KOBELCO

SHOP MANUAL

EXCAVATOR

SK100
SK120LC

S5YPU0003E-03 NA

Issued 06-1994

APPLICABLE:
SK100 . . . . . YW-02801~
SK120LC . . . . . YPU-00501~

SHOP MANUAL

EXCAVATOR

SK100
SK120LC

APPLICABLE

YW-00501~
YPU-00501~

S5YPU0003E-03 NA

1. Trim along dashed line.
2. Slide into pocket on Binder Spine.

TYPE 1-4

SHOP MANUAL

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YW-00501~
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EXCAVATOR

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APPLICABLE

YW-00501~
YPU-00501~

S5YPU0003E-03 NA

1. Trim along dashed line.
2. Slide into pocket on Binder Spine.

TYPE 1-4

HYDRAULIC EXCAVATOR

SHOP MANUAL model SK100 SK120LC

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 high level of working efficiency and reliability. For further details on maintenance and checks 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 parts number in the "PARTS MANUAL".

If you notice any explanatory discrepancies, after consulting one of our representatives, please update 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. S5YPU0003E③

6/94

⚠ 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. Make reference to "Techniques of Structural Repair Course". 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.

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. Always use lift arm supports to keep bucket arms raised and bucket tilted down when maintenance or repair work is performed which requires the bucket in the raised position.

19. 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.

20. 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.

21. 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.

22. On track-type machines, be careful when servicing or separating tracks. Chips can fly when removing or installing a track pin. Wear safety glasses. 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.

23. 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 SK100 SK120LC

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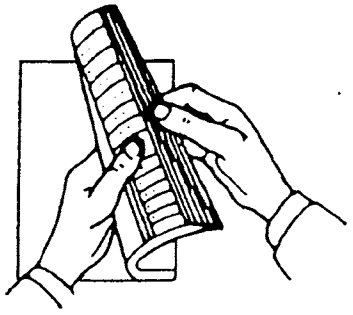
○How to Index each Shop Manual Section
The GENERAL of this shop manual consists of 7 headings as shown above. Each section can be easily referred to by indexes appended to the margin of the page as indicated on the right. Please use the indexes for speedy reference.



KOBELCO

GENERAL

SK100
SK120LC List of Shop Manual GENERAL Section

Index No.	Title	Book Code No. / Distribution Year-Month		
YPU01	SPECIFICATION	S5YPU0103E① 1992-03	←	
—	OPERATION	KCMYPUK90S001OM Refer to Operators manual	YPUK92S002OM Refer to Operators manual	
YPU03	LOCATION AND WEIGHT OF COMPONENTS	S5YPU0303E 1990-10	←	
YPU04	MAINTENANCE STANDARDS AND TEST PROCEDURES	S5YPU0403E① 1993-12	←	
YPU05	TROUBLESHOOTING	S5YPU0503E① 1993-03	←	
—	PREVENTIVE MAINTENANCE	KCMYPUK90S001OM Refer to Operators manual	YPUK92S002OM Refer to Operators manual	
YPU07	WORKING STANDARDS	S5YPU0703E 1990-10	←	
	Applicable Machines	YPU-00301~	YPU-00501~ YW-02801~	

Book code No. S5YPU01 03E①

KOBELCO

SHOP MANUAL

SK100
SK120 (LC)

