MODEL AT 22
RATED CAPACITY MANUAL
Book Part Number: T133750B

HYDRAULIC ALL TERRAIN PICK & CARRY CRANE
22 TONNE MAXIMUM RATED CAPACITY

Do not operate this crane unless you have read and understood the information in this book.

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AT 22
RATED CAPACITY MANUAL

CONTENTS

NOTE: ALL PAGES MUST BE INCLUDED IN THIS BOOK.

DEFINITIONS

Articulation – The crane pivots in the middle to allow steering and slewing of the load. Up to 40° Articulation is possible in either direction. *See Working Area diagram*

Deration – A decrease in the Rated Capacity due to external influences, expressed as a percentage.

Freely Suspended Load – Load hanging free with no direct external force applied except by the winch rope.

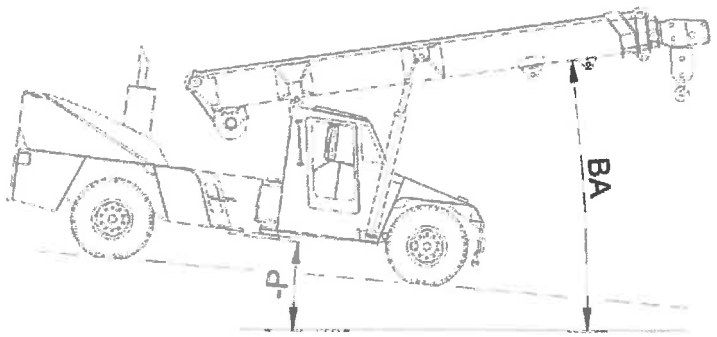
Gradient: Generalised slope of ground measured as a percentage.

Load Radius –The horizontal distance from the centre of the freely suspended hoisting hook perpendicular to a vertical plane containing the front axle.

Loaded Boom Angle – This is given to assist in setting up the crane only. It gives only an approximation of the Load Radius for a specified boom length. No allowance is made for boom or tyre deflection. "Boom Angle" on Rated Capacity charts refers to the angle between the boom and true horizontal. (Refer to image below)

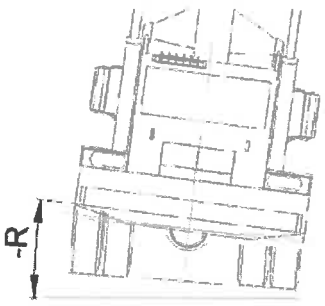
Load Moment Indicator (LMI) - A system that displays rated capacity for the given configuration. An audible warning sounds when rated capacity is approached and reached.

Pitch Angle – The forward tilt of the crane, the angle between the chassis of the front of the crane and true horizontal in the longitudinal direction. The pitch is positive when the front is higher than the rear. In the image shown, the pitch angle is negative.



Rated Capacity (RC) – The total Freely Suspended Load, including the mass of material and load handling equipment, that the machine can safely lift under ideal conditions at a given configuration.

Roll – The side tilt of the crane chassis, the angle between the front chassis of the crane and true horizontal. The roll angle is positive when the left side of the crane is higher than the right side. In the image shown, which is a view on the front of the crane, the roll angle is negative.



Side Load – Any external force applied either to the boom or load in a horizontal direction.

Slope: Generalised angle of the ground measured in degrees.

Tilt: Generalised combination of pitch and roll.

Work Areas – Area measured in an arc about the centre pivot as shown on the Working Area diagram. The "Articulation (green/amber)" icon on the LMI indicates which zone the crane is in. Green indicates less than 10° Articulation. Amber indicates greater than 10° Articulation.

WARNINGS

OPERATIONAL NOTICE

⚠ DANGER

IMPROPER CRANE USE, CARE OR OPERATION CAN CAUSE INJURY, DEATH OR PROPERTY DAMAGE.

DO NOT OPERATE THIS MACHINE UNLESS YOU HAVE READ AND UNDERSTAND THE OPERATOR'S MANUAL AND CRANE RATED CAPACITY MANUAL.

COPIES OF OPERATOR'S MANUALS AND CRANE RATED CAPACITY MANUAL MAY BE OBTAINED FROM:

TEREX®

ATTACHMENT NOTICE

⚠ CAUTION

WRITTEN AUTHORISATION IS REQUIRED FROM TEREX AUSTRALIA PTY LTD PRIOR TO THE USE OF ANY ATTACHMENT NOT SPECIFIED IN THE MANUAL.

