



**GROVE**<sup>®</sup>  
worldwide



Material Handling Crane

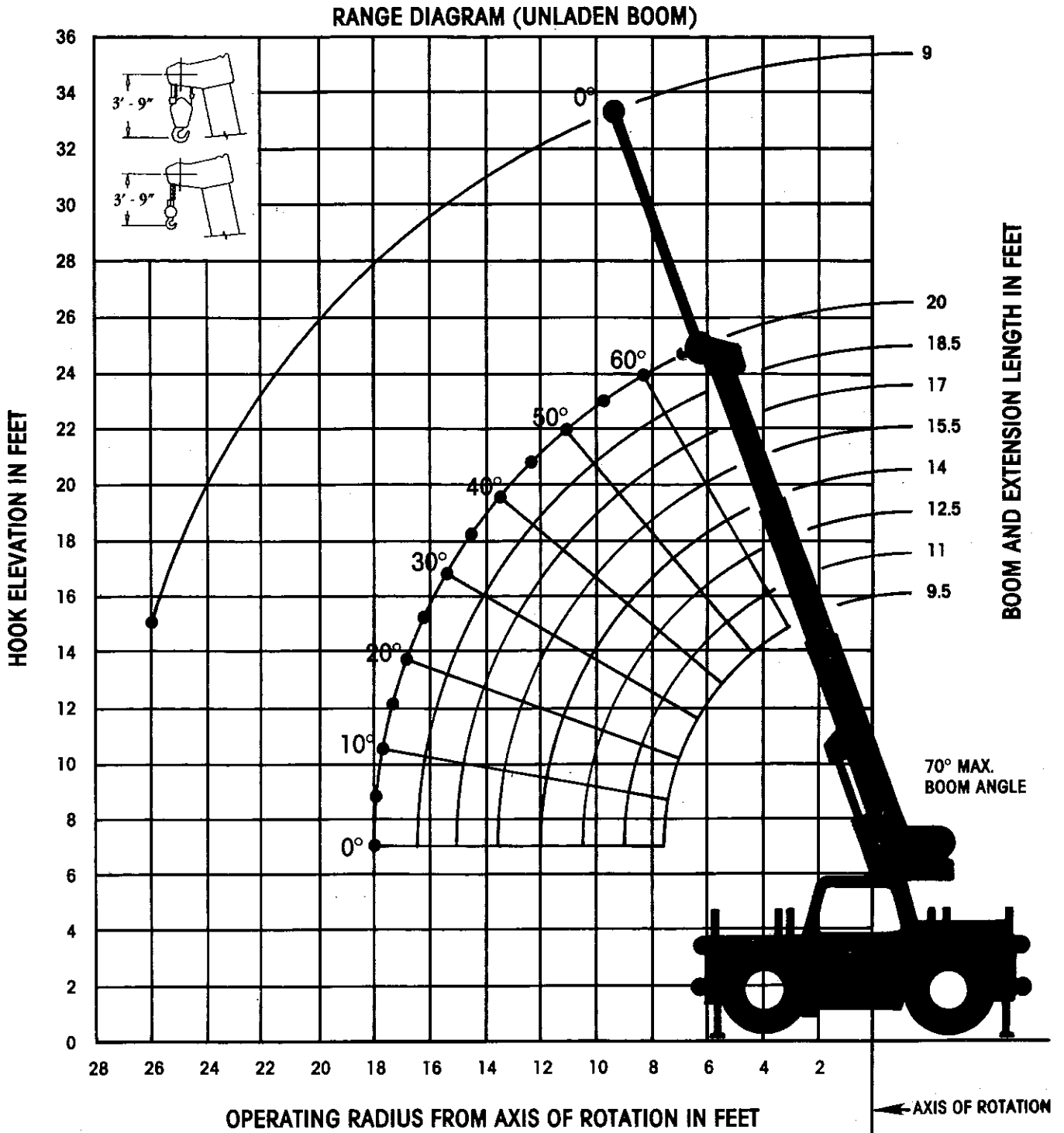
# AP206



**GROVE**  
worldwide

# AP206

Material Handling Hydraulic Crane/85% Domestic



## 9.5 FT. - 20 FT. 3-SECTION BOOM CAPACITIES (LBS.)

### ON RUBBER

| Radius in Feet | Stationary Capacity Defined Arc (3) Over Front | Stationary Capacity 360 Degree Arc | Pick & Carry Cap. Up to 2.5 MPH Boom Centered (6) Over Front |
|----------------|--|------------------------------------|--|
| 4              | 10,400   | 8,200                              | 9,000  |
| 5              | 9,350  | 6,950                              | 8,000  |
| 6              | 8,150  | 5,900                              | 7,000  |
| 8              | 6,500  | 3,450                              | 5,000  |
| 10             | 4,350  | 2,300                              | 3,500  |
| 12             | 3,200  | 1,620                              | 2,200  |
| 14             | 2,450  | 1,170                              | 1,500  |
| 16             | 2,000  | 860                                | 1,200  |
| 18             | 1,650  | 630                                | 1,000  |

A6-829-010212

### ON OUTRIGGERS

| Radius in Feet | Over Front | 360 Degrees |
|----------------|------------|-------------|
| 4              | *12,000    | *12,000     |
| 4              | 10,400     | 10,400      |
| 5              | 10,400     | 10,400      |
| 6              | 10,400     | 10,400      |
| 8              | 9,150      | 8,150       |
| 10             | 6,390      | 6,390       |
| 12             | 5,350      | 4,900       |
| 14             | 4,580      | 3,700       |
| 16             | 3,890      | 2,950       |
| 18             | 3,400      | 2,350       |

\*Fully retracted boom

A6-829-010210

## 9 FT. FIXED BOOM EXTENSION

### ON RUBBER

| Radius in Feet | Over Front | 360 Degrees |
|----------------|------------|-------------|
| 7              | 4,100      | 4,100       |
| 8              | 4,100      | 4,000       |
| 10             | 3,650      | 2,750       |
| 12             | 3,200      | 2,000       |
| 14             | 2,700      | 1,550       |
