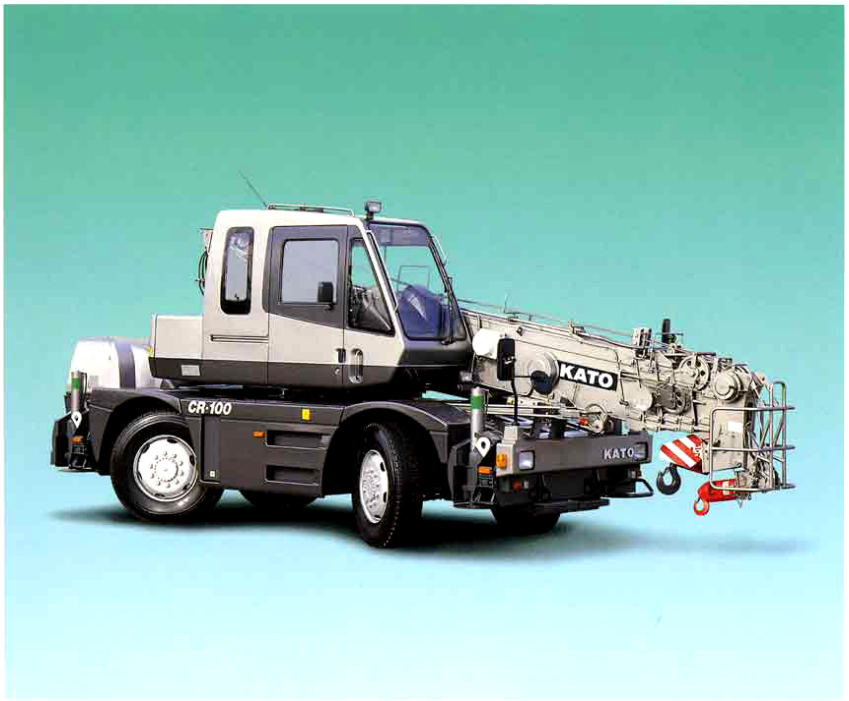
KATO

CR-100

CITYRANGE CRANE



- **Maximum rated lifting capacity: 10t 360°**
- **Maximum boom length: 23.5m(Main boom)**

KATO

CR-100

CITYRANGE CRANE

SPECIFICATION

■CRANE SPECIFICATION

Performance

Maximum rated lifting capacity:	10 metric tons×2.5m
Boom length:	5.5m−23.5m (6 section)
Fly jib length (OPTION):	2.5m (1 section, offset, 15°,30° & 45° optional) (Deck stowed, detachable fly jib)
Maximum lifting height:	Boom 24.5m (23.5m Boom) Jib 26.7m (23.5m Boom+2.5m fly jib offset 15°)
Boom derricking angle:	−9−81°
＊Boom derricking time:	30sec. (−9°−81°)
＊Boom extending time:	56sec. (5.5m−23.5m)
＊Hoisting line speed (winch up)	
Main winch:	112m/min.(at 4th layer)
Auxiliary winch:	104m/min. (at 3rd layer)
＊Hoisting hook speed (Winch up)	
Main winch (parts of line; 8):	14m/min. (at 4th layer)
Auxiliary winch (parts of line; 1):	104m/min. (at 3rd layer)
＊Slewing speed:	2.3min^{-1}
(Speed:	Subject to no load)

Hoisting Ropes

Main winch;	
Diameter:	10mm
Length:	130m
Auxiliary winch;	
Diameter:	10mm
Length:	58m

Hydraulic System

Oil pump:	4 pumps, plunger and gear type
Hoisting motor:	Axial plunger type
Slewing motor:	Axial plunger type
Cylinder:	Double acting type
Control valve:	Double acting with integral check and relief valves
Oil reservoir capacity:	150lit.

Winch System

Main winch & Auxiliary winch:
Driven by axial plunger type hoisting motor with gear reduction.
Controlled independently by respective operating lever.
Equipped with automatic brake.

Safety devices

Safe load indicator:
KATO ACS (Automatic Crane Stopper) Include;
Safe level indicator lamps
Actual load digital display
Rated lifting capacity digital display
Trouble warning lamp
Boom operation status display
Fly jib offset angle display
Outrigger setting status display
Slewing area display
Winch drum indicator
Boom falling prevention device
Hoisting limiter
Winch drum lowering limiter
Automatic winch brake
Irregular winding prevention device
Hydraulic safety valve
Control pedal lock device for Main winch operation
Control pedal lock device for Aux. winch operation
Mechanical slewing lock
Mechanical slewing brake
Over unwinding warning
*Working radius digital display
*Boom length digital display
*Number of parts of line digital display
(*=Selected display)
Working range limit system with working area restriction display
Outside warning device
Voice alarm (Option)

Option

2.5m Fly jib (Deck stowed, detachable fly jib)
Amplifier
English voice alarm of ACS.

■CARRIER SPECIFICATION

General dimensions & G.V.W.

Overall length:	7430mm
Overall width:	1995mm
Overall height:	2835mm
Wheel base:	2750mm
Treads; Front & Rear:	1680mm
Center to center of extended outriggers:	4500mm (Fully extended) 3200mm (Intermediately extended) 1640mm (Blocked on vertical cylinders)
Gross vehicle weight:	12.900kg
Front	6350kg
Rear	6550kg

Carrier

Drive system:	4×2/4×4
Maximum traveling speed:	49km/h
Gradeability (tanθ):	60% (computed @G.V.W.=12,900kg)
Minimum turning radius:	3.92m (4 wheel steer)
(center of extreme outer tyre):	6.5m (2 wheel steer)
Engine:	
Maker:	Hino Motors, Ltd.
Model:	EA-WO4C-TV
Type:	4 cycle, water cooled, direct injection, turbo-charged diesel engine with inter-cooling
No. of cylinder:	4
Piston displacement:	3839cc
Max. output horsepower:	118KW/3000min^{-1}
Max. output torque:	471N-m/1,600min^{-1}
NOTE:The engine emission is in accordance with 97/68/EC.	
Torque converter:	Engine mounted 3 elements 1 stage (with lock up clutch)
Transmission:	Remote mounted full automatic with transfer gear box 4 forward & 1 reverse speed (with Hi-Low selector)
Axle; Front & Rear:	Planetary, drive/steer type
Suspension; Front & Rear:	Taper-leaf spring
Steering:	Full hydraulic power steering Completely independent front and rear steering (with automatic rear wheel steering lock system)
Brake; Service brake:	Air-over hydraulic disk brake on front wheels Air-over hydraulic drum brake on rear wheels (2 circuit). Equipped with service brake lock
Parking brake:	Spring applied, electrically air released parking brake mounted on rear wheels, internal expanding type
Auxiliary brake:	Exhaust brake
Electric system:	24V
Alternator:	24V−45A
Battery:	(12V−95E41R)×2
Fuel tank capacity:	250lit.
Driver's cab:	All steel welded construction, 1 person, Air-conditioner (OPTION)
Tyre size; Front & Rear:	11R22.5 148/145
Safety devices:	Emergency steering device Brake fluid leak warning device Seat belt Service brake lock Engine overrun alarm Over-shift prevention device Radiator coolant leakage warning device Motor driven retractable side mirrors Mirror heater Low air warning device. Over speed warning

■RATED LIFTING CAPACITY(1)

Based on ＊ISO 4305 ＊BS 1757 : 1986 ＊DIN 15019-2

Working radius (m)	Outriggers fully extended(4.5m) 360° full range						Outriggers intermediately extended(3.2m) 360° full range						Outriggers completely retracted (blocked on vertical cylinders) – 360° full range					
	5.5m Boom	9.1m Boom	12.7m Boom	16.3 Boom	19.9m Boom	23.5m Boom	5.5m Boom	9.1m Boom	12.7m Boom	16.3 Boom	19.9m Boom	23.5m Boom	5.5m Boom	9.1m Boom	12.7m Boom	16.3 Boom	19.9m Boom	23.5m Boom
1.5	10.00	5.00	5.00				10.00	5.00	5.00				8.00	5.00	4.90			
2.0	10.00	5.00	5.00	4.00			10.00	5.00	5.00	4.00			5.50	4.00	3.50	3.25		
2.5	10.00	5.00	5.00	4.00			10.00	5.00	5.00	4.00			3.70	3.15	2.60	2.50		
3.0	8.00	5.00	5.00	4.00	4.00		8.00	5.00	5.00	4.00	4.00		2.70	2.35	1.95	1.95	1.90	
3.5	6.10	5.00	5.00	4.00	4.00	2.30	6.10	5.00	5.00	4.00	4.00	2.30	2.10	1.85	1.50	1.55	1.55	1.50
4.0	5.20	5.00	5.00	4.00	4.00	2.30	5.20	4.45	4.30	4.00	4.00	2.30	1.60	1.45	1.15	1.25	1.25	1.20
4.5		5.00	4.55	4.00	3.70	2.30		3.90	3.55	3.50	3.40	2.30		1.10	0.85	1.00	1.00	1.00
5.0		4.40	4.10	3.70	3.40	2.30		3.35	3.00	3.00	2.95	2.30		0.85	0.65	0.80	0.85	0.85
5.5		3.95	3.70	3.40	3.10	2.30		2.80	2.55	2.60	2.55	2.30		0.65	0.45	0.60	0.65	0.70
6.0		3.55	3.35	3.15	2.85	2.30		2.35	2.20	2.25	2.25	2.10		0.50	0.30	0.45	0.55	0.55
6.5		3.15	3.05	2.90	2.60	2.15		2.00	1.90	2.00	2.00	1.95		0.35	0.20	0.35	0.40	0.45
7.0		2.80	2.80	2.65	2.40	2.00		1.75	1.65	1.75	1.75	1.75		0.25		0.25	0.30	0.35
8.0		2.50	2.30	2.25	2.05	1.75		1.50	1.20	1.35	1.40	1.40						
9.0		(7.5m)	1.90	1.95	1.80	1.55		(7.5m)	0.90	1.05	1.10	1.15						
10.0			1.50	1.70	1.60	1.40			0.65	0.80	0.90	0.90						
11.0			1.20	1.40	1.40	1.25			0.45	0.60	0.70	0.75						
12.0				1.15	1.25	1.15				0.45	0.55	0.60						
13.0				0.95	1.05	1.05				0.30	0.45	0.50						
14.0				0.78	0.90	0.95				0.20	0.35	0.35						
15.0				0.70	0.75	0.84					0.25	0.30						
16.0				(14.5m)	0.63	0.70						0.20						
17.0					0.53	0.60												
18.0					0.44	0.50												
19.0						0.42												
20.0						0.35												
21.0						0.28												
22.0						0.24												
Standard hook	for 10 ton						for 10 ton						for 10 ton					
Hook mass	80kg						80kg						80kg					
Parts of line	8	4					8	4					8	4				
Critical boom angle	—	—	—	—	—	—	—	—	—	—	25°	35°	—	—	52°	59°	64°	68°

