

SECTION 1 GENERAL



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SECTION 1 GENERAL

GROUP 1 SAFETY HINTS

FOLLOW SAFE PROCEDURE

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

WEAR PROTECTIVE CLOTHING

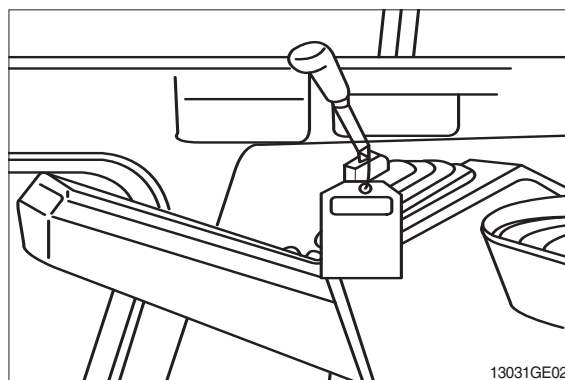
Wear close fitting clothing and safety equipment appropriate to the job.



WARN OTHERS OF SERVICE WORK

Unexpected machine movement can cause serious injury.

Before performing any work on the excavator, attach a 「Do Not Operate」 tag on the right side control lever.



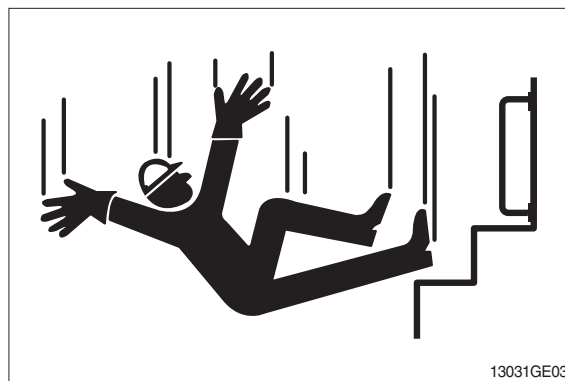
USE HANDHOLDS AND STEPS

Falling is one of the major causes of personal injury.

When you get on and off the machine, always maintain a three point contact with the steps and handrails and face the machine. Do not use any controls as handholds.

Never jump on or off the machine. Never mount or dismount a moving machine.

Be careful of slippery conditions on platforms, steps, and handrails when leaving the machine.

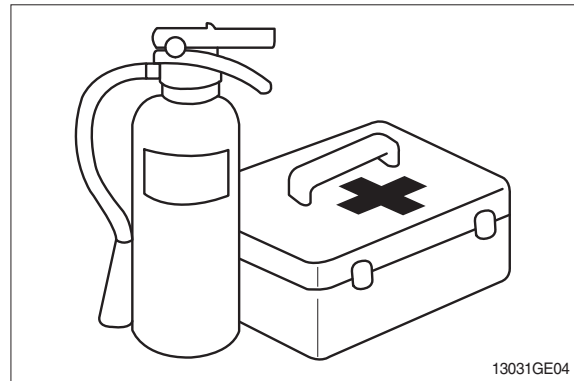


PREPARE FOR EMERGENCIES

Be prepared if a fire starts.

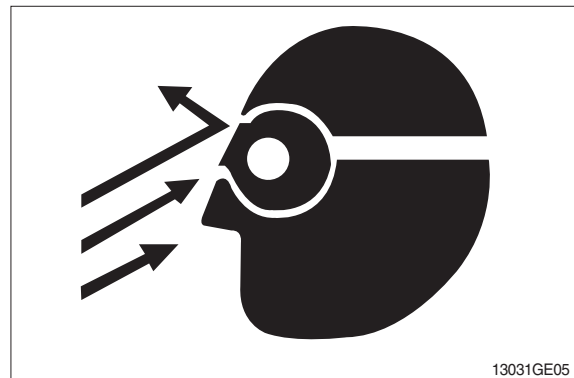
Keep a first aid kit and fire extinguisher handy.

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



PROTECT AGAINST FLYING DEBRIS

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



PROTECT AGAINST NOISE

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

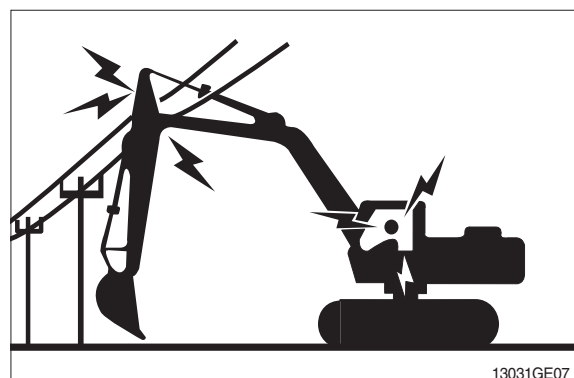
Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.



AVOID POWER LINES

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

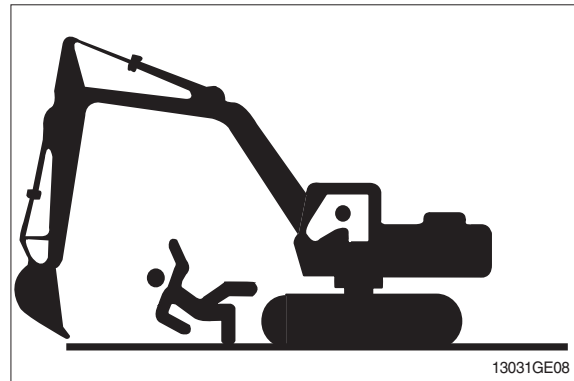
Never move any part of the machine or load closer to electric line than 3m(10ft) plus twice the line insulator length.



KEEP RIDERS OFF EXCAVATOR

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

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

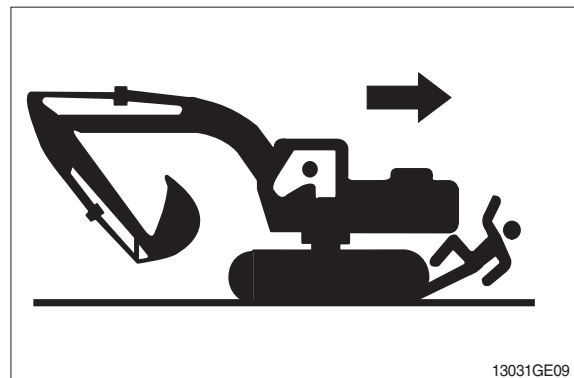


MOVE AND OPERATE MACHINE SAFELY

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

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

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



OPERATE ONLY FROM OPERATOR'S SEAT

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

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



PARK MACHINE SAFELY

Before working on the machine:

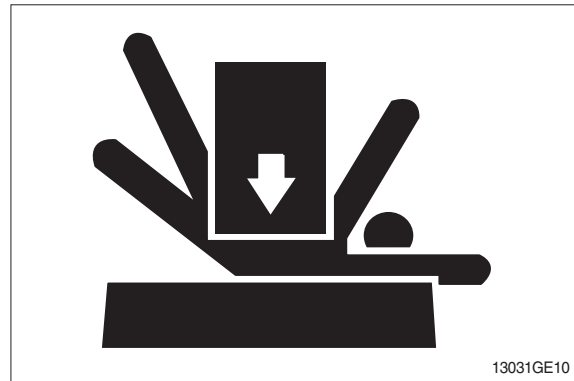
- Park machine on a level surface.
- Lower bucket to the ground.
- Turn auto idle switch off.
- Run engine at 1/2 speed without load for 2 minutes.
- Turn key switch to OFF to stop engine. Remove key from switch.
- Move pilot control shutoff lever to locked position.
- Allow engine to cool.

SUPPORT MACHINE PROPERLY

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

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

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



SERVICE COOLING SYSTEM SAFELY

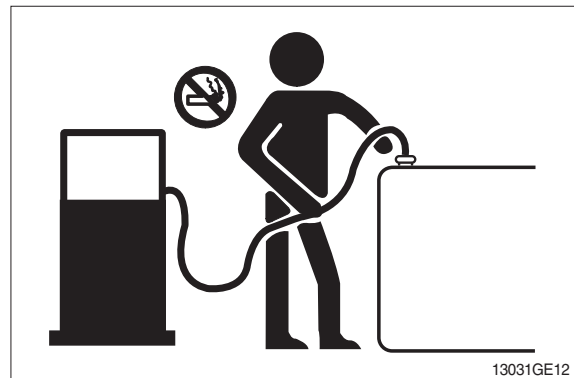
Explosive release of fluids from pressurized cooling system can cause serious burns.

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



HANDLE FLUIDS SAFELY-AVOID FIRES

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



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

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

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



BEWARE OF EXHAUST FUMES

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

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

REMOVE PAINT BEFORE WELDING OR HEATING

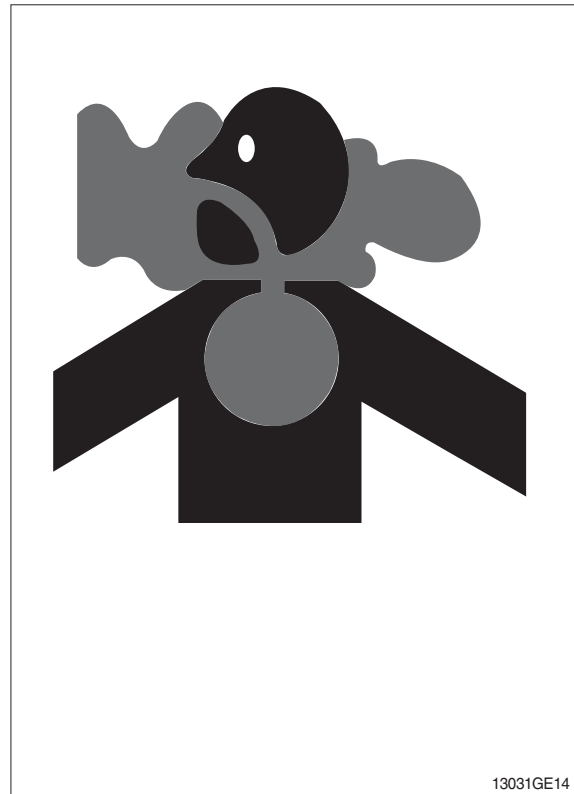
Avoid potentially toxic fumes and dust.

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

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

Remove paint before welding or heating:

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



ILLUMINATE WORK AREA SAFELY

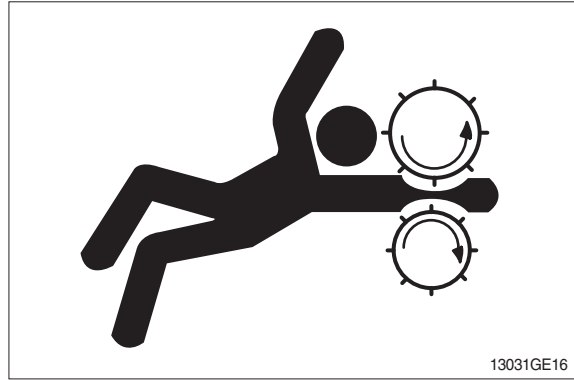
Illuminate your work area adequately but safely. Use a portable safety light for working inside or under the machine. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.



SERVICE MACHINE SAFELY

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

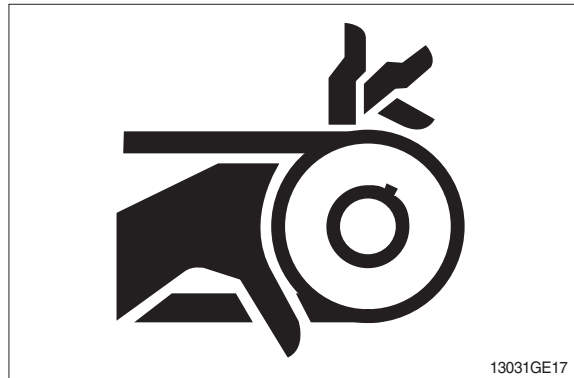
Remove rings and other jewelry to prevent electrical shorts and entanglement in moving parts.



STAY CLEAR OF MOVING PARTS

Entanglements in moving parts can cause serious injury.

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



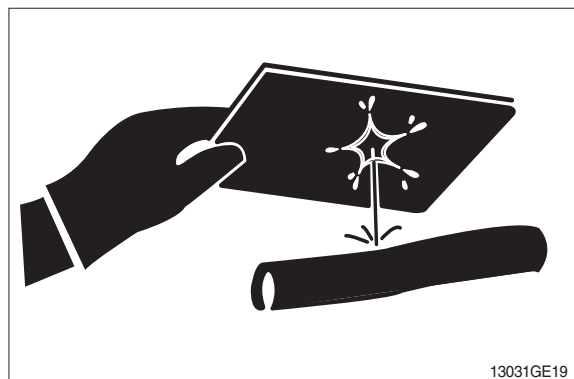
AVOID HIGH PRESSURE FLUIDS

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

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

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

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



AVOID HEATING NEAR PRESSURIZED FLUID LINES

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

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



PREVENT BATTERY EXPLOSIONS

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

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

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



PREVENT ACID BURNS

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

Avoid the hazard by:

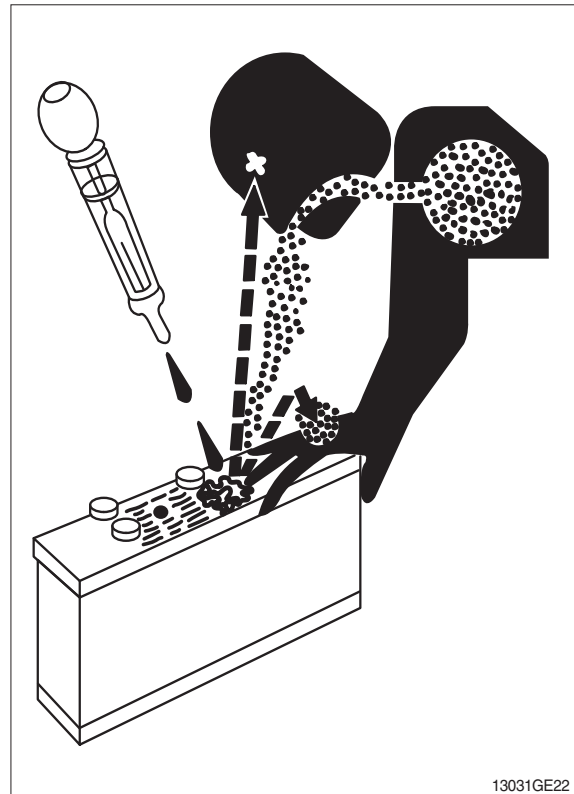
1. Filling batteries in a well-ventilated area.
2. Wearing eye protection and rubber gloves.
3. Avoiding breathing fumes when electrolyte is added.
4. Avoiding spilling or dripping electrolyte.
5. Use proper jump start procedure.