| 16             | 2,150      | 1,240       |
| 18             | 1,750      | 1,000       |
| 20             | 1,450      | 800         |
| 22             | 1,250      | 650         |
| 24             | 1,050      | 530         |
| 26             | 900        | 430         |

A6-829-010215

### ON OUTRIGGERS

| Radius in Feet | Over Front | 360 Degrees |
|----------------|------------|-------------|
| 7              | 4,100      | 4,100       |
| 8              | 4,100      | 4,100       |
| 10             | 3,650      | 3,650       |
| 12             | 3,200      | 3,200       |
| 14             | 2,900      | 2,900       |
| 16             | 2,500      | 2,500       |
| 18             | 2,300      | 2,300       |
| 20             | 2,250      | 2,200       |
| 22             | 2,050      | 1,950       |
| 24             | 1,950      | 1,750       |
| 26             | 1,800      | 1,550       |

A6-829-010213

### WEIGHT REDUCTIONS FOR LOAD HANDLING DEVICES

| 9 FT. FIXED LG. EXTENSION |          |
|---------------------------|----------|
| †Stowed -                 | 49 lbs.  |
| †Erected -                | 384 lbs. |

†Reduction of main boom capacities.

| HOOKBLOCKS:                 |          |
|-----------------------------|----------|
| 7.5 Ton, 1 Sheave .....     | 195 lbs. |
| 3.0 Ton Headache Ball ..... | 70 lbs.  |
| Searcher Hook .....         | 30 lbs.  |

### NO LOAD STABILITY ON OUTRIGGERS AND RUBBER

|           | No Load Stability Data                      | Main Boom 20 ft. |
|-----------|---|------------------|
| Front     | Min. boom angle (deg.) for indicated length | 0                |
| (No load) | Max. boom length (ft.) at 0 deg. boom angle | 20               |
| 360 Deg.  | Min. boom angle (deg.) for indicated length | 0                |
| (No load) | Max. boom length (ft.) at 0 deg. boom angle | 20               |

# NOTES FOR LIFTING CAPACITIES

**WARNING: THIS CHART IS ONLY A GUIDE.** The Notes below are for illustration only and should not be relied upon to operate the crane. The individual crane's load chart, operating instructions and other instruction plates must be read and understood prior to operating the crane.

