

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

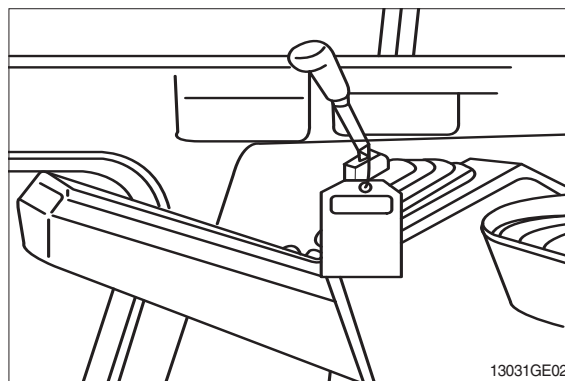
Wear close fitting clothing and safety equipment appropriate to the job.



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.



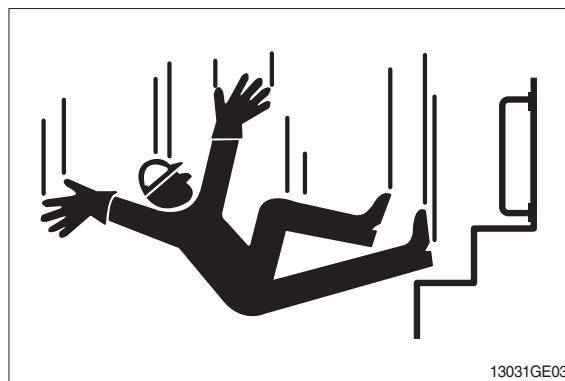
USE HANDHOLDS AND STEPS

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.

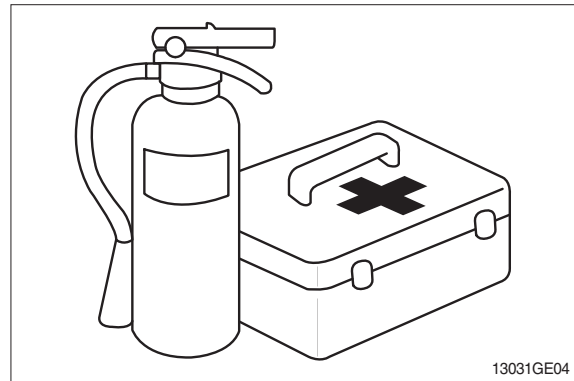


PREPARE FOR EMERGENCIES

Be prepared if a fire starts.

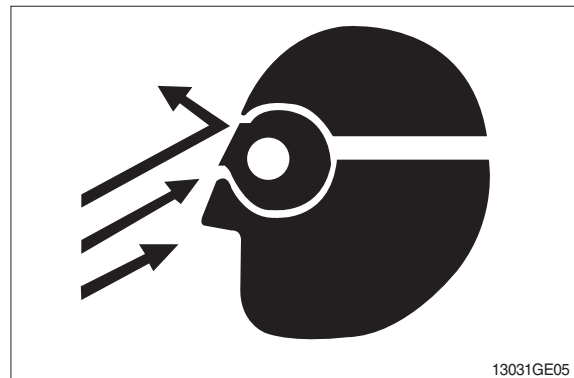
Keep a first aid kit and fire extinguisher handy.

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.

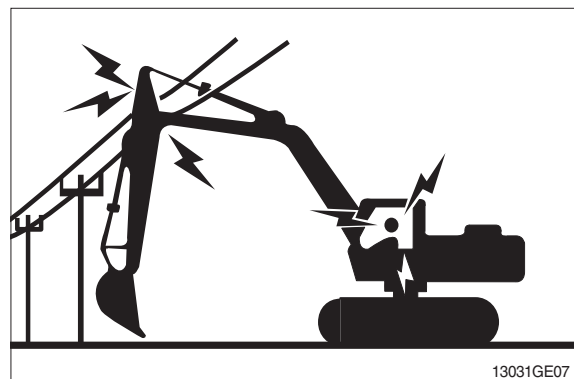
Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.



AVOID POWER LINES

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

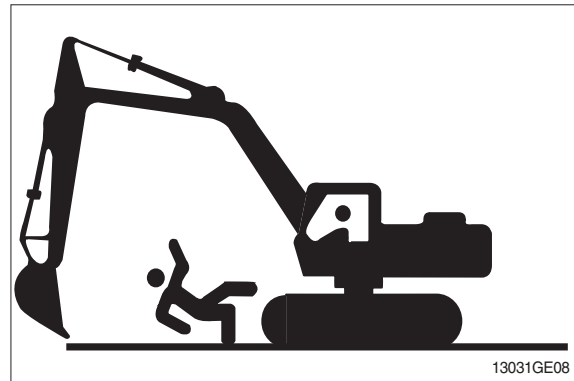
Never move any part of the machine or load closer to electric line than 3 m (10 ft) plus twice the line insulator length.



KEEP RIDERS OFF EXCAVATOR

Only allow the operator on the excavator. Keep riders off.

Riders on excavator are subject to injury such as being struck by foreign objects and being thrown off the excavator. Riders also obstruct the operator's view resulting in the excavator being operated in an unsafe manner.

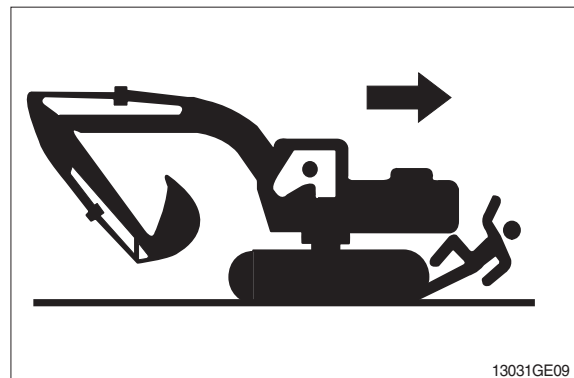


MOVE AND OPERATE MACHINE SAFELY

Bystanders can be run over. Know the location of bystanders before moving, swinging, or operating the machine.

Always keep the travel alarm in working condition. It warns people when the excavator starts to move.

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



OPERATE ONLY FROM OPERATOR'S SEAT

Avoid possible injury machine damage. Do not start engine by shorting across starter terminals.

NEVER start engine while standing on ground. Start engine only from operator's seat.



PARK MACHINE SAFELY

Before working on the machine:

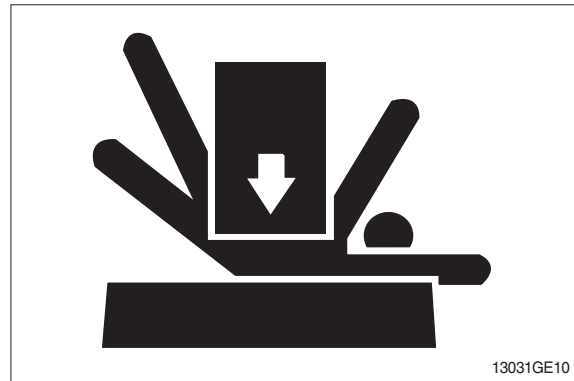
- Park machine on a level surface.
- Lower bucket to the ground.
- Turn auto idle switch off.
- Run engine at 1/2 speed without load for 2 minutes.
- Turn key switch to OFF to stop engine. Remove key from switch.
- Move pilot control shutoff lever to locked position.
- Allow engine to cool.

SUPPORT MACHINE PROPERLY

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

Do not support the machine on cinder blocks, hollow tiles, or props that may crumble under continuous load.

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



SERVICE COOLING SYSTEM SAFELY

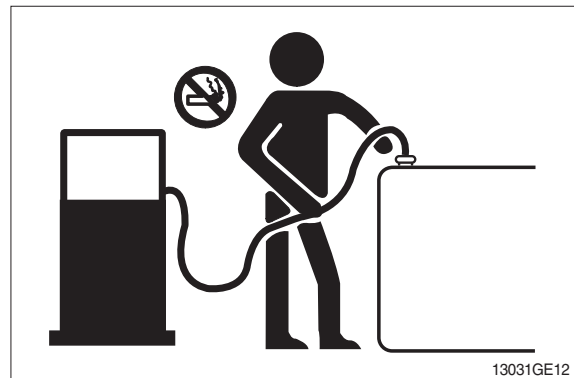
Explosive release of fluids from pressurized cooling system can cause serious burns.

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



HANDLE FLUIDS SAFELY-AVOID FIRES

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



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

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

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



BEWARE OF EXHAUST FUMES

Prevent asphyxiation. Engine exhaust fumes can cause sickness or death.

If you must operate in a building, be positive there is adequate ventilation. Either use an exhaust pipe extension to remove the exhaust fumes or open doors and windows to bring enough outside air into the area.

REMOVE PAINT BEFORE WELDING OR HEATING

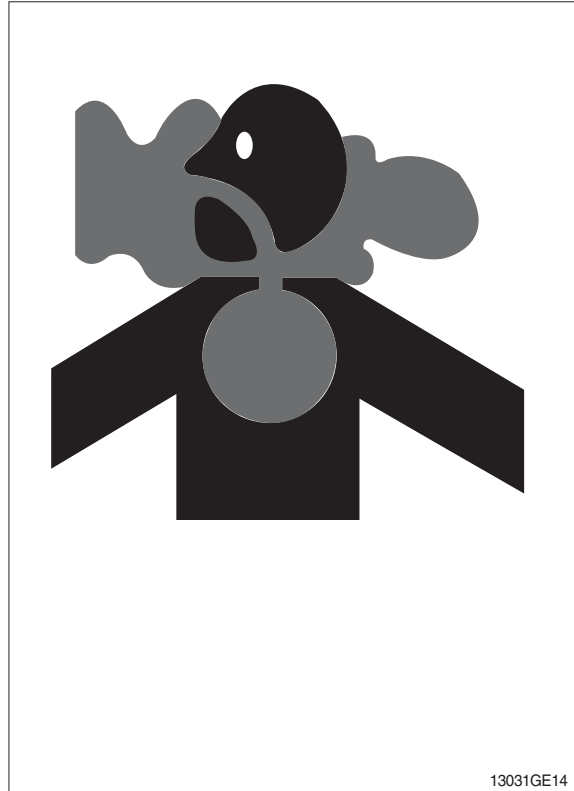
Avoid potentially toxic fumes and dust.

Hazardous fumes can be generated when paint is heated by welding, soldering, or using a torch.

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

Remove paint before welding or heating:

- If you sand or grind paint, avoid breathing the dust.
Wear an approved respirator.
- If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from area. Allow fumes to disperse at least 15 minutes before welding or heating.



