

GT-550E

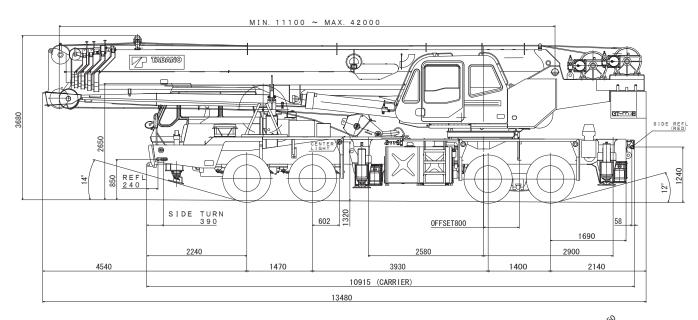
55 Metric Tons Capacity

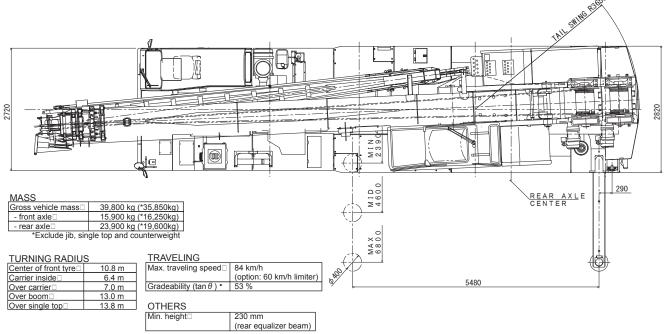
EURO-2

Spec. sheet No. GT-550E-1-10102/SP-20

HYDRAULIC TRUCK CRANE

DIMENSIONS





SUPERSTRUCTURE SPECIFICATIONS

BOOM

5-section full power partially synchronized telescoping boom of hexagonal box construction with 6 sheaves at boom head. The synchronization system consists of 2 telescope cylinders, extension cables and retraction cables. Hydraulic cylinders fitted with holding valves. Selection of 2 boom telescoping modes.

Fully retracted length11.1 m
Fully extended length 42.0 m
Extension speed30.9 m in 123 s

JIB

2-staged boom extension type. Triple offset (5° / 25° / 45°) type. Stored under base boom section.

Single sheave at jib head.

SINGLE TOP(Auxiliary boom sheave)

Single sheave. Mounted to main boom head for single line work.

ELEVATION

By a double-acting hydraulic cylinder, fitted with holding valve. Automatic Speed Reduction and Soft Stop function.

 \Box Elevation speed...... $\Box 2^{\circ}$ to 80° in 68 s

HOIST-Main winch

Variable speed type with grooved drum driven by hydraulic axial piston motor through winch speed reducer. Power load lowering and hoisting. Equipped with automatic brake (Neutral brake) and counterbalance valve.

Controlled independently of auxiliary winch.

Single line pull	42.2 kN { 4,300kgf }
Single line speed	1143 m/min (at the 4th layer)
Wire rope	Spin-resistant type
Diameter	119.05 mm
Lenath	[227 m

HOIST-Auxiliary winch

Variable speed type with grooved drum driven by hydraulic axial piston motor through winch speed reducer. Power load lowering and hoisting. Equipped with automatic brake (Neutral brake) and counterbalance valve.

Controlled independently of main winch.

Single line pull	.44.1 kN { 4,500kgf }
Single line speed	.123 m/min (at the 2nd layer)
Wire rope	Spin-resistant type
Diameter	<u>1</u> 19.05 mm
Length	. 127 m

SWING

Hydraulic axial piston motor driven through planetary speed reducer. Continuous 360° full circle swing on ball bearing slew ring. Automatic Speed Reduction and Soft Stop function.

Equipped with manually locked/released swing brake.

Swing speed......11.9 min⁻¹ { rpm }

HYDRAULIC SYSTEM

	Pumps	Quadruple gear pumps driven by
		carrier engine through P.T.O.
	Control valves	Multiple valves actuated by pilot
		pressure with integral pressure relief
		valves.
	Circuit	Equipped with air cooled type oil
		cooler. Oil pressure appears on AML
		display for main circuit.
	Oil tank capacity	approx. 690 liters
П	Filters	Return line filter

CAB AND CONTROLS

By 4 control levers for swing, boom hoist, main winch, boom telescoping or auxiliary winch with 2 control pedals for boom hoist, boom telescoping based on ISO standard layout.

