

FR23 T

PICK AND CARRY
CRANE



MAXIMUM RATED CAPACITY

23 t



MAXIMUM BOOM LENGTH

18.3 m
(manual extension) **20.80 m**
(with fly jib)



HD WINCH

17.5 ton capacity
with 6 Falls



COMPACT MACHINE

2.98 m
(Machine Height)



STABILITY

75%



OVERVIEW

Meet the all-new FR23 T, a high-performance pick-and-carry crane designed for heavy-duty applications. With a 23-tonne lifting capacity and 75% stability, this powerhouse sets a new benchmark in safety, efficiency, and versatility.

Engineered for modern demands, the FR23 T boasts a snatch block with 17.5-tonne capacity and Bharat CEV Stage III emission compliance, ensuring eco-friendly operations. Its double-cabin design, coupled with a robust U-section fabricated boom and heavy-duty components, provides superior strength and maneuverability, even in confined spaces with 20% more productivity.

Key Features for Enhanced Safety:

- Safety Range indication System (SRS): Ensures optimal safety during operations.
- Side Slope Indicator: Monitors terrain inclination for stability.
- Boom Angle Indicator: Helps maintain safe boom positioning.
- Safe Operation Features: Allows only luffing, retraction, and winch unwind, preventing unsafe operations.
- Spacious Cabin with Helper Seat: Prioritizes operator comfort and convenience.



Smooth Clutch



Manual Boom Extension rod



5 Hook Positionings



Articulation Limit Switch



HD Winch



Dual Luff Cylinder



Lowest Turning Radius



U-Section Boom



Winch Mounted under Boom



TECHNICAL DESCRIPTION

01. Boom

| | |
|------------------------------------|---------------|
| Maximum boom length (manual extn.) | 18.3 m |
| Maximum boom length (fly jib) | 20.65 m |
| Maximum tip height (fly jib) | 21.3 m |
| Boom elevation angle range | -10°/65° |
| Articulation | 40° R / 40° L |
| Fixed lug | 25 ton |
| Machinery hook (rhino) | 8 ton |

02. Winch

| | |
|--|---|
| Single speed winch (raising 4th layer) | 51 m/min |
| 6 Part Hook block | 17.5-ton max rated capacity, fully compensated hook height whilst telescoping the boom. |

03. Engine & Transmission

| | |
|------------------|--|
| Standard engine | TATA 697 Bharat CEV Stage III |
| Engine power | 74 kW@2200 rpm |
| Engine torque | 400 Nm |
| Fuel Type | Diesel |
| Fuel Capacity | 270 litre |
| Transmission | VECV ET60 Synchromesh gear box with 10 forward and 2 reverse speeds with crane/travel mode selector switch |
| Clutch | Single, dry type friction clutch plate (self-adjusting) |
| Clutch Actuation | Pneumatic assisted hydraulic clutch with clutch booster provision |

04. Hydraulic System

| | |
|--|-----------|
| High Pressure Vane pump | 46 cc/rev |
| Maximum working pressure | 220 bar |
| Hydraulic Oil | 210 litre |
| Hydraulic Cooler Installed for longer oil life & protecting system | |

05. Axle Loadings Travel (Crane) Mode & Turning Radius

| | |
|----------------|-----------------|
| Front Axle | 9530(8970) kg |
| Rear Axle | 10171(13030) kg |
| Total | 19700(22000) kg |
| Turning Radius | 8.0 m |

06. Brakes

| | |
|---------|---|
| Service | Fully air operated 'S'cam dual circuit brakes on front & rear axles |
| Parking | Air operated, spring actuated, fail safe brakes |

07. Tyres & Rims

| | |
|-------|-----------------------|
| Front | 12.00x24-20PR (4 No.) |
| Rear | 12.00x24-20PR (4 No.) |

08. Electricals

| | |
|--------|--------|
| System | 12V DC |
|--------|--------|

09. Steering

| | |
|----------|---|
| Steering | Full power orbitrol with twin cushioned double acting rams with 40 deg articulation either side |
|----------|---|

