

## SECTION 1 GENERAL

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## SECTION 1 GENERAL

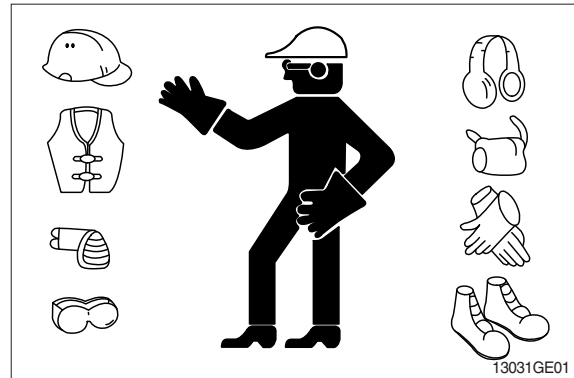
### GROUP 1 SAFETY

#### FOLLOW SAFE PROCEDURE

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

#### WEAR PROTECTIVE CLOTHING

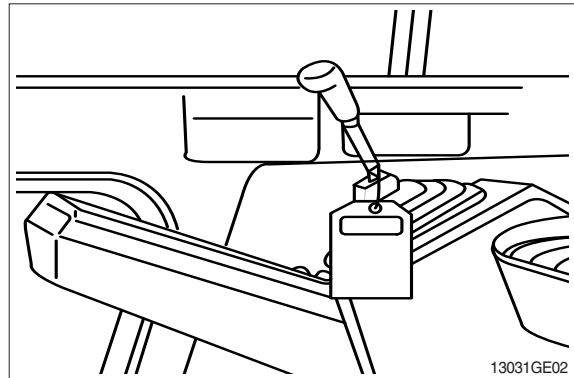
Wear close fitting clothing and safety equipment appropriate to the job.



#### WARN OTHERS OF SERVICE WORK

Unexpected machine movement can cause serious injury.

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



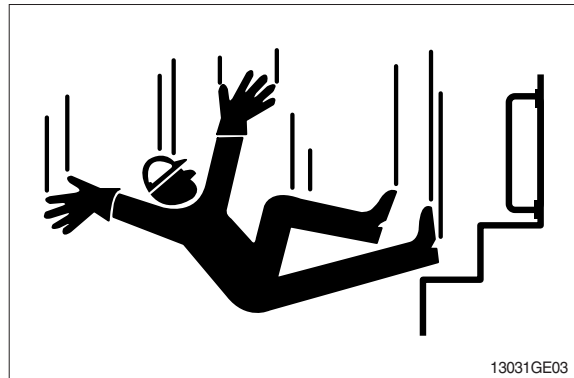
#### USE HANDHOLDS AND STEPS

Falling is one of the major causes of personal injury.

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

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

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

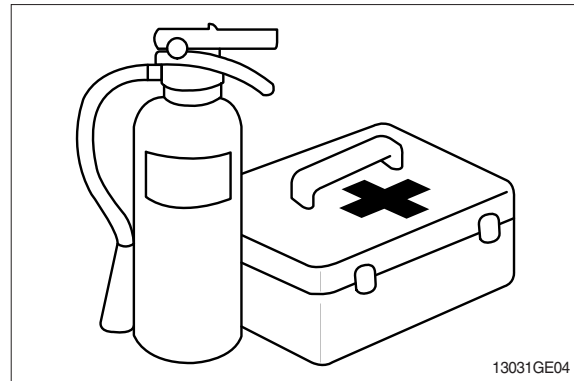


## PREPARE FOR EMERGENCIES

Be prepared if a fire starts.

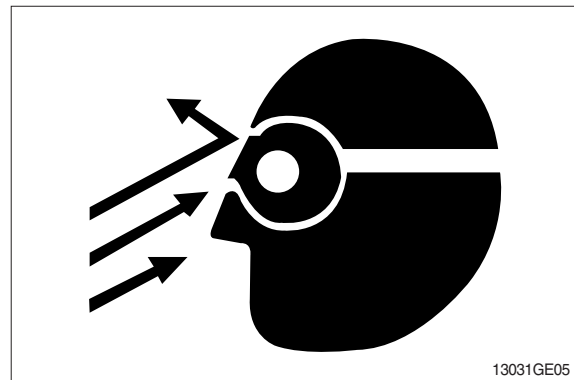
Keep a first aid kit and fire extinguisher handy.

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



## PROTECT AGAINST FLYING DEBRIS

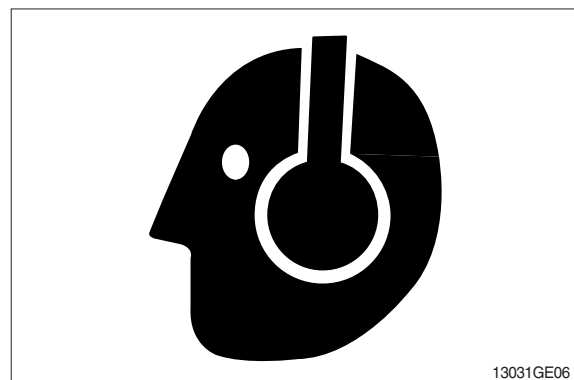
Guard against injury from flying pieces of metal or debris; Wear goggles or safety glasses.



## PROTECT AGAINST NOISE

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

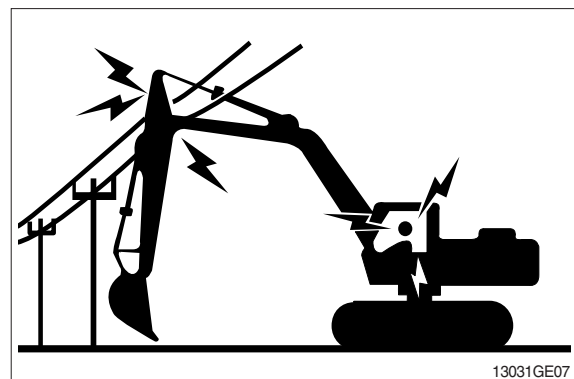
Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.



## AVOID POWER LINES

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

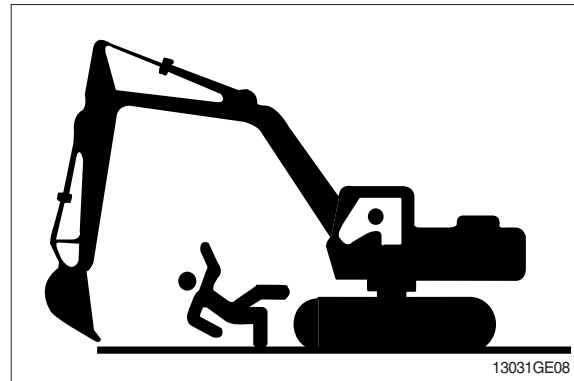
Never move any part of the machine or load closer to electric line than 3m(10ft) plus twice the line insulator length.



## KEEP RIDERS OFF EXCAVATOR

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

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

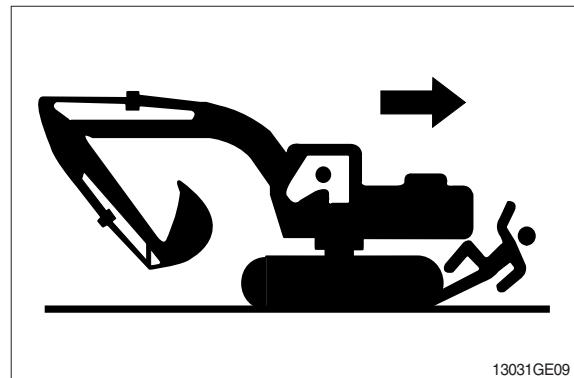


## MOVE AND OPERATE MACHINE SAFELY

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

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

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



## OPERATE ONLY FROM OPERATOR'S SEAT

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

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



## PARK MACHINE SAFELY

Before working on the machine:

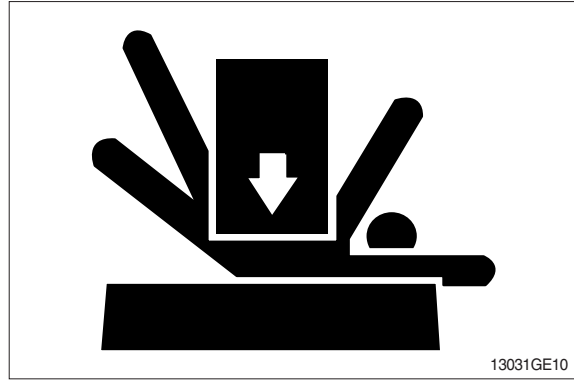
- Park machine on a level surface.
- Lower bucket to the ground.
- Turn auto idle switch off.
- Run engine at 1/2 speed without load for 2 minutes.
- Turn key switch to OFF to stop engine.  
Remove key from switch.
- Move pilot control shutoff lever to locked position.
  - Allow engine to cool.