(Unit:Metric ton)

■RATED LIFTING CAPACITY(2)

Based on ＊ISO 4305 ＊BS 1757 : 1986 ＊DIN 15019-2

23.5m Boom+2.5m Jib

Outriggers fully extended (4.5m) –360° full range

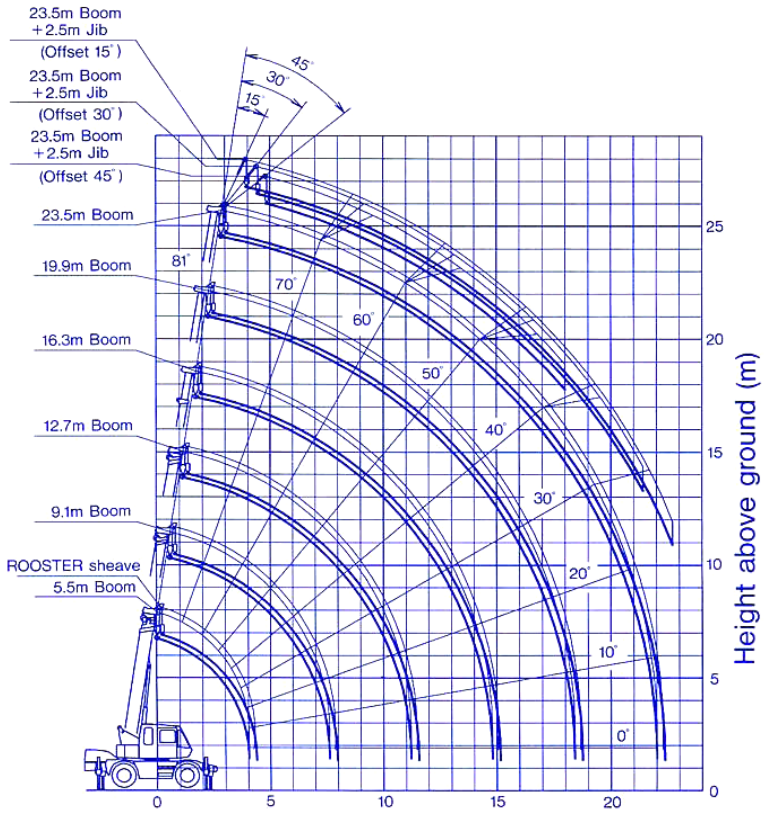
Boom angle (°)	Offset 15°		Offset 30°		Offset 45°	
	Working radius(m)	Load (t)	Working radius(m)	Load (t)	Working radius(m)	Load (t)
81	4.0	1.20	4.5	1.00	5.0	0.80
77.5	5.7	1.20	6.2	1.00	6.5	0.80
73	7.7	1.20	8.2	1.00	8.4	0.76
70	8.9	1.08	9.4	0.92	9.6	0.74
65	11.0	0.90	11.4	0.81	11.6	0.70
60	12.9	0.80	13.3	0.73	13.5	0.68
55	14.8	0.70	15.1	0.66	15.2	0.63
50	16.5	0.64	16.7	0.61	16.8	0.59
46.5	17.6	0.58	17.9	0.57	18.0	0.56
40	19.4	0.42	19.7	0.41		
32	21.4	0.28	21.5	0.28		
25	22.7	0.20				
Standard hook	for 1.4 ton					
Hook mass	25kg					
Parts of line	1					
Critical boom angle	15°		30°		45°	

Outriggers intermediately extended (3.2m) –360° full range

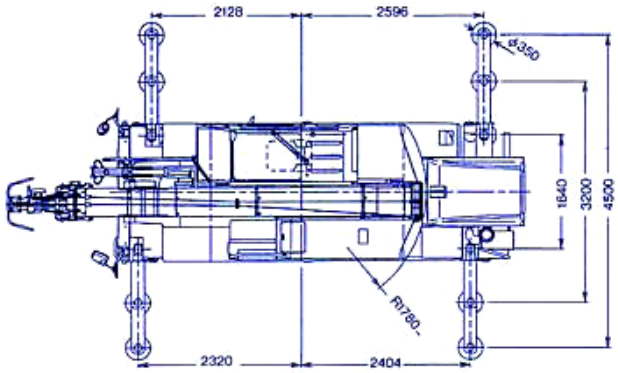
Boom angle (°)	Offset 15°		Offset 30°		Offset 45°	
	Working radius(m)	Load (t)	Working radius(m)	Load (t)	Working radius(m)	Load (t)
81	4.0	1.20	4.5	1.00	5.0	0.80
77.5	5.7	1.20	6.2	1.00	6.5	0.80
73	7.7	1.20	8.2	1.00	8.4	0.76
70	8.9	1.08	9.4	0.92	9.6	0.74
67.5	10.0	0.98	10.4	0.86	10.7	0.72
65	11.0	0.81	11.4	0.74	11.6	0.70
60	12.9	0.54	13.3	0.52	13.4	0.50
55	14.7	0.35	15.1	0.33	15.2	0.33
50	16.5	0.20	16.7	0.20	16.8	0.20
Standard hook	for 1.4 ton					
Hook mass	25kg					
Parts of line	1					
Critical boom angle	49°		49°		49°	

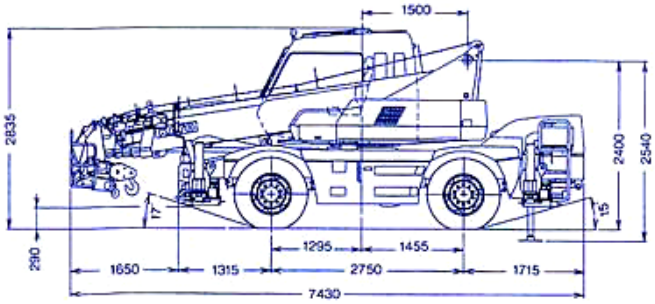
(Unit:Metric ton)

WORKING RANGE



Note: This diagram does not include deflection of Boom and Fly Jib.

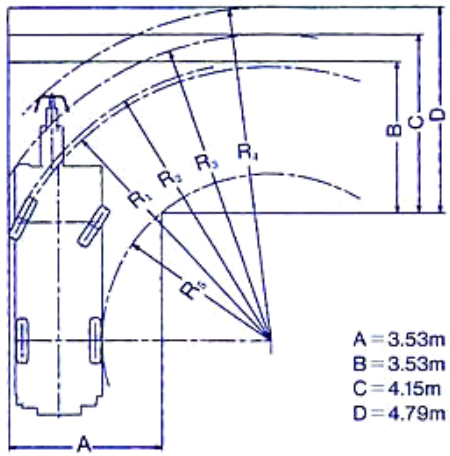




KATO FULLY HYDRAULIC CYTYRANGE CRANE MODEL CR-100

■Minimum Road Width for Right-Angle Turn

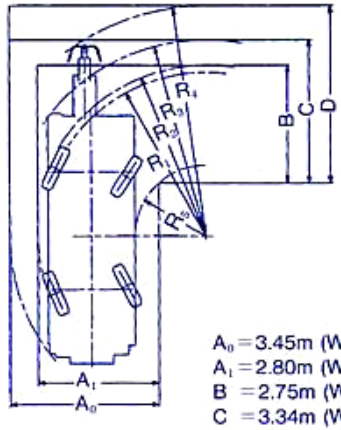
●Right turn in two-wheel steering mode



R_1 = 6.50m
(Minimum turning radius)
R_2 = 6.60m
(Turning radius of extremely outer tyre)
R_3 = 7.12m
(Chassis turning radius)
R_4 = 7.75m
(Boom end turning radius)
R_5 = 3.88m
(Turning radius extremely chassis inner)

A = 3.53m (Width of entrance)
B = 3.53m (Width of wheel exit)
C = 4.15m (Width of chassis exit)
D = 4.79m (Width of exit at end of boom)

●Right turn in 4-wheel steering mode



R_1 = 3.92m
(Minimum turning radius)
R_2 = 4.02m
(Turning radius of extremely outer tyre)
R_3 = 4.59m
(Chassis turning radius)
R_4 = 5.38m
(Boom end turning radius)
R_5 = 1.66m
(Turning radius extremely chassis inner)

A_0 = 3.45m (Width of entrance)
A_1 = 2.80m (Width of wheel entrance)
B = 2.75m (Width of wheel exit)
C = 3.34m (Width of chassis exit)
D = 4.01m (Width of exit at end of boom)

Note: The above values are based on calculations.

KATO

NK-200E-v

FULLY HYDRAULIC TRUCK CRANE

SPECIFICATION

KATO WORKS CO.,LTD.


• 10.5 m ~ 26.2 m Boom


26.2 m Boom + 7.5 m Jib (Offset 5°)


26.2 m Boom + 7.5m Jib (Offset 17°)


26.2m Boom + 7.5m Jib (Offset 30°)

RATED LIFTING CAPACITY

Based on BS 1757 : 1986
DIN 15019-2
75% of tipping loads

Note: Front jack is optional.

