KOBELCO

Hydraulic Excavators

ACERA GEOSPEC

SK225SR
SK225SR LC

- Bucket Capacity:
  0.51- 0.93 m³ ISO heaped
- Engine Power:
  118 kW {160 PS}/2,000 min⁻¹ {rpm}
  (ISO14396)
- Operating Weight:
  22,500 kg – SK225SR
  22,900 kg – SK225SRLC

Complies with the latest exhaust emission regulations

US EPA Tier III

EU (NRMM) Stage IIIA

Latest Japanese Regulations

We Save You Fuel
Achieving a Low-Carbon Society

Specifications

Engine

Model	HINO J05E-TA
Type:	Direct injection, water-cooled, 4-cycle diesel engine with turbocharger, intercooler (Complies with EU (NRMM) Stage IIIA, US EPA Tier III,and act on regulation, etc. of emissions from non-road special motor vehicles (Japan))
No. of cylinders:	4
Bore and stroke:	112 mm x 130 mm
Displacement:	5.123 L
Rated power output:	118 kW /2,000 min^{-1} (ISO14396: 2002)*
	114 kW /2,000 min^{-1} (ISO9249: 2007)
Max. torque:	592 N·m/1,600 min^{-1} {rpm} (ISO14396: 2002)*
	572 N·m/1,600 min^{-1} {rpm} (ISO9249: 2007)

*ISO 14396 meets EU regulation

Hydraulic System

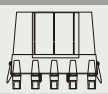
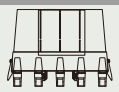
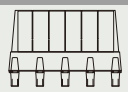
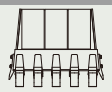
Pump	
Type:	Two variable displacement pumps + 1 gear pump
Max. discharge flow:	2 x 220 L/min, 1 x 20 L/min
	Extra gear pump 1 x 41 L/min
Relief valve setting	
Boom, arm and bucket:	34.3 MPa {350 kgf/cm^2}
Power boost:	37.7 MPa {385 kgf/cm^2}
Travel circuit:	34.3 MPa {350 kgf/cm^2}
Swing circuit:	29.0 MPa {296 kgf/cm^2}
Control circuit:	5.0 MPa {50 kgf/cm^2}
Pilot control pump:	Gear type
Main control valves:	8-spool
Oil cooler:	Air cooled type

Swing System

Swing motor:	Axial piston motor
Brake:	Hydraulic; locking automatically when the swing control lever is in the neutral position
Parking brake:	Hydraulic brake
Swing speed:	13.3 min^{-1} {rpm}
Tail swing radius:	1,680 mm
Min. front swing radius:	2,340 mm

Attachments

Backhoe bucket and arm combination

Use			Backhoe bucket				Side pin type
			Normal digging				
							
Bucket capacity	**(ISO heaped)**	**m³**	0.51	0.7	0.8	0.93	0.8
	(Struck)	**m³**	0.39	0.52	0.59	0.67	0.59
Opening width	**With side cutter**	**mm**	870	1,080	1,160	1,330	1,160
	Without side cutter	**mm**	770	980	1,060	1,230	1,060
No. of bucket teeth			3	5	5	5	5
Bucket weight		**kg**	520	630	630	710	660
Combinations	**2.87 m arm**		○	○	◎	○	△

◎Std. ○Recommended △Loading only

Travel System

Travel motors:	2 x axial-piston, two-step motors
Travel brakes:	Hydraulic brake per motor
Parking brakes:	Oil disc brake per motor
Travel shoes:	46 each side (SK225SR)
	49 each side (SK225SRLC)
Travel speed:	6.0/3.6 km/h
Drawbar pulling force:	227 kN {23,200 kgf} (ISO 7464)
Gradeability:	70 % {35°}

Cab & Control

Cab

All-weather, sound-suppressed steel cab mounted on the silicon-sealed viscous mounts and equipped with a heavy, insulated floor mat.

