

# RT 750

## Product Guide



An illustration only

### ROUGH TERRAIN HYDRAULIC CRANE

#### Features

- **MAX. CAPACITY (Outriggers)** - 50.0 Tonnes at 2.5m Radius (85% Rating) 360° Slew
- **MAX. CAPACITY (On Tyres)** -12.0 Tonnes at 3m Radius (85% Rating) Over Front
- **BOOM** - 5 Section Formed Boom 11m - 41.3m
- **MAX. ROAD SPEED** - 30km/hr
- **CARRIER** - 4 X 4 Wheel Drive with 4 Wheel Steer

# Superstructure Specifications

## **BOOM**

11m - 41.3m five section, telescopic, full power, sequence synchronized, boom with single lever control. Telescoping boom sections slide on adjustable & replaceable low friction wear pads.

## **BOOM NOSE**

Five nylatron sheaves mounted on heavy duty tapered roller bearings with removable pin-type rope guards.

**Maximum Tip Height:** 44m

## **BOOM ELEVATION**

One double acting hydraulic cylinder with integral holding valve.

## **BOOM ANGLE**

**Maximum:** 78°, **Minimum:** -1.5°.

## **SUPERSTRUCTURE FRAME**

Fabricated from high tensile steel plates and sections.

## **SLEW SYSTEM**

Ball bearing swing circle with 360° continuous rotation. Planetary "Glide-Swing" with foot applied multi-disc brake. Spring applied hydraulically released parking brake, mechanical house lock operated from cab. Free slew facility provided.

## **SLEW SPEED**

**Maximum** 2.0 RPM (Unladen).

## **HOIST SYSTEM**

Power up and down equal speed, grooved drum, planetary reduction with automatic spring applied multi-disc brake. Hoist drum fitted with third wrap indicator.

**Non Spin Hoist Rope:** 19mm dia. & length 182m.

**Line Speed:** Top layer 105m/min (Max) Unladen.

**Maximum Permissible Line Pull:** 7250Kg.

## **HOOK BLOCK**

50.0 Tonnes; 4 Sheaves - 8 falls.

## **COUNTERWEIGHT**

Integral with superstructure. Weight - 6000kg.

## **OPERATOR'S CAB**

Totally enclosed steel construction, full vision type cab with all crane functions control levers, driving controls, engine instrumentation & automotive type steering wheel. All windows fitted with toughened safety glass, lockable sliding door, cab interior light, circulating air fan, pantograph type electric wiper & electric horn.

## **LMI & A2B SYSTEM**

Load Moment Indicator and Anti-Two Block system with audio-visual warning and control lever lock-out provides electronic display of boom angle, boom length, radius, relative load moment, maximum permissible load, load indication and warning of impending two-block condition.

## **HYDRAULIC SYSTEM**

### **Pumps**

Two Section Gear pump driven through Transmission PTO. Single Section Gear pump driven through either Engine/Transmission PTO.

### **Valves**

Precision 4 way double acting pilot operated control valves. 3 Individual valve banks permit simultaneous control of multiple crane functions.

### **Filters**

Return line filter with replaceable cartridge having full flow with by-pass protection and service indicator.

### **Reservoir**

715 liters with spin-on breather filter, external sight gauge, oil temperature gauge, clean out access, strap mounted to frame.

### **Pressure Check Panel**

System pressure test panel with quick release type fittings for each circuit.

## **OPTIONAL EQUIPMENT**

### **Fixed Swingaway Extension**

10.1m lattice Swingaway boom extension with integral offset mechanism, off settable at 0°, 25° or 45°. Stows alongside base boom section when not in use.