⚠ CAUTION

SPECIAL PRECAUTIONS FOR ARTICULATED CRANES

THERE IS A POTENTIAL FOR CRUSHING BETWEEN FRONT AND REAR CHASSIS WHEN THE MACHINE ARTICULATES. NEVER STAND IN THE PIVOT AREA WHEN THE ENGINE IS RUNNING OR EMERGENCY STEERING PUMP IS OPERATING. ALWAYS REMOVE THE KEY FROM THE IGNITION BEFORE WORKING IN THE PIVOT AREA.
DO NOT LEAVE IGNITION KEY SWITCHED ON WITH ENGINE STOPPED AND PARK BRAKE OFF, AS EMERGENCY HYDRAULIC STEERING PUMP WILL ACTIVATE.

GENERAL

1. This machine has been designed to meet the requirements of AS1418.1 (2002) & 1418.5 (2002) and has been tested in accordance with these standards for pick and carry operation on tyres.
2. Rated Capacities shown are for this machine as originally manufactured by Terex Australia Pty Ltd. The Rated Capacities only apply when all the instructions in this book are rigidly followed. Modifications to this machine or use of equipment other than that specified can result in a reduction in Rated Capacity.
3. If improperly operated or maintained, this machine can be hazardous. Operation and maintenance of this machine must be in compliance with the information documented in this rated capacity manual and in the operators, service and parts manuals furnished. If these manuals are missing, obtain replacements through Terex Australia Pty Ltd or their agents.

SET-UP

4. Reduced crane Rated Capacities for the particular job shall be established, by the operator, with due allowance for adverse operating conditions. These conditions include the supporting surface, pendulum action of the load, jerking or sudden stops of the load and other factors affecting stability, two machine lifts, electrical wires, adverse weather, wind, hazardous surroundings, experience of personnel, etc.
5. Rated Capacity is based on Freely Suspended Loads with the chassis of the front of the crane at zero degrees tilt. Lifting, or travelling with a load, on soft or uneven ground can be hazardous and will reduce the Rated Capacity of the crane. Refer to the "OPERATION ON SIDE SLOPES" in this manual. No attempt shall be made to drag the load along the ground in any direction.
6. Wind forces on the boom, resulting from winds up to 10 m/s (36 km/h), are incorporated in the Rated Capacity. Any additional Side Loading due to wind forces on the load will reduce the Rated Capacity, and must be considered.
7. Rated Capacities above the red line are based on the machine's hydraulic or structural competence and not on machine stability. Rated Capacities below the red line are based on machine stability.

⚠ CAUTION

8. Rated Capacities include the mass of hooks, blocks, slings and auxiliary lifting devices. Their mass must be subtracted, from the listed Rated Capacity, to determine the equivalent net load.

9. Loaded Boom Angles at specified boom lengths give only an approximation of the Load Radius. The Boom Angle before loading should be greater to account for boom deflection increasing the Load Radius as the load is lifted.

OPERATION

10. Read and understand all warnings and instructional notes.

11. Do not tip the machine to determine allowable lifting capacities.

12. Loads may be lifted from the main boom head on the winch, the rhino hook, the fixed lug, or either of the two sliding lugs on the boom. A flyjib is also available to extend the maximum boom length and a manbasket can be pinned to the head of the boom. Always use the correct Rated Capacity chart for the lifting point in use and ensure the LMI is set to the correct duty. Written authorisation from Terex Australia Pty Ltd is required prior to the use of any attachment not specified in the manual.

13. Lifting from more than one lifting point simultaneously is neither intended nor approved.

14. Handling of personnel from the boom is neither intended nor approved, except in a Terex Australia Pty Ltd supplied manbasket, correctly installed on the head of the boom, or other approved arrangement.

15. When either the boom length or Load Radius or both are between values listed, the smallest load shown at either the next larger Load Radius or boom length shall be used, or the interpolated value shown on the LMI may be used.

16. Side Loading of the machine and load swing out may cause structural failure or machine tip-over. Side Loads may be generated by: lifting when not level; sudden acceleration or deceleration in Articulating with a load; dragging a load; pushing a load; wind forces on load and boom structure.

17. Rated Capacity of the manual extension is determined by Loaded Boom Angle. The boom may be retracted and extended with the manual set, however, the Rated Capacity does not change from the fully extended position for the given Loaded Boom Angle.

18. It is safe to attempt to telescope any load within the limits of the Rated Capacity Manual. The maximum load that may be telescoped is limited by hydraulic pressure, Loaded Boom Angle and powered boom sections lubrication.

19. The winch rope is fully compensated for boom extension. The only exception is when the manual extension is being set. Refer to the operator's manual for the manual setting procedure. Once it is set the compensation is fully functional.

