



RATED LIFTING CAPACITIES

ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	Main Boom Length in Feet								
	33	38	44	50	56	62	68	74	80
10	70,000 (64.5)	52,000 (68)	51,000 (71)						
12	52,500 (60.5)	52,000 (64.5)	51,000 (68.5)	44,900 (71.5)	40,500 (73.5)				
15	42,000 (54)	42,000 (59.5)	42,000 (64)	40,200 (67.5)	36,000 (70.5)	31,000 (72.5)	26,000 (74.5)		
20	30,000 (42.5)	30,000 (50)	30,000 (56.5)	30,000 (61)	30,000 (64.5)	24,500 (67.5)	23,000 (70)	21,500 (72)	20,000 (73.5)
25	22,700 (26.5)	22,700 (39)	22,700 (48)	22,700 (54.5)	22,700 (59)	20,800 (62.5)	19,750 (65.5)	18,200 (67.5)	17,700 (69.5)
30		17,000 (24.5)	17,000 (38.5)	17,000 (47)	17,000 (52.5)	17,000 (57)	16,650 (60.5)	15,800 (63.5)	14,950 (65.5)
35	See Warning Note 16		12,540 (26)	12,540 (38)	12,540 (46)	12,540 (51)	12,540 (55.5)	12,540 (59)	12,540 (61.5)
40				9,900 (27.5)	9,900 (38)	9,900 (45)	9,900 (50)	9,900 (54)	9,900 (57.5)
45					8,100 (28.5)	8,100 (37.5)	8,100 (44)	8,100 (49)	8,100 (53)
50					6,700 (13)	6,700 (29)	6,700 (37.5)	6,700 (43.5)	6,700 (48)
55						5,600 (16.5)	5,600 (29.5)	5,600 (37.5)	5,600 (43)
60							4,700 (19)	4,700 (30.5)	4,700 (37.5)
65								3,950 (21)	3,950 (30.5)
70									3,230 (22.5)
74									2,760 (11)
Minimum boom angle (deg.) for indicated length (no load)									0
Maximum boom length (ft.) at 0 deg. boom angle (no load)									80

NOTE: Boom angles are in degrees.

A6-829-007575 & -007587

ON RUBBER CAPACITIES

Radius in Feet	Stationary Capacity	Stationary Capacity	Stationary Capacity	Pick & Carry Cap. Up to 2.5 MPH
	Boom Centered Over Front	Defined Arc (2) Over Front	360° Arc	Boom Centered (6) Over Front
10	48,230 (a)	37,400 (a)	23,000 (b)	37,600 (a)
12	41,850 (b)	31,300 (a)	18,000 (c)	32,500 (a)
15	35,680 (b)	25,600 (b)	12,640 (d)	27,500 (a)
20	22,550 (c)	19,500 (e)	6,220 (e)	20,250 (a)
25	14,850 (e)	14,850 (e)	3,680 (h)	14,850 (b)
30	10,470 (f)	10,470 (f)	2,330 (i)	10,470 (b)
35	8,020 (f)	8,020 (f)	1,430 (i)	8,020 (c)
40	6,290 (f)	6,290 (f)		6,290 (d)
45	5,030 (i)	5,030 (i)		5,030 (f)
50	4,070 (i)	4,070 (i)		4,070 (f)
55	3,320 (i)	3,320 (i)		3,320 (f)
60	2,720 (i)	2,720 (i)		2,720 (g)
65	2,220 (i)	2,220 (i)		2,220 (h)
70	1,760 (i)	1,760 (i)		1,760 (i)
74	1,450 (i)	1,450 (i)		1,450 (i)

A6-829-007609A

Max
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(a)
(b)
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RT635

35 TON CAPACITY
33 ft. - 80 ft. BOOM

(FULL POWER)

PCSA CLASS 10-99

85% OF TIPPING - ON OUTRIGGERS

75% OF TIPPING - ON RUBBER

LOAD CAPACITIES IN POUNDS

ON OUTRIGGERS FULLY EXTENDED - OVER FRONT

Radius in Feet	Main Boom Length in Feet									
	33	38	44	50	56	62	68	74	80	
10	70,000 (64.5)	52,000 (68)	51,000 (71)							
12	52,500 (60.5)	52,000 (64.5)	51,000 (68.5)	44,900 (71.5)	40,500 (73.5)					
15	42,000 (54)	42,000 (59.5)	42,000 (64)	40,200 (67.5)	36,000 (70.5)	31,000 (72.5)	26,000 (74.5)			
20	30,000 (42.5)	30,000 (50)	30,000 (56.5)	30,000 (61)	30,000 (64.5)	24,500 (67.5)	23,000 (70)	21,500 (72)	20,000 (73.5)	
25	22,700 (26.5)	22,700 (39)	22,700 (48)	22,700 (54.5)	22,700 (59)	20,800 (62.5)	19,750 (65.5)	18,200 (67.5)	17,700 (69.5)	
30		17,800 (24.5)	17,800 (38.5)	17,800 (47)	17,800 (52.5)	17,400 (57)	16,650 (60.5)	15,800 (63.5)	14,950 (65.5)	
35	See Warning Note 16		14,900 (26)	14,900 (38)	14,900 (46)	14,900 (51)	14,200 (55.5)	13,700 (59)	12,900 (61.5)	
40				12,600 (27.5)	12,600 (38)	12,600 (45)	12,600 (50)	12,000 (54)	11,400 (57.5)	
45					10,500 (28.5)	10,500 (37.5)	10,500 (44)	10,500 (49)	10,100 (53)	
50					9,320 (13)	9,320 (29)	9,320 (37.5)	9,320 (43.5)	9,050 (48)	
55						8,120 (16.5)	8,120 (29.5)	8,120 (37.5)	8,120 (43)	
60							7,120 (19)	7,120 (30.5)	7,120 (37.5)	
65								6,260 (21)	6,260 (30.5)	
70									5,530 (22.5)	
74									4,800 (11)	
	Minimum boom angle (deg.) for indicated length (no load)									0
	Maximum boom length (ft.) at 0 deg. boom angle (no load)									80

NOTE: Boom angles are in degrees.

