

# GROVE

MODEL 1012D

17.5-Ton

YARD CRANE

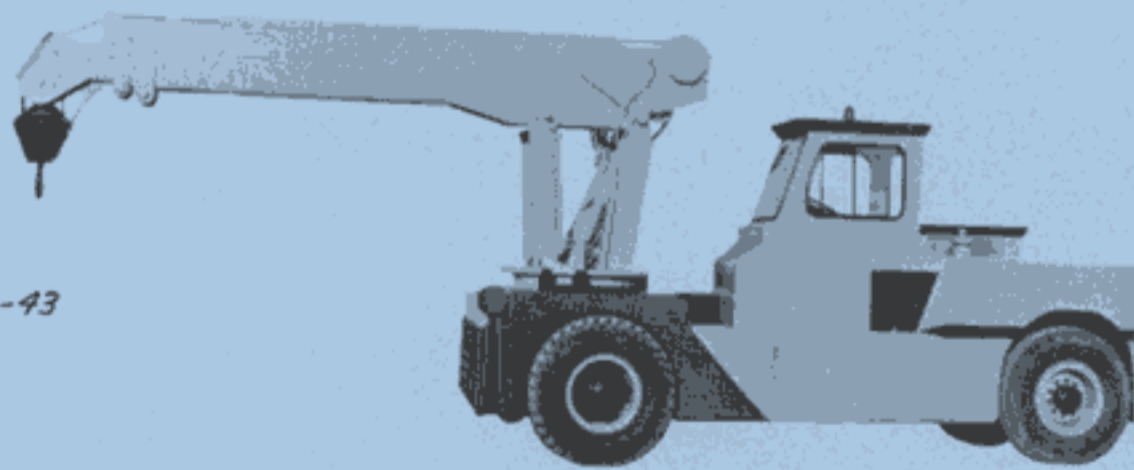
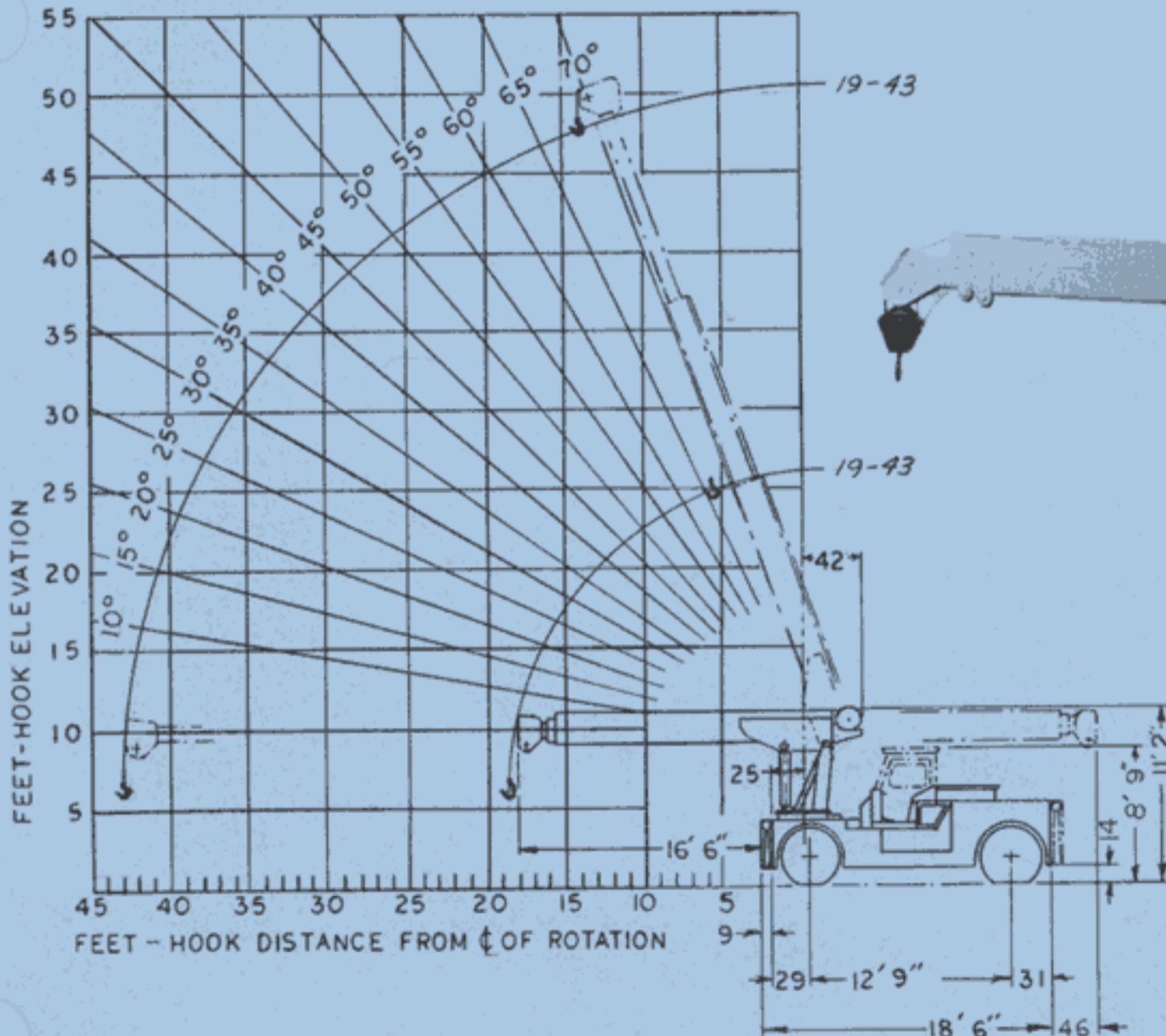
## RATED LIFTING CAPACITIES

