



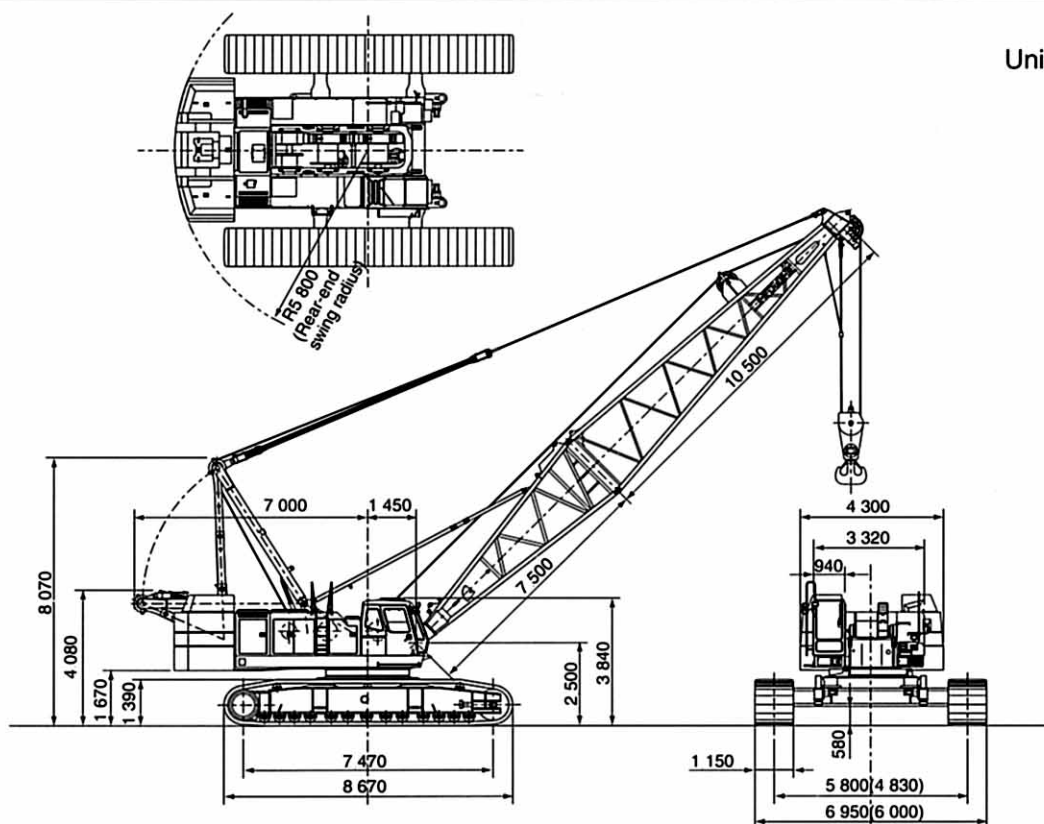
SPECIFICATIONS

HITACHI CX1800

HYDRAULIC CRAWLER CRANE

Max. Lifting Capacity: 180 000 kg

■ Dimensions



■ Specifications

Maximum rated load	ton x m	180 x 5.0
Basic boom length	m	18
Max. boom length	m	87
Jib length	m	13 ~ 37
Max. boom with jib length	m	72 +37
Main hoist drum	m/min	110/62/31*
Aux. hoist drum	m/min	110/62/31*
Boom hoist drum	m/min	27 x 2 (2 Drums)*
Swing speed	min ⁻¹ (rpm)	1.9/1.1 (1.9/1.1)
Travel speed	km/h	1.2/0.8*
Gradeability	% (°)	30 (16)
Engine model		ISUZU A-6RB1T
Rated power	kW/min ⁻¹ (PS/rpm)	221/2 000 (300/2 000)
Ground pressure	kPa (kgf/cm ²)	89.2 (0.91)
Operating weight	ton	168 (Equipped with 18 m boom and 180 ton capacity hook)

NOTE: Data expressed above are in SI units (International system of Unit), followed by data in conventional units in parentheses.