Control

Two hand levers and two foot pedals for travel

Two hand levers for excavating and swing

Electric rotary-type engine throttle

Boom, Arm & Bucket

Boom cylinders:	120 mm x 1,355 mm
Arm cylinder:	130 mm x 1,406 mm
Bucket cylinders:	110 mm x 1,064 mm

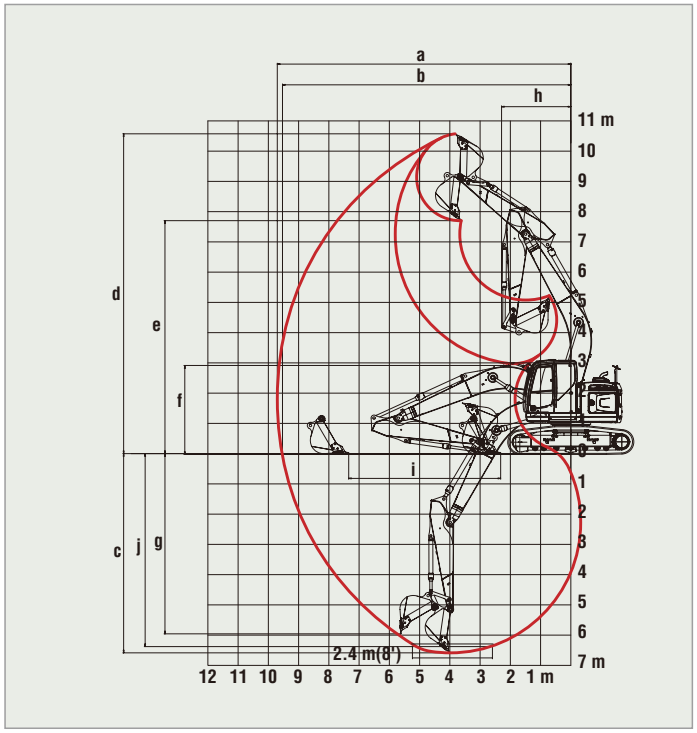
Refilling Capacities & Lubrications

Fuel tank:	300 L
Cooling system:	22 L
Engine oil:	20.5 L
Travel reduction gear:	2 x 5.3 L
Swing reduction gear:	3.0 L
Hydraulic oil tank:	114 L tank oil level 230 L hydraulic system

Working Ranges

Unit: m

Boom	5.62 m
Arm / Range	Standard 2.87 m
a- Max. digging reach	9.71
b- Max. digging reach at ground level	9.53
c- Max. digging depth	6.59
d- Max. digging height	10.57
e- Max. dumping clearance	7.7
f - Min. dumping clearance	2.97
g- Max. vertical wall digging depth	5.96
h- Min. swing radius	2.34
i - Horizontal digging stroke at ground level	5.02
j - Digging depth for 2.4 m (8') flat bottom	6.38
Bucket capacity ISO heaped m³	0.8



Digging Force (ISO 6015)

Unit: kN (kgf)

Arm length	Standard 2.87 m
Bucket digging force	120 {12,240} 132 {13,460}
Arm crowding force	88.0 {8,980} 96.8 {9,880}

*Power Boost engaged.

