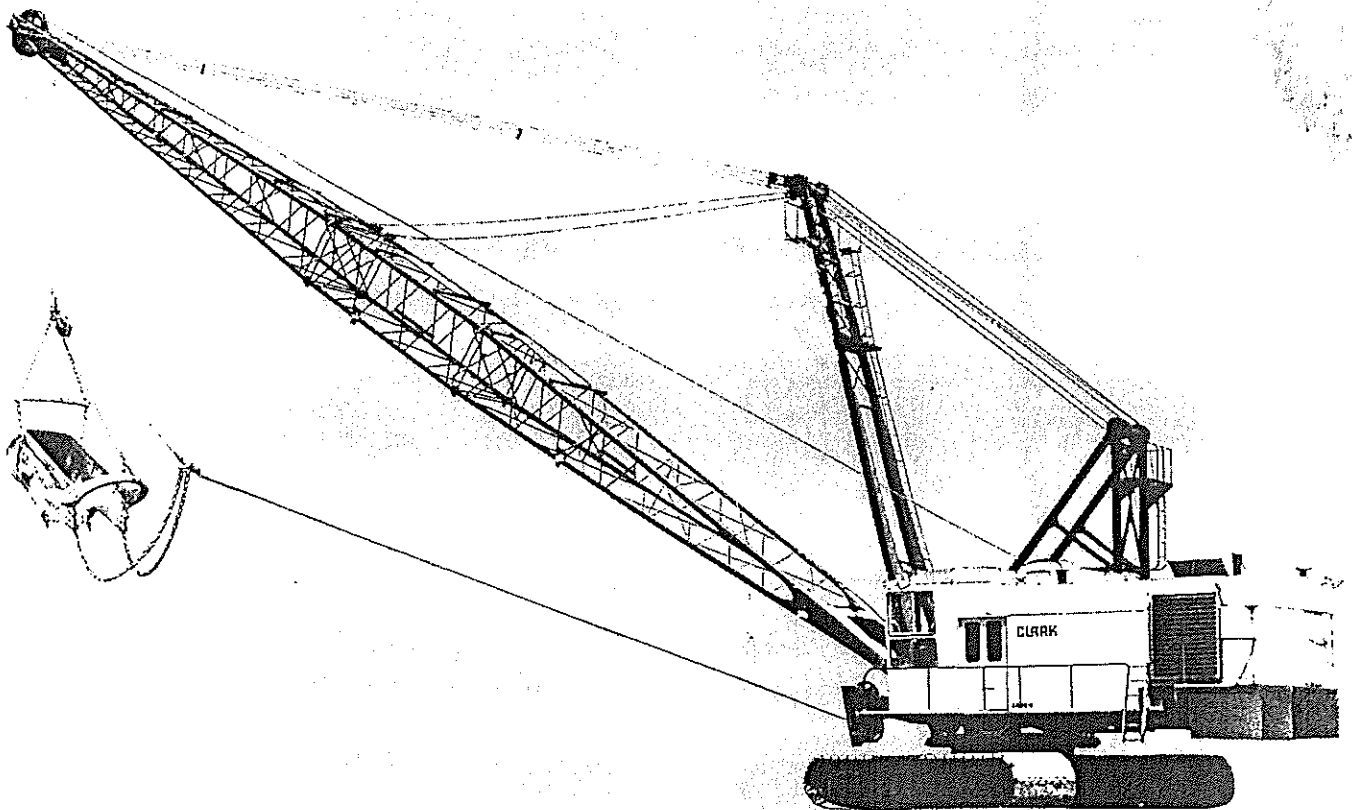
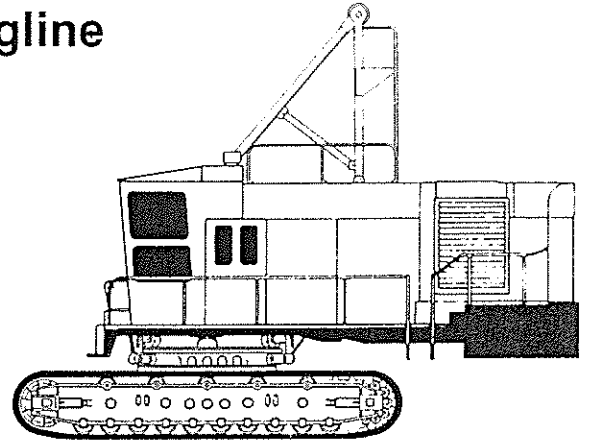




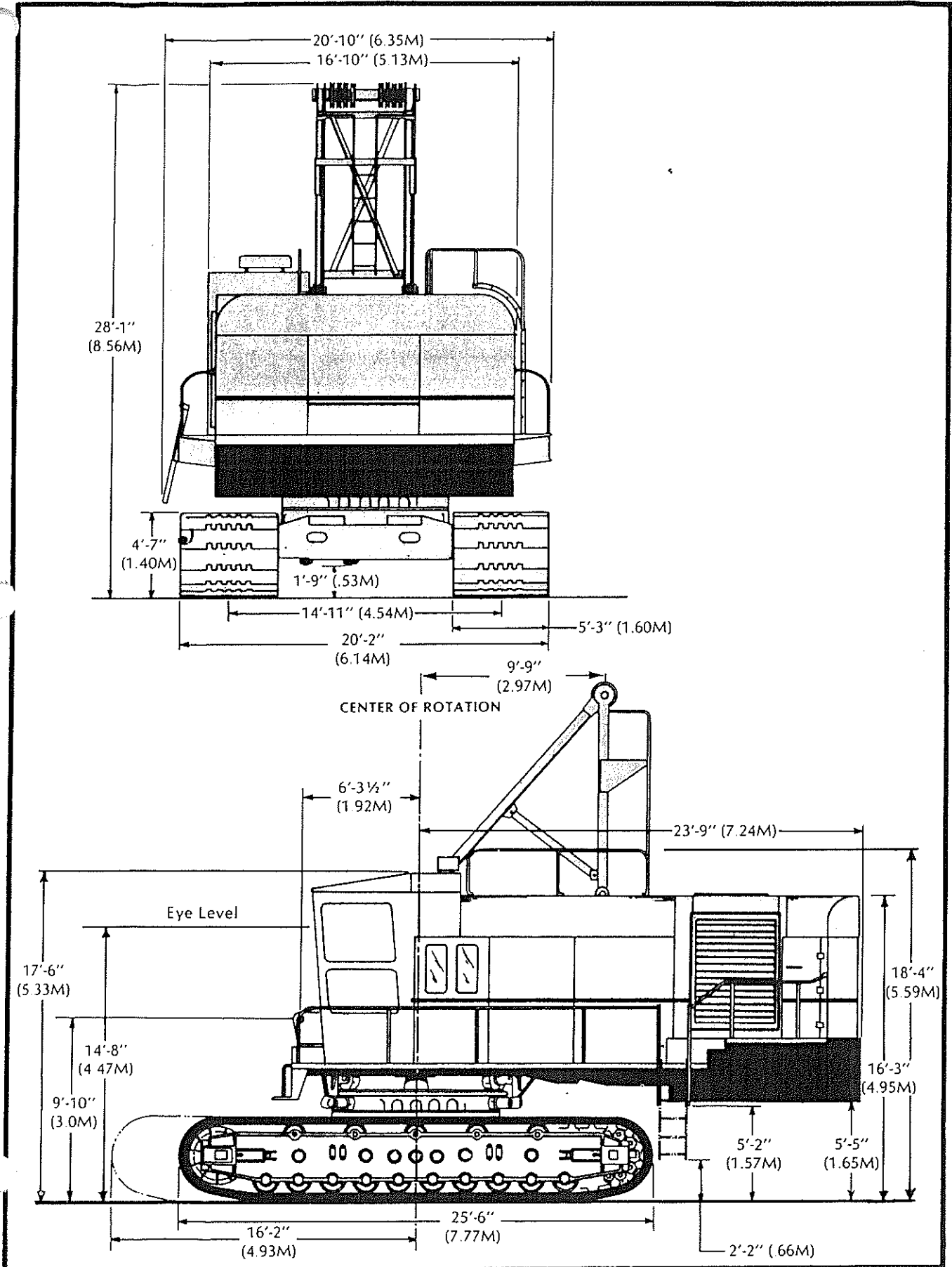
# CLARK Crane Division

# 2400-B Specifications

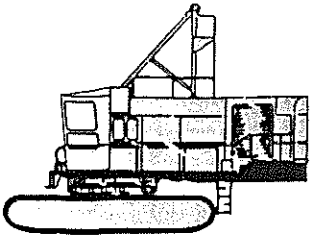
Clamshell • Dragline  
6-8 Yd. Shovel






# CLEARANCE AND DIMENSIONS



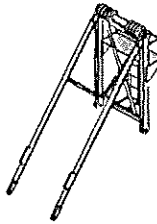
# WEIGHTS OF COMPONENT PARTS



**COMPLETE MACHINE WITH 63" (1.6M) TREADS BUT LESS FRONT END EQUIPMENT COUNTERWEIGHTS & ADDITIONAL ROTATING PARTS 404,580 LBS (183,508kg)**

|  |  |
|--|--|
| <b>TRUCK BASE:</b><br><br>TRUCK BASE ASSY<br>63,210 LBS<br>(28,672kg)   | <b>CRAWLER BELT:</b><br><br>51 TREADS PER BELT—63" (1.6M)<br>WIDTH 28,305 LBS<br>(12,839kg) |
| <b>SIDE FRAMES:</b><br><br>PROPEL CHAINS (EACH) 1,280 LBS (581kg)<br>SIDE FRAMES (EACH) 24,940 LBS (11,312kg) |  |