* Data in the crane mode will vary with the load.



■ Crane Ratings (Main boom in 360° working area, without mast) 78% Tipping Load (JIS Rating)

Unit: metric ton

Working radius (m)	Boom length (m)														
	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
5.0	180.0														
5.5	166.0	5.6x162.5													
6.0	155.0	154.4	6.1x152.6												
6.5	146.0	145.7	145.5	6.6x144.7											
7.0	140.0	139.6	139.4	139.2	7.1x125.0	7.6x112.5									
8.0	115.0	114.6	114.4	114.2	114.1	112.5	8.2x100.0	8.7x97.3							
9.0	99.5	99.0	98.8	98.7	98.5	98.4	98.2	96.4	9.2x87.5	9.7x81.3					
10.0	85.3	84.8	84.6	84.4	84.2	84.1	83.9	83.8	83.6	80.5	10.2x74.0	10.8x67.9	11.3x62.1	11.8x56.9	
12.0	66.1	65.6	65.3	65.2	64.9	64.8	64.6	64.5	64.3	64.2	64.0	63.8	61.0	56.6	12.3x52.3
14.0	53.8	53.2	53.0	52.8	52.5	52.4	52.1	51.8	51.7	51.6	51.4	51.3	51.0	50.3	46.3
16.0	44.7	44.7	44.4	44.2	43.9	43.7	43.5	43.4	43.2	43.1	42.9	42.7	42.6	42.3	42.0
18.0	37.2x39.5	38.4	38.1	37.8	37.5	37.4	37.1	37.0	36.8	36.7	36.5	36.3	36.2	35.9	35.5
20.0		19.8x33.3	33.3	33.0	32.7	32.5	32.2	32.1	31.9	31.8	31.6	31.3	31.3	31.0	30.7
22.0			29.5	29.2	28.8	28.7	28.4	28.2	28.0	27.9	27.7	27.5	27.4	27.1	26.7
24.0			22.4x28.7	26.1	25.7	25.5	25.2	25.1	24.9	24.8	24.5	24.3	24.2	23.9	23.5
26.0				25.0x24.8	23.2	23.0	22.7	22.5	22.3	22.2	21.9	21.7	21.6	21.3	20.9
28.0					27.6x21.5	20.9	20.5	20.4	20.1	20.0	19.8	19.5	19.4	19.1	18.7
30.0						19.1	18.7	18.5	18.3	18.1	17.9	17.7	17.6	17.2	16.8
32.0						30.2x18.9	17.2	17.0	16.7	16.6	16.3	16.1	15.9	15.6	15.2
34.0							32.8x16.6	15.6	15.3	15.2	14.9	14.7	14.6	14.2	13.8
36.0								35.4x14.8	14.2	14.0	13.7	13.5	13.3	13.0	12.6
38.0									13.1	12.9	12.6	12.4	12.2	11.9	11.5
40.0										12.0	11.7	11.4	11.2	11.0	10.5
42.0										40.6x11.7	10.9	10.6	10.4	10.1	9.6
44.0											43.2x10.4	9.8	9.7	9.3	8.8
46.0												45.8x9.2	9.0	8.6	8.0
48.0													8.4	7.9	7.3
50.0													48.4x8.2	7.3	6.7
52.0														51.0x7.0	6.4
54.0															53.6x6.0
56.0															5.0
56.2															5.0

■ Crane Ratings (Main boom in 360° working area, with mast) 78% Tipping Load (JIS Rating)

