HYDRAULIC CRAME
with
TRAPEZOIDAL BOOM

TON CAPACITY

72.5-TONS METRIC

[‡] Petented Grove feature

GROVE

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)

50,000 lbs. @ 120' TIP HEIGHT

(36.6 m)

(22 680 kg)

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

THE GROVE TRAPEZOIDAL' BOOM

A Long Reach Boom of Superior Strangth and Capacity.

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.

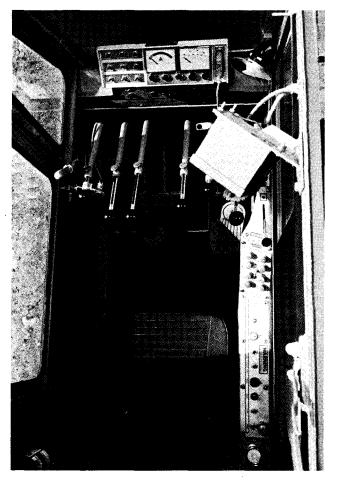
The four-section boom provides a tip height of 120' (36.6 m) and is available with a power-pinned fly section (standard) or a full-power fly.

† Patented Grove feature

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°.





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 rela-

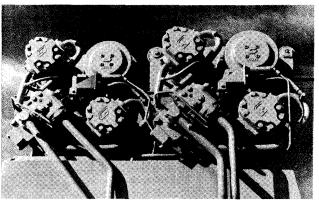
tive to rated capacity and gives the operator a continuous visual display of conditions for the load.

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).

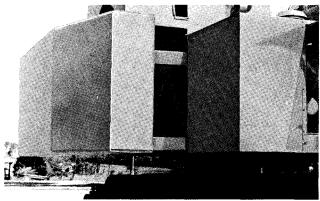
GROVE EXTENDIBLE COUNTERWEIGHT[†]

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



members, provides the stability for 360 degree lifts. It is equipped

with an integral holding valve.

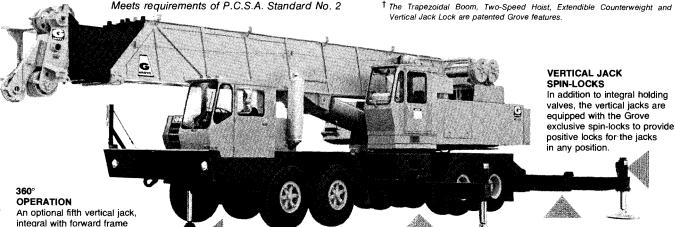


Vertical Jack Lock are patented Grove features.

TWO-STAGE TELESCOPING OUTRIGGERS

Double box two-stage telescoping beam outriggers with

integral welded boxes and removable beams extend to 25 ft. 51/4 in. (7.8 m), greatly increasing the working Cardiir test peopa Dienne. Market



- 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, auxillary 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) Audiovisual 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, 3¾ 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

ESCRIPTION: Series parallel circ	cuitry and two motors provide b	oth high line oull and speed ra	nges. DESCRIPTION	: Power up and down, equal speed,
ower up and down, equal speed				ction with integral automatic brake and
oist drum rotation indicator.			electronic hois	drum rotation indicator.

noist drum rotation indic			electronic noist 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 Lo-Speed Range 575 FPM 290 FPM (175.3 m/min) (88.4 m/min) 8,400 lbs. 16,800 lbs. (3810 kg) (7620 kg)	Hi-Speed Range Lo-Speed Range 525 FPM 265 FPM (160.02 m/min) (80.77 m/min) 7,560 lbs. 15,120 lbs. (3429 kg) (6858 kg)	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 % 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	3/4 in. (19 mm) 8x25 class - 14,605 ibs. (6625 kg) 3/4 in. (19 mm) 19x7 class - 13,700 ibs. (6214 kg)	% in. (19 mm) 8x25 class - 13,145 lbs. (5963 kg) % in. (19 mm) 19x7 class - 13,145 lbs. (5963 kg)	% in. (16 mm) 6x41 class - 7,926 lbs. (3595 kg) % 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

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†6th layer of rope not recommended for hoisting operations

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

SUPERSTRUCTURE ENGINE SPECIFICATIONS

MAKE & MODEL	Cummins V555-C230	*GM6V-53N	*Caterpillar 3208
TYPE	8 Cylinder O.H.V.	6 Cylinder O.H.V.	8 Cylinder O.H.V.
BORE & STROKE	4.625 in. x 4.125 in.	3.875 in. x 4.5 in.	4.5 in. x 5.0 in.
	(117 mm x 105 mm)	(98 mm x 114 mm)	(114 mm x 127 mm)
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 of Crane.Market

CARRIES 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 301/2 in. (775 mm) diameter steel floats. Beams extend to 25 ft. 51/4 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
- *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.

- 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: 161/2 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, domelight, dashlight, hot water heater, defroster fan, electric horn, traffic hazard warning switch (four-way flasher), full engine instruments and carrier controls, 2% 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, indition-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.

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

CARRIER ENGINE SPECIFICATIONS

MAKE & MODEL	Cummins NTC350	*GM8V-71N	*Caterpillar 3406T
TYPE	6 Cylinder O.H.V.	8 Cylinder O.H.V.	6 Cylinder O.H.V.
BORE & STROKE	5.5 in. x 6 in. (140 mm x 152 mm)	4.25 in. x 5 in. (108 mm x 127 mm)	5.4 in. x 6.5 in. (137 mm x 165 mm)
DISPLACEMENT	855 cu. in. (14 013 cm³)	568 cu. in. (9310 cm³)	893 cu. in. (14 636 cm³)
HORSEPOWER (NET)	304 @ 2100 RPM	268 @ 2100 RPM	287 @ 2100 RPM
GOVERNED RPM	2100	2100	2100
TORQUE (NET)	914 lbs. ft. (126 kg m) @ 1500 RPM	733 lbs. ft. (101 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 Cvcle 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	90 Amp 12 Volt	90 Amp 12 Volt	90 Amp 12 Volt
BATTERY	•(4) 12 volt 475 CCA	●(4) 12 volt 475 CCA	●(4) 12 volt 475 CCA
AIR CLEANER	Dry Type	Dry Type	Dry Type
AIR COMPRESSOR	13.2 CFM	12 CFM	12 CFM
HOURMETER	Yes	Yes	Yes
STARTING SYSTEM	24 Volt	24 Volt	24 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.

CCA = Cold Cranking Amperage

DIMENSIONS

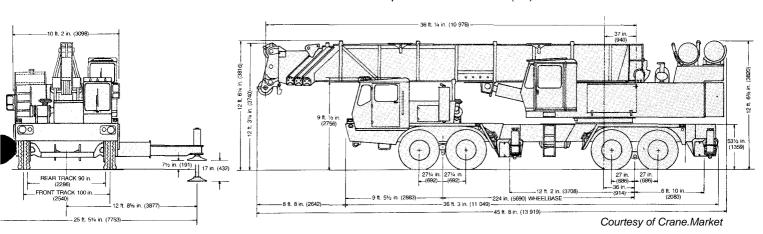
TURNING RADIUS - 42 ft. 21/2 in. (12 865)

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

TAIL SWING - 12 ft. 1/2 in. (counterweight in travel position) (3670)

TAIL SWING - 14 ft. 1/2 in. (counterweight in working position) (4280)

NOTE: Dimensions shown in parentheses are millimeters (mm)



Caprier specifications

MODEL 126100G - 12 x 6 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 super-structure 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 151/2 in. (394 mm), 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. (2.54 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.

- FUEL TANK Single 100 gallons (379 liters) capacity mounted on right side of
- 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: 2508 in.² (16 182 cm²).
- 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, 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 hookblock storage trough, mud flaps, tool storage compartment, counterweight storage brackets mounted on carrier.

