

Krupp Hydraulic All-Terrain Crane
KMK 2035
34 ton Capacity

GUAY



Superstructure Specification

Boom

27'0" – 85'0" 4 section boom consisting of base, 2 full-power and 1 power-pinned section

Telescoping cycle:

1. section 45 sec.
2. section 25 sec.

High speed:

1. section 18 sec.
2. section 18 sec.

*) Jibs

26'0" – 43'0" 2-stage off-set swing-away lattice extension

Main Hoist

Axial piston motor with planetary gear and fail safe brake

Single line pull max.: 9 300 lbs
Single line speed max.: 360 ft./min.
Drum diameter: 13"
Rope diameter: 5/8"
Rope length: 475 ft.

*) Auxiliary Hoist

Axial piston motor with planetary gear and fail safe brake

Single line pull max.: 9 300 lbs
Single line speed max.: 360 ft./min.
Drum diameter: 13"
Rope diameter: 5/8"
Rope length: 280 ft.

Hook Blocks

34 ton 5 sheaves

*) 10 ton 1 sheave, 5 ton single hook

Boom Elevation

Hydraulic cylinder with integral holding valve

Boom angle from -3° to $+78^{\circ}$

Elevation cycle: 45 sec.

High speed: 18 sec.

Swing Gear

Piston motor with planetary gear

Holding and service brake

Swing speed: 0–3 rpm variable

Engine

Refer to carrier engine

Hydraulic system

3 constant displacement pumps,

P.T.O. drive from gear box

Tank capacity: 145 gal. hydraulic oil

Oil cooling by heat exchanger

Control system

Infinite variation of all crane motions by hydraulic pilot circuit, control levers with automatic dead man position

Counterweight

4000 lbs permanently mounted

*) 7700 lbs

Operator's cab

Full vision, all steel, safety glass, fully adjustable hydraulically suspended seat,

complete instrumentation of engine and crane operating controls

*) Stationary diesel cab heater

Safety installations

Anti two block and hoist rope lowering switch, lock valves, pressure relief valves

*) Electronic load moment safety device with automatic shut-off and digital display of actual and permissible load, radius and operating modes

Carrier Specification

Chassis

Krupp heavy-duty 2-axle carrier, welded box-type frame from high tensile steel
Carry deck, max. load capacity 15 t

Engine

8 cyl. Deutz diesel F 8 L 413 F air-cooled, 256 hp at 2500 rpm

Tank capacity: 80 gal. diesel

Transmission

ZF powershift transmission with integrated transfer case

6 forward, 3 reverse gears,

disconnect front axle drive,

P.T.O. for hydraulic pumps

Axles

1. drive/steer axle, 2. drive/steer axle

Axles with planetary gears

Transverse differential lock on both axles

Suspension

Parabolic leaf springs with hydraulic suspension lock-out

Tyres

4 tyres 16.00 – 25, *) 20.5 – 25

Steering

ZF semi-integral ball nut hydraulic power steering

Brakes

Service brake:

Dual circuit brake system

1. axle with hydropneumatic disc brakes

2. axle with pneumatic brake drums

Permanent brake: pneumatically operated exhaust brake

Auxiliary brake:

Pneumatically operated spring-loaded brake acting on rear axle

Driver's cab

Single cab, all steel, safety glass, adjustable hydraulically suspended driver's seat

Engine coolant heating system

Complete instrumentation and driving controls

*) Stationary diesel cab heater

Outriggers

Independent horizontal and vertical motion of each beam, operated from crane cab. Sight level device

