

GROVE[®] TM 875 HYDRAULIC CRANE with TRAPEZOIDAL[†] BOOM

**30 TON
CAPACITY**

72.5-TONS METRIC

[†] Patented Grove feature



CONSTANT IMPROVEMENT AND ENGINEERING PROGRESS MAKE 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. OPTIONAL EQUIPMENT IS DESIGNATED BY (*) IN SPECIFICATIONS FOLDER.

30,000 lbs. @ 152' TIP HEIGHT
(13 608 kg) (46.3 m)

With 88' jib
7,630 lbs. @ 206' TIP HEIGHT
(3461 kg) (62.8 m)

50,000 lbs. @ 120' TIP HEIGHT
(22 680 kg) (36.6 m)

THE GROVE TRAPEZOIDAL BOOM

**A Long Reach Boom
of Superior Strength
and Capacity.**

BOOM EXTENSION AND JIB

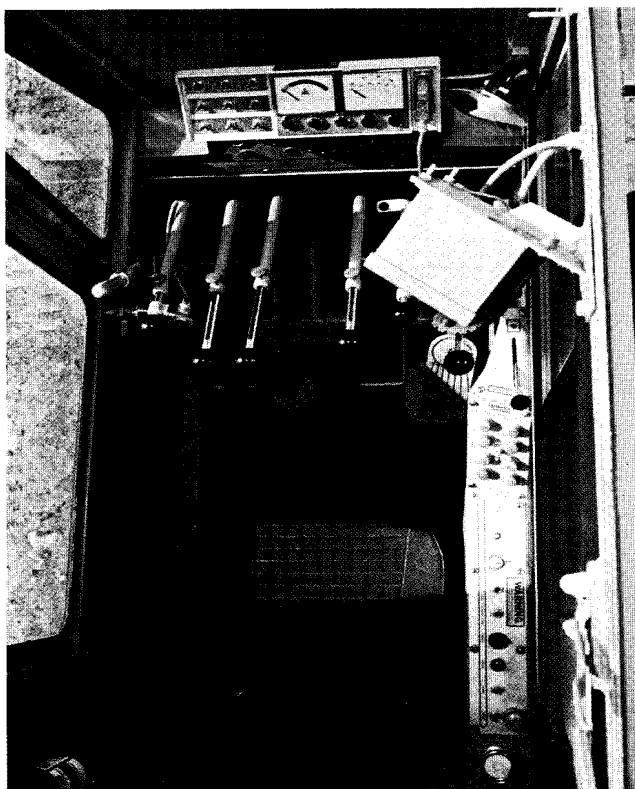
A 32' (9.7 m) "Swingaway" lattice extension which stows laterally along-side the boom base section swings quickly into working position to provide a tip height of 152' (46.3 m). Additional inserts may be added to create an 88' (26.8 m) jib reaching to a tip height of 206' (62.8 m). The jib is cable suspended and offset from a minimum of 5° to a maximum of 30°.

The Grove Trapezoidal Boom presents the optimum strength-to-weight ratio for hydraulic crane operation and is the proven performer among high capacity long reach booms. More crane users have placed their trust in the Grove design than in any other... more than 95% of the 80-ton and over hydraulic cranes sold in the U.S. are Groves. It's the boom that gives the user more reach, more long boom capacity and greater profitability for his investment.

The four-section boom provides a tip height of 120' (36.6 m) and is available with a power-pinned fly section (standard) or a full-power fly.

† Patented Grove feature





OPERATOR CONVENIENCE AND SAFETY

... are features of the all-steel, acoustically treated cab. When the skylight is raised and the windshield removed, there are no overhead crossmembers to interfere with visibility. Other features include adjustable full length control levers, adjustable operator's seat with headrest, complete engine controls and instrumentation, sliding door, laminated safety glass, electronic boom angle indicator and sight leveling bubble.

LOAD MOMENT AND ANTI-TWO BLOCK SYSTEM

measures critical operational factors relative to rated capacity and gives the operator a continuous visual display of conditions for the load.

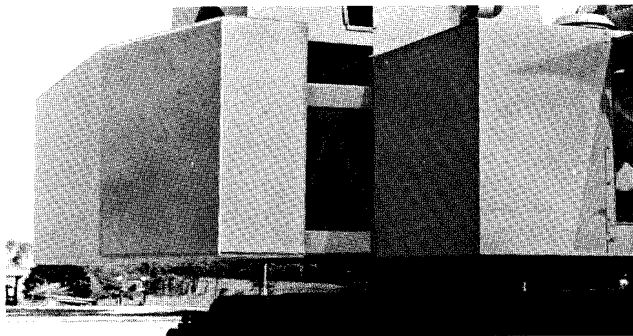
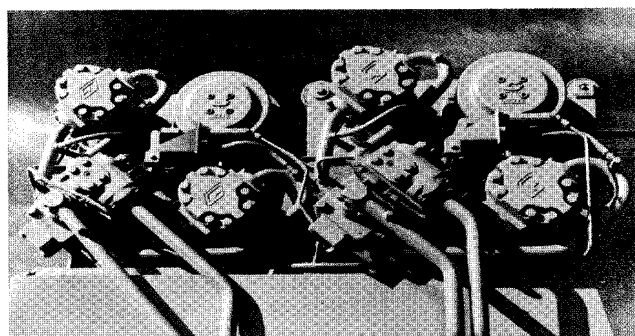
An easy-to-read gauge indicates the approach of an overload or two-block condition and should overload or two-block occur, an audio-visual warning alerts the operator; the Grove "control lever lockout system" returns the controls to neutral and permits the use of only those crane functions that will correct the condition.

GROVE TWO-SPEED HOIST

... The standard main hoist is the model 32S-1726B, a Grove designed and manufactured two-speed hoist which permits both high line-pull and high line-speed without changes in lagging or gearing. At the flick of the electro-hydraulic switch, the operator can change from maximum line-pull (16,800 lbs.) (7621 kg) to top line-speed (560 FPM) (170 m/min).

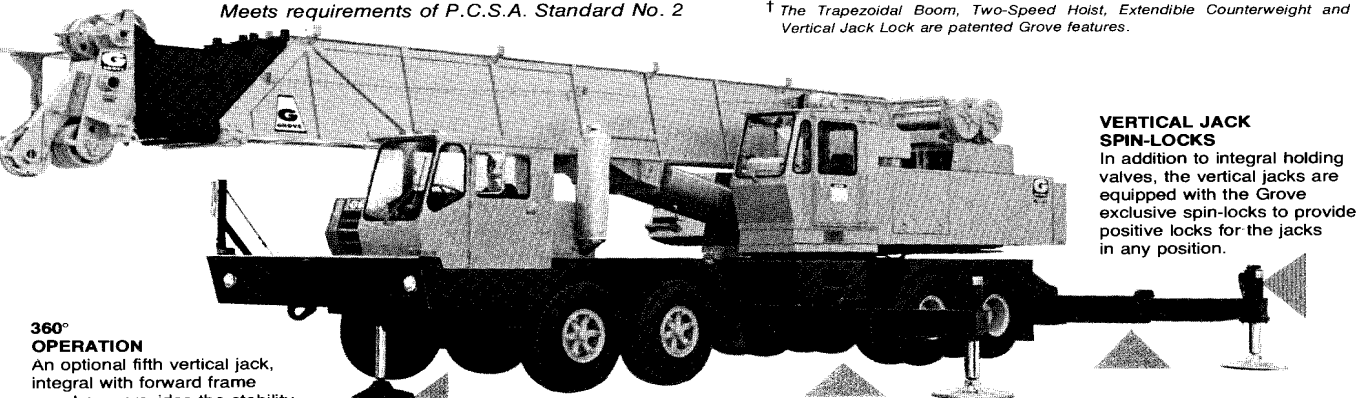
GROVE EXTENDIBLE COUNTERWEIGHT†

is hydraulically extended to working position to provide improved capacities with a minimum of weight. Power installed and removed, it is also equipped with a travel lock.



Meets requirements of P.C.S.A. Standard No. 2

† The Trapezoidal Boom, Two-Speed Hoist, Extendible Counterweight and Vertical Jack Lock are patented Grove features.



360° OPERATION

An optional fifth vertical jack, integral with forward frame members, provides the stability for 360 degree lifts. It is equipped with an integral holding valve.

VERTICAL JACK SPIN-LOCKS

In addition to integral holding valves, the vertical jacks are equipped with the Grove exclusive spin-locks to provide positive locks for the jacks in any position.

TWO-STAGE TELESCOPING OUTRIGGERS

Double box two-stage telescoping beam outriggers with integral welded boxes and removable beams extend to 25 ft. 5 1/4 in. (7.8 m), greatly increasing the working radii of the carrier.



SUPERSTRUCTURE SPECIFICATIONS

BOOM – 36 ft. – 146 ft. (11 m – 44.5 m) total length; 4-section Trapezoidal main boom consisting of base section, 2 full-power sections to 88 ft. (26.8 m), power-pinned section to 114 ft. (34.8 m) and a 32 ft. (9.7 m) "Swingaway" lattice boom extension (2" offset).

***FULL-POWER BOOM** – 36 ft. – 146 ft. (11 m – 44.5 m) total length; 4-section Trapezoidal main boom consisting of base section, 3 full-power sections to 114 ft. (34.8 m) and a 32 ft. (9.7 m) "Swingaway" lattice boom extension (2" offset).

Each boom has individually controlled telescope sections supported on graphite impregnated Nylatron wear pads. Integral check valves on each telescoping cylinder [6½ in. (165 mm) bore].

BOOM NOSE – Six 15 in. (381 mm) tread diameter 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.

***AUXILIARY BOOM NOSE** – Single 15 in. (381 mm) tread diameter sheave mounted to the main boom nose (removable) for single line work. Removable pin-type rope guards.

*18 in. (457 mm) tread diameter sheaves available for main boom nose, auxiliary boom nose, and 32 ft. (9.7 m) "Swingaway" to satisfy certain international requirements.

BOOM ELEVATION – Double-acting, 12 in. (305 mm) bore hydraulic cylinders with integral holding valves. Elevation from –4° to 80°. Combination controls 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.

***JIBS** – 14 ft. (4.3 m) lattice base section combines with the standard 32 ft. (9.7 m) "Swingaway" boom section to make basic 46 ft. (14.0 m) jib. Additional 14 ft. (4.3 m) pinned inserts available to make 60 ft. (18.3 m), 74 ft. (22.6 m) and 88 ft. (26.8 m) jib lengths. Mast, pendant lines, attaching hardware and backstops included in the makeup of all jib lengths. Jib sheave mounted on tapered roller bearings. The jib is cable suspended and offset from a minimum of 5° to a maximum of 30°.

CAB – Full vision, all-steel, fully enclosed with acoustical treatment, tinted safety glass throughout; removable windshield with storage provisions, hinged tinted skylight, sliding left side door, sliding right side glass, door and

window locks; full adjustable operator's seat with headrest, hot water heater, electric windshield wiper and defroster fan, swing horn, domelight, dashlight; complete engine instrumentation and crane operating controls, outrigger control panel, adjustable full length control levers, combination hand/foot controls for swing, boom elevation and engine throttle, sight leveling bubble, electronic boom angle indicator with high/low angle presets and audio-visual warning, 3½ lbs. (1.7 kg) 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, hydraulic oil by-pass indicator light.