ILLUMINATE WORK AREA SAFELY

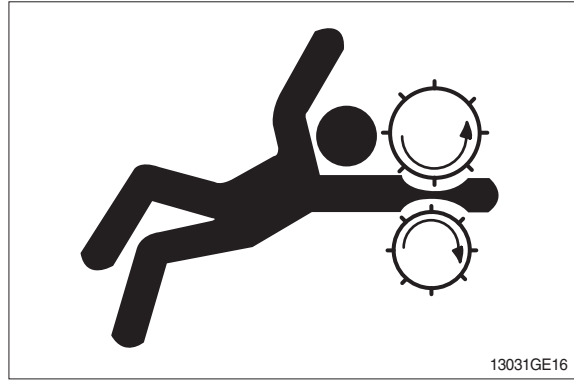
Illuminate your work area adequately but safely. Use a portable safety light for working inside or under the machine. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.



SERVICE MACHINE SAFELY

Tie long hair behind your head. Do not wear a necktie, scarf, loose clothing or necklace when you work near machine tools or moving parts. If these items were to get caught, severe injury could result.

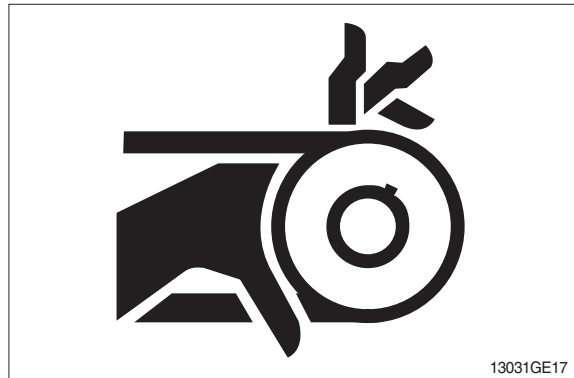
Remove rings and other jewelry to prevent electrical shorts and entanglement in moving parts.



STAY CLEAR OF MOVING PARTS

Entanglements in moving parts can cause serious injury.

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



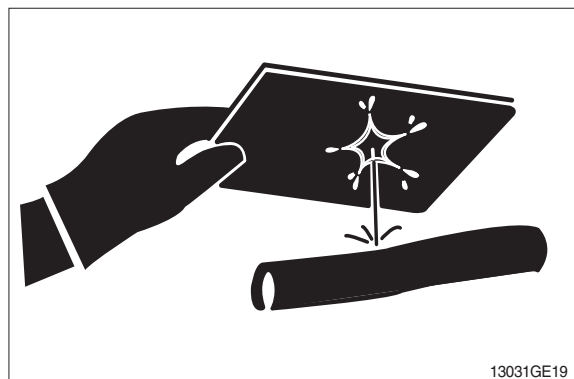
AVOID HIGH PRESSURE FLUIDS

Escaping fluid under pressure can penetrate the skin causing serious injury.

Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.

Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.



AVOID HEATING NEAR PRESSURIZED FLUID LINES

Flammable spray can be generated by heating near pressurized fluid lines, resulting in severe burns to yourself and bystanders. Do not heat by welding, soldering, or using a torch near pressurized fluid lines or other flammable materials.

Pressurized lines can be accidentally cut when heat goes beyond the immediate flame area. Install fire resisting guards to protect hoses or other materials.



PREVENT BATTERY EXPLOSIONS

Keep sparks, lighted matches, and flame away from the top of battery. Battery gas can explode.

Never check battery charge by placing a metal object across the posts. Use a volt-meter or hydrometer.

Do not charge a frozen battery; It may explode. Warm battery to 16°C (60°F).



PREVENT ACID BURNS

Sulfuric acid in battery electrolyte is poisonous. It is strong enough to burn skin, eat holes in clothing, and cause blindness if splashed into eyes.

Avoid the hazard by:

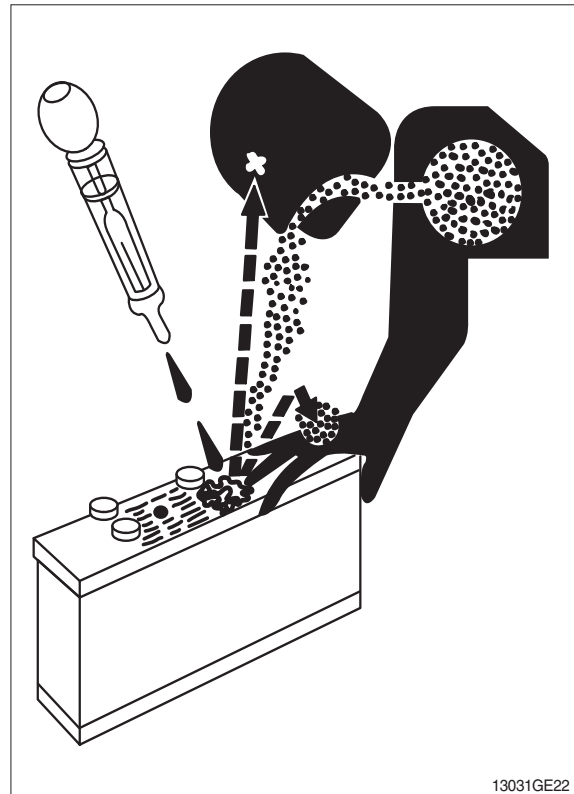
1. Filling batteries in a well-ventilated area.
2. Wearing eye protection and rubber gloves.
3. Avoiding breathing fumes when electrolyte is added.
4. Avoiding spilling or dripping electrolyte.
5. Use proper jump start procedure.

If you spill acid on yourself:

1. Flush your skin with water.
2. Apply baking soda or lime to help neutralize the acid.
3. Flush your eyes with water for 10-15 minutes. Get medical attention immediately.

If acid is swallowed:

1. Drink large amounts of water or milk.
2. Then drink milk of magnesia, beaten eggs, or vegetable oil.
3. Get medical attention immediately.



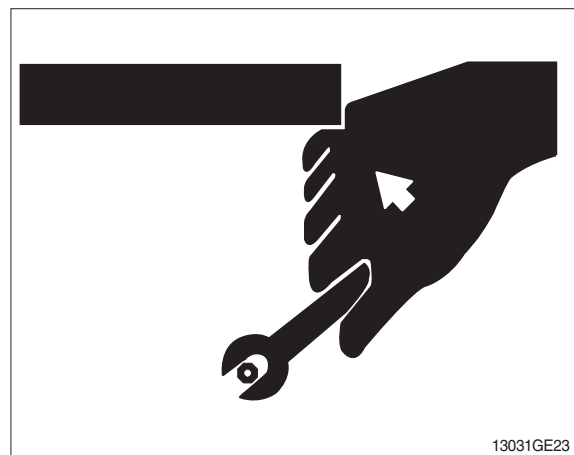
USE TOOLS PROPERLY

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

Use power tools only to loosen threaded tools and fasteners.

For loosening and tightening hardware, use the correct size tools. DO NOT use U.S. measurement tools on metric fasteners. Avoid bodily injury caused by slipping wrenches.

Use only recommended replacement parts. (See Parts catalogue.)

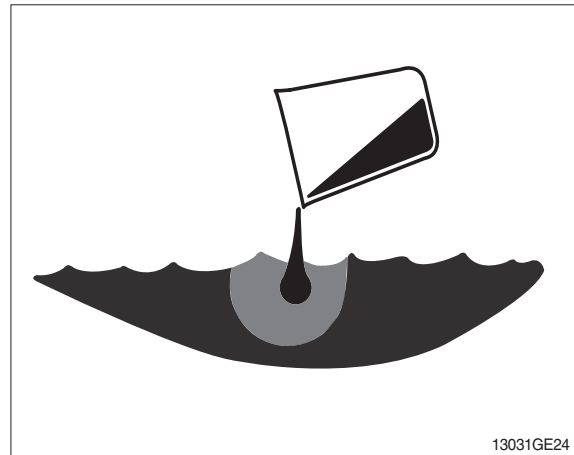


DISPOSE OF FLUIDS PROPERLY

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.



REPLACE SAFETY SIGNS

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

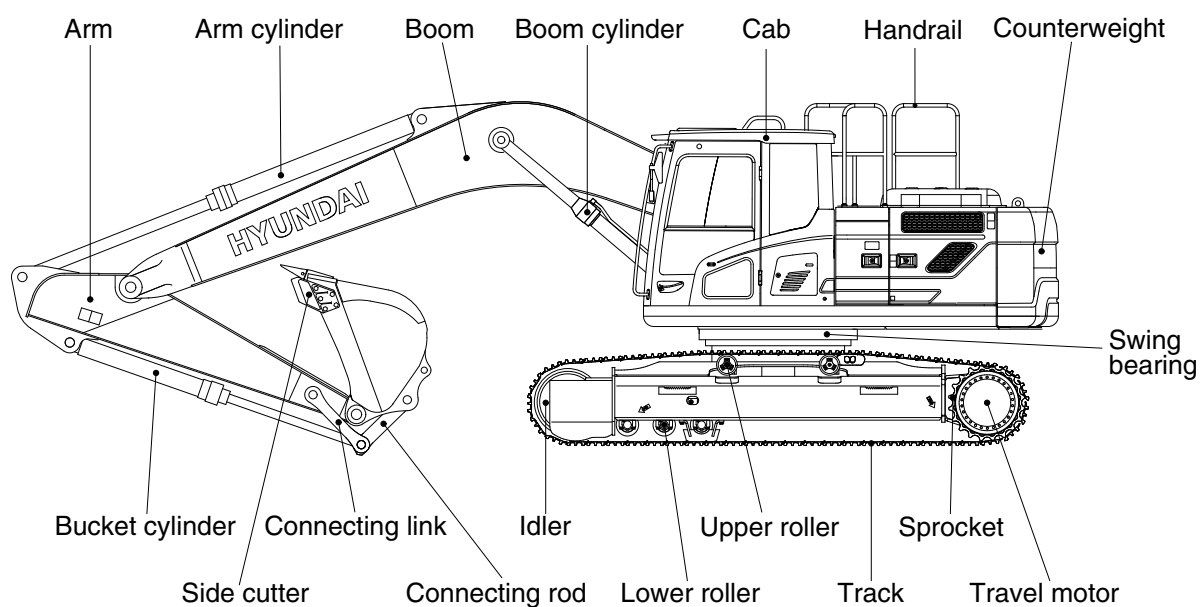
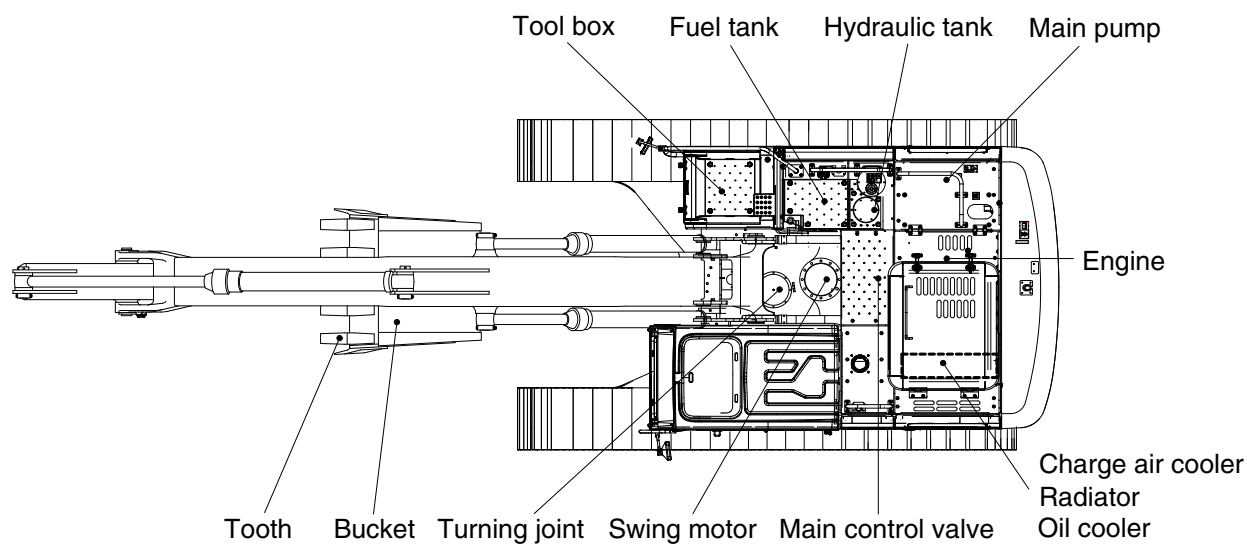


