Group	1 Safety Hints	1-1
Group	2 Specifications	1-9

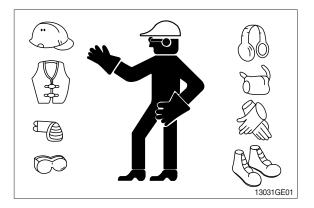
# **GROUP 1 SAFETY**

#### FOLLOW SAFE PROCEDURE

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

#### WEAR PROTECTIVE CLOTHING

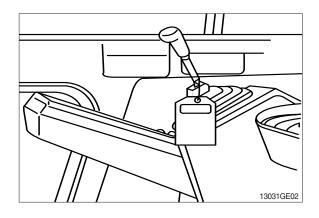
Wear close fitting clothing and safety equipment appropriate to the job.



#### 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.



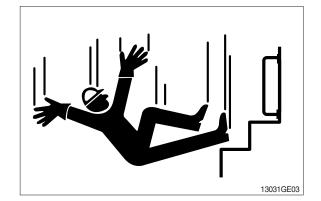
#### USE HANDHOLDS AND STEPS

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.

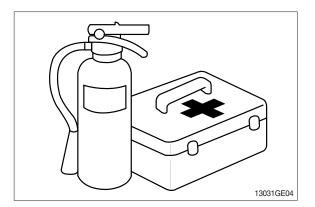


#### PREPARE FOR EMERGENCIES

Be prepared if a fire starts.

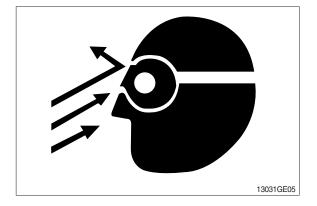
Keep a first aid kit and fire extinguisher handy.

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.

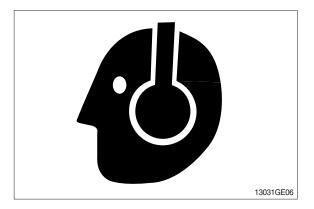


#### **PROTECT AGAINST NOISE**

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

Wear a suitable hearing protective device such as ear-

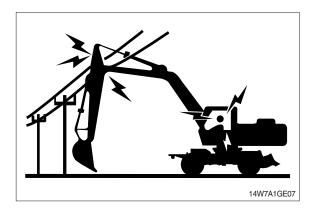
muffs or earplugs to protect against objectionable or uncomfortable loud noises.



## **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.

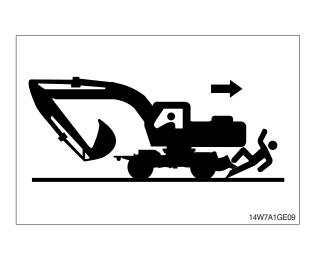
Always keep the travel alarm in working condition. It warns people when the excavator starts to move.

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.



14W7A1GE08



#### PARK MACHINE SAFELY

Before working on the machine:

- $\cdot$  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.

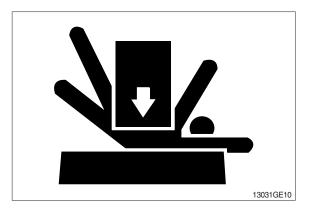
Do not support the machine on cinder blocks, hollow tiles, or props that may crumble under continuous load.

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.

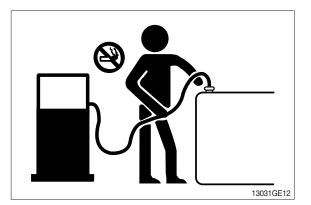
Shut off engine. Only remove filler cap when cool enough to touch with bare hands.





#### HANDLE FLUIDS SAFELY-AVOID FIRES

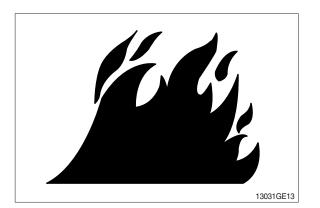
Handle fuel with care; it is highly flammable. Do not refuel the machine while smoking or when near open flame or sparks. Always stop engine before refueling machine. Fill fuel tank outdoors.



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:

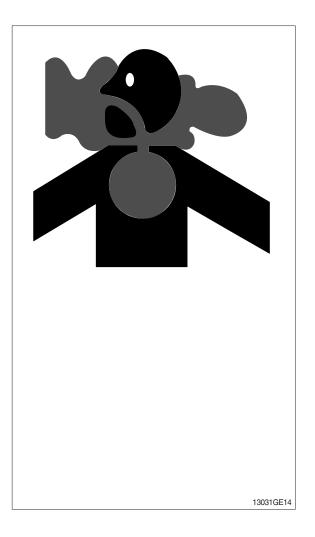
· If you sand or grind paint, avoid breathing the dust.

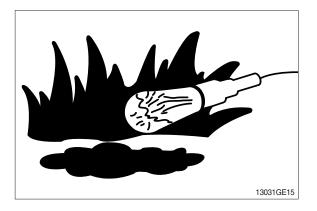
Wear an approved respirator.

 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

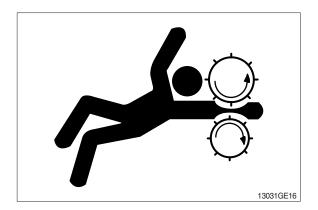
Tie long hair behind your head. Do not wear a necktie, scarf, loose clothing or necklace when you work near machine tools or moving parts. If these items were to get caught, severe injury could result.

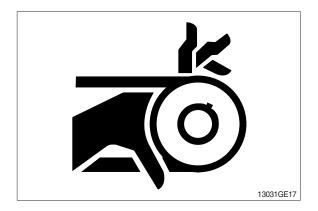
Remove rings and other jewelry to prevent electrical shorts and entanglement in moving parts.

#### STAY CLEAR OF MOVING PARTS

Entanglements in moving parts can cause serious injury.

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





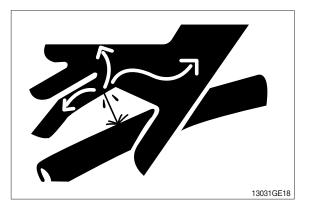
#### AVOID HIGH PRESSURE FLUIDS

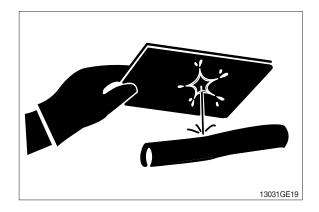
Escaping fluid under pressure can penetrate the skin causing serious injury.

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.

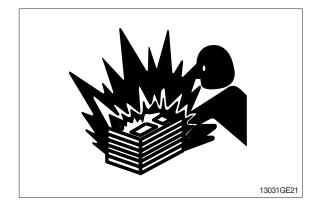


#### PREVENT BATTERY EXPLOSIONS

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  $16^{\circ}C(60^{\circ}F)$ .



## 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:

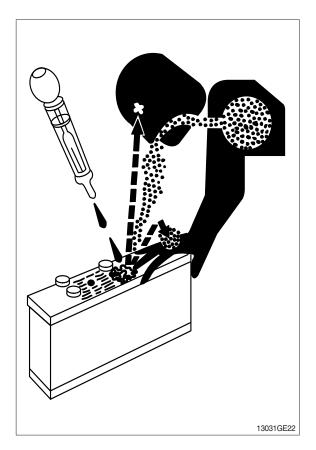
- 1. Filling batteries in a well-ventilated area.
- 2. Wearing eye protection and rubber gloves.
- 3. Avoiding breathing fumes when electrolyte is added.
- 4. Avoiding spilling of dripping electrolyte.
- 5. Use proper jump start procedure.

If you spill acid on yourself:

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

If acid is swallowed:

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



#### **USE TOOLS PROPERLY**

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

Use power tools only to loosen threaded tools and fasteners.

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

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

## DISPOSE OF FLUIDS PROPERLY

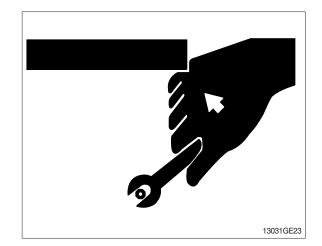
Improperly disposing of fluids can harm the environment and ecology. Before draining any fluids, find out the proper way to dispose of waste from your local environmental agency.

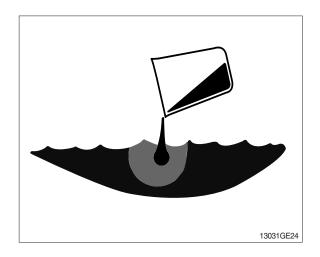
Use proper containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.

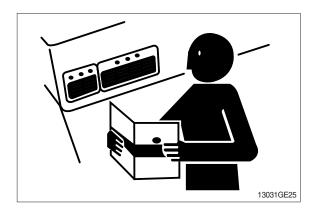
DO NOT pour oil into the ground, down a drain, or into a stream, pond, or lake. Observe relevant environmental protection regulations when disposing of oil, fuel, coolant, brake fluid, filters, batteries, and other harmful waste.

#### **REPLACE SAFETY SIGNS**

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





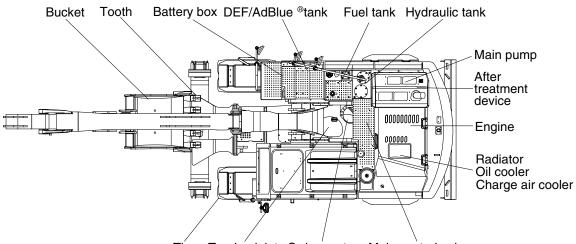


#### LIVE WITH SAFETY

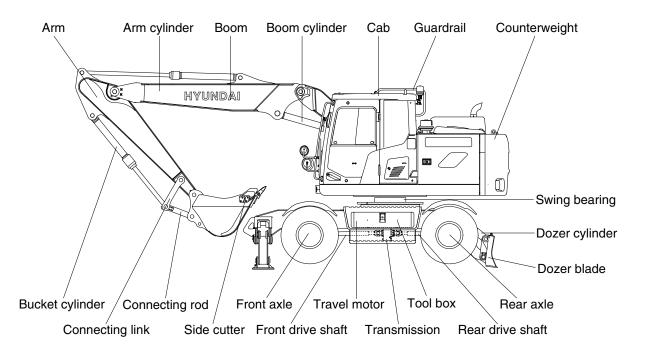
Before returning machine to customer, make sure machine is functioning properly, especially the safety systems. Install all guards and shields.

