 yd ³)	760 mm (29.9")	880 mm (34.6")	470 kg (1040 lb)	○	○	○	○	○
0.64 m ³ (0.84 yd ³)	0.55 m ³ (0.72 yd ³)	920 mm (36.2")	1040 mm (40.9")	510 kg (1120 lb)	○	○	◐	○	○
0.70 m ³ (0.92 yd ³)	0.60 m ³ (0.78 yd ³)	990 mm (39.0")	1110 mm (43.7")	600 kg (1320 lb)	○	○	◐	○	◐
0.76 m ³ (0.99 yd ³)	0.65 m ³ (0.85 yd ³)	1060 mm (41.7")	1180 mm (46.5")	620 kg (1370 lb)	○	◐	●	◐	●
0.89 m ³ (1.16 yd ³)	0.77 m ³ (1.01 yd ³)	1220 mm (48.0")	1340 mm (52.8")	610 kg (1340 lb)	◐	●		◐	●
1.05 m ³ (1.37 yd ³)	0.90 m ³ (1.18 yd ³)	1400 mm (55.1")	1520 mm (59.8")	680 kg (1500 lb)	●	●		●	

○ 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) HEAVY DUTY AND DITCH CLEANING BUCKET

	
◆ 0.69, 0.72, 0.87 m ³ SAE heaped bucket	◎ 0.75 m ³ SAE heaped bucket

Capacity		Width		Weight	Recommendation				
					5.1 m (16' 9") Mono boom			5.1 m (16' 9") Hyd adjustable boom	
SAE heaped	CECE heaped	Without side cutter	With side cutter		2.2 m arm (7' 3")	2.6 m arm (8' 6")	3.1 m arm (10' 2")	2.2 m arm (7' 3")	2.6 m arm (8' 6")
◆0.69 m ³ (0.90 yd ³)	0.62 m ³ (0.81 yd ³)	990 mm (39.0")	-	720 kg (1590 lb)	○	◐	●	◐	●
◆0.72 m ³ (0.94 yd ³)	0.65 m ³ (0.85 yd ³)	940 mm (37.0")	985 mm (38.8")	640 kg (1410 lb)	○	◐	●	◐	●
◆0.87 m ³ (1.18 yd ³)	0.78 m ³ (1.02 yd ³)	1090 mm (42.9")	1140 mm (44.9")	680 kg (1500 lb)	◐	●		●	
◎0.75 m ³ (0.98 yd ³)	0.65 m ³ (0.85 yd ³)	1820 mm (71.7")	-	540 kg (1190 lb)	○	◐	◐	○	◐

◆ : Heavy duty bucket ◎ : Ditch cleaning bucket

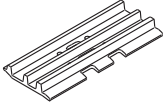
- Applicable for materials with density of 2000 kg/m³ (3370 lb/yd³) or less
- ◐ Applicable for materials with density of 1600 kg/m³ (2700 lb/yd³) or less
- Applicable for materials with density of 1100 kg/m³ (1850 lb/yd³) or less

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			
						
HX180 L	Shoe width	mm (in)	500 (20)	600 (24)	700 (28)	800 (32)
	Operating weight	kg (lb)	18545 (40880)	18800 (41450)	18795 (41480)	19050 (42000)
	Ground pressure	kgf/cm ² (psi)	0.51 (7.25)	0.43 (6.11)	0.37 (5.26)	0.33 (4.69)
	Overall width	mm (ft-in)	2750 (9' 0")	2850 (9' 4")	2950 (9' 8")	3050 (10' 0")
HX180 L (with dozer)	Shoe width	mm (in)	500 (20)	600 (24)	700 (28)	800 (32)
	Operating weight	kg (lb)	19445 (42870)	19700 (43430)	19950 (43980)	20205 (44540)
	Ground pressure	kgf/cm ² (psi)	0.54 (7.68)	0.45 (6.40)	0.39 (5.55)	0.35 (4.98)
	Overall width	mm (ft-in)	2750 (9' 0")	2850 (9' 4")	2950 (9' 8")	3050 (10' 0")

3) NUMBER OF ROLLERS AND SHOES ON EACH SIDE

Item	Quantity
Carrier rollers	2 EA
Track rollers	7 EA
Track shoes	51 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
500 mm triple grouser	Option	A
600 mm triple grouser	Standard	A
700 mm triple grouser	Option	B
800 mm triple grouser	Option	C