Outriggers fully extended with front jack – 360° full range Outriggers fully extended without front jack – over side and over rear			
Working radius (m)	10.5 m Boom	18.3 m Boom	26.2 m Boom
2.5	20.00		
3.0	20.00		
3.5	17.50	12.00	
4.0	15.50	12.00	
4.5	13.90	12.00	
5.0	12.50	12.00	7.00
5.5	10.70	10.50	7.00
6.0	9.50	9.50	7.00
6.5	8.50	8.60	7.00
7.0	7.70	7.90	7.00
7.5	6.95	7.25	6.50
8.0	6.25	6.75	6.05
8.5	5.60	6.25	5.60
9.0		5.75	5.30
9.5		5.35	5.00
10.0		4.90	4.75
11.0		4.15	4.10
12.0		3.55	3.50
13.0		3.10	3.00
14.0		2.70	2.60
15.0		2.30	2.25
16.0		2.00	2.00
16.5		1.85	1.80
17.0			1.75
18.0			1.55
19.0			1.35
20.0			1.20
21.0			1.05
22.0			0.90
23.0			0.80
24.0			0.70
24.5			0.65
Standard hook	for 20 ton		
Hook weight	230 kg		
Parts line	7	4	
Critical boom angle	—	—	—

(Unit: Metric ton)

Outriggers intermediately extended without front jack – 360° full range Outriggers fully extended without front jack – over front			
Working radius (m)	10.5 m Boom	18.3 m Boom	26.2 m Boom
2.5	20.00		
3.0	20.00		
3.5	17.50	12.00	
4.0	15.20	12.00	
4.5	11.65	12.00	
5.0	9.70	10.20	7.00
5.5	8.00	8.60	7.00
6.0	6.80	7.35	7.00
6.2	6.50	7.00	7.00
7.0	5.25	5.50	5.70
7.5	4.55	4.80	5.00
8.0	3.90	4.25	4.40
8.5	3.35	3.75	3.90
9.0		3.35	3.45
10.0		2.65	2.80
11.0		2.15	2.25
12.0		1.75	1.85
13.0		1.40	1.50
14.0		1.10	1.20
15.0		0.90	0.95
16.0		0.70	0.75
17.0			0.60
Standard hook	for 20 ton		
Hook weight	230 kg		
Parts line	7	4	
Critical boom angle	—	—	40°

(Unit: Metric ton)

WORKING RANGE

Outriggers fully extended with front jack – 360° full range
Outriggers fully extended without front jack – over side and over rear

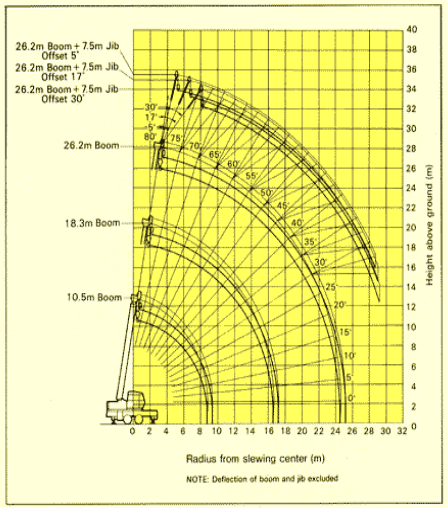
Boom angle (°)	26.2 m Boom + 7.5 m Jib					
	Offset 5°		Offset 17°		Offset 30°	
	Working radius (m)	Load (t)	Working radius (m)	Load (t)	Working radius (m)	Load (t)
80.0	6.6	2.50	8.0	1.75	9.4	1.30
73.0	10.2	2.50	11.4	1.75	12.7	1.30
72.5	10.5	2.45	11.7	1.75	12.9	1.29
70.0	11.9	2.25	13.0	1.67	14.1	1.25
65.0	14.6	1.96	15.7	1.51	16.7	1.17
60.0	17.2	1.75	18.2	1.38	19.0	1.12
55.0	19.6	1.59	20.6	1.29	21.2	1.08
53.6	20.3	1.55	21.3	1.26	21.9	1.07
49.3	22.1	1.25	23.0	1.20	23.6	1.04
46.9	23.1	1.11	23.8	1.08	24.6	1.03
40.0	25.5	0.82	26.2	0.79	26.7	0.78
35.0	27.3	0.65	27.7	0.64	28.0	0.64
30.0	28.7	0.53	29.1	0.52	29.2	0.52
Standard hook	for 3 ton					
Hook weight	60 kg					
Parts line	1					
Critical boom angle	—					

(Unit: Metric ton)

Outriggers intermediately extended without front jack – 360° full range
Outriggers fully extended without front jack – over front

Boom angle (°)	26.2 m Boom + 7.5 m Jib					
	Offset 5°		Offset 17°		Offset 30°	
	Working radius (m)	Load (t)	Working radius (m)	Load (t)	Working radius (m)	Load (t)
80.0	6.6	2.50	8.0	1.75	9.4	1.30
73.0	10.2	2.50	11.4	1.75	12.7	1.30
72.5	10.5	2.45	11.7	1.75	12.9	1.29
70.0	11.9	2.26	13.0	1.67	14.1	1.25
67.3	13.2	1.77	14.5	1.58	15.5	1.21
65.2	14.3	1.46	15.5	1.31	16.7	1.18
60.0	16.9	0.90	18.0	0.82	18.9	0.78
54.5	19.4	0.52	20.4	0.48	21.3	0.46
Standard hook	for 3 ton					
Hook weight	60 kg					
Parts line	1					
Critical boom angle	50°					

(Unit: Metric ton)



(8) Critical boom angles for each boom length are shown on bottommost line of lifting capacity table.
If the boom angle is lowered to less than the critical boom angle, the machine will tip over without load. Therefore, never lower the boom below these angles.

(9) Free fall is adopted in principle to lower the hook only.
If it is necessary to lower a load by free fall, its weight should be less than 20% of the rated lifting capacity and abrupt braking should not be allowed.

(10) The machine will tip over or be damaged if operated with a load exceeding that specified in the rated lifting capacity table or not conforming to correct handling.
If such trouble occurs, the machine will not be warranted.

SUPERSTRUCTURE SPECIFICATION

Name and Type: KATO NK-200E-v FULLY HYDRAULIC TRUCK CRANE

Performance

Crane capacity: 20.0t × 3.0m, 10.5m Boom with outriggers
12.0t × 5.0m, 18.8m Boom with outriggers
7.0t × 7.0m, 26.2m Boom with outriggers
3.2t × 12.5m, 10.5—26.2m Boom Rooster sheave with outriggers
2.5t × 10.2m, 26.2m Boom + 7.5m jib (Offset 5°) with outriggers
1.75t × 11.7m, 26.2m Boom + 7.5m jib (Offset 17°) with outriggers
1.3t × 12.7m, 26.2m Boom + 7.5m jib (Offset 30°) with outriggers

Boom length: Basic 10.5m
Maximum 26.2m
Jib length: 7.5m
Max. lifting height: 26.0m (Boom)
34.0m
(26.2m Boom + 7.5m Jib Offset 5°)
Main hoisting line speed: 110m/min (4th layer)
Auxiliary hoisting line speed: 95m/min (2nd layer)
Main hook hoisting speed: 15.7m/min (4th layer of wire rope) (7-part line)
Auxiliary hook hoisting speed: 95m/min (2nd layer of wire rope) (1-part line)
Boom derricking time: 44sec (−3° ~ 80°)
Boom derricking angle −3° ~ 80°
Slewing speed: 2.6 r.p.m.
* speed: subject to no load

Hydraulic System

Oil pump:	4 section gear type
Hoisting motor:	Axial plunger type
Slewing motor:	Axial plunger type
Cylinder:	Double acting type
Control vale:	3 position 4 way double acting with integral check and relief valves
Oil reservoir capacity:	310 lit.

Superstructure

Hoisting mechanism:	Hydraulic motor-driven, gear reduction type (automatic brake system) single winch × 2
Slewing mechanism:	Ball bearing type
Boom derricking mechanism:	Direct-acting cylinder type
Outrigger system:	Hydraulic, vertically supporting with float and vertical cylinder in single unit
Front jack (option):	Hydraulic, vertically supporting with float and vertical cylinder in single unit

Hoisting Ropes

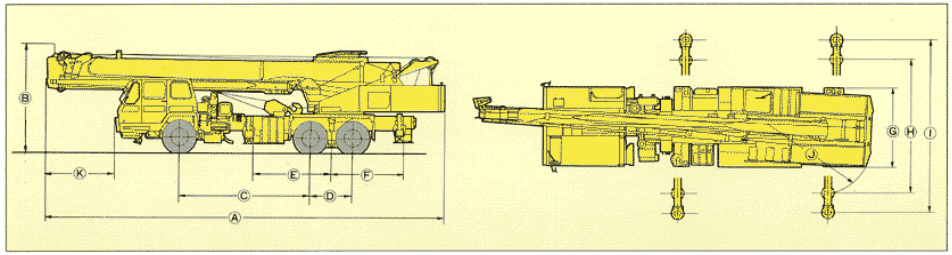
Main:	4 × F(a + 40)ϕ16 × 170m Non-rotating wire rope
Auxiliary:	4 × F(a + 40)ϕ16 × 90m Non-rotating wire rope

Safety Device

Microcomputer type ACS fully automatic overload protection device (Moment Limiter)
Boom falling safety device, Overhoist prevention device, Drum lock device, Automatic winch brake, Irregular winding prevention device, Hydraulic safety valve, Outrigger lock device, Slewing lock device

Option

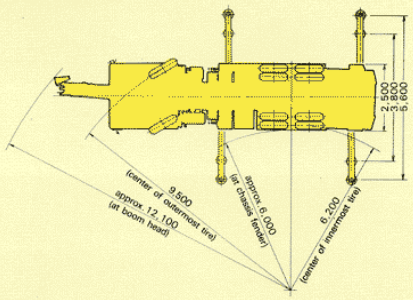
Oil cooler, Front jack, Voice alarm device for ACS, Heater, fan and radio for crane cabin
2 section fly jib (7.5 ~ 12 m)



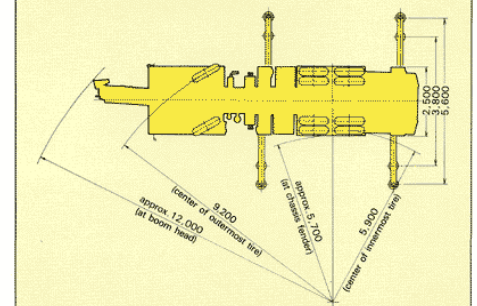
Carrier name and model	A	B	C	D	E	F	G	H	I	J	K
Mitsubishi K203BLA	12,430	3,300	4,050	1,300	2,400	2,200	2,500	3,800	5,600	3,220	2,300
Nissan Diesel KW31MXL	12,430	3,300	4,050	1,300	2,450	2,100	2,500	3,800	5,600	3,220	2,200

(Unit: mm)

Mitsubishi K203BLA



Nissan Diesel KW31MXL

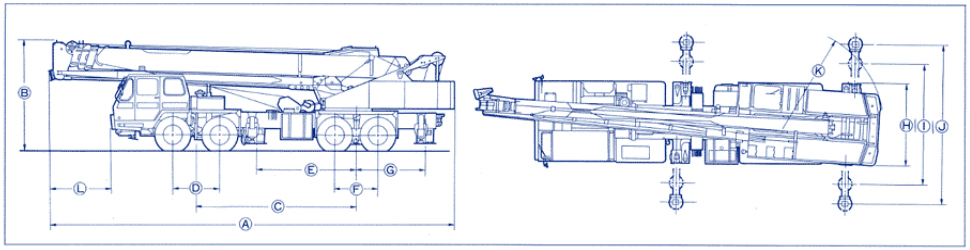


KATO

NK-300E-v

FULLY HYDRAULIC TRUCK CRANE

SPECIFICATION



Carrier name and model	A	B	C	D	E	F	G	H	I	J	K	L
Mitsubishi K303LA	12,580	3,450	5,000	1,450	3,100	1,350	2,150	2,500	4,100	6,100	3,395	1,800
Nissan Diesel KG45SXL	12,580	3,450	4,940	1,520	3,100	1,300	2,100	2,500	4,100	6,100	3,395	1,630