# **GROUP 2 SPECIFICATIONS**

### **1. MAJOR COMPONENT**



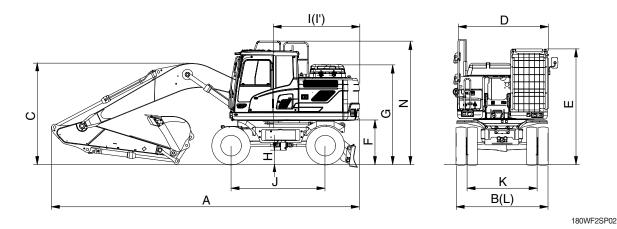
Tire Turning joint Swing motor Main control valve



160WA2SP01

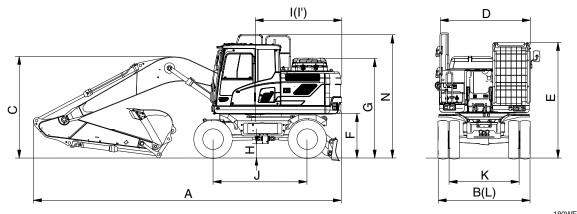
## 2. SPECIFICATIONS

## 1) HW160A, MONO BOOM



Unit Specification Boom Description 5.0 (16' 4") m (ft-in) Arm 2.45 (8' 0") 2.00 (6' 50") 2.60 (8' 5") 3.10 (10' 20") Operating weight kg (lb) 17540 (38670) 17650 (38910) 17760 (39150) 17580 (38760) Bucket capacity (SAE heaped), standard m<sup>3</sup> (yd<sup>3</sup>) 0.70 (0.92) 0.70 (0.92) 0.70 (0.92) 0.70 (0.92) Overall length (traveling) 8180 (26' 10") 8230 (27' 0") 8065 (26' 6") 8060 (26' 5") А Overall length (shipping) 8140 (26' 8") 8190 (26' 10") 8025 (26' 4") 8020 (26' 4") Overall width В 2530 (8' 4") 2530 (8' 4") 2530 (8' 4") 2530 (8' 4") Overall height of boom С 3510 (11' 6") 3790 (12' 5") 3940 (12' 11") 3520 (11'7") Upperstructure width D 2485 (8' 2") 2485 (8' 2") 2485 (8' 2") 2485 (8' 2") Cab height Е 3230 (10' 7") 3230 (10'7") 3230 (10'7") 3230 (10'7") Ground clearance of counterweight F 1265 (4' 2") 1265 (4' 2") 1265 (4' 2") 1265 (4' 2") G 2735 (9' 0") Engine cover height 2735 (9'0") 2735 (9' 0") 2735 (9' 0") mm (ft-in) Minimum ground clearance Н 370 (1'3") 370 (1'3") 370 (1'3") 370 (1'3") Rear-end distance L 2240 (7' 4") 2240 (7' 4") 2240 (7' 4") 2240 (7' 4") Rear-end swing radius Ľ 2250 (7'5") 2250 (7' 5") 2250 (7' 5") 2250 (7' 5") Wheel base J 2600 (8' 6") 2600 (8' 6") 2600 (8' 6") 2600 (8' 6") Std axle 1944 (6' 5") 1944 (6' 5") 1944 (6' 5") 1944 (6' 5") Tread Κ Wide axle 2114 (6' 11") 2114 (6' 11") 2114 (6' 11") 2114 (6' 11") Dozer blade width L 2530 (8' 4") 2530 (8' 4") 2530 (8' 4") 2530 (8' 4") Overall height of guardrail Ν 3450 (11'4") 3450 (11'4") 3450 (11' 4") 3450 (11' 4") Low 10 (6.2) 10 (6.2) 10 (6.2) 10 (6.2) Travel speed High km/hr (mph) 35 (21.7) 35 (21.7) 35 (21.7) 35 (21.7) Creep 3 (1.9) 3 (1.9) 3 (1.9) 3 (1.9) Swing speed 9.50 9.50 9.50 9.50 rpm Gradeability Degree (%) 35 (70) 35 (70) 35 (70) 35 (70) 10506 10506 10506 Max traction force kg (lb) 10506

# 2) HW160A, 2-PIECE BOOM

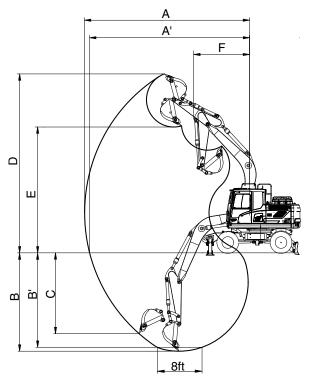


180WF2SP02

			U	nit		Specification	
D	escription		m	Boom		5.1 (16' 7")	
			(ft-in)	Arm	2.45 (8' 0")	2.00 (6' 50")	2.60 (8' 5")
Operating weight			kg	(lb)	18390 (40540)	18350 (40450)	18460 (40700)
Bucket capacity (	SAE heaped), stan	ndard	m <sup>3</sup> (	(yd <sup>3</sup> )	0.70 (0.92)	0.70 (0.92)	0.70 (0.92)
Overall length (tra	aveling)	٨			6340 (20' 10")	6375 (20' 11")	6280 (20' 7")
Overall length (sh	nipping)	A			6300 (20' 8")	6335 (20' 9")	6240 (20' 6")
Overall width		В			2530 (8' 4")	2530 (8' 4")	2530 (8' 4")
Overall height of I	boom	С			3930 (12' 11")	3930 (12' 11")	3930 (12' 11")
Upperstructure w	ridth	D			2485 (8' 2")	2485 (8' 2")	2485 (8' 2")
Cab height		Е			3230 (10' 7")	3230 (10' 7")	3230 (10' 7")
Ground clearance	e of counterweight	F			1265 (4' 2")	1265 (4' 2")	1265 (4' 2")
Engine cover heig	Engine cover height			(ft :)	2735 (9' 0")	2735 (9' 0")	2735 (9' 0")
Vinimum ground clearance		Н	mm (ft-in)		370 (1' 3")	370 (1' 3")	370 (1' 3")
Rear-end distanc	e	Ι			2240 (7' 4")	2240 (7' 4")	2240 (7' 4")
Rear-end swing r	adius	ľ			2250 (7' 5")	2250 (7' 5")	2250 (7' 5")
Wheel base		J			2600 (8' 6")	2600 (8' 6")	2600 (8' 6")
Treed	Std axle	K			1944 (6' 5")	1944 (6' 5")	1944 (6' 5")
Tread	Wide axle	K			2114 (6' 11")	2114 (6' 11")	2114 (6' 11")
Dozer blade width	n	L			2530 (8' 4")	2530 (8' 4")	2530 (8' 4")
Overall height of	guardrail	Ν			3450 (11' 4")	3450 (11' 4")	3450 (11' 4")
	<u> </u>				10 (6.2)	10 (6.2)	10 (6.2)
Travel speed		High	km/hr	(mph)	35 (21.7)	35 (21.7)	35 (21.7)
Cr		Creep			3 (1.9)	3 (1.9)	3 (1.9)
Swing speed			rp	m	9.50	9.50	9.50
Gradeability			Degre	ee (%)	35 (70)	35 (70)	35 (70)
Max traction force	9		kg	(lb)	10506	10506	10506

# 3. WORKING RANGE AND DIGGING POWER

# 1) HW160A, MONO BOOM

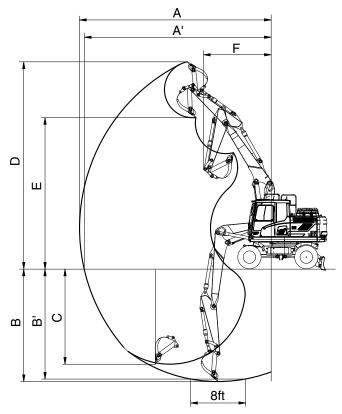


180WF2SP04

Description		2.45 m (8' 0") Arm	2.00 m (6' 7") Arm	2.60 m (8' 6") Arm	3.10 m (10' 2") Arm
Max digging reach	А	8820 (28' 11")	8360 (27' 5")	8865 (29' 1")	9285 (30' 6")
Max digging reach on ground	A'	8610 (28' 3")	8140 (26' 8")	8660 (28' 5")	9090 (29' 10")
Max digging depth	В	5610 (18' 5")	5160 (16' 11")	5760 (18' 11")	6260 (20' 6")
Max digging depth (8 ft level)	B'	5410 (17' 9")	4910 (16' 1")	5530 (18' 2")	6045 (19' 10")
Max vertical wall digging depth	С	5060 (16' 7")	4430 (14' 6")	4870 (16' 0")	5220 (17' 2")
Max digging height	D	9010 (29' 7")	8640 (28' 4")	8810 (28' 11")	8920 (29' 3")
Max dumping height	Е	6360 (20' 10")	6030 (19' 9")	6210 (20' 4")	6350 (20' 10")
Min swing radius	F	3170 (10' 5")	3480 (11' 5")	3450 (11' 4")	3500 (11' 6")
		98.0 [106.9]	98.2 [107.1]	98.3 [107.3]	98.4 [107.3]
	SAE	9992 [10900]	10008 [10920]	10026 [10940]	10029 [10940]
Puekot digging force		22030 [24030]	22060 [24070]	22100 [24120]	22110[24120]
Bucket digging force		114.8[125.2]	115.0 [125.4]	115.2 [125.6]	115.2[125.7]
	ISO	11706 [12770]	11726 [12790]	11746 [12810]	11750 [12820]
		25810 [28150]	25850 [28200]	25900 [28240]	25900 [28260]
		73.2 [79.9]	92.3 [100.7]	72.6 [79.1]	64.5 [70.3]
	SAE	7468 [8150]	9417 [10270]	7401 [8070]	6572 [7170]
Arm diaging force		16460 [17970]	20760 [22640]	16320 [17790]	14490 [15810]
Arm digging force		76.6 [83.7]	97.4 [106.2]	75.9 [82.8]	67.0[73.1]
	ISO	7816[8530]	9928 [10830]	7737 [8440]	6833 [7450]
		17230 [18810]	21890 [23880]	17060 [18610]	15060 [16420]

