



ESCORTS

RT 40

**Rough Terrain
Hydraulic Mobile Crane**

Maximum Capacity
40 MT at 3 M Radius on outriggers 360° Slew

Maximum Capacity
18.67 MT at 3 M Radius on Tyres Over front

4 Part Fully Powered 33.6 M Boom

4x4 Wheel Drive with 4-Wheel Steer



Accessories as shown in the picture may not be the part of standard fitment and are subject to change without prior notice.

Technical Data

Super Structure Frame

- Super Structure: All welded rigid construction.
- Counter Weight: Removable & bolted to superstructure.

Boom

- 4 part telescopic boom.
- 4 part fully powered sequence synchronized rectangular boom.
- Overall length: Retracted - 10.5 m; Extended- 33.6 m.

Boom Lifting

- Double acting single cylinder with lowering brake valve.
- Angle of elevation -2 deg. to +80 deg.

Hoisting

- Hydraulic winch with axial piston motor, grooved drum & planetary reduction gear box with spring loaded cable roller for better rope spooling.

Slewing

- 360 degree rotation controlled by hydraulic motor.
- Freewheeling safety device for automatic alignment of boom over the load.

Hook Block

- 40 MT swivel type hook block with 4 sheaves reeved for 8 part line with safety latch.
- Wire rope diameter of 18 / 19 mm.

Operator Cabin

- Fully enclosed cabin of steel construction, sliding door & emergency exit door with large-sized safety glass windows, adjustable driver seat.

Crane Controls

- Auto reversal mechanism to ensure correct steering wheel control irrespective of the position of the superstructure in relation to the chassis.
- All controls for crane travelling and crane functions are within easy reach, Armrest mounted joystick and automotive type steering wheel.
- Operator cabin is equipped with wiper, horn, cabin fan & cab light, crane leveling gauge, free slew pedal, brake pedal, throttle pedal, dynamic brake pedal for slew, electric switch for outrigger operation, transmission gear selector, mechanical slew lock lever, air/hydraulic/pilot pressure gauge, rear steer centering indicator, hydraulic filter clogging indicator, low hydraulic oil level warning, axle lockout switch, SLI with audio-visual indicators etc.

Safety Devices

- Safety devices such as relief valves, balance valves & brake valves fitted in hydraulic system to prevent the accidents.
- Limit switch on boom head for over hoisting snatch block and on winch for over lowering with hydraulic cut off & warning.

Load Limiting Device

- Indicates boom elevation, boom length, actual load, rated load, load radius, number of falls & boom height.
- In overload condition there is audio visual warning & all such hydraulic operation that tend to increase load moment (unsafe operations) are automatically cut-off while operation like derricking in & hoisting down still being possible.

Chassis

- Torsion & bending resistant with rigid steel structure box type frame made with high strength alloy steel.

Outriggers

- Four nos. out and down type, hydraulically operated with fail-safe dual lock valves.

Engine

- Suitable water cooled, turbo-charged diesel engine of adequate HP.
- Fuel tank – 270 Liters.

Transmission

- Power shift with build in torque converter with adequate speeds controlled from cab.

Brakes

- Service: Foot operated, hydraulically applied pneumatically assisted split circuit disc brake on all wheels.
- Parking: Hand operated lever / switch, spring applied hydraulically released front axle mounted disc brake.

Steering

- Fully hydraulic & independent power steering operated from cab.
- Four steering modes: 2-wheel (Front), 2-wheel (Rear), 4 wheel coordinated & crab.

Axle

- Front Axle: Drive & steer with differential & planetary reduction hubs, rigid frame mounted.
- Rear Axle : Drive & steer with differential & planetary reduction hubs, centrally pivoted, lateral oscillating with hydraulic locking device.

Drive

- 4 x 4 for off-road movement & all wheel drive.
- 4 x 2 for road travel, front axle drive.

Tyres

- Tyres: 18 x 25 32 PR, 4 nos. Earthmover type.

Electricals

- 2 x 12 volts system
- 2 main head lamps, 2 brake and flashing trafficator lamps at rear, 2 flashing trafficator lamps at front, 1 work lamp.

Gradeability

- 50% (Unladen)

Hydraulic Pumps

- One single pump & one double pump mounted on transmission PTO.

Hydraulic System

- Multi section 3 position proportional & flow sharing directional control valve operated by joystick for slew, telescoping, hoisting and derricking with independent or simultaneous crane operations & progressive speed control.
- Safety valves in all hydraulic cylinders for protection against pipe and hose ruptures.
- Oil cooler for cooling of hydraulic and transmission oil.

Optional Extra

- | | |
|-----------------------------------------|-------------------------------|
| • Lattice boom extension 8.5 m | • Spare wheel & tyre |
| • Emergency wind off system | • Air conditioner |
| • Fire detection and suppression system | • High tension warning device |
| • Cold starting kit | • Towing hook |
| • 6 tonne hook block | • Fog light |
| • Telematics system | |

To meet manufacturing conditions and developments in design, the illustrations and information in this publication are subject to modification without notice.

