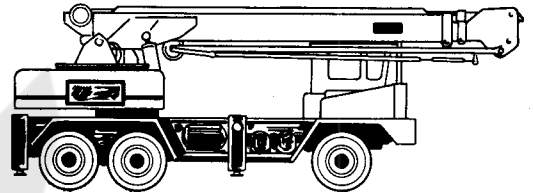


GROVE[®]

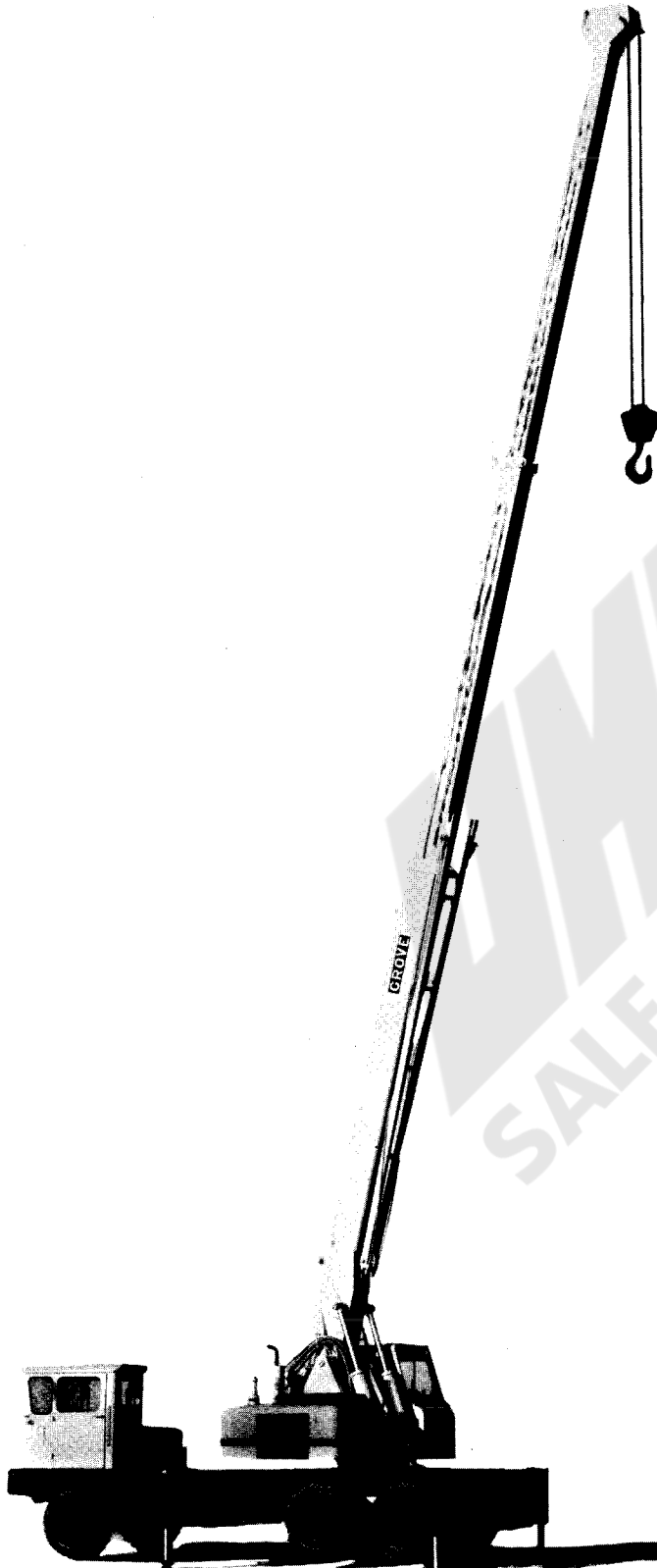
FULL
HYDRAULIC
TRUCK CRANE



MODEL
TMI 20T

Specifications

- ★ 30,000 lbs. Capacity
- ★ 26-62 ft. Full-Power Telescoping Boom
- ★ Hoist Speeds to 425 FPM
- ★ TWIN Boom Elevation Cylinders [0° to 75°]
- ★ 360° Continuous Rotation