- All rated loads have been tested to and meet minimum requirements of SAE J1063 OCT80 - Cantilevered Boom Crane Structures - Method of Test, and do not exceed 85% of the tipping load on outriggers (75% of tipping load on rubber) as determined by SAE J765 OCT80 Crane Stability Test Code.
- Capacities given do not include the weight of hookblocks, slings, auxiliary lifting equipment and load handling devices. Their weights **MUST** be added to the load to be lifted. When more than minimum required reeving is used, the additional rope weight shall be considered part of the load.
- Defined Arc  $\pm 6^\circ$  on either side of longitudinal centerline of machine.
- Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation.
- All capacities are for crane on firm, level surface. It may be necessary to have structural supports under the outrigger floats or tires to spread the load to a larger bearing surface.
- For pick and carry operation, the boom, using the shortest practical boom length, must be centered over front of machine. When handling loads in the structural range with capacities close to maximum ratings, travel should be reduced to creep speed\*. 2.5 MPH capacities are permissible on main boom only, **NOT** on boom extension.  
\*Creep not over 200 ft. of movement in any 30 min. period and not exceeding 1 mph.
- When either boom length or radius or both are between values listed, the smallest load shown at either the next larger radius or boom length shall be used.
- For outrigger operation, **ALL** outriggers shall be fully extended with tires raised free of ground before raising the boom or lifting loads.
- Tires shall be inflated to the recommended pressure before lifting on rubber.

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.



Grove Worldwide - World Headquarters  
1565 Buchanan Trail East  
Shady Grove, Pennsylvania 17256  
Phone: (717) 597-8121  
Telex: 1842308 Fax: (717) 597-4062

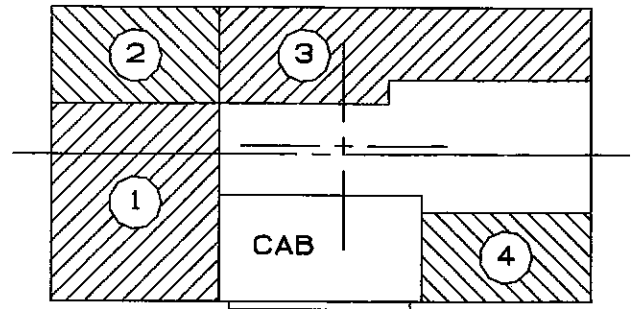
Grove North America  
P.O. Box 21, Shady Grove, Pennsylvania 17256  
Western Hemisphere, Asia/Pacific  
Phone: (717) 597-8121  
Telex: 1842308 Fax: (717) 597-4062

Grove Europe\*  
Sunderland, England SR4 6TT  
Europe, Africa, Middle East, Near East  
Phone: (091) 565-6281  
Telex: 53484 CRANES G Fax: (091) 564-0442

\* Grove Coles Limited, Registered in England, Number 1845128, Registered office, Crown Works, Pallion, Sunderland, Tyne & Wear, England SR4 6TT.

FORM NO.: LC-AP206 DOMESTIC-10M-1190 P/N 3-594 PRINTED IN U.S.A.

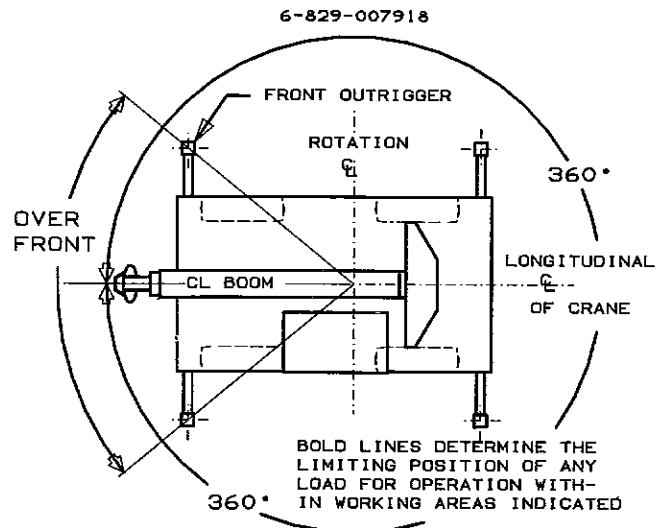
## LOAD DISTRIBUTION CHART FOR CARRY DECK