\*: Standard []: Power boost

# 2) HW160A, 2-PIECE BOOM



180WF2SP05

Description		2.45 m (8' 0") Arm	2.00 m (6' 7") Arm	2.60 m (8' 6") Arm
Max digging reach	Α	8990 (29' 6")	8530 (28' 0")	9060 (29' 9")
Max digging reach on ground	Α'	8790 (28' 10")	8310 (27' 3")	8860 (29' 1")
Max digging depth	В	5540 (18' 2")	5080 (16' 8")	5660 (18' 7")
Max digging depth (8 ft level)	B'	5440 (17' 10")	4970 (16' 4")	5560 (18' 3")
Max vertical wall digging depth	С	4775 (15' 8")	4240 (13' 11")	4770 (15' 8")
Max digging height	D	9870 (32' 5")	9450 (31' 0")	9770 (32' 1")
Max dumping height	Е	7140 (23' 5")	6740 (22' 1")	7070 (23' 2")
Min swing radius	F	3030 (9' 11")	3370 (11' 1")	3500 (11' 6")
		98.0 [106.9]	98.2[107.1]	98.3 [107.3]
	SAE	9992 [10900]	10008[10920]	10026 [10940]
Pueket diaging force		22030 [24030]	22060 [24070]	22100 [24120]
Bucket digging force		114.8[125.2]	115.0[125.4]	115.2 [125.6]
	ISO	11706 [12770]	11726[12790]	11746[12810]
		25810 [28150]	25850 [28200]	25900 [28240]
		73.2 [79.9]	92.3[100.7]	72.6[79.1]
	SAE	7468 [8150]	9417[10270]	7401 [8070]
Arm diaging force		16460 [17970]	20760 [22640]	16320 [17790]
Arm digging force		76.6[83.7]	97.4[106.2]	75.9 [82.8]
	ISO	7816[8530]	9928 [10830]	7737 [8440]
		17230 [18810]	21890 [23880]	17060 [18610]

[]: Power boost

## 4. WEIGHT

	HW1	160A
Item	kg	lb
Upperstructure assembly	8240	19170
· Main frame weld assembly	1283	2830
· Engine assembly	378	830
· Aftertreatment assembly	64	140
· Main pump assembly	91	200
· Main control valve assembly	144	320
· Swing motor assembly	148	330
· Hydraulic oil tank WA	135	300
· Fuel tank WA	138	300
· Counterweight	2914	6420
· Cab assembly	495	1090
Lower chassis assembly	5860	12920
· Lower frame weld assembly	1552	3420
· Swing bearing	260	570
· Travel motor assembly (2EA)	80	180
· Turning joint	117	260
· Transmission assembly	135	300
· Front axle assembly	637	1400
Front axle assembly (wide)	655	1400
· Rear axle assembly	534	1180
· Rear axle assembly (wide)	547	1210
Dozer blade assembly (front)	810	1790
Dozer blade assembly (non)     Dozer blade assembly (rear)	809	1780
Front attachment assembly	009	1700
(4.6 m boom, 2.45 m arm, 0.58 m <sup>3</sup> SAE heaped bucket)	3480	7670
· 5.0 m boom assembly	1023	2260
· 5.1 m 2pcs boom assembly	1108	2440
· 2.45 m arm assembly	499	1100
· 2.00 m arm assembly	457	1010
· 2.60 m arm assembly	560	1230
· 3.10 m arm assembly	652	1440
· 0.70 m <sup>3</sup> SAE heaped bucket assembly	599	1320
· 0.76 m <sup>3</sup> SAE heaped bucket assembly	620	1370
· 0.89 m <sup>3</sup> SAE heaped bucket assembly	684	1510
<ul> <li>1.05 m<sup>3</sup> SAE heaped bucket assembly</li> </ul>	740	1630
· 0.73 m <sup>3</sup> SAE heaped bucket assembly	617	1360
· 0.85 m <sup>3</sup> SAE heaped bucket assembly	669	1470
· 0.69 m <sup>3</sup> SAE heaped bucket assembly	724	1600
· 0.75 m <sup>3</sup> SAE heaped bucket assembly	536	1180
· Bucket control link assembly	157	350
· Boom cylinder assembly (2EA)	282	620
· Adjustable boom cylinder assembly (2EA)	266	590
· Arm cylinder assembly	169	370
· Bucket cylinder assembly	123	270
· Oscillating cylinder assembly (2EA)	94	210
· Adjustable cylinder assembly	209	460
· Outrigger cylinder assembly (2EA)	182	400
· Blade cylinder assembly (front) (2EA)	86	190
· Blade cylinder assembly (rear) (2EA)	86	190
· Front outrigger assembly	1045	2300
· Rear outrigger assembly	1046	2310

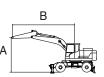
## 5. LIFTING CAPACITIES

## 1) 5.0 m MONO BOOM+2910 kg COUNTERWEIGHT

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outri	gger
MONO	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HW160A	BOOM	5000	2000	2910	-	500	-	Down	-	-

• Rating over-front

- E : Rating over-side or 360 degree



				Lift-point ı	radius (B)			At	max. rea	ch
Lift-poin		3.0 m (	(9.8 ft)	4.5 m (	14.8 ft)	6.0 m (	19.7 ft)	Cap	acity	Reach
height (A	·)	ŀ	- <b>#</b> -	ŀ		₽ <b>₽</b>	<b>⋳⋕</b> ⋑	ŀ	- <b>f</b>	m (ft)
6.0 m k	g			*4560	*4560			*4580	3240	5.60
(19.7 ft)	b			*10050	*10050			*10100	7140	(18.4)
4.5 m k	g			*5180	4470	4430	2860	3920	2530	6.47
(14.8 ft)   I	b			*11420	9850	9770	6310	8640	5580	(21.2)
3.0 m k	g			*6290	4170	4320	2760	3480	2230	6.90
	b			*13870	9190	9520	6080	7670	4920	(22.6)
1.5 m k	g			6430	3920	4190	2640	3360	2130	6.99
	b			14180	8640	9240	5820	7410	4700	(22.9)
0.0 m k	g			6290	3800	4120	2580	3510	2210	6.73
	b			13870	8380	9080	5690	7740	4870	(22.1)
-1.5 m k	(g <sup>'</sup>	*9960	7040	6290	3800	4130	2590	4040	2540	6.10
		21960	15520	13870	8380	9110	5710	8910	5600	(20.0)
-3.0 m k	íg í	*7850	7220	*5540	3920			*4790	3470	4.94
		7310	15920	*12210	8640			*10560	7650	(16.2)

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.

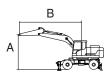
Lifting capacities will vary with different work tools, ground conditions and attachments.

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

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

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Dozer Outri	
HW160A	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
INV IOUA	BOOM	5000	2000	2910	-	500	-	Up	-	-

• 🚽 : Rating over-side or 360 degree



				Lift-point ı	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)	Capa	acity	Reach
height	(A)	ŀ	- <b>*</b> -	ŀ		ŀ		ŀ	- <b>*</b> *	m (ft)
6.0 m	kg			*4560	4210			*4580	2940	5.60
(19.7 ft)	lb			*10050	9280			*10100	6480	(18.4)
4.5 m	kg			*5180	4040	4430	2590	3920	2290	6.47
(14.8 ft)	lb			*11420	8910	9770	5710	8640	5050	(21.2)
3.0 m	kg			*6290	3760	4320	2490	3480	2010	6.90
(9.8 ft)	lb			*13870	8290	9520	5490	7670	4430	(22.6)
1.5 m	kg			6430	3510	4190	2380	3360	1920	6.99
(4.9 ft)	lb			14180	7740	9240	5250	7410	4230	(22.9)
0.0 m	kg			6290	3390	4120	2310	3510	1990	6.73
(0.0 ft)	lb			13870	7470	9080	5090	7740	4390	(22.1)
-1.5 m	kg	*9960	6180	6290	3390	4130	2320	4040	2280	6.10
(-4.9 ft)	lb	*21960	13620	13870	7470	9110	5110	8910	5030	(20.0)
-3.0 m	kg	*7850	6360	*5540	3510			*4790	3120	4.94
(-9.8 ft)	lb	*17310	14020	*12210	7740			*10560	6880	(16.2)

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.

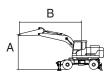
Lifting capacities will vary with different work tools, ground conditions and attachments.

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

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

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outri	gger
HW160A	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HW IOUA	BOOM	5000	2450	2910	-	500	-	Down	-	-

• 🚽 : Rating over-side or 360 degree



				Lift-point	radius (B)				At	max. rea	ch
Lift-point	1.5 m	(4.9 ft)	3.0 m	(9.8 ft)	4.5 m (	14.8 ft)	6.0 m (	19.7 ft)	Capa	acity	Reach
height (A)	ŀ	<b>-‡</b>	ŀ	<b>#</b> )	ŀ	<b>-‡</b>	ŀ	<b>-‡</b>	ŀ	<b>-‡</b>	m (ft)
7.5 m kg (24.6 ft) lb									*3180 *7010	*3180 *7010	4.77 (15.7)
6.0 m kg (19.7 ft) lb							*3550 *7830	2940 6480	*2750 *6060	*2750 *6060	6.16 (20.2)
4.5 m kg (14.8 ft) lb					*4730 *10430	4540 10010	*4240 *9350	2900 6390	*2630 *5800	2260 4980	6.96 (22.8)
3.0 m kg (9.8 ft) lb					*5890 *12990	4240 9350	4350 9590	2780 6130	*2660 *5860	2020 4450	7.36 (24.2)
1.5 m kg (4.9 ft) lb					6470 14260	3960 8730	4200 9260	2650 5840	*2830 *6240	1940 4280	7.44 (24.4)
0.0 m kg (0.0 ft) lb			*5870 *12940	*5870 *12940	6290 13870	3800 8380	4110 9060	2570 5670	3170 6990	2000 4410	7.21 (23.6)
-1.5 m kg (-4.9 ft) lb	*5810 *12810	*5810 *12810	*10160 *22400	6950 15320	6250 13780	3770 8310	4090 9020	2550 5620	3570 7870	2250 4960	6.62 (21.7)
-3.0 m kg (-9.8 ft) lb	*10280 *22660	*10280 *22660	*8790 *19380	7110 15670	*6160 *13580	3840 8470			*4540 *10010	2900 6390	5.57 (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.

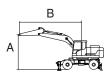
Lifting capacities will vary with different work tools, ground conditions and attachments.

