



Grove Manitowoc National Crane Potain



Grove RT765E-2

Provisional Product Guide



Features

- 60 t (65 USt) capacity
- 11 m – 33,5 m (36 ft – 110 ft) four-section full power boom
- 10,1 m (33 ft) offsettable lattice swingaway extension
- 10,1 m - 17,1 m (33 ft - 56 ft) bi-fold lattice swingaway extension
- 6,1 m (20 ft) or 12,2 m (40 ft) extension inserts
- 6516 kg (14,365 lb) counterweight pinned to superstructure



Features

MEGAFORM™ boom

The superstructure features a full-power four-section MEGAFORM™ boom that can reach to a maximum tip height of 119 ft. The sequence synchronized extension features telescopic boom sections via a single lever joystick controller.



Extensions

An optional bi-fold swingaway lattice extension easily stows on the side of the base boom for easy transport while providing on-board extension from 33 ft - 56 ft for a maximum tip height of 174.5 ft. By adding inserts of 20 ft or 40 ft, the maximum tip height on the RT765E-2 can be extended even further to 194 ft or 214 ft.

An optional 33 ft fixed swingaway is also available with a maximum tip height of 150 ft.



Smooth operation

The RT765E-2 has a quick-reeve boom nose and swingaway alignment device to help operators set up smoothly.



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Specifications

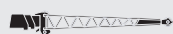
Superstructure



Boom

11 m - 33,5 m (36 ft - 110 ft) four-section, full-power sequenced synchronized boom.

Maximum tip height: 36,4 m (119 ft).



*Optional fixed swingaway extension

10,1 m (33 ft) offsettable lattice swingaway extension. Offsettable at 0°, 25° and 45°. Stows alongside base boom section.

Maximum tip height: 45,8 m (150 ft).



*Optional bi-fold swingaway extension

10,1 m - 17,1 m (33 ft - 56 ft) bi-fold lattice swingaway extension. Offsettable at 0°, 25° and 45°. Stows alongside base boom section. Maximum tip height: 53,2 m (174.5 ft).



*Optional 6,1 m (20 ft) or 12,2 m (40 ft) inserts

Installs between boom nose and bi-fold extension, non-stowable. Maximum tip height: 59,1 m (194 ft) with 20 ft insert, 65,2 m (214 ft) with 40 ft insert.



Boom nose

Four nylatron sheaves mounted on heavy-duty tapered roller bearings with removable pin-type rope guards. Quick-reeve type boom nose.

*Optional removable auxiliary boom nose with removable pin type rope guard.



Boom elevation

One double-acting hydraulic cylinder with integral holding valve provides elevation from -3° to 78°.



Load moment and anti-two block system

Standard "Graphic Display" load moment and anti-two block system with audio-visual warning and control lever lockout. These systems provide electronic display of boom angle, length, radius, tip height, relative load moment, maximum permissible load, load indication and warning of impending two-block condition. The standard Work Area Definition System allows the operator to pre-select and define safe working areas. If the crane approaches the pre-set limits, audio-visual warnings aid the operator in avoiding job-site obstructions.



Cab

Full-vision, all-steel fabricated with acoustical lining and tinted safety glass throughout. Deluxe seat incorporates armrest-mounted hydraulic single-axis controllers. Dash panel incorporates gauges for all engine functions. Other standard features include: hot water heater, air-conditioning, cab circulating air fan, sliding side and rear windows, sliding skylight with electric wiper and sunscreen, electric windshield wash/wipe, fire extinguisher and seat belt.



Swing

Planetary swing with foot-applied multi-disc brake. Spring applied, hydraulically-released swing brake and plunger-type, one position, mechanical house lock operated from cab. *Optional 360° mechanical swing lock. Maximum speed: 2.5 rpm.



Counterweight

6516 kg (14,365 lb) pinned to superstructure.



Hydraulic system

Three main gear pumps with a combined capacity of 391 LPM (103 GPM), 511 LPM (135 GPM) with optional air conditioning.

Maximum operating pressure: 27,6 MPa (4000 psi).

Two individual post pressure compensated valve banks.

Return line type filter with full flow by-pass protection and service indicator. Replaceable cartridge with micron filtration rating of 5/12/16. 500 L (132 gallon) reservoir. Integral oil cooler. System pressure test ports.