## ROTATING ASSEMBLY



**HIGH RIGID GANTRY—7,870 LBS (3,570kg)**

Conical Rollers (Inc in Center Section of Rot Unit) 7,700 Lbs (3,493kg)

Hook Rollers (Inc in Center Section of Rot Unit) 3,690 Lbs (1,674kg)

**ROOF PANELS—1,010 LBS (458kg)**

**RIGHT HAND CAB SECTION 3,820 LBS (1,733kg)**

**REAR DOORS—405 LBS (184kg)**

**LEFT HAND CAB SECTION INCLUDING OPERATORS SECTION 6,795 LBS (3,082kg)**

**1/2 TANK OF ENGINE FUEL—2,290 LBS (1,039kg)**  
**ENGINE RADIATOR COOLANT—675 LBS (306kg)**

**RIGHT HAND RUNNING BOARD WITH HAND RAILS 900 LBS (408kg)**

**RIGHT HAND COUNTERWEIGHT SHELL 5,730 LBS (2,599kg)**

**CENTER SECTION 130,420 LBS (59,158kg)**

**LEFT HAND COUNTERWEIGHT SHELL 6,100 LBS (2,767kg)**

**RIGHT HAND DECK PLATES 1,625 LBS (737kg)**

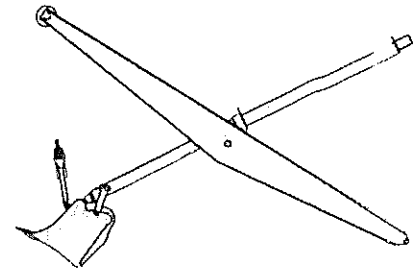
**LEFT HAND DECK PLATES 1,765 LBS (801kg)**

**LEFT HAND RUNNING BOARD WITH HAND RAILS AND LADDER 1,120 LBS (508kg)**

**RADIATOR 1,380 LBS (626kg)**

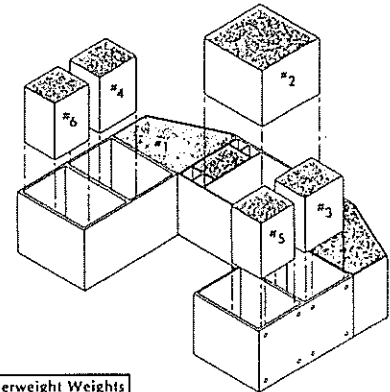
**ENGINE WITH POWER TAKE-OFF AND TORQUE CONVERTER—GENERATOR, AIR COMPRESSOR AND ACCESSORIES 20,180 LBS (9,154kg)**

## SHOVEL:



| Shovel Capacity       | Dipper Weight         | Dipper Acc.         | Boom Length    | Boom Weight           | Handle (Overall) Length | Handle Weight        |
|-----------------------|-----------------------|---------------------|----------------|-----------------------|-------------------------|----------------------|
| 8 Cu Yd<br>(6.1 Cu M) | 31,400#<br>(14,243kg) | 6,520#<br>(2,957kg) | 40'<br>(12.2M) | 37,380#<br>(16,955kg) | 30'<br>(9.1M)           | 13,150#<br>(5,965kg) |
| 6 Cu Yd<br>(4.6 Cu M) | 22,550#<br>(10,229kg) | 5,240#<br>(2,377kg) | 52'<br>(15.8M) | 43,785#<br>(19,860kg) | 40'<br>(12.2M)          | 15,300#<br>(6,940kg) |

## COUNTERWEIGHTS:



| No. | Counterweight Weights |
|-----|-----------------------|
| 1   | 43,200# (19,595kg)    |
| 2   | 16,000# (7,257kg)     |
| 3   | 5,200# (2,359kg)      |
| 4   | 5,200# (2,359kg)      |
| 5   | 5,200# (2,359kg)      |
| 6   | 5,200# (2,359kg)      |

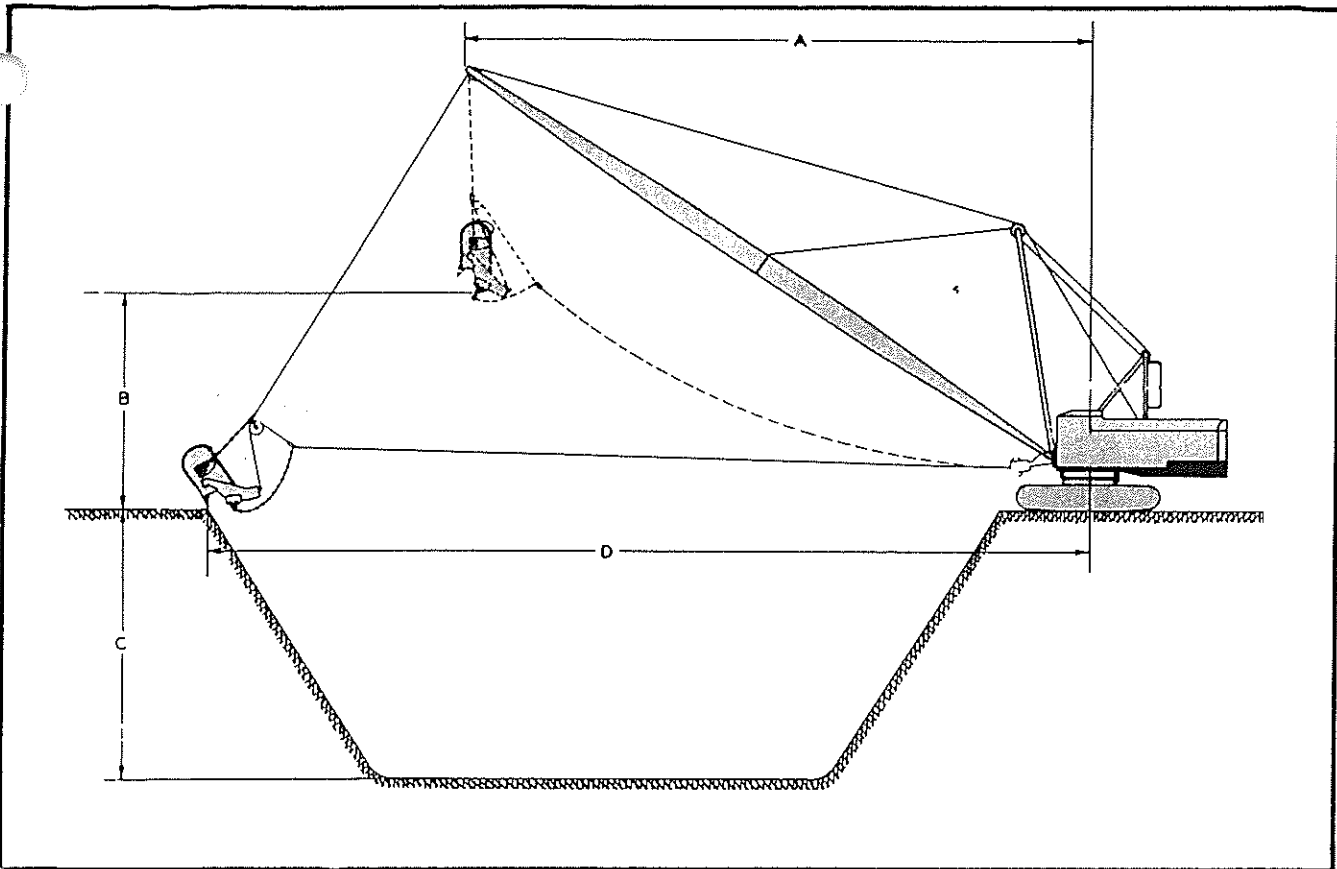
### COUNTERWEIGHT REQUIREMENTS

| Attachment   | Counterweight No. | Required Weight       |
|--|-------------------|-----------------------|
| 8 Cu. Yd. Shovel-40' Boom<br>(6.1 Cu M.) Shovel-(12.2M) Boom | 1                 | 43,200#<br>(19,595kg) |
| 6 Cu. Yd. Shovel-52' Boom<br>(4.6 Cu M.) Shovel-(15.8M) Boom | 1-2               | 59,200#<br>(26,853kg) |
| Dragline-100' (30.5M) thru<br>150' (45.7M) Booms             | 1-2               | 59,200#<br>(26,853kg) |
| Clamshell-100' (30.5M) thru<br>150' (45.7M) Booms            | 1-2               | 59,200#<br>(26,853kg) |

### OPTIONAL COUNTERWEIGHT

| Attachment  | Counterweight No. | Required Weight       |
|---|-------------------|-----------------------|
| Dragline-120' (36.6M) thru<br>150' (45.7M) Booms  | 1-2-3-4-5-6       | 80,000#<br>(36,288kg) |
| Clamshell-120' (36.6M) thru<br>150' (45.7M) Booms | 1-2-3-4-5-6       | 80,000#<br>(36,288kg) |