A6-829-007573 & -007587

NOTES FOR ON RUBBER CAPACITIES

Maximum Permissible
Boom Length:

- (a) 32 ft. (e) 56 ft.
(b) 38 ft. (f) 62 ft.
(c) 44 ft. (g) 68 ft.
(d) 50 ft. (h) 74 ft.
 (i) 80 ft.

		Main Boom 80 ft.
Front (No Load)	Min. boom angle (deg.) for indicated length	0
	Max. boom length (ft.) at 0 deg. boom angle	80
360° (No Load)	Min. boom angle (deg.) for indicated length	49
	Max. boom length (ft.) at 0 deg. boom angle	48.5

- Capacities do not exceed 75% of tipping loads as determined by test in accordance with SAE J-765.
- Defined Arc - Over front includes $\pm 6^\circ$ on either side of longitudinal centerline of machine.
- Capacities are applicable only with machine on firm level surface.
- Axle lockouts must be functioning before lifting on rubber. (Check automatic lockout system for proper functioning; refer to "Operation and Maintenance Manual" for description of a proper functioning axle lockout system).
- All rubber lifting depends on proper tire inflation, capacity and condition. Capacities must be reduced for lower tire inflation pressures. Damaged tires are hazardous to safe operation of crane.
- For pick & carry operation, boom must be centered over front of machine, mechanical swing lock engaged and load restrained from swinging. When handling loads in the structural range with capacities close to maximum ratings, travel should be reduced to creep speeds.
- On rubber lifting with boom extension or jib is not permitted.
- Creep - not over 200 ft. (61 m) of movement in any 30 minute period and not exceed 1 mph (1.6 kph).
- Capacities are applicable to machines equipped with the following tires:

Size	Static & Creep Cold Inflation Pressure	2.5 MPH (4.0 KPH) Cold Inflation Pressure
	16.00x25 (28 PR)	100 PSI
18.00x25 (24 PR)	100 PSI	80 PSI
23.5x25 (24 PR)	75 PSI	60 PSI
Michelin 23.5x25 XRA*	75 PSI	65 PSI

GROVE®

FULL HYDRAULIC

SELF-PROPELLED CRANE

NOTES FOR LIFTING CAPACITIES

GENERAL:

1. Rated loads as shown on capacity chart pertain to this crane as originally manufactured and equipped. Modifications to the crane or use of optional equipment other than that specified can result in a reduction of capacity. Use only the jib or boom extension supplied with this crane, do not substitute jibs or boom extensions without the written approval of Grove Mfg. Co.
2. Construction equipment can be hazardous if improperly operated or maintained. Operation and maintenance shall be in compliance with the information in the Operator's and Safety Handbooks, Service and Parts Manuals supplied with this crane. If these manuals are missing, order replacements from the manufacturer.
3. The operator and other personnel associated with this crane shall fully acquaint themselves with the latest applicable American National Standards Institute (ANSI) Safety Standards for cranes.

SETUP:

1. The crane shall be leveled on a firm supporting surface. Depending on the nature of the supporting surface, it may be necessary to have structural supports of sufficient strength under the outrigger floats or tires to spread the load to a larger bearing surface.
2. For outrigger operation, outriggers shall be fully extended with tires raised free of crane weight before operating the boom or lifting loads.
3. When equipped with front jack cylinder, the front jack cylinder shall be set in accordance with the written procedure.
4. When equipped with extendable counterweight, the counterweight shall be fully extended before operation.
5. Tires shall be inflated to the recommended pressure before lifting on rubber.
6. With certain boom and hoist tackle combinations, maximum capacities may not be obtainable with standard cable lengths.
7. Rotation resistant wire rope is best suited for single line lifting operations. Consult the wire rope manufacturer for specific recommendations concerning multiple part reeving.
8. Do not transport crane with boom extension or jib erected.

OPERATION:

1. Rated loads at rated radius shall not be exceeded. Do not tip the machine to determine allowable loads. For clamshell operation, weight of load must not exceed 80% of rated lifting capacities.
2. All rated loads have been tested to and meet minimum requirements of SAE J1063 OCT80 - Cantilevered Boom Crane Structures - Method of Test, and do not exceed 85% of the tipping load as determined by SAE J765 OCT80 Crane Stability Test Code.
3. Rated loads include the weight of hook block, slings and auxiliary lifting devices and their combined weights shall be subtracted from the listed ratings to obtain the net load which may be lifted.
4. Load ratings are based on freely suspended loads. No attempt shall be made to move a load horizontally on the ground in any direction.
5. Rated loads do not account for wind on lifted load or boom. It is recommended when wind velocity is above 20 MPH (32 km/h), rated loads and boom lengths be appropriately reduced.
6. Rated loads are for lift crane service only.
7. Do not operate at a radius or boom length where capacities are not listed. At these positions, the crane may overturn without any load on the hook.
8. The maximum load which can be telescoped is not definable because of variations in loadings and crane maintenance, but it is safe to attempt retraction and extension within the limits of the capacity chart.
9. When either boom length or radius or both are between values listed, the smallest load shown at either the next larger radius or boom length shall be used.
10. For safe operation, the user shall make due allowances for his particular job conditions, such as: soft or uneven ground, out of level conditions, high winds, side loads, pendulum action, jerking or sudden stopping of loads, hazardous conditions, experience of personnel, two machine lifts, traveling with loads, electric wires, etc. Side pull on boom or jib is extremely dangerous.
11. Power telescoping boom sections must be extended equally at all times.
12. Handling of personnel from the boom is not authorized except with equipment furnished and installed by Grove Manufacturing Company.
13. Keep load handling devices a minimum of 18 inches (45.7 cm) below boom head at all times.
14. The boom angle before loading should be greater than the loaded boom angle to account for deflection.
15. Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation.
16. Capacities for the 33 ft. (10.1 m) boom length shall be lifted with boom fully retracted. If boom is not fully retracted, capacities shall not exceed those shown for the 38 ft. (11.6 m) boom length.