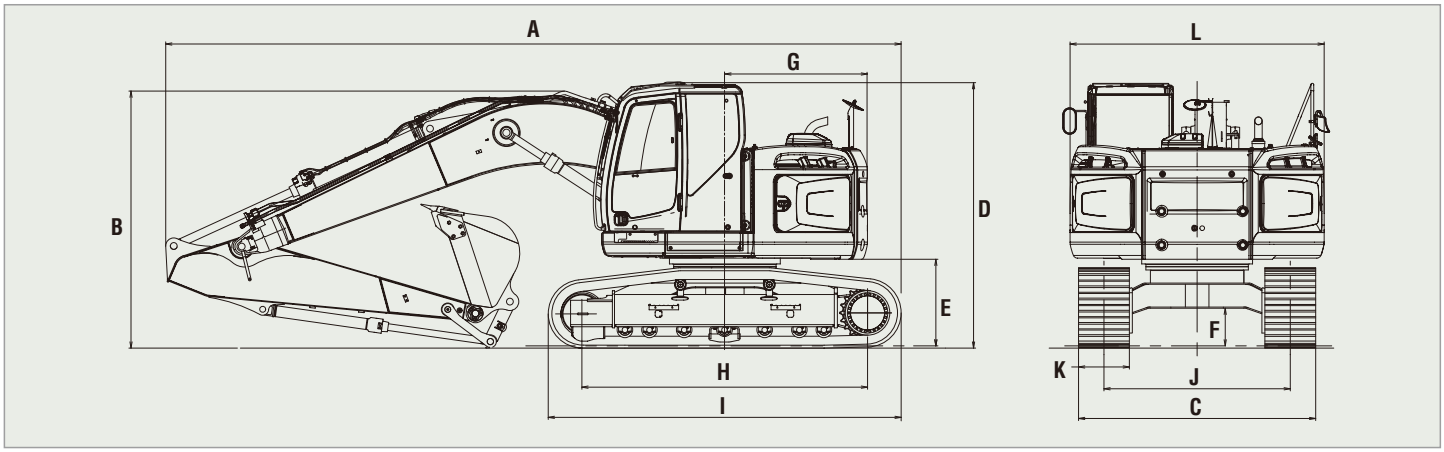
Dimensions

Unit: mm

Arm length			Standard 2.87 m
A	Overall length	SK225SR	8,690
		SK225SRLC	8,830
B	Overall height (to top of boom)		3,130
C	Overall width of crawler	SK225SR	2,800
		SK225SRLC	2,990
D	Overall height (to top of cab)		3,100
E	Ground clearance of rear end*		1,030
F	Ground clearance*		445

G	Tail swing radius		1,680
H	Tumbler distance	SK225SR	3,370
		SK225SRLC	3,660
I	Overall length of crawler	SK225SR	4,170
		SK225SRLC	4,450
J	Track gauge	SK225SR	2,200
		SK225SRLC	2,390
K	Shoe width		600
L	Overall width of upperstructure		3,000

* Without including height of shoe lug.



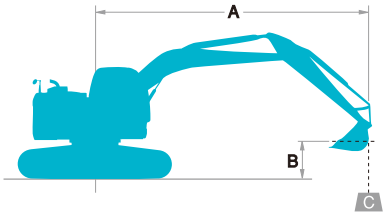
Operating Weight & Ground Pressure

In standard trim, with standard boom, 2.87 m arm, and 0.8 m³ ISO heaped bucket

Shaped		Triple grouser shoes (even height)		
Shoe width	mm	600	700	800
Overall width of crawler	mm	2,800 [2,990]	2,900 [3,090]	3,000 [3,190]
Ground pressure	kPa {kgf/cm²}	50 {0.51} [48 {0.48}]	44 {0.45} [42 {0.42}]	39 {0.40} [37 {0.37}]
Operating weight	kg	22,500 [22,900]	22,900 [23,300]	23,200 [23,600]
Dozer (optional)	Weight	Plus 1,600 kg [–]	Plus 1,600 kg [–]	– [–]
	Ground pressure	Plus 3.6 kPa [–]	Plus 3.1 kPa [–]	– [–]

[ ] = Long Crawler

Lifting Capacities



Rating over front

Rating over side or 360 degrees

A - Reach from swing centerline to bucket hook
B - Bucket hook height above/below ground
C - Lifting capacities in kilograms
• Max. discharge pressure: 34.3 MPa (350 kgf/cm²)

SK225SR — Standard Arm: 2.87 m Bucket: 0.8 m³ SAE heaped 630 kg Shoe: 600 mm

A / B		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		At max. rearch		Radius
7.5 m	kg							*2,220	*2,220			*1,900	*1,900	6.15 m
6.0 m	kg							*3,640	*3,640			*1,800	*1,800	7.27 m
4.5 m	kg					*5,590	*5,590	*4,800	3,800	*2,980	2,510	*1,820	*1,820	7.95 m
3.0 m	kg			*11,630	10,940	*7,450	5,660	*5,750	3,540	4,140	2,390	*1,940	*1,940	8.31 m
1.5 m	kg			*6,880	*6,880	*8,780	5,100	5,740	3,270	4,000	2,250	*2,180	1,830	8.39 m
G. L.	kg			*7,270	*7,270	8,810	4,750	5,520	3,070	3,880	2,150	*2,590	1,850	8.19 m
-1.5 m	kg	*6,230	*6,230	*9,810	9,070	8,660	4,620	5,410	2,970	3,830	2,100	*3,350	2,020	7.70 m
-3.0 m	kg	*9,110	*9,110	*11,310	9,230	*8,080	4,650	5,420	2,980			4,440	2,450	6.84 m
-4.5 m	kg			*8,040	*8,040	*5,910	4,840					*4,620	3,610	5.45 m

