



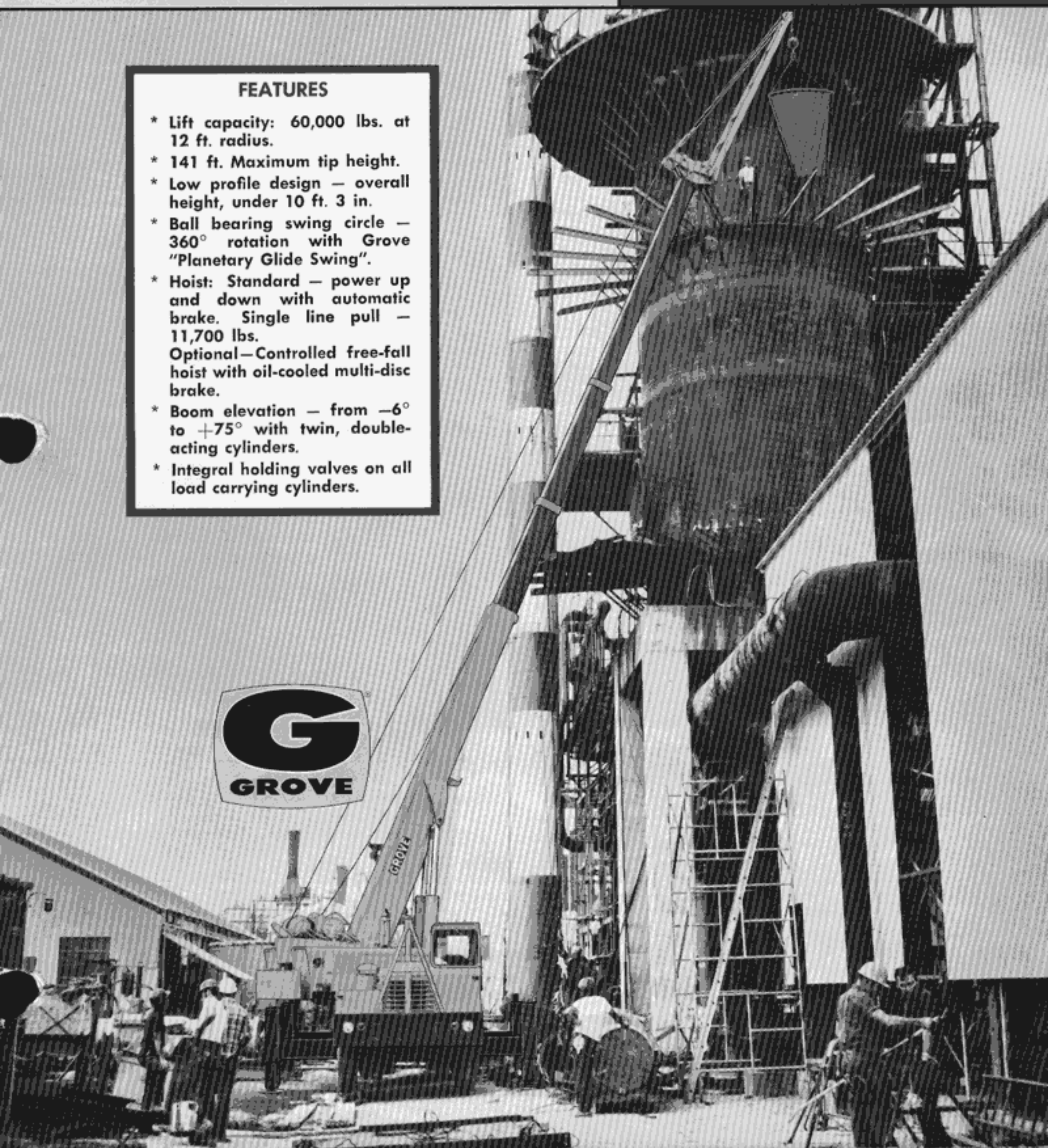
# **GROVE<sup>®</sup>**

## **FULL HYDRAULIC CARRIER-MOUNTED CRANE**

**MODEL  
TM275LP**  
**30-Ton Capacity**

### **FEATURES**

- \* Lift capacity: 60,000 lbs. at 12 ft. radius.
- \* 141 ft. Maximum tip height.
- \* Low profile design — overall height, under 10 ft. 3 in.
- \* Ball bearing swing circle — 360° rotation with Grove "Planetary Glide Swing".
- \* Hoist: Standard — power up and down with automatic brake. Single line pull — 11,700 lbs.  
Optional—Controlled free-fall hoist with oil-cooled multi-disc brake.
- \* Boom elevation — from -6° to +75° with twin, double-acting cylinders.
- \* Integral holding valves on all load carrying cylinders.