DEFINITIONS:

1. Operating Radius: Horizontal distance from a projection of the axis of rotation to the supporting surface before loading to the center of the vertical hoist line or tackle with load applied.
2. Loaded Boom Angle (Shown in parenthesis on main boom capacity chart): is the angle between the boom base section and the horizontal, after lifting the rated load at the rated radius with the rated boom length.
3. Working Area: Areas measured in a circular arc about the center line of rotation as shown on the working area diagram.
4. Freely Suspended Load: Load hanging free with no direct external force applied except by the lift cable.
5. Side Load: Horizontal force applied to the lifted load either on the ground or in the air.

RT635

35 TON CAPACITY
33 ft. - 80 ft. BOOM
(FULL POWER)

PCSA CLASS 10-99
85% OF TIPPING - ON OUTRIGGERS
75% OF TIPPING - ON RUBBER

EXT. CAPACITIES IN POUNDS 30' FIXED EXTENSION ON OUTRIGGERS - 360°

Main Boom Angle	0° OFFSET		15° OFFSET		30° OFFSET	
	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.
75°	26.7	10,350	32.8	7,660	38.8	5,310
70	35.7	8,790	41.6	6,530	47.2	4,850
65	44.4	7,080	49.9	5,550	55.2	4,470
60	52.7	5,890	57.8	4,810	62.7	4,170
55	60.7	4,930	65.3	4,230	69.7	3,810
50	68.1	4,070	72.2	3,470	76.1	3,000
45	75.0	3,150	78.6	2,730	81.9	2,380
40	81.2	2,470	84.3	2,170	87.1	1,920
35	86.9	1,950	89.3	1,740	91.6	1,560

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NOTES FOR 30' FIXED EXTENSION

- All capacities above the bold line are based on structural strength of boom extension and do not exceed 85% of tipping loads, in accordance with SAE J-765a.
- 30 ft. (9.3 m) fixed length boom extension length may be used for double or single line lifting service.
- Rated load is based on loaded main boom angle with reference to horizontal, regardless of main boom length. (Ref. radius is for fully extended boom length only.)
WARNING: Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.
- Capacities listed are with fully extended outriggers only.
- Warning for 30 ft. (9.3 m) Boom Extension: For main boom length greater than 74 ft. (22.6 m) with 30 ft. (9.3 m) fixed length boom extension in working position, the boom angle must not be less than 20° since loss of stability will occur causing a tipping condition. The boom angle is not restricted for main boom length equal to or less than 74 ft. (22.6 m). This warning applies for boom extension erection purposes also.

30 ft. - 54 ft. TELE. BOOM EXTENSION

Main Boom Angle	30 ft. LENGTH						42 ft. LENGTH						54 ft. LENGTH					
	0° OFFSET		15° OFFSET		30° OFFSET		0° OFFSET		15° OFFSET		30° OFFSET		0° OFFSET		15° OFFSET		30° OFFSET	
	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.
75°	26.7	10,000	32.8	7,300	38.8	4,950	30.9	7,700	39.3	5,090	48.2	3,750	35.1	6,150	46.0	3,750	57.2	2,690
70	35.7	8,430	41.6	6,170	47.2	4,490	40.8	6,950	48.8	4,610	57.1	3,460	46.0	5,340	56.4	3,300	66.7	2,480
65	44.4	6,720	49.9	5,190	55.2	4,110	50.3	5,280	58.1	3,900	65.6	3,230	56.5	4,380	66.3	2,970	75.6	2,320
60	52.7	5,530	57.8	4,450	62.7	3,810	59.5	4,350	66.7	3,360	73.6	2,890	66.5	3,470	75.7	2,620	83.9	2,190
55	60.7	4,570	65.3	3,870	69.7	3,320	68.3	3,660	74.9	2,940	80.9	2,510	76.1	2,920	84.6	2,290	91.6	1,870
50	68.1	3,550	72.2	2,970	76.1	2,500	76.4	3,030	82.5	2,350	87.7	1,840	85.0	2,430	92.7	1,780	98.6	1,370
45	75.0	2,630	78.6	2,220	81.9	1,880	84.0	2,190	89.4	1,690	93.7	1,340	93.3	1,740	100.2	1,270		
40	81.2	1,950	84.3	1,650	87.1	1,410	90.9	1,560	95.7	1,190								
35	86.9	1,420	89.3	1,220	91.6	1,050												