LIVE WITH SAFETY

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

GROUP 2 SPECIFICATIONS

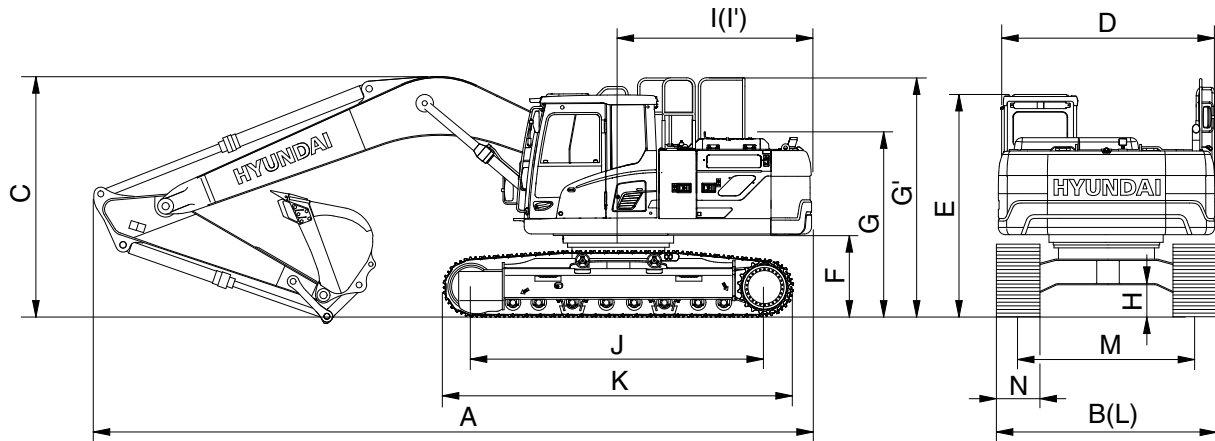
1. MAJOR COMPONENT



220S2SP01A

2. SPECIFICATIONS

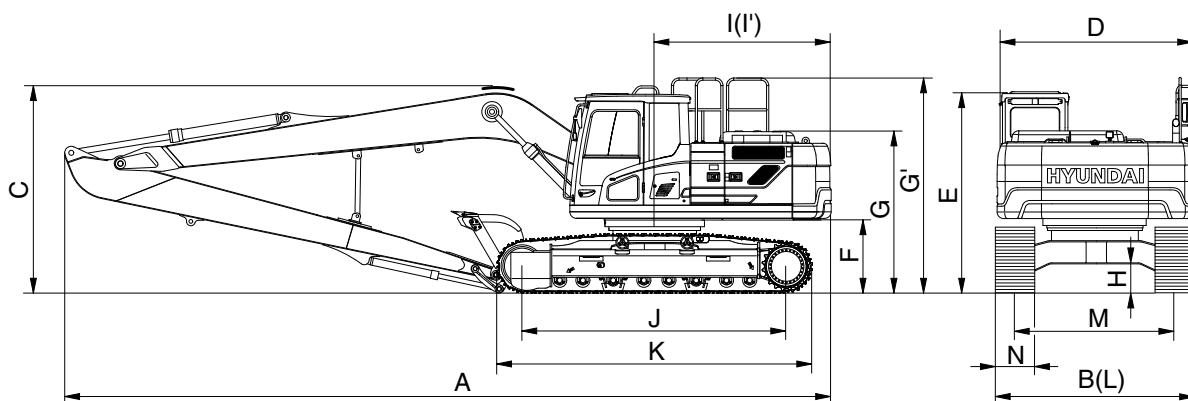
1) HX225S L, MONO BOOM



220S2SP02A

Description	Unit		Specification			
	m (ft-in)	Boom	5.70 (18' 8")			
		Arm	2.90 (9' 6")	2.00 (6' 7")	2.40 (7' 10")	3.50 (11' 6")
	mm (in)	Shoe	600 (24")			
Operating weight	kg (lb)		22070 (45920)	22070 (45920)	22070 (45920)	22070 (45920)
Bucket capacity (SAE heaped), standard	m ³ (yd ³)		0.92 (1.20)	0.92 (1.20)	0.92 (1.20)	0.92 (1.20)
Overall length	A	mm (ft-in)	9550 (31' 4")	9620 (31' 7")	9575 (31' 5")	9560 (31' 4")
Overall width	B		2990 (9' 10")	2990 (9' 10")	2990 (9' 10")	2990 (9' 10")
Overall height of boom	C		2960 (9' 9")	3115 (10' 3")	3020 (9' 11")	3320 (10' 11")
Superstructure width	D		2740 (9' 0")	2740 (9' 0")	2740 (9' 0")	2740 (9' 0")
Overall height of cab	E		3035 (9' 11")	3035 (9' 11")	3035 (9' 11")	3035 (9' 11")
Ground clearance of counterweight	F		1095 (3' 7")	1095 (3' 7")	1095 (3' 7")	1095 (3' 7")
Overall height of engine hood	G		2470 (8' 1")	2470 (8' 1")	2470 (8' 1")	2470 (8' 1")
Overall height of handrail	G'		3245 (10' 8")	3245 (10' 8")	3245 (10' 8")	3245 (10' 8")
Minimum ground clearance	H		475 (1' 7")	475 (1' 7")	475 (1' 7")	475 (1' 7")
Rear-end distance	I		2770 (9' 1")	2770 (9' 1")	2770 (9' 1")	2770 (9' 1")
Rear-end swing radius	I'		2890 (9' 5")	2890 (9' 5")	2890 (9' 5")	2890 (9' 5")
Distance between tumblers	J		3650 (12' 0")	3650 (12' 0")	3650 (12' 0")	3650 (12' 0")
Undercarriage length	K		4395 (14' 5")	4395 (14' 5")	4395 (14' 5")	4395 (14' 5")
Undercarriage width	L		2990 (9' 10")	2990 (9' 10")	2990 (9' 10")	2990 (9' 10")
Track gauge	M		2390 (7' 10")	2390 (7' 10")	2390 (7' 10")	2390 (7' 10")
Track shoe width, standard	N		600 (2' 0")	600 (2' 0")	600 (2' 0")	600 (2' 0")
Travel speed (low/high)	km/hr (mph)		3.6/5.4 (2.2/3.4)	3.6/5.4 (2.2/3.4)	3.6/5.4 (2.2/3.4)	3.6/5.4 (2.2/3.4)
Swing speed	rpm		12.5	12.5	12.5	12.5
Gradeability	Degree (%)		35 (70)	35 (70)	35 (70)	35 (70)
Ground pressure	kgf/cm ² (psi)		0.47 (6.68)	0.47 (6.68)	0.47 (6.68)	0.47 (6.68)
Max traction force	kg (lb)		20200 (44530)	20200 (44530)	20200 (44530)	20200 (44530)

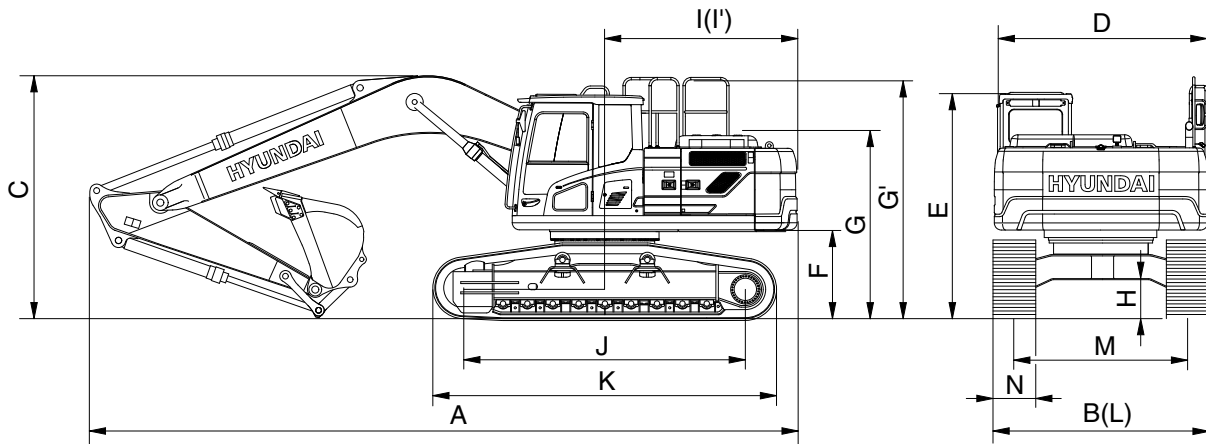
2) HX225S L LONG REACH



220S2SP03A

Description		Unit		Specification
		m (ft-in)	Boom	8.50 (27' 11")
			Arm	6.20 (20' 4")
		mm (in)	Shoe	800 (32")
Operating weight		kg (lb)		24830 (54740)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)		0.52 (0.68)
Overall length	A	mm (ft-in)		12345 (40' 6")
Overall width	B			3190 (10' 6")
Overall height of boom	C			3365 (11' 0")
Superstructure width	D			2740 (9' 0")
Overall height of cab	E			3035 (9' 11")
Ground clearance of counterweight	F			1095 (3' 7")
Overall height of engine hood	G			2470 (8' 1")
Overall height of handrail	G'			3245 (10' 8")
Minimum ground clearance	H			475 (1' 7")
Rear-end distance	I			2770 (9' 1")
Rear-end swing radius	I'			2890 (9' 6")
Distance between tumblers	J			3650 (12' 0")
Undercarriage length	K			4395 (14' 5")
Undercarriage width	L			3190 (10' 6")
Track gauge	M			2390 (7' 10")
Track shoe width, standard	N			800 (2' 7")
Travel speed (low/high)		km/hr (mph)		3.47/5.47 (2.16/3.40)
Swing speed		rpm		12.69
Gradeability		Degree (%)		35 (70)
Ground pressure		kgf/cm ² (psi)		0.40 (5.62)
Max traction force		kg (lb)		21100 (46517)