# DRAGLINE WORKING RANGES



## DRAGLINE

| BOOM LENGTH               | 100' (30.48m)  |                     |                     |                     | 110' (33.52m)       |                     |                     |                     |
|---------------------------|--|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| BOOM DEGREE.....          | 30°  | 35°                 | 40°                 | 45°                 | 30°                 | 35°                 | 40°                 | 45°                 |
| A—Dumping Radius.....     | 92'-6"<br>(28.19m)   | 88'-0"<br>(26.82m)  | 83'-6"<br>(25.45m)  | 76'-6"<br>(23.3m)   | 101'-6"<br>(30.93m) | 96'-0"<br>(29.26m)  | 90'-0"<br>(27.43m)  | 83'-6"<br>(25.45m)  |
| B—Dumping Height†.....    | 38'-0"<br>(11.58m)   | 45'-0"<br>(13.71m)  | 52'-0"<br>(15.84m)  | 59'-0"<br>(17.98m)  | 44'-0"<br>(13.41m)  | 52'-0"<br>(15.84m)  | 60'-0"<br>(18.28m)  | 67'-0"<br>(20.42m)  |
| C—Max. Digging Depth‡.... | 112'-0"<br>(34.13m)  | 108'-0"<br>(32.91m) | 103'-0"<br>(31.33m) | 101'-0"<br>(30.78m) | 121'-0"<br>(36.88m) | 116'-0"<br>(35.35m) | 110'-0"<br>(33.52m) | 103'-0"<br>(31.39m) |
| BOOM LENGTH               | 120' (36.57m)  |                     |                     |                     | 130' (39.62m)       |                     |                     |                     |
| BOOM DEGREE.....          | 30°  | 35°                 | 40°                 | 45°                 | 30°                 | 35°                 | 40°                 | 45°                 |
| A—Dumping Radius.....     | 110'-0"<br>(33.52m)  | 104'-6"<br>(31.85m) | 98'-0"<br>(29.87m)  | 90'-6"<br>(27.58m)  | 118'-6"<br>(36.11m) | 112'-6"<br>(34.29m) | 105'-6"<br>(32.15m) | 98'-0"<br>(29.87m)  |
| B—Dumping Height†.....    | 49'-00"<br>(14.93m)  | 58'-0"<br>(17.67m)  | 66'-0"<br>(20.11m)  | 74'-0"<br>(22.55m)  | 54'-0"<br>(16.95m)  | 64'-0"<br>(19.50m)  | 73'-0"<br>(22.25m)  | 81'-0"<br>(24.68m)  |
| C—Max. Digging Depth‡.... | 130'-0"<br>(39.62m)  | 124'-0"<br>(37.79m) | 118'-0"<br>(35.96m) | 110'-0"<br>(33.52m) | 138'-0"<br>(42.06m) | 132'-0"<br>(40.23m) | 125'-0"<br>(38.10m) | 118'-0"<br>(35.96m) |
| BOOM LENGTH               | 140' (42.67m)  |                     |                     |                     | 150' (45.72m)       |                     |                     |                     |
| BOOM DEGREE.....          | 30°  | 35°                 | 40°                 | 45°                 | 30°                 | 35°                 | 40°                 | 45°                 |
| A—Dumping Radius.....     | 127'-6"<br>(38.86m)  | 120'-6"<br>(36.72m) | 113'-0"<br>(34.49m) | 105'-0"<br>(32.00m) | 136'-0"<br>(41.95m) | 129'-0"<br>(39.31m) | 121'-0"<br>(36.88m) | 112'-0"<br>(34.13m) |
| B—Dumping Height†.....    | 59'-0"<br>(17.98m)   | 69'-0"<br>(21.03m)  | 79'-0"<br>(24.07m)  | 89'-0"<br>(27.12m)  | 67'-0"<br>(20.92)   | 78'-0"<br>(23.77m)  | 88'-0"<br>(26.82m)  | 98'-0"<br>(29.87m)  |
| C—Max. Digging Depth‡.... | 147'-0"<br>(44.80m)  | 140'-0"<br>(42.67m) | 133'-0"<br>(40.53m) | 125'-0"<br>(38.10m) | 156'-0"<br>(47.54m) | 149'-0"<br>(45.91m) | 141'-0"<br>(42.97m) | 132'-0"<br>(40.23m) |
| —Digging Reach.....       | Depends on Working Conditions and Operator's Skill with Bucket |                     |                     |                     |                     |                     |                     |                     |

Combined weight of bucket used and material handled must not exceed capacities.  
 These figures are approximate. Actual dimensions depend on bucket used.  
 Dimensions given above for maximum digging depth are based on using standard length rope.  
 For greater digging depths, use longer rope.

# DRAGLINE CAPACITIES

| DRAGLINE CAPACITY CHART      |        |        |        |             |        |      |        |      |                                  |      |        |      |
|------------------------------|--------|--------|--------|-------------|--------|------|--------|------|----------------------------------|------|--------|------|
| MACHINE ON FIRM LEVEL GROUND |        |        |        | BOOM LENGTH |        |      |        |      | MAXIMUM COUNTERWEIGHT 59,200 LBS |      |        |      |
| Load Radius                  | 100'   |        | 110'   |             | 120'   |      | 130'   |      | 140'                             |      | 150'   |      |
|                              | 75'    | 41,375 | 46.6   |             |        |      |        |      |                                  |      |        |      |
| 80'                          | 41,375 | 42.5   |        |             |        |      |        |      |                                  |      |        |      |
| 85'                          | 41,375 | 38.1   | 41,350 | 44.3        |        |      |        |      |                                  |      |        |      |
| 90'                          | 41,375 | 33.1   | 41,350 | 40.4        |        |      |        |      |                                  |      |        |      |
| 95'                          | 41,375 | 27.4   | 41,350 | 36.2        | 41,325 | 42.3 |        |      |                                  |      |        |      |
| 100'                         |        |        | 39,150 | 31.5        | 38,825 | 38.6 |        |      |                                  |      |        |      |
| 105'                         |        |        |        |             | 36,275 | 34.6 | 35,950 | 40.6 |                                  |      |        |      |
| 110'                         |        |        |        |             | 33,975 | 30.2 | 33,650 | 37.1 |                                  |      |        |      |
| 115'                         |        |        |        |             |        |      | 31,575 | 33.2 | 30,900                           | 39.0 |        |      |
| 120'                         |        |        |        |             |        |      | 29,650 | 29.0 | 29,000                           | 35.7 | 28,650 | 40.7 |
| 125'                         |        |        |        |             |        |      |        |      | 27,275                           | 32.0 | 26,900 | 37.7 |
| 130'                         |        |        |        |             |        |      |        |      | 25,675                           | 27.9 | 25,325 | 34.4 |
| 135'                         |        |        |        |             |        |      |        |      |                                  |      | 23,850 | 30.9 |

Load Radius From Centerline Of Rotation In Feet  
Capacity in Pounds.  
∠° Boom Angle Above Horizontal (In Degrees).

| METRIC DRAGLINE CAPACITY CHART |      |        |          |          |      |      |        |          |                                  |        |        |   |          |          |
|--------------------------------|------|--------|----------|----------|------|------|--------|----------|----------------------------------|--------|--------|---|----------|----------|
| MACHINE ON FIRM LEVEL GROUND   |      |        |          | BOOM     |      |      |        |          | MAXIMUM COUNTERWEIGHT 26,853 Kg. |        |        |   |          |          |
| L                              | BOOM |        |          | Capacity | L    | BOOM |        |          | Capacity                         | L      | BOOM   |   |          | Capacity |
|                                | R    | A      | Capacity |          |      | R    | A      | Capacity |                                  |        | R      | A | Capacity |          |
| 30.5M                          | 22.9 | 46.6   | 18,770   | 36.6M    | 29.0 | 42.3 | 18,740 | 42.7M    | 35.1                             | 39.0   | 14,016 |   |          |          |
|                                | 23   | 46.2   | 18,770   |          | 29   | 42.2 | 18,700 |          | 37                               | 34.7   | 12,920 |   |          |          |
|                                | 25   | 40.7   | 18,770   |          | 31   | 37.3 | 17,210 |          | 39                               | 29.6   | 11,930 |   |          |          |
|                                | 27   | 34.6   | 18,770   |          | 33   | 31.8 | 15,740 |          | 39.6                             | 27.9   | 11,650 |   |          |          |
| 33.5M                          | 29.0 | 27.4   | 18,770   |          | 33.5 | 30.2 | 15,410 |          |                                  |        |        |   |          |          |
|                                | 25.9 | 44.3   | 18,760   | 39.6M    | 32.0 | 40.6 | 16,307 | 45.7M    | 36.6                             | 40.7   | 12,995 |   |          |          |
|                                | 26   | 44.0   | 18,740   |          | 33   | 38.3 | 15,610 |          | 37                               | 39.8   | 12,770 |   |          |          |
|                                | 28   | 38.9   | 18,740   |          | 35   | 33.3 | 14,350 |          | 39                               | 35.8   | 11,770 |   |          |          |
|                                | 30   | 33.1   | 18,240   |          | 36.6 | 28.9 | 13,450 |          | 41                               | 31.2   | 10,880 |   |          |          |
| 30.5                           | 31.5 | 17,760 |          |          |      |      | 41.1   |          | 30.9                             | 10,820 |        |   |          |          |

