

Specifications

Engine

Model	HINO J05E
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)

Hydraulic System


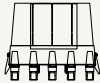
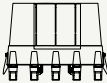
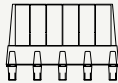
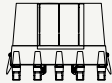

Pump	
Type	Two variable displacement pumps + 1 gear pump
Max. discharge flow	2 x 220 L/min, 1 x 20 L/min Extra gear pump 1 x 41 L/min
Relief valve setting	
Boom, arm and bucket	34.3 MPa {350 kgf/cm ² }
Power boost	37.7 MPa {385 kgf/cm ² }
Travel circuit	34.3 MPa {350 kgf/cm ² }
Swing circuit	28.5 MPa {291 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	11.8 min ⁻¹ {rpm}
Tail swing radius	1,730 mm
Min. front swing radius	1,930 mm

Attachments

Backhoe bucket and arm combination

Use	Backhoe bucket						Slope finishing bucket
	Normal digging				Side pin type		
							
Bucket capacity	ISO heaped m ³	0.51	0.7	0.8	0.93	0.8	—
	Struck m ³	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	2,200 x 1,100
No. of bucket teeth		3	5	5	5	5	—
Bucket weight	kg	520	630	630	710	660	—
Combinations	2.4 m arm	○	○	○	◎	○	△
	2.94 m arm	○	○	◎	△	○	△
	3.33 m arm	○	△	×	×	×	△

◎ Std. ○ Recommended △ Loading only × Not recommended

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	47 each side (SK235SR) 51 each side (SK235SRLC)
Travel speed	5.5 / 3.4 km/h
Drawbar pulling force	243 kN {24,800 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	125 mm x 1,320 mm
Arm cylinder	135 mm x 1,588 mm
Bucket cylinders	120 mm x 1,080 mm

Refilling Capacities & Lubrications

Fuel tank	330 L
Cooling system	22 L
Engine oil	20.5 L
Travel reduction gear	2 x 4.5 L
Swing reduction gear	7.0 L
Hydraulic oil tank	114 L tank oil level 230 L hydraulic system



Working Ranges

Unit: m

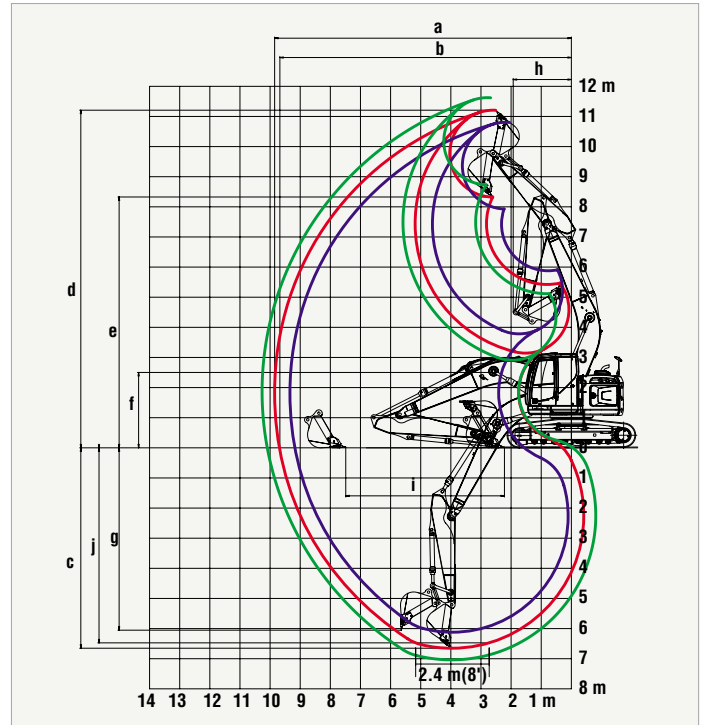
Range	Boom 5.65 m			
	Arm	Short 2.4 m	Standard 2.94 m	Long 3.33 m
a - Max. digging reach		9.37	9.85	10.24
b - Max. digging reach at ground level		9.18	9.68	10.07
c - Max. digging depth		6.11	6.65	7.04
d - Max. digging height		10.82	11.21	11.55
e - Max. dumping clearance		7.94	8.33	8.67
f - Min. dumping clearance		3.79	3.14	2.87
g - Max. vertical wall digging depth		5.52	6.05	6.66
h - Min. swing radius		2.18	1.93	2.37
i - Horizontal digging stroke at ground level		4.08	5.27	5.66
j - Digging depth for 2.4 m (8') flat bottom		5.91	6.47	6.88
Bucket capacity ISO heaped m ³		0.93	0.8	0.57