Control lever stands can change neutral positions and tilt for easy access to cab.

One sided one-man type, steel construction with sliding door access and tinted safety glass windows opening at side.

Operator's 3 way adjustable seat with headrest and armrest.

OUTRIGGER

Hydraulically operated H-type outriggers. Each outrigger controlled simultaneously or independently from either side of carrier. Equipped with sight level gauge. Floats mounted integrally with the jacks retract to within vehicle width. All cylinders fitted with pilot check valves.

Crane operation with different extended length of each outrigger. Equipped with extension width detector for each outrigger.

Ш	Extended width	
	Fully	6,800 mm
	Middle	4,600 mm
	Minimum	2,390 mm
	Float size (Diameter)	400 mm

FRONT JACK

A fifth hydraulically operated outrigger jack. Mounted to the front frame of carrier to permit 360° lifting capabilities.

Hydraulic cylinder fitted with pilot check valve.

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COUNTERWEIGHT

Inte	gral with swing	frame	
	Mass	4,200	kg

TADANO Automatic Moment Limiter

Main unit in crane cab gives audible and visual warning of approach to overload. Automatically cuts out crane motions before overload. With working range (load radius and / or boom angle and / or tip height and / or swing range) limit function.

Nine functions are constantly displayed.

IVII	ie functions are constantly displayed. □
	Either moment as percentage or main hydraulic pressure
	Either boom angle or moment %
	Either boom length or potential hook height
	Either actual load radius or swing angle
	Actual hook load
	Permissible load
	Either jib offset angle or number of parts of line of rope
	Boom position indicator
	Outrigger position indicator

NOTE

Each crane motion speed is based on unladen conditions.

CARRIER SPECIFICATIONS and EQUIPMENT

	MANUFACTURER NISSAN DIESEL MOTOR Co., LTD.			EQUIPMENT			
MODI	EL G48UXN (Right han	d steering. 8 x 4)		superstructure andard Equipment 4.5 ton capacity, hook ball and swivel			
ENGI	NE [EURO-2]	NISSAN PF6TB		Control pedals for boom hoist, boom telescoping 3 working lights External lamp(AML)			
	rpe□	4 cycle, turbo charged, 6 cylinder inline, direct injection, water cooled diesel engine.	Op	Cable follower Sun visor otional Equipment			
□ Bo	ston displacement□ ore x stroke□ ax. output (JIS)□ ax. torque (JIS)□			55 ton capacity, 6 sheaves hook block 20 ton capacity, 2 sheaves hook block Winch drum rotation indicator(Visual) Winch drum mirror(Hoist mirror) Sun shade			
7 forwa	NSMISSION ard and 1 reverse sp int-mesh on 1st and i	peeds, synchromesh on 2nd - 7th gear and		Sun visor Electric fan Hot water heater and air conditionig Cab floor mat			
CONStan	int-mesiron istana i	everse gear.	For	carrier			
AXLE				andard Equipment			
		Reverse - elliot type		Fan clutch :Viscous-type			
□ Re	ear	Full floating type.		Intake air heater			
CHCE	DENICION			Overheating warning buzzer			
	PENSION	the of a star		Cooling water level warning buzzer			
	ont			Engine over-run alarm			
□ Re	ear	Hull floating type.		PTO hour meter			
				Seat belt :3 point type for driver			
OTEE	DINO			Tilting-telescoping steering wheel			
	RING	20-12-1		Windshield wiper(with intermittent wiping)and washer			
Recirci	ulating ball screw typ	pe with linkage power assistance.		Window glass: Tinted, Infrared and Ultraviolet rays absorption Tachometer			
BRAK	KE SYSTEM			Low air pressure warning buzzer			
□ Se	ervice	.Eull air brake with maltiprotection valve		AM radio			
		and auto slack adjuster on all wheels, du-		Car heater(Hot water type)with defroster			
		al air line system, internal expanding lead-		Third differential gear lock			
		ing and trailing shoe type.		Speedometer(with odometer)			
□ Pa	arking	.Mechanically operated by hand brake lev-		Sun visor			
		er, internal expanding duo-servo shoe		Spare tire carrier with lock key			
		type acting on drum at transmission case		Tool box with lock key			
		rear.		Fuel tank cap with lock key			
□ Au	ıxiliary	.Electro-pneumatic operated exhaust		Back-up light			
		brake.		Back-up alarm Air filter warning light(Instrument cluster)			
□ En	nergency	Pneumatically controlled spring brake, act-		Towing hook(Front and rear, Eye type)			
	_	ing on all rear axles.		Ashtray			
TIRES				Cigarette lighter			
		315/80 R 22.5 156/150, Single x 4		Front fog lamp			
		315/80 R 22.5 156/150, Dual x 4		Owner's tool set			
□ Sp	oare	315/80 R 22.5 156/150, Single x 1	П	Cab floor mat			
				otional Equipment			
	CTRONIC SYSTI			Car cooler(Refrigerant:R134a)			
24 V D	C. 2 batteries of 12	V (JIS)115F51, 96Ah at 5-hour rate		AM/FM radio			

