2. GENERAL

1) Main Specifications of Crane

Crane model		MC-354C	MC-355HC
Lifting load		2.9 t	
Maximum working radius		9.8 m	12.135 m
Maximum lift above ground		9.5 m	11.8 m
Winch	Hook travel speed	11.5 m/min. (4 Booms, 4 lines)	
	Winding speed (Rope speed)	46 m/min. (4 Booms)	
	Wire rope (cable)	6 × Ws(26) ϕ 8 × 63 m	6 × Ws(26) ϕ 8 × 73 m
	Type	Axial plunger motor drive; spur reduction gear; mechanical brake	
Extender	Boom length	3.39 m to 10.0 m	3.525 m to 12.335 m
	Boom extending/ retracting speed	6.61 m/28 sec.	6.61 m/28 sec. (full ext 4 boom)
	Type of boom	Pentagon-shaped, 4-boom type (4 hydraulic automatic telescoping booms)	Pentagon-shaped, 4 hexagon-shaped, 1-boom (4 hydraulic automatic + 1 semiautomatic)
	Type of extender	Sequentially operated 2-cylinder type + 1 set of wire rope simultaneous extension/retraction device	Sequentially operated 2-cylinder type + 1 set of wire rope simultaneous extension/retraction device + OMS hydraulic extension/retraction derrick
Raising	Raising angle/time	3° to 76° /13 sec.	
	Type	Double acting cylinder, direct drive	
Swivel	Swivel angle/speed	360° continuous/2.8 rpm	
	Type	Ball bearing supported, hydraulic motor drive, worm and spur gears reduction	
Outriggers		Double section extending, hydraulic cylinder direct drive	
Hydraulic oil tank capacity		76 liters	
Hydraulic pump		Twin gear pump, rated pressure 206bar (210 kg/m^2)	
Safety devices		Overwind alarm, loadmeter, hydraulic safety valve, sling wire rope holder, hydraulic automatic locking device	

2) Main Specifications of Carrier

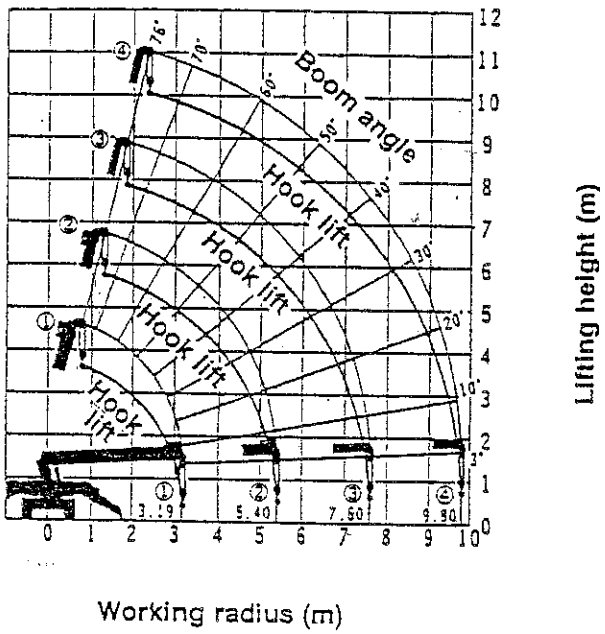
Crane model			MC-354C	MC-355HC
Body Dimensions	Length		4150 mm	4290 mm
	Width		1300 mm	
	Height		1845 mm	
Crawlers	Ground contact length		1720 mm	
	Width		280 mm	
	Crawlers		Rubber crawlers	
	Ground pressure		0.3 kg/cm²	
Engine	Model		Water-cooled diesel engine 3TNA72L (Yanmar)	
	Output/rpm		19ps/3000 rpm	
	Starting system		Electric starting motor	
Travel systems	Gradeability		20°	
	Travel speed	Forward	1.28 km/h	
		Reverse	1.28 km/h	
	Travel system		Hydraulic motor with integrated left and right independent parking brake, planetary reduction gear type	
	Brake system		Disc brake integrated with hydraulic motor	
	Swivel system		Left and right independent traveling motors	
Fuel			Diesel Fuel	
Fuel tank capacity			35 liters	
Battery			NX100-S6	
Weight			3120 kg	3170 kg

5) Operating Range Chart and Rated Load Table

(1) MC-354C (4-section boom)

The operating range chart shows the working radius of the machine, and the relationship between boom and lift above ground.