Sight level device

Electrical equipment

Three phase alternator 28 V/55 A

2 batteries 12 V/135 Ah

Lights and control circuit 24 V

Performance

Road speed max. 50 mph, min. 0.1 mph

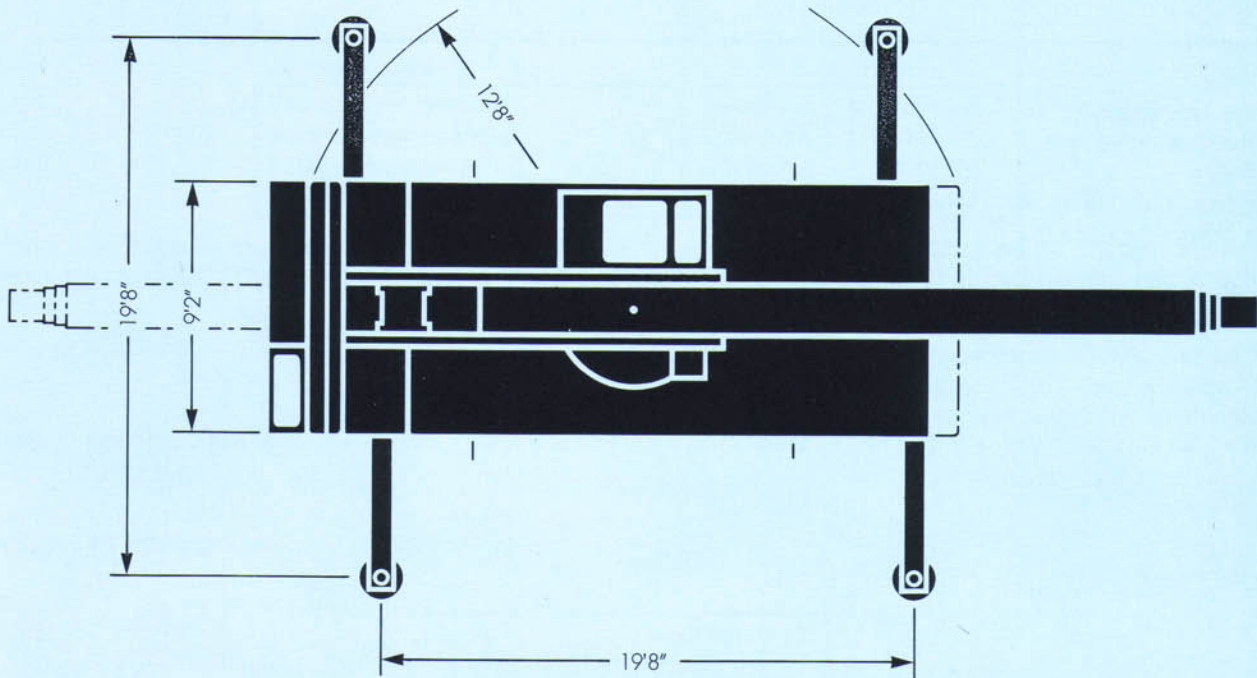
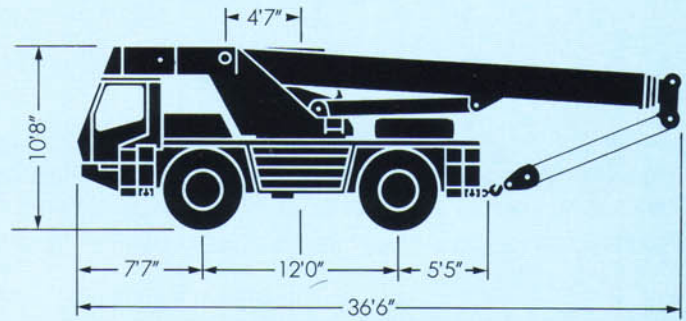
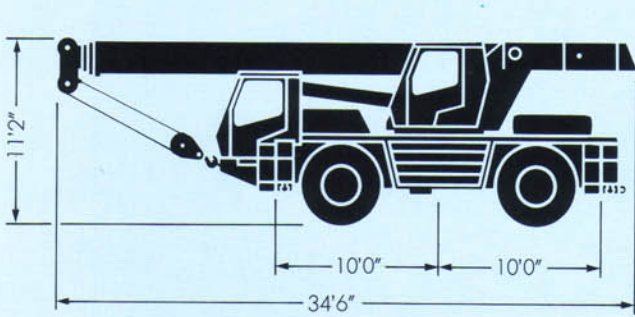
Gradeability 65%, 56%, dependent on counterweight

