HYDRAULIC EXCAVATOR

SHOP MANUAL model SK25SR SK30SR SK35SR

This is the shop manual for KOBELCO hydraulic excavator. Contained is the necessary technical data concerning the maintenance and repair of this model. The manual is divided into the following four major sections ; GENERAL, SYSTEMS, COMPONENTS and PROCEDURE.

When checking or repairing the machine we suggest that you refer to this manual carefully. We hope that reference to this manual will help to maintain a hight level of working efficiency and reliability. For further details on maintenance and cheks refer to the "OPERATORS MANUAL" which has been supplied with the machine.

Although all data was correct at the time of printing, due to continual design changes and improvements, some contents may not conform to the actual machine. Take special care to order parts only after confirming the validity of the part number in the "PARTS MANUAL".

If you notice any explanatory discrepancies, after consulting one of our representatives, please updata your manual according to the latest data. However, in the event of any specification changes, we will issue revised edition.

INDEX

KOBELCO

Book code No. S5PW0001E②

⚠ WARNING

SAFETY

⚠ WARNING

The proper and safe lubrication and maintenance for this machine, recommended by KOBELCO are outlined in the OPERATION & MAINTENANCE GUIDE for this machine.

Improper performance of lubrication or maintenance procedures is dangerous and could result in injury or death. Read and understand the OPERATION & MAINTENANCE GUIDE before performing any lubrication or maintenance.

The serviceman or mechanic may be unfamiliar with many of the systems on this machine. This makes it important to use caution when performing service work. A knowledge of the system and or components is important before the removal or disassembly of any component.

Because of the size of some of the machine components, the serviceman or mechanic should check the weights noted in this Manual. Use proper lifting procedures when removing any components.

Following is a list of basic precautions that should always be observed.

1. Read and understand all Warning plates and decals on the machine before operating, lubricating or repairing this product.

2. Always wear protective glasses and protective shoes when working around machines. In particular, wear protective glasses when pounding on any part of the machine or its attachments with a hammer or sledge. Use welders gloves, hood/goggles, apron and other protective clothing appropriate to the welding job being performed. Do not wear loose-fitting or torn clothing. Remove all rings from fingers when working on machinery.

3. Disconnect battery and discharge any capacitors before starting to work on machine. Hang "Do Not Operate" tag in the Operator's Cab.
4. If possible, make all repairs with the machine parked on a level, hard surface. Block machine so it does not roll while working on or under machine.

5. Do not work on any machine that is supported only by lift jacks or a hoist. Always use blocks or jack stands to support the machine before performing any disassembly.

⚠ WARNING

Do not operate this machine unless you have read and understand the instructions in the OPERATORS MANUAL. Improper machine operation is dangerous and could result in injury or death.

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6. Relieve all pressure in air, oil or water systems before any lines, fittings or related items are disconnected or removed. Always make sure all raised components are blocked correctly and be alert for possible pressure when disconnecting any device from a system that utilizes pressure.

7. Lower the bucket, blade, ripper or other attachment to the ground before performing any work on the machine. If this cannot be done, make sure the bucket, blade, ripper or other attachment is blocked correctly to prevent it from dropping unexpectedly.

8. Use steps and grab handles when mounting or dismounting a machine. Clean any mud or debris from steps, walkways or work platforms before using. Always face machine when using steps, ladders and walkways. When it is not possible to use the designed access system, provide ladders, scaffolds, or work platforms to perform safe repair operations.

9. To avoid back injury, use a hoist when lifting components which weigh 23 kg (50 lbs) or more. Make sure all chains, hooks, slings, etc., are in good condition and are in the correct capacity. Be sure hooks are positioned correctly. Lifting eyes are not to be side loaded during a lifting operation.

10. To avoid burns, be alert for hot parts on machines which have just been stopped and hot fluids in lines, tubes and components.

11. Be careful when removing cover plates. Gradually back off the last two bolts or nuts located at opposite ends of the cover or device and pry cover loose to relieve any spring or other pressure, before removing the last two bolts or nuts completely.

12. Be careful when removing filler caps, breathers and plugs on the machine. Hold a rag over the cap or plug to prevent being sprayed or splashed by liquids under pressure. The danger is even greater if the machine has just been stopped because fluids can be hot.

⚠ WARNING

13. Always use tools that are in good condition and be sure you understand how to use them before performing any service work.

14. Reinstall all fasteners with same part number. Do not use a lesser quality fastener if replacements are necessary.

15. Repairs which require welding should be performed only with the benefit of the appropriate reference information and by personnel adequately trained and knowledgeable in welding procedures. Determine type of metal being welded and select correct welding procedure and electrodes, rods or wire to provide a weld metal strength equivalent at least to that of parent metal. Always disconnect battery during welding operations to protect sensitive electric equipment.

16. Do not damage wiring during removal operations. Reinstall the wiring so it is not damaged nor will it be damaged in operation by contacting sharp corners, or by rubbing against some object or hot surface. Do not connect wiring to a line containing fluid.

17. Be sure all protective devices including guards and shields are properly installed and functioning correctly before starting a repair. If a guard or shield must be removed to perform the repair work, use extra caution.

18. Loose or damaged fuel, lubricant and hydraulic lines, tubes and hoses can cause fires. Do not bend or strike high pressure lines or install ones which have been bent or damaged. Inspect lines, tubes and hoses carefully. Do not check for leaks with your hands. Pin hole (very small) leaks can result in a high velocity oil stream that will be invisible close to the hose. This oil can penetrate the skin and cause personal injury. Use cardboard or paper to locate pin hole leaks.

19. Tighten connections to the correct torque. Make sure that all heat shields, clamps and guards are installed correctly to avoid excessive heat, vibration or rubbing against other parts during operation. Shields that protect against oil spray onto hot exhaust components in event of a line, tube or seal failure must be installed correctly.

20. Do not operate a machine if any rotating part is damaged or contacts any other part during operation. Any high speed rotating component that has been damaged or altered should be checked for balance before reusing.

21. On track-type machines, be careful when servicing or separating tracks. Chips can fly when removing or installing a track pin. Wear safety glasses and long sleeve shirts. Track can unroll very quickly when separated. Keep away from front and rear of machine. The machine can move unexpectedly when both tracks are disengaged from the sprockets. Block the machine to prevent it from moving.

22. Caution should be used to avoid breathing dust that may be generated when handling components containing asbestos fibers. If this dust is inhaled, it can be hazardous to your health. Components in KOBELCO products that may contain asbestos fibers are brake pads, brake band and lining assemblies, clutch plates and some gaskets. The asbestos used in these components is usually bound in a resin or sealed in some way. Normal handling is not hazardous as long as airborne dust which contains asbestos is not generated.

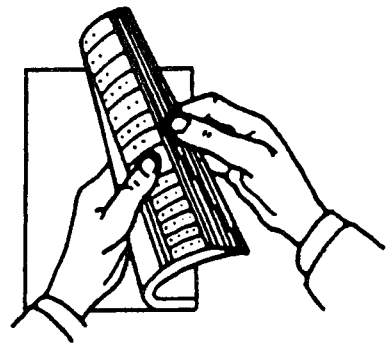
If dust which may contain asbestos is present, there are several common sense guidelines that should be followed.

a. Never use compressed air for cleaning.
b. Avoid brushing or grinding of asbestos containing materials.
c. For clean up, use wet methods or a vacuum equipped with a high efficiency particulate air (HEPA) filter.
d. Use exhaust ventilation on permanent machining jobs.
e. Wear an approved respirator if there is no other way to control the dust.
f. Comply with applicable rules and regulations for the work place.
g. Follow environmental rules and regulations for disposal of asbestos.
h. Avoid areas where asbestos particles may be in the air.

SHOP MANUAL model SK25SR SK30SR SK35SR

TABLE OF CONTENTS

○How to Index each Shop Manual Section
The GENERAL of this shop manual consists of 8 headings as shown above. Each section can be easily referred to by indexes appended to the margin of the page as indicated on the right. Please use the indexes for speedy reference.



KOBELCO

GENERAL

SK25SR
SK30SR List of Shop Manual GENERAL Section
SK35SR

Index No.	Title	Book Code No. — Distribution Year−Month		
	Applicable Machines	SK25SR PV10001～12000 ※PV12001～	SK30SR PW07001～09500 ※PW09501～	SK35SR PX05601～06500 ※PX06501～
PW01	SPECIFICATION	S5PW0101E② 1999−4	←	←
—	OPERATION	S2PW0001E① ※S2PW0003E Refer to Operators manual	←	←
PW03	LOCATION AND WEIGHT OF COMPONENTS	S5PW0301E② 1999−4	←	←
PW04	MAINTENANCE STANDARDS AND TEST PROCEDURES	S5PW0401E② 1999−4	←	←
—	—	—	—	—
—	PREVENTIVE MAINTENANCE	S2PW0001E① ※S2PW0003E Refer to Operators manual	←	←
PW07	WAOPKING STANDARDS	S5PW0701E 1997−5	←	←

• First edition : May, 1997
• First revision : March, 1998
• Second revision : April, 1999

KOBELCO

Book Code No. S5PW01 01E②

SK25SR
SK30SR
SK35SR

SHOP MANUAL

PW01

SPECIFICATION

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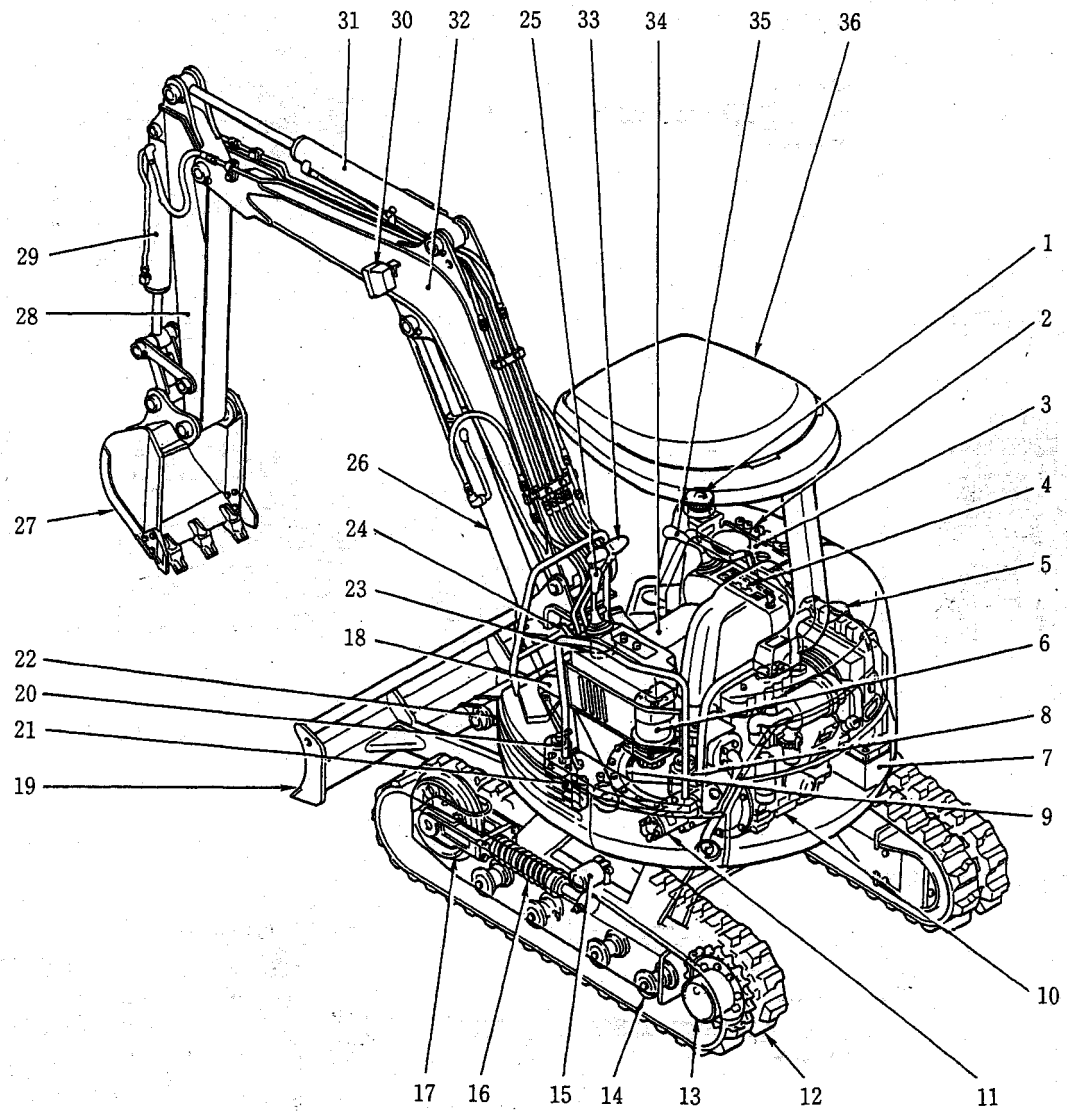
KOBE STEEL, LTD.