LIFTING CAPACITIES

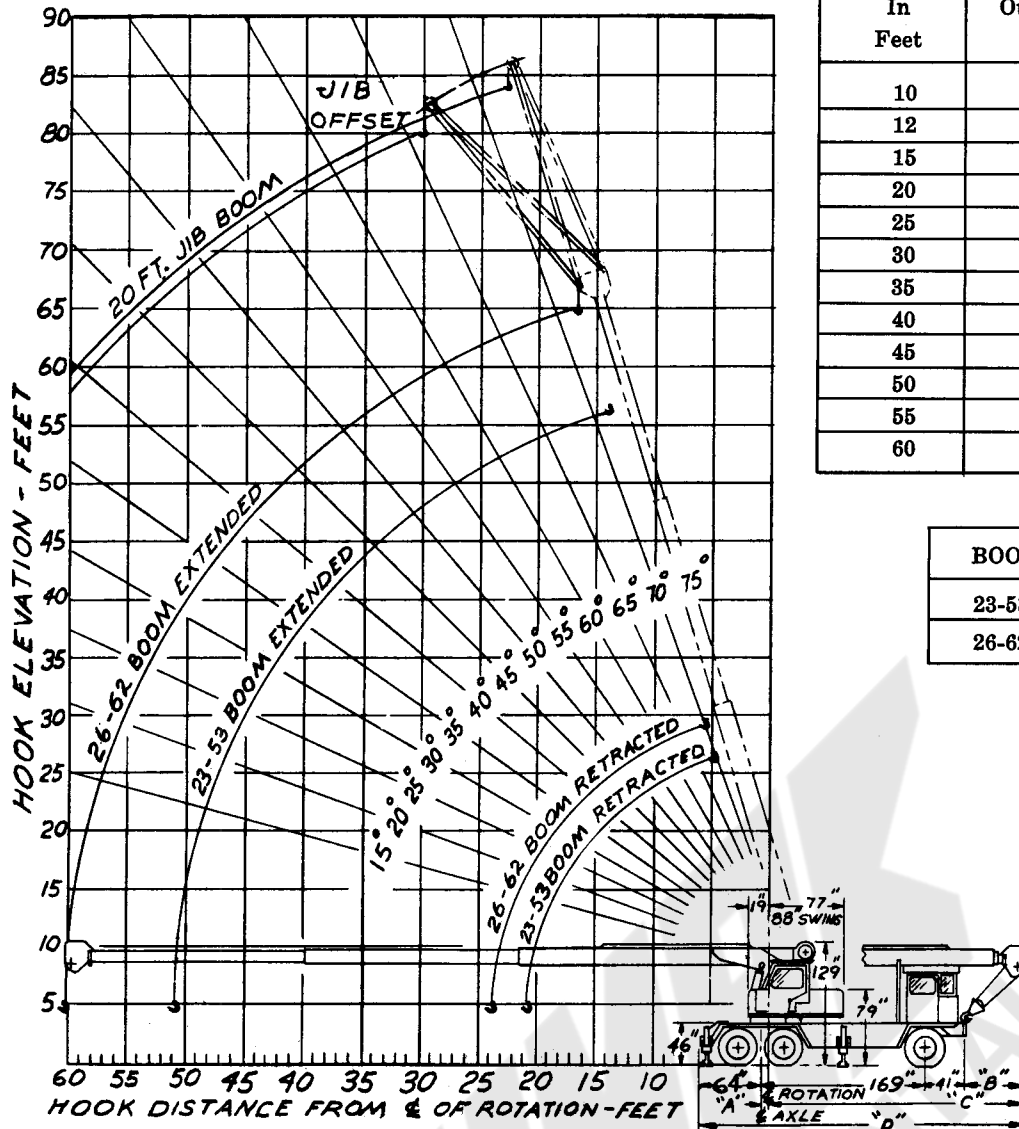
Radius In Feet	With Outriggers 360°	Without Outriggers	
		Rear	Side
10	30,000	11,500	12,100
12	24,000	9,100	9,300
15	21,000	6,800	6,500
20	16,100	4,000	3,800
25	12,200	2,800	1,900
30	8,700	1,700	600
35	6,300	1,100	300
40	5,100	350	
45	4,200		
50	3,500		
55	2,800		
60	2,200		

DIMENSIONAL CHART

BOOM	A	B	C	D
23-53'	11"	60"	259"	333"
26-62'	11"	96"	295"	370"

JIB CAPACITIES

Min. Boom Angle	No Offset	Max. Offset
75°	8500#	6300#
70°	5750	4300
65°	4500	3400
60°	3700	2800
50°	2200	1650
40°	1750	1460
30°	1500	1200



NOTES

- Rated lifting capacities, with or without outriggers, are the maximum loads covered by the manufacturer's warranty with the machine standing on a firm, level and uniform supporting surface. Capacities do not exceed 85% of tipping.
- For certain conditions, capacities are controlled by machinery strength. In these cases machine tipping must not be relied upon as the capacity limitation.
- For clamshell and concrete bucket operation, weight of bucket and load should not exceed 90% of outrigger lifting capacities.
- The weights of all load-handling devices are considered part of the load lifted and suitable allowances for them should be made.
- Boom jib extensions may be used as straight gooseneck extensions, and for lifting crane service only.
- With jib installed, lifting capacities over main boom-head must be reduced as follows:

JIB LENGTH	REDUCED CAPACITY
17 ft.	600 lbs.
20 ft.	700 lbs.
- The maximum boom length, including jib extension, may be raised from horizontal with outriggers set.
- Long cantilever booms can create a tipping condition when in extended and lowered positions. Boom should be retracted proportionate to the capacity of the load chart.
- Single line capacity 6000#. For larger capacities use multiple part reeving, (one additional line for each 6000# of capacity.)
- Each power-telescoping boom section should be extended equally at all times. Do not operate one fully extended and another fully retracted.

GROVE Hydraulic CRANES

SUPERSTRUCTURE SPECIFICATIONS Model TM120T

BOOM - - 3-Section Full Power Telescope.

BOOM RETRACTED	BOOM EXTENDED	NUMBER OF BOOM SECTIONS	TOTAL LENGTH OF TELESCOPE	HOOK HEIGHT	
				RETRACTED	EXTENDED
* 23'	53'	3	30'	28'	56'
26'	62'	3	36'	31'	65'

ABOVE BOOM LENGTHS ARE CALCULATED FROM CENTER LINE OF FULCRUM TO CENTER LINE OF SHEAVE PIN.

* JIB EXTENSIONS - - 17' and 20' lengths.

ELEVATION - - TWIN double-acting hydraulic cylinders with pilot check valve. 0° to 75°.

BOOM HEAD - - 3-sheave.

HOIST (Main) - - Model 40SECR — Power up and down, hydraulic motor driven, planetary gear with integral automatic brake, boom-mounted.

DRUM — 9" diameter, 8" long, 16½" diameter flanges.

CABLE — ½" diameter x 250 ft. long.

DRUM CAPACITY — 400' maximum.

SINGLE LINE PULL — 7000 pounds maximum.

SINGLE LINE SPEED — 200 FPM maximum.

* HOIST (Main) Model 40SCR; high speed power down. Line speed down — 700 FPM maximum.

* HOIST (Main) — Model 4065HECR — Power up and down, hydraulic motor driven, planetary gear with integral automatic brake, boom-mounted.

DRUM — 15' diameter, 16" long, 22" diameter flanges.

CABLE — ½" diameter x 250 ft. long.

DRUM CAPACITY — 1000 ft. maximum.

SINGLE LINE PULL — 7000 pounds maximum.

SINGLE LINE SPEED — 350 FPM maximum.

* LAGGING — 19" removable (maximum cable capacity with 19" lagging: 325' x ½" diameter; LINE SPEED 425 FPM maximum).

* HOIST (Auxiliary) — Model 40SECR or 40SCR, less cable.

SWING — 360° continuous rotation, ball-bearing swing circle, external gear. Gear reducer driven by hydraulic motor. Speed 2.5 RPM.

PUMPS — Hydraulic - triple pump system, 102 GPM. Hydraulic power distribution of 3 pumps: [cable hoist, *auxiliary winch]; [boom elevation, telescope (mid), *clamshell]; [swing, telescope (fly), outriggers].

CONTROLS — Hydraulic valves, 4-way double-acting with integral relief valve; operating pressure - 2250 PSI.

CAB — All-steel fully-enclosed, safety glass windows, weather stripped; heater.

ENGINE SPECIFICATIONS:

	GAS	* GAS	* DIESEL
MAKE	Ford 300	Ford 361	GM 3-53
TYPE	6 Cyl. O. H. V.	8 Cyl. O. H. V.	3 Cyl. O.H.V.
BORE AND STROKE	4.00" x 3.98"	4.05" x 3.50"	3.875" x 4.50"
MAX. B.H.P.	149 @ 2800 RPM	168 @ 2800 RPM	97 @ 2800 RPM
MAX. TORQUE	284 lbs. ft. @2000 RPM	330 lbs. ft. @2000 RPM	202 lbs. ft. @ 1500 RPM
GOVERNOR (Mechanical)	2800 RPM	2800 RPM	2800 RPM
ELECTRICAL SYSTEM	12 Volt	12 Volt	12-Volt HD Battery

* REMOTE OUTRIGGER CONTROLS on Crane Superstructure

WEIGHT — (Approximate) — 43,500 lbs. total

* DENOTES OPTIONAL EQUIPMENT

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

TM SERIES CRANE CARRIER SPECIFICATIONS

MODEL 64-15G (6 x 4)

MODEL 66-15G (6 x 6)

WHEELBASE — 169".