If you spill acid on yourself:

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

If acid is swallowed:

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



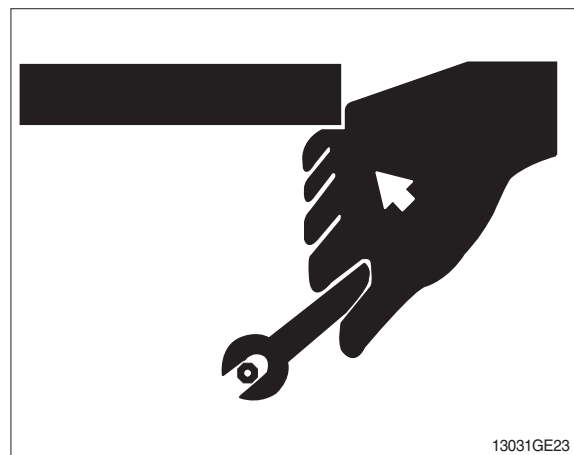
USE TOOLS PROPERLY

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

Use power tools only to loosen threaded tools and fasteners.

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

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

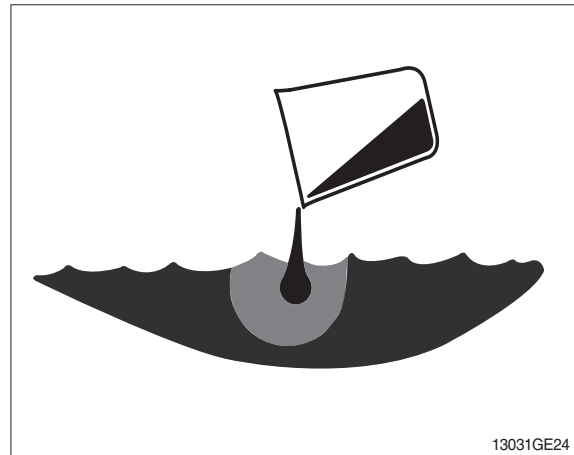


DISPOSE OF FLUIDS PROPERLY

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

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

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



REPLACE SAFETY SIGNS

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

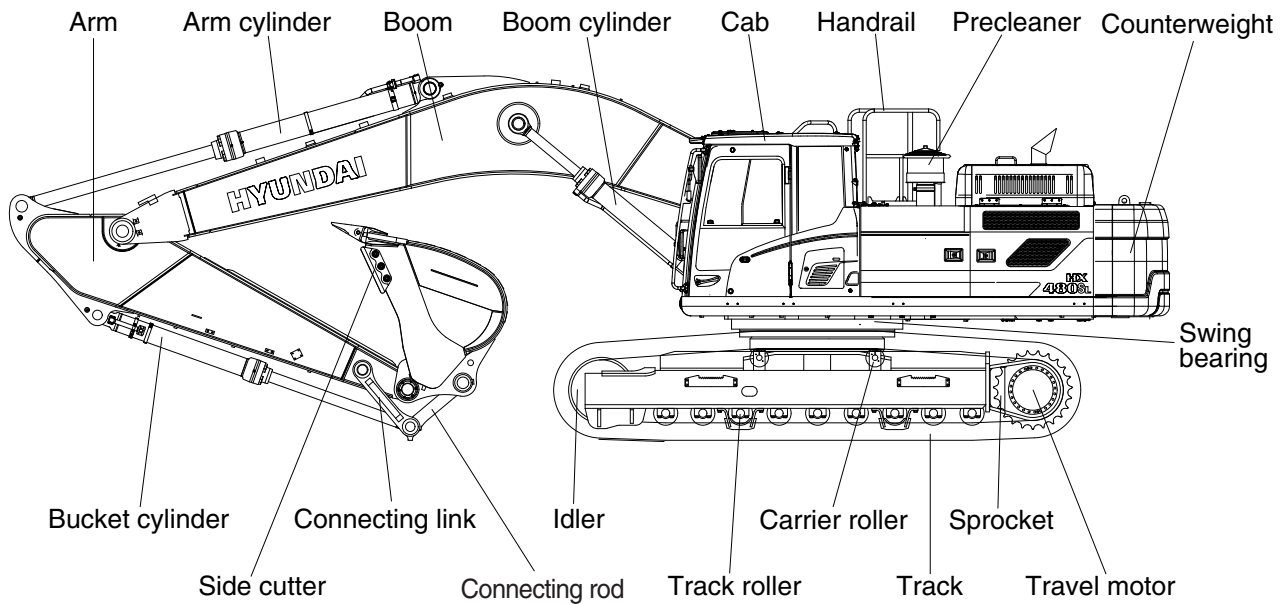
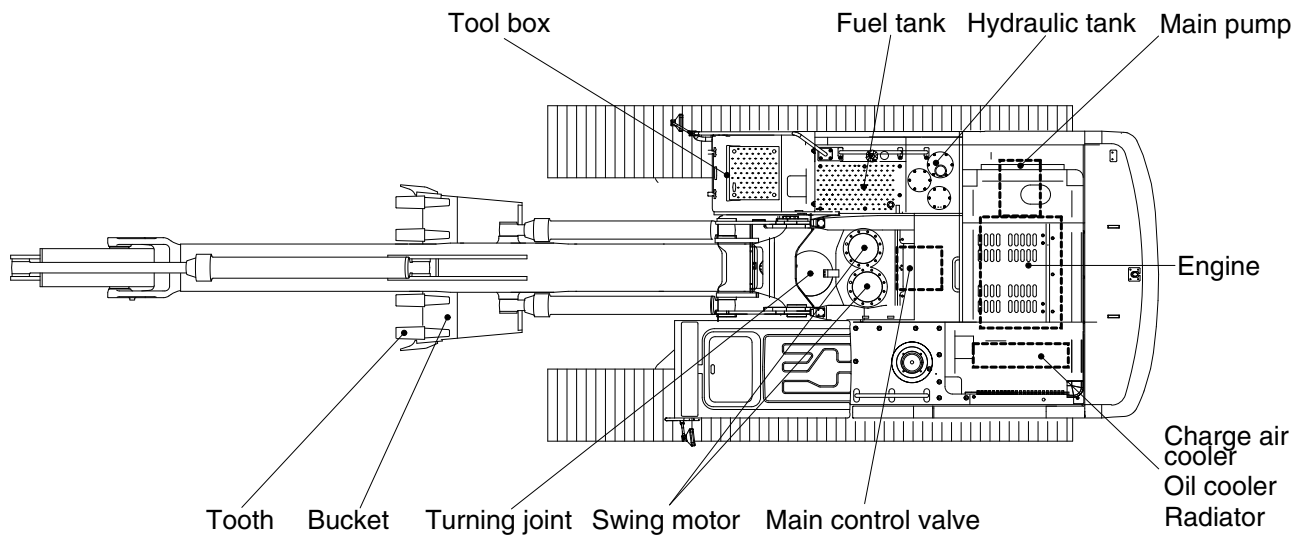


LIVE WITH SAFETY

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

GROUP 2 SPECIFICATIONS

1. MAJOR COMPONENT

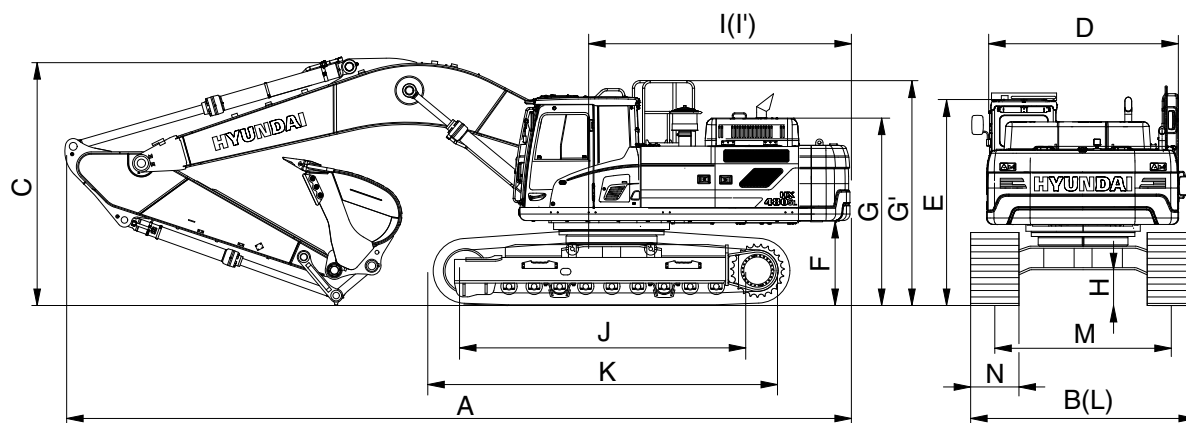


480S2SP01

2. SPECIFICATIONS

1) HX480S L

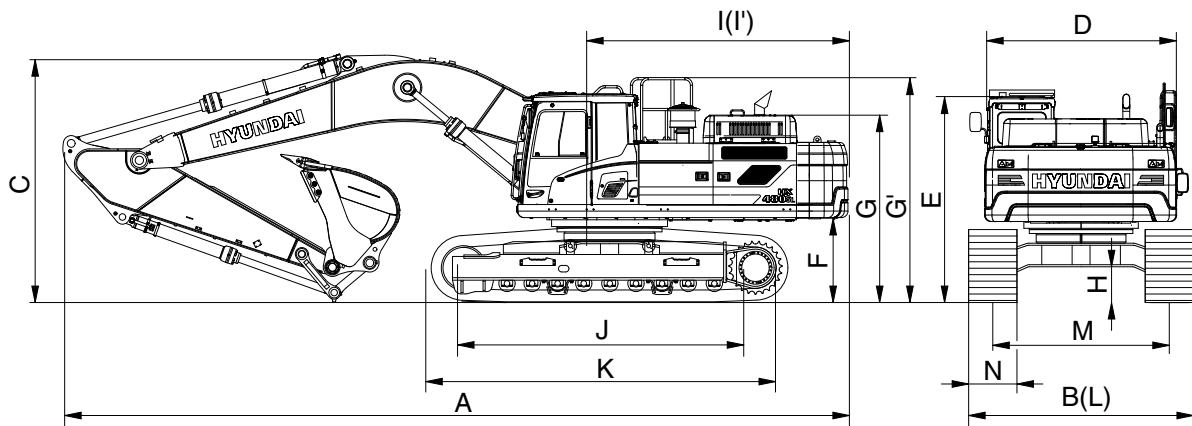
(1) 7.06 m (23' 2") boom, 3.38 m (11' 1") arm



480S2SP02

Description		Unit	Specification
Operating weight		kg (lb)	49515 (109160)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	2.20 (2.88)
Overall length	A	mm (ft-in)	12040 (39' 6")
Overall width, with 600 mm shoe	B		3340 (10' 11")
Overall height	C		3790 (12' 5")
Superstructure width	D		2980 (9' 9")
Overall height of cab	E		3220 (10' 7")
Ground clearance of counterweight	F		1295 (4' 3")
Engine cover height	G		2869 (9' 5")
Overall height of handrail	G'		3450 (11' 4")
Minimum ground clearance	H		560 (1' 10")
Rear-end distance	I		3665 (12' 0")
Rear-end swing radius	I'		3940 (12' 11")
Distance between tumblers	J		4470 (14' 8")
Undercarriage length	K		5460 (17' 11")
Undercarriage width	L		3340 (10' 11")
Track gauge	M		2740 (9' 0")
Track shoe width, standard	N		600 (24")
Travel speed (low/high)		km/hr (mph)	3.3/5.0 (2.0/3.1)
Swing speed		rpm	8.5
Gradeability		Degree (%)	35 (70)
Ground pressure (600 mm shoe)		kgf/cm ² (psi)	0.84 (11.98)
Max traction force		kg (lb)	37300 (82230)

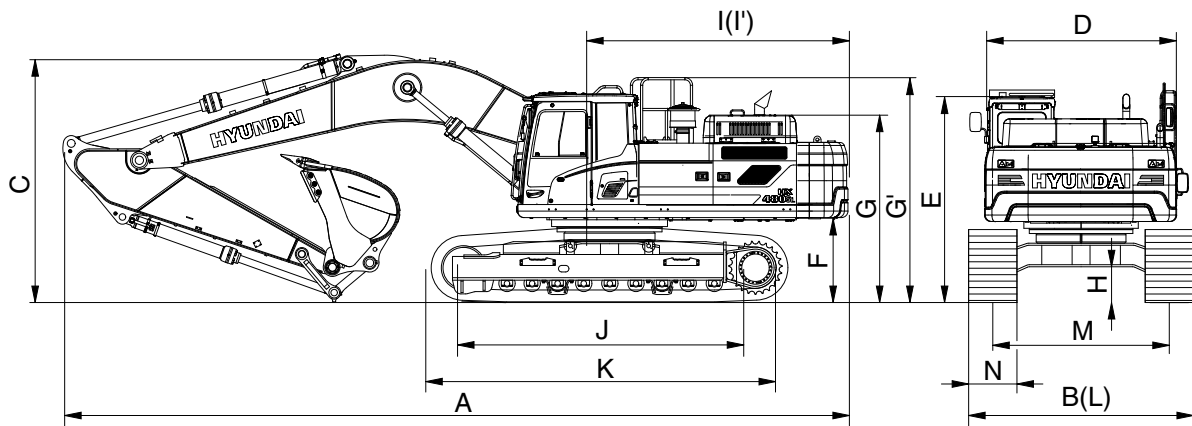
(2) 6.55 m (21' 6") boom, 2.40 m (7' 10") arm



480S2SP02

Description		Unit	Specification
Operating weight		kg (lb)	49515 (109160)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	2.20 (2.88)
Overall length	A	mm (ft-in)	12040 (39' 6")
Overall width, with 600 mm shoe	B		3340 (10' 11")
Overall height	C		3790 (12' 5")
Superstructure width	D		2980 (9' 9")
Overall height of cab	E		3220 (10' 7")
Ground clearance of counterweight	F		1295 (4' 3")
Engine cover height	G		2869 (9' 5")
Overall height of handrail	G'		3450 (11' 4")
Minimum ground clearance	H		560 (1' 10")
Rear-end distance	I		3665 (12' 0")
Rear-end swing radius	I'		3940 (12' 11")
Distance between tumblers	J		4470 (14' 8")
Undercarriage length	K		5460 (17' 11")
Undercarriage width	L		3340 (10' 11")
Track gauge	M		2740 (9' 0")
Track shoe width, standard	N		600 (24")
Travel speed (low/high)		km/hr (mph)	3.3/5.0 (2.0/3.1)
Swing speed		rpm	8.5
Gradeability		Degree (%)	35 (70)
Ground pressure (600 mm shoe)		kgf/cm ² (psi)	0.84 (11.98)
Max traction force		kg (lb)	37300 (82230)