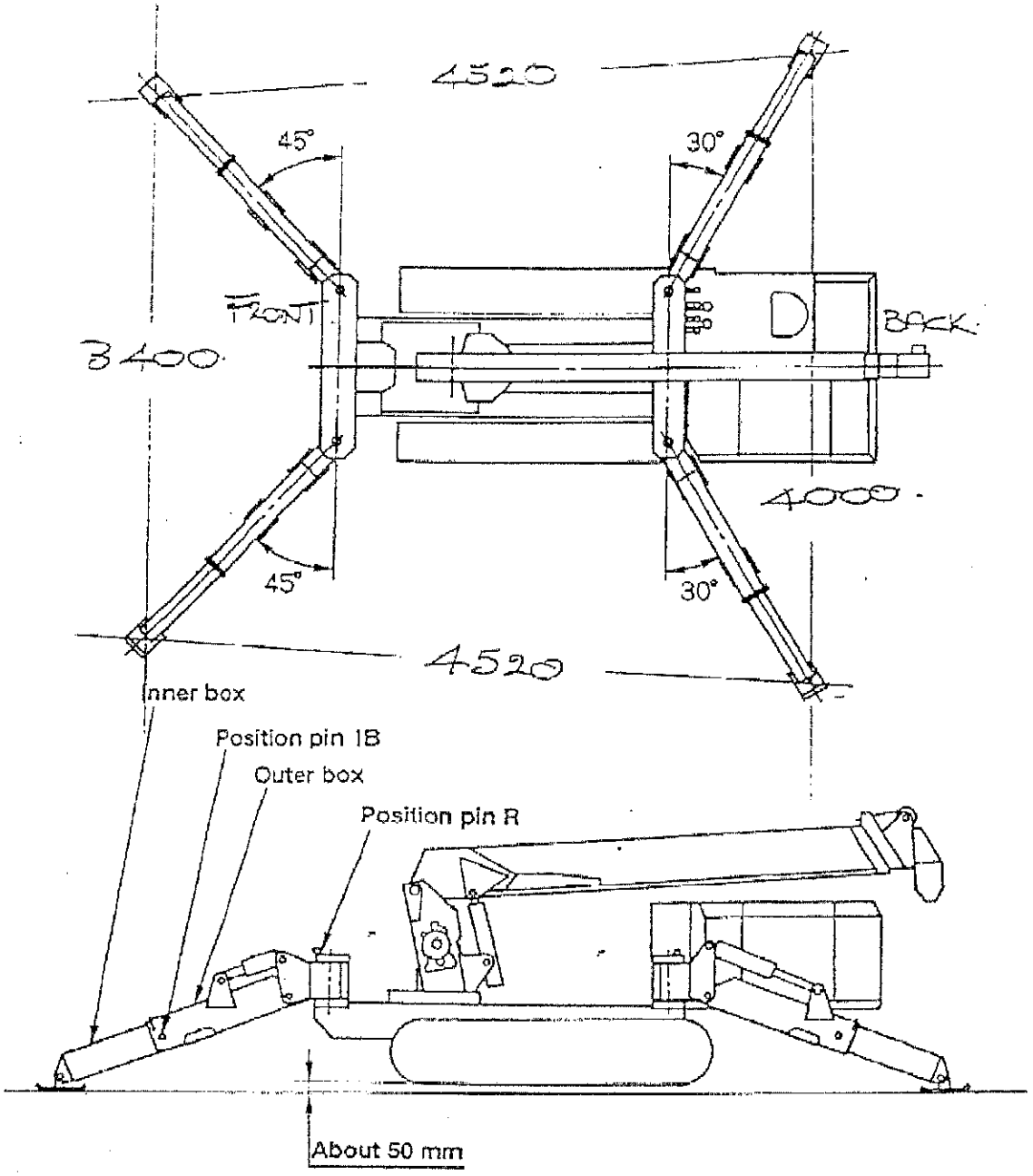
MC-354C OPERATING RANGE



MC-354C RATED LOAD TABLE										
Outriggers shall be used in the standard extension width.	Boom ①, Booms ① + ②									
	Working radius (m)	0.2 or less	2.25	2.5	2.7	3.0	3.5	4.0	4.5	5.0	5.4
	Rated load (kg)	2900	2900	2900	2600	2300	1950	1650	1370	1080	900
	Booms ① + ② + ③	If mark ◥ can be seen, be sure to operate within the limit of booms ① + ② + ③.									
	Working radius (m)	2.3 or less	2.7	3.0	3.5	4.0	4.5	5.0	6.0	7.0	7.8
	Rated load (kg)	2300	2300	2100	1700	1400	1200	1050	780	590	490
	Booms ① + ② + ③ + ④	If mark ◥ is midway between booms ② and ④ on boom ③, operate within the limit of booms ① + ② + ③ + ④.									
	Working radius (m)	4.0 or less	4.5	5.0	5.5	6.0	7.0	8.0	9.0	9.8	
	Rated load (kg)	1000	900	800	750	700	590	480	390	290	

CAUTION:
1. Working range chart does not include boom deflections.
2. Rated load table is based on actual working radius that takes into account boom deflections under load. Rough crane operation is quite risky even if the work is within the rated load.
3. In some cases there is a fear that the crane turns over according to the extension condition or width of outriggers even if the rated load lifted. Therefore, be careful!
4. The case that more than a half of the mark ◥ comes out from boom ② is applicable to 3. above.

6) Optimum Extension of Outriggers



1. The optimum extension of the outriggers is shown above.(Inner box pulled out)
2. Extend the outriggers to the optimum position before lifting and swiveling a load 360 degrees. Remember, however, that horizontal stability will be reduced when swiveling a rated load. In such a case, carefully operate over a little shorter working radius than normal.
3. Structurally, outriggers are unable to extend beyond their extension limit. Therefore, before extending outriggers, choose a proper place for optimum extension.