※ **Table 2**

Category	Applications	Applications
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	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 (268.5 cu in)
Compression ratio	16.5 : 1
Rated net horse power (SAE J1349)	128Hp (96 kW) at 2050 rpm
Rated gross horse power (SAE J1995)	137Hp (102.1 kW) at 2050 rpm
Maximum torque	57.1 kgf · m (413 lbf · ft) at 1400 rpm
Engine oil quantity	10.5 l (2.8 U.S. gal)
Dry weight	589 kg (1300 lb)
High idling speed	2100 ± 50 rpm
Low idling speed	800 ± 100 rpm
Rated fuel consumption	164 g/Hp · hr at 2050 rpm
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 tandem axis piston pumps
Capacity	2 × 80 cc/rev
Maximum pressure	350 kgf/cm ² (4980 psi) [380 kgf/cm ² (5400 psi)]
Rated oil flow	2 × 164 l/min (43.3 U.S. gpm / 36.1 U.K. gpm)
Maximum speed	2100 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	31.5 l /min (8.3 U.S. gpm / 6.9 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)]
Overload relief valve pressure	400 kgf/cm ² (5690 psi)

[] : Power boost

5) SWING MOTOR

Item	Specification
Type	Axial pistons motor
Capacity	142.8 cc/rev
Relief pressure	285 kgf/cm ² (4053 psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	66.5 kgf · m (481 lbf · ft)
Brake release pressure	22.3~36.6 kgf/cm ² (317~521 psi)
Reduction gear type	2 - stage planetary

6) TRAVEL MOTOR

Item	Specification
Type	Two speed axial pistons motor with brake valve and parking brake
Relief pressure	350 kgf/cm ² (4980 psi)
Reduction gear type	Planetary & differential type
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	11 kgf/cm ² (156 psi)
Braking torque	49.3 kgf · m (357 lbf · ft)

7) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	ø 115 × ø 80 × 1090 mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	ø 120 × ø 85 × 1355 mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	ø 110 × ø 75 × 995 mm
	Cushion	Extend only
Adjust cylinder(opt)	Bore dia × Rod dia × Stroke	ø 160 × ø 85 × 650 mm
	-	-
Adjust boom cylinder(opt)	Bore dia × Rod dia × Stroke	ø 115 × ø 80 × 960 mm
	-	-
Dozer cylinder(opt)	Bore dia × Rod dia × Stroke	ø 110 × ø 85 × 320 mm
	-	-

※ 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
HX180 L	Option	500 mm (20")	0.51 kgf/cm ² (7.25 psi)	51	2750 mm (9' 0")
	Standard	600 mm (24")	0.43 kgf/cm ² (6.11 psi)	51	2850 mm (9' 4")
	Option	700 mm (28")	0.37 kgf/cm ² (5.26 psi)	51	2950 mm (9' 8")
	Option	800 mm (32")	0.33 kgf/cm ² (4.69 psi)	51	3050 mm (10' 0")

9) BUCKET

Item	Capacity		Tooth quantity	Width	
	SAE heaped	CECE heaped		Without side cutter	With side cutter
HX180 L	0.76 m ³ (0.99 yd ³)	0.65 m ³ (0.85 yd ³)	5	1060 mm (41.7")	1180 mm (46.5")
	0.39 m ³ (0.51 yd ³)	0.34 m ³ (0.44 yd ³)	3	620 mm (24.4")	740 mm (29.1")
	0.50 m ³ (0.65 yd ³)	0.44 m ³ (0.58 yd ³)	4	760 mm (29.9")	880 mm (34.6")
	0.64 m ³ (0.84 yd ³)	0.55 m ³ (0.72 yd ³)	5	920 mm (36.2")	1040 mm (40.9")
	0.70 m ³ (0.92 yd ³)	0.60 m ³ (0.78 yd ³)	5	990 mm (39.0")	1110 mm (43.7")
	0.89 m ³ (1.16 yd ³)	0.77 m ³ (1.01 yd ³)	6	1220 mm (48.0")	1340 mm (52.8")
	1.05 m ³ (1.37 yd ³)	0.90 m ³ (1.18 yd ³)	6	1400 mm (55.1")	1520 mm (59.8")
	◆0.69 m ³ (0.90 yd ³)	0.62 m ³ (0.81 yd ³)	5	990 mm (39.0")	-
	★0.75 m ³ (0.98 yd ³)	0.65 m ³ (0.85 yd ³)	-	1820 mm (71.7")	-

◆ : Heavy duty bucket ★ : Ditch cleaning 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)
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 : 5.0 (1.32)	★SAE 75W-90						
Final drive		5.8×2 (1.5×2)	SAE 80W-90						
Hydraulic tank	Hydraulic oil	Tank : 125 (33.0) System : 240 (63.4)	★ISO VG 15						
			ISO VG 32						
			ISO VG 46, HBHO VG 46★ ³						
			ISO VG 68						
Fuel tank	Diesel fuel★ ¹	290 (76.6)	★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	27.5 (7.3)	Ethylene glycol base permanent type (50 : 50)						
			★Ethylene glycol base permanent type (60 : 40)						

SAE : Society of Automotive Engineers

API : American Petroleum Institute

ISO : International Organization for Standardization

NLGI : National Lubricating Grease Institute

ASTM : American Society of Testing and Material

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.