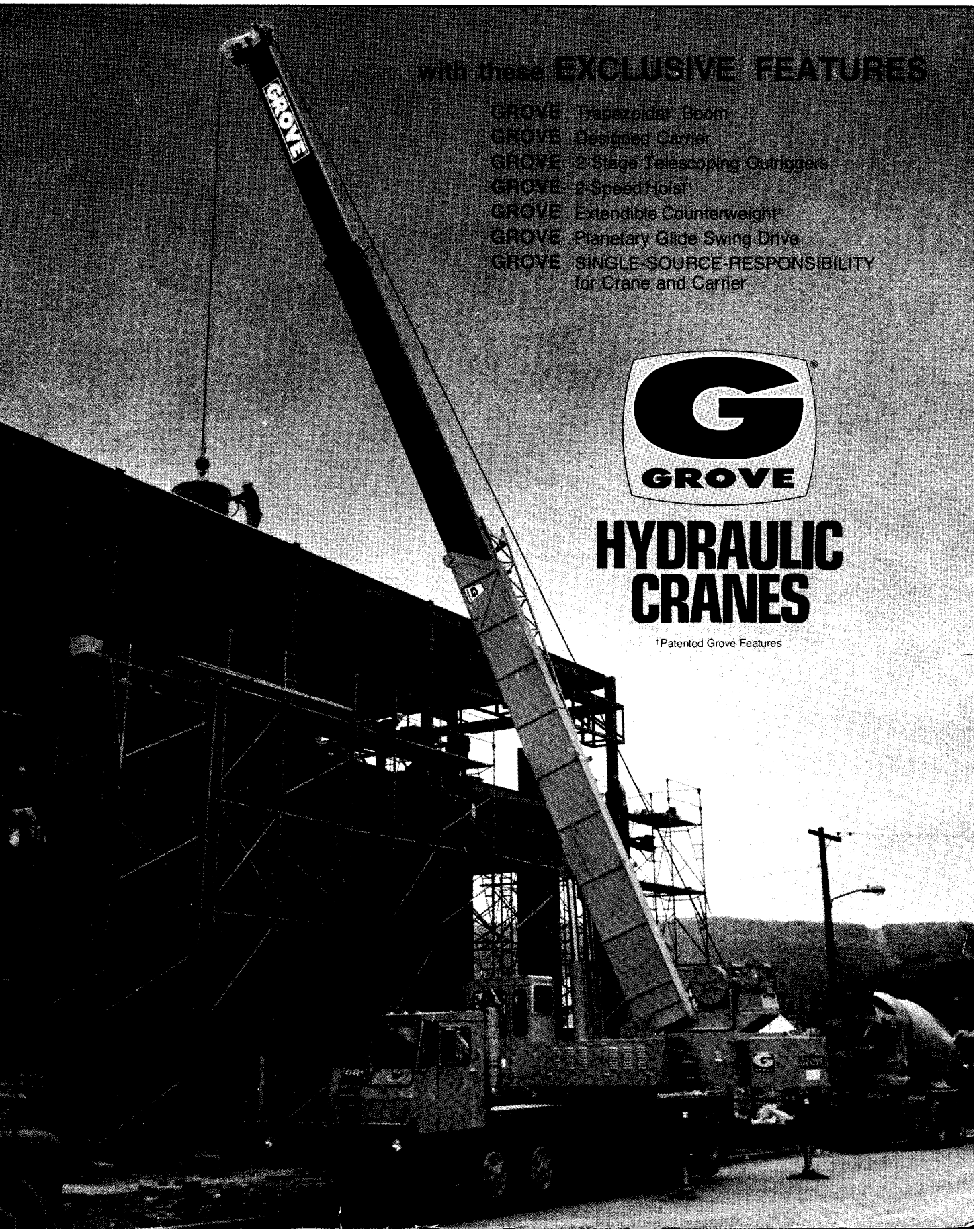
GROVE® TMS 375LP

45-TON HYDRAULIC CRANE



with these EXCLUSIVE FEATURES

GROVE Trapezoidal† Boom
GROVE Designed Carrier
GROVE 2 Stage Telescoping Outriggers
GROVE 2-Speed Hoist†
GROVE Extendible Counterweight†
GROVE Planetary Glide Swing Drive
GROVE SINGLE-SOURCE-RESPONSIBILITY for Crane and Carrier

