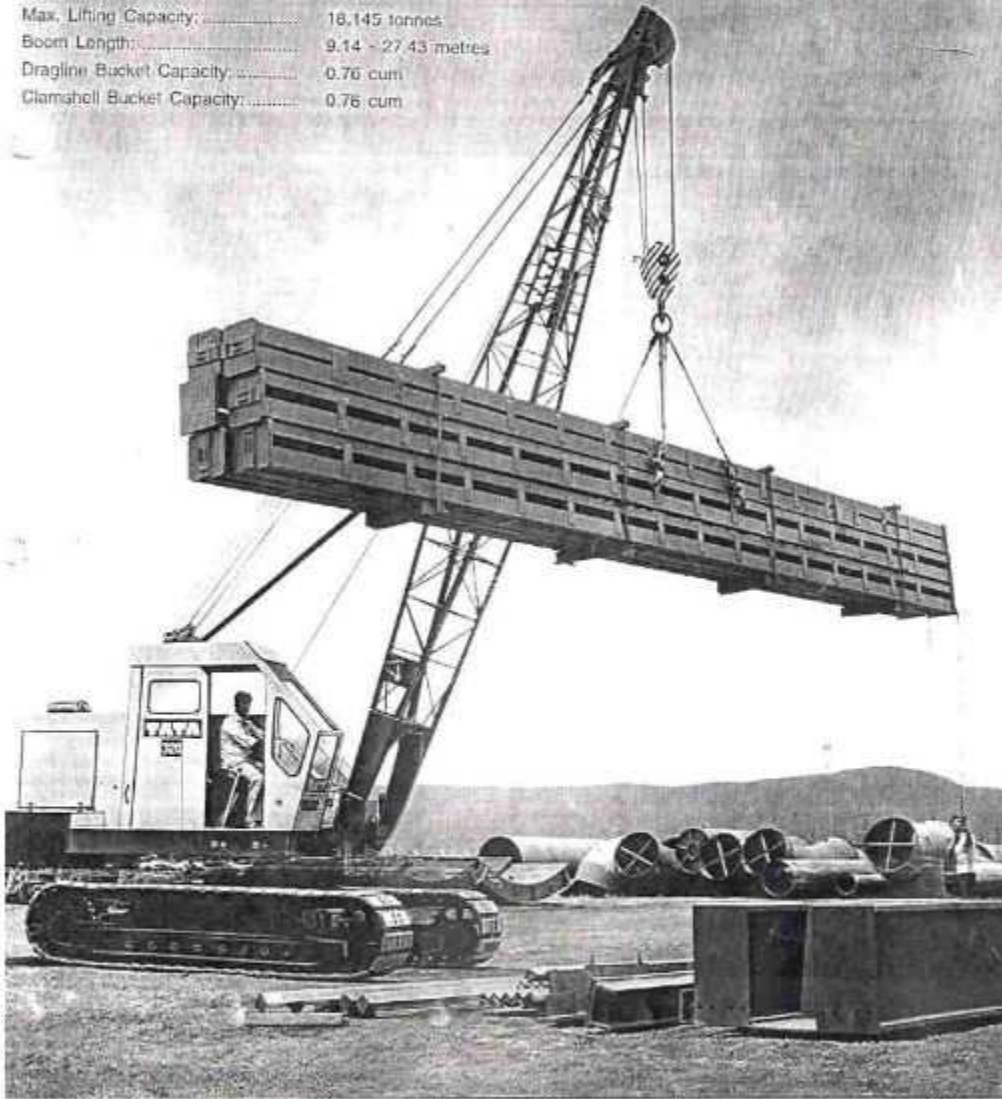


TATA 320

CRANE • CLAMSHELL • DRAGLINE

Max. Lifting Capacity:..... 18,145 tonnes
Boom Length:..... 9.14 - 27.43 metres
Dragline Bucket Capacity:..... 0.76 cum
Clamshell Bucket Capacity:..... 0.76 cum