Unit: metric ton

Working radius (m)	Boom length (m)														
	45	48	51	54	57	60	63	66	69	72	75	78	81	84	87
9.7	87.5														
10.0	85.5	10.2x75.0	10.8x74.3	11.3x62.5	11.8x62.3										
12.0	65.7	65.6	65.4	62.5	62.1	12.3x57.3	12.9x50.0	13.4x48.2	13.9x44.1						
14.0	52.9	52.8	52.6	52.5	52.4	52.2	50.0	47.8	44.0	42.8	38.8	34.9	31.8		
16.0	44.0	43.9	43.7	43.5	43.4	43.2	43.0	43.0	42.8	42.8	38.8	34.9	31.8	29.0	16.5x26.3
18.0	37.5	37.3	37.1	37.0	36.8	36.6	36.4	36.4	36.3	36.2	33.9	30.9	28.1	25.7	23.0
20.0	32.5	32.3	32.1	31.9	31.8	31.6	31.3	31.3	31.2	31.1	31.1	29.9	27.2	24.8	22.1
22.0	28.5	28.3	28.1	27.9	27.8	27.6	27.3	27.3	27.2	27.1	27.1	26.9	26.3	24.0	21.3
24.0	25.3	25.1	24.9	24.7	24.5	24.3	24.0	24.0	23.9	23.8	23.8	23.6	23.4	23.1	20.6
26.0	22.6	22.4	22.2	22.0	21.8	21.6	21.3	21.3	21.2	21.1	21.1	20.9	20.6	20.4	19.8
28.0	20.4	20.2	19.9	19.7	19.6	19.4	19.1	19.1	19.0	18.8	18.8	18.6	18.4	18.1	18.1
30.0	18.5	18.2	18.0	17.8	17.7	17.4	17.2	17.2	17.0	16.9	16.9	16.7	16.4	16.2	16.2
32.0	16.8	16.6	16.4	16.2	16.0	15.8	15.5	15.5	15.4	15.2	15.2	15.0	14.7	14.5	14.5
34.0	15.4	15.2	15.0	14.7	14.6	14.3	14.0	14.0	13.9	13.8	13.7	13.5	13.3	13.0	13.0
36.0	14.2	13.9	13.7	13.5	13.3	13.1	12.8	12.8	12.6	12.5	12.4	12.2	12.0	11.8	11.8
38.0	13.1	12.8	12.6	12.4	12.2	11.9	11.6	11.6	11.5	11.4	11.3	11.1	10.8	10.5	10.5
40.0	12.1	11.8	11.6	11.4	11.2	11.0	10.6	10.6	10.5	10.4	10.3	10.0	9.7	9.4	9.4
42.0	40.6x11.8	11.0	10.7	10.5	10.3	10.1	9.8	9.8	9.6	9.4	9.3	9.0	8.7	8.4	8.7
44.0		43.2x10.5	9.9	9.7	9.5	9.3	8.9	8.9	8.7	8.5	8.4	8.1	7.8	7.5	7.4
46.0			45.8x9.3	9.0	8.8	8.5	8.1	8.1	7.8	7.7	7.6	7.3	6.9	6.6	6.6
48.0				8.4	8.1	7.8	7.4	7.4	7.1	6.9	6.8	6.5	6.2	5.9	5.8
50.0				48.4x8.3	7.4	7.1	6.7	6.7	6.4	6.2	6.1	5.9	5.5	5.3	5.1
52.0					51.0x7.1	6.5	6.1	6.1	5.8	5.6	5.5	5.2	4.9	4.6	4.5
54.0						53.6x6.1	5.5	5.5	5.2	5.1	4.9	4.6	4.3	4.0	3.9
56.0							5.0	5.0	4.7	4.5	4.4	4.1	3.8	3.5	3.4
58.0								4.5	4.2	4.0	3.9	3.6	3.3	3.0	2.9
60.0								58.8x4.3	3.8	3.6	3.4	3.2	2.8	2.5	2.4
62.0									61.4x3.5	3.2	3.0	2.7	2.4	2.1	2.0
64.0										2.8	2.6	2.3	2.0		
66.0											2.3	2.0			
66.6											2.2				

- NOTES:
- The rated loads shown do not exceed 78% of tipping load with the machine on firm level ground, and are not less than 1.15 times over-front stability stipulated by the mobile crane construction standards.
 - To calculate the maximum load that can actually be lifted, deduct weight of all lifting accessories, such as main hook, from figures shown above.
 - Working radius is the horizontal distance from the swing center to the center of gravity of a lifted load.
 - Figures described as ○○×○○ in the tables indicate working radius (m) x rated load (ton).
 - The counterweight is 67.1 ton.
 - Be sure to fully extend the side frames before operating the machine.
 - Correlations between the number of hoist rope reevings, maximum rated loads, hook weights are shown in the table below.