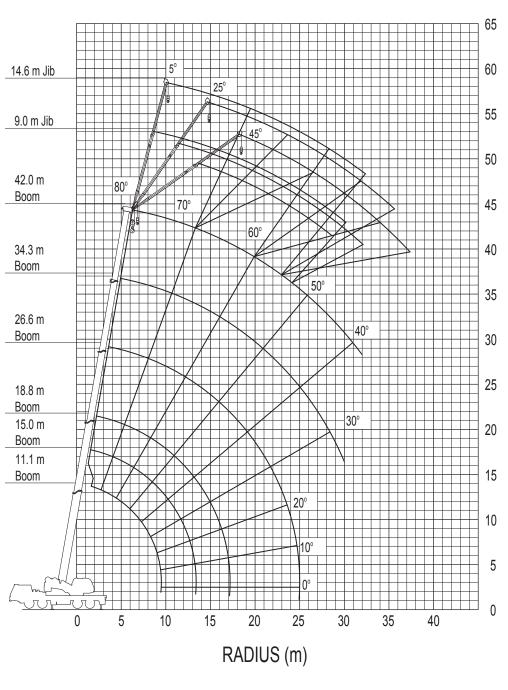
FUEL TANK CAPACITY

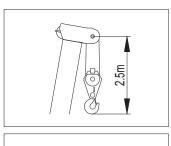
Alternator 24V-50A

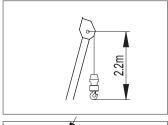
300 liters

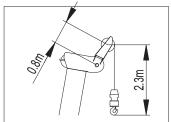
WORKING RANGE

Telescoping mode I









Boom Length

42.0 m Boom

34.3 m Boom

26.6 m Boom

15.0 m Boom

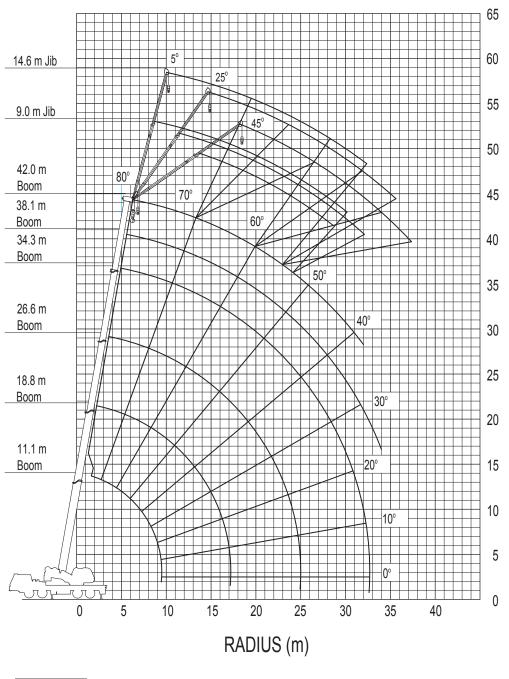
NOTE:

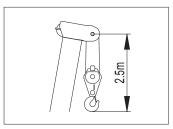
 Boom and jib geometry shown are for unloaded condition and machine standing level on firm supporting surface.
 Boom deflection and subsequent radius and boom angle change must be accounted for when applying load to hook.