Applicable Machines

SK25SR : PV10001~
SK30SR : PW07001~
SK35SR : PX05001~

Revision	Date of Issue	Remarks	
First edition	May, 1997	S5PW1501E	S
First revision	March, 1998	S5PW1501E①	S
Second revision	April, 1999	S5PW1501E②	S

1. NAME OF COMPONENTS

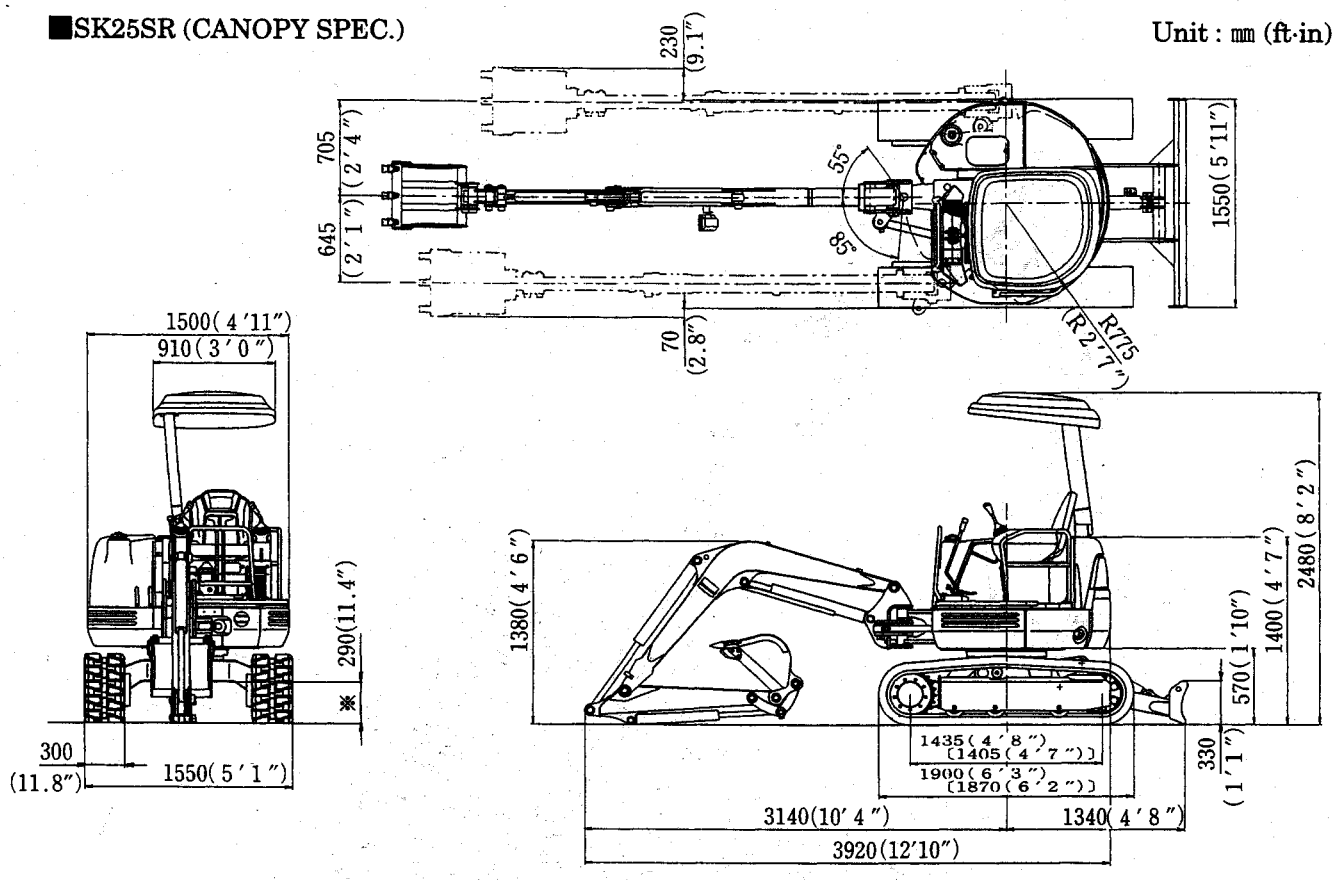


① FUEL TANK
② CONTROL VALVE
③ HYDRAULIC TANK
④ INSTRUMENT PANEL
⑤ RADIATOR
⑥ SLEWING MOTOR
⑦ BATTERY
⑧ SWIVEL JOINT
⑨ SLEWING RING
⑩ ENGINE
⑪ HYDRAULIC PUMP
⑫ RUBBER SHOE
⑬ TRAVELING MOTOR
⑭ LOWER ROLLER
⑮ UPPER ROLLER
⑯ TRACK ADJUSTER
⑰ IDLER
⑱ SWING CYLINDER
⑲ DOZER BLADE
⑳ MULTI CONTROL VALVE (OPTION)
㉑ SOLENOID VALVE
㉒ DOZER BLADE CYLINDER
㉓ PILOT VALVE
㉔ SAFETY LEVER
㉕ LEFT OPERATING LEVER
㉖ BOOM CYLINDER
㉗ BUCKET
㉘ ARM
㉙ BUCKET CYLINDER
㉚ WORKING LIGHT
㉛ ARM CYLINDER
㉜ BOOM
㉝ TRAVEL LEVER
㉞ OPERATOR SEAT
㉟ RIGHT OPERATING LEVER
㊱ CANOPY

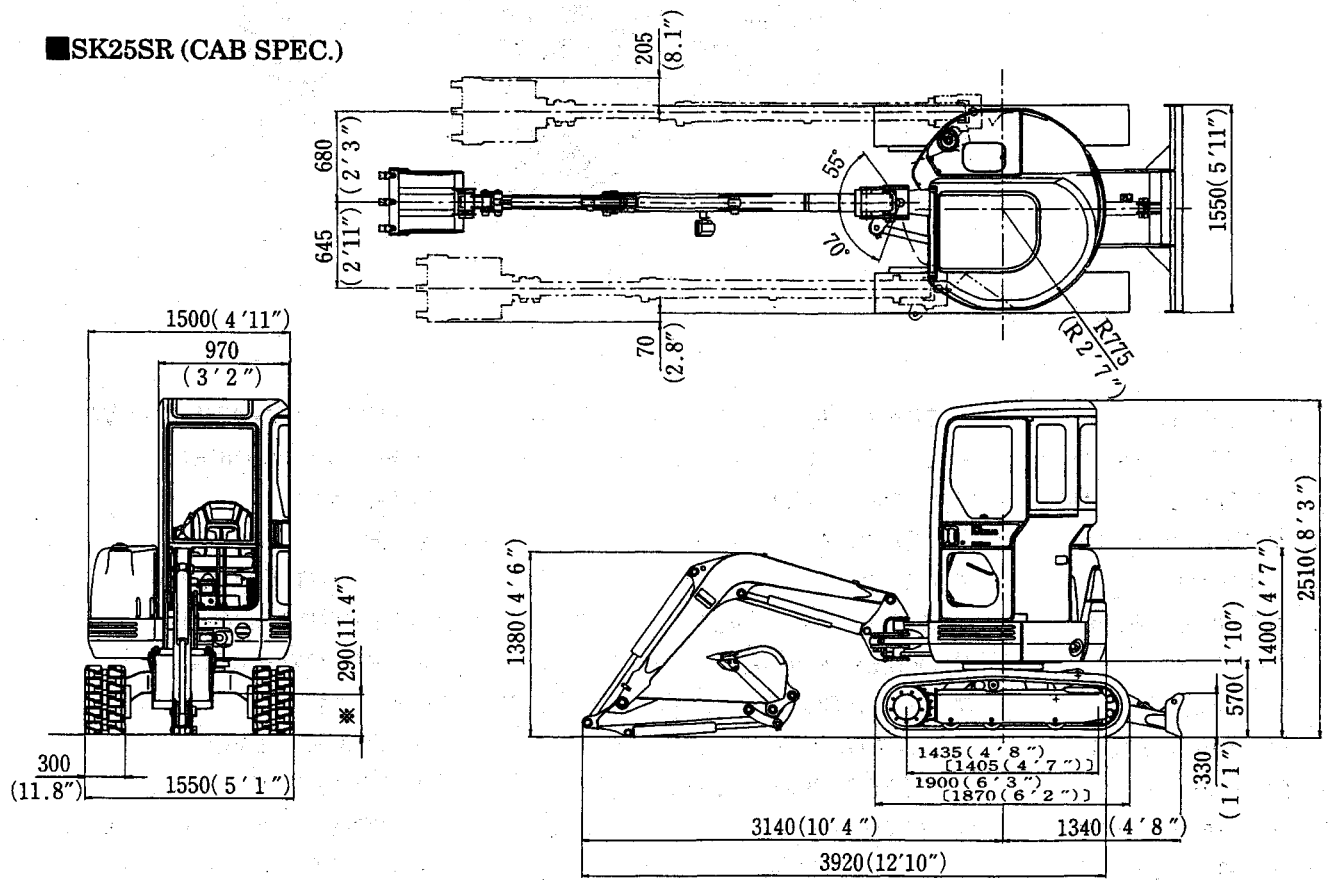
2. GENERAL DIMENSIONS

■SK25SR (CANOPY SPEC.)

Unit : mm (ft·in)



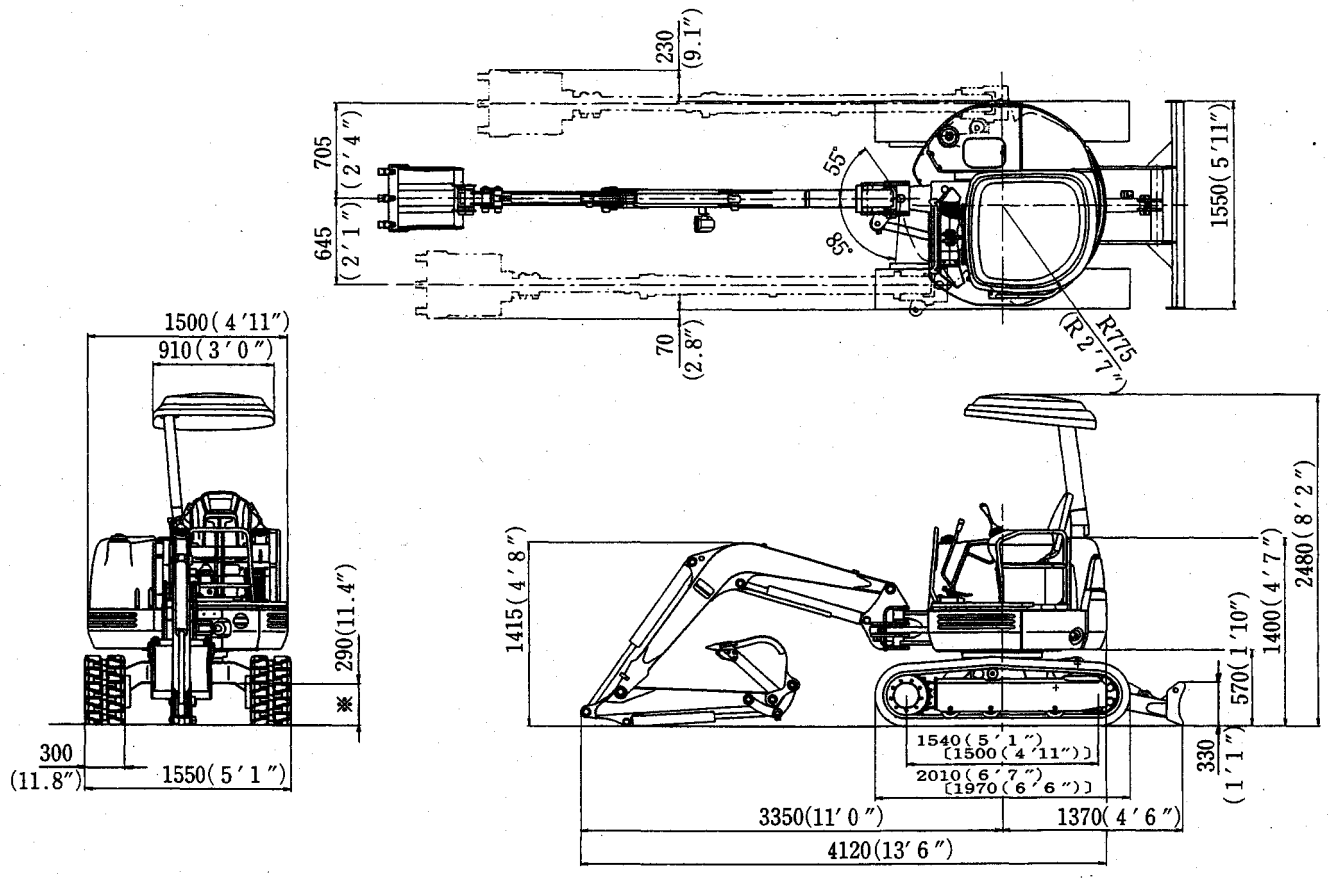
■SK25SR (CAB SPEC.)