SK225SR — Standard Arm: 2.87 m Bucket: 0.8 m³ SAE heaped 630 kg Shoe: 800 mm

A / B		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		At max. rearch		Radius
7.5 m	kg							*2,220	*2,220			*1,900	*1,900	6.15 m
6.0 m	kg							*3,640	*3,640			*1,800	*1,800	7.27 m
4.5 m	kg					*5,590	*5,590	*4,800	3,920	*2,980	2,600	*1,820	*1,820	7.95 m
3.0 m	kg			*11,630	11,270	*7,450	5,840	*5,750	3,660	*4,200	2,480	*1,940	*1,940	8.31 m
1.5 m	kg			*6,880	*6,880	*8,780	5,280	5,940	3,390	4,150	2,350	*2,180	1,920	8.39 m
G. L.	kg			*7,270	*7,270	9,120	4,930	5,720	3,190	4,030	2,240	*2,590	1,930	8.19 m
-1.5 m	kg	*6,230	*6,230	*9,810	9,400	8,970	4,800	5,610	3,090	3,980	2,190	*3,350	2,110	7.70 m
-3.0 m	kg	*9,110	*9,110	*11,310	9,560	*8,080	4,830	5,620	3,110			4,610	2,560	6.84 m
-4.5 m	kg			*8,040	*8,040	*5,910	5,020					*4,620	3,750	5.45 m

SK225SRLC — Standard Arm: 2.87 m Bucket: 0.8 m³ SAE heaped 630 kg Shoe: 600 mm

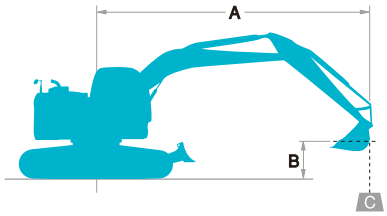
A / B		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		At max. rearch		Radius
7.5 m	kg							*2,220	*2,220			*1,900	*1,900	6.15 m
6.0 m	kg							*3,640	*3,640			*1,800	*1,800	7.27 m
4.5 m	kg					*5,590	*5,590	*4,800	3,880	*2,980	2,570	*1,820	*1,820	7.95 m
3.0 m	kg			*11,630	11,140	*7,450	5,770	*5,750	3,610	*4,200	2,440	*1,940	*1,940	8.31 m
1.5 m	kg			*6,880	*6,880	*8,780	5,210	*6,400	3,350	4,620	2,310	*2,180	1,880	8.39 m
G. L.	kg			*7,270	*7,270	*9,380	4,860	6,410	3,140	4,500	2,200	*2,590	1,900	8.19 m
-1.5 m	kg	*6,230	*6,230	*9,810	9,270	*9,140	4,730	6,290	3,050	4,440	2,160	*3,350	2,070	7.70 m
-3.0 m	kg	*9,110	*9,110	*11,310	9,430	*8,080	4,760	*5,900	3,060			*4,860	2,520	6.84 m
-4.5 m	kg			*8,040	*8,040	*5,910	4,950					*4,620	3,700	5.45 m

SK225SRLC — Standard Arm: 2.87 m Bucket: 0.8 m³ SAE heaped 630 kg Shoe: 800 mm

A / B		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		At max. rearch		Radius
7.5 m	kg							*2,220	*2,220			*1,900	*1,900	6.15 m
6.0 m	kg							*3,640	*3,640			*1,800	*1,800	7.27 m
4.5 m	kg					*5,590	*5,590	*4,800	4,010	*2,980	2,670	*1,820	*1,820	7.95 m
3.0 m	kg			*11,630	11,500	*7,450	5,960	*5,750	3,750	*4,200	2,550	*1,940	*1,940	8.31 m
1.5 m	kg			*6,880	*6,880	*8,780	5,400	*6,400	3,480	4,790	2,410	*2,180	1,970	8.39 m
G. L.	kg			*7,270	*7,270	*9,380	5,050	6,650	3,280	4,670	2,310	*2,590	1,990	8.19 m
-1.5 m	kg	*6,230	*6,230	*9,810	9,620	*9,140	4,930	6,530	3,180	4,620	2,260	*3,350	2,170	7.70 m
-3.0 m	kg	*9,110	*9,110	*11,310	9,780	*8,080	4,960	*5,900	3,190			*4,860	2,630	6.84 m
-4.5 m	kg			*8,040	*8,040	*5,910	5,140					*4,620	3,850	5.45 m

