# SECTION 1 GENERAL

Group	1	Safety Hints	1-1
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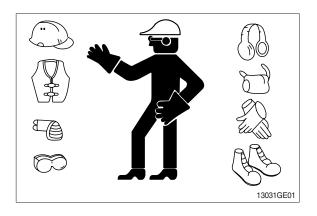
# **GROUP 1 SAFETY**

## **FOLLOW SAFE PROCEDURE**

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

## WEAR PROTECTIVE CLOTHING

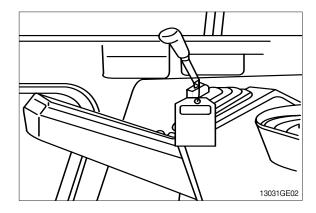
Wear close fitting clothing and safety equipment appropriate to the job.



## 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.



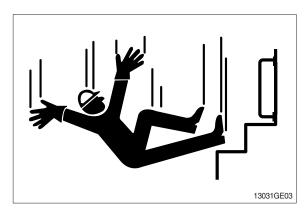
## **USE HANDHOLDS AND STEPS**

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.

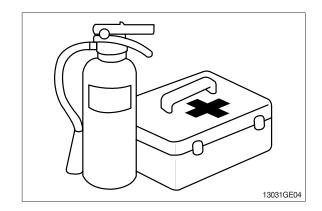


## PREPARE FOR EMERGENCIES

Be prepared if a fire starts.

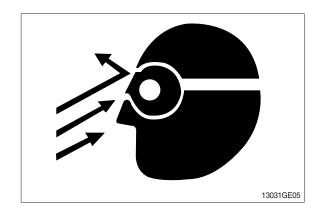
Keep a first aid kit and fire extinguisher handy.

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



## PROTECT AGAINST FLYING DEBRIS

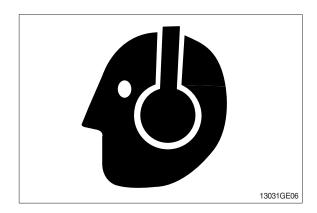
Guard against injury from flying pieces of metal or debris; Wear goggles or safety glasses.



## PROTECT AGAINST NOISE

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

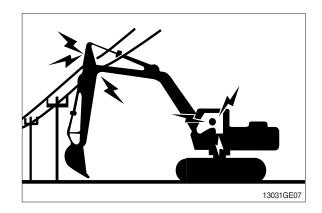
Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.



## **AVOID POWER LINES**

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

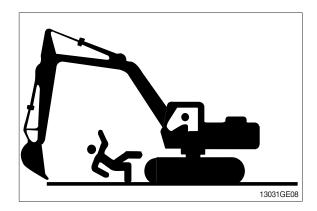
Never move any part of the machine or load closer to electric line than 3m(10ft) plus twice the line insulator length.



## 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.

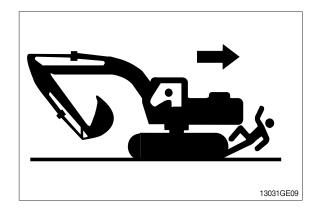


#### MOVE AND OPERATE MACHINE SAFELY

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 FORM OPERATOR'S SEAT

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

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



## PARK MACHINE SAFELY

Before working on the machine:

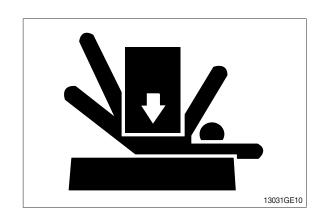
- · Park machine on a level surface.
- · Lower bucket to the ground.
- · Turn auto idle switch off.
- · Run engine at low idle speed without load for 5 minutes.
- Turn key switch to OFF to stop engine. Remove key from switch.
- · Place safety lever to locked position.
- · Allow engine to cool.

## 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.

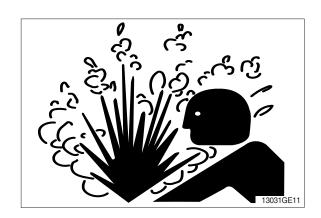
Do not work under a machine that is supported solely by a jack. Follow recommended procedures in this manual.



## 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.

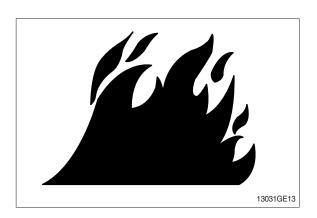
Fill fuel tank outdoors.



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.

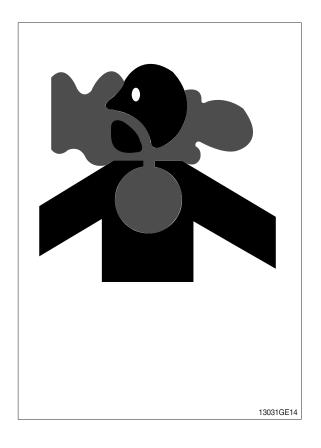
Do all work outside or in a well ventilated area. Dispose of paint and solvent properly.

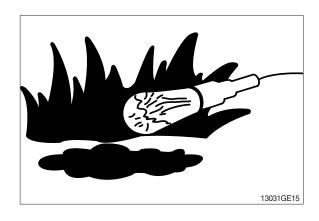
Remove paint before welding or heating:

- · 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 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.

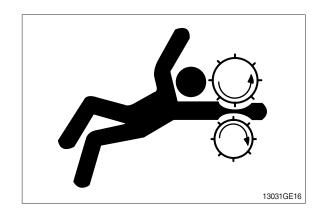




## SERVICE MACHINE SAFELY

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.

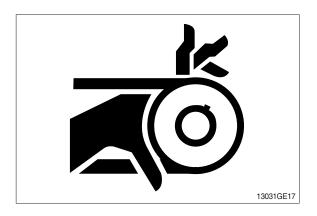
Remove rings and other jewelry to prevent electrical shorts and entanglement in moving parts.



## STAY CLEAR OF MOVING PARTS

Entanglements in moving parts can cause serious injury.

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



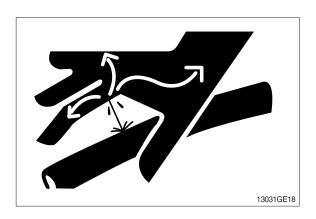
## **AVOID HIGH PRESSURE FLUIDS**

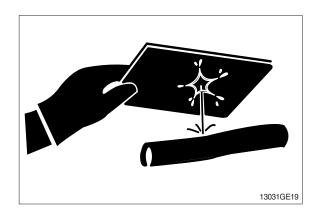
Escaping fluid under pressure can penetrate the skin causing serious injury.

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  $^{\circ}$ C (60  $^{\circ}$ F).



## PREVENT ACID BURNS

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

## Avoid the hazard by:

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

# If you spill acid on yourself:

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

#### If acid is swallowed:

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

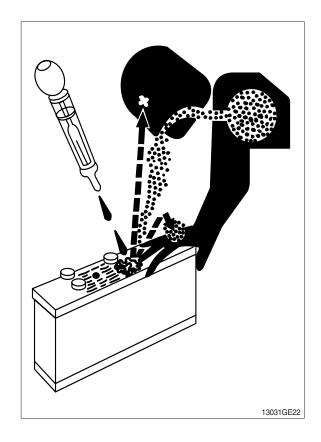
#### **USE TOOLS PROPERLY**

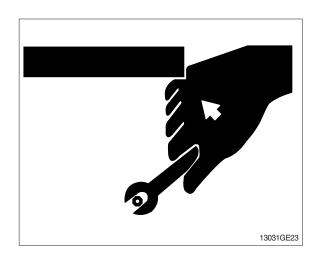
Use tools appropriate to the work. Makeshift tools, parts, and procedures can create safety hazards.