L = Boom Length In Meters      R = Load Radius From Centerline Of Rotation In Meters      A = Boom Angle Above Horizontal In Degrees  
Capacity In Kilograms

| DRAGLINE CAPACITY CHART      |        |        |    |             |      |        |      |        |      |                                   |  |    |
|------------------------------|--------|--------|----|-------------|------|--------|------|--------|------|-----------------------------------|--|----|
| MACHINE ON FIRM LEVEL GROUND |        |        |    | BOOM LENGTH |      |        |      |        |      | MAXIMUM COUNTERWEIGHT 80,000 LBS. |  |    |
| Load Radius                  | 120'   |        | ∠° | 130'        |      | ∠°     | 140' |        | ∠°   | 150'                              |  | ∠° |
|                              | 95'    | 42,000 |    | 42.3        |      |        |      |        |      |                                   |  |    |
| 100'                         | 41,000 | 38.6   |    | 39,000      | 43.8 |        |      |        |      |                                   |  |    |
| 105'                         | 40,000 | 34.6   |    | 39,000      | 40.6 | 36,000 | 45.1 |        |      |                                   |  |    |
| 110'                         | 39,000 | 30.2   |    | 38,000      | 37.1 | 36,000 | 42.1 | 31,000 | 46.2 |                                   |  |    |
| 115'                         |        |        |    | 36,000      | 33.2 | 35,000 | 39.0 | 31,000 | 43.5 |                                   |  |    |
| 120'                         |        |        |    | 34,000      | 29.0 | 33,000 | 35.7 | 31,000 | 40.7 |                                   |  |    |
| 125'                         |        |        |    |             |      | 31,000 | 32.0 | 30,000 | 37.7 |                                   |  |    |
| 130'                         |        |        |    |             |      | 30,000 | 27.9 | 29,000 | 34.4 |                                   |  |    |
| 135'                         |        |        |    |             |      |        |      | 28,000 | 30.9 |                                   |  |    |

Load Radius From Centerline Of Rotation In Feet  
Capacity In Pounds.  
∠° Boom Angle Above Horizontal (In Degrees)

| METRIC DRAGLINE CAPACITY CHART |      |      |          |          |      |        |        |          |                                  |        |        |      |          |          |        |      |   |          |          |
|--------------------------------|------|------|----------|----------|------|--------|--------|----------|----------------------------------|--------|--------|------|----------|----------|--------|------|---|----------|----------|
| MACHINE ON FIRM LEVEL GROUND   |      |      |          | BOOM     |      |        |        |          | MAXIMUM COUNTERWEIGHT 36,288 Kg. |        |        |      |          |          |        |      |   |          |          |
| L                              | BOOM |      |          | Capacity | L    | BOOM   |        |          | Capacity                         | L      | BOOM   |      |          | Capacity | L      | BOOM |   |          | Capacity |
|                                | R    | A    | Capacity |          |      | R      | A      | Capacity |                                  |        | R      | A    | Capacity |          |        | R    | A | Capacity |          |
| 36.6                           | 29.0 | 42.3 | 19,051   | 39.6     | 30.5 | 43.8   | 17,690 | 42.7     | 32.0                             | 45.1   | 16,330 | 45.7 | 33.5     | 46.2     | 14,062 |      |   |          |          |
|                                | 30   | 39.8 | 18,740   |          | 32   | 40.6   | 17,690 |          | 34                               | 41.2   | 16,189 |      | 34       | 45.4     | 14,062 |      |   |          |          |
|                                | 32   | 34.7 | 18,145   |          | 34   | 35.9   | 16,956 |          | 36                               | 37.0   | 15,312 |      | 36       | 41.8     | 14,062 |      |   |          |          |
|                                | 33.5 | 30.2 | 17,690   |          | 36   | 30.7   | 15,765 |          | 38                               | 32.3   | 14,121 |      | 38       | 37.9     | 13,638 |      |   |          |          |
|                                |      |      |          | 36.6     | 29.0 | 15,422 |        | 39.6     | 27.9                             | 13,608 |        | 40   | 33.6     | 13,042   |        |      |   |          |          |
|                                |      |      |          |          |      |        |        |          |                                  |        |        | 41.1 | 30.9     | 12,701   |        |      |   |          |          |

L = Boom Length In Meters      R = Load Radius From Centerline Of Rotation In Meters      A = Boom Angle Above Horizontal In Degrees  
Capacity In Kilograms

To maintain normal operating speeds, the loaded bucket weight must not exceed the capacities shown above

A mast and 10 parts of boom hoist reeving are required for all boom lengths

Digging and footing conditions, together with the skill of the operator will determine whether or not the maximum loading conditions shown above can be used

NOTE: Over the side of the truck is the least stable direction

NOTE: Load ratings shown on this chart make no allowance for such factors as the effect of side loads, wind, ground conditions, and operating speeds. The operator therefore shall reduce load ratings in order to take these factors into account

# CLAMSHELL CAPACITIES

| MACHINE ON FIRM LEVEL GROUND |             | CLAMSHELL CAPACITY CHART |        |      |        |      |        |      |        |      |        | MAXIMUM COUNTERWEIGHT — SEE NOTE |  |
|------------------------------|-------------|--------------------------|--------|------|--------|------|--------|------|--------|------|--------|----------------------------------|--|
| Load Radius                  | BOOM LENGTH |                          |        |      |        |      |        |      |        |      |        |                                  |  |
|                              | 100'        | ∠°                       | 110'   | ∠°   | 120'   | °    | 130'   | ∠°   | 140'   | ∠°   | 150'   | ∠°                               |  |
| 50'                          | 42,000      | 64.0                     |        |      |        |      |        |      |        |      |        |                                  |  |
| 55'                          | 42,000      | 60.8                     | 42,000 | 63.7 |        |      |        |      |        |      |        |                                  |  |
| 60'                          | 42,000      | 57.5                     | 42,000 | 60.7 | 42,000 | 63.4 |        |      |        |      |        |                                  |  |
| 65'                          | 42,000      | 54.0                     | 42,000 | 57.7 | 42,000 | 60.7 | 42,000 | 63.1 |        |      |        |                                  |  |
| 70'                          | 42,000      | 50.4                     | 42,000 | 54.6 | 42,000 | 57.9 | 42,000 | 60.6 | 42,000 | 62.9 | 42,000 | 64.8                             |  |
| 75'                          | 42,000      | 46.6                     | 42,000 | 51.3 | 42,000 | 55.0 | 42,000 | 58.0 | 42,000 | 60.6 | 42,000 | 62.7                             |  |
| 80'                          | 42,000      | 42.5                     | 42,000 | 47.9 | 42,000 | 52.1 | 42,000 | 55.4 | 42,000 | 58.2 | 42,000 | 60.5                             |  |
| 85'                          | 42,000      | 38.0                     | 42,000 | 44.3 | 42,000 | 49.0 | 42,000 | 52.7 | 42,000 | 55.7 | 42,000 | 58.3                             |  |
| 90'                          | 42,000      | 33.1                     | 42,000 | 40.4 | 42,000 | 45.7 | 42,000 | 49.9 | 42,000 | 53.2 | 41,500 | 56.0                             |  |
| 95'                          | 41,000      | 27.4                     | 40,500 | 36.2 | 40,000 | 42.3 | 39,500 | 46.9 | 39,000 | 50.6 | 38,500 | 53.7                             |  |
| 100'                         |             |                          | 38,000 | 31.5 | 37,500 | 38.6 | 37,000 | 43.8 | 36,500 | 47.9 | 36,000 | 51.3                             |  |
| 105'                         |             |                          |        |      | 35,000 | 34.6 | 34,500 | 40.6 | 34,000 | 45.1 | 33,500 | 48.8                             |  |
| 110'                         |             |                          |        |      | 32,500 | 30.2 | 32,500 | 37.0 | 32,000 | 42.2 | 31,500 | 46.2                             |  |
| 115'                         |             |                          |        |      |        |      | 30,500 | 33.2 | 30,000 | 39.0 | 29,500 | 43.5                             |  |
| 120'                         |             |                          |        |      |        |      | 28,500 | 28.9 | 28,000 | 35.6 | 27,500 | 40.7                             |  |
| 125'                         |             |                          |        |      |        |      |        |      | 26,500 | 32.0 | 26,000 | 37.1                             |  |
| 130'                         |             |                          |        |      |        |      |        |      | 25,000 | 27.9 | 24,500 | 34.4                             |  |
| 135'                         |             |                          |        |      |        |      |        |      |        |      | 23,000 | 30.9                             |  |