20. Do not allow the winch rope to unwind fully. Always ensure a minimum of 2 wraps of rope remain on the winch drum.

⚠ CAUTION

21. Rated Capacity depends on tyre rating, tyre condition and tyre inflation pressure. All tyres must be in good condition and must be inflated to the recommended pressure before attempting a lift.

22. Pick & carry operation is permitted through the full Articulation range, however, Rated Capacity is reduced when Articulating.

23. The maximum speed for pick & carry operation is 0.4m/s (1.44km/h). The transfer case shall be set to low range.

24. Operation of this crane in excess of the Rated Capacity and disregard of the instructions is hazardous.

OPERATION ON SIDE SLOPES

The operation on side slopes of cranes that travel with a Freely Suspended Loads should be avoided if at all possible (refer to AS 2550.5). Mobile Cranes are primarily designed to operate on firm, flat, level ground - within a 1% gradient (refer to AS 1418.5 (2002)). Any deviation from this requires that the Rated Capacity shall be reduced (derated) accordingly.

If it is necessary to operate on side slopes the precautions listed below must be taken. **REMEMBER** that surface depressions and potholes will create the same effect as a side slope.

- Ensure the tyres are correctly **INFLATED** as per the rated capacity manual.
- Ensure the ground condition is **FIRM** enough to support the axle loads.
- Use the **MINIMUM** boom length and Loaded Boom Angle practical to keep the boom tip as close to the ground as possible.
- Keep the load as **CLOSE** to the ground as possible.
- Use the **MINIMUM** Articulation angle practical - **REMEMBER** the crane will side tilt and hence the hook will move towards the direction of Articulation whilst steering.
- Keep the load on the **UPHILL** side of the crane where possible, especially when Articulated – **REMEMBER** the working Load Radius will increase if the load is suspended in the downhill position.
- Load swing greatly reduces stability – **REMEMBER** to tagline loads to prevent pendulum motion of the load. Travel and crane motions should be applied gently to minimise this effect.

The AT 22 must at no time be operated on a side slope greater than 5° (8.75% gradient).

In order to determine the slide slope of a particular site the crane's LMI can be used. Before commencing the lift, drive the un-laden crane slowly across the sloping surface and note the maximum side slope displayed. Take the reading when the crane's articulation is zero (straight ahead) and with the boom (fully retracted) in its lowest position practical.

The AT 22 is fitted with an LMI that calculates the rated capacity for the crane when the crane tilts in any direction.

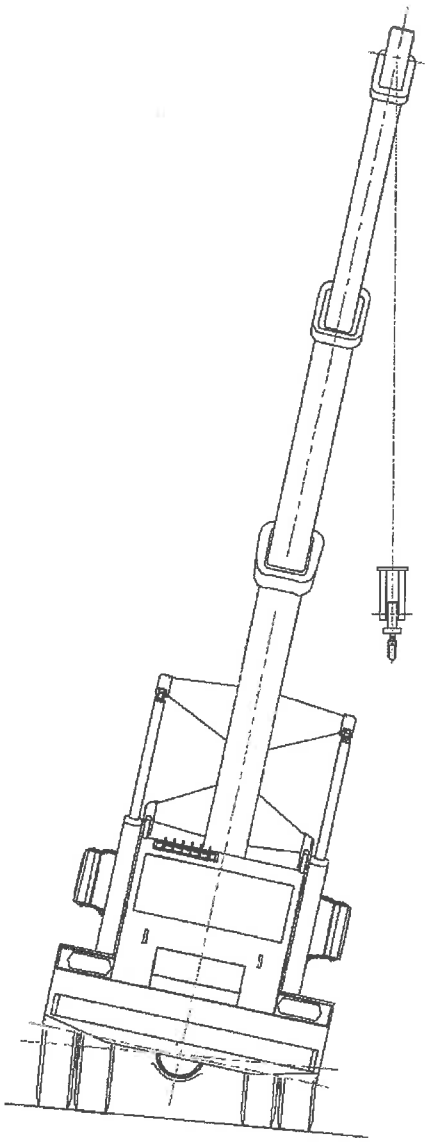
SLOPE RATED CAPACITY

The degree of tilt of the front body results from a number of factors. Articulation of the crane induces tilt as does working on a slope. In combination the body tilt is increased in the majority of circumstances. Increasing tilt is most pronounced when the crane articulation direction is down a side slope.

The degree of tilt of the body and boom is further increased by the deflection of the tyres and springs. This is illustrated in Figure 1. For instance, a 5° ground side slope may result in chassis tilt of say 9°.