Use power tools only to loosen threaded tools and fasteners.

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

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



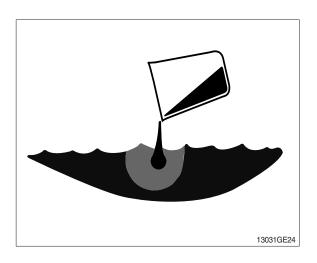


## **DISPOSE OF FLUIDS PROPERLY**

Improperly disposing of fluids can harm the environment and ecology. Before draining any fluids, find out the proper way to dispose of waste from your local environmental agency.

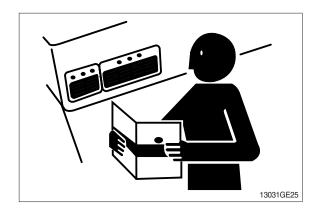
Use proper containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.

DO NOT pour oil into the ground, down a drain, or into a stream, pond, or lake. Observe relevant environmental protection regulations when disposing of oil, fuel, coolant, brake fluid, filters, batteries, and other harmful waste.



## **REPLACE SAFETY LABELS**

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

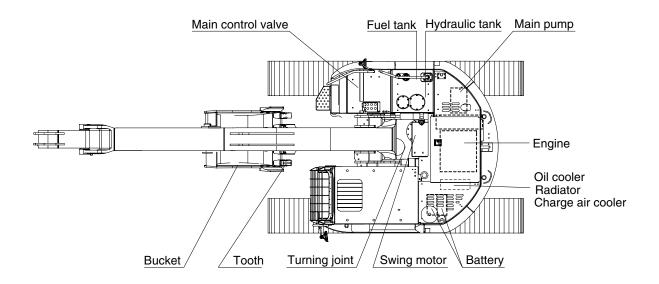


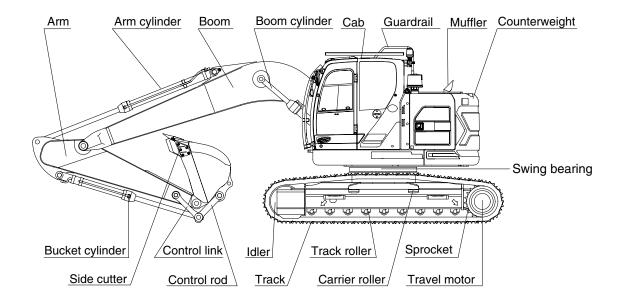
#### LIVE WITH SAFETY

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

# **GROUP 2 SPECIFICATIONS**

# 1. MAJOR COMPONENT

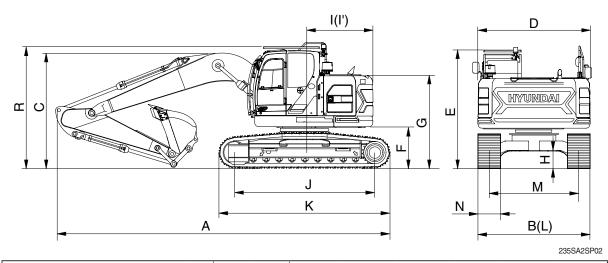




235SA2SP01

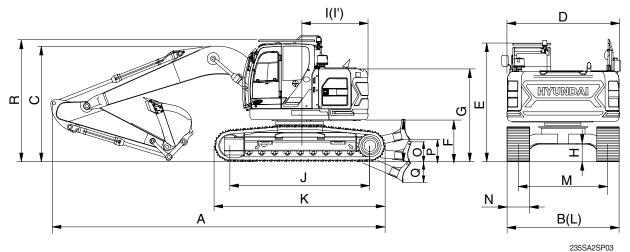
# 2. SPECIFICATIONS

# 1) HX235LCRT3



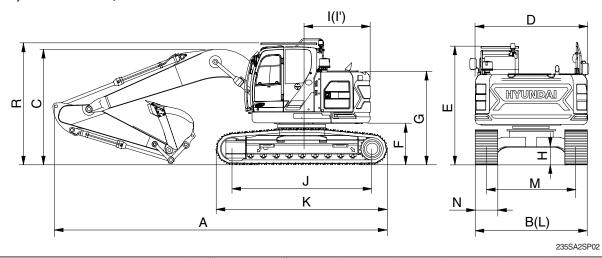
		Uı	nit		Specification					
Description		m (ft in)	Boom		5.68 (18' 8")					
Description		m (ft-in)	Arm	2.92 (9' 7")	2.00 (6' 7")	2.40 (7' 10")				
		mm (in)	Shoe	600 (24)						
Operating weight		kg	(lb)	24200 53350	24000 52910	24100 53130				
Bucket capacity (SAE heaped), stand	dard	m³ (yd³)		0.8 (1.05)	0.8 (1.05)	0.8 (1.05)				
Overall length	Α			8910 ( 29' 3" )	9050 ( 29' 8" )	8950 ( 29' 4" )				
Overall width	В			2990 ( 9' 10" )	2990 ( 9' 10" )	2990 ( 9' 10" )				
Overall height of boom	С			3040 ( 10' 0" )	3240 ( 10' 8" )	3130 ( 10' 3" )				
Superstructure width	D			2980 ( 9' 9" )	2980 ( 9' 9" )	2980 ( 9' 9" )				
Overall height of cab	Е			3100 ( 10' 2" )	3100 ( 10' 2" )	3100 ( 10' 2" )				
Ground clearance of counterweight	F		nm (ft-in)	1060 (3'6")	1060 ( 3' 6" )	1060 ( 3' 6" )				
Overall height of engine hood	G			2430 ( 8' 0" )	2430 ( 8' 0" )	2430 ( 8' 0" )				
Overall height of handrail	G'	mm		3380 ( 11' 1" )	3380 ( 11' 1" )	3380 ( 11' 1" )				
Minimum ground clearance	Н	1111111		470 ( 1' 7" )	470 ( 1' 7" )	470 ( 1' 7" )				
Rear-end distance	I			1780 ( 5' 10" )	1780 ( 5' 10" )	1780 ( 5' 10" )				
Rear-end swing radius	ľ			1780 (5' 10")	1780 (5' 10")	1780 ( 5' 10" )				
Distance between tumblers	J			3650 ( 12' 0" )	3650 ( 12' 0" )	3650 ( 12' 0" )				
Undercarriage length	K			4404 ( 14' 5" )	4404 ( 14' 5" )	4404 ( 14' 5" )				
Undercarriage width	L			2990 ( 9' 10" )	2990 ( 9' 10" )	2990 ( 9' 10" )				
Track gauge	М			2390 ( 7' 10" )	2390 ( 7' 10" )	2390 ( 7' 10" )				
Track shoe width, standard	Ν			600 (24")	600 (24")	600 (24")				
Travel speed (low/high)		km/hr	(mph)	3.25/5.62 (2.02/3.49)	3.25/5.62 (2.02/3.49)	3.25/5.62 (2.02/3.49)				
Swing speed		rp	m	11.27	11.27	11.27				
Gradeability		Degre	e (%)	35 (70)	35 (70)	35 (70)				
Ground pressure	kgf/cm	n² (psi)	0.52 (7.33)	0.51 (7.29)	0.51 (7.30)					
Max traction force	kg	(lb)	22194 (48929)	22194 (48929)	22194 (48929)					