YPU01

SPECIFICATION

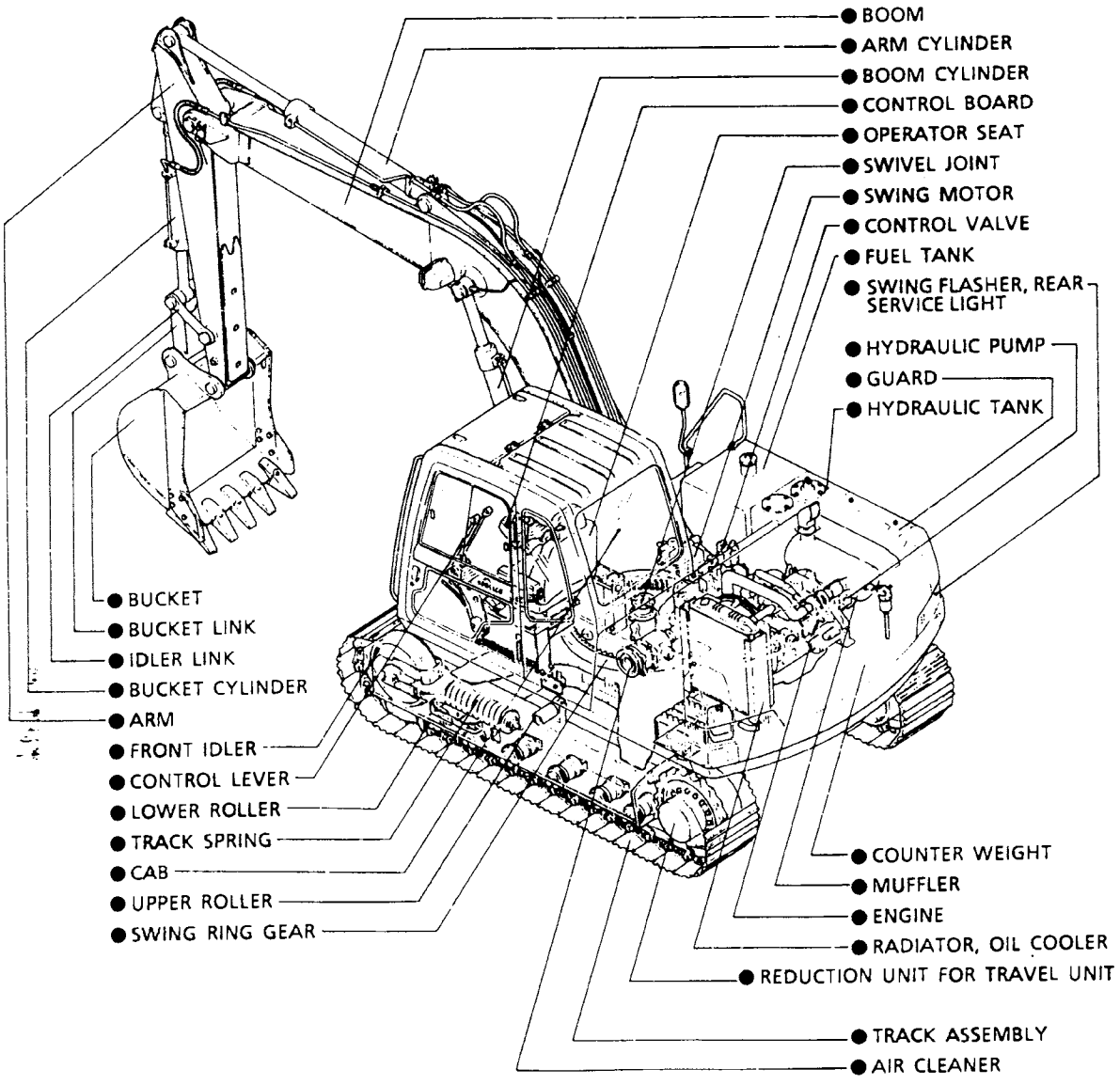
TABLE OF CONTENTS

KOBELCO CONSTRUCTION MACHINERY(U.S.A.) INC.

Applicable Machines
YPU-00501~
YW-02801~

Revision	Date of Issue	Remarks
First edition	October, 1990	S5YPU0103E K
First revision	March, 1992	S5YPU0103E① K

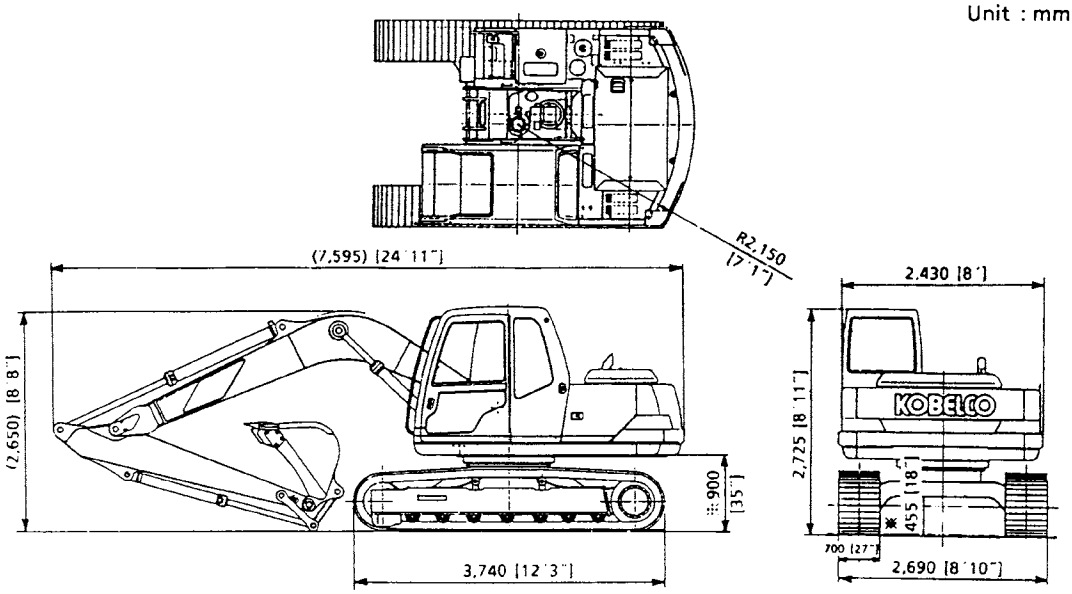
1. LOCATION OF COMPONENTS



2. GENERAL DIMENSIONS

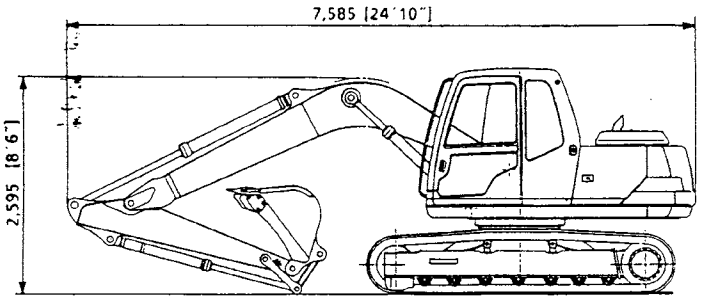
■ SK120LC ; WITH 4.6m (15ft 1in) BOOM + 2.5m (8ft 2in) ARM-ATTACHMENT STANDARD MACHINE

Unit : mm [ft-in]

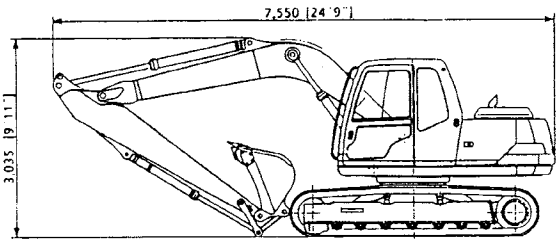


☞ The figures marked ※ in the illustration do not include the shoe embossment (20mm) (0.78")

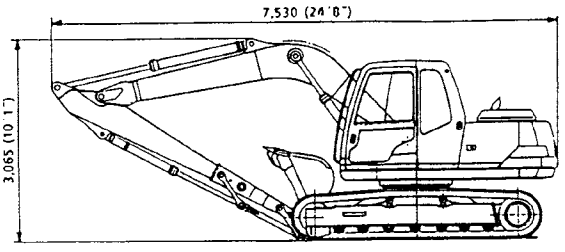
■ SK120LC ; WITH 4.6m (15ft 1in) BOOM + 2.1m (6ft 1in) ARM



