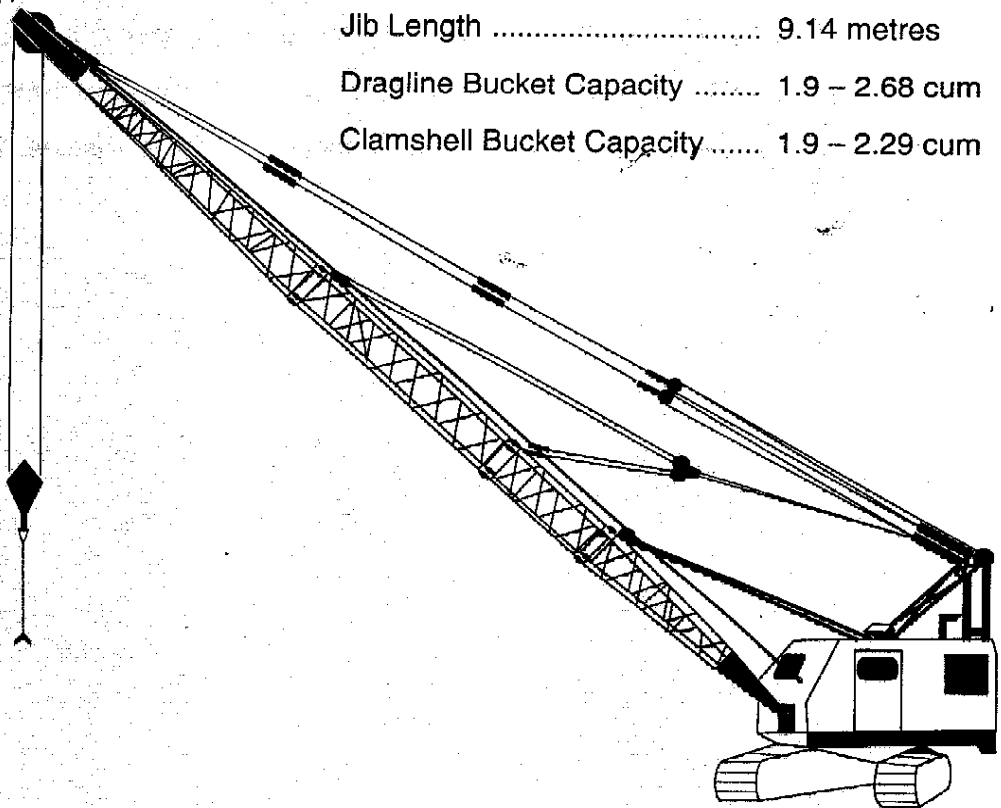


**TATA TFC-280-45**  
**CRAWLER CRANE** CLAMSHELL. & DRAGLINE

**75 TON**

**SPECIFICATIONS**  
(RATING AS PER IS. 4573)

|                                 |                      |
|---------------------------------|----------------------|
| Max. Lifting Capacity .....     | 75 tonnes            |
| Boom Length.....                | 15.24 – 45.72 metres |
| Jib Length .....                | 9.14 metres          |
| Dragline Bucket Capacity .....  | 1.9 – 2.68 cum       |
| Clamshell Bucket Capacity ..... | 1.9 – 2.29 cum       |