SWING – Roller bearing swing circle, 360° continuous rotation. Grove planetary "glide swing" with foot actuated disc swing brake, hand operated turntable brake and 360° position positive turntable lock. Combination controls provided for hand or foot operation. Swing speed 1.8 RPM.

OUTRIGGER CONTROLS – Independently controlled in-out-up and down, from superstructure cab and either side of carrier frame. Sequence control design eliminates accidental outrigger actuation.

COUNTERWEIGHT 12,975 lbs. (5885 kg) turntable mounted, power installed and removed, hydraulically extended to working position and retracted to stowed or travel position. (Refer to Axle Weight Distribution Chart for counterweight used with auxiliary hoist)

HYDRAULIC SYSTEM:

RESERVOIR – 305 gallons (1154 liters), all-steel welded construction with integral baffles, clean out access and exterior oil sight level.

FILTER – Suction line type, full flow with by-pass protection and filter by-pass indicator, replaceable cartridge. 25 micron rating.

PUMPS – Five section, gear-type driven by superstructure engine. Manual pump disconnect. Combined capacity 289 GPM (1094 lpm).

CONTROL VALVES – Precision four-way, double-acting with integral load check, main and circuit relief valves. Five individual valve banks permit simultaneous independent control of five crane functions. Maximum system operating pressure 2500 PSI (175 kg/cm²).

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

POWER DISTRIBUTION – (Swing) (*Auxiliary hoist, inner mid telescope) (Lift) (Main hoist) (Outer mid telescope, *auxiliary hoist boost).

*Denotes optional equipment

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 and electronic hoist drum rotation indicator.

DESCRIPTION: Power up and down, equal speed, planetary reduction with integral automatic brake and electronic hoist drum rotation indicator.

HOIST DATA	MAIN HOIST Grove Model 32S-1726B		*AUXILIARY HOIST Grove Model 32S-1716B		*AUXILIARY HOIST Grove Model 15S-16B	*AUXILIARY HOIST CONTROLLED (FREE FALL) Gearmatic Model 11 SGECR
Drum Dimensions	16 in. diameter (406 mm) 26 in. length (660 mm) 24 in. dia. flange (610 mm)		16 in. diameter (406 mm) 16 in. length (406 mm) 24 in. dia. flange (610 mm)		12 in. diameter (305 mm) 16 in. length (406 mm) 17.5 in. dia. flange (445 mm)	9 in. diameter (229 mm) 13 in. length (330 mm) 17.5 in. dia. flange (445 mm)
Performance: Max. Single Line Speed Max. Single Line Pull	Hi-Speed Range 575 FPM (175.3 m/min)	Lo-Speed Range 290 FPM (88.4 m/min)	Hi-Speed Range 525 FPM (160.02 m/min)	Lo-Speed Range 265 FPM (80.77 m/min)	206 FPM (62.8 m/min) 9,165 lbs. (4157 kg)	290 FPM (88.39 m/min) 9,145 lbs. (4148 kg)
Drum Rope Storage Capacity	†1060 ft. of ¾ in. dia. rope max. (323.0 m of 19 mm)		†650 ft. of ¾ in. dia. rope max. (198.1 m of 19 mm)		480 ft. of ¾ in. dia. rope (146.3 m of 16 mm) 720 ft. of ½ in. dia. rope (219.5 m of 13 mm)	675 ft. of ½ in. dia. rope (205.7 m of 13 mm)
Permissible Single Line Rope Pull	¾ in. (19 mm) 8x25 class - 14,605 lbs. (6625 kg) ¾ in. (19 mm) 19x7 class - 13,700 lbs. (6214 kg)		¾ in. (19 mm) 8x25 class - 13,145 lbs. (5963 kg) ¾ in. (19 mm) 19x7 class - 13,145 lbs. (5963 kg)		¾ in. (16 mm) 6x41 class - 7,926 lbs. (3595 kg) ¾ in. (16 mm) 19x7 class - 7,926 lbs. (3595 kg)	½ in. (13 mm) 6x37 class - 7,600 lbs. (3447 kg) ½ in. (13 mm) 19x7 class - 6,150 lbs. (2790 kg)

*Denotes Optional Equipment

†6th layer of rope not recommended for hoisting operations

(5th layer for Model 15 hoist with ¾" rope)

SUPERSTRUCTURE ENGINE SPECIFICATIONS

MAKE & MODEL TYPE	Cummins V555-C230 8 Cylinder O.H.V. 4.625 in. x 4.125 in. (117 mm x 105 mm)	*GM6V-53N 6 Cylinder O.H.V. 3.875 in. x 4.5 in. (98 mm x 114 mm)	*Caterpillar 3208 8 Cylinder O.H.V. 4.5 in. x 5.0 in. (114 mm x 127 mm)
BORE & STROKE			
DISPLACEMENT	555 cu. in. (9096 cm³)	318 cu. in. (5212 cm³)	636 cu. in. (10 424 cm³)
HORSEPOWER (NET)	199 @ 3000 RPM	196 @ 2800 RPM	199 @ 2800 RPM
GOVERNED RPM	3000	2800	2800
TORQUE (NET)	394 lbs. ft. @ 1800 RPM	427 lbs. ft. @ 1500 RPM	450 lbs. ft. @ 1400 RPM
ELECTRICAL SYSTEM	12 volt neg. ground	12 volt neg. ground	12 volt neg. ground
COMBUSTION SYSTEM	4 cycle naturally aspirated	2 cycle with blower	4 cycle naturally aspirated
COOLING SYSTEM	Liquid	Liquid	Liquid
FUEL CAPACITY	78 Gallons (295 liters)	78 Gallons (295 liters)	78 Gallons (295 liters)
ALTERNATOR	58 Amp 12 volt	62 Amp 12 volt	55 Amp 12 volt
BATTERY	(2) 204 A.H. 12 volt	(2) 204 A.H. 12 volt	(2) 204 A.H. 12 volt
AIR CLEANER	Dry Type	Dry Type	Dry Type
HOURMETER	Yes 10,000 hr.	Yes 10,000 hr.	Yes 10,000 hr.
STARTING SYSTEM	12 volt	12 volt	12 volt

NOTE: With air conditioning, engine horsepower and performance will be slightly reduced. *Denotes Optional Engines

CARRIER SPECIFICATIONS

MODEL 8480G - 8 x 4 DRIVE

OUTRIGGERS - Hydraulic double box 2-stage telescoping beam outriggers, integral welded boxes, removable beams, vertical jack cylinders with integral holding valves and 30½ in. (775 mm) diameter steel floats. Beams extend to 25 ft. 5¼ in. (7.75 m) centerline to centerline retract to 9 ft. 10 in. (3.00 m) overall width. Mechanical spin locks on each vertical jack to secure outriggers at any level. Controls and sight leveling bubble located in superstructure cab and each side of carrier frame. Powered by superstructure engine.

***FRONT END STABILIZER** - A fifth hydraulic vertical outrigger jack cylinder with integral holding valve is mounted to the front frame section of the chassis to permit 360° lifting capabilities. Steel float easily removed for highway travel. Individual controls for fifth outrigger cylinder conveniently located in superstructure cab and each side of carrier frame.

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

STEERING GEAR - Ross TE-72740 Cam and lever type with Garrison hydraulic power assist.

CLUTCH - Lipe Rollway 14 in. (356 mm) two plate dry disc.

TRANSMISSION - Fuller Roadranger (RTOO9513) 13 speeds forward and 2 reverse.

UNIVERSAL JOINTS - Needle bearing type.

AXLES - Front: (2) Shuler tubular steering DCB34-L-7 100 in. (2.54 m) track, 44,000 lbs. (19 958 kg) capacity.
Rear: (2) Clark BD-57000 planetary drive, 90 in. (2.29 m) track, 85,000 lb. (38 556 kg) capacity.

SUSPENSION - Front: Reyco 21B spring mounted tandem, 44,000 lb. (19 958 kg) capacity.
Rear: Hendrickson solid mount tandem with equalizing beam and solid steel saddles, 85,000 lb. (38 556 kg) capacity.

SPEED AND GRADEABILITY

Engine	Speed Ranges @ Max. Governed RPM	% of Gradeability @ Max. Torque
Cummins NTC350	2.33 to 45.51 MPH (4 to 73 km/h)	40.58 to .66%
GM8V-71N	2.33 to 45.51 MPH (4 to 73 km/h)	35.33 to .39%
*Caterpillar 3406T	2.33 to 45.51 MPH (4 to 73 km/h)	43.75 to .82%

NOTE: Performance based on 119,000 lb. (53 978 kg) 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.

*Denotes optional equipment

FUEL TANK - Single 100 gallons (379 liters) capacity mounted on right side of frame.

TIRES - 14-00 x 20 22 PR G-20XZA4 Michelin radial tube-type, Hi-way tread front and rear.

WHEELS - Steel spoke 10 in. x 20 in. (254 mm x 508 mm)

BRAKES - Full air on all wheels.

Front: 15 in. x 6 in. (381 mm x 152 mm)

Rear: 16½ in. x 7 in. (419 mm x 178 mm). Total lining area: 1,672 in.² (10 788 cm²). Air dryer provided to preclude system-damaging moisture accumulation.

PARKING BRAKE - Maxi-type, spring set emergency chambers on both rear axles with emergency release kit.

ELECTRICAL SYSTEM - 12 volt lighting, 24 volt starting. Federal safety standard lights and reflectors.

CAB - One man, all steel, with acoustical treatment, tinted safety glass windshield and windows; windshield washer and electric wiper, door and window locks, Bostrom "T" bar seat, seat belt, dual West Coast Mirrors, dome light, dash light, hot water heater, defroster fan, electric horn, traffic hazard warning switch (four-way flasher), full engine instruments and carrier controls, 2¾ lb. (1.7 kg) dry type fire extinguisher. (Air conditioning available).

CAB INSTRUMENTATION - Engine oil pressure gauge, speedometer, air pressure gauge, fuel level gauge, engine water temperature gauge, voltmeter, tachometer, low air pressure audio-visual warning device, high beam indicator, ignition-on indicator.

MISCELLANEOUS STANDARD EQUIPMENT - Wheel nut wrench and handle, channel type front bumper, two front and rear towing loops, front and rear fenders, ether injection starting aid (less canister) front deck storage trough, mud flaps.