**Maximum tip height:** 53.5m

### **Telescopic Swingaway Extension**

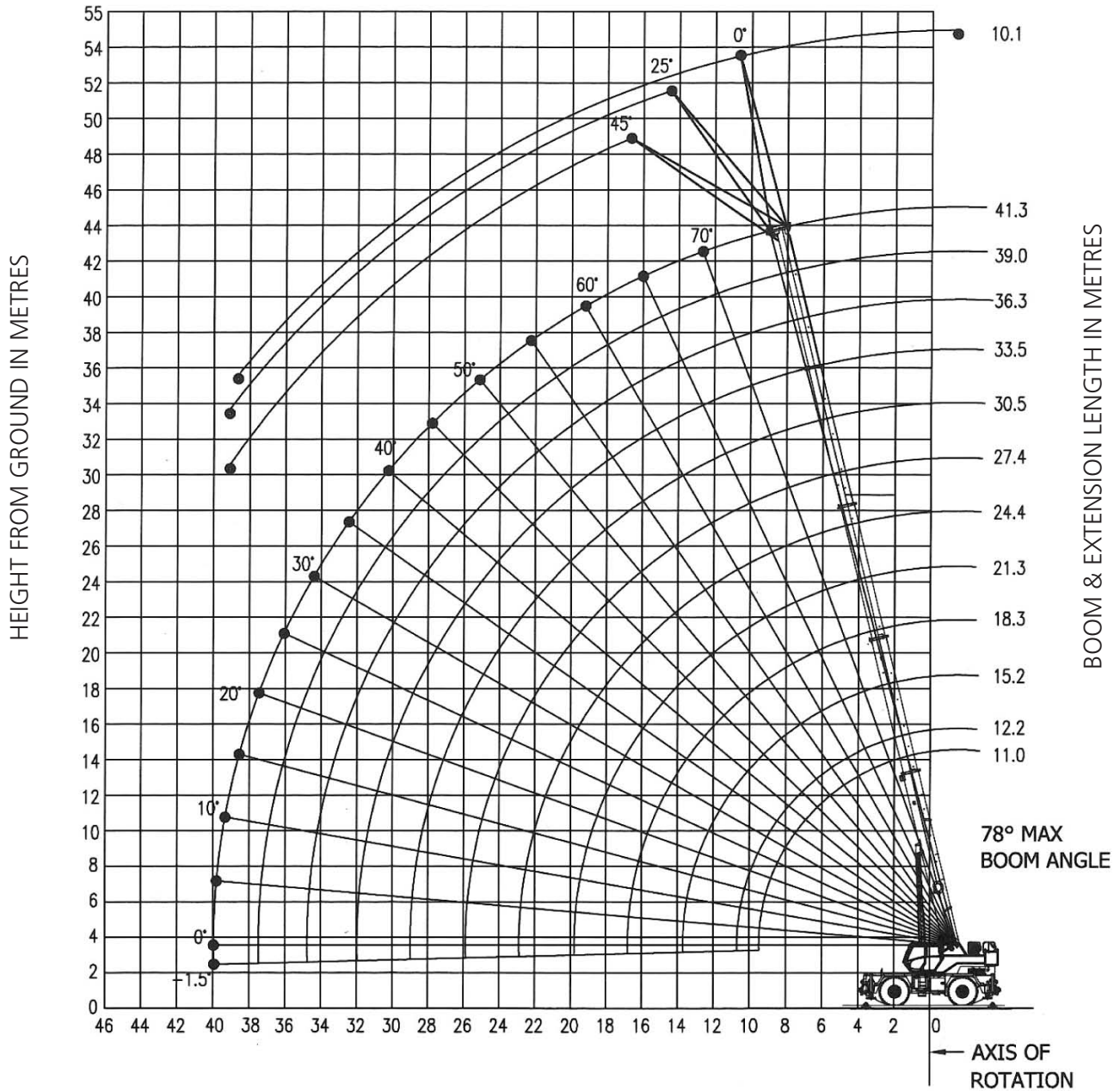
### **Auxiliary Hoist**

### **AC Cabin**

### **Protective Super Cab**

# Height of Lift : 11m - 41.3m (36'-135'.5) Full Power Boom

WORKING RANGE DIAGRAM  
(BOOM DEFLECTION NOT SHOWN)



## Hookblock Capacities - Tonnes

No. of fall	8	7	6	5	4	3	2	1
Permissible Load	50	44	38	32	26	20	13	6.5
Weight of Hookblock	0.44	0.44	0.44	0.44	0.44	0.44	0.30	0.13

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# Metric 85% Lifting Capacities (Kilograms) on Outriggers Fully Extended - 5 Section Boom