Hoist specifications (HP30A-19G) main and auxiliary hoist

Main and auxiliary hoist: Model HP30A-19G

Planetary reduction with automatic spring applied multi-disc brake. Grooved drum. Electronic hoist drum rotation indicator and hoist drum cable followers.

Maximum single line pull: 8246 kg (20,250 lb)

Maximum single line speed: 179 m/min (542 fpm)

Maximum permissible line pull:

7620 kg (16,800 lb) with standard 6 x 37 class rope

7620 kg (16,800 lb) with optional 35 x 7 class rope



Specifications

Superstructure continued

Rope diameter: 19 mm (3/4 in)

Rope length: 152 m (500 ft)

*Optional 168 m (550 ft) 35 x 7 class rope

Rope type: 6 x 37 class EIPS IWRC

*Optional 35 x 7 class rotation resistant

Maximum rope stowage: 256 m (841 ft).

Carrier



Chassis

Box section frame fabricated from high-strength, low alloy steel. Integral outrigger housings and front/rear towing, lifting, and tie down lugs.



Outrigger system

Four hydraulic telescoping single-stage double box beam outriggers with inverted jacks and integral holding valves. Three position settings, 100%, 50% and fully retracted. All steel fabricated, quick-release type round outrigger floats, 610 mm (24 in) diameter. Maximum outrigger pad load: 36 606 kg (80,700 lb).



Outrigger controls

Controls and crane level indicator located in cab.



Engine (Tier III)

Cummins QSB 6.7 L diesel, six cylinders, turbocharged, 179 kW (240 bhp) (Gross) at 2500 rpm. Maximum torque: 987 N-m (728 ft lb) at 1500 rpm.

Note: Required for sale outside of North American and European Union countries



Engine (Tier IV)

Cummins QSB 6.7 L diesel, six cylinders, turbocharged with Cummins Diesel Particulate Exhaust filter/muffler. Meets emissions per U.S.E.P.A. Tier IV and E.U. Stage III B. 179 kW (240 bhp) at 2500 rpm. Maximum torque: 990 N-m (730 ft lb) at 1500 rpm.

Fuel requirement: Maximum of 15 ppm sulphur content (Ultra Low Diesel Fuel).

Note: Tier IV engine Required in North American and European Union countries.



Fuel tank capacity

273 L (72 gal)



Transmission

Spicer powershift with 6 forward and 6 reverse speeds (3 speeds high and 3 speeds low). Front axle disconnect for 4 x 2 travel.



Electrical system

Two 12-volt maintenance free batteries. 12-volt starting and lighting, circuit breakers, battery disconnect switch.



Drive

4 x 4



Steering

Fully independent power steering:

Front: Full hydraulic, steering wheel controlled.

Rear: Full hydraulic, switch controlled.

Provides infinite variations of 4 main steering modes: front only, rear only, crab and coordinated.

Rear steer centered indicating light.

4 wheel turning radius - 6,7 m (22 ft 2 in).



Axles

Front: Drive/steer with differential and planetary reduction hubs rigid-mounted to frame.

Rear: Drive/steer with differential and planetary reduction hubs pivot-mounted to frame.

Automatic full hydraulic lockouts on rear axle permit 203 mm (8 in) oscillation only with boom centered over the front.



Brakes

Full hydraulic split circuit brakes operating on all wheels. Spring-applied, hydraulically released axle-mounted parking brake.



Tires

29.5 x 25 - 28PR bias earthmover type.



Specifications

Carrier continued



Lights

Full lighting package including turn indicators, head, tail, brake and hazard warning lights.



Maximum speed

37 km/h (23 mph).



Gradeability (theoretical)

75% (Based on 40 802 kg [89,951 lb] GVW) 29.5 x 25 tires, pumps engaged, 33,6 m (110 ft) boom, bi-fold extension, aux. hoist and cable, and 60 USt hook block.