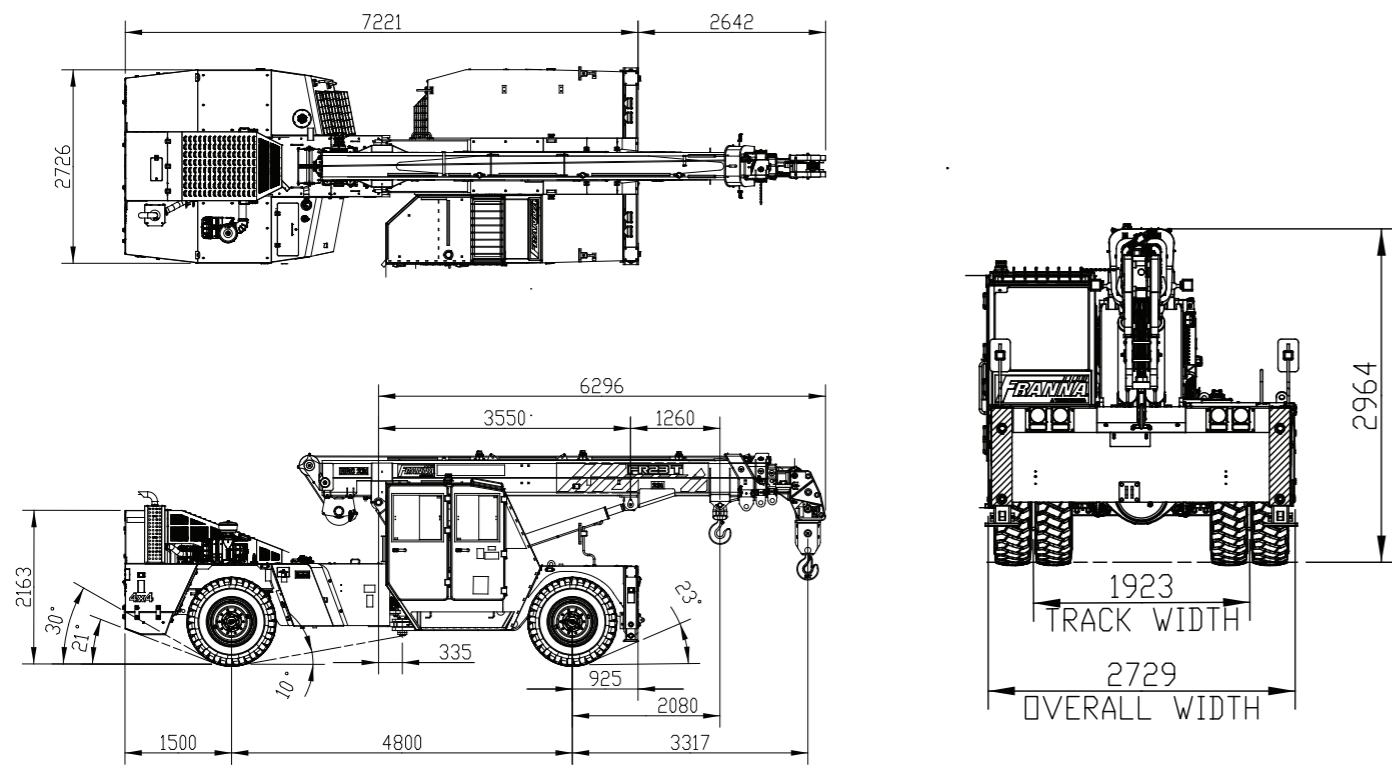
10. Vehicle Performance & Drive

| | |
|--------------|---------------|
| Max Speed | 48 km/h |
| Gradeability | 40% (unladen) |
| Drive | 4x4 |