3) HX225S L HIGH WALKER

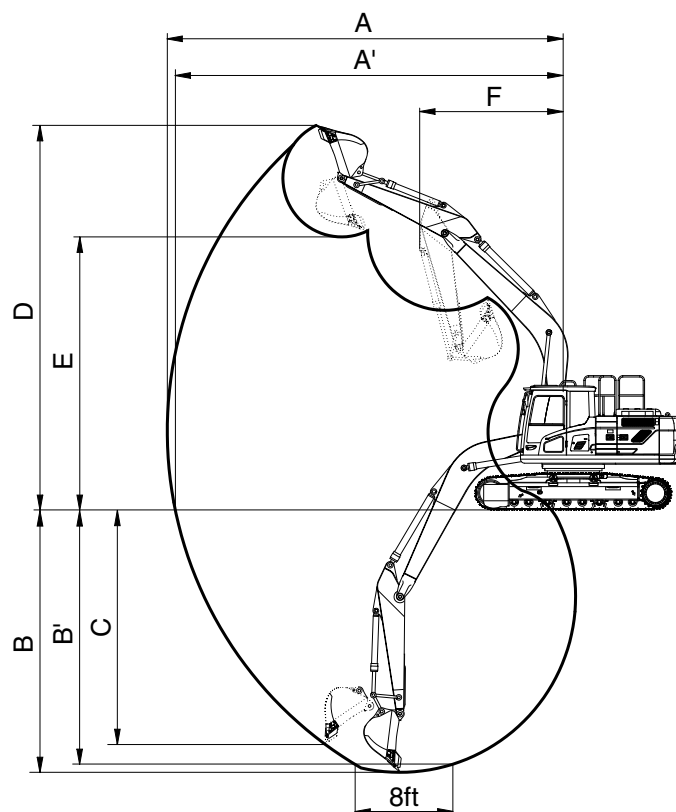


220S2SP04

Description	Unit		Specification			
	m (ft-in)	Boom	5.70 (18' 8")			
		Arm	2.90 (9' 6")	2.00 (6' 7")	2.40 (7' 10")	3.50 (11' 6")
	mm (in)	Shoe	600 (24")			
Operating weight	kg (lb)		24300 (53570)	24300 (53570)	24300 (53570)	24300 (53570)
Bucket capacity (SAE heaped), standard	m ³ (yd ³)		0.92 (1.20)	0.92 (1.20)	0.92 (1.20)	0.92 (1.20)
Overall length	A	mm (ft-in)	9515 (31' 3")	9625 (31' 7")	9560 (31' 4")	9575 (31' 5")
Overall width	B		3395 (11' 2")	3395 (11' 2")	3395 (11' 2")	3395 (11' 2")
Overall height of boom	C		2975 (9' 9")	3195 (10' 6")	3090 (10' 2")	3275 (10' 9")
Superstructure width	D		2740 (9' 0")	2740 (9' 0")	2740 (9' 0")	2740 (9' 0")
Overall height of cab	E		3230 (10' 7")	3230 (10' 7")	3035 (9' 11")	3035 (9' 11")
Ground clearance of counterweight	F		1260 (4' 2")	1260 (4' 2")	1095 (3' 7")	1095 (3' 7")
Overall height of engine hood	G		2670 (8' 8")	2670 (8' 8")	2670 (8' 8")	2670 (8' 8")
Overall height of handrail	G'		3413 (11' 2")	3413 (11' 2")	3245 (10' 8")	3245 (10' 8")
Minimum ground clearance	H		660 (2' 2")	660 (2' 2")	475 (1' 7")	475 (1' 7")
Rear-end distance	I		2770 (9' 1")	2770 (9' 1")	2770 (9' 1")	2770 (9' 1")
Rear-end swing radius	I'		2890 (9' 5")	2890 (9' 5")	2890 (9' 5")	2890 (9' 5")
Distance between tumblers	J		3650 (12' 0")	3650 (12' 0")	3650 (12' 0")	3650 (12' 0")
Undercarriage length	K		4404 (14' 5")	4404 (14' 5")	4395 (14' 5")	4395 (14' 5")
Undercarriage width	L		3395 (11' 2")	3395 (11' 2")	3395 (11' 2")	3395 (11' 2")
Track gauge	M		2795 (9' 2")	2795 (9' 2")	2390 (7' 10")	2390 (7' 10")
Track shoe width, standard	N		600 (2' 0")	600 (2' 0")	600 (2' 0")	600 (2' 0")
Travel speed (low/high)	km/hr (mph)		3.6/5.4 (2.2/3.4)	3.6/5.4 (2.2/3.4)	3.6/5.4 (2.2/3.4)	3.6/5.4 (2.2/3.4)
Swing speed	rpm		12.5	12.5	12.5	12.5
Gradeability	Degree (%)		35 (70)	35 (70)	35 (70)	35 (70)
Ground pressure	kgf/cm ² (psi)		0.57 (7.36)	0.57 (7.36)	0.57 (7.36)	0.57 (7.36)
Max traction force	kg (lb)		20200 (44530)	20200 (44530)	20200 (44530)	20200 (44530)

3. WORKING RANGE

1) HX225S L, MONO BOOM

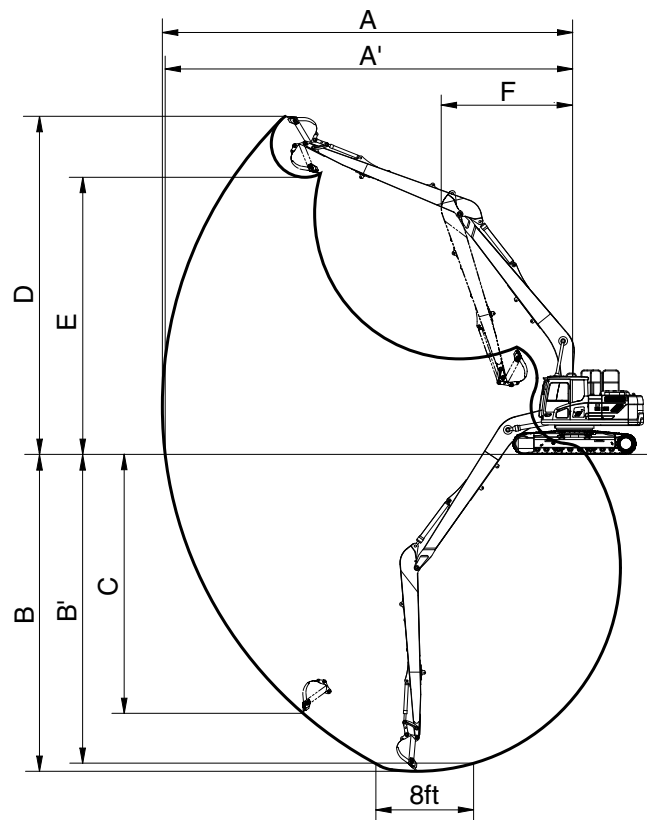


220S2SP05A

Description	m (ft-in)	Boom	5.70 (18' 8")			
		Arm	2.90 (9' 6")	2.00 (6' 7")	2.40 (7' 10")	3.50 (11' 6")
Max digging reach	mm (ft-in)	A	9945 (32' 8")	9145 (30' 0")	9525 (31' 3")	10450 (34' 3")
Max digging reach on ground		A'	9780 (32' 1")	8960 (29' 5")	9355 (30' 8")	10290 (33' 9")
Max digging depth		B	6500 (21' 4")	5585 (18' 4")	5990 (19' 8")	7090 (23' 3")
Max digging depth (8 ft level)		B'	6315 (20' 9")	5360 (17' 7")	5790 (19' 0")	6935 (22' 9")
Max vertical wall digging depth		C	5960 (19' 7")	5070 (16' 8")	5445 (17' 10")	6330 (20' 9")
Max digging height		D	9750 (32' 0")	9370 (30' 9")	9625 (31' 7")	9890 (32' 5")
Max dumping height		E	6990 (22' 11")	6580 (21' 7")	6830 (22' 5")	7160 (23' 6")
Min swing radius		F	3425 (11' 3")	3715 (12' 2")	3400 (11' 2")	3445 (11' 4")
Bucket digging force	kN	SAE	130.4 [141.6]	130.4 [141.6]	130.4 [141.6]	130.4 [141.6]
	kgf		13300 [14440]	13300 [14440]	13300 [14440]	13300 [14440]
	lbf		29320 [31830]	29320 [31830]	29320 [31830]	29320 [31830]
	kN	ISO	152.3 [165.3]	152.3 [165.3]	152.3 [165.3]	152.3 [165.3]
	kgf		15530 [16860]	15530 [16860]	15530 [16860]	15530 [16860]
	lbf		34240 [37170]	34240 [37170]	34240 [37170]	34240 [37170]
Arm digging force	kN	SAE	102.8 [111.6]	144.3 [156.6]	119.3 [129.4]	92.2 [100.1]
	kgf		10480 [11380]	14710 [15970]	12160 [13200]	9400 [10210]
	lbf		23100 [25090]	32430 [35210]	26810 [29100]	20720 [22510]
	kN	ISO	106.9 [116.0]	152.0 [165.0]	124.7 [135.4]	95.4 [103.6]
	kgf		10900 [11830]	15500 [16830]	12720 [13810]	9730 [10560]
	lbf		24030 [26080]	34170 [37100]	28040 [30450]	21450 [23280]

[] : Power boost

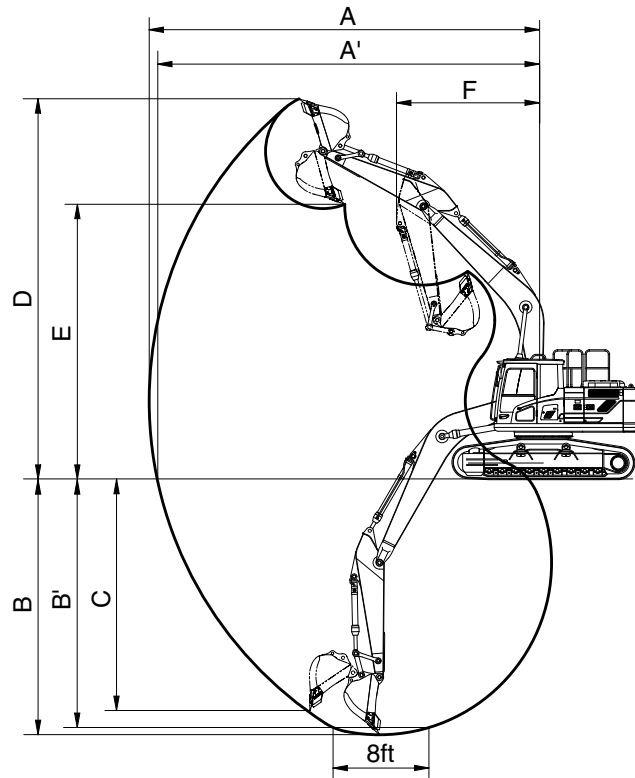
2) HX225S L LONG REACH



220S2SP06A

Description	m (ft-in)	Boom	8.50 (27' 11")
		Arm	6.20 (20' 4")
Max digging reach	mm (ft-in)	A	15425 (50' 7")
Max digging reach on ground		A'	15320 (50' 3")
Max digging depth		B	11500 (37' 9")
Max digging depth (8 ft level)		B'	11355 (37' 3")
Max vertical wall digging depth		C	10265 (33' 8")
Max digging height		D	13445 (44' 1")
Max dumping height		E	11200 (36' 9")
Min swing radius		F	4705 (15' 5")
Bucket digging force	kN	SAE	68.0
	kgf		6930
	lbf		15280
	kN	ISO	80.3
	kgf		8190
	lbf		18060
Arm digging force	kN	SAE	49.5
	kgf		5050
	lbf		11130
	kN	ISO	50.5
	kgf		5150
	lbf		11350

