

1. SPECIFICATIONS AND DIMENSIONS

1.1 Specifications

Type	Hitachi KH500 Crawler Crane
Lifting capacity	100,000kg
Crane capacity	530,000kg.m
Rated load × working radius	100,000kg × 5.3 m

Item		Type	Crane with hook	Cramshell
		Boom length (m)	16 ~ 70 (3m sections)	16, 19, 22, 25
Jib length (m)	9, 13.5, 18	-		
Boom + Jib (max.) (m)	61 + 18 = 79	-		
Boom angle (°)	30 ~ 80	35 ~ 65		
Bucket capacity (m ³)	-	2.5 (Medium type)		
OPERATING SPEEDS	* Rope speeds			
	Hoist (m/min)	High: 60, Low: 30	-	
	Lower (m/min)	High: 60, Low: 30	-	
	Opening/closing (m/min)	-	High: 60, Low: 30	
	Holding (m/min)	-	High: 60, Low: 30	
	Boom hoist (m/min)	40		
	Boom lower (m/min)	40		
Swing min ⁻¹ (r.p.m)	High: 2.2, Low: 1.5			
* Propel km/hr	High: 1.20, Low: 0.60			
Gradeability %	30% (climb with base boom and cab placed at the rear)			
Engine rated output	ISUZU 12PB1 (Diesel) 184kw/2000min ⁻¹ (250PS/2000rpm)			
Crane gross weight kg	99,000 (with base boom and 100,000kg capacity hook)			
Ground pressure	0.76bar (0.76kgf/cm ²) (with base boom and 100,000kg capacity hook)			
Counterweight	30,000kg (4 pieces)			

NOTE: (1) * ... Speed may vary with load. (without lowering of Main/aux. hook, boom)

(2) The rope speeds are calculated by bear drum.