(Unit : mm)

CRANE SPECIFICATION

Performance

Maximum rated lifting capacity	: 30 metric tons × 3.0m
Boom length	: 10.5m ~ 33m (4 section)
Fly jib length	: 8.7m ~ 14.5m (2 section)
Max. lifting height	: 32.8 m (Boom) 47.3 m (33 m Boom + 14.5 m jib offset 5°)
Boom derricking angle	: −3° ~ 80°
Boom derricking time	: 53 sec. (−3° ~ 80°)
Boom extending time	: 110 sec. (10.5m ~ 33m)
Hoisting line speed	
Main winch	: 110m/min. (at 4th layer)
Auxiliary winch	: 95m/min. (at 2nd layer)
Hoisting hook speed	
Main winch (part of line; 10)	: 11.0m/min. (at 4th layer)
Auxiliary winch (part of line; 1)	: 95.0m/min. (at 2nd layer)
Slewing speed	: 2.6 r.p.m. (Speed: Subject to no load)

Hoisting Ropes

Main winch;	Type	: 4 × F (a + 40) (Non-rotating type)
	Diameter	: 16mm
	Length	: 180m
Auxiliary winch;	Type	: 4 × F (a + 40) (Non-rotating type)
	Diameter	: 16mm
	Length	: 105m

Hydraulic System

Oil pump	: 4 section gear type
Hoisting motor	: Axial plunger type
Slewing motor	: Axial plunger type
Cylinder	: Double acting type
Control valve	: 3 position 4 way double acting with integral check and relief valves
Oil reservoir capacity	: 420 lit.

Superstructure

Hoisting mechanism	: Hydraulic motor-driven, gear reduction type (automatic brake system) single winch x 2
Slewing mechanism	: Ball bearing type
Boom derricking mechanism	: Direct-acting cylinder type
Outrigger system	: Hydraulic, vertically supporting with float and vertical cylinder in single unit
Front jack (option)	: Hydraulic, vertically supporting with float and vertical cylinder in single unit
Crane cab	: All steel welded construction

Winch system

Main winch & Auxiliary winch	: Driven by axial plunger type hoisting motor through built-in gear reduction. Controlled independently by respective operating lever. Equipped with automatic brake. With free fall device

Safety Devices

Microcomputer type ACS fully automatic overload protection device (Moment Limiter)
Boom falling safety device, Overhoist prevention device, Drum lock device, Automatic winch brake, Irregular winding prevention device, Hydraulic safety valve, Outrigger lock device, Slewing lock device

Option

Oil cooler, Front jack, Voice alarm device for ACS, Heater, fan and radio for crane cabin

RATED LIFTING CAPACITY

Based on BS 1757 : 1986
DIN 15019-2
75% of tipping loads

Note: Front jack is optional.

Outriggers fully extended with front jack – 360° full range Outriggers fully extended without front jack – over side and over rear							
Working radius (m)	10.5 m Boom	14.2 m Boom	18 m Boom	21.7 m Boom	25.5 m Boom	29.2 m Boom	33 m Boom
2.5	30.00	20.00	16.00				
3.0	30.00	20.00	16.00				
3.5	25.40	20.00	16.00	12.00			
4.0	22.90	20.00	16.00	12.00	11.50		
4.5	21.00	20.00	16.00	12.00	11.50		
5.0	19.40	18.40	16.00	12.00	11.50	9.00	
6.0	16.20	15.30	13.70	12.00	11.50	9.00	7.00
7.0	13.70	12.65	11.95	11.00	10.00	9.00	7.00
8.0	11.15	10.65	10.55	10.20	8.90	8.20	7.00
8.5	10.25	9.70	9.65	9.65	8.45	7.80	6.60
9.0		8.80	8.80	9.20	8.05	7.45	6.25
10.0		7.30	7.15	7.65	7.30	6.75	5.70
12.0		5.10	4.95	5.40	5.65	5.65	4.80
12.5		4.70	4.55	5.05	5.25	5.45	4.55
13.0			4.20	4.65	4.90	5.05	4.45
14.0			3.55	4.00	4.25	4.40	4.10
16.0			2.55	2.95	3.20	3.40	3.50
18.0				2.20	2.45	2.65	2.80
20.0				1.65	1.85	2.05	2.20
22.0					1.40	1.60	1.70
24.0						1.20	1.35
26.0						0.90	1.00
27.5						0.70	0.85
29.0							0.65
31.0							0.45
Standard hook	for 30 ton						
Hook weight	300 kg						
Parts line	10	8	4				
Critical boom angle	—	—	—	—	—	—	—

(Unit: Metric ton)

Outriggers intermediately extended without front jack – 360° full range Outriggers fully extended without front jack – over front							
Working radius (m)	10.5 m Boom	14.2 m Boom	18 m Boom	21.7 m Boom	25.5 m Boom	29.2 m Boom	33m Boom
2.5	25.00	20.00	16.00				
3.0	25.00	20.00	16.00				
3.5	25.00	20.00	16.00	12.00			
4.0	22.90	20.00	16.00	12.00	11.50		
4.5	17.35	16.20	16.00	12.00	11.50		
5.0	14.00	13.60	13.45	12.00	11.50	9.00	
5.5	11.60	11.40	11.20	12.00	11.50	9.00	
6.0	10.00	9.80	9.60	10.20	10.10	9.00	7.00
6.5	8.50	8.50	8.15	8.95	9.10	9.00	7.00
7.0	7.55	7.25	7.15	7.80	8.10	8.30	7.00
7.5	6.50	6.40	6.20	6.85	7.25	7.35	7.00
8.5	5.00	4.95	4.85	5.40	5.75	5.85	5.80
9.0		4.35	4.30	4.80	5.10	5.25	5.30
10.0		3.45	3.35	3.85	4.10	4.30	4.40
12.0		2.10	1.95	2.45	2.70	2.90	3.05
12.5		1.70	1.70	2.15	2.40	2.65	2.80
13.0			1.40	1.90	2.15	2.40	2.55
14.0			0.95	1.40	1.70	1.95	2.10
15.0			0.55	1.05	1.30	1.55	1.75
16.0				0.70	1.00	1.20	1.40
17.0				0.40	0.70	0.95	1.10
18.0					0.45	0.70	0.85
19.0						0.45	0.60
20.0							0.40
Standard hook	for 30 ton						
Hook weight	300 kg						
Parts line	10	8	4				
Critical boom angle	—	—	—	25°	35°	42°	47°

(Unit: Metric ton)

Outriggers fully extended with front jack – 360° full range Outriggers fully extended without front jack – over side and over rear						
Boom angle (°)	33 m Boom + 8.7 m Jib					
	Offset 5°		Offset 17°		Offset 30°	
	Working radius (m)	Load (t)	Working radius (m)	Load (t)	Working radius (m)	Load (t)
80.0	8.0	3.00	9.6	2.20	11.3	1.60
76.0	11.0	3.00	12.5	2.20	14.0	1.60
74.0	12.5	2.72	14.0	2.05	15.3	1.54
70.0	15.3	2.26	16.6	1.78	18.0	1.45
66.0	18.0	1.92	19.2	1.57	20.4	1.30
62.0	20.5	1.68	21.8	1.38	22.8	1.17
58.0	23.0	1.48	24.1	1.24	25.0	1.06
56.0	24.0	1.28	25.2	1.18	26.0	1.02
54.0	25.1	1.08	26.3	1.00	27.1	0.98
50.0	27.2	0.74	28.2	0.70	29.0	0.67
46.0	29.2	0.47	30.1	0.44	30.7	0.43
43.0	30.6	0.30	31.5	0.30	32.0	0.30
Standard hook	for 3 ton					
Hook weight	60 kg					
Parts line	1					
Critical boom angle	40°					

(Unit: Metric ton)

Outriggers fully extended with front jack – 360° full range Outriggers fully extended without front jack – over side and over rear						
Boom angle (°)	33 m Boom + 14.5 m Jib					
	Offset 5°		Offset 17°		Offset 30°	
	Working radius (m)	Load (t)	Working radius (m)	Load (t)	Working radius (m)	Load (t)
80.0	9.9	2.00	12.5	1.30	15.1	0.90
77.7	12.0	2.00	14.5	1.30	16.9	0.90
76.3	13.2	1.85	15.7	1.24	18.0	0.90
72.0	16.4	1.50	19.0	1.06	21.2	0.81
68.0	19.5	1.25	22.0	0.91	24.0	0.74
64.0	22.6	1.06	24.8	0.79	26.6	0.67
60.0	25.4	0.90	27.4	0.70	29.1	0.60
56.0	28.0	0.77	29.9	0.64	31.5	0.55
52.0	30.7	0.66	32.4	0.57	33.7	0.52
51.0	31.2	0.61	33.0	0.55	34.2	0.51
50.4	31.6	0.57	33.3	0.52	34.5	0.50
48.0	32.9	0.45	34.5	0.40	35.6	0.38
46.0	33.9	0.35	35.2	0.33	36.5	0.30
Standard hook	for 3 ton					
Hook weight	60 kg					
Parts line	1					
Critical boom angle	42°					

(Unit: Metric ton)

Outriggers intermediately extended without front jack – 360° full range
Outriggers fully extended without front jack – over front

Boom angle (°)	33 m Boom + 8.7 m Jib					
	Offset 5°		Offset 17°		Offset 30°	
	Working radius (m)	Load (t)	Working radius (m)	Load (t)	Working radius (m)	Load (t)
80.0	8.0	3.00	9.6	2.20	11.3	1.60
76.0	11.0	3.00	12.5	2.20	14.0	1.60
72.5	13.5	2.56	15.0	1.94	16.2	1.50
71.0	14.5	2.14	16.0	1.84	17.3	1.47
70.0	15.1	1.90	16.6	1.65	18.0	1.45
68.0	16.3	1.48	17.8	1.28	19.0	1.18
65.0	18.1	0.97	19.5	0.86	20.7	0.78
60.0	21.0	0.37	22.4	0.30	23.3	0.30
Standard hook	for 3 ton					
Hook weight	60 kg					
Parts line	1					
Critical boom angle	58°					