Digging Force (ISO 6015)

Unit: kN (kgf)

Arm length	Short 2.4 m	Standard 2.94 m	Long 3.33 m
Bucket digging force	143 {14,600} 157 {16,000}*	143 {14,600} 157 {16,000}*	143 {14,600} 157 {16,000}*
Arm crowding force	121 {12,300} 133 {13,600}*	102 {10,400} 112 {11,400}*	95.6 {9,750} 105.3 {10,700}*

*Power Boost engaged.



— Short Arm
— Standard Arm
— Long Arm



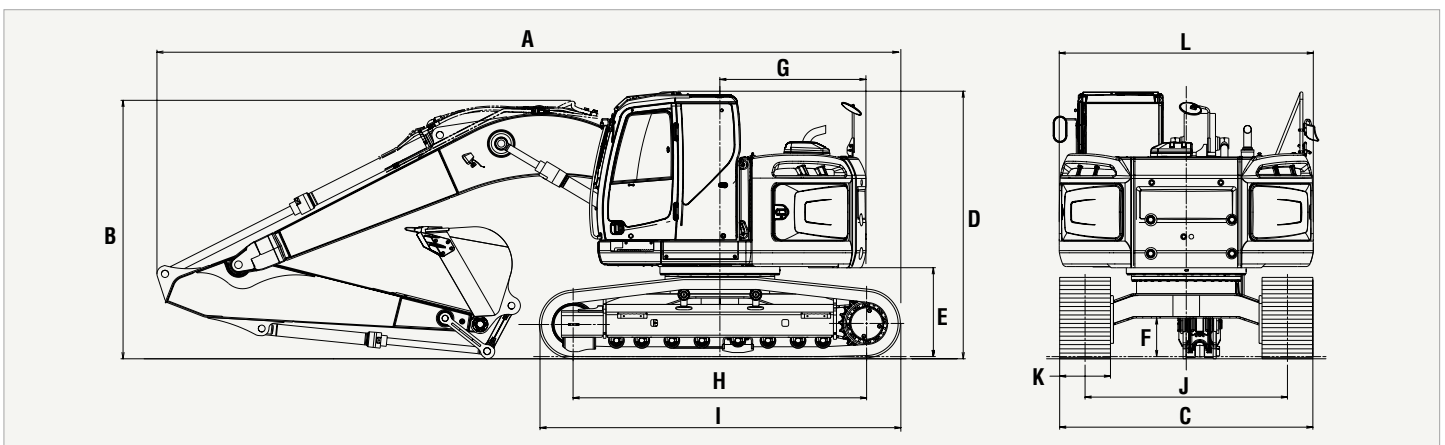
Dimensions

Arm length		Short 2.4 m	Standard 2.94 m	Long 3.33 m
A Overall length	SK235SR	8,880	8,790	8,850
	SK235SR ^{LC}	9,070	8,980	9,040
B Overall height (to top of boom)		3,150	3,150	3,410
C Overall width of crawler	SK235SR		2,990	
	SK235SR ^{LC}		3,190	
D Overall height (to top of cab)			3,150	
E Ground clearance of rear end*			1,050	
F Ground clearance*			455	

Unit: mm

G Tail swing radius		1,730
H Tumbler distance	SK235SR	3,470
	SK235SR ^{LC}	3,850
I Overall length of crawler	SK235SR	4,260
	SK235SR ^{LC}	4,640
J Track gauge	SK235SR	2,390
	SK235SR ^{LC}	2,590
K Shoe width		600/700/800
L Overall width of upperstructure		3,000

* Without including height of shoe lug.