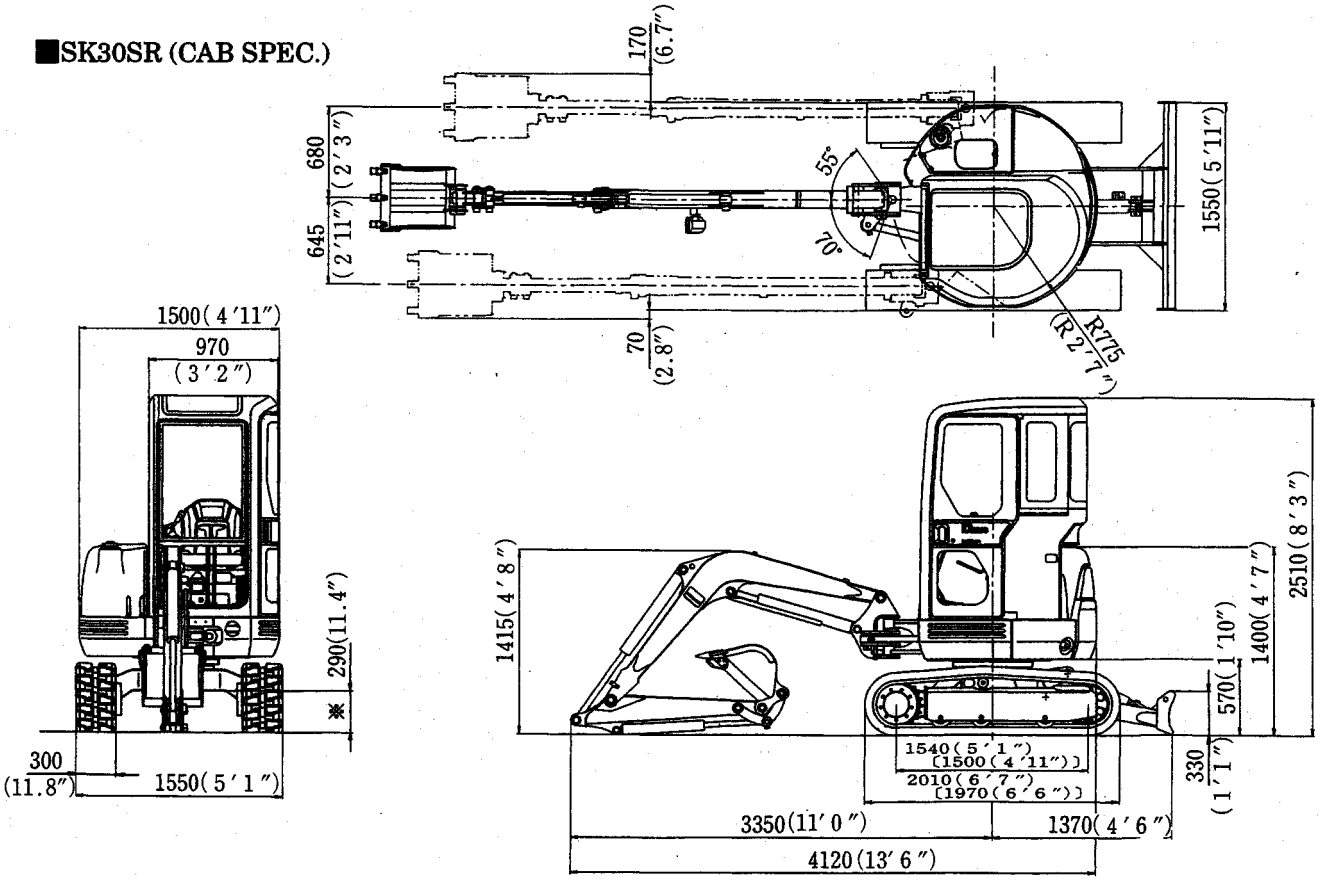
NOTE : Numerical values marked ※ do not include the height of the shoe lug.
Numerical values enclosed in parentheses 〔 〕 indicate steel crawler specifications.

■SK30SR (CANOPY SPEC.)

Unit : mm (ft·in)



■SK30SR (CAB SPEC.)



NOTE : Numerical values marked ※ do not include the height of the shoe lug.
Numerical values enclosed in parentheses 〔 〕 indicate steel crawler specifications.

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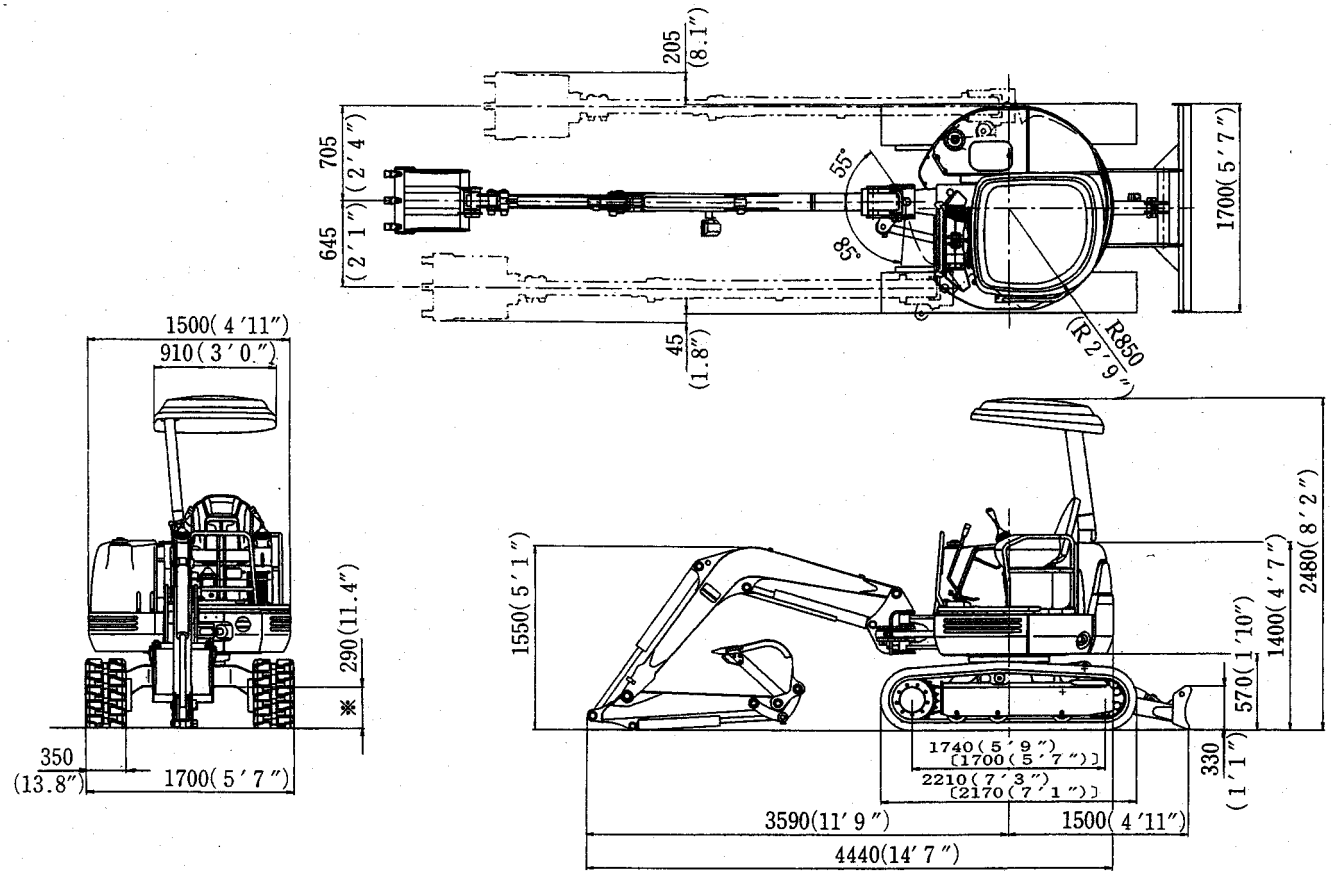
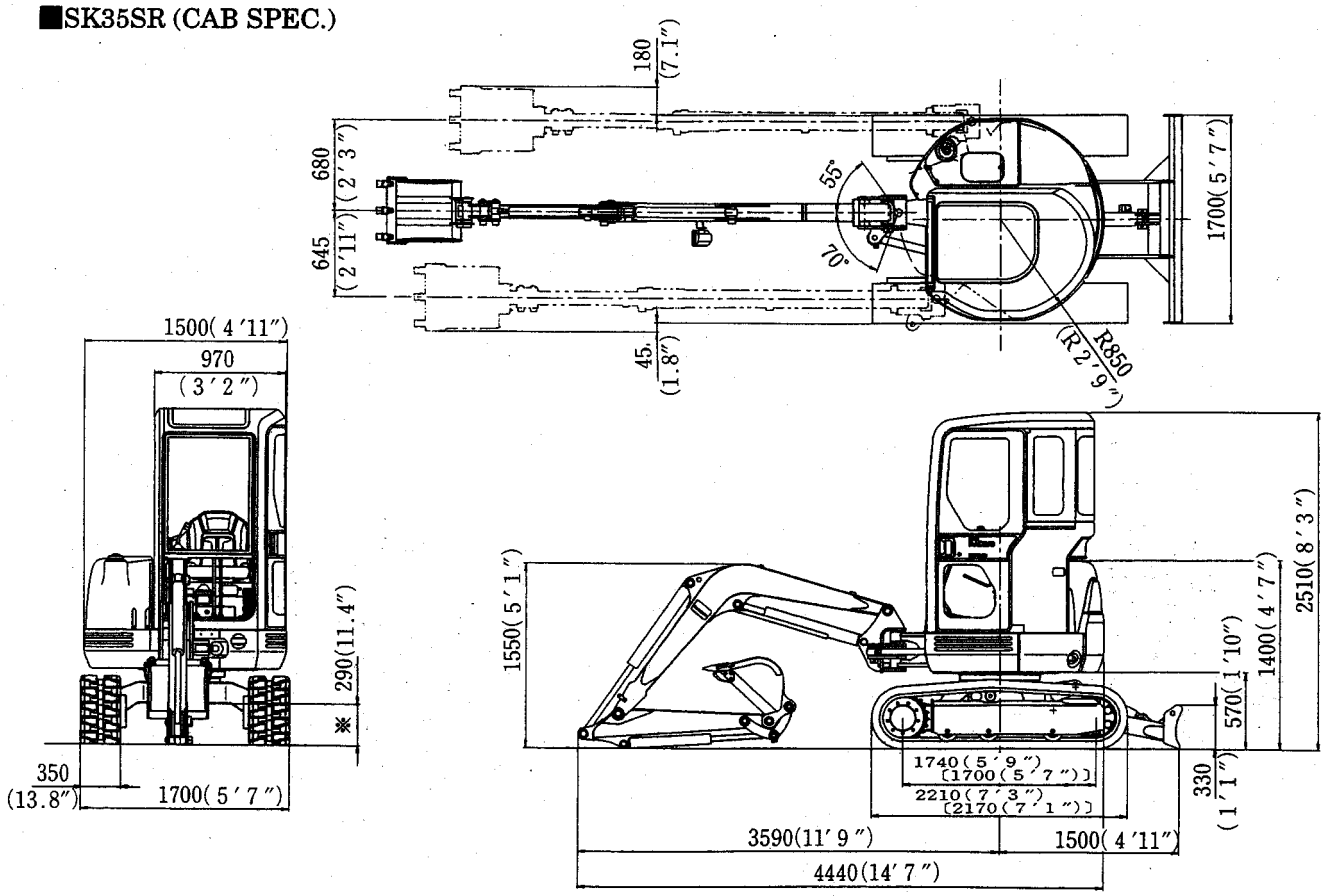
■SK35SR (CANOPY SPEC.)

Unit : mm (ft·in)



■SK35SR (CAB SPEC.)