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

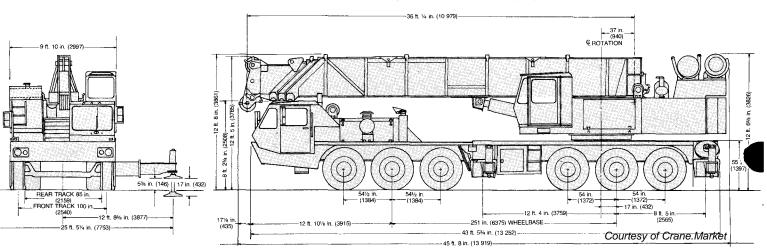
	MAKE & MODEL	Cummins NTC350	*GM8V-71T	*Caterpillar 3406TA
	TYPE	6 Cylinder O.H.V.	8 Cylinder O.H.V.	6 Cylinder O.H.V.
	BORE & STROKE	5.5 in. x 6 in. (140 mm x 152 mm)	4.25 in. x 5 in. (108 mm x 127 mm)	5.4 in. x 6.5 in. (137 mm x 165 mm)
	DISPLACEMENT	855 cu. in. (14 013 cm³)	568 cu. in. (9310 cm³)	893 cu. in. (14 636 cm³)
	HORSEPOWER (NET)	304 @ 2100 RPM	312 @ 2100 RPM	285 @ 2100 RPM
	GOVERNED RPM	2100	2100	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
8	HOURMETER	Yes	Yes	Yes
	STARTING SYSTEM	24 Volt	24 Volt	24 Volt
	HOURMETER	Yes	Yes	Yes

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 - 10½ 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)



8x4 CARRIER

AXLE WEIGHT DISTRIBUTION CHART

		POUNDS		KI		
ITEM	GROSS	FRONT	REAR	GROSS	FRONT	REAR
Basic standard machine to include 36 – 114 ft. (10.9 – 34.8 m) trapezoidal boom (power pinned fty) plus a 32 ft. (9.7 m) "Swingaway" extension, Grove Model 32S-1726B main hoist with 750 ft. (228.6 m) of ¾ in. (19 mm) rope, 12,975 lb. (5885 kg) counterweight, Grove Model 8 x 4-80 carrier, Cummins NTC 350 (carrier engine), Cummins V555-C230 (superstructure engine)	119,089	40,612	78.477	54 019	18 421	35 597
REMOVE:	1 ''''					1 99 991
Standard 12,975 lb. (5885 kg) counterweight	-12,975	+5,288	-18.263	-5885	+2399	-8284
Standard 32 ft. (9.7 m) "Swingaway" extension	-1.654	-1.685	+31	-750	-764	+14
Standard main hoist with rope	-2,825-		-3,601	-1281	+352	-1633
(2) front outrigger beams & jacks	-5,000	-3,259	-1,741	-2268	-1478	-790
(2) rear outrigger beams & jacks	-5,000	+2.098	-7.098	-2268	+952	-3220
ADD:						
80-ton (72.5 mt), 6-sheave hookblock (stowed)	+1,600	+2,571	-971	+726	+1166	-440
Auxiliary boom head	+230	+455	-225	+104	+206	-102
Fifth front outrigger jack	+600	+805	-205	+272	+365	-93
••Model 15S-16B auxiliary hoist with 550 ft. (167.6 m) of % in. (16 mm) dia. rope	+1,119	-460	+1,579	+508	-209	+716
Model 11 SGECR freefall auxiliary hoist with 550 ft. (167.6 m) of ½ in. (13 mm) dia. rope	+1,078	-443	+1,521	+489	-201	+690
•••Model 32S-1716B auxiliary hoist with 550 ft. (167.6 m) of ¾ in. (19 mm)						
dia. rope and idler	+2,385	-980	+3,365	+1082	-445	+1526
SUBSTITUTE:						
36-114 ft. (10.9-34.7 m) full power boom	+1,184	+506	+678	+537	+230	+307
••12,300 lb. (5579 kg) counterweight	-675	+275	-950	-306	+125	-431
•••11,300 lb. (5126 kg) counterweight	-1,675	+683	-2,358	-760	+310	-1070
GM8V – 71N engine (carrier)	-550	-617	+67	-249	-280	+30
Caterpillar 3406T engine (carrier)	-165	-185	+20	+75	+84	-9
GM6V – 53N engine (superstructure)	-170	-9	-161	-77	-4	-73
Caterpillar 3208 engine (superstructure)	-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 SGECR freefall auxiliary hoist.
 •••Use 11,300 lb. (5126 kg) counterweight with Grove 32S-1716B auxiliary hoist.

12x6 CARRIER

AXLE WEIGHT DISTRIBUTION CHART

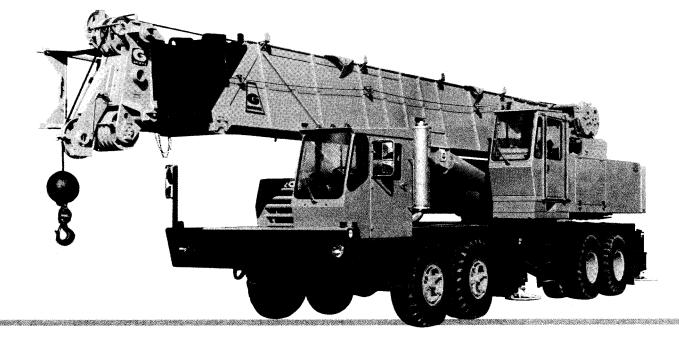
		POUNDS		KILOGRAMS			
ITEM	GROSS	FRONT	REAR	GROSS	FRONT	REAR	
Basic standard machine to include 36 – 114 ft. (10.9 – 34.8 m) trapezoidal boom (power pinned fly) plus a 32 ft. (9.7 m) "Swingaway" extension, Grove Model 32S-1726B main hoist with 750 ft. (228.6 m) of ¾ in. (19 mm) rope, 12,975 lb. (5885 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:	1,0,,5,0					42 055	
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 % in.(16 mm) dia, rope	+1,119	-495	+1,614	+508	-225	+732	
Model 11 SGECR freefall auxiliary hoist with 550 ft. (167.6 m) of ½ in. (13 mm) dia. rope Model 32S-1716B auxiliary hoist with 550 ft. (167.6 m) of ¾ in. (19 mm)	+1,078	-477	+1,555	+489	-216	+705	
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.

^{••}Use 12,300 lb. (5579 kg) counterweight with Grove 15S-16B or Gearmatic model 11 SGECR freefall auxiliary hoist.

••Use 11,300 lb. (5126 kg) counterweight with Grove 32S-1716B auxiliary hoist.

Courtesy



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′ $5\frac{1}{4}$ ″ (7.8 m) outrigger spread provides an exceptionally stable lifting base. The 12x6 carrier is equipped with a two-man cab.





HYDRAULIC CRANES

GROVE MANUFACTURING COMPANY

Division of Walter Kidde & Company, Inc.

KIDDE

SHADY GROVE, PA. 17256 U.S.A. Telex: 842308/Cable: GROVEMFG



80 TON CAPACITY 36 ft. - 146 ft. BOOM

(FULL POWER) 8x4 and 12x6 CARRIER PCSA CLASS 12-365

FEET z ŏ

RATED LIFTING CAPACITIES IN POUNDS

ON OUTRIGGERS FULLY EXTENDED OVER SIDE & REAR

_	(;	360° W/F	IFTH F	RONT O	JTRIGGI	ER JACK	()	
Radius in			Boom	Length in	n Feet			32 ft. Ext. & 114 ft.
Feet	*36	49	62	75	88	101	114	**146
12	160,000	103,000	83,000	78,000			1	
	(65)	(72)	(76)	(78.5)			1	
15	120,000	100,000	81,000	76,500	63,000			
	(60)	(68.5)	(73)	(76)	(79)			
20	93,000	90,000	79,000	68,000	59,400	54,000	50,000	
	(50)	(62)	(68)	(72)	(75.5)	(77)	(79.5)	_
25	72,500	72,500	70,700	64,000	54,000	52,200	43,200	30,000
	(38.5)	(55)	(63)	(68)	(72)	(74)	(77.5)	(79.5)
30	58,000	58,000	58,000	50,000	44,100	43,200	36,000	27,950
	(23)	(47.5)	(58)	(64)	(68.5)	(71.5)	(75)	(78.5)
35		46,240	44,100	40,700	36,000	34,000	32,400	25,900
		(39)	(52)	(59.5)	(65)	(68.5)	(72)	(76.5)
40	!	36,530	36,530	35,000	30,000	29,000	27,000	23,800
		(28.5)	(46)	(55)	(61.5)	(65.5)	(69.5)	(74.5)
45		28,870	28,870	28,870	28,500	27,100	25,000	21,700
		(11)	(39)	(50)	(57.5)	(62)	(66.5)	(72.5)
50			23,380	23,380	23,380	23,380	21,000	19,450
			(31)	(45)	(53.5)	(59)	(63.5)	(70.5)
60				16,330	16,330	16,330	16,330	15,250
				(33)	(44.5)	(52)	(57.5)	(66)
70				11,980	11,980	11,980	11,980	13,000
				(13)	(34)	(44.5)	(51)	(61.5)
80					8,870	8,870	8,870	11,300
					(19.5)	(35.5)	(44)	(57)
90						6,640	6,640	8,830
						(24)	(36)	(52)
100		-					4,880	6,650
							(26)	(46.5)
110							3,660	4,950
							(8)	(40.5)
120								3,400
								(34)
130								2,200
								(25.5)
140								1,310
								(12.5)
142.5								1,110
								(0)

NOTE: Boom angles are in degrees,

A6-829-002687-002836A-002689B

- LIFTING CAPACITY NOTES:

 1. 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.

 2. Capacities for the 36 ft. boom length shall be lifted with boom fully retracted. If boom is not fully retracted, capacities shall not exceed those shown for the 49 ft. boom length.