turning radius: 33 ft,

all wheel steer: 21 ft

*) Optional items

Dimensions



Lifting capacities in 1000 lbs with main boom

Counterweight 11.700 lbs

Radius (ft)	Boom length (ft)										
	27'0"			47'0"				66'0"		85'0"	
	32'0"			51'0"				70'0"		89'0"	
	A	F	F	A	A	F	F	A	A	A	A
	*	***	*	*	**	***	*	*	**	*	**
10	68.0	26.4	21.8								
11	67.5	26.4	20.1								
12	63.4	25.7	18.7	48.5	48.5	25.7	18.7				
13	59.7	24.4	17.3	48.5	48.5	24.4	17.3				
14	56.3	23.1	15.7	48.5	48.5	23.1	15.7				
15	53.4	21.7	14.2	48.3	48.3	21.7	14.2	35.3	35.3		
20	40.7	15.7	8.9	39.5	39.5	15.7	9.0	30.7	30.7	22.0	22.0
25				30.5	30.5	11.0	6.0	25.0	25.0	22.0	22.0
30				22.7	22.7	7.9	4.3	20.8	20.8	18.4	18.4
35				17.2	17.3	5.8	3.0	17.7	17.7	15.7	15.7
40				13.4	13.9	4.4	2.3	14.1	14.1	13.6	13.6
45								11.4	12.0	11.9	11.9
50								9.4	10.1	10.3	10.3
55								7.7	8.4	8.8	8.8
60								6.6	7.0	7.5	7.8
65										6.5	6.9
70										5.6	5.9
75										4.9	5.1
80											
85											
90											

- A Crane on outriggers
- F Crane free on wheels
- * 360°
- ** over rear, plus/minus 30°
- *** over front and rear 0°

Load capacities above bold line are based on structural strength, and tipping must not be relied upon as a limitation of lifting capacity.
Rated loads must not be exceeded.

Notes for lifting capacities

Rated loads do not exceed 85% of tipping load with the machine properly levelled on firm ground.

360° duties on outriggers fully extended, except free on wheel duties as noted.

Note counterweight required as listed in relevant lifting capacity columns.

For safe crane operation due allowance must be made to compensate for high winds, side load, pendulum action and other hazardous conditions.
No side pull permitted.

Weight reduction for load handling devices and boom attachments

When folded swing-away lattice of 26' / 43' is **fitted** on the boom basis, the load capacity is reduced as follows:

	With outriggers	Free on wheels
Boom 3 times extended	165 lbs	—
Boom 2 times extended	165 lbs	—
Boom once extended	220 lbs	440 lbs
Boom retracted	220 lbs	661 lbs

In case the 43 ft swing-away fly jib is bolted in front of the boom and 1.8 ton counter-weight is used, the boom has to be retracted until only 1 section is telescoped, in order to be lowered to the horizontal. When the swing-away lattice of 26' / 43' is **bolted onto the front** of the boom, the load capacity at the main boom is reduced as follows:

26 feet swing-away fly jib	Fly-jib only 1 with hook block	
Boom 3 times extended	2204 lbs	2204 lbs
Boom 2 times extended	2204 lbs	2204 lbs
Boom once extended	2204 lbs	3306 lbs
Boom retracted	3306 lbs	4409 lbs

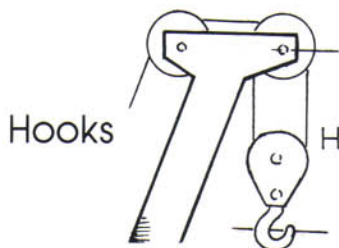
43 feet swing-away fly jib	Fly-jib only 1 with hook block	
Boom 3 times extended	2645 lbs	3306 lbs
Boom 2 times extended	2645 lbs	3306 lbs
Boom once extended	3306 lbs	3968 lbs
Boom retracted	5511 lbs	6613 lbs

When working with the folded 26' / 43' swing-away lattice at the 3-times telescoped boom and the hook block reeded-in at the main boom, the lifting capacity in the table of the folded fly-jib is reduced as follows:

with hook block 35 tons (300 kg) (661 lbs)
 with hook block 35 tons (200 kg) (440 lbs)

Works free-on-whells with the folded swing-away lattice bolted in front of the boom is not allowed.