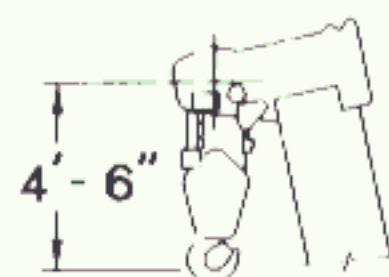
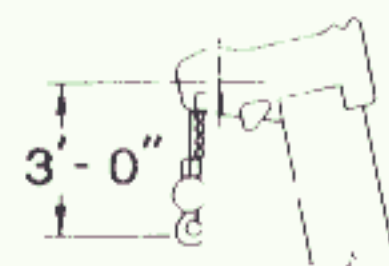
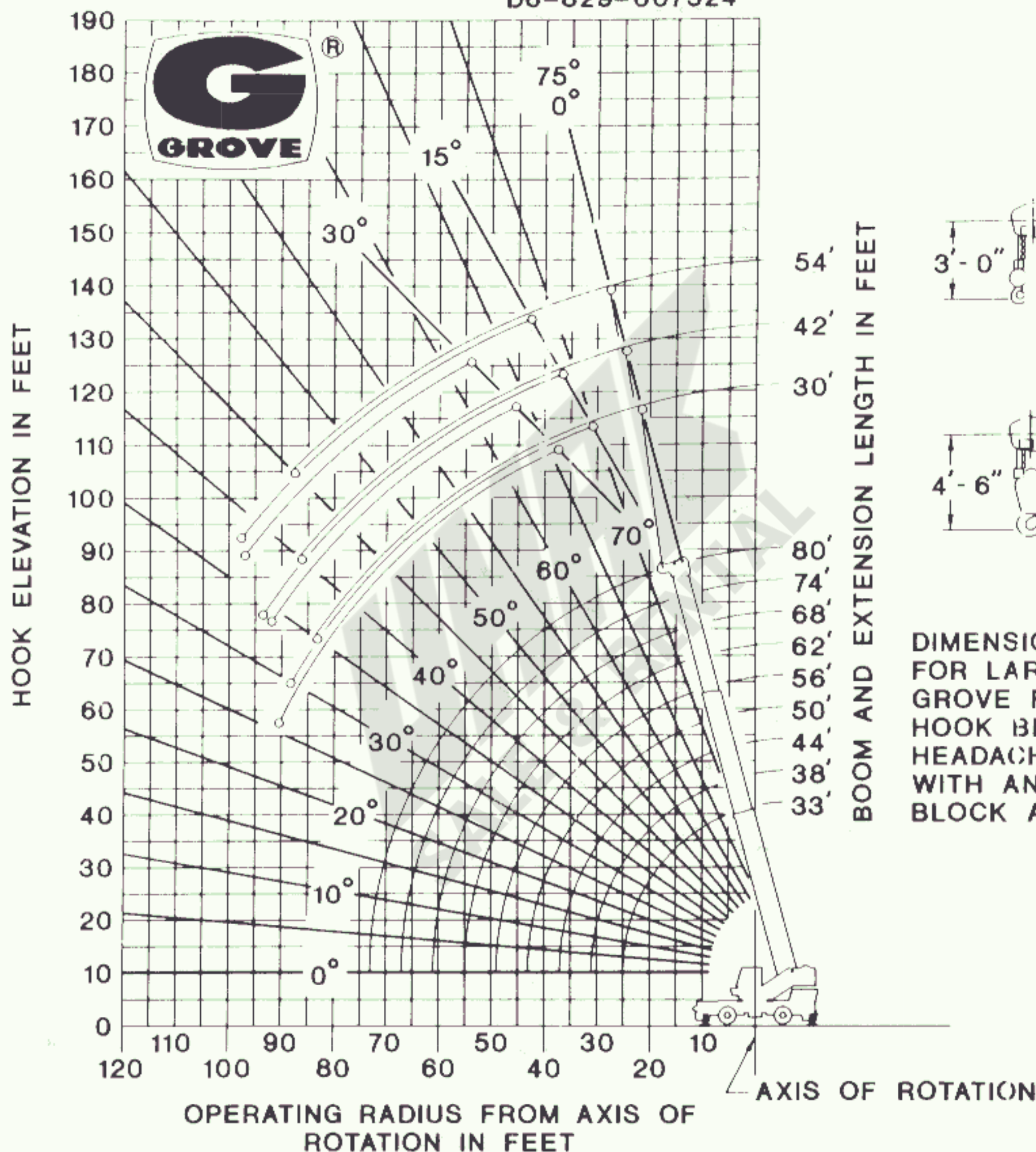
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NOTES WITH TELESCOPIC BOOM EXTENSION

- All capacities above the bold line are based on structural strength of boom extension and do not exceed 85% of tipping loads, in accordance with SAE J-765a.
- 30 ft. (9.3 m), 42 ft. (12.8 m) & 54 ft. (16.4 m) boom extension lengths may be used for double or single line lifting service.
- Rated load is based on loaded main boom angle with reference to horizontal, regardless of main boom length. (Ref. radius is for fully extended boom length only.)
WARNING: Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.
- Capacities listed are with fully extended outriggers only.
- *Warning for 30 ft. (9.3 m) Boom Extension: For main boom length greater than 68 ft. (20.7 m) with 30 ft. (9.3 m) tele. boom extension in working position, the boom angle must not be less than 33° since loss of stability will occur causing a tipping condition. The boom angle is not restricted for main boom length equal to or less than 68 ft. (20.7 m).
 *Warning for 42 ft. (12.8 m) Boom Extension: For main boom length greater than 62 ft. (18.9 m) with 42 ft. (12.8 m) tele. boom extension in working position, the boom angle must not be less than 38° since loss of stability will occur causing a tipping condition. The boom angle is not restricted for main boom length equal to or less than 62 ft. (18.9 m).
 *Warning for 54 ft. (16.4 m) Boom Extension: For main boom length greater than 56 ft. (17.1 m) with 54 ft. (16.4 m) tele. boom extension in working position, the boom angle must not be less than 43° since loss of stability will occur causing a tipping condition. The boom angle is not restricted for main boom length equal to or less than 56 ft. (17.1 m).
 *This warning applies for boom extension erection purposes also.