# 2) HX235LCRT3, WITH DOZER



						235SA2SP03
		Uı	nit		Specification	
Description		m (ft in)	Boom		5.68 (18' 8")	
Description		m (ft-in)	Arm	2.92 (9' 7")	2.00 (6' 7")	2.40 (7' 10")
		mm (in)	Shoe		600 (24)	
Operating weight		kg	(lb)	25600 56440	25500 56220	25500 56220
Bucket capacity (SAE heaped), stan-	dard	m³ (yd³)		0.8 (1.05)	0.8 (1.05)	0.8 (1.05)
Overall length	Α			8910 ( 29' 3" )	9050 ( 29' 8" )	8950 ( 29' 4" )
Overall width	В			2990 ( 9' 10" )	2990 ( 9' 10" )	2990 ( 9' 10" )
Overall height of boom	С			3040 ( 10' 0" )	3240 ( 10' 8" )	3130 ( 10' 3" )
Superstructure width	D			2980 ( 9' 9" )	2980 ( 9' 9" )	2980 ( 9' 9" )
Overall height of cab	Е			3100 ( 10' 2" )	3100 ( 10' 2" )	3100 ( 10' 2" )
Ground clearance of counterweight	F			1060 (3'6")	1060 ( 3' 6" )	1060 ( 3' 6" )
Overall height of engine hood	G			2430 (8'0")	2430 ( 8' 0" )	2430 ( 8' 0" )
Overall height of handrail	G'		,	3380 ( 11' 1" )	3380 ( 11' 1" )	3380 ( 11' 1" )
Minimum ground clearance	Н			470 ( 1' 7" )	470 ( 1' 7" )	470 ( 1' 7" )
Rear-end distance	I	mm	(ft-in)	1780 ( 5' 10" )	1780 ( 5' 10" )	1780 ( 5' 10" )
Rear-end swing radius	ľ	_		1780 (5' 10")	1780 (5'10")	1780 ( 5' 10" )
Distance between tumblers	J			3650 ( 12' 0" )	3650 ( 12' 0" )	3650 ( 12' 0" )
Undercarriage length	K			4404 ( 14' 5" )	4404 ( 14' 5" )	4404 ( 14' 5" )
Undercarriage width	L			2990 ( 9' 10" )	2990 ( 9' 10" )	2990 ( 9' 10" )
Track gauge	М			2390 ( 7' 10" )	2390 (7'10")	2390 ( 7' 10" )
Track shoe width, standard	Ν			600 (24")	600 (24")	600 (24")
Height of blade	0			739 ( 2' 5" )	739 (2'5")	739 ( 2' 5" )
Ground clearance of blade up	Р			550 ( 1' 10" )	550 ( 1' 10" )	550 ( 1' 10" )
Depth of blade down Q				413 ( 1' 4" )	413 ( 1' 4" )	413 ( 1' 4" )
Travel speed (low/high)		km/hr	(mph)	3.25/5.62 (2.02/3.49)	3.25/5.62 (2.02/3.49)	3.25/5.62 (2.02/3.49)
Swing speed		rp	m	11.27	11.27	11.27
Gradeability	Degre	ee (%)	35 (70)	35 (70) 35 (70)		
Ground pressure	kgf/cm	n² (psi)	0.55 (7.75)	0.54 (7.72)	0.54 (7.72)	
Max traction force		kg	(lb)	22194 (48929)	22194 (48929)	22194 (48929)

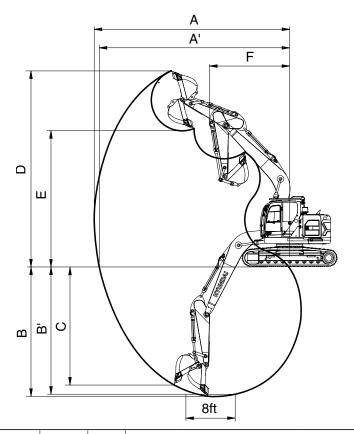
# 3) HX235LCRT3, HEAVY DUTY



		Uı	nit		Specification	
Description		(ft :)	Boom		5.68 (18' 8")	
Description		m (ft-in)	Arm	2.92 (9' 7")	2.00 (6' 7")	2.40 (7' 10")
		mm (in)	Shoe		600 (24)	
Operating weight		kg	(lb)	24200 53350	24000 52910	24100 53130
Bucket capacity (SAE heaped), standard	dard	m³ (yd³)		0.8 (1.05)	0.8 (1.05)	0.8 (1.05)
Overall length	Α			8910 ( 29' 3" )	9050 ( 29' 8" )	8950 ( 29' 4" )
Overall width	В			2990 ( 9' 10" )	2990 ( 9' 10" )	2990 ( 9' 10" )
Overall height of boom	С			3040 ( 10' 0" )	3240 ( 10' 8" )	3130 ( 10' 3" )
Superstructure width	D			2980 ( 9' 9" )	2980 ( 9' 9" )	2980 ( 9' 9" )
Overall height of cab	Е			3100 ( 10' 2" )	3100 ( 10' 2" )	3100 ( 10' 2" )
Ground clearance of counterweight	F			1060 ( 3' 6" )	1060 ( 3' 6" )	1060 (3'6")
Overall height of engine hood	G			2430 ( 8' 0" )	2430 ( 8' 0" )	2430 ( 8' 0" )
Overall height of handrail	G'	mm	(# in)	3380 ( 11' 1" )	3380 ( 11' 1" )	3380 ( 11' 1" )
Minimum ground clearance	Н	"	(ft-in)	470 ( 1' 7" )	470 ( 1' 7" )	470 ( 1' 7" )
Rear-end distance	ı			1780 ( 5' 10" )	1780 ( 5' 10" )	1780 ( 5' 10" )
Rear-end swing radius	ľ			1780 ( 5' 10" )	1780 (5' 10")	1780 (5'10")
Distance between tumblers	J			3650 ( 12' 0" )	3650 ( 12' 0" )	3650 ( 12' 0" )
Undercarriage length	K			4404 ( 14' 5" )	4404 ( 14' 5" )	4404 ( 14' 5" )
Undercarriage width	L			2990 ( 9' 10" )	2990 ( 9' 10" )	2990 ( 9' 10" )
Track gauge	М			2390 ( 7' 10" )	2390 ( 7' 10" )	2390 ( 7' 10" )
Track shoe width, standard	N			600 (24")	600 (24")	600 (24")
Travel speed (low/high)		km/hr	(mph)	3.25/5.62 (2.02/3.49	3.25/5.62 (2.02/3.49)	3.25/5.62 (2.02/3.49)
Swing speed		rp	m	11.27	11.27	11.27
Gradeability		Degre	ee (%)	35 (70)	35 (70)	35 (70)
Ground pressure	kgf/cm² (psi)		0.52 (7.33)	0.51 (7.27)	0.51 (7.30)	
Max traction force	kg	(lb)	22194 (48929)	22194 (48929)	22194 (48929)	