Boom Length In Feet      Load Radius From Centerline Of Rotation In Feet      Capacity In Pounds  
 ∠° Boom Angle Above Horizontal In Degrees      Does Not Exceed 66-2/3% Tipping Loads  
 NOTE: Machine Shall Be Equipped With 52,000 Lbs Cast Counterweight, Or, 43,200 Lbs Integral Counterweight Plus 16,000 Lbs Counterweight Insert

| MACHINE ON FIRM LEVEL GROUND |             | METRIC CLAMSHELL CAPACITY CHART |        |      |        |      |        |      |        |      |        | MAXIMUM COUNTERWEIGHT — SEE NOTE |  |
|------------------------------|-------------|---------------------------------|--------|------|--------|------|--------|------|--------|------|--------|----------------------------------|--|
| Load Radius                  | BOOM LENGTH |                                 |        |      |        |      |        |      |        |      |        |                                  |  |
|                              | 30.5M       | ∠°                              | 33.5M  | ∠°   | 36.6M  | ∠°   | 39.6M  | ∠°   | 42.7M  | ∠°   | 45.7M  | ∠°                               |  |
| 16                           | 19,100      | 62.4                            |        |      |        |      |        |      |        |      |        |                                  |  |
| 18                           | 19,100      | 58.1                            | 19,100 | 61.3 |        |      |        |      |        |      |        |                                  |  |
| 20                           | 19,100      | 53.6                            | 19,100 | 57.3 | 19,100 | 60.4 | 19,100 | 62.8 |        |      |        |                                  |  |
| 22                           | 19,100      | 48.7                            | 19,100 | 53.2 | 19,100 | 56.7 | 19,100 | 59.5 | 19,100 | 61.9 |        |                                  |  |
| 24                           | 19,100      | 43.5                            | 19,100 | 48.8 | 19,100 | 52.9 | 19,100 | 56.1 | 19,100 | 58.9 | 19,100 | 61.1                             |  |
| 26                           | 19,100      | 37.8                            | 19,100 | 44.0 | 19,100 | 48.9 | 19,100 | 52.5 | 19,100 | 55.7 | 19,100 | 58.2                             |  |
| 28                           | 19,100      | 31.1                            | 19,100 | 38.9 | 19,100 | 44.5 | 18,900 | 48.8 | 18,700 | 52.3 | 18,500 | 55.2                             |  |
| 30                           |             |                                 | 17,500 | 33.1 | 17,300 | 39.9 | 17,200 | 44.8 | 17,000 | 48.9 | 16,800 | 52.1                             |  |
| 32                           |             |                                 | 16,100 | 26.1 | 15,800 | 34.7 | 15,700 | 40.6 | 15,500 | 45.2 | 15,400 | 48.8                             |  |
| 34                           |             |                                 |        |      | 14,600 | 28.8 | 14,500 | 35.9 | 14,200 | 41.3 | 14,100 | 45.4                             |  |
| 36                           |             |                                 |        |      |        |      | 13,400 | 30.6 | 13,100 | 37.0 | 12,900 | 41.8                             |  |
| 38                           |             |                                 |        |      |        |      |        |      | 12,100 | 32.3 | 11,900 | 37.9                             |  |
| 40                           |             |                                 |        |      |        |      |        |      |        |      | 11,000 | 33.6                             |  |

Boom Length In Meters      Load Radius From Centerline Of Rotation In Meters      Capacity In Kilograms  
 ∠° Boom Angle Above Horizontal In Degrees      Does Not Exceed 66-2/3% Tipping Loads  
 NOTE: Machine Shall Be Equipped With 23,593 Kg Cast Counterweight, Or, 19,600 Kg Integral Counterweight Plus 7,260 Kg Counterweight Insert

| MACHINE ON FIRM LEVEL GROUND |             | CLAMSHELL CAPACITY CHART |        |      |        |      |        |      |  |  |  | MAXIMUM COUNTERWEIGHT — SEE NOTE |  |
|------------------------------|-------------|--------------------------|--------|------|--------|------|--------|------|--|--|--|----------------------------------|--|
| Load Radius                  | BOOM LENGTH |                          |        |      |        |      |        |      |  |  |  |                                  |  |
|                              | 120'        | ∠°                       | 130'   | ∠°   | 140'   | ∠°   | 150'   | ∠°   |  |  |  |                                  |  |
| 60'                          | 42,000      | 63.4                     |        |      |        |      |        |      |  |  |  |                                  |  |
| 65'                          | 42,000      | 60.7                     | 42,000 | 63.1 |        |      |        |      |  |  |  |                                  |  |
| 70'                          | 42,000      | 57.9                     | 42,000 | 60.6 | 42,000 | 62.9 | 42,000 | 64.8 |  |  |  |                                  |  |
| 75'                          | 42,000      | 55.0                     | 42,000 | 58.0 | 42,000 | 60.6 | 42,000 | 62.7 |  |  |  |                                  |  |
| 80'                          | 42,000      | 52.1                     | 42,000 | 55.4 | 42,000 | 58.2 | 42,000 | 60.5 |  |  |  |                                  |  |
| 85'                          | 42,000      | 49.0                     | 42,000 | 52.7 | 42,000 | 55.7 | 42,000 | 58.3 |  |  |  |                                  |  |
| 90'                          | 42,000      | 45.7                     | 42,000 | 49.9 | 42,000 | 53.2 | 42,000 | 56.0 |  |  |  |                                  |  |
| 95'                          | 42,000      | 42.3                     | 42,000 | 46.9 | 42,000 | 50.6 | 42,000 | 53.7 |  |  |  |                                  |  |
| 100'                         | 41,000      | 38.6                     | 41,000 | 43.8 | 40,000 | 47.9 | 39,500 | 51.3 |  |  |  |                                  |  |
| 105'                         | 38,500      | 34.6                     | 38,000 | 40.6 | 37,000 | 45.1 | 37,000 | 48.8 |  |  |  |                                  |  |
| 110'                         | 36,000      | 30.2                     | 35,500 | 37.0 | 35,000 | 42.2 | 34,500 | 46.2 |  |  |  |                                  |  |
| 115'                         |             |                          | 33,500 | 33.2 | 33,000 | 39.0 | 32,500 | 43.5 |  |  |  |                                  |  |
| 120'                         |             |                          | 31,500 | 28.9 | 31,000 | 35.6 | 30,500 | 40.7 |  |  |  |                                  |  |
| 125'                         |             |                          |        |      | 29,500 | 32.0 | 29,000 | 37.1 |  |  |  |                                  |  |
| 130'                         |             |                          |        |      | 28,000 | 27.9 | 27,500 | 34.4 |  |  |  |                                  |  |
| 135'                         |             |                          |        |      |        |      | 26,000 | 30.9 |  |  |  |                                  |  |

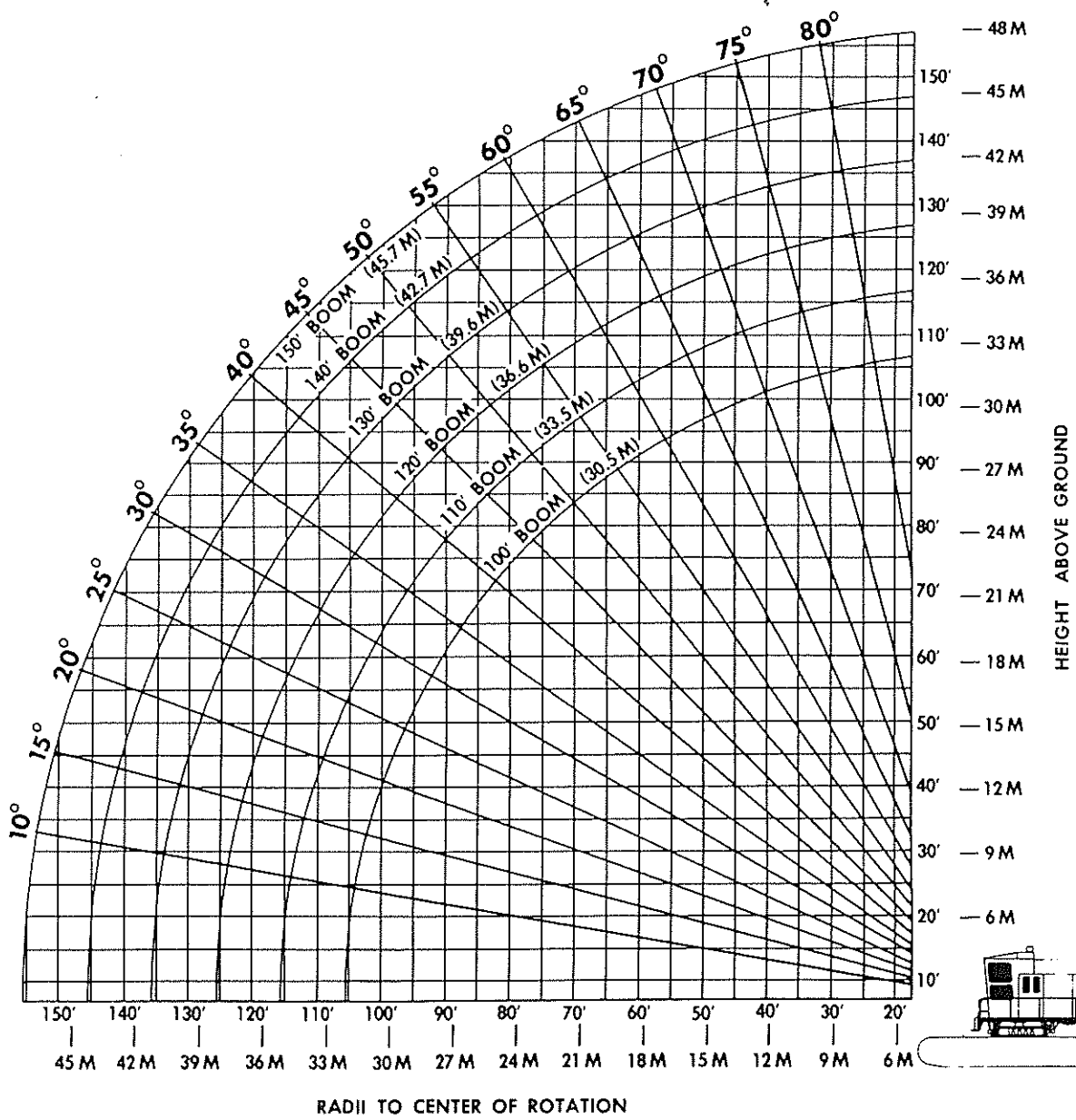
Boom Length In Feet      Load Radius From Centerline Of Rotation In Feet      Capacity In Pounds  
 ∠° Boom Angle Above Horizontal In Degrees      Does Not Exceed 66-2/3% Tipping Loads  
 NOTE: Machine Shall Be Equipped With 52,000 Lbs Cast Counterweight Plus 20,000 Lbs Cast Counterweight Slabs, Or, 43,200 Lbs Integral Counterweight Plus 16,000 Lbs And 4 x 5,200 Lbs Counterweight Inserts