Notes:

1. Do not attempt to lift or hold any load that is greater than these lift capacities at their specified lift point radius and heights. Weight of all accessories must be deducted from the above lift capacities.
2. Lift capacities are based on machine standing on level, firm, and uniform ground. User must make allowance for job conditions such as soft or uneven ground, out of level conditions, side loads, sudden stopping of loads, hazardous conditions, experience of personnel, etc.
3. Bucket lift hook defined as lift point.
4. The above lifting capacities are in compliance with ISO 10567. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Lifting capacities marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.
5. Operator should be fully acquainted with the Operator's and Maintenance Instructions before operating this machine. Rules for safe operation of equipment should be adhered to at all times.
6. Lift capacities apply to only machine as originally manufactured and normally equipped by KOBELCO CONSTRUCTION MACHINERY CO., LTD.



Rating over front

Rating over side or 360 degrees

A - Reach from swing centerline to bucket hook
B - Bucket hook height above/below ground
C - Lifting capacities in kilograms
• Max. discharge pressure: 34.3 MPa (350 kgf/cm²)

SK225SR — Standard Arm: 2.87 m Bucket: 0.8 m³ SAE heaped 630 kg Shoe: 600 mm Dozer: blade up

A / B		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		At max. rearch		Radius
7.5 m	kg							*2,220	*2,220			*1,910	*1,910	6.15 m
6.0 m	kg							*3,640	*3,640			*1,800	*1,800	7.27 m
4.5 m	kg					*5,600	*5,600	*4,800	4,280	*2,980	2,880	*1,830	*1,830	7.95 m
3.0 m	kg			*11,680	*11,680	*7,480	6,360	*5,780	4,030	*4,210	2,770	*1,950	*1,950	8.31 m
1.5 m	kg			*6,890	*6,890	*8,830	5,810	5,880	3,770	4,110	2,640	*2,180	2,170	8.39 m
G. L.	kg			*7,270	*7,270	9,030	5,480	5,670	3,570	4,000	2,530	*2,600	2,200	8.19 m
-1.5 m	kg	*6,230	*6,230	*9,810	*9,810	8,890	5,360	5,560	3,480	3,950	2,490	*3,360	2,390	7.70 m
-3.0 m	kg	*9,120	*9,120	*11,410	10,570	*8,150	5,390	5,570	3,490			4,570	2,890	6.84 m
-4.5 m	kg			*8,130	*8,130	*5,970	5,570					*4,680	4,180	5.45 m

SK225SR — Standard Arm: 2.87 m Bucket: 0.8 m³ SAE heaped 630 kg Shoe: 800 mm Dozer: blade up

A / B		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		At max. rearch		Radius
7.5 m	kg							*2,220	*2,220			*1,910	*1,910	6.15 m
6.0 m	kg							*3,640	*3,640			*1,800	*1,800	7.27 m
4.5 m	kg					*5,600	*5,600	*4,800	4,390	*2,980	2,970	*1,830	*1,830	7.95 m
3.0 m	kg			*11,680	*11,680	*7,480	6,520	*5,780	4,140	*4,210	2,850	*1,950	*1,950	8.31 m
1.5 m	kg			*6,890	*6,890	*8,830	5,980	6,030	3,880	4,220	2,720	*2,180	*2,180	8.39 m
G. L.	kg			*7,270	*7,270	9,250	5,640	5,810	3,690	4,100	2,620	*2,600	2,270	8.19 m
-1.5 m	kg	*6,230	*6,230	*9,810	*9,810	9,110	5,520	5,700	3,590	4,060	2,580	*3,360	2,480	7.70 m
-3.0 m	kg	*9,120	*9,120	*11,410	10,860	*8,150	5,550	5,720	3,600			4,690	2,980	6.84 m
-4.5 m	kg			*8,130	*8,130	*5,970	5,740					*4,680	4,310	5.45 m