1.2 Crane Specification

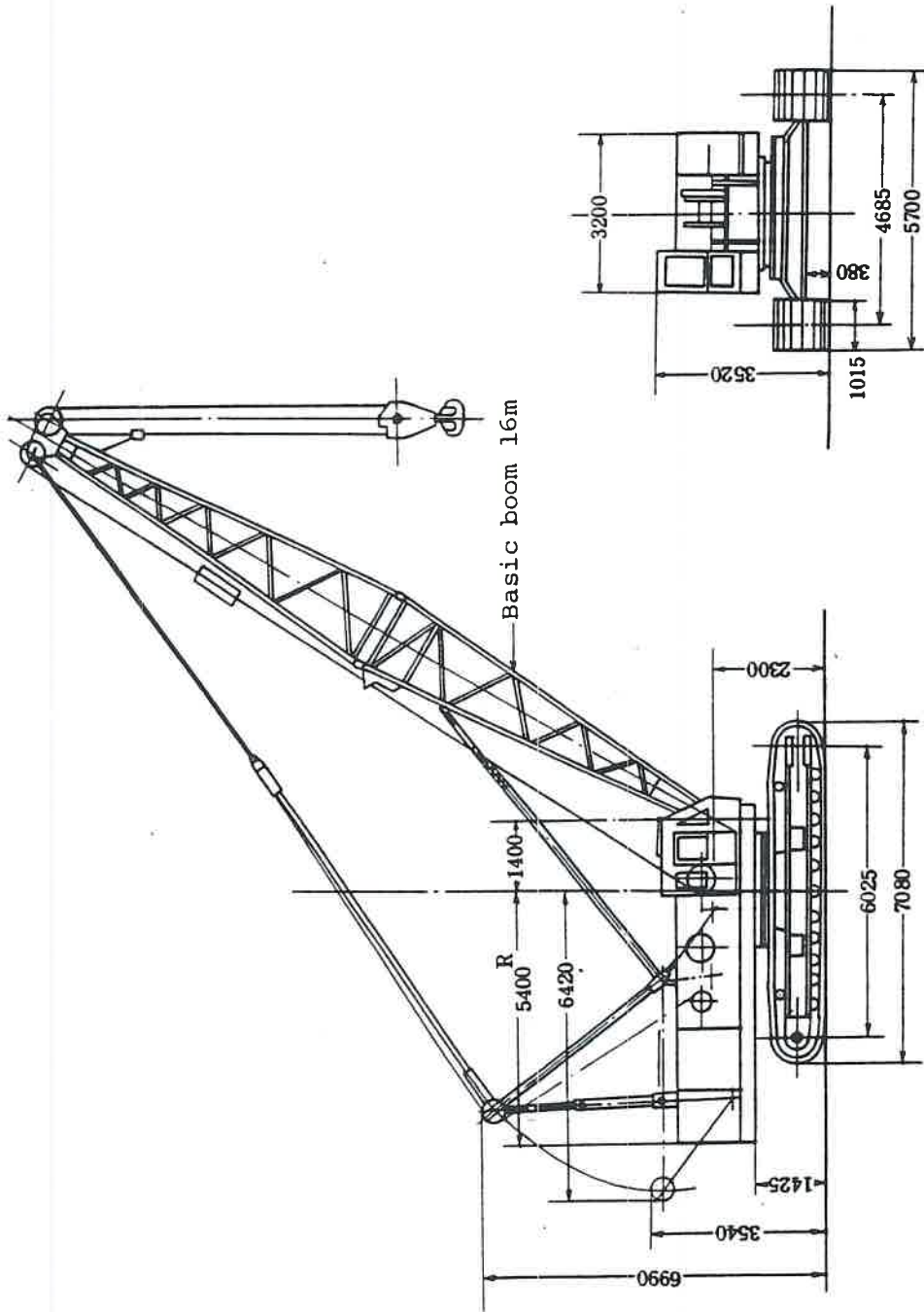
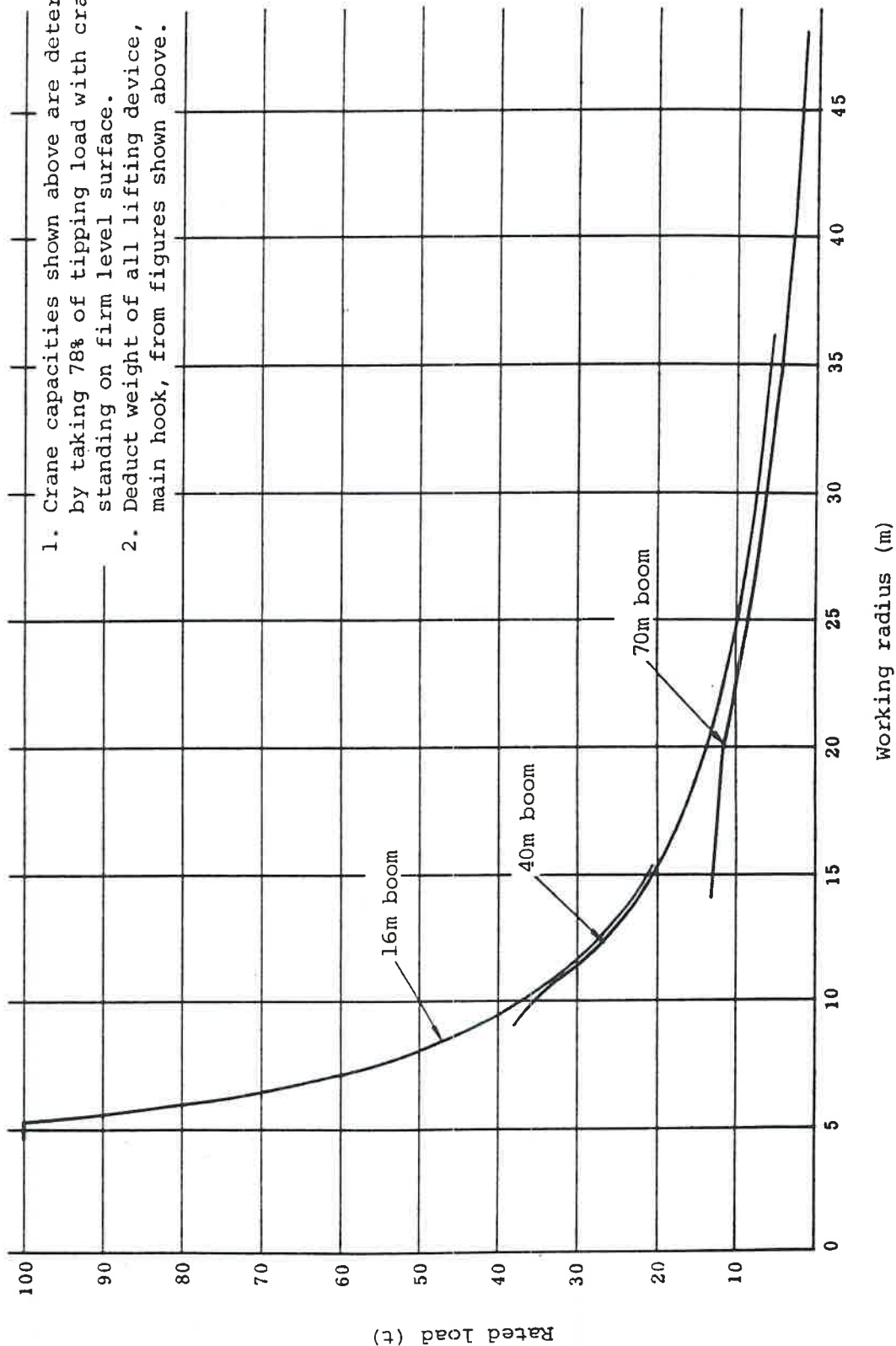