(3) 9.00 m (29' 6") boom, 6.00 m (19' 8") arm

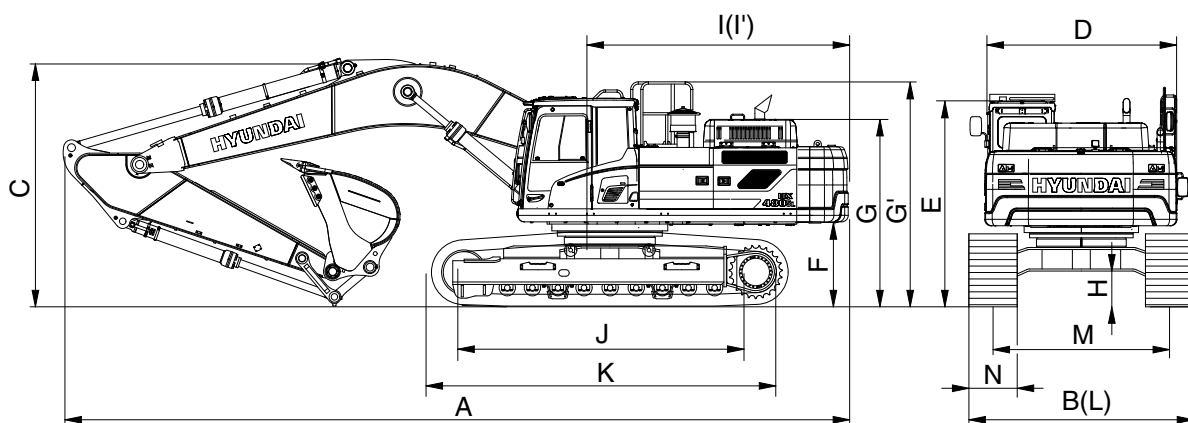


480S2SP02

Description		Unit	Specification
Operating weight		kg (lb)	51155 (112777)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	1.38 (1.80)
Overall length	A	mm (ft-in)	14010 (46' 0")
Overall width, with 600 mm shoe	B		3340 (10' 11")
Overall height	C		3990 (13' 1")
Superstructure width	D		2980 (9' 9")
Overall height of cab	E		3220 (10' 7")
Ground clearance of counterweight	F		1295 (4' 3")
Engine cover height	G		2689 (9' 5")
Overall height of handrail	G'		3450 (11' 4")
Minimum ground clearance	H		560 (1' 10")
Rear-end distance	I		3665 (12' 0")
Rear-end swing radius	I'		3940 (12' 11")
Distance between tumblers	J		4470 (14' 8")
Undercarriage length	K		5405 (17' 7")
Undercarriage width	L		3340 (10' 11")
Track gauge	M		2740 (9' 0")
Track shoe width, standard	N		600 (24")
Travel speed (low/high)		km/hr (mph)	3.3/5.0 (2.0/3.1)
Swing speed		rpm	8.5
Gradeability		Degree (%)	35 (70)
Ground pressure (600 mm shoe)		kgf/cm ² (psi)	0.89 (12.64)
Max traction force		kg (lb)	37300 (82230)

2) HX520S L

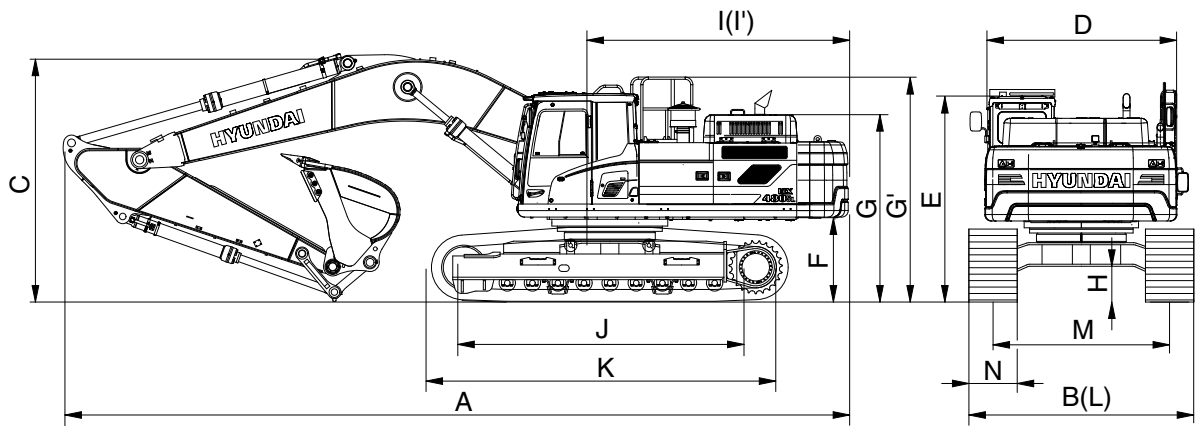
(1) 7.06 m (23' 2") boom, 3.38 m (11' 1") arm



480S2SP02

Description		Unit	Specification
Operating weight		kg (lb)	51175 (112820)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	2.20 (2.88)
Overall length	A	mm (ft-in)	12040 (39' 6")
Overall width, with 600 mm shoe (transport position / working position)	B		2990/3540 (9' 10"/11' 7")
Overall height	C		3790 (12' 5")
Superstructure width	D		2980 (9' 9")
Overall height of cab	E		3340 (10' 11")
Ground clearance of counterweight	F		1445 (4' 9")
Engine cover height	G		3030 (9' 11")
Overall height of handrail	G'		3595 (11' 8")
Minimum ground clearance	H		770 (2' 6")
Rear-end distance	I		3665 (12' 0")
Rear-end swing radius	I'		3720 (12' 2")
Distance between tumblers	J		4470 (14' 8")
Undercarriage length	K		5460 (17' 11")
Undercarriage width (transport position / working position)	L		2990/3540 (9' 10"/11' 7")
Track gauge (transport position / working position)	M		2380/2940 (7' 10"/9' 8")
Track shoe width, standard	N		600 (24")
Travel speed (low/high)		km/hr (mph)	3.3/5.0 (2.0/3.1)
Swing speed		rpm	8.5
Gradeability		Degree (%)	35 (70)
Ground pressure (600 mm shoe)		kgf/cm ² (psi)	0.89 (12.64)
Max traction force		kg (lb)	37300 (82230)

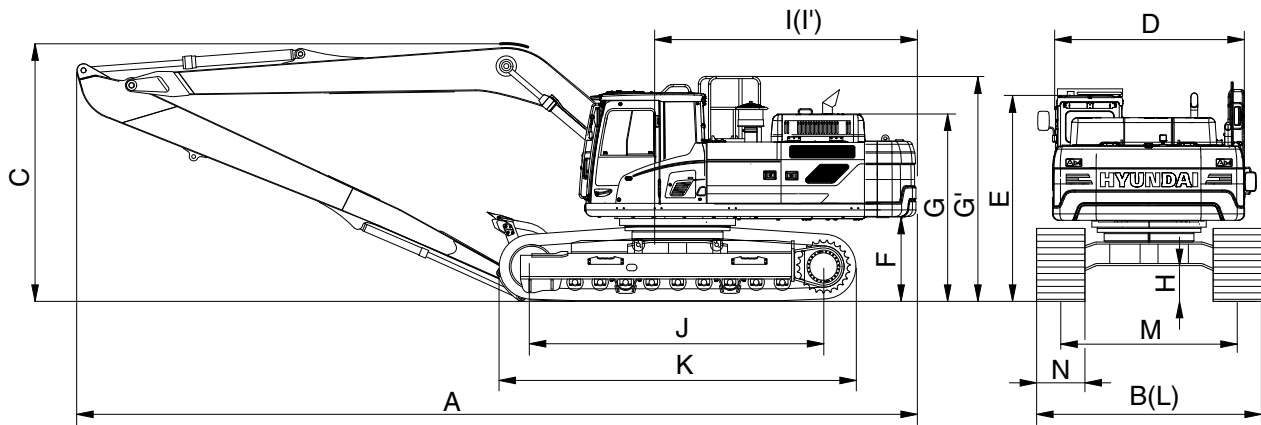
(2) 6.55 m (21' 6") boom, 2.40 m (7' 10") arm



480S2SP02

Description		Unit	Specification
Operating weight		kg (lb)	50865 (112140)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	2.20 (2.88)
Overall length	A	mm (ft-in)	11780 (38' 8")
Overall width, with 600 mm shoe (transport position / working position)	B		2990/3540 (9' 10"/11' 7")
Overall height	C		4190 (13' 9")
Superstructure width	D		2980 (9' 9")
Overall height of cab	E		3340 (10' 11")
Ground clearance of counterweight	F		1445 (4' 9")
Engine cover height	G		3030 (9' 11")
Overall height of handrail	G'		3595 (11' 8")
Minimum ground clearance	H		770 (2' 6")
Rear-end distance	I		3665 (12' 0")
Rear-end swing radius	I'		3720 (12' 2")
Distance between tumblers	J		4470 (14' 8")
Undercarriage length	K		5460 (17' 11")
Undercarriage width (transport position / working position)	L		2990/3540 (9' 10"/11' 7")
Track gauge (transport position / working position)	M		2380/2940 (7' 10"/9' 8")
Track shoe width, standard	N		600 (24")
Travel speed (low/high)		km/hr (mph)	3.3/5.0 (2.0/3.1)
Swing speed		rpm	8.5
Gradeability		Degree (%)	35 (70)
Ground pressure (600 mm shoe)		kgf/cm ² (psi)	0.88 (12.56)
Max traction force		kg (lb)	37300 (82230)

(3) 10.00 m (32' 10") boom, 6.85 m (22' 6") arm



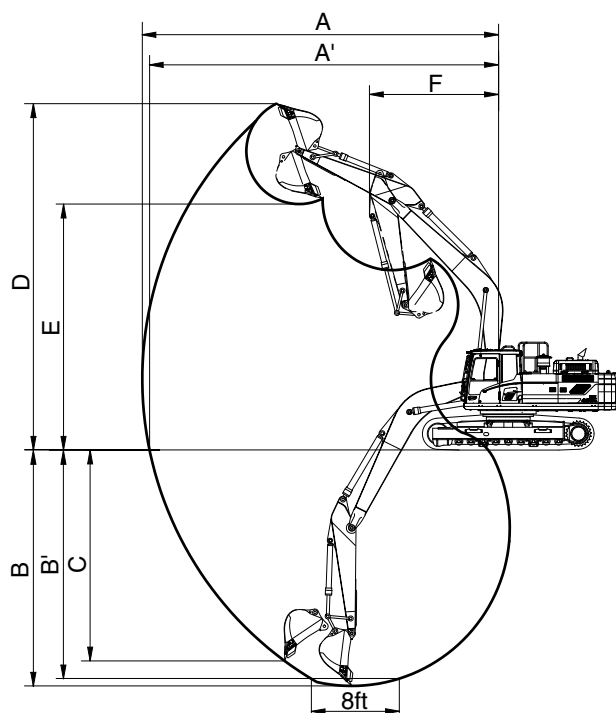
520S2SP01

Description		Unit	Specification
Operating weight		kg (lb)	51900 (114420)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	1.00 (1.31)
Overall length	A	mm (ft-in)	10730 (35' 2")
Overall width, with 600 mm shoe (transport position / working position)	B		2990/3540 (9' 10"/11' 7")
Overall height	C		6000 (19' 8")
Superstructure width	D		2980 (9' 9")
Overall height of cab	E		3230 (10' 7")
Ground clearance of counterweight	F		1445 (4' 9")
Engine cover height	G		2870 (9' 5")
Overall height of handrail	G'		3440 (11' 3")
Minimum ground clearance	H		770 (2' 6")
Rear-end distance	I		3665 (12' 0")
Rear-end swing radius	I'		3720 (12' 2")
Distance between tumblers	J		4470 (14' 8")
Undercarriage length	K		5470 (18' 0")
Undercarriage width (transport position / working position)	L		2990/3540 (9' 10"/11' 7")
Track gauge (transport position / working position)	M		2380/2940 (7' 10"/9' 8")
Track shoe width, standard	N		600 (24")
Travel speed (low/high)		km/hr (mph)	3.3/5.0 (2.0/3.1)
Swing speed		rpm	8.5
Gradeability		Degree (%)	35 (70)
Ground pressure (600 mm shoe)		kgf/cm ² (psi)	0.90 (12.8)
Max traction force		kg (lb)	37300 (82230)

3. WORKING RANGE

1) HX480S L

(1) 7.06 m (23' 2") boom

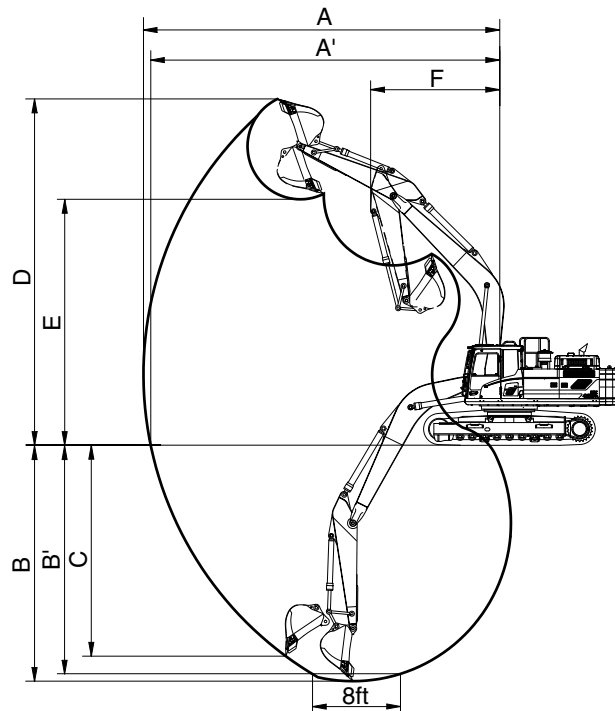


480S2SP04

Description		2.40 m (7' 10") Arm	2.90 m (9' 6") Arm	3.38 m (11' 1") Arm	4.00 m (13' 1") Arm
Max digging reach	A	11200 mm (36' 9")	11620 mm (38' 1")	12040 mm (39' 6")	12600 mm (41' 4")
Max digging reach on ground	A'	10980 mm (36' 0")	11410 mm (37' 5")	11840 mm (38' 10")	12410 mm (40' 9")
Max digging depth	B	6780 mm (22' 3")	7280 mm (23' 11")	7760 mm (25' 6")	8380 mm (27' 6")
Max digging depth (8ft level)	B'	6600 mm (21' 8")	7120 mm (23' 4")	7620 mm (25' 0")	8250 mm (27' 1")
Max vertical wall digging depth	C	4790 mm (15' 9")	5800 mm (19' 0")	5920 mm (19' 5")	6470 mm (21' 3")
Max digging height	D	10710 mm (35' 2")	10930 mm (35' 10")	11030 mm (36' 2")	11260 mm (36' 11")
Max dumping height	E	7350 mm (24' 1")	7490 mm (24' 7")	7640 mm (25' 1")	7870 mm (25' 10")
Min swing radius	F	5110 mm (16' 9")	4890 mm (16' 1")	4770 mm (15' 8")	4630 mm (15' 2")
Bucket digging force	SAE	213.8 [233.2] kN	211.8 [231.0] kN	213.8 [233.2] kN	215.7 [235.4] kN
		21800 [23780] kgf	21600 [23560] kgf	21800 [23780] kgf	22000 [24000] kgf
		48060 [52430] lbf	47620 [51940] lbf	48060 [52430] lbf	48500 [52910] lbf
	ISO	248.1 [270.7] kN	246.2 [268.5] kN	248.1 [270.7] kN	250.1 [272.8] kN
		25300 [27600] kgf	25100 [27380] kgf	25300 [27600] kgf	25500 [27820] kgf
		55780 [60850] lbf	55340 [60360] lbf	55780 [60850] lbf	56220 [61330] lbf
Arm crowd force	SAE	274.6 [299.6] kN	220.7 [240.8] kN	191.2 [208.6] kN	170.6 [186.1] kN
		28000 [30550] kgf	22500 [24550] kgf	19500 [21270] kgf	17400 [18980] kgf
		61730 [67350] lbf	49600 [54120] lbf	42990 [46890] lbf	38360 [41840] lbf
	ISO	287.3 [313.4] kN	229.5 [250.4] kN	198.1 [216.1] kN	176.5 [192.6] kN
		29300 [31960] kgf	23400 [25530] kgf	20200 [22040] kgf	18000 [19640] kgf
		64600 [70460] lbf	51590 [56280] lbf	44530 [48590] lbf	39680 [43300] lbf