## 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.

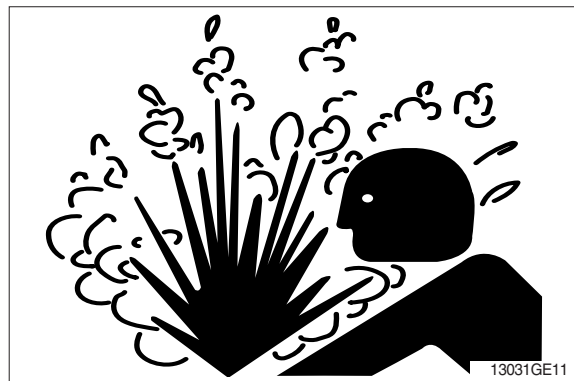
Do not work under a machine that is supported solely by a jack. Follow recommended procedures in this manual.



## 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

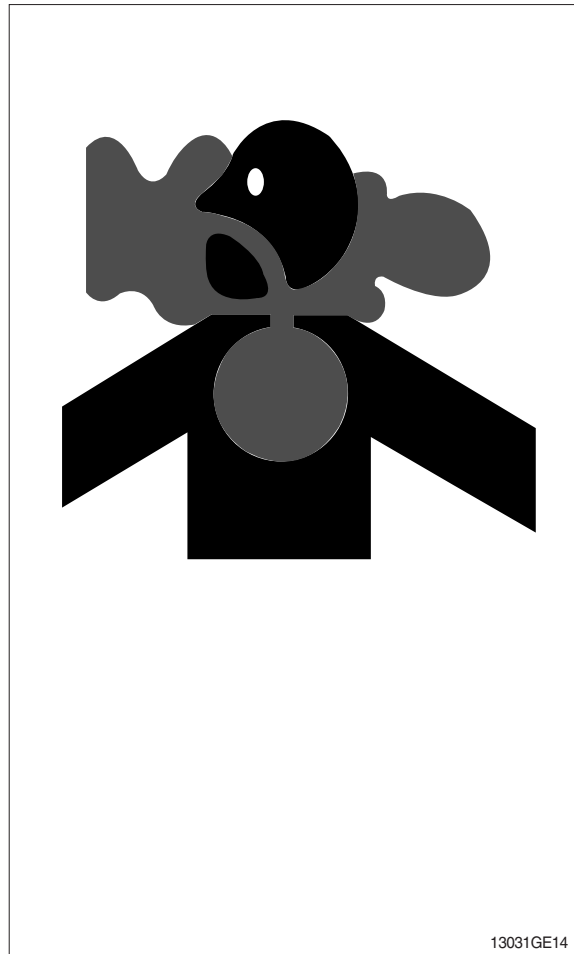
Avoid potentially toxic fumes and dust.

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.

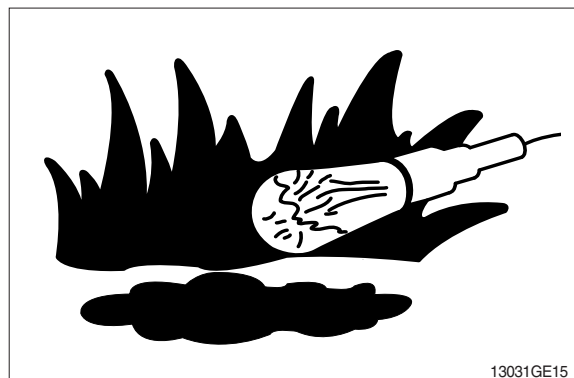
Remove paint before welding or heating:

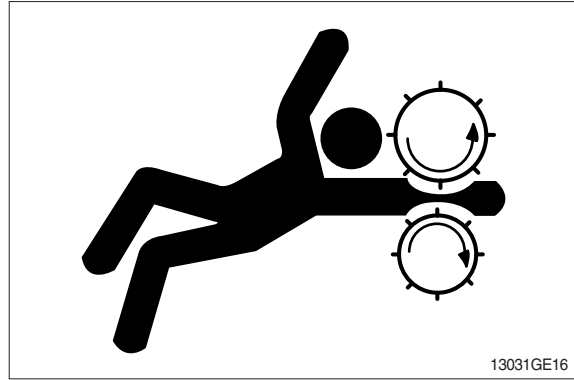
- If you sand or grind paint, avoid breathing the dust. Wear an approved respirator.
- If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from area. Allow fumes to disperse at least 15 minutes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

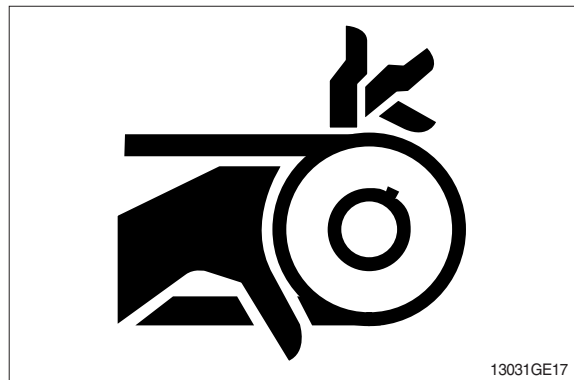




### STAY CLEAR OF MOVING PARTS

Entanglements in moving parts can cause serious injury.

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



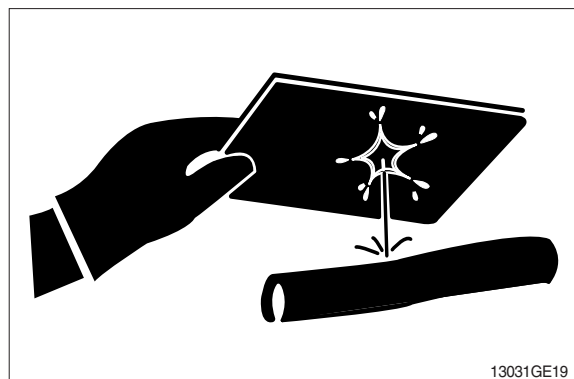
### AVOID HIGH PRESSURE FLUIDS

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:

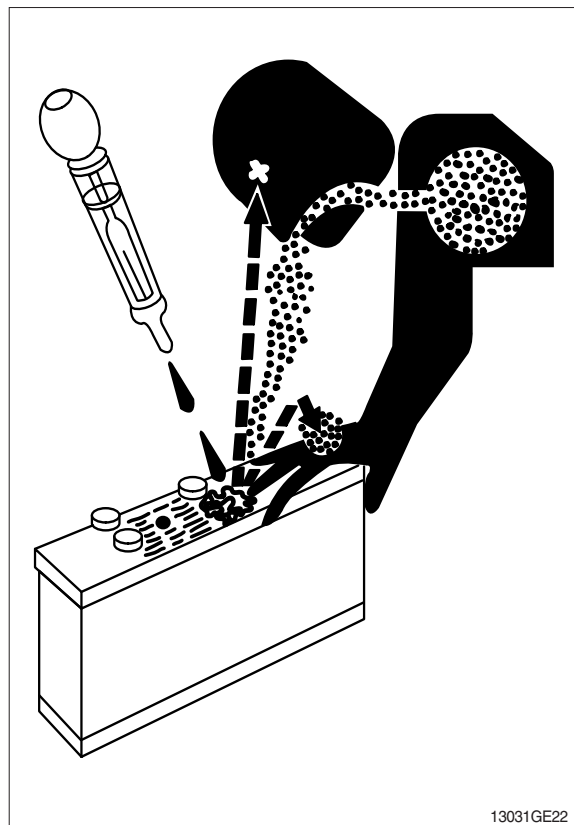
1. Filling batteries in a well-ventilated area.
2. Wearing eye protection and rubber gloves.
3. Avoiding breathing fumes when electrolyte is added.
4. Avoiding spilling or dripping electrolyte.
5. Use proper jump start procedure.

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.





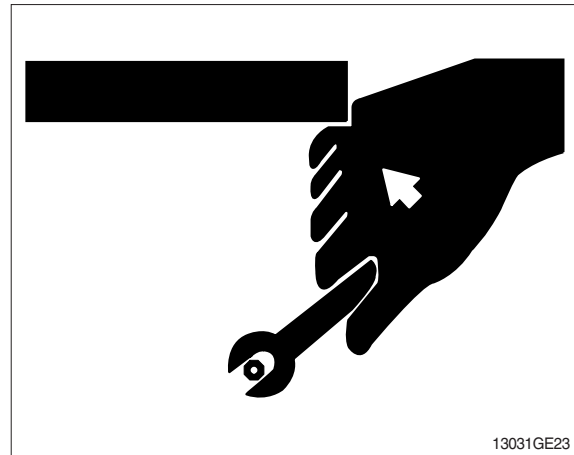
## USE TOOLS PROPERLY

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.)

