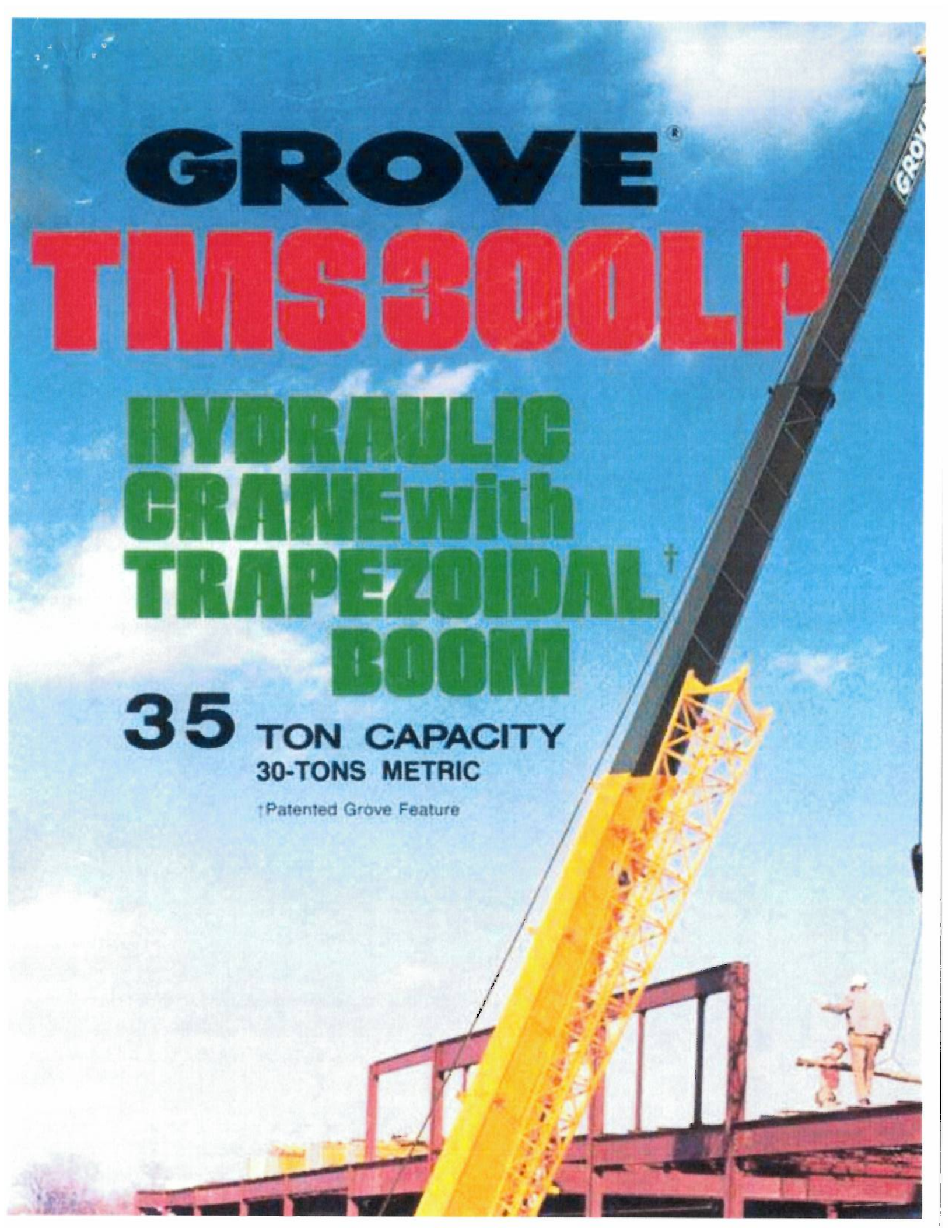


GROVE® **TMS 300LP**

**HYDRAULIC
CRANE with
TRAPEZOIDAL
BOOM**

35 TON CAPACITY
30-TONS METRIC

† Patented Grove Feature



THE GROVE[®] TRAPEZOID

A Low Boom Strength Cap

9,600 lbs. @ 140' TIP HEIGHT
(4354.6kgs) (42.67m)

20,000 lbs. @ 109' TIP HEIGHT
(9072.0kgs) (33.22m)

28,700 lbs. @ 86' TIP HEIGHT
(13018.3kgs) (26.21m)

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SUPERSTRUCTURE SPECIFICATION

BOOM - 34 ft. - 136 ft. (10.36m to 41.45m), 5 section boom; 2 full power and 1 power pinned trapezoidal sections to 104 ft. (31.7m) plus a 32 ft. (9.7m) "Swingaway" lattice extension. Integral check valves on each telescope cylinder. Boom telescope sections are individually controlled and supported on graphite impregnated nylatron wear pads.

