



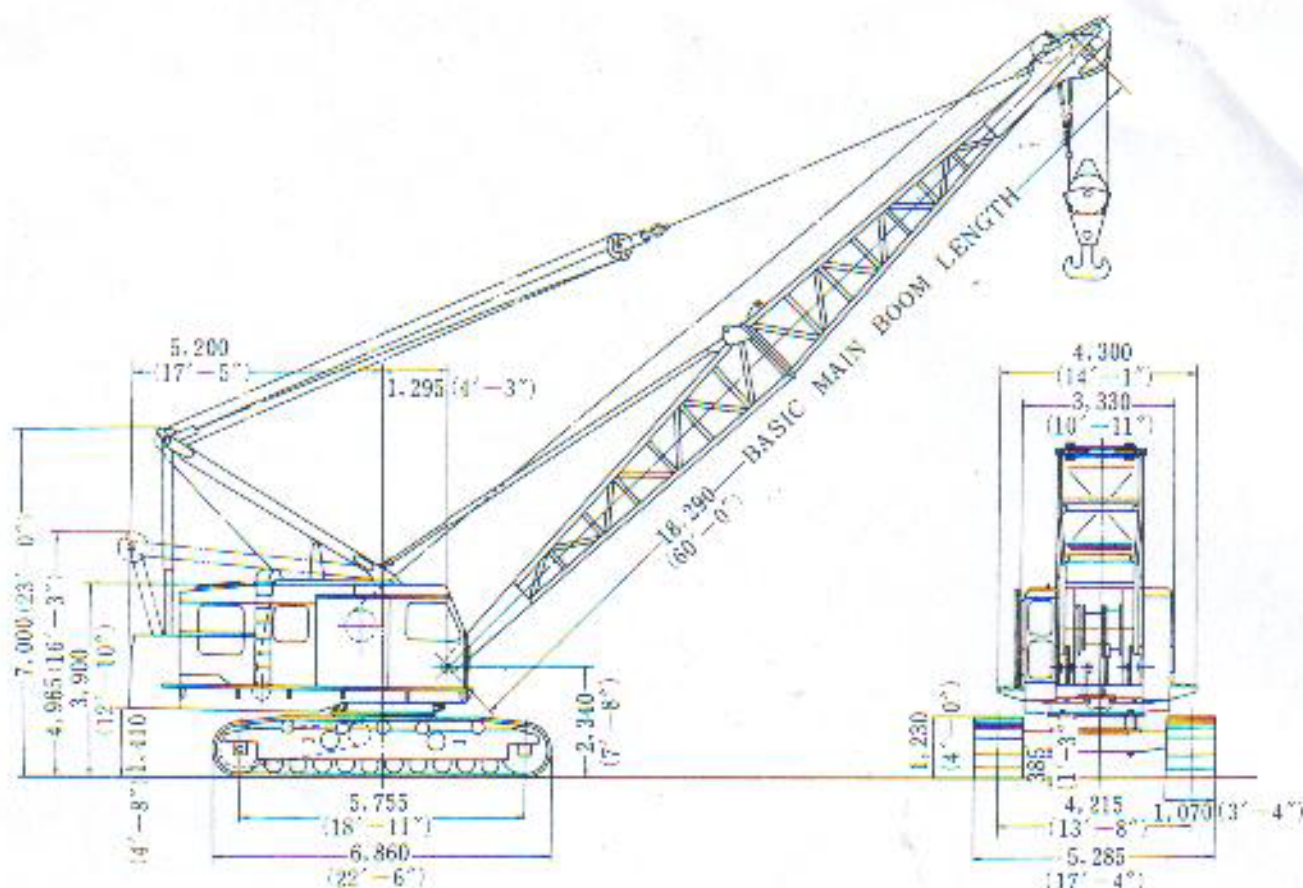
1495

CRAWLER CRANE



SHIMAZU KAWAJIMA KOSHIRINGO

GENERAL DIMENSIONS



CONDENSED SPECIFICATIONS

| | |
|-----------------------------------------------|------------------------------------------|
| MAX. LIFTING CAPACITY..... | 100t (220,000 lbs) × 4.7m (15' - 5") |
| MAIN BOOM LENGTH..... | 18.29m (60') ~ 51.82m (170') |
| MAX. JIB BOOM LENGTH..... | 9.14m (30') |
| MAIN BOOM + JIB BOOM..... | 48.77m (160') + 9.14m (30') |
| TOTAL WEIGHT (With 18.29m 60' main boom)..... | 110t (243,000 lbs) |
| SWING SPEED..... | 2.5 r.p.m. |
| TRACTION SPEED..... | 1.0km/hr (0.6 M.P.H.) |
| GRADABILITY..... | 30% (ABOUT 17°) |
| GROUND PRESSURE..... | 0.85kg/cm ² (12.1 lbs/sq.in.) |
| HOIST ROPE SPEED..... | 45m/min. (147 ft./min.) |
| LOWERING ROPE SPEED..... | 10m/min. (33 ft./min.) |
| BOOM HOIST SPEED..... | 2m/min. (6.6 ft./min.) dual 14 part line |
| BOOM LOWERING SPEED..... | 2m/min. (6.6 ft./min.) dual 14 part line |

ENGINE DATA

| | |
|---------------------|--------------------------------------|
| MAKER..... | CATERPILLAR |
| MODEL..... | D343-AT |
| TYPE..... | 4 cycle, water cooled, diesel engine |
| POWER TAKE OFF..... | Torque Converter (CLARK # 16.1) |
| HORSE POWER..... | 304PS (300 HP)/2,000 r.p.m. |

LIFTING CAPACITIES

Over End or Over Back, within 75% of Tipping Load

ton

| RADIUS IN METER | LENGTH OF MAIN BOOM IN METER | | | | | | | | | | | | |
