

## GROVE



# HYDRAULIC

CARRIER-MOUNTED
CRANE



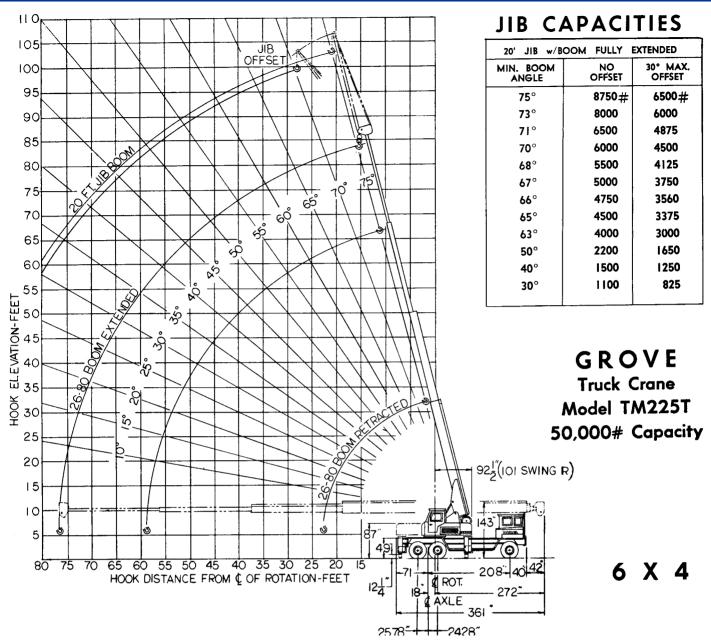
MODEL TM225T

6 X 4

## Specifications

- ¥ 50,000 lbs. Capacity
- 4-Section Boom 26' Retracted 80' Extended
- ¥ 20' StowAway Jib (Opt.)
- ¥ 7,000-lb. Single Line Pull
- → Hoist Speeds to 425 FPM Power Up and Down
- TWIN Boom Elevation
  Cylinders [0° to 75°]
- ¥ 360° Continuous Rotation





### RATED LIFTING CAPACITIES - OVER REAR - (With Outriggers) BOOM LENGTH

| RADIUS  | 26'  | 32'  | 38'  | 44'  | 50'   | 56'                                  | 62'                               | *80'   |
|---|--|--|--|--|---|--------------------------------------|-----------------------------------|--|
| 10'<br>12'<br>15'<br>20'<br>25'               | 50,000<br>42,000<br>38,500<br>28,000<br>21,750 | 50,000<br>42,000<br>38,500<br>28,000<br>21,750 | 44,800<br>41,600<br>35,750<br>28,000<br>21,750 | 44,000<br>35,750<br>30,000<br>24,100<br>19,600 | ,<br>38,500<br>33,200<br>27,800<br>22,700<br>18,700 | 31,000<br>26,700<br>20,400<br>17,700 | 20,000<br>19,100<br>16,200        | MINIMUM<br>BOOM<br>ANGLI<br>15,000 @ 75°<br>12,500 @ 71°<br>10,000 @ 67°                             |
| 30'<br>35'<br>40'<br>50'<br>60'<br>70'<br>75' |  | 14,900   | 14,900<br>11,000                               | 14,900<br>11,000<br>8,000                      | 14,900<br>11,000<br>8,000<br>5,100                  | 14,700<br>11,000<br>8,000<br>5,100   | 11,000<br>8,000<br>5,100<br>3,740 | 9,000 @ 64°<br>8,000 @ 60°<br>6,000 @ 55°<br>4,000 @ 45°<br>2,700 @ 35°<br>2,350 @ 20°<br>2,000 @ 0° |

<sup>\*</sup> ALSO INDICATES MAXIMUM CAPACITY OF EXTENDED FLY SECTION, REGARDLESS OF BOOM LENGTH.

CAPACITIES APPEARING IN SHADED AREA ABOVE ARE BASED ON MACHINERY STRENGTH AND

TIPPING SHOULD NOT BE RELIED UPON AS A CAPACITY LIMITATION.