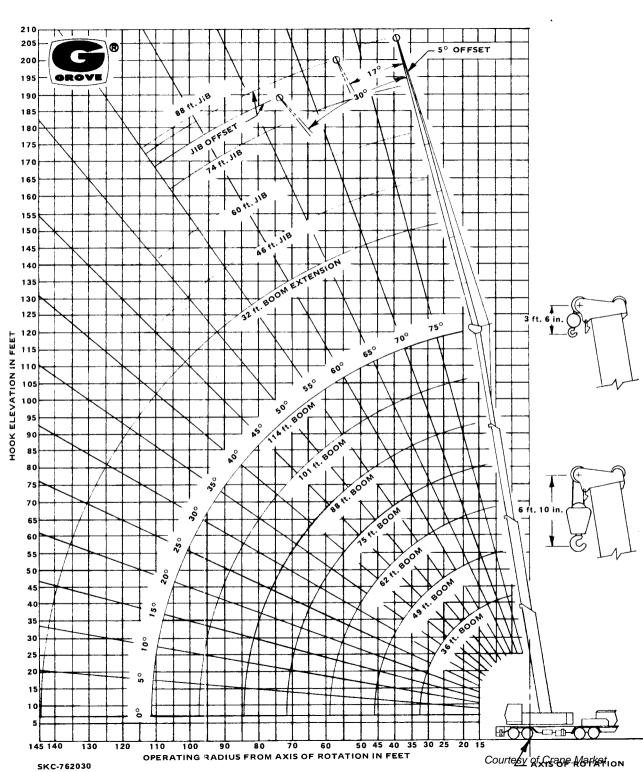
 3. Radii less than 30 ft. or 9 meters not recommended when lifting over front of machine.

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

 **5. For boom lengths less than 146 ft. & 32 ft. boom ext. erected, the rated loads are determined by boom angle only in the column headed by 146 ft. boom. For boom angles not shown, use rating of next lower boom angle. For this load column, the 32 ft. 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 only.

 6. Boom angle is the included angle between horizontal and the longitudinal axis of the boom base section after lifting rated load.
 - A6-829-002835BCrane.Market SKC-76

RANGE DIAGRAM



LIFTING CAPACITY NOTES

- 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.
"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.

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

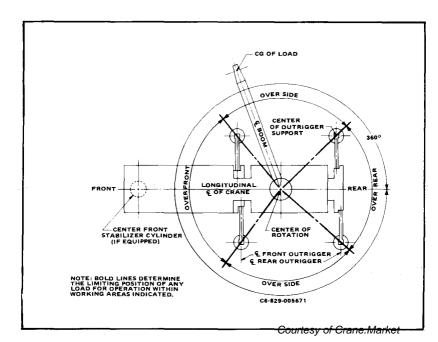
exceed 80% of rated lifting capacities.

- 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.

 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.
- 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





JIB CAPACITIES With Two Part Line Only ON OUTRIGGERS FULLY EXTENDED OVER SIDE & REAR (360° W/FIFTH FRONT OUTRIGGER JACK)

| | 46 ft. | JIB CA | APACIT | IES | | | 60 ft. | JIB CA | PACIT | IES | |
 | 74 ft. JIB CAPACITIES | | |
 |

 | 88 ft. JIB CAPACITIES
 | | | | | |
|---------------|--|---|--|--|--|--|--|---|---|---|--
--|---|--|---
--

--

--
--|---|---|--|--|--|
| 5° 0 | FFSET | 17° O | FFSET | 30° O | FFSET | 5° O | FFSET | 17° O | FFSET | 30° O | FFSET | 5° OI
 | FFSET | 17° O | FFSET | 30° O
 | FFSET

 | 5° O
 | FFSET | 17° O | FFSET | 30° O | FFSET |
| Ref.*
Rad. | Load
lbs.** | Ref.
Rad. | Load
lbs. | Ref.
Rad. | Load
Ibs. | 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. |
| 35.5 | 16,500 | 44 | 12,800 | 53 | 7,360 | 40 | 12,250 | 53 | 9,020 | 64 | 4,980 | 46.5
 | 9,380 | 60 | 6,420 | 77
 | 3,250

 | 47
 | 7,390 | 62.5 | 4,450 | 83 | 2,050 |
| 42 | 15,650 | 50.5 | 12,250 | 59 | 6,960 | 46.5 | 11,450 | 58.5 | 8,550 | 68.5 | 4,660 | 53
 | 8,660 | 66 | 6,010 | 81
 | 3,010

 | 55.5
 | 6,680 | 71.5 | 4,010 | 89 | 1,850 |
| | | 57 | 11,320 | 64.5 | 6,600 | 53 | 10,800 | 64 | 7,910 | 73 | 4,380 | 59.5
 | 8,030 | 72.5 | 5,640 | 85
 | 2,800

 | 64
 | 6,050 | 81 | 3,610 | 95.5 | 1,680 |
| 55.5 | 14,250 | 63.5 | 10,540 | 70.5 | 6,290 | 61 | 10,200 | 71 | 7,370 | 80 | 4,140 | 66.5
 | 7,470 | 79.5 | 5,210 | 92
 | 2,610

 | 73
 | 5,500 | 89 | 3,260 | 103 | 1,530 |
| 62 | 12,610 | 70 | 9,860 | 76.5 | 6,010 | 69 | 9,680 | 78.5 | 6,900 | 87.5 | 3,920 | 73.5
 | 6,960 | 87 | 4,800 | 99
 | 2,440

 | 81.5
 | 4,950 | 97 | 2,930 | 110.5 | 1,390 |
| 68 | 10,280 | 75.5 | 9,120 | 82 | 5,770 | 75.5 | 8,530 | 85 | 6,500 | 93 | 3,730 | 81.5
 | 6,500 | 94 | 4,450 | 106
 | 2,300

 | 90.5
 | 4,460 | 104.5 | 2,640 | 118 | 1,280 |
| 74 | 8,470 | 81 | 7,620 | 87 | 5,560 | 81.5 | 6,970 | 92 | 6,140 | 99 | 3,570 | 89
 | 5,920 | 101 | 4,140 | 112.5
 | 2,170

 | 99
 | 4,020 | 111.5 | 2,370 | 125.5 | 1,170 |
| 80 | 7,020 | 86.5 | 6,390 | 93 | 5,370 | 88 | 5,720 | 97.5 | 5,100 | 105 | 3,420 | 97
 | 4,800 | 108.5 | 3,880 | 118
 | 2,060

 | 106
 | 3,620 | 118_ | 2,140 | 130 | 1,080 |
| 86 | 5,850 | 92 | 5,370 | 98.5 | 5,070 | 94.5 | 4,690 | 103.5 | 4,230 | 111 | 3,290 | 104.5
 | 3,890 | 116 | 3,080 | 123.5
 | 1,890

 | 113
 | 3,260 | 124.5 | 1,570 | | |
| 96 | 4,060 | 102 | 3,780 | 108 | 3,620 | 107 | 3,110 | 115 | 2,840 | 121 | 2,050 | 115
 | 2,480 | 126.5 | 1,180 |
 |

 | 125
 | 1,260 | | | | | | | | | | | |
| 105.5 | 2,780 | 112.5 | 2,620 | 116.5 | 2,530 | 117.5 | 1,970 | 125.5 | 1,200 | | |
 | | I. | |
 |

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 | | | | | | | | | | | | |
| 116 | 1,830 | 121 | 1,700 | 124.5 | 1,350 | | | | | | |
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 | | | | | |
| | Ref.* Rad. 35.5 42 49 55.5 62 68 74 80 86 96 | 5° OFFSET Ref. Load Rad. 105.** 35.5 16,500 42 15,650 49 14,900 55.5 14,250 62 12,610 68 10,280 74 8,470 80 7,020 86 5,850 96 4,060 105.5 2,780 | 5° OFFSET 17° O Ret.* Load Ref. Rad. lips.** Rad. 35.5 16,500 44 42 15,650 50.5 49 14,900 57 55.5 14,250 63.5 62 12,610 70 68 10,280 75.5 74 8,470 81 80 7,020 86.5 86 5,850 92 96 4,060 102 | S° OFFSET 17° OFFSET Ref. Ref. Bad. Load Bad. 35.5 16.500 44 12.800 42 15,650 50.5 12.250 49 14,900 57 11.320 55.5 14,250 63.5 10.540 62 12,610 70 9.860 68 10,280 75.5 9,120 74 8,470 81 7,620 80 7,020 86.5 6,390 36 5,850 92 5,370 96 4,060 102 3,780 105.5 2,780 112.5 2,620 | 5° OFFSET 17° OFFSET 30° O Ref. Ref. Bad. Bss.** Rad. Bss.** Rad. Bss.** 35.5 16.500 44 12.800 53 42 15,650 50.5 12.250 59 49 14,900 57 11,320 64.5 55.5 14,250 63.5 10,540 70.5 62 12,610 70 9.860 76.5 68 10,280 75.5 9,120 82 74 8,470 81 7,620 87 80 7,020 86.5 6,390 93 36 5,850 92 5,370 98.5 96 4,060 102 3,780 108 105.5 2,780 112.5 2,620 116.5 | 5° OFFSET 17° OFFSET 30° OFFSET Ref. sd. b.s.* Red. b.s. Red. b.s. 8d. b.s.* Red. b.s. Red. b.s. 35.5 16,500 44 12,800 53 7,360 42 15,650 50.5 12,250 59 6,960 49 14,900 57 11,320 64.5 6,600 55.5 14,250 63.5 10,540 70.5 6,290 62 12,610 70 9,860 76.5 6,010 68 10,280 75.5 9,120 82 5,760 74 8,470 81 7,620 87 5,560 80 7,020 86.5 6,390 93 5,370 36 5,850 92 5,370 98.5 5,070 96 4,060 102 3,780 108 3,620 105.5 2,780 112.5 2,620 116.5 2,530 | 5° OFFSET 17° OFFSET 30° OFFSET 5° O Ref. Rad. Load Ibs. Red. Ibs. Red. Ibs. Red. Ibs. Red. Ref. Rad. Ref. | 5° OFFSET 17° OFFSET 30° OFFSET 5° OFFSET Ref. ad. b.3d Rgf. lbs. Rgd. b.3d lbs. Rgd. b.3d lbs. Rgd. lb | 5° OFFSET 17° OFFSET 30° OFFSET 5° OFFSET 17° OFFSET Ref. Rd. B.b., Rad. lbs. Rad. lbs. | 5° OFFSET 17° OFFSET 30° OFFSET 5° OFFSET 17° OFFSET Ref. Rad. Bosh.* Rad. lbs.* Ref. lbs.* Ref. Rad. l | 5° OFFSET 17° OFFSET 30° OFFSET 5° OFFSET 17° OFFSET 30° OF Ref. Rd. Bols.* Load Ref. Bols.* Red. lbs. Ref. Rad. Load Ref. Rad. Ref. Rad. Ref. Rad. Load Ref. Rad. Ref. Rad. | S° OFFSET 17° OFFSET 30° OFFSET 5° OFFSET 17° OFFSET 30° OFFSET Ref. Rd. Load Rd. Load Rd. Ibs. Ref. Ibs. Ref. Rd. Ibs. Ref. Rad. Ibs. | S° OFFSET 17° OFFSET 30° OFFSET 5° OFFSET 17° OFFSET 30° OFFSET 5° OF Ref. Rd. Load Ref. lbs.* Red. lbs. Ref. Rad. Load Ref. Rad. Rad. Ibs.* Ref. Rad. Load Ref. Rad. Rad. | S° OFFSET 17° OFFSET 30° OFFSET 5° OFFSET 17° OFFSET 30° OFFSET 5° OFFSET Ref. Rd. Load lbs. Ref. lbs. Load lbs. Ref. Rad. 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WARNING: The Krueger LMI will not compensate for reeving/rigging accessories on the main boom nose or auxiliary boom nose when programmed to monitor the jib. Remove all reeving/rigging accessories from main boom when using jib.