| MACHINE ON FIRM LEVEL GROUND |             | METRIC CLAMSHELL CAPACITY CHART |        |      |        |      |        |      |  |  |  | MAXIMUM COUNTERWEIGHT — SEE NOTE |  |
|------------------------------|-------------|---------------------------------|--------|------|--------|------|--------|------|--|--|--|----------------------------------|--|
| Load Radius                  | BOOM LENGTH |                                 |        |      |        |      |        |      |  |  |  |                                  |  |
|                              | 36.6M       | ∠°                              | 39.6M  | ∠°   | 42.7M  | ∠°   | 45.7M  | ∠°   |  |  |  |                                  |  |
| 20                           | 19,100      | 60.4                            | 19,100 | 62.8 |        |      |        |      |  |  |  |                                  |  |
| 22                           | 19,100      | 56.7                            | 19,100 | 59.5 | 19,100 | 61.9 |        |      |  |  |  |                                  |  |
| 24                           | 19,100      | 52.9                            | 19,100 | 56.1 | 19,100 | 58.9 | 19,100 | 61.1 |  |  |  |                                  |  |
| 26                           | 19,100      | 48.9                            | 19,100 | 52.5 | 19,100 | 55.7 | 19,100 | 58.2 |  |  |  |                                  |  |
| 28                           | 19,100      | 44.5                            | 19,100 | 48.8 | 19,100 | 52.3 | 19,100 | 55.2 |  |  |  |                                  |  |
| 30                           | 19,000      | 39.9                            | 19,000 | 44.8 | 18,800 | 48.9 | 18,500 | 52.1 |  |  |  |                                  |  |
| 32                           | 17,500      | 34.7                            | 17,300 | 40.6 | 17,200 | 45.2 | 16,900 | 48.8 |  |  |  |                                  |  |
| 34                           | 16,100      | 28.8                            | 16,000 | 35.9 | 15,800 | 41.3 | 15,500 | 45.4 |  |  |  |                                  |  |
| 36                           |             |                                 | 14,700 | 30.6 | 14,600 | 37.0 | 14,300 | 41.8 |  |  |  |                                  |  |
| 38                           |             |                                 |        |      | 13,500 | 32.3 | 13,200 | 37.9 |  |  |  |                                  |  |
| 40                           |             |                                 |        |      |        |      | 12,200 | 33.6 |  |  |  |                                  |  |

Boom Length In Meters      Load Radius From Centerline Of Rotation In Meters      Capacity In Kilograms  
 ∠° Boom Angle Above Horizontal In Degrees      Does Not Exceed 66-2/3% Tipping Loads  
 NOTE: Machine Shall Be Equipped With 23,593 Kg Cast Counterweight Plus 9,075 Kg Cast Counterweight Slabs, Or, 19,600 Kg Integral Counterweight Plus 5,260 Kg and 4 x 2,360 Kg Counterweight Inserts

The loaded bucket weight must not exceed the capacity shown above  
 Digging and luffing conditions, together with the skill of the operator will determine whether or not the maximum loading conditions shown can be used  
 BOOM SUSPENSION: A mast and 10 part reeving are recommended for all boom lengths. A crossover and 10 part reeving must be used for all boom lengths if the boom angle must be more than 50° or less than 40°  
 NOTE: Over the side of the truck is the least stable direction  
 NOTE: Load ratings shown on this chart make no allowance for such factors as the effect of side loads, wind, ground conditions and operating speeds. The operator therefore shall reduce load ratings in order to take these factors into account

# WORKING RANGES





## LAGGING DATA

| LAGGING LOCATION | USAGE                         | LAGGING P.D.                                 | LAGGING WIDTH     | TYPE OF LAGGING | EFF. CAPY. 1st. LAYER | MAXIMUM CAP. & LAYERS | CABLE SIZE      | LINE SPEED FPM MPM | **LINE PULL APPROX. |
|------------------|-------------------------------|--|-------------------|-----------------|-----------------------|-----------------------|-----------------|--------------------|---------------------|
| Front            | Shovel Crowd                  | 28" (71.1cm)                                 | 16 1/4" (41.3cm)  | Grooved         | 50' (15.2M)           | 61' in 1 (18.6M)      | 1 1/2" (38.1mm) | 134 (40.8)         | 93,630# (42,471kg)  |
| Front            | Shovel Retract                | 28" (71.1cm)                                 | 17" (43.2cm)      | Grooved         | 53' (16.2M)           | 64' in 1 (19.5M)      | 1 1/2" (38.1mm) | 220 (67.1)         | 52,720# (23,914kg)  |
| Rear             | SHOVEL HOIST 40' (12.1M) Boom | 36 1/2" (93.0cm)                             | 20" (50.8cm)      | Grooved         | 77' (23.5M)           | 300' in 3 (91.4M)     | 1 1/2" (41.2mm) | 108 (33.0)         | 115,450# (52,368kg) |
| Rear             | SHOVEL HOIST                  | 39" Avg (99.0cm)<br>44" - 34" (111.7cm-86.3) | 23 1/2" (60.0 cm) | Tapered Grooved | 132' (40.2M)          | 145' in 1 (44.2M)     | 1 1/2" (38.1mm) | 115 (35.1)         | 114,660# (51,983kg) |
| Front            | Dragline Drag                 | 36 1/2" (91.7cm)                             | 37" (94.0cm)      | Grooved         | 164' (50.0M)          | 601' in 3 (183.2M)    | 1 1/2" (41.2mm) | 173 (52.7)         | 72,550# (32,909kg)  |
| Rear             | Dragline Hoist                | 46" (116.8cm)                                | 31 1/4" (81.0cm)  | Grooved         | 226' (68.9M)          | 244' in 1 (74.4M)     | 1 1/2" (34.9mm) | 271 (82.6)         | 48,040# (21,791kg)  |
| Front            | Clamshell Closing             | 44" (111.8cm)                                | 34 1/2" (87.9cm)  | Grooved         | 254' (77.4M)          | 1,112' in 4 (338.9M)  | 1 1/2" (34.9mm) | 212 (64.6)         | 59,520# (27,021kg)  |
| Rear             | Clamshell Holding             | 36" (91.4cm)                                 | 31 1/4" (79.6cm)  | Grooved         | 188' (57.3M)          | 1,071' in 5 (326.4M)  | 1 1/2" (34.9mm) | 212 (64.6)         | 61,380# (27,842kg)  |
| Boom Hoist Shaft | Boom Hoist (Each Drum)        | 19" (48.3cm)                                 | 12 1/4" (32.4cm)  | Smooth          | 51' (15.5M)           | 441' in 6 (134.4M)    | 1" (25.4mm)     | 59 (18.0)          | 106,660# (48,381kg) |

\*\*Theoretical line pull and speed are based on the first layer on drum and with full load engine power. See drag or clam chart for recommended use. (Above table is an average and not necessarily applicable to any particular engine.)

With torque converter application line speeds will vary dependent on regular line pull

## BASIC MACHINE

|     |  |                          |
|-----|--|--------------------------|
| B-1 | Equipment includes: 25'-6" (0.00m) crawlers; 63" (1.60m) treads; 8 cyl., 6-1/4" (15.9cm) x 8" (20.3cm) stroke, Type D-379 Caterpillar turbocharged diesel engine with electric starting; heavy duty Dynaclone air cleaner; single stage torque converter; two drum worm boom hoist; standard gantry; environmental cab; heater (hot water); basic controls; A.C. generator (belt driven from main engine); mechanical blowers for hoist and swing clutches; basic wiring and lights include (5) 75 watt overhead, (1) portable inside cab light and (4) receptacles, (1) 100 watt outside top rear cab light (reflector type), and (2) 300 watt Sturdilite seal beams located on roof; full length running boards, right and left hand sides, with handrails and ladder; and integral counterweight. | 404,580#<br>(103,508kg.) |
|-----|--|--------------------------|

## STANDARD SHOVEL ATTACHMENT

|     |  |                         |
|-----|--|-------------------------|
| A-1 | Equipment includes: 40' (12.2m) boom; 30' (9.1m) dipper handle; 8 cu. yd. (6.1cu.m) dipper with bail and sheave block; retract mechanism; air dipper trip; 36" (.9m) rear lagging; 28" (00.0cm) front lagging; controls and ropes; (6) 300 watt Sturdilite seal beams located on front deck of rotator and gantry (no counterweight) | 106,980#<br>(48,526kg.) |
|-----|--|-------------------------|