GROVE®

HYDRAULIC CRANES

†Patented Grove Features

CARRIER SPECIFICATIONS

GROVE CARRIER, 8 x 4, 45 TON

OUTRIGGERS — Hydraulic, double box 2 stage telescoping beam outriggers. Removable beams, vertical jack cylinders with integral holding valves and 30½ in. (77.5cm) diameter aluminum floats. Mechanical spin locks on each vertical jack to secure outriggers at any level. Beams extend to 20 ft. (6.10m) centerline to centerline, retract to 8 ft. (2.44m) overall width. Full controls located in superstructure cab. Sight leveling bubble located in superstructure cab. Powered by carrier engine.

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

STEERING GEAR — Ross cam and lever type with Garrison hydraulic power assist.

CLUTCH — Lipe Rollway 14 in. two plate dry disc.
Area: 428 sq. in.

TRANSMISSION — Fuller roadranger (RTO-613), 13 speeds foward and 3 reverse.

UNIVERSAL JOINTS — Needle bearing type.

AXLES — Front: (2) Rockwell, 79 in. track, 33,000 lbs. capacity. Rear: (2) Rockwell S.R.H.D., 72 in. track, 44,000 lbs. capacity with interaxle differential and dash mounted control.

SUSPENSION — Front: Reyco spring mounted tandem; 49 in. spacing. Rear: Hendrickson solid mounted tandem, 50⅛ in. spacing.

FUEL TANK — Single 90 gallon mounted on left side of frame.

TIRES — Front: 12:00x20, 16 ply, Highway Tread. Rear: 11:00x20, 12 ply NDM&S Tread.

WHEELS — Front: Steel spoke 8½ in. x 20 in. Rear: Steel Spoke 8 in. x 20 in.

BRAKES — Stopmaster wedge type with full air on all eight wheels, 12 CFM compressor.
Total lining area 1508 sq. in.
Front: 15 in. x 5 in.
Rear: 15 in. x 7 in.

PARKING BRAKE — 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 — Low-profile, all steel, one man, 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, 2¾ lb. dry type fire extinguisher.

CAB INSTRUMENTATION — Electric tachometer, engine oil pressure gage, voltmeter, water temperature gage, speedometer, air pressure gage, electric fuel gage, high beam indicator, low air pressure audio-visual warning, low oil pressure warning light, hydraulic pump engaged warning light, rear axle lockout warning light, ignition-on indicator, parking brake visual indicator.

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

SPEED AND GRADEABILITY

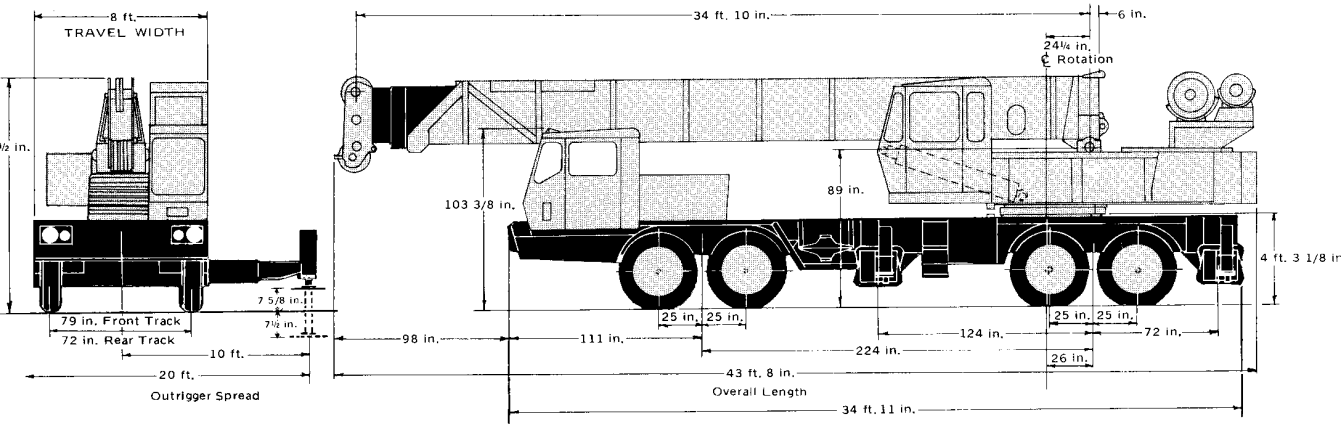
ROADRANGER TRANSMISSION (RTO 613)		
ENGINE	SPEED RANGES	% of Gradeability @ Max. Torque
GM6-71N	2.87 to 51.2 MPH	37.3 to .7%
Cummins NHF 240	3.13 to 56.04 MPH	36.79 to .64%