## Main Boom - On Outriggers Fully Extended - 360°

Radius in Meters (m)	Main Boom Length in Meters												
	11.0	12.2	15.2	18.6	21.3	24.4	27.4	30.5	33.5	36.3	39.0	41.3	
2.5	50,000 (73.63)												
3.0	45,000 (70.81)	40,500 (72.81)	35,650 (76.34)										
3.5	41,000 (67.92)	38,300 (70.26)	33,750 (74.35)	19,575 (77.09)									
4.0	35,375 (64.96)	35,125 (67.66)	31,500 (72.34)	19,575 (75.46)									
4.5	31,000 (61.92)	30,750 (65.01)	30,275 (70.31)	19,575 (73.81)	19,550 (76.17)								
5.0	27,500 (58.77)	27,250 (62.28)	26,775 (68.25)	19,575 (72.14)	19,550 (74.76)								
6.0	22,200 (52.03)	21,950 (56.56)	21,500 (64.01)	19,575 (68.76)	18,700 (71.91)	17,800 (74.30)	16,975 (76.08)						
7.0	18,400 (44.45)	18,150 (50.34)	17,700 (59.58)	17,050 (65.28)	16,150 (69.01)	15,425 (71.82)	14,825 (73.89)	14,200 (75.58)	13,500 (76.91)				
8.0	15,500 (35.38)	15,300 (43.39)	14,850 (54.90)	14,600 (61.69)	14,125 (66.05)	13,500 (69.29)	13,000 (71.68)	12,575 (73.61)	12,100 (75.13)	11,375 (76.31)			
9.0	13,300 (22.60)	13,075 (35.18)	12,625 (49.90)	12,400 (57.95)	12,450 (63.00)	11,900 (66.72)	11,500 (69.43)	11,150 (71.63)	10,825 (73.34)	10,450 (74.67)	9,520 (75.76)	8,150 (76.57)	
10.0		11,275 (24.16)	10,850 (44.44)	10,625 (54.03)	10,875 (59.86)	10,575 (64.09)	10,225 (67.15)	9,935 (69.61)	9,680 (71.53)	9,455 (73.01)	9,155 (74.23)	8,150 (75.13)	
12.0			7,700 (30.99)	7,610 (45.44)	7,920 (53.21)	8,270 (58.62)	8,220 (62.45)	8,000 (65.49)	7,820 (67.84)	7,670 (69.65)	7,530 (71.13)	7,405 (72.22)	
14.0				5,250 (35.10)	5,560 (45.85)	5,910 (52.78)	6,150 (57.52)	6,360 (61.22)	6,395 (64.05)	6,285 (66.20)	6,195 (67.96)	6,115 (69.26)	
16.0				3,610 (20.00)	3,940 (37.30)	4,280 (46.39)	4,530 (52.27)	4,720 (56.75)	4,880 (60.11)	4,990 (62.66)	5,090 (64.72)	5,070 (66.23)	
18.0					2,750 (26.27)	3,100 (39.16)	3,340 (46.60)	3,540 (52.02)	3,690 (56.01)	3,800 (58.99)	3,900 (61.38)	3,970 (63.13)	
20.0						2,190 (30.43)	2,440 (40.28)	2,630 (46.94)	2,780 (51.68)	2,890 (55.16)	2,990 (57.92)	3,060 (59.93)	
22.0						1,460 (17.81)	1,720 (32.91)	1,920 (41.37)	2,070 (47.06)	2,180 (51.14)	2,270 (54.32)	2,340 (56.62)	
24.0							1,130 (23.42)	1,340 (35.03)	1,490 (42.03)	1,600 (46.85)	1,700 (50.54)	1,770 (53.17)	
26.0								860 (27.38)	1,010 (36.43)	1,130 (42.23)	1,220 (46.54)	1,290 (49.55)	
28.0								440 (16.44)	610 (29.88)	730 (37.12)	820 (42.23)	890 (45.71)	

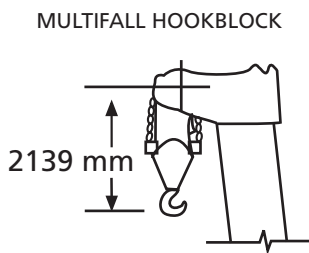
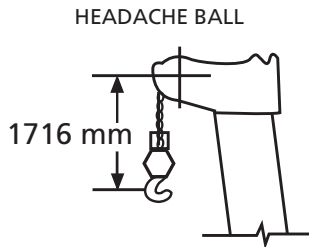
## Weight Reductions for Load Handling Devices. (Approx.)

10.1m Boom Extension	
Stowed	470 kg
Erected	2195 kg

Hookblocks and Headache Balls	
50MT, 4 Sheave	443 kg
Auxiliary Boom Head	59 Kg
6.8MT Headache Ball	130 Kg
15MT Sheave	295 Kg

Note: MT refers to metric tonne

# Notes



Dimensions are for largest furnished hook block and headache ball with anti-two block activated.