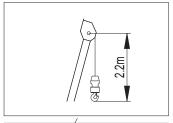
-2. When the boom length is 11.1 - 12.0 m, Max boom angle is 76°

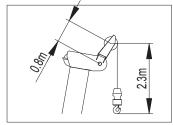
WORKING RANGE

Telescoping mode II









Boom Length

26.6 m Boom

42.0 m Boom 38.1 m Boom

34.3 m Boom

18.8 m Boom

11.1 m Boom NOTE:

1. Boom and jib geometry shown are for unloaded condition and machine standing level on firm supporting surface. Boom deflection and subsequent radius and boom angle change must be accounted for when applying load to hook.

-2. When the boom length is 11.1 - 12.0 m, Max boom angle is 76°

RATED LIFTING CAPACITIES (Boom)

	UNIT: kg CLASS OF CRANE; C3									
	Outriggers fully extended 6.8m									
Load	11.1 m	15.0 m	18.8 m	boom	26.6 m	boom	34.3 m	boom	38.1 m	42.0 m
radius (m)	boom	boom							boom	boom
3.0	55,000	40,000	28,000	20,000						
3.5	43,700	40,000	28,000	20,000						
4.0	38,500	38,100	28,000	20,000						
4.5	34,200	33,800	28,000	19,800	20,000	14,000				
5.0	30,800	30,400	28,000	19,000	20,000	14,000				
5.5	27,800	27,400	27,200	18,200	20,000	13,600				
6.0	25,400	25,000	24,700	17,500	20,000	12,800	14,000	8,000		
6.5	23,200	22,800	22,500	16,800	18,900	12,000	14,000	8,000		
7.0	21,400	21,000	20,700	16,200	17,800	11,400	13,500	8,000	8,000	8,000
7.5	19,700	19,300	19,100	15,700	16,700	10,800	13,000	8,000	8,000	8,000
8.0	18,300	17,900	17,600	15,200	15,800	10,200	12,500	8,000	8,000	8,000
9.0	15,200	14,600	14,200	14,300	14,200	9,300	11,300	7,600	8,000	8,000
10.0		11,600	11,300	13,500	12,500	8,500	10,400	7,000	7,500	8,000
11.0		9,500	9,100	11,400	10,300	7,800	9,600	6,400	6,900	7,500
12.0		7,800	7,500	9,600	8,600	7,200	8,800	5,800	6,400	6,900
14.0			5,100	7,200	6,200	6,200	6,800	4,900	5,500	5,900
16.0			3,500	5,500	4,500	5,400	5,100	4,200	4,700	5,200
18.0					3,300	4,700	3,900	3,600	4,100	4,200
20.0					2,400	3,700	3,000	3,200	3,600	3,200
22.0					1,700	3,000	2,200	2,800	2,800	2,500
24.0					1,200	2,400	1,600	2,500	2,200	1,900
26.0							1,200	2,100	1,800	1,400
28.0							800	1,700	1,400	1,000
30.0							500	1,400	1,000	700
32.0								1,100	700	450
34.0									500	
				Telesco	ping condit	ions(%)				
Telescoping Mode	I, II	I	I	II	I	II	I	II	II	I, II
2nd boom	0	50	100	0	100	0	100	0	50	100
3rd boom	0	0	0	33	33	66	66	100	100	100
4th boom	0	0	0	33	33	66	66	100	100	100
Top boom	0	0	0	33	33	66	66	100	100	100

NOTES

- 1. Rated lifting capacities shown in the table are based on the condition that the crane is set on firm ground horizontally. Those above bold line are based on crane strength and those below, it is stability.
- 2. Rated lifting capacities in the stability area comply with part 2 / ISO 4305.
- 3. The mass of load handling devices such as hook blocks {570 kg for *55 ton capacity, 400 kg for *20 ton capacity and 130 kg for 4.5 ton capacity} and slings, shall be considered part of the load and must be deducted from rated lifting capacities.
- 4. Without front jack extended, when the boom is within the Over-front, Rated lifting capacities are different from those for the boom in the Over-side and Over-rear.
- 5. Standard number of parts of line for each boom length is as shown below. Load per-line should not surpass 42.2 kN {4,300 kgf} for main winch rope and 44.1 kN {4,500 kgf} for auxiliary winch rope.