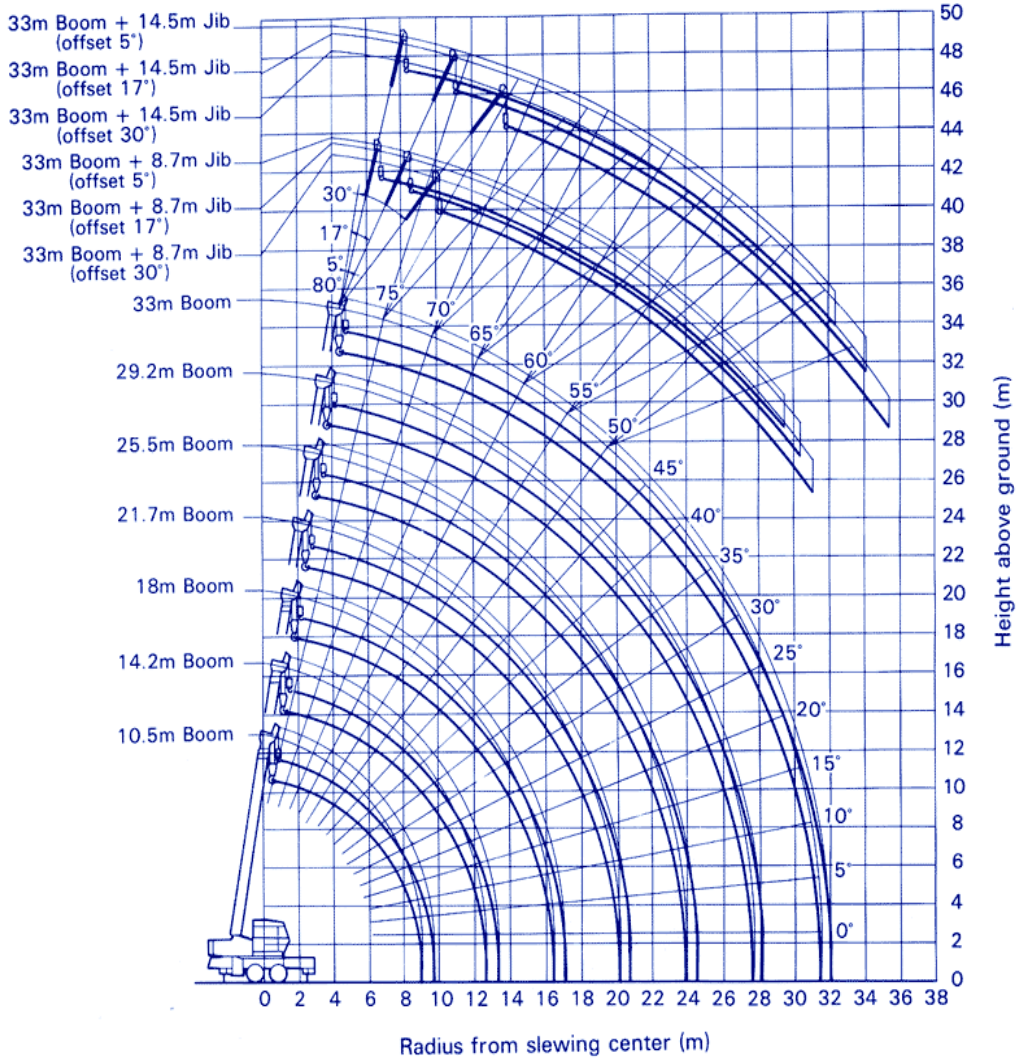
(Unit: Metric ton)

Outriggers intermediately extended without front jack – 360° full range
Outriggers fully extended without front jack – over front

Boom angle (°)	33 m Boom + 14.5 m Jib					
	Offset 5°		Offset 17°		Offset 30°	
	Working radius (m)	Load (t)	Working radius (m)	Load (t)	Working radius (m)	Load (t)
80.0	9.9	2.00	12.5	1.30	15.1	0.90
77.7	12.0	2.00	14.5	1.30	16.9	0.90
76.3	13.2	1.85	15.7	1.24	18.0	0.90
73.0	15.6	1.57	18.2	1.10	20.4	0.84
69.0	18.7	1.31	21.2	0.95	23.3	0.76
68.4	19.1	1.18	21.7	0.92	23.8	0.75
67.8	19.5	1.08	22.0	0.88	24.2	0.73
64.0	22.0	0.60	24.4	0.49	26.4	0.43
62.0	23.4	0.39	25.6	0.33	27.5	0.30
Standard hook	for 3 ton					
Hook weight	60 kg					
Parts line	1					
Critical boom angle	60°					

(Unit: Metric ton)

WORKING RANGE



NOTE: Deflection of boom and jib excluded.

NK-400E-III

Maximum Lifting Capacity **40t**

Maximum Boom Length **35m**

Jib length 9.2m–15.0m (2-section)

Maximum Lifting Height (boom) . . **34.8m**

(jib) **49.7m**

(35m boom + 15m jib offset 5°)

RATED LIFTING CAPACITY (1)

Based on
* BS 1757:1981
* DIN 15019-2
* 75% of tipping loads

Working radius (m)	With fully extended outriggers-over side and over rear					Without outriggers over rear 11.0m Boom
	11.0 Boom	15.0 Boom	19.0 Boom	27.0 Boom	35.0 Boom	
3.0	40.00	28.00	21.00			8.00
3.5	35.00	28.00	21.00			6.40
4.0	31.50	28.00	21.00	15.00		5.10
4.5	28.50	26.60	21.00	15.00		4.20
5.0	26.00	24.40	21.00	15.00		3.40
5.4	23.80	22.50	21.00	15.00		2.90
6.0	21.50	20.50	19.10	15.00	9.00	2.30
6.5	19.80	19.00	17.70	15.00	9.00	1.90
7.0	18.20	17.70	16.50	14.00	9.00	1.60
7.5	16.70	16.50	15.45	13.10	9.00	1.25
8.0	14.90	14.70	14.50	12.30	9.00	1.00
8.5	13.40	13.20	13.00	11.55	9.00	
9.0	12.15	11.95	11.80	10.90	8.60	
10.0		9.95	9.75	9.80	8.00	
11.0		8.35	8.15	8.90	7.40	
12.0		7.00	6.80	7.65	6.80	
13.0		5.85	5.70	6.55	6.25	
14.0			4.80	5.65	5.80	
16.0			3.45	4.25	4.60	
18.0				3.20	3.60	
20.0				2.40	2.85	
22.0				1.80	2.20	
24.0				1.30	1.70	
26.0					1.30	
28.0					1.00	
30.0					0.70	
Standard hook	for 40 tons			for 20 tons		for 40 tons
Hook weight	450kg			270kg		450kg
Parts of line	10	7	6	4	3	10
Critical boom angle					20°	

(Unit: metric ton)

JIB RATED LIFTING CAPACITY (2)

Boom angle (°)	With fully extended outriggers-over side and over rear					
	9.2m Jib			15.0m Jib		
	offset 5°	offset 17°	offset 30°	offset 5°	offset 17°	offset 30°
81	4.00	3.00	2.00	2.70	1.60	1.20
79	4.00	3.00	2.00	2.70	1.60	1.20
77	4.00	3.00	2.00	2.45	1.60	1.20
76	3.86	2.90	2.00	2.30	1.60	1.20
74	3.50	2.67	2.00	2.06	1.51	1.20
72	3.18	2.47	2.00	1.87	1.40	1.16
70	2.91	2.30	1.88	1.70	1.28	1.08
68	2.68	2.15	1.78	1.56	1.20	1.01
66	2.48	2.01	1.70	1.43	1.12	0.99
64	2.32	1.90	1.60	1.33	1.07	0.97
62	2.06	1.78	1.53	1.22	1.03	0.95
60	1.75	1.62	1.46	1.13	1.00	0.93
58	1.45	1.37	1.30	1.06	0.99	0.92
56	1.20	1.16	1.08	0.98	0.90	0.83
54	0.98	0.95	0.87	0.76	0.71	0.67
52	0.78	0.76	0.71	0.58	0.57	0.55
50	0.60	0.60	0.55	0.45	0.45	0.45
48	0.45	0.43	0.40			
Critical boom angle	47°	47°	47°	49°	49°	49°
Standard hook	for 4 tons (120kg weight)					

(Unit: metric ton)

RATED LIFTING CAPACITY (3)

With intermediately extended outriggers-360° full range
With fully extended outriggers-over font

Working radius (m)	11.0m Boom	15.0 Boom	19.0 Boom	27.0 Boom	35.0 Boom
3.0	24.00	20.00	16.00		
3.5	24.00	20.00	16.00		
4.0	24.00	20.00	16.00	12.00	
4.5	24.00	20.00	16.00	12.00	
5.0	22.00	20.00	16.00	12.00	
5.5	17.20	16.80	16.00	12.00	
6.0	13.85	13.50	13.30	12.00	6.00
6.5	11.50	11.20	10.95	12.00	6.00
7.0	9.70	9.45	9.20	10.25	6.00
7.5	8.30	8.00	7.80	8.80	6.00
8.0	7.15	6.85	6.65	7.65	6.00
8.5	6.20	5.90	5.70	6.70	6.00
9.0	5.30	5.10	4.95	5.90	6.00
10.0		3.90	3.70	4.60	5.10
11.0		2.95	2.80	3.65	4.10
12.0		2.20	2.00	2.90	3.35
13.0		1.60	1.40	2.30	2.70
14.0				1.80	2.20
15.0				1.40	1.80
16.0					1.40
17.0					1.10
Standard hook	for 40 tons			for 20 tons	
Hook weight	450kg			270kg	
Parts of line	10	7	6	4	3
Critical boom angle			37°	52°	57°

(Unit: metric ton)