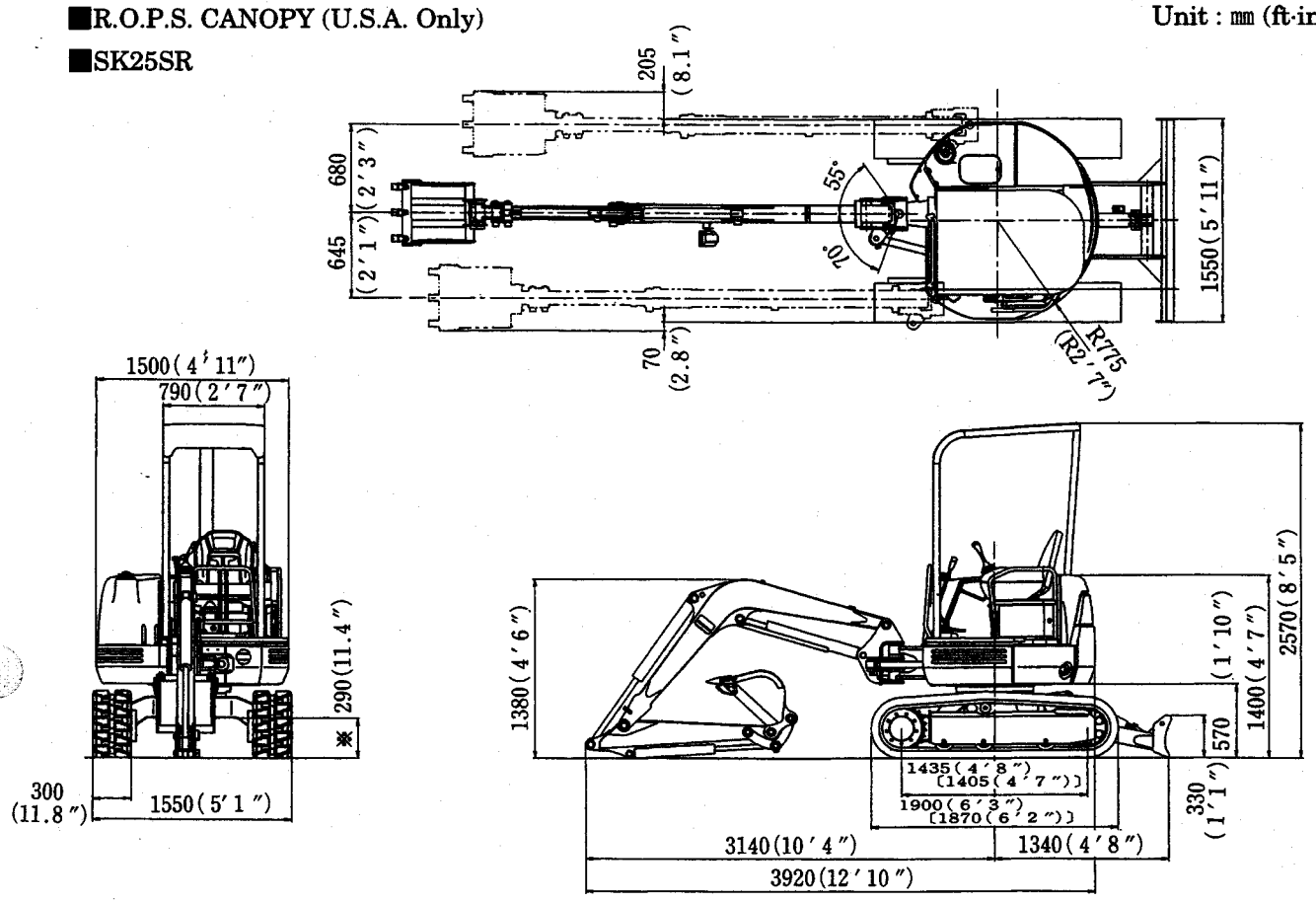


NOTE : Numerical values marked ※ do not include the height of the shoe lug.
Numerical values enclosed in parentheses 〔 〕 indicate steel crawler specifications.

■R.O.P.S. CANOPY (U.S.A. Only)

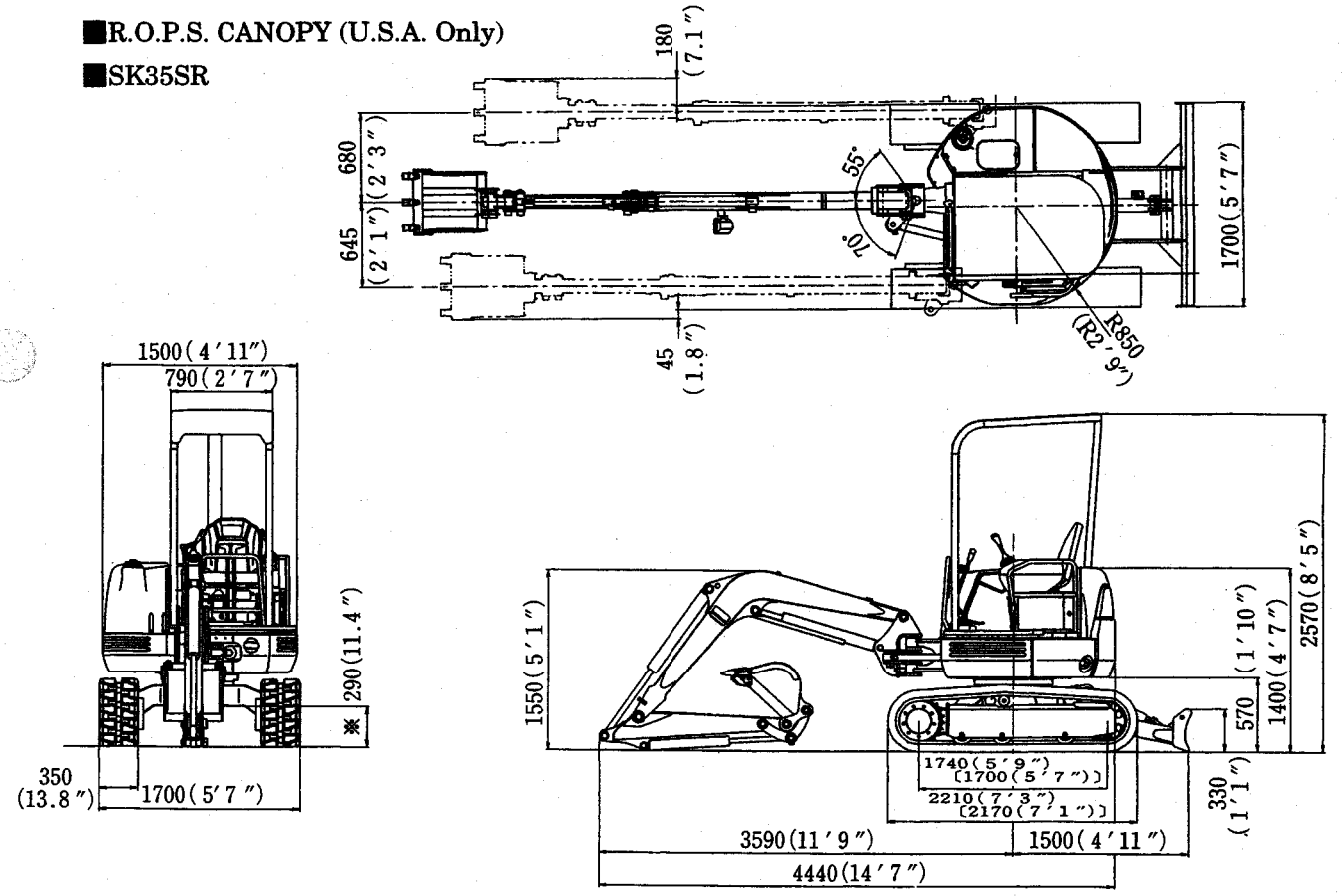
Unit : mm (ft·in)

■SK25SR



■R.O.P.S. CANOPY (U.S.A. Only)

■SK35SR



NOTE : Numerical values marked ※ do not include the height of the shoe lug.
Numerical values enclosed in parentheses 〔 〕 indicate steel crawler specifications.

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3. SPECIFICATIONS AND PERFORMANCE

● SPEED AND GRADABILITY

Model	SK25SR							
Applicable Machines	PV10001~PV12000				PV12001~			
Item \ Shoe Type	Rubber		Steel		Rubber		Steel	
Slewing Speed rpm	8.8							
Travel Speed km/h (mph)	Low	High	Low	High	Low	High	Low	High
	2.7 (1.7)	4.9 (3.0)	2.5 (1.6)	4.6 (2.9)	2.5 (1.6)	4.4 (2.7)	2.4 (1.5)	4.2 (2.6)
Gradability	30°(58%)							

● ENGINE

Item \ Model	SK25SR
Model	3TNE78A-YBB
Type	4-Cycle, vertical, water-cooled, 3-cylinder
Number of Cylinders-Bore×Stroke	3−78㎜×84㎜ (3.07in×3.31in)
Total Displacement cc (cu.in)	1,204 (73.47)
Rated Output/Rotation Speed Ps/rpm	21.2/2,350
Maximum Torque/Rotation kgf·m (ft·lbs)/rpm	8.0 (58) /1,500
Starter	12V/1.2kW
Alternator	12V/40A

● HYDRAULIC COMPONENTS

Item \ Model	SK25SR
Hydraulic Pump	Variable displacement axial piston+gear pump
Hydraulic Motor (Slewing)	Axial piston motor
Hydraulic Motor (Travel)	Axial piston, 2-speed motor
Control Valve	9-functions multiple control valve
Cylinder (Boom, Arm, Bucket, Swing, Dozer blade)	Double action cylinder
Return filter	Safety valve containing filter type (10 μ)

● SIDE DIGGING

Item \ Model		SK25SR
Type		Boom swing by hydraulic cylinder
Boom Swing Angle	Canopy	55°(Right) / 85°(Left)
	Cab	55°(Right) / 70°(Left)

● SPEED AND GRADABILITY

Model	SK30SR							
Applicable Machines	PW07001~PW09500				PW09501~			
Item \ Shoe Type	Rubber		Steel		Rubber		Steel	
Slewing Speed rpm	8.4							
Travel Speed km/h (mph)	Low	High	Low	High	Low	High	Low	High
	2.8 (1.7)	4.8 (3.0)	2.4 (1.6)	4.5 (2.8)	2.5 (1.6)	4.3 (2.7)	2.4 (1.5)	4.0 (2.5)
Gradability	30°(58%)							

● ENGINE

Item \ Model	SK30SR
Model	3TNE82A-YB
Type	4-Cycle, vertical, water-cooled, 3-cylinder
Number of Cylinders-Bore×Stroke	3−82㎜×84㎜ (3.23in×3.31in)
Total Displacement cc (cu.in)	1,330 (81.16)
Rated Output/Rotation Speed Ps/rpm	23/2,300
Maximum Torque/Rotation kgf·m (ft·lbs)/rpm	8.1 (59) /1,600
Starter	12V/1.2kW
Alternator	12V/40A

● HYDRAULIC COMPONENTS

Item \ Model	SK30SR
Hydraulic Pump	Variable displacement axial piston+gear pump
Hydraulic Motor (Slewing)	Orbit motor
Hydraulic Motor (Travel)	Axial piston, 2-speed motor
Control Valve	9-functions multiple control valve
Cylinder (Boom, Arm, Bucket, Swing, Dozer blade)	Double action cylinder
Return filter	Safety valve containing filter type (10 μ)

● SIDE DIGGING

Item \ Model		SK30SR
Type		Boom swing by hydraulic cylinder
Boom Swing Angle	Canopy	55°(Right) / 85°(Left)
	Cab	55°(Right) / 70°(Left)

● SPEED AND GRADABILITY

Model		SK35SR											
Applicable Machines		PX05001~PX05600				PX05601~PX06500				PX06501~			
Item \ Shoe Type		Rubber		Steel		Rubber		Steel		Rubber		Steel	
Slewing Speed	rpm	8.5				8.9							
Travel Speed	km/h (mph)	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
		2.5 (1.6)	4.7 (2.9)	2.3 (1.4)	4.6 (2.7)	2.3 (1.4)	4.5 (2.8)	2.1 (1.3)	4.2 (2.6)	2.2 (1.4)	4.0 (2.5)	2.0 (1.2)	3.8 (2.4)
Gradability		30°(58%)											

● ENGINE

Item \ Model	SK35SR	
Model	3TNE84-YBD	3TNE82A-YBB
Type	4-Cycle, vertical, water-cooled, 3-cylinder	
Number of Cylinders-Bore×Stroke	3−84㎜×90㎜ (3.31in×3.54in)	3−82㎜×84㎜ (3.23in×3.31in)
Total Displacement cc (cu.in)	1,496(91.29)	1,330 (81.16)
Rated Output/Rotation Speed Ps/rpm	26.3/2,350	24/2,400
Maximum Torque/Rotation kgf·m (ft·lbs)/rpm	10.0 (72) /1,500	8.1 (59) /1,600
Starter	12V/1.4kW	12V/1.2kW
Alternator	12V/40A	

● HYDRAULIC COMPONENTS

Item \ Model	SK35SR
Hydraulic Pump	Variable displacement axial piston+gear pump
Hydraulic Motor (Slewing)	Axial piston motor
Hydraulic Motor (Travel)	Axial piston, 2-speed motor
Control Valve	9-functions multiple control valve
Cylinder (Boom, Arm, Bucket, Swing, Dozer blade)	Double action cylinder
Return filter	Safety valve containing filter type (10 μ)

● SIDE DIGGING

Item \ Model		SK35SR
Type		Boom swing by hydraulic cylinder
Boom Swing Angle	Canopy	55°(Right) / 85°(Left)
	Cab	55°(Right) / 70°(Left)

● WEIGHT (CANOPY SPEC.)