■ SK120LC ; WITH 4.6m (15ft 1in) BOOM + 3.0m (9ft 10in) ARM

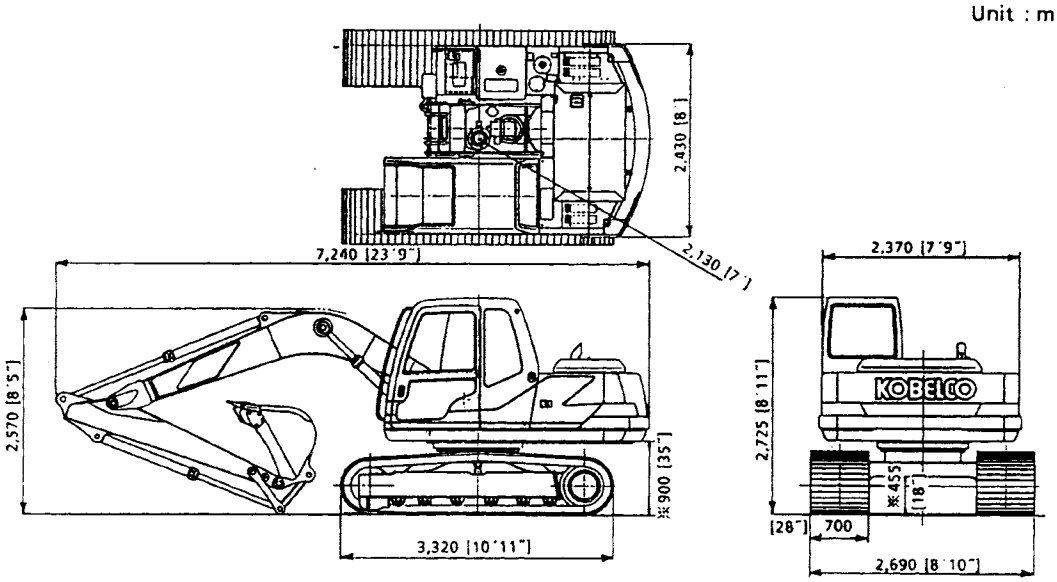


■ SK120LC ; WITH 4.6m(15ft 1in) BOOM + 2.5m (8ft 2in) ARM + 1.0m (3ft 3in) EXTENSION ARM

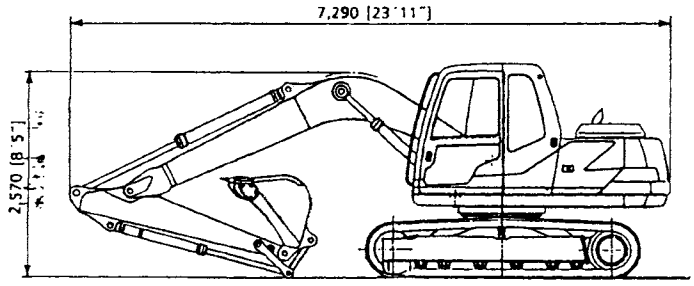


■ SK100 ; WITH 4.26m (14ft) BOOM + 2.27m (7ft 5in) ARM-ATTACHED STANDARD MACHINE

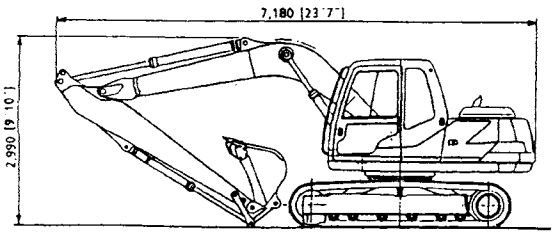
Unit : mm [ft-in]



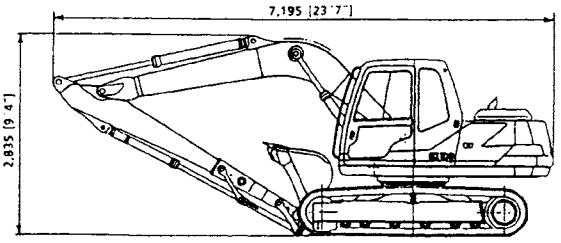
■ SK100 ; WITH 4.26m (14ft) BOOM + 1.9m (6ft 3in) ARM



■ SK100 ; WITH 4.26m (14ft) BOOM + 2.77m (9ft 1in) ARM



■ SK100 ; WITH 4.26m(14ft) BOOM + 2.27m (7ft 5in) ARM + 0.6m (2ft) EXTENSION ARM



☞ The figures marked ※ in the illustration do not include the shoe embossment (20mm) (0.78")

3. SPECIFICATIONS AND PERFORMANCE

■ SPEED AND CLIMBING ABILITY

Item \ Model	SK100	SK120LC
Swing speed	12.7rpm	←
Travel speed	7 / 4km / h (4.3 / 2.5 MPH)	←
Gradeability	35° (70%)	←

■ ENGINE

Item \ Model		SK100	SK120LC
Model		ISUZU 4BD1	ISUZU 4BD1T
Type		4-cycle, water-cooled direct injection type diesel	4-cycle, water-cooled direct injection type with turbo charger
Number of cylinder - Bore x Stroke		4-102mm(4in) x 118mm(4.64in)	←
Total displacement		3,856c.c. (235cuin)	←
Rated output power/revolution	JISD1005 Net	76ps/2,300rpm	85ps/2,150rpm
	SAEJ1349 Net	54.3kw/2,300rpm	63.6kw/2,150rpm
	DIN 6270 Net	53.0kw/2,300rpm	60.5kw/2,150rpm
Maximum torque/revolution	JISD1005 Net	24kgf·m / 1,600rpm	30kgf·m / 1,600rpm
	SAEJ1349 Net	228.8N-m / 1,600rpm	287-1N-m / 1,600rpm
	DIN 6270 Net	223.4N-m / 1,600rpm	279.2k·m / 1,600rpm