Operating Weight & Ground Pressure

In standard trim, with standard boom, 2.94 m arm, and 0.8 m³ ISO heaped bucket

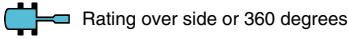
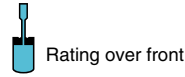
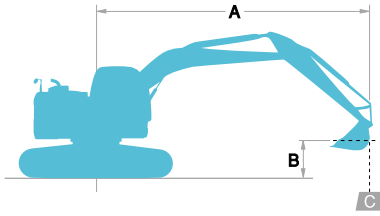
[] = Long Crawler

Shaped		Triple grouser shoes (even height)		
Shoe width mm		600	700	800
Overall width of crawler mm		2,990 [3,190]	3,090 [3,290]	3,190 [3,390]
Ground pressure kPa (kgf/cm ²)		53 [0.54] [49 [0.50]]	46 [0.47] [43 [0.44]]	41 [0.42] [38 [0.38]]
Operating weight kg		24,300 [24,900]	24,500 [25,200]	24,800 [25,400]
Dozer (optional)	Weight	Plus 1,600 kg [-]	- [-]	- [-]
	Ground pressure	Plus 3.5 kPa [-]	- [-]	- [-]

Lifting Capacities

SK235SR
SK235SR-2

SK235SR_{LC}
SK235SR_{LC}-2



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)

SK235SR		Standard Arm: 2.94 m Bucket: 0.8 m ³ ISO heaped 630 kg Shoe: 600 mm														
B \ A		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		Max. reach		Radius		
9.0 m	kg													*3,360	*3,360	4.46 m
7.5 m	kg					*4,910	*4,910	*3,520	*3,520					*2,830	*2,830	6.27 m
6.0 m	kg					*5,400	*5,400	*4,970	4,650					*2,660	*2,660	7.36 m
4.5 m	kg			*7,500	*7,500	*6,440	*6,440	*5,380	4,440	*4,340	2,940			*2,670	2,560	8.03 m
3.0 m	kg			*12,230	*12,230	*7,810	6,620	*5,980	4,130	4,530	2,800			*2,800	2,260	8.38 m
1.5 m	kg			*7,170	*7,170	*8,960	5,970	6,270	3,820	4,360	2,640			*3,080	2,130	8.45 m
G. L.	kg			*7,960	*7,960	*9,320	5,590	6,020	3,600	4,230	2,520			*3,570	2,150	8.25 m
-1.5 m	kg	*6,890	*6,890	*11,140	10,920	*8,830	5,450	5,900	3,490	4,180	2,470			*3,970	2,350	7.76 m
-3.0 m	kg	*10,510	*10,510	*10,270	*10,270	*7,520	5,490	*5,500	3,510					*4,370	2,850	6.91 m
-4.5 m	kg			*6,740	*6,740	*5,090	*5,090							*3,800	*3,800	5.54 m

SK235SR		Standard Arm: 2.94 m Bucket: 0.8 m ³ ISO heaped 630 kg Shoe: 800 mm														
B \ A		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		Max. reach		Radius		
9.0 m	kg													*3,360	*3,360	4.46 m
7.5 m	kg					*4,910	*4,910	*3,520	*3,520					*2,830	*2,830	6.27 m
6.0 m	kg					*5,400	*5,400	*4,970	4,760					*2,660	*2,660	7.36 m
4.5 m	kg			*7,500	*7,500	*6,440	*6,440	*5,380	4,540	*4,340	3,020			*2,670	2,630	8.03 m
3.0 m	kg			*12,230	*12,230	*7,810	6,770	*5,980	4,240	4,650	2,880			*2,800	2,330	8.38 m
1.5 m	kg			*7,170	*7,170	*8,960	6,130	6,430	3,930	4,480	2,720			*3,080	2,200	8.45 m
G. L.	kg			*7,960	*7,960	*9,320	5,740	6,180	3,700	4,350	2,600			*3,570	2,230	8.25 m
-1.5 m	kg	*6,890	*6,890	*11,140	*11,140	*8,830	5,600	6,060	3,590	4,300	2,550			*4,080	2,430	7.76 m
-3.0 m	kg	*10,510	*10,510	*10,270	*10,270	*7,520	5,640	*5,500	3,610					*4,370	2,940	6.91 m
-4.5 m	kg			*6,740	*6,740	*5,090	*5,090							*3,800	*3,800	5.54 m