Miscellaneous standard equipment

Full width steel fenders, full length aluminum decking, dual rear view mirrors, hook block tiedown, electronic back-up alarm, light package, front stowage well, tachometer, rear wheel position indicator, 36,000 BTU hot water heater, air conditioning package with 28,500 BTU hydraulic driven air conditioning, hoist mirrors, engine distress A/V warning system. Auxiliary hoist control valve arrangement (less hoist). Cold start aid and immersion type engine block heater, 120V 1500 watt. Hoist access platform.

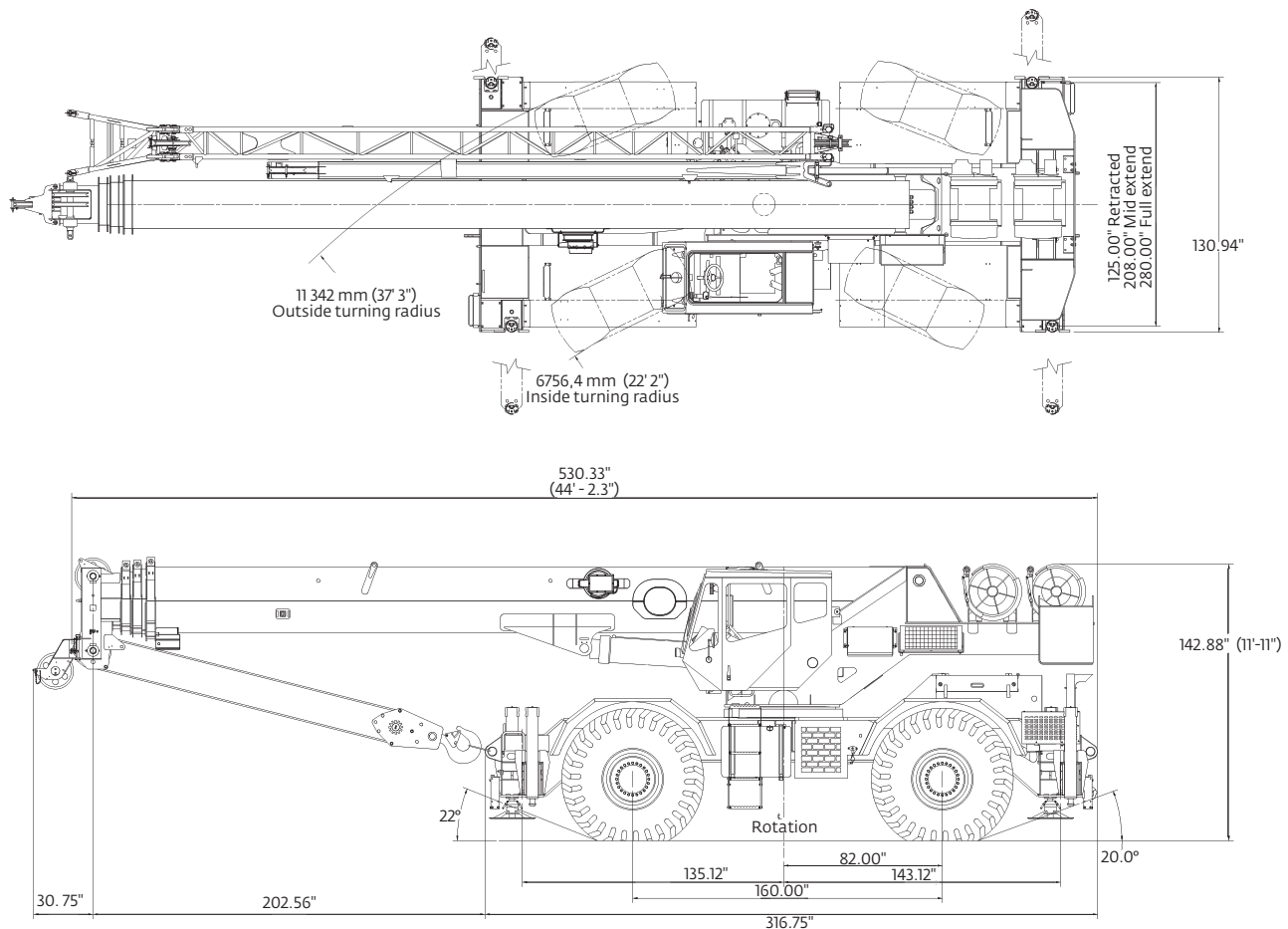
*Optional equipment

- ▶ Auxiliary Hoist Package (includes Model HP30A-19G auxiliary hoist with electronic hoist drum rotation indicator, hoist drum cable follower, 152 m (500 ft) of 19 mm (3/4 in) 35 X 7 class wire rope, auxiliary single sheave boom nose.