TATA TFC 280-45

# TATA TFC - 280 - 45

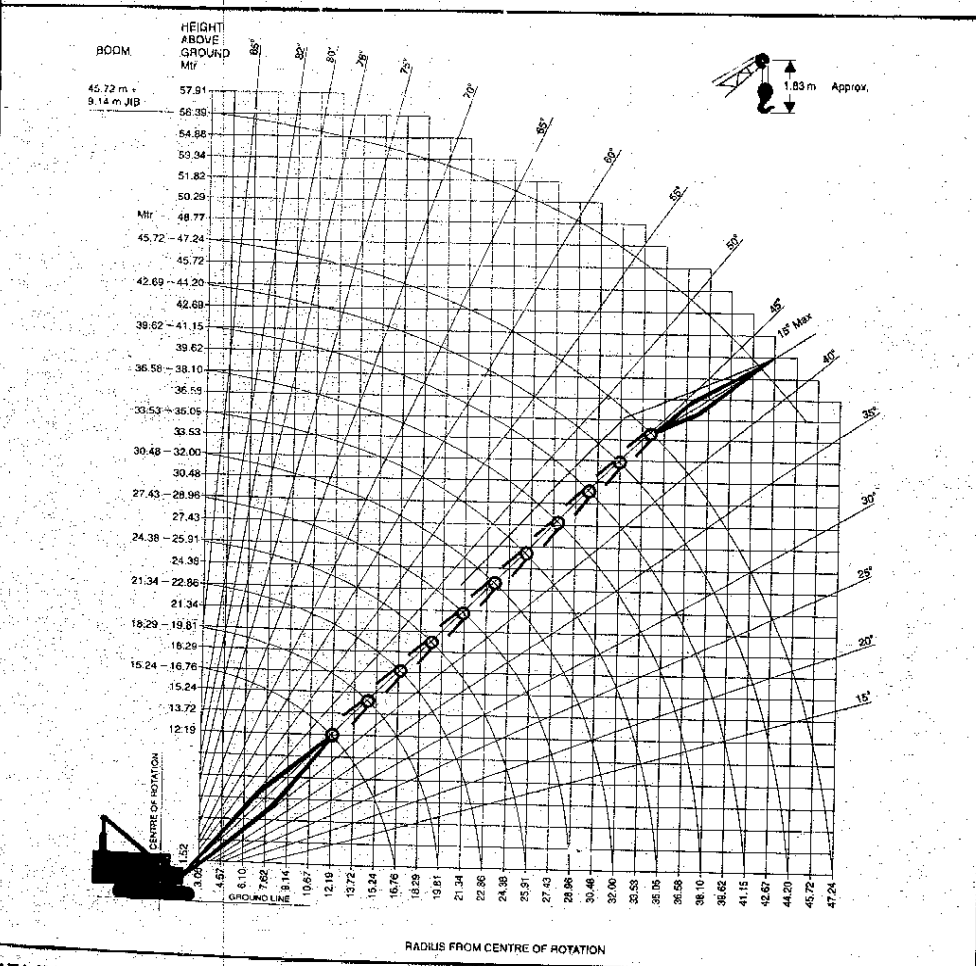
Max. Lifting capacity ..... 75 Tonnes  
 Boom Length ..... 15.24 - 45.72 metres  
 Lattice Fly Jib ..... 9.14 metres



## Crawler Crane - Load Chart

| RATED CRANE LOADS IN KG (AS PER IS 4573) |              |             |             |             |             |             |             |             |             |             |             |
|--|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Operating radius                         | 15.24 m boom | 18.29m boom | 21.34m boom | 24.38m boom | 27.43m boom | 30.48m boom | 33.53m boom | 36.58m boom | 39.62m boom | 42.67m boom | 45.72m boom |
| 3.67                                     | 75000        | .....       | .....       | .....       | .....       | .....       | .....       | .....       | .....       | .....       | .....       |
| 4.57                                     | 52165        | 51960       | .....       | .....       | .....       | .....       | .....       | .....       | .....       | .....       | .....       |
| 6.10                                     | 32660        | 32455       | 32320       | 32115       | 31980       | .....       | .....       | .....       | .....       | .....       | .....       |
| 7.62                                     | 24040        | 23835       | 23700       | 23495       | 23360       | 23155       | 23020       | .....       | .....       | .....       | .....       |
| 9.14                                     | 19005        | 18800       | 18655       | 18460       | 18325       | 18120       | 17985       | 17780       | .....       | .....       | .....       |
| 10.67                                    | 15800        | 15400       | 15260       | 15060       | 14920       | 14720       | 14580       | 14380       | 14240       | 14040       | .....       |
| 12.19                                    | 13155        | 12950       | 12815       | 12610       | 12475       | 12270       | 12130       | 11930       | 11790       | 11590       | 11450       |
| 13.72                                    | 11340        | 11135       | 11000       | 10795       | 10660       | 10455       | 10320       | 10115       | 9980        | 9775        | 9640        |
| 15.24                                    | 9885         | 9685        | 9545        | 9345        | 9205        | 9005        | 8865        | 8660        | 8525        | 8320        | 8185        |
| 16.76                                    | .....        | 8595        | 8460        | 8255        | 8120        | 7915        | 7780        | 7575        | 7440        | 7235        | 7095        |
| 18.29                                    | .....        | 7685        | 7550        | 7345        | 7210        | 7005        | 6870        | 6665        | 6530        | 6325        | 6190        |
| 19.81                                    | .....        | .....       | 6735        | 6530        | 6395        | 6190        | 6055        | 5850        | 5715        | 5510        | 5375        |
| 21.34                                    | .....        | .....       | 6055        | 5850        | 5715        | 5510        | 5375        | 5170        | 5035        | 4830        | 4695        |
| 24.38                                    | .....        | .....       | .....       | 4850        | 4715        | 4510        | 4375        | 4170        | 4035        | 3830        | 3695        |
| 27.43                                    | .....        | .....       | .....       | .....       | 3900        | 3695        | 3560        | 3355        | 3220        | 3015        | 2880        |
| 30.48                                    | .....        | .....       | .....       | .....       | .....       | 3060        | 2925        | 2720        | 2585        | 2480        | 2245        |
| 33.53                                    | .....        | .....       | .....       | .....       | .....       | .....       | .....       | 2220        | 2085        | 1880        | 1745        |
| 36.85                                    | .....        | .....       | .....       | .....       | .....       | .....       | .....       | .....       | .....       | 1425        | 1290        |