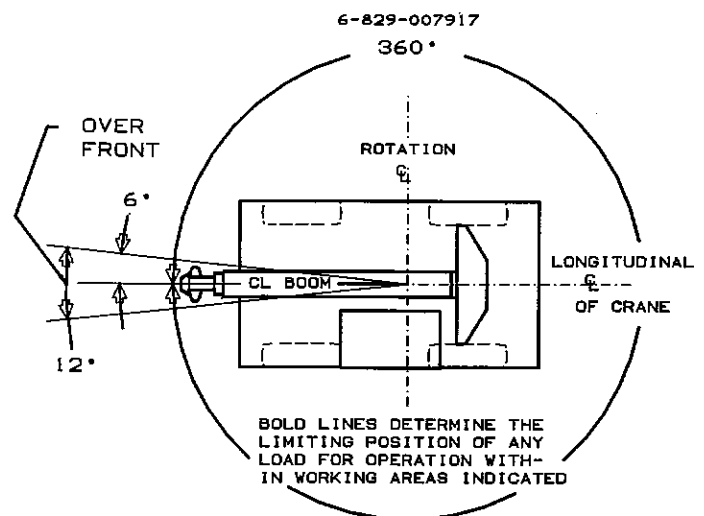
### MAXIMUM ALLOWABLE LOAD

|        |              |            |
|--------|--------------|------------|
| AREA 1 | 13.6 SQ. FT. | 3,500 LBS. |
| AREA 2 | 6.6 SQ. FT.  | 1,500 LBS. |
| AREA 3 | 12.7 SQ. FT. | 3,500 LBS. |
| AREA 4 | 6.0 SQ. FT.  | 1,500 LBS. |

**TOTAL 38.9 SQ. FT. 10,000 LBS.**



### LIFTING ON OUTRIGGERS



### LIFTING ON RUBBER

# Superstructure specifications

**Boom** 9.5 ft. to 20.0 ft. (2.90m - 6.10m) three section Trapezoidal full power boom. Telescoping is mechanically synchronized with single lever control. Telescopic sections slide on adjustable and replaceable wear pads. Maximum Tip Height: 25 ft. 5 in. (7.7m).

**Swingaway Extension** 9 ft. (2.74m) swingaway boom extension stows alongside base boom section when not in use. Maximum Tip Height: 33 ft. 9 in. (10.3m).

**Boom Nose** Two lower sheaves and one idler sheave mounted on roller bearings with removable rope guards.

**Searcher Hook** 3,000 lbs. (1316 kg) capacity, boom nose mounted.

**Boom Elevation** Single double acting hydraulic cylinder with integral holding valve provides elevation from 0° to 70°.

**Load Moment & Anti-Two Block System** Standard load moment and anti-two block system with audio-visual warning and control lever lock-out. These systems provide electronic display of boom angle, length, radius, tip height, relative load moment, maximum permissible load, load indication and warning of impending two-block condition.

**Cab** Standard frame mounted control station includes all crane function and driving controls, engine monitoring instrumentation and deluxe fabric seat with seat belt. Standard full vision, all steel fabricated enclosed cab with tinted safety glass throughout. Dash panel incorporates gauges for all engine functions. Other features include skylight, sliding left & right side windows, electric windshield wash-wipe, circulating air fan and fire extinguisher. Also available: \*hot water heater and forced air defroster.

**Swing** Ball bearing swing circle with 360° continuous rotation. Grove planetary glide-swing with automatic type multi-disc brake. Maximum speed: 2 RPM.

**Counterweight** Integral with superstructure.

## HYDRAULIC SYSTEM

**Pumps** One, two-section main gear pumps, combined capacity 41 G.P.M. (155 LPM) driven by carrier engine through P.T.O.

**Valves** Precision four way double acting control valves, 2 individual valve banks permit simultaneous control of two crane functions.