The LMI determines and displays the degree of body tilt measured by a sensor that is attached to the front body. This sensor measures the angle of the front body, not the angle of slope of the ground. When the crane is un-laden, the boom fully down, and the crane is at zero articulation, the body will be close to the same angle as the ground, for up to 5 degrees side slope.

This body tilt angle is used by the LMI to derate the crane as this is also the angle the boom has been tilted sideways. When lifting or carrying a load in slope situations, the tilt of the body will change as the weight of load is taken by the crane. In most circumstances, this change will be further derate the crane. Hence in planning a lift, it is important to be conservative on lift capacity in any circumstance where the lift will induce significant front body tilt.



SPECIFICATIONS

ATTACHMENT MASSES

Single part hook block	PL16M2090	30 kg
Two/three part hook block	PL16A3010	95 kg
Four part hook block	PL16A3058	125 kg
Four part hook block	PL16A3074	180 kg
25 metric tonne hook	PP2087500	26 kg
12 metric tonne spreader bar	PL16A3035	94 kg
15 metric tonne spreader bar	PL15A8023	107 kg

NOTE : These masses apply only to Terex Australia Pty Ltd supplied equipment.

WIRE ROPE & HOOK BLOCK RC

Hook Block:	**Number of Falls of Rope**	**Maximum Hook Block RC (kg)**
	1	4 200
	2	8 400
	3	12 600
	4	16 800

Wire Rope:	Rope: Non-rotating Compak	14mm 35W x 7
	Minimum Breaking Force:	165 kN
	Rope Length:	100m

TYRE SPECIFICATIONS

Condition	**Speed**	**Load Rating**
Pick & Carry	<1.44 km/h	9130 kg per tyre (dual fitment)
Highway	90 km/h	3000 kg per tyre (dual fitment)