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

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

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Do	Dozer		gger
HW160A MOI	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
INV IOUA	BOOM	5000	2450	2910	-	500	-	Up	-	-

• 🚽 : Rating over-side or 360 degree



				Lift-point	radius (B)				At	max. rea	ch
Lift-point	1.5 m	(4.9 ft)	3.0 m	(9.8 ft)	4.5 m (	14.8 ft)	6.0 m (	19.7 ft)	Capa	acity	Reach
height (A)	ŀ	<b>-</b>	ŀ	<b>-‡</b>	ŀ	<b>-‡</b>	ŀ	<b>-‡</b>	ŀ	<b>-‡</b>	m (ft)
7.5 m kg (24.6 ft) lb									*3180 *7010	*3180 *7010	4.77 (15.7)
6.0 m kg (19.7 ft) lb							*3550 *7830	2670 5890	*2750 *6060	2540 5600	6.16 (20.2)
4.5 m kg (14.8 ft) lb					*4730 *10430	4120 9080	*4240 *9350	2630 5800	*2630 *5800	2050 4520	6.96 (22.8)
3.0 m kg (9.8 ft) lb					*5890 *12990	3820 8420	4350 9590	2510 5530	*2660 *5860	1820 4010	7.36 (24.2)
1.5 m kg (4.9 ft) lb					6470 14260	3550 7830	4200 9260	2390 5270	*2830 *6240	1740 3840	7.44 (24.4)
0.0 m kg (0.0 ft) lb			*5870 *12940	*5870 *12940	6290 13870	3390 7470	4110 9060	2300 5070	3170 6990	1790 3950	7.21 (23.6)
-1.5 m kg (-4.9 ft) lb	*5810 *12810	*5810 *12810	*10160 *22400	6100 13450	6250 13780	3360 7410	4090 9020	2280 5030	3570 7870	2020 4450	6.62 (21.7)
-3.0 m kg (-9.8 ft) lb	*10280 *22660	*10280 *22660	*8790 *19380	6250 13780	*6160 *13580	3430 7560			*4540 *10010	2600 5730	5.57 (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.

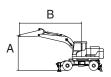
Lifting capacities will vary with different work tools, ground conditions and attachments.

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

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

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Do	zer	Outri	gger
HW160A	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
	BOOM	5000	2600	2910	-	500	-	Down	-	-

• 🚽 : 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)	ŀ	<b>- #</b>	ŀ	<b>-‡</b>	ŀ	- <b>F</b>	ŀ	♣	ŀ	<b>-‡</b>	ŀ	- <b>*</b> *	m (ft)
7.5 m (24.6 ft)	kg Ib											*3360 *7410	*3360 *7410	4.96 (16.3)
6.0 m	kg							*3960	2940			*2950	2680	6.31
(19.7 ft)	lb							*8730	6480			*6500	5910	(20.7)
4.5 m	kg					*4540	4540	*4110	2890			*2830	2180	7.09
(14.8 ft)	lb					*10010	10010	*9060	6370			*6240	4810	(23.3)
3.0 m	kg					*5700	4230	4330	2760			*2880	1940	7.49
(9.8 ft)	lb					*12570	9330	9550	6080			*6350	4280	(24.6)
1.5 m	kg					6450	3930	4180	2630	3000	1890	2960	1860	7.56
(4.9 ft)	lb					14220	8660	9220	5800	6610	4170	6530	4100	(24.8)
0.0 m	kg			*5970	*5970	6250	3760	4070	2530			3060	1920	7.33
(0.0 ft)	lb			*13160	*13160	13780	8290	8970	5580			6750	4230	(24.1)
-1.5 m	kg	*5590	*5590	*9940	6860	6200	3710	4040	2500			3430	2140	6.76
(-4.9 ft)	lb	*12320	*12320	*21910	15120	13670	8180	8910	5510			7560	4720	(22.2)
-3.0 m	kg	*9860	*9860	*9010	7010	*6270	3780					4400	2730	5.74
(-9.8 ft)	lb	*21740	*21740	*19860	15450	*13820	8330					9700	6020	(18.8)

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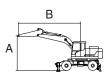
Lifting capacities will vary with different work tools, ground conditions and attachments.

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

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

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Do	zer	Outri	gger
HW160A	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
	BOOM	5000	2600	2910	-	500	-	Up	-	-

• 🚽 : 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)	ŀ	<b>-†</b>	ŀ	<b>-‡</b>	ŀ	- <b>‡</b> :)	ŀ	♣	ŀ	<b>-‡</b>	ŀ	- <b>*</b> *	m (ft)
7.5 m (24.6 ft)	kg Ib											*3360 *7410	*3360 *7410	4.96 (16.3)
6.0 m	kg							*3960	2670			*2950	2430	6.31
(19.7 ft)	lb							*8730	5890			*6500	5360	(20.7)
4.5 m	kg					*4540	4120	*4110	2620			*2830	1960	7.09
(14.8 ft)	lb					*10010	9080	*9060	5780			*6240	4320	(23.3)
3.0 m	kg					*5700	3810	4330	2490			*2880	1750	7.49
(9.8 ft)	lb					*12570	8400	9550	5490			*6350	3860	(24.6)
1.5 m	kg					6450	3520	4180	2360	3000	1690	2960	1670	7.56
(4.9 ft)	lb					14220	7760	9220	5200	6610	3730	6530	3680	(24.8)
0.0 m	kg			*5970	*5970	6250	3350	4070	2260			3060	1720	7.33
(0.0 ft)	lb			*13160	*13160	13780	7390	8970	4980			6750	3790	(24.1)
-1.5 m	kg	*5590	*5590	*9940	6010	6200	3310	4040	2240			3430	1920	6.76
(-4.9 ft)	lb	*12320	*12320	*21910	13250	13670	7300	8910	4940			7560	4230	(22.2)
-3.0 m	kg	*9860	*9860	*9010	6160	*6270	3370					4400	2450	5.74
(-9.8 ft)	lb	*21740	*21740	*19860	13580	*13820	7430					9700	5400	(18.8)

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.

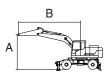
Lifting capacities will vary with different work tools, ground conditions and attachments.

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

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

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outri	gger
HW160A	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
	BOOM	5000	3100	2910	-	500	-	Down	-	-

• 🚽 : 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)	Cap	acity	Reach
height	(A)	ŀ		ŀ	- <b>F</b>	ŀ	- <b>*</b> -	ŀ	- <b>₽</b> ₽	ŀ	- <b>\$</b> \$	ŀ		m (ft)
7.5 m (24.6 ft)	kg Ib											*2680 *5910	*2680 *5910	5.62 (18.4)
6.0 m	kg							*3540	3030			*2420	2410	6.83
(19.7 ft)	lb							*7800	6680			*5340	5310	(22.4)
4.5 m	kg							*3780	2960	*2570	2030	*2340	2000	7.56
(14.8 ft)	lb							*8330	6530	*5670	4480	*5160	4410	(24.8)
3.0 m	kg			*7570	*7570	*5230	4340	*4300	2820	3100	1980	*2390	1800	7.93
(9.8 ft)	lb			*16690	*16690	*11530	9570	*9480	6220	6830	4370	*5270	3970	(26.0)
1.5 m	kg					*6470	4000	4220	2660	3030	1910	*2540	1730	8.00
(4.9 ft)	lb					*14260	8820	9300	5860	6680	4210	*5600	3810	(26.3)
0.0 m	kg			*6640	*6640	6270	3770	4090	2540	2970	1860	2820	1760	7.78
(0.0 ft)	lb			*14640	*14640	13820	8310	9020	5600	6550	4100	6220	3880	(25.5)
-1.5 m	kg	*5170	*5170	*9310	6770	6170	3690	4020	2480			3100	1940	7.25
(-4.9 ft)	lb	*11400	*11400	*20530	14930	13600	8140	8860	5470			6830	4280	(23.8)
-3.0 m	kg	*8430	*8430	*9800	6880	6210	3720	4060	2520			3800	2370	6.31
(-9.8 ft)	lb	*18580	*18580	*21610	15170	13690	8200	8950	5560			8380	5220	(20.7)
-4.5 m	kg			*7000	*7000	*4610	3900					*4240	3670	4.72
(-14.8 ft)	lb			*15430	*15430	*10160	8600					*9350	8090	(15.5)

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.

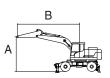
Lifting capacities will vary with different work tools, ground conditions and attachments.

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

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

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Do	zer	Outri	gger
HW160A	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
	BOOM	5000	3100	2910	-	500	-	Up	-	-

• 🚽 : Rating over-side or 360 degree



					L	.ift-point ı	adius (B	)				At	max. rea	ich
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)	Cap	acity	Reach
height	(A)	ŀ	- <b>†</b> -)	ŀ	- <b>*</b> -	ŀ	- <b>†</b>	ŀ	- <b>£</b> *)	ŀ	- <b>\$</b> \$	ŀ	- <b>*</b> *	m (ft)
7.5 m (24.6 ft)	kg Ib											*2680 *5910	*2680 *5910	5.62 (18.4)
6.0 m	kg							*3540	2760			*2420	2180	6.83
(19.7 ft)	lb							*7800	6080			*5340	4810	(22.4)
4.5 m	kg							*3780	2690	*2570	1830	*2340	1810	7.56
(14.8 ft)	lb							*8330	5930	*5670	4030	*5160	3990	(24.8)
3.0 m	kg			*7570	7200	*5230	3920	*4300	2550	3100	1780	*2390	1620	7.93
(9.8 ft)	lb			*16690	15870	*11530	8640	*9480	5620	6830	3920	*5270	3570	(26.0)
1.5 m	kg					*6470	3590	4220	2390	3030	1720	*2540	1550	8.00
(4.9 ft)	lb					*14260	7910	9300	5270	6680	3790	*5600	3420	(26.3)
0.0 m	kg			*6640	5960	6270	3360	4090	2270	2970	1660	2820	1580	7.78
(0.0 ft)	lb			*14640	13140	13820	7410	9020	5000	6550	3660	6220	3480	(25.5)
-1.5 m	kg	*5170	*5170	*9310	5920	6170	3280	4020	2220			3100	1730	7.25
(-4.9 ft)	lb	*11400	*11400	*20530	13050	13600	7230	8860	4890			6830	3810	(23.8)
-3.0 m	kg	*8430	*8430	*9800	6030	6210	3310	4060	2250			3800	2120	6.31
(-9.8 ft)	lb	*18580	*18580	*21610	13290	13690	7300	8950	4960			8380	4670	(20.7)
-4.5 m	kg			*7000	6300	*4610	3490					*4240	3280	4.72
(-14.8 ft)	lb			*15430	13890	*10160	7690					*9350	7230	(15.5)

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.