|-----------------------|------------------------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|
| | 18.29 (60') | 21.34 (70') | 24.38 (80') | 27.43 (90') | 30.48 (100') | 33.53 (110') | 36.58 (120') | 39.62 (130') | 42.67 (140') | 45.72 (150') | 48.77 (160') | 51.80 (170') | |
| 4.7 | 100.0 | | | | | | | | | | | | |
| 5 | 93.0 | (810x52) | (690x57) | | | | | | | | | | |
| 6 | 69.1 | 67.0 | 65.0 | (500x62) | (520x65) | | | | | | | | |
| 7 | 54.2 | 54.0 | 53.8 | 53.0 | 50.5 | (450x73) | (460x78) | | | | | | |
| 8 | 44.4 | 44.2 | 43.9 | 43.7 | 43.5 | 41.0 | 39.1 | (350x84) | (310x89) | | | | |
| 9 | 37.5 | 37.2 | 37.0 | 36.8 | 36.6 | 36.0 | 35.0 | 33.0 | 30.5 | (270x94) | | | |
| 10 | 32.7 | 32.0 | 31.6 | 31.6 | 31.4 | 31.2 | 30.7 | 29.8 | 28.0 | 25.7 | 24.0 | (210x103) | |
| 12 | 25.2 | 24.9 | 24.7 | 24.5 | 24.3 | 24.1 | 23.9 | 23.6 | 23.2 | 22.0 | 21.0 | 19.3 | |
| 15 | 18.6 | 18.4 | 18.2 | 18.0 | 17.8 | 17.6 | 17.4 | 17.2 | 16.9 | 16.7 | 16.4 | 16.0 | |
| 18 | | 14.3 | 14.1 | 13.9 | 13.7 | 13.5 | 13.3 | 13.1 | 12.9 | 12.7 | 12.5 | 12.2 | |
| 21 | | | 11.3 | 11.1 | 10.9 | 10.7 | 10.5 | 10.3 | 10.1 | 9.8 | 9.6 | 9.4 | |
| 24 | | | | 9.2 | 8.9 | 8.7 | 8.5 | 8.3 | 8.0 | 7.8 | 7.6 | 7.4 | |
| 27 | | | | | 7.4 | 7.2 | 7.0 | 6.8 | 6.6 | 6.4 | 6.1 | 5.9 | |
| 30 | | | | | | 5.9 | 5.7 | 5.5 | 5.3 | 5.1 | 4.9 | 4.7 | |
| 33 | | | | | | | 4.8 | 4.6 | 4.4 | 4.2 | 3.9 | 3.7 | |
| 36 | | | | | | | | | 3.5 | 3.3 | 3.1 | 2.9 | |
| 39 | | | | | | | | | | 2.7 | 2.4 | 2.3 | |