## Notes for Lifting Capacities

**WARNING: THIS CHART IS ONLY A GUIDE. The Notes below are for illustration only and should not be relied upon to operate the crane. The individual crane's load chart, operating instructions and other Instruction plates must be read and understood prior to operating the crane.**

1. Capacities are in accordance with SAE J1063 and do not exceed 85% of the tipping load as determined by SAE J765.
2. The weight of hookblock, slings and all similarly used load handling devices must be added to the weight of the load. When more than minimum required reeving is used, the additional rope weight shall be considered part of the load.
3. Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation.
4. All capacities are for crane on firm, level surface. It may be necessary to have structural supports under the outrigger floats or tyres to spread the load, to a larger bearing surface.

5. When either boom length or radius or both are between values listed, the smallest load shown at either the next larger radius or boom length shall be used.
6. On rubber lifting with 800m extensions not permitted.
7. Tyres shall be inflated to the recommended pressure before lifting on rubber. Capacities must be reduced for lower tyre inflation.
8. If machine is equipped with individually controlled powered boom sections, the boom sections must be extended equally at all times.
9. Defined Arc  $\pm 6^\circ$  on either side of longitudinal centerline of machine.
10. For Pick & Carry operation, boom must be centered over front of machine, mechanical swing lock engaged and load restrained from swinging. When handling loads in the structural range with capacities close to max. rating, travel should be reduced to creep speeds (not over 61 m of movement in 30 min, not exceeding 1.6 KPH).
11. Axle lockouts must be functioning before lifting on rubber.
12. 10.1m Fixed offsettable boom extension warning: For main boom length greater than 24.4 m with 10.1m tele, boom extension in working position, the boom angle must not be less than  $40^\circ$  since loss of stability will occur causing a tipping condition.
13. Radii listed are for a fully extended boom with the boom extension erected. For main boom length less than fully extended, the rated loads are determined by boom angle. Use only the column which corresponds to the boom extension length and offset for which the machine is configured. For boom angles not shown, use the rating of the next lower boom angle.

**WARNING: Operation of the machine with heavier load than the capacities listed is strictly prohibited. Machine tipping occurs without advance warning.**

# Carrier Specification

## FRAME

High strength alloy steel welded box section with integral outrigger housings and front/rear lifting, towing and tie down lugs.

## OUTRIGGER SYSTEM

4 hydraulically telescoping beams with 'Inverted' jacks with integral holding valves positioned two nos. in each outrigger housing. Provides steel fabricated quick release type outrigger float for each jack.

## OUTRIGGER CONTROLS

Independent control of each outrigger beam located in cab on front dash panel along with level indicator.

## ENGINE

Suitable water Cooled diesel engine of adequate horse power.

Emission : BS III CEV

## FUEL TANK

Capacity 227 liters.

## ELECTRICAL SYSTEM

Two 12 Volt-batteries, 24 Volt lighting equipment including two headlights, side, tail and stop lights and flashing direction indicators.

## DRIVE

4x4 / 4x2

## STEERING

Fully independent power steering:

**Front:** Full hydraulic controlled by steering wheel.

**Rear:** Full hydraulic selector switch controlled.

Provides infinite variations of 4 main steering modes - front only, rear only, crab and coordinated. Rear wheel steer indicator. Auto - reversal steering mechanism.

## TRANSMISSION

Engine mounted full power shift with 6 forward and 3 reverse speeds. Provides front axle disconnect for 4 x 2 travel.

## AXLES

**Front:** Drive-steer with differential and planetary reduction hubs rigidly mounted to the chassis frame.

**Rear:** Drive-steer with differential and planetary reduction hubs, pivot mounted at centre of the chassis frame.

## OSCILLATION LOCKOUTS

Automatic full hydraulic lockouts on rear axle permit oscillation only with boom centered over front.

## TYRES

18.00 X 25 - 32 PR earthmover tyres.

## BRAKES

Fully hydraulic, split circuit operating on all wheels. Spring applied, hydraulically released front axle mounted parking brake.

## INSTRUMENTATION

Engine oil pressure gauge, Fuel gauge, Water temperature gauge, Voltmeter, Tacho-Hourmeter, Indicators and Switches for control.

## MAXIMUM SPEED

30 kmph.

## GRADEABILITY

45% ( Maximum ) Unladen.

