

ROUGH-TERRAIN CRANES
FEATURES & BENEFITS

GROVE®

GROVE.
REAL
TOUGH.





HELPING YOUR BUSINESS REACH NEW HEIGHTS

Grove is a leading manufacturer of the industry's most reliable rough-terrain cranes — designed to handle the toughest jobsite conditions with lift capacities ranging from 30 t to 150 t. Performance, productivity and operator comfort features allow your operators to work effectively for longer days with less fatigue. Quality, reliability and easy maintenance are built in to every Grove rough-terrain crane, making them the right choice for your business.



PERFORMANCE, PRODUCTIVITY AND OPERATOR COMFORT

Grove rough-terrain cranes use smart technology and innovations so jobs get done as efficiently as possible. These features are designed to enhance your crew's productivity and help you achieve higher profits.

HIGHLY ERGONOMIC CABS

The cabs on Grove rough-terrain cranes feature more glass on all sides so your operators have a clear view of the load and fewer blind spots. The interior has an automotive-style layout for maximum comfort and includes an ergonomic dashboard, tilting and telescoping steering wheel.

The heat and air conditioning systems have also been improved with higher CFM output, increased core thickness and larger air ducts with optimal positioning. A new sliding door design provides ease of access.



NEW WIDE CAB DESIGN

Grove's new wide cab design is the next generation in enhancing comfort to optimize operator performance. We worked to increase the width of the cab and front windshield by nearly 8 cm. We also are proud to introduce a redesigned internal layout with new folding storage shelves, electric seat controls, skylight window washer and footrests. We also improved the adjustability of the CCS display by using arm mounts for improved visibility in all situations. A radio with Blue tooth capability, USB charger and swiveling cup holder are also available.



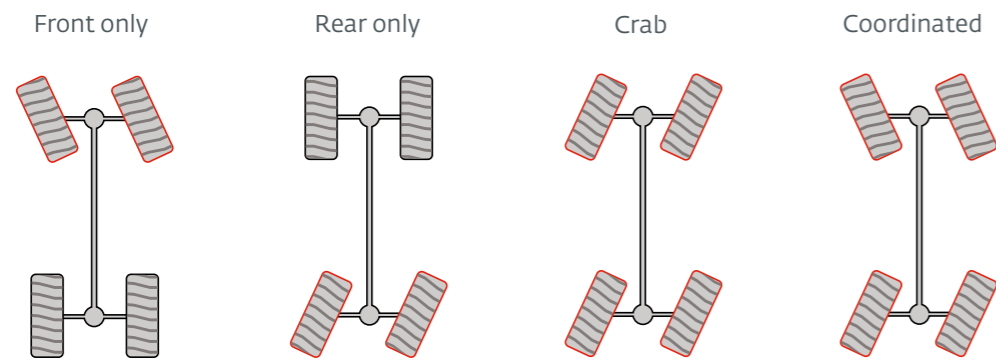
CAB TILT

The Vision cab tilts up to 20 degrees, which is especially beneficial on long boom cranes. Operator comfort and overall visibility of the lift is significantly improved, even when the boom is fully extended and equipped with a jib.



EXCEPTIONAL MANEUVERABILITY

Maneuvering around the jobsite is easier with Grove rough-terrain cranes. Four-wheel drive capability combined with four steering modes (front only, rear only, crab and coordinated) allows your operators to get closer to the lift regardless of congested areas or adverse ground conditions. All modes are controlled through steering wheel and rocker switches, so there's no need for operators to stop and align the wheels.

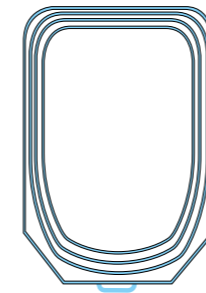


- > All Grove rough-terrain cranes offer front and rear cross-axle differential locks, which can be activated when working in difficult terrain.
- > Crab mode
- ✓ Coordinated mode



LEADING THE WAY IN BOOM TECHNOLOGY

Grove rough-terrain cranes continue the tradition of innovative and strong boom designs and technology.