# 3. WORKING RANGE

# 1) HX235LCRT3



235SA2SP04

Description	m (ft in)	Boom		5.68 (18' 8")	
Description	m (ft-in)	Arm	2.92 (9' 7")	2.40 (7' 10")	2.00 (6' 7")
Max digging reach		Α	9910 ( 32' 6" )	9430 ( 30' 11" )	9040 ( 29' 8" )
Max digging reach on ground		A'	9750 ( 32' 0" )	9260 ( 30' 5" )	8860 ( 29' 1" )
Max digging depth		В	6670 ( 21' 11" )	6150 ( 20' 2" )	5750 ( 18' 10" )
Max digging depth (8 ft level)	mm (ft-in)	B'	6490 ( 21' 4" )	5940 ( 19' 6" )	5490 ( 18' 0" )
Max vertical wall digging depth		С	6090 ( 20' 0" )	5570 ( 18' 3" )	5120 ( 16' 10" )
Max digging height		D	10820 ( 35' 6" )	10460 ( 34' 4" )	10130 ( 33' 3" )
Max dumping height		Е	7900 ( 25' 11" )	7540 ( 24' 9" )	7220 ( 23' 8" )
Min swing radius		F	2350 ( 7' 9" )	2550 ( 8' 4" )	2860 ( 9' 5" )
	kN		130.4 [142.3]	130.4 [142.3]	130.4 [142.3]
	kgf	SAE	13300 [14510]	13300 [14510]	13300 [14510]
Bucket digging force	lbf		29320 [31990]	29320 [31990]	29320 [31990]
bucket diggling force	kN		150.0 [163.7]	150.0 [163.7]	150.0 [163.7]
	kgf	ISO	15300 [16690]	15300 [16690]	15300 [16690]
	lbf		33730 [36800]	33730 [36800]	33730 [36800]
	kN		102.0 [111.3]	120.6 [131.6]	146.1 [159.4]
	kgf	SAE	10400 [11350]	12300 [13420]	14900 [16250]
Arm diaging force	lbf		22930 [25020]	27120 [29590]	32850 [35830]
Arm digging force	kN		106.9 [116.6]	125.5 [136.9]	153.0 [166.9]
	kgf	ISO	10900 [11890]	12800 [13960]	15600 [17020]
	lbf		24030 [26210]	28220 [30780]	34390 [37520]

[ ]: Power boost

# 4. WEIGHT

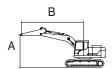
Item	HX235LCRT3		HX235LCRT3, W/DZR		HX235LCR	T3, H/DUTY
	kg	lb	kg	lb	kg	lb
Upperstructure assembly	11446	25230	11446	25230	11446	25230
Main frame weld assembly	2004	4420	2004	4420	2004	4420
Engine assembly	651	1440	651	1440	651	1440
Main pump assembly	146	320	146	320	146	320
Main control valve assembly	220	490	220	490	220	490
Swing motor assembly	254	560	254	560	254	560
Hydraulic oil tank assembly	421	930	421	930	421	930
Fuel tank assembly	421	930	421	930	421	930
Counterweight	5300	11680	5300	11680	5300	11680
Cab assembly	525	1160	525	1160	525	1160
Lower chassis assembly	8433	18590	9872	21760	8465	18660
Track frame weld assembly	2588	5710	2903	6400	2620	5780
Swing bearing	437	960	437	960	437	960
Travel motor assembly (2EA)	609	1340	609	1340	609	1340
Turning joint	56	120	56	120	56	120
Dozer Blade assembly			931	2050		
Sprocket (2EA)	112	250	112	250	112	250
Track recoil spring (2EA)	283	620	283	620	283	620
Idler (2EA)	308	680	308	680	308	680
Carrier roller (2EA)	41	90	41	90	41	90
Track roller (18EA)	855	1880	855	1880	855	1880
Track-chain assembly (600 mm standard triple grouser shoe)	2894	6380	2894	6380	2894	6380
Track-chain assembly (700 mm standard triple grouser shoe)	3178	7010	3178	7010	3178	7010
Track-chain assembly (800 mm standard triple grouser shoe)	3460	7630	3460	7630	3460	7630
				I.		
Front attachment assembly	4276	9430	4276	9430	4276	9430
5.68 m boom assembly	1510	3330	1510	3330	1510	3330
2.92 m arm assembly	760	1680	760	1680	760	1680
0.08 m³ SAE heaped bucket	770	1700	770	1700	770	1700
Boom cylinder assembly (2EA)	190	420	190	420	190	420
Arm cylinder assembly	290	640	290	640	290	640
Bucket cylinder assembly	165	360	165	360	165	360
Bucket control linkage total	170	370	170	370	170	370

## 5. LIFTING CAPACITIES

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Do	Dozer		riger
HX235LCRT3	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
	BOOM	5680	2000	5300	600	-	-	-	-	-

: Rating over-front

· 🖶 : Rating over-side or 360 degree



					Lift-point	radius (B)				At	max. rea	ch
Lift-poi	int	3.0 m	(9.8 ft)	4.5 m (	14.8 ft)	6.0 m (	19.7 ft)	7.5 m (	24.6 ft)	Cap	acity	Reach
height (	(A)		#	Ů		<b>P</b>				U	#	m (ft)
7.5 m (24.6 ft)	kg lb			*5900 *13010	*5900 *13010					*5930 *13070	*5930 *13070	4.93 (16.2)
6.0 m (19.7 ft)	kg lb			*5980 *13180	*5980 *13180	*5510 *12150	4840 10670			*5520 *12170	4470 9850	6.28 (20.6)
4.5 m	kg			*6970	*6970	*5770	4720			*5400	3630	7.07
(14.8 ft) 3.0 m	lb kg			*15370 *8380	*15370 6790	*12720 *6320	10410 4500			*11900 5250	8000 3240	(23.2) 7.48
(9.8 ft)	lb			*18470	14970	*13930	9920			11570	7140	(24.5)
1.5 m (4.9 ft)	kg lb					*6810 *15010	4310 9500	5140 11330	3150 6940	5080 11200	3110 6860	7.57 (24.8)
0.0 m	kg			*9390	6260	*6960	4190			5240	3200	7.36
(0.0 ft) -1.5 m	lb kg			*20700 *8770	13800 6270	*15340 *6590	9240 4180			*5550	7050 3560	(24.1) 6.81
(-4.9 ft)	lb	*0.4.40	*0440	*19330	13820	*14530	9220			*12240	7850	(22.3)
-3.0 m (-9.8 ft)	kg lb	*9440 *20810	*9440 *20810	*7350 *16200	6410 14130					*5370 *11840	4480 9880	5.83 (19.1)

Note 1. Lifting capacity are based on ISO 10567.

- 2. Lifting capacity of the HX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
- 3. The Lift-point is bucket pivot mounting pin on the arm (without bucket mass).
- 4. \*Indicates load limited by hydraulic capacity.
- \* Lifting capacities are based upon a standard machine conditions.

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

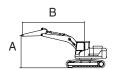
The difference between the weight of a work tool attachment must be subtracted.

