



TMS475

CARRIER SPECIFICATIONS

GROVE CARRIER 10 x 4 50 TON



OUTRIGGERS — Hydraulic double box 2-stage telescoping beam outriggers, integral welded boxes, removable beams, vertical jack cylinders with integral holding valves and 30½ in. (775mm) diameter steel floats. Beams extend to 20 ft. (6.1m) centerline-to-centerline, retract to 8 ft. (2.4m) overall width. Mechanical spin locks on each vertical jack to secure outriggers at any level. Controls and sight leveling bubble in superstructure cab. Powered by carrier engine.

FRAME — High-strength steel, all-welded construction with triple 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. Total area: 428 sq. in. (2761cm²).

TRANSMISSION — Fuller Roadranger (RT06613), 13 speeds forward and 3 reverse.

UNIVERSAL JOINTS — Needle bearing type.

AXLES — Front (2) Rockwell FL-931, 81 7/8 in. (2.1m) track, 36,000 lb. (16 330 kg) capacity. Rear (2) Rockwell SSHD, 72 in. (1.8m) track, 46,000 lb. (20 866 kg) capacity with inter-axle differential and dash mounted control. Pusher axle (1) Rockwell air controlled from cab, non drive/steer 18,540 lbs. (8410 kg) capacity.

SUSPENSION — Pusher: Neway air bag.

Front- Reyco 21B spring

Rear - Hendrickson R441 Solid

FUEL TANK — Single 96 gallon (363 liter) capacity mounted on left side of frame.

TIRES — Front: 11:00 x 20, 14 P.R., tube-type Hi-way.

Pusher & Rear: 11:00 x 20, 14 P.R., tube-type ND-M&S.

WHEELS — All wheels, steel spoke 8 in. x 20 in. (203mm x 508mm).

BRAKES — Full air on all 10 wheels. Total lining area: 2072 sq. in. (13,368 cm²) Front: 15 in. x 6 in. (381mm x 152mm) Pusher & Rear: 15 in. x 7 in. (381mm x 178mm).

PARKING BRAKE — Spring set emergency chambers on both rear axles with emergency release kit. (Note: Not on pusher axle).

CAB — Low profile, one man, all-steel, with acoustical treatment, laminated safety glass windshield and windows; windshield washer and electric wiper, door and window locks. Bostrom "T" bar seat belt, dual West Coast mirrors, domelight, dashlight, hot water heater, defroster fan, electric horn, traffic hazard warning switch (four-way flasher), full engine instruments and carrier controls, 3 3/4 lb. (1.7kg) dry type fire extinguisher. (Air conditioning available).

CAB INSTRUMENTATION — Tachometer, engine oil pressure gauge, volt-meter, speedometer, air pressure gauge, electric fuel gauge, engine water temperature gauge, high beam indicator, low air pressure audio-visual warning, ignition-on indicator.

MISCELLANEOUS STANDARD EQUIPMENT — Wheel nut wrench and handle, channel front bumper, two front towing loops, front and rear fenders, ether injection starting aid (less bottle), hook block tie down and mud flaps.

ELECTRICAL SYSTEM — 12-volt lighting, 24-volt starting.

SPEED AND GRADEABILITY

Engine	Speed Ranges @Max. Governed RPM	% of Gradeability @Max. Torque
GM6-71N	2.87 to 51.36 MPH (5 to 82.7 Km/h)	35.75% to 0.58%
*Cummins NTCC-230	2.85 to 51.05 MPH (5 to 82.2 Km/h)	35.81% to 0.59%

NOTE: Performance based on 75,000 lb. (34 020kg) 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.

CARRIER ENGINE SPECIFICATIONS

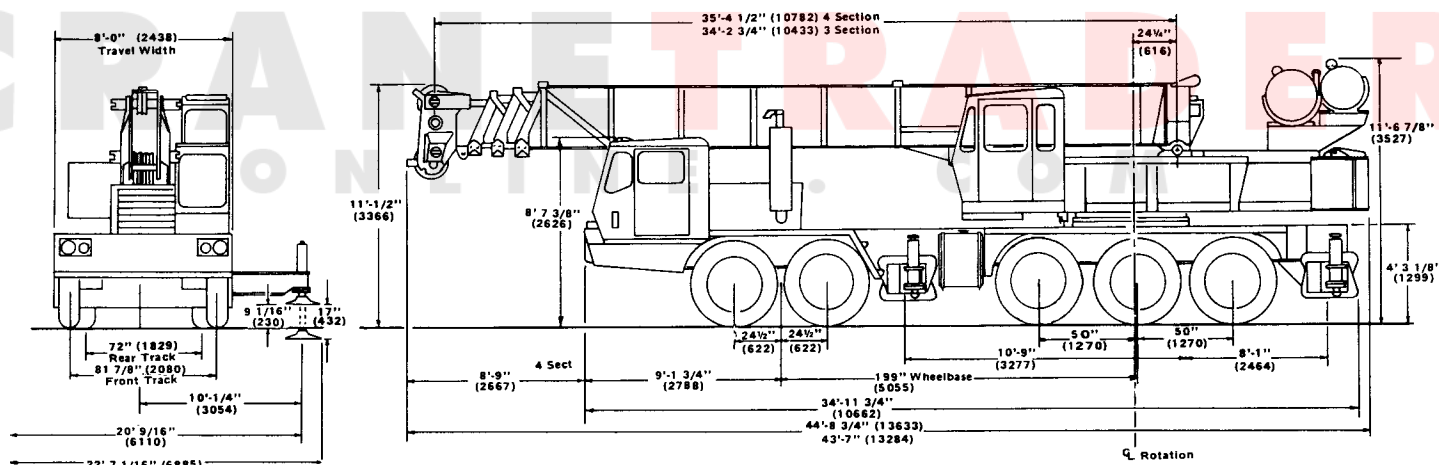
MAKE & MODEL	GM6-71N	*Cummins NTCC-230
TYPE	6 Cylinder OHV, Diesel	6 Cylinder OHV, Diesel
BORE	4.25 in. (108mm)	5.5 in. (140mm)
STROKE	5 in. (127mm)	6 in. (152mm)
DISPLACEMENT	426 cu. in. (6982cm ³)	855 cu. in. (14 011 cm ³)
HORSEPOWER		
(GROSS)	230 @ 2100 RPM	230 @ 2100 RPM
HORSEPOWER (NET FLYWHEEL)	203 @ 2100 RPM	205 @ 2100 RPM
GOVERNED RPM	2100	2100
TORQUE (NET FLYWHEEL)	551 ft. lb. (76.2kg-m) @1600 RPM	588 ft. lb. (81.3kg-m) @1300 RPM
ELECTRICAL SYSTEM	12-volt negative ground	12-volt negative ground
STARTING SYSTEM	24-volt	24-volt
COMBUSTION SYSTEM	2 cycle w/blower	4 cycle, turbo charged
COOLING SYSTEM CAP.	13 gal (49 liter)	13 gal (49 liter)
FUEL TANK CAP.	96 gal (363 liter)	96 gal (363 liter)
ALTERNATOR	90 AMP	90 AMP
*BATTERY	(4) 475 CCA @ 0°F	(4) 475 CCA @ 0°F
AIR COMPRESSOR	12 CFM (45.4 liters/min)	13.2 CFM (50.0 liters/min)
AIR CLEANER	1 Stage dry type	1 Stage dry type
+HOURMETER	Std.	Std.