< MEGAFORM™

The MEGAFORM™ boom design incorporates a U-shaped cross-section that provides an exceptional strength-to-weight ratio. This means a MEGAFORM boom can lift more than a traditional square or rectangular boom. Large wear pads offer superior boom alignment when telescoping, providing an excellent transition of weight between sections and allowing you greater lifting capacities at any radius.



< FORMED BOOM

The next generation modular formed boom improves lateral strength of boom sections, provides better load charts due to a high strength-to-weight ratio and increased boom lengths thanks to an overlapping wear pad design. The modular design also helps to improve production time.



^ TWIN-LOCK™ boom pinning system

Using only one telescope cylinder to extend the boom sections, the TWIN-LOCK system helps to maximize the crane's load chart capacity by eliminating weight inside the extended boom.



^ Synchronized boom telescoping allows each boom section to be extended simultaneously with a single-lever control.

Sequence synchronized boom telescoping technology maximizes configuration at load radius and weight.

JOBSITE FLEXIBILITY MEANS MORE LIFTS FOR GREATER PROFITABILITY

Grove rough-terrain cranes can be reconfigured to fit numerous lifting applications, giving you more lifting versatility. That provides you with the potential to win more jobs for greater profitability and return on investment.



MAIN BOOM INSERTS

Main boom inserts are designed to extend the crane's reach.

BOOM EXTENSIONS

Boom extensions expand the versatility of your crane enabling you to work on a wider variety of lifts.

Grove offers several boom extensions including:

- > Fixed length, offsettable lattice extension
- > Telescopic, offsettable lattice extension
- > Bi-fold, offsettable lattice extension



INNOVATION DRIVES ENHANCED OPERATION AND EFFICIENCY

Grove utilizes the latest technology to provide the highest work efficiency — all while meeting today's strict environmental standards. Our innovations ensure reliable crane performance along with operator productivity and comfort.

> Engine

Grove rough-terrain cranes utilize an environmentally-friendly engine that meets current E.P.A. and E.U. emission standards. This engine package is optimized to deliver plenty of power while minimizing fuel consumption and operating costs.

> Pick-and-carry charts

Pick-and-carry charts are available for all Grove rough-terrain cranes.

> Operational aids

Grove rough-terrain cranes are equipped with a graphical rated capacity limiter (RCL) with Work Area Limiter. The intuitive and user-friendly interface provides a virtual representation of your crane configuration and outrigger position. The Work Area Limiter assists operators while lifting and positioning loads.

> Polymer outrigger pads

Lighter, more durable polymer outrigger pads make set up a one-person operation.

CRANE CONTROL SYSTEM

CCS offers a user-friendly interface, two full graphic displays, and jog dial. Parts commonality across the product lines enhance operator familiarization and serviceability.