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

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Do	Dozer		riger
HX235LCRT3	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
	воом	5680	2400	5300	600	-	-	-	-	-

· Pating over-front

· 🖶 : Rating over-side or 360 degree



					Lift-point	radius (B)				At	ch	
Lift-po	int	3.0 m	(9.8 ft)	4.5 m (	14.8 ft)	6.0 m (	19.7 ft)	7.5 m (	24.6 ft)	Cap	acity	Reach
height	(A)	ŀ	#	<b>U</b>	#	·	#	U		Ů	#	m (ft)
9.0 m (29.5 ft)	kg lb									*6690 *14750	*6690 *14750	3.26 (10.7)
7.5 m	kg			*5310	*5310					*5080	*5080	5.52
(24.6 ft)	lb			*11710	*11710					*11200	*11200	(18.1)
6.0 m	kg			*5510	*5510	*5120	4890			*4610	3990	6.75
(19.7 ft)	lb			*12150	*12150	*11290	10780			*10160	8800	(22.1)
4.5 m	kg	*9050	*9050	*6510	*6510	*5460	4750			*4490	3310	7.49
(14.8 ft)	lb	*19950	*19950	*14350	*14350	*12040	10470			*9900	7300	(24.6)
3.0 m	kg			*7950	6890	*6070	4520	*5180	3230	*4580	2990	7.87
(9.8 ft)	lb			*17530	15190	*13380	9960	*11420	7120	*10100	6590	(25.8)
1.5 m	kg			*9080	6440	*6640	4310	5130	3130	4690	2870	7.96
(4.9 ft)	lb			*20020	14200	*14640	9500	11310	6900	10340	6330	(26.1)
0.0 m	kg			*9390	6230	*6900	4160	5060	3070	4820	2930	7.76
(0.0 ft)	lb			*20700	13730	*15210	9170	11160	6770	10630	6460	(25.4)
-1.5 m	kg	*11240	*11240	*8970	6200	*6700	4120			*5230	3220	7.24
(-4.9 ft)	lb	*24780	*24780	*19780	13670	*14770	9080			*11530	7100	(23.8)
-3.0 m	kg	*10400	*10400	*7800	6310	*5690	4210			*5160	3930	6.33
(-9.8 ft)	lb	*22930	*22930	*17200	13910	*12540	9280			*11380	8660	(20.8)
-4.5 m	kg			*5110	*5110					*4550	*4550	4.81
(-14.8 ft)	lb			*11270	*11270					*10030	*10030	(15.8)

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

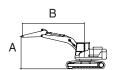
Failure to comply to the rated load can cause possible personal injury or property damage.

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

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Do	Dozer		Dozer		riger
HX235LCRT3	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear		
	BOOM	5680	2920	5300	600	-	-	-	-	-		

· Pating over-front

· 🖶 : Rating over-side or 360 degree



					L	ift-point i	radius (B	)				At	max. rea	ch
Lift-po	int	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)	Capa	acity	Reach
height	(A)	<b>U</b>	#	<b>P</b>		<b>P</b>	#	<b>U</b>	#	<b>P</b>		<b>P</b>	#	m (ft)
9.0 m	kg											*4150	*4150	4.32
(29.5 ft)	lb											*9150	*9150	(14.2)
7.5 m	kg					*4610	*4610	*4230	*4230			*3370	*3370	6.20
(24.6 ft)	lb					*10160	*10160	*9330	*9330			*7430	*7430	(20.3)
6.0 m	kg					*4870	*4870	*4630	*4630			*3100	*3100	7.31
(19.7 ft)	lb					*10740	*10740	*10210	*10210			*6830	*6830	(24.0)
4.5 m	kg			*7630	*7630	*5870	*5870	*5050	4800	*4640	3330	*3020	2970	8.00
(14.8 ft)	lb			*16820	*16820	*12940	*12940	*11130	10580	*10230	7340	*6660	6550	(26.2)
3.0 m	kg					*7350	7010	*5710	4550	*4900	3230	*3070	2700	8.36
(9.8 ft)	lb					*16200	15450	*12590	10030	*10800	7120	*6770	5950	(27.4)
1.5 m	kg					*8670	6490	*6370	4310	5110	3110	*3250	2590	8.44
(4.9 ft)	lb					*19110	14310	*14040	9500	11270	6860	*7170	5710	(27.7)
0.0 m	kg			*6320	*6320	*9270	6200	*6770	4130	5010	3020	*3590	2640	8.25
(0.0 ft)	lb			*13930	*13930	*20440	13670	*14930	9110	11050	6660	*7910	5820	(27.1)
-1.5 m	kg	*6580	*6580	*10750	*10750	*9120	6110	*6750	4050	4980	2990	*4200	2860	7.77
(-4.9 ft)	lb	*14510	*14510	*23700	*23700	*20110	13470	*14880	8930	10980	6590	*9260	6310	(25.5)
-3.0 m	kg	*11250	*11250	*11440	*11440	*8250	6170	*6100	4080			*4890	3390	6.93
(-9.8 ft)	lb	*24800	*24800	*25220	*25220	*18190	13600	*13450	8990			*10780	7470	(22.7)
-4.5 m	kg			*8590	*8590	*6280	*6280					*4610	*4610	5.58
(-14.8 ft)	lb			*18940	*18940	*13850	*13850					*10160	*10160	(18.3)

Note 1. Lifting capacity are based on ISO 10567.

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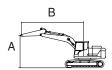
The difference between the weight of a work tool attachment must be subtracted.

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Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Do	zer	Outt	riger
HX235LCRT3	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
W/DOZER	BOOM	5680	2000	5300	600	-	-	Down	-	-

· Rating over-front

· 🖶 : Rating over-side or 360 degree



					Lift-point	radius (B)				At	max. rea	ch
Lift-poi	int	3.0 m	(9.8 ft)	4.5 m (	14.8 ft)	6.0 m (	19.7 ft)	7.5 m (	24.6 ft)	Cap	acity	Reach
height (	(A)		#	U		Ů	#			Ů	#	m (ft)
7.5 m (24.6 ft)	kg lb			*5900 *13010	*5900 *13010					*5930 *13070	*5930 *13070	4.93 (16.2)
6.0 m	kg			*5980	*5980	*5510	*5510			*5520	5110	6.28
(19.7 ft) 4.5 m	lb kg			*13180 *6970	*13180 *6970	*12150 *5770	*12150 5410			*12170 *5400	11270 4170	(20.6) 7.07
(14.8 ft)	lb			*15370	*15370	*12720	11930			*11900	9190	(23.2)
3.0 m (9.8 ft)	kg lb			*8380 *18470	7860 17330	*6320 *13930	5190 11440			*5400 *11900	3750 8270	7.48 (24.5)
1.5 m	kg			10470	17330	*6810	4990	*5500	3650	*5450	3610	7.57
(4.9 ft)	lb					*15010	11000	*12130	8050	*12020	7960	(24.8)
0.0 m	kg			*9390	7310	*6960	4870			*5520	3710	7.36
(0.0 ft)	lb			*20700	16120	*15340	10740			*12170	8180	(24.1)
-1.5 m	kg			*8770	7330	*6590	4860			*5550	4120	6.81
(-4.9 ft)	lb			*19330	16160	*14530	10710			*12240	9080	(22.3)
-3.0 m	kg	*9440	*9440	*7350	*7350					*5370	5190	5.83
(-9.8 ft)	lb	*20810	*20810	*16200	*16200					*11840	11440	(19.1)

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.

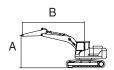
The difference between the weight of a work tool attachment must be subtracted.