**Filter** Return line type, full flow with bypass protection and service indicator. Three micron rated replaceable cartridge.

**Reservoir** 30 gallon (114 L) with spin-on breather filter, external sight gauges, clean out access, mounted to frame.

**\*Oil Cooler** Remote mounted with thermostatically controlled electric motor driven fan.

**Pressure Check Panel** System pressure check panel permits easy verification of circuit pressures.

## HOIST SPECIFICATIONS

Power up and down equal speed, planetary reduction with automatic spring applied multi-disc brake and hoist drum cable follower.

### Main Hoist Grove HO6

|                                  |                    |                       |
|----------------------------------|--------------------|-----------------------|
| <b>Maximum single line speed</b> | Bottom layer       | 87 FPM<br>(26 m/min)  |
|                                  | Intermediate layer | 102 FPM<br>(31 m/min) |
|                                  | Top layer          | 118 FPM<br>(36 m/min) |

|                                 |                    |                          |
|---------------------------------|--------------------|--------------------------|
| <b>Maximum single line pull</b> | Bottom layer       | 5,275 lbs.<br>(2,390 kg) |
|                                 | Intermediate layer | 4,483 lbs.<br>(2,030 kg) |
|                                 | Top layer          | 3,900 lbs.<br>(1,770 kg) |

**Maximum permissible single line pull 5:1 strength factor** 4,480 lbs.  
(2,030 kg)  
with 7/16 in. (11mm) 18x19 class

**Maximum rope stowage** 128 ft. (39m)  
7/16 in. (11mm)  
Note: 110 ft. (33.5m) length of wire rope supplied with basic standard unit.