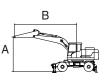
The difference between the weight of a work tool attachment must be subtracted.

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

## 2) 5.0 m MONO BOOM+3410 kg COUNTERWEIGHT

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outri	gger
HW160A	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
	BOOM	5097	2000	3410	-	500	-	Down	-	-

: Rating over-front 🛛 🛛 🕂 📥 : Rating over-side or 360 degree



				Lift-point ı	radius (B)			At	max. rea	ch
Lift-poi		3.0 m (	(9.8 ft)	4.5 m (	14.8 ft)	6.0 m (	19.7 ft)	Capa	acity	Reach
height (	(A)	ŀ	- <b>#</b> -	ŀ	₋₽₽ ₽₽	₽ <b>₽</b>		ŀ	- <b>₽</b> ₽	m (ft)
6.0 m	kg			*4560	*4560			*4580	3480	5.60
(19.7 ft)	lb			*10050	*10050			*10100	7670	(18.4)
4.5 m	kg			*5180	4790	*4560	3090	4180	2740	6.47
(14.8 ft)	lb			*11420	10560	*10050	6810	9220	6040	(21.2)
3.0 m	kg			*6290	4500	4600	2990	3720	2420	6.90
(9.8 ft)	lb			*13870	9920	10140	6590	8200	5340	(22.6)
1.5 m	kg			6860	4250	4480	2870	3600	2320	6.99
(4.9 ft)	lb			15120	9370	9880	6330	7940	5110	(22.9)
0.0 m	kg			6720	4130	4410	2810	3750	2410	6.73
(0.0 ft)	lb			14820	9110	9720	6190	8270	5310	(22.1)
-1.5 m	kg	*9960	7620	6720	4130	4420	2820	4320	2760	6.10
(-4.9 ft)	lb	*21960	16800	14820	9110	9740	6220	9520	6080	(20.0)
-3.0 m	kg	*7850	7810	*5540	4250			*4790	3760	4.94
(-9.8 ft)	lb	*17310	17220	*12210	9370			*10560	8290	(16.2)

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.

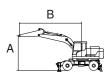
Lifting capacities will vary with different work tools, ground conditions and attachments.

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

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

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Do	zer	Outri	gger
HW160A	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
	BOOM	5097	2000	3410	-	500	-	Up	-	-

• 🚽 : Rating over-side or 360 degree



				Lift-point r	adius (B)			At	max. rea	ch
Lift-po		3.0 m (	(9.8 ft)	4.5 m (	14.8 ft)	6.0 m (	19.7 ft)	Cap	acity	Reach
height	(A)	ŀ	- <b>*</b> -	ŀ		ŀ		ŀ	- <b>*</b> *	m (ft)
6.0 m	kg			*4560	4520			*4580	3170	5.60
(19.7 ft)	lb			*10050	9960			*10100	6990	(18.4)
4.5 m	kg			*5180	4350	*4560	2810	4180	2490	6.47
(14.8 ft)	lb			*11420	9590	*10050	6190	9220	5490	(21.2)
3.0 m	kg			*6290	4070	4600	2710	3720	2190	6.90
(9.8 ft)	lb			*13870	8970	10140	5970	8200	4830	(22.6)
1.5 m	kg			6860	3820	4480	2600	3600	2100	6.99
(4.9 ft)	lb			15120	8420	9880	5730	7940	4630	(22.9)
0.0 m	kg			6720	3710	4410	2530	3750	2180	6.73
(0.0 ft)	lb			14820	8180	9720	5580	8270	4810	(22.1)
-1.5 m	kg	*9960	6720	6720	3700	4420	2540	4320	2490	6.10
(-4.9 ft)	lb	*21960	14820	14820	8160	9740	5600	9520	5490	(20.0)
-3.0 m	kg	*7850	6900	*5540	3820			*4790	3390	4.94
(-9.8 ft)	lb	*17310	15210	*12210	8420			*10560	7470	(16.2)

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.

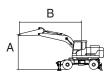
Lifting capacities will vary with different work tools, ground conditions and attachments.

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

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

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Do	zer	Outri	gger
HW160A	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
	BOOM	5000	2450	3410	-	500	-	Down	-	-

• 🚽 : Rating over-side or 360 degree



				Lift-point	radius (B)	)			At	max. rea	ch
Lift-point	1.5 m	(4.9 ft)	3.0 m	(9.8 ft)	4.5 m (	14.8 ft)	6.0 m (	19.7 ft)	Capa	acity	Reach
height (A)	ŀ	<b>-‡</b>	ŀ	<b>#</b> )	ŀ	<b>-</b>	₽ <b>₽</b>	- <b>#</b> *)	ŀ	<b>-‡</b>	m (ft)
7.5 m kg (24.6 ft) lb									*3180 *7010	*3180 *7010	4.77 (15.7)
6.0 m kg (19.7 ft) lb							*3550 *7830	3170 6990	*2750 *6060	*2750 *6060	6.16 (20.2)
4.5 m kg (14.8 ft) lb					*4730 *10430	*4730 *10430	*4240 *9350	3130 6900	*2630 *5800	2450 5400	6.96 (22.8)
3.0 m kg (9.8 ft) lb					*5890 *12990	4570 10080	4630 10210	3010 6640	*2660 *5860	2200 4850	7.36 (24.2)
1.5 m kg (4.9 ft) lb					6910 15230	4290 9460	4490 9900	2880 6350	*2830 *6240	2120 4670	7.44 (24.4)
0.0 m kg (0.0 ft) lb			*5870 *12940	*5870 *12940	6720 14820	4130 9110	4400 9700	2790 6150	*3190 *7030	2180 4810	7.21 (23.6)
-1.5 m kg (-4.9 ft) lb	*5810 *12810	*5810 *12810	*10160 *22400	7530 16600	6690 14750	4090 9020	4370 9630	2770 6110	3830 8440	2450 5400	6.62 (21.7)
-3.0 m kg (-9.8 ft) lb	*10280 *22660	*10280 *22660	*8790 *19380	7690 16950	*6160 *13580	4170 9190			*4540 *10010	3150 6940	5.57 (18.3)

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.

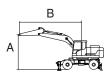
Lifting capacities will vary with different work tools, ground conditions and attachments.

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

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

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Do	zer	Outri	igger
HW160A	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
	BOOM	5000	2450	3410	-	500	-	Up	-	-

• 🚽 : Rating over-side or 360 degree



				Lift-point	radius (B)				At	max. rea	ch
Lift-point	1.5 m	(4.9 ft)	3.0 m	(9.8 ft)	4.5 m (	14.8 ft)	6.0 m (	19.7 ft)	Capa	acity	Reach
height (A)	ŀ	<b>-‡</b>	ŀ	<b>#</b> )	ŀ	- <b>‡</b> -‡	ŀ	- <b>#</b> *)	ŀ	<b>4</b>	m (ft)
7.5 m kg (24.6 ft) lb									*3180 *7010	*3180 *7010	4.77 (15.7)
6.0 m kg (19.7 ft) lb							*3550 *7830	2890 6370	*2750 *6060	*2750 *6060	6.16 (20.2)
4.5 m kg (14.8 ft) lb					*4730 *10430	4430 9770	*4240 *9350	2850 6280	*2630 *5800	2230 4920	6.96 (22.8)
3.0 m kg (9.8 ft) lb					*5890 *12990	4130 9110	4630 10210	2730 6020	*2660 *5860	1990 4390	7.36 (24.2)
1.5 m kg (4.9 ft) lb					6910 15230	3860 8510	4490 9900	2610 5750	*2830 *6240	1910 4210	7.44 (24.4)
0.0 m kg (0.0 ft) lb			*5870 *12940	*5870 *12940	6720 14820	3700 8160	4400 9700	2520 5560	*3190 *7030	1970 4340	7.21 (23.6)
-1.5 m kg (-4.9 ft) lb	*5810 *12810	*5810 *12810	*10160 *22400	6640 14640	6690 14750	3670 8090	4370 9630	2500 5510	3830 8440	2210 4870	6.62 (21.7)
-3.0 m kg (-9.8 ft) lb	*10280 *22660	*10280 *22660	*8790 *19380	6790 14970	*6160 *13580	3740 8250			*4540 *10010	2840 6260	5.57 (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.

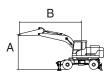
Lifting capacities will vary with different work tools, ground conditions and attachments.

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

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Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Do	zer	Outri	gger
HW160A	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
	BOOM	5000	2600	3410	-	500	-	Down	-	-

• 🚽 : Rating over-side or 360 degree



					L	.ift-point I	radius (B	)				At	max. rea	ich
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)	ŀ	<b>-†</b>	ŀ	- <b>‡</b> *)	ŀ	- <b>‡</b> :)	ŀ	- <b>‡</b> *)	ŀ	- <b>#</b> :)	ŀ	- <b>*</b> *	m (ft)
7.5 m (24.6 ft)	kg Ib											*3360 *7410	*3360 *7410	4.96 (16.3)
6.0 m	kg							*3960	3170			*2950	2900	6.31
(19.7 ft)	lb							*8730	6990			*6500	6390	(20.7)
4.5 m	kg					*4540	*4540	*4110	3120			*2830	2360	7.09
(14.8 ft)	lb					*10010	*10010	*9060	6880			*6240	5200	(23.3)
3.0 m	kg					*5700	4560	*4580	2990			*2880	2120	7.49
(9.8 ft)	lb					*12570	10050	*10100	6590			*6350	4670	(24.6)
1.5 m	kg					*6830	4260	4470	2850	3220	2060	*3070	2040	7.56
(4.9 ft)	lb					*15060	9390	9850	6280	7100	4540	*6770	4500	(24.8)
0.0 m	kg			*5970	*5970	6680	4090	4360	2760			3280	2100	7.33
(0.0 ft)	lb			*13160	*13160	14730	9020	9610	6080			7230	4630	(24.1)
-1.5 m	kg	*5590	*5590	*9940	7440	6630	4040	4330	2730			3680	2340	6.76
(-4.9 ft)	lb	*12320	*12320	*21910	16400	14620	8910	9550	6020			8110	5160	(22.2)
-3.0 m	kg	*9860	*9860	*9010	7590	*6270	4110					*4490	2980	5.74
(-9.8 ft)	lb	*21740	*21740	*19860	16730	*13820	9060					*9900	6570	(18.8)

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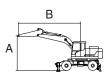
Lifting capacities will vary with different work tools, ground conditions and attachments.