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

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Do	zer	Outt	riger
HX235LCRT3	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
W/DOZER	BOOM	5680	2000	5300	600	-	-	Up	-	-

· 🖟 : Rating over-front

· 🖶 : Rating over-side or 360 degree



				Lift-point	radius (B)				At	max. rea	ch
Lift-point	3.0 m	(9.8 ft)	4.5 m (	14.8 ft)	6.0 m (	19.7 ft)	7.5 m (	24.6 ft)	Cap	acity	Reach
height (A)	·	#	·	#	ŀ	#	<b>U</b>	#	U	#	m (ft)
7.5 m kg (24.6 ft) lb			*5900 *13010	*5900 *13010					*5930 *13070	*5930 *13070	4.93 (16.2)
6.0 m kg			*5980	*5980	*5510	5130			*5520	4740	6.28
(19.7 ft) lb			*13180	*13180	*12150	11310			*12170	10450	(20.6)
4.5 m kg			*6970	*6970	*5770	5010			*5400	3860	7.07
(14.8 ft) lb			*15370	*15370	*12720	11050			*11900	8510	(23.2)
3.0 m kg			*8380	7220	*6320	4800			5190	3470	7.48
(9.8 ft) lb			*18470	15920	*13930	10580			11440	7650	(24.5)
1.5 m kg					*6810	4600	5090	3380	5020	3330	7.57
(4.9 ft) lb					*15010	10140	11220	7450	11070	7340	(24.8)
0.0 m kg			*9390	6690	6950	4490			5180	3420	7.36
(0.0 ft)   lb			*20700	14750	15320	9900			11420	7540	(24.1)
-1.5 m kg			*8770	6700	*6590	4470			*5550	3810	6.81
(-4.9 ft) lb			*19330	14770	*14530	9850			*12240	8400	(22.3)
-3.0 m kg	*9440	*9440	*7350	6840					*5370	4790	5.83
(-9.8 ft) lb	*20810	*20810	*16200	15080					*11840	10560	(19.1)

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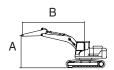
The difference between the weight of a work tool attachment must be subtracted.

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

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Do	zer	Outt	riger
HX235LCRT3	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
W/DOZER	ВООМ	5680	2400	5300	600	-	-	Down	-	-

· 🖟 : Rating over-front

· 🖶 : Rating over-side or 360 degree



					Lift-point	radius (B)				At	max. rea	ch
Lift-po	int	3.0 m	(9.8 ft)	4.5 m (	14.8 ft)	6.0 m (	19.7 ft)	7.5 m (	24.6 ft)	Cap	acity	Reach
height	(A)	ŀ	#	<b>U</b>	#	·	#	·		Ů	#	m (ft)
9.0 m	kg									*6690	*6690	3.26
(29.5 ft) 7.5 m	lb			*5310	*5310					*14750 *5080	*14750 *5080	(10.7) 5.52
(24.6 ft)	kg lb			*11710	*11710					*11200	*11200	(18.1)
6.0 m	kg			*5510	*5510	*5120	*5120			*4610	4580	6.75
(19.7 ft)	lb			*12150	*12150	*11290	*11290			*10160	10100	(22.1)
4.5 m	kg	*9050	*9050	*6510	*6510	*5460	5440			*4490	3810	7.49
(14.8 ft)	lb	*19950	*19950	*14350	*14350	*12040	11990			*9900	8400	(24.6)
3.0 m	kg			*7950	*7950	*6070	5210	*5180	3730	*4580	3460	7.87
(9.8 ft)	lb			*17530	*17530	*13380	11490	*11420	8220	*10100	7630	(25.8)
1.5 m	kg			*9080	7500	*6640	4990	*5390	3630	*4860	3330	7.96
(4.9 ft)	lb			*20020	16530	*14640	11000	*11880	8000	*10710	7340	(26.1)
0.0 m	kg			*9390	7290	*6900	4840	*5420	3570	*5180	3410	7.76
(0.0 ft)	lb			*20700	16070	*15210	10670	*11950	7870	*11420	7520	(25.4)
-1.5 m	kg	*11240	*11240	*8970	7260	*6700	4800			*5230	3750	7.24
(-4.9 ft)	lb	*24780	*24780	*19780	16010	*14770	10580			*11530	8270	(23.8)
-3.0 m	kg	*10400	*10400	*7800	7360	*5690	4890			*5160	4570	6.33
(-9.8 ft)	lb	*22930	*22930	*17200	16230	*12540	10780			*11380	10080	(20.8)
-4.5 m	kg			*5110	*5110					*4550	*4550	4.81
(-14.8 ft)	lb			*11270	*11270					*10030	*10030	(15.8)

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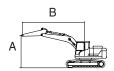
The difference between the weight of a work tool attachment must be subtracted.

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	Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Do	zer	Outt	riger
HX	235LCRT3	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
W	/DOZER	ВООМ	5680	2400	5300	600	-	-	Up	-	-

· 🖟 : Rating over-front

· 🖶 : Rating over-side or 360 degree



					Lift-point	radius (B)				At	max. rea	ch
Lift-po	int	3.0 m	(9.8 ft)	4.5 m (	14.8 ft)	6.0 m (	19.7 ft)	7.5 m (	24.6 ft)	Cap	acity	Reach
height	(A)	ŀ	#	<b>U</b>	#	·	#	<b>U</b>		Ů	#	m (ft)
9.0 m (29.5 ft)	kg lb									*6690 *14750	*6690 *14750	3.26 (10.7)
7.5 m	kg			*5310	*5310					*5080	*5080	5.52
(24.6 ft)	lb			*11710	*11710					*11200	*11200	(18.1)
6.0 m	kg			*5510	*5510	*5120	*5120			*4610	4250	6.75
(19.7 ft)	lb			*12150	*12150	*11290	*11290			*10160	9370	(22.1)
4.5 m	kg	*9050	*9050	*6510	*6510	*5460	5040			*4490	3530	7.49
(14.8 ft)	lb	*19950	*19950	*14350	*14350	*12040	11110			*9900	7780	(24.6)
3.0 m	kg			*7950	7320	*6070	4820	5170	3450	*4580	3190	7.87
(9.8 ft)	lb			*17530	16140	*13380	10630	11400	7610	*10100	7030	(25.8)
1.5 m	kg			*9080	6870	*6640	4600	5070	3360	4640	3080	7.96
(4.9 ft)	lb			*20020	15150	*14640	10140	11180	7410	10230	6790	(26.1)
0.0 m	kg			*9390	6660	*6900	4460	5000	3290	4770	3150	7.76
(0.0 ft)	lb			*20700	14680	*15210	9830	11020	7250	10520	6940	(25.4)
-1.5 m	kg	*11240	*11240	*8970	6630	*6700	4420			*5230	3450	7.24
(-4.9 ft)	lb	*24780	*24780	*19780	14620	*14770	9740			*11530	7610	(23.8)
-3.0 m	kg	*10400	*10400	*7800	6740	*5690	4500			*5160	4210	6.33
(-9.8 ft)	lb	*22930	*22930	*17200	14860	*12540	9920			*11380	9280	(20.8)
-4.5 m	kg			*5110	*5110					*4550	*4550	4.81
(-14.8 ft)	lb			*11270	*11270					*10030	*10030	(15.8)

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.

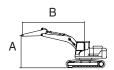
The difference between the weight of a work tool attachment must be subtracted.