CARRIER ENGINE SPECIFICATIONS

MAKE & MODEL TYPE BORE & STROKE DISPLACEMENT HORSEPOWER (NET) GOVERNED RPM TORQUE (NET) ELECTRICAL SYSTEM COMBUSTION SYSTEM COOLING SYSTEM FUEL CAPACITY ALTERNATOR BATTERY AIR CLEANER AIR COMPRESSOR HOURMETER STARTING SYSTEM	Cummins NTC350 6 Cylinder O.H.V. 5.5 in. x 6 in. (140 mm x 152 mm) 855 cu. in. (14 013 cm³) 304 @ 2100 RPM 2100 914 lbs. ft. (126 kg m) @ 1500 RPM 12 Volt Neg. Ground 4 Cycle turbocharged Liquid 100 Gallons (379 liters) 90 Amp 12 Volt (4) 12 volt 475 CCA Dry Type 13.2 CFM Yes 24 Volt	*GM8V-71N 8 Cylinder O.H.V. 4.25 in. x 5 in. (108 mm x 127 mm) 568 cu. in. (9310 cm³) 268 @ 2100 RPM 2100 733 lbs. ft. (101 kg m) @ 1600 RPM 12 Volt Neg. Ground 2 Cycle w/blower Liquid 100 Gallons (379 liters) 90 Amp 12 Volt (4) 12 volt 475 CCA Dry Type 12 CFM Yes 24 Volt	*Caterpillar 3406T 6 Cylinder O.H.V. 5.4 in. x 6.5 in. (137 mm x 165 mm) 893 cu. in. (14 636 cm³) 287 @ 2100 RPM 2100 901 lbs. ft. (125 kg m) @ 1200 RPM 12 Volt Neg. Ground 4 Cycle turbocharged Liquid 100 Gallons (379 liters) 90 Amp 12 Volt (4) 12 volt 475 CCA Dry Type 12 CFM Yes 24 Volt
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Note: (1) Engine brake (GM & Cummins engines) or driveline retarder (Caterpillar engine) are optional.

(2) With air conditioning, engine horsepower and performance will be slightly reduced.

• CCA = Cold Cranking Amperage

DIMENSIONS

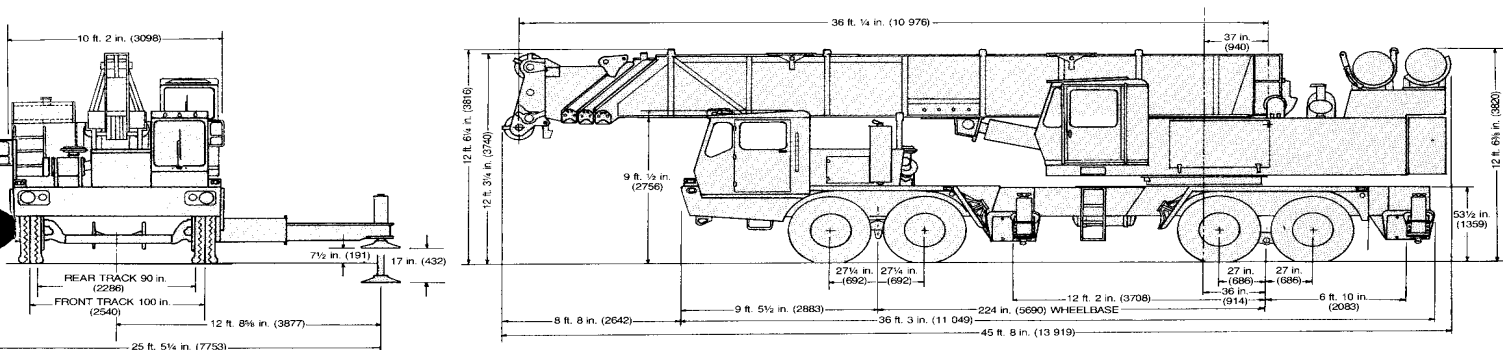
TURNING RADIUS - 42 ft. 2½ in. (12 865)

GROUND CLEARANCE - 12 in. (with float removed) (305)

TAIL SWING - 12 ft. ½ in. (counterweight in travel position) (3670)

TAIL SWING - 14 ft. ½ in. (counterweight in working position) (4280)

NOTE: Dimensions shown in parentheses are millimeters (mm)



structure cab and each side of carrier frame. Powered by super...
Lázaro engine No. 2951 Col. Alamo industrial, Tlaquepaque Jal. C.P. 45593

***FRONT END STABILIZER** – A fifth hydraulic vertical outrigger jack cylinder with integral holding valve is mounted to the front frame section of the chassis to permit 360° lifting capabilities. Steel float easily removed for highway travel. Individual controls for fifth outrigger cylinder conveniently located in super-structure cab and each side of carrier frame.

FRAME – High strength steel, all welded construction. Box type design with integral outrigger boxes.

STEERING GEAR – Ross TE-72740 Cam and lever type with Garrison hydraulic power assist.

CLUTCH – Lipe Rollway 15½ in. (394 mm), two plate dry disc.

TRANSMISSION – Fuller Roadranger (RTO09513) 13 speeds forward and 2 reverse.

UNIVERSAL JOINTS – Needle bearing type.

AXLES – Front: (3) Shuler tubular steering DCB34-L-7 100 in. (2.54 m) track. 66,000 lbs. (29 938 kg) capacity.
Rear: (3) Clark BD50-60 planetary drive, 85 in. (2.16 m) track, 108,000 lb. (48 989 kg) capacity.

SUSPENSION – Front: Reyco 21B spring mounted tridem, 66,000 lb. (29 938 kg) capacity.
Rear: Hendrickson Tri-axle equalizing beam with solid steel saddles, 108,000 lb. (48 989 kg) capacity.

SPEED AND GRADEABILITY

Engine	Speed Ranges @ Max. Governed RPM	% of Gradeability @ Max. Torque
Cummins NTC350	2.35 to 45.84 MPH (2 to 74 km/h)	36.70 to .43%
*GM8V-71T	2.35 to 45.84 MPH (4 to 74 km/h)	35.26 to .38%
*Caterpillar 3406T	2.35 to 45.84 MPH (4 to 74 km/h)	36.59 to .45%

NOTE: Performance based on 130,000 lb. (58 968 kg) 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.

*Denotes Optional Equipment

CARRIER ENGINE SPECIFICATIONS

MAKE & MODEL TYPE	Cummins NTC350 6 Cylinder O.H.V. 5.5 in. x 6 in. (140 mm x 152 mm)	*GM8V-71T 8 Cylinder O.H.V. 4.25 in. x 5 in. (108 mm x 127 mm)	*Caterpillar 3406TA 6 Cylinder O.H.V. 5.4 in. x 6.5 in. (137 mm x 165 mm)
BORE & STROKE			
DISPLACEMENT	855 cu. in. (14 013 cm³)	568 cu. in. (9310 cm³)	893 cu. in. (14 636 cm³)
HORSEPOWER (NET) GOVERNED RPM	304 @ 2100 RPM 2100	312 @ 2100 RPM 2100	285 @ 2100 RPM 2100
TORQUE (NET)	914 lbs. ft. (126 kg m) @ 1500 RPM	876 lbs. ft. (121 kg m) @ 1600 RPM	901 lbs. ft. (125 kg m) @ 1200 RPM
ELECTRICAL SYSTEM	12 Volt Neg. Ground	12 Volt Neg. Ground	12 Volt Neg. Ground
COMBUSTION SYSTEM	4 Cycle turbocharged	2 Cycle turbocharged	4 Cycle turbocharged
COOLING SYSTEM	Liquid	Liquid	Liquid
FUEL CAPACITY	100 Gallons (379 liters)	100 Gallons (379 liters)	100 Gallons (379 liters)
ALTERNATOR	53 Amp 12 Volt	75 Amp 12 Volt	65 Amp 12 Volt
BATTERY	(2) 204 A.H. 12 Volt	(2) 204 A.H. 12 Volt	(2) 204 A.H. 12 Volt
AIR CLEANER	Dry Type	Dry Type	Dry Type
AIR COMPRESSOR	15 CFM	12 CFM	12 CFM
HOURLY METER	Yes	Yes	Yes
STARTING SYSTEM	24 Volt	24 Volt	24 Volt

Note: (1) GM and Cummins engines equipped with Jacobs engine brake. Units with Caterpillar engine equipped with brakesaver.

(2) With air conditioning, engine horsepower and performance will be slightly reduced.

DIMENSIONS

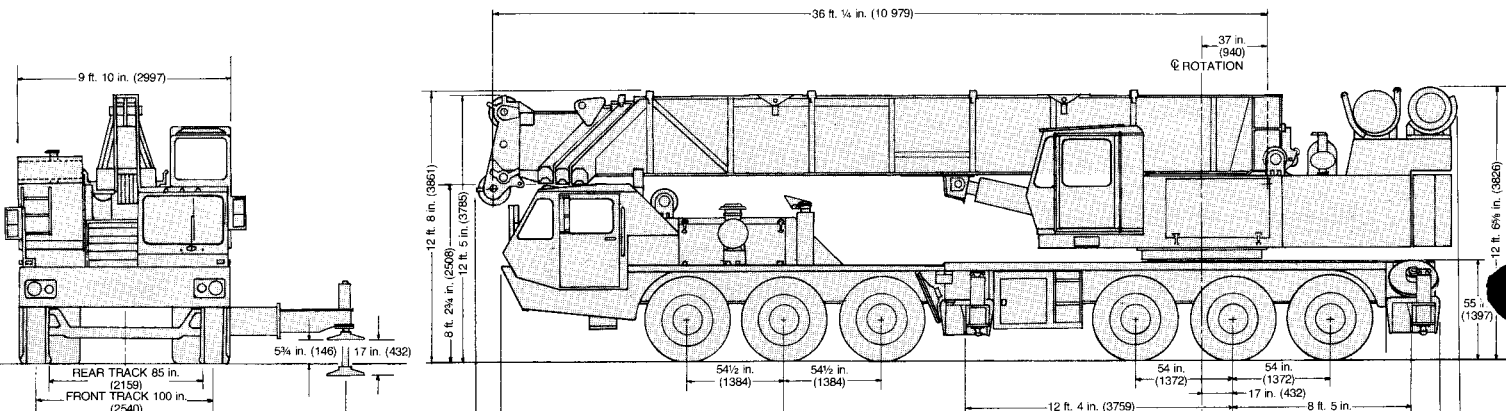
TURNING RADIUS – 51 ft. (15 545)

GROUND CLEARANCE – 10¼ in. (with float removed) (260)

TAIL SWING – 12 ft. ½ in. (counterweight in travel position) (3670)

TAIL SWING – 14 ft. ½ in. (counterweight in working position) (4280)

NOTE: Dimensions shown in parentheses are millimeters (mm)



counterweight, Grove Model 12 x 6 - 100 carrier, Cummins NTC 350 (carrier engine), Cummins V555-C230 (superstructure engine)

REMOVE:

- Standard 12,975 lb. (5885 kg) counterweight
- Standard 32 ft. (9.7 m) "Swingaway" extension
- Standard main hoist with rope
- (2) front outrigger beams & jacks
- (2) rear outrigger beams & jacks

ADD:

- 80-ton (72.5 mt), 6-sheave hookblock (stowed)
- Auxiliary boom head
- Fifth front outrigger jack
- ••Model 15S-16B auxiliary hoist with 550 ft. (167.6 m) of 5/8 in. (16 mm) dia. rope
- ••Model 11 SGEGR freefall auxiliary hoist with 550 ft. (167.6 m) of 1/2 in. (13 mm) dia. rope
- ••Model 32S-1716B auxiliary hoist with 550 ft. (167.6 m) of 3/4 in. (19 mm) dia. rope and idler

SUBSTITUTE:

- 36-114 ft. (10.9-34.7 m) full power boom
- ••12,300 lb. (5579 kg) counterweight
- ••11,300 lb. (5126 kg) counterweight
- GM8V - 71N engine (carrier)
- Caterpillar 3406T engine (carrier)
- GM6V - 53N engine (superstructure)
- Caterpillar 3208 engine (superstructure)

119,089	40,612	78,477	54 019	18 421	35 597
-12,975	+5,288	-18,263	-5885	+2399	-8284
-1,654	+1,685	+31	-750	-764	+14
-2,825	+776	-3,601	-1281	+352	-1633
-5,000	-3,259	-1,741	-2268	-1478	-790
-5,000	+2,098	-7,098	-2268	+952	-3220
+1,600	+2,571	-971	+726	+1166	-440
+230	+455	-225	+104	+206	-102
+600	+805	-205	+272	+365	-93
+1,119	-460	+1,579	+508	-209	+716
+1,078	-443	+1,521	+489	-201	+690
+2,385	-980	+3,365	+1082	-445	+1526
+1,184	+506	+678	+537	+230	+307
-675	+275	-950	-306	+125	-431
-1,675	+683	-2,358	-760	+310	-1070
-550	-617	+67	-249	-280	+30
-165	-185	+20	+75	+84	-9
-170	-9	-161	-77	-4	-73
-410	-22	-388	-186	-10	-176

- Use 12,975 lb. (5885 kg) counterweight without auxiliary hoist.
- ••Use 12,300 lb. (5579 kg) counterweight with Grove 15S-16B or Gearmatic Model 11 SGEGR freefall auxiliary hoist.
- ••Use 11,300 lb. (5126 kg) counterweight with Grove 32S-1716B auxiliary hoist.