Load Chart

LIFTING CAPACITIES ON FULLY EXTENDED OUTRIGGER (100 %) WITH SLEWING RANGE 360°

[illegible]

LIFTING CAPACITIES ON MOBILE UPTO 4 KMPH SPEED OVERFRONT

Boom Length (m)	10.5		14.4		18.2		22		25.9		29.8	
Radius (m)	Boom angle (Deg)	Load (MT)	Boom angle (Deg)	Load (MT)	Boom angle (Deg)	Load (MT)	Boom angle (Deg)	Load (MT)	Boom angle (Deg)	Load (MT)	Boom angle (Deg)	Load (MT)
3	68	18.67										
3.5	65	16.68										
4	62	14.8	70	14.55								
4.5	59	13.49	68	13.23								
5	55	12.25	65	12.09	71	11.58	74	10.43				
6	49	10.49	61	10.32	67	9.4	71	8.68	74	8.13		
7	41	9.29	56	9.08	64	8.63	69	7.61	72	7.1		
8	32	7.82	51	7.61	60	6.81	66	6	70	5.82	72	5.39
9			46	6.12	57	5.66	63	5.06	67	4.92	70	4.84
10			40	5.51	53	5.05	60	4.55	65	4.32	68	4.13
11			34	4.49	49	4.26	57	3.93	62	3.68	66	3.56
12			25	3.7	45	3.59	54	3.4	60	3.32	64	3.24
13					40	3	50	2.77	57	2.66	62	2.57
14					35	2.48	47	2.31	55	2.19	60	2.07
15					29	2.05	43	1.91	52	1.8	57	1.7
16					22	1.62	39	1.52	49	1.41	55	1.31
17							35	1.13	46	1.08	53	0.98
18							30	0.95	43	0.86	50	0.77

LIFTING CAPACITIES FREE ON WHEELS SLEWING RANGE 360°

Boom Length (m)	10.5		14.4		18.2		22		25.9		29.8	
Radius (m)	Boom angle (Deg)	Load (MT)	Boom angle (Deg)	Load (MT)	Boom angle (Deg)	Load (MT)	Boom angle (Deg)	Load (MT)	Boom angle (Deg)	Load (MT)	Boom angle (Deg)	Load (MT)
3	68	12.62										
3.5	65	10.22										
4	62	9	70	8.82								
4.5	59	7.9	68	7.59								
5	55	6.87	65	6.66	71	6.56						
6	49	5.23	61	4.93	67	4.75	71	4.66	74	4.22		
7	41	4.38	56	4.08	64	3.91	69	3.88	72	3.6		
8	32	3.52	51	3.25	60	3.17	66	3.13	70	2.99	72	2.05
9			46	2.74	57	2.59	63	2.55	67	2.3	70	1.62
10			40	2.12	53	1.98	60	1.97	65	1.81	68	1.28
11			34	1.62	49	1.52	57	1.5	62	1.32	66	0.95
12			25	1.24	45	1.17	54	1.15	60	1.02	64	0.65

Lifting capacities for supported operation only on firm level ground.

Weight of 40T hook block= 450 kgs.

Lifting capacity=Actual load + hook block + Chain/Slings.

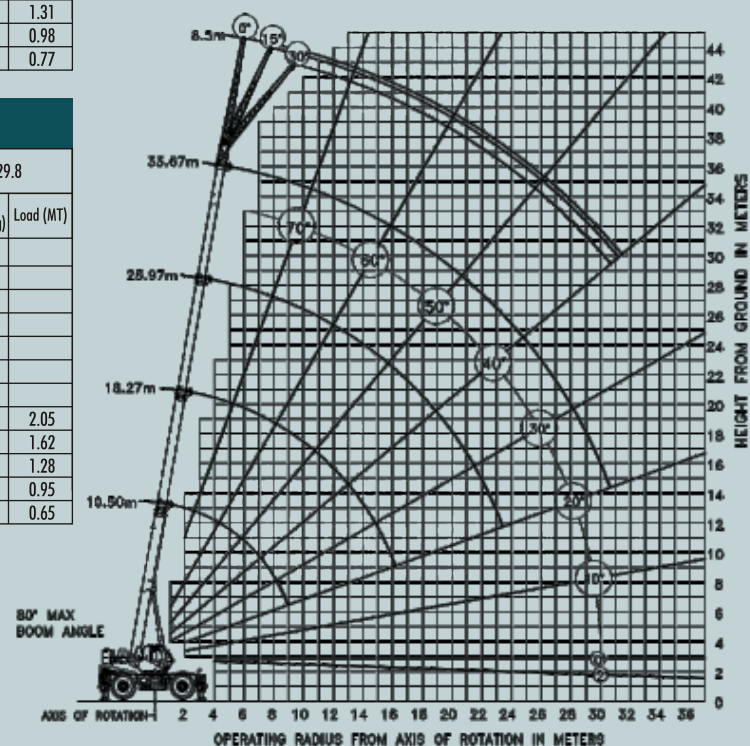
These lifting capacities should not exceed 85% of tipping load.

Crane complies with Indian Standard IS-4573 1982

For 10.5 m boom length ratings, tele cylinders must be fully retracted & against stops.