FRAME — 12" x 12", Man Ten Steel, "H" Beam.

OUTRIGGERS — Hydraulic double-box, integral with carrier frame; box type totally-enclosed vertical jacks, floats; beams extend to 15' wide, retract to 8', full hydraulic in, out, up and down; pilot check valves. Controls on carrier chassis.

* **REMOTE OUTRIGGER CONTROLS** — On Crane Superstructure.

STEERING GEAR — Twin lever. Ross TE-71 cam and lever roller mounted. **POWER STEERING.**

ENGINE — IHC RD-450, 6-cylinder valve-in-head; Bore and Stroke — 4- $\frac{3}{8}$ " x 5". Piston Displacement - 450.99 cu. in. Horsepower - 182 BHP @ 3000 RPM, governed at 2600 RPM full load. Torque - 388 pounds feet @ 1600 RPM.

FUEL CAPACITY — 40 gallon tank, right side of frame.

RADIATOR — Fin and Tube type.

CLUTCH — 14" single plate, dry disc type. Lining Area - 201.86 sq. in.

TRANSMISSION — Main: Fuller 5W430; 5 speeds forward, 1 reverse, overdrive in 5th;
Auxiliary: (6 x 4 only) Fuller 2 speed 2A62. Transfer: (6 x 6 only) FWD 2 speed 622.

UNIVERSAL JOINTS — Needle Bearing type.

SPRINGS — Front - Alloy steel semi-elliptic with overload. Main - 50" x 3", 7-leaf. Overload - 27" x 3", 5-leaf.

SHOCK ABSORBERS — Front axle only.

REAR SUSPENSION — Tandem axle walking beams, rubber bushed with steel saddles.

BRAKES — Service - Full air, 6 wheel, internal expanding shoes with 9 cu. ft. rotary compressor. Size — Front - 16" x 4". Rear 16- $\frac{1}{2}$ " x 4". Parking - Drive line type ACCO 14" two-shoe with slack adjustment on hand lever and valve to actuate service brakes.

TIRES — 9.00 x 20, 10-ply rating; singles front, duals rear.

CAB — All-steel, one-man-beside-the-engine type. Safety glass windshield and windows, ventilators, rear-view mirror, instrument panel consisting of heat indicator, fuel gauge, ammeter, oil pressure gauge and speedometer; **HEATER AND DEFROSTER.**

ELECTRICAL SYSTEM — 12-Volt starting and lighting, instrument panel light, sealed beam tilt-ray headlights, tail and stop lights, windshield wiper, horn and turn signals front and rear; ICC clearance lights.

MISCELLANEOUS EQUIPMENT — Wheel nut wrench, channel type front bumper, two front towing loops.

OVERALL GEAR RATIOS AND SPEEDS — Using standard tires, transmission, transfer, axles and engine at governed speed:

MODEL 64-15G (6 x 4)

High Range

Low Range

Gear	Ratio	Speed - MPH	Gradeability	Ratio	Speed - MPH	Gradeability
5th	6.00:1	53.2	1.07	12.00:1	26.6	3.65
4th	7.8 :1	40.9	1.84	15.6 :1	20.4	5.2
3rd	13.8 :1	23.1	4.42	27.6 :1	11.5	10.3
2nd	26.0 :1	12.2	9.6	52.0 :1	6.1	20.8
1st	51.0 :1	6.2	20.4	102.0 :1	3.1	42.3
Rev.	50.1 :1	6.3	20.2	101.4 :1	3.1	42.0

AXLES — Front - ND-12 non-driving; Capacity - 12,000 lbs. Rear — Timken SHHD hypoid single reduction with inter-axle differential; Ratio 7.8 to 1; Capacity 32,000 lbs.

MODEL 66-15G (6 x 6)

High Range

Low Range

Gear	Ratio	Speed - MPH	Gradeability	Ratio	Speed - MPH	Gradeability
5th	5.81:1	50.9	1.00	19.00:1	15.6	6.65
4th	7.56:1	39.2	1.74	24.6 :1	12.0	9.0
3rd	13.4 :1	22.1	4.25	43.5 :1	6.8	17.1
2nd	25.2 :1	11.8	9.3	82.0 :1	3.6	33.7
1st	49.3 :1	6.0	19.7	160.0 :1	1.85	67.0
Rev.	49.1 :1	6.0	19.5	159.0 :1	1.86	66.8

AXLES — Front - FWD - Hypoid Single Reduction; Capacity 12,000 lbs. Rear — Timken SHHD hypoid single reduction with inter-axle differential; Ratio 7.8 to 1; Capacity 32,000 lbs.

* DENOTES OPTIONAL EQUIPMENT.