## GROSS VEHICLE WEIGHT AND AXLE LOADS (approx)

**Front:** 17,760 kg

**Rear:** 17,470 kg

**GVW:** 35,230 kg

## MISCELLANEOUS STANDARD EQUIPMENT

Full width steel fenders, rear view mirror, back-up alarm, front stowage well, tool kit.

## OPTIONAL EQUIPMENT

Fire suppression system

Fire extinguisher

Centralized Lubrication System

Tow hook on chassis frame

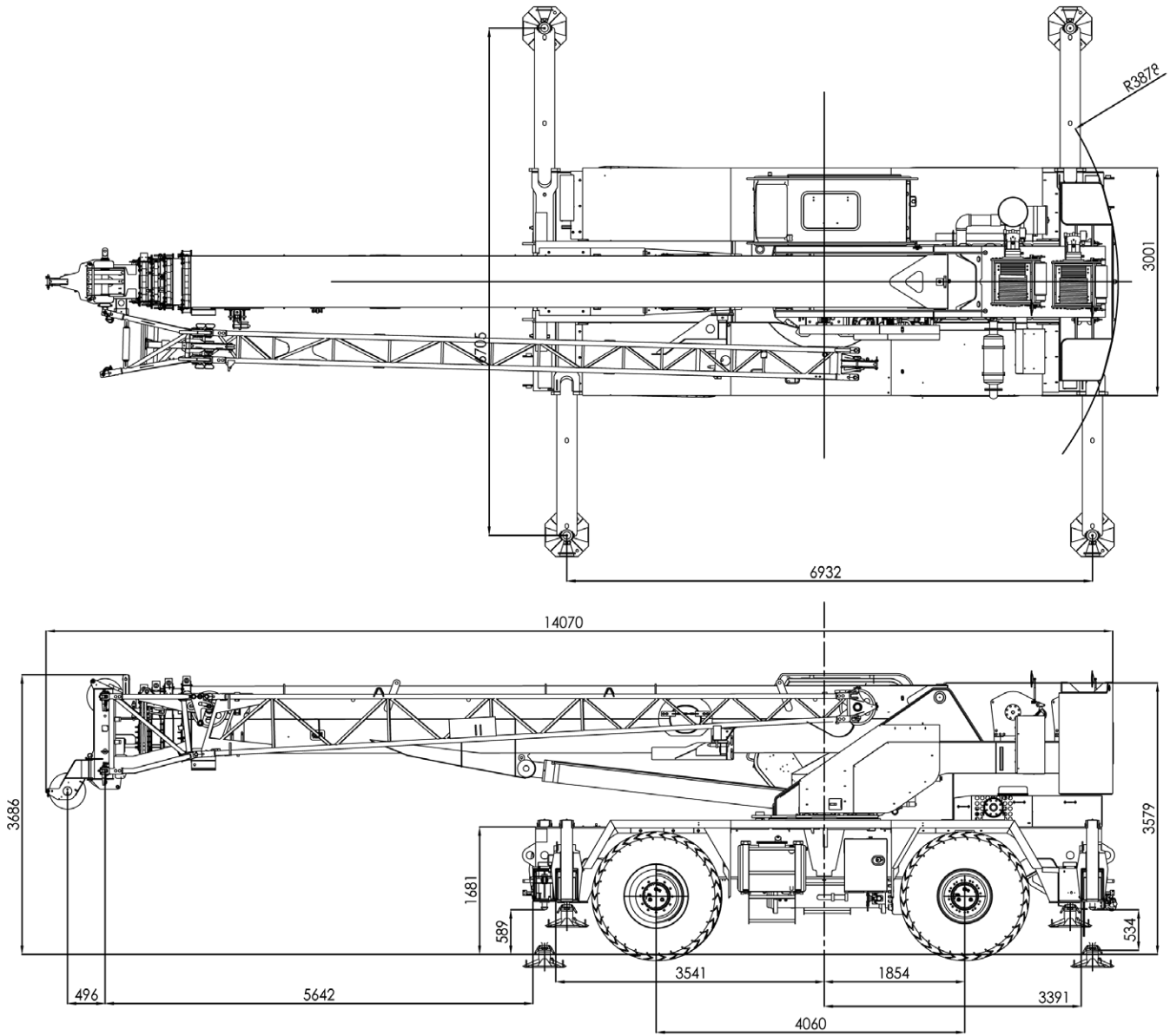
Man Carrying Basket

360° Beacon lights

Cab Spot Light



# GA Drawing



RT 750

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Technical Specification TIL/RT750/1117