

GROVE[®]

**FULL HYDRAULIC
SELF-PROPELLED CRANE**

MODEL RT58

14-Ton Capacity



FEATURES

- ★ 28,000 lbs. (12,700kg). Capacity at 10 ft. (3.05m)
- ★ 24-60 ft. (7.32-18.29m) Power Telescoping Boom
- ★ Power Shift Transmission—6 speeds forward & reverse
- ★ Hi-Lo range selection automatically shifts 4-Wheel drive—2-Wheel drive
- ★ 4-Wheel Hydraulic Power Assist Steering & Brakes
- ★ 75° Maximum elevation
- ★ 360° Continuous rotation
- ★ Automatic Hydraulic Rear Axle Oscillation Lockouts
- ★ Hydraulic pump disconnect



SPECIFICATIONS

BOOMS - 24 ft. - 60 ft. (7.32-18.29), 3 section full power telescoping.

*18 ft. - 42 ft. (5.49-12.80m), 3 section full power telescoping.

*21 ft. - 51 ft. (6.40-15.54m), 3 section full power telescoping.

Pendulum boom angle indicators on both sides of boom. Integral holding valves on each telescoping cylinder. Boom telescope sections are individually controlled and supported on graphite impregnated Nylatron wear pads. Side adjustable wear pads to eliminate metal to metal contact of inner boom sections.

BOOM NOSE - Two sheaves mounted on heavy duty needle bearings. Removable pin type rope guards allow easy reeving. Rope dead end on one side of boom nose.

BOOM ELEVATION - Dual double-acting hydraulic cylinders with holding valve. Elevation from 0° to 75°.

***JIBS** - 14 ft. (4.27m) "Stowaway" for 18 ft. - 42 ft. (5.49-12.80m) boom.

17 ft. (5.18m) "Stowaway" for 21 ft. - 51 ft. (6.40-15.54m) boom.

20 ft. (6.10m) "Stowaway" for 24 ft. - 60 ft. (7.32-18.29m) boom.

All jibs have self-equalizing suspension and jib backstops.

SWING - Ball bearing swing circle, 360° continuous rotation, "Grove Planetary Swing" with automatic disc swing brake.

***CAB** - Frame mounted, all steel, full vision, fully enclosed with fixed tinted skylight, laminated safety glass windows with locks, electric windshield wiper, hot water heater, fan-type defroster, domelight, left and right hand doors with locks. Right and left side sliding vent windows with locks.

***OPEN CAB** - Frame mounted, all steel, full vision with fixed tinted skylight, laminated safety glass windows, electric windshield wiper, and domelight.

CAB INSTRUMENTATION - Engine oil pressure gage, engine water temperature gage, electric fuel gage, transmission and torque converter oil temperature gage, engine hourmeter, voltmeter.

OUTRIGGERS - Hydraulic, front and rear, cantilever type with integral check valves. Sequence control arrangement eliminates accidental actuation.

MAIN FRAME - 18 in. (457mm) rectangular box section, all welded and reinforced construction.

TRANSMISSION AND TORQUE CONVERTER - Engine mounted converter, 2.54:1 stall ratio with PTO for hydraulic pumps. Remote mounted full powershift transmission with rear axle disconnect.

SPEEDS - 6 forward and 6 reverse.

AXLES - Front: Planetary drive with dual steering cylinders mounted rigid to frame. Rear: Planetary drive with dual steering cylinders mounted to allow 0 in. to 12 in. (0-305mm) oscillation. (No-spin optional)

OSCILLATION LOCKOUTS - Automatic hydraulic on rear axle. Allows oscillation only with boom over front.

SERVICE BRAKES - Power assist hydraulic on all wheels. Size - 17 1/4 in. x 4 in. (438mm x 102mm). Total lining area 552 sq. in. (3,562cm²).

PARKING BRAKES - Mechanical on driveline. Hand lever control. Size - 13 3/8 in. x 2 in. (340mm x 51mm)

STEERING - Front: Power assist hydraulic control. Rear: Full hydraulic; tiller bar control. Independent front and rear steer control allows maximum "On-the-Move" maneuverability.

TIRES - 17.5 x 25 - 14 ply, Power Grader Lug (nylon) tubeless.

*14.00 x 24-16 ply, Power Grader Lug (nylon) tubeless.