RATED CRANE LOADS IN KGS. — OVER SIDE AND OVER END WORK AREAS

| Operating radius m. | 9.14 m boom* | | 12.19 m boom | | 15.24 m boom | | 18.29 m boom | | 21.34 m boom | | 24.38 m boom | | 27.43 m boom | |
|---------------------|---|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|
| | Over side | Over end | Over side | Over end | Over side | Over end | Over side | Over end | Over side | Over end | Over side | Over end | Over side | Over end |
| 3.05 | 18145 | 18145 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 3.66 | 13925 | 18145 | 13880 | 18010 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 4.57 | 9935 | 13425 | 9890 | 13335 | 9800 | 13290 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 6.1 | 6670 | 8665 | 6575 | 8575 | 6530 | 8525 | 6440 | 8435 | 6395 | 8390 | 6305 | 8355 | ..... | ..... |
| 7.62 | 4945 | 6305 | 4855 | 6215 | 4810 | 6170 | 4715 | 6125 | 4670 | 6035 | 4580 | 5985 | 4535 | 5670 |
| 9.14 | 4015 | 4945 | 3945 | 4855 | 3900 | 4810 | 3810 | 4715 | 3765 | 4670 | 3675 | 4580 | 3630 | 4535 |
| 10.67 | ..... | ..... | 3200 | 4060 | 3150 | 4015 | 3060 | 3945 | 3015 | 3880 | 2950 | 3810 | 2880 | 3740 |
| 12.19 | ..... | ..... | 2695 | 3380 | 2610 | 3335 | 2540 | 3245 | 2470 | 3200 | 2405 | 3130 | 2335 | 3060 |
| 13.72 | ..... | ..... | ..... | ..... | 2225 | 2835 | 2130 | 2745 | 2085 | 2700 | 1995 | 2610 | 1950 | 2450 |
| 15.24 | When boom is equipped with jib, main hook rating must be reduced by 445 kgs. to compensate for jib attachment weight. | | | | 1905 | 2425 | 1835 | 2360 | 1770 | 2290 | 1700 | 2225 | 1635 | 1998 |
| 16.29 |  |  |  |  | ..... | ..... | 1385 | 1790 | 1315 | 1745 | 1245 | 1655 | 1180 | 1520 |
| 21.34 |  |  |  |  | ..... | ..... | ..... | ..... | 1000 | 1360 | 930 | 1270 | 860 | 1225 |
| 24.38 |  |  |  |  | ..... | ..... | ..... | ..... | ..... | ..... | 705 | 1000 | 635 | 930 |

Notes:

Backstops recommended for all boom lengths. At radii and boom lengths where no ratings are shown on plate, operation is not intended or approved. Ratings are based upon freely suspended loads and machine standing on firm, level, uniformly supporting surface. Safe loads depend upon ground conditions, boom length, radius of operation, and proper handling, all of which must be taken into account by the user.

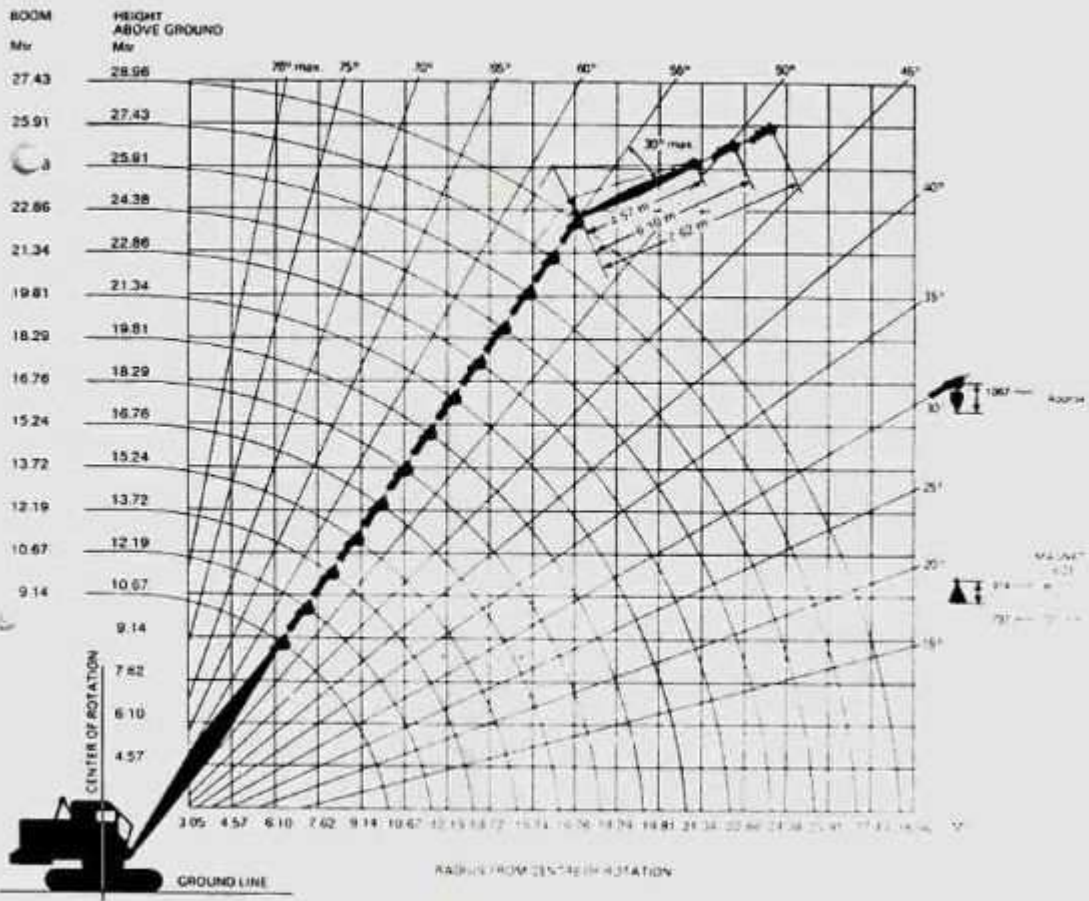
Operating radius is horizontal distance from the centreline of rotation to a vertical line through the gravity centre of the load. Capacities shown are with 5445 kgs. counterweight and do not exceed 75% of tipping loads. The crane ratings include weight of hook block, slings and all other load handling accessories. Deduct 454 kgs. from main hook rating when boom is equipped with jib. Locate jib backstay anchor to bottom of boom base section for all boom lengths.