12x6 CARRIER

AXLE WEIGHT DISTRIBUTION CHART

ITEM	POUNDS			KILOGRAMS		
	GROSS	FRONT	REAR	GROSS	FRONT	REAR
Basic standard machine to include 36 - 114 ft. (10.9 - 34.8 m) trapezoidal boom (power pinned fly) plus a 32 ft. (9.7 m) "Swingaway" extension, Grove Model 32S-1726B main hoist with 750 ft. (228.6 m) of 3/4 in. (19 mm) rope, 12,975 lb. (5885 kg) counterweight, Grove Model 12 x 6 - 100 carrier, Cummins NTC 350 (carrier engine), Cummins V555-C230 (superstructure engine)	131,940	38,027	93,913	59 848	17 249	42 599
REMOVE:						
• Standard 12,975 lb. (5885 kg) counterweight	-12,975	+5,702	-18,677	-5886	+2586	-8472
• Standard 32 ft. (9.7 m) "Swingaway" extension	-1,654	+1,385	-269	-750	-628	-122
• Standard main hoist with rope	-2,845	+912	-3,757	-1290	+414	-1704
• (2) front outrigger beams & jacks	-5,600	-3,302	-2,298	-2540	-1498	-1042
• (2) rear outrigger beams & jacks	-5,600	+2,253	-7,853	-2540	+1022	-3562
ADD:						
• 80-ton (72.5 mt), 6-sheave hookblock (stowed)	+1,600	+2,756	-1,156	+726	+1250	-524
• Auxiliary boom head	+230	+389	-159	+104	+176	-72
• Fifth front outrigger jack	+600	+809	-209	+272	+367	-95
• ••Model 15S-16B auxiliary hoist with 550 ft. (167.6 m) of 5/8 in. (16 mm) dia. rope	+1,119	-495	+1,614	+508	-225	+732
• ••Model 11 SGEGR freefall auxiliary hoist with 550 ft. (167.6 m) of 1/2 in. (13 mm) dia. rope	+1,078	-477	+1,555	+489	-216	+705
• ••Model 32S-1716B auxiliary hoist with 550 ft. (167.6 m) of 3/4 in. (19 mm) dia. rope and idler	+2,385	-1,055	+3,440	+1082	-479	+1560
SUBSTITUTE:						
• 36-114 ft. (10.9 - 34.7 m) full power boom	+1,184	+351	+833	+537	+159	+378
• ••12,300 lb. (5579 kg) counterweight	-675	+297	-972	-306	+135	-441
• ••11,300 lb. (5126 kg) counterweight	-1,675	+736	-2,411	-760	+334	-1094
• GM8V-71T engine (carrier)	-400	-447	+47	-181	-203	+21
• Caterpillar 3406TA engine (carrier)	-95	-106	+11	-43	-48	+5
• GM6V - 53N engine (superstructure)	-170	+5	-175	-77	+2	-79
• Caterpillar 3208 engine (superstructure)	-410	+12	-422	-186	+5	-191

- Use 12,975 lb. (5885 kg) counterweight without auxiliary hoist.



TM875

80 TON CAPACITY
36 ft. — 146 ft. BOOM

(POWER PINNED)

8 x 4 CARRIER and 12 x 6 CARRIER
PCSA CLASS 12-324 PCSA CLASS 12-399

RATED LIFTING CAPACITIES IN POUNDS ON OUTRIGGERS FULLY EXTENDED OVER SIDE & REAR (360° W/FIFTH FRONT OUTRIGGER JACK)

8 x 4 CARRIER

Radius in Feet	Boom Length in Feet								Power Pin. Fly & 88 ft.	32 ft. Ext. & 114 ft.
	*36	44	52	60	68	76	82	88		
12	160,000 (65.5)	125,000 (70.0)	110,000 (73.0)	99,000 (75.5)	92,000 (77.5)	87,000 (79.0)				
15	125,000 (60.0)	112,500 (66.0)	103,000 (69.5)	94,800 (72.5)	88,200 (74.5)	82,300 (76.5)	74,150 (78.0)	63,000 (79.0)		
20	93,500 (50.0)	90,250 (58.5)	86,400 (63.5)	81,900 (67.5)	76,600 (70.5)	70,150 (72.5)	65,900 (74.0)	59,850 (75.5)	50,000 (79.5)	
25	72,500 (39.0)	70,950 (50.5)	68,900 (57.5)	66,200 (62.0)	62,500 (65.5)	57,050 (68.5)	55,250 (70.5)	54,000 (72.0)	45,000 (77.5)	30,000 (79.5)
30	56,000 (23.5)	56,000 (41.5)	56,000 (50.5)	54,900 (56.5)	52,350 (61.0)	47,600 (64.5)	46,000 (66.5)	44,700 (68.5)	39,250 (75.0)	28,400 (78.5)
35		42,090 (30.0)	42,090 (43.0)	42,090 (50.5)	40,500 (56.0)	39,050 (60.0)	37,850 (63.0)	33,900 (65.0)	25,900 (76.5)	
40		32,430 (11.5)	32,430 (34.0)	32,430 (44.0)	32,430 (51.0)	32,430 (56.0)	32,430 (59.0)	29,650 (61.5)	23,800 (74.5)	
45			26,270 (22.5)	26,270 (37.0)	26,270 (45.0)	26,270 (51.0)	26,270 (54.5)	26,150 (57.5)	21,900 (72.5)	
50				21,190 (28.0)	21,190 (39.0)	21,190 (46.0)	21,190 (50.0)	21,190 (53.5)	20,300 (70.5)	
60					14,030 (22.0)	14,030 (34.0)	14,030 (40.0)	14,030 (45.0)	17,230 (58.0)	17,100 (66.0)
70						10,300 (16.0)	10,300 (27.5)	10,300 (34.5)	12,480 (52.0)	14,100 (61.5)
80								6,610 (20.0)	9,160 (45.0)	10,840 (57.0)
90									6,690 (37.0)	8,100 (52.0)
100									4,490 (27.0)	6,060 (46.5)
110									2,830 (9.0)	4,540 (40.5)
120										3,210 (34.0)
130										2,170 (25.5)
140										1,310 (12.5)

NOTE: Boom angles are in degrees.

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& -002169B

12 x 6 CARRIER

Radius in Feet	Main Boom Length in Feet (Power Pinned Fly Retracted)								Power Pin. Fly & 88 ft.	32 ft. Ext. & 114 ft.
	*36	44	52	60	68	76	82	88		
12	160,000 (65.5)	125,000 (70.0)	110,000 (73.0)	99,000 (75.5)	92,000 (77.5)	87,000 (79.0)				
15	125,000 (60.0)	113,000 (66.0)	103,500 (69.5)	95,700 (72.5)	89,250 (74.5)	83,800 (76.5)	74,150 (78.0)	63,000 (79.0)		
20	93,500 (50.0)	91,550 (58.5)	89,100 (63.5)	86,000 (67.5)	81,750 (70.5)	75,750 (72.5)	67,000 (74.0)	59,850 (75.5)	50,000 (79.5)	
25	72,500 (39.0)	72,000 (50.5)	71,250 (57.5)	70,150 (62.0)	68,100 (65.5)	63,500 (68.5)	58,000 (70.5)	54,000 (72.0)	45,000 (77.5)	30,000 (79.5)
30	58,000 (23.5)	57,900 (41.5)	57,800 (50.5)	57,550 (56.5)	57,000 (61.0)	52,950 (64.5)	48,850 (66.5)	44,700 (68.5)	39,250 (75.0)	28,400 (78.5)
35		48,100 (30.0)	48,050 (43.0)	48,000 (50.5)	47,900 (56.0)	45,200 (60.0)	41,700 (63.0)	37,850 (65.0)	33,900 (76.5)	25,900 (79.5)
40			39,915 (34.0)	39,915 (44.0)	39,915 (51.0)	39,150 (56.0)	35,950 (59.0)	32,500 (61.5)	29,650 (69.5)	23,800 (74.5)
45				32,510 (22.5)	32,510 (37.0)	32,510 (45.0)	31,250 (51.0)	28,250 (54.5)	26,150 (57.5)	21,900 (72.5)
50					26,500 (28.0)	26,500 (39.0)	26,500 (46.0)	24,750 (50.0)	23,300 (53.5)	20,300 (70.5)
60						18,600 (22.0)	18,600 (34.0)	18,600 (40.0)	18,600 (45.0)	17,100 (66.0)
70							12,800 (16.0)	12,800 (27.5)	12,800 (34.5)	14,785 (52.0)
80								9,000 (20.0)	11,060 (45.0)	11,800 (57.0)
90									8,415 (37.0)	9,600 (52.0)
100									5,925 (27.0)	7,230 (46.5)
110									3,590 (9.0)	5,575 (40.5)
120										4,080 (34.0)
130										2,835 (25.5)
140										1,700 (12.5)
142.5										1,500 (0)

NOTE: Boom angles are in degrees.