HYDRAULIC SYSTEM:

RESERVOIR - 82.6 gallon (312.6) capacity, all steel welded construction with integral baffles, sight level gage.

FILTER - Return line type, full flow with by-pass protection and replaceable cartridge. 10 micron rating.

PUMPS - Three main gear pumps, 112.5 GPM (426 LPM) capacity. Manually operated pump disconnect. Separate pump for front steer - 18.7 GPM. (71LPM)

CONTROL VALVES - Precision four-way double acting with integral load check, main and circuit relief valves. Three individual valve banks permitting simultaneous independent control of three crane functions. Maximum operating pressure 2500 PSI. (175.8kg/cm²)

POWER DISTRIBUTION - (Main hoist - outrigger) (Swing - telescope mid and fly - rear steer) (Boom elevation - auxiliary hoist - accessory) (Front steer).

MISCELLANEOUS STANDARD EQUIPMENT - Tool box integral with fuel tank, cab guard, 3 3/4 lb. (1.7kg) fire extinguisher, electric horn, protecto seal fuel cap, full engine hood.

HOIST SPECIFICATIONS

DESCRIPTION: Power up and down, equal speed, planetary reduction with integral automatic brake.	
HOIST DATA	GROVE MAIN HOIST MODEL 15S-11A
Drum dimensions	12 in. (305mm) diameter 11 in. (279mm) length 17.5 in. (445mm) diameter flange
Performance	Single line speed 200 FPM (61m/min.) (Max.) Single line pull 9,165 lb. (4157kg) (Max.)
Drum Rope Storage Capacity	**485 ft. (147.83m) of 1/2 in. (13mm) Rope (Max.)
Permissible Single Line Rope Pull	1/2 in. (13mm) 6x37 - 7,200 lb. (3266kg) 1/2 in. (13mm) 19x7 - 6,150 lb. (2790kg)

**6th layer of rope not recommended for hoisting operations.

ENGINE SPECIFICATIONS

MAKE & MODEL TYPE	Ford 300 6 cylinder gasoline	*GM4-53N 4 cylinder diesel	*Cummins V-378-C155 6 cylinder O.H.V. diesel
BORE & STROKE	4.00 in. x 3.98 in. (102mm x 101mm)	3.875 in. x 4.50 in. (98mm x 114mm)	4.625 in. x 3.75 in. (117mm x 95mm)
DISPLACEMENT	300 cu. in. (491cm ³)	212 cu. in. (3474cm ³)	378 cu. in. (6194cm ³)
HORSEPOWER (NET)	123 @ 2800 RPM	112 @ 2800 RPM	125 @ 2800 RPM
GOVERNED RPM	2800	2800	2800
TORQUE (NET)	253 @ 1800 RPM	257 @ 1800 RPM	260 @ 1925 RPM
ELECTRICAL SYSTEM	12-volt, Neg. ground	12-volt, Neg. ground	12-volt, Neg. ground
COMBUSTION SYSTEM	4 cycle, naturally aspirated	2 cycle w/blower	4 cycle, naturally aspirated
COOLING SYSTEM	Liquid	Liquid	Liquid
FUEL CAPACITY	49 gallons (185 liters)	49 gallons (185 liters)	49 gallons (185 liters)
ALTERNATOR	38 AMP, 12-volt	55 AMP, 12-volt	58 AMP, 12-volt
BATTERY	(1) 62 A.H., 12-volt	(1) 204 A.H., 12-volt	(2) 204 A.H., 12-volt
AIR CLEANER	Oil Bath	Dry Type	Dry Type
HOURMETER	Yes	Yes	Yes

SPEED & GRADEABILITY

FORWARD DRIVE	TRANSMISSION RANGE	GEAR SHIFT	MAXIMUM SPEED (MPH)		GRADEABILITY AT STALL (%)	TRACTIVE EFFORT AT STALL (LBS.)	
			MPH	Km/h		Lbs.	Kgs.
4 Wheel Drive	Low	1st	2.2	3.54	82	33,410	15,155
4 Wheel Drive	Low	2nd	4.2	6.76	42	17,651	8,006
4 Wheel Drive	Low	3rd	12.5	20.1	13	5,989	2,717
2 Wheel Drive	High	1st	5.3	8.52	34	14,121	6,405
2 Wheel Drive	High	2nd	10.1	16.25	17	7,439	3,374
2 Wheel Drive	High	3rd	29.5	47.46	4	2,537	1,151

NOTE: All performance data based on standard machine with (GM4-53N) and may vary plus or minus 10% due to variations in engine performance.