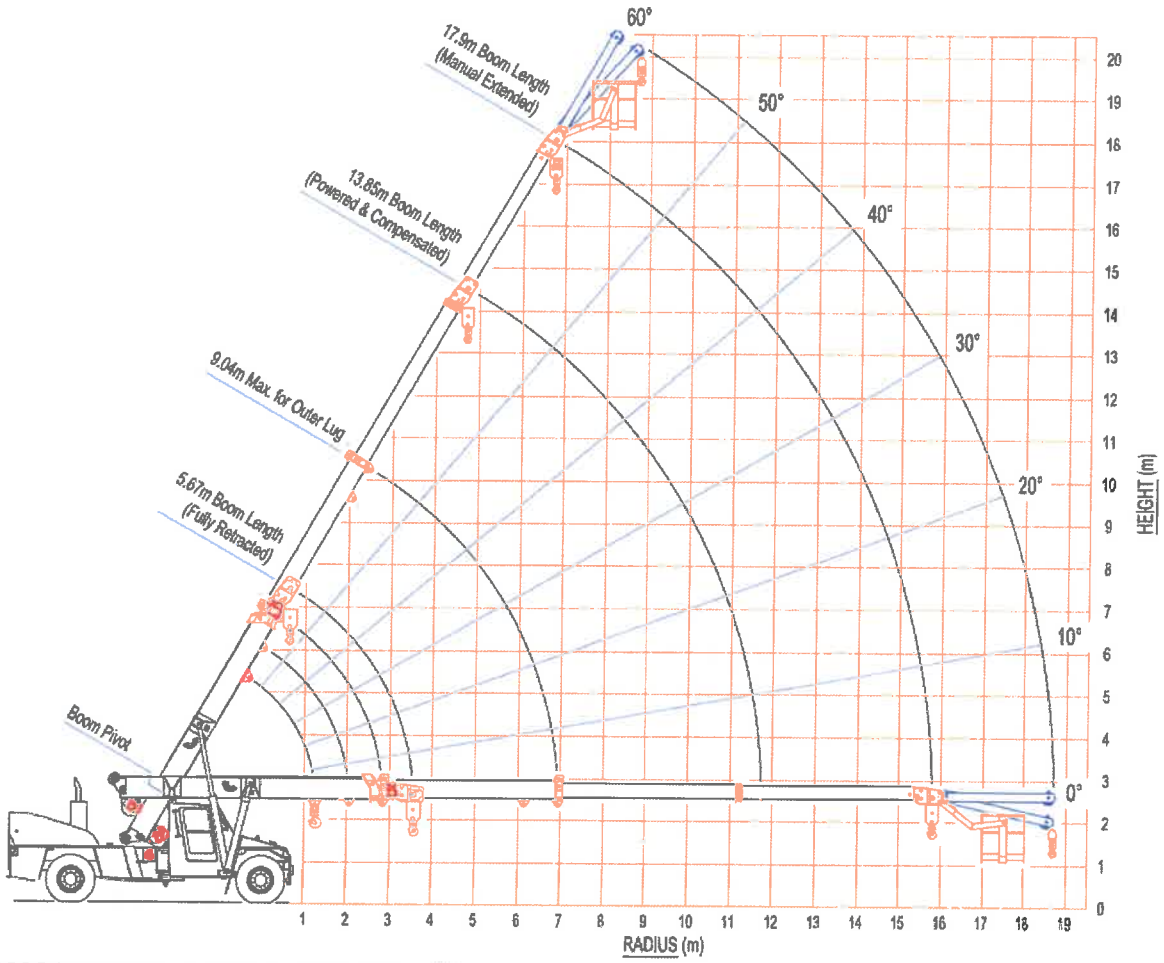
TYRE INFLATION CHART

Position	**Construction**	**Inflation Pressure – psi**	
		Pick & Carry	**Highway Travel**
Front	12.00 x 20	**120**	**100 - 120**
Rear	12.00 x 20	**100**	**100**

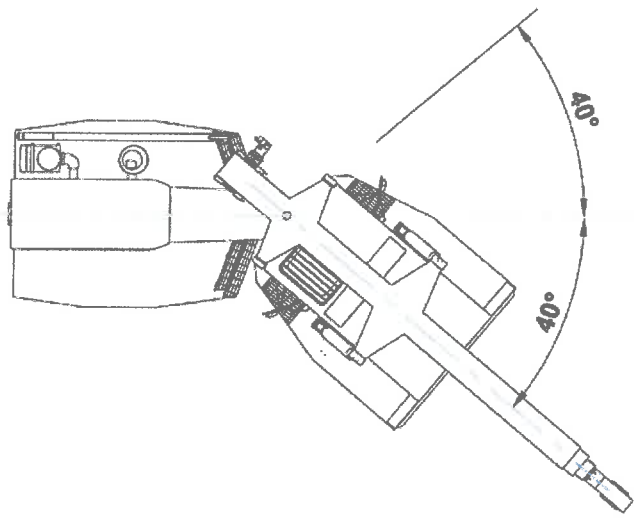
RATED CAPACITY CHARTS

RANGE DIAGRAM AT 22

Showing all lifting configurations



WORKING AREA DIAGRAM



Lifting on WINCH
Powered Sections

LMI Duty **01**

RC (kg) AT 0 DEG ARTICULATION
RC (kg) AT FULL ARTICULATION
BOOM ANGLE OR (RADIUS AT 0 DEG BOOM ANGLE)

Weight of slings & hook block to be added to load
Read and understand warning notes before operating crane
Loads above bold red line are structural