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& -002169B

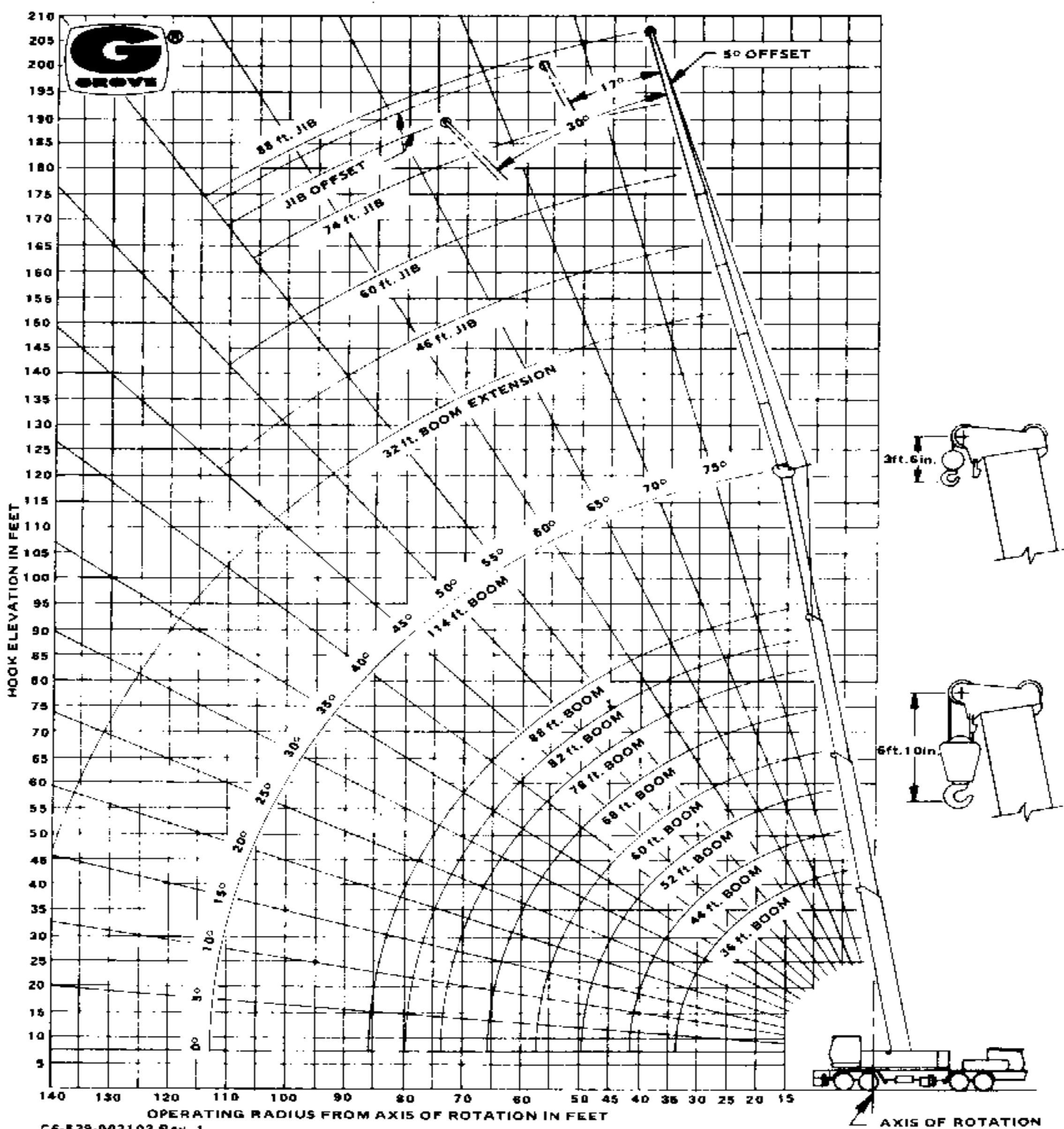
LIFTING CAPACITY NOTES

- Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation. Capacities do not exceed 85% of tipping loads with counterweight fully extended as determined by test in accordance with SAE J-765.
- Do not exceed any rated load when lifting regardless of whether it is based on structural strength or stability.
- Capacities for the 36' (11.0m) boom length shall be lifted with boom fully retracted. If boom is not fully retracted, capacities shall not exceed those shown for the 44' (13.4m) boom length.
- Radii less than 30 feet or 9 meters not recommended when lifting over front of machine (if equipped with front jack cylinder).
- Capacities listed are with fully extended outriggers and front jack cylinder extended according to proper procedure.
- For boom lengths less than 114' (34.8m) with power pinned fly extended, the rated loads are determined by boom angle in the column headed by 114' (34.8m) boom. For boom angles not shown, use rating of next lower boom angle. For this load column, the extended power pinned fly operational mode is to be selected on the Krueger L.M.I.
- WARNING: The Krueger L.M.I. rating will apply for full boom extension only.
- For boom lengths less than 146' (44.5m) with power pinned fly extended and 32' (9.8m) boom ext. erected, the rated loads are determined by boom angle only in the column headed by 146' (44.5m) boom. For boom angles not shown, use rating of next lower boom angle. For this load column, the 32' (9.8m) boom extension operational mode is to be selected on the Krueger L.M.I.
- CAUTION: The Krueger L.M.I. rating will apply for full boom extension (power pinned fly extended) only.
- Boom angle is the included angle between horizontal and the longitudinal axis of the boom base section after lifting rated load.

GROVE®

FULL HYDRAULIC CARRIER-MOUNTED CRANE

RANGE DIAGRAM



TM875

80 TON CAPACITY
36 ft. – 146 ft. BOOM

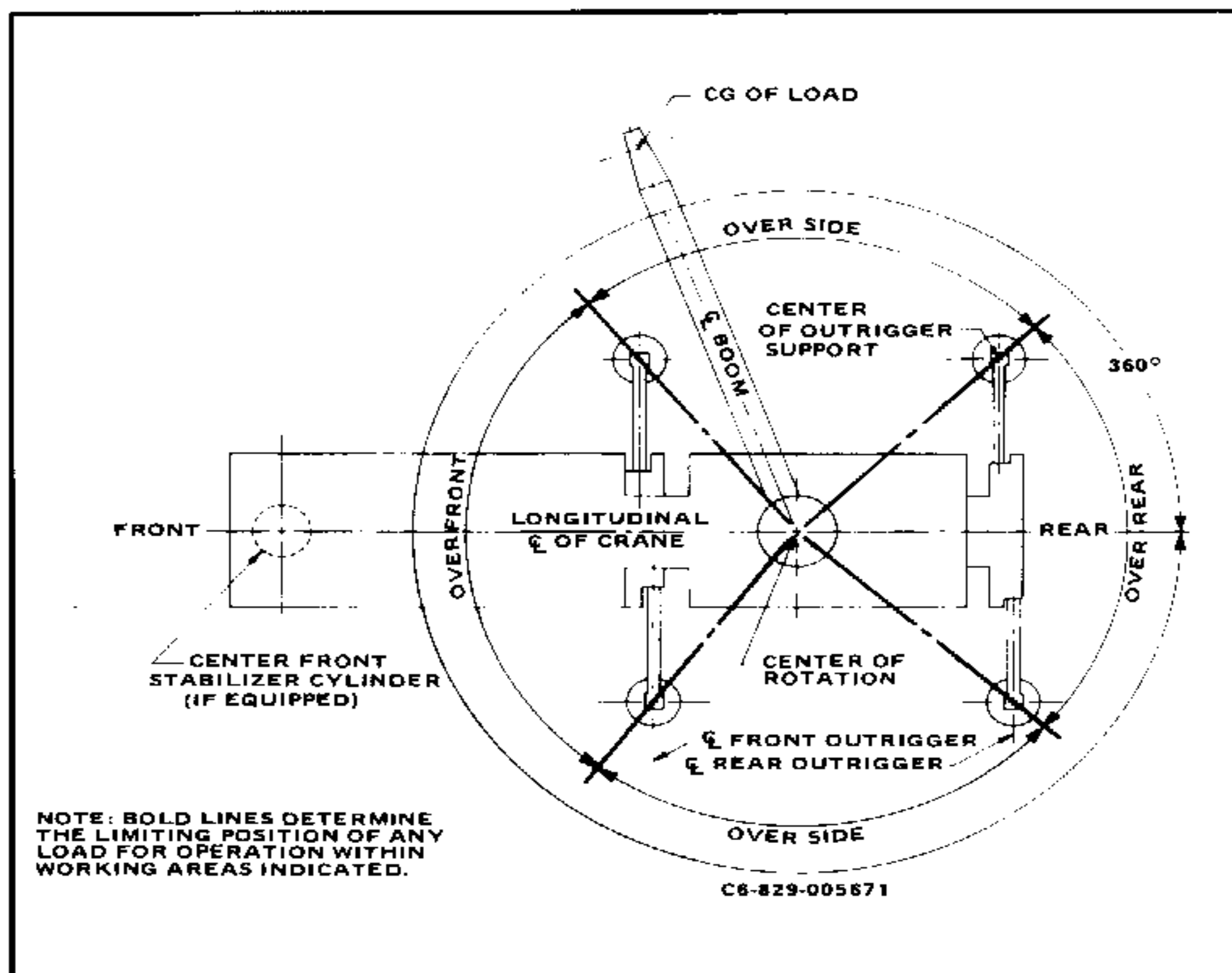
(POWER PINNED)

8 x 4 CARRIER and 12 x 6 CARRIER
PCSA CLASS 12-324 PCSA CLASS 12-399

LIFTING CAPACITY NOTES

1. Do not exceed any rated lifting capacity. Rated lifting capacities are based on freely suspended loads with the machine leveled and standing on a firm supporting surface. Ratings with outriggers are based on outriggers being extended to their maximum position and tires raised free of crane weight before extending the boom or lifting loads.
2. Practical working loads for each particular job shall be established by the user depending on operating condition to include: the supporting surface, wind and other factors affecting stability, hazardous surroundings, experience of personnel, handling of load, etc. No attempt must be made to move a load horizontally on the ground in any direction.
3. Operating radius is the horizontal distance from the axis of rotation before loading to the centerline of the vertical hoist line or tackle with loads applied.
4. "On Rubber" lifting (if permitted) depends on proper tire inflation, capacity and condition. "On Rubber" loads may be transported at a maximum vehicle speed of 2.5 mi/hr (4 Km/hr) on a firm and level surface under conditions specified.
5. Jibs may be used for lifting crane service only. Jib capacities are based on structural strength of jib or main boom and on main boom angle.
6. Operation is not intended or approved for any conditions outside of those shown hereon. Handling of personnel from the boom is not authorized except with equipment furnished and installed by Grove Manufacturing Company.
7. For clamshell or concrete bucket operation, weight of bucket and load must not exceed 80% of rated lifting capacities.
8. Power-telescoping boom sections must be extended equally at all times. Long cantilever booms can create a tipping condition when in extended and lowered position.
9. The maximum load which may be telescoped is limited by hydraulic pressure, boom angle, boom lubrication, etc. It is safe to attempt to telescope any load within the limits of rated lifting capacity chart.
10. With certain boom and hoist tackle combinations, maximum capacities may not be obtainable with standard cable lengths.
11. With certain boom and load combinations, raising of load with boom lift cylinders may not be possible. Operational safety is not affected by this condition.
12. Keep load handling devices a minimum of 12 inches (30 cm) below boom head when lowering or extending boom.
13. If actual boom length and/or radius is between values listed, use lifting capacity for the next longer rated length and/or radius.
14. All load handling devices and boom attachments are considered part of the load and suitable allowances must be made for their combined weights.
15. Operation of this equipment in excess of rating charts or disregard of the instructions is hazardous and voids the warranty and manufacturer's liability.