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

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Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Do	zer	Outri	gger
HW160A	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
	BOOM	5000	2600	3410	-	500	-	Up	-	-

• 🚽 : 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)	ŀ	<b>-†</b>	ŀ	<b>-‡</b>	ŀ	- <b>F</b>	ŀ	- <b>‡</b> *)	ŀ	- <b>#</b> :)	ŀ	- <b>‡</b> *)	m (ft)
7.5 m (24.6 ft)	kg Ib											*3360 *7410	*3360 *7410	4.96 (16.3)
6.0 m	kg							*3960	2880			*2950	2640	6.31
(19.7 ft)	lb							*8730	6350			*6500	5820	(20.7)
4.5 m	kg					*4540	4430	*4110	2840			*2830	2140	7.09
(14.8 ft)	lb					*10010	9770	*9060	6260			*6240	4720	(23.3)
3.0 m	kg					*5700	4120	*4580	2710			*2880	1910	7.49
(9.8 ft)	lb					*12570	9080	*10100	5970			*6350	4210	(24.6)
1.5 m	kg					*6830	3830	4470	2580	3220	1860	*3070	1840	7.56
(4.9 ft)	lb					*15060	8440	9850	5690	7100	4100	*6770	4060	(24.8)
0.0 m	kg			*5970	*5970	6680	3660	4360	2480			3280	1890	7.33
(0.0 ft)	lb			*13160	*13160	14730	8070	9610	5470			7230	4170	(24.1)
-1.5 m	kg	*5590	*5590	*9940	6550	6630	3620	4330	2450			3680	2110	6.76
(-4.9 ft)	lb	*12320	*12320	*21910	14440	14620	7980	9550	5400			8110	4650	(22.2)
-3.0 m	kg	*9860	*9860	*9010	6700	*6270	3680					*4490	2680	5.74
(-9.8 ft)	lb	*21740	*21740	*19860	14770	*13820	8110					*9900	5910	(18.8)

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.

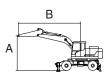
Lifting capacities will vary with different work tools, ground conditions and attachments.

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

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

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Do	zer	Outri	gger
HW160A	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
	BOOM	5000	3100	3410	-	500	-	Down	-	-

• 🚽 : Rating over-side or 360 degree



					L	.ift-point I	radius (B	)				At	max. rea	ich
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)	Cap	acity	Reach
height	(A)	ŀ	- <b>†</b> -)	ŀ	- <b>‡</b> ‡	ŀ	- <b>\$</b> \$	ŀ	- <b>‡</b> *)	ŀ	♣	ŀ	- <b>‡</b> *)	m (ft)
7.5 m (24.6 ft)	kg Ib											*2680 *5910	*2680 *5910	5.62 (18.4)
6.0 m	kg							*3540	3260			*2420	*2420	6.83
(19.7 ft)	lb							*7800	7190			*5340	*5340	(22.4)
4.5 m	kg							*3780	3190	*2570	2200	*2340	2170	7.56
(14.8 ft)	lb							*8330	7030	*5670	4850	*5160	4780	(24.8)
3.0 m	kg			*7570	*7570	*5230	4670	*4300	3050	3320	2160	*2390	1960	7.93
(9.8 ft)	lb			*16690	*16690	*11530	10300	*9480	6720	7320	4760	*5270	4320	(26.0)
1.5 m	kg					*6470	4330	4510	2890	3240	2090	*2540	1890	8.00
(4.9 ft)	lb					*14260	9550	9940	6370	7140	4610	*5600	4170	(26.3)
0.0 m	kg			*6640	*6640	6700	4100	4370	2770	3180	2030	*2840	1930	7.78
(0.0 ft)	lb			*14640	*14640	14770	9040	9630	6110	7010	4480	*6260	4250	(25.5)
-1.5 m	kg	*5170	*5170	*9310	7350	6600	4010	4310	2710			3330	2120	7.25
(-4.9 ft)	lb	*11400	*11400	*20530	16200	14550	8840	9500	5970			7340	4670	(23.8)
-3.0 m	kg	*8430	*8430	*9800	7460	6640	4050	4350	2750			4070	2590	6.31
(-9.8 ft)	lb	*18580	*18580	*21610	16450	14640	8930	9590	6060			8970	5710	(20.7)
-4.5 m	kg			*7000	*7000	*4610	4230					*4240	3980	4.72
(-14.8 ft)	lb			*15430	*15430	*10160	9330					*9350	8770	(15.5)

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.

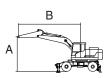
Lifting capacities will vary with different work tools, ground conditions and attachments.

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

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

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Do	zer	Outri	gger
HW160A	MONO	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
	BOOM	5000	3100	3410	-	500	-	Up	-	-

• 🕂 : Rating over-side or 360 degree



					L	.ift-point I	radius (B	)				At	max. rea	ich
Lift-poi	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)	Cap	acity	Reach
height	(A)	ŀ	- <b>F</b>	ŀ	- <b>‡</b> ‡	ŀ	- <b>\$</b> \$	ŀ	- <b>‡</b> *)	ŀ	- <b>*</b> -	ŀ	- <b>‡</b> *)	m (ft)
7.5 m	kg											*2680	*2680	5.62
(24.6 ft)	lb											*5910	*5910	(18.4)
6.0 m	kg							*3540	2980			*2420	2370	6.83
(19.7 ft)	lb							*7800	6570			*5340	5220	(22.4)
4.5 m	kg							*3780	2910	*2570	2000	*2340	1970	7.56
(14.8 ft)	lb							*8330	6420	*5670	4410	*5160	4340	(24.8)
3.0 m	kg			*7570	*7570	*5230	4230	*4300	2770	3320	1950	*2390	1780	7.93
(9.8 ft)	lb			*16690	*16690	*11530	9330	*9480	6110	7320	4300	*5270	3920	(26.0)
1.5 m	kg					*6470	3900	4510	2610	3240	1880	*2540	1700	8.00
(4.9 ft)	lb					*14260	8600	9940	5750	7140	4140	*5600	3750	(26.3)
0.0 m	kg			*6640	6500	6700	3670	4370	2490	3180	1830	*2840	1740	7.78
(0.0 ft)	lb			*14640	14330	14770	8090	9630	5490	7010	4030	*6260	3840	(25.5)
-1.5 m	kg	*5170	*5170	*9310	6460	6600	3590	4310	2440			3330	1910	7.25
(-4.9 ft)	lb	*11400	*11400	*20530	14240	14550	7910	9500	5380			7340	4210	(23.8)
-3.0 m	kg	*8430	*8430	*9800	6570	6640	3620	4350	2470			4070	2330	6.31
(-9.8 ft)	lb	*18580	*18580	*21610	14480	14640	7980	9590	5450			8970	5140	(20.7)
-4.5 m	kg			*7000	6840	*4610	3800					*4240	3580	4.72
(-14.8 ft)	lb			*15430	15080	*10160	8380					*9350	7890	(15.5)

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.

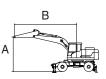
Lifting capacities will vary with different work tools, ground conditions and attachments.

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

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

## 3) 5.1 m 2-PIECE BOOM+3410 kg COUNTERWEIGHT

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Do	Dozer		Dozer		Dozer		gger
HW160A	2-PIECE	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear				
	BOOM			2000	3410	-	500	-	Down	-	-			



			Lift-point r	adius (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)	Cap	acity	Reach
height (A)	ŀ	- <b>4</b> -1	ŀ	<b>⋳⋕</b>	ŀ	<b>⋳⋕</b> ⋑	ŀ	- <b>#</b> *)	m (ft)
7.5 m kg							*4660	*4660	4.30
(24.6 ft) Ib							*10270	*10270	(14.1)
6.0 m kg			*4250	*4250			*4310	3280	5.81
(19.7 ft) Ib			*9370	*9370			*9500	7230	(19.0)
4.5 m kg			*4880	4790	*4290	3080	4010	2600	6.65
(14.8 ft) Ib			*10760	10560	*9460	6790	8840	5730	(21.8)
3.0 m kg			*6000	4470	4610	2970	3590	2310	7.07
(9.8 ft)   Ib			*13230	9850	10160	6550	7910	5090	(23.2)
1.5 m kg			6840	4200	4470	2840	3470	2220	7.15
(4.9 ft)   Ib			15080	9260	9850	6260	7650	4890	(23.5)
0.0 m kg			6710	4080	4400	2770	3620	2310	6.91
(0.0 ft)   lb			14790	8990	9700	6110	7980	5090	(22.7)
-1.5 m kg	*9910	7560	6710	4080	4410	2780	4140	2630	6.29
(-4.9 ft) Ib	*21850	16670	14790	8990	9720	6130	9130	5800	(20.6)

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.

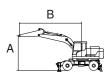
Lifting capacities will vary with different work tools, ground conditions and attachments.

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

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

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Do	Dozer Outr		gger
HW160A	2-PIECE	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
	BOOM	5097	2000	3410	-	500	-	Up	-	-

• 🚽 : Rating over-side or 360 degree



				Lift-point r	adius (B)			At	max. rea	ch
Lift-poi		3.0 m (	(9.8 ft)	4.5 m (	14.8 ft)	6.0 m (	19.7 ft)	Cap	acity	Reach
height (	(A)	ŀ	- <b>#</b> -	ŀ		ŀ		ŀ	<b>-‡‡</b>	m (ft)
7.5 m	kg							*4660	*4660	4.30
(24.6 ft) 6.0 m	lb kg			*4250	*4250			*10270 *4310	*10270 2980	(14.1) 5.81
(19.7 ft)	lb			*9370	*9370			*9500	6570	(19.0)
4.5 m	kg			*4880	4340	*4290	2800	4010	2360	6.65
(14.8 ft)	lb			*10760	9570	*9460	6170	8840	5200	(21.8)
3.0 m	kg			*6000	4030	4610	2680	3590	2090	7.07
(9.8 ft)	lb			*13230	8880	10160	5910	7910	4610	(23.2)
1.5 m	kg			6840	3760	4470	2560	3470	2000	7.15
(4.9 ft)	lb			15080	8290	9850	5640	7650	4410	(23.5)
0.0 m	kg			6710	3650	4400	2490	3620	2080	6.91
(0.0 ft)	lb			14790	8050	9700	5490	7980	4590	(22.7)
-1.5 m	kg	*9910	6660	6710	3650	4410	2500	4140	2370	6.29
(-4.9 ft)	lb	*21850	14680	14790	8050	9720	5510	9130	5220	(20.6)

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.