Fig. 1-1 KH500 Crawler Crane Dimensions



1. Crane capacities shown above are determined by taking 78% of tipping load with crane standing on firm level surface.
2. Deduct weight of all lifting device, main hook, from figures shown above.

Fig. 1-2 KH500 Crane Rated Capacity Diagram

Rated load (t)

Working radius (m)

Table 1-1 KH500 Crawler Crane Rated Load (main boom)

[Unit × 1000kg]

Working radius (m)	Boom length (m)		Working radius (m)																		
	4.5	5.0	5.3	5.5	5.8	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2			
1000																					
1000	1000																				
1000	940	55m × 83.0																			
809	775	760																			
627	626	610	61m × 70.0																		
511	509	507	50.0	50.0																	
430	428	426	42.4	42.4	42.4																
371	368	367	36.6	36.6	36.6																
289	286	284	28.4	28.4	28.4																
235	233	231	23.0	23.0	23.0																
154m × 20.8	195	193	19.2	19.0	19.0																
168	165	164	16.4	16.2	16.1																
144	143	141	14.1	14.0	13.9																
206m × 13.9	126	124	12.6	12.4	12.3																
240	232m × 11.8	110	10.9	10.8	10.6																
260	258m × 10.0	97	9.7	9.7	9.4																
280	87	85	8.4	8.3	8.2																
300	284m × 8.6	79	7.6	7.6	7.3																
320	310m × 7.5	69	6.8	6.7	6.6																
340	336m × 6.5	62	6.1	6.0	5.9																
360	57	56	5.5	5.3	5.2																
380	36.2m × 5.6	51	5.0	4.8	4.7																
400	38.6m × 4.9	45	4.4	4.4	4.3																
420	41.4m × 4.3	40	4.0	4.0	3.9																
440	37	35	3.3	3.2	3.1																
460	32	32	2.9	2.8	2.7																
480	46.6m × 3.1	26	2.5	2.4	2.3																
500	49.2m × 2.4	22	2.1	2.1	1.9																
520	51.8m × 1.9	18	1.6	1.6	1.6																

NOTE:

- Rated load shown are determined by taking 78% tipping loads with crane standing on firm, level surfaces.
- Deduct weight of hook, lifting device and bucket to determine safe working loads.
- Values encircled by bold lines are determined by their tensions. Overloading will damage boom and frame.
- Rated load of jib is Table 1-2.
- Main boom for jib is 40~61m.
- 100,000kg hook will not be attached main boom when jib mounted.
- When jib or aux. jib is mounted, able to hoist the weight deducted weight below and weight of main hook and jib hook from rated load table.

9m jib	1,100kg	18m jib	1,700kg
13.5m jib	1,400kg	Aux. jib	300kg
- Aux. jib maximum rated load is determined by the valve clected 300kg from the rated load of main boom working radius.
 - Main boom for aux. jib is 16m~61m.
 - Counter weight is 30,000kg.

Table 1-2 KH500 Jib Rated Load

A: Main boom length (m)
 B: Jib boom length (m)
 C: Offset angle (°)
 D: Working radius (m)

[Unit × 1000kg]

A	4.0		4.3		4.6		4.9		5.2		5.5		5.8		6.1	
	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°
120	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5
140	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5
160	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5
180	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5
200	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5
220	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5
240	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5
260	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5
280	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5
300	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5
320	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5
340	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5
360	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5
380	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5
400	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5
420	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5
440	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5
460	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5
480	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5
500	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5
520	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5	9.0	13.5

- NOTE:
- Rated loads shown are determined by taking 78% tipping loads with crane standing on firm, level surfaces.
 - Deduct weight of hook, lifting devices and bucket to determine safe working loads.
 - Maximum rated load is determined by the tension of jib boom. Over loading will damage jib and so on.
 - Offset angle for main boom shows when the load is lifted.
 - Counter weight : 30,000kg
 - Hook weight : 9,000kg hook 370kg.