RANGE DIAGRAM

D6-829-007524



DIMENSIONS ARE FOR LARGEST GROVE FURNISHED HOOK BLOCK AND HEADACHE BALL, WITH ANTI-TWO BLOCK ACTIVATED.

WEIGHT REDUCTION FOR LOAD HANDLING DEVICES

30 ft. BOOM EXTENSION	
†Stowed	- 573 lbs.
†Erected	- 3,243 lbs.
30 ft. - 54 ft. Tele. Boom Extension with 33 ft. - 80 ft. Boom	
†Stowed	- 834 lbs.
†Erected (retracted)	- 4,973 lbs.
†Erected (extended)	- 6,650 lbs.

†Reduction of Main Boom Capacities.

HOOKBLOCK:	
35 Ton, 4 Sheave	600 lbs.
12 Ton, 1 Sheave	360 lbs.
Auxiliary Boom Head	110 lbs.
5 Ton Headache Ball	172 lbs.
7 1/2 Ton Headache Ball	338 lbs.

NOTE: All load handling devices and boom attachments are considered part of the load and suitable allowances MUST BE MADE for their combined weights. Weights are for Grove furnished equipment.



RT635

Rough-Terrain Hydraulic Crane/Capacity 35 Tons (30 MT)

SUPERSTRUCTURE SPECIFICATIONS

ANTI-TWO BLOCK SYSTEMS

("HAP" & "HLAP") - Basic "HAP" is an audio-visual (light/buzzer) warning system to alert operator to an impending two-block condition, that further incorporates electronic in-cab display of boom angle with high and low angle presets. Hook-block or headache ball coming in contact with weight suspended from boom nose switch activates the audio-visual warning system on the display panel located within easy view of operator. "HLAP" is the same as HAP, but further incorporates selective electronic in-cab display of boom length in feet and meters. An additional option available to all anti-two block systems is Grove control lever lockout of: hoist up, telescope out, and boom down crane functions.

*LOAD MOMENT AND ANTI-TWO BLOCK SYSTEM (KRUEGER

"LMI") - A load moment indicating and anti-two block system with audio-visual warning and control lever lockout of: hoist up, telescope out and boom down crane functions. Dash-mounted console displays relative load moment and also provides operator with selective electronic display of boom length and load radius in feet and meters and boom angle in degrees. Angle indicator has high and low "presets" with audio-visual warning system.

CAB - Acoustically treated, one-man turntable-mounted, fully enclosed with tinted safety glass throughout, hinged skylight, sliding left side door, deluxe fabric/vinyl high back seat with folding arm-rests, sliding right side window, outrigger level indicator, windshield wiper and washer, horn, door and window locks, domelight, dashlight, 2-3/4 lb. (1.25 kg) dry type fire extinguisher and worklight.

Optional are: *diesel or propane heaters with hot air defroster, manual skylight wiper, spotlight, air conditioning.

CONTROLS - Dash-mounted, hand-operated control levers for swing, boom telescope, rear steer, boom elevation, *auxiliary hoist and main hoist. Foot-operated controls consist of swing brake, boom elevation, service brakes and engine throttle. Right hand console includes transmission gear selection, high-low range selection, engine hand throttle, outrigger controls, emergency parking brake, *heater controls, console panel light, engine start/stop.

INSTRUMENTATION - Engine oil pressure and water temperature, voltmeter, tachometer, transmission/converter oil temperature, A/V warning for low air system pressure, and electric fuel gauge. *Optional are: emergency steer indicator, rear wheel alignment indicator, and engine low oil pressure and high water temperature A/V warning.

MAIN BOOM - 32 ft. to 106 ft. (9.8m to 32.2m) total length; 3 section trapezoidal† full power positive mechanically synchronized main boom consisting of base section and 2 full power sections to 80 ft. (24.3m) plus a 26 ft. (7.9m) "swing-away" lattice boom extension (2° offset) to 106 ft. (32.3m). Boom extension is accomplished by a 7 in. (178mm) bore, double-acting telescope cylinder with integral holding valve which extends the mid section. Fly section is then mechanically extended by a 1-1/8 in. (29mm) diameter cable attached to the mid section which ensures positive synchronization at all boom lengths.

BOOM NOSE - Five lower sheaves, 13-3/4 in. (349mm) tread diameter mounted on roller bearings. Two upper floating idler sheaves, 13-3/4 in. (349mm) tread diameter, mounted on bronze bushing.

***AUXILIARY BOOM NOSE** - Removable sheave, 13-3/4 in. (349mm) tread diameter, mounted to main boom nose for single line work.

LATTICE BOOM EXTENSION -

Standard 26 ft. (7.9m) lattice "swing-away" boom extension stows alongside base boom section. Boom extension swings into position; attaches and is held to main boom nose with 4 pins. Swing-away is offset 2° from main boom nose.

***JIB** - 22 ft. (6.7m) "A"-frame section attaches to sheave shaft of the 26 ft. (7.9m) lattice "swingaway" boom extension. Jib stows beneath extension alongside base boom section for travel. Jib can be offset 5°, 15° and 30°.

BOOM ELEVATION - Single double-acting 10 in. (254mm) bore cylinder with integral holding valves provide elevation from -4° to 75°. Electronic, in-cab boom angle indicator with high and low angle presets (Krueger "HAP") is standard.