> Commonality

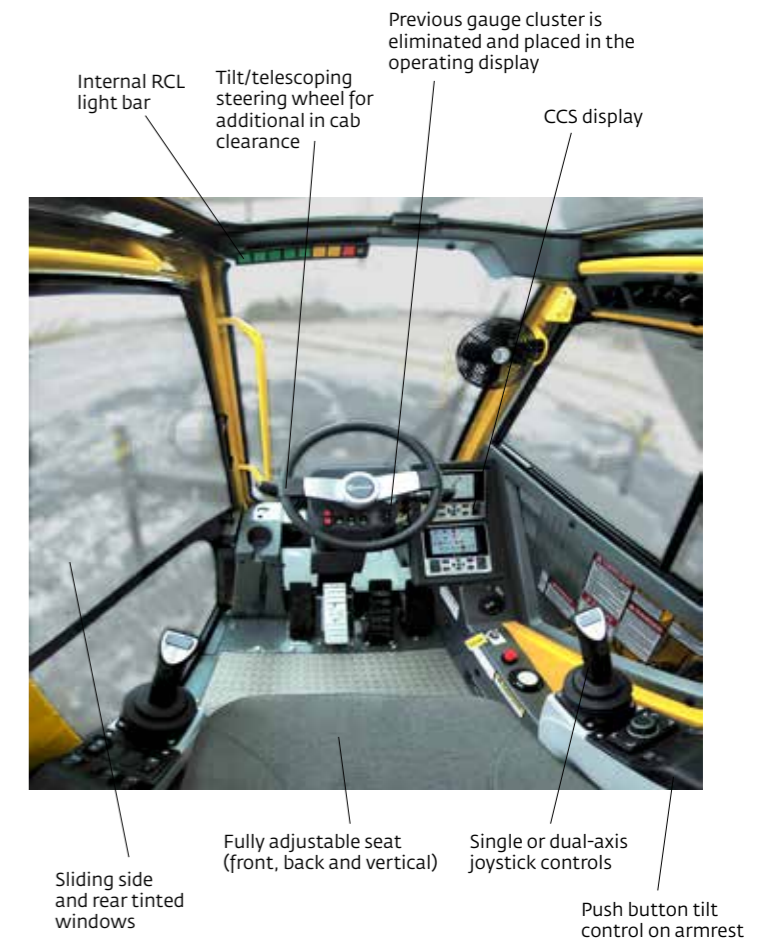
- Same control system components used on all CCS cranes (improves field service and training)
- User interface designed to give a similar operating experience on all CCS cranes
- Utilizes standard ISO symbols that are recognized globally

> Operator comfort

- Armrests that include joysticks and jog dial can be rotated up with push-button control and moved forward or backward with the seat
- Controls and jog dial are easily accessible from seat (eliminates unconformable reaching)
- Fully adjustable seat (allows for a custom fit)
- Displays are tiltable with an anti-reflective coating (reduces glare and aligns with operator preferences)
- Single or dual-axis joystick controls are available based on user preference
- ECO Mode for reduced fuel consumption and lower engine noise

> Startup and setup

- Intuitive setup wizard makes startup quick and easy
- Fast startup time (approximately 5 seconds)
- Outrigger functions controlled from the operating display with jog dial
- Graphical Working Range Limiter (WRL) comes standard with CCS
- Boom configurator mode allows for easy set-up and optimal configuration selection on TWIN-LOCK™ boom models with CCS



> Informative interface

- Visually organized and consolidated screen (all crane functions, gauges and alerts are located in one place)
- High resolution, full graphical display with USB interface
- Hour count by function (allows better scheduling of routine maintenance)
- Four digit error codes allows for accurate and fast troubleshooting

> Customization

- User may customize units of measure (metric/imperial)
- Joystick sensitivity may be tuned and scaled (swing, telescope, boom lift, main hoist, auxiliary hoist) to increase control precision

RELIABILITY AND EASY MAINTENANCE

High-performing cranes and comfortable operators are only the beginning. That's why Grove cranes include features that improve reliability and minimize maintenance time — all to keep you more profitable.

TRANSPORTABILITY

Several models include added features to get you to the jobsite and to get your crew to work sooner. Removable front and rear outrigger boxes and the removable counterweight offer convenient transportability. Outrigger boxes can be quickly installed and removed without the use of an assist crane. In addition, the counterweight is designed for quick and easy installation.



THE HYDRAULIC DISC BRAKE ADVANTAGE

Four-wheel hydraulic disc brakes are hydraulically-applied and spring-released, resulting in immediate activation as needed. This simple hydraulic system is superior to air or air-over-hydraulic drum brakes on competitive models.

- > Eliminates air leaks and problems due to humidity or high temperature variations, and there's no wait for air pressure to build
- > No additional air system is required
- > One simple hydraulic system eliminates unnecessary components



EASY ACCESS FOR ROUTINE MAINTENANCE

Steel or aluminum full-length decking provides large open areas for additional storage and accessibility to crane components. The valve cover is easy to access and remove, the flexible mounted steps reduce transport damage and an anti-slip material on the deck improves footing.