Hook capacity (ton)	Hook weight (ton)	Maximum rated load (ton)													
		14	13	12	11	10	9	8	7	6	5	4	3	2	1
180	2.30	180.0	162.5	150.0	137.5	125.0	112.5	100.0	87.5	75.0	—	—	—	—	—
100	1.40	—	—	—	—	—	—	100.0	87.5	75.0	62.5	50.0	—	—	—
60	1.20	—	—	—	—	—	—	—	—	—	60.0	50.0	37.5	25.0	—
25	0.85	—	—	—	—	—	—	—	—	—	—	—	—	25.0	—
13	0.50	—	—	—	—	—	—	—	—	—	—	—	—	—	13.0

■ Crane Boom Construction

Boom length (m)		18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	63	66	69	72	75	78	81	84	87
Elements		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Lower boom (7.5 m)		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Upper boom (10.5 m)		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Types of boom inserts		I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II
Boom insert 3 m (B)			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Boom insert 3 m		1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1
Boom insert 6 m					1	1	1	1	2	2	2	1	1	2	2	1	1	2	2	1	1	2	2	1	2
Boom insert 9 m										1	1	1	2	2	2	2	3	3	3	3	3	3	3	3	3
Boom insert 12 m																		1	1	1	2	2	2	2	2
Boom mast required																									
Boom mast available																									
Boom (jib available)																									
Boom (aux. jib available)																									

■ Crane Jib Construction

Jib length (m) Elements	13	19	25	31	37
Lower jib (5 m)	1	1	1	1	1
Upper jib (5 m)	1	1	1	1	1
Jib insert 3 m	1	1	1	1	1
Jib insert 6 m		1	2	3	4

**■ Component Weights and Dimensions for Transport**

	Components	Weight (ton)	Quan.	Length X Width X Height (m)				Remarks	
Basic machine	Basic machine	33.90	1	7.12	X	3.40	X	3.15	Excluding ropes, gantry (H, L), track beam, and self-loading device
	Basic machine	40.70	1	8.84	X	3.40	X	3.56	Including ropes, gantry (H, L), and bridle. Excluding track beam and self-loading device.
	Track beam	5.70	2	6.00	X	0.55	X	0.55	
	Side frame (one side)	19.40	2	8.67	X	1.15	X	1.39	
	Self-loading device	0.38	4	0.80	X	0.75	X	0.91	Including float
	Gantry (H)	3.60	1	7.70	X	1.67	X	0.72	Including hanger
	Gantry (L)	0.30	2	1.70	X	0.30	X	1.12	Including cylinder
	Counterweight (A)	18.00	1	4.30	X	1.79	X	0.84	
	Counterweight (B)	16.80	1	4.29	X	1.79	X	0.62	
	Counterweight (C)	5.30	1	1.33	X	1.07	X	0.70	
	Counterweight (D)	8.30	1	1.73	X	1.30	X	0.70	
	Counterweight (E)	8.30	1	1.73	X	1.30	X	0.70	
	Counterweight (F)	5.20	1	1.57	X	1.06	X	0.75	
	Counterweight (G)	5.20	1	1.57	X	1.06	X	0.75	
Crane front	Lower boom 7.5 m	3.10	1	7.72	X	2.47	X	2.50	
	Upper boom 10.5 m	3.20	1	10.94	X	2.24	X	2.29	
	Boom backstop	0.14	2	5.45	X	0.26	X	0.26	
	Bridle	0.51	1	2.10	X	0.69	X	0.33	
	Boom mast	1.54	1	10.17	X	1.36	X	1.19	
	Boom insert 3 m (A)	0.88	1	3.14	X	2.47	X	2.40	
	Boom insert 3 m (B)	1.38	1	3.14	X	2.47	X	2.59	
	Boom insert 6 m	1.22	1	6.14	X	2.47	X	2.40	
	Boom insert 9 m	1.62	1	9.14	X	2.47	X	2.36	
	Boom insert 12 m	1.92	1	12.14	X	2.47	X	2.36	
	Lower jib 5 m	0.30	1	5.11	X	1.24	X	0.97	
	Upper jib 5 m	0.45	1	5.43	X	1.24	X	1.37	
	Jib insert 3 m	0.15	1	3.08	X	1.25	X	1.09	
	Jib insert 6 m	0.26	1	6.08	X	1.25	X	1.09	
	Jib mast	0.55	1	6.14	X	1.10	X	0.62	
	Aux. jib	0.39	1	2.22	X	1.04	X	1.43	
	180 ton hook	2.30	1	2.35	X	0.92	X	0.93	
	100 ton hook	1.40	1	2.13	X	0.75	X	0.54	
	60 ton hook	1.20	1	2.12	X	0.74	X	0.35	
	25 ton hook	0.85	1	1.74	X	0.74	X	0.38	
	13 ton hook	0.50	1	1.18	X	0.47	X	0.47	