3) HX225S L HIGH WALKER



220S2SP07

Description	m (ft-in)	Boom	5.70 (18' 8")			
		Arm	2.90 (9' 6")	2.00 (6' 7")	2.40 (7' 10")	3.50 (11' 6")
Max digging reach	mm (ft-in)	A	9945 (32' 8")	9145 (30' 0")	9525 (31' 3")	10450 (34' 3")
Max digging reach on ground		A'	9740 (31' 11")	8920 (29' 3")	9310 (30' 7")	10255 (33' 8")
Max digging depth		B	6290 (20' 8")	5385 (17' 8")	5785 (19' 0")	6890 (22' 7")
Max digging depth (8 ft level)		B'	6115 (20' 1")	5160 (16' 11")	5590 (18' 4")	6735 (22' 1")
Max vertical wall digging depth		C	5760 (18' 11")	4870 (16' 0")	5245 (17' 2")	6130 (20' 1")
Max digging height		D	9950 (32' 8")	9570 (31' 5")	9825 (32' 3")	10090 (33' 1")
Max dumping height		E	7190 (23' 7")	6780 (22' 3")	7030 (23' 1")	7360 (24' 2")
Min swing radius		F	3425 (11' 3")	3715 (12' 2")	3340 (10' 11")	3445 (11' 4")
Bucket digging force	kN	SAE	130.4 [141.6]	130.4 [141.6]	130.4 [141.6]	130.4 [141.6]
	kgf		13300 [14440]	13300 [14440]	13300 [14440]	13300 [14440]
	lbf		29320 [31830]	29320 [31830]	29320 [31830]	29320 [31830]
	kN	ISO	152.3 [165.3]	152.3 [165.3]	152.3 [165.3]	152.3 [165.3]
	kgf		15530 [16860]	15530 [16860]	15530 [16860]	15530 [16860]
	lbf		34240 [37170]	34240 [37170]	34240 [37170]	34240 [37170]
Arm digging force	kN	SAE	102.8 [111.6]	144.3 [156.6]	119.3 [129.4]	92.2 [100.1]
	kgf		10480 [11380]	14710 [15970]	12160 [13200]	9400 [10210]
	lbf		23100 [25090]	32430 [35210]	26810 [29100]	20720 [22510]
	kN	ISO	106.9 [116.0]	152.0 [165.0]	124.7 [135.4]	95.4 [103.6]
	kgf		10900 [11830]	15500 [16830]	12720 [13810]	9730 [10560]
	lbf		24030 [26080]	34170 [37100]	28040 [30450]	21450 [23280]

[] : Power boost

4. WEIGHT

1) HX225S L

Item	HX225S L	
	kg	lb
Upperstructure assembly	9650	21270
Main frame weld assembly	1880	4140
Engine assembly	432	953
Main pump assembly	146	322
Main control valve assembly	220	485
Swing motor assembly	254	560
Hydraulic oil and fuel tank assembly	480	1058
Counterweight	3800	8380
Cab assembly	422	930
Lower chassis assembly	8060	17770
Track frame weld assembly	2545	5611
Swing bearing	290	640
Travel motor assembly	305	672
Turning joint	57	125
Sprocket	56	123
Track recoil spring	140	309
Idler	151	333
Upper roller	21	46
Lower roller	48	106
Track-chain assembly (600 mm standard triple grouser shoe)	1360	3000
Front attachment assembly (5.70 m boom, 2.90 m arm, 0.92 m³ SAE heaped bucket)	4030	8880
5.70 m boom assembly	1520	3350
2.90 m arm assembly	750	1650
0.92 m³ SAE heaped bucket	765	1690
Boom cylinder assembly	198	436
Arm cylinder assembly	273	602
Bucket cylinder assembly	161	355
Bucket control linkage total	200	441

2) HX225S L LONG REACH

Item	HX225S L LONG REACH	
	kg	lb
Upperstructure assembly	11150	24852
Main frame weld assembly	1880	4140
Engine assembly	432	953
Main pump assembly	146	322
Main control valve assembly	220	485
Swing motor assembly	254	560
Hydraulic oil and fuel tank assembly	480	1058
Counterweight	5300	11680
Cab assembly	422	930
Lower chassis assembly	8815	19434
Track frame weld assembly	2545	5611
Swing bearing	290	640
Travel motor assembly	305	672
Turning joint	57	125
Sprocket	56	123
Track recoil spring	140	309
Idler	151	333
Upper roller	21	46
Lower roller	48	106
Track-chain assembly (800 mm standard triple grouser shoe)	1735	3825
Front attachment assembly (8.50 m boom, 6.20 m arm, 0.52 m³ SAE heaped bucket)	4600	10140
8.50 m boom assembly	2105	4640
6.20 m arm assembly	1100	2430
0.52 m³ SAE heaped bucket	465	1030
Boom cylinder assembly	198	436
Arm cylinder assembly	273	602
Bucket cylinder assembly	161	355
Bucket control linkage total	132	291

3) HX225S L HIGH WALKER

Item	HX225S L HIGH WALKER	
	kg	lb
Upperstructure assembly	9686	21354
Main frame weld assembly	1950	4300
Engine assembly	432	953
Main pump assembly	146	322
Main control valve assembly	220	485
Swing motor assembly	254	560
Hydraulic oil and fuel tank assembly	480	1058
Counterweight	3800	8380
Cab assembly	422	930
Lower chassis assembly	10246	22589
Track frame weld assembly	3610	7960
Swing bearing	295	650
Travel motor assembly	305	672
Turning joint	57	125
Sprocket	56	123
Track recoil spring	163	360
Idler	151	333
Upper roller	48	106
Lower roller	48	106
Track-chain assembly (600 mm standard triple grouser shoe)	1451	3200
Front attachment assembly (5.70 m boom, 2.90 m arm, 0.92 m³ SAE heaped bucket)	4030	8880
5.70 m boom assembly	1520	3350
2.90 m arm assembly	750	1650
0.92 m³ SAE heaped bucket	765	1690
Boom cylinder assembly	198	436
Arm cylinder assembly	273	602
Bucket cylinder assembly	161	355
Bucket control linkage total	200	441

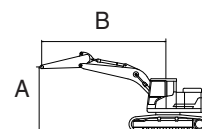
5. LIFTING CAPACITIES













1) HX225S L

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX225S L	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5700	2900	3800	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							*4920 *10850	*4920 *10850			*4330 *9550	*4330 *9550	6.21 (20.4)
6.0 m (19.7 ft)	kg lb							*4830 *10650	*4830 *10650			*4030 *8880	3730 8220	7.34 (24.1)
4.5 m (14.8 ft)	kg lb					*6130 *13510	*6130 *13510	*5330 *11750	5080 11200	*4960 *10930	3560 7850	*3960 *8730	3170 6990	8.03 (26.3)
3.0 m (9.8 ft)	kg lb					*7880 *17370	7390 16290	*6120 *13490	4830 10650	*5300 *11680	3450 7610	*4060 *8950	2890 6370	8.39 (27.5)
1.5 m (4.9 ft)	kg lb					*9500 *20940	6880 15170	*6940 *15300	4590 10120	5210 11490	3340 7360	*4320 *9520	2780 6130	8.48 (27.8)
0.0 m (0.0 ft)	kg lb			*4930 *10870	*4930 *10870	*10340 *22800	6600 14550	7100 15650	4420 9740	5110 11270	3250 7170	4430 9770	2830 6240	8.29 (27.2)
-1.5 m (-4.9 ft)	kg lb	*5620 *12390	*5620 *12390	*9400 *20720	*9400 *20720	*10370 *22860	6530 14400	7020 15480	4340 9570	5080 11200	3220 7100	4820 10630	3060 6750	7.80 (25.6)
-3.0 m (-9.8 ft)	kg lb			*13630 *30050	12860 28350	*9640 *21250	6590 14530	7060 15560	4380 9660			5710 12590	3610 7960	6.96 (22.8)
-4.5 m (-14.8 ft)	kg lb			*10720 *23630	*10720 *23630	*7730 *17040	6810 15010					*5820 *12830	5020 11070	5.60 (18.4)

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.

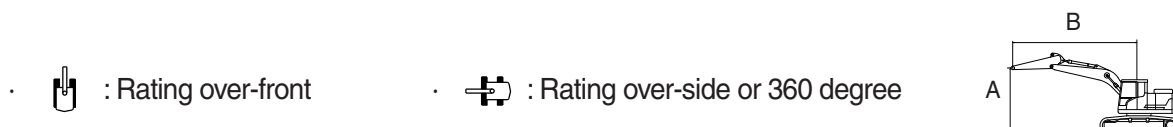
The difference between the weight of a work tool attachment must be subtracted.











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

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

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

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX225S L	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5700	2000	3800	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 lb									*6130 *13510	*6130 *13510	5.05 (16.6)
6.0 m (19.7 ft)	kg lb			*6170 *13600	*6170 *13600	*5780 *12740	5130 11310			*5810 *12810	4610 10160	6.39 (21.0)
4.5 m (14.8 ft)	kg lb			*7370 *16250	*7370 *16250	*6130 *13510	5000 11020			*5780 *12740	3780 8330	7.17 (23.5)
3.0 m (9.8 ft)	kg lb					*6820 *15040	4790 10560	5330 11750	3460 7630	5250 11570	3400 7500	7.58 (24.9)
1.5 m (4.9 ft)	kg lb					7290 16070	4600 10140	5250 11570	3380 7450	5080 11200	3280 7230	7.67 (25.2)
0.0 m (0.0 ft)	kg lb			*10600 *23370	6680 14730	7170 15810	4490 9900			5250 11570	3370 7430	7.46 (24.5)
-1.5 m (-4.9 ft)	kg lb			*10130 *22330	6700 14770	7160 15790	4480 9880			5850 12900	3730 8220	6.92 (22.7)
-3.0 m (-9.8 ft)	kg lb	*11600 *25570	*11600 *25570	*8810 *19420	6840 15080					*6360 *14020	4660 10270	5.95 (19.5)

Note 1. Lifting capacity are based on ISO 10567.