SUPERSTRUCTURE SPECIFICATIONS

**BOOMS** — 32 ft. - 80 ft., 3 section, full power telescoping boom.  
\*29 ft. - 92 ft., 4 section, power telescoping boom. Two full power sections, fly section power extended and retracted from pinned position.  
\*32 ft. - 101 ft., 4 section, power telescoping boom. Two full power sections, fly section power extended and retracted from pinned position.  
Integral holding valves on each telescope cylinder.

**BOOM NOSE** — Fixed boom nose with integral rope guards. Four sheaves mounted on anti-friction bearings. Rope dead ends on each side of boom nose.

**\*JIBS** — 20 ft. "Stowaway" for 32 ft. - 80 ft. or 29 ft. - 92 ft.  
24 ft. "Stowaway" for all booms  
24 ft. - 40 ft. telescoping jib (Not stowable)  
All jibs have self equalizing suspension and jib backstops.

**BOOM ELEVATION** — Dual double-acting hydraulic cylinders with integral holding valves. -6° to 75° boom elevation. Full power up and down. Combination control lever provided for hand or foot operation.

**SWING** — Bearing swing circle, 360° continuous rotation, "Grove Planetary Glide Swing" with foot actuated disc swing brake and hand operated turntable brake. Combination control lever provided for hand or foot operation. Swing speed 3 RPM.

**HYDRAULIC PUMP** — Four section gear driven from superstructure. Combined capacity 142 GPM.

**HYDRAULIC POWER DISTRIBUTION** — (Main hoist, auxiliary hoist - 2250 PSI) (Swing - 2250 PSI) (Outriggers, fly telescope, lift boost - 2250 PSI) (Lift, hoist boost, mid-telescope accessory - 2250 PSI)

**CONTROL VALVES** — Precision four-way double-acting with integral load check, main and circuit relief valves. Four individual valve banks permit simultaneous independent control of four crane functions.

**RESERVOIR** — 146 gallon, all steel welded construction with integral baffles and top clean-out access.

**FILTER** — Return line type; full flow with by-pass protection; replaceable cartridge.

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

**CAB** — All steel, fully enclosed, removable front and sliding rear laminated safety glass window. Optional at no charge, hinged skylight for additional ventilation. Full length control levers with combination hand and foot control for swing and boom elevation; fully adjustable operator's seat, full engine instruments, heater, windshield wiper, fire extinguisher, and door locks.

**COUNTERWEIGHT** — Turntable mounted; removable.

**OUTRIGGER CONTROL** — Independently controlled jacks and beams, in, out, up and down from superstructure cab. Sequence control arrangement eliminates accidental actuation.

HOIST SPECIFICATIONS

DESCRIPTION: Power up and down, equal speed, planetary reduction, with integral automatic brake.				
HOIST DATA	MAIN HOIST	*MAIN HOIST (Free Fall)	*AUXILIARY HOIST	*AUXILIARY HOIST (Free Fall)
Drum Dimensions	Model 5090 MECR 14.5 in. diameter 16 in. length 22.3 in. diameter flange	Model 5090 MGECR 14.5 in. diameter 16 in. length 22.3 in. diameter flange	Model 40 SECR 9 in. diameter 8 in. length 17.5 in. diameter flange	Model 40 SGECR 9 in. diameter 8 in. length 17.5 in. diameter flange
Performance	Single line speed 360 FPM (Max.) Single line pull 11,700 lbs. (Max.)	Same as 5090 MECR with Free Fall	Single line speed 290 FPM (Max.) Single line pull 9,000 lbs. (Max.)	Same as 40 SECR with Free Fall
Rope Capacity	690 ft. of 5/8 in. rope	690 ft. of 5/8 in. rope	400 ft. of 1/2 in. rope	400 ft. of 1/2 in. rope
Permissible Single Line Rope Pull	5/8 in. 6x37 - 9,700 lbs. 5/8 in. 19x7 - 8,700 lbs.	5/8 in. 6x37 - 9,700 lbs. 5/8 in. 19x7 - 8,700 lbs.	1/2 in. 6x37 - 7,200 lbs. 1/2 in. 19x7 - 6,150 lbs.	1/2 in. 6x37 - 7,200 lbs. 1/2 in. 19x7 - 6,150 lbs.