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

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Do	zer	Outt	riger
HX235LCRT3	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
W/DOZER	воом	5680	2920	5300	600	-	-	Down	-	-

· Rating over-front

· Rating over-side or 360 degree



					L	ift-point i	radius (B	)				At	max. rea	ch
Lift-po	int	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)	Capa	acity	Reach
height	(A)	<b>U</b>	#	<b>P</b>		<b>P</b>	#	<b>U</b>	#	<b>P</b>	#	<b>H</b>	#	m (ft)
9.0 m (29.5 ft)	kg Ib											*4150 *9150	*4150 *9150	4.32 (14.2)
7.5 m	kg					*4610	*4610	*4230	*4230			*3370	*3370	6.20
(24.6 ft)	lb					*10160	*10160	*9330	*9330			*7430	*7430	(20.3)
6.0 m	kg					*4870	*4870	*4630	*4630			*3100	*3100	7.31
(19.7 ft)	lb					*10740	*10740	*10210	*10210			*6830	*6830	(24.0)
4.5 m	kg			*7630	*7630	*5870	*5870	*5050	*5050	*4640	3830	*3020	*3020	8.00
(14.8 ft)	lb			*16820	*16820	*12940	*12940	*11130	*11130	*10230	8440	*6660	*6660	(26.2)
3.0 m	kg					*7350	*7350	*5710	5240	*4900	3730	*3070	*3070	8.36
(9.8 ft)	lb					*16200	*16200	*12590	11550	*10800	8220	*6770	*6770	(27.4)
1.5 m	kg					*8670	7560	*6370	4990	*5200	3610	*3250	3020	8.44
(4.9 ft)	lb					*19110	16670	*14040	11000	*11460	7960	*7170	6660	(27.7)
0.0 m	kg			*6320	*6320	*9270	7260	*6770	4810	*5360	3520	*3590	3080	8.25
(0.0 ft)	lb			*13930	*13930	*20440	16010	*14930	10600	*11820	7760	*7910	6790	(27.1)
-1.5 m	kg	*6580	*6580	*10750	*10750	*9120	7170	*6750	4730	*5170	3490	*4200	3340	7.77
(-4.9 ft)	lb	*14510	*14510	*23700	*23700	*20110	15810	*14880	10430	*11400	7690	*9260	7360	(25.5)
-3.0 m	kg	*11250	*11250	*11440	*11440	*8250	7230	*6100	4760			*4890	3940	6.93
(-9.8 ft)	lb	*24800	*24800	*25220	*25220	*18190	15940	*13450	10490			*10780	8690	(22.7)
-4.5 m	kg			*8590	*8590	*6280	*6280					*4610	*4610	5.58
(-14.8 ft)	lb			*18940	*18940	*13850	*13850					*10160	*10160	(18.3)

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.

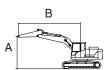
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Consult your Hyundai dealer regarding the lifting capacities for specific work tools and attachments.

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Do	zer	Outt	riger
HX235LCRT3	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
W/DOZER	BOOM	5680	2920	5300	600	-	-	Up	-	-

· Pating over-front

· 🖶 : Rating over-side or 360 degree



					L	ift-point i	radius (B	)				At	max. rea	ch
Lift-po	int	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)	Capa	acity	Reach
height	(A)	·	#	<b>P</b>		<b>P</b>	#	<b>U</b>	#	<b>P</b>	#	<b>P</b>	#	m (ft)
9.0 m	kg											*4150	*4150	4.32
(29.5 ft)	lb											*9150	*9150	(14.2)
7.5 m	kg					*4610	*4610	*4230	*4230			*3370	*3370	6.20
(24.6 ft)	lb					*10160	*10160	*9330	*9330			*7430	*7430	(20.3)
6.0 m	kg					*4870	*4870	*4630	*4630			*3100	*3100	7.31
(19.7 ft)	lb					*10740	*10740	*10210	*10210			*6830	*6830	(24.0)
4.5 m	kg			*7630	*7630	*5870	*5870	*5050	*5050	*4640	3550	*3020	*3020	8.00
(14.8 ft)	lb			*16820	*16820	*12940	*12940	*11130	*11130	*10230	7830	*6660	*6660	(26.2)
3.0 m	kg					*7350	*7350	*5710	4840	*4900	3450	*3070	2890	8.36
(9.8 ft)	lb					*16200	*16200	*12590	10670	*10800	7610	*6770	6370	(27.4)
1.5 m	kg					*8670	6920	*6370	4600	5050	3330	*3250	2790	8.44
(4.9 ft)	lb					*19110	15260	*14040	10140	11130	7340	*7170	6150	(27.7)
0.0 m	kg			*6320	*6320	*9270	6630	*6770	4420	4950	3240	*3590	2840	8.25
(0.0 ft)	lb			*13930	*13930	*20440	14620	*14930	9740	10910	7140	*7910	6260	(27.1)
-1.5 m	kg	*6580	*6580	*10750	*10750	*9120	6540	*6750	4340	4920	3210	*4200	3070	7.77
(-4.9 ft)	lb	*14510	*14510	*23700	*23700	*20110	14420	*14880	9570	10850	7080	*9260	6770	(25.5)
-3.0 m	kg	*11250	*11250	*11440	*11440	*8250	6600	*6100	4380			*4890	3630	6.93
(-9.8 ft)	lb	*24800	*24800	*25220	*25220	*18190	14550	*13450	9660			*10780	8000	(22.7)
-4.5 m	kg			*8590	*8590	*6280	*6280					*4610	*4610	5.58
(-14.8 ft)	lb			*18940	*18940	*13850	*13850					*10160	*10160	(18.3)

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.

# **6. BUCKET SELECTION GUIDE**

# 1) BUCKET SELECTION



General bucket



Heavy duty (without side cutter)



Rock heavy duty

	Capacity	Width			MONO			
Type	Сар	acity				Recomm	endation	mm (ft-in)
	SAE Heaped	CECE heaped	Without side cutter	Weight	Tooth	5.68 m (18' 8") Boom		
	m³ (yd³)	m³ (yd³)	mm (in)	kg (lb)	EA	2.0 m (6' 7')Arm	2.4 m (7' 10") Arm	2.92 m (9' 7") Arm
	0.80 (1.05)	0.70 (0.92)	1,000 (39.4')	700 (1,540)	5	•	•	•
General	0.92 (1.20)	0.80 (1.05)	1,150 (45.3')	770 (1,700)	5	•	•	•
bucket	1.10 (1.44)	0.96 (1.26)	1,320 (52.0")	830 (1,830)	5	•	•	
	1.34 (1.75)	1.15 (1.50)	1,550 (61.0")	920 (2,030)	6			<b>A</b>
Heavy	0.90 (1.18)	0.80 (1.05)	1,070 (42.1")	810 (1,790)	5	•	•	•
duty	1.05 (1.37)	0.92 (1.20)	1,290 (50.8")	890 (1,960)	5	•	•	
Rock heavy duty	0.87 (1.14)	0.75 (0.98)	1,140 (44.9")	900 (1,980)	5	•	•	•

		Applicable for materials with density of 2100 kg/m³ (3500 lb/yd³) or less
	0	Applicable for materials with density of 1800 kg/m³ (3000 lb/yd³) or less
		Applicable for materials with density of 1500 kg/m³ (2500 lb/yd³) or less
Ī		Applicable for materials with density of 1200 kg/m³ (2000 lb/yd³) or less
Ī	Х	Not recommended

\* These recommendations are for general conditions and average use.

Work tools and ground conditions have effects on machine performance.

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

Consult your Hyundai dealer for information on selecting the correct boom-arm-bucket combination.