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

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.

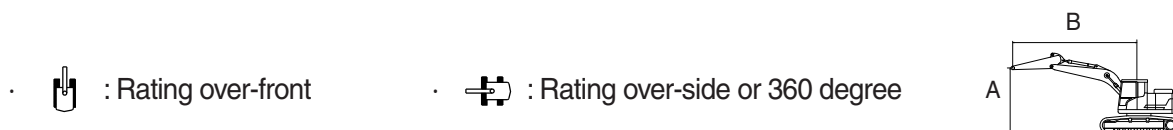
The difference between the weight of a work tool attachment must be subtracted.











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

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

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX225S L	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5700	2400	3800	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 lb									*5580 *12300	*5580 *12300	5.62 (18.4)
6.0 m (19.7 ft)	kg lb					*5340 *11770	5180 11420			*5390 *11880	4140 9130	6.85 (22.5)
4.5 m (14.8 ft)	kg lb			*6820 *15040	*6820 *15040	*5770 *12720	5030 11090	*5380 *11860	3530 7780	5320 11730	3460 7630	7.58 (24.9)
3.0 m (9.8 ft)	kg lb			*8560 *18870	7270 16030	*6520 *14370	4800 10580	5330 11750	3450 7610	4850 10690	3140 6920	7.97 (26.1)
1.5 m (4.9 ft)	kg lb			*9990 *22020	6830 15060	*7250 *15980	4580 10100	5220 11510	3350 7390	4700 10360	3030 6680	8.06 (26.4)
0.0 m (0.0 ft)	kg lb			*10530 *23210	6630 14620	7130 15720	4450 9810	5150 11350	3290 7250	4830 10650	3090 6810	7.85 (25.8)
-1.5 m (-4.9 ft)	kg lb	*9270 *20440	*9270 *20440	*10280 *22660	6610 14570	7080 15610	4410 9720			5320 11730	3390 7470	7.34 (24.1)
-3.0 m (-9.8 ft)	kg lb	*12590 *27760	*12590 *27760	*9230 *20350	6720 14820	*6790 *14970	4490 9900			*6060 *13360	4110 9060	6.44 (21.1)
-4.5 m (-14.8 ft)	kg lb			*6620 *14590	*6620 *14590							

Note 1. Lifting capacity are based on ISO 10567.

- Lifting capacity of the HX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
- The Lift-point is bucket pivot mounting pin on the arm (without bucket mass).
- *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

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

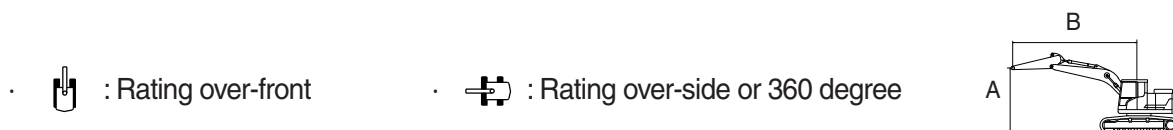
The difference between the weight of a work tool attachment must be subtracted.













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

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

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

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX225S L	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5700	3500	3800	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 lb											*3630 *8000	*3630 *8000	6.89 (22.6)
6.0 m (19.7 ft)	kg lb									*4310 *9500	3650 8050	*3420 *7540	3310 7300	7.91 (26.0)
4.5 m (14.8 ft)	kg lb							*4750 *10470	*4750 *10470	*4490 *9900	3580 7890	*3390 *7470	2840 6260	8.56 (28.1)
3.0 m (9.8 ft)	kg lb			*10620 *23410	*10620 *23410	*6980 *15390	*6980 *15390	*5590 *12320	4870 10740	*4890 *10780	3450 7610	*3480 *7670	2600 5730	8.90 (29.2)
1.5 m (4.9 ft)	kg lb					*8770 *19330	6940 15300	*6490 *14310	4580 10100	5180 11420	3300 7280	*3710 *8180	2500 5510	8.98 (29.5)
0.0 m (0.0 ft)	kg lb			*6220 *13710	*6220 *13710	*9930 *21890	6550 14440	7050 15540	4360 9610	5050 11130	3180 7010	4000 8820	2530 5580	8.80 (28.9)
-1.5 m (-4.9 ft)	kg lb	*5440 *11990	*5440 *11990	*9200 *20280	*9200 *20280	*10290 *22690	6400 14110	6920 15260	4240 9350	4980 10980	3120 6880	4290 9460	2700 5950	8.35 (27.4)
-3.0 m (-9.8 ft)	kg lb	*9040 *19930	*9040 *19930	*13720 *30250	12500 27560	*9900 *21830	6410 14130	6910 15230	4240 9350	5010 11050	3150 6940	4950 10910	3110 6860	7.57 (24.8)
-4.5 m (-14.8 ft)	kg lb			*12180 *26850	*12180 *26850	*8570 *18890	6560 14460	*6170 *13600	4360 9610			*5640 *12430	4060 8950	6.34 (20.8)

Note 1. Lifting capacity are based on ISO 10567.

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

4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

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

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

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

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

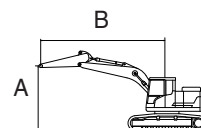
Make adjustments to the rated load as necessary for non-standard configurations.






















2) HX225S L LONG REACH

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX225S L LR	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		8500	6200	5300	800	-	-	-	-	-

⌄ : 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)		9.0 m (29.5 ft)		10.5 m (34.4 ft)		12.0 m (39.4 ft)		13.5 m (44.3 ft)		Capacity		Reach	
																							m (ft)
12.0m	kg																			*970	*970	9.79	
39.4ft	lb																			*2140	*2140	(32.1)	
10.5m	kg													*1530	*1530						*880	*880	11.17
34.4ft	lb													*3370	*3370						*1940	*1940	(36.6)
9.0m	kg													*2000	*2000	*1090	*1090				*830	*830	12.21
29.5ft	lb													*4410	*4410	*2400	*2400				*1830	*1830	(40.0)
7.5m	kg													*2050	*2050	*1800	*1800				*810	*810	12.99
24.6ft	lb													*4520	*4520	*3970	*3970				*1790	*1790	(42.6)
6.0m	kg													*2170	*2170	*2110	2010	*880	*880	*800	*800	13.55	
19.7ft	lb													*4780	*4780	*4650	4430	*1940	*1940	*1760	*1760	(44.5)	
4.5m	kg												*2530	*2530	*2350	*2350	*2220	1940	*1430	*1430	*810	*810	13.94
14.8ft	lb												*5580	*5580	*5180	*5180	*4890	4280	*3150	*3150	*1790	*1790	(45.7)
3.0m	kg					*5420	*5420	*4030	*4030	*3300	*3300	*2850	*2850	*2560	2350	*2360	1850	*1770	1460	*840	*840	14.15	
9.8ft	lb					*11950	*11950	*8880	*8880	*7280	*7280	*6280	*6280	*5640	5180	*5200	4080	*3900	3220	*1850	*1850	(46.4)	
1.5m	kg					*6960	*6960	*4860	*4860	*3810	3680	*3180	2810	*2780	2200	*2510	1760	*1960	1410	*880	*880	14.20	
4.9ft	lb					*15340	*15340	*10710	*10710	*8400	8110	*7010	6190	*6130	4850	*5530	3880	*4320	3110	*1940	*1940	(46.6)	
0.0m	kg			*2670	*2670	*6320	*6320	*5550	4540	*4260	3380	*3490	2610	*2990	2070	*2650	1670	*1970	1360	*940	*940	14.08	
0.0ft	lb			*5890	*5890	*13930	*13930	*12240	10010	*9390	7450	*7690	5750	*6590	4560	*5840	3680	*4340	3000	*2070	*2070	(46.2)	
-1.5m	kg	*2530	*2530	*3460	*3460	*6060	*6060	*6000	4240	*4600	3160	*3740	2460	*3170	1970	2680	1600	*1670	1320	*1040	*1040	13.81	
-4.9ft	lb	*5580	*5580	*7630	*7630	*13360	*13360	*13230	9350	*10140	6970	*8250	5420	*6990	4340	5910	3530	*3680	2910	*2290	*2290	(45.3)	
-3.0m	kg	*3520	*3520	*4440	*4440	*6700	6150	*6220	4090	*4810	3020	*3900	2360	3180	1890	2640	1560			*1170	*1170	13.36	
-9.8ft	lb	*7760	*7760	*9790	*9790	*14770	13560	*13710	9020	*10600	6660	*8600	5200	7010	4170	5820	3440			*2580	*2580	(43.8)	
-4.5m	kg	*4540	*4540	*5560	*5560	*7810	6170	*6230	4050	*4860	2970	3900	2310	3150	1860	2630	1550			*1360	*1360	12.71	
-14.8ft	lb	*10010	*10010	*12260	*12260	*17220	13600	*13730	8930	*10710	6550	8600	5090	6940	4100	5800	3420			*3000	*3000	(41.7)	
-6.0m	kg	*5640	*5640	*6840	*6840	*8000	6290	*6020	4090	*4750	2980	*3870	2320	3170	1880					*1650	1620	11.84	
-19.7ft	lb	*12430	*12430	*15080	*15080	*17640	13870	*13270	9020	*10470	6570	*8530	5110	6990	4140					*3640	3570	(38.8)	
-7.5m	kg	*6860	*6860	*8360	*8360	*7280	6490	*5570	4210	*4430	3060	*3580	2390	*2850	1970					*2170	1930	10.68	
-24.6ft	lb	*15120	*15120	*18430	*18430	*16050	14310	*12280	9280	*9770	6750	*7890	5270	*6280	4340					*4780	4250	(35.0)	
-9.0m	kg			*8410	*8410	*6130	*6130	*4760	4410	*3760	3230	*2880	2550							*2800	2510	9.13	
-29.5ft	lb			*18540	*18540	*13510	*13510	*10490	9720	*8290	7120	*6350	5620							*6170	5530	(30.0)	

Note 1. Lifting capacity are based on ISO 10567.

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

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

4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

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

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

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

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

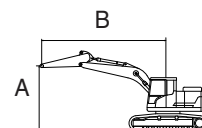
Make adjustments to the rated load as necessary for non-standard configurations.











3) HX225S L HIGH WALKER

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX225S L HW	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5700	2000	3800	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									*6050 *13340	*6050 *13340	5.27 (17.3)
6.0 m (19.7 ft)	kg lb			*6280 *13850	*6280 *13850	*5790 *12760	*5790 *12760			*5800 *12790	5750 12680	6.52 (21.4)
4.5 m (14.8 ft)	kg lb			*7590 *16730	*7590 *16730	*6210 *13690	*6210 *13690			*5780 *12740	4820 10630	7.25 (23.8)
3.0 m (9.8 ft)	kg lb					*6920 *15260	6220 13710	5840 12870	4500 9920	5710 12590	4400 9700	7.61 (25.0)
1.5 m (4.9 ft)	kg lb					*7550 *16640	6030 13290	5760 12700	4420 9740	5580 12300	4290 9460	7.66 (25.1)
0.0 m (0.0 ft)	kg lb			*10580 *23320	8990 19820	*7800 *17200	5920 13050			5820 12830	4460 9830	7.41 (24.3)
-1.5 m (-4.9 ft)	kg lb			*10010 *22070	9030 19910	*7500 *16530	5930 13070			*6340 *13980	5010 11050	6.81 (22.4)
-3.0 m (-9.8 ft)	kg lb	*11230 *24760	*11230 *24760	*8540 *18830	*8540 *18830					*6330 *13960	*6330 *13960	5.78 (18.9)

Note 1. Lifting capacity are based on ISO 10567.