■ HYDRAULIC COMPONENTS

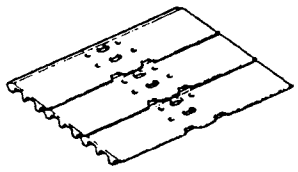
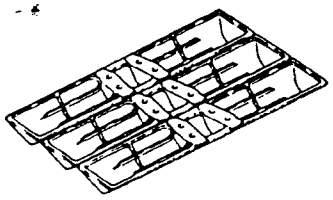
Item \ Model	SK100	SK120LC
Hydraulic pump	Double-pump variable displacement, axial piston + gear pump	←
Hydraulic motor (swing)	Axial piston motor	←
Hydraulic motor (travel)	Axial piston motor	←
Control valve	5-section multiple control valve + section control valve (swing)	←
Cylinders (boom, arm, and bucket)	Double acting cylin	←
Return filter	Safety valve containing	type ←
Oil cooler	Air-cooled type	←

■ WEIGHT

Unit : kg (lbs)

Item \ Model	SK100	SK120LC
Fully-equipped weight	10,900 (24,000)	12,200 (26,900)
Upper machinery	4,680 (10,300)	←
Lower machinery (with 700mm (27") grocer shoe)	4,500 (9,920)	4,840 (10,670)
Attachment [4.26m (14ft) boom + 2.27m (7ft5in) arm + 0.4m^3 (0.52cuyd) bucket]	1,720 (3,8000)	———
Attachment [4.6m (15ft1in) boom + 2.5m (8ft2in) arm + 0.45m^3 (0.59cuyd) bucket]	———	1,930 (4,250)

4. TYPE OF SHOES

Shape	Model	Width of track shoe (mm(ft-in))	Overallwidth of crawler (mm(ft-in))	Ground contact pressure (kg/cm²(psi))		
				STD. Arm	Short. Arm	Long. Arm
Grouser(equal height) 	SK100 41 Link	500(20")	2,490(8'2")	0.36 (5.12)	0.36 (5.12)	0.36 (5.12)
		600(24")	2,590(8'6")	0.30 (4.27)	0.30 (4.27)	0.31 (4.41)
		700(27")	2,690(8'10")	0.26 (3.70)	0.26 (3.70)	0.26 (3.70)
	SK120 43 Link	500(20")	2,490(8'2")	0.38 (5.40)	0.37 (5.26)	0.38 (5.40)
		600(24")	2,590(8'6")	0.32 (4.55)	0.32 (4.55)	0.32 (4.55)
		700(27")	2,690(8'10")	0.28 (3.98)	0.28 (3.98)	0.28 (3.98)
	SK120LC 46 Link	500(20")	2,490(8'2")	0.36 (5.12)	0.36 (5.12)	0.37 (5.26)
		600(24")	2,590(8'6")	0.30 (4.27)	0.30 (4.27)	0.30 (4.27)
		700(27")	2,690(8'10")	0.26 (3.70)	0.26 (3.70)	0.26 (3.70)
Flat 	SK100 41 Link	500(20")	2,490(8'2")	0.36 (5.12)	0.36 (5.12)	0.36 (5.12)
	SK120 43 Link	500(20")	2,490(8'2")	0.36 (5.12)	0.35 (5.00)	0.36 (5.12)
	SK120LC 46 Link	500(20")	2,490(8'2")	0.36 (5.12)	0.35 (5.00)	0.35
Triangle 	SK100 41 Link	800(32")	2,790(9'2")	0.23 (3.27)	0.23 (3.27)	0.23 (3.27)
	SK120 43 Link	800(32")	2,790(9'2")	0.24 (3.41)	0.24 (3.41)	0.24 (3.41)
	SK120LC 46 Link	800(32")	2,790(9'2")	0.23 (3.27)	0.23 (3.27)	0.23 (3.27)

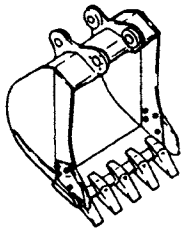
☞ ● 600mm (24") shoes, flat shoes and 700mm (27") triangle shoes 800mm (32") come in three types, wet land, paved road and soft land. Do not use them at sites with many stones and gravels in any circumstances.

● Note that if you operate such shoe-mounted machines in general civil construction work and in a dry riverbed, it will cause shoes to bend, bring about slackening of shoe bolts and damage to under frame parts (links, roller, etc.).

5. TYPE AND COMBINATION OF ATTACHMENTS

■ TYPES OF BUCKETS

HOE BUCKET



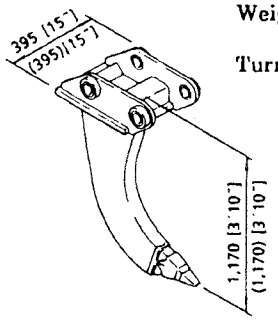
● SK100

Heaped capacity m³ (cuyd)	Outside width of bucket mm (ft-in)		No. of teeth	Presence or not of side cutter	Possibility of turnover	Weight kg (lbs)
	With side cutter	Without side cutter				
0.15 (0.20)	—	450(1′ 6″)	3	No	Yes	200(440)
0.25 (0.33)	—	560(1′ 10″)	3	No	Yes	260(570)
0.3 (0.39)	750 (2′ 5″)	650(2′ 2″)	4	Yes	Yes	300(750)
0.35 (0.46)	840 (2′ 9″)	730(2′ 5″)	4	Yes	Yes	320(710)
0.4 (0.52)	920 (3′ 0″)	820(2′ 8″)	4	Yes	Yes	340(750)
0.45 (0.59)	1,010 (3′ 4″)	900(2′ 11″)	5	Yes	Yes	360(790)