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-765.
 46', 60', 74' & 88' (14.0, 18.3, 22.6, & 26.8 Meter) jibs may be used for two-part 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 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.
 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 frontsince loss of stability will occur causing a tipping condition. 74 FT. (22.6 METER) JIB WARNING: With 74' (22.6m) jib 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' (26.8 m) 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.

JIB ERECTION NOTES:

A. Maximum total length of main boom for purpose of erecting jib, over rear or over side, 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 libs over front of machine.

WEIGHT REDUCTION FOR LOAD HANDLING DEVICES

32 ft. BOOM EXTENSON WITH 36 - 114 ft. BOOM tSTOWED -365 lbs. tERECTED -2.455 lbs.

36 - 114	ft.	BOOM WITH
†46 ft. JIB	•	8,828 lbs.
160 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 71/2 Ton Headache Ball . 300 lbs. 10 Ton Headache Ball 500 lbs.

Handling NOTE: ΑII Load 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.

t Reduction of main boom capacities



GROVE MANUFACTURING COMPANY

Division of Kidde, Inc

KIDDE

Box 21, Shady Grove, Pennsylvania 17256

Phone: (717) 597-8121 Telex: 842308 Cable: GROVE MFG

Distributed by:

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No. LCETM875-1-F.P.-85%

^{*} Reference Radius (Feet) refers to fully extended boom and appropriate jib length. ** Capacities at loaded main boom angle.



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			В		ngth in F	eet			Power Pin, Fly & 88 ft.	32 ft. Ext. & 114 ft.
Feet	*36	44	52	60	68	76	82	88	**114	***146
12	160,000	125,000	110,000	99,000	92,000	87,000				
	(65.5)	(70.0)	(73.0)	(75.5)	(77.5)	(79.0)				ĺ
15	125,000	112,500	103,000	94,800	88,200	82,300	74,150	63,000		
	(60.0)	(66.0)	(69.5)	(72.5)	(74.5)	(76.5)	(78.0)	(79.0)		
20	93,500	90,250	86,400	81,900	76,600	70,150	65,900	59,850	50,000	
	(50.0)	(58.5)	(63.5)	(67.5)	(70.5)	(72.5)	(74.0)	(75.5)	(79.5)	
25	72,500	70,950	68,900	66,200	62,500	57,050	55,250	54,000	45,000	30,000
	(39.0)	(50.5)	(57.5)	(62.0)	(65.5)	(68.5)	(70.5)	(72.0)	(77.5)	(79.5)
30	56,000	56,000	56,000	54,900	52,350	47,600	46,000	44,700	39,250	28,400
	(23.5)	(41.5)	(50.5)	(56.5)	(61.0)	(64.5)	(66.5)	(68.5)	(75.0)	(78.5)
35		42,090	42,090	42,090	42,090	40,500	39,050	37,850	33,900	25,900
		(30.0)	(43.0)	(50.5)	(56.0)	(60.0)	(63.0)	(65.0)	(72.0)	(76.5)
40		32,430	32,430	32,430	32,430	32,430	32,430	32,430	29,650	23,800
		(11.5)	(34.0)	(44.0)	(51.0)	(56.0)	(59.0)	(61.5)	(69.5)	(74.5)
45			26,270	26,270	26,270	26,270	26,270	26,270	26,150	21,900
			(22.5)	(37.0)	(45.0)	(51.0)	(54.5)	(57.5)	(67.0)	(72.5)
50			I	21,190	21,190	21,190	21,190	21,190	23,300	20,300
		L		(28.0)	(39.0)	(46.0)	(50.0)	(53.5)	(64.0)	(70.5)
60					14,030	14,030	14,030	14,030	17,230	17,100
			l		(22.0)	(34.0)	(40.0)	(45.0)	(58.0)	(66.0)
70						10,300	10,300	10,300	12,480	14,100
	_					(16.0)	(27.5)	(34.5)	(52.0)	(61.5)
80								6,610	9,160	10,840
								(20.0)	(45.0)	(57.0)
90									6,690	8,100
									(37.0)	(52.0)
100									4,490	6,060
					1				(27.0)	(46.5)
110				T					2,830	4,540
				L					(9.0)	(40.5)
120				T						3,210
	l	L	L		1	l	L .	l .	l	(34.0)
130	1							1		2,170
			l							(25.5)
140										1,310
		1	1		!			1	l	(12.5)

NOTE: Boom angles are in degrees.

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12 x 6 CARRIER

				12 7	0 07					
Radius				Boom Ler					Power Pin, Fly	32 ft. Ext.
in				Pinned F					& 88 ft.	&114 ft
Feet	*36	44	52	60	68	76	82	88	**114	***146
12	160,000		110,000	99,000	92,000	87,000	Ţ]
	(65.5)	(70)	(73)	(75.5)	(77.5)	(79)				
15			103,500	95,700	89,250	83,800	74,150	63,000		
	(60)	(66)	(69.5)	(72.5)	(74.5)	(76.5)	(78)	(79)		
20	93,500	91,550		86,000	81,750	75,750	67,000	59,850	50,000	
	(50)	(58.5)	(63.5)	(67.5)	(70.5)	(72.5)	(74)	(75.5)	(79.5)	L
25	72,500	72,000		70,150	68,100	63,500	58,000	54,000	45,000	30,000
	(39)	(50.5)	(57.5)	(62)	(65.5)	(68.5)	(70.5)	(72)	(77.5)	(79.5)
30	58,000	57,900		57,550	57,000	52,950	48,850	44,700	39,250	28,400
	(23.5)	(41.5)	(50.5)	(56.5)	(61)	(64.5)	(66.5)	(68.5)	(75)	(78.5)
35		48,100		48,000	47,900	45,200	41,700	37,850	33,900	25,900
		(30)	(43)	(50.5)	(56)	(60)	(63)	(65)	(72)	(76.5)
40			39,915	39,915	39,915	39,150	35,950	32,500	29,650	23,800
			(34)	(44)	(51)	(56)	(59)	(61.5)	(69.5)	(74.5)
45			32,510	32,510	32,510	32,510	31,250	28,250	26,150	21,900
			(22.5)	(37)	(45)	(51)	(54.5)	(57.5)	(67)	(72.5)
50				26,500	26,500	26,500	26,500	24,750	23,300	20,300
				(28)	(39)	(46)	(50)	(53.5)	(64)	(70.5)
60					18,600	18,600		18,600	18,800	17,100
					(22)	(34)	(40)	(45)	(58)	(66)
70						12,800	12,800	12,800	14,785	14,100
						(16)	(27.5)	(34.5)	(52)	(61.5)
80								9,000	11,060	11,800
								(20)	(45)	(57)
90									8,415	9,600
									(37)	(52)
100		· ·							5,925	7,230
									(27)	(46.5)
110		1							3,590	5,575
									(9)	(40.5)
120										4,080
										(34)
130										2,835
										(25.5)
140										1,700
]		(12.5)
142.5							·			1,500
								ſ		(0)

NOTE: Boom angles are in degrees.