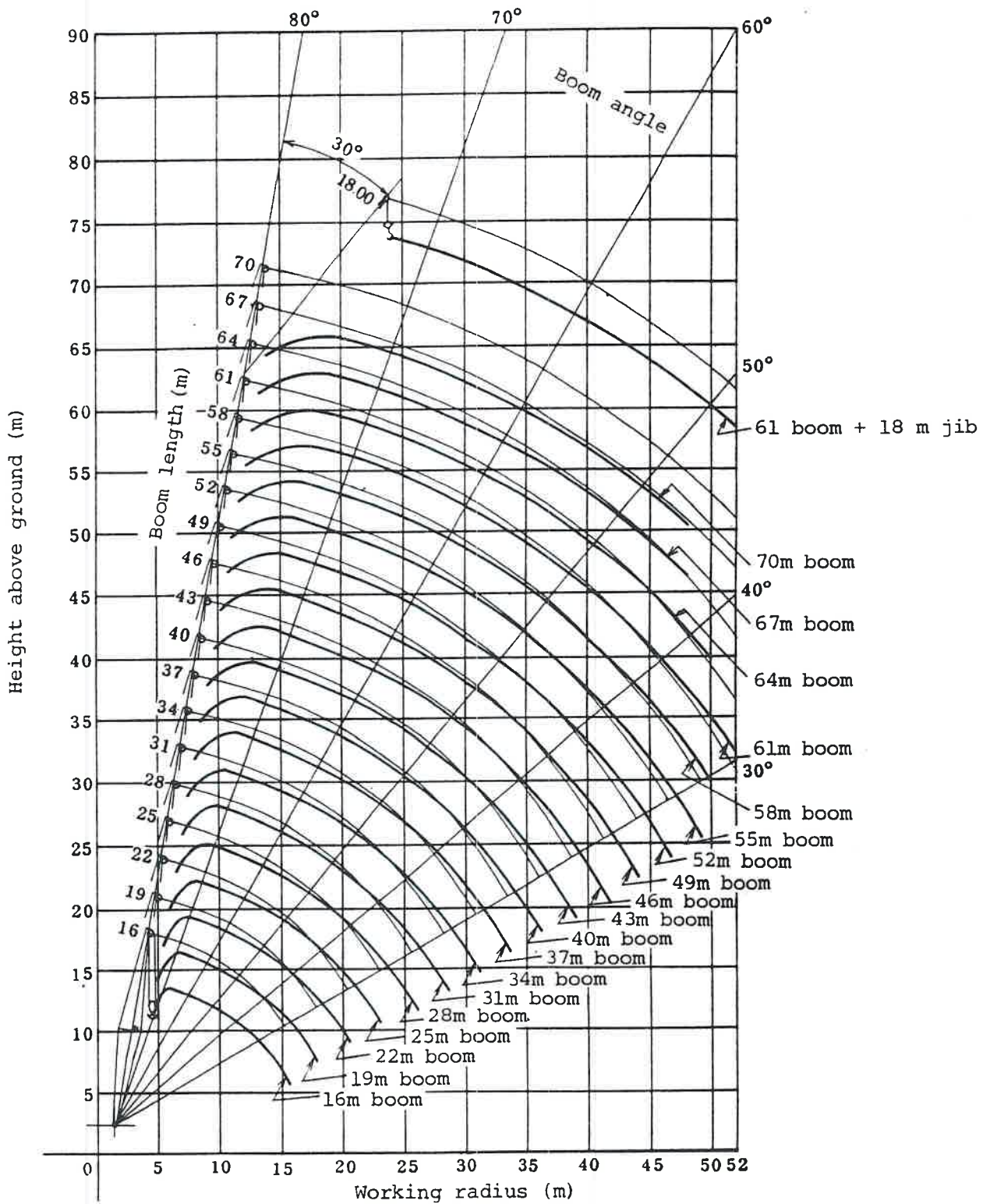


Fig. 1-3 KH500 Crawler Crane Working Range