[] : Power boost

(2) 6.55 m (21' 6") boom

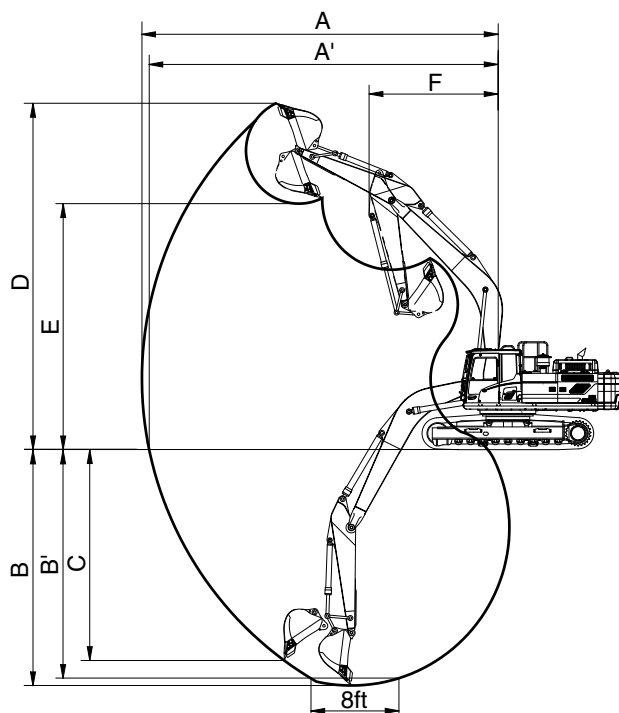


480S2SP04

Description		2.40 m (7' 10") Arm	2.90 m (9' 6") Arm
Max digging reach	A	10650 mm (34' 11")	11070 mm (36' 4")
Max digging reach on ground	A'	10430 mm (34' 3")	10850 mm (35' 7")
Max digging depth	B	6420 mm (21' 1")	6920 mm (22' 8")
Max digging depth (8ft level)	B'	6240 mm (20' 6")	6760 mm (22' 2")
Max vertical wall digging depth	C	4510 mm (14' 10")	5550 mm (18' 3")
Max digging height	D	10170 mm (33' 4")	10380 mm (34' 1")
Max dumping height	E	6850 mm (22' 6")	6970 mm (22' 10")
Min swing radius	F	4730 mm (15' 6")	4520 mm (14' 10")
Bucket digging force	SAE	241.2 [263.2] kN	211.8 [231.0] kN
		24600 [24840] kgf	21600 [23560] kgf
		54230 [59170] lbf	47620 [51940] lbf
	ISO	280.5 [306.0] kN	246.2 [268.5] kN
		28600 [31200] kgf	25100 [27380] kgf
		63050 [68780] lbf	55340 [60360] lbf
Arm crowd force	SAE	274.6 [299.6] kN	220.7 [240.8] kN
		28000 [30550] kgf	22500 [24550] kgf
		61730 [67350] lbf	49600 [54120] lbf
	ISO	287.3 [313.4] kN	229.5 [250.4] kN
		29300 [31960] kgf	23400 [25530] kgf
		64600 [70460] lbf	51590 [56280] lbf

[] : Power boost

(3) 9.00 m (29' 6") boom

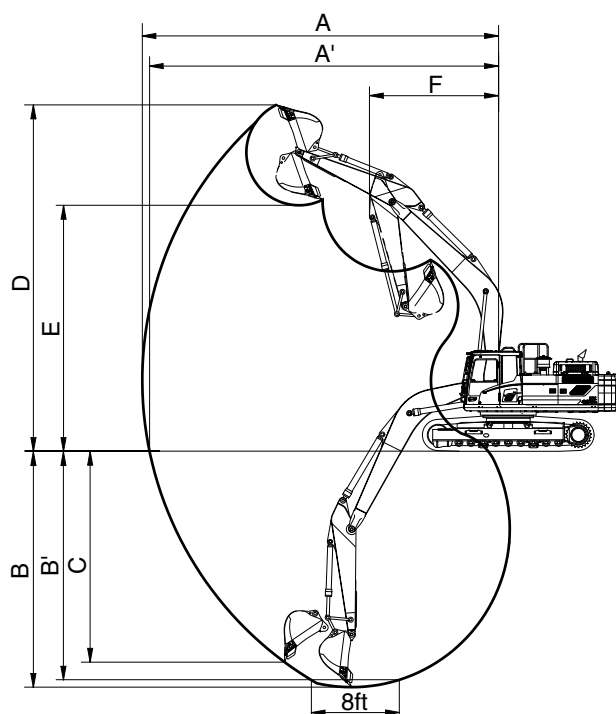


480S2SP04

Description		6.00 m (19' 8") Arm
Max digging reach	A	16180 mm (53' 1")
Max digging reach on ground	A'	16030 mm (52' 7")
Max digging depth	B	12020 mm (39' 5")
Max digging depth (8ft level)	B'	11920 mm (39' 1")
Max vertical wall digging depth	C	8510 mm (27'11")
Max digging height	D	12610 mm (41' 4")
Max dumping height	E	9410 mm (30'10")
Min swing radius	F	6040 mm (19'10")
Bucket digging force	SAE	216.7 kN
		22100 kgf
		48720 lbf
	ISO	252.0 kN
		25700 kgf
		56660 lbf
Arm crowd force	SAE	121.6 kN
		12400 kgf
		27340 lbf
	ISO	124.5 kN
		12700 kgf
		28000 lbf

2) HX520S L

(1) 7.06 m (23' 2") boom

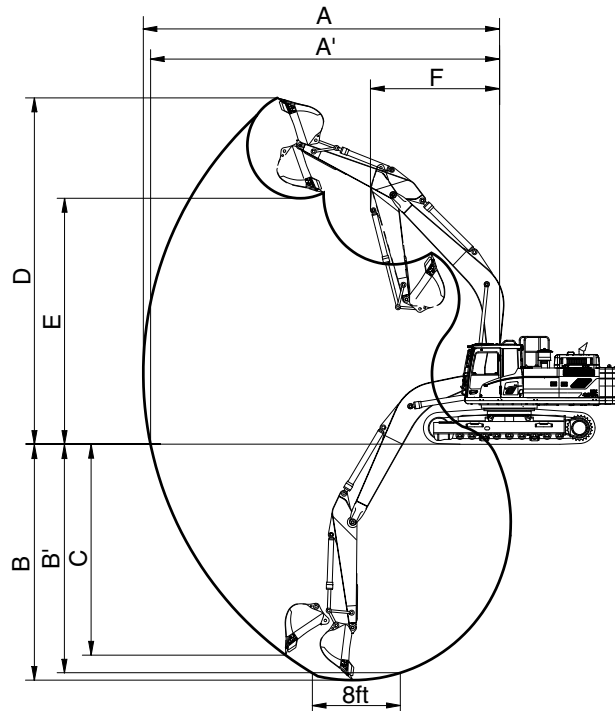


480S2SP04

Description		2.40 m (7' 10") Arm	2.90 m (9' 6") Arm	3.38 m (11' 1") Arm	4.00 m (13' 1") Arm
Max digging reach	A	11200 mm (36' 9")	11620 mm (38' 1")	12040 mm (39' 6")	12600 mm (41' 4")
Max digging reach on ground	A'	10950 mm (35' 11")	11380 mm (37' 4")	11810 mm (38' 9")	12380 mm (40' 7")
Max digging depth	B	6630 mm (21' 9")	7130 mm (23' 5")	7610 mm (25' 0")	8230 mm (27' 0")
Max digging depth (8ft level)	B'	6460 mm (21' 2")	6980 mm (22' 11")	7470 mm (24' 6")	8110 mm (26' 7")
Max vertical wall digging depth	C	4650 mm (15' 3")	5660 mm (18' 7")	5770 mm (18' 11")	6320 mm (20' 9")
Max digging height	D	10860 mm (35' 8")	11080 mm (36' 4")	11180 mm (36' 8")	11410 mm (37' 5")
Max dumping height	E	7490 mm (24' 7")	7630 mm (25' 0")	7780 mm (25' 6")	8020 mm (26' 4")
Min swing radius	F	5110 mm (16' 9")	4890 mm (16' 1")	4770 mm (15' 8")	4630 mm (15' 2")
Bucket digging force	SAE	241.2 [263.2] kN	239.3 [261.1] kN	241.2 [263.2] kN	243.2 [265.3] kN
		24600 [26840] kgf	24400 [26620] kgf	24600 [26840] kgf	24800 [27050] kgf
		54230 [59170] lbf	53790 [58690] lbf	54230 [59170] lbf	54670 [59630] lbf
	ISO	280.5 [306.0] kN	278.5 [303.8] kN	280.5 [306.0] kN	282.4 [308.1] kN
		28600 [31200] kgf	28400 [30980] kgf	28600 [31200] kgf	28800 [31420] kgf
		63050 [68780] lbf	62610 [68300] lbf	63050 [68780] lbf	63490 [69270] lbf
Arm crowd force	SAE	274.6 [299.6] kN	220.7 [240.8] kN	191.2 [208.6] kN	170.6 [186.1] kN
		28000 [30550] kgf	22500 [24550] kgf	19500 [21270] kgf	17400 [18980] kgf
		61730 [67350] lbf	49600 [54120] lbf	42990 [46890] lbf	38360 [41840] lbf
	ISO	287.3 [313.4] kN	229.5 [250.4] kN	198.1 [216.1] kN	176.5 [192.6] kN
		29300 [31960] kgf	23400 [25530] kgf	20200 [22040] kgf	18000 [19640] kgf
		64600 [70460] lbf	51590 [56280] lbf	44530 [48590] lbf	39680 [43300] lbf

[] : Power boost

(2) 6.55 m (21' 6") boom

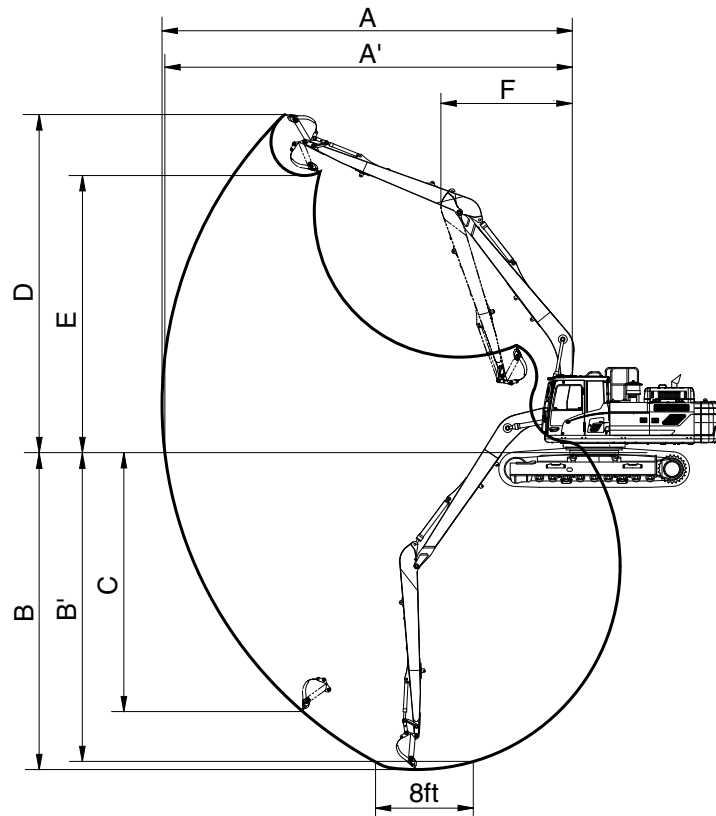


480S2SP04

Description		2.40 m (7' 10") Arm	2.90 m (9' 6") Arm
Max digging reach	A	10650 mm (34' 11")	11070 mm (36' 4")
Max digging reach on ground	A'	10390 mm (34' 1")	10820 mm (35' 6")
Max digging depth	B	6270 mm (20' 7")	6770 mm (22' 3")
Max digging depth (8ft level)	B'	6090 mm (20' 0")	6610 mm (21' 8")
Max vertical wall digging depth	C	4370 mm (14' 4")	5420 mm (17' 9")
Max digging height	D	10320 mm (33' 10")	10530 mm (34' 7")
Max dumping height	E	7000 mm (23' 0")	7210 mm (23' 4")
Min swing radius	F	4730 mm (15' 6")	4520 mm (14' 10")
Bucket digging force	SAE	241.2 [263.2] kN	239.3 [261.1] kN
		24600 [26840] kgf	24400 [26620] kgf
		54230 [59170] lbf	53790 [58690] lbf
	ISO	280.5 [306.0] kN	278.5 [303.8] kN
		28600 [31200] kgf	28400 [30980] kgf
		63050 [68780] lbf	62610 [68300] lbf
Arm crowd force	SAE	274.6 [299.6] kN	220.7 [240.8] kN
		28000 [30550] kgf	22500 [24550] kgf
		61730 [67350] lbf	49600 [54120] lbf
	ISO	287.3 [313.4] kN	229.5 [250.4] kN
		29300 [31960] kgf	23400 [25530] kgf
		64600 [70460] lbf	51590 [56280] lbf

[] : Power boost

(3) 10.00 m (32' 10") boom



520S2SP02

Description		6.85 m (22' 6") Arm
Max digging reach	A	18170 mm (59' 7")
Max digging reach on ground	A'	18020 mm (59' 1")
Max digging depth	B	13080 mm (42' 11")
Max digging depth (8ft level)	B'	13000 mm (42' 8")
Max vertical wall digging depth	C	12230 mm (40' 1")
Max digging height	D	15270 mm (50' 1")
Max dumping height	E	11850 mm (38' 11")
Min swing radius	F	6280 mm (20' 7")
Bucket digging force	SAE	222.6 kN
		22700 kgf
		50045 lbf
	ISO	261.8 kN
		26700 kgf
		58863 lbf
Arm crowd force	SAE	111.8 kN
		11400 kgf
		25133 lbf
	ISO	114.7 kN
		11700 kgf
		25794 lbf

4. WEIGHT

1) HX480S L

Item		HX480S L	
		kg	lb
Upperstructure assembly		20120	44360
Main frame weld assembly		4640	10230
Engine assembly		940	2070
Main pump assembly		185	408
Main control valve assembly		421	928
Swing motor assembly		230	510
Hydraulic oil tank assembly		450	990
Fuel tank assembly		270	600
Counterweight	6.55 m, 7.06 m boom	10200	22490
	9.0 m boom	10700	23590
Cab assembly		490	1080
Lower chassis assembly		19000	41890
Track frame weld assembly		7060	15570
Swing bearing		720	1590
Travel motor assembly		440	970
Turning joint		50	110
Track recoil spring		315	694
Idler		309	681
Sprocket		95	210
Carrier roller		40	90
Track roller		87	192
Track-chain assembly (600 mm standard triple grouser shoe)		2700	5952
Front attachment assembly (7.06 m boom, 3.38 m arm, 2.20 m³ SAE heaped bucket)		10380	22880
7.06 m boom assembly		3570	7870
6.55 m boom assembly		3560	7850
9.0 m boom assembly		4310	9500
3.38 m arm assembly		1820	4010
2.20 m³ SAE heaped bucket		2030	4480
Boom cylinder assembly		840	1852
Arm cylinder assembly		590	1300
Bucket cylinder assembly		370	816
Bucket control linkage total		185	410