ENGINE SPECIFICATIONS

	GAS	*DIESEL	*DIESEL
MAKE	Ford 391	GM4-53N	Cummins V-378-C140
TYPE	V-8 Cylinder O.H.V.	4 Cylinder O.H.V.	V-6 Cylinder
BORE & STROKE	4.05" x 3.79"	3.875" x 4.50"	4.625" x 3.75"
NET HORSEPOWER	171 @ 2800 RPM	114 @ 2800 RPM	106 @ 2800 RPM
NET TORQUE	346 lbs. ft. @ 2100 RPM	260 lbs. ft. @ 1800 RPM	119 lbs. ft. @ 1800 RPM
GOVERNED RPM	2800 RPM	2800 RPM	2800 RPM
ELECTRICAL SYSTEM	12 Volt	12 Volt 55 AMP Alternator	12 Volt 55 AMP Alternator
COMBUSTION SYSTEM	4 cycle	2 cycle	4 cycle
COOLING SYSTEM	water cooled	water cooled	water cooled
FUEL CAPACITY	57 gallons	57 gallons	57 gallons

AXLE WEIGHT DISTRIBUTION CHART

CARRIER	BOOM	GROSS	FRONT	REAR
30 GH	32 ft.-80 ft.	63,894 lbs.	21,237 lbs.	42,657 lbs.
30 GH	29 ft.-92 ft.	62,194	22,500	39,694
30 GH	32 ft.-101 ft.	66,197	24,909	41,280
30 GC	32 ft.-80 ft.	64,148	20,148	44,000
30 GC	29 ft.-92 ft.	62,448	20,886	41,562
30 GC	32 ft.-101 ft.	66,451	23,820	42,631

CARRIER PERFORMANCE — GH

CONDITION @ FULL LOAD	SPEED RANGE	% OF GRADEABILITY @ MAX. TORQUE
STANDARD ENGINE, TIRES, TRANSMISSION, AXLES		
On Highway †	6.4 to 50 MPH	14.7 to 0.5%
Off Highway ††	2.4 to 19.6 MPH	41.3 to 3.8%
GM6-71N HEAVY DUTY TRANSMISSION		
On Highway †	7.3 to 48.95 MPH	16.99 to 0.80%
Off Highway ††	2.09 to 14.19 MPH	48.13 to 5.39%

†Auxiliary transmission in high range  
††Auxiliary transmission in low range

CARRIER PERFORMANCE — GC

CONDITION @ FULL LOAD	SPEED RANGE	% OF GRADEABILITY @ MAX. TORQUE
STANDARD ENGINE, TIRES, TRANSMISSION, AXLES		
On Highway†	7.0 to 50 MPH	10.9 to -0.6%
Off Highway††	2.5 to 20.2 MPH	31.8 to 3.1%
GM6-71N HEAVY DUTY TRANSMISSION		
On Highway†	8.3 to 48.6 MPH	10.1 to 0.0%
Off Highway††	2.3 to 15.5 MPH	37.7 to 5.0%

\*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.



## CARRIER SPECIFICATIONS MODELS 8 x 4

### 30 GC — 30 GH

**OVERALL WIDTH** — 8 ft. (2.44m)

**WHEELBASE** — 224 in. (5.69m)

**OUTRIGGERS** — Removable, hydraulic, double box outriggers. Beams extend to 16 ft. centerline to centerline retract to 8 ft. overall width; Vertical jacks with integral holding valves, steel covers and mechanical pin locks; Full hydraulic power in-out-up-down; Outrigger controls located in carrier cab.