PITCH 0 ° ROLL 0 °

RADIUS	BOOM LENGTH (m) 5.67	6.00	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	13.85
1.6	16800	16250	15450	14900														
	16800	16150	15350	14800														
	48	51	54	57														
2.0	16800	16800	16500	15700	15100	14700	14350											
	16350	16350	16300	15600	15000	14600	14250											
	42	46	50	53	56	58	60											
2.5	14600	14550	14550	14550	14500	14250	13850	13200	13000									
	12900	12900	12900	12850	12850	12850	12850	12800	12800									
	34	39	44	48	51	54	56	58	60									
3.0	12000	12000	12000	12000	11950	11950	11950	11950	11900	11150	10250							
	10600	10600	10600	10600	10600	10550	10550	10550	10550	10550	10250							
	25	31	37	42	46	49	52	55	57	59	60							
3.5	10150	10150	10150	10150	10150	10150	10100	10100	10100	10100	9500	8150	7600					
	8950	9000	8950	8950	8950	8950	8950	8900	8900	8900	8900	8150	7600					
	8	20	29	36	41	45	48	51	53	55	57	59	60					
4.0	9950	9000	8800	8750	8750	8750	8750	8750	8750	8700	8700	7600	7050	6800	6550			
	8750	7950	7750	7750	7700	7700	7700	7700	7700	7700	7700	7600	7050	6800	6550			
	(3.6)	(3.9)	19	28	35	39	43	47	49	52	54	56	57	59	60			
4.5			7900	7700	7700	7700	7700	7650	7650	7650	7650	7150	6600	6350	6100	5900	5700	
			6950	6750	6750	6750	6750	6750	6750	6750	6750	6750	6600	6350	6100	5900	5700	
			(4.4)	19	27	34	38	42	45	48	50	52	54	56	58	59	60	
5.0				7000	6850	6850	6850	6800	6800	6800	6800	6650	6200	5950	5700	5500	5350	5200
				6150	6000	6000	6000	6000	6000	6000	5950	5950	5950	5950	5700	5500	5350	5200
				(4.9)	18	27	33	37	41	44	47	49	51	53	55	56	58	59
6.0					6250	5650	5550	5550	5550	5550	5550	5500	5500	5300	5050	4900	4700	4600
					5500	4950	4850	4850	4850	4850	4850	4850	4800	4800	4800	4800	4700	4600
					(5.4)	(5.9)	17	25	31	35	39	42	45	47	49	51	53	54
7.0							5150	4700	4600	4600	4600	4600	4600	4600	4550	4400	4250	4000
							4500	4100	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
							(6.4)	(6.9)	16	24	29	34	37	40	43	45	47	48
8.0									4300	4000	3900	3900	3900	3900	3900	3850	3700	3600
									3750	3450	3400	3400	3400	3400	3400	3400	3400	3400
									(7.4)	(7.9)	15	23	28	32	36	38	41	43
9.0											3700	3400	3400	3400	3400	3400	3400	3300
											3200	2950	2900	2900	2900	2900	2900	2900
											(8.4)	(8.9)	15	22	27	31	34	36
10.0													3200	3000	2950	2950	2950	2950
													2750	2600	2500	2500	2500	2500
													(9.4)	(9.9)	14	21	26	29
11.0															2800	2600	2600	2600
															2300	2150	2100	2100
															(10.4)	(10.9)	13	18
11.75																	2450	2350
																	1950	1850
																	(11.4)	(11.8)

Lifting on WINCH
Manual Extended

LMI Duty **03**

RC (kg) AT 0 DEG ARTICULATION
RC (kg) AT FULL ARTICULATION
BOOM ANGLE

Weight of slings & hook block to be added to load
Read and understand warning notes before operating crane
Loads above bold red line are structural

Pitch = 0°
Roll = 0°

MANUAL EXT'N	
MAX LENGTH 17.90	
MAX RAD	RC
6.74	2900
	2900
	60
9.31	2500
	2500
	50
11.53	2250
	2150
	40
13.34	2050
	1700
	30
14.67	1850
	1500
	20
15.51	1750
	1350
	10
15.80	1700
	1300

NOTE :
17.9m Boom length includes Manual 3rd extension. Ratings for Manual extension are structural & based on Boom Angle, not radius. The ratings do not change if the power sections are retracted with the manual extended.

Lifting on RHINO HOOK
Powered Sections

RC (kg) AT 0 DEG ARTICULATION
RC (kg) AT FULL ARTICULATION
BOOM ANGLE OR (RADIUS AT 0 DEG BOOM ANGLE)

Weight of slings & hook block to be added to load
Read and understand warning notes before operating crane
Loads above bold red line are structural