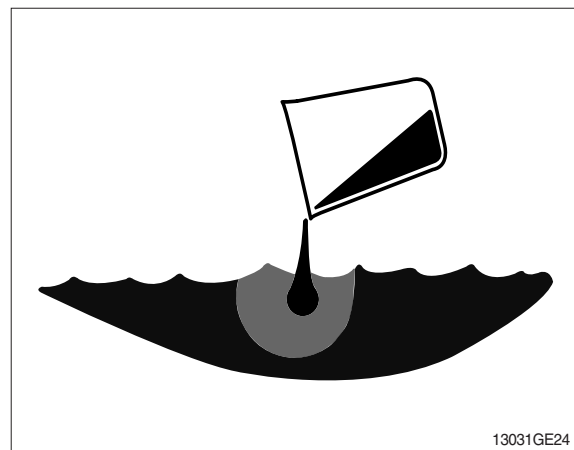


## DISPOSE OF FLUIDS PROPERLY

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.

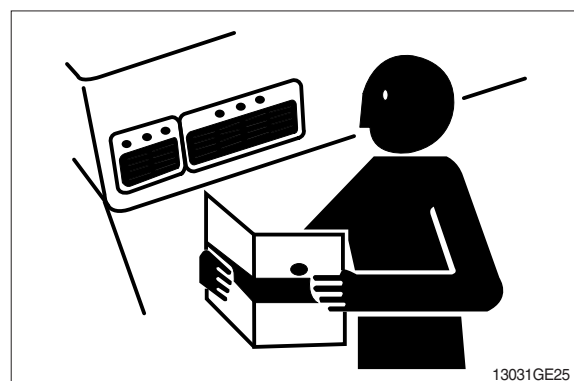
Use proper containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.

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.

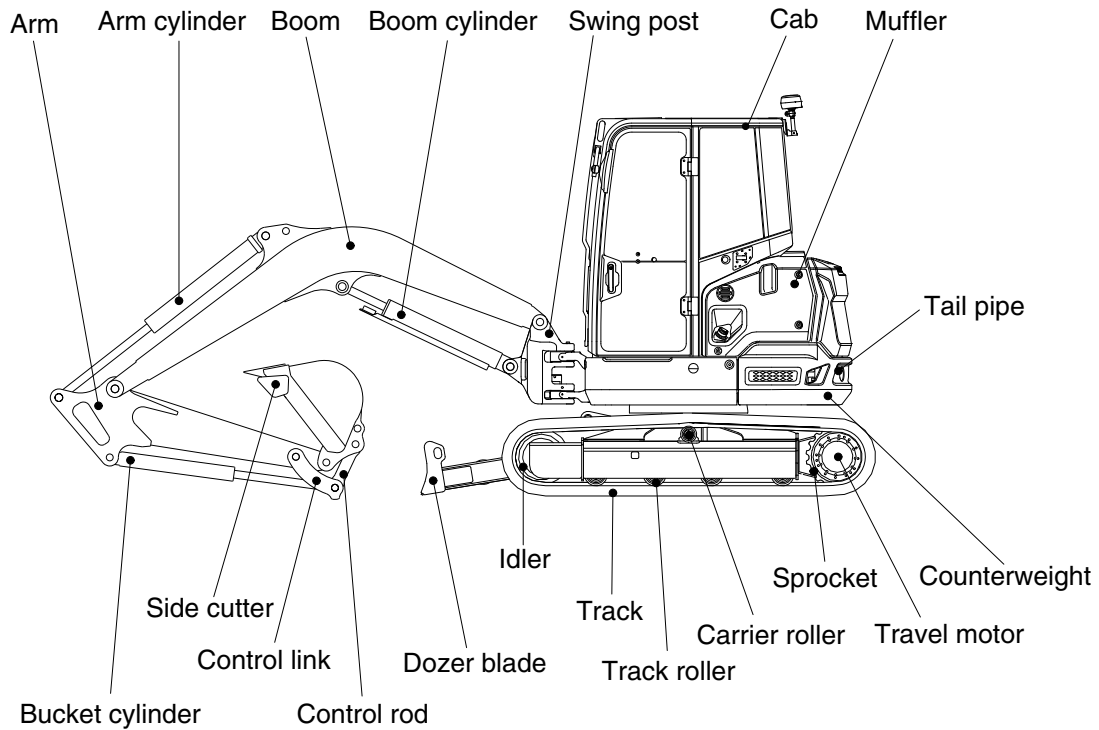
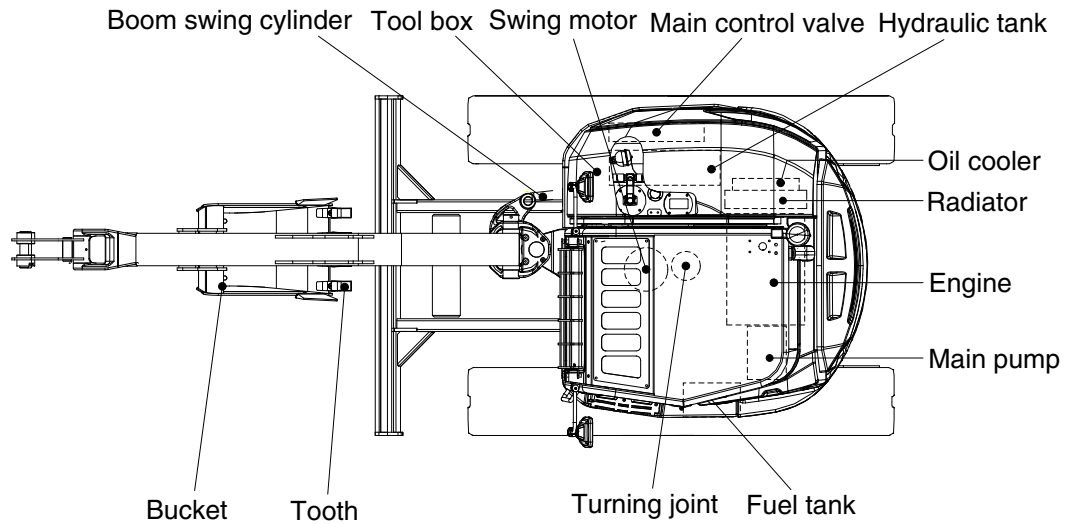