2) HX520S L

Item		HX520S L	
		kg	lb
Upperstructure assembly		21180	46690
Main frame weld assembly		4640	10230
Engine assembly		940	2070
Main pump assembly		185	408
Main control valve assembly		421	928
Swing motor assembly		230	510
Hydraulic oil tank assembly		450	990
Fuel tank assembly		270	600
Counterweight	6.55 m, 7.06 m boom	10700	23590
Cab assembly		490	1080
Lower chassis assembly		20800	45860
Lower track frame		2130	4700
Center frame support		8070	17790
Swing bearing		720	1590
Travel motor assembly		440	970
Turning joint		50	110
Track recoil spring		315	694
Idler		309	681
Sprocket		95	210
Carrier roller		40	90
Track roller		87	192
Track-chain assembly (600 mm standard triple grouser shoe)		2700	5952
Front attachment assembly (7.06 m boom, 3.38 m arm, 2.20 m³ SAE heaped bucket)		10420	22970
7.06 m boom assembly		3570	7870
6.55 m boom assembly		3560	7850
9.0 m boom assembly		4310	9500
3.38 m arm assembly		1820	4010
2.20 m³ SAE heaped bucket		2030	4480
Boom cylinder assembly		840	1852
Arm cylinder assembly		590	1300
Bucket cylinder assembly		400	880
Bucket control linkage total		185	410

5. LIFTING CAPACITIES

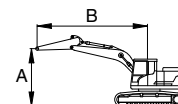
1) HX480S L

Unit : mm

Model	Boom	Boom	Arm	Counterweight	Shoe	Dozer		Outrigger	
	Type	Length	Length	Weight (kg)	Width	Front	Rear	Front	Rear
HX480S L	Mono	6550	2400	10200	600	-	-	-	-

·  : Rating over-front

·  : Rating over-side or 360 degree



Lift-point height (A)		Lift-point radius (B)								At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach
												m (ft)
7.5m 24.6ft	kg lb					*13470 *29700	*13470 *29700			*13010 *28680	12160 26810	6.90 (22.7)
6.0m 19.7ft	kg lb					*14180 *31260	*14180 *31260	*12640 *27870	10510 23170	*12450 *27450	9730 21450	7.85 (25.8)
4.5m 14.8ft	kg lb					*15610 *34410	14270 31460	*13130 *28950	10220 22530	*12220 *26940	8510 18760	8.43 (27.7)
3.0m 9.8ft	kg lb					*17120 *37740	13510 29780	*13800 *30420	9850 21720	*12140 *26760	7900 17420	8.71 (28.6)
1.5m 4.9ft	kg lb					*18030 *39750	12930 28510	*14240 *31390	9520 20990	*12140 *26760	7720 17020	8.72 (28.6)
0.0m 0.0ft	kg lb					*17950 *39570	12640 27870	*14120 *31130	9330 20570	*12130 *26740	7940 17500	8.47 (27.8)
-1.5m -4.9ft	kg lb			*21220 *46780	19350 42660	*16770 *36970	12600 27780	*13060 *28790	9310 20530	*11970 *26390	8680 19140	7.93 (26.0)
-3.0m -9.8ft	kg lb	*20040 *44180	*20040 *44180	*17740 *39110	*17740 *39110	*14140 *31170	12790 28200			*11370 *25070	10370 22860	7.02 (23.0)

※ Note

1. Lifting capacity are based on SAE J1097 and ISO 10567.
2. Lifting capacity of the ROBEX 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 mounting pin on the arm (without bucket).
4. *indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

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

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

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

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

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

Unit : mm

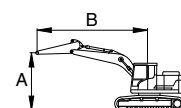
Model	Boom	Boom	Arm	Counterweight	Shoe	Dozer		Outrigger	
	Type	Length	Length	Weight (kg)	Width	Front	Rear	Front	Rear
HX480S L	Mono	6550	2900	10200	600	-	-	-	-



: Rating over-front



: Rating over-side or 360 degree



Lift-point height (A)		Lift-point radius (B)										At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		9.0 m (29.5 ft)		Capacity		Reach
														m (ft)
7.5m	kg											*10480	*10480	7.43
24.6ft	lb											*23100	*23100	(24.4)
6.0m	kg					*13350	*13350	*11950	10630			*10270	8940	8.31
19.7ft	lb					*29430	*29430	*26350	23440			*22640	19710	(27.3)
4.5m	kg			*19260	*19260	*14860	14470	*12580	10300			*10440	7890	8.86
14.8ft	lb			*42460	*42460	*32760	31900	*27730	22710			*23020	17390	(29.1)
3.0m	kg					*16520	13650	*13380	9890	*11510	7520	*10970	7360	9.13
9.8ft	lb					*36420	30090	*29500	21800	*25380	16580	*24180	16230	(29.9)
1.5m	kg					*17700	12990	*14000	9520	*11640	7350	*11440	7180	9.14
4.9ft	lb					*39020	28640	*30860	20990	*25660	16200	*25220	15830	(30.0)
0.0m	kg			*24030	19130	*17970	12600	*14120	9270			*11510	7350	8.90
0.0ft	lb			*52980	42170	*39620	27780	*31130	20440			*25380	16200	(29.2)
-1.5m	kg	*17990	*17990	*22290	19130	*17180	12480	*13460	9190			*11500	7940	8.38
-4.9ft	lb	*39660	*39660	*49140	42170	*37880	27510	*29670	20260			*25350	17500	(27.5)
-3.0m	kg	*23650	*23650	*19260	*19260	*15110	12590	*11320	9330			*11210	9270	7.54
-9.8ft	lb	*52140	*52140	*42460	*42460	*33310	27760	*24960	20570			*24710	20440	(24.7)
-4.5m	kg			*14210	*14210	*10700	*10700					*10050	*10050	6.22
-14.8ft	lb			*31330	*31330	*23590	*23590					*22160	*22160	(20.4)

Unit : mm

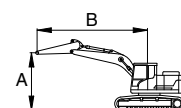
Model	Boom	Boom	Arm	Counterweight	Shoe	Dozer		Outrigger	
	Type	Length	Length	Weight (kg)	Width	Front	Rear	Front	Rear
HX480S L	Mono	7060	3380	10200	600	-	-	-	-



: Rating over-front



: Rating over-side or 360 degree



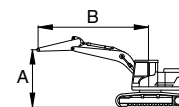
Lift-point height (A)		Lift-point radius (B)										At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		9.0 m (29.5 ft)		Capacity		Reach
														m (ft)
9.0m	kg											*7670	*7670	7.44
29.5ft	lb											*16910	*16910	(24.4)
7.5m	kg							*10410	*10410			*7260	*7260	8.60
24.6ft	lb							*22950	*22950			*16010	*16010	(28.2)
6.0m	kg							*10900	10640	*9960	7860	*7160	*7160	9.37
19.7ft	lb							*24030	23460	*21960	17330	*15790	*15790	(30.8)
4.5m	kg			*18500	*18500	*14060	*14060	*11750	10230	*10390	7670	*7280	6580	9.86
14.8ft	lb			*40790	*40790	*31000	*31000	*25900	22550	*22910	16910	*16050	14510	(32.4)
3.0m	kg			*22270	20290	*15870	13460	*12710	9760	*10850	7430	*7610	6180	10.10
9.8ft	lb			*49100	44730	*34990	29670	*28020	21520	*23920	16380	*16780	13620	(33.1)
1.5m	kg			*16400	*16400	*17200	12750	*13490	9340	*11220	7190	*8180	6040	10.11
4.9ft	lb			*36160	*36160	*37920	28110	*29740	20590	*24740	15850	*18030	13320	(33.2)
0.0m	kg			*18720	*18720	*17670	12320	*13840	9050	*11320	7020	*9100	6140	9.90
0.0ft	lb			*41270	*41270	*38960	27160	*30510	19950	*24960	15480	*20060	13540	(32.5)
-1.5m	kg	*13480	*13480	*22470	18690	*17220	12150	*13580	8900	*10890	6950	*10110	6530	9.44
-4.9ft	lb	*29720	*29720	*49540	41200	*37960	26790	*29940	19620	*24010	15320	*22290	14400	(31.0)
-3.0m	kg	*21440	*21440	*20150	18880	*15830	12200	*12480	8930			*10030	7350	8.69
-9.8ft	lb	*47270	*47270	*44420	41620	*34900	26900	*27510	19690			*22110	16200	(28.5)
-4.5m	kg	*20150	*20150	*16520	*16520	*13130	12450	*9780	9180			*9560	9050	7.58
-14.8ft	lb	*44420	*44420	*36420	*36420	*28950	27450	*21560	20240			*21080	19950	(24.9)

Unit : mm

Model	Boom	Boom	Arm	Counterweight	Shoe	Dozer		Outrigger	
	Type	Length	Length	Weight (kg)	Width	Front	Rear	Front	Rear
HX480S L	Mono	7060	2400	10200	600	-	-	-	-

·  : Rating over-front

·  : Rating over-side or 360 degree



Lift-point height (A)		Lift-point radius (B)										At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		9.0 m (29.5 ft)		Capacity		Reach
														m (ft)
9.0m	kg											*12900	*12900	6.24
29.5ft	lb											*28440	*28440	(20.5)
7.5m	kg							*11900	10600			*11880	10380	7.59
24.6ft	lb							*26230	23370			*26190	22880	(24.9)
6.0m	kg					*13900	*13900	*12080	10430			*11450	8560	8.46
19.7ft	lb					*30640	*30640	*26630	22990			*25240	18870	(27.8)
4.5m	kg					*15490	13920	*12750	10050			*11260	7590	9.00
14.8ft	lb					*34150	30690	*28110	22160			*24820	16730	(29.5)
3.0m	kg					*17010	13100	*13500	9640	*11470	7410	*11200	7100	9.26
9.8ft	lb					*37500	28880	*29760	21250	*25290	16340	*24690	15650	(30.4)
1.5m	kg					*17790	12550	*13980	9300	*11570	7240	*11180	6950	9.27
4.9ft	lb					*39220	27670	*30820	20500	*25510	15960	*24650	15320	(30.4)
0.0m	kg					*17610	12310	*13950	9100	*11230	7160	*11160	7120	9.04
0.0ft	lb					*38820	27140	*30750	20060	*24760	15790	*24600	15700	(29.6)
-1.5m	kg					*16530	12300	*13170	9060			*11030	7700	8.53
-4.9ft	lb					*36440	27120	*29030	19970			*24320	16980	(28.0)
-3.0m	kg			*17410	*17410	*14390	12480	*11100	9240			*10570	8960	7.70
-9.8ft	lb			*38380	*38380	*31720	27510	*24470	20370			*23300	19750	(25.3)
-4.5m	kg			*12830	*12830	*10270	*10270					*9180	*9180	6.41
-14.8ft	lb			*28290	*28290	*22640	*22640					*20240	*20240	(21.0)

Unit : mm

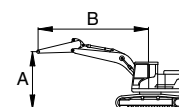
Model	Boom	Boom	Arm	Counterweight	Shoe	Dozer		Outrigger	
	Type	Length	Length	Weight (kg)	Width	Front	Rear	Front	Rear
HX480S L	Mono	7060	2900	10200	600	-	-	-	-



: Rating over-front



: Rating over-side or 360 degree



Lift-point height (A)		Lift-point radius (B)										At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		9.0 m (29.5 ft)		Capacity		Reach
														m (ft)
9.0m	kg											*11100	*11100	6.86
29.5ft	lb											*24470	*24470	(22.5)
7.5m	kg							*11080	10750			*10430	9390	8.10
24.6ft	lb							*24430	23700			*22990	20700	(26.6)
6.0m	kg					*13100	*13100	*11450	10510			*10260	7870	8.92
19.7ft	lb					*28880	*28880	*25240	23170			*22620	17350	(29.3)
4.5m	kg					*14730	14090	*12220	10100	*10770	7610	*10430	7040	9.43
14.8ft	lb					*32470	31060	*26940	22270	*23740	16780	*22990	15520	(30.9)
3.0m	kg					*16400	13220	*13070	9650	*11130	7380	*10480	6590	9.68
9.8ft	lb					*36160	29150	*28810	21270	*24540	16270	*23100	14530	(31.8)
1.5m	kg					*17460	12560	*13700	9260	*11380	7170	*10520	6440	9.69
4.9ft	lb					*38490	27690	*30200	20410	*25090	15810	*23190	14200	(31.8)
0.0m	kg					*17610	12220	*13870	9010	*11300	7030	*10560	6570	9.47
0.0ft	lb					*38820	26940	*30580	19860	*24910	15500	*23280	14480	(31.1)
-1.5m	kg			*21410	18700	*16860	12130	*13370	8920			*10540	7040	8.99
-4.9ft	lb			*47200	41230	*37170	26740	*29480	19670			*23240	15520	(29.5)
-3.0m	kg	*21880	*21880	*18800	*18800	*15120	12250	*11890	9010			*10310	8050	8.20
-9.8ft	lb	*48240	*48240	*41450	*41450	*33330	27010	*26210	19860			*22730	17750	(26.9)
-4.5m	kg			*14730	*14730	*11850	*11850					*9480	*9480	7.01
-14.8ft	lb			*32470	*32470	*26120	*26120					*20900	*20900	(23.0)

Unit : mm

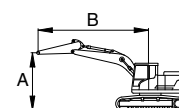
Model	Boom	Boom	Arm	Counterweight	Shoe	Dozer		Outrigger	
	Type	Length	Length	Weight (kg)	Width	Front	Rear	Front	Rear
HX480S L	Mono	7060	4000	10200	600	-	-	-	-