*: Optional

Boom Length ☐	11.1 m□	15.0 m□	18.8 m□	26.6 m□	34.3 m□	38.1 m□	42.0 m□	Jib/Single top
Number of parts of line ☐	**13/12	10□	7□	5□	4□	4□	4□	1

^{**:} With single top (When the lifting capacities is 55,000 kg)

- 6. Special weather caution: Refer to the operation and maintenance manual.
- 7. For rated lifting capacity of single top, subtract the main hook mass from the relevant boom rated lifting capacity. Rated lifting capacity of single top should not exceed 4,500 kg.
- 8. Load radius shown in the table includes the deflection of the boom. Therefore, perform it according to the load radius. However for the jib operation, perform it according to the boom angle regardless of the boom length. The load radius shows reference value when the jib is attached to the 42.0 m boom, 38.1 m boom (Telescoping mode II) and 34.3 m boom (Telescoping mode I).

RATED LIFTING CAPACITIES (Boom)

UNIT: kg CLASS OF CRANE; C3

Outriggers extended to middle 4.6 m										
Load radius (m)	11.1 m boom	15.0 m boom	18.8 m	boom	26.6 m	boom	34.3 m	boom	38.1 m boom	42.0 m boom
3.0	32,000	28,000	28,000	20,000						
3.5	32,000	28,000	28,000	20,000						
4.0	32,000	28,000	28,000	20,000						
4.5	26,300	25,500	24,900	19,700	20,000	14,000				
5.0	20,200	19,200	18,700	18,900	20,000	14,000				
5.5	15,800	15,100	14,600	17,700	16,400	13,500				
6.0	12,800	12,200	11,800	14,600	13,300	12,700	14,000	8,000		
6.5	10,600	10,000	9,600	12,300	11,100	12,000	11,900	8,000		
7.0	8,900	8,300	8,000	10,500	9,400	11,100	10,100	8,000	8,000	8,000
7.5	7,500	7,000	6,600	9,100	8,000	9,700	8,700	8,000	8,000	8,000
8.0	6,400	5,900	5,500	7,900	6,800	8,500	7,500	8,000	8,000	7,900
9.0	4,700	4,200	3,900	6,100	5,100	6,700	5,800	7,100	6,500	6,100
10.0		3,000	2,700	4,800	3,800	5,300	4,500	5,600	5,200	4,800
11.0		2,100	1,800	3,800	2,900	4,300	3,500	4,600	4,200	3,800
12.0		1,300	1,000	3,000	2,100	3,500	2,700	3,800	3,400	3,000
14.0				1,900	1,000	2,300	1,600	2,600	2,200	1,900
16.0				1,100		1,500		1,800	1,400	1,000
18.0								1,200		
				Telesco	ping condi	tions(%)			•	
Telescoping Mode	I, II	I	I	II	I	II	I	II	II	I, II
2nd boom	0	50	100	0	100	0	100	0	50	100
3rd boom	0	0	0	33	33	66	66	100	100	100
4th boom	0	0	0	33	33	66	66	100	100	100
Top boom	0	0	0	33	33	66	66	100	100	100

UNIT: kg CLASS OF CRANE; C3

Outriggers extended to minimum 2.39 m							
Load	11.1 m	15.0 m 18.8 m l		boom	26.6 m	boom	
radius (m)	boom	boom					
3.0	22,800	22,100	21,700	20,000			
3.5	16,900	16,300	15,900	18,600			
4.0	13,100	12,500	12,100	14,600			
4.5	10,400	9,900	9,500	11,900	10,800	12,500	
5.0	8,400	7,900	7,600	9,800	8,800	10,400	
5.5	6,900	6,500	6,100	8,300	7,300	8,800	
6.0	5,700	5,300	5,000	7,000	6,100	7,600	
6.5	4,800	4,300	4,000	6,000	5,100	6,500	
7.0	4,000	3,500	3,200	5,200	4,300	5,700	
7.5	3,300	2,900	2,600	4,500	3,600	5,000	
8.0	2,700	2,300	2,000	3,900	3,000	4,400	
9.0	1,800	1,400	1,100	2,900	2,100	3,400	
10.0				2,200	1,400	2,700	
11.0				1,600		2,100	
12.0				1,100		1,600	
Telescoping conditions(%)							
Telescoping Mode	I, II	I	I	II	I	II	
2nd boom	0	50	100	0	100	0	
3rd boom	0	0	0	33	33	66	
4th boom	0	0	0	33	33	66	
Top boom	0	0	0	33	33	66	