WORKING WEIGHTS

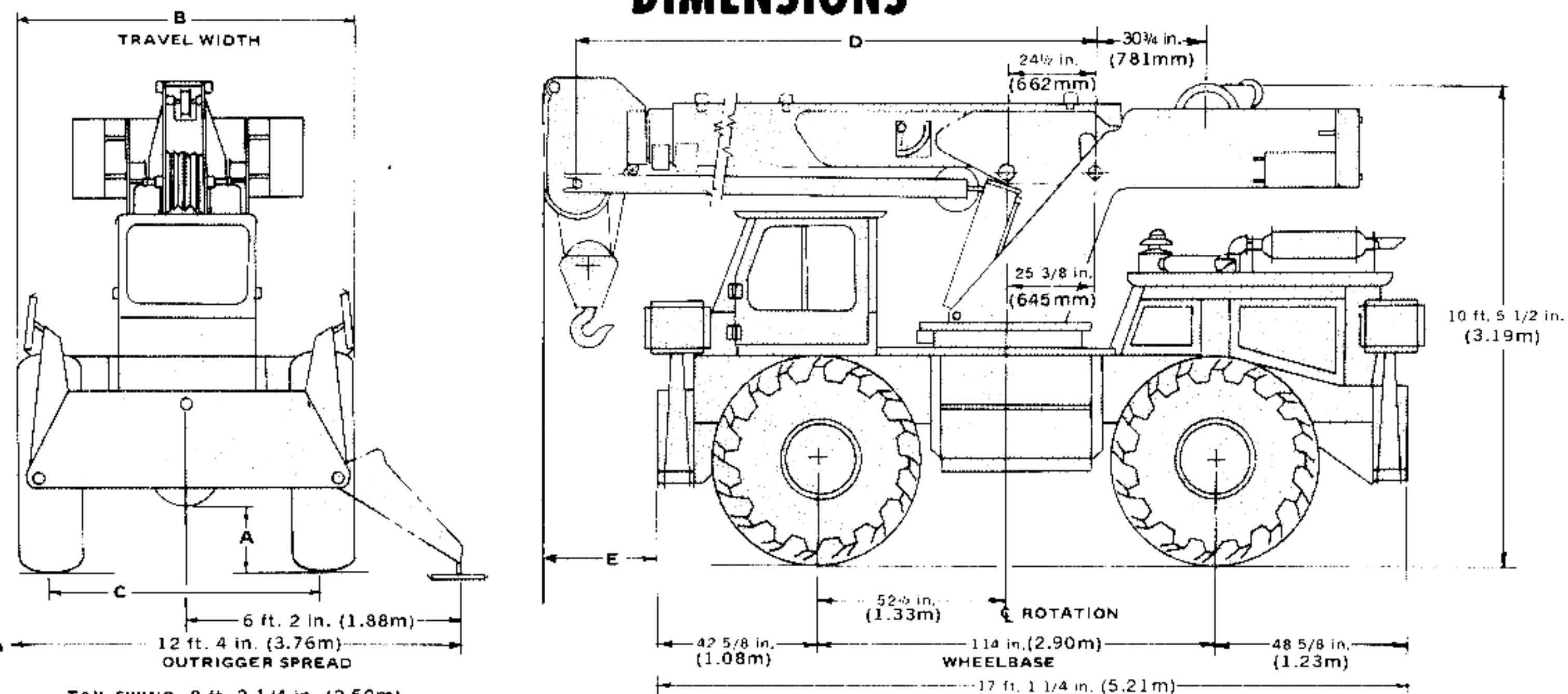
STANDARD MACHINE WITH	TOTAL WEIGHT		AXLE WEIGHT DISTRIBUTION			
			FRONT		REAR	
	Lbs.	Kgs.	Lbs.	Kgs.	Lbs.	Kgs.
18-42 ft. (5.49-12.8m) BOOM	36,780	16,683	17,080	7,747	19,700	8,936
21-51 ft. (6.4-15.54m) BOOM	38,490	17,459	19,850	9,004	18,640	8,455
24-60 ft. (7.32-18.29m) BOOM	38,800-	17,600	22,800	10,342	16,000	7,258

NOTE: Weights may vary plus or minus 3% due to manufacturing tolerances.

