



KATO

NK-200E-III

**FULLY HYDRAULIC
TRUCK CRANE**



Moment Limiter

Lifting Capacity **20 Ton**
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 NOTE: 360° full working
 * DIN 15019-2 range is available with
 * 75% of tipping loads 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.

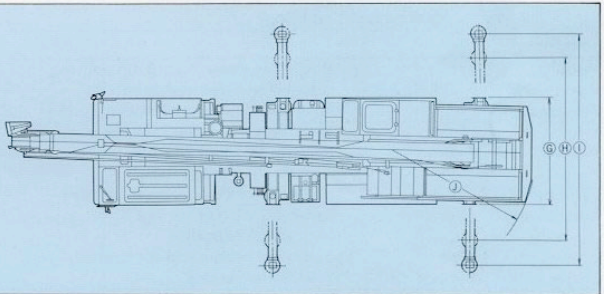
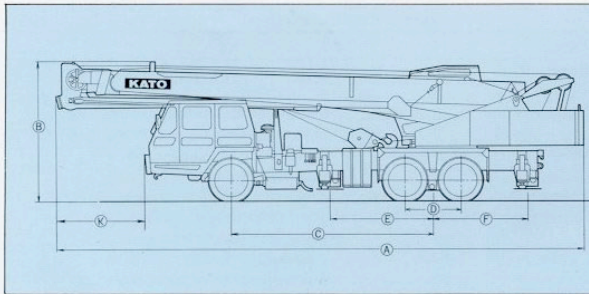
Hydraulic System	
Hydraulic pump:	3 section gear type
Hoisting motor:	Axial plunger type
Slewing motor:	Axial plunger type
Cylinder:	Double acting type
Control valve:	3 position 4 way double acting with integral check and relief valves
Oil reservoir capacity:	310 lit.

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 Length: 170m
Auxiliary:	Type: 4 x F (a + 40) (Non-rotating type) Diameter: 16 mmφ Length: 90 m
Crane cab:	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)