SK235SR _{LC}		Standard Arm: 2.94 m Bucket: 0.8 m ³ ISO heaped 630 kg Shoe: 600 mm														
B \ A		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		Max. reach		Radius		
9.0 m	kg													*3,360	*3,360	4.46 m
7.5 m	kg					*4,910	*4,910	*3,520	*3,520					*2,830	*2,830	6.27 m
6.0 m	kg					*5,400	*5,400	*4,970	*4,970					*2,660	*2,660	7.36 m
4.5 m	kg			*7,500	*7,500	*6,440	*6,440	*5,380	5,040	*4,340	3,380			*2,670	*2,670	8.03 m
3.0 m	kg			*12,230	*12,230	*7,810	7,580	*5,980	4,730	*4,970	3,230			*2,800	2,630	8.38 m
1.5 m	kg			*7,170	*7,170	*8,960	6,920	*6,520	4,420	*5,180	3,070			*3,080	2,500	8.45 m
G. L.	kg			*7,960	*7,960	*9,320	6,520	*6,740	4,190	5,150	2,950			*3,570	2,530	8.25 m
-1.5 m	kg	*6,890	*6,890	*11,140	*11,140	*8,830	6,380	*6,470	4,070	*4,800	2,900			*4,460	2,760	7.76 m
-3.0 m	kg	*10,510	*10,510	*10,270	*10,270	*7,520	6,420	*5,500	4,090					*4,370	3,330	6.91 m
-4.5 m	kg			*6,740	*6,740	*5,090	*5,090							*3,800	*3,800	5.54 m

SK235SR _{LC}		Standard Arm: 2.94 m Bucket: 0.8 m ³ ISO heaped 630 kg Shoe: 800 mm														
B \ A		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		Max. reach		Radius		
9.0 m	kg													*3,360	*3,360	4.46 m
7.5 m	kg					*4,910	*4,910	*3,520	*3,520					*2,830	*2,830	6.27 m
6.0 m	kg					*5,400	*5,400	*4,970	*4,970					*2,660	*2,660	7.36 m
4.5 m	kg			*7,500	*7,500	*6,440	*6,440	*5,380	5,170	*4,340	3,470			*2,670	*2,670	8.03 m
3.0 m	kg			*12,230	*12,230	*7,810	7,770	*5,980	4,860	*4,970	3,330			*2,800	2,710	8.38 m
1.5 m	kg			*7,170	*7,170	*8,960	7,100	*6,520	4,540	*5,180	3,170			*3,080	2,580	8.45 m
G. L.	kg			*7,960	*7,960	*9,320	6,710	*6,740	4,310	5,190	3,050			*3,570	2,610	8.25 m
-1.5 m	kg	*6,890	*6,890	*11,140	*11,140	*8,830	6,560	*6,470	4,200	*4,800	3,000			*4,460	2,850	7.76 m
-3.0 m	kg	*10,510	*10,510	*10,270	*10,270	*7,520	6,600	*5,500	4,220					*4,370	3,430	6.91 m
-4.5 m	kg			*6,740	*6,740	*5,090	*5,090							*3,800	*3,800	5.54 m

- Notes:**
- 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.
 - 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.
 - Bucket lift hook defined as lift point.

- 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.
- 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.
- Lift capacities apply to only machine as originally manufactured and normally equipped by KOBELCO CONSTRUCTION MACHINERY CO., LTD.