SWING - Planetary drive, 360° continuous rotation. Equipped with Grove "glide swing" with foot-activated multiple disc swing brake for precision stopping, hydraulic swing parking brake and two position plunger type houselock controlled from inside operator's cab. Externally driven swing circle bearing is bolted to superstructure and carrier. Maximum swing speed is 2.6 rpm. (*Automatic type swing brake and *360° positive swing lock are available.)

SUPERSTRUCTURE SPECIFICATIONS (continued)

COUNTERWEIGHT - Removable, bolted to turntable mast, stationary.

MISCELLANEOUS STANDARD EQUIPMENT - 2-3/4 lb. (1.3 kg) dry type fire extinguisher, console and

domelight, circulating air fan, electric horn, seat belt, tachometer, centrally located hydraulic test panel.

***MISCELLANEOUS OPTIONAL EQUIPMENT** - Cab spotlight, 360°

beacon light, hoist drum cable foot lower, air conditioning.

†Patented Groove feature or patent pending.
*Denotes optional equipment.

MAIN HOIST SPECIFICATIONS

DESCRIPTION: Power up and down, equal speed, planetary reduction with integral automatic brake and electronic hoist drum rotation indicator.		
HOIST DATA	MAIN HOIST	*MAIN HOIST
	GROVE MODEL HO15H-16B	GROVE MODEL HO25-16A
DRUM DIMENSIONS	12 in. dia. (305mm) 16 in. length (406mm) 17.5 in. flange dia. (445mm)	16 in. dia. (406mm) 16 in. length (406mm) 24 in. flange dia. (610mm)
PERFORMANCE:		
MAX. SINGLE LINE SPEED		
BARE DRUM	287 FPM (87.5m/min)	283 FPM (86.3 m/min)
MEAN DRUM	327 FPM (99.7m/min)	333 FPM (101.5 m/min)
FULL DRUM	379 FPM (115.5 m/min)	390 FPM (118.9 m/min)
MAX. SINGLE LINE PULL		
BARE DRUM	9,165 lbs. (4157 kg)	9,250 lbs. (4196 kg)
MEAN DRUM	8,025 lbs. (3640 kg)	8,180 lbs. (3719 kg)
FULL DRUM	6,930 lbs. (3143 kg)	6,975 lbs. (3164 kg)
DRUM ROPE CAPACITY		
-MAX. STORAGE	480 ft. of 5/8 in. dia. rope (146m of 16mm)	890 ft. of 5/8 in. dia. rope (271.3m of 16mm)
**MAX. USABLE	365 ft. of 5/8 in. dia. rope (111m of 16mm)	740 ft. of 5/8 in. dia. rope (225.6m of 16mm)
PERMISSIBLE SINGLE LINE ROPE PULL W/ 3.5:1 SAFETY FACTOR	5/8 in. (16mm) 6x37 class 7,926 lbs. (3595 kg)	5/8 in. (16mm) 6x37 class 8,418 lbs. (3818 kg)
	5/8 in. (16mm) 19x7 class 7,926 lbs. (3595 kg)	5/8 in. (16mm) 19x7 class 8,418 lbs. (3818 kg)

*AUXILIARY HOIST SPECIFICATIONS

DESCRIPTION: Power up and down, equal speed, planetary reduction with integral automatic brake and electronic hoist drum rotation indicator.		
HOIST DATA	AUXILIARY HOIST	*AUXILIARY HOIST
	GROVE MODEL HO15S-16B	(CONTROLLED FREE FALL) GEARMATIC MODEL 25
DRUM DIMENSIONS	12 in. dia. (305mm) 16 in. length (406mm) 17.5 in. flange dia. (445mm)	9 in. dia. (229mm) 13 in. length (330mm) 17.5 in. flange dia. (445mm)
PERFORMANCE:		
MAX. SINGLE LINE SPEED		
BARE DRUM	5/8 in. (16mm) dia. rope 154 FPM (46.9m/min)	1/2 in. (13mm) dia. rope 154 FPM (46.9 m/min)
MEAN DRUM	177 FPM (53.9m/min)	183 FPM (55.8 m/min)
FULL DRUM	204 FPM (62.2 m/min)	206 FPM (62.8 m/min)
MAX. SINGLE LINE PULL		
BARE DRUM	9,165 lbs. (4157 kg)	9,165 lbs. (4157 kg)
MEAN DRUM	8,025 lbs. (3640 kg)	7,730 lbs. (3506 kg)
FULL DRUM	6,930 lbs. (3143 kg)	6,890 lbs. (3125 kg)
DRUM ROPE CAPACITY		
-MAX. STORAGE	480 ft. of 5/8 in. dia. rope (146.3m of 16mm)	720 ft. of 1/2 in. dia. rope (219.5m of 13mm)
**MAX. USABLE	365 ft. of 5/8 in. dia. rope (111.2m of 16mm)	585 ft. of 1/2 in. dia. rope (178.3m of 13mm)
PERMISSIBLE SINGLE LINE ROPE PULL W/ 3.5:1 SAFETY FACTOR	5/8 in. (16mm) 6x37 class 7,926 lbs. (3595 kg)	1/2 in. (13mm) 6x37 class 7,600 lbs. (3447 kg)
	5/8 in. (16mm) 19x7 class 7,926 lbs. (3595 kg)	1/2 in. (13mm) 19x7 class 6,150 lbs. (2790 kg)
		1/2 in. (13mm) 6x37 class 7,600 lbs. (3447 kg)
		1/2 in. (13mm) 19x7 class 6,150 lbs. (2790 kg)

NOTES: *Denotes Optional Equipment.

+5th layer of rope not recommended for hoisting operations, (6th layer for model HO15S-16B with 1/2 in. (13mm) rope, 7th layer for model HO25-16 hoist; 9th layer for Gearmatic Model 25).