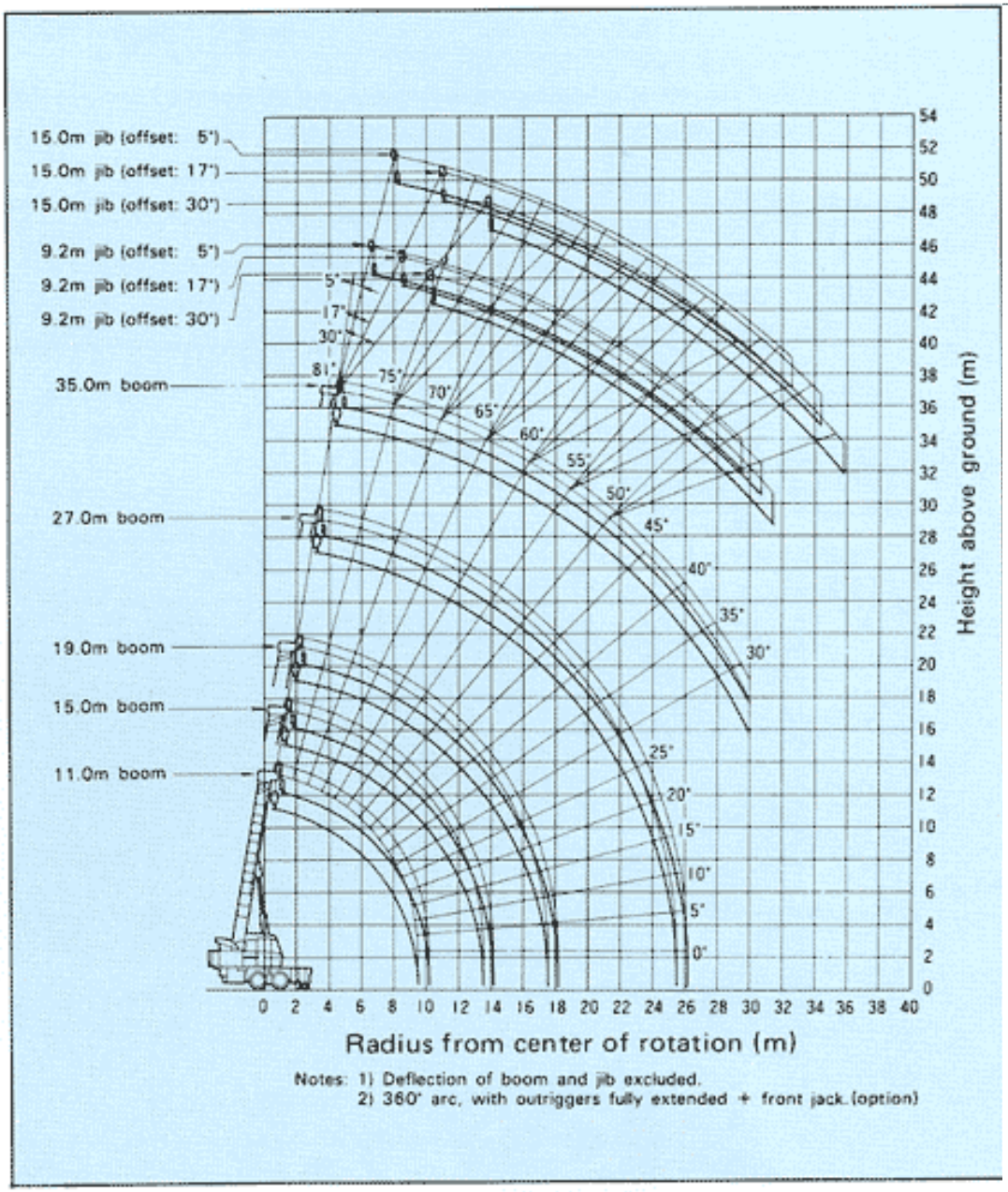
JIB RATED LIFTING CAPACITY (4)

With intermediately extended outriggers-360° full range
With fully extended outriggers-over front

Boom angle (°)	9.2m Jib			15.0m Jib		
	Offset 5°	Offset 17°	Offset 30°	Offset 5°	Ofset 17°	Offset 30°
81	4.00	3.00	2.00	2.70	1.60	1.20
79	4.00	3.00	2.00	2.70	1.60	1.20
77	3.50	3.00	2.00	2.45	1.60	1.20
76	3.15	2.66	2.00	2.30	1.60	1.20
75	2.82	2.35	2.00	2.18	1.59	1.20
74	2.50	2.08	1.80	1.86	1.51	1.20
73	2.21	1.81	1.56	1.63	1.33	1.07
72	1.95	1.57	1.37	1.42	1.15	0.91
70	1.43	1.15	1.03	1.05	0.85	0.72
68	1.00	0.80	0.75			
Critical boom angle	67°	67°	67°	69°	69°	69°
Standard hook	for 4 tons (120kg weight)					

(Unit: metric ton)

WORKIG RANGES

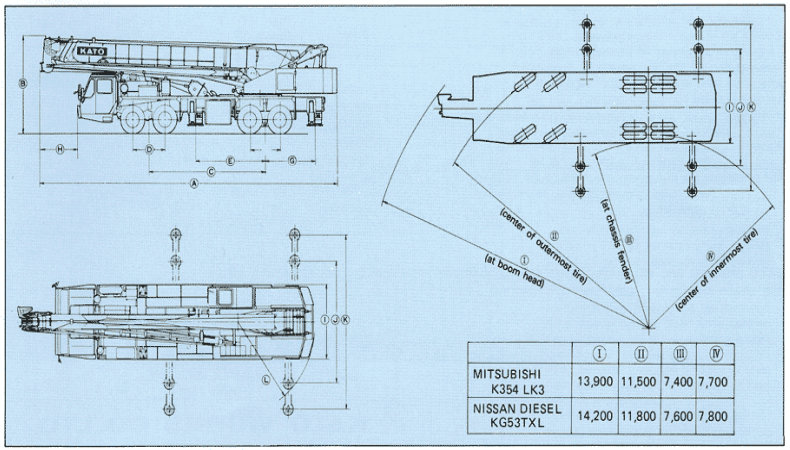


Notes: 1) Deflection of boom and jib excluded.
2) 360° arc, with outriggers fully extended + front jack (option)

SUPERSTRUCTURE SPECIFICATIONS

Name and Type		KATO NK-400E-III FULLY HYDRAULIC CRANE
Performance		
Crane Capacity		40.0t x 3.0m 11m Boom with outriggers over side and over rear
		28.0t x 4.0m 15m Boom with outriggers over side and over rear
		21.0t x 5.4m 19m Boom with outriggers over side and over rear
		15.0t x 6.5m 27m Boom with outriggers over side and over rear
		9.0t x 8.5m 35m Boom with outriggers over side and over rear
		4.0t Rooster sheave outriggers over side and over rear
		4.0t x 77° 9.2m jib (offset 5°) outriggers over side and over rear
		3.0t x 77° 9.2m jib (offset 17°) outriggers over side and over rear
		2.0t x 72° 9.2m jib (offset 30°) outriggers over side and over rear
		2.7t x 79° 15.0m jib (offset 5°) with outriggers over side and over rear
		1.6t x 76° 15.0m jib (offset 17°) with outriggers over side and over rear
		1.2t x 74° 15.0m jib (offset 30°) with outriggers over side and over rear
		8.0t x 3.0m 11m Boom over side and over rear
Boom length	Basic	11m
	Max.	35m
Jib length		9.2 ~ 15m
Max. lifting height		34.8m (35m Boom)
		49.7m (35m Boom + 15.0m Jib)
Main hoisting line speed		119m/min (3rd layer)
Auxiliary hoisting line speed		111m/min (2nd layer)
Main hook hoisting speed		11.9m/min (3rd layer, 10-parts of line)
Auxiliary hook hoisting speed		111m/min (2nd layer, 1-part of line)
Boom derricking time		43sec (-2°~81°)
Boom derricking angle		-2° ~ 81°
Slewing speed		2.3r.p.m.

Hydraulic System	
Hydraulic pump	High pressure gear type, 3 section
Hoisting motor	Axial piston type
Slewing motor	Axial piston type
Control valve	Multiple automatic return type
Cylinder	High-pressure doubleacting type
Superstructure	
Hoisting device	Hydraulic motor-driven planetary gear speed reduction type (with free fall device and automatic brake system) Single winch x 2
Slewing device	Hydraulic motor-driven cycloid gear speed reduction type with built-in negative brakes and free/lock switching
Slewing circle	Ball bearing type
Boom derricking device	Direct-acting cylinder type
Outrigger system	Hydraulic, vertically supporting with float and vertical cylinder in single unit
Front jack (option)	Hydraulic, vertically supporting with float and vertical cylinder in single unit
Hoisting Ropes	
Main	U4 x ses (39) ϕ 18 x 160m
Auxiliary	U4 x ses (39) ϕ 18 x 110m
Safety Device	
	Microcomputer type ACS fully automatic overload protection device (Moment Limiter), Boom free fall prevention device, Overhoisting prevention device, Drum lock device, Drum hold safety device, Automatic brake, Irregular winding prevention device, Hydraulic circuit safety system, Outrigger lock device, Boom angle indicator, Slewing lock system
Option	
	Cooler, Voice alarm, Radio, Fan, Heater, Front jack — Crane cabin



	Ⓘ	Ⓘ	Ⓘ	Ⓘ
MITSUBISHI K354 LK3	13,900	11,500	7,400	7,700
NISSAN DIESEL KG53TXL	14,200	11,800	7,600	7,800

Carrier name and model	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	Ⓗ	Ⓘ	Ⓙ	Ⓚ	Ⓛ
MITSUBISHI K354 LK3	13,450	3,750	5,250	1,450	3,150	1,350	2,250	1,780	2,750	4,600	6,600	3,520
NISSAN DIESEL KG53TXL	13,470	3,700	5,215	1,470	3,350	1,400	2,100	2,290	2,820	4,600	6,600	3,520

NK-500E-v

FULLY HYDRAULIC TRUCK CRANE

- Maximum rated lifting capacity: 50.5t
- Maximum boom length: 40m
- Maximum jib length: 15m
- Maximum lifting height: 39.8m(boom), 54.7m(40m boom+15m jib offset 5°)

KATO

RATED LIFTING CAPACITY

Based on
- BS 1757 : 1986
- DIN 15019-2
- 75% of tipping loads

Outriggers fully extended with front jack — 360° full range
Outriggers fully extended without front jack — over side and over rear

Working radius (m)	10.8 m Boom	14.45 m Boom	18.1 m Boom	21.75 m Boom	25.4 m Boom	32.7 m Boom	40.0 m Boom
3.0	50.50	28.00	28.00	24.00			
3.5	42.20	28.00	28.00	24.00	18.00		
4.0	37.00	28.00	28.00	24.00	18.00		
4.5	33.00	28.00	28.00	24.00	18.00		
5.0	30.20	28.00	28.00	24.00	18.00	13.00	
5.5	27.50	26.50	25.60	23.20	18.00	13.00	
6.0	25.00	24.00	23.50	21.50	18.00	13.00	
6.5	22.70	22.30	21.80	19.90	18.00	13.00	7.50
7.0	20.70	20.30	20.00	18.40	16.80	13.00	7.50
7.5	18.90	18.60	18.50	17.10	15.70	13.00	7.50
8.0	17.40	17.10	17.00	15.90	14.80	12.30	7.50
8.5	15.95	15.70	15.60	14.65	14.00	11.60	7.50
9.0	14.35	14.20	14.10	13.50	13.20	11.00	7.50
9.5		12.85	12.70	12.55	12.45	10.50	7.50
10.0		11.70	11.55	11.45	11.40	10.00	7.30
11.0		9.75	9.60	9.50	9.45	9.10	6.80
12.0		8.20	8.10	8.00	7.95	8.30	6.30
13.0		7.00	6.85	6.75	6.70	7.55	5.90
14.0			5.85	5.75	5.70	6.50	5.50
16.0			4.25	4.15	4.10	4.95	4.70
18.0				3.00	2.95	3.75	4.00
20.0				2.10	2.05	2.80	3.30
22.0					1.30	2.10	2.55
23.0					1.00	1.80	2.25
24.0						1.50	2.00
26.0						1.05	1.50
28.0						0.65	1.10
30.0							0.75
31.0							0.60
Standard hook	for 50.5 ton				for 20 ton		
Hook weight	500 kg				270 kg		
Parts of line	12	7	7	6	5	4	3
Critical boom angle	—	—	—	—	—	25°	35°

(Unit: Metric ton)

Note : Front jack is optional.