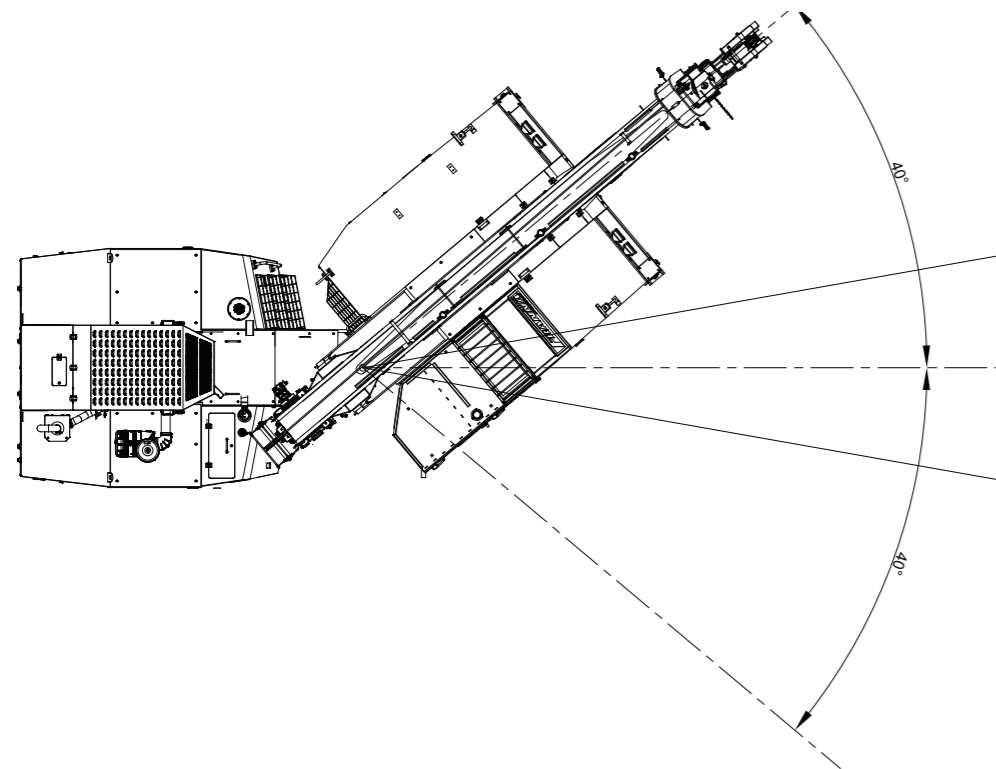


DIMENSIONS / AREA OF OPERATION

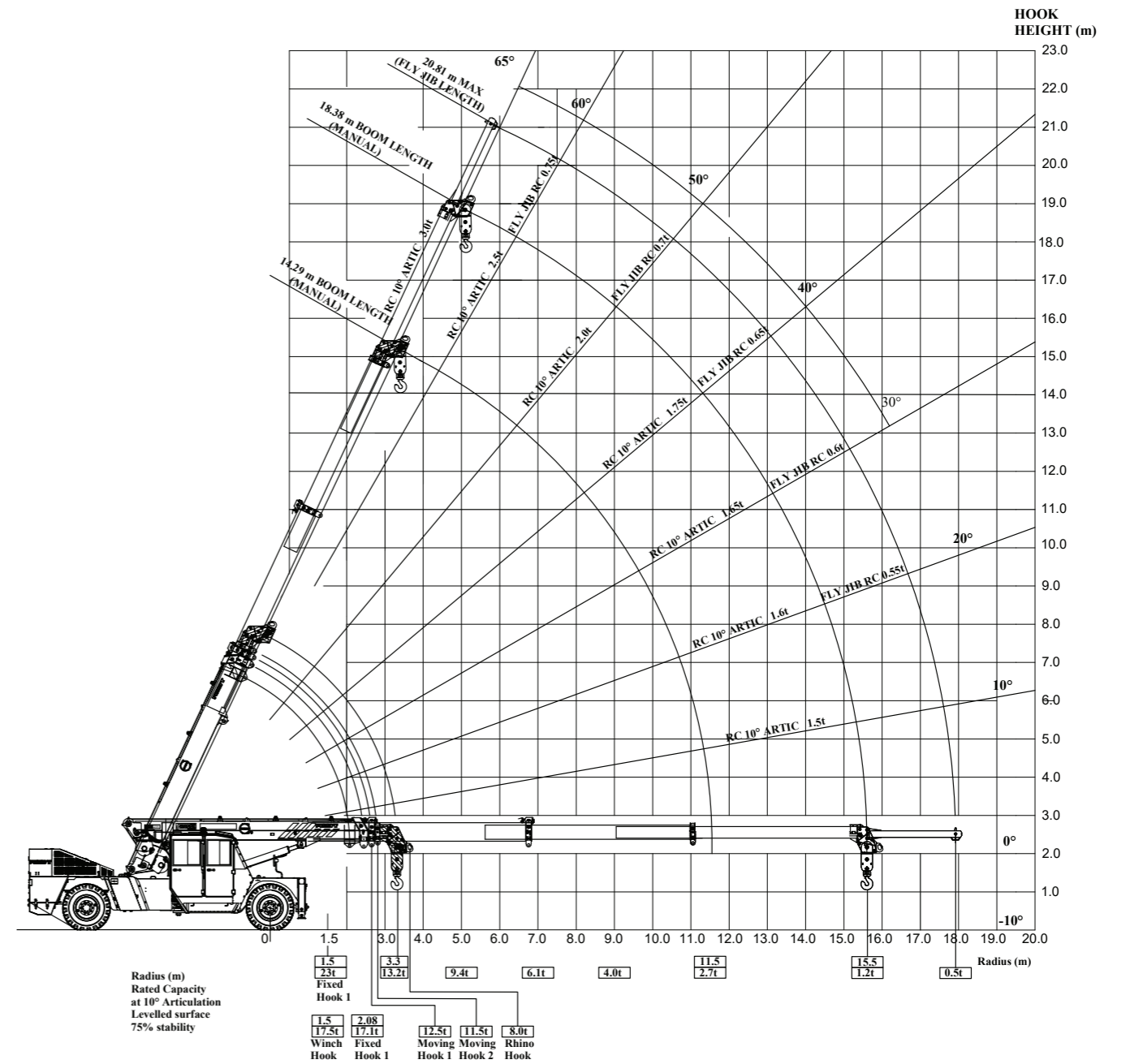
Machine view



Area of operation



RADIUS LOAD CHART



Note:

- Weight of slings & hook block to be added to load.
- Read and understand warning notes before operating crane.
- Crane shall not be overloaded beyond 25ton at any condition.
- Technical modifications reserved. All dimensions & weights are variable within $\pm 5\%$ over Indicated Values.
- Rated Capacity Values shown are for the Pick and Carry chart.
- Rhino Hook & Fly Jib shown are provided as per customer request.
- Rope Dia 13mm with 6 Fall Block