**With wire rope minimum 1/2 in. (13mm) below top of drum flange.

19x7 is a non-spin rope intended for single line operation and is not recommended for multiple part reeving.

CHASSIS SPECIFICATIONS

FRAME - All-welded box-type construction reinforced to ensure a rigid turntable mounting. Front and rear combination lifting, towing and tie-down lugs are integral with main frame.

OUTRIGGERS - Front and rear hydraulic double-box beam and jack type. *Optional are the exclusive Grove \dagger spinlocks which permit the outrigger vertical jacks to be positively locked in any position throughout their stroke.

TRANSMISSION AND TORQUE CONVERTER - Remote mounted powershift with rear axle disconnect for (4x2) high range drive. Converter is engine mounted with PTO drive for hydraulic pumps. Transmission has 6 forward and 6 reverse speed ranges; 3 speeds high range (4x2 drive), 3 speeds low range (4x4 drive).

AXLES - Front: Planetary drive/steer type mounted rigid to frame. Rear: Planetary drive/steer type pivot mounted to permit 0-10 in. (0-254mm) of oscillation.

OSCILLATION LOCKOUTS - Automatic full hydraulic on rear axle permits oscillation only with boom centered over-the-front. Automatic rear axle lockout assures a rigid platform when lifting on-rubber over the side (*manual electric override control for rear axle oscillation lockout is optional).

SERVICE BRAKES - Full air dual circuit on all 4 wheels. Size: 20-1/4 in. x 4 in. (514mm x 102mm) with 24 sq. in. (155 cm²) chambers. Total lining area 486 sq. in. (3135 cm²). Standard air dryer minimizes moisture accumulation in the system.

PARKING BRAKE - Spring-applied, air-released, cab-controlled acting on all four wheels.

STEERING - Front: Power assist hydraulic, controlled by steering wheel.

Rear: Full hydraulic, tiller bar control. Independent front and rear steer control allows operator to choose mode of travel for optimum maneuverability. *(Rear wheel steer indicator optional).

TIRES - 23.5x25 - (24PR) Earth-mover type, tubeless. *Optional are 18.00x25 - (24PR) and 16.00x25 - (28PR) Earthmover type, tubeless, and 23.5x25 Michelin 2 star radial.

WHEELS - All steel, disc type.

***TOW WINCH** - Front mounted, cab-controlled by rear steer lever via selector valve, (less rope and hook). Single line pull: 9,070 to 13,500 lb. (4,114 to 6,124 kg); single line speed: 50 to 75 fpm (15-23 m/min.); maximum drum rope storage capacity: 340 ft. (104m) of 5/8" (16mm) diameter.

MISCELLANEOUS STANDARD EQUIPMENT - Air cleaner service indicator, complete light package, full width fenders, front storage well, hourmeter, dual rear view mirrors, ether injection cold start aid (less canister).

***MISCELLANEOUS OPTIONAL EQUIPMENT** - Electronic back-up alarm, pintle hooks, tire inflation kit, electric emergency auxiliary steering system.

HYDRAULIC SYSTEM

PUMPS - 3 section, gear-type - combined capacity 112.5 GPM (426 LPM). *Optional is a pump disconnect with engine jogging switch. Separate power steer pump 18.7 GPM (71 LPM).

RESERVOIR - 137 gallon (518 liter) with cleanout access, exterior sight level gauge and breather cap. Strap mounted to frame.

FILTER - Return line replaceable cartridge 25 micron with bypass protection and filter bypass indicator.

CONTROL VALVES - Four-way double-acting with integral relief valves. Three individual valve banks permit simultaneous independent control of multiple crane functions. Maximum operating pressure 2,500 PSI (175.8 kg/cm²).

OIL COOLER - Full flow, fin and tube, oil to air.

POWER DISTRIBUTION - [Main hoist - 39.5 GPM (150 LPM) at 2,250 PSI (158.1 kg/cm²)]. [Main hoist boost, *auxiliary hoist, lift and telescope - 46.5 GPM (176 LPM) at 2,500 PSI (175.8 kg/cm²)]. [Rear steer, swing, *tow winch and outriggers - 26.5 GPM (100 LPM) at 2,250 PSI (158.1 kg/cm²)].