#### RATED LIFTING CAPACITIES - OVER SIDE - (With Outriggers) **BOOM LENGTH**

| RADIUS | 26'    | 32'    | 38'    | 44'    | 50'    | 56'    | 62'    | *80'               |
|--------|--------|--------|--------|--------|--------|--------|--------|--------------------|
|        |        |        |        |        |        |        |        | MINIMUM            |
| 10'    | 50,000 | 50,000 | 44,800 | 44,000 | 38,500 |        |        | ВООМ               |
| 12'    | 42,000 | 42,000 | 41,600 | 35,750 | 33,200 | 31,000 |        | ANGLE              |
| 15'    | 38,500 | 38,500 | 35,750 | 30,000 | 27,800 | 26,700 | 20,000 | 15,000 @ 75°       |
| 20'    | 26,750 | 26,750 | 26,750 | 24,100 | 22,700 | 20,400 | 19,100 | 12,500 @ 71°       |
| 25'    | 20.000 | 20,000 | 20,000 | 19,600 | 18,700 | 17,700 | 16,200 | 10,000 @ 67°       |
| 30'    | ,      | 13.600 | 13,600 | 13,600 | 13,600 | 13,600 | 13,600 | 9,000 @ 64°        |
| 35'    |        | 1      | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 8,000 @ 60°        |
| 40'    |        |        |        | 7,150  | 7,150  | 7,150  | 7,150  | 6,000 @ 55°        |
| 50'    |        |        |        |        | 4,675  | 4,675  | 4,675  | 4,000 @ 45°        |
| 60'    |        |        |        |        | ·      |        | 3,500  | <b>2,700</b> @ 35° |
| 70'    |        |        | 1      |        |        |        |        | 2,350 @ 20°        |
| 75'    |        |        |        |        |        |        |        | 2,000 @ 0°         |

ALSO INDICATES MAXIMUM CAPACITY OF EXTENDED FLY SECTION, REGARDLESS OF BOOM LENGTH.

CAPACITIES APPEARING IN SHADED AREA ABOVE ARE BASED ON MACHINERY STRENGTH AND TIPPING SHOULD NOT BE RELIED UPON AS A CAPACITY LIMITATION.

#### NOTES

- I. Rated lifting capacities 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.
- 2. For certain conditions, capacities are controlled by machinery strength [SHADED AREA]. 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 lifting capacities.
- 4. The weights of all load-handling devices are considered part of the load lifted and suitable allowances for them should be made.
- 5. Boom jib extensions may be used as straight or gooseneck extensions, and for lifting crane service only.

With jib installed, lifting capacities over main boom-head must be reduced as follows:

REDUCED CAPACITY JIB LENGTH 20 ft. 800 lbs.

7. The maximum boom length, including jib extension, may be raised from horizontal, over rear, with outriggers set.

 Long cantilever booms can create a tipping condition when in extended and lowered positions over the side. Boom should be retracted proportionate to the capacity of the load chart.

9. Single line capacity 7000#. For larger capacities, as a safety factor, one additional line should be used for each 6250# of load to be lifted.

 Each power-telescoping boom section should be extended equally at all times. Do not operate one fully extended and another fully retracted.

#### Superstructure Specifications

BOOM

**BOOM HEAD - 3 sheave** 

\*4 sheave

| BOOM LENGTH Retracted Extended |     | NUMBER OF     | TOTAL LENGTH | HOOK HEIGHT |          |  |
|--------------------------------|-----|---------------|--------------|-------------|----------|--|
|                                |     | BOOM SECTIONS | OF TELESCOPE | Retracted   | Extended |  |
| 26'                            | 80' | 4             | 54'          | 32'         | 84'      |  |
| *26'                           | 62' | 3             | 36'          | 32'         | 66'      |  |

\*JIB EXTENSION — 20' Stow-Away type.

**ELEVATION** — Twin double-acting hydraulic cylinders with pilot check valve, 0° to 75°.

HOIST (Main) — Boom mounted.

MODEL — 4065 HECR, "Equal Speed" power up and down, self-contained power pack including hydraulic motor, planetary gear reduction, with automatic "Fail Safe" brake.

DRUM — 15" diameter — with 300' (5/8") cable. [\*With 19" Removable Lagging—265' (5/8") cable.]

DRUM CAPACITY — 700' Maximum (5/8") cable.

SINGLE LINE PULL — 7000 Pounds Maximum.

SINGLE LINE SPEED — No load — 350 FPM maximum; \*With 19" Removable Lagging, 425 FPM maximum.

\*HOIST (Auxiliary) (Less cable) Turntable mounted.

MODEL — 40 SECR, "Equal Speed" power up and down, self-contained power pack including hydraulic motor, planetary gear reduction, with automatic "Fail Safe" brake.

DRUM — 9" diameter. DRUM CAPACITY — 400' (1/2" cable).

SINGLE LINE PULL — 7000 pounds maximum. SINGLE LINE SPEED — No load — 200 FPM maximum.

SINGLE LINE PULL — 7000 pounds maximum.

\*MODEL — 40 SCR, power up and down, self-contained power pack including hydraulic motor, planetary gear reduction, with automatic "Fail Safe" brake.

DRUM — 9" diameter. DRUM CAPACITY — 400' (1/2" cable).

SINGLE LINE PULL — 7000 Pounds maximum.

SINGLE LINE SPEED — No load — UP-200 FPM Maximum — DOWN-700 FPM (Approximate).



### GROVEHydraulicCRANES

SWING — 360° continuous rotation, ball bearing swing circle.

DRIVE — Gear reducer driven by hydraulic motor. GEAR — External. SPEED — 2.5 RPM.