*DENOTES OPTIONAL EQUIPMENT

Constant improvement and engineering progress make it necessary that we reserve the right to make specification, equipment, and price changes without notice.

DIMENSIONS



TIRE SIZE	A	B	C	BOOM	D	E
14.00 x 24	16 3/8 in. (416mm)	96 in. (2,44m)	79 1/2 in. (2,02m)	18 ft. - 42 ft. (5.49 - 12.80m)	17 ft. 7 1/2 in. (5.37m)	8 ft. 4 in. (2.54m)
17.5 x 25	15 1/4 in. (387mm)	96 in. (2,44m)	77 1/2 in. (1,97m)	21 ft. - 51 ft. (6.40 - 15.54m)	20 ft. 7 1/2 in. (6.29m)	11 ft. 4 in. (3.54m)
				24 ft. - 60 ft. (7.32 - 18.29m)	23 ft. 7 1/2 in. (7.20m)	14 ft. 4 in. (4.37m)

MORE PROFITABLE MORE VERSATILE for a wider variety of lifting & handling jobs!

THE PREFERENCE FOR GROVE CRANES among profit-minded users reflects the users need for the versatility and advanced design engineering offered in all Grove Hydraulic Cranes. They add up to profit-making performance . . . a measurable value that tells him he is getting his money's worth on his Grove Crane investment. That's why the smart crane buyers have made Grove their NUMBER ONE CHOICE.

A FULL LINE OF HYDRAULIC CRANES . . . in addition to a full line of rough terrain cranes, Grove also offers a complete line of carrier-mounted cranes including a 125-ton (113.4mt) model with a boom tip height of 267' (81.4m). Ask your Grove Distributor for details.



HYDRAULIC CRANES

GROVE MANUFACTURING COMPANY
Division of Walter Kidde & Company, Inc.