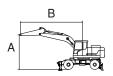
Lifting capacities will vary with different work tools, ground conditions and attachments.

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

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

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Do	Dozer		Dozer Ou		gger
HW160A	2-PIECE	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear		
INVIOUA	BOOM	5097	2450	3410	-	500	-	Down	-	-		

• 🚽 : Rating over-side or 360 degree



				l	Lift-point ı	adius (B)				At	max. rea	ch
Lift-poi		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)	ŀ	<b>#</b> )	ŀ	<b>-‡</b>	ŀ	<b>#</b>	ŀ	<b>#</b>	ŀ	<b>#</b> )	m (ft)
7.5 m (24.6 ft)	kg Ib			*3940 *8690	*3940 *8690					*3260 *7190	*3260 *7190	5.04 (16.5)
6.0 m (19.7 ft)	kg Ib			*3790 *8360	*3790 *8360	*3850 *8490	3180 7010			*2790 *6150	*2790 *6150	6.37 (20.9)
4.5 m (14.8 ft)	kg Ib			*4450 *9810	*4450 *9810	*3990 *8800	3130 6900			*2620 *5780	2330 5140	7.14 (23.4)
3.0 m (9.8 ft)	kg Ib			*5600 *12350	4540 10010	*4460 *9830	2990 6590	*2960 *6530	2120 4670	*2600	2100 4630	7.54 (24.7)
1.5 m (4.9 ft)	kg Ib			*6720	4240 9350	4490 9900	2850 6280	3240 7140	2070 4560	*2720	2030 4480	7.61 (25.0)
0.0 m (0.0 ft)	kg Ib			6710 14790	4080 8990	4390 9680	2760 6080	1140	-000	*2980 *6570	2090 4610	7.38 (24.2)
-1.5 m (-4.9 ft)	kg Ib	*8830 *19470	7460 16450	6670 14700	4050 8930	4360 9610	2740 6040			*3520 *7760	2340 5160	6.81 (22.4)
-3.0 m (-9.8 ft)	kg Ib			*6400 *14110	4130 9110							(===)

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.

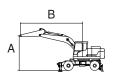
Lifting capacities will vary with different work tools, ground conditions and attachments.

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

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

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Do	Dozer Outr		igger
HW160A	2-PIECE	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
	BOOM			3410	-	500	-	Up	-	-

• = : Rating over-side or 360 degree



				l	Lift-point r	adius (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)	Capa	acity	Reach
height	(A)	ŀ	<b>4</b>	ŀ	<b>-‡</b>	ŀ	<b>#</b>	ŀ	<b>#</b>	ŀ	<b>-‡</b>	m (ft)
7.5 m (24.6 ft)	kg Ib			*3940 *8690	*3940 *8690					*3260 *7190	*3260 *7190	5.04 (16.5)
6.0 m (19.7 ft)	kg Ib			*3790 *8360	*3790 *8360	*3850 *8490	2890 6370			*2790 *6150	2590 5710	6.37 (20.9)
4.5 m (14.8 ft)	kg Ib			*4450 *9810	4420 9740	*3990 *8800	2840 6260			*2620 *5780	2110 4650	7.14 (23.4)
3.0 m (9.8 ft)	kg Ib			*5600 *12350	4100 9040	*4460 *9830	2710 5970	*2960 *6530	1910 4210	*2600 *5730	1890 4170	7.54 (24.7)
1.5 m (4.9 ft)	kg Ib			*6720	3800 8380	4490 9900	2570 5670	3240 7140	1870 4120	*2720 *6000	1820 4010	7.61 (25.0)
0.0 m (0.0 ft)	kg Ib			6710 14790	3640 8020	4390 9680	2480 5470	1140	4120	*2980 *6570	1880 4140	7.38 (24.2)
-1.5 m (-4.9 ft)	kg Ib	*8830 *19470	6560 14460	6670 14700	3610 7960	4360 9610	2460 5420			*3520 *7760	2100 4630	6.81 (22.4)
-3.0 m (-9.8 ft)	kg Ib			*6400 *14110	3700 8160		• • • •					()

Note 1. Lifting capacity are based on ISO 10567.

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\* Lifting capacities are based upon a standard machine conditions.

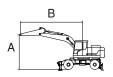
Lifting capacities will vary with different work tools, ground conditions and attachments.

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

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

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Do	Dozer		Dozer Ou		gger
HW160A	2-PIECE	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear		
I NV IOUA	BOOM	5097	2600	3410	-	500	-	Down	-	-		

• 🕂 : Rating over-side or 360 degree



				l	Lift-point r	adius (B)				At	max. rea	ch
Lift-poi		3.0 m	(9.8 ft)	4.5 m (	14.8 ft)	6.0 m (	19.7 ft)	7.5 m (2	24.6 ft)	Capa	acity	Reach
height (	(A)	ŀ	<b>#</b> )	ŀ	<b>-</b>	ŀ	<b>-‡</b>	ŀ	<b>#</b>	ŀ	<b>#</b> )	m (ft)
7.5 m (24.6 ft)	kg Ib			*3710 *8180	*3710 *8180					*3450 *7610	*3450 *7610	5.23 (17.2)
6.0 m (19.7 ft)	kg Ib			*3610 *7960	*3610 *7960	*3670 *8090	3180 7010			*2990 *6590	2730 6020	6.52 (21.4)
4.5 m (14.8 ft)	kg Ib			*4270 *9410	*4270 *9410	*3850 *8490	3110 6860			*2830 *6240	2240 4940	7.28 (23.9)
3.0 m (9.8 ft)	kg Ib			*5420 *11950	4540 10010	*4340 *9570	2970 6550	3270 7210	2100 4630	*2830 *6240	2020 4450	7.67 (25.2)
1.5 m (4.9 ft)	kg Ib			*6570	4210 9280	4460 9830	2830 6240	3210 7080	2040 4500	*2960 *6530	1950 4300	7.74 (25.4)
0.0 m (0.0 ft)	kg Ib			6660 14680	4030 8880	4350 9590	2720 6000	3180 7010	2010 4430	3170 6990	2000 4410	7.52 (24.7)
-1.5 m (-4.9 ft)	kg Ib	*8610 *18980	7370 16250	6620 14590	3990 8800	4320 9520	2690 5930			3530 7780	2230 4920	6.96 (22.8)
-3.0 m (-9.8 ft)	kg Ib			*6480 *14290	4070 8970							

Note 1. Lifting capacity are based on ISO 10567.

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

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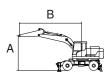
Lifting capacities will vary with different work tools, ground conditions and attachments.

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

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

Model	Туре	Boom	Arm	Counterweight	Shoe	Wheel	Do	Dozer Outri		gger
HW160A	2-PIECE	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
	BOOM			3410	-	500	-	Up	-	-

• = : 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)		Capacity		Reach
height	(A)	ŀ	<b>-‡</b>	ŀ	<b>-</b>	ŀ	<b>-‡</b>	ŀ	<b>#</b>	ŀ	<b>#</b> )	m (ft)
7.5 m (24.6 ft)	kg Ib			*3710 *8180	*3710 *8180					*3450 *7610	*3450 *7610	5.23 (17.2)
6.0 m (19.7 ft)	kg Ib			*3610 *7960	*3610 *7960	*3670 *8090	2890 6370			*2990 *6590	2470 5450	6.52 (21.4)
4.5 m (14.8 ft)	kg Ib			*4270 *9410	*4270 *9410	*3850 *8490	2830 6240			*2830 *6240	2030 4480	7.28 (23.9)
3.0 m (9.8 ft)	kg Ib			*5420	4090 9020	*4340 *9570	2690 5930	3270 7210	1890 4170	*2830	1820 4010	7.67 (25.2)
1.5 m (4.9 ft)	kg Ib			*6570 *14480	3780 8330	4460 9830	2540 5600	3210 7080	1840 4060	*2960 *6530	1750 3860	7.74 (25.4)
0.0 m (0.0 ft)	kg Ib			6660 14680	3600 7940	4350 9590	2440 5380	3180 7010	1800 3970	3170 6990	1800 3970	7.52 (24.7)
-1.5 m (-4.9 ft)	kg Ib	*8610 *18980	6470 14260	6620 14590	3560 7850	4320 9520	2420 5340	7010	0970	3530 7780	2010 4430	6.96 (22.8)
-3.0 m (-9.8 ft)	kg Ib		200	*6480 *14290	3630 8000							(==::5)

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

## 6. BUCKET SELECTION GUIDE

## 1) MONO BOOM, 2910 kg COUNTERWEIGHT









General bucket

Heavy duty

Ditch cleaning

Hammerless tooth

	Capacity		city Width				MONO Recommendation mm (ft-in)				
Туре	SAE Heaped	CECE heaped	Without side cutter	With side cutter	Weight	Tooth		5.0 m Bo	(16' 5")		
	m³ (yd³)	m³ (yd³)	mm (in)	mm (in)	kg (lb)	EA	2.0 m (6' 7') Arm	2.45 m (8' 0") Arm	2.6 m (8' 6") Arm	3.1 m (10' 2') Arm	
	0.70 (0.92)	0.60 (0.78)	1020 (40.2")	1100 (43.3'')	600 (1320)	5	O				
General	0.76 (0.99)	0.65 (0.85)	1010 (39.8")	1170 (46.1")	620 (1370)	5					
bucket	0.89 (1.16)	0.77 (1.01)	1170 (46.1")	1325 (52.2'')	680 (1500)	6			Х	Х	
	1.05 (1.37)	0.90 (1.18)	1355 (53.3")	1510 (59.4'')	740 (1630)	6	Х	Х	Х	Х	
Heavy duty	0.69 (0.90)	0.62 (0.81)	1025 (40.4")	-	720 (1590)	5	O				
Ditch cleaning	0.75 (0.98)	0.65 (0.85)	1820 (71.7")	-	540 (1190)	0	O				
Hammer -less	0.73 (0.95)	0.67 (0.88)	914 (36.0")	946 (37.2'')	620 (1370)	5	Ð				
tooth	0.85 (1.11)	0.76 (0.99)	1067 (42.0")	1096 (43.1'')	670 (1480)	5				Х	



Applicable for materials with density of 2100 kg/m<sup>3</sup> (3500 lb/yd<sup>3</sup>) or less Applicable for materials with density of 1800 kg/m<sup>3</sup> (3000 lb/yd<sup>3</sup>) or less Applicable for materials with density of 1500 kg/m<sup>3</sup> (2500 lb/yd<sup>3</sup>) or less Applicable for materials with density of 1200 kg/m<sup>3</sup> (2000 lb/yd<sup>3</sup>) or less 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) MONO BOOM, 3410 kg COUNTERWEIGHT