LIFTING AREA DIAGRAM



GROVE

TM875

**JIB CAPACITIES
WITH TWO PART LINE ONLY
ON OUTRIGGERS FULLY EXTENDED OVER SIDE & REAR
(360° W/FIFTH FRONT OUTRIGGER JACK)**

Loaded Main Boom Angle	46 ft. JIB CAPACITIES						60 ft. JIB CAPACITIES						74 ft. JIB CAPACITIES						88 ft. JIB CAPACITIES					
	5° OFFSET		17° OFFSET		30° OFFSET		5° OFFSET		17° OFFSET		30° OFFSET		5° OFFSET		17° OFFSET		30° OFFSET		5° OFFSET		17° OFFSET		30° OFFSET	
	Ref.* Rad.	Load lbs.**	Ref. Rad.	Load lbs.	Ref. Rad.	Load lbs.	Ref. Rad.	Load lbs.	Ref. Rad.	Load lbs.	Ref. Rad.	Load lbs.	Ref. Rad.	Load lbs.	Ref. Rad.	Load lbs.	Ref. Rad.	Load lbs.	Ref. Rad.	Load lbs.	Ref. Rad.	Load lbs.	Ref. Rad.	Load lbs.
80°	31.5	16,500	40.5	12,800	49	7,980	39	12,250	48	9,020	58	5,180	42.5	9,380	55	6,420	67.5	3,580	46.5	7,390	63	4,450	79	2,370
77.5	38	15,650	47	12,300	55	7,550	45	11,450	54	8,550	63.5	4,890	49	8,660	61.5	6,010	73.5	3,350	53.5	6,680	70	4,010	85	2,160
75	45	14,900	53.5	11,900	61.5	7,170	52.5	10,800	61	7,910	70.5	4,640	57	8,030	69	5,640	80.5	3,140	62	6,050	78	3,610	92.5	1,980
72.5	51.5	14,250	60	11,100	67.5	6,840	59.5	10,200	67.5	7,370	77	4,410	64.5	7,470	76.5	5,280	87.5	2,960	70	5,500	85.5	3,260	100	1,810
70	58	12,610	66	10,400	73.5	6,540	66.5	9,680	74.5	6,900	83	4,210	72.5	6,960	83.5	4,930	94	2,780	78.5	4,950	93.5	2,930	107	1,620
67.5	64.5	10,280	72	9,120	79	6,280	73.5	8,530	81	6,500	89.5	4,030	79.5	6,500	90.5	4,610	101	2,620	86	4,460	101	2,640	113.5	1,450
65	70.5	8,470	78	7,620	84.5	6,050	80	6,970	87.5	6,140	95.3	3,880	87	5,920	97.5	4,330	107	2,490	94	4,020	108	2,370	120.5	1,310
62.5	76.5	7,020	84	6,390	90	5,850	86.5	5,720	93.5	5,100	101	3,740	94	4,800	104	4,080	113	2,370	101.5	3,620	115	2,140	126.5	1,170
60	82.5	5,850	89.5	5,370	95.5	5,070	93	4,690	100	4,230	106.5	3,620	101	3,890	110.5	3,080	119	1,890	109	3,260	122	1,570		
55	94	4,060	100.5	3,780	105.5	3,620	105	3,110	111.5	2,840	117.5	2,050	114	2,480	123	1,180			123	1,260				
50	104.5	2,780	110.5	2,620	114.5	2,530	116.5	1,970	122	1,200														
45	114.5	1,830	119.5	1,700	123	1,350																		

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JIB CAPACITY NOTES

- All capacities are based on structural strength of jib and do not exceed 85% of tipping loads with counterweight fully extended as determined by test in accordance with SAE J-765.
- 46', 60', 74' & 88' (14.0, 18.3, 22.6 & 26.8 Meter) jibs may be used for two-parts line lifting crane service only.
- Rated load is based on loaded main boom angle.
- WARNING:** Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with every jib occurs rapidly and without advance warning.
- Rated load is based on loaded main boom angle with reference to horizontal regardless of main boom length. (Ref. radius in feet (meters) is for fully extended boom and power pinned fly extended 114 ft. (34.8m) boom length only. The Krueger L.M.I. System will give an accurate radius indication for this condition only.)
- 46 FT. (14.0 METER) JIB WARNING:** With 46' (14.0m) jib in working position, the boom angle must not be less than 45° (over side and rear [360° w/front outrigger jack]), or 60° (over front) since loss of stability will occur causing a tipping condition.
60 FT. (18.3 METER) JIB WARNING: With 60' (18.3m) jib in working position, the boom angle must not be less than 50° (over side and rear [360° w/front outrigger jack]), or 62.5° (over front) since loss of stability will occur causing a tipping condition.

74 FT. (22.6 METER) JIB WARNING: With 74' (22.6m) jib in working position, the boom angle must not be less than 55° (over side and rear [360° w/front outrigger jack]), or 65° (over front) since loss of stability will occur causing a tipping condition.

88 FT. (26.8 METER) JIB WARNING: With 88' (26.8m) jib in working position, the boom angle must not be less than 55° (over side and rear [360° w/front outrigger jack]), or 67.5° (over front) since loss of stability will occur causing a tipping condition.

- Capacities listed are with fully extended outriggers and front jack cylinder extended according to proper procedure.

JIB ERECTION NOTES:

A. Maximum total length of boom including extended power pinned fly for purpose of erecting jib, over side or over rear, below 30° main boom angle is:

46' (14.0m) Jib — 103 Ft. (31.4 Meters)
60' (18.3m) Jib — 95 Ft. (29.0 Meters)
74' (22.6m) Jib — 86 Ft. (26.2 Meters)
88' (26.8m) Jib — 77 Ft. (23.5 Meters)

B. **WARNING:** Do not attempt to erect jibs over front of machine.

WEIGHT REDUCTION FOR LOAD HANDLING DEVICES

32 ft. BOOM EXTENSION WITH 36 - 114 ft. BOOM	
† STOWED	365 lbs.
† ERECTED	2,455 lbs.

36 - 114 ft. BOOM WITH	
† 46 ft. JIB	8,828 lbs.
† 60 ft. JIB	12,962 lbs.
† 74 ft. JIB	17,868 lbs.
† 88 ft. JIB	23,548 lbs.

HOOK BLOCK	
80 Ton, 6 Sheave	1,615 lbs.
15 Ton, 1 Sheave	650 lbs.
Auxiliary Boom Head	230 lbs.
5 Ton Headache Ball	150 lbs.
7½ Ton Headache Ball	300 lbs.
10 Ton Headache Ball	500 lbs.

NOTE: All Load Handling Devices and Boom Attachments are Considered Part of the Load and Suitable Allowances MUST BE MADE for Their Combined Weight. Weights are for Grove furnished equipment.

† Reduction of main boom capacities only.

OUTRIGGERS - Hydraulic double box, 2 stage telescoping outriggers, integral welded boxes, removable beams, vertical jack cylinders with integral holding valves and 30½ in. (775mm) diameter forged aluminum floats. Beams extend to 25 ft. 5¼ in. (7.75m) centerline to centerline retract to 9 ft. 10 in. (3.00m) overall width. Mechanical spin locks on each vertical jack to secure outriggers at any level. Controls and sight leveling bubble located in superstructure cab and each side of carrier frame. Powered by superstructure engine.

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

STEERING GEAR - Ross TE-72740 Cam and lever type with Garrison hydraulic power assist.

CLUTCH - Lipe Rollway 15½ in. (394mm), two plate dry disc.

TRANSMISSION - Fuller Roadranger (RTOO9513) 13 speeds forward and 2 reverse.

UNIVERSAL JOINTS - Needle bearing type.

AXLES - Front: (3) Shuler tubular steering DCB34-L-7, 100 in. (2.54m) track, 66,750 lb. (30,278kgs) capacity.
Rear: (3) Clark BD50-60 Planetary drive, 85 in. (2.16m) track, 108,000 lb. (48,989kgs) capacity.

SUSPENSION - Front: Reyco 21B spring mounted tridem, 66,000 lb. (29,938kgs) capacity.
Rear: Hendrickson Tri-axle equalizing beam with solid steel saddles, 108,000 lb. (48,989kgs) capacity.

FUEL TANK - Single 100 gallon (379 liter) capacity mounted on right side of frame.

TIRES - 14:00 x 20 - 20 ply Tube-type, Hi-way tread front, ND-M&S tread rear.

WHEELS - Steel spoke 10 in. x 20 in. (254mm x 508mm).

102mm).

Rear: 16½ in. x 7 in. (419mm x 178mm). Total lining area: 2130 sq. in. (13,743cm²).

PARKING BRAKE - Maxi-type, spring set emergency chambers on all rear axles with emergency release kit.

ELECTRICAL SYSTEM - 12 volt lighting, 24 volt starting. Federal safety standard lights and reflectors.

CAB - Two-man, low profile design, all steel with acoustical treatment, laminated safety glass windshield and windows throughout; windshield washer and electric wiper, door and window locks. Bostrom "T" bar drivers seat and Bostrom companion seat, seat belts, heater, defroster fan, dual West Coast mirrors, domelight, dashlight, electric horn, traffic hazard warning switch (4-way flasher), complete instrumentation and driving controls, sliding right side and roll-down left side glass for ventilation, 2½ lb. (1.25kg) dry type fire extinguisher. (Air conditioning available).

CAB INSTRUMENTATION - Engine oil pressure gauge, speedometer, air pressure gauge, fuel level gauge, engine water temperature gauge, voltmeter, tachometer, low air pressure audio-visual warning device, high beam indicator, ignition-on indicator.

MISCELLANEOUS STANDARD EQUIPMENT - Wheel nut wrench and handle, channel type front bumper, two front and rear towing loops, front and rear fenders, ether injection starting aid (less canister), front bumper mounted tie down, mud flaps, tool storage compartment, counterweight storage brackets mounted on carrier.

CARRIER ENGINE SPECIFICATIONS

Make & Model	Cummins NTC350	*GM 8V-71T	*Caterpillar 3406TA
Type	6 Cylinder O.H.V.	8 Cylinder O.H.V.	6 Cylinder O.H.V.
Bore & Stroke	5.5 in. x 6 in. (140mm x 152mm)	4.25 in. x 5 in. (108mm x 127mm)	5.4 in. x 6.5 in. (137mm x 165mm)
Displacement	855 cu. in. (14,013cm³)	568 cu. in. (9,310cm³)	893 cu. in. (14,636cm³)
Horsepower (Net)	315 @ 2100 RPM	315 @ 2100 RPM	325 @ 2100 RPM
Governed RPM	2100	2100	2100
Torque (Net)	903 lbs. ft. @ 1500 RPM	870 lbs. ft. @ 1600 RPM	900 lbs. ft. @ 1400 RPM
Electrical System	12 Volt Neg. Ground	12 Volt Neg. Ground	12 Volt Neg. Ground
Combustion System	4 Cycle Turbocharged	2 Cycle Turbocharged	4 Cycle Turbocharged
Cooling System	Liquid	Liquid	Liquid
Fuel Capacity	100 Gallons (379 liters)	100 Gallons (379 liters)	100 Gallons (379 liters)
Alternator	53 Amp 12 Volt	75 Amp 12 Volt	65 Amp 12 Volt
Battery	(2) 204 A.H. 12 Volt	(2) 204 A.H. 12 Volt	(2) 204 A.H. 12 Volt
Air Cleaner	Dry Type	Dry Type	Dry Type
Air Compressor	15 CFM	12 CFM	12 CFM
Hourmeter	Yes	Yes	Yes
Starting System	24 Volt	24 Volt	24 Volt

NOTE: (1) GM and Cummins engines equipped with Jacobs engine brake. Units with Caterpillar engine equipped with driveline mounted electro-magnetic retarder.
(2) With air conditioning, engine horsepower and performance will be slightly reduced.