SK225SRLC — Standard Arm: 2.87 m Bucket: 0.8 m³ SAE heaped 630 kg Shoe: 600 mm Dozer: blade up

A / B		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		At max. rearch		Radius
7.5 m	kg							*2,220	*2,220			*1,910	*1,910	6.15 m
6.0 m	kg							*3,640	*3,640			*1,800	*1,800	7.27 m
4.5 m	kg					*5,600	*5,600	*4,800	*4,800	*2,980	*2,980	*1,830	*1,830	7.95 m
3.0 m	kg			*11,680	*11,680	*7,480	7,200	*5,780	4,550	*4,210	3,150	*1,950	*1,950	8.31 m
1.5 m	kg			*6,890	*6,890	*8,830	6,640	*6,440	4,290	4,750	3,010	*2,180	*2,180	8.39 m
G. L.	kg			*7,270	*7,270	*9,440	6,300	6,590	4,090	4,640	2,910	*2,600	2,530	8.19 m
-1.5 m	kg	*6,230	*6,230	*9,810	*9,810	*9,200	6,170	6,480	3,990	4,590	2,870	*3,360	2,760	7.70 m
-3.0 m	kg	*9,120	*9,120	*11,410	*11,410	*8,150	6,200	*5,960	4,010			*4,900	3,310	6.84 m
-4.5 m	kg			*8,130	*8,130	*5,970	*5,970					*4,680	*4,680	5.45 m

SK225SR — Standard Arm: 2.87 m Bucket: 0.8 m³ SAE heaped 630 kg Shoe: 600 mm Dozer: blade up With Add-on Counterweight.

A / B		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		At max. rearch		Radius
7.5 m	kg							*2,220	*2,220			*1,910	*1,910	6.15 m
6.0 m	kg							*3,640	*3,640			*1,800	*1,800	7.27 m
4.5 m	kg					*5,600	*5,600	*4,800	*4,800	*2,980	*2,980	*1,830	*1,830	7.95 m
3.0 m	kg			*11,680	*11,680	*7,480	7,170	*5,780	4,590	*4,210	3,190	*1,950	*1,950	8.31 m
1.5 m	kg			*6,890	*6,890	*8,830	6,630	*6,440	4,330	4,660	3,060	*2,180	*2,180	8.39 m
G. L.	kg			*7,270	*7,270	*9,440	6,290	6,410	4,130	4,550	2,960	*2,600	2,580	8.19 m
-1.5 m	kg	*6,230	*6,230	*9,810	*9,810	*9,200	6,170	6,310	4,040	4,500	2,920	*3,360	2,810	7.70 m
-3.0 m	kg	*9,120	*9,120	*11,410	*11,410	*8,150	6,200	*5,960	4,050			*4,900	3,360	6.84 m
-4.5 m	kg			*8,130	*8,130	*5,970	*5,970					*4,680	*4,680	5.45 m

SK225SR — Standard Arm: 2.87 m Bucket: 0.8 m³ SAE heaped 630 kg Shoe: 800 mm Dozer: blade up With Add-on Counterweight.

A / B		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		At max. rearch		Radius
7.5 m	kg							*2,220	*2,220			*1,910	*1,910	6.15 m
6.0 m	kg							*3,640	*3,640			*1,800	*1,800	7.27 m
4.5 m	kg					*5,600	*5,600	*4,800	*4,800	*2,980	*2,980	*1,830	*1,830	7.95 m
3.0 m	kg			*11,680	*11,680	*7,480	7,330	*5,780	4,700	*4,210	3,280	*1,950	*1,950	8.31 m
1.5 m	kg			*6,890	*6,890	*8,830	6,790	*6,440	4,440	4,770	3,150	*2,180	*2,180	8.39 m
G. L.	kg			*7,270	*7,270	*9,440	6,460	6,560	4,240	4,660	3,050	*2,600	*2,600	8.19 m
-1.5 m	kg	*6,230	*6,230	*9,810	*9,810	*9,200	6,330	6,450	4,150	4,610	3,000	*3,360	2,890	7.70 m
-3.0 m	kg	*9,120	*9,120	*11,410	*11,410	*8,150	6,370	*5,960	4,160			*4,900	3,460	6.84 m
-4.5 m	kg			*8,130	*8,130	*5,970	*5,970					*4,680	*4,680	5.45 m