

KATO

NK-200E-III

FULLY HYDRAULIC TRUCK CRANE

ACS *Moment Limiter*

Lifting Capacity **20** ^{Top} _{Metric}



KATO NK-200E-III

FULLY HYDRAULIC TRUCK CRANE

RATED LIFTING CAPACITY (1)

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

NOTE: 360° full working range is available with optional front jack.

Working radius (m)	With fully extended outriggers - over side and over rear		
	10.2m Boom	18.2m Boom	26.2m 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
Critical boom angle	-	-	-

(Unit: metric ton)

RATED LIFTING CAPACITY (2)

Working radius (m)	With intermediately extended outriggers - 360° full range		
	With fully extended outriggers - over front		
	10.2m Boom	18.2m Boom	26.2m 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
Critical boom angle	-	-	40°

(Unit: metric ton)

NOTE

1) The rated lifting capacities indicate the maximum guaranteed load for this model operating on a firm level ground. They include the weight of hook block and other hoisting equipments. The figures in the blue areas are based on the mechanical strength of the crane.

Hook	For 20 tons	For 3 tons
Weight (Kg)	230	60

2) The tabulated working radii are the actual values including boom deflection under laden condition. The crane must be operated on the basis of those figures. However, the working radii shown for jib operations are based on the values obtained when the boom is fully extended (26.2m). Jib operations should be performed on the basis of boom angle only, regardless of boom length.

3) The rated lifting capacities for the rooster sheave are equivalent to the rated lifting capacities for the boom with an upper limit of 3,000 kg. However, when hoisting equipment, etc., is attached to the boom, the weight of the hoisting equipment (ex. hook block for rooster sheave) plus the weight of the hoisting equipment attached to the boom (ex. hook block for main boom) should be subtracted from the rated lifting capacities.

4) If the boom length exceeds the specified value, refer to the rated lifting capacities for the boom length and the next highest boom length. The crane should be operated within the smaller lifting capacity.

RATED LIFTING CAPACITY (1)

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

NOTE: 360° full working range is available with optional front jack.

Working radius (m)	With fully extended outriggers - over side and over rear		
	10.2m Boom	18.2m Boom	26.2m 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
Critical boom angle	-	-	-

(Unit: metric ton)

RATED LIFTING CAPACITY (2)

Working radius (m)	With intermediately extended outriggers - 360° full range		
	With fully extended outriggers - over front		
	10.2m Boom	18.2m Boom	26.2m 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
Critical boom angle	-	-	40°

(Unit: metric ton)

NOTE

1) The rated lifting capacities indicate the maximum guaranteed load for this model operating on a firm level ground. They include the weight of hook block and other hoisting equipments. The figures in the blue areas are based on the mechanical strength of the crane.

Hook	For 20 tons	For 3 tons
Weight (Kg)	230	60

2) The tabulated working radii are the actual values including boom deflection under laden condition. The crane must be operated on the basis of those figures. However, the working radii shown for jib operations are based on the values obtained when the boom is fully extended (26.2m). Jib operations should be performed on the basis of boom angle only, regardless of boom length.

3) The rated lifting capacities for the rooster sheave are equivalent to the rated lifting capacities for the boom with an upper limit of 3,000 kg. However, when hoisting equipment, etc., is attached to the boom, the weight of the hoisting equipment (ex. hook block for rooster sheave) plus the weight of the hoisting equipment attached to the boom (ex. hook block for main boom) should be subtracted from the rated lifting capacities.

4) If the boom length exceeds the specified value, refer to the rated lifting capacities for the boom length and the next highest boom length. The crane should be operated within the smaller lifting capacity.