Model		SK25SR		SK30SR		SK35SR	
Applicable Machines		PV10001~PV12000		PW07001~PW09500		PX05001~PX06500	
Item \ Shoe Type		Rubber	Steel	Rubber	Steel	Rubber	Steel
Fully-equipped weight	kg (lbs)	2,550(5,620) [2,580(5,690)]	2,590(5,710) [2,620(5,780)]	2,970 (6,550)	3,010 (6,640)	3,400(7,500) [3,430(7,560)]	3,490(7,700) [3,520(7,760)]
Upper machinery	kg (lbs)	1,340(2,950) [1,370(3,020)]		1,590 (3,510)		1,810(3,990) [1,840(4,060)]	
Lower machinery	kg (lbs)	935 (2,060)	975 (2,150)	1,050 (2,320)	1,090 (2,400)	1,195 (2,630)	1,285 (2,830)
Attachment (S. T. D) Boom+Arm+Bucket	kg (lbs)	275 (610)		330 (730)		395 (870)	
		2.15m+1.13m+0.08㎥ (7'1"+3'8"+0.105cu.yd)		2.30m+1.18m+0.09㎥ (7'7"+3'10"+0.118cu.yd)		2.475m+1.28m+0.11㎥ (8'11"+4'2"+0.144cu.yd)	
Dozer Blade	width×height	1,550㎜×330㎜ (5'1"×1'1")		← (←)		1,700㎜×330㎜ (5'7"×1'1")	
Strokes of Blade	up/down	310㎜/320㎜ (12.2"/12.6")		290㎜/400㎜ (11.4"/15.7")		300㎜/410㎜ (11.8"/16.1")	

NOTE : Values in [ ] are for R.O.P.S. Canopy (U.S.A. Only).

● WEIGHT (CAB SPEC.)

Model		SK25SR		SK30SR		SK35SR	
Applicable Machines		PV10001~PV12000		PW07001~PW09500		PX05001~PX06500	
Item \ Shoe Type		Rubber	Steel	Rubber	Steel	Rubber	Steel
Fully-equipped weight	kg (lbs)	2,680 (5,910)	2,720 (6,000)	3,100 (6,840)	3,140 (6,920)	3,530 (7,780)	3,620 (7,980)
Upper machinery	kg (lbs)	1,470 (3,240)		1,720 (3,790)		1,940 (4,280)	
Lower machinery	kg (lbs)	935 (2,060)	975 (2,150)	1,050 (2,320)	1,090 (2,400)	1,195 (2,630)	1,285 (2,830)
Attachment (S. T. D) Boom+Arm+Bucket	kg (lbs)	275 (610)		330 (730)		395 (870)	
		2.15m+1.13m+0.08㎥ (7'1"+3'8"+0.105cu.yd)		2.30m+1.18m+0.09㎥ (7'7"+3'10"+0.118cu.yd)		2.475m+1.28m+0.11㎥ (8'11"+4'2"+0.144cu.yd)	
Dozer Blade	width×height	1,550㎜×330㎜ (5'1"×1'1")		← (←)		1,700㎜×330㎜ (5'7"×1'1")	
Strokes of Blade	up/down	310㎜/320㎜ (12.2"/12.6")		290㎜/400㎜ (11.4"/15.7")		300㎜/410㎜ (11.8"/16.1")	

● WEIGHT (CANOPY SPEC.)

Model		SK25SR		SK30SR		SK35SR	
Applicable Machines		PV12001~		PW09501~		PX06501~	
Item \ Shoe Type		Rubber	Steel	Rubber	Steel	Rubber	Steel
Fully-equipped weight	kg (lbs)	2,630(5,800) [2,660(5,870)]	2,660(5,870) [2,690(5,930)]	2,980 (6,570)	3,010 (6,640)	3,420(7,540) [3,450(7,610)]	3,490(7,700) [3,520(7,760)]
Upper machinery	kg (lbs)	1,380(3,040) [1,410(3,110)]		1,590 (3,510)		1,810(3,990) [1,840(4,060)]	
Lower machinery	kg (lbs)	975 (2,150)	1,005 (2,220)	1,060 (2,340)	1,090 (2,400)	1,215 (2,680)	1,285 (2,830)
Attachment (S. T. D) Boom+Arm+Bucket	kg (lbs)	275 (610)		330 (730)		395 (870)	
		2.15m+1.13m+0.08㎥ (7'1"+3'8"+0.105cu.yd)		2.30m+1.18m+0.09㎥ (7'7"+3'10"+0.118cu.yd)		2.475m+1.28m+0.11㎥ (8'11"+4'2"+0.144cu.yd)	
Dozer Blade	width×height	1,550㎜×3,30㎜ (5'1"×1'1")		← (←)		1,700㎜×330㎜ (5'7"×1'1")	
Strokes of Blade	up/down	310㎜/320㎜ (12.2"/12.6")		290㎜/400㎜ (11.4"/15.7")		300㎜/410㎜ (11.8"/16.1")	

NOTE : Values in [ ] are for R.O.P.S. Canopy (U.S.A. Only).

● WEIGHT (CAB SPEC.)

Model		SK25SR		SK30SR		SK35SR	
Applicable Machines		PV12001~		PW09501~		PX06501~	
Item \ Shoe Type		Rubber	Steel	Rubber	Steel	Rubber	Steel
Fully-equipped weight	kg (lbs)	2,760 (6,090)	2,790 (6,150)	3,110 (6,860)	3,140 (6,920)	3,550 (7,830)	3,620 (7,980)
Upper machinery	kg (lbs)	1,510 (3,330)		1,720 (3,790)		1,940 (4,280)	
Lower machinery	kg (lbs)	975 (2,150)	1,005 (2,220)	1,060 (2,340)	1,090 (2,400)	1,215 (2,680)	1,285 (2,830)
Attachment (S. T. D) Boom+Arm+Bucket	kg (lbs)	275 (610)		330 (730)		395 (870)	
		2.15m+1.13m+0.08㎥ (7'1"+3'8"+0.105cu.yd)		2.30m+1.18m+0.09㎥ (7'7"+3'10"+0.118cu.yd)		2.475m+1.28m+0.11㎥ (8'11"+4'2"+0.144cu.yd)	
Dozer Blade	width×height	1,550㎜×3,30㎜ (5'1"×1'1")		← (←)		1,700㎜×330㎜ (5'7"×1'1")	
Strokes of Blade	up/down	310㎜/320㎜ (12.2"/12.6")		290㎜/400㎜ (11.4"/15.7")		300㎜/410㎜ (11.8"/16.1")	

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4. TYPE OF SHOES

Model	Applicable Machines	Type	Shoe Width mm (ft·in)	Total Width of Crawler mm (ft·in)	Ground Pressure kg·f/cm² (PSI)		Weight kg (lbs)
					Canopy	Cab	
SK25SR	PV10001~ PV12000	Rubber Shoe	300 (11.8")	1,500 (5'1")	0.27(3.8)	0.29(4.1)	120(260)
		Steel Shoe			0.28(4.0)	0.30(4.3)	140(310)
	PV12001~	Rubber Shoe	300 (11.8")	1,500 (5'1")	0.28(4.0)	0.30(4.3)	125(280)
		Steel Shoe			0.29(4.1)	0.30(4.3)	140(310)
SK30SR	PW07001~ PW09500	Rubber Shoe	300 (11.8")	1,500 (5'1")	0.30(4.3)	0.31(4.4)	126(280)
		Steel Shoe			0.31(4.4)	0.32(4.6)	147(320)
	PW09501~	Rubber Shoe	300 (11.8")	1,500 (5'1")	0.30(4.3)	0.31(4.4)	131(290)
		Steel Shoe			0.30(4.3)	0.31(4.4)	147(320)
SK35SR	PX05001~ PX06500	Rubber Shoe	350 (13.8")	1,700 (5'7")	0.26(3.7)	0.27(3.8)	150(330)
		Steel Shoe			0.27(3.8)	0.28(4.0)	195(430)
	PX06501~	Rubber Shoe	350 (13.8")	1,700 (5'7")	0.26(3.7)	0.27(3.8)	160(350)
		Steel Shoe			0.27(3.8)	0.28(4.0)	195(430)

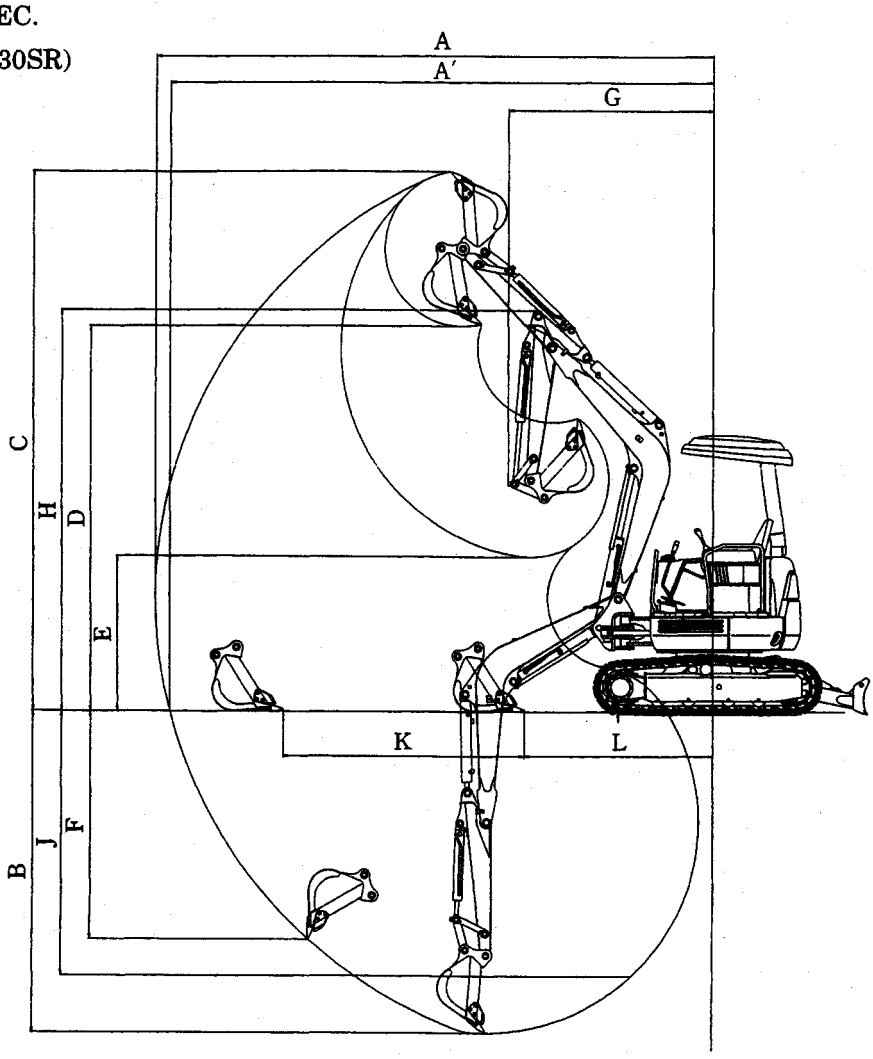
5. TYPE OF BUCKETS

Model	Heaped Capacily m³ (cu.yd)	Outside Width of Bucket mm (ft·in)		Number of teeth	Weight kg (lbs)	Remarks
		With side cutters	Without side cutters			
SK25SR	0.035 (0.045)	300(11.8")	235(9.3")	3	38(84)	
	0.080 (0.105)	500(1'8")	435(1'5")	3	46(101)	
	0.080 (0.105)	500(1'8")	435(1'5")	4	51(112)	Standard
	0.088 (0.115)	600(2'0")	540(1'9")	4	51(112)	Heavy duty Type
SK30SR	0.050 (0.065)	350(1'2")	280(11")	3	60(132)	
	0.070 (0.092)	450(1'6")	380(1'3")	3	68(150)	
	0.090 (0.118)	500(1'8")	430(1'5")	3	71(157)	Standard
	0.090 (0.118)	500(1'8")	430(1'5")	4	75(165)	Heavy duty Type
	0.10 (0.131)	600(2'0")	530(1'9")	4	79(174)	
SK35SR	0.044 (0.058)	350(1'2")	280(11")	3	63(139)	
	0.063 (0.082)	450(1'6")	380(1'3")	4	71(157)	
	0.11 (0.144)	600(2'0")	530(1'9")	4	82(165)	Standard
	0.11 (0.144)	600(2'0")	530(1'9")	5	86(190)	Heavy duty Type
	0.12 (0.157)	700(2'4")	630(2'1")	4	89(196)	

6. WORKING RANGES OF ATTACHMENTS

■CANOPY SPEC.