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- LIFTING CAPACITY NOTES

 1. 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.

- 2. Do not exceed any rated load when lifting regardless of whether it is based on structural strength or stability.

 *3. 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.

 4. Radii less than 30 feet or 9 meters not recommended when lifting over front of machine (if equipped with front jack cylinder).

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

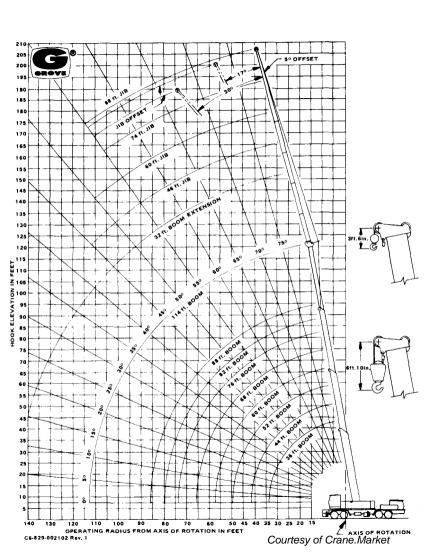
 **6. For boom lengths less than 114' (34.8m) with power pinned fly extended, the rated loads are determined by boom angle in the column headed by 114' (34.8m) boom. For boom angles not shown, use rating of next lower boom angle. For this load column, the extended power pinned fly operational mode is to be selected on the Krueger L.M.I.

 WARNING: The Krueger L.M.I. rating will apply for full boom extension only.

 ***7. 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.

 8. Boom angle is the included angle between horizontal and the longitudinal axis of the boom base section after Chings yabé Change. Market

RANGE DIAGRAM



LIFTING CAPACITY NOTES

- 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 Inade
- 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. 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.

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.

For clamshell or concrete bucket operation, weight of bucket and load must not exceed 80% of rated lifting capacities.

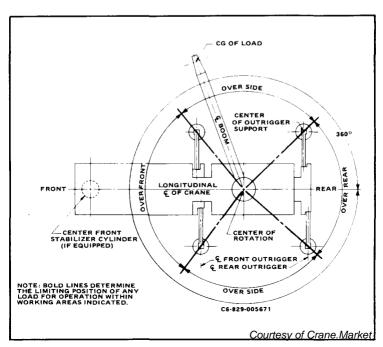
- 8. Power-telescoping boom sections must be extended equally at all times. Long cantilever booms can create a tipping condition when in extended and lowered
- position.
 The maximum load which may be telescoped is limited by hydraulic pressure, boom angle, boom lubrication, etc. It is safe to attempt 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.
- 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.

 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





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

Loaded		46 ft	. JIB C.	APACIT	IES			60 ft	. JIB CA	PACIT	IES			74 ft	. JIB C	APACIT	IES			88 ft	. JIB C	APACIT	TIES	
Main	5° OF	FSET	17° 0	FFSET	30° O	FFSET	5° OF	FSET	17° 01	FFSET	30° O	FFSET	5° OF	FSET	17° OF	FSET	30° O	FFSET	5° OF	FSET	17° O	FFSET	30° O	FFSET
Boom Angle	Ref.* Rad.	Load lbs. **	Ref. Rad	Load lbs.	Ref. Rad.	Load lbs	Ref. Rad.	Load lps.	Ref. Rad.	Load lbs.														
80°	31.5			12.800	49	7.980		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		12,300		7,550		11,450		8,550		4,890		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.

- 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.

front) since loss of stability will occur causing.

88 FT. (26.8 METER) JIB WARNING: With 88' (26.8 m) lib 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	E)	KTENSION
WITH 36 - 1	14	ft. BOOM
†STOWED	-	365 lbs.
†ERECTED	•	2,455 lbs.

36 - 114	ft. B	OOM 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.
71/2 Ton Headache Ball	300 lbs.
10 Ton Headache Bail	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.



GROVE MANUFACTURING COMPANY KIDDE

Box 21, Shady Grove, Pennsylvania 17256 Phone: (717) 597-8121 Telex: 842308 Cable: GROVE MFG

Box 21, Shady Grove, Pennsylvania 17256

Distributed by:

DATE: 681-18M Printed in U.S.A.



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			8	loom Le	ngth in F	eet		20	Power Pin. Fly & 88 ft.	32 ft. Ext. & 114 ft.
Feet	*36	44	52	60	68	76	82	88	**114	***146
12	160,000			The second secon	92,000	87,000				2000 822
	(65.5)	(70.0)	(73.0)	(75.5)	(77.5)	(79.0)	AND DOOR			
15		112,500			88,200	82,300	74,150	63,000		
	(60.0)	(66.0)	(69.5)	(72.5)	(74.5)	(76.5)	(78.0)	(79.0)		
20	93,500			81,900	76,600	70,150	65,900	59,850	50,000	
	(50.0)	(58.5)	(63.5)	(67.5)	(70.5)	(72.5)	(74.0)	(75.5)	(79.5)	
25	72,500	LUMENT BUILD COMMON		66,200	62,500	57,050	55,250	54,000	45,000	30,000
25	(39.0)	(50.5)	(57.5)	(62.0)	(65.5)	(68.5)	(70.5)	(72.0)	(77.5)	(79.5)
30	56,000			54,900	52,350	47,600	46,000	44,700	39,250	28,400
	(23.5)	(41.5)	(50.5)	(56.5)	(61.0)	(64.5)	(66.5)	(68.5)	(75.0)	(78.5)
35		42,090		42,090	42,090	40,500	39,050	37,850	33,900	25,900
		(30.0)	(43.0)	(50.5)	(56.0)	(60.0)	(63.0)	(65.0)	(72.0)	(76.5)
40	ij.	32,430	Control of the Contro	32,430	32,430	32,430	32,430	32,430	29,650	23,800
i cocons		(11.5)	(34.0)	(44.0)	(51.0)	(56.0)	(59.0)	(61.5)	(69.5)	(74.5)
45	į.		26,270	26,270	26,270	26,270	26,270	26,270	26,150	21,900
			(22.5)	(37.0)	(45.0)	(51.0)	(54.5)	(57.5)	(67.0)	(72.5)
50	SW			21,190	21,190	21,190	21,190	21,190	23,300	20,300
				(28.0)	(39.0)	(46.0)	(50.0)	(53.5)	(64.0)	(70.5)
60				100	14,030	14,030	14,030	14,030	17,230	17,100
1 M				80	(22.0)	(34.0)	(40.0)	(45.0)	(58.0)	(66.0)
70				6	:	10,300	10,300	10,300	12,480	14,100
	e Salars-ara mesa	esessa como mo cor	30-300-	0000		(16.0)	(27.5)	(34.5)	(52.0)	(61.5)
80							***************************************	6,610	9,160	10,840
								(20.0)	(45.0)	(57.0)
90	à.		**	802		9 XXX - A	33	058.52-486	6,690	8,100
) 1 32 9			202000	1	1 1000	AN 2074 NO	1000 H201100		(37.0)	(52.0)
100									4,490	6,060
									(27.0)	(46.5)
110			×				** × **		2,830	4,540
	8			1					(9.0)	(40.5)
120	100-2	N 0 - W					1.5		3830	3,210
	a.e.jo - 0100 0100.07.1	20.0000000 To			is xx			30 250		(34.0)
130	1		i						100000000000000000000000000000000000000	2,170
ATTAC STORES							63		6	(25.5)
140		-								1,310
0755000		18								(12.5)