KIDDE

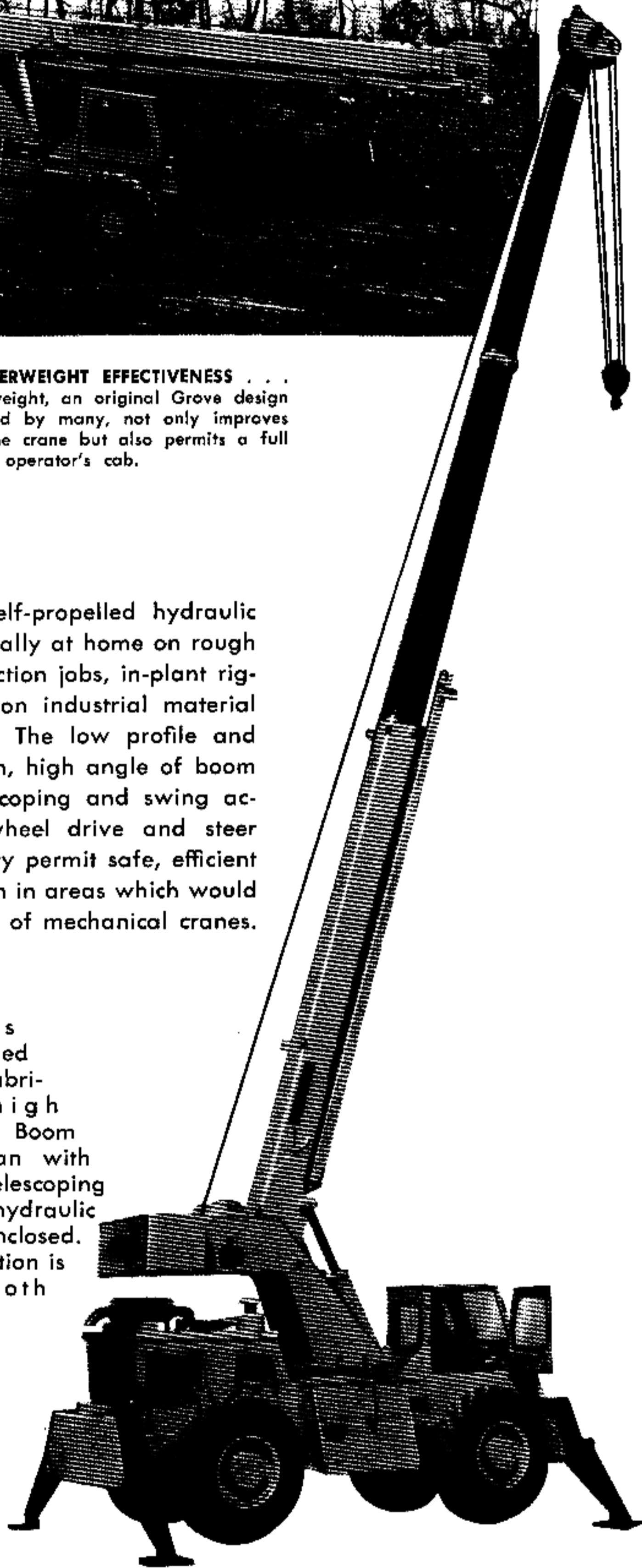
Box 21
Shady Grove, Pennsylvania 17256



MAXIMUM COUNTERWEIGHT EFFECTIVENESS . . .
The fixed counterweight, an original Grove design concept now copied by many, not only improves the efficiency of the crane but also permits a full sized, comfortable operator's cab.

Grove RT58 self-propelled hydraulic cranes are equally at home on rough terrain construction jobs, in-plant rigging jobs, or on industrial material handling jobs. The low profile and compact design, high angle of boom elevation, telescoping and swing action, plus 4-wheel drive and steer maneuverability permit safe, efficient crane operation in areas which would restrict the use of mechanical cranes.

Grove booms are of welded box design fabricated of high strength steel. Boom design is clean with all boom telescoping cylinders and hydraulic hoses totally enclosed. Telescoping action is always smooth and precise.



GROVE

FULL HYDRAULIC

SELF-PROPELLED CRANE



RATED LIFTING CAPACITIES IN POUNDS

17 - 29 ft. BOOM

Radius in Feet	ON OUTRIGGERS		ON RUBBER	
	Over Front	360°	Over Front	360°
10	28,000	28,000	22,100	15,800
12	28,000	24,000	18,050	10,870
15	26,000	18,000	14,600	8,540
20	16,500	12,300	8,900	5,970
25	12,500	9,500	6,500	4,340

18 - 42 ft. BOOM

Radius in Feet	ON OUTRIGGERS		ON RUBBER	
	Over Front	360°	Over Front	360°
10	28,000	28,000	21,500	15,300
12	27,750	23,500	17,500	10,350
15	25,500	17,400	14,000	8,000
20	15,900	11,700	8,330	5,400
25	11,700	8,700	5,860	3,700
30	8,925	6,700	4,250	2,465
35	6,800	5,250	3,140	1,600
40	5,350	4,250	2,360	1,300

24 - 60 ft. BOOM

PCSA CLASS (10-33)

Radius in Feet	ON OUTRIGGERS		ON RUBBER	
	Over Front	360°	Over Front	360°
10	28,000	28,000	21,500	15,300
12	27,750	23,500	17,500	10,350
15	25,500	17,400	12,900	7,000
20	15,900	11,700	8,100	3,950
25	11,700	8,200	5,450	2,600
30	8,300	5,750	3,600	1,700
35	6,100	4,500	2,400	1,000
40	4,900	3,300	1,500	500
45	3,600	2,600	1,000	
50	2,750	1,900	500	
55	2,400	1,200		
58	2,000	500		

21 - 51 ft. BOOM

PCSA CLASS (10-35)

Radius in Feet	ON OUTRIGGERS		ON RUBBER	
	Over Front	360°	Over Front	360°
10	28,000	28,000	21,500	15,300
12	27,750	23,500	17,500	10,350
15	25,500	17,400	13,500	7,500
20	15,900	11,700	8,250	4,500
25	11,700	8,500	5,700	3,200
30	8,500	5,950	3,900	2,100
35	6,500	4,675	3,000	1,300
40	5,100	3,550	2,100	850
45	4,000	3,000	1,700	
49	3,175	2,450	1,000	