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

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

4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

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

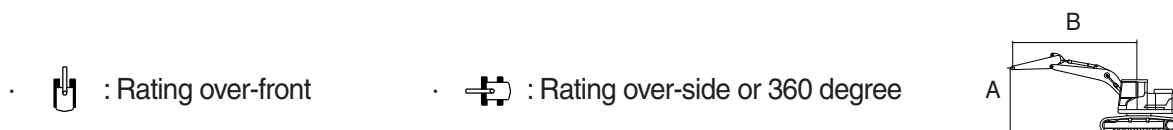
The difference between the weight of a work tool attachment must be subtracted.











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

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

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

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX225S L HW	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5700	2400	3800	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 lb									*5540 *12210	*5540 *12210	5.82 (19.1)
6.0 m (19.7 ft)	kg lb					*5370 *11840	*5370 *11840			*5380 *11860	5190 11440	6.97 (22.9)
4.5 m (14.8 ft)	kg lb			*7040 *15520	*7040 *15520	*5860 *12920	*5860 *12920	*5390 *11880	4580 10100	*5320 *11730	4430 9770	7.65 (25.1)
3.0 m (9.8 ft)	kg lb			*8790 *19380	*8790 *19380	*6630 *14620	6230 13730	*5650 *12460	4490 9900	5280 11640	4070 8970	8.00 (26.2)
1.5 m (4.9 ft)	kg lb			*10120 *22310	9110 20080	*7330 *16160	6010 13250	5730 12630	4390 9680	5170 11400	3970 8750	8.05 (26.4)
0.0 m (0.0 ft)	kg lb			*10540 *23240	8930 19690	*7710 *17000	5880 12960	5660 12480	4330 9550	5360 11820	4110 9060	7.80 (25.6)
-1.5 m (-4.9 ft)	kg lb	*10260 *22620	*10260 *22620	*10190 *22470	8930 19690	*7580 *16710	5850 12900			5960 13140	4550 10030	7.25 (23.8)
-3.0 m (-9.8 ft)	kg lb	*12250 *27010	*12250 *27010	*9010 *19860	*9010 *19860	*6560 *14460	5960 13140			*6060 *13360	5620 12390	6.28 (20.6)

Note 1. Lifting capacity are based on ISO 10567.

- Lifting capacity of the HX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
- The Lift-point is bucket pivot mounting pin on the arm (without bucket mass).
- *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

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

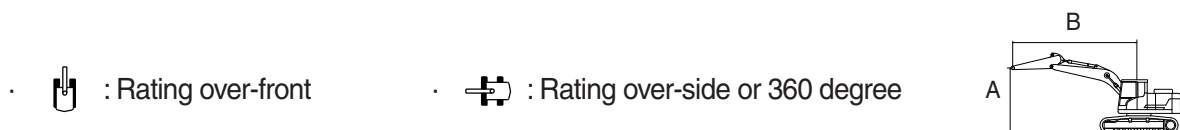
The difference between the weight of a work tool attachment must be subtracted.













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

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

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

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX225S L HW	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5700	2900	3800	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 lb							*4850 *10690	*4850 *10690			*4270 *9410	*4270 *9410	6.40 (21.0)
6.0 m (19.7 ft)	kg lb							*4870 *10740	*4870 *10740			*4010 *8840	*4010 *8840	7.45 (24.4)
4.5 m (14.8 ft)	kg lb					*6340 *13980	*6340 *13980	*5420 *11950	*5420 *11950	*5000 *11020	4600 10140	*3970 *8750	*3970 *8750	8.09 (26.6)
3.0 m (9.8 ft)	kg lb					*8120 *17900	*8120 *17900	*6240 *13760	*6240 *13760	*5350 *11790	4490 9900	*4090 *9020	3760 8290	8.42 (27.6)
1.5 m (4.9 ft)	kg lb					*9660 *21300	9160 20190	*7040 *15520	6010 13250	5710 12590	4370 9630	*4370 *9630	3670 8090	8.47 (27.8)
0.0 m (0.0 ft)	kg lb			*5470 *12060	*5470 *12060	*10390 *22910	8890 19600	*7550 *16640	5840 12870	5620 12390	4280 9440	*4890 *10780	3770 8310	8.24 (27.0)
-1.5 m (-4.9 ft)	kg lb	*6250 *13780	*6250 *13780	*10100 *22270	*10100 *22270	*10320 *22750	8840 19490	*7620 *16800	5780 12740	5600 12350	4270 9410	5400 11900	4120 9080	7.71 (25.3)
-3.0 m (-9.8 ft)	kg lb			*13330 *29390	*13330 *29390	*9470 *20880	8920 19670	*7000 *15430	5840 12870			*5830 *12850	4930 10870	6.81 (22.4)
-4.5 m (-14.8 ft)	kg lb			*10170 *22420	*10170 *22420	*7310 *16120	*7310 *16120					*5780 *12740	*5780 *12740	5.36 (17.6)

Note 1. Lifting capacity are based on ISO 10567.

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

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

4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

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

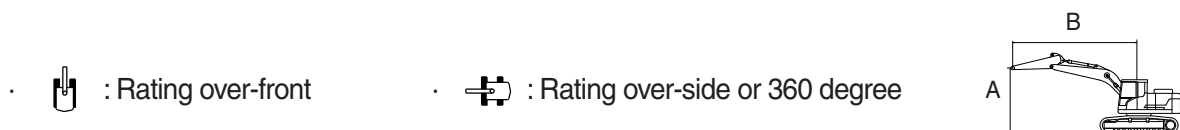
The difference between the weight of a work tool attachment must be subtracted.













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

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

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

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX225S L HW	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		5700	3500	3800	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 lb											*3590 *7910	*3590 *7910	7.05 (23.1)
6.0 m (19.7 ft)	kg lb							*4260 *9390	*4260 *9390	*4310 *9500	*4310 *9500	*3410 *7520	*3410 *7520	8.02 (26.3)
4.5 m (14.8 ft)	kg lb							*4850 *10690	*4850 *10690	*4530 *9990	*4530 *9990	*3400 *7500	*3400 *7500	8.62 (28.3)
3.0 m (9.8 ft)	kg lb					*7240 *15960	*7240 *15960	*5710 *12590	*5710 *12590	*4960 *10930	4480 9880	*3510 *7740	3410 7520	8.93 (29.3)
1.5 m (4.9 ft)	kg lb					*8970 *19780	*8970 *19780	*6600 *14550	6000 13230	*5430 *11970	4330 9550	*3750 *8270	3320 7320	8.97 (29.4)
0.0 m (0.0 ft)	kg lb			*6530 *14400	*6530 *14400	*10020 *22090	8830 19470	*7260 *16010	5790 12760	5560 12260	4220 9300	*4170 *9190	3390 7470	8.76 (28.7)
-1.5 m (-4.9 ft)	kg lb	*5900 *13010	*5900 *13010	*9710 *21410	*9710 *21410	*10280 *22660	8690 19160	*7520 *16580	5680 12520	5500 12130	4160 9170	4810 10600	3660 8070	8.26 (27.1)
-3.0 m (-9.8 ft)	kg lb	*9580 *21120	*9580 *21120	*14270 *31460	*14270 *31460	*9790 *21580	8720 19220	*7230 *15940	5690 12540			*5470 *12060	4250 9370	7.43 (24.4)
-4.5 m (-14.8 ft)	kg lb			*11750 *25900	*11750 *25900	*8290 *18280	*8290 *18280	*5870 *12940	5850 12900			*5650 *12460	*5650 *12460	6.13 (20.1)

Note 1. Lifting capacity are based on ISO 10567.

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

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

4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

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

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

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

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

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

6. BUCKET SELECTION GUIDE

1) HX225S L, 3800 KG COUNTERWEIGHT



General bucket



Heavy duty
(without side cutter)



Rock heavy duty



Long reach

Type	Capacity		Width		Weight	Tooth	MONO			
	SAE Heaped	CECE heaped	Without side cutter	With side cutter			Recommendation			
							5.70 m (18' 8") Boom			
	m³ (yd³)	m³ (yd³)	mm (in)	mm (in)	kg (lb)	EA	2.00 m (6' 7") Arm	2.40 m (7' 10") Arm	2.90 m (9' 6") Arm	3.50 m (11' 6") Arm
General bucket	0.92 (1.20)	0.81 (1.06)	1085 (42.7")	1230 (48.4")	750 (1650)	5	●	●	●	◐
	1.05 (1.37)	0.96 (1.26)	1220 (48.0")	1370 (53.9")	790 (1740)	5	●	●	◐	■
	1.17 (1.53)	1.00 (1.31)	1340 (52.8")	1490 (58.7")	850 (1870)	6	◐	◐	■	▲
	1.28 (1.67)	1.11 (1.45)	1455 (57.3")	1605 (63.2")	885 (1950)	6	◐	■	■	▲
Heavy duty	0.92 (1.20)	0.83 (1.09)	1050 (41.3")	1095 (43.1")	865 (1910)	5	●	●	●	◐
	1.08 (1.41)	0.97 (1.27)	1200 (47.2")	1245 (49.0")	935 (2060)	5	●	◐	■	■
Rock heavy duty	0.91 (1.19)	0.83 (1.09)	1050 (41.3")	1095 (43.1")	1050 (2310)	4	●	●	◐	X
	1.07 (1.40)	0.97 (1.27)	1200 (47.2")	1245 (49.0")	1160 (2560)	5	◐	◐	■	X
	1.23 (1.61)	1.11 (1.45)	1350 (53.1")	1395 (54.9")	1240 (2730)	5	■	■	▲	X
	1.00 (1.31)	0.87 (1.14)	1240 (48.8")	1245 (49.0")	985 (2170)	5	●	●	◐	X
	0.87 (1.14)	0.75 (0.98)	1150 (45.3")	-	875 (1930)	5	●	●	●	X
	1.20 (1.57)	1.00 (1.31)	1425 (56.1")	-	990 (2180)	5	◐	■	■	X

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

※ These recommendations are for general conditions and average use.

Work tools and ground conditions have effects on machine performance.

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

Consult your HD Hyundai Construction Equipment dealer for information on selecting the correct boom—arm—bucket combination.