When machine is equipped as a Shovel, the following parts included above are installed in the Rotator and can be deducted from the above weight to obtain correct reduction for removing the front

|                      |                   |
|----------------------|-------------------|
| 1. Fleeting Sheave   | 3,200# (1,452kg.) |
| 2. Front Lagging     | 3,285# (1,490kg.) |
| 3. Rear Lagging      | 2,100# (953kg.)   |
| 4. Retract and Chain | 5,085# (2,306kg.) |
| 5. Ropes             | 3,785# (1,717kg.) |

|   |                           |
|---|---------------------------|
| 6. Chain Tightener  | 320# (145kg.)             |
| 7. Guards and Cab Add'l.                                      | 555# (251kg.)             |
| 8. Piping and Wiring  | 200# (91kg.)              |
| <b>Total Rotator Shovel Parts</b>                             | <b>18,530# (8,405kg.)</b> |
| Shovel Boom, Dipper Handle and Dipper Only (less above parts) | 88,450# (40,121kg.)       |

# DRAGLINE ATTACHMENT

|     |   |                       |
|-----|---|-----------------------|
| A-3 | Equipment includes: 100' (30.5m) bolt connected chord angle boom (72" x 96") (1.8m x 2.4m) with dragline sheave and rope guard, mast assembly, fairlead, drag rope guard, 36" (91m) front lagging boom angle indicator, controls and ropes (less dragline bucket), (4) 300 watt and (1) 500 watt Sturdilite seal beams on boom (no pendants included — see Item No. AO-81), and 16,000# (7,258kg) counterweight | 54,855#<br>(24,882kg) |
|-----|---|-----------------------|

When machine is equipped as a Dragline, the following parts included above are installed in the Rotator and can be deducted from the above weight to obtain correct reduction for removing the front:

|   |                                      |                   |  |                              |                   |                    |
|---|--------------------------------------|-------------------|--|------------------------------|-------------------|--------------------|
| 1 | Full revolving fairlead              | 5,615# (2,547kg.) |  | 6                            | Ropes             | 3,230# (1,465kg)   |
| 2 | Mast with 10 part boom hoist reeving | 5,695# (2,583kg.) |  | 7                            | Piping and Wiring | 210# (95kg.)       |
| 3 | Front Lagging                        | 2,655# (1,204kg.) |  | 8                            | Counterweight     | 16,000# (7,258kg)  |
| 4 | Rear Lagging                         | 2,700# (1,225kg.) |  | Total Rotator Dragline Parts |                   | 36,400# (16,511kg) |
| 5 | Cab-Add'l.                           | 295# (134kg.)     |  |                              |                   |                    |

| BOOM AND SUSPENSION          |                    |
|------------------------------|--------------------|
| 1. Base Section              | 9,730# (4,413kg.)  |
| 2. Point Section with Sheave | 8,725# (3,958kg.)  |
| Total of Above               | 18,455# (8,371kg.) |

# OPTIONAL DRAGLINE ACCESSORIES

|  |                                 |                  |
|--|---------------------------------|------------------|
| AO-80 EXTENSIONS (Dragline and Clamshell Only — With Wiring) |                                 |                  |
| AO-80-A  | 10' (3.0m)—No pendants included | 1,875# (850kg)   |
| AO-80-B  | 20' (6.1m)—No pendants included | 2,865# (1,300kg) |
| AO-80-C  | 30' (9.1m)—No pendants included | 4,035# (1,830kg) |

|                              |                                    |                |
|------------------------------|------------------------------------|----------------|
| AO-81 PENDANTS (Full Length) |                                    |                |
| AO-81-A                      | 100' (30.5m) Boom (No mid-point)   | 1,165# (528kg) |
| AO-81-B                      | 110' (33.5m) Boom (With mid-point) | 1,470# (667kg) |
| AO-81-C                      | 120' (36.6m) Boom (With mid-point) | 1,625# (737kg) |
| AO-81-D                      | 130' (39.6m) Boom (With mid-point) | 1,660# (753kg) |
| AO-81-E                      | 140' (42.7m) Boom (With mid-point) | 1,740# (789kg) |
| AO-81-F                      | 150' (45.7m) Boom (With mid-point) | 1,860# (844kg) |

# CLAMSHELL ATTACHMENT

|     |   |                       |
|-----|---|-----------------------|
| A-4 | Equipment includes: 100' (30.5m) bolt connected chord angle boom (72" x 96") (1.8m x 2.4m) with 2 clamshell sheaves and rope guards; mast assembly; 1848 Rudomatic tagline winder; 44" (1.11m) front lagging; 36" rear lagging; boom angle indicator; controls and ropes; (4) 300 watt and (1) 500 watt Sturdilite seal beams on boom; (less clamshell bucket) (no pendants included — see Item AO-81), and 16,000# (7,259kg) counterweight | 52,670#<br>(23,890kg) |
|-----|---|-----------------------|

When machine is equipped as a Clamshell, the following parts included above are installed in the Rotator and can be deducted from the above weight to obtain correct reduction for removing the front:

|   |                                      |                   |  |                               |                    |                    |
|---|--------------------------------------|-------------------|--|-------------------------------|--------------------|--------------------|
| 1 | Rudomatic tagline winder             | 980# (445kg.)     |  | 5                             | Rear Lagging       | 2800# (1,270kg)    |
| 2 | Gear Guard                           | 70# (32kg.)       |  | 6                             | Controls and Ropes | 3135# (1,422kg.)   |
| 3 | Mast with 10 part boom hoist reeving | 5,695# (2,583kg.) |  | 7                             | Counterweight      | 16,000# (7,258kg.) |
| 4 | Front Lagging                        | 3210# (1,456kg.)  |  | 8                             | Cab Panels         | 465# (211kg.)      |
|   |                                      |                   |  | Total Rotator Clamshell Parts |                    | 32,355# (14,676kg) |

| BOOM AND SUSPENSION          |                    |
|------------------------------|--------------------|
| 1. Base Section              | 9,730# (4,413kg.)  |
| 2. Point Section with Sheave | 10,585# (4,801kg.) |
| Total Of Above               | 20,315# (9,214kg.) |

Note: Boom Extensions, Pendants and Wiring are the same as Dragline

**ROTATING BASE:** One piece, heavily ribbed, steel fabrication including a sump for the horizontal gear train. The basic counterweight is bolted on the rear while the machinery frames of fabricated steel are rigidly bolted and welded to the base guaranteeing perfect shaft alignment. Removable fuel tank, fabricated of heavy gauge steel, is recessed in pocket under counterweight shell. Base fabrication is designed to be a practical shipping width.

**CONE AND HOOK ROLLER ASSEMBLIES:** Four sets of twin cone and hook rollers are mounted in equalizer frames, two at the front and two at the rear. Cone rollers run on tapered roller bearings; hook rollers are bronze bushed. Equalizer shaft brackets have hardened steel bushings for complete field reconditioning without reboring. All cone and hook rollers are pressure lubricated. Hook roller assemblies are mounted on eccentric shafts for quick and simple adjustment.

**SHAFTING:** All shafting is heat treated alloy steel, ground to size. Careful design has reduced large shoulders to a minimum and generous fillets are used throughout.

**FRONT HOIST DRUM SHAFT:** Exceptionally large diameters are used throughout this assembly providing high strength and high rope capacity. Split type laggings permit rapid changes without dismantling entire assembly. Anti-friction bearings and pressure lubrication are put to maximum use.

This shaft functions as shovel crowd and retract, crane main hoist, dragline drag, and clamshell closing.

**REAR HOIST DRUM SHAFT:** Again large diameters of shafting, bearings and drums provide maximum strength and rope capacity as in the front drum hoist assembly. Shaft functions as shovel hoist, crane auxiliary hoist, dragline hoist, and clamshell holding. Split laggings permit conversion without shaft disassembly.

**REVERSING CLUTCH SHAFT (Swing Shaft):** Both shaft and clutch housings are mounted on pressure lubricated anti-friction bearings. Identical clutches at either end of shaft receive opposite direction power from front and rear drum shafts. Bevel gear which powers vertical reversing shaft is enclosed in the horizontal gear train case. Clutch spiders are spline mounted to shaft. End mounted clutches are easily accessible for service.

**VERTICAL REVERSING SHAFT:** Transmits power from the reversing clutch shaft to the horizontal gear train. The one piece bevel gear and pinion is mounted on pressure lubricated, anti-friction bearings.

**HORIZONTAL GEAR TRAIN:** Machine cut gears running in a sealed oil bath transmits power from the vertical reversing shaft to the vertical swing shaft and vertical propel shaft. Lubrication is pump circulated. Air shift jaw clutches alternately actuate either shaft.

**VERTICAL SWING SHAFT:** Shaft and swing pinion are forged in one piece for maximum strength. Swing brake housing and automotive gear type jaw clutch are splined to this shaft which runs in pressure lubricated bronze bearings. Jaw clutch shift is air operated. Shaft carries and is driven by middle gear of the horizontal gear train.

**VERTICAL PROPEL SHAFT:** Transmits power to the horizontal propel shaft in truck base. Splined to shaft is the air shift jaw clutch and bevel pinion. Shaft is driven by the horizontal gear train and runs in pressure lubricated bronze bearings in the truck base casting.