(SK25SR·SK30SR)



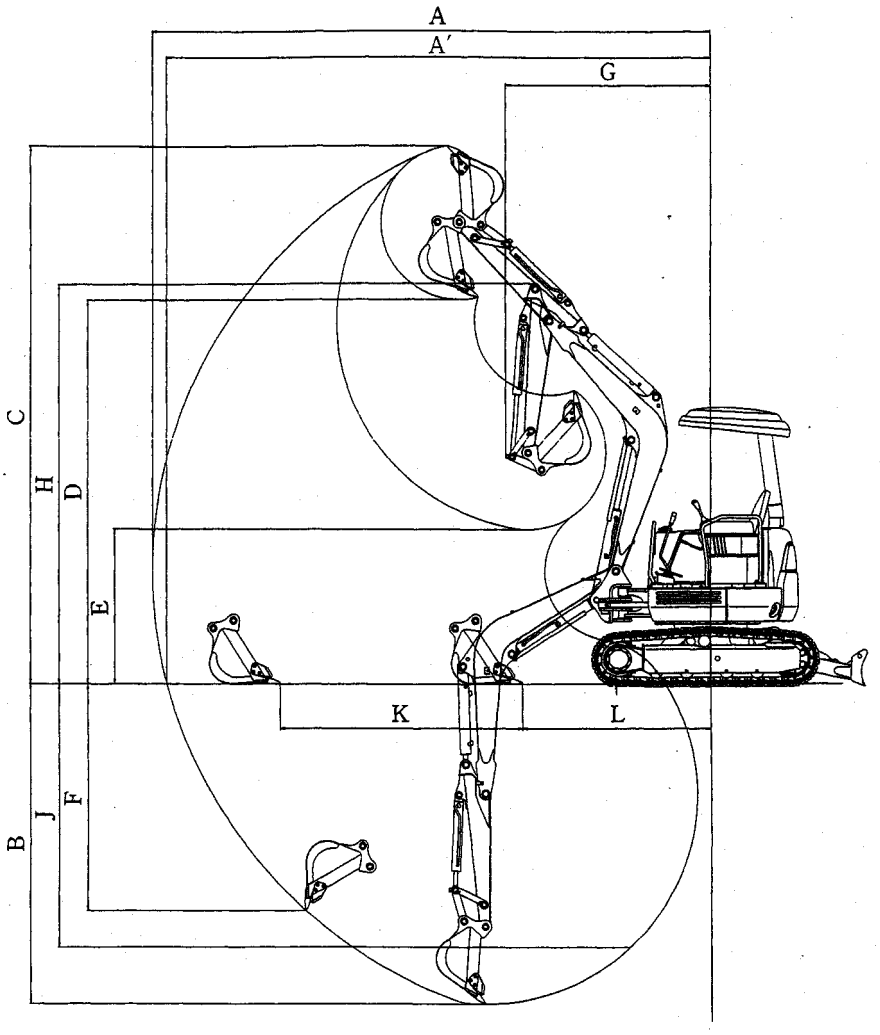
Unit : ㎜ (ft·in)

Mark	Item \ Model		SK25SR		SK30SR	
	Arm Type		Standard 1,130 (3'8")	Long 1,400 (4'7")	Standard 1,180 (3'10")	Long 1,450 (4'9")
	Bucket capacity (STD)		0.080㎥(0.105cu.yd)		0.090㎥(0.118cu.yd)	
A	Maximum digging reach		4,650(15'3")	4,910(16'1")	←	5,160(16'11")
A'	Maximum reach at ground level		4,520(14'10")	4,780(15'8")	←	5,050(16'7")
※B	Maximum digging depth		2,600(8'6")	2,870(9'5")	2,840(9'4")	3,110(10'2")
※C	Maximum digging height		4,490(14'9")	4,680(15'4")	4,760(15'7")	4,950(16'3")
※D	Maximum dumping height		3,240(10'8")	3,430(11'3")	3,390(11'1")	3,590(11'9")
※E	Minimum dumping height		1,320(4'4")	1,060(3'6")	1,360(4'6")	1,100(3'7")
※F	Vertical digging depth		2,100(6'11")	2,360(7'9")	2,080(6'10")	2,330(7'8")
G	Maximum swing radius		1,740(5'9")	1,850(6'1")	1,810(5'11")	1,910(6'3")
※H	Height at minimum swing		3,380(11'1")	3,390(11'1")	3,540(11'7")	3,550(11'8")
※J	8-feet level digging depth		2,060(6'9")	2,400(7'10")	2,340(7'8")	2,670(8'9")
K	Horizonal digging	Stroke	2,070(6'9")	2,440(8'0")	2,130(7'0")	2,520(8'3")
L	stroke at ground level	Minimum	1,500(4'11")	1,380(4'6")	1,660(5'5")	1,530(5'0")

NOTE : Dimensions marked ※ do not include the height of the shoe lug.

■CANOPY SPEC.

(SK35SR)



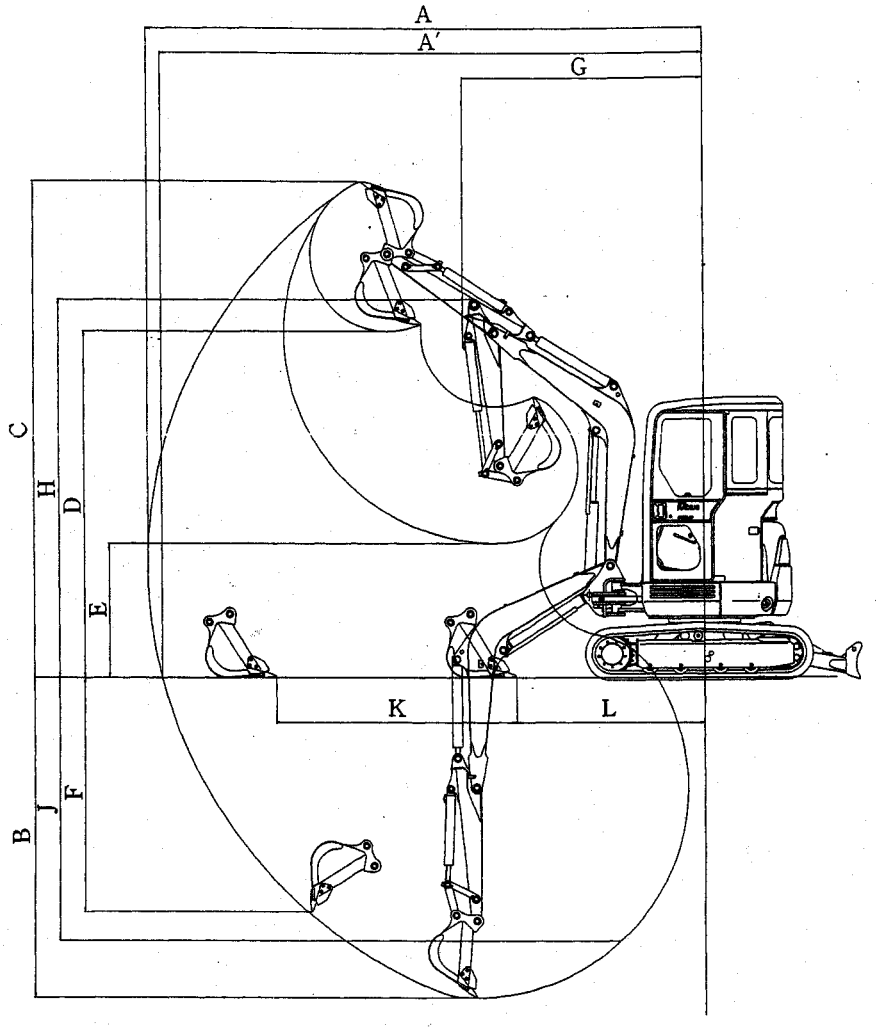
Unit : ㎜ (ft·in)

Mark	Item \ Model		SK35SR	
	Arm Type		Standard 1,280 (4'2")	Long 1,550 (5'1")
	Bucket capacity (STD)		0.11㎥(0.144cu.yd)	
A	Maximum digging reach		5,180(17'0")	5,440(17'10")
A'	Maximum reach at ground level		5,070(16'8")	5,330(17'6")
※B	Maximum digging depth		3,110(10'2")	3,380(11'1")
※C	Maximum digging height		4,880(16'0")	5,050(16'7")
※D	Maximum dumping height		3,450(11'4")	3,630(11'11")
※E	Minimum dumping height		1,340(4'5")	1,080(3'7")
※F	Vertical digging depth		2,510(8'3")	2,780(9'1")
G	Maximum swing radius		1,910(6'3")	2,020(6'8")
※H	Height at minimum swing		3,680(12'1")	3,690(12'1")
※J	8-feet level digging depth		2,610(8'7")	2,940(9'8")
K	Horizonal digging	Stroke	2,290(7'6")	2,680(8'10")
L	stroke at ground level	Minimum	1,660(5'5")	1,530(5'0")

NOTE : Dimensions marked ※ do not include the height of the shoe lug.

■CAB SPEC.

(SK25SR · SK30SR)



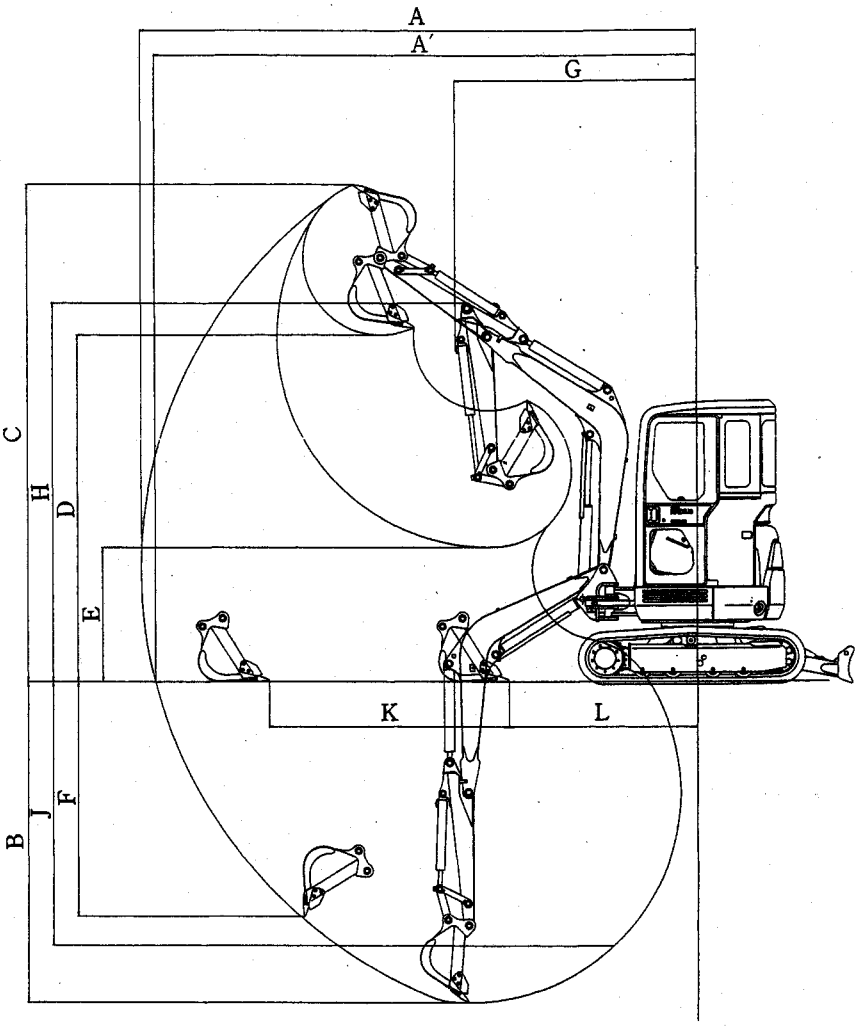
Unit : ㎜ (ft·in)

Mark	Item \ Model		SK25SR		SK30SR	
	Arm Type		Standard 1,130 (3'8")	Long 1,400 (4'7")	Standard 1,180 (3'10")	Long 1,450 (4'9")
	Bucket capacity (STD)		0.080㎥(0.105cu.yd)		0.090㎥(0.118cu.yd)	
A	Maximum digging reach		4,650(15'3")	4,910(16'1")	4,910(16'1")	5,160(16'11")
A'	Maximum reach at ground level		4,520(14'10")	4,780(15'8")	4,780(15'8")	5,050(16'7")
※B	Maximum digging depth		2,600(8'6")	2,870(9'5")	2,840(9'4")	3,110(10'2")
※C	Maximum digging height		4,090(13'5")	4,230(13'11")	4,400(14'5")	4,560(15'0")
※D	Maximum dumping height		2,880(9'5")	3,020(9'11")	3,070(10'1")	3,230(10'7")
※E	Minimum dumping height		1,130(3'8")	860(2'10")	1,190(3'11")	920(3'0")
※F	Vertical digging depth		2,100(6'11")	2,360(7'9")	2,080(6'10")	2,330(7'8")
G	Maximum swing radius		2,110(6'11")	←	2,130(7'0")	←
※H	Height at minimum swing		3,170(10'5")	3,180(10'5")	3,360(11'0")	←
※J	8-feet level digging depth		2,060(6'9")	2,400(7'10")	2,340(7'8")	2,670(8'9")
K	Horizonal digging	Stroke	2,070(6'9")	2,440(8'0")	2,130(7'0")	2,520(8'3")
L	stroke at ground level	Minimum	1,500(4'11")	1,380(4'6")	1,660(5'5")	1,530(5'0")

NOTE : Dimensions marked ※ do not include the height of the shoe lug.