**Patented Grove feature or patent pending.
†Denotes optional equipment.*

ENGINE SPECIFICATIONS

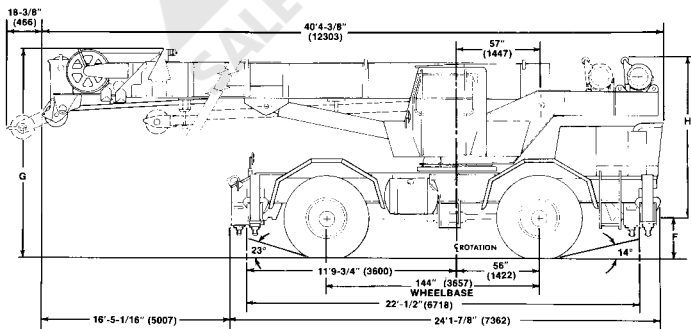
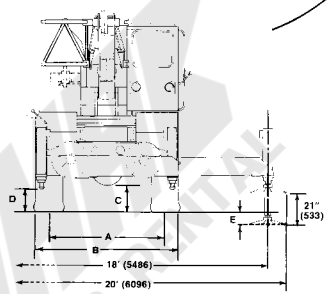
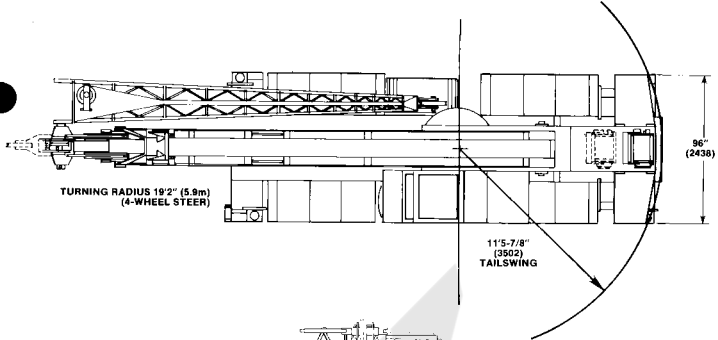
MAKE & MODEL	Detroit Diesel 8.2L	*Cummins Diesel V504C	*Caterpillar 3208 Diesel
TYPE	8 cyl. OHV, diesel	8 cyl. OHV, diesel	8 cyl. OHV, diesel
COMBUSTION	4 cycle, naturally aspirated	4 cycle, naturally aspirated	4 cycle, naturally aspirated
BORE & STROKE	4.25"x4.41" (108x112mm)	4.625"x3.75" (117x95mm)	4.5"x5.0" (119.3x127mm)
DISPLACEMENT	500 cu. in. (8,194 cm ³)	504 cu. in. (8,261 cm ³)	636 cu. in. (10,424 cm ³)
HORSEPOWER (GROSS)	160 @ 2800 RPM (119 kw)	177 @ 2500 RPM (132 kw)	160 @ 2500 RPM (119 kw)
TORQUE (GROSS)	324 ft. lb. @ 1200 RPM (41 kg/m)	339 ft. lb. @ 1900 RPM (46.8 kg/m)	330 ft. lb. @ 1300 RPM (45.5 kg/m)
COOLING SYSTEM	Liquid	Liquid	Liquid
ALTERNATOR	90 AMP, 12 volt	90 AMP, 12 volt	90 AMP, 12 volt
BATTERY	(2) 625 CCA @ 0°F	(4) 475 CCA @ 0°F	(4) 475 CCA @ 0°F
AIR COMPRESSOR	12.5 CFM (354 liter/min)	13.2 CFM (374 liter/min)	12 CFM (340 liter/min)
AIR CLEANER	2 stage, dry type	2 stage, dry type	2 stage, dry type
ELECTRICAL/ STARTING SYSTEM	12/24 volt, negative ground	12/24 volt, negative ground	12/24 volt, negative ground
FUEL TANK	(1) 60 gal. (227 liter)	(1) 60 gal. (227 liter)	(1) 60 gal. (227 liter)

CCA = Cold Cranking Amperage per battery.
*Denotes optional equipment.

DIMENSIONS

	A	B	C	D	E	F	G	Main Hoist	H
16:00x25 (28PR)	77-1/2" (1968)	96" (2438)	16-3/4" (427)	15-1/4" (390)	7-1/2" (190)	27" (685)	11'7-1/2" (3543)	15H-16B	108" (2743)
18:00x25 (24PR)	77-1/2" (1968)	107" (2717)	18" (457)	16-1/2" (419)	8-1/2" (214)	28-1/4" (716)	11'8-3/4" (3576)	25-16A	111-1/2" (2832)
23.5x25 (24PR)	81-3/8" (2066)	107" (2717)	18-1/2" (473)	17-1/4" (436)	7-3/4" (196)	28-3/4" (731)	11'9-3/8" (3591)		

NOTE: Dimensions shown in parentheses () are metric.



SPEED AND GRADEABILITY PERFORMANCE

GEAR SHIFT	SPEED @ MAX. GOVERNED RPM				MAX. TRACTIVE EFFORT AND GRADEABILITY @ STALL					
	LOW RANGE (4x4)		HIGH RANGE (4x2)		LOW RANGE (4x4)			HIGH RANGE (4x2)		
	MPH	KM/HR	MPH	KM/HR	LBS	KG	% GRADE	LBS	KG	% GRADE
1st	2.8	4.2	6.8	10.3	42,312	18,830	93.7	17,017	7,573	27.3
2nd	6.0	9.0	14.0	21.2	19,496	8,676	31.9	7,815	3,478	11.1
3rd	13.1	19.8	27.6	39.3	8,404	3,740	12.1	3,361	1,496	3.6

NOTE: Performance data based on 59,000 lb. (26,762 kg) GVW and standard SAE engine rating conditions for a unit with standard tire transmission, engine, and axles. Performance data may vary plus or minus 10% due to variations in engine performance and vehicle weights. Machines should be operated within the limits of crank case design (30°-CAT., 20°-GM, and 40°-CUMMINS).

APPROXIMATE MACHINE WEIGHTS

CONFIGURATION	GVW	FRONT	REAR
Basic Std. Machine w/ 26' Swingaway	57,467 lbs. (26,067 kg)	29,508 lbs. (13,385 kg)	27,959 lbs. (12,682 kg)
Basic Std. Machine w/ 26' Swingaway and 22' A-Frame Jib	58,467 lbs. (26,521 kg)	30,880 lbs. (14,007 kg)	27,587 lbs. (12,514 kg)

NOTE: With boom lowered in travel position and with standard tires, engine, axles, counterweight, etc. Weights include maximum capacity hookblock suspended from boom and properly secured for travel. Weights can vary ± 2% due to manufacturing tolerances, etc. Figures within parentheses () are metric.



GROVE MANUFACTURING COMPANY

Division of Kidde, Inc.

KIDDE

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Constant improvement and engineering progress makes it necessary that we reserve the right to make specification, equipment, and price changes without notice. Illustrations shown may include optional equipment and accessories and may not include all standard equipment.