NOTE: *Performance based on 72,000 lb. GVW and standard SAE engine rating conditions using standard tires, transmissions and axles. Performance data may vary plus or minus 10% due to variations in engine performance and vehicle weights.*

ENGINE SPECIFICATIONS

MAKE & MODEL	GM6-71N	*Cummins NHF240
TYPE	6 Cylinder Diesel	6 Cylinder Diesel
BORE & STROKE	4.25 in. x 5 in.	5.5 in. x 6 in.
DISPLACEMENT	426 cu. in.	855 cu. in.
HORSEPOWER (NET)	213 @ 2100 RPM	205 @ 2300 RPM
GOVERNED RPM	2100 RPM	2300 RPM
TORQUE (NET)	582 lbs. ft. @ 1400 RPM	548 lbs. ft. @ 1500 RPM
ELECTRICAL SYSTEM	12 volt, negative ground	12 volt, negative ground
COMBUSTION SYSTEM	2 cycle, naturally aspirated	4 cycle, naturally aspirated
COOLING SYSTEM	Liquid	Liquid
FUEL CAPACITY	90 gallons	90 gallons
ALTERNATOR	62 amp, 12 volt	60 amp, 12 volt
BATTERY	(2) 204 A.H., 12 volt	(2) 204 A.H., 12 volt
AIR CLEANER	Dry type	Dry type
AIR COMPRESSOR	12 CFM	12 CFM
HOURMETER	Yes	Yes

DIMENSIONS



TURNING RADIUS — 39 ft. 4 in.
GROUND CLEARANCE — 14 in.
TAIL SWING 10′ — Counterweight in travel position
TAIL SWING 12′ — Counterweight in working position

Constant improvement and engineering progress make it necessary that we reserve the right to make specification, equipment, and price changes without notice.

GROVE®

FULL HYDRAULIC CARRIER-MOUNTED CRANE

TMS 375LP

45 TON CAP.

PCSA CLASS 10-157

RATED LIFTING CAPACITIES
35 ft. - 121 ft. BOOM
WITH FULLY EXTENDED OUTRIGGERS

ON OUTRIGGERS OVER SIDE

Radius in Feet	Trapezoidal Boom Length in Feet					89 + 32 Ext.
	*35	49	62	76	89	121
10	90,000					
12	80,000	56,000				
15	69,000	54,400	48,000			
20	53,000	49,800	44,300	35,000		
25	38,600	38,600	38,600	34,200	24,700	
30	25,900	25,900	25,900	25,900	23,700	17,500
35		19,500	19,500	19,500	19,500	15,000
40		15,700	15,700	15,700	15,700	13,000
45		12,500	12,500	12,500	12,500	11,550
50			10,100	10,100	10,100	10,400
55			8,300	8,300	8,300	9,400
60			6,800	6,800	6,800	8,060
65				5,600	5,600	6,780
70				4,600	4,600	5,700
75					3,750	4,800
80					3,000	4,050
85					2,400	3,425
90						2,850
95						2,350
100						1,900
105						1,500
110						1,150
115						850

**32 ft. Ext. Capacities	
Boom Angle	
76°	17,500
74°	15,000
72°	13,000
69°	11,550
67°	10,400
64°	9,400
61°	8,600
59°	7,900
56°	7,300
53°	6,800
49°	6,300
46°	5,900
42°	5,600
39°	5,300
34°	5,000
29°	4,700
24°	4,500
15°	4,300