Outriggers fully extended with front jack — 360° full range
Outriggers fully extended without front jack — over side and over rear

Boom angle (°)	40 m Boom + 9.2 m Jib						Boom angle (°)	40 m Boom + 15 m Jib					
	Offset 5°		Offset 17°		Offset 30°			Offset 5°		Offset 17°		Offset 30°	
	Working radius (m)	Load (t)	Working radius (m)	Load (t)	Working radius (m)	Load (t)		Working radius (m)	Load (t)	Working radius (m)	Load (t)	Working radius (m)	Load (t)
81	9.00	3.50	10.75	2.70	12.25	2.00	81	10.60	2.50	13.45	1.60	16.05	1.00
80	9.95	3.50	11.75	2.70	13.15	2.00	79	12.85	2.50	15.50	1.60	18.00	1.00
79	10.90	3.50	12.50	2.66	14.00	2.00	78	14.00	2.50	16.45	1.55	18.85	1.00
78	11.80	3.50	13.40	2.54	14.85	2.00	77	15.00	2.35	17.40	1.48	19.80	1.00
77	12.70	3.32	14.20	2.42	15.70	1.94	76	15.95	2.22	18.35	1.42	20.75	0.97
76	13.50	3.13	15.00	2.32	16.50	1.88	75	16.90	2.10	19.30	1.36	21.65	0.96
75	14.40	2.97	15.90	2.22	17.30	1.83	74	17.85	1.98	20.20	1.31	22.50	0.94
74	15.25	2.82	16.70	2.13	18.15	1.78	72	19.75	1.78	22.00	1.22	24.25	0.90
72	16.85	2.55	18.30	1.95	19.70	1.67	70	21.50	1.61	23.80	1.14	25.95	0.87
70	18.50	2.33	19.90	1.81	21.25	1.58	68	23.40	1.48	25.45	1.07	27.55	0.83
68	20.05	2.14	21.40	1.69	22.70	1.48	66	25.10	1.36	27.15	1.00	29.10	0.81
66	21.60	1.97	23.00	1.58	24.20	1.40	64	26.85	1.26	28.75	0.95	30.70	0.78
64	23.15	1.83	24.55	1.48	25.65	1.31	62	28.45	1.16	30.40	0.90	32.20	0.75
62	24.65	1.71	26.05	1.40	27.10	1.24	60	30.05	1.08	31.95	0.86	33.65	0.73
60	26.15	1.51	27.45	1.32	28.40	1.17	58	31.70	1.01	33.45	0.82	35.05	0.72
59	26.85	1.38	28.10	1.28	29.15	1.14	57	32.40	0.90	34.20	0.79	35.80	0.71
58	27.45	1.23	28.75	1.18	29.80	1.10	56	33.05	0.80	34.95	0.74	36.45	0.70
56	28.75	1.02	30.05	0.95	30.95	0.90	54	34.40	0.60	36.30	0.55	37.75	0.52
54	30.00	0.80	31.25	0.72	32.10	0.69							
52	31.15	0.60	32.50	0.52	33.30	0.50							
Standard hook	for 4 ton						Standard hook	for 4 ton					
Hook weight	120 kg						Hook weight	120 kg					
Parts of line	1						Parts of line	1					
Critical boom angle	51°						Critical boom angle	53°					

(Unit: Metric ton)

Outriggers intermediately extended without front jack — 360° full range
Outriggers fully extended without front jack — over front

Working radius (m)	10.8 m Boom	14.45 m Boom	18.1 m Boom	21.75 m Boom	25.4 m Boom	32.7 m Boom	40.0 m Boom
3.0	32.00	28.00	28.00	24.00			
3.5	32.00	28.00	28.00	24.00	18.00		
4.0	32.00	28.00	28.00	24.00	18.00		
4.5	26.30	25.00	24.00	22.00	18.00		
5.0	19.90	19.70	19.40	18.00	16.50	13.00	
5.5	15.75	15.55	15.30	15.20	15.00	13.00	
6.0	12.80	12.60	12.40	12.30	12.25	11.80	
6.5	10.60	10.45	10.25	10.15	10.10	10.60	7.50
7.0	8.95	8.75	8.60	8.50	8.45	9.45	7.50
7.5	7.60	7.45	7.25	7.15	7.10	8.10	7.50
8.0	6.50	6.35	6.20	6.10	6.05	7.00	7.50
9.0	4.80	4.70	4.55	4.45	4.40	5.30	6.00
10.0		3.50	3.35	3.25	3.20	4.10	4.70
11.0		2.55	2.40	2.35	2.30	3.15	3.75
12.0		1.80	1.70	1.60	1.60	2.40	2.95
13.0						1.80	2.35
14.0						1.30	1.85
15.0							1.40
Standard hook	for 50.5 ton				for 20 ton		
Hook weight	500 kg				270 kg		
Parts of line	12	7	7	6	5	4	3
Critical boom angle	—	—	40°	51°	58°	62°	66°

(Unit: Metric ton)

Outriggers intermediately extended without front jack — 360° full range
Outriggers fully extended without front jack — over front

Boom angle (°)	40 m Boom + 9.2 m Jib						Boom angle (°)	40 m Boom + 15 m Jib					
	Offset 5°		Offset 17°		Offset 30°			Offset 5°		Offset 17°		Offset 30°	
	Working radius (m)	Load (t)	Working radius (m)	Load (t)	Working radius (m)	Load (t)		Working radius (m)	Load (t)	Working radius (m)	Load (t)	Working radius (m)	Load (t)
81	9.00	3.50	10.75	2.70	12.25	2.00	81	10.60	2.50	13.45	1.60	16.05	1.00
80	9.95	3.50	11.75	2.70	13.15	2.00	79	12.85	2.50	15.50	1.60	18.00	1.00
79	10.90	3.50	12.50	2.66	14.00	2.00	78	14.00	2.50	16.45	1.55	18.85	1.00
78	11.80	3.43	13.40	2.54	14.85	2.00	77	14.90	2.20	17.40	1.48	19.80	1.00
77	12.45	2.88	14.20	2.42	15.70	1.94	76	15.70	1.87	18.35	1.42		
76	13.20	2.44	15.00	2.11	16.50	1.81	75	16.60	1.58				
75	13.95	2.06	15.70	1.75									
74	14.80	1.73											
Standard hook	for 4 ton						Standard hook	for 4 ton					
Hook weight	120 kg						Hook weight	120 kg					
Parts of line	1						Parts of line	1					
Critical boom angle	73°		74°		75°		Critical boom angle	74°		75°		76°	

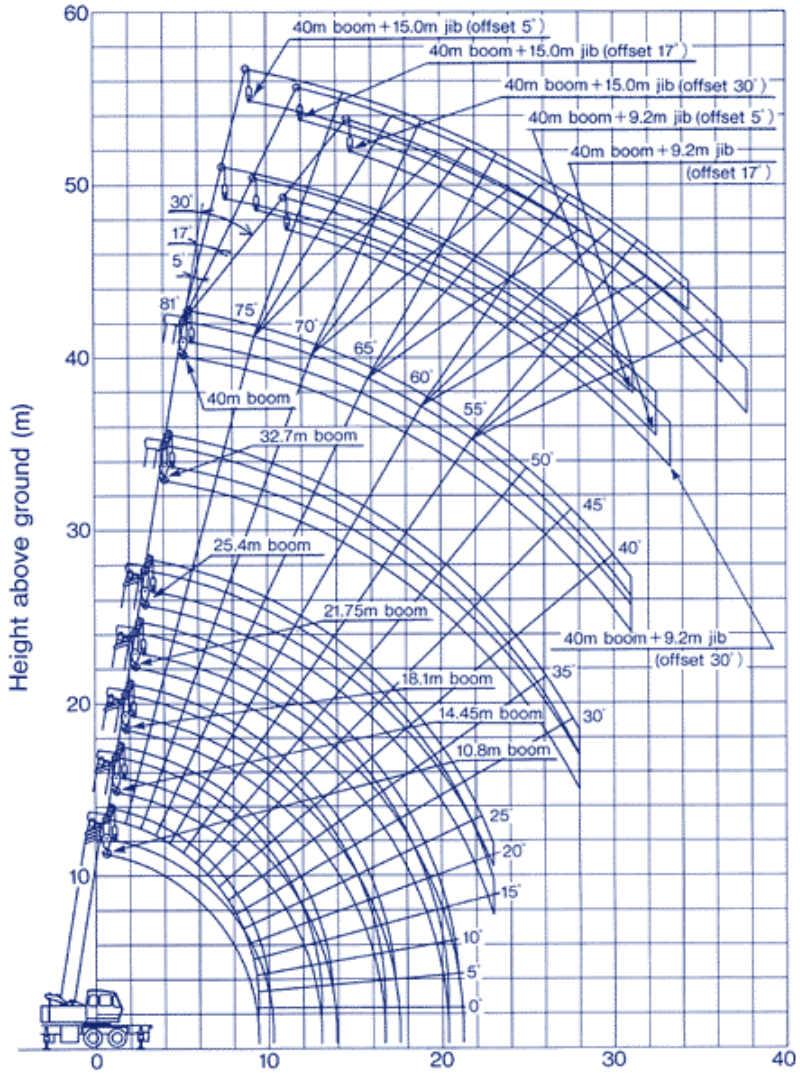
(Unit: Metric ton)

Outriggers fully retracted — 360° full range
(blocked on vertical cyls.)