## LIVE WITH SAFETY

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

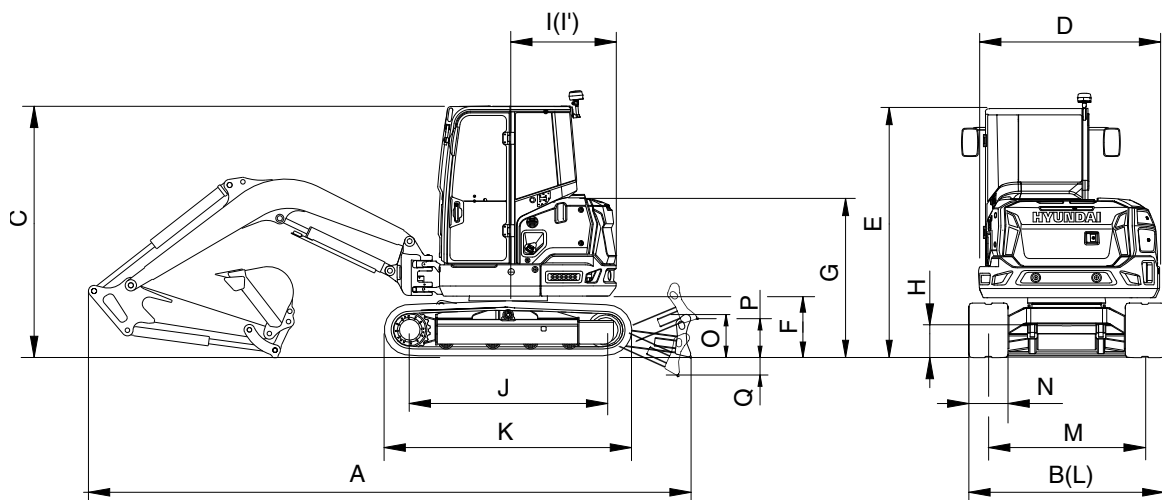


55ACR2SP01

## 2. SPECIFICATIONS

### 1) CAB TYPE

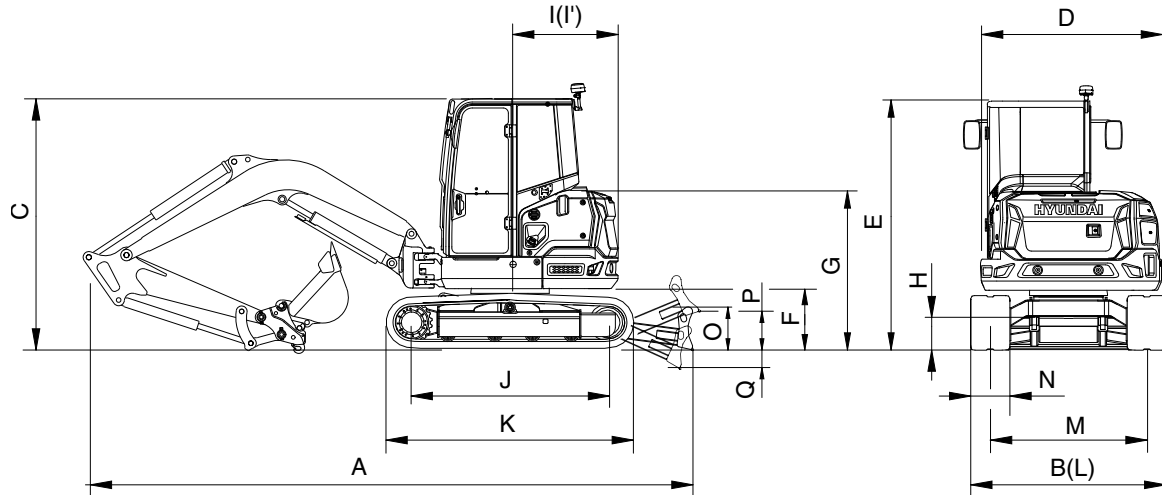
(1) 2.8 m (9' 2") boom, 1.65 m (5' 5") arm, steel track, without quick coupler (general standard)



55ACR2SP02

Description		Unit	Specification
Operating weight		kg (lb)	5635 (12420)
Bucket capacity (SAE heaped), standard		m3 (yd3)	0.15 (0.18)
Overall length	A	mm (ft-in)	5510 (18' 1")
Overall width, with 300 mm shoe	B		2000 ( 6' 7")
Overall width, with dozer	-		2000 ( 6' 7")
Overall height	C		2550 ( 8' 4")
Overall width of upper structure	D		1850 ( 6' 1")
Overall height of cab	E		2550 ( 8' 4")
Ground clearance of counterweight	F		608 ( 2' 0")
Overall height of engine hood	G		1600 ( 5' 3")
Minimum ground clearance	H		215 ( 0' 8")
Rear-end distance	I		1100 ( 3' 7")
Rear-end swing radius	I'		1100 ( 3' 7")
Distance between tumblers	J		2000 ( 6' 7")
Undercarriage length (without grouser)	K		2515 ( 8' 3")
Undercarriage width	L		2000 ( 6' 7")
Track gauge	M		1600 ( 5' 3")
Track shoe width, standard	N		400 ( 1' 4")
Height of blade	O		350 ( 1' 2")
Ground clearance of blade up	P		410 ( 1' 4")
Depth of blade down	Q		580 ( 1' 11")
Travel speed (low/high)		km/hr (mph)	2.6/4.7 (1.6/2.9)
Swing speed		rpm	10
Gradeability		Degree (%)	35
Ground pressure		kgf/cm <sup>2</sup> (psi)	0.33 (4.64)
Max traction force		kg (lb)	5662 (12480)

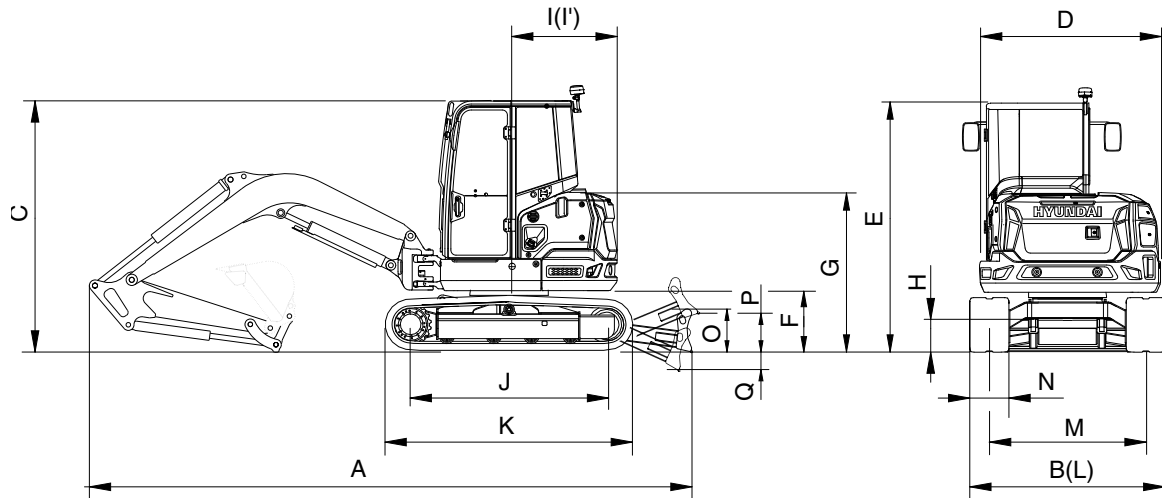
(2) 2.8 m (9' 2") boom, 1.4 m (4' 7") thumb bracket arm, rubber track, add counterweight with quick coupler (North america standard)



55ACR2SP03

Description		Unit	Specification
Operating weight		kg (lb)	5715 (12600)
Bucket capacity (SAE heaped), standard		m3 (yd3)	0.15 (0.18)
Overall length	A	mm (ft-in)	5490 (18' 0")
Overall width, with 300 mm shoe	B		2000 ( 6' 7")
Overall width, with dozer	-		2000 ( 6' 7")
Overall height	C		2555 ( 8' 5")
Overall width of upper structure	D		1850 ( 6' 1")
Overall height of cab	E		2555 ( 8' 5")
Ground clearance of counterweight	F		608 ( 2' 0")
Overall height of engine hood	G		1605 ( 5' 3")
Minimum ground clearance	H		215 ( 0' 8")
Rear-end distance	I		1175 ( 3' 10")
Rear-end swing radius	I'		1175 ( 3' 10")
Distance between tumblers	J		2000 ( 6' 7")
Undercarriage length (without grouser)	K		2515 ( 8' 3")
Undercarriage width	L		2000 ( 6' 7")
Track gauge	M		1600 ( 5' 3")
Track shoe width, standard	N		400 ( 1' 4")
Height of blade	O		350 ( 1' 2")
Ground clearance of blade up	P		410 ( 1' 4")
Depth of blade down	Q		580 ( 1' 11")
Travel speed (low/high)		km/hr (mph)	2.6/4.7 (1.6/2.9)
Swing speed		rpm	10
Gradeability		Degree (%)	35
Ground pressure		kgf/cm <sup>2</sup> (psi)	0.33 (4.67)
Max traction force		kg (lb)	5662 (12480)

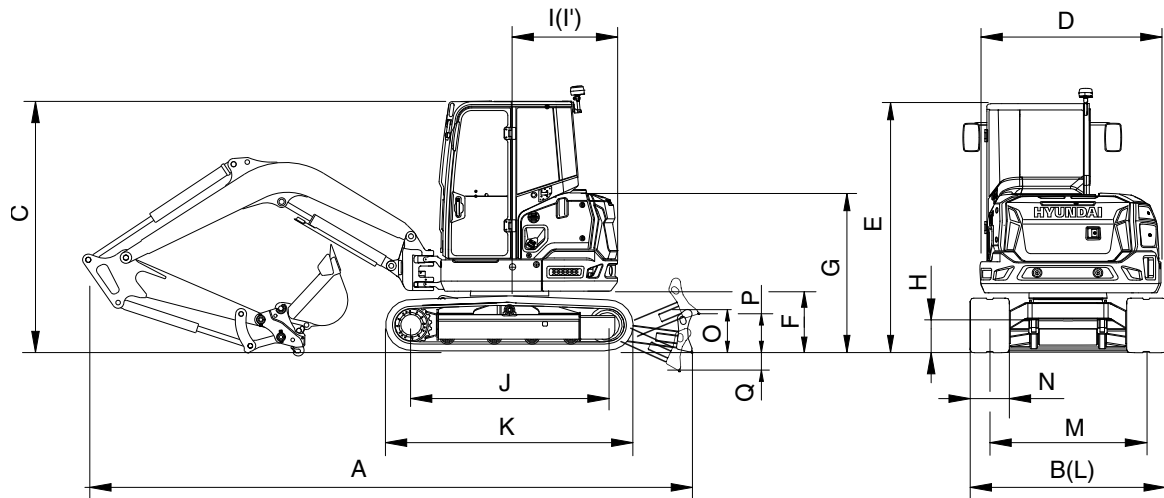
(3) 2.8 m (9' 2") boom, 1.4 m (4' 7") thumb bracket arm, rubber track, without bucket and without quick coupler (Europe standard)