: Rating over-front



: Rating over-side or 360 degree



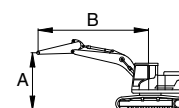
Lift-point height (A)		Lift-point radius (B)												At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		9.0 m (29.5 ft)		10.5 m (34.4 ft)		Capacity		Reach
																m (ft)
9.0m 29.5ft	kg lb													*6180 *13620	*6180 *13620	8.19 (26.9)
7.5m 24.6ft	kg lb									*7290 *16070	*7290 *16070			*5890 *12990	*5890 *12990	9.26 (30.4)
6.0m 19.7ft	kg lb							*10180 *22440	*10180 *22440	*9430 *20790	8010 17660			*5810 *12810	*5810 *12810	9.98 (32.7)
4.5m 14.8ft	kg lb					*13090 *28860	*13090 *28860	*11110 *24490	10410 22950	*9880 *21780	7790 17170			*5900 *13010	*5900 *13010	10.44 (34.2)
3.0m 9.8ft	kg lb			*20690 *45610	*20690 *45610	*15050 *33180	13750 30310	*12170 *26830	9900 21830	*10450 *23040	7510 16560	*7550 *16640	5850 12900	*6150 *13560	5690 12540	10.67 (35.0)
1.5m 4.9ft	kg lb			*22110 *48740	19470 42920	*16650 *36710	12930 28510	*13100 *28880	9430 20790	*10950 *24140	7230 15940	*8270 *18230	5710 12590	*6580 *14510	5560 12260	10.68 (35.0)
0.0m 0.0ft	kg lb			*20410 *45000	18760 41360	*17480 *38540	12380 27290	*13670 *30140	9070 20000	*11230 *24760	7010 15450			*7250 *15980	5630 12410	10.47 (34.4)
-1.5m -4.9ft	kg lb	*13070 *28810	*13070 *28810	*23270 *51300	18560 40920	*17430 *38430	12110 26700	*13680 *30160	8860 19530	*11090 *24450	6890 15190			*8300 *18300	5930 13070	10.04 (32.9)
-3.0m -9.8ft	kg lb	*19110 *42130	*19110 *42130	*21440 *47270	18640 41090	*16460 *36290	12070 26610	*12980 *28620	8810 19420	*10210 *22510	6890 15190			*9550 *21050	6570 14480	9.35 (30.7)
-4.5m -14.8ft	kg lb	*23900 *52690	*23900 *52690	*18380 *40520	*18380 *40520	*14370 *31680	12230 26960	*11150 *24580	8950 19730					*9350 *20610	7820 17240	8.32 (27.3)
-6.0m -19.7ft	kg lb			*13460 *29670	*13460 *29670	*10400 *22930	*10400 *22930							*8480 *18700	*8480 *18700	6.83 (22.4)

Unit : mm

Model	Boom	Boom	Arm	Counterweight	Shoe	Dozer		Outrigger	
	Type	Length	Length	Weight (kg)	Width	Front	Rear	Front	Rear
HX480S L	Mono	9000	6000	10700	600	-	-	-	-

·  : Rating over-front

·  : Rating over-side or 360 degree



Lift-point height (A)		Lift-point radius (B)																At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		9.0 m (29.5 ft)		10.5 m (34.4 ft)		12.0 m (39.4 ft)		13.5 m (44.3 ft)		Capacity		Reach m (ft)
																				
10.5m 34.4ft	kg lb																	*2480 *5470	*2480 *5470	11.56 (37.9)
9.0m 29.5ft	kg lb													*3660 *8070	*3660 *8070			*2400 *5290	*2400 *5290	12.51 (41.1)
7.5m 24.6ft	kg lb													*5020 *11070	*5020 *11070			*2370 *5220	*2370 *5220	13.23 (43.4)
6.0m 19.7ft	kg lb											*6250 *13780	*6250 *13780	*5820 *12830	4910 10820	*3180 *7010	*3180 *7010	*2400 *5290	*2400 *5290	13.74 (45.1)
4.5m 14.8ft	kg lb									*7500 *16530	*7500 *16530	*6680 *14730	6020 13270	*6090 *13430	4710 10380	*4290 *9460	3710 8180	*2470 *5450	*2470 *5450	14.08 (46.2)
3.0m 9.8ft	kg lb			*17780 *39200	*17780 *39200	*12540 *27650	*12540 *27650	*9850 *21720	9640 21250	*8230 *18140	7290 16070	*7150 *15760	5680 12520	*6380 *14070	4490 9900	*5070 *11180	3580 7890	*2590 *5710	*2590 *5710	14.25 (46.7)
1.5m 4.9ft	kg lb			*11650 *25680	*11650 *25680	*14170 *31240	12070 26610	*10880 *23990	8860 19530	*8900 *19620	6800 14990	*7590 *16730	5350 11790	*6670 *14700	4270 9410	*5570 *12280	3440 7580	*2770 *6110	*2770 *6110	14.26 (46.8)
0.0m 0.0ft	kg lb			*10370 *22860	*10370 *22860	*15190 *33490	11190 24670	*11640 *25660	8250 18190	*9430 *20790	6380 14070	*7950 *17530	5060 11160	*6890 *15190	4080 8990	*5620 *12390	3320 7320	*3020 *6660	*3020 *6660	14.10 (46.3)
-1.5m -4.9ft	kg lb	*7150 *15760	*7150 *15760	*11470 *25290	*11470 *25290	*15570 *34330	10690 23570	*12040 *26540	7840 17280	*9750 *21500	6060 13360	*8170 *18010	4830 10650	*7000 *15430	3920 8640	*4830 *10650	3230 7120	*3370 *7430	3120 6880	13.79 (45.2)
-3.0m -9.8ft	kg lb	*9520 *20990	*9520 *20990	*13510 *29780	*13510 *29780	*15400 *33950	10460 23060	*12080 *26630	7600 16760	*9810 *21630	5870 12940	*8190 *18060	4690 10340	*6930 *15280	3830 8440			*3860 *8510	3270 7210	13.29 (43.6)
-4.5m -14.8ft	kg lb	*12060 *26590	*12060 *26590	*16210 *35740	*16210 *35740	*14740 *32500	10430 22990	*11720 *25840	7520 16580	*9570 *21100	5790 12760	*7940 *17500	4630 10210	*6600 *14550	3810 8400			*4610 *10160	3560 7850	12.60 (41.3)
-6.0m -19.7ft	kg lb	*14890 *32830	*14890 *32830	*17360 *38270	16650 36710	*13580 *29940	10560 23280	*10920 *24070	7580 16710	*8930 *19690	5820 12830	*7310 *16120	4670 10300					*5810 *12810	4050 8930	11.67 (38.3)
-7.5m -24.6ft	kg lb	*18170 *40060	*18170 *40060	*14770 *32560	*14770 *32560	*11790 *25990	10840 23900	*9550 *21050	7770 17130	*7720 *17020	5980 13180							*6050 *13340	4890 10780	10.44 (34.3)
-9.0m -29.5ft	kg lb			*11140 *24560	*11140 *24560	*9080 *20020	*9080 *20020	*7280 *16050	*7280 *16050									*5700 *12570	*5700 *12570	8.80 (28.9)

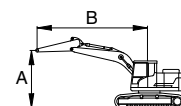
2) HX520S L

Unit : mm

Model	Boom	Boom	Arm	Counterweight	Shoe	Dozer		Outrigger	
	Type	Length	Length	Weight (kg)	Width	Front	Rear	Front	Rear
HX520S L	Mono	6550	2400	10700	600	-	-	-	-

·  : Rating over-front

·  : Rating over-side or 360 degree



Lift-point height (A)		Lift-point radius (B)								At max. reach	
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity	Reach
											 m (ft)
7.5m 24.6ft	kg lb					*13500 *29760	*13500 *29760			*12940 *28530	*12940 *28530 7.02 (23.0)
6.0m 19.7ft	kg lb					*14310 *31550	*14310 *31550	*12670 *27930	11900 26230	*12420 *27380	10870 23960 7.93 (26.0)
4.5m 14.8ft	kg lb					*15780 *34790	*15780 *34790	*13210 *29120	11590 25550	*12210 *26920	9610 21190 8.47 (27.8)
3.0m 9.8ft	kg lb					*17270 *38070	15400 33950	*13870 *30580	11220 24740	*12150 *26790	9000 19840 8.72 (28.6)
1.5m 4.9ft	kg lb					*18080 *39860	14840 32720	*14270 *31460	10900 24030	*12150 *26790	8860 19530 8.71 (28.6)
0.0m 0.0ft	kg lb					*17900 *39460	14570 32120	*14080 *31040	10720 23630	*12130 *26740	9180 20240 8.43 (27.7)
-1.5m -4.9ft	kg lb			*20970 *46230	*20970 *46230	*16600 *36600	14550 32080	*12880 *28400	10720 23630	*11950 *26350	10110 22290 7.86 (25.8)
-3.0m -9.8ft	kg lb	*19550 *43100	*19550 *43100	*17320 *38180	*17320 *38180	*13780 *30380	*13780 *30380			*11270 *24850	*11270 *24850 6.91 (22.7)

※ Note

1. Lifting capacity are based on SAE J1097 and ISO 10567.
2. Lifting capacity of the ROBEX 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 mounting pin on the arm (without bucket).
4. *indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

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

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

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

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

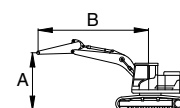
Make adjustments to the rated load as necessary for non-standard configurations.

Unit : mm

Model	Boom	Boom	Arm	Counterweight	Shoe	Dozer		Outrigger	
	Type	Length	Length	Weight (kg)	Width	Front	Rear	Front	Rear
HX520S L	Mono	6550	2900	10700	600	-	-	-	-

·  : Rating over-front

·  : Rating over-side or 360 degree



Lift-point height (A)		Lift-point radius (B)										At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		9.0 m (29.5 ft)		Capacity		Reach
														m (ft)
9.0m	kg											*11180	*11180	6.21
29.5ft	lb											*24650	*24650	(20.4)
7.5m	kg							*10730	*10730			*10420	*10420	7.53
24.6ft	lb							*23660	*23660			*22970	*22970	(24.7)
6.0m	kg					*13460	*13460	*11970	*11970			*10250	9990	8.38
19.7ft	lb					*29670	*29670	*26390	*26390			*22600	22020	(27.5)
4.5m	kg			*19620	*19620	*15010	*15010	*12640	11650			*10460	8910	8.90
14.8ft	lb			*43250	*43250	*33090	*33090	*27870	25680			*23060	19640	(29.2)
3.0m	kg					*16650	15510	*13440	11230	*11510	8570	*11020	8370	9.14
9.8ft	lb					*36710	34190	*29630	24760	*25380	18890	*24290	18450	(30.0)
1.5m	kg					*17750	14860	*14010	10860	*11610	8390	*11430	8230	9.13
4.9ft	lb					*39130	32760	*30890	23940	*25600	18500	*25200	18140	(29.9)
0.0m	kg			*23890	22240	*17910	14490	*14080	10620			*11490	8470	8.86
0.0ft	lb			*52670	49030	*39480	31940	*31040	23410			*25330	18670	(29.1)
-1.5m	kg	*19060	*19060	*22030	*22030	*17020	14390	*13310	10560			*11470	9220	8.32
-4.9ft	lb	*42020	*42020	*48570	*48570	*37520	31720	*29340	23280			*25290	20330	(27.3)
-3.0m	kg	*23080	*23080	*18850	*18850	*14790	14530					*11130	10860	7.43
-9.8ft	lb	*50880	*50880	*41560	*41560	*32610	32030					*24540	23940	(24.4)
-4.5m	kg			*13500	*13500	*9960	*9960					*9800	*9800	6.05
-14.8ft	lb			*29760	*29760	*21960	*21960					*21610	*21610	(19.9)

Unit : mm

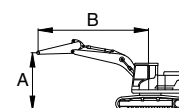
Model	Boom	Boom	Arm	Counterweight	Shoe	Dozer		Outrigger	
	Type	Length	Length	Weight (kg)	Width	Front	Rear	Front	Rear
HX520S L	Mono	7060	3380	10700	600	-	-	-	-



: Rating over-front



: Rating over-side or 360 degree



Lift-point height (A)		Lift-point radius (B)										At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		9.0 m (29.5 ft)		Capacity		Reach
														m (ft)
9.0m	kg							*8120	*8120			*7590	*7590	7.58
29.5ft	lb							*17900	*17900			*16730	*16730	(24.9)
7.5m	kg							*10410	*10410			*7220	*7220	8.69
24.6ft	lb							*22950	*22950			*15920	*15920	(28.5)
6.0m	kg							*10950	*10950	*10050	8920	*7140	*7140	9.43
19.7ft	lb							*24140	*24140	*22160	19670	*15740	*15740	(31.0)
4.5m	kg			*18880	*18880	*14220	*14220	*11830	11560	*10410	8720	*7280	*7280	9.90
14.8ft	lb			*41620	*41620	*31350	*31350	*26080	25490	*22950	19220	*16050	*16050	(32.5)
3.0m	kg			*22540	*22540	*16010	15310	*12780	11090	*10870	8470	*7630	7060	10.11
9.8ft	lb			*49690	*49690	*35300	33750	*28180	24450	*23960	18670	*16820	15560	(33.2)
1.5m	kg			*16320	*16320	*17260	14610	*13530	10670	*11230	8230	*8230	6950	10.10
4.9ft	lb			*35980	*35980	*38050	32210	*29830	23520	*24760	18140	*18140	15320	(33.1)
0.0m	kg			*19190	*19190	*17640	14200	*13820	10390	*11290	8060	*9200	7100	9.86
0.0ft	lb			*42310	*42310	*38890	31310	*30470	22910	*24890	17770	*20280	15650	(32.4)
-1.5m	kg	*14230	*14230	*22260	21810	*17110	14050	*13500	10260	*10780	8010	*10090	7590	9.38
-4.9ft	lb	*31370	*31370	*49070	48080	*37720	30970	*29760	22620	*23770	17660	*22240	16730	(30.8)
-3.0m	kg	*22280	*22280	*19840	*19840	*15610	14120	*12290	10300			*9990	8600	8.60
-9.8ft	lb	*49120	*49120	*43740	*43740	*34410	31130	*27090	22710			*22020	18960	(28.2)
-4.5m	kg	*19480	*19480	*16030	*16030	*12740	*12740					*9450	*9450	7.45
-14.8ft	lb	*42950	*42950	*35340	*35340	*28090	*28090					*20830	*20830	(24.4)

Unit : mm

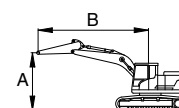
Model	Boom	Boom	Arm	Counterweight	Shoe	Dozer		Outrigger	
	Type	Length	Length	Weight (kg)	Width	Front	Rear	Front	Rear
HX520S L	Mono	7060	2400	10700	600	-	-	-	-



: Rating over-front



: Rating over-side or 360 degree



Lift-point height (A)		Lift-point radius (B)										At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		9.0 m (29.5 ft)		Capacity		Reach
														m (ft)
9.0m	kg											*12730	*12730	6.40
29.5ft	lb											*28060	*28060	(21.0)
7.5m	kg							*11850	*11850			*11810	11480	7.69
24.6ft	lb							*26120	*26120			*26040	25310	(25.2)
6.0m	kg					*14020	*14020	*12110	11790			*11410	9590	8.53
19.7ft	lb					*30910	*30910	*26700	25990			*25150	21140	(28.0)
4.5m	kg					*15630	*15630	*12810	11390	*11260	8640	*11230	8590	9.03
14.8ft	lb					*34460	*34460	*28240	25110	*24820	19050	*24760	18940	(29.6)
3.0m	kg					*17110	14950	*13540	10970	*11470	8460	*11180	8090	9.27
9.8ft	lb					*37720	32960	*29850	24180	*25290	18650	*24650	17840	(30.4)
1.5m	kg					*17790	14420	*13980	10630	*11540	8290	*11160	7970	9.26
4.9ft	lb					*39220	31790	*30820	23440	*25440	18280	*24600	17570	(30.4)
0.0m	kg					*17520	14210	*13880	10450			*11130	8220	9.00
0.0ft	lb					*38620	31330	*30600	23040			*24540	18120	(29.5)
-1.5m	kg					*16350	14210	*13020	10430			*10980	8940	8.46
-4.9ft	lb					*36050	31330	*28700	22990			*24210	19710	(27.8)
-3.0m	kg			*17030	*17030	*14080	*14080	*10730	10650			*10470	*10470	7.59
-9.8ft	lb			*37540	*37540	*31040	*31040	*23660	23480			*23080	*23080	(24.9)
-4.5m	kg			*12190	*12190	*9600	*9600					*8910	*8910	6.25
-14.8ft	lb			*26870	*26870	*21160	*21160					*19640	*19640	(20.5)