# 7. UNDERCARRIAGE

# 1) 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			
Model						
	Shoe width	mm (in)	600 (24)	700 (28)	800 (32)	
HX235LCRT3	Operating weight	kg (lb)	24200 (53350)	24500 (54010)	24700 (54450)	
TAZSSLURIS	Ground pressure	kgf/cm² (psi)	0.52 (7.33)	0.45 (6.36)	0.39 (5.61)	
	Overall width	mm (ft-in)	2990 (9' 10")	3090 (10' 2")	3190 (10' 6")	
	Shoe width	mm (in)	600 (24)	700 (28)	800 (32)	
HX235LCRT3 W/DOZER	Operating weight	kg (lb)	25500 (56220)	25780 (56830)	26060 (57450)	
	Ground pressure	kgf/cm² (psi)	0.55 (7.75)	0.47 (6.68)	0.42 (5.97)	
	Overall width	mm (ft-in)	2990 (9' 10")	3090 (10' 2")	3190 (10' 6")	

# 3) NUMBER OF ROLLERS AND SHOES ON EACH SIDE

Item	Quantity
Carrier rollers	2 EA
Track rollers	9 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	В
900 mm triple grouser	Option	С

## \* Table 2

Category	Applications	Precautions
А	Rocky ground, river beds, normal soil	Travel at low speed on rough ground with large obstacles such as boulders or fallen trees
В	Normal soil, soft ground	<ul> <li>These shoes cannot be used on rough ground with large obstacles such as boulders or fallen trees</li> <li>Travel at high speed only on flat ground</li> <li>Travel slowly at low speed if it is impossible to avoid going over obstacles</li> </ul>
С	Extremely soft ground (swampy ground)	<ul> <li>Use the shoes only in the conditions that the machine sinks and it is impossible to use the shoes of category A or B</li> <li>These shoes cannot be used on rough ground with large obstacles such as boulders or fallen trees</li> <li>Travel at high speed only on flat ground</li> <li>Travel slowly at low speed if it is impossible to avoid going over obstacles</li> </ul>

# 8. SPECIFICATIONS FOR MAJOR COMPONENTS

# 1) ENGINE

Item	Specification
Model	Hyundai HE6.7
Туре	4-cycle, turbocharged, charge air cooled, electronic 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	$107 \times 124 \text{ mm } (4.21" \times 4.88")$
Displacement	6.7 ℓ (408 cu in)
Compression ratio	17.2 : 1
Gross power	160 Hp (119 kW) at 2200 rpm
Net power	157 Hp (117 kW) at 2200 rpm
Max. power	165 Hp (123 kW) at 2000 rpm
Peak Torque	732 N·m (540 lbf·ft) at 1400 rpm
Engine oil quantity	23.7 ℓ (6.3 U.S. gal)
Wet weight	552 kg (1217 lb)
Starter motor	24 V-4.8 kW
Alternator	Valeo 24 V-90 A

# 2) MAIN PUMP

Item	Specification
Туре	Variable displacement tandem axis piston pumps
Capacity	2 × 130 cc/rev
Maximum pressure	350 kgf/cm² (4980 psi) [380 kgf/cm² (5400 psi)]
Rated oil flow	$2\times214.5~\ell$ /min (56.7 U.S. gpm/ 47.2 U.K. gpm)
Rated speed	1700 rpm

[ ]: Power boost

# 3) GEAR PUMP

Item	Specification	
Туре	Fixed displacement gear pump single stage	
Capacity	10 cc/rev	
Maximum pressure	40 kgf/cm² (570 psi)	
Rated oil flow	17 ℓ /min (4.5 U.S. gpm/3.7 U.K. gpm)	

# 4) MAIN CONTROL VALVE

Item		Specification	
Туре		10 spools two-block	
Operating method		Hydraulic pilot system	
Main relief valve pressure		350 kgf/cm² (4980 psi) [380 kgf/cm² (5400 psi)]	
	Boom	400 kgf/cm <sup>2</sup> (5690 psi)	
Port relief valve pressure Arm  Bucket		400 kgf/cm² (5690 psi)	
		400 kgf/cm² (5690 psi)	

<sup>[ ]:</sup> Power boost

# 5) SWING MOTOR

Item	Specification	
Туре	Two fixed displacement axial piston motor	
Capacity	143 cc/rev	
Relief pressure	285 kgf/cm² (4050 psi)	
Braking system	Automatic, spring applied hydraulic released	
Braking torque	63.3 kgf · m (479.5 lbf · ft)	
Brake release pressure	20.9~35.5 kgf/cm² (297~505 psi)	
Reduction gear type	2 - stage planetary	

# 6) TRAVEL MOTOR

Item	Specification	
Туре	Variable displacement axial piston motor	
Relief pressure	350 kgf/cm² (4980 psi)	
Reduction gear type	2-stage planetary	
Braking system	Automatic, spring applied hydraulic released	
Brake release pressure	14.2~16.8 kgf/cm² (202~239 psi)	
Braking torque	72.3 kgf · m (523 lbf · ft)	

# 7) CYLINDER

It	Specification				
Doom adjuder	Bore dia × Stroke	Ø120 × 1290 mm			
Boom cylinder	Cushion	Extend only			
Arm cylinder	Bore dia × Stroke	Ø140 × 1510 mm			
	Cushion	Extend and retract			
Bucket cylinder	Bore dia × Stroke	Ø120 × 1055 mm			
	Cushion	Extend only			
Dozor gulindor (ont)	Bore dia × Stroke	Ø130 × 240 mm			
Dozer cylinder (opt)	Cushion	-			

<sup>\*</sup> Discoloration of cylinder rod can occur when the friction reduction additive of lubrication oil spreads on the rod surface.

<sup>\*</sup> Discoloration does not cause any harmful effect on the cylinder performance.

## 9. RECOMMENDED OILS

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

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

Service		Capacity		Ambient temperature °C( °F)									
point	Kind of fluid	ℓ (U.S. gal)	-50	-30	-20	-10	_	-			0 40		
Politi			(-58)	(-22)	(-4)	(14	) (3	2) (5	0) (	68) (8	6) (104)		
		gine oil 23.7 (6.3)	★SAE 0W-30										
Engine oil pan						,	SAE 5W	/-30					
	Engine oil						SAE 1	0W-30					
			SAE CI-4 and 10W-30										
							5	SAE 5W-4	40 or 15	5W-40			
Swing		7.0 (1.85)			★SAE	75\\\	00						
drive	Gear oil			T	*SAE	7500-	90						
Final drive	4.5×2 (1.19×2)							SAE 8	0W-90				
Hydraulic tank	Hydraulic oil	Tank: 160 (42.3) System: 330 (87.2)			<b>★</b> 15	SO VG	15						
							O VG 3	0					
			ISO VG 46, HBHO 46*3										
								15	SO VG (	68			
Fuel tank	Diesel fuel	320 (84.5)		★AS	TM D97	5 NO.1							
						-		AOT	4 D075	NOO			
								ASTI	M D975	NO.2			
Fitting	Grease	As required			*	NLGI	NO.1						
(grease nipple)								NLGI	NO.2				
Radiator (reservoir	Mixture of antifreeze and soft	30 (7.9)			Ethy	lene a	lycol had	se nerma	nent tyr	pe (50 : 50	)		
			<u> </u>	dono ob co		Ĭ		oc perma	попстур	00.30			
tank)	water*1		TE(N)	riene giyco	ol base perma	arieni type	e (60 : 40)						

**SAE**: Society of Automotive Engineers

API

★ : Cold region : American Petroleum Institute Russia, CIS, Mongolia

ISO : International Organization for Standardization

★1: Soft water

**NLGI**: National Lubricating Grease Institute City water or distilled water

**ASTM**: American Society of Testing and Material

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

- \* Do not mix HYUNDAI genuine oil with any other lubricating oil as it may result in damage to the systems of major components.
- \* For HYUNDAI genuine lubricating oils and grease for use in regions with extremely low temperatures, please contact HYUNDAI dealers.