■CAB SPEC.

(SK35SR)



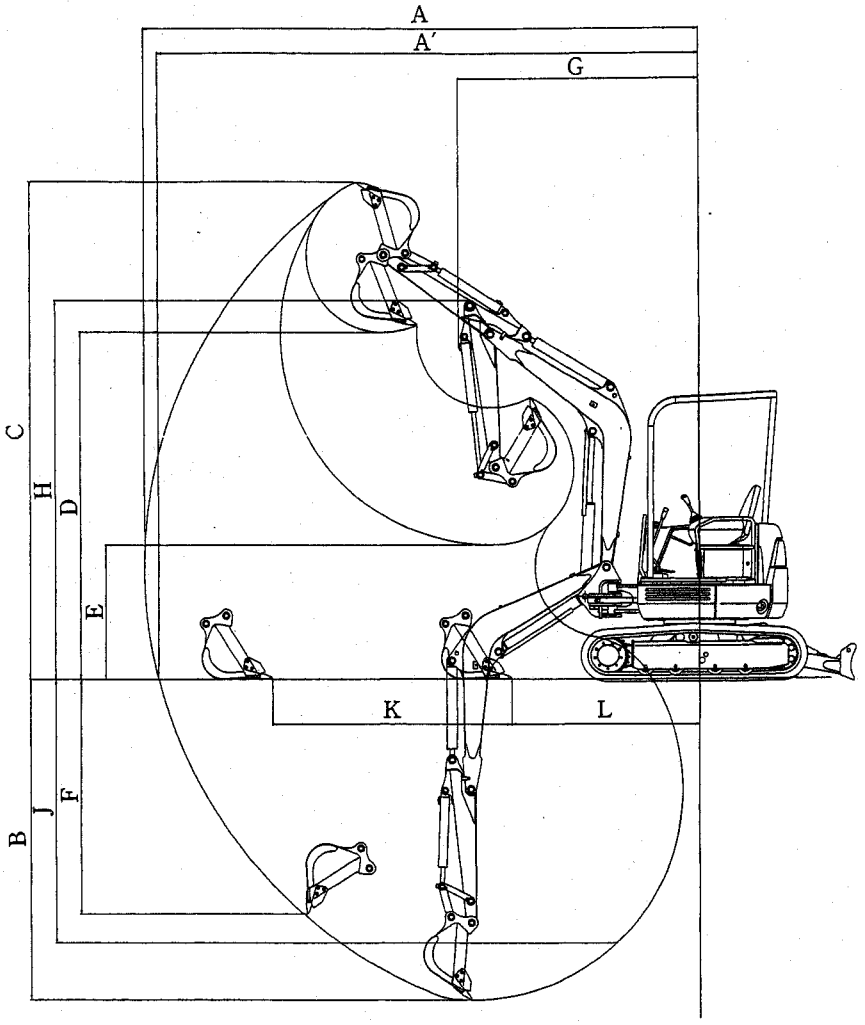
Unit : ㎜ (ft·in)

Mark	Item \ Model		SK35SR	
	Arm Type		Standard 1,280 (4'2")	Long 1,550 (5'1")
	Bucket capacity (STD)		0.11㎥(0.144cu.yd)	
A	Maximum digging reach		5,180(17'0")	5,440(17'10")
A'	Maximum reach at ground level		5,070(16'8")	5,330(17'6")
※B	Maximum digging depth		3,110(10'2")	3,380(11'1")
※C	Maximum digging height		4,460(14'8")	4,600(15'1")
※D	Maximum dumping height		3,080(10'1")	3,220(10'7")
※E	Minimum dumping height		1,160(3'10")	890(2'11")
※F	Vertical digging depth		2,510(8'3")	2,780(9'1")
G	Maximum swing radius		2,310(7'7")	←
※H	Height at minimum swing		3,470(11'5")	3,480(11'5")
※J	8-feet level digging depth		2,610(8'7")	2,940(9'8")
K	Horizonal digging	Stroke	2,290(7'6")	2,680(8'10")
L	stroke at ground level	Minimum	1,660(5'5")	1,530(5'0")

NOTE : Dimensions marked ※ do not include the height of the shoe lug.

■R.O.P.S. CANOPY SPEC. (U.S.A. Only)

(SK25SR)



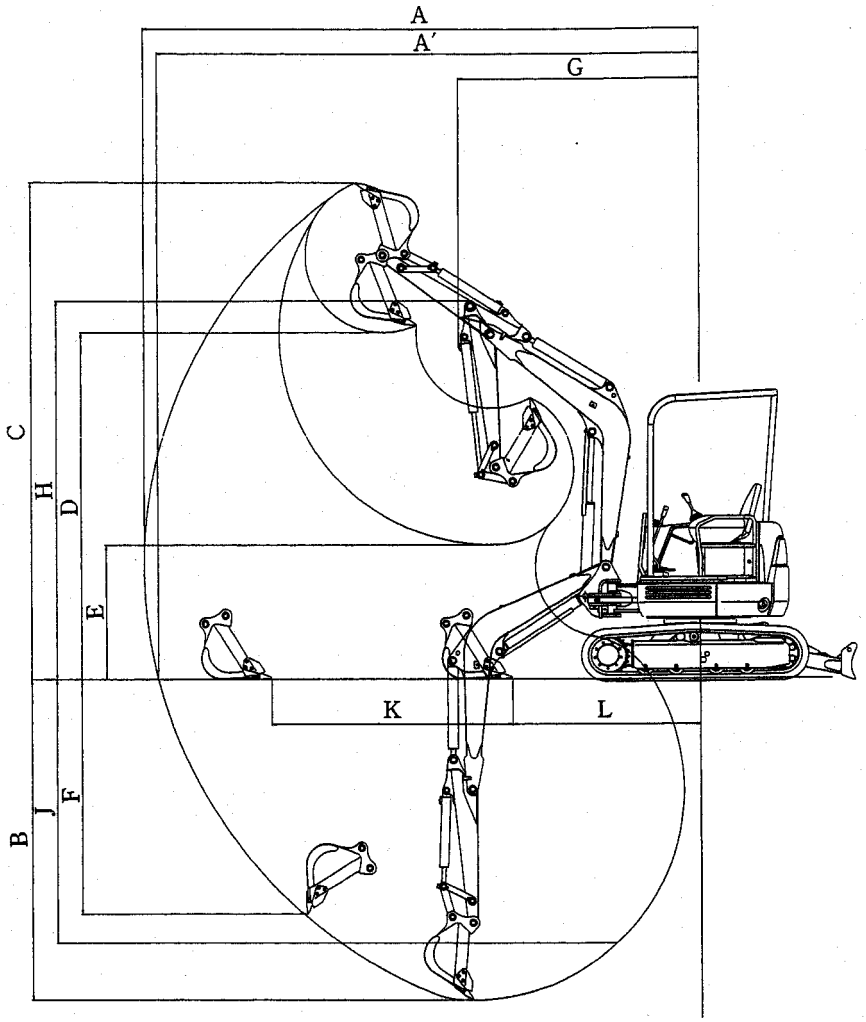
Unit : ㎜ (ft·in)

Mark	Item \ Model		SK25SR	
	Arm Type		Standard 1,130 (3'8")	Long 1,400 (4'7")
	Bucket capacity (STD)		0.080㎥(0.105cu.yd)	
A	Maximum digging reach		4,650(15'3")	4,910(16'1")
A'	Maximum reach at ground level		4,520(14'10")	4,780(15'8")
※B	Maximum digging depth		2,600(8'6")	2,870(9'5")
※C	Maximum digging height		4,090(13'5")	4,230(13'11")
※D	Maximum dumping height		2,880(9'5")	3,020(9'11")
※E	Minimum dumping height		1,130(3'8")	860(2'10")
※F	Vertical digging depth		2,100(6'11")	2,360(7'9")
G	Maximum swing radius		2,110(6'11")	←
※H	Height at minimum swing		3,170(10'5")	3,180(10'5")
※J	8-feet level digging depth		2,060(6'9")	2,400(7'10")
K	Horizonal digging	Stroke	2,070(6'9")	2,440(8'0")
L	stroke at ground level	Minimum	1,500(4'11")	1,380(4'6")

NOTE : Dimensions marked ※ do not include the height of the shoe lug.

■R.O.P.S. CANOPY SPEC. (U.S.A. Only)

(SK35SR)



Unit : ㎜ (ft·in)

Mark	Item \ Model		SK35SR	
	Arm Type		Standard 1,280 (4'2")	Long 1,550 (5'1")
	Bucket capacity (STD)		0.11㎥(0.144cu.yd)	
A	Maximum digging reach		5,180(17'0")	5,440(17'10")
A'	Maximum reach at ground level		5,070(16'8")	5,330(17'6")
※B	Maximum digging depth		3,110(10'2")	3,380(11'1")
※C	Maximum digging height		4,460(14'8")	4,600(15'1")
※D	Maximum dumping height		3,080(10'1")	3,220(10'7")
※E	Minimum dumping height		1,160(3'10")	890(2'11")
※F	Vertical digging depth		2,510(8'3")	2,780(9'1")
G	Maximum swing radius		2,310(7'7")	←
※H	Height at minimum swing		3,470(11'5")	3,480(11'5")
※J	8-feet level digging depth		2,610(8'7")	2,940(9'8")
K	Horizonal digging	Stroke	2,290(7'6")	2,680(8'10")
L	stroke at ground level	Minimum	1,660(5'5")	1,530(5'0")

NOTE : Dimensions marked ※ do not include the height of the shoe lug.

7. LIFTING DIAGRAM

(1) Calculation condition

The lifting-up ability of this drawing is indicated by metric standard. The indicated figures fall within 87% of a set pressure of the main relief valve used in the arm and the boom cylinder and 75% of static tilting load.

1) The load point is the fulcrum of the bucket and the bucket position is an embraced posture.

2) The figures on the upper stage indicate the lifting-up ability of a machine facing sideways, while the figures at the bottom stage represent a machine facing longitudinally.

3) Unit : ton Shoe : Rubber

(2) Lifting-up ability diagram Arrange No. table

■SK25SR

Attachment		Standard Arm+Bucket (STD) 1.13m (3'8")+0.08㎥(0.105cu.yd)		Long Arm+Bucket (STD) 1.40m (4'7")+0.08㎥(0.105cu.yd)	
Dozer blade position		Up and Front	Up and Rear	Up and Front	Up and Rear
Arrange No.	Canopy	(1)	(2)	(3)	(4)
	Cab	(5)	(6)	(7)	(8)

■SK30SR

Attachment		Standard Arm+Bucket (STD) 1.18m (3'10")+0.090㎥(0.118cu.yd)		Long Arm+Bucket (STD) 1.45m (4'9")+0.090㎥(0.118cu.yd)	
Dozer blade position		Up and Front	Up and Rear	Up and Front	Up and Rear
Arrange No.	Canopy	(9)	(10)	(11)	(12)
	Cab	(13)	(14)	(15)	(16)

■SK35SR

Attachment		Standard Arm+Bucket (STD) 1.28m (4'2")+0.11㎥(0.144cu.yd)		Long Arm+Bucket (STD) 1.55m (5'11")+0.11㎥(0.144cu.yd)	
Dozer blade position		Up and Front	Up and Rear	Up and Front	Up and Rear
Arrange No.	Canopy	(17)	(18)	(19)	(20)
	Cab	(21)	(22)	(23)	(24)

■R.O.P.S. CANOPY SPEC. (U.S.A. Only)

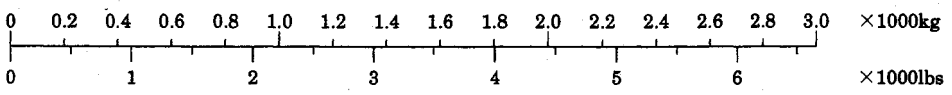
■SK25SR

Attachment		Standard Arm+Bucket (STD) 1.13m (3'8")+0.08㎥(0.105cu.yd)		Long Arm+Bucket (STD) 1.40m (4'7")+0.08㎥(0.105cu.yd)	
Dozer blade position		Up and Front	Up and Rear	Up and Front	Up and Rear
Arrange No.	R.O.P.S.Canopy	(25)	(26)	(27)	(28)

■R.O.P.S. CANOPY SPEC. (U.S.A. Only)