# Carrier specifications

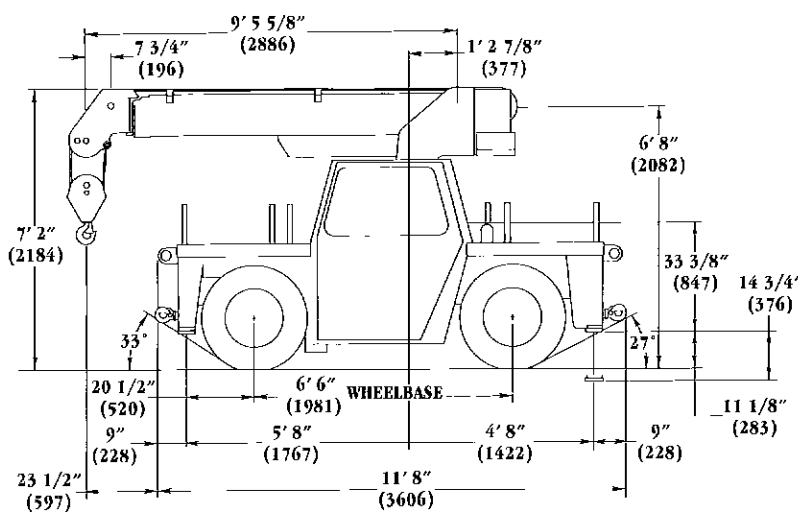
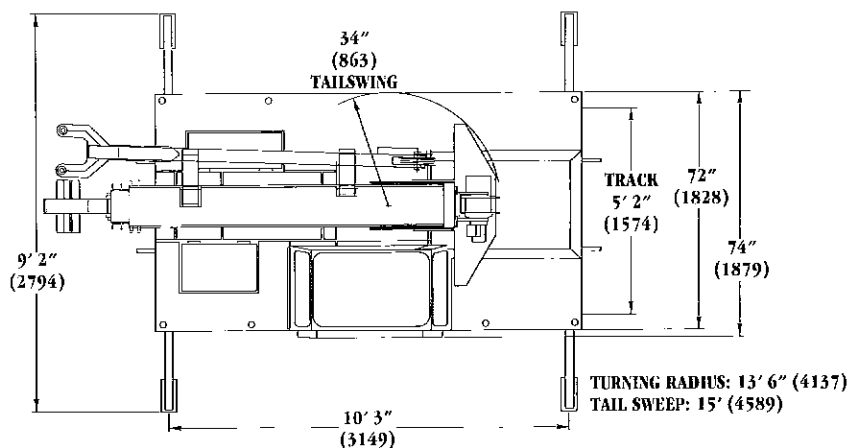
|  |   |
|--|---|
| <b>Frame</b>                                 | High strength alloy steel construction with integral outrigger housings and front/rear lifting, towing and tie down lugs. Carry deck with surface area of 38.9 sq. ft. (3.61 m <sup>2</sup> ).                |
| <b>Outrigger System</b>                      | Front and rear oblique type telescoping beams at all four corners with integral holding valves. Outrigger pads are an integral part of the beam and have a surface area of 54 sq. in. (349 cm <sup>2</sup> ). |
| <b>Outrigger Controls</b>                    | Located in cab on dash requires two hand operation. Crane level indicator located in cab.   |
| <b>Engine</b>                                | Continental TMD27 four cylinder water cooled diesel - 2.7 L, 66.5 bhp (49.5 kw) (Gross) @ 3,000 RPM. Maximum torque 124 ft. lbs. (17 kg/m) @ 2000 RPM with cold starting aid (Glo-plug type).                 |
| <b>*Optional Engine</b>                      | Continental TM27 four cylinder water cooled gasoline/propane - 2.7 L, 70 bhp (52.3 kw) (Gross) @ 2,800 RPM. Maximum torque 147 ft. lbs. (20.3 kg/m) @ 1600 RPM.   |
| <b>Fuel Tank Capacity</b>                    | 29 gallons (109.8 L)  |
| <b>Electrical System</b>                     | One 12 volt maintenance free battery, 815 CCA @ 0° F. 12 volt starting.   |
| <b>Drive</b>                                 | 4 x 2   |
| <b>Steering</b>                              | Rear: Full hydraulic power controlled by steering wheel.  |
| <b>Transmission</b>                          | Fully automatic with 3 forward and 1 reverse speeds, torque converter.  |
| <b>Axles</b>                                 | Front: Drive-type with no-spin differential (rigid mounted to the chassis).<br>Rear: Steer-type mounted rigid to the frame.   |
| <b>Tires</b>                                 | Std. 8.25 x 15 - 12 PR tube type, deep mine lug.<br>*Optional foam filling.   |
| <b>Brakes</b>                                | Hydraulic drum and shoe type acting on front drive wheels. Toggle switch actuated parking brake on front axle tailshaft.  |
| <b>Lights</b>                                | Full lighting package including turn indicators, head, tail, brake and hazard warning lights.   |
| <b>Maximum Speed</b>                         | 15 MPH (24 kph)   |
| <b>Maximum Gradeability</b>                  | 55% (Theoretical based on 10,800 lb. [4,898 kg] GVW).   |
| <b>BASIC STANDARD MACHINE</b>                |   |
| <b>Gross Vehicle Weight &amp; Axle Loads</b> | Front 5,250 lbs. (2,380 kg)<br>Rear 5,825 lbs. (2,642 kg)<br>G.V.W. 11,075 lbs. (5,023 kg)  |

|   |  |
|---|--|
| <b>Miscellaneous Standard Equipment</b> | Front hook block tie down, fenders, decking post pockets, towing lugs (front and rear), pressure check spuds, pinion guard, tool/sling box, dual rear view mirrors.  |
| <b>Optional Equipment</b>               | <ul style="list-style-type: none"> <li>* 360° strobe light</li> <li>* Spotlight</li> <li>* Front mounted tow winch (recessed) 5,000 lb. (2268 kg) maximum pull</li> <li>* Spark arrester</li> <li>* Engine block heater</li> <li>* Engine distress A/V warning</li> <li>* Cold start aid (Ether injection - Special Order)</li> <li>* Decking posts</li> <li>* Boom mounted personnel platform</li> <li>* LPG conversion for gasoline engine</li> <li>* Dual fuel conversion</li> <li>* Removable large O/R pads</li> <li>* Front and/or rear pintle hook</li> <li>* Compartment locker</li> <li>* Tachometer</li> </ul> |

\*Denotes optional equipment.

# Dimensions

AP206



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P. O. Box 521  
Kenner, LA 70063  
(504) 467-5906