*Denotes optional equipment

•CCA = Cold Cranking Amperage per battery

+ Located inside engine compartment

DIMENSIONS



TAIL SWING 10' (3050) COUNTERWEIGHT RETRACTED
TAIL SWING 12' 1/16" (3659) COUNTERWEIGHT EXTENDED

NOTE: Figures in parentheses () are metric equivalents expressed in millimeters.

**CARRIER SPECIFICATIONS****TMS475****AXLE WEIGHT DISTRIBUTION CHART 10 x 4 CARRIER**

ITEM	POUNDS				KILOGRAMS			
	GROSS	FRONT	REAR	PUSHER	GROSS	FRONT	REAR	PUSHER
Basic standard machine to include: 34 ft. - 84 ft. (10.4m - 25.6m) trapezoidal boom plus 32 ft. (9.7m) swingaway extension, Grove model 32S-1716B main hoist w/500 ft. (152.4m) of 3/4 in. (19mm) rope, * 7500 lbs. (3402 kg.) counterweight, Grove 10 x 4 carrier, GM6-71N								
1. Pusher Axle inflated to 3 PSI	76,884	29,770	44,754	2,360	34,875	13,504	20,300	1,071
2. Pusher Axle inflated to 50 PSI	76,884	24,831	34,933	17,120	34,875	11,263	15,846	7,766
ADD:								
50 ton (45MT) hookblock (travel position)	+700	+1,134	-434		+317	+514	-197	
Auxiliary boom head (4 Sect.)	+200	+380	-180		+91	+172	-81	
Kruger LMI & anti-2-block	+376	+184	+192		+170	+83	+87	
*Grove 32S-1716B auxiliary hoist w/400 ft. (121.9m) of 3/4 in. (19mm) rope	+2,317	-890	+3,207		+1,051	-404	+1,455	
*Grove 15S-16B auxiliary hoist w/400 ft. (121.9m) of 5/8 in. (16mm) rope	+1,059	-409	+1,468		+480	-186	+666	
*Gearmatic 11 SGEGR auxiliary hoist w/400 ft. (121.9m) of 1/2 in. (13mm) rope	+1,121	-433	+1,554		+509	-196	+705	
24 ft. (7.3m) A-frame jib (stowed)	+895	+761	+134		+406	+345	+61	
SUBSTITUTE:								
4 section 35 ft. - 110 ft. (10.7m - 33.5m) boom w/32 ft. (9.7m) swingaway	+2,458	+2,789	-331		+1,115	+1,265	-150	
Cummins NTCC 230 engine	+620	+620	--		+281	+281	--	
*7000 lbs. (3175 kg) counterweight	-500	+177	-677		-227	+80	-307	
*6100 lbs. (2767 kg) counterweight	-1,400	+497	-1,897		-635	+225	-860	
REMOVE:								
32 ft. (9.7m) swingaway (w/3 section boom)	-1,405	-1,312	-93		-637	-595	-42	
32 ft. (9.7m) swingaway (w/4 section boom)	-1,405	-1,398	-7		-637	-634	-3	
32S-1716B main hoist w/500 ft. (152.4m) of 3/4 in. (19mm) rope	-2,421	+605	-3,026		-1,098	+274	-1,372	
Front outrigger beams & jacks (2)	-3,000	-2,063	-937		-1,361	-936	-425	
Rear outrigger beams & jacks (2)	-3,000	+964	-3,964		-1,361	+437	-1,798	

*NOTE: Appropriate superstructure counterweight substitution must be made depending on hoist configurations selected
 6100 lbs. (2767 kg) 32S-1716B auxiliary hoist
 7000 lbs. (3175 kg) with 15S-16B or Gearmatic 11SGEGR main hoist
 7500 lbs. (3402 kg) without auxiliary hoist

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