SPEED AND GRADEABILITY

ENGINE	SPEED RANGES @ MAX. GOVERNED RPM	% OF GRADEABILITY @ MAX. TORQUE
Cummins NTC350	2.35 to 45.84 MPH (4 to 74 km/h)	36.10 to .43%
*GM8V-71T	2.35 to 45.84 MPH (4 to 74 km/h)	35.26 to .38%
*Caterpillar 3406TA	2.35 to 45.84 MPH (4 to 74 km/h)	36.59 to .45%

NOTE: Performance based on 130,000 lb. (58,968 kg.) 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.

32S-1726A main hoist with 750 ft. (228.60 m) of 3/4 in. (19mm) rope, 12,975 lb. (5,885 kg.) counterweight,

Grove model 12x6 - 80 carrier, Cummins NTC350 (Carrier Engine), Cummins V-555 (Superstructure Engine)

* Remove standard 12,975 lb. (5,885 kg.) counterweight

80 ton (72.56 mt), 6 sheave hook block (stowed)

Auxiliary boom head

** Model 15S-16A Auxiliary hoist with 550 ft. (167.64 m) of 5/8 in. (16 mm) dia. rope and idler

** Model 40 free fall Auxiliary hoist with 550 ft. (167.64 m) of 1/2 in. (13 mm) dia. rope and idler

*** Model 32S-1716A Auxiliary hoist with 550 ft. (167.64 m) of 3/4 in. (19 mm) dia. rope and idler

** Substitute 12,300 lb. (5,579 kg.) counterweight

*** Substitute 11,300 lb. (5,126 kg.) counterweight

Substitute GM8V-71T engine (carrier)

Substitute Caterpillar 3406TA engine (carrier)

Substitute GM6V-53N engine (superstructure)

Substitute Caterpillar 3208 engine (superstructure)

Remove standard 32 ft. (9.75 m) Swingaway extension

Remove standard main hoist with rope

Remove (2) front outrigger beams & jacks

Remove (2) rear outrigger beams & jacks

131,260	37,239	94,021	59,540	16,892	42,648
- 12,975	+ 5,702	- 18,677	- 5,886	+ 2,586	- 8,472
+ 1,600	+ 2,756	- 1,156	+ 726	+ 1,250	- 524
+ 230	+ 389	- 159	+ 104	+ 176	- 72
+ 1,140	- 504	+ 1,644	+ 517	- 229	+ 746
+ 1,100	- 486	+ 1,586	+ 499	- 220	+ 719
+ 2,469	- 1,092	+ 3,561	+ 1,120	- 495	+ 1,615
- 675	+ 297	- 972	- 306	+ 135	- 441
- 1,675	+ 736	- 2,411	- 760	+ 334	- 1,094
- 450	- 502	+ 52	- 204	- 228	+ 24
+ 5	+ 5	0	+ 2	+ 2	0
- 170	+ 5	- 175	- 77	+ 2	- 79
- 410	+ 12	- 422	- 186	+ 5	- 191
- 1,550	- 1,606	+ 56	- 703	- 728	+ 25
- 2,980	+ 956	- 3,936	- 1,351	+ 434	- 1,785
- 5,000	- 2,530	- 2,470	- 2,268	- 1,148	- 1,120
- 5,000	+ 2,012	- 7,012	- 2,268	+ 913	- 3,181

* Use 12,975 lb. (5,885 kg.) counterweight without auxiliary hoist.

** Use 12,300 lb. (5,579 kg.) counterweight with Grove 15S-16A or Gearmatic model 40 free fall auxiliary hoist.

*** Use 11,300 lb. (5,126 kg.) counterweight with Grove 32S-1716A auxiliary hoist.

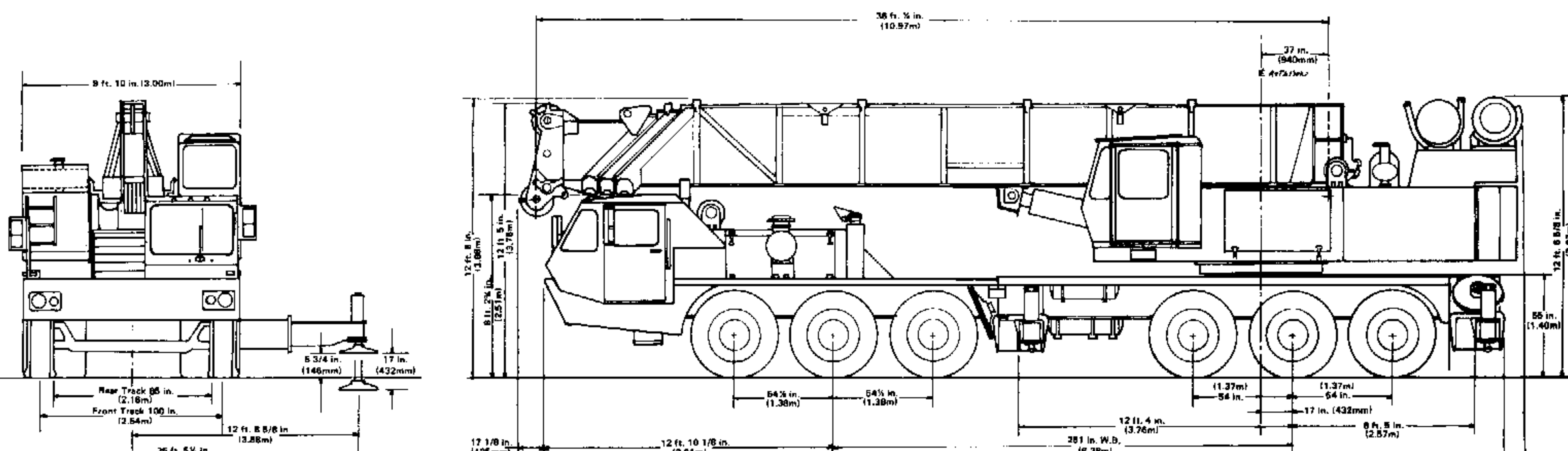
DIMENSIONS

Turning Radius 51 ft. (15.55m).

Ground Clearance 10 1/4 in. (with float removed) (260mm)

Tail Swing 12 ft. 1/2 in. (CWT in travel position) (3.67m)

Tail Swing 14 ft. 1/2 in. (CWT in working position) (4.28m)



OUTRIGGERS - 115 in. (2927mm) wide, 115 in. (2927mm) high, 2 track, 10 ft. (3048mm) long, outriggers, integral welded boxes, removable beams. Vertical jack cylinders with integral holding valves and 30 1/2 in. (775mm) diameter aluminum floats. Beams extend to 25 ft. 5 1/4 in. (7.75m) centerline to centerline, retract to 9 ft. 10 in. (3.00m) overall width. Mechanical spin locks on each vertical jack to secure outriggers at any level. Outrigger controls and sight leveling bubble located in superstructure cab and each side of carrier frame. Powered by carrier engine.

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

STEERING GEAR - Ross TE72740 cam and lever with Garrison hydraulic power assist.

CLUTCH - Lipe Rollway 14 in. (356mm) two plate dry disc. Total area: 428 sq. in.

TRANSMISSION - Fuller Roadranger (RTOO9513), 13 speeds forward and 2 reverse.

UNIVERSAL JOINTS - Needle bearing type.

AXLES - Front: (2) Shuler tubular steering DCB34-L-7, 100 in. (2.54m) track, 44,500 lb. (20,185kgs) capacity.
Rear: (2) Clark BD-57000 planetary, 90 in. (2.29m) track, 85,000 lb. (38,556kgs) capacity.

SUSPENSION - Front: Reyco 21B, spring mounted tandem, 44,000 lb. (19,958kgs) capacity.
Rear: Hendrickson solid mount tandem with equalizing beam and solid steel saddles, 85,000 lb. (38,556kgs) capacity.

FUEL TANK - Single 100 (379 liter) gallon capacity mounted on right side of frame.

rear.

WHEELS - Steel spoke 10 in. x 20 in. (254mm x 508mm)

BRAKES - Full air on all wheels.
Front: 17 1/4 in. x 4 in. (438mm x 102mm)
Rear: 16 1/2 in. x 7 in. (419mm x 178mm). Total lining area: 1,520 sq. in. (9807cm²)

PARKING BRAKE - Maxi-type, spring set emergency chambers on both rear axles with emergency release kit.

ELECTRICAL SYSTEM - 12 volt lighting, 12 volt starting, federal safety standard lights, and reflectors.

CAB - 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, 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, 2 3/4 lb. (1.25kg) dry type fire extinguisher. (Air conditioning available).

CAB INSTRUMENTATION - Engine oil pressure gauge, tachometer, voltmeter, speedometer, air pressure gauge, fuel level 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 type front bumper, two front and rear towing loops, front and rear fenders, ether injection starting aid (less canister) front bumper mounted tie down, mud flaps, tool storage compartment.

CARRIER ENGINE SPECIFICATIONS

Make & Model	Cummins NTC 335	*GM 8V-71N	*Caterpillar 3406T
Type	6 Cylinder Diesel	8 Cylinder Diesel	6 Cylinder Diesel
Bore & Stroke	5.5 in. x 6.0 in. (140mm x 152mm)	4.25 in. x 5.0 in. (108mm x 127mm)	5.4 in. x 6.5 in. (137mm x 165mm)
Displacement	855 cu. in. (14,013cm ³)	568 cu. in. (9,310cm ³)	893 cu. in. (14,636cm ³)
Horsepower (Net)	302 @ 2100 RPM	287 @ 2100 RPM	293 @ 2100 RPM
Governed RPM	2100	2100	2100
Torque (Net)	837 lbs. ft. @ 1500 RPM	733 lbs. ft. @ 1400 RPM	878 lbs. ft. @ 1400 RPM
Electrical System	12 Volt Neg. Ground	12 Volt Neg. Ground	12 Volt Neg. Ground
Combustion System	4 Cycle turbocharged	2 Cycle w/blower	4 Cycle turbocharged
Cooling System	Liquid	Liquid	Liquid
Fuel Capacity	100 Gallons (379 liters)	100 Gallons (379 liters)	100 Gallons (379 liters)
Alternator	80 Amp 12 Volt	62 Amp 12 Volt	65 Amp 12 Volt
Battery	(2) 204 A.H. 12 Volt	(2) 204 A.H. 12 Volt	(2) 204 A.H. 12 Volt
Air Cleaner	Dry Type	Dry Type	Dry Type
Air Compressor	13.2 CFM	12 CFM	12 CFM
Hourmeter	Yes	Yes	Yes
Starting System	12 Volt	12 Volt	12 Volt

NOTE: (1) Engine brake (GM & Cummins engines) or driveline retarder (Caterpillar engine) are optional.
(2) With air conditioning, engine horsepower and performance will be slightly reduced.