LOAD CHART

FEATURES & ATTACHMENT

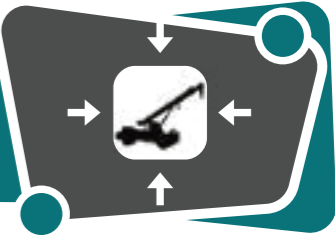
| RATED CAPACITY CHART - LIFTING ON WINCH FALL BLOCK | | | | | | | | | | | | | | | | | | |
|--|-----------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| RADIUS | BOOM LENGTH (m) | | | | | | | | | | | | | | | | | |
| | 6.05 | 6.50 | 7.00 | 7.50 | 8.00 | 8.50 | 9.00 | 9.50 | 10.00 | 10.50 | 11.00 | 11.50 | 12.00 | 12.50 | 13.00 | 13.50 | 14.00 | 14.29 |
| 1.5 | 14200 | 14400 | 14600 | 14800 | 17300 | 17500 | 16400 | 14750 | 13600 | | | | | | | | | |
| | 13500 | 14000 | 14250 | 14500 | 14750 | 14900 | 14000 | 12650 | 11700 | | | | | | | | | |
| 2.0 | 46 | 50 | 54 | 56 | 590 | 61 | 62 | 64 | 65 | | | | | | | | | |
| | 13200 | 13400 | 13300 | 13400 | 13600 | 13700 | 13900 | 12600 | 11600 | 10700 | 10100 | | | | | | | |
| 2.5 | 39 | 44 | 48 | 52 | 54 | 57 | 59 | 61 | 62 | 64 | 65 | | | | | | | |
| | 13200 | 13400 | 13200 | 13200 | 13300 | 13500 | 12900 | 11700 | 10800 | 10000 | 9400 | 8500 | 8100 | 7700 | | | | |
| 3.0 | 31 | 37 | 42 | 46 | 50 | 53 | 55 | 57 | 59 | 61 | 62 | 63 | 65 | 66 | | | | |
| | 13200 | 13400 | 13200 | 13200 | 13200 | 13300 | 12100 | 11000 | 10100 | 10000 | 9400 | 8500 | 8100 | 7700 | | | | |
| 3.5 | 19 | 29 | 36 | 41 | 45 | 48 | 51 | 53 | 56 | 57 | 59 | 61 | 62 | 63 | 64 | 65 | | |
| | 13200 | 13300 | 13300 | 13200 | 13200 | 12800 | 11400 | 10300 | 9400 | 8800 | 8200 | 7300 | 7000 | 6700 | 6500 | 6300 | 6100 | 6000 |
| 4.0 | 12200 | 11900 | 12000 | 12000 | 11900 | 11400 | 10300 | 8400 | 8800 | 8200 | 7300 | 7000 | 6700 | 6500 | 6300 | 6100 | 6000 | |
| | (3.31) | 17 | 28 | 34 | 39 | 43 | 47 | 50 | 52 | 54 | 56 | 58 | 59 | 60 | 62 | 63 | 64 | 64 |
| 4.5 | 12200 | 11500 | 11500 | 11500 | 11400 | 10700 | 9700 | 8900 | 8300 | 7700 | 6900 | 6600 | 6300 | 6100 | 5900 | 5700 | 5600 | |
| | (3.76) | 17 | 27 | 33 | 38 | 42 | 45 | 48 | 51 | 53 | 55 | 56 | 58 | 59 | 60 | 62 | 62 | |
| 5.0 | 10600 | 10100 | 10100 | 10100 | 10000 | 9200 | 8400 | 7800 | 7300 | 6500 | 6200 | 5900 | 5700 | 5500 | 5300 | 5200 | | |
| | (4.26) | 16 | 26 | 32 | 37 | 41 | 44 | 47 | 49 | 51 | 53 | 55 | 57 | 58 | 59 | 60 | | |
| 6.0 | 9400 | 8900 | 8900 | 8900 | 8700 | 8000 | 7400 | 6900 | 6100 | 5800 | 5600 | 5400 | 5200 | 5000 | 4900 | | | |
| | (4.76) | 15 | 25 | 31 | 36 | 40 | 43 | 46 | 48 | 50 | 52 | 54 | 55 | 57 | 58 | | | |
| 7.0 | 8400 | 7600 | 7300 | 7300 | 7300 | 6800 | 6300 | 5500 | 5200 | 5000 | 4800 | 4600 | 4500 | 4400 | | | | |
| | (5.26) | 15 | 24 | 30 | 34 | 38 | 41 | 44 | 46 | 48 | 50 | 52 | 54 | 55 | | | | |
| 8.0 | 6900 | 6300 | 6100 | 6100 | 5800 | 5000 | 4700 | 4500 | 4300 | 4200 | 4000 | 4000 | 4000 | 4000 | | | | |
| | (6.26) | (6.76) | 14 | 22 | 28 | 33 | 36 | 39 | 42 | 44 | 46 | 47 | | | | | | |
| 9.0 | 5800 | 5300 | 5200 | 4600 | 4300 | 4100 | 4000 | 3800 | 3700 | 3600 | | | | | | | | |
| | (7.26) | (7.76) | 13 | 21 | 27 | 31 | 35 | 38 | 40 | 42 | | | | | | | | |
| 10.0 | 5000 | 4400 | 4000 | 3800 | 3600 | 3500 | 3400 | 3300 | | | | | | | | | | |
| | (8.26) | (8.76) | 12 | 21 | 26 | 30 | 33 | 35 | | | | | | | | | | |
| 11.0 | 3900 | 3600 | 3400 | 3200 | 3100 | 3000 | | | | | | | | | | | | |
| | (9.26) | (9.76) | 12 | 20 | 25 | 27 | | | | | | | | | | | | |
| 12.3 | 3300 | 3100 | 2900 | 2800 | | | | | | | | | | | | | | |
| | (10.26) | (10.76) | 12 | 16 | | | | | | | | | | | | | | |