● SK120, SK120LC

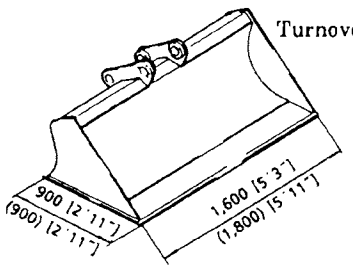
Heaped capacity m³ (cuyd)	Outside width of bucket mm (ft-in)		No. of teeth	Presence or not of side cutter	Possibility of turnover	Weight kg (lbs)
	With side cutter	Without side cutter				
0.3(0.39)	730(2′ 5″)	630(2′ 1″)	4	Yes	Yes	300(660)
0.35(0.46)	820(2′ 8″)	720(2′ 4″)	4	Yes	Yes	320(710)
0.4(0.52)	900(2′ 11″)	800(2′ 7″)	4	Yes	Yes	340(750)
0.45(0.59)	980(3′ 3″)	880(2′ 11″)	5	Yes	Yes	370(820)
0.5(0.65)	1,060(3′ 6″)	960(3′ 2″)	5	Yes	Yes	380(840)
0.6(0.78)	1,230(4′ 1″)	1,130(3′ 8″)	5	No	Yes	400(880)

RIPPER



Weight : 250kg (550 lbs)
[250kg (550 lbs)]
Turnover not possible

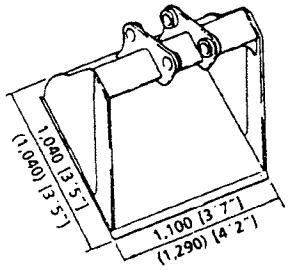
SLOPE FINISHING BUCKET



Weight : 480kg (1060 lbs)
[550kg (1210 lbs)]
Turnover not possible

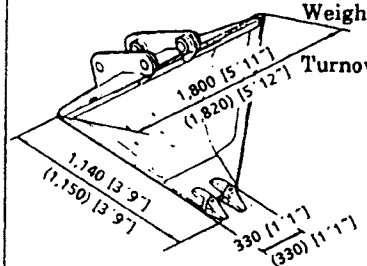
SCRAPER BUCKET

Capacity : 0.4 m³ [0.59cuyd]
(0.55 m³) [0.72cuyd]
Weight : 380kg (840 lbs)
Turnover not possible



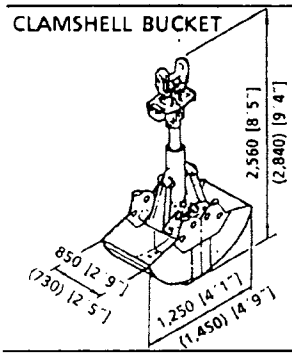
V-BUCKET

Capacity: 0.38 m³ [0.5cuyd]
(0.38 m³) [0.5cuyd]
Weight : 280kg [620 lbs]
(290kg) [640 lbs]
Turnover not possible



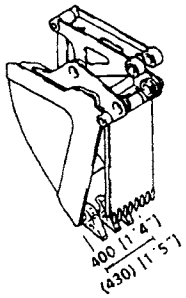
CLAMSHELL BUCKET

Capacity: 0.4 m³ [0.52cuyd]
(0.4 m³) [0.52cuyd]
Weight : 780kg [1,720 lbs]
(780kg) [1,720 lbs]
Width of opening :
1,570mm [5ft 2in]
(1,570mm) [5ft 2in]



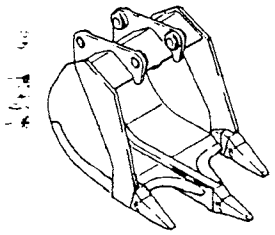
BUCKET WITH EJECTOR

Capacity: 0.2 m³ [0.26cuyd]
(0.2 m³) [0.26cuyd]
Weight : 400kg [880 lbs]
400kg) [880 lbs]
Turnover not possible



RIPPER BUCKET

Capacity : 0.3 m³ [0.39cuyd]
(0.3 m³) [0.39cuyd]
Weight : 550kg (1,210 lbs)
Turnover not possible



■ DIGGING FORCE

	Arm + Bucket	Digging force ton (UK ton)	
		Arm	Bucket
SK100	1.9M + 0.45m³ (6'3" + 0.59 cuyd)	6.4 (6.3)	7.5 (7.4)
	2.27M + 0.40m³ (7'5" + 0.52 cuyd)	5.6 (5.5)	↑
	2.27M + 0.35m³ (9'1" + 0.46 cuyd)	4.9 (4.8)	↑
SK120	2.1M + 0.50m³ (6'11" + 0.65 cuyd)	6.8 (6.7)	7.7 (7.6)
	2.5M + 0.45m³ (8'2" + 0.59 cuyd)	6.1 (6.0)	↑
	3.0M + 0.35m³ (9'10" + 0.46 cuyd)	5.4 (6.0)	↑

■COMBINATIONS OF ATTACHMENTS

● SK100

Bucket				Applicable arm			
Type	JIS heaped capacity m^3(cuyd)	SAE heaped capacity m^3(cuyd)	JIS·SAE struck capacity m^3(cuyd)	2.1m (6ft3in) arm	2.27m (7ft5in) arm	2.77m (9ft1in) arm	2.27m (7ft5in)arm + 0.6 m(1ft1in) extension arm
Hoe bucket	0.15 (0.20)	0.17 (0.22)	0.13 (0.17)	○	○	○	○
	0.25 (0.33)	0.28 (0.37)	0.22 (0.29)	○	○	○	○
	0.30 (0.39)	0.34 (0.44)	0.26 (0.34)	○	○	○	◎
	0.35 (0.46)	0.40 (0.52)	0.30 (0.39)	○	○	◎	△
	0.40 (0.52)	0.46 (0.60)	0.35 (0.46)	○	◎	△	×
	0.45 (0.59)	0.52 (0.68)	0.38 (0.50)	◎	△	×	×
Clamshell bucket	0.40 (0.52)	——	——	○	○	×	×
Slope finishing bucket	Width × depth 0.9m × 1.8m (2ft11in × 5ft11in)	——	——	△	△	△	△
Ripper	——	——	——	○	○	×	×
V-bucket	0.38 (0.50)	0.46 (0.60)	0.30 (0.39)	△	△	△	△
Scraper bucket	0.45 (0.59)	0.51 (0.67)	0.38 (0.50)	△	△	△	△
Bucket with ejector	0.20 (0.26)	0.22 (0.29)	0.19 (0.25)	○	○	○	○