BOOM NOSE - Three sheaves mounted on heavy duty tapered roller bearings. Removable pin type rope guards allow easy reeving. Rope dead ends on each side of boom nose.

BOOM ELEVATION - Dual double-acting hydraulic cylinders with integral holding valves; elevation from -6° to 78°. Combination controls provided for hand or foot operation.

***LOAD MOMENT AND ANTI-TWO BLOCK SYSTEM(KRUGER)** - Audio-visual warning in combination with Grove control lever lockout of: hoist up, telescope out and boom down functions.

CAB - Full vision, all-steel, fully enclosed with acoustical treatment, laminated safety glass windows throughout, removable windshield with storage provisions, hinged tinted skylight, sliding left side door, rear vent window, adjustable full length control levers, combination hand and foot controls for swing and boom elevation. Fully adjustable operator's seat with head rest. Complete engine instrumentation and controls. Neutral safety start. Combination hand and foot throttle. All crane superstructure and outrigger controls, sight leveling bubble, electronic boom angle indicator, propane heater, defroster fan, electric windshield wiper, swing horn, door and window locks, domelight, dashlight, 2¼ lbs. (1.25kg) dry type fire extinguisher. (Air conditioning available).

CAB INSTRUMENTATION - Engine oil pressure gauge, engine water temperature gauge, voltmeter, tachometer, fuel level gauge, ignition-on indicator light.

SWING - Ball bearing swing cylinder. "Glide Swing" with foot turntable brake and hand Combination controls provide 2.6 RPM.

OUTRIGGER CONTROLS - from superstructure catwalk. accidental outrigger actuation.

COUNTERWEIGHT - 9,500 lbs. power installed and removable with auxiliary hoist.

HYDRAULIC SYSTEM:

RESERVOIR - 127 gal. with integral baffles, oil sight level.

FILTER - Return line type by-pass indicator, replaceable.

PUMPS - Four section, manual pump discharge capacity 146 GPM (5.5 m³/min).

CONTROL VALVES - 1" load check, main and permitting simultaneous operation. Maximum operating pressure 3,000 psi.

OIL COOLER - Full flow

POWER DISTRIBUTION (Boom elevation, in boost) (Swing).

HOIST SPECIFICATIONS

DESCRIPTION: Series parallel circuitry and two motors provide both high line pull and speed ranges. Power up and down, equal speed, planetary reduction with integral automatic brake.			DESCRIPTION: planetary re
HOIST DATA	MAIN HOIST Grove Model 32S-1716A		*AUXILIAR Grove Mod
Drum Dimensions	16 in. dia. (406mm) 16 in. length (406mm) 24 in. dia. flange (610mm)		12 in. dia. (305mm) 16 in. length (406mm) 17.5 in. dia. flange
Performance: Max. Single Line Speed Max. Single Line Pull	Hi-Speed Range 525 FPM (160.02m/min) 8,400 lbs. (3810kg)	Lo-Speed Range 265 FPM (80.77m/min) 16,800 lbs. (7620kg)	200 FPM (60.96m/min) 9165 lbs. (4157kg)
Drum Rope Storage Capacity	**650 ft. of ¾ in. dia. rope (198.12m of 19mm)		720 ft. of ½ in. dia. rope (219.45m of 13mm) 480 ft. of ¾ in. dia. rope (146.30m of 19mm)
Permissible Single Line	¾ in. (19mm) 6x41 class - 14,605 lbs. (6625kg)		½ in. (13mm) 1

CARRIER SPECIFICATIONS

GROVE CARRIER 8 x 4

OUTRIGGERS - Hydraulic, double-box telescoping beam outriggers. Removable beams, vertical jack cylinders with integral holding valves and 24 in. (610mm) dia. aluminum floats. Mechanical spin locks on each vertical jack to secure outriggers at any level. Beams extend to 18 ft. (5.49m) centerline to centerline, retract to 8 ft. (2.44m) overall width. Full controls and sight leveling bubble located in superstructure cab. Powered by carrier engine.