* Heavy duty boom is available for basic (9.14 m) length for special applications like ship breaking and granite handling. The capacity remains the same as the standard boom.

Many superior features of TATA 320 make it an automatic choice of many customers in India and Abroad.

The features also include

- Planetary load lowering
- Hydraulic controls
- Pawl and ratchet mechanism
- Simultaneous swing and propel
- 4 speed transmission





BOOM

| | |
|-------------------------|---|
| Maximum Rated Load..... | 18145 kg |
| | at 3.05 m operating radius |
| Basic Boom Length..... | 9.14 m |
| | (in two sections) |
| Boom Upper | 4.57 m |
| Boom Lower | 4.57 m |
| Operating Weight..... | 21775 kg |
| | (Equipped with 18145 kg capacity hook and 5445 kg counter weight) |
| Boom Inserts..... | 1.5 m Optional |
| | 3.0 m Optional |
| | 6.0 m Optional |

Boom: Angle lattice alloy steel construction.

Basic length (open throat and bolt connected in two equal sections)..... 9.14 m

2 offset boom point sheaves on bronze sleeve bearings of bottom diameter 406 mm, 8 part boom hoist reeving (standard)

Hook block: 18145 kgs.

2 sheave with swivel hook for 4 part hoist line (standard)

Power controlled load lowering: Planetary device for lowering load under power (standard for crane)



JIB

Angle lattice alloy steel construction,
Three jib lengths are available (optional).

| | |
|-------|--------|
| ..... | 4.57 m |
| ..... | 6.10 m |
| ..... | 7.62 m |



OPTIONAL EQUIPMENT

- Jib assembly with R H Drum
- Auto Light combination
- H. D. Boom (30' Max) for Granite and other applications
- R. H. Drum
- Cable guard single / double roller

| MAXIMUM JIB RATINGS | | | |
|--|------------|------------|------------|
| Offset angle jib to boom under full load | 4.57 m jib | 6.10 m jib | 7.62 m jib |
| | kgs. | kgs. | kgs. |
| 10° | 4535 | 3630 | 3150 |
| 20° | 3630 | 3150 | 2495 |
| 30° (max) | 3175 | 2270 | 2040 |

Jib ratings at any radius from centre of rotation are the same as crane ratings shown in table for main boom when operated at the radius, but should not exceed maximum jib ratings shown. Maximum jib operating radius not to exceed length of main boom on which it is being used.

| DRUM SHAFT ASSEMBLY | | | | |
|-------------------------------|-----------|--------------------|------------|-------------|
| Lifting crane drums pitch dia | Cable dia | Max cable capacity | Line pulls | Line speeds |
| L.H. 352 mm | 16 mm | 165.51 m | 8412 kgs. | 50.1 m/min. |
| R.H. 352 mm | 16 mm | 155.14 m | 8412 kgs. | 50.1 m/min. |

* Line pull and line speeds based on single line in normal operating (2nd) gear. To fit job requirements, line pull & line speed can be varied by shifting into other gears.

** L.H. smooth drum with planetary lowering device, R.H. grooved drum.

| HOIST REEVING | | | | |
|----------------------|------|------|-------|-------|
| No. of parts of line | 1 | 2 | 3 | 4 |
| Max. load — kgs. | 4535 | 9070 | 13610 | 18145 |

| GROUND PRESSURES | | |
|------------------|-----------------|-----------------|
| Shoe width | 610 mm | 762 mm |
| Ground pressure | 0.52 kg/sq. cm. | 0.43 kg/sq. cm. |

| MAXIMUM BOOM LENGTH*—MACHINE CAN LIFT OFF GROUND | | |
|--|----------------|---------------|
| | Boom over side | Boom over end |
| Boom only | 27.43 m | 27.43 m |
| Boom & Jib | 27.43 + 7.62 | 27.43 + 7.62 |

BASIC SPECIFICATIONS

GENERAL DIMENSIONS

| | |
|--|--------|
| A — Width of upper structure | 2.99 m |
| B — Height to top of cab | 3.32 m |
| C — Radius of rear end | 3.30 m |
| D — Centre of rotation to boom foot pin | 1.07 m |
| E — Height from ground to boom foot pin | 1.48 m |
| F — Clearance height over gully | 3.43 m |
| G — Counterweight ground clearance | 987 mm |
| H — Overall length of crawlers | 4.23 m |
| I — Centre to centre of sprockets | 3.35 m |
| J — Overall width of crawlers with shoes | 3.05 m |
| K — Shoe width standard (flat shoe) | 610 mm |
| L — Ground clearance of counterweight (lowest point) | 413 mm |