NOTE: Boom angles are in degrees. A6-829-00203

A6-829-002037A & -002493A & -002169B

12 x 6 CARRIER

Radius in		Main Boom Length in Feet (Power Pinned Fly Retracted)										
Feet	*36	44	52	60	68	76	82	88	**114	&114 ft ***146		
12	160,000	125,000		99,000	92,000	87,000		C C				
5/2 / /	(65.5)	(70)	(73)	(75.5)	(77.5)	(79)	N	Mar. 435				
15		113,000	100000000000000000000000000000000000000	95,700	89,250	83,800	74,150	63,000		23		
	(60)	(66)	(69.5)	(72.5)	(74.5)	(76.5)	(78)	(79)				
20	93,500	91,550	89,100	86,000	81,750	75,750	67,000	59,850	50,000			
1455E 0	(50)	(58.5)	(63.5)	(67.5)	(70.5)	(72.5)	(74)	(75.5)	(79.5)	88		
25	72,500	72,000	71,250	70,150	68,100	63,500	58,000	54,000	45,000	30,000		
	(39)	(50.5)	(57.5)	(62)	(65.5)	(68.5)	(70.5)	(72)	(77.5)	(79.5)		
30	58,000	57,900	57,800	57,550	57,000	52,950	48,850	44,700	39,250	28,400		
	(23.5)	(41.5)	(50.5)	(56.5)	(61)	(64.5)	(66.5)	(68.5)	(75)	(78.5)		
35	100 - 100 -	48,100	48,050	48,000	47,900	45,200	41,700	37,850	33,900	25,900		
		(30)	(43)	(50.5)	(56)	(60)	(63)	(65)	(72)	(76.5)		
40		(C) 13	39,915	39,915	39,915	39,150	35,950	32,500	29,650	23,800		
			(34)	(44)	(51)	(56)	(59)	(61.5)	(69.5)	(74.5)		
45			32,510	32,510	32,510	32,510	31,250	28,250	26,150	21,900		
3		200202	(22.5)	(37)	(45)	(51)	(54.5)	(57.5)	(67)	(72.5)		
50			ć.	26,500	26,500	26,500	26,500	24,750	23,300	20,300		
			e Le vers di	(28)	(39)	(46)	(50)	(53.5)	(64)	(70.5)		
60			2000000		18,600	18,600	18,600	18,600	18,800	17,100		
					(22)	(34)	(40)	(45)	(58)	(66)		
70			37 X1			12,800		12,800	15 April 10	25/40/40/20/20/20/20/20/20/20/20/20/20/20/20/20		
	20120-0030					(16)	(27.5)	(34.5)	(52)	(61.5)		
80		· Co						9,000	11,060	I STATES IN THE SECOND		
		ä						(20)	(45)	(57)		
90									8,415	9,600		
	- 8								(37)	(52)		
100			() ()	e: someonene					5,925	7,230		
110	- 1			· · · · · · · · · · · · · · · · · · ·		-			(27)	(46.5)		
110					3				3,590	5,575		
120		-2 -2	25° 850 - 8	\$					(9)	(40.5)		
120			100	ľ	[[88		3		4,080		
130		* **			G2 D2		U 20		9	(34)		
130	37				3			. [2,835		
140	31/2010/10/20					9000	- 50.5	3 33		(25.5) 1,700		
140		900							2.			
142.5	3-4	-3"					2 X		1	(12.5) 1,500		
172.3	3				8			ř.				
	81				,			<u> </u>		(0)		

NOTE: Boom angles are in degrees,

A6-829-002153A & -003450 & -002169B

Courtesy of Crane.Market

LIFTING CAPACITY NOTES

1. 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.

*3. 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.

4. Radii less than 30 feet or 9 meters not recommended when lifting over front of machine (if equipped with front jack cylinder).

2. Do not exceed any rated load when lifting regardless of whether it is based on structural strength or stability.

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

**6. 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.

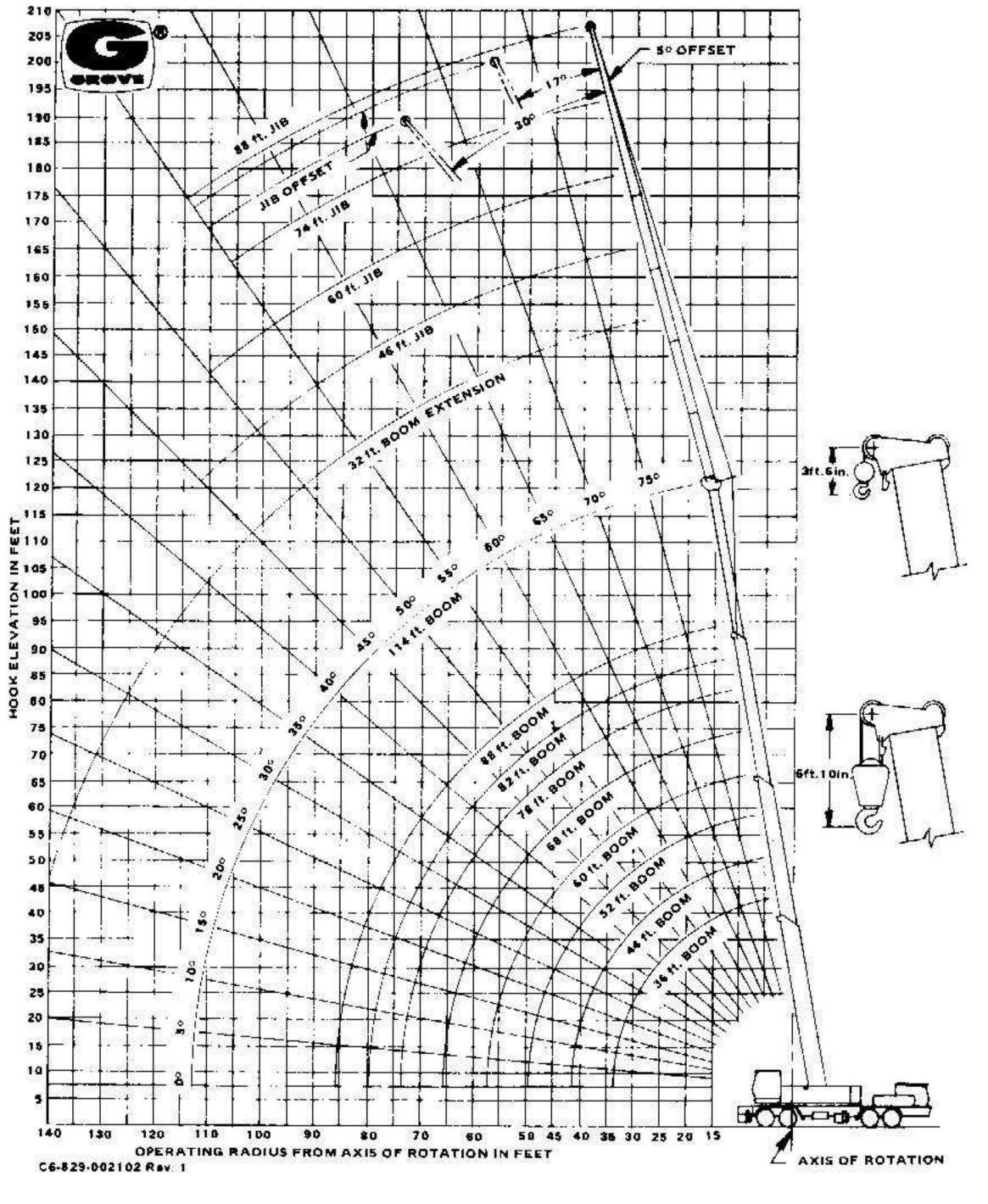
WARNING: The Krueger L.M.I. rating will apply for full boom extension only.

***7. 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.

8. Boom angle is the included angle between horizontal and the longitudinal axis of the boom base section after lifting rated load.

FULL HYDRAULIC CARRIER-MOUNTED CRANE

RANGE DIAGRAM



80 TON CAPACITY 36 ft. — 146 ft. BOOM

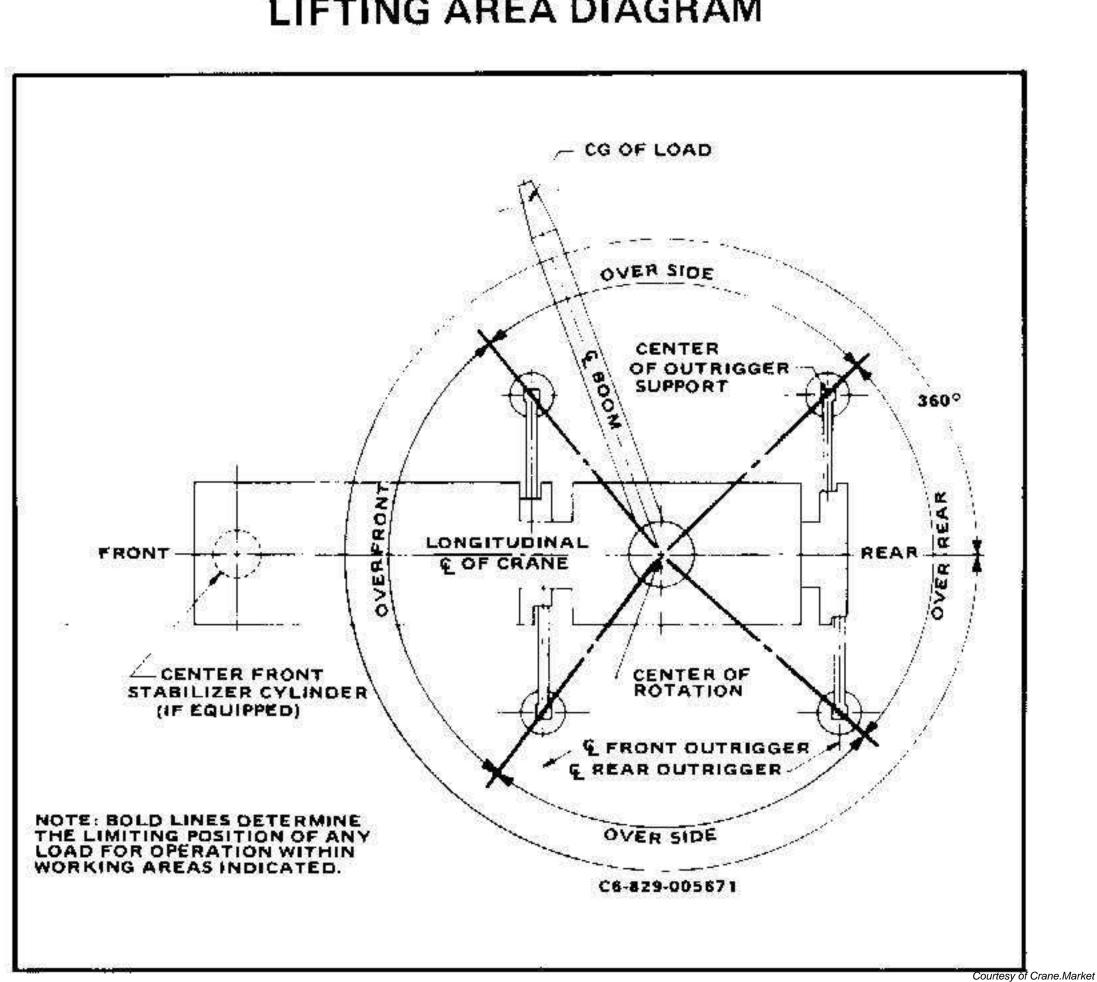
(POWER PINNED)