PITCH 0 ° ROLL 0 °

RADIUS	BOOM LENGTH (m) 5.97	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	14.15
1.60	10000	10000	10000	10000														
	10000	10000	10000	10000														
	51	55	58	60														
2.00	10000	10000	10000	10000	10000	10000												
	10000	10000	10000	10000	10000	10000												
	46	50	54	56	59	61												
2.50	10000	10000	10000	10000	10000	10000	10000	10000										
	10000	10000	10000	10000	10000	10000	10000	10000										
	39	44	48	52	54	57	59	61										
3.00	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000								
	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000								
	31	38	43	47	50	53	55	57	59	61								
3.50	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	8850	7650						
	9050	9050	9050	9000	9000	9000	9000	8950	8950	8950	8750	7650						
	20	30	36	41	45	48	51	54	56	57	59	61						
4.00	9150	8850	8850	8850	8800	8800	8600	8800	8800	8750	8100	7100	6800	6550				
	8100	7800	7800	7800	7800	7750	7750	7750	7750	7750	7700	7100	6800	6550				
	(3.9)	20	29	35	40	44	47	50	52	54	56	58	59	61				
4.50		7950	7750	7750	7750	7750	7750	7700	7700	7700	7500	6650	6350	6100	5900	5700		
		7000	6850	6850	6800	6800	6800	6800	6800	6800	6750	6600	6350	6100	5900	5700		
		(4.4)	19	28	34	39	42	46	48	51	53	55	56	58	59	60		
5.00			7050	6900	6900	6900	6850	6850	6850	6850	6850	6250	5950	5750	5550	5350	5200	5150
			6200	6050	6050	6050	6050	6050	6050	6000	6000	6000	5950	5750	5550	5350	5200	5150
			(4.9)	18	27	33	38	41	44	47	49	52	53	55	57	58	59	60
6.00				6300	5700	5600	5600	5600	5550	5550	5550	5550	5300	5100	4900	4750	4600	4550
				5550	5000	4900	4900	4900	4900	4850	4850	4850	4850	4850	4850	4750	4600	4550
				(5.4)	(5.9)	17	25	31	36	39	42	45	47	49	51	53	54	55
7.00						5150	4750	4650	4650	4650	4650	4650	4650	4600	4400	4250	4000	3950
						4500	4100	4050	4050	4050	4050	4050	4050	4050	4050	4050	4000	3950
						(6.4)	(6.9)	16	24	30	34	37	40	43	45	47	49	50
8.00								4350	4000	3950	3950	3950	3950	3950	3900	3750	3600	3600
								3800	3500	3450	3450	3450	3450	3450	3400	3400	3400	3400
								(7.4)	(7.9)	16	23	28	32	36	39	41	44	44
9.00										3700	3450	3400	3400	3400	3400	3400	3300	3250
										3200	3000	2950	2950	2950	2950	2950	2950	2950
										(8.4)	(8.9)	15	22	27	31	34	37	38
10.00												3200	3000	3000	3000	3000	2950	2950
												2800	2650	2500	2500	2500	2500	2500
												(9.4)	(9.9)	14	21	26	30	31
11.00														2800	2650	2600	2600	2600
														2350	2150	2150	2150	2150
														(10.4)	(10.9)	14	20	22
12.00																2500	2350	2300
																2000	1850	1850
																(11.4)	(11.9)	(12.0)

Lifting on RHINO HOOK
Manual Extended

LMI Duty **04**

RC (kg) AT 0 DEG ARTICULATION
RC (kg) AT FULL ARTICULATION
BOOM ANGLE

Weight of slings & hook block to be added to load
Read and understand warning notes before operating crane
Loads above bold red line are structural

Pitch = 0°
Roll = 0°

MANUAL EXT'N	
MAX LENGTH 18.20	
MAX RAD	RC
6.91	2750
	2750
	60
9.52	2400
	2400
	50
11.78	2150
	2100
	40
13.62	2000
	1650
	30
14.97	1800
	1450
	20
15.81	1700
	1350
	10
16.11	1700
	1300
	0

NOTE :
18.2m Boom length includes Manual 3rd extension. Ratings for Manual extension are structural & based on Boom Angle, not radius. The ratings do not change if the power sections are retracted with the manual extended.

Lifting on FLYJIB (0 deg Offset)

LMI Duty **05**

Manual Retracted

Pitch = 0°
Roll = 0°

FLYJIB	
MAX LENGTH 16.65	
MAX RAD	RC
6.23	1500
	1500
	60
8.62	1200
	1200
	50
10.69	970
	970
	40
12.37	850
	850
	30
13.62	770
	770
	20
14.40	750
	750
	10
14.68	750
	750
	0

RC (kg) AT 0 DEG ARTICULATION
RC (kg) AT FULL ARTICULATION
BOOM ANGLE

Weight of slings & hook block to be added to load
Read and understand warning notes before operating crane
Loads above bold red line are structural

NOTE :
16.65m Boom length includes Flyjib.
Ratings for Flyjib are structural & based on Boom Angle, not radius. The ratings do not change if the power sections are retracted with the Flyjib installed

LMI Duty **06**

Manual Extended

Pitch = 0°
Roll = 0°

FLYJIB	
MAX LENGTH 20.70	
MAX RAD	RC
8.25	1500
	1500
	60
11.22	1200
	1200
	50
13.79	970
	970
	40
15.88	850
	850
	30
17.43	770
	770
	20
18.39	750
	750
	10
18.73	750
	750
	0

RC (kg) AT 0 DEG ARTICULATION
RC (kg) AT FULL ARTICULATION
BOOM ANGLE

Weight of slings & hook block to be added to load
Read and understand warning notes before operating crane
Loads above bold red line are structural

NOTE :
20.70m Boom length includes Manual 3rd extension & Flyjib. Ratings for Flyjib are structural & based on Boom Angle, not radius. The ratings do not change if the power sections are retracted with the manual extended.