Danger of tipping over:



Capacity	ton	34	10	5
Sheaves		5	1	0
Distance H	ft	4'7"	5'3"	7'3"
Weight	ton	0.44	0.22	0.13
Weight	lbs	880	440	260

Lifting capacities in 1000 lbs with main boom

Counterweight 4.000 lbs

Radius (ft)	Boom length (ft)										
	27'0"			47'0"				66'0"		85'0"	
	Hook height max. (ft)										
	32'0"			51'0"				70'0"		89'0"	
	A	F	F	A	A	F	F	A	A	A	A
	*	***	*	*	**	***	*	*	**	*	**
10	65.0	26.2	18.4								
11	59.7	24.7	16.5								
12	56.1	23.3	14.8	44.1	44.1	23.4	14.8				
13	52.9	21.8	13.4	44.1	44.1	21.8	13.4				
14	49.5	20.1	12.3	44.1	44.1	20.2	12.3				
15	46.2	18.6	11.2	43.6	43.6	18.6	11.2	33.0	33.0		
20	33.6	11.2	6.6	32.3	32.4	11.3	6.8	28.0	28.1	22.0	22.0
25				21.2	23.4	7.3	4.2	21.7	22.8	19.9	19.9
30				14.7	17.8	4.9	2.7	15.4	18.7	16.5	16.7
35				10.6	13.1	3.3		11.5	13.9	12.4	14.3
40				7.8	10.0	2.3		8.7	10.7	9.6	11.8
45								6.7	8.5	7.8	9.6
50								5.3	6.8	6.2	7.9
55								4.1	5.5	5.2	6.5
60								3.1	4.4	4.2	5.5
65										3.4	4.5
70										2.8	3.8
75										2.3	3.3

- A Crane on outriggers
- F Crane free on wheels
- * 360°
- ** over rear, plus/minus 30°
- *** over front and rear 0°

Load capacities above bold line are based on structural strength, and tipping must not be relied upon as a limitation of lifting capacity.
Rated loads must not be exceeded.

Hook block and slings and/or boom attachments are considered part of the load and their weight must be deducted from the rated lifting capacity to determine the net load.

Boom must be fully extended when lifting with the swing-away extension.

Consult crane manual to determine weight reduction for load handling devices and boom attachments.

Operate crane strictly in accordance with operator's manual.

Lifting capacities in 1000 lbs on outriggers

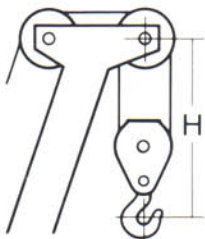
360° Main boom with 26'0" – 43'0"

2-stage off-set swing-away lattice extension

Radius	Boom length (ft)					
	85'0" + 26'0" = 111'0"			85'0" + 43'0" = 128'0"		
	Hook height max. (ft)					
	113'0"	110'0"	107'0"	129'0"	125'0"	119'0"
	Off-set angle					
(ft)	0°	15°	30°	0°	15°	30°
30	7.7					
35	7.7					
40	7.4	6.8		5.5		
45	6.9	6.2	5.6	5.4	4.5	
50	6.3	5.8	5.2	5.0	4.3	3.7
55	5.8	5.3	4.9	4.7	4.1	3.6
60	5.2	5.0	4.6	4.3	3.9	3.4
65	4.9	4.7	4.2	4.0	3.7	3.2
70	4.5	4.3	4.0	3.7	3.5	3.1
75	4.0	4.0	3.8	3.5	3.3	2.9
80	3.6	3.6	3.4	3.3	3.0	2.7
85	3.1	3.1	3.1	3.1	2.9	2.5
90	2.8	2.8	2.8	2.9	2.7	2.4

Counterweight 11,700 lbs

Hooks



Capacity	ton	34	10	5
Sheaves		5	1	0
Distance H	ft	4'7"	5'3"	7'3"
Weight	ton	0.44	0.22	0.13

Hook elevation diagram

Main boom + 2-stage off-set swing-away lattice extension