The hoist access platform makes reeving the hoist quick and easy.



CUSTOMER SUPPORT

Manitowoc Customer Support provides:

- > Service: Our customer service extends beyond any borders. Our locations span the globe, with representation on five continents. Wherever you are, we are there to help.
- > Parts: However, remote the job site, locating the correct part quickly is vital to managing your operations. With Manitowoc Customer Support, the parts you need are just a phone call or click away.
- > Training: Manitowoc Training Centers offer courses for operators and technicians across the globe to provide in depth instruction on crane operation, maintenance and troubleshooting procedures.
- > EnCORE: Manitowoc's EnCORE program maximizes your investment by rebuilding or repairing your crane to extend its life significantly. EnCORE also includes remanufactured parts.
- > Used cranes: By choosing Manitowoc Used Cranes, you buy a valuable used crane and a brand you can rely on. Manitowoc Used Cranes are ready for several lives and give the highest residual value. High quality cranes for a long-life duration.



- > Financial tools that help you capitalize on opportunity with solutions that fit your needs.



QUALITY & RELIABILITY

High-quality and reliable products last longer and save you money. We stand behind our products with a standard two-year warranty on GRT model cranes. Additionally, our high-quality components and procedures ensure every rough-terrain crane meets strict standards to protect your investments. As an example, Grove cranes are built and treated to resist rust and other harsh elements to increase the life of the cranes and give you higher resale values.

DESIGNED FOR DURABILITY

- > New counterweight removal cylinders have been redesigned to preserve seals, prevent leakage and guard against damage from UV exposure
- > Advanced corrosion protection with stainless steel componentry on hose and tube clamps, pipe straps, pipefittings and various engine components. Nitro-carbonized boom shafts and additional low-gloss powder topcoats applied to several supplier components enhance corrosion protection
- > High-pressure hoses are more tolerant of vibration and less susceptible to leaks and relocated oil and transmission filters with a swing-open engine hood help to make maintenance easy

TESTED TOUGH

- > Rigorous testing procedures at the Product Verification Center (PVC) help drive the highest levels of quality and reliability on the market
- > Pre-production partnerships give customers the chance to test new models on real jobsites

INNOVATIVE DESIGN

- > Updated operator cabs include a redesigned HVAC system for a cooler, more comfortable working environment
- > New wide cab provides more than 8 cm of additional room and more glass for increased visibility