- ▶ Auxiliary Light and Convenience Package: includes cab mounted amber flashing light, in-cab LMI light bar, 360° rotation spotlight and dual base boom mounted floodlights, rubber mat for stowage trough
- ▶ "CE" Mark Conformance (sound abatement foam kits, 3rd wrap indicator, emergency auxiliary steering, dual axis joystick controllers)
- ▶ Cross axle differential locks (front and rear)
- ▶ Manual pump disconnect
- ▶ Pintle hook - rear
- ▶ 360° NYC style positive swinglock
- ▶ PAT event recorder
- ▶ Hydraulic removable counterweight



Dimensions and weights

Dimensions - PROVISIONAL



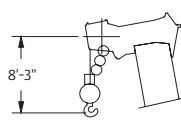
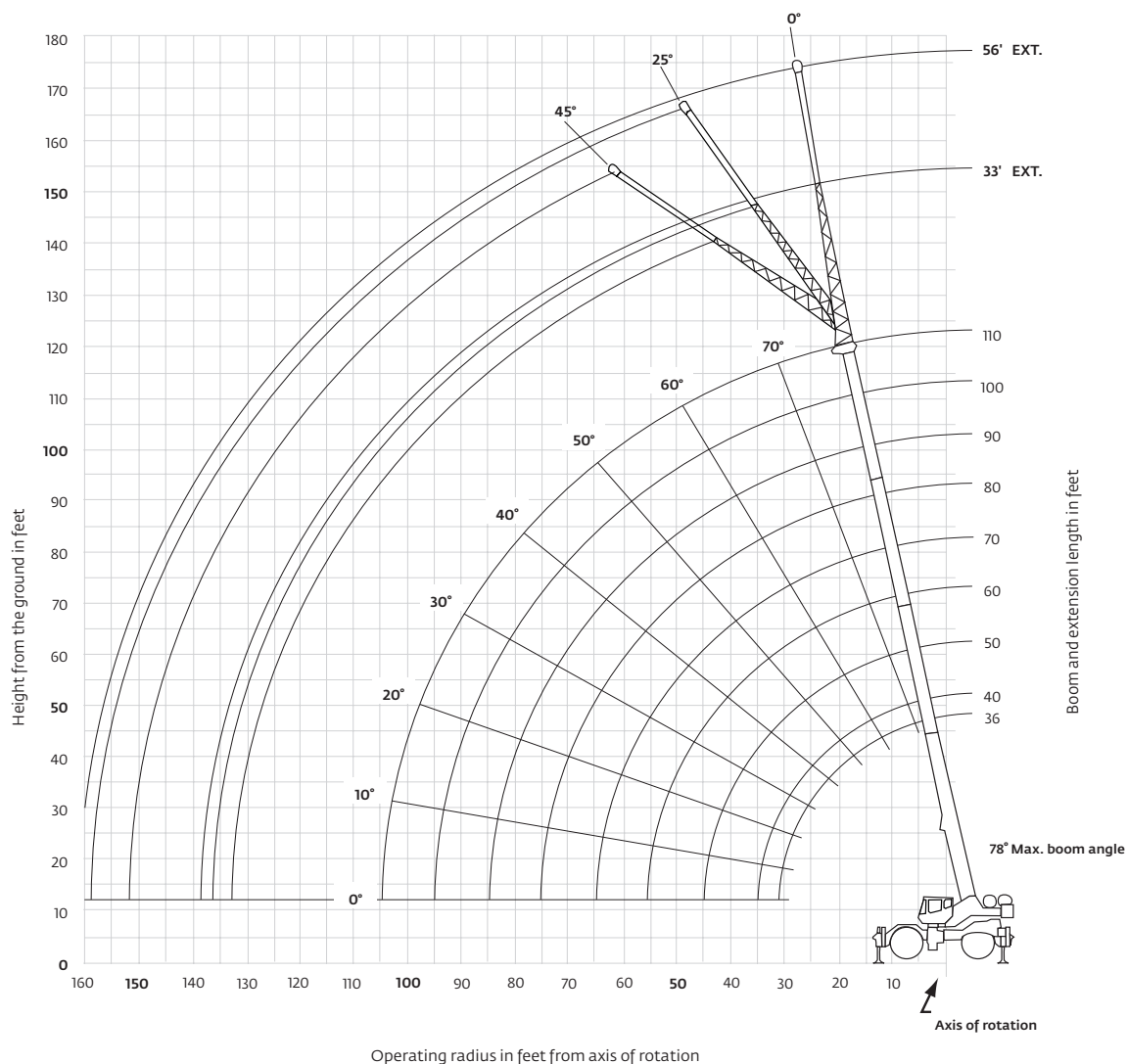
Weights - PROVISIONAL