Over End or Over Back, within 75% of Tipping Load

lbs

| RADIUS IN FEET | LENGTH OF MAIN BOOM IN FEET | | | | | | | | | | | | |
|----------------------|-----------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|-----------------------|--|
| | 60' | 70' | 80' | 90' | 100' | 110' | 120' | 130' | 140' | 150' | 160' | 170' | |
| 15' -5° | 220,500 | | | | | | | | | | | | |
| 16' | 211,200 | (176,500) (x17°-2°) | | | | | | | | | | | |
| 18' | 178,600 | 158,100 | (152,100) (x18°-2°) | | | | | | | | | | |
| 20' | 148,200 | 145,500 | 140,000 | (132,300) (x20°-2°) | (114,600) (x22°-2°) | (95,200) (x25°-11°) | | | | | | | |
| 25' | 105,200 | 104,800 | 104,300 | 103,900 | 101,400 | 95,500 | (88,100) (x25°-2°) | (77,200) (x27°-6°) | (68,300) (x29°-2°) | | | | |
| 30' | 80,900 | 80,300 | 79,900 | 79,500 | 79,000 | 78,500 | 75,500 | 71,700 | 66,400 | (59,500) (x30°-10°) | (52,900) (x32°-2°) | (46,300) (x34°-5°) | |
| 35' | 65,500 | 64,900 | 64,400 | 63,800 | 63,300 | 62,900 | 62,400 | 61,100 | 58,000 | 54,200 | 50,700 | 45,800 | |
| 40' | 54,300 | 53,700 | 53,200 | 52,800 | 52,400 | 52,000 | 51,500 | 51,100 | 50,000 | 47,800 | 45,600 | 41,900 | |
| 50' | 40,200 | 39,700 | 39,200 | 38,800 | 38,300 | 37,900 | 37,400 | 37,000 | 36,400 | 36,000 | 35,300 | 34,600 | |
| 60' | | 31,000 | 30,600 | 30,100 | 29,600 | 29,100 | 28,600 | 28,200 | 27,600 | 27,200 | 26,600 | 26,100 | |
| 70' | | | 24,300 | 23,800 | 23,400 | 23,000 | 22,600 | 22,200 | 21,600 | 21,200 | 20,600 | 20,100 | |
| 80' | | | | 19,800 | 19,200 | 18,800 | 18,300 | 17,900 | 17,300 | 16,900 | 16,300 | 15,600 | |
| 90' | | | | | 15,900 | 15,500 | 15,000 | 14,600 | 14,000 | 13,600 | 13,000 | 12,500 | |
| 100' | | | | | | 12,900 | 12,400 | 12,000 | 11,400 | 11,000 | 10,400 | 9,900 | |
| 110' | | | | | | | 10,300 | 9,900 | 9,300 | 8,900 | 8,300 | 7,800 | |
| 120' | | | | | | | | | 7,500 | 7,200 | 6,600 | 6,100 | |
| 130' | | | | | | | | | | 5,700 | 5,100 | 4,700 | |

Notes:

1. Values given on the above table are those observed on the level, hard soil, including the weight of such lifting tools as hook block. Therefore, the actual weight which can be lifted will be the value after deduction of the weight of the lifting tool used.

For main booms 100t hook block 2.4t
(5,300 lbs) - 5 Sheaves
50t hook block 0.76t
(1,700 lbs) - 2 Sheaves
30t hook block 0.62t
(1,400 lbs) - 1 Sheaves

2. The allowable load over jib sheaves at any radius from center of rotation is the same load that may be lifted over main boom sheaves with the boom lowered to that radius but not to exceed 4.5t (10,000 lbs). Also, with main hook block attached to it, the actual weight of lifting on the jib must be the value after deduction of the weight of the main hook block and hook block for the jib from those given on the above table.

For jib boom 5t hook block 0.25t (550 lbs)

3. Fitting angle of the jib boom against the extension of the main boom shall not exceed 15° with a 9.14m (30') jib in use for lifting, and 30° with a jib of less than 7.62m (25')

4. Main boom sheave loads must be reduced as follows when jib attached:

4.57m (15') jib boom 1.05t (2,300 lbs)
6.10m (20') jib boom 1.20t (2,700 lbs)
7.62m (25') jib boom 1.35t (3,000 lbs)
9.14m (30') jib boom 1.50t (3,300 lbs)