55ACR2SP04

Description		Unit	Specification
Operating weight		kg (lb)	5355 (11810)
Bucket capacity (SAE heaped), standard		m3 (yd3)	0.15 (0.18)
Overall length	A	mm (ft-in)	5490 (18' 0")
Overall width, with 300 mm shoe	B		2000 ( 6' 7")
Overall width, with dozer	-		2000 ( 6' 7")
Overall height	C		2555 ( 8' 5")
Overall width of upper structure	D		1850 ( 6' 1")
Overall height of cab	E		2555 ( 8' 5")
Ground clearance of counterweight	F		608 ( 2' 0")
Overall height of engine hood	G		1605 ( 5' 3")
Minimum ground clearance	H		225 ( 0' 9")
Rear-end distance	I		1175 ( 3' 10")
Rear-end swing radius	I'		1175 ( 3' 10")
Distance between tumblers	J		2000 ( 6' 7")
Undercarriage length (without grouser)	K		2515 ( 8' 3")
Undercarriage width	L		2000 ( 6' 7")
Track gauge	M		1600 ( 5' 3")
Track shoe width, standard	N		400 ( 1' 4")
Height of blade	O		350 ( 1' 2")
Ground clearance of blade up	P		485 ( 1' 7")
Depth of blade down	Q		670 ( 2' 2")
Travel speed (low/high)		km/hr (mph)	2.6/4.7 (1.6/2.9)
Swing speed		rpm	10
Gradeability		Degree (%)	35
Ground pressure		kgf/cm <sup>2</sup> (psi)	0.31 (4.37)
Max traction force		kg (lb)	5662 (12480)

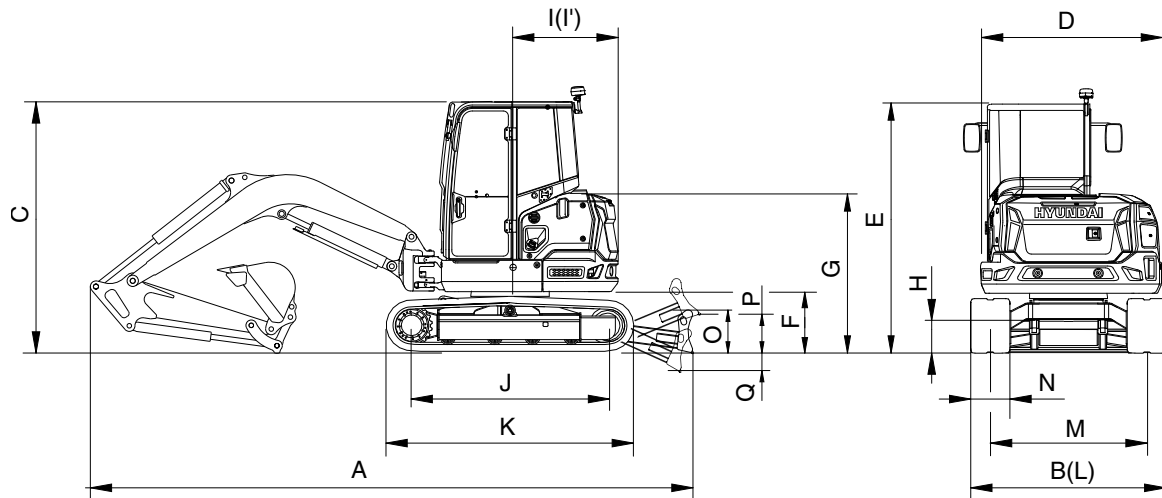
**(4) 2.8 m (9' 2") boom, 1.4 m (4' 7") arm, rubber track, with quick coupler (Oceania standard)**



55ACR2SP03

Description		Unit	Specification
Operating weight		kg (lb)	5585 (12310)
Bucket capacity (SAE heaped), standard		m3 (yd3)	0.15 (0.18)
Overall length	A	mm (ft-in)	5490 (18' 0")
Overall width, with 300 mm shoe	B		2000 ( 6' 7")
Overall width, with dozer	-		2000 ( 6' 7")
Overall height	C		2555 ( 8' 5")
Overall width of upper structure	D		1850 ( 6' 1")
Overall height of cab	E		2555 ( 8' 5")
Ground clearance of counterweight	F		608 ( 2' 0")
Overall height of engine hood	G		1605 ( 5' 3")
Minimum ground clearance	H		215 ( 0' 8")
Rear-end distance	I		1175 ( 3' 10")
Rear-end swing radius	I'		1175 ( 3' 10")
Distance between tumblers	J		2000 ( 6' 7")
Undercarriage length (without grouser)	K		2515 ( 8' 3")
Undercarriage width	L		2000 ( 6' 7")
Track gauge	M		1600 ( 5' 3")
Track shoe width, standard	N		400 ( 1' 4")
Height of blade	O		350 ( 1' 2")
Ground clearance of blade up	P		410 ( 1' 4")
Depth of blade down	Q		580 ( 1' 11")
Travel speed (low/high)		km/hr (mph)	2.6/4.7 (1.6/2.9)
Swing speed		rpm	10
Gradeability		Degree (%)	35
Ground pressure		kgf/cm <sup>2</sup> (psi)	0.32 (4.55)
Max traction force		kg (lb)	5662 (12480)

(5) 2.8 m (9' 2") boom, 1.4 m (4' 7") thumb bracket arm, rubber track, add counterweight without quick coupler and angle dozer (North america 2)

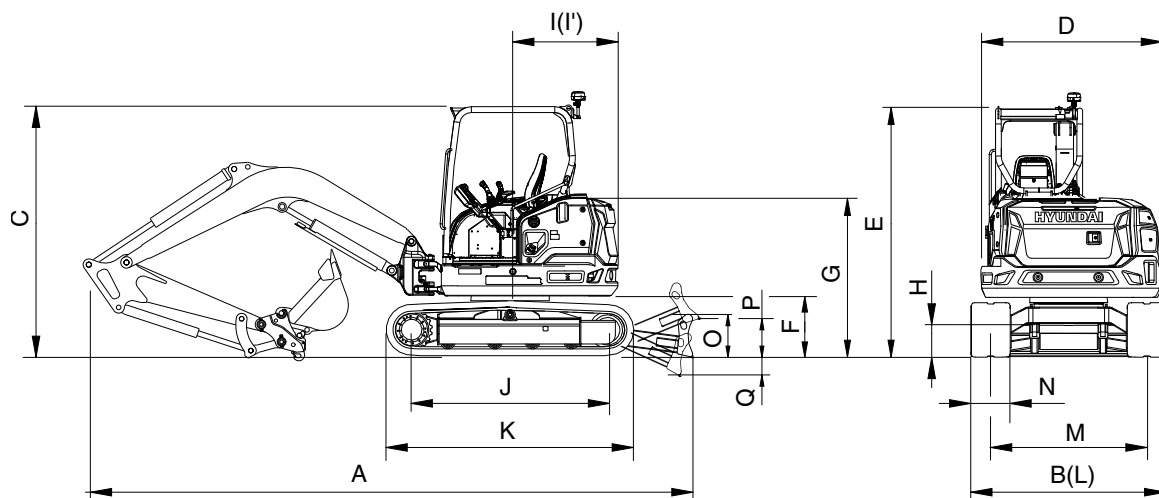


55ACR2SP02

Description		Unit	Specification
Operating weight		kg (lb)	5790 (12760)
Bucket capacity (SAE heaped), standard		m3 (yd3)	0.15 (0.18)
Overall length	A	mm (ft-in)	5490 (18' 0")
Overall width, with 300 mm shoe	B		2000 ( 6' 7")
Overall width, with dozer	-		2000 ( 6' 7")
Overall height	C		2580 ( 8' 6")
Overall width of upper structure	D		1850 ( 6' 1")
Overall height of cab	E		2580 ( 8' 6")
Ground clearance of counterweight	F		608 ( 2' 0")
Overall height of engine hood	G		1605 ( 5' 3")
Minimum ground clearance	H		225 ( 0' 9")
Rear-end distance	I		1175 ( 3' 10")
Rear-end swing radius	I'		1175 ( 3' 10")
Distance between tumblers	J		2000 ( 6' 7")
Undercarriage length (without grouser)	K		2515 ( 8' 3")
Undercarriage width	L		2000 ( 6' 7")
Track gauge	M		1600 ( 5' 3")
Track shoe width, standard	N		400 ( 1' 4")
Height of blade	O		400 ( 1' 4")
Ground clearance of blade up	P		485 ( 1' 7")
Depth of blade down	Q		670 ( 2' 2")
Travel speed (low/high)		km/hr (mph)	2.6/4.7 (1.6/2.9)
Swing speed		rpm	10
Gradeability		Degree (%)	35
Ground pressure		kgf/cm <sup>2</sup> (psi)	0.33 (4.72)
Max traction force		kg (lb)	5662 (12480)