	GVW		Front		Rear	
	kg	(lb)	kg	(lb)	kg	(lb)
RT765E-2 Basic Machine: Including 110 ft main boom, main hoist with 500 ft of wire rope, IPO, full pinned counterweight	39 874	(87,907)	18 351	(40,457)	21 523	(47,450)
Add: 33 ft - 56 ft bi-fold swingaway + extension carrier brackets	1265	(2788)	1997	(4402)	-732	(-1614)
Add: 500 ft of wire rope on auxiliary hoist and auxiliary boom nose	317	(698)	87	(178)	-236	(-520)
Add: Auxiliary boom nose	59	(130)	171	(377)	-112	(-247)
Add: 60 t (65 USt) 5-sheave hook block	581	(1280)	581	(1280)	-9,9	(0)
Add: 45 t (50 USt) 3-sheave hook block	458	(1010)	458	(1010)	0	(0)
Add: 7,5 t (8.3 USt) headache ball	161	(355)	262	(578)	-101	(-223)
Remove: Hydraulic removal counterweight	-6042	(-13,320)	206	(4550)	-8106	(-17,870)



Working range

110 ft main boom and 33 ft - 56 ft bi-fold swingaway



Dimensions are for largest Grove furnished hookblock and headache ball, with anti-two block activated.

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THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.

The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane



Load chart RT765E-2

									
36 ft - 110 ft	14,400 lb	23 ft 4 in spread (100%)	360°						
	 Pounds								
Feet	35.9	40	50	60.4	70	80	90	100	110
10	130,000	90,300	90,300	62,500					
12	112,500	90,300	90,300	62,500	40,200				
15	93,300	90,300	90,250	62,500	40,200	40,200	40,200		
20	71,600	71,500	71,350	62,500	40,200	40,200	40,200	36,900	25,150
25	56,600	56,550	56,350	53,650	40,200	40,200	37,950	34,900	25,150
30	43,500	44,150	43,850	43,500	40,200	36,050	32,750	30,200	25,150
35			33,600	33,100	34,100	31,450	28,550	26,400	24,700
40			26,100	25,700	26,700	27,500	25,200	23,300	21,800
45				20,400	21,400	22,100	22,400	20,700	19,400
50				16,500	17,450	18,150	18,700	18,550	17,350
55					14,500	15,200	15,750	16,150	15,600
60					12,050	12,800	13,350	13,750	14,050
65						10,850	11,350	11,750	12,100
70						9,190	9,760	10,150	10,450
75							8,380	8,780	9,100
80							7,180	7,610	7,920
85								6,590	6,910
90								5,680	6,030
95									5,240
100									4,530
Main boom length in feet									
Boom angle	35.9	40	50	60.4	70	80	90	100	110
0°	30,350	25,700	17,950	13,050	10,300	7,970	6,280	5,000	4,000

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Symbols glossary



Axles



Counterweight



Grade



Outriggers



Boom



Drive



Height (no max)



Radius



Boom elevation



Electrical system



Heavy duty jib



Rotation



Boom extension



Engine



Hoist



Speed



Boom length



Extension



Hookblock



Steering



Boom nose



Frame



Hydraulic system



Suspension



Brakes



Fuel tank capacity



Lights



Swing



Cab



Gear



Oil



Tires



Outrigger controls



Transmission



Notes



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