Radius in Feet	60 ft. JIB CAPACITIES			
	No Offset		7½° Offset	
	Boom Angle		Boom Angle	
10				
12				
15				
20				
25				
30				
35				
40	76.0°	11,000		
45	74.0°	9,700		
50	72.0°	8,500	74.5°	6,000
55	70.5°	7,450	72.5°	5,450
60	68.0°	6,550	70.0°	4,950
65	66.5°	5,800	68.5°	4,675
70	64.0°	5,300	66.0°	4,200
75	62.0°	4,800	64.0°	3,800
80	59.5°	4,050	61.5°	3,350
85	57.5°	3,425	59.5°	3,000
90	55.0°	2,850	57.5°	2,650
95	52.5°	2,350	55.0°	2,275
100	49.5°	1,900	52.0°	1,850
105	47.0°	1,500	49.5°	1,500
110	44.0°	1,150	46.5°	1,150
115	40.5°	850	43.5°	850

ON OUTRIGGERS OVER REAR

Radius in Feet	Trapezoidal Boom Length in Feet					89 + 32 Ext.
	*35	49	62	76	89	121
10	90,000					
12	80,000	56,000				
15	69,000	54,400	48,000			
20	53,000	49,800	44,300	35,000		
25	40,500	40,500	39,200	34,200	24,700	
30	27,100	27,100	27,100	27,100	23,700	17,500
35		20,500	20,500	20,500	20,500	15,000
40		17,000	17,000	17,000	17,000	13,000
45		13,800	13,800	13,800	13,800	11,550
50			11,400	11,400	11,400	10,400
55			9,550	9,550	9,550	9,400
60			8,000	8,000	8,000	8,600
65				6,800	6,800	7,600
70				5,750	5,750	6,500
75					4,850	5,600
80					4,000	4,800
85					3,400	4,150
90						3,550
95						3,050
100						2,550
105						2,150
110						1,800
115						1,450

**32 ft. Ext. Capacities	
Boom Angle	
76°	17,500
74°	15,000
72°	13,000
69°	11,550
67°	10,400
64°	9,400
61°	8,600
59°	7,900
56°	7,300
53°	6,800
49°	6,300
46°	5,900
42°	5,600
39°	5,300
34°	5,000
29°	4,700
24°	4,500
15°	4,300

Radius in Feet	60 ft. JIB CAPACITIES			
	No Offset		7½° Offset	
	Boom Angle		Boom Angle	
10				
12				
15				
20				
25				
30				
35				
40	76.0°	11,000		
45	74.0°	9,700		
50	72.0°	8,500	74.5°	6,000
55	70.5°	7,450	72.5°	5,450
60	68.0°	6,550	70.0°	4,950
65	66.5°	5,800	68.5°	4,675
70	64.0°	5,300	66.0°	4,200
75	62.0°	4,820	64.0°	3,800
80	59.5°	4,400	61.5°	3,350
85	57.5°	4,050	59.5°	3,000
90	55.0°	3,550	57.5°	2,650
95	52.5°	3,050	55.0°	2,275
100	49.5°	2,550	52.0°	1,850
105	47.0°	2,150	49.5°	1,500
110	44.0°	1,800	46.5°	1,150
115	40.5°	1,450	43.5°	850

TRAPEZOIDAL BOOM and 32 FT. EXTENSION NOTES

Capacities appearing in shaded area are based upon structural strength and tipping should not be relied upon as a capacity limitation.
Capacities are in pounds and do not exceed 85% of tipping loads with counterweight fully extended.
*Capacities in shaded area for 35 ft. boom length shall be lifted with boom fully retracted. If boom is not fully retracted, capacities shall not exceed those shown for 49 ft. boom length.
**These capacities are based on structural strength of 32 ft. ext. at listed boom angle regardless of boom length. When lifting with 32 ft. ext. and LESS THAN a fully extended trapezoidal boom, the loads lifted MUST NOT EXCEED the 32 ft. ext. structural capacity at the listed boom angle OR the largest stability capacity listed for the actual working radius, whichever is less.

60 FT. JIB NOTES

Capacities appearing in shaded area are based on structural strength of the jib.
Capacities below the shaded area are based on stability and do not exceed 85% of tipping loads with counterweight fully extended.
Rated load is based on main boom angle regardless of main boom length. Radius in Feet column applies to jib capacities only with main boom fully extended.
Maximum length of main boom for purposes of erecting 60 ft. jib is 62 ft.
WARNING: Operation of the machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with 60 ft. jib occurs rapidly and without advance notice.
For main boom length greater than 62 ft. with 60 ft. jib in working position, the main boom angle must not be below 37° since loss of stability will occur causing a tipping condition.