## 2) CANOPY

(1) 2.8 m (9' 2") boom, 1.65 m (5' 5") long arm, rubber track, add counterweight with quick coupler (Oceania canopy 2)



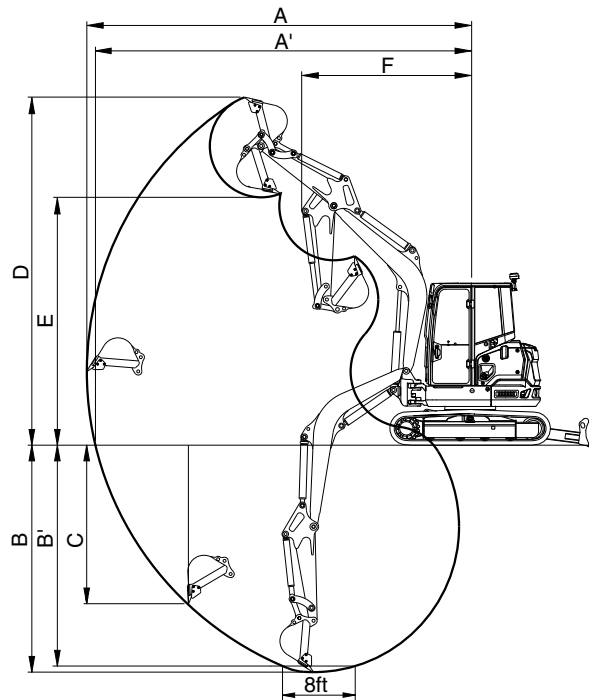
55ACR2SP05

Description		Unit	Specification
Operating weight		kg (lb)	5560 (12260)
Bucket capacity (SAE heaped), standard		m3 (yd3)	0.15 (0.18)
Overall length	A	mm (ft-in)	5510 (18' 1")
Overall width, with 300 mm shoe	B		2000 ( 6' 7")
Overall width, with dozer	-		2000 ( 6' 7")
Overall height	C		2580 ( 8' 6")
Overall width of upper structure	D		1850 ( 6' 1")
Overall height of cab	E		2580 ( 8' 6")
Ground clearance of counterweight	F		608 ( 2' 0")
Overall height of engine hood	G		1605 ( 5' 3")
Minimum ground clearance	H		225 ( 0' 9")
Rear-end distance	I		1175 ( 3' 10")
Rear-end swing radius	I'		1175 ( 3' 10")
Distance between tumblers	J		2000 ( 6' 7")
Undercarriage length (without grouser)	K		2515 ( 8' 3")
Undercarriage width	L		2000 ( 6' 7")
Track gauge	M		1600 ( 5' 3")
Track shoe width, standard	N		400 ( 1' 4")
Height of blade	O		400 ( 1' 4")
Ground clearance of blade up	P		485 ( 1' 7")
Depth of blade down	Q		670 ( 2' 2")
Travel speed (low/high)		km/hr (mph)	2.6/4.7 (1.6/2.9)
Swing speed		rpm	10
Gradeability		Degree (%)	35
Ground pressure		kgf/cm <sup>2</sup> (psi)	0.32 (4.54)
Max traction force		kg (lb)	5662 (12480)



### 3. WORKING RANGE

#### 1) 2.8 m (9' 2") BOOM, WITHOUT QUICK COUPLER (GENERAL STANDARD)

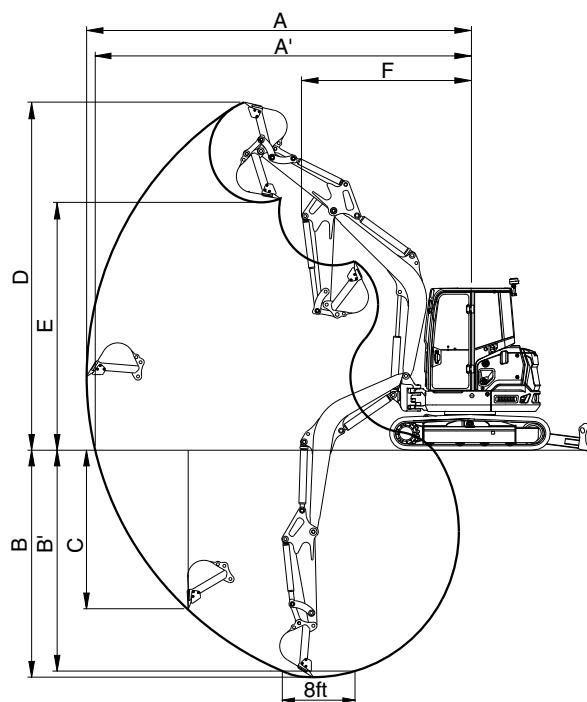


55ACR2SP10

Description		Unit	1.65 m (5' 5") Long arm
Max digging reach	A	mm (ft-in)	6230 ( 20' 5" )
Max digging reach on ground	A'		6100 ( 20' 0" )
Max digging depth	B		3750 ( 12' 4" )
Max digging depth (8ft level)	B'		3380 ( 11' 1" )
Max vertical wall digging depth	C		2900 ( 9' 6" )
Max digging height	D		5740 ( 18' 10" )
Max dumping height	E		4035 ( 13' 3" )
Min swing radius	F		2580 ( 8' 6" )
Boom swing radius (left/right)		degree	70°/60°
Bucket digging force	SAE	kN	38
		kgf	3835
		lbf	8454
	ISO	kN	43
		kgf	4340
		lbf	9567
Arm crowd force	SAE	kN	24
		kgf	2392
		lbf	5273
	ISO	kN	24
		kgf	2457
		lbf	5417

[ ] : Power boost

2) 2.8 m (9' 2") BOOM, ADD COUNTERWEIGHT, RUBBER TRACK, WITH QUICK COUPLER  
(NORTH AMERICA STANDARD)

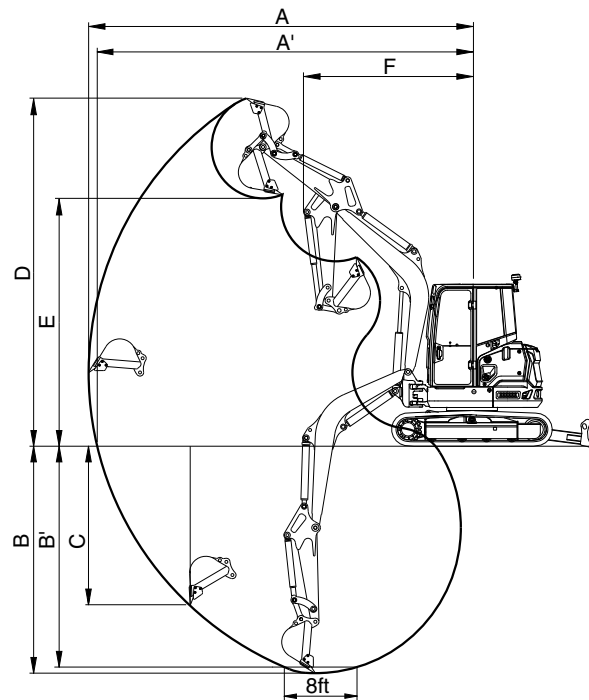


55ACR2SP10

Description		Unit	1.4 m (4' 7") Arm
Max digging reach	A	mm (ft-in)	6110 ( 20' 1" )
Max digging reach on ground	A'		5970 ( 19' 7" )
Max digging depth	B		3620 ( 11' 11" )
Max digging depth (8ft level)	B'		3240 ( 10' 8" )
Max vertical wall digging depth	C		1790 ( 5' 10" )
Max digging height	D		5670 ( 18' 7" )
Max dumping height	E		3740 ( 12' 3" )
Min swing radius	F		2540 ( 8' 4" )
Boom swing radius (left/right)		degree	70°/60°
Bucket digging force	SAE	kN	34
		kgf	3506
		lbf	7730
	ISO	kN	37
		kgf	3789
		lbf	8354
Arm crowd force	SAE	kN	25
		kgf	2512
		lbf	5539
	ISO	kN	25
		kgf	2559
		lbf	5642

[ ] : Power boost

3) 2.8 m (9' 2") BOOM, RUBBER TRACK, WITH BUCKET AND WITHOUT QUICK COUPLER  
(EUROPE STANDARD)