Radius From $\phi$ Of Rotation	19-43' BOOM		
	Front Outriggers 140° Swing *	Without Outriggers **	
		Front	Side (70°)
6 ft.	35000	30000	22700
10	30000	18800	12400
14	25000	14000	8400
18	20000	10500	5000
22	15100	7700	3800
26	11100	5200	2860
28	10100	4400	2400
30	9000	3800	1970
34	7250	2900	1400
38	5875	2600	1140
42	5000	2400	960

### NOTES

1. Rated lifting capacities, with or without outriggers, are the maximum loads covered by the manufacturer's warranty with the machine standing on a firm, level and uniform supporting surface. Capacities do not exceed 85% of tipping.
2. For certain conditions, capacities are controlled by machinery strength. In these cases, machine tipping must not be relied upon as the capacity limitation.
3. For clamshell and magnet operation, weight of bucket and load should not exceed 90% of lifting capacities.
4. The weights of all load-handling devices are considered part of the load lifted and suitable allowances for them should be made.
- \* 5. To maintain capacities from 141° through 360° swing, Rear Outriggers are required.
- \*\* 6. Rear axle lockouts must be set to maintain published capacities.

ALL BOOM LENGTHS ARE CALCULATED FROM  $\phi$  OF ROTATION TO  $\phi$  OF HOOK



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# GROVE Hydraulic CRANES

## SPECIFICATIONS Model 1012D - YARD CRANE

### SUPERSTRUCTURE

- BOOM** — Full power telescope  
19-43', 3-section, 24' telescope, with boom-mounted hoist winch.
- BOOM ELEVATION** — 0° through 70°; independent control; TWIN double-acting hydraulic cylinders.
- HOIST WINCH (MAIN)** — Boom mounted, model 40SECR; power up and down; hydraulic motor driven planetary gear with integral automatic brake; drum - 9" diameter; drum capacity - 300' (½"); single line pull - 8000# maximum; single line speed (no load) - 175 fpm maximum.
- CABLE** — ½" x 200'; no hook block; **BOOM HEAD** - three sheave
- SWING** — 140° rotation; ball-bearing swing circle, actuated by TWIN hydraulic cylinders with cushion valve; speed 3.0 RPM.
- \* 1. 270° rotation; ball bearing swing circle, external ring gear and pinion with worm drive reduction unit powered by hydraulic motor; swing speed 3.0 RPM.
  - \* 2. 360° continuous rotation, specifications same as #1; with rotary coupling.