● SK120, SK120LC

Bucket				Applicable arm			
Type	JIS heaped capacity m^3(cuyd)	SAE heaped capacity m^3(cuyd)	JIS·SAE struck capacity m^3(cuyd)	2.1m (6ft11in) arm	2.5m (8ft2in) arm	3.0m (9ft10in) arm	2.5m (8ft2in) arm + 1.0 m (3ft3in) extension arm
Hoe bucket	0.30 (0.39)	0.34 (0.44)	0.26 (0.34)	○	○	○	◎
	0.35 (0.46)	0.40 (0.52)	0.30 (0.39)	○	○	◎	△
	0.40 (0.52)	0.46 (0.60)	0.35 (0.46)	○	○	△	×
	0.45 (0.59)	0.52 (0.68)	0.38 (0.50)	○	◎	×	×
	0.50 (0.65)	0.58 (0.76)	0.42 (0.55)	◎	△	×	×
	0.60 (0.78)	0.70 (0.91)	0.52 (0.68)	△	×	×	×
Clamshell bucket	0.40 (0.52)	——	——	○	○	×	×
Slope finishing bucket	Width × depth 0.9m × 1.8m (2ft11in × 5ft11in)	——	——	△	△	△	△
Ripper	——	——	——	○	○	×	×
V-bucket	0.38 (0.50)	0.46 (0.60)	0.30 (0.39)	△	△	△	△
Scraper bucket	0.55 (0.72)	0.65 (0.85)	0.42 (0.55)	△	△	△	△
Bucket with ejector	0.20 (0.26)	0.22 (0.29)	0.19 (0.25)	○	○	○	○

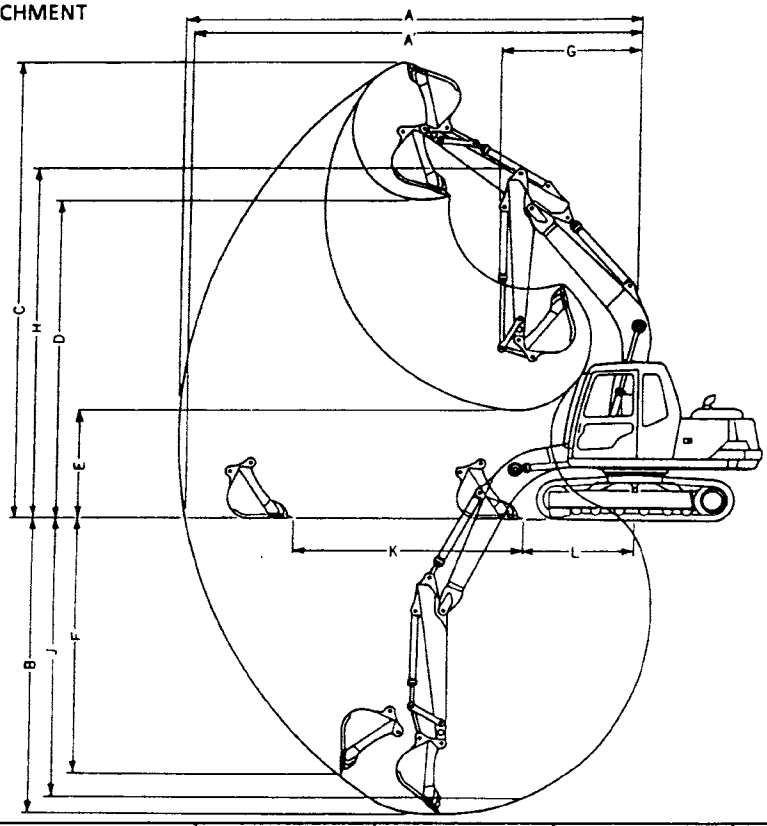
☞ ◎ Standard combinations
○ General operation : Digging and loading of sand, gravels and clay-mixed soil
△ Light operation : Operations mainly consisting of loading of loose sand and soil (for instance, operations in paddy fields and loading of sand and gravels)
× Not usable : Do not operate in such combinations as guarantee does not cover them.

⚠ ●If a bucket other than hoe buckets is used to execute turnover operation, it will cause damage to the arm and the bucket.
●The combinations other than those mentioned in the above table can not be used in principle. For details, contact us.