Unit : mm

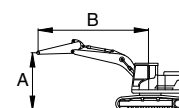
Model	Boom	Boom	Arm	Counterweight	Shoe	Dozer		Outrigger	
	Type	Length	Length	Weight (kg)	Width	Front	Rear	Front	Rear
HX520S L	Mono	7060	2900	10700	600	-	-	-	-



: Rating over-front



: Rating over-side or 360 degree



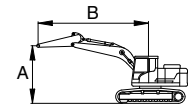
Lift-point height (A)		Lift-point radius (B)										At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		9.0 m (29.5 ft)		Capacity		Reach
														m (ft)
9.0m	kg											*10980	*10980	7.00
29.5ft	lb											*24210	*24210	(23.0)
7.5m	kg							*11070	*11070			*10380	*10380	8.20
24.6ft	lb							*24410	*24410			*22880	*22880	(26.9)
6.0m	kg					*13220	*13220	*11490	*11490			*10250	8840	8.98
19.7ft	lb					*29150	*29150	*25330	*25330			*22600	19490	(29.5)
4.5m	kg					*14880	*14880	*12280	11440	*10790	8650	*10440	7970	9.47
14.8ft	lb					*32800	*32800	*27070	25220	*23790	19070	*23020	17570	(31.1)
3.0m	kg					*16510	15060	*13130	10980	*11140	8420	*10460	7530	9.69
9.8ft	lb					*36400	33200	*28950	24210	*24560	18560	*23060	16600	(31.8)
1.5m	kg					*17490	14420	*13720	10600	*11370	8210	*10500	7400	9.68
4.9ft	lb					*38560	31790	*30250	23370	*25070	18100	*23150	16310	(31.8)
0.0m	kg					*17550	14110	*13830	10350	*11240	8080	*10540	7590	9.43
0.0ft	lb					*38690	31110	*30490	22820	*24780	17810	*23240	16730	(30.9)
-1.5m	kg			*21170	*21170	*16710	14040	*13250	10280			*10510	8180	8.92
-4.9ft	lb			*46670	*46670	*36840	30950	*29210	22660			*23170	18030	(29.3)
-3.0m	kg	*21490	*21490	*18450	*18450	*14850	14180	*11630	10390			*10240	9420	8.10
-9.8ft	lb	*47380	*47380	*40680	*40680	*32740	31260	*25640	22910			*22580	20770	(26.6)
-4.5m	kg			*14180	*14180	*11370	*11370					*9310	*9310	6.86
-14.8ft	lb			*31260	*31260	*25070	*25070					*20530	*20530	(22.5)

Unit : mm

Model	Boom	Boom	Arm	Counterweight	Shoe	Dozer		Outrigger	
	Type	Length	Length	Weight (kg)	Width	Front	Rear	Front	Rear
HX520S L	Mono	7060	4000	10700	600	-	-	-	-

·  : Rating over-front

·  : Rating over-side or 360 degree



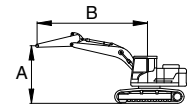
Lift-point height (A)		Lift-point radius (B)												At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		9.0 m (29.5 ft)		10.5 m (34.4 ft)		Capacity		Reach
																m (ft)
9.0m	kg													*6120	*6120	8.32
29.5ft	lb													*13490	*13490	(27.3)
7.5m	kg									*7640	*7640			*5850	*5850	9.34
24.6ft	lb									*16840	*16840			*12900	*12900	(30.6)
6.0m	kg							*10240	*10240	*9450	9070			*5800	*5800	10.04
19.7ft	lb							*22580	*22580	*20830	20000			*12790	*12790	(32.9)
4.5m	kg					*13260	*13260	*11190	*11190	*9920	8830			*5900	*5900	10.47
14.8ft	lb					*29230	*29230	*24670	*24670	*21870	19470			*13010	*13010	(34.4)
3.0m	kg			*21020	*21020	*15210	*15210	*12250	11230	*10480	8540	*7660	6700	*6160	*6160	10.68
9.8ft	lb			*46340	*46340	*33530	*33530	*27010	24760	*23100	18830	*16890	14770	*13580	*13580	(35.0)
1.5m	kg			*21450	*21450	*16740	14780	*13160	10760	*10970	8270	*8230	6560	*6610	6410	10.67
4.9ft	lb			*47290	*47290	*36910	32580	*29010	23720	*24180	18230	*18140	14460	*14570	14130	(35.0)
0.0m	kg			*20600	*20600	*17490	14250	*13670	10410	*11220	8050			*7310	6520	10.44
0.0ft	lb			*45420	*45420	*38560	31420	*30140	22950	*24740	17750			*16120	14370	(34.3)
-1.5m	kg	*13610	*13610	*23120	21670	*17350	14000	*13630	10210	*11020	7940			*8410	6900	9.98
-4.9ft	lb	*30000	*30000	*50970	47770	*38250	30860	*30050	22510	*24290	17500			*18540	15210	(32.8)
-3.0m	kg	*19760	*19760	*21170	*21170	*16290	13980	*12830	10180	*10040	7960			*9520	7670	9.26
-9.8ft	lb	*43560	*43560	*46670	*46670	*35910	30820	*28290	22440	*22130	17550			*20990	16910	(30.4)
-4.5m	kg	*23280	*23280	*17970	*17970	*14060	*14060	*10850	10340					*9290	9200	8.20
-14.8ft	lb	*51320	*51320	*39620	*39620	*31000	*31000	*23920	22800					*20480	20280	(26.9)
-6.0m	kg			*12800	*12800	*9800	*9800							*8280	*8280	6.64
-19.7ft	lb			*28220	*28220	*21610	*21610							*18250	*18250	(21.8)

Unit : mm

Model	Boom	Boom	Arm	Counterweight	Shoe	Dozer		Outrigger	
	Type	Length	Length	Weight (kg)	Width	Front	Rear	Front	Rear
HX520S L	Mono	10000	6850	11700	800	-	-	-	-

•  : Rating over-front

•  : Rating over-side or 360 degree

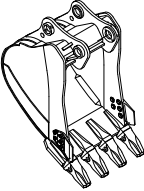
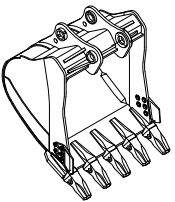
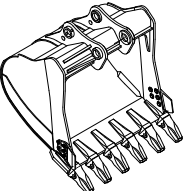


Lift-point height (A)		Lift-point radius (B)																				At max. reach			
		1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		9.0 m (29.5 ft)		10.5 m (34.4 ft)		12.0 m (39.4 ft)		13.5 m (44.3 ft)		15.0 m (49.2 ft)		Capacity	Reach		
																									
13.5m 44.3ft	kg lb																						*3010 *6640	*3010 *6640	11.84 (38.8)
12.0m 39.4ft	kg lb																						*2800 *6170	*2800 *6170	13.11 (43.0)
10.0m 34.4ft	kg lb																	*3800 *8380	*3800 *8380				*2680 *5910	*2680 *5910	14.10 (46.3)
9.0m 29.5ft	kg lb																	*4500 *9920	*4500 *9920				*2610 *5750	*2610 *5750	14.88 (48.8)
7.5m 24.6ft	kg lb															*4870 *10740	*4870 *10740	*4600 *10140	*4600 *10140	*3670 *8090	*3670 *8090		*2590 *5710	*2590 *5710	15.47 (50.8)
6.0m 19.7ft	kg lb													*5620 *12390	*5620 *12390	*5130 *11310	*5130 *11310	*4760 *10490	4640 10230	*4470 *9850	3700 8160	*2600 *5730	*2600 *5730	15.90 (52.2)	
4.5m 14.8ft	kg lb										*6950 *15320	*6950 *15320	*6070 *13380	*6070 *13380	*5430 *11970	*5430 *11970	*4950 *10910	4460 9830	*4580 *10100	3590 7910	*2660 *5860	*2660 *5860	16.17 (53.1)		
3.0m 9.8ft	kg lb						*12050 *26570	*12050 *26570	*9300 *20500	*9300 *20500	*7640 *16840	*7640 *16840	*6530 *14400	*6530 *14400	*5750 *12680	5270 11620	*5160 *11380	4260 9390	*4710 *10380	3460 7630	*2750 *6060	*2750 *6060	16.31 (53.5)		
1.5m 4.9ft	kg lb						*13470 *29700	*13470 *29700	*10230 *22550	10070 22200	*8270 *18230	7780 17150	*6970 *15370	6170 13600	*6040 *13320	4990 11000	*5360 *11820	4070 8970	*4820 *10630	3330 7340	*2880 *6350	2810 6190	16.30 (53.5)		
0.0m 0.0ft	kg lb						*12920 *28480	12670 27930	*10900 *24030	9370 20660	*8760 *19310	7290 16070	*7320 *16140	5820 12830	*6290 *13870	4740 10450	*5510 *12150	3890 8580	*4890 *10780	3220 7100	*3070 *6770	2790 6150	16.15 (53.0)		
-1.5m -4.9ft	kg lb				*6620 *14590	*6620 *14590	*12480 *27510	12140 26760	*11270 *24850	8910 19640	*9070 *20000	6920 15260	*7550 *16640	5550 12240	*6450 *14220	4530 9990	*5600 *12350	3750 8270	*4890 *10780	3130 6900	*3320 *7320	2840 6260	15.86 (52.0)		
-3.0m -9.8ft	kg lb	*4750 *10470	*4750 *10470	*5780 *12740	*5780 *12740	*8370 *18450	*8370 *18450	*13630 *30050	11890 26210	*11320 *24960	8640 19050	*9170 *20220	6690 14750	*7640 *16840	5360 11820	*6490 *14310	4390 9680	*5580 *12300	3660 8070	*4770 *10520	3090 6810	*3650 *8050	2960 6530	15.42 (50.6)	
-4.5m -14.8ft	kg lb	*6650 *14660	*6650 *14660	*7860 *17330	*7860 *17330	*10510 *23170	*10510 *23170	*13940 *30730	11850 26120	*11070 *24410	8530 18810	*9040 *19930	6570 14480	*7530 *16600	5260 11600	*6370 *14040	4320 9520	*5400 *11900	3620 7980			*4120 *9080	3160 6970	14.81 (48.6)	
-6.0m -19.7ft	kg lb	*8670 *19110	*8670 *19110	*10150 *22380	*10150 *22380	*13100 *28880	*13100 *28880	*13060 *28790	11950 26350	*10510 *23170	8550 18850	*8640 *19050	6560 14460	*7200 *15870	5250 11570	*6030 *13290	4320 9520	*4950 *10910	3660 8070			*4540 *10010	3480 7670	14.02 (46.0)	
-7.5m -24.6ft	kg lb	*10910 *24050	*10910 *24050	*12790 *28200	*12790 *28200	*14810 *32650	*14810 *32650	*11770 *25950	*9590 *25950	*9950 *21140	8690 19160	*7910 *17440	6650 14660	*6550 *14440	5330 11750	*5340 *11770	4420 9740					*4460 *9830	3990 8800	13.00 (42.7)	
-9.0m -29.5ft	kg lb			*15710 *34630	*15710 *34630	*12250 *27010	*12250 *27010	*9950 *21940	*9950 *21940	*8190 *18060	*8190 *18060	*6730 *14840	*6730 *14840	*5400 *11900	*5400 *11900							*4240 *9350	*4240 *9350	11.70 (38.4)	
-10.5m -34.4ft	kg lb					*8790 *19380	*8790 *19380	*7370 *16250	*7370 *16250	*6070 *13380	*6070 *13380	*4760 *10490	*4760 *10490									*3720 *8200	*3720 *8200	10.01 (32.8)	

6. BUCKET SELECTION GUIDE

1) HX480S L

(1) General bucket

		
1.38 m³ SAE heaped bucket	2.20 m³ SAE heaped bucket	3.00 m³ SAE heaped bucket

Capacity		Width	Weight	Recommendation						
				7.06 m (23' 2") boom				6.55 m (21' 6") boom		9.00 m (29' 6") boom
SAE heaped	CECE heaped			2.4 m arm (7' 10")	2.9 m arm (9' 6")	3.38 m arm (11' 1")	4.0 m arm (13' 1")	2.4 m arm (7' 10")	2.9 m arm (9' 6")	6.00 m arm (19' 8")
1.38 m³ (1.80 yd³)	1.24 m³ (1.62 yd³)	1135 mm (45")	1670 kg (3680 lb)	●	●	●	●	●	●	▲
2.20 m³ (2.88 yd³)	1.93 m³ (2.52 yd³)	1575 mm (62")	2030 kg (4480 lb)	●	◐	◐	■	●	●	X
3.00 m³ (3.92 yd³)	2.70 m³ (3.53 yd³)	1905 mm (75")	2460 kg (5420 lb)	■	▲	▲	X	◐	■	X

● Applicable for materials with density of 2100 kg/m³ (3500 lb/yd³) or less

◐ 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

▲ Applicable for materials with density of 1200 kg/m³ (2000 lb/yd³) or less

X Not recommended

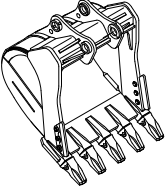
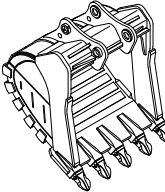
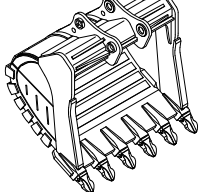
※ These recommendations are for general conditions and average use.

Work tools and ground conditions have effects on machine performance.