HYDRAULIC PUMPS — Triple pump system totals 102 GPM. Hydraulic power distribution of 3 pumps: (Swing, Outriggers, Telescope) (Telescope, Boom Lift, \*Accessory, Winch Booster) (Winch, \*Auxiliary Winch).

CONTROLS — Hydraulic valves, 4-way double acting. OIL COOLER — Oil to air.

| ENGINE                  | GAS                          | *GAS                        | *DIESEL            |
|-------------------------|------------------------------|-----------------------------|--------------------|
| MAKE                    | Ford 300                     | Ford 361                    | GM4-53             |
| TYPE                    | 6 Cyl. O. H. V.              | 8 Cyl. O. H. V.             | 4 Cyl. O. H. V.    |
| BORE AND STROKE         | 4.00 <sup>1</sup> ' x 3.98'' | 4.05 <sup>1</sup> " x 3.50" | 3.875'' x 4.50''   |
| GROSS B. H. P.          | 149 @ 2800 RPM               | 168 @ 2800 RPM              | 130 @ 2800 RPM     |
| GROSS TORQUE (lbs. ft.) | 284 @ 2000 RPM               | 330 @ 2000 RPM              | 271 🙆 1500 RPM     |
| GOVERNOR (Mechanical)   | 2800 RPM                     | 2800 RPM                    | 2800 RPM           |
| ELECTRICAL SYSTEM       | 12 Volt                      | 12 Volt                     | 12 Volt HD Battery |

#### Carrier Specifications 6 X 4 MODEL 64-25-GF

WHEELBASE-208".

OUTRIGGERS—Hydraulic double box type, with box type totally-enclosed vertical jacks, floats; beams extended to 15' wide center to center, retracted to 8' overall width, full hydraulic in, out, up and down; outriggers controlled from crane operator's position on superstructure; pilot check valves & mechanical pinlock for vertical jack cylinders.

\*Outrigger controls on carrier for operation from ground.

STEERING GEAR—Power Steer—Ross TE-71 cam and lever, roller mounted.

ENGINE — Gasoline — IHC RD501.

Cylinders — Six; valve-in-head. Displacement — 501 cu. in. Horsepower — 215 BHP @ 3000 RPM. Governed @ 2600 RPM full load.

Torque — 451 lbs. ft. @ 1600 RPM. Radiator — Fin and tube type.

FUEL CAPACITY-60 gallons.

CLUTCH—14" Ferramic single plate, dry-disc type.

TRANSMISSION-Main — Speeds — 5 forward, I reverse.

Auxiliary: 3 speed.

OVERALL GEAR RATIO AND SPEEDS-Using standard tires, transmission, axles, and engine at governed speed.

|      | HIGH RANGE |                | INTERMEDIATE |                | LOW RANGE |                |
|------|------------|----------------|--------------|----------------|-----------|----------------|
| GEAR | SPEED      | % GRADEABILITY | SPEED        | % GRADEABILITY | SPEED     | % GRADEABILITY |
| 5th  | 49.1       | .50            | 40.4         | 1.15           | 15.3      | 3.7            |
| 4th  | 34.9       | 1.0            | 29.3         | 1.9            | 11.1      | 5.2            |
| 3rd  | 21.9       | 2.9            | 18.4         | 4.4            | 6.9       | 10.1           |
| 2nd  | 11.2       | 7.1            | 9.4          | 10.0           | 3.5       | 21.2           |
| lst  | 6.4        | 14.6           | 5.0          | 20.0           | 1.9       | 41.1           |
| Rev. | 6.4        | 14.7           | 5.0          | 20.1           | 1.9       | 41.5           |

UNIVERSAL JOINTS—Needle bearing type.

AXLES AND SUSPENSION-

FRONT — One (I) non driving "I" beam type.

REAR — Hypoid single reduction gears, full floating shafts.

SUSPENSION — Front, spring mounted; Rear, tandem walking beams.

BRAKES—(Service) Full air, 6 wheels, 12 cu. ft. compressor. Front, 17 1/4" X 4"; Rear 16 1/2" X 7"; Total lining area: 1172 sq. in.

(Parking, Mechanical) Drive line type Acco 14" 2-shoe.

TIRES: 11.00 x 20, 12 ply rating; Highway Treads singles front, non-directional M&S duals rear.

CAB—All steel one-man beside the engine type; safety glass windshield and windows, adjustable side windows, utility compartment, ventilators, rear view mirror, heater & defroster, Bostrum type seat; instruments: heat indicator, fuel gauge, ammeter, oil pressure gauge, speedometer, air gauge and low pressure warning buzzer.

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

MISCELLANEOUS EQUIPMENT—Rim lug wrench, channel type front bumper, two front towing loops and rear fenders. TURNING RADIUS — 39 feet.

WEIGHT — Standard carrier and crane with 26'-80' Boom — Approx. 56,300 lbs.

#### \*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.