**FRAME** — Lightweight high strength steel. All welded construction. Depth - 18 in.

**STEERING GEAR** — Ross TE71 cam and lever, roller mounted with hydraulic power assist.

**CLUTCH** — 14 in. single plate, dry disc type.

**TRANSMISSION** — (Main) 5CW65, 5 speeds forward and 1 reverse.  
(Auxiliary) 3K65, 3 speed - 30 GC  
3A65, 3 speed - 30 GH

**UNIVERSAL JOINTS** — Needle bearing type.

**AXLES** — Front: Tandem 32,000 lbs. Capacity  
Rear: Tandem 44,000 lbs. Capacity

**SUSPENSIONS** — Front: Spring loaded, tandem walking beams.  
Rear: Tandem axle, solid mount suspension.

**OVERALL CARRIER LENGTH** — 30 GC 30' - 8"  
30 GH 30' - 1/2"

**GROUND CLEARANCE** — 11"

**MINIMUM TURNING RADIUS** — GC 47' - 5 1/2"  
GH 48' - 2"

**TIRES** — Front : (4) 11.00x20 - 14 ply highway  
Rear : (8) 11.00x20 - 12 ply N.D.M. & S.

**WHEELS** — 20 in. Cast Spoke 8 in. Rim.

**BRAKES** — Service - Full air on six wheels with 12 CFM piston compressor.

**PARKING BRAKES** — Spring-set emergency chambers on one rear axle with emergency release kit.

**ELECTRICAL SYSTEM** — 12 volt lighting and starting. One 12V, 90 AMP battery, 37 AMP alternator. Federal safety standard lights and reflectors 30 GC (160 AMP battery, 42 AMP alternator - 30 GH)

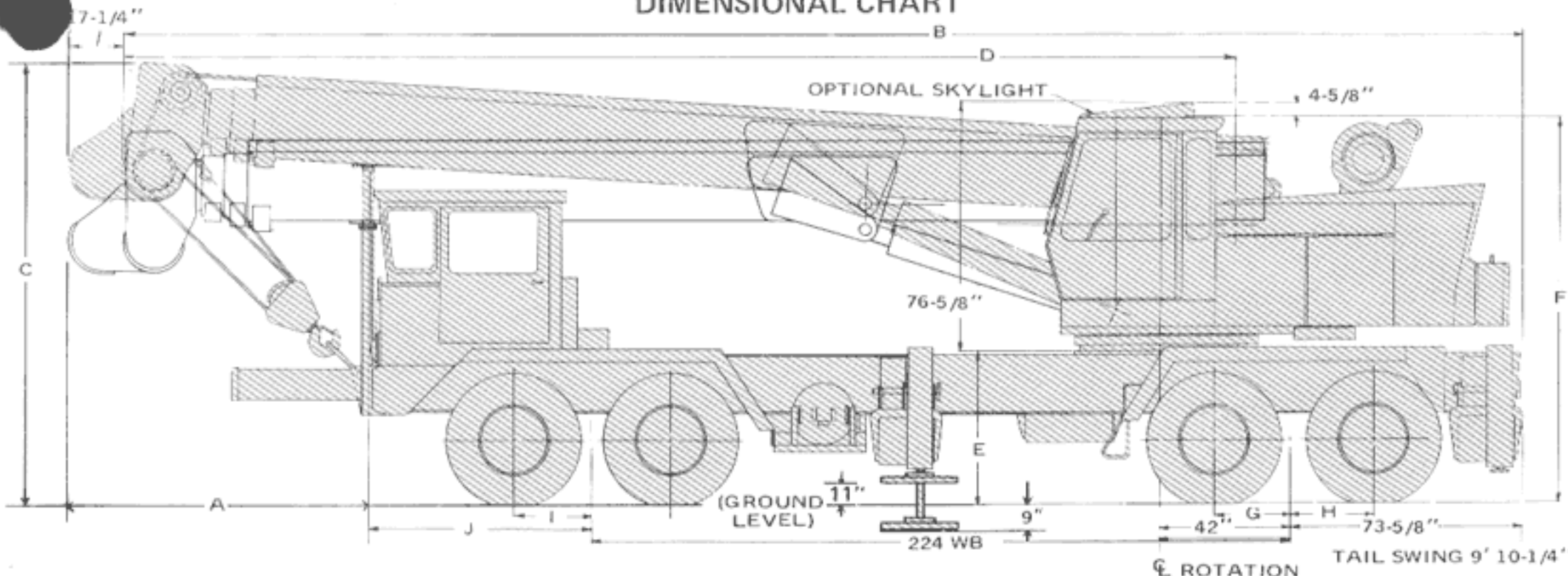
**CAB** — One man, safety glass windshield and windows, door and window locks, windshield washer and wiper, fire extinguisher, Bostrum "T" bar seat, seat belt, dual rear view mirrors, heater, defroster, engine instruments and carrier controls.