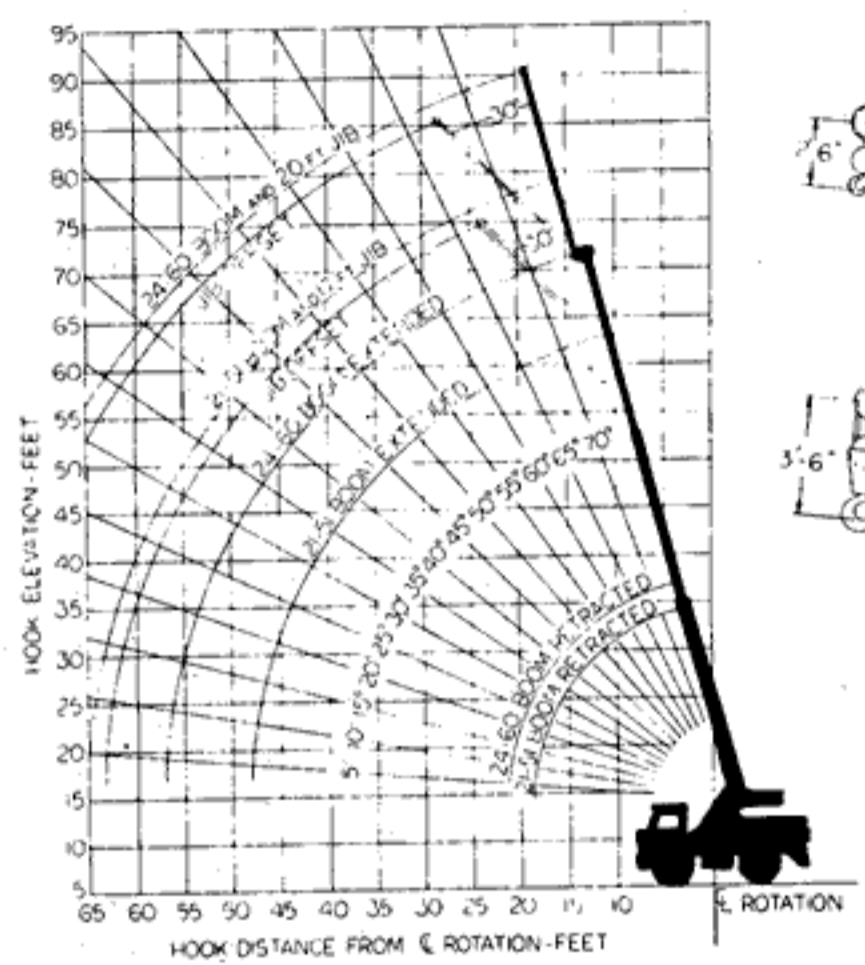
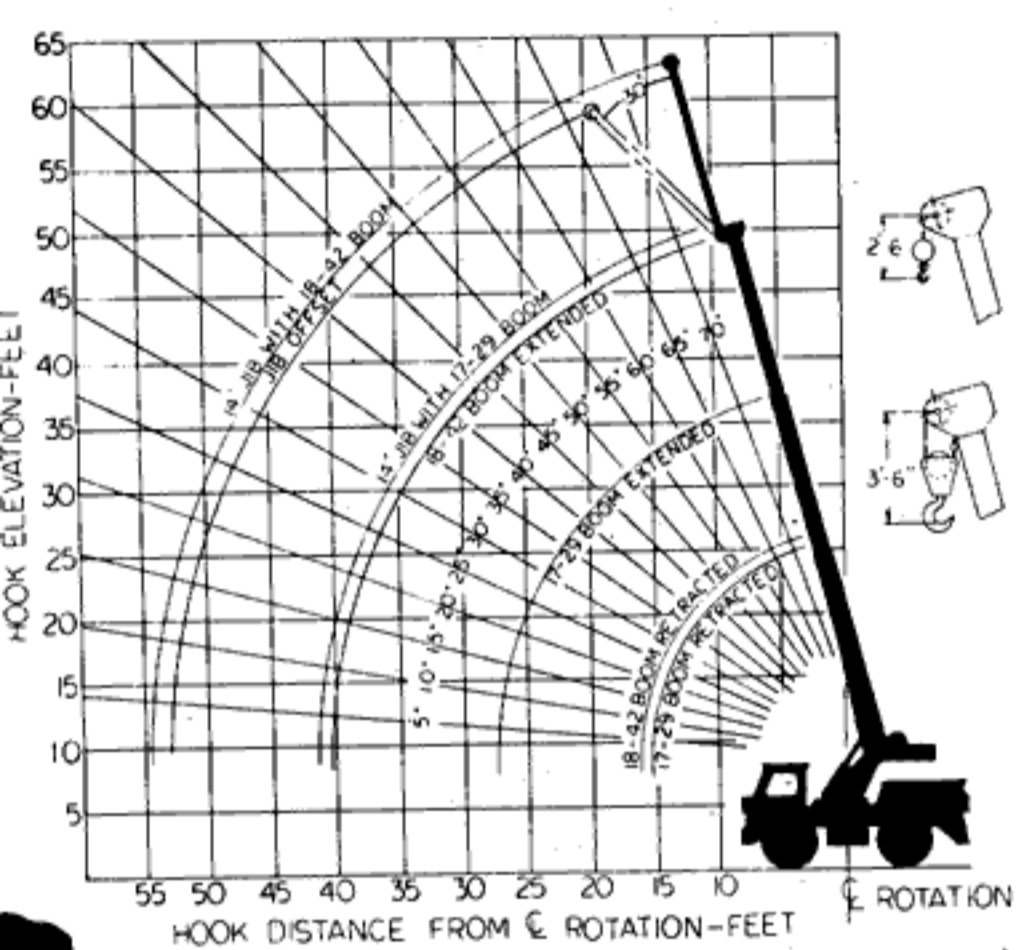
Capacities appearing in shaded area are based on structural strength and stability should not be relied upon as a capacity limitation. Capacities do not exceed 85% of tipping loads as determined by test in accordance with SAE recommended practice - Crane Load Stability Test Code - SAE J-765.