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

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

(2) Heavy duty and rock-heavy duty bucket

		
◆ 2.79 m ³ SAE heaped bucket	◆ 2.20 m ³ SAE ◆ 2.43 m ³ SAE ◆ 2.79 m ³ SAE heaped bucket	◆ 3.20 m ³ SAE heaped bucket

Capacity		With	Weight	Recommendation						
				7.06 m (23' 2") boom				6.55 m (21' 5") boom		9.00 m (29' 6") boom
SAE heaped	CECE heaped			2.4 m arm (7' 10")	2.9 m arm (9' 6")	3.38 m arm (11' 1")	4.0 m arm (13' 1")	2.4 m arm (7' 10")	2.9 m arm (9' 6")	6.00 m arm (19' 8")
◆ 2.79 m ³ (3.65 yd ³)	2.47 m ³ (3.23 yd ³)	1785 mm (70")	2630 kg (5800 lb)	■	▲	▲	X	●	■	X
◆ 2.20 m ³ (2.88 yd ³)	1.93 m ³ (2.52 yd ³)	1605 mm (63")	2630 kg (5800 lb)	●	●	■	X	●	●	X
◆ 2.43 m ³ (3.18 yd ³)	2.11 m ³ (2.76 yd ³)	1750 mm (69")	2730 kg (6020 lb)	●	■	▲	X	●	●	X
◆ 2.79 m ³ (3.65 yd ³)	2.47 m ³ (3.23 yd ³)	1785 mm (70")	2950 kg (6500 lb)	■	▲	▲	X	●	■	X
◆ 3.20 m ³ (4.19 yd ³)	2.82 m ³ (3.69 yd ³)	1995 mm (79")	3230 kg (7120 lb)	▲	X	X	X	■	▲	X

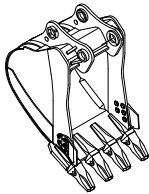
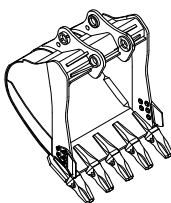
◆ : Heavy duty bucket

◆ : Rock-Heavy duty bucket

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

2) HX520S L

(1) General bucket

	
1.00 m ³ SAE 1.38 m ³ SAE heaped bucket	2.20 m ³ SAE 2.79 m ³ SAE heaped bucket

Capacity		Width	Weight	Recommendation							
				7.06 m (23' 2") boom				6.55 m (21' 6") boom		9.00 m (29' 6") boom	10.00 m (32' 10") boom
SAE heaped	CECE heaped			2.4 m arm (7' 10")	2.9 m arm (9' 6")	3.38 m arm (11' 1")	4.0 m arm (13' 1")	2.4 m arm (7' 10")	2.9 m arm (9' 6")	6.00 m arm (19' 8")	6.85 m arm (22' 6")
1.00 m ³ (1.31 yd ³)	0.90 m ³ (1.18 yd ³)	800 mm (31.5")	1240 kg (2730 lb)	X	X	X	X	X	X	X	▲
1.38 m ³ (1.80 yd ³)	1.24 m ³ (1.62 yd ³)	1135 mm (45")	1670 kg (3680 lb)	●	●	●	●	●	●	■	X
2.20 m ³ (2.88 yd ³)	1.93 m ³ (2.52 yd ³)	1575 mm (62")	2030 kg (4480 lb)	●	●	●	◐	●	●	X	X
2.79 m ³ (3.65 yd ³)	2.47 m ³ (3.23 yd ³)	1785 mm (70")	2300 kg (5070 lb)	●	◐	■	■	●	●	X	X

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

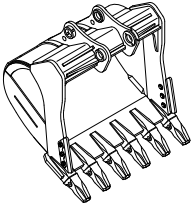
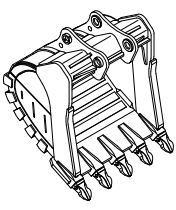
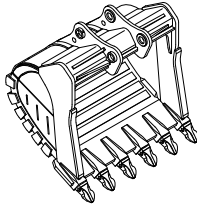
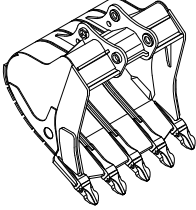
※ These recommendations are for general conditions and average use.

Work tools and ground conditions have effects on machine performance.

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

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

(2) Heavy duty and rock-heavy duty bucket

			
◆ 3.20 m ³ SAE heaped bucket	◆ 2.20 m ³ SAE ◆ 2.43 m ³ SAE ◆ 2.79 m ³ SAE heaped bucket	◆ 3.20 m ³ SAE heaped bucket	◆ 2.70 m ³ SAE ◆ 3.00 m ³ SAE heaped bucket

Capacity		With	Weight	Recommendation						9.00 m (29' 6") boom
				7.06 m (23' 2") boom				6.55 m (21' 5") boom		
SAE heaped	CECE heaped			2.4 m arm (7' 10")	2.9 m arm (9' 6")	3.38 m arm (11' 1")	4.0 m arm (13' 1")	2.4 m arm (7' 10")	2.9 m arm (9' 6")	6.00 m arm (19' 8")
◆ 3.20 m³ (4.19 yd³)	2.82 m³ (3.69 yd³)	2075 mm (82")	2870 kg (6330 lb)	■	■	▲	▲	◐	◐	X
◆ 2.20 m³ (2.88 yd³)	1.93 m³ (2.52 yd³)	1605 mm (63")	2610 kg (5750 lb)	●	●	●	X	●	●	X
◆ 2.43 m³ (3.18 yd³)	2.11 m³ (2.76 yd³)	1750 mm (69")	2730 kg (6020 lb)	●	●	◐	X	●	●	X
◆ 2.70 m³ (3.53 yd³)	2.39 m³ (3.13 yd³)	1755 mm (69")	2770 kg (6110 lb)	●	◐	■	X	●	●	X
◆ 2.79 m³ (3.65 yd³)	2.47 m³ (3.23 yd³)	1785 mm (70")	2950 kg (6500 lb)	◐	■	■	X	●	◐	X
◆ 3.00 m³ (3.92 yd³)	2.76 m³ (3.61 yd³)	1950 mm (77")	3040 kg (6700 lb)	◐	■	▲	X	●	◐	X
◆ 3.20 m³ (4.19 yd³)	2.82 m³ (3.69 yd³)	1995 mm (79")	3230 kg (7120 lb)	■	■	▲	X	◐	■	X

◆ : Heavy duty bucket

◆ : Rock-Heavy duty bucket

● Applicable for materials with density of 2100 kg/m³ (3500 lb/yd³) or less

● 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

▲ Applicable for materials with density of 1200 kg/m³ (2000 lb/yd³) or less

X Not recommended

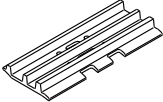
7. UNDERCARRIAGE

1) HX480S L

(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			
						
HX480S L	Shoe width	mm (in)	600 (24)	700 (28)	800 (32)	900 (36)
	Operating weight	kg (lb)	49515 (109610)	50035 (110310)	50565 (111470)	51075 (112600)
	Ground pressure	kgf/cm ² (psi)	0.84 (11.98)	0.74 (10.59)	0.66 (9.37)	0.59 (8.41)
	Overall width	mm (ft-in)	3340 (10' 11")	3440 (11' 3")	3540 (11' 7")	3640 (11' 11")

(3) NUMBER OF ROLLERS AND SHOES ON EACH SIDE

Item	Quantity
Carrier rollers	2 EA
Track rollers	9 EA
Track shoes	53 EA

(4) Selection of track shoe

Suitable track shoes should be selected according to operating conditions.

Method of selecting shoes

Confirm the category from the list of applications in **table 2**, then use **table 1** to select the shoe. Wide shoes (categories B and C) have limitations on applications. Before using wide shoes, check the precautions, then investigate and study the operating conditions to confirm if these shoes are suitable.

Select the narrowest shoe possible to meet the required flotation and ground pressure. Application of wider shoes than recommendations will cause unexpected problem such as bending of shoes, crack of link, breakage of pin, loosening of shoe bolts and the other various problems.

※ **Table 1**

Track shoe	Specification	Category
600 mm triple grouser	Standard	A
700 mm triple grouser	Option	B
800 mm triple grouser	Option	C
900 mm triple grouser	Option	C

※ **Table 2**

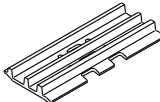
Category	Applications	Applications
A	Rocky ground, river beds, normal soil	· Travel at low speed on rough ground with large obstacles such as boulders or fallen trees or a wide range of general civil engineering work
B	Normal soil, soft ground	· These shoes cannot be used on rough ground with large obstacles such as boulders or fallen trees · Travel at high speed only on flat ground · Travel slowly at low speed if it is impossible to avoid going over obstacles
C	Extremely soft ground (swampy ground)	· Use the shoes only in the conditions that the machine sinks and it is impossible to use the shoes of category A or B · These shoes cannot be used on rough ground with large obstacles such as boulders or fallen trees · Travel at high speed only on flat ground · Travel slowly at low speed if it is impossible to avoid going over obstacles

2) HX520S L

(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		
					
HX520S L	Shoe width	mm (in)	600 (24)	700 (28)	800 (32)
	Operating weight	kg (lb)	51175 (112820)	51695 (113970)	52225 (115140)
	Ground pressure	kgf/cm ² (psi)	0.89 (12.64)	0.77 (10.95)	0.68 (9.68)
	Overall width	mm (ft-in)	★ 3540 (11' 7") ● 2990 (9' 10")	★ 3640 (11' 11") ● 3080 (10' 1")	★ 3690 (12' 1") ● 3130 (10' 3")

★ : Extended

● : Retracted

(3) NUMBER OF ROLLERS AND SHOES ON EACH SIDE

Item	Quantity
Carrier rollers	3 EA
Track rollers	9 EA
Track shoes	53 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, double grouser	Option	B
800 mm triple grouser	Option	C

※ **Table 2**

Category	Applications	Applications
A	Rocky ground, river beds, normal soil	· Travel at low speed on rough ground with large obstacles such as boulders or fallen trees or a wide range of general civil engineering work
B	Normal soil, soft ground	· These shoes cannot be used on rough ground with large obstacles such as boulders or fallen trees · Travel at high speed only on flat ground · Travel slowly at low speed if it is impossible to avoid going over obstacles
C	Extremely soft ground (swampy ground)	· Use the shoes only in the conditions that the machine sinks and it is impossible to use the shoes of category A or B · These shoes cannot be used on rough ground with large obstacles such as boulders or fallen trees · Travel at high speed only on flat ground · Travel slowly at low speed if it is impossible to avoid going over obstacles

8. SPECIFICATIONS FOR MAJOR COMPONENTS

1) ENGINE

Item	Specification
Model	Cummins QSM11
Type	4-cycle turbocharged charger air cooled diesel engine
Cooling method	Water cooling
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	125 × 147.1 mm (4.92" × 5.79")
Piston displacement	10800 cc (659 cu in)
Compression ratio	16.3 : 1
Rated gross horse power (SAE J1995)	335 Hp at 2000 rpm (250 kW at 2000 rpm)
Maximum torque	183 kgf · m (1320 lbf · ft) at 1400 rpm
Engine oil quantity	37.9 ℓ (10 U.S. gal)
Dry weight	942 kg (2077 lb)
Low idling speed	950 ± 50 rpm
High idling speed	1950 + 50 rpm
Rated fuel consumption	144 g/Hp · hr at 1900 rpm
Starting motor	Delco Remy 42MT (24V-7.2kW)
Alternator	Delco Remy 24V-90A
Battery	2 × 12V × 200Ah

2) MAIN PUMP

Item	Specification
Type	Variable displacement tandem axis piston pumps
Capacity	2 × 200 cc/rev
Maximum pressure	330 kgf/cm ² (4690 psi) [360 kgf/cm ² (5120 psi)]
Rated oil flow	2 × 380 ℓ /min (100.4 U.S. gpm / 83.6 U.K. gpm)
Rated speed	1900 rpm

[] : Power boost

3) GEAR PUMP

Item	Specification
Type	Fixed displacement gear pump single stage
Capacity	16 cc/rev
Maximum pressure	40 kgf/cm ² (570 psi)
Rated oil flow	30.4 ℓ /min (8.0 U.S. gpm/6.7 U.K. gpm)

4) MAIN CONTROL VALVE

Item		Specification
		HX480/520S L
Type		9 spools
Operating method		Hydraulic pilot system
Main relief valve pressure		330 kgf/cm ² (4690 psi) [360 kgf/cm ² (5120 psi)]
Port relief valve pressure	Boom	360 kgf/cm ² (5120 psi)
	Arm	360 kgf/cm ² (5120 psi)
	Bucket	360 kgf/cm ² (5120 psi)

[] : Power boost

5) SWING MOTOR

Item	Specification
Type	Fixed displacement axial piston motor
Capacity	142.6 cc/rev
Relief pressure	285 kgf/cm ² (4050 psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	63.3 kgf · m (458 lbf · ft) over
Brake release pressure	Cranking : 20.9 kgf/cm ² (297 psi) Full stroke : 35.5 kgf/cm ² (505 psi)
Reduction gear type	2 - stage planetary

6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement axial piston motor
Relief pressure	330 kgf/cm ² (4690 psi)
Capacity (max / min)	281.7/175.9 cc/rev
Reduction gear type	3-stage planetary
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	15.7 kgf/cm ² (114 psi) below
Braking torque	120 kgf · m (1707 lbf · ft) over

7) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	Ø170 × Ø115 × 1580 mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	Ø190 × Ø130 × 1820 mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	Ø160 × Ø110 × 1370 mm (HX480S L) Ø170 × Ø115 × 1370 mm (HX520S L)
	Cushion	Extend only

- ※ Discoloration of cylinder rod can occur when the friction reduction additive of lubrication oil spreads on the rod surface.
- ※ Discoloration does not cause any harmful effect on the cylinder performance.

8) SHOE

Item		Width	Ground pressure	Link quantity	Overall width
HX480S L	Standard	600 mm (24")	0.84 kgf/cm ² (11.98 psi)	53	3340 mm (10' 11")
	Option	700 mm (28")	0.74 kgf/cm ² (10.59 psi)	53	3440 mm (11' 3")
		800 mm (32")	0.66 kgf/cm ² (9.37 psi)	53	3540 mm (11' 7")
		900 mm (36")	0.59 kgf/cm ² (8.41 psi)	53	3640 mm (11' 11")
HX520S L	Standard	600 mm (24")	0.89 kgf/cm ² (12.64 psi)	53	★ 3540 mm (11' 7") ● 2990 mm (9' 10")
	Option	700 mm (28")	0.77 kgf/cm ² (10.95 psi)	53	★ 3640 mm (11' 11") ● 3080 mm (10' 1")
		800 mm (32")	0.68 kgf/cm ² (9.68 psi)	53	★ 3690 mm (12' 1") ● 3130 mm (10' 3")

★ : Extended ● : Retracted

9. RECOMMENDED OILS

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

We recommend that you use only HD Hyundai Construction Equipment genuine lubricating oils and grease officially approved by HD Hyundai Construction Equipment.

Service point	Kind of fluid	Capacity ℓ (U.S. gal)	Ambient temperature °C (°F)									
			-50 (-58)	-30 (-22)	-20 (-4)	-10 (14)	0 (32)	10 (50)	20 (68)	30 (86)	40 (104)	
Engine oil pan	Engine oil	37.9 (10.0)	★SAE 5W-40									
								SAE 30				
				SAE 10W								
				SAE 10W-30								
				SAE 15W-40								
Swing drive	Gear oil	7.0×2 (1.8×2)	★SAE 75W-90									
Final drive		12×2 (3.2×2)		SAE 85W-140								
Hydraulic tank	Hydraulic oil	Tank : 260 (68.7)	★ISO VG 15									
		System : 486 (128.4)		ISO VG 46								
				ISO VG 68								
Fuel tank	Diesel fuel	660 (174.4)	★ASTM D975 NO.1									
				ASTM D975 NO.2								
Fitting (grease nipple)	Grease	As required	★NLGI NO.1									
				NLGI NO.2								
Radiator (reservoir tank)	Mixture of antifreeze and soft water★ ¹	49 (12.9)	Ethylene glycol base permanent type (50 : 50)									
			★Ethylene glycol base permanent type (60 : 40)									

SAE : Society of Automotive Engineers

API : American Petroleum Institute

ISO : International Organization for Standardization

NLGI : National Lubricating Grease Institute

ASTM : American Society of Testing and Material

★ : Cold region

Russia, CIS, Mongolia

★¹ : Soft water

City water or distilled water

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

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

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