RATED LIFTING CAPACITIES (Jib)

UNIT: kg CLASS OF CRANE; C3

Outriggers fully extended 6.8 m								
	42.0 m boom							
Boom		9.0 m jib			14.6 m jib			
angle	5° offset	25° offset	45° offset	5° offset	25° offset	45° offset		
80°	3,500	2,300	1,300	2,500	1,200	700		
79°	3,500	2,300	1,300	2,500	1,200	700		
78°	3,500	2,300	1,300	2,500	1,200	700		
77°	3,400	2,300	1,280	2,350	1,170	690		
76°	3,250	2,240	1,260	2,220	1,140	680		
75°	3,100	2,160	1,240	2,100	1,120	670		
73°	2,840	2,020	1,200	1,890	1,070	650		
70°	2,430	1,850	1,150	1,640	1,000	630		
68°	2,200	1,730	1,120	1,500	950	620		
65°	1,950	1,580	1,070	1,330	910	590		
63°	1,780	1,450	1,030	1,220	850	580		
60°	1,350	1,180	1,000	1,080	800	570		
58°	1,050	920	850	800	750	560		
55°	680	590	550	500	480	420		
53°	470	410						

UNIT: kg CLASS OF CRANE; C3

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			iggers fully exten		41 414			
	38.1 m boom (telescoping mode II) or less than that							
Boom		9.0 m jib			14.6 m jib			
angle	5° offset	25° offset	45° offset	5° offset	25° offset	45° offset		
80°	3,500	2,300	1,300	2,500	1,200	700		
79°	3,500	2,300	1,300	2,500	1,200	700		
78°	3,500	2,300	1,300	2,500	1,200	700		
77°	3,400	2,300	1,280	2,350	1,170	690		
76°	3,250	2,240	1,260	2,220	1,140	680		
75°	3,100	2,160	1,240	2,100	1,120	670		
73°	2,840	2,020	1,200	1,890	1,070	650		
70°	2,430	1,850	1,150	1,640	1,000	630		
68°	2,200	1,730	1,120	1,500	950	620		
65°	1,950	1,580	1,070	1,330	910	590		
63°	1,780	1,450	1,030	1,220	850	580		
60°	1,550	1,280	1,000	1,080	800	570		
58°	1,380	1,200	980	1,000	770	560		
55°	1,150	1,080	940	890	730	550		
53°	1,000	1,000	920	820	710	540		
50°	840							

UNIT: kg CLASS OF CRANE; C3

		0.4	f. II		JIVIII . NY OLAGO	01 010 1112 , 0		
			riggers fully exend					
L	34.3 m boom (telescoping mode I) or less than that							
Boom		9.0 m jib			14.6 m jib			
angle	5° offset	25° offset	45° offset	5° offset	25° offset	45° offset		
80°	3,500	2,300	1,300	2,500	1,200	700		
79°	3,500	2,300	1,300	2,500	1,200	700		
78°	3,500	2,300	1,300	2,500	1,200	700		
77°	3,400	2,300	1,280	2,350	1,170	690		
76°	3,250	2,240	1,260	2,220	1,140	680		
75°	3,100	2,160	1,240	2,100	1,120	670		
73°	2,840	2,020	1,200	1,890	1,070	650		
70°	2,430	1,850	1,150	1,640	1,000	630		
68°	2,200	1,730	1,120	1,500	950	620		
65°	1,950	1,580	1,070	1,330	910	590		
63°	1,780	1,450	1,030	1,220	850	580		
60°	1,550	1,280	1,000	1,080	800	570		
58°	1,380	1,200	980	1,000	770	560		
55°	1,150	1,080	940	890	730	550		
53°	1,000	1,000	920	820	710	540		
50°	840							

RATED LIFTING CAPACITIES (Jib)