■ Standard Equipment**BASIC MACHINE****Undercarriage**

- Crawler-type undercarriage (with 1 150 mm shoes)

Upperstructure

- Front lights (2 pcs)
- Rearview mirrors (left and right)
- Boom hoist drum check mirror
- Centralized lubrication system (for gantry and swing circle)
- Electric refuel device
- Ladder (right)
- Undercover (at upperstructure bottom)
- Cab climbing step
- Ultra slow speed controller
- Slow boom hoisting stop
- Constant swing speed controller
- Electric accelerator grip
- Gantry hoist cylinders
- Boom foot pin assembling device
- Drum rotation sensing system
- 67.1 ton counterweight
- Standard tool kit

Cab

- Intermittent wipers (front and roof windows)
- Washers (front and roof windows)
- Rolled sunshade (roof window)
- Sunvisor
- Air conditioner
- Floor mat
- Room light
- Auto-tuning clock radio (AM/FM)
- Cigarette lighter
- Ashtray
- Brake mode selector switch (interlocked)
- Electric tilt-type stand

Safety Devices

- Swing lock
- Drum pawl lock (main/auxiliary hoist and boom hoist)
- Swing alarm (buzzer & lamp)
- Fail safe brake system
- Pilot control shut-off lever
- Before-work check monitor

FRONT ATTACHMENTS**Crane**

- 18 m basic boom (lower 7.5 m, upper 10.5 m)
- Boom stop
- Boom angle indicator
- 180 ton hook
- Main hoist rope (φ28 mm x 370 m)
- Boom hoist rope (φ22 mm x 350 m)
- Moment limiter
- Overhoist prevention device (main hook, boom hoist, secondary)

Clamshell

- 18 m basic boom (lower 7.5 m, upper 10.5 m)
- Boom stop
- Boom angle indicator
- Open/close and suspend rope disengagement prevention device (for tubular chord boom)
- Open/close rope (φ28 mm x 120 m)*
- Suspend rope (φ28 mm x 110 m)*
- Hydraulic tagline (φ10 mm x 55 m rope included) and Boom hoist rope (φ22 mm x 350 m)

* Open/close and suspend ropes are determined based on 33 m boom length and 12 m digging depth.

These specifications are subject to change without notice.
Illustrations show the standard models, and may or may not include optional equipment, accessories, and all standard equipment.

Hitachi Construction Machinery Co., Ltd.

Head Office: Nippon Bldg., 6-2, 2-chome, Ohtemachi,
Chiyoda-ku, Tokyo 100-0004, Japan

Telephone: Tokyo (03) 3245-6390

Facsimile : Tokyo (03) 3246-2609