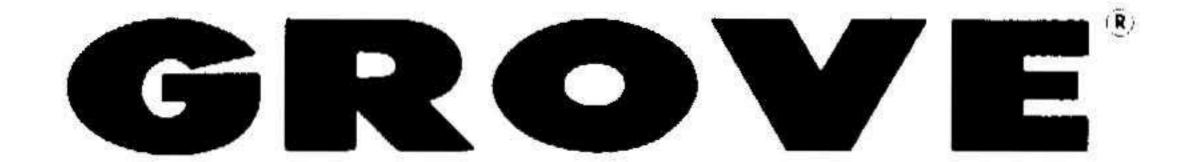
8 x 4 CARRIER and 12 x 6 CARRIER PCSA CLASS 12-324 **PCSA CLASS 12-399**

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





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

Loaded		46 ft	. JIB C	APACIT	IE5			60 ft.	JIB CA	APACIT	IES			74 ft	. JIB C	APACIT	IES		,	88 ff	. JIB C	APACIT	IES	
Main	5° OF	FFSET	17° 0	FFSET	30° O	FFSET	5° OF	FSET	17º 0	FFSET	30° O	FFSET	50 OF	FSET	17º O	FF5ET	30° O	FFSET	50 OF	FSET	17" 0	FFSET	30° O	FFSET
Boom Angle	Ref.* Rad.	Load lbs. **	Ref. Rad	Load lbs.	Ref. Rad.	Load ibs.	Ref. Rad.	Load (bs.	Ref. Rad.	Load los.	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	7,520	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													ő .	
45	114.5	1,830	119.5	1,700	123	1,350	9				CONTRACT	111 120100												

A6-829-004572A

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.
- 2. 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.
- 3. Rated load is based on loaded main boom angle.
- 4. 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.
- 5. 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.)

 6. 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' (26.8 m) 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.
- 7. 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. B	HTIW MOC
†46 ft. JIB	•	8,828 lbs.
160 ft. JIB		12,962 lbs.
†74 ft. JIB	8.5	17,868 Ibs.
† 88 ft. JIB	5 5 6	23,548 lbs.

HOOK BLOCK		
80 Ton, 6 Sheave .		1,615 lbs.
15 Ton, 1 Sheave .	0.00	650 lbs.
Auxiliary Boom Head		230 lbs.
5 Ton Headache Ball		150 lbs.
71/2 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.

CARRIER SPECIFICATIONS GROVE CARRIER 12 x 6, 80 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 forged aluminum floats. Beams extend to 25 ft. 5½ 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 (RTO09513) 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).

BRAKES - Full air on all wheels, Front: 17½ in. x 4 in. (438mm x 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, 23/4 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.	4.25 in. x 5 in.	5.4 in. x 6.5 in.
	(140mm x 152mm)	(108mm x 127mm)	(137mm x 165mm)
Displacement	855 cu, in,	568 cu, in.	893 cu. in.
	(14,013cm ³)	(9,310cm ³)	(14,636cm ³)
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	Yeş	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

SPEED AND GHADEADIETT					
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.

AXLE WEIGHT DISTRIBUTION CHART

ITEM		POUNDS					KILOGRAMS				
		SS	۶F	RONT	REAR	G	ROSS	F	RONT	F	REAR
Basic Standard Machine to Include:					yata 34 864_54		110-20				
36 - 114 ft. (10.97 - 34.74 m) trapezoidal boom plus				8				l			
a 32 ft. (9.75 m) Swingaway extension, Grove model											
32S-1726A main hoist with 750 ft. (228.60 m) of 3/4 in. (19mm) rope, 12,975 lb. (5,885 kg.) counterweight,				-		ā		1			
Grove model 12x6 - 80 carrier, Cummins NTC350								ĺ			
(Carrier Engine), Cummins V-555 (Superstructure Engine)	131,2	260	37	7,239	94,021	5	9,540	1	6,892	4	2,648
*Remove standard 12,975 lb. (5,885 kg.) counterweight	- 12,9	-7475-75	5.50	5,702	-18,677	49	5,886		2,586		8,472
80 ton (72.56 mt), 6 sheave hook block (stowed)	A STATE OF	000	1	2,756	- 1,156	+	726		1,250	ve.	524
Auxiliary boom head	+ 2	230	+	389	- 159	+	104	+	176	(16)	72
**Model 15S-16A Auxiliary hoist with 550 ft. (167.64 m)					1		, , , , , , , , , , , , , , , , , , , ,				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
of 5/8 in. (16 mm) dia. rope and idler	+ 1,1	140	-	504	+ 1,644	+	517	-	229	+	746
**Model 40 free fall Auxiliary hoist with 550 ft. (167.64 m)											
of 1/2 in. (13 mm) dia. rope and idler	+ 1,1	100	-	486	+ 1,586	+	499	-	220	+	719
*** Model 32S-1716A Auxiliary hoist with 550 ft. (167.64 m)		- 1									
of 3/4 in. (19 mm) dia. rope and idler	+ 2,4	169	- 1	1,092	+ 3,561	+	1,120		495	+	1,615
**Substitute 12,300 lb. (5,579 kg.) counterweight	- 6	375	+	297	- 972		306	+	135	100	441
***Substitute 11,300 lb. (5,126 kg.) counterweight	- 1,6	675	+	736	- 2,411		760	+	334	180	1,094
Substitute GM8V-71T engine (carrier)	- 4	150	. 	502	+ 52	: # :	204	-	228	+	24
Substitute Caterpillar 3406TA engine (carrier)	+	5	+	5	0	+	2	+	2		0
Substitute GM6V-53N engine (superstructure)	- 1	170	+	5	- 175	-	77	+	2	-	79
Substitute Caterpillar 3208 engine (superstructure)	- 4	110	+	12	- 422	4	186	+	` 5		191
Remove standard 32 ft. (9.75 m) Swingaway extension	- 1,5	550	+ 1	1,606	+ 56	•	703		728	+	25
Remove standard main hoist with rope	- 2,9	980	+	956	- 3,936		1,351	+	434	5576	1,785
Remove (2) front outrigger beams & jacks	- 5,0	000	- 2	2,530	- 2,470	1 - 1	2,268	*	1,148		1,120
Remove (2) rear outrigger beams & jacks	- 5,0	000	+ 2	2,012	- 7,012	-	2,268	+	913	1 -	3,181