UNIT: kg CLASS OF CRANE; C3

		0.11			71111 1 11g - 0 2 7 10 0	
		Outrigg	gers extended to	middle 4.6 m		
			42.0 m	n boom		
Boom		9.0 m jib			14.6 m jib	
angle	5° offset	25° offset	45° offset	5° offset	25° offset	45° offset
80°	3,500	2,300	1,300	2,500	1,200	700
79°	3,500	2,300	1,300	2,500	1,200	700
78°	3,080	2,280	1,300	2,500	1,200	700
77°	2,550	1,910	1,280	2,190	1,170	690
76°	2,090	1,580	1,260	1,800	1,140	680
75°	1,700	1,300	1,070	1,470	1,010	670
73°	1,070					_

UNIT: kg CLASS OF CRANE; C3

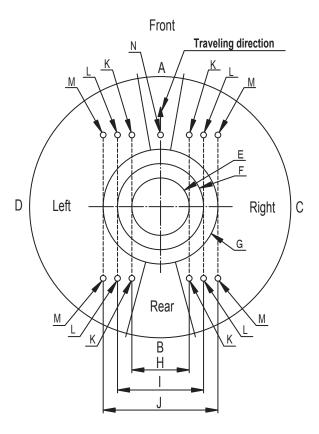
Citi : kg OL/100 Ci Cititle ; OU									
Outriggers extended to middle 4.6 m									
		38.1 m boom (telescoping mode II) or less than that							
Boom		9.0 m jib			14.6 m jib				
angle	5° offset	25° offset	45° offset	5° offset	25° offset	45° offset			
80°	3,500	2,300	1,300	2,500	1,200	700			
79°	3,500	2,300	1,300	2,500	1,200	700			
78°	3,500	2,300	1,300	2,500	1,200	700			
77°	3,400	2,300	1,280	2,350	1,170	690			
76°	2,910	2,200	1,260	2,220	1,140	680			
75°	2,480	1,900	1,240	2,100	1,120	670			
73°	1,780	1,390	1,160	1,520	1,070	650			
70°	1,010								

UNIT: kg CLASS OF CRANE; C3

					nun . ng ob too	01 010 1112, 00		
		Outrigg	jers extended to r	middle 4.6 m				
	34.3 m boom (telescoping mode I) or less than that							
Boom		9.0 m jib			14.6 m jib			
angle	5° offset	25° offset	45° offset	5° offset	25° offset	45° offset		
80°	3,500	2,300	1,300	2,500	1,200	700		
79°	3,500	2,300	1,300	2,500	1,200	700		
78°	3,500	2,300	1,300	2,500	1,200	700		
77°	3,400	2,300	1,280	2,350	1,170	690		
76°	2,910	2,200	1,260	2,220	1,140	680		
75°	2,480	1,900	1,240	2,100	1,120	670		
73°	1,780	1,390	1,160	1,520	1,070	650		
70°	1,010							

WORKING AREA

- 1. Applicable rated lifting capacities change as the ranges of the working area, depending on the outrigger extension width and whether the front jack is used.
- 2. When the swing automatic stop cancel switch is canceled, the swing does not automatically stop even if the crane becomes overloaded.



A::Over-front area

B::Over-rear area

C: Over-side area (right)

Dirover-side area (left)

Entraced lifting capacity (capacity with outriggers at minimum extension)

F□ Rated lifting capacity (capacity with outriggers at middle extension)

G⊞Rated lifting capacity (capacity with outriggers at full extension)

Haminimum extension width of outriggers

I□: Middle extension width of outriggers

J□ Full extension width of outriggers

K⊡Position of outrigger jack with the beam not extended

L□ Position of outrigger jack with the beam extended

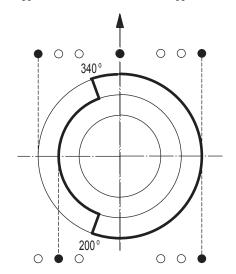
M⊡Position of outrigger jack with the beam extended fully

N:::Front jack

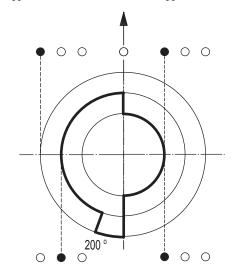
Reference

Front jack extended

FL outrigger extended to fully, FR outrigger extended to fully RL outrigger extended to middle, RR outrigger extended to fully



Front jack not extended FL outrigger extended to fully, FR outrigger extended to minimum RL outrigger extended to middle, RR outrigger extended to minimum



MEMO		

Specifications are subject to change without notice.



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Printed in Japan