General bucket

Heavy duty

Ditch cleaning

Hammerless tooth

	Capacity		Width					MONO 2-PIECE					-
	Cap	acity	VIGUI					Rec	ommer	dation	mm	(ft-in)	
Туре	SAE Heaped	CECE heaped	Without side cutter	With side cutter	Weight	Tooth		5.0 m ( Bo			5.1 m	ı (16' 9")	Boom
	m³ (yd³)	m³ (yd³)	mm (in)	mm (in)	kg (lb)	EA	2.0 m (6' 7') Arm	2.45 m (8' 0") Arm	2.6 m (8' 6") Arm	3.1 m (10' 2') Arm	2.0 m (6' 7") Arm	2.45 m (8' 0") Arm	2.6 m (8' 6") Arm
	0.70 (0.92)	0.60 (0.78)	1020 (40.2")	1100 (43.3'')	600 (1320)	5		O			O		
General	0.76 (0.99)	0.65 (0.85)	1010 (39.8")	1170 (46.1")	620 (1370)	5	O				O		
bucket	0.89 (1.16)	0.77 (1.01)	1170 (46.1")	1325 (52.2'')	680 (1500)	6							
	1.05 (1.37)	0.90 (1.18)	1355 (53.3")	1510 (59.4'')	740 (1630)	6		Х	Х	Х		Х	Х
Heavy duty	0.69 (0.90)	0.62 (0.81)	1025 (40.4")	-	720 (1590)	5	O				O		
Ditch cleaning	0.75 (0.98)	0.65 (0.85)	1820 (71.7")	-	540 (1190)	0	O	O			O		
Hammer -less	0.73 (0.95)	0.67 (0.88)	914 (36.0")	946 (37.2'')	620 (1370)	5	O				O		
tooth	0.85 (1.11)	0.76 (0.99)	1067 (42.0")	1096 (43.1'')	670 (1480)	5							



Applicable for materials with density of 2100 kg/m<sup>3</sup> (3500 lb/yd<sup>3</sup>) or less Applicable for materials with density of 1800 kg/m<sup>3</sup> (3000 lb/yd<sup>3</sup>) or less Applicable for materials with density of 1500 kg/m<sup>3</sup> (2500 lb/yd<sup>3</sup>) or less Applicable for materials with density of 1200 kg/m<sup>3</sup> (2000 lb/yd<sup>3</sup>) or less

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.

# 7. SPECIFICATIONS FOR MAJOR COMPONENTS

## 1) ENGINE

Item	Specification
Maker / Model	CUMMINS / B4.5
Туре	4-cycle, turbocharged, charge air cooled, electronic controlled diesel engine
Cooling method	Water cooled
Number of cylinders and arrangement	4 cylinders, in-line
Firing order	1-3-2-4
Combustion chamber type	Direct injection type
Cylinder bore $ imes$ stroke	107 × 124 mm (4.21" × 4.88")
Displacement	4.5 ℓ (275 cu in)
Compression ratio	17.2 : 1
Gross power	173 Hp (129 kW ) at 2200 rpm
Net power	170 Hp (127 kW) at 2200 rpm
Max. power	173 Hp (129 kW) at 2200 rpm
Peak Torque	780 N · m (575 lb · ft) at 1500 rpm
Engine oil quantity	11 ℓ (2.9 U.S. gal)
Wet weight or Dry weight	378 kg (830 lb)
Starter motor	24 V-4.8 kW
Alternator	24 V-95 A
Battery	2×12×100 Ah

## 2) MAIN PUMP

Item	Specification
Туре	Variable displacement piston pump
Capacity	145 cc/rev
Maximum pressure	350 kgf/cm <sup>2</sup> (4980 psi) [380 kgf/cm <sup>2</sup> (5400 psi)]
Rated oil flow	260 ℓ /min (68.7 U.S. gpm / 57.2 U.K. gpm)
Rated speed	1800 rpm

[ ]: Power boost

## 3) STEERING PUMP

Item	Specification		
Туре	Fixed displacement gear pump single stage		
Capacity	35cc/rev		
Maximum pressure	210 kgf/cm <sup>2</sup> (2990 psi)		
Rated oil flow	60 ℓ /min (15.9 U.S. gpm/13.2 U.K. gpm)		

## 4) MAIN CONTROL VALVE

Item	Specification
Туре	Section block
Operating method	Hydraulic pilot system
Main relief valve pressure	350 kgf/cm <sup>2</sup> (4980 psi)
Main relief valve pressure (power boost)	380 kgf/cm <sup>2</sup> (5400 psi)
Overload relief valve pressure	420 kgf/cm <sup>2</sup> (5970 psi)

## 5) SWING UNIT

Item	Specification
Туре	Radial piston motor
Capacity	1587 cc/rev
Relief pressure	270 kgf/cm <sup>2</sup> (3840 psi)
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	15~40 kgf/cm <sup>2</sup> (213~569 psi)
Reduction gear type	-

# 6) TRAVEL MOTOR

Item	Specification
Туре	Variable displacement bent-axis axial piston motor
Relief pressure	380 kgf/cm <sup>2</sup> (5400 psi)
Counter balance valve	Applied
Capacity (max/min)	140/51.8 cc/rev

## 7) POWER TRAIN

Item	Description		Specification		
	Туре		2 speed power shift transmission		
Transmission	Coor rotio	1st	4.87		
Transmission	Gear ratio	2nd	1.20		
	Clutch pressure		30~32 kgf /cm² (427~455 psi)		
Parking brake	Туре		Multi disc brake integrated in transmission		
Parking brake	Maximum braking to	orque	3286 kgf · m (23760 lbf · ft)		
	Туре		4 wheel drive with differential		
	Gear ratio		16.0		
Axle	Brake		Multi disc brake		
	Brake pressure		81.6 kgf /cm² (1160 psi)		
	Steering pressure		204 kgf /cm² (2900 psi)		

# 8) POWER TRAIN GEAR PUMP

Item	Description			
Capacity	Steering + brake : 11.9 + 19.3 cc / rev (pump PTO)			
Rated flow	Steering + brake : 20 + 33 lpm (1800 rpm)			
Haleu IIOW	(5.3 + 8.7 U.S. gpm / 4.4 + 7.3 U.K. gpm)			

## 9) CYLINDER

lt	em	Specification		
Deerre en direder	Bore dia $ imes$ Rod dia $ imes$ Stroke	$\emptyset$ 110 $\times$ $\emptyset$ 75 $\times$ 1090mm		
Boom cylinder	Cushion	Extend only		
Arm outlindor	Bore dia $ imes$ Rod dia $ imes$ Stroke	$\emptyset$ 120 $\times$ $\emptyset$ 80 $\times$ 1235mm		
Arm cylinder	Cushion	Extend and retract		
Puelet aulinder	Bore dia $ imes$ Rod dia $ imes$ Stroke	$\emptyset$ 105 $\times$ $\emptyset$ 75 $\times$ 995mm		
Bucket cylinder	Cushion	Extend only		
Dezer e dinder	Bore dia $ imes$ Rod dia $ imes$ Stroke	$\emptyset$ 110 $\times$ $\emptyset$ 65 $\times$ 235mm		
Dozer cylinder	Cushion	-		
Outrigger outinder	Bore dia $ imes$ Rod dia $ imes$ Stroke	$\emptyset$ 125 $\times$ $\emptyset$ 75 $\times$ 446mm		
Outrigger cylinder	Cushion	-		
Adjust sulinder	Bore dia $ imes$ Rod dia $ imes$ Stroke	$\emptyset$ 160 $\times$ $\emptyset$ 95 $\times$ 624mm		
Adjust cylinder	Cushion	-		
2 piece been eulinder	Bore dia $ imes$ Rod dia $ imes$ Stroke	$\emptyset$ 110 $\times$ $\emptyset$ 75 $\times$ 992mm		
2-piece boom cylinder	Cushion	Extend only		

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

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

## 8. 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 -	30	-20	-1	0	0	10	20	) 30	) 40
			(-58) (-	22)	(-4	) (14	4) (	(32)	(50)	(68	3) (86	6) (104)
Engine oil pan	Engine oil	11 (2.9)		,	*SAE	0W-40	0					
							*SAE 5	5W-30				
Transmission case		2.5 (0.66)	SAE 5W-40									
				SAE 15W-40								
DEF/ AdBlue® tank	Mixture of urea and deionized water	48 (12.7)										
			IS	ISO 22241, High-purity urea + deionized water (32.5:67.5)								
					,	<u>.g., pa</u>					(02.0.07	.0/
Front axle	- Gear oil	Center : 10.5 (2.77) Hub : 2.5×2 (0.66×2)										
Rear axle		Center : 12.5 (3.30) Hub : 2.5×2 (0.66×2)	SAE 85W-90 LSD or UTTO									
Hydraulic tank	Hydraulic oil	Tank: 122 (32.2) System: 204 (53.9)	*ISO VG 15									
			ISO VG 32									
												_
				ISO VG 46, HBHO*3								
								-	ISO	VG 68	3	
Fuel tank	Diesel fuel★1	250 (66.0)		*AST	rm D97	75 NO	.1					
										0975 N		
											10.2	
Fitting (Grease nipple)	Grease	As required	*NLGI NO.1									
								NL	.GI NC	D.2		
Radiator (Reservoir tank)	Mixture of antifreeze and soft water* <sup>2</sup>	23 (3.1)			Ethy	ylene (	glycol ba	ase per	mane	ent type	e (50 : 50	)
			*Ethylen	e glycol	base per	manent t	ype (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 Materia

DEF : Diesel Exhaust Fluid, DEF compatible with AdBlue®

- \* : Cold region (Russia, CIS, Mongolia)
- \*1 : Ultra low sulfur diesel - sulfur content  $\leq$  10 ppm
- ★2 : Soft water
  - City water or distilled water
- \*3 : HD Hyundai Construction
  - Equipment Bio Hydraulic Oil
- \* 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.
- \* Do not use any engine oil other than that specified above, as it may clog the diesel particulate filter(DPF).
- \* For HD Hyundai Construction Equipment genuine lubricating oils and grease for use in regions with extremely low temperatures, please contact your local HD Hyundai Construction Equipment dealers.