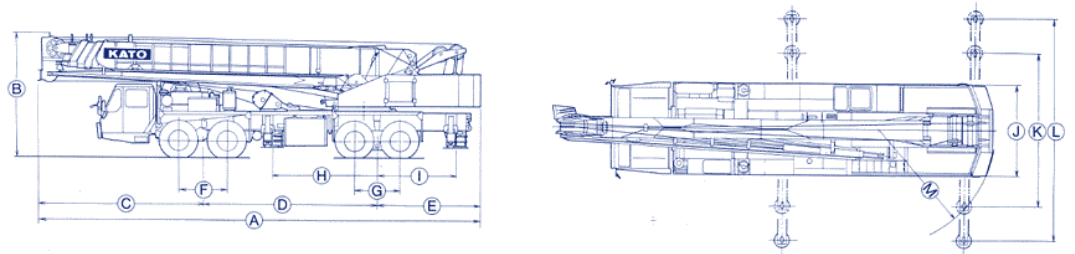
Working radius (m)	10.8 m Boom
3.0	8.00
3.5	6.40
4.0	5.10
4.5	4.20
5.0	3.40
5.5	2.80
6.0	2.30
6.5	1.90
7.0	1.60
7.5	1.25
8.0	1.00
Standard hook	for 50.5 ton
Hook weight	500 kg
Parts of line	12

(Unit: Metric ton)

WORKING RANGE



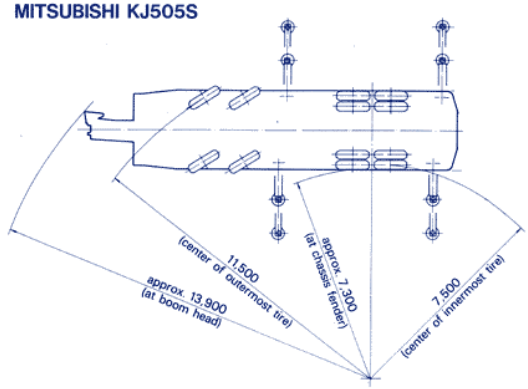
Note: Deflection of boom and jib is excluded



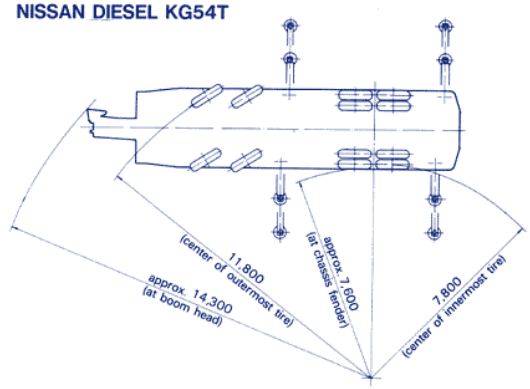
Carrier name Model	A	B	C	D	E	F	G	H	I	J	K	L	M
MITSUBISHI KJ505S	13,300	3,800	4,990	5,250	3,060	1,450	1,350	3,150	2,450	2,750	4,850	7,200	3,520
NISSAN DIESEL KG54T	13,300	3,800	5,125	5,215	2,960	1,470	1,400	3,340	2,350	2,820	4,850	7,200	3,520

(Unit: mm

MITSUBISHI KJ505S



NISSAN DIESEL KG54T

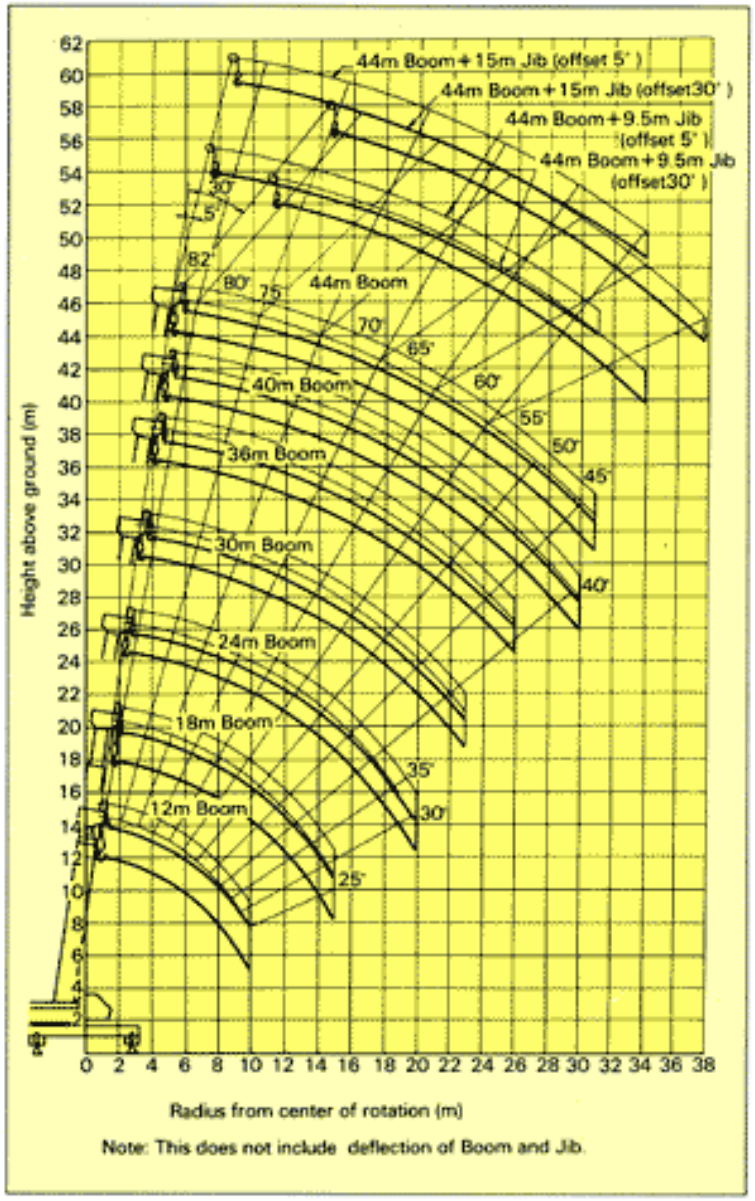


NK-800

FULLY HYDRAULIC TRUCK CRANE

- Maximum rated lifting capacity : 80t
- Maximum boom length : 44m
- Maximum jib length : 15m
- Maximum lifting height : 44.0m(boom), 59.0m(44m boom+15m jib offset 5°)

WORKING RANGE



Note: This does not include deflection of Boom and Jib.

RATED LIFTING CAPACITY

Based on [*BS 1757 : 1986 *DIN 15019-2

(in metric ton)

Outriggers fully extended with front jack — 360° full range
Outriggers fully extended without front jack — over side and over rear

Working radius (m)	12m Boom	18m Boom	24m Boom	30m Boom	36m Boom	40m Boom	44m Boom	Without outriggers 360° full range 12m Boom
2.5	80.0	45.0						15.0
3.0	80.0	45.0	35.0					15.0
3.5	80.0	45.0	35.0					15.0
4.0	70.0	45.0	35.0	27.0				11.7
4.5	62.0	45.0	35.0	27.0				9.5
5.0	56.0	45.0	35.0	27.0				8.0
5.3	52.0	45.0	35.0	27.0				7.2
5.4	51.0	44.5	35.0	27.0	22.0			7.0
5.8	47.0	41.8	33.5	27.0	22.0			6.2
6.0	45.0	40.0	32.5	26.3	22.0			5.8
6.5	41.0	36.9	30.5	24.8	22.0	18.0		5.0
6.9	38.0	34.6	29.0	23.8	22.0	18.0		4.4
7.0	37.1	34.2	28.6	23.5	21.8	18.0		4.3
7.9	31.5	30.5	25.5	21.3	20.1	18.0	12.0	3.3
8.5	28.6	27.5	24.0	20.1	19.0	17.1	12.0	2.7
9.5	24.0	23.5	21.5	18.2	17.2	15.7	12.0	2.0
10.0	22.0	21.7	20.4	17.4	16.4	15.1	12.0	1.7
11.0		18.8	18.0	15.9	15.0	14.0	12.0	
11.3		18.0	17.4	15.4	14.6	13.6	12.0	
12.0		16.1	15.9	14.5	13.8	12.8	11.3	
13.0		14.0	14.0	12.6	12.7	11.7	10.5	
14.0		12.0	12.2	11.3	11.2	10.8	9.7	
15.0		10.5	10.7	10.1	10.0	9.8	9.0	
16.0			9.4	9.1	9.0	8.9	8.4	
18.0			7.2	7.1	7.1	7.3	7.4	
20.0			5.5	5.5	5.6	6.0	6.2	
22.0				4.3	4.4	4.8	5.1	
23.0				3.7	3.8	4.3	4.6	
24.0					3.3	3.8	4.2	
26.0					2.4	3.0	3.3	
28.0						2.2	2.6	
30.0						1.6	2.0	
31.0							1.7	
Standard hook	for 80 ton		for 35 ton					
Hook weight	1000 kg		500 kg					
Parts of line	12	8	6	4				
Min. boom angle				25°	35°		40°	

(in metric ton)

Outriggers fully extended with front jack — 360° full range
Outriggers fully extended without front jack — over side and over rear

Boom angle (°)	Offset 5°				Offset 30°			
	44m Boom + 9.5m jib		44m Boom + 15m jib		44m Boom + 9.5m jib		44m Boom + 15m jib	
	Working radius(m)	Load (t)	Working radius(m)	Load (t)	Working radius(m)	Load (t)	Working radius(m)	Load (t)
80.4	11.00	6.00	11.50	4.00	14.50	2.50	18.00	1.30
80.0	11.45	5.80	13.00	4.00	15.00	2.50	18.60	1.30
78.0	13.70	4.95	15.25	3.60	17.10	2.35	20.50	1.20
76.0	15.70	4.45	17.25	3.20	18.80	2.25	22.50	1.15
74.0	17.30	4.10	19.35	2.90	20.40	2.15	24.40	1.10
72.0	19.15	3.75	21.55	2.65	22.30	2.05	26.20	1.05
70.0	20.70	3.50	23.15	2.50	23.60	2.00	28.00	1.00
68.0	22.30	3.25	25.10	2.35	25.50	1.90	29.80	0.95
66.0	24.10	3.00	27.20	2.20	26.80	1.85	31.50	0.90
64.0	25.70	2.80	29.00	2.10	28.30	1.80	33.20	0.85
62.0	27.40	2.20	30.80	1.75	29.65	1.75	34.80	0.80
60.0	28.90	1.80	32.45	1.45	31.20	1.70	36.30	0.75
58.0	30.30	1.50	34.05	1.20	32.60	1.45	37.80	0.70
56.0	31.70	1.25			34.00	1.30		
Use hook	for 6 tons(weight: 250kg)							
Min. boom angle	53°		55°		53°		55°