**JACK SHAFT:** Shaft is mounted on pressure lubricated self-aligning anti-friction bearings. Sprocket, and independent boom hoist clutch spiders are splined to the shaft. Powered by the power take-off sprocket through a multiple roller chain to a large sprocket on right hand end of shaft. Sprockets and chain run in sealed oil bath chain case. Boom hoist clutch housings are mounted on pressure lubricated anti-friction bearings with their bevel gears and power the boom hoist mechanism.

**BOOM HOIST:** Boom hoist is an independent function having two drums for dual boom hoist line. A steel worm and bronze worm gear operate in an oil tight case. Worm is mounted on anti-friction bearings and gear on anti-friction bearings. Creeping is prevented by a brake band installed at lower end of worm shaft. Worm drive unit mounts on boom hoist drum shaft and transmits power from clutches to drums.

**CLUTCHES:** All clutches are air operated internally expanding band type, except reversing (swing) clutches, while air actuated, are two shoe type. A quick release air valve is standard on all clutches providing instantaneous disengagement. Air actuated clutches automatically compensate for wear and clutch housing expansion.

**AIR CONTROLS AND AIR SYSTEM:** Lima precision, metered air system has been proved in all conditions and climates. System not

only provides for varying conditions and easy operation but keeps to a minimum service adjustments. Highly developed operating air valves give operator precision control of machinery. System has been designed to continue to function with a partial air pressure loss.

**SWING BRAKE:** Mounted at top vertical swing shaft and is a contracting band type. Brake drum is splined to shaft. Brake is spring set and air released.

**HOIST BRAKES:** Contracting band type operating on drums which are finned for cool operation. Bands are especially large in diameter and width. Lining is a special block design which permits replacement without removing bands. An air circulating fan assures cool operation. Brakes are foot actuated by compensating air treadle valves. A spring set safety feature is standard equipment.

**POWER PLANT:** All power plants are equipped with a torque converter. Converter is mounted outboard of power take-off sprocket giving straddle bearing support. Converters are all equipped with tail shaft governors to regulate engine R.P.M. to load requirements. Drive to jack shaft is a sextuple roller chain running in an oil tight case. Diesel engine is equipped with an electric starter.

**LIGHTING EQUIPMENT:** Power for lights is from an engine driven generator. For standby lighting and tool operation an auxiliary light plant is available.

**GANTRY:** A single high rigid gantry is used for all service. A mast supplements gantry for dragline and clamshell work.

**CAB:** Cab is a weather proof unit fabricated from heavy gauge steel. Machine equipped with environmental operator's cab developed especially for 2400, is lined with sound barrier and deadening material, cuts noise level by an estimated 50 percent. Cab can be heated or air conditioned. Controls are grouped for maximum operator convenience, comfort and efficiency. Side windows slide open for ventilation. Numerous hatches and doors are provided for access to machinery and power plant. Hoist drums are not covered.

**SHOVEL ATTACHMENT:** Shovel boom is fabricated of alloy steel plate for high strength and light weight. Handle is made of a single extruded tubular member. Dipper handle is guided by saddle block equipped with replaceable bronze wearing bars. Eccentric pins provide adjustment for wearing bars.

A simple dependable rope crowd is independent of other motions. Crowd and retract mechanism consists of two crowd ropes and one retract rope. Shovel operation includes a retract clutch shaft. It is powered by the front hoist drum shaft gear and reverses the direction of rotation of the front drum by use of a roller chain and sprockets. Boom angle may be changed without adjusting rope.

Air operated dipper trip is mounted on boom below shipper shaft.

Boom is suspended by two independent multiple reeved ropes from dual drum boom hoist to each side of boom.

**DRAGLINE ATTACHMENT:** Dragline boom is made of high tensile chord angles and tubular lacing. A single deep throat, large diameter point sheave is mounted on anti-friction bearings. A rope guide guard is furnished at point sheave. Booms are available in various lengths by the addition of extensions to the basic boom.

Boom suspension is ten part from gantry to mast and rope pendants from mast to boom point. Mid-point suspension of boom is from mast to center of boom.

Fairlead is full revolving with two sheaves having machined grooves. Swivel and sheaves are mounted on anti-friction bearings, pressure lubricated. Seals are employed to hold grease in and dirt out.

Dragline attachment is readily converted to clamshell work by changing point sheaves, hoist laggings, ropes and adding tagline winder.

**LUBRICATION:** Clustered grease fittings for pressure lubrication provides convenient means to lubricate important bearings. This arrangement is used in both truck base and rotating assemblies.

Rotating assembly horizontal gear train and reversing bevel gears are in a sealed oil bath sump with circulating pump and filter. Horizontal propel gear train in truck base is also enclosed in an oil bath. Only gears requiring hand lubrication are the hoist gears and boom hoist gears.

**COUNTERWEIGHTS:** Varies with front end attachment. Refer to chart on weights of component parts.

## CLUTCH AND BRAKE DATA

| CLUTCHES   |        |               |                 |                      | BRAKES      |      |               |                 |                      |
|------------|--------|---------------|-----------------|----------------------|-------------|------|---------------|-----------------|----------------------|
| FUNCTION   | TYPE   | DIAMETER      | WIDE            | AREA<br>Sq.In. Sq.cm | FUNCTION    | TYPE | DIAMETER      | WIDE            | AREA<br>Sq.In. Sq.cm |
| Crowd Drag | Band   | 58" (147.3cm) | 6" (15.2cm)     | 942 (6,078)          | Crowd Drag  | Band | 69" (175.3cm) | 12" (30.4cm)    | 2,024 (13,059)       |
| Rear Hoist | Band   | 58" (147.3cm) | 6" (15.2cm)     | 942 (6,078)          | Rear Hoist  | Band | 69" (175.3cm) | 12" (30.4cm)    | 1,939 (12,510)       |
| Reversing  | 2-Shoe | 46" (116.8cm) | 10" (25.4cm)    | 1,032 (6,658)        | Swing       | Band | 27" (68.6cm)  | 5" (12.7cm)     | 327 (2,110)          |
| Boom Hoist | Band   | 23" (58.4cm)  | 6 1/2" (16.5cm) | 386 (2,490)          | Boom Hoist  | Band | 19" (48.3cm)  | 3" (7.6cm)      | 138 (890)            |
| Retract    | Band   | 40" (101.6cm) | 10" (25.4cm)    | 1,095 (7,065)        | Dipper Door | Band | 11" (27.9cm)  | 5 1/2" (13.9cm) | 134 (865)            |

| BOOM                            |  |
|---------------------------------|--|
| Suspension                      | Mast and 10 part reeving   |
| Clamshell                       | Mast and 10 part reeving   |
| Dragline                        | Mast and 10 part reeving   |
| Quan Sheaves at Point Shaft     | 1 or 2   |
| Dia Point Sheaves               | 45 1/2" (1.15m) P.D.   |
| Basic Boom Length               | 100'-0" (30.5m)  |
| Max Extended Length             | 150'-0" (45.7m)  |
| Type Chords                     | Point Sec 6" x 6" 1/2"<br>(15.2cm x 15.2cm x 1.27cm)<br>Base Sec 6" x 6" x 1/4"<br>(15.2cm x 15.2cm x 1.5cm) |
| Width and Depth                 | 72" x 96"<br>(1.8m x 2.4m)   |
| Chord Material — Yield Strength | 50,000 PSI<br>(344.5 MPa)  |
| Extensions                      | 72" x 96" (1.8m x 2.4m)  |

| GENERAL DATA   |                                 |
|--|---------------------------------|
| CRAWLER GROUND BEARING AREA:<br>With 63" (1.6m) treads | 26,900 sq. in. (173,548 sq. cm) |
| TRAVEL SPEED   | 0.7 MPH (1.1 KMPH)              |
| SWING SPEED  | 2.02 RPM                        |
| FUEL TANK CAPACITY                                     | 610 Gal. (2,309 Liters)         |

| WORKING WEIGHTS  |                      |
|--|----------------------|
| Machines equipped with CAT. D-379-B power plant with torque converter, required counterweights, standard crawlers, 63" (1.6m) treads, standard propel and necessary wire ropes and controls. |                      |
| 33' (10.0m) Handle   |                      |
| SHOVEL—40' (12.1m) Boom, 8 Cu. Yd. (6.1cu.m.) Dipper   | 511,560# (232,044kg) |
| 40' (12.2m) Handle,  |                      |
| SHOVEL—52' (15.8m) Boom, 6 Cu. Yd. (4.6cu.m.) Dipper   | 525,880# (238,539kg) |
| DRAGLINE—Less Bucket—100' (30.5m) Boom   | 460,600# (208,928kg) |
| CLAMSHELL—Less Bucket—100'(30.5m) Boom   | 458,415# (207,937kg) |

## POWER PLANT DATA

| Make               | Model   | Fuel   | Cyl. | Bore & Stroke                      | Horsepower at Governed R.P.M. |
|--------------------|---------|--------|------|------------------------------------|-------------------------------|
| Caterpillar w/T.C. | D-379-B | Diesel | 8    | 6 1/4" x 8"<br>(158.8mm x 203.2mm) | 547 @ 1,300                   |

In accordance with our established policy of constantly improving our products, we reserve the right to change or modify our products or our product specifications at any time without notice.

# CLARK Crane Division

LIMA, OHIO 45802

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