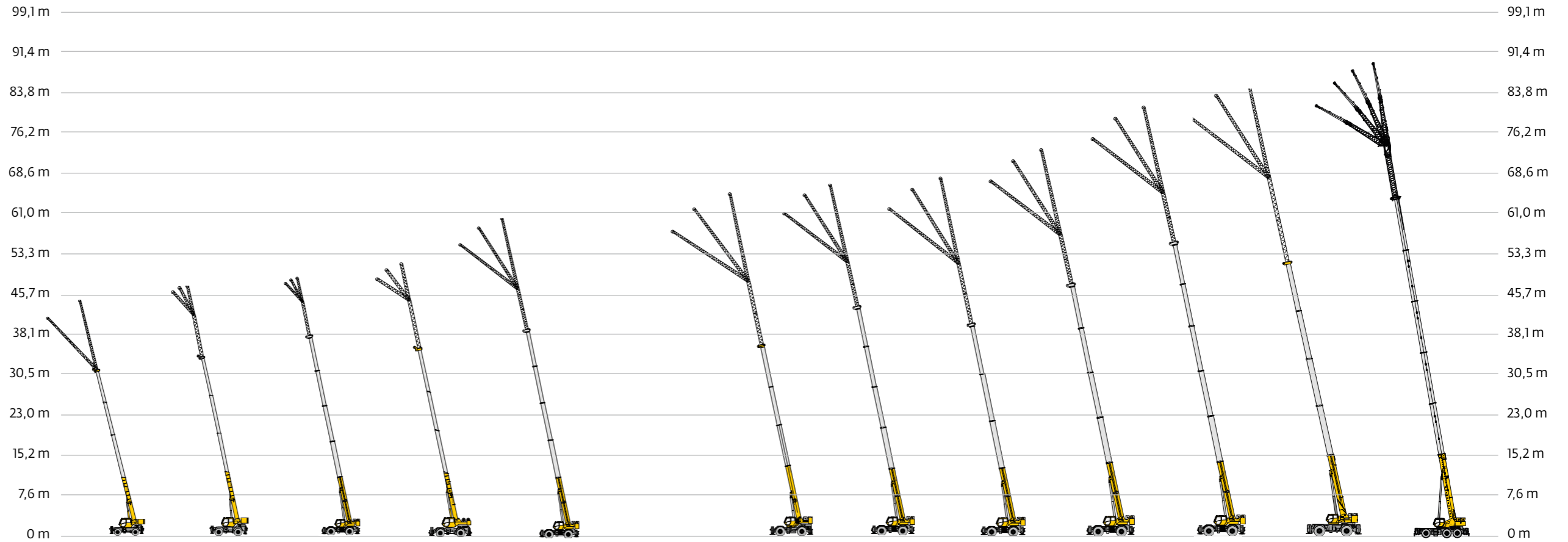


**GRT MODELS: TWO-YEAR
STANDARD WARRANTY**

Model features

Grove rough-terrain cranes provide standard features that other manufacturers simply don't offer. These features mean you'll experience more uptime, higher profits and better resale values when you choose Grove cranes.

Standard = ●



	RT530E-2	RT540E	RT550E	GRT655	GRT655L	RT765E-2	RT770E	GRT880	GRT8100-1	GRT8120	RT9130E-2	GRT9165
Maximum capacity	30 t	35 t	45 t	51/60 t	51/60 t	60 t	65 t	80 t	100 t	120 t	120 t	150 t
Boom length	29 m	31 m	39 m	34,8 m	43,0 m	33,5 m	42 m	41,0 m	47 m	60 m	48,8 m	62,5 m
Maximum tip height	45 m	47 m	49 m	51,8 m	59,7 m	65,2 m	67,3 m	68,0 m	72,9 m	80,8 m	85 m	91,2 m
Gross vehicle weight (base unit)	26419 kg	27950 kg	28500 kg	33300 kg	33600 kg	40529kg	42063 kg	50500 kg	53507 kg	59017 kg	79460 kg	85730 kg
Vision cab	●	●	●	●	●	●	●	●	●	●	●	●
Tilt cab				●	●			●	●	●	●	●
Wide cab design									●			●
Full CAN-Bus	●	●	●	●	●	●	●	●	●	●	●	●
Graphic LMI with Work Area Definition System	●	●	●	●	●	●	●	●	●	●	●	●
Crane Control System (CCS)	●	●	●	●	●			●	●	●		●
Inverted outrigger jacks	●	●	●	●	●	●	●	●	●	●	●	●
Hoist access platform	●	●	●	●	●	●	●	●	●	●	●	●
Removable outrigger box											●	●
Hydraulically installed/removable counterweight						optional	optional	●	●	●	●	●
Full-length decking	●	●	●	●	●	●	●	●	●	●	●	●
MEGAFORM™ boom design			●			●	●		●	●	●	●
Formed boom design				●	●			●				
Four-section boom	●	●		●		●		●				
Five-section boom			●		●		●		●		●	
Six-section boom										●		●
TWINLOCK™ pinned boom system			●							●		●
Full-power boom	●	●		●	●	●	●	●	●		●	
Main boom inserts						optional	optional	optional	optional		optional	optional
Boom extensions	optional	optional	optional	optional	optional	optional	optional	optional	optional	optional	●	●
Standard Two-Year Warranty				●	●			●	●	●		●



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