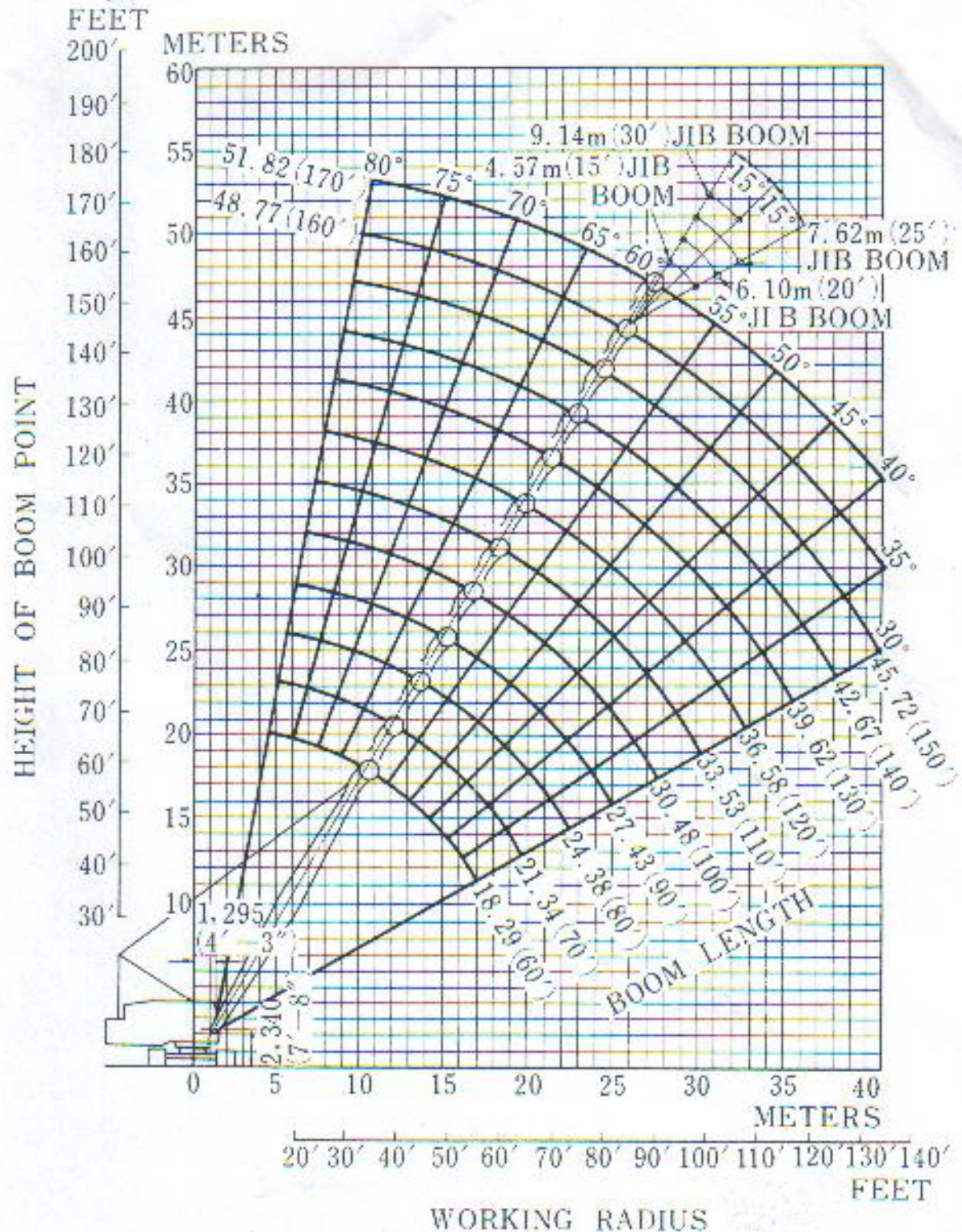
5. Maximum working radius of a jib shall not exceed the maximum working radius of the main boom used at that time.

6. Allowable lifting load against clamshell, dragline, and lifting magnet shall be within 90% of the values given on the above table. These operations cannot be performed with a jib boom.

7. In loading clamshell operations, the total of bucket weight and contents shall not exceed 10.3t (22,700 lbs), and in case of dragline operations, it shall not exceed 9.3t (20,500 lbs)

8. At the time of operations, the A-Frame must be used with erected.

WORKING RANGES



| | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>■ MAIN BOOM CONSTITUTION</p> <p>INNER BOOM 9.15 m (30')</p> <p>OUTER BOOM 9.15 m (30')</p> <p>INSERT BOOM 3.05 m (10')</p> <p> 6.10 m (20')</p> | <p>■ MAX. MAIN BOOM LENGTH</p> <p>IN CASE OF BUCKET OPERATION 36.58m (120')</p> <p>■ MAX. MAIN BOOM LENGTH</p> <p>WITH JIB BOOM ATTACHMENT 48.77m (160')</p> |
| <p>■ JIB BOOM LENGTH</p> <p>4.57 m (15')</p> <p>6.10 m (20')</p> <p>7.62 m (25')</p> <p>9.14 m (30')</p> | |