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

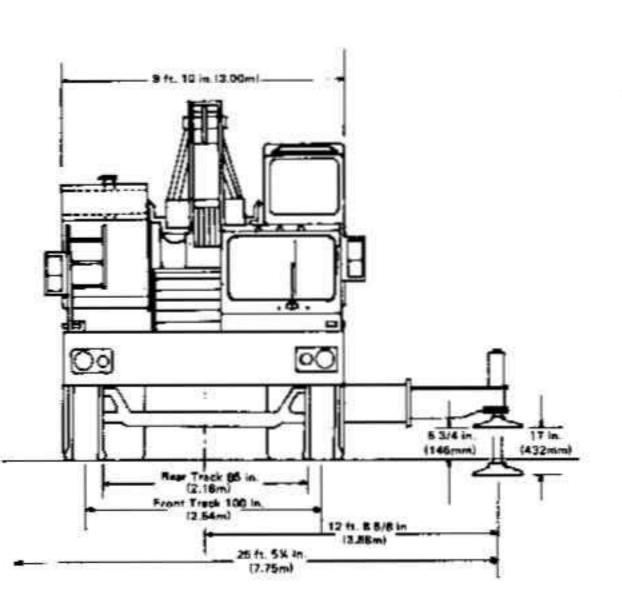
DIMENSIONS

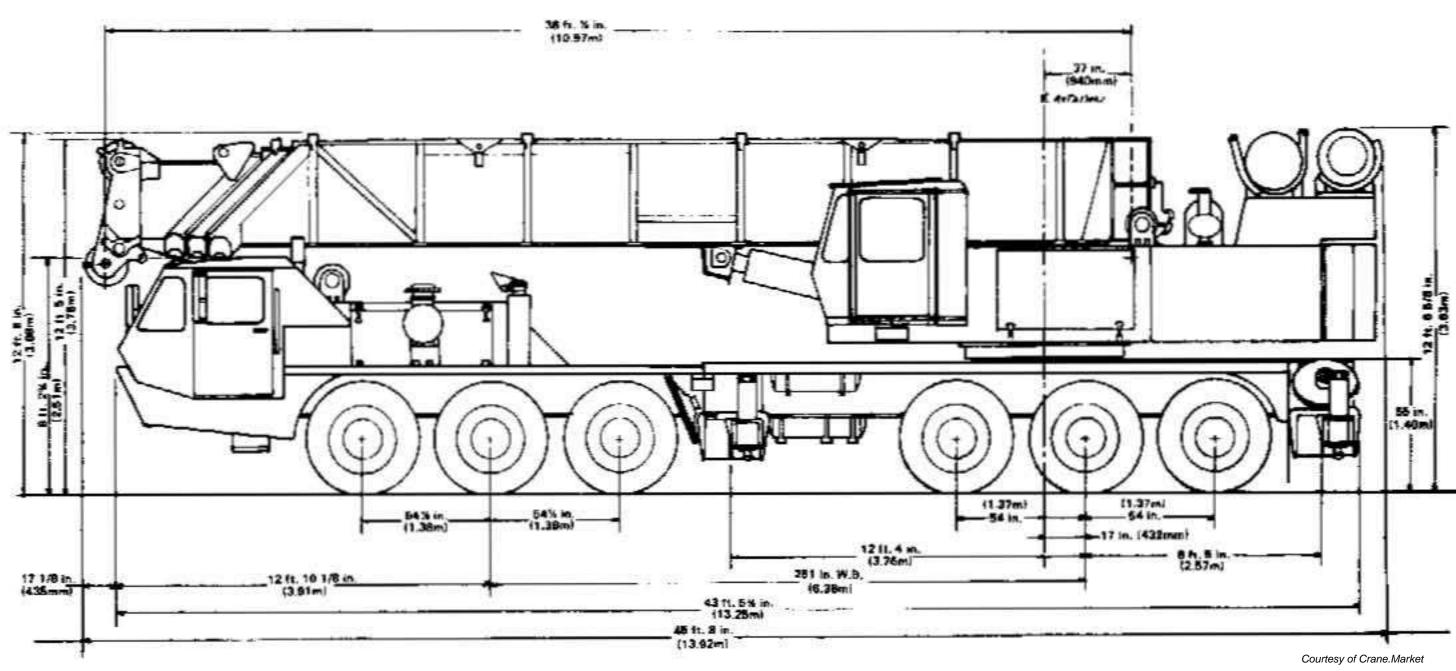
Turning Radius 51 ft. (15.55m).

Ground Clearance 10¼ in. (with float removed) (260mm)

Tail Swing 12 ft. ½ in. (CWT in travel position) (3.67m)

Tail Swing 14 ft. ½ in. (CWT in working position) (4.28m)





^{**}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.

CARRIER SPECIFICATIONS GROVE CARRIER 8 x 4, 80 TON



Courtesy of Crane.Market

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 aluminum floats. Beams extend to 25 ft. 5½ 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 (RT009513), 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.

TIRES - 14:00x20-20 ply tube-type, Hi-way tread front. ND-M&S rear.

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

BRAKES - Full air on all wheels.

Front: 17¼ in. x 4 in. (438mm x 102mm)

Rear: 16½ 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% 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.	4.25 in, x 5.0 in.	5.4 in. x 6.5 in.
	(140mm x 152mm)	(108mm x 127mm)	(137mm x 165mm)
Displacement	855 cu. in	568 cu. in.	893 cu. in.
	(14,013cm ³)	(9,310cm ³)	(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 RPN
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

	PEED AND GRADEABILIT	T
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.

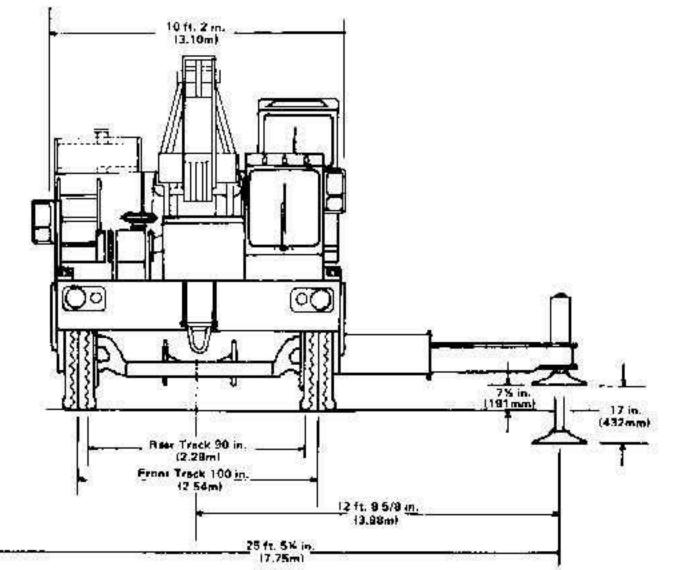
AXLE WEIGHT DISTRIBUTION CHART

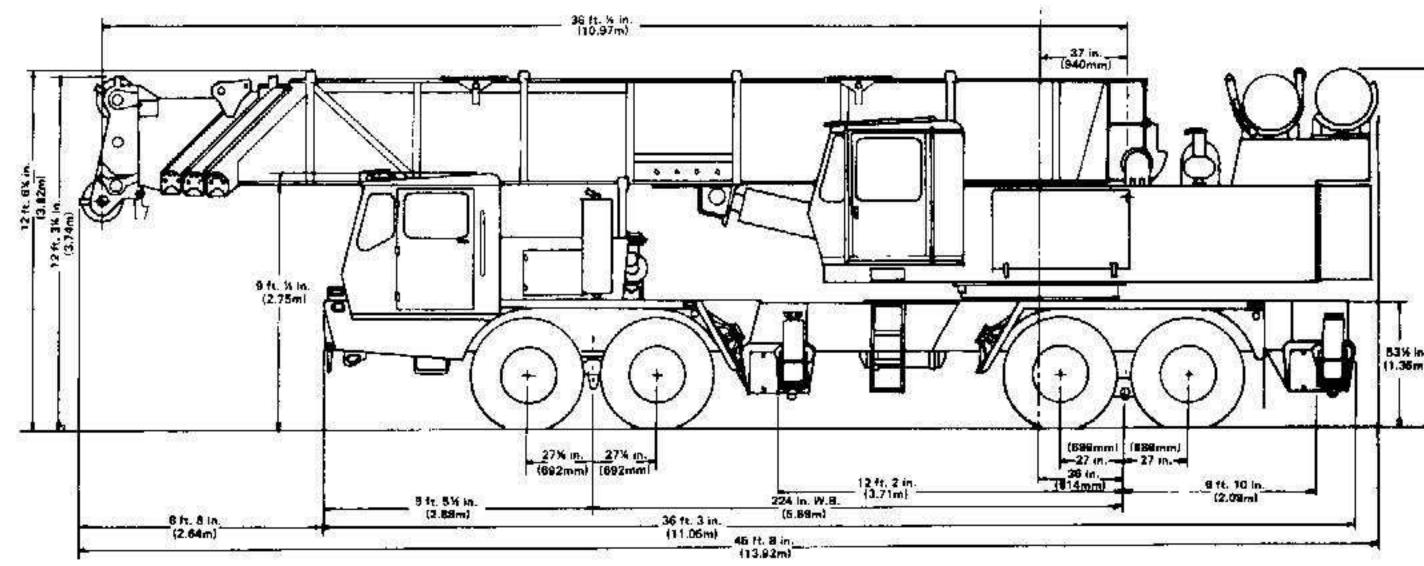
	POUNDS			KILOGRAMS				
ITEM	GROSS	FRONT	REAR	GROSS	FRONT	REAR		
Basic Standard Machine to Include: 36 - 114 ft. (10.97 - 34.75 m) trapezoidal boom plus a 32 ft. (9.75 m) Swingaway extension, Grove model 32S-1726A main hoist with 750 ft. (228.60 m) of 3/4 in. (19 mm) rope, 12,975 lb. (5,885 kg.) counter-								
weight, Grove model 8x4 - 80 carrier, Cummins NTC 335 (Carrier Engine), Cummins V 555-C230 (Superstructure Engine)	117,450	39,605	77,845	53,275	17,965	35,310		
*Remove standard 12,975 lb. (5,885 kg.) counterweight	- 12,975	and the second	-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	261-27615-255 No. 0	- 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.

DIMENSIONS

Turning Radius 42 ft. 2 ½ in. (12.87m)
Ground Clearance 12 in. (with float removed) (305mm)
Tail Swing 12 ft. ½ in. (CWT in travel position) (3.67m)
Tail Swing 14 ft. ½ in. (CWT in working position) (4.28m)







GROYE MANUFACTURING COMPANY

A DIVISION OF WALTER KIDDE & COMPANY, INC.

SHADY GROVE • PENNSYLVANIA 17256

MEMBER: POWER CRANE & SHOVEL ASSOCIATION

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^{**}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.