6. WORKING RANGES OF ATTACHMENTS

■ BACKHOE ATTACHMENT

SK100



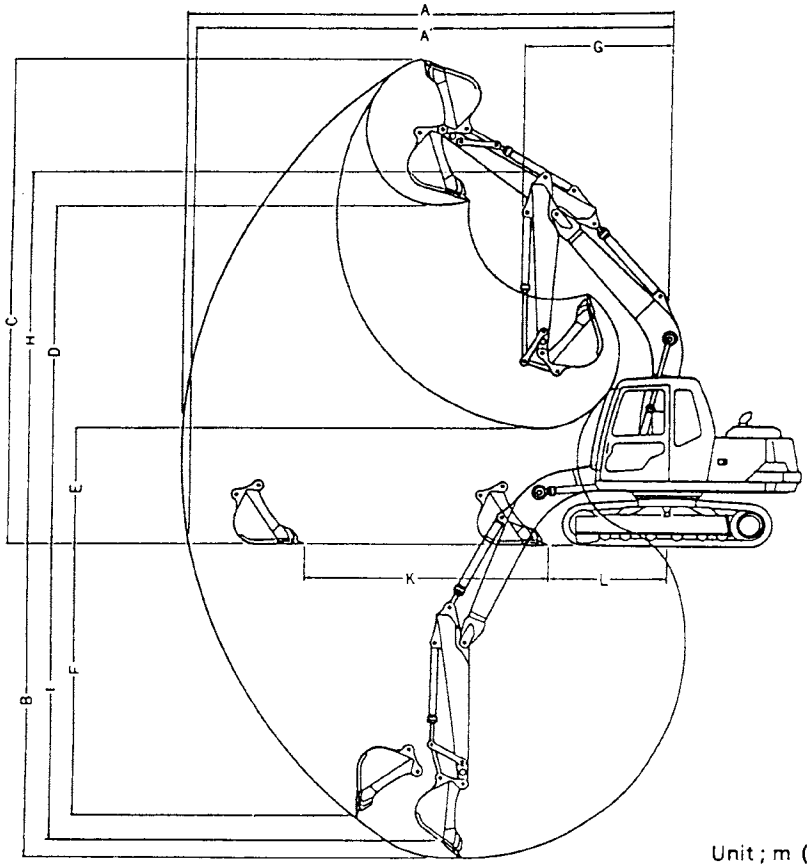
Unit ; m (ft-in)

Item / Range / Type of attachment			1.9m (6ft3in) arm with 0.45m³ (0.59cuyd) bucket	2.27m (7ft5in) arm with 0.4m³ (0.52cuyd) bucket	2.77m (9ft1in) arm with 0.35m³ (0.46cuyd) bucket	2.27m (7ft5in) arm + 0.6m (1ft11in) arm extension arm with 0.3m³ (0.39cuyd) bucket
A	Max digging reach		7.38(24'3")	7.70(25'3")	8.20(26'11")	8.26(27'1")
A'	Max. reach at ground level		7.24(23'9")	7.56(24'10")	8.07(26'6")	8.13(26'8")
B	Max. digging depth		4.71(15'5")	5.08(16'8")	5.58(18'4")	5.68(18'8")
C	Max. digging height		7.70(25'3")	7.86(25'9")	8.22(26'12")	8.18(26'10")
D	Max. dumping clearance		5.33(17'6")	5.49(18')	5.85(19'2")	5.83(19'2")
E	Min. dumping clearance		2.28(7'6")	1.88(6'2")	1.40(4'7")	1.28(4'2")
F	Max. vertical digging depth		4.07(13'4")	4.41(14'6")	4.90(16'1")	4.89(16'1")
G	Min swing radius		2.53(8'4")	2.35(7'9")	2.49(8'2")	2.37(7'9")
H	Height at min. swing radius		6.06(19'11")	6.03(19'9")	6.04(19'10")	6.03(19'9")
J	Digging depth at 8'-flat floor		4.42(14'6")	4.81(15'9")	5.37(17'7")	5.46(17'11")
K	Horizontal digging discance	Stroke	3.14(10'4")	3.87(12'8")	4.55(14'11")	4.78(15'8")
L		At min.	2.27(7'5")	1.86(6'1")	1.68(5'6")	1.51(4'11")

☞ The figures in this table do not include the projection of shoes (20mm (0.78in)) .

■BACKHOE ATTACHMENT

SK120, 120LC



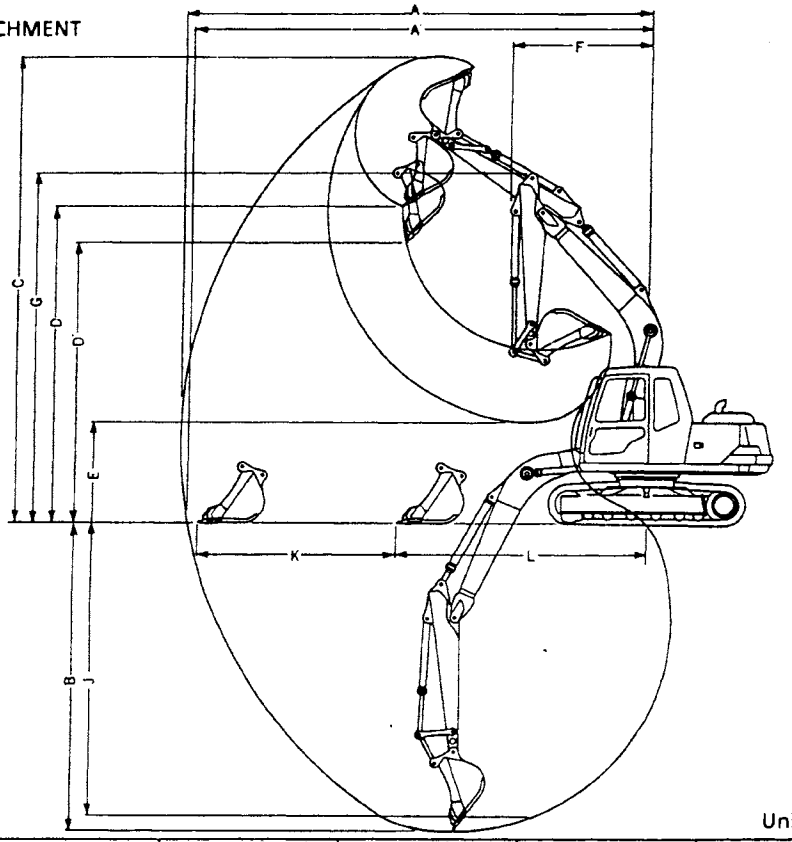
Unit ; m (ft-in)