FRAME - High-strength steel, all welded construction with box type design and integral welded outrigger boxes.

STEERING GEAR - Ross TE-70 cam and lever type with Garrison hydraulic power assist.

CLUTCH - Lipe Rollway 14 in. (356mm), two plate dry disc. Lining area: 428 sq. in. (2761cm²).

TRANSMISSION - Fuller Roadranger (RTO613), 13 speeds forward and 3 reverse.

UNIVERSAL JOINTS - Needle bearing type.

AXLES - Front: (2) Rockwell, FH-901, 33,000 lb. (24 969kg) capacity. Rear: (2) Rockwell SSHD, 72 in. (1.83m) track, 44,000 lb. (19 958kg) capacity with inter-axle differential and dash mounted control.

SUSPENSION - Front: Reyco 21B spring mounted tandem. Rear: Hendrickson R440 solid mounted tandem.

FUEL TANK - Single 90 gallon (341 liters) capacity mounted on left side of frame.

TIRES - Front: 12.00 x 20-16 ply hiway tread. Rear: 11.00 x 20-14 ply NDM & S tread, tube type.

WHEELS - Front: Steel spoke spoke 8 in. x 20 in. (203mm)

BRAKES - Stopmaster wedge compressor.

Total lining area: 1,508 sq. in. (9740cm²)
Front: 15 in. x 5 in. (381mm x 127mm).

PARKING BRAKE - Spring set emergency release kit.

ELECTRICAL SYSTEM - 12 volt standard lights and reflectors.

CAB - Low-profile, one man, safety glass windshield and wiper, door and window West Coast mirrors, dome fan, electric horn, traffic light engine instruments and extinguisher. (Air conditioner optional)

CAB INSTRUMENTATION - Engine voltmeter, speedometer, a water temperature gauge, visual warning, ignition-on indicator.

MISCELLANEOUS STANDARD - channel front bumper, two automatic radiator shutters, block tie down and mud flaps.

SPEED AND GRADEABILITY

Engine	Speed Ranges	% of Gradeability @ Max. Torque
GM6-71N	2.86 to 51.16 MPH (5 to 82 Km/h)	40.99 to .88%
*Cummins NHF-240	3.13 to 56.04 MPH (5 to 90 Km/h)	40.27 to .84%

NOTE: Performance based on 66,000 lb. (29 938kg) GVW and standard SAE engine rating conditions using standard tires, transmissions and axles. Performance data may vary plus or minus 10% due to variations in engine performance and vehicle weights.