SPEED AND GRADEABILITY

ENGINE	SPEED RANGES @ MAX. GOVERNED RPM	% OF GRADEABILITY @ MAX. TORQUE
Cummins NTC335	2.33 to 45.51 MPH (4 to 73 km/h)	40.58 to .66%
*GM8V-71N	2.33 to 45.51 MPH (4 to 73 km/h)	35.33 to .39%
*Caterpillar 3406T	2.33 to 45.51 MPH (4 to 73 km/h)	43.75 to .82%

NOTE: Performance based on 117,000 lb. (53,071 kg.) 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.

TM875

AXLE WEIGHT DISTRIBUTION CHART

ITEM	POUNDS			KILOGRAMS		
	GROSS	FRONT	REAR	GROSS	FRONT	REAR
Basic Standard Machine to Include: 36 - 114 ft. (10.97 - 34.75 m) trapezoidal boom plus a 32 ft. (9.75 m) Swingaway extension, Grove model 32S-1726A main hoist with 750 ft. (228.60 m) of 3/4 in. (19 mm) rope, 12,975 lb. (5,885 kg.) counter- weight, Grove model 8x4 - 80 carrier, Cummins NTC 335 (Carrier Engine), Cummins V555-C230 (Super- structure Engine)	117,450	39,605	77,845	53,275	17,965	35,310
* Remove standard 12,975 lb. (5,885 kg.) counterweight	- 12,975	+ 5,288	- 18,263	- 5,885	+ 2,399	- 8,284
80 ton (72.56 mt), 6 sheave hook block (stowed)	+ 1,600	+ 2,571	- 971	+ 726	+ 1,166	- 440
Auxiliary boom head	+ 230	+ 455	- 225	+ 104	+ 206	- 102
** Model 15S-16A Auxiliary hoist with 550 ft. (167.64 m) of 5/8 in. (16 mm) dia. rope	+ 1,140	- 468	+ 1,608	+ 517	- 212	+ 729
** Model 40 free fall Auxiliary hoist with 550 ft. (167.64 m) of 1/2 in. (13 mm) dia. rope	+ 1,100	- 452	+ 1,552	+ 499	- 205	+ 704
*** Model 32S-1716A Auxiliary hoist with 550 ft. (167.64 m) of 3/4 in. (19 mm) dia. rope and idler	+ 2,469	- 1,014	+ 3,483	+ 1,120	- 460	+ 1,580
** Substitute 12,300 lb. (5,579 kg.) counterweight	- 675	+ 275	- 950	- 306	+ 125	- 431
*** Substitute 11,300 lb. (5,126 kg.) counterweight	- 1,675	+ 683	- 2,358	- 760	+ 310	- 1,070
Substitute GM8V-71N engine (carrier)	- 365	- 409	+ 44	- 166	- 186	+ 20
Substitute Caterpillar 3406T engine (carrier)	+ 90	+ 101	- 11	+ 41	+ 46	- 5
Substitute GM6V-53N engine (superstructure)	- 170	- 9	- 161	- 77	- 4	- 73
Substitute Caterpillar 3208 engine (superstructure)	- 410	- 22	- 388	- 186	- 10	- 176
Remove standard 32 ft. (9.75 m) Swingaway extension	- 1,550	- 1,557	+ 7	- 703	- 706	+ 3
Remove standard main hoist with rope	- 2,980	+ 818	- 3,798	- 1,352	+ 371	- 1,723
Remove (2) front outrigger beams & jacks	- 5,000	- 3,259	- 1,741	- 2,268	- 1,478	- 790
Remove (2) rear outrigger beams & jacks	- 5,000	+ 1,830	- 6,830	- 2,268	+ 830	- 3,098

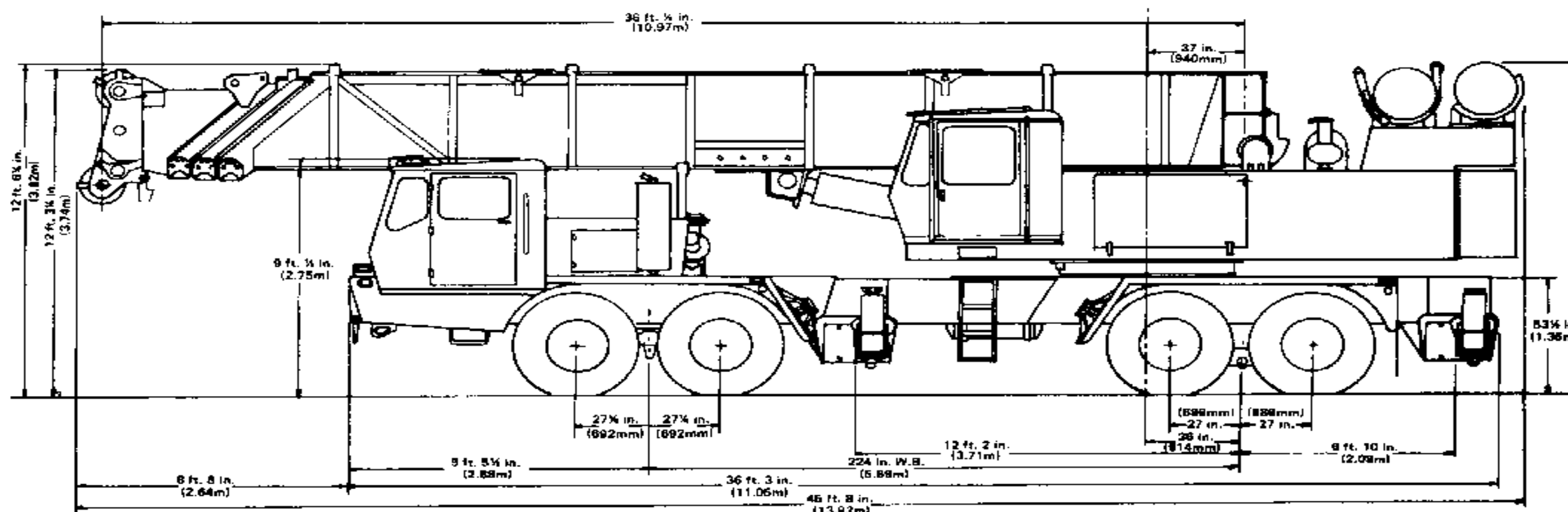
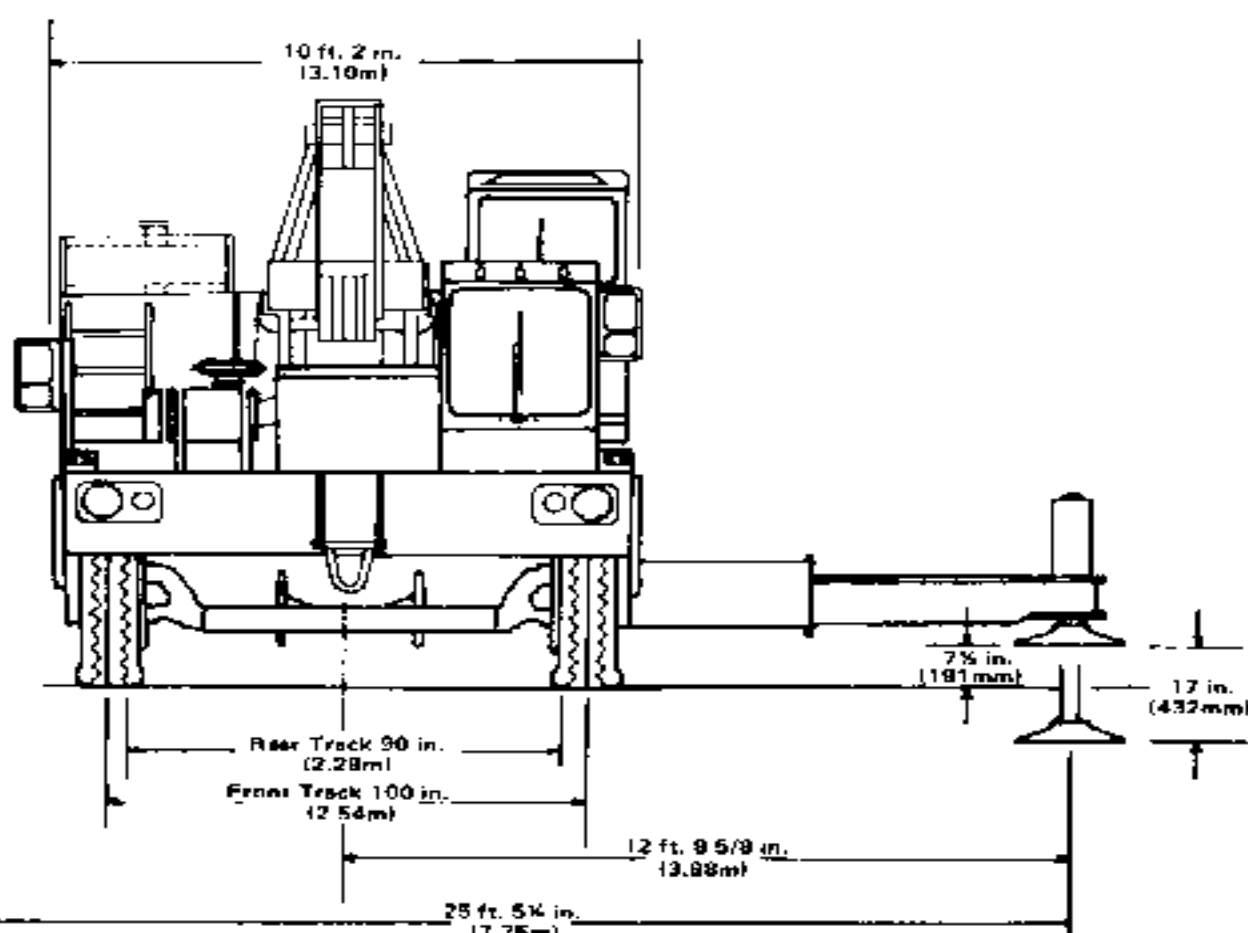
* Use 12,975 lb. (5,885 kg.) counterweight without auxiliary hoist.

** Use 12,300 lb. (5,579 kg.) counterweight with Grove 15S-16A or Gearmatic model 40 free fall auxiliary hoist.

*** Use 11,300 lb. (5,126 kg.) counterweight with Grove 32S-1716A auxiliary hoist.

DIMENSIONS

Turning Radius 42 ft. 2 1/2 in. (12.87m)
Ground Clearance 12 in. (with float removed) (305mm)
Tail Swing 12 ft. 1/2 in. (CWT in travel position) (3.67m)
Tail Swing 14 ft. 1/2 in. (CWT in working position) (4.28m)



GROVE MANUFACTURING COMPANY

A DIVISION OF WALTER KIDDE & COMPANY, INC.

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GROVE CARRIERS

The TM875 is available on a 4-axle or 6-axle carrier, both of which are designed and built by Grove to match the particular requirements of this outstanding 80-ton crane (72.5-ton metric). The all-welded, high strength steel frame is of box-type design with integral outrigger boxes. The rigid frame in combination with the 25' 5½" (7.8 m) outrigger spread provides an exceptionally stable lifting base. The 12x6 carrier is equipped with a two-man cab.



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