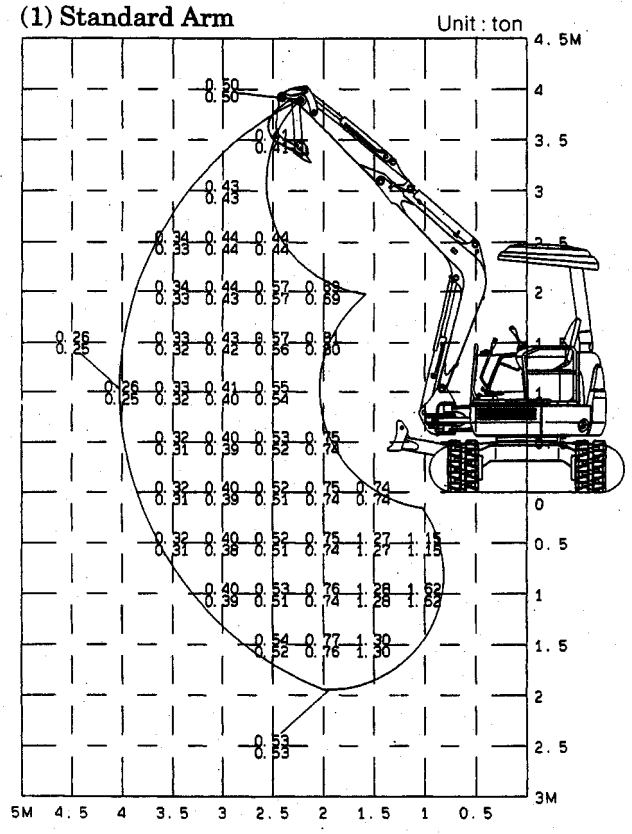
■SK35SR

Attachment		Standard Arm+Bucket (STD) 1.28m (4'2")+0.11㎥(0.144cu.yd)		Long Arm+Bucket (STD) 1.55m (5'11")+0.11㎥(0.144cu.yd)	
Dozer blade position		Up and Front	Up and Rear	Up and Front	Up and Rear
Arrange No.	R.O.P.S.Canopy	(29)	(30)	(31)	(32)

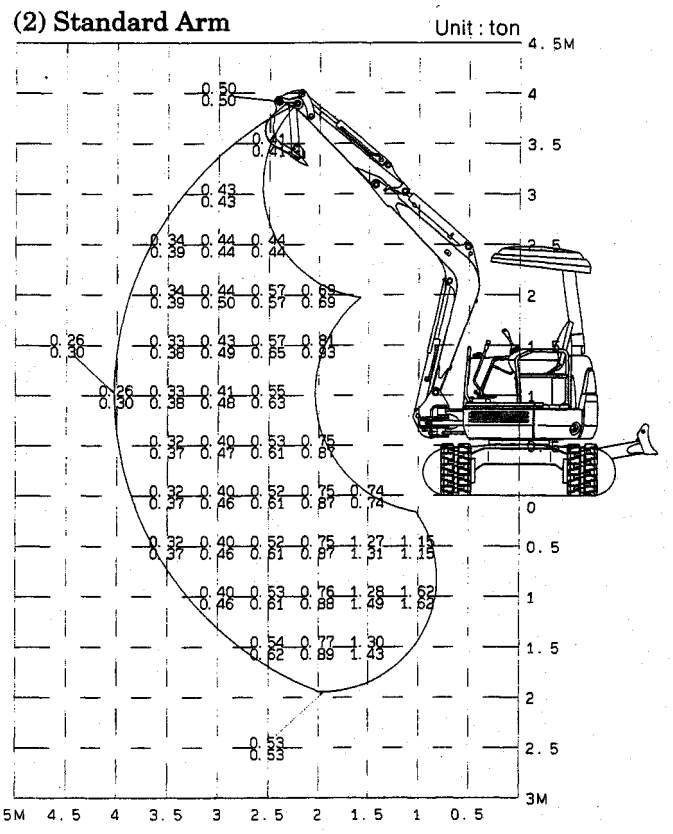


■SK25SR (CANOPY SPEC)

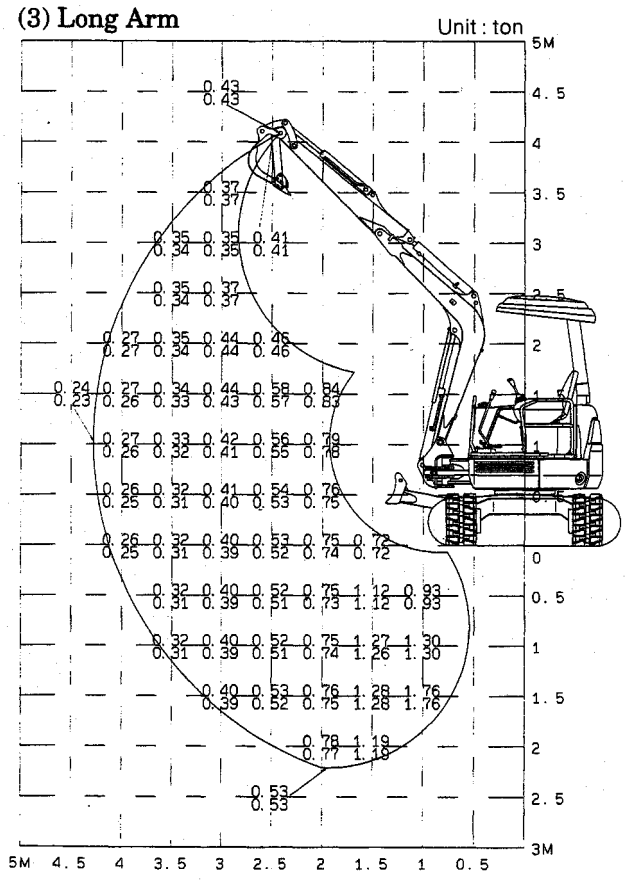
(1) Standard Arm



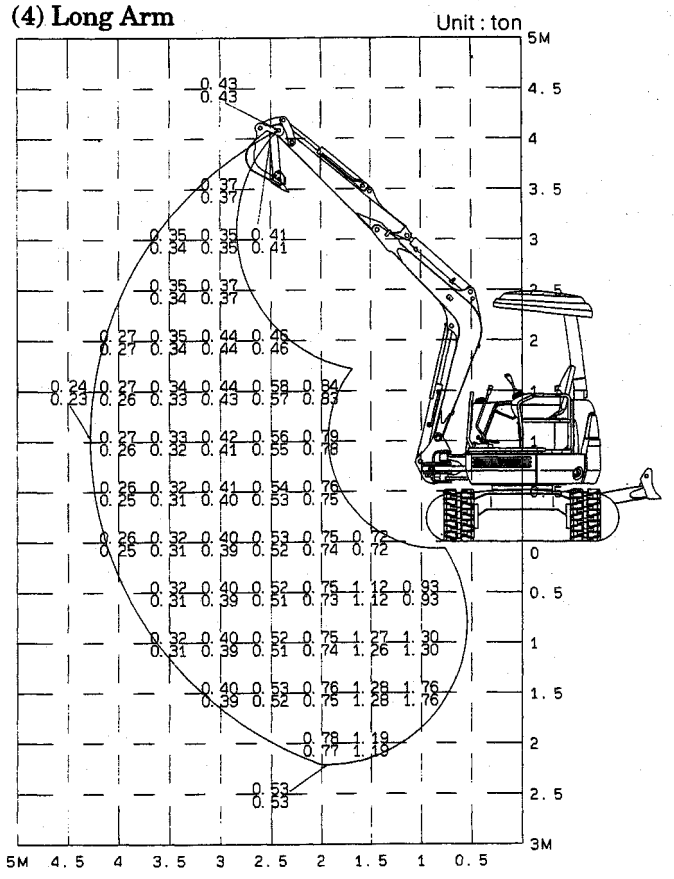
(2) Standard Arm

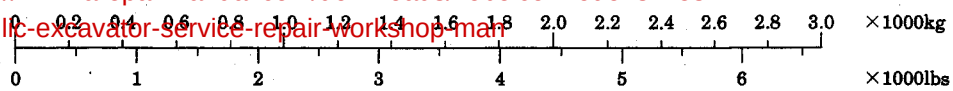


(3) Long Arm



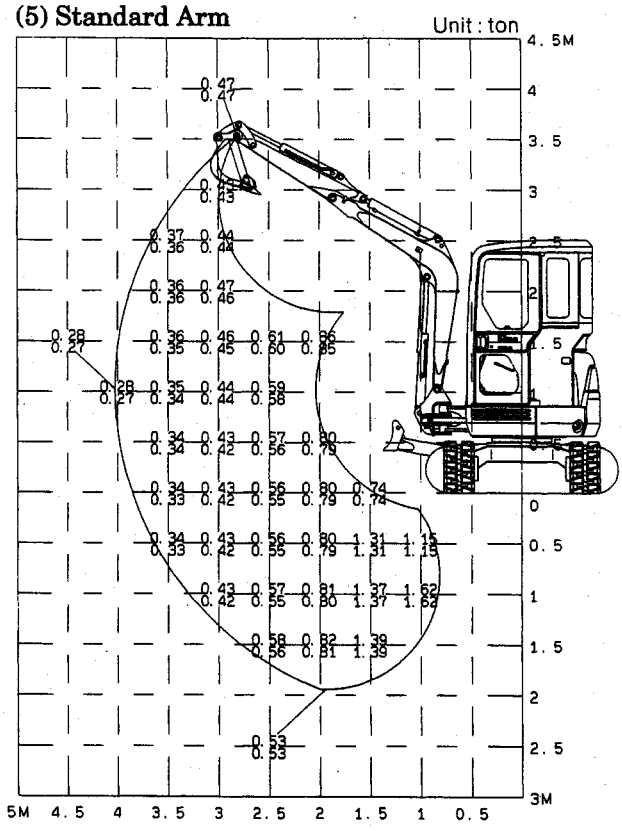
(4) Long Arm



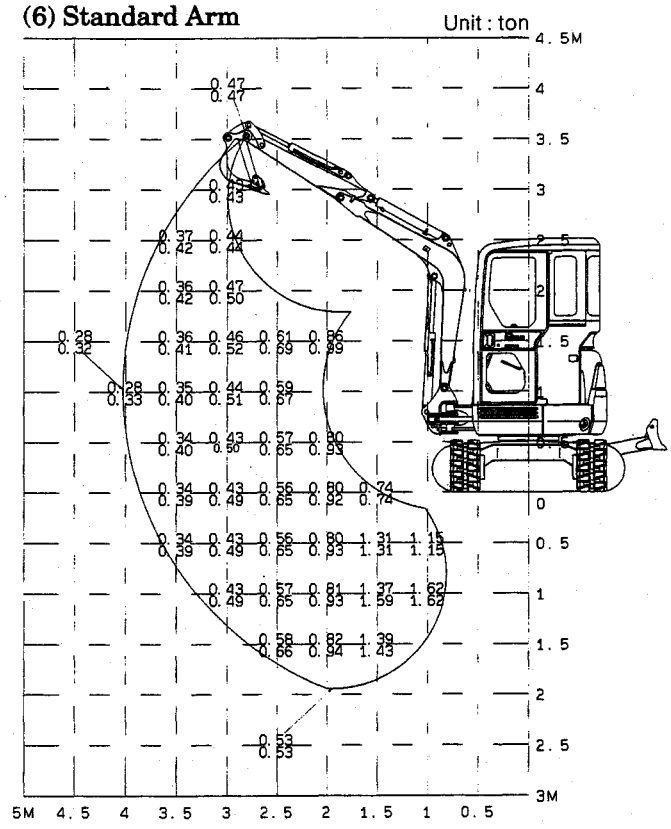


■SK25SR (CAB SPEC)

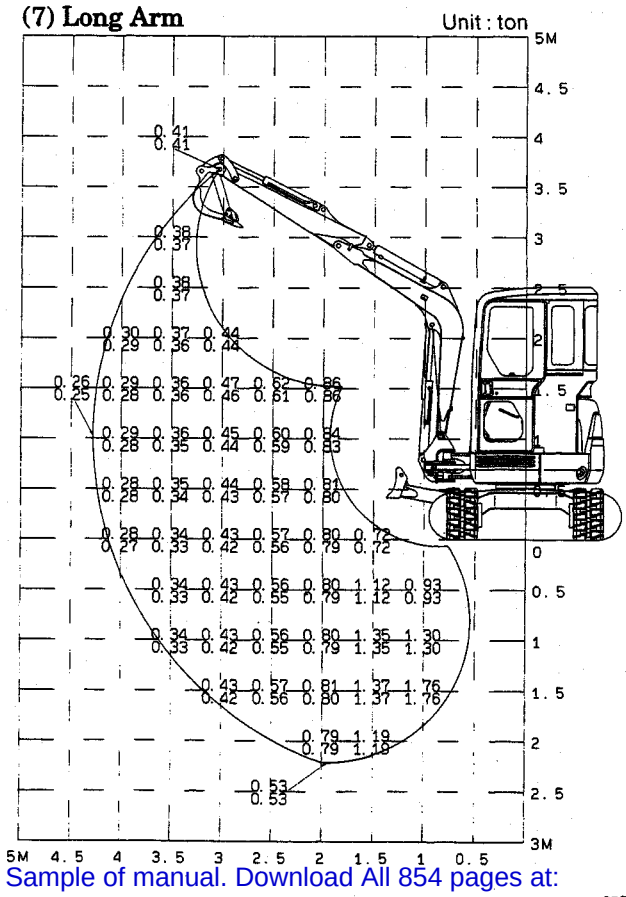
(5) Standard Arm



(6) Standard Arm



(7) Long Arm



(8) Long Arm