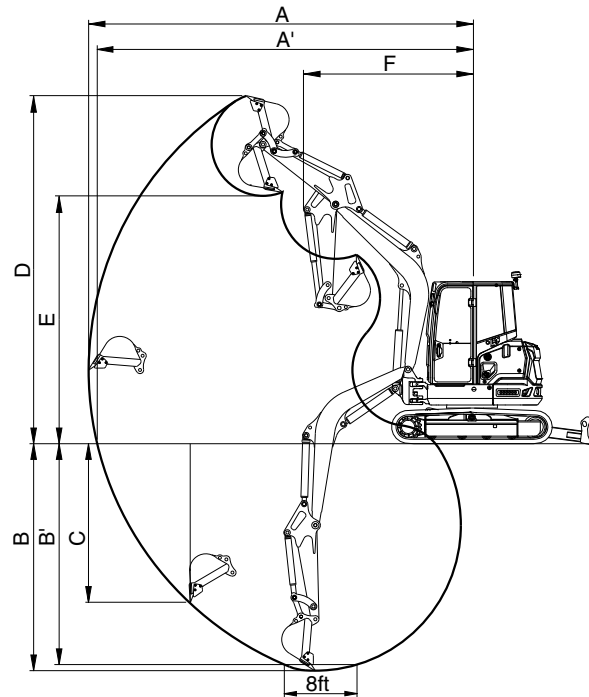


55ACR2SP10

Description		Unit	1.4 m (4' 7") Thumb bracket arm
Max digging reach	A	mm (ft-in)	5990 ( 19' 8" )
Max digging reach on ground	A'		5850 ( 19' 2" )
Max digging depth	B		3500 ( 11' 6" )
Max digging depth (8ft level)	B'		3095 ( 10' 2" )
Max vertical wall digging depth	C		2650 ( 8' 8" )
Max digging height	D		5570 ( 18' 3" )
Max dumping height	E		3860 ( 12' 8" )
Min swing radius	F		2540 ( 8' 4" )
Boom swing radius (left/right)		degree	70°/60°
Bucket digging force	SAE	kN	38
		kgf	3835
		lbf	8454
	ISO	kN	43
		kgf	4340
		lbf	9567
Arm crowd force	SAE	kN	26
		kgf	2661
		lbf	5866
	ISO	kN	27
		kgf	2744
		lbf	6050

[ ] : Power boost

4) 2.8 m (9' 2") BOOM, RUBBER TRACK, WITH QUICK COUPLER (OCEANIA STANDARD)

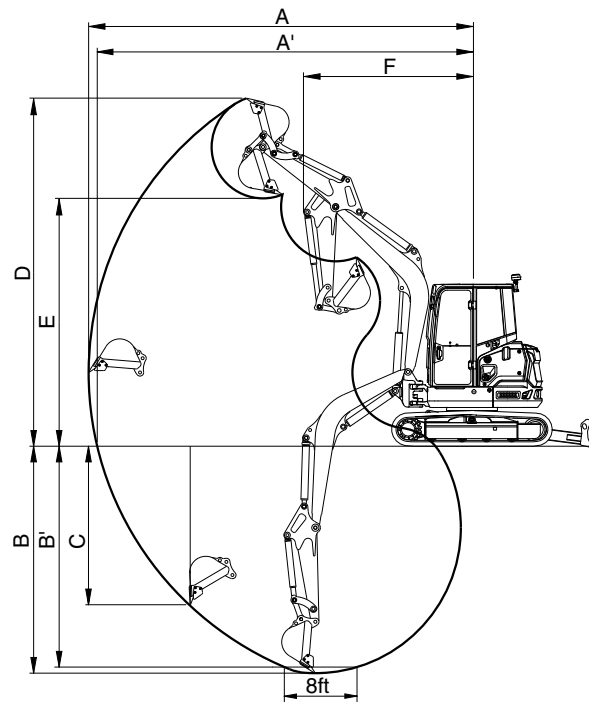


55ACR2SP10

Description		Unit	1.4 m (4' 7") Thumb bracket arm
Max digging reach	A	mm (ft-in)	6110 ( 20' 1" )
Max digging reach on ground	A'		5970 ( 19' 7" )
Max digging depth	B		3620 ( 11' 11" )
Max digging depth (8ft level)	B'		3240 ( 10' 8" )
Max vertical wall digging depth	C		1790 ( 5' 10" )
Max digging height	D		5670 ( 18' 7" )
Max dumping height	E		3740 ( 12' 3" )
Min swing radius	F		2540 ( 8' 4" )
Boom swing radius (left/right)		degree	70°/60°
Bucket digging force	SAE	kN	34
		kgf	3506
		lbf	7730
	ISO	kN	37
		kgf	3789
		lbf	8354
Arm crowd force	SAE	kN	25
		kgf	2512
		lbf	5539
	ISO	kN	25
		kgf	2559
		lbf	5642

[ ] : Power boost

5) 2.8 m (9' 2") BOOM, RUBBER TRACK, ANGLE DOZER AND WITHOUT QUICK COUPLER  
(NORTH AMERICA 2)

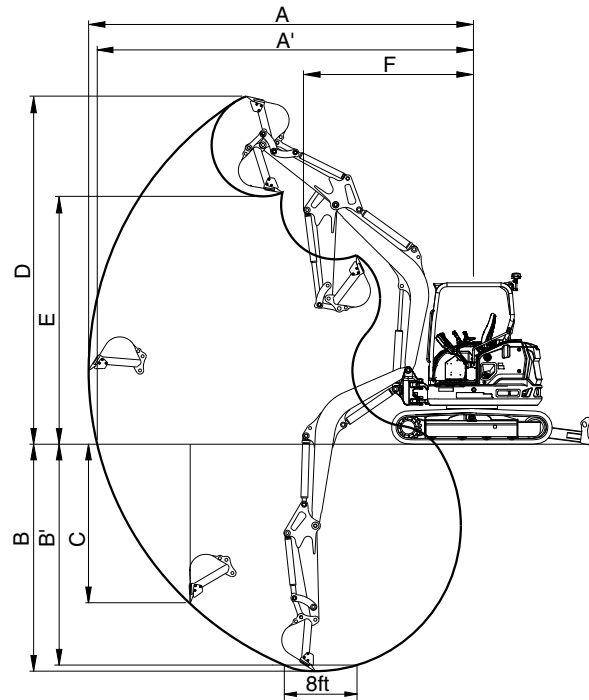


55ACR2SP10

Description		Unit	1.4 m (4' 7") Thumb bracket arm
Max digging reach	A	mm (ft-in)	5990 ( 19' 8" )
Max digging reach on ground	A'		5850 ( 19' 2" )
Max digging depth	B		3500 ( 11' 6" )
Max digging depth (8ft level)	B'		3095 ( 10' 2" )
Max vertical wall digging depth	C		2650 ( 8' 8" )
Max digging height	D		5570 ( 18' 3" )
Max dumping height	E		3860 ( 12' 8" )
Min swing radius	F		2540 ( 8' 4" )
Boom swing radius (left/right)		degree	70°/60°
Bucket digging force	SAE	kN	38
		kgf	3835
		lbf	8454
	ISO	kN	43
		kgf	4340
		lbf	9567
Arm crowd force	SAE	kN	26
		kgf	2661
		lbf	5866
	ISO	kN	27
		kgf	2744
		lbf	6050

[ ] : Power boost

6) 2.8 m (9' 2") BOOM, RUBBER TRACK, AND WITH QUICK COUPLER (OCEANIA CANOPY 2)



55ACR2SP11

Description		Unit	1.65 m (5' 5") Long arm
Max digging reach	A	mm (ft-in)	6350 (20' 10")
Max digging reach on ground	A'		6220 (20' 5")
Max digging depth	B		3870 (12' 8")
Max digging depth (8ft level)	B'		3520 (11' 7")
Max vertical wall digging depth	C		2010 ( 6' 7")
Max digging height	D		5840 (19' 2")
Max dumping height	E		3910 (12' 10")
Min swing radius	F		2580 ( 8' 6")
Boom swing radius (left/right)		degree	70°/60°
Bucket digging force	SAE	kN	34
		kgf	3506
		lbf	7730
	ISO	kN	37
		kgf	3789
		lbf	8354
Arm crowd force	SAE	kN	22
		kgf	2271
		lbf	5007
	ISO	kN	23
		kgf	2308
		lbf	5088

[ ] : Power boost

## 4. WEIGHT

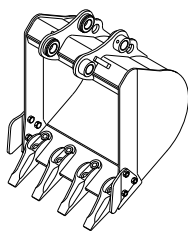
Item	kg	lb
Upperstructure assembly		
· Main frame weld assembly	667	1470
· Engine assembly (including DFP)	209	461
· Main pump assembly	25	54
· Main control valve assembly	55	121
· Swing motor assembly	46	101
· Hydraulic oil tank wa	74	163
· Fuel tank wa	12	26
· Counterweight	500	1102
· Counterweight-add	650	1433
· Cab assembly	455	1003
Lower chassis assembly		
· Track frame weld assembly	562	1239
· Dozer blade assembly	225	496
· Swing bearing	94	207
· Travel motor assembly	80	180
· Turning joint	26	57
· Sprocket	14	31
· Track recoil spring	24	53
· Idler	43.5	96
· Upper roller	5.5	12
· Lower roller	12.4	27
· Track-chain assembly-steel	315	694
· Track-chain assembly-rubber	228	503
Front attachment assembly		
· Boom assembly-2.8 m	186	410
· Arm assembly-1.4 m	89	196
· Arm assembly-1.4 m, thumb	92	203
· Arm assembly-1.65 m	108	239
· Arm assembly-1.65 m, thumb	112	246
· Bucket assembly	136	299
· Boom cylinder assembly	49	108
· Arm cylinder assembly	54	119
· Bucket cylinder assembly	37	82
· Cylinder assy-dozer	37	82
· Bucket control linkage total	35	76

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


※ Refer to transportation for actual weight information and specifications for operating weight.