### CHASSIS

- FRAME** — Ruggedly-designed one-piece weldment with steel I-beam main frame, cross members, counterweight, enclosed with heavy gauge protective steel shell, engine hood and sides.
- OUTRIGGERS** — Front only — hydraulic, individually and independently controlled from operator's position; safety check valves.
- \* **REAR OUTRIGGERS**

ENGINE	GAS	* GAS	* DIESEL
MAKE	Ford 300	Ford 361	GM 4-53 4-Valve
TYPE	6 Cyl. O. H. V.	8 Cyl. O. H. V.	4 Cyl. O. H. V.
BORE AND STROKE	4.00" x 3.98"	4.05" x 3.50"	3.875" x 4.50"
GROSS B. H. P.	149 @ 2800 RPM	168 @ 2800 RPM	130 @ 2800 RPM
GROSS TORQUE	284 @ 2000 RPM	330 @ 2000 RPM	271 @ 1500 RPM
GOVERNOR (Mechanical)	2800 RPM	2800 RPM	2800 RPM
ELECTRIC SYSTEM	12 Volt	12 Volt	12 Volt HD Battery

- TRANSMISSION AND TORQUE CONVERTER** — 4 speed forward and reverse transmission. Torque converter with dry disc type spring-loaded clutch.
- \* **AUTOMATIC TRANSMISSION AND TORQUE CONVERTER** — Power shift, constant mesh; 4 speed forward and reverse, with torque converter. Full-flow oil cooler with external heat exchanger and dash-mounted oil temperature gauge.
- DRIVE SHAFT** — Heavy duty industrial type with double universal needle bearing joints.
- PARKING BRAKE** — Hand lever control, mechanical, mounted on transmission drive line. Mico brake lock on service brakes.
- DRIVING AXLE, FRONT** — Planetary, full floating axle shafts, spiral bevel differential, with 16½" x 6" air brakes.
- STEERING AXLE, REAR** — Wide track. Axle oscillation 0" to 10" with two (2) positive hydraulic ram oscillation lockouts, controlled from operator's position.
- TURNING RADIUS** — 17' 6"
- TIRES** — FRONT (4) 12.00 x 20-16 ply non-directional  
REAR (2) 12.00 x 20-16 ply highway tread
- \* **FRONT ONLY** (4) 12.00 x 20 - 16 ply rock service universal
- WIDTH (overall)** with standard tires — 8'3"

ROAD SPEED	STANDARD TRANSMISSION AND ENGINE, @ 2400 RPM	DRAWBAR PULL	GRADEABILITY (No Load/Paved Surface)
1st Gear	2.13 MPH	28,400#	57.5 %
2nd Gear	4.41 MPH	13,500#	27.0 %
3rd Gear	8.10 MPH	6,490#	14.0 %
4th Gear	15.60 MPH	3,850#	7.75 %

- CONTROLS** — 4-way hydraulic valves, anti-cavitating, with main by-pass relief valve and independent circuit relief valves.
- PUMP** — Hydraulic, two pump system, gear type; 60 GPM combined capacity.
- \* **LIGHTS** — Two (2) recessed front head lamps; two (2) recessed rear combination tail and white back-up or work lights; horn.
- \* **CAB** — All steel, fully enclosed; skylight; safety glass windows; weather stripped; electric windshield wiper; left and right hand doors; hot water heater.
- \* **PINTLE HOOK** — Front and/or rear.
- \* **TOWING WINCH** — Hydraulic, model 40SCR, planetary gear, 11000# capacity, 6½" drum diameter, high speed payout, cable capacity — 300' of ½" diameter; (no cable); front or rear mounted.
- WEIGHT** — 50,000# approximate.
- \* **DENOTES OPTIONAL EQUIPMENT**

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

**GROVE MANUFACTURING COMPANY**  
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