SUPERSTRUCTURE SPECIFICATIONS

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

Performance

Crane capacity:	20.0 t x 3.5m	10.2m Boom with outriggers
	12.0 t x 5.0m	18.2m Boom with outriggers
	7.0 t x 7.0m	26.2m Boom with outriggers
	3.0 t x 13.0m	10.2m Boom ~ 26.2m Boom Rooster sheave with outriggers
	2.5 t x 73.3°	(10.2m) 26.2m Boom+7.5m jib (offset 5°) with outriggers
	1.75 t x 72.9°	(11.7m) 26.2m Boom+7.5m jib (offset 17°) with outriggers
	1.3 t x 73.3°	(12.7m) 26.2m Boom+7.5m jib (offset 30°) with outriggers
Boom length:	10.2m ~ 26.2m (3 section)	
Jib length:	7.5m	

Max. lifting height:	26.0m (Boom) 34.0m (26.2m Boom+7.5 Jib Offset 5°)
Main Hoisting line speed:	110 m/min. (at the 4th layer)
Auxiliary hoisting line speed:	95 m/min. (at the 2nd layer)
Hook hoisting speed:	
Main winch (parts of line: 7)	15.7 m/min. (at the 4th layer)
Auxiliary winch (part of line: 1)	95.0 m/min (at the 2nd layer)
Boom derricking time:	44 sec. (-3° ~ 80°)
Boom derricking angle:	-3° ~ 80°
Slewing speed:	3.0 r.p.m.

Hydraulic System

Hydraulic pump:	3 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:	310 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

Hoisting Ropes

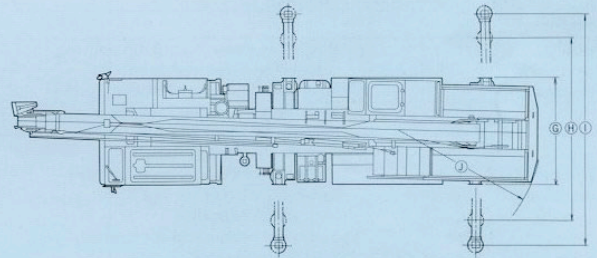
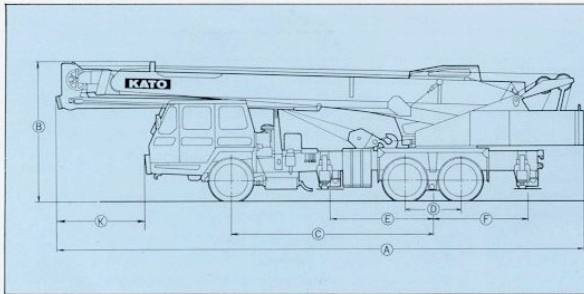
Main:	Type:	4 x F(a + 40) (Non-rotating type)
	Diameter:	16 mmφ
Auxiliary:	Type:	4 x F(a + 40) (Non-rotating type)
	Diameter:	16 mmφ
Crane cab:	Length:	90 m
		All steel welded construction

Safety Devices

ACS (Automatic Crane Stopper)
Digital display of seven factors:
Safety level, boom angle, working radius, boom length, critical load, actual load, maximum hook lift
Boom falling safety device
Over hoist prevention device
Drum lock device
Automatic winch brake
Irregular winding prevention device
Hydraulic safety valve
Outrigger lock device
Slewing lock device

Option

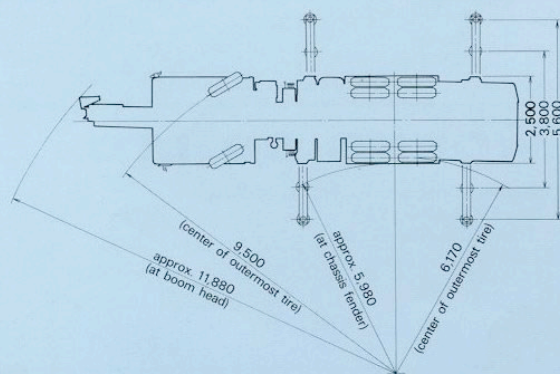
2 section fly jib (7.5m-12m) Oil cooler, Front jack, Voice alarm device for ACS, Heater, fan and radio for crane cabin



Carrier name and model	A	B	C	D	E	F	G	H	I	J	K
MITSUBISHI K203BLA	12,130	3,300	4,700	1,300	2,400	2,200	2,500	3,800	5,600	3,215	2,000
NISSAN DIESEL KW30MXL	12,130	3,300	3,950	1,300	2,450	2,100	2,500	3,800	5,600	3,215	2,000

(Unit:mm)

MITSUBISHI K203BLA



NISSAN DIESEL KW30MXL