※ The weight is based on one piece.

## 5. BUCKET SELECTION GUIDE



0.15 m<sup>3</sup>  
SAE heaped bucket

Capacity		Width		Weight	Recommendation	
					2.8 m (9' 2") boom	
SAE heaped	CECE heaped	Without side cutter	With side cutter		1.4 m (4' 7") arm	1.65 m (5' 5") arm
0.15 m³ (0.20 yd³)	0.13 m³ (0.17 yd³)	490 mm (19.3")	610 mm (24.0")		137 kg (302 lb)	

● Applicable for materials with density of 2100 kg/m<sup>3</sup> (3500 lb/yd<sup>3</sup>) or less

※ 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 with your local Hyundai dealer for information on selecting the correct boom-arm-bucket combination.

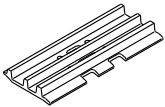



## 6. UNDERCARRIAGE

### 1) TRACKS

X-leg type center frame is integrally welded with reinforced box-section track frames. The design includes dry tracks, lubricated rollers, idlers, sprockets, hydraulic track adjusters with shock absorbing springs and assembled track-type tractor shoes with double grousers.

### 2) TYPES OF SHOES

Model	Shapes		Steel triple grouser	Rubber track
				
HX55A CR	Shoe width	mm (in)	400 (16")	400 (16")
	Operating weight	kg (lb)	5635 (12420)	5485 (12090)
	Ground pressure	kgf/cm <sup>2</sup> (psi)	0.33 (4.64)	0.29 (4.10)
	Overall width	mm (ft-in)	2000 ( 6' 7")	2000 ( 6' 7")

### 3) NUMBER OF ROLLERS AND SHOES ON EACH SIDE

Item	Quantity
Carrier rollers	1EA
Track rollers	4EA
Track shoes (steel grouser)	39EA

#### 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**

Model	Track shoe	Specification	Category
HX55A CR	T/chain-triple for mini (400 mm)	Option	B
	T/chain-rubber for rail interlocking (400 mm)	Standard	A

**Table 2**

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

## 7. SPECIFICATIONS FOR MAJOR COMPONENTS

### 1) ENGINE

Item	Specification
Model	Yanmar 4TNV86CT
Type	4 cycle, inline, water-cooled diesel engine
Cooling method	Water cooling
Number of cylinders and arrangement	4 cylinders, in-line
Firing order	1-3-4-2
Combustion chamber type	Direct injection
Cylinder bore × stroke	86 × 90 mm (3.46" × 3.39")
Piston displacement	2091 cc (128 cu in)
Compression ratio	19.2
Rated gross horse power (SAE J1995)	47.6 hp (35.5 kW)
Rated net horse power (SAE J1995)	-
Max. power	47.6 hp (35.5 kW)
Peak torque	176.6 N · m (130.3 lbf · ft)
Engine oil quantity	7.4 ℓ (1.95 U.S. gal)
Dry weight	239 kg (527 lb)
Starting motor	12V-3.0 kW
Alternator	12V-80 A

### 2) MAIN PUMP

Item	Specification
Type	AL A10V O 63LA7DS (Load sensing system)
Capacity	63 cc/rev
Maximum pressure	275 kgf/cm <sup>2</sup> (3920 psi)
Rated oil flow	138 ℓ /min (36.5 U.S. gpm / 30.4 U.K. gpm)
Rated speed	2200 rpm

### 3) MAIN CONTROL VALVE

Item		Specification
Type		10EL, RS12 (load sensing system)
Operating method		Hydraulic pilot system
Main relief valve pressure		254 kgf/cm <sup>2</sup> (3613 psi)
Overload relief valve pressure	Boom	295 kgf/cm <sup>2</sup> (4196 psi)
	Arm	275 kgf/cm <sup>2</sup> (3912 psi)
	Bucket	275 kgf/cm <sup>2</sup> (3912 psi)

### 4) SWING MOTOR

Item		Specification
Type		Hydraulic radial motor
Capacity		500 cc
Relief pressure		350 kgf/cm <sup>2</sup> (4980 psi)
Braking system		Automatic, spring applied hydraulic released
Braking torque		181.5 kgf · m (1313 lbf · ft)
Brake release pressure		12~30 kgf/cm <sup>2</sup> (171~427 psi)

### 5) TRAVEL MOTOR

Item		Specification
Type		Two fixed displacement axial piston motor
Capacity		47.0/25.0 cc/rev
Relief pressure		285 kgf/cm <sup>2</sup> (4060 psi)
Reduction gear type		2-stage planetary
Braking system		Automatic, spring applied hydraulic released
Brake release pressure		12 kgf/cm <sup>2</sup> (171 psi)
Braking torque		14.5 kgf · m (105 lbf · ft)

## 6) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	Ø95 × Ø55 × 643 mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	Ø85 × Ø55 × 710 mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	Ø80 × Ø50 × 590 mm
	Cushion	-
Boom swing cylinder	Bore dia × Rod dia × Stroke	Ø80 × Ø50 × 525 mm
	Cushion	-
Dozer cylinder	Bore dia × Rod dia × Stroke	Ø115 × Ø60 × 212 mm
	Cushion	-
Dozer cylinder (DPC)	Bore dia × Rod dia × Stroke	Ø115 × Ø60 × 212 mm
	Cushion	-
Angle swing cylinder	Bore dia × Rod dia × Stroke	Ø95 × Ø45 × 335 mm
	Cushion	-

※ 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.

## 7) BUCKET

Item	Capacity		Tooth quantity	Width	
	SAE heaped	CECE heaped		Without side cutter	With side cutter
STD	0.15 m <sup>3</sup> (0.20 yd <sup>3</sup> )	0.13 m <sup>3</sup> (0.17 yd <sup>3</sup> )	4	490 mm (19.3")	610 mm (24.0")

## 8. RECOMMENDED OILS

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

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

Service point	Kind of fluid	Capacity ℓ (U.S. gal)	Ambient temperature °C ( °F)								
			-50 (-58)	-30 (-22)	-20 (-4)	-10 (14)	0 (32)	10 (50)	20 (68)	30 (86)	40 (104)
Engine oil pan	Engine oil	7.4 (2.0)	SAE 5W-40								
			★SAE 0W-40								
			SAE 5W-30								
			SAE 15W-40								
Final drive	Gear oil	1.1×2 (0.29×2)	★SAE 75W-90								
			SAE 80W-90								
Hydraulic tank	Hydraulic oil	Tank: 44 (11.6) System: 63 (16.6)	★ISO VG 15								
			ISO VG 32								
			ISO VG 46* <sup>3</sup>								
			ISO VG 68								
Fuel tank	Diesel fuel★ <sup>1</sup>	66.8 (17.6)	★ASTM D975 NO.1								
			ASTM D975 NO.2								
Fitting (grease nipple)	Grease	As required	★NLGI NO.1								
			NLGI NO.2								
Radiator (reservoir tank)	Mixture of antifreeze and soft water★ <sup>2</sup>	11.5 (3.0)	Ethylene glycol base permanent type (50 : 50)								
			★Ethylene glycol base permanent type (60 : 40)								

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

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

※ For HYUNDAI genuine lubricating oils and grease for use in regions with extremely low temperatures, please contact your local Hyundai dealer.

**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

★<sup>1</sup> : Ultra low sulfur diesel

- sulfur content ≤ 10 ppm

★<sup>2</sup> : Soft water

City water or distilled water

★<sup>3</sup> : HD Hyundai Bio hydraulic oil