LIFTING CAPACITIES ON BOOM EXTENSION

Jib Offset	0 Deg Offset		15 Deg Offset		30 Deg Offset	
Radius (m)	Boom angle (Deg)	Rated Load (MT)	Boom angle (Deg)	Rated Load (MT)	Boom angle (Deg)	Rated Load (MT)
12	75	3.5	77	2.91	79	2.47
14	72	3	74	2.49	77	2.12
16	69	2.63	71.5	2.18	74	1.86
18	66	2.33	68.5	1.94	70.5	1.65
20	63	2.10	65	1.74	67.5	1.48
22	59	1.91	62	1.59	65	1.35
24	56	1.62	60	1.34	61	1.14
26	53	1.26	56	1.05	58	0.89
28	49	1	52	0.83	54	0.71
30	46	0.76	48	0.63	50	0.54

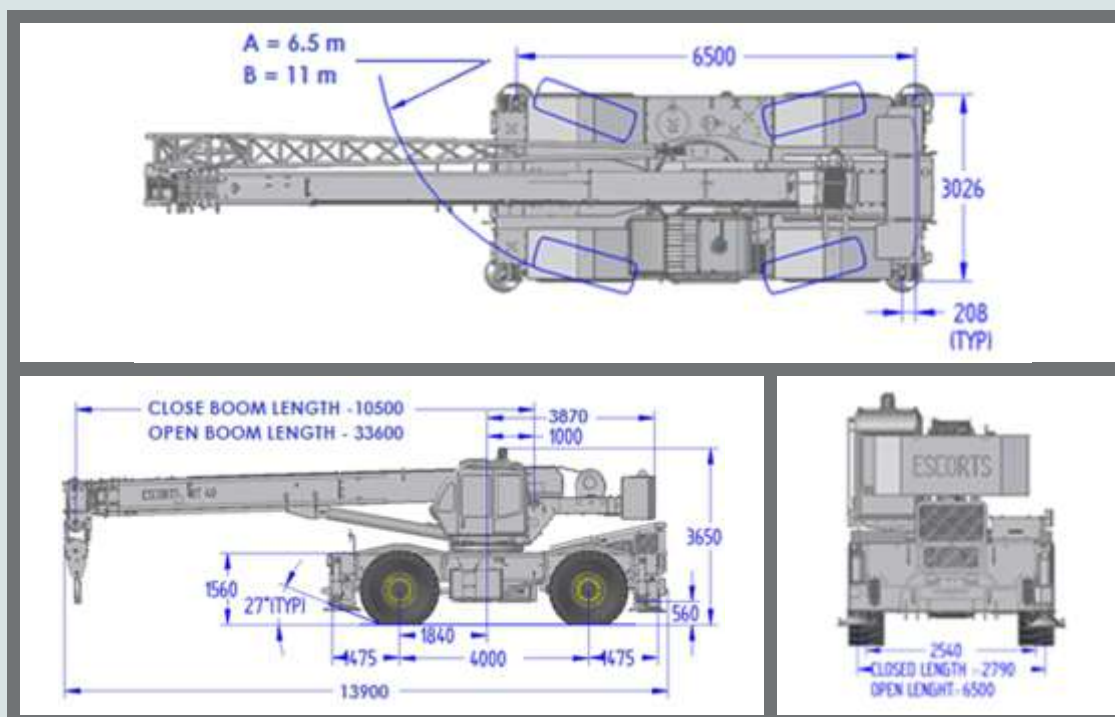


Permissible Hoist Line Load in Kg

No. of part line	1	2	3	4	5	6	7	8
Main winch Hook Load	5000	10000	15000	20000	25000	30000	35000	40000

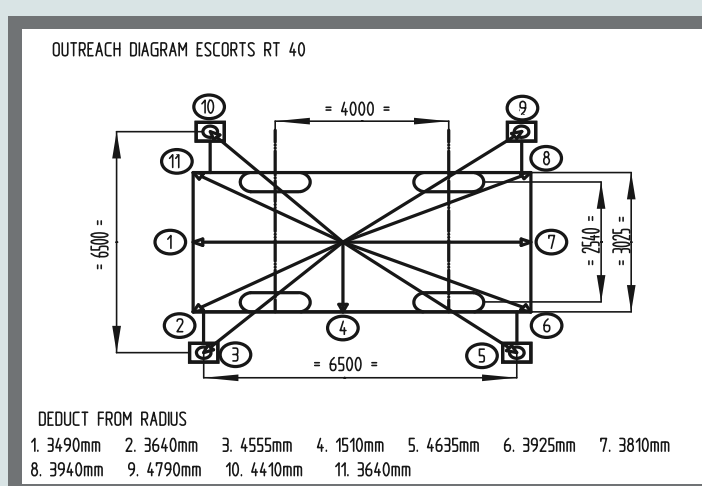
Weight reductions for Load Handling Devices

8.5 M Boom Lattice	
• Stowed (KG)	550
• Erected (KG)	2150



A= 4 WHEEL TURNING RADIUS.

B= 2 WHEEL TURNING RADIUS (FRONT AXLE)



ESCORTS

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