Item / Range			Type of attachment: 2.1m (6ft11in) arm with 0.5m³ (0.65cuyd) bucket	2.5m (8ft2in) arm with 0.45m³ (0.59cuyd) bucket	3.0m (9ft10in) arm with 0.35m³ (0.46cuyd) bucket	2.5m (8ft2in) arm + 1.0m (3ft3in) arm extension arm with 0.3m³ (0.39cuyd) bucket
A	Max digging reach		7.90(25'11")	8.25(27'1")	8.74(28'8")	9.19(30'2")
A'	Max. reach at ground level		7.75(25'5")	8.12(26'8")	8.61(28'3")	9.07(29'9")
B	Max. digging depth		5.17(16'12")	5.57(18'3")	6.07(19'11")	6.56(21'6")
C	Max. digging height		8.29(27'2")	8.50(27'11")	8.84(29')	9.08(29'9")
D	Max. dumping clearance		5.85(19'2")	6.06(19'11")	6.40(20'12")	6.64(21'9")
E	Min. dumping clearance		2.41(7'11")	2.00(6'7")	1.53(5')	1.00(3'3")
F	Max. vertical digging depth		4.48(14'8")	4.87(15'12")	5.33(17'6")	5.83(19'2")
G	Min swing radius		2.39(7'10")	2.39(7'10")	2.53(8'4")	2.39(7'10")
H	Height at min. swing radius		6.46(21'2")	6.46(21'2")	6.50(21'4")	6.46(21'2")
J	Digging depth at 8'-flat floor		4.92(16'2")	5.35(17'7")	5.89(19'4")	6.40(21')
K	Horizontal digging discance	Stroke	3.66(12')	4.36(14'4")	4.92(16'2")	5.88(19'3")
L		At min.	2.23(7'4")	1.89(6'2")	1.81(5'11")	1.30(4'3")

☞ The figures in this table do not include the projection of shoes (20mm (0.78in)) .

■ FACESHOVEL ATTACHMENT

SK100



Unit ; m (ft-in)

Item / Range			Type of attachment: 1.9m (6ft3in) arm with 0.45m³ (0.59cuyd) bucket	2.27m (7ft5in) arm with 0.4m³ (0.52cuyd) bucket	2.77m (9ft1in) arm with 0.35m³ (0.46cuyd) bucket	2.27m (7ft5in) arm + 0.6m (1ft11in) arm extension arm with 0.3m³ (0.39cuyd) bucket
A	Max digging reach		7.53(24'8")	7.85(25'9")	8.34(27'4")	8.40(27'7")
A'	Max. reach at ground level		7.39(24'3")	7.71(25'3")	8.22(27')	8.28(27'2")
B	Max. digging depth		4.86(15'11")	5.23(17'2")	5.73(18'10")	5.83(19'1")
C	Max. digging height		7.90(25'11")	8.06(26'5")	8.42(27'7")	8.39(27'6")
D	Max. dumping clearance		5.30(17'5")	5.46(17'11")	5.81(19'1")	5.77(18'11")
E	Min. dumping clearance		4.75(15'7")	4.83(15' 10")	5.14(16'10")	5.15(16'11")
F	Max. vertical digging depth		2.13(6'12")	1.74 (5'9")	1.25(4'1")	1.14(3'9")
G	Min swing radius		2.53(8'4")	2.35(7'9")	2.49(8'2")	2.37(7'9")
H	Height at min. swing radius		6.06(19'11")	6.03(19'9")	6.04(19'10")	6.03(19'9")
J	Digging depth at 8'-flat floor		4.58(15')	4.97(16'4")	5.53(18'2")	5.62(18'5")
K	Horizontal digging discance	Stroke	2.71(8'11")	3.35(10'12")	4.22(13'10")	4.38(14'4")
L		At min.	4.52(14'10")	4.20(13'9")	3.82(12'6")	3.72(12'2")

☞ The figures in this table do not include the projection of shoes (20mm (0.78in)) .

7. LIFTING-UP ABILITY DIAGRAM

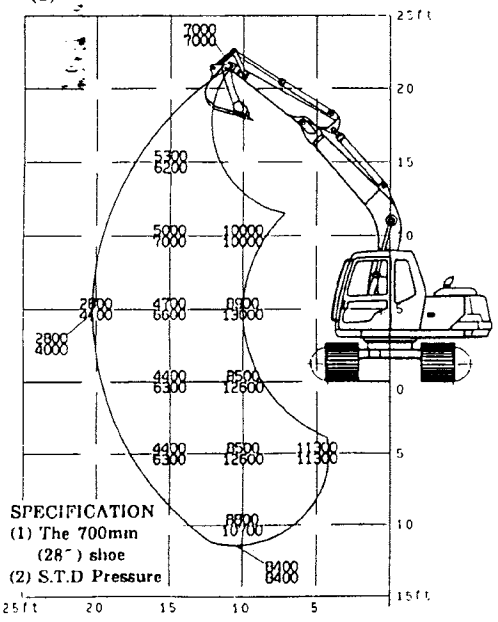
(1) Calculation condition
The lifting-up ability of this drawing is indicated by metric standard. The indicated figures fall within 87% of a set pressure of the main relief valve used in the arm and the boom cylinder and 75% of static tilting load.

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 abillty of a machine facing sideways, while the figures at the bottom stage repressent a machine facing longitudinally.

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

Model	Arm length (M) + bucket capacity (M^3)		
	1.9M +0.45M^3 (6´3˝+ 0.59cu · yd)	2.27M +0.4M^3 (7´5˝+ 0.52cu · yd)	2.77M +0.35M^3 (9´9˝+ 0.46cu · yd)
SK100	Reference No. 1	2	3
Model	2.1M +0.5M^3 (6´11˝+ 0.65cu · yd)	2.5M +0.45M^3 (8´2˝)+(0.59cu · yd)	3.0M +0.35M^3 (9´10˝)+(0.46cu · yd)
SK120LC	4	5	6

(1) Unit ton



(2) Unit ton