### CRANE RANGE DIAGRAM



- NOTE :**
- (a) Ratings are as per IS 4573, i.e. 75% of tipping load for forward stability and 70% for backward stability.
  - (b) Capacities include the weight of the hook block, slings, etc.
  - (c) Capacities are for machine standard on firm, level uniform supporting surface and depend upon the mounting, Ground, boom length, radius of operation and proper handling; all of which must be taken into account by the user.
  - (d) Deduct 680 kg for 6.10m jib and 910 kg for 9.14m jib.

**CAUTION**  
 Machine must not be used for lifting operations with the gantry in lowered position.

# TATA TFC - 280 - 45

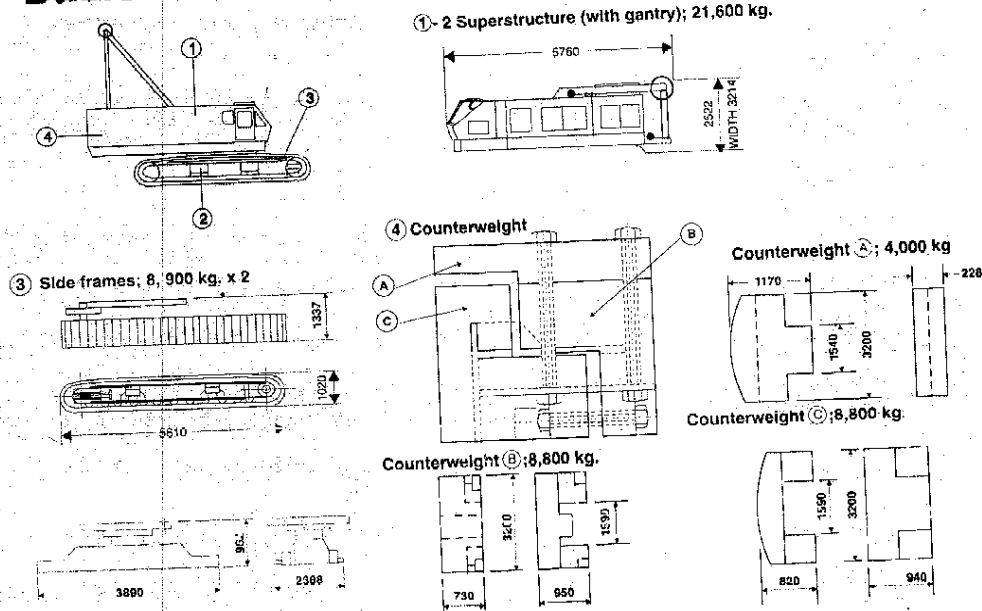
Max. Lifting capacity ..... 75 Tonnes  
 Boom Length ..... 15.24 - 45.72 metres  
 Lattice Fly Jib ..... 9.14 metres