**MISCELLANEOUS EQUIPMENT** — Wheel nut wrench, channel type front bumper, two front towing loops and rear fender.

### ENGINE SPECIFICATIONS

	GAS	*DIESEL	*DIESEL
MAKE & MODEL	IHC RD501	GM6-71N	CUMMINS NH230
CYLINDERS	6	6	6
BORE & STROKE	4.5" x 5.25"	4.25" x 5.0"	5.5" x 6.0"
DISPLACEMENT	501 cu. in.	426 cu. in.	855 cu. in.
HORSEPOWER	214.8 @ 3000 RPM	238 @ 2100 RPM	230 @ 2100 RPM
GOVERNED @	2600 RPM	2100 RPM	2100 RPM
TORQUE	451 lbs. ft. @ 1600 RPM	649 lbs. ft. @ 1400 RPM	605 lbs. ft. @ 1500 RPM
AIR CLEANER	Dry type	Dry type	Dry type
FUEL CAPACITY	60 on GC	60 on GC	60 on GC
GALLONS	50 on GH	50 on GH	50 on GH

### DIMENSIONAL CHART



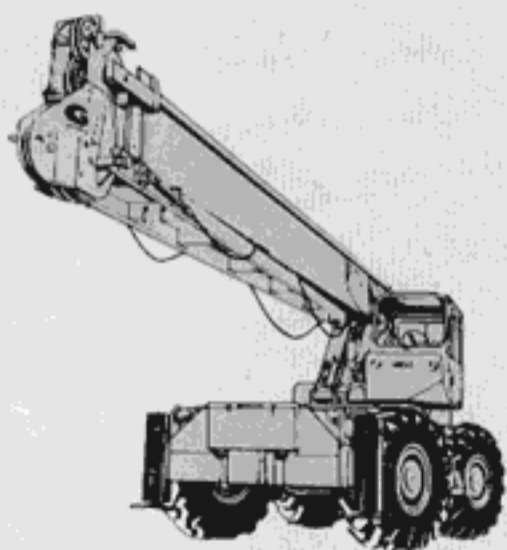
C. C. C. CARRIER										
KEY BOOM	A	B	C	D	E	F	G	H	I	J
32' - 80'	8' - 11"	39' - 7"	11' - 10-1/4"	31' - 11-3/4"	4' - 0-3/4"	10' - 1-1/4"	24-11/16"	26-1/4"	24-1/2"	70-7/16"
29' - 92'	6' - 6-3/4"	37' - 2-3/4"	11' - 7-1/4"	29' - 7-1/2"	4' - 0-3/4"	10' - 1-1/4"	24-11/16"	26-1/4"	24-1/2"	70-7/16"
32' - 101'	9' - 6-3/4"	40' - 2-3/4"	11' - 10-1/4"	32' - 7-13/32"	4' - 0-3/4"	10' - 1-1/4"	24-11/16"	26-1/4"	24-1/2"	70-7/16"
HENDRICKSON CARRIER										
KEY BOOM	A	B	C	D	E	F	G	H	I	J
32' - 80'	9' - 6-1/2"	39' - 6-19/32"	11' - 11-1/4"	31' - 11-3/4"	4' - 1-3/4"	10' - 2-1/4"	25"	25"	24"	65-1/2"
29' - 92'	7' - 2-1/4"	37' - 2-1/4"	11' - 8-1/4"	29' - 7-13/32"	4' - 1-3/4"	10' - 2-1/4"	25"	25"	24"	65-1/2"
32' - 101'	10' - 2-1/4"	40' - 2-1/4"	11' - 11-1/4"	32' - 7-13/32"	4' - 1-3/4"	10' - 2-1/4"	25"	25"	24"	65-1/2"



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

**THE PREFERENCE FOR GROVE CRANES** among profit-minded crane 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 carrier mounted cranes, Grove also offers a complete line of self-propelled cranes including a 30-ton model with performance features, reach and capacity to match the TM275LP. Ask your Grove Distributor for details.



## HYDRAULIC CRANES

GROVE MANUFACTURING COMPANY  
A Division of Walter Kidde & Company, Inc.  
Shady Grove, Pa. 17256

1. Long-stroke vertical jacks make it easier to level the crane on uneven ground.
2. Boom can be lowered below horizontal permitting ground level work on hookblock or boomhead and for easier, faster jib erection.
3. Special lift cylinders on the TM275LP permit the boom to be trailed to the rear on a dolly.



*This low-profile crane has the reach, capacity and performance to be a real profit-maker in your crane fleet.*