2) HX225S L, 4200 KG COUNTERWEIGHT



General bucket



Heavy duty
(without side cutter)



Rock heavy duty



Long reach

Type	Capacity		Width		Weight	Tooth	MONO			
	SAE Heaped	CECE heaped	Without side cutter	With side cutter			Recommendation			
					5.70 m (18' 8") Boom					
					m³ (yd³)	m³ (yd³)	mm (in)	mm (in)	kg (lb)	EA
General bucket	0.92 (1.20)	0.81 (1.06)	1085 (42.7")	1230 (48.4")	750 (1650)	5	●	●	●	◐
	1.05 (1.37)	0.96 (1.26)	1220 (48.0")	1370 (53.9")	790 (1740)	5	●	●	◐	■
	1.17 (1.53)	1.00 (1.31)	1340 (52.8")	1490 (58.7")	850 (1870)	6	●	◐	■	■
	1.28 (1.67)	1.11 (1.45)	1455 (57.3")	1605 (63.2")	885 (1950)	6	◐	◐	■	▲
Heavy duty	0.92 (1.20)	0.83 (1.09)	1050 (41.3")	1095 (43.1")	865 (1910)	5	●	●	●	◐
	1.08 (1.41)	0.97 (1.27)	1200 (47.2")	1245 (49.0")	935 (2060)	5	●	●	◐	■
Rock heavy duty	0.91 (1.19)	0.83 (1.09)	1050 (41.3")	1095 (43.1")	1050 (2310)	4	●	●	●	X
	1.07 (1.40)	0.97 (1.27)	1200 (47.2")	1245 (49.0")	1160 (2560)	5	●	◐	■	X
	1.23 (1.61)	1.11 (1.45)	1350 (53.1")	1395 (54.9")	1240 (2730)	5	◐	■	■	X
	1.00 (1.31)	0.87 (1.14)	1240 (48.8")	1245 (49.0")	985 (2170)	5	●	●	◐	X
	0.87 (1.14)	0.75 (0.98)	1150 (45.3")	-	875 (1930)	5	●	●	●	X
	1.20 (1.57)	1.00 (1.31)	1425 (56.1")	-	990 (2180)	5	◐	◐	■	X

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

※ These recommendations are for general conditions and average use.

Work tools and ground conditions have effects on machine performance.

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

Consult your HD Hyundai Construction Equipment dealer for information on selecting the correct boom—arm—bucket combination.

3) HX225S L LONG REACH, 5300 KG COUNTERWEIGHT



General bucket



Heavy duty
(without side cutter)



Rock heavy duty



Long reach

Type	Capacity		Width		Weight	Tooth	MONO
							Recommendation
	SAE Heaped	CECE heaped	Without side cutter	With side cutter			8.50 m (27' 11") Boom
	m ³ (yd ³)	m ³ (yd ³)	mm (in)	mm (in)	kg (lb)	EA	6.20 m (20' 4") Arm
LR	0.51 (0.67)	0.45 (0.59)	865 (34.1")	995 (39.2")	395 (870)	5	■

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

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Work tools and ground conditions have effects on machine performance.

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

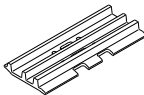
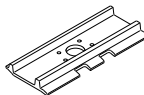
Consult your HD Hyundai Construction Equipment dealer for information on selecting the correct boom–arm–bucket combination.

7. UNDERCARRIAGE

1) 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				Double grouser	
								
HX225S L	Shoe width	mm (in)	600 (24)	700 (28)	800 (32)	900 (36)	-	-
	Operating weight	kg (lb)	22070 (48660)	22550 (49710)	22830 (50330)	23150 (51040)	-	-
	Ground pressure	kgf/cm ² (psi)	0.47 (6.68)	0.41 (5.58)	0.36 (5.18)	0.33 (4.67)	-	-
	Overall width	mm (ft-in)	2990 (9' 10")	3090 (10' 2")	3190 (10' 6")	3290 (10' 10")	-	-
HX225S L LONG REACH	Shoe width	mm (in)	-	-	800 (32)	-	-	-
	Operating weight	kg (lb)	-	-	24830 (54740)	-	-	-
	Ground pressure	kgf/cm ² (psi)	-	-	0.40 (5.64)	-	-	-
	Overall width	mm (ft-in)	-	-	3190 (10' 6")	-	-	-
HX225S L HIGH WALKER	Shoe width	mm (in)	600 (24)	700 (28)	800 (32)	900 (36)	600 (24)	700 (28)
	Operating weight	kg (lb)	24300 (53570)	24580 (54190)	24860 (54810)	25180 (55510)	24530 (54080)	24850 (54780)
	Ground pressure	kgf/cm ² (psi)	0.52 (7.36)	0.45 (6.38)	0.40 (5.64)	0.36 (5.08)	0.52 (7.42)	0.45 (6.45)
	Overall width	mm (ft-in)	3395 (11' 2")	3495 (11' 6")	3595 (11' 10")	3695 (12' 1")	3395 (11' 2")	3495 (11' 6")

3) NUMBER OF ROLLERS AND SHOES ON EACH SIDE

Item	Quantity
Upper rollers	2 EA
Lower rollers	8 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 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
700 mm triple grouser	Option	B
600,700 mm double grouser ★1	Option	B
800 mm triple grouser	Option	C
800 mm triple grouser (long reach)	Standard	C
900 mm triple grouser	Option	C

★1 : HIGH WALKER ONLY

※ **Table 2**

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

8. SPECIFICATIONS FOR MAJOR COMPONENTS

1) ENGINE

Item	Specification
Model	HD Hyundai Construction Equipment HM5.9
Type	4-cycle, turbocharged, charge air cooled, mechanical controlled diesel engine
Cooling method	Water cooled
Number of cylinders and arrangement	6 cylinders, in-line
Firing order	1-5-3-6-2-4
Combustion chamber type	Direct injection type
Cylinder bore×stroke	102 × 120 mm (4.02 " × 4.72 ")
Piston displacement	5900 cc (360 cu in)
Compression ratio	17.3 : 1
Rated net horse power (SAE J1349)	147 Hp at 1950 rpm (110 kW at 1950 rpm)
Rated gross horse power (SAE J1995)	150 Hp at 1950 rpm (112 kW at 1950 rpm)
Maximum torque at 1300 rpm	62.7 kgf · m (453 lbf · ft)
Engine oil quantity	20 ℓ (5.3 U.S. gal)
Dry weight	437 kg (963 lb)
High idling speed	2200 + 50 rpm
Low idling speed	1050 ± 100 rpm
Min. fuel consumption	155 g/Hp · hr at 1500 rpm
Starting motor	Nippon denso (24 V-4.5 kW)
Alternator	Valeo (24 V-95 A)
Battery	2 × 12V × 100Ah

2) MAIN PUMP

Item	Specification
Type	Variable displacement tandem axis piston pumps
Capacity	2 × 130 cc/rev
Maximum pressure	350 kgf/cm ² (4980 psi) [380 kgf/cm ² (5400 psi)]
Rated oil flow	2 × 247 ℓ /min (65.2 U.S. gpm/ 54.3 U.K. gpm)
Rated speed	1900 rpm

[] : Power boost

3) GEAR PUMP

Item	Specification
Type	Fixed displacement gear pump single stage
Capacity	10 cc/rev
Maximum pressure	44.9 kgf/cm ² (640 psi)
Rated oil flow	19.0 ℓ/min (5.0 U.S. gpm/4.2 U.K. gpm)

4) MAIN CONTROL VALVE

Item		Specification	
		HX225S L	HX225S L Long reach
Type		10 spools two-block	
Operating method		Hydraulic pilot system	
Main relief valve pressure		350 kgf/cm ² (4980 psi) [380 kgf/cm ² (5400 psi)] * ¹ 350 kgf/cm ² (4980 psi) [Not applied power boost]	
Port relief valve pressure	Boom	400 kgf/cm ² (5690 psi)	
	Arm	400 kgf/cm ² (5690 psi)	300 kgf/cm ² (4270 psi)
	Bucket	400 kgf/cm ² (5690 psi)	280 kgf/cm ² (3980 psi)

[] : Power boost *¹ : Long reach only

5) SWING MOTOR

Item	Specification
Type	Two fixed displacement axial piston motor
Capacity	142.8 cc/rev
Relief pressure	265 kgf/cm ² (3770 psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	63.4 kgf · m (459 lbf · ft)
Brake release pressure	35.5 kgf/cm ² (500 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)
Reduction gear type	2-stage planetary
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	15.4 kgf/cm ² (220 psi)
Braking torque	65.4 kgf · m (473 lbf · ft)

7) REMOTE CONTROL VALVE

Item		Specification
Type		Pressure reducing type
Operating pressure	Minimum	6.5 kgf/cm ² (92 psi)
	Maximum	25 kgf/cm ² (356 psi)
Single operation stroke	Lever	90 mm (3.5 in)
	Pedal	130 mm (4.4 in)

8) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Stroke	Ø 120 × 1290 mm
	Cushion	Extend only
Arm cylinder	Bore dia × Stroke	Ø 140 × 1443 mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Stroke	Ø 120 × 1060 mm
	Cushion	Extend only
Bucket cylinder (Long reach)	Bore dia × Stroke	Ø 95 × 900 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.

9. RECOMMENDED OILS

HD Hyundai Construction Equipment genuine lubricating oils have been developed to offer the best performance and service life for your equipment. These oils have been tested according to the specifications of HD Hyundai Construction Equipment and, therefore, will meet the highest safety and quality requirements. We recommend that you use only HD Hyundai Construction Equipment genuine lubricating oils and grease officially approved by HD Hyundai Construction Equipment.

Service point	Kind of fluid	Capacity ℓ (U.S. gal)	Ambient temperature °C (°F)							
			-50 (-58)	-30 (-22)	-20 (-4)	-10 (14)	0 (32)	10 (50)	20 (68)	30 (86)
Engine oil pan	Engine oil	20 (5.3)	★SAE 5W-40							
			SAE 30							
			SAE 10W							
			SAE 10W-30							
			SAE 15W-40							
Swing drive	Gear oil	6.2 (1.6)	★SAE 75W-90							
Final drive		4.5×2 (1.2×2)	SAE 80W-90							
Hydraulic tank	Hydraulic oil	Tank : 160 (42.3) System : 275 (72.6)	★ISO VG 15							
			ISO VG 32							
			ISO VG 46							
			ISO VG 68							
Fuel tank	Diesel fuel	400 (106)	★ASTM D975 NO.1							
			ASTM D975 NO.2							
Fitting (grease nipple)	Grease	As required	★NLGI NO.1							
			NLGI NO.2							
Radiator (reservoir tank)	Mixture of antifreeze and soft water★ ¹	31 (8.2)	Ethylene glycol base permanent type (50 : 50)							
			★Ethylene glycol base permanent type (60 : 40)							

SAE : Society of Automotive Engineers

API : American Petroleum Institute

ISO : International Organization for Standardization

NLGI : National Lubricating Grease Institute

ASTM : American Society of Testing and Material

★ : Cold region

Russia, CIS, Mongolia

★1 : Soft water

City water or distilled water

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

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

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