NOTES

1. Rated lifting capacities are based on freely suspended loads. They are the maximum covered by the manufacturer's warranty with the machine leveled and standing on a firm supporting surface. Ratings with outriggers are based on outriggers being extended to their maximum positions.
2. Practical working loads for each particular job shall be established by the user depending on operating conditions; including the supporting surface, wind and other factors affecting stability, hazardous surroundings, experience of personnel, handling of load, etc.
3. Operating radius is the horizontal distance from the axis of rotation to the centerline of the hoist line or tackle with loads applied.
4. "On Rubber" lifting (if permitted) depends on proper tire inflation, capacity, and condition. "On Rubber" loads may be transported at a maximum vehicle speed of 2.5 mi/hr. (4 km./hr.) on a smooth and level surface only.
5. Jibs may be used for lifting crane service only. Jib capacities are based on structural strength of jib or main boom and on main boom angle regardless of boom length.
6. Operation is not intended or approved for any conditions outside of those shown hereon. Handling of personnel from the boom is not authorized except with equipment furnished and installed by Grove Manufacturing Company.
7. For clamshell or concrete bucket operation, weight of bucket and load must not exceed 90% of rated lifting capacities.
8. Power-telescoping boom sections must be extended equally at all times. Long cantilever booms can create a tipping condition when in extended and lowered position.
9. The maximum load which may be telescoped is limited by hydraulic pressure, boom angle, boom lubrication, etc. It is safe to attempt to telescope any load within the limits of rated lifting capacity chart.
10. With certain boom and hoist tackle combinations, maximum capacities may not be obtainable with standard rope lengths.
11. With certain boom and load combinations, raising of load with boom lift cylinders may not be possible. Operational safety is not affected by this condition.
12. Keep load handling devices a minimum of 12 inches (30 CM) below boom head when lowering or extending boom.
13. For multiple part reeving, use one part of line for each 7,000 lbs. of load.
14. All load handling devices and/or boom attachments are considered part of the load and suitable allowances must be made.

RANGE DIAGRAM
17 - 29 ft. and 18 - 42 ft. BOOMS

RANGE DIAGRAM
21 - 51 ft. and 24 - 60 ft. BOOMS



14 & 17 ft. JIB CAPACITIES

Min. Boom Angle	No Offset	Max. Offset 30°
75	6,200	3,600
70	5,000	3,000
65	4,300	2,500
60	3,700	2,100
55	3,300	1,850
50	2,600	1,700
45	2,400	1,575
40	2,200	1,500
30	1,900	

20 ft. JIB CAPACITIES

Min. Boom Angle	No Offset	Max. Offset 30°
75	6,200	2,600
70	5,000	2,400
65	4,300	2,300
60	3,700	2,150
55	3,300	2,100
50	2,600	1,650
45	2,400	1,500
40	2,200	1,460
30	1,900	1,200



GROVE MANUFACTURING COMPANY

A DIVISION OF WALTER KIDDE & COMPANY, INC.

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MEMBER: POWER CRANE & SHOVEL ASSOCIATION

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