KEY:
 SWL (KG) LESS THAN 10 DEG ARTICULATION
 SWL (KG) GREATER THAN 10 DEG ARTICULATION
 BOOM ANGLE OR (RADIUS AT 0 DEG BOOM ANGLE)


Note: Weight of slings & hook block to be added to load
 Read and understand warning notes before operating crane



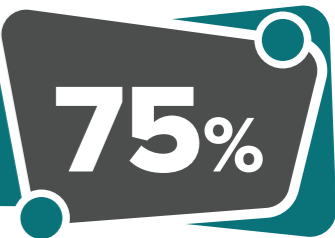
NEUTRAL AXIS WELDING BOOM
 Latest boom technology for Heavy duty applications. U section ensures higher lifting capacity with longer life




COMPACT MACHINE
 Shortest Turning radius of 8.0 meter makes it ideal machine for City and congested areas.




WINCH MOUNTING
 Under boom winch ensures safe operations while working in compact area. Ideal for city and industrial applications




75% STABILITY
 Higher safety and stability reduces the chances of accident.



MANUAL EXTENSION ROD
 Quick and reliable mechanism for higher height applications



TELEMATICS
 24X7 machine update on location, health and performance on one click



SPACIOUS TWO-PERSON CABIN
 Spacious back-to-back cabin for enhanced visibility and comfort.

OUR LOCATIONS

PT. Berlian Cranserco Indonesia



Head Office Balikpapan

Jl. Mulawarman No.71, RT32
Sepinggang Raya, Balikpapan Selatan
Balikpapan 76115 - Kalimantan Timur, Indonesia
Tel. +62 542 762 297

Pekanbaru

Graha Sucofindo 1st Floor
Jln. Jend. Achmad Yani No. 79
Pekanbaru - Riau 28115
Tel. +62 811 3943 821

Papua

PT. Freeport Indonesia
32HD Shop, Mil 32
Tembagapura
Tel. +62 811 5422 034

Jakarta

CIBIS Park
Gedung CIBIS Eight, 3rd Floor no. 5
Jl. TB Simatupang No. 2
Jakarta Selatan 12560, Indonesia
Tel. +62 21 780 2269

Surabaya

AMG Tower
8th Floor, Unit B.02A
Jl. Dukuh Menanggal No.1 A, Dukuh
Menanggal, Kec. Gayungan,
Surabaya, Jawa Timur 60234
Tel. +62 811 5966 682

Sumbawa

PT. Amman Mineral Nusa Tenggara
Fleet Mews Maintenance
Concentrator
Sumbawa - Nusa Tenggara Barat
Tel. +62 811 5910 166

Email: sales@cranserco.com

Follow us on



The information contained in this leaflet is intended to be of general nature.
Terex Corporation reserves the right to change the specifications without prior notice.
All dimensions and weights are variable within $\pm 5\%$

Published and Printed in 2023



www.cranserco.com