## Crawler Crane



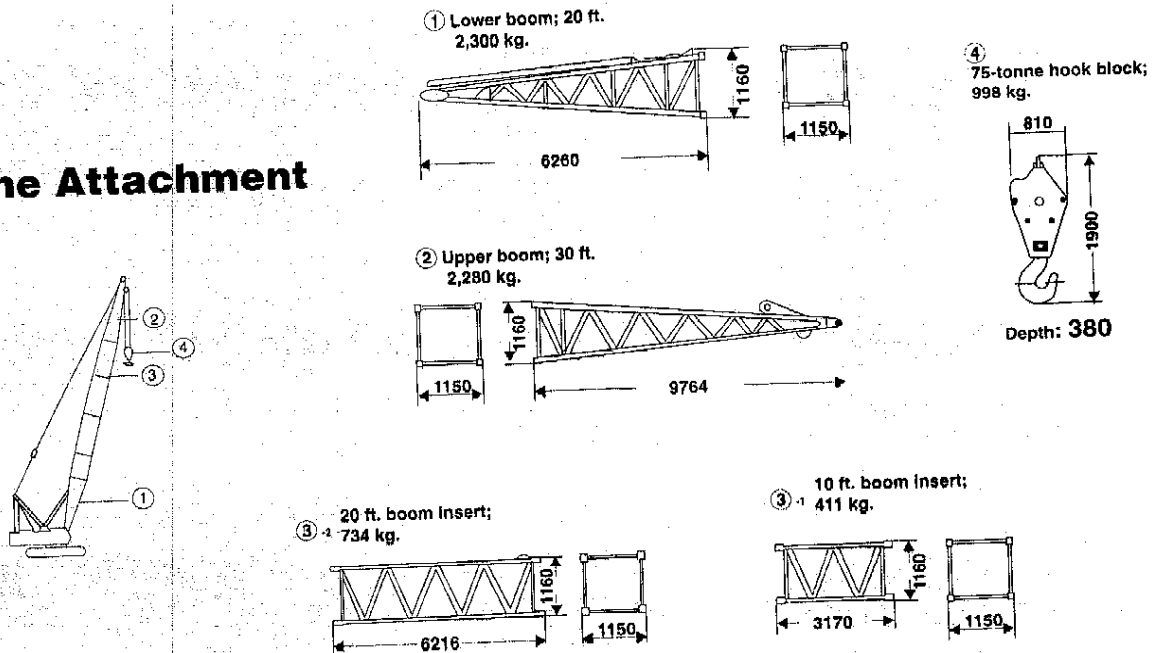
### TRANSPORTATION DATA

#### Basic Machine



Note: All dimensions in mm

#### Crane Attachment



Note: All dimensions in mm

# TATA TFC - 280 - 45

Max. Lifting capacity ..... 75 Tonnes  
 Boom Length ..... 15.24 - 45.72 metres  
 Lattice Fly Jib ..... 9.14 metres

## Crane Specifications



### BOOM

Angle lattice alloy steel construction, with pin joints. Open throat with four boom point sheaves on anti-friction-bearings of bottom diameter 610 mm.  
 10 part boom hoist reeving standard for all boom lengths.

Maximum Rated Load ..... 75,000 kg  
 at 3.67 m operating radius

Basic Boom Length ..... 15.24 m  
 (in two sections)

Boom Upper .. 9.14 m (30 ft)  
 Boom Lower .. 6.10 m (20 ft)

Operating Weight ..... 70,480 kg  
 [Equipped with 75 tonne capacity hook and 21.6 tonne counter weight]

Boom Inserts ..... 3 m (10 ft) Optional  
 6 m (20 ft) Optional

### Hook Block

75 tonne 4 sheave with swivel hook and 8 part hoist line ..... Standard

Weight of Hook Block Assembly with 4 sheave ..... 998 kg

This hook block assembly can be converted to 3 sheave or 2 sheave or single sheave by using required spacers.

### Hoist Reeving and Hook Block Assembly

| No. of Sheaves       | 4      |        | 3      |        | 2      |  | 1 |  |
|----------------------|--------|--------|--------|--------|--------|--|---|--|
|                      | 8      | 6      | 4      | 2      | 1      |  |   |  |
| No. of parts of line | 8      | 6      | 4      | 2      | 1      |  |   |  |
| Maximum Load kg      | 75,000 | 68,040 | 45,360 | 22,680 | 11,340 |  |   |  |
| Hook Block Weight kg | *998   | *946   | 721    | 669    |        |  |   |  |

\* Note : Use 171.5 kg cheek plate

### Drum Shaft Assembly

| Lifting Crane Drums Pitch dia (mm) | Cable dia. (mm) | Cable Capacity 1st wrap (m) | Line * Pulls (kg) | Line * Speeds (mpm) |
|------------------------------------|-----------------|-----------------------------|-------------------|---------------------|
| FRONT 635                          | 26              | 39.32                       | 15730             | 49                  |
| REAR 635                           | 26              | 22.25                       | 16787             | 49                  |

\* Line pulls and speeds based on first layer of rope and engine at full load speed.

### Ground Pressure

|                 | STANDARD       | OPTIONAL       |
|-----------------|----------------|----------------|
| Shoe width      | 914 mm.        | 1067 mm.       |
| Ground Pressure | 0.73 kg/sq.cm. | 0.64 kg/sq.cm. |



### JIB

Angle lattice alloy steel construction, Two jib lengths are available.

..... 6.10 m (20 ft)  
 ..... 9.14 m (30 ft)  
 Jib Hook Block Weight ..... 300 kg  
 Capacity ..... 7000 kg

### MAXIMUM JIB RATINGS

| Offset angle jib to boom under full load | 6.10 m jib | 9.14 m jib |
|--|------------|------------|
|  | kg         | kg         |
| 5°                                       | 6350       | 5895       |
| 10°                                      | 6125       | 5670       |
| 15° (max)                                | 5895       | 5445       |

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