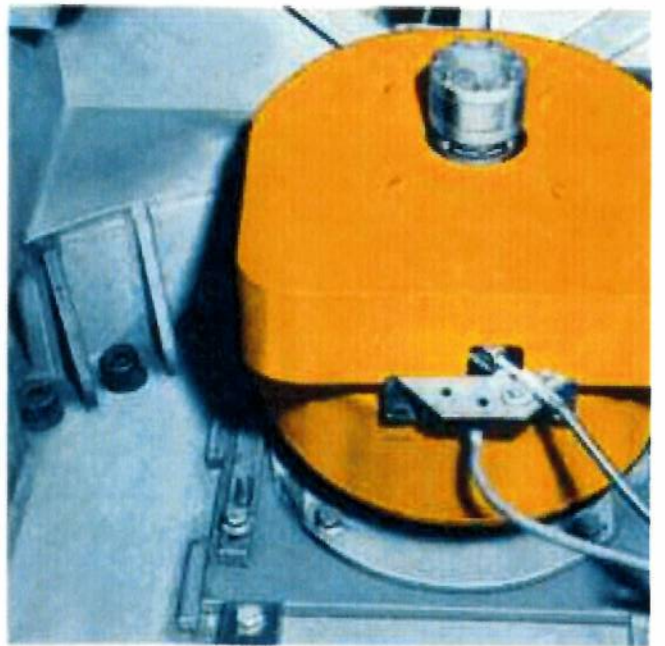
ENGINE

MAKE & MODEL	GM6-71
TYPE	6 Cylinder
BORE & STROKE	4.25 in. x 5.0 in. (108mm x 127mm)
DISPLACEMENT	426 cu. in. (6.95 liters)
NET HORSEPOWER	213 @ 2100 RPM
GOVERNED RPM	2100 FPM
NET TORQUE	582 lb.-ft. @ 1600 RPM
ELECTRICAL SYSTEM	12-volt
COMBUSTION SYSTEM	2 cycle
	blow by
COOLING SYSTEM	Liquid
FUEL CAPACITY	90 Gal. (341 liters)
ALTERNATOR	62 AMP
BATTERY	(2) 204
AIR CLEANER	Dry Type
AIR COMPRESSOR	12 CFM
HOURMETER	Yes

DIMENSIONS

IN COMMAND . . . no barriers to operator's visibility when placing loads at high elevation. Windshield is easily removed and stored and tinted skylight raises to provide unobstructed view.

GROVE HOISTS . . . Both main and auxiliary hoists are of Grove design and manufacture except for the optional free fall hoist. The main hoist is the Grove two-speed which permits both high line pull and high line speed without changes in lagging or gearing. At the flick of the electro-pneumatic speed-shift, the operator can change from maximum line pull of 16,800 lbs. (7621kg) to top line speed of 525 fpm (160 m/min.).



GROVE "PLANETARY GLIDE SWING" . . .

Smooth, precise continuous swing is assured with a large antifriction bearing swing circle and the Grove "Planetary Glide Swing" gear box. Swing action is accurate and instantaneous to the touch of the combination hand/foot controls. Glide swing with foot-actuated disc brake is standard.

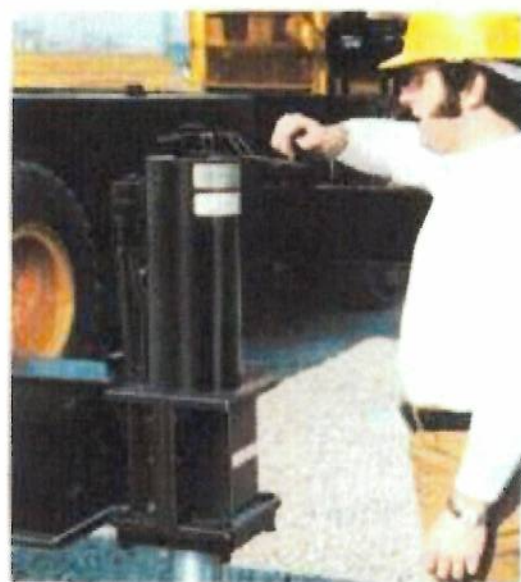
DESIGNED FOR SAFETY AND EFFICIENCY . . . The interior of the all-steel cab is designed for operator convenience, efficiency and safety. Full length





THE GROVE CARRIER

The TMS300LP features a Grove designed and built diesel powered carrier, matched to the particular requirements of this outstanding 35-ton crane (30-ton metric). The 8 foot (2.44m) wide carrier has a wheelbase of 224 inches (5.69m) and a turning radius of under 40 feet (12.19m). The all-welded steel frame in combination with the 18 foot (5.49m) outrigger spread provides an exceptionally stable lifting base.



EXCLUSIVE GROVE SCREW-LOCK[†]

permits the outrigger jacks to be locked in any position. Long thrust vertical jacks assure quick, easy leveling on uneven terrain. Jacks are also fitted with integral check valves.

[†]Patented Grove Feature



DOUBLE-BOX BEAM OUTRIGGERS,

integral with the frame, provide an 18-foot (5.49m) spread for maximum stability. Beams and jacks are independently controlled from superstructure cab which permits variable outrigger positioning for working in tight quarters. Stowable, 24-inch (610mm) diameter, aluminum alloy outrigger pads combine lightweight ease of handling with excellent flotation.



HYDRAULIC CRANES