Lifting on FLYJIB (12.5 deg OFFSET)

LMI Duty **07**

Manual Retracted

FLYJIB MAX LENGTH 16.61	
MAX RAD	RC
6.71	1500
	1500
	60
9.04	1200
	1200
	50
11.03	970
	970
	40
12.63	850
	850
	30
13.78	770
	770
	20
14.46	750
	750
	10
14.64	750
	750
	0

Pitch = 0°
Roll = 0°

RC (kg) AT 0 DEG ARTICULATION
RC (kg) AT FULL ARTICULATION
BOOM ANGLE

Weight of slings & hook block to be added to load
Read and understand warning notes before operating crane
Loads above bold red line are structural

NOTE :
16.61m Boom length includes Flyjib.
Ratings for Flyjib are structural & based on Boom Angle, not radius. The ratings do not change if the power sections are retracted with the Flyjib installed

LMI Duty **08**

Manual Extended

FLYJIB MAX LENGTH 20.66	
MAX RAD	RC
8.73	1300
	1300
	60
11.64	1120
	1120
	50
14.13	920
	920
	40
16.14	820
	820
	30
17.59	770
	770
	20
18.45	750
	750
	10
18.69	750
	750
	0

Pitch = 0°
Roll = 0°

RC (kg) AT 0 DEG ARTICULATION
RC (kg) AT FULL ARTICULATION
BOOM ANGLE

Weight of slings & hook block to be added to load
Read and understand warning notes before operating crane
Loads above bold red line are structural

NOTE :
20.66m Boom length includes Manual 3rd extension & Flyjib. Ratings for Flyjib are structural & based on Boom Angle, not radius. The ratings do not change if the power sections are retracted with the manual extended.

Lifting on FIXED LUG (ON BUTT)

LMI Duty **09**

RC (kg) AT 0 DEG ARTICULATION
RC (kg) AT FULL ARTICULATION
BOOM ANGLE

Weight of slings & hook block to be added to load
Read and understand warning notes before operating crane
Loads above bold red line are structural

Pitch = 0°
Roll = 0°

FIXED LUG	
BOOM LENGTH 3.36	
MAX RAD	RC
0.9	22000 22000 30
1.1	22000 22000 20
1.2	22000 22000 10
1.3	22000 22000 0

Lifting on INNER LUG

LMI Duty **10**

Weight of slings & hook block to be added to load
Read and understand warning notes before operating crane
Loads above bold red line are structural

RC (kg) AT 0 DEG ARTICULATION
RC (kg) AT FULL ARTICULATION
BOOM ANGLE OR (RADIUS AT 0 DEG BOOM ANGLE)

	BOOM LENGTH (m)								Pitch = 0°, Roll = 0°
RADIUS	4.16	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.25
1.4	22000	21850	20800	19350	18150	17200			
	16000	16000	16000	16000	16000	16000			
	34	40	46	51	55	58			
1.7	21050	20650	19900	18750	17600	16500	15600	15000	
	16000	16000	16000	16000	16000	16000	15600	15000	
	25	33	41	47	51	55	58	60	
2.0	17850	17750	17650	17550	16700	16000	14650	14100	
	15750	15700	15550	15450	15350	15300	14300	14100	
	11	25	36	43	48	52	55	57	
2.5	17250	14500	13850	13750	13700	13600	12900	12750	11350
	15250	12800	12200	12100	12000	11950	11900	11850	11350
	(2.1)	(2.4)	24	34	41	46	50	53	57
3.0			11700	11250	11200	11100	11050	11000	10450
			10250	9850	9800	9750	9700	9650	9550
			(2.9)	23	33	39	44	48	52
3.5				9700	9350	9300	9300	9250	9200
				8500	8200	8150	8100	8050	8000
				(3.4)	22	31	38	42	48
4.0					8200	7950	7950	7900	7850
					7150	6950	6900	6850	6800
					(3.9)	21	30	36	43
4.5						7100	6900	6850	6800
						6150	5950	5950	5900
						(4.4)	20	29	37
5.0							6150	6000	6000
							5300	5200	5150
							(4.9)	19	31
5.5								5450	5300
								4650	4550
								(5.4)	23
6.0									4700
									4000
									(11.4)
6.15									4550
									3850
									(6.1)

Lifting on OUTER LUG

LMI Duty | **11**

Weight of slings & hook block to be added to load
Read and understand warning notes before operating crane
Loads above bold red line are structural

RC (kg) AT 0 DEG ARTICULATION
RC (kg) AT FULL ARTICULATION
BOOM ANGLE OR (RADIUS AT 0 DEG BOOM ANGLE)

	BOOM LENGTH (m)								Pitch = 0°, Roll = 0°
RADIUS	4.95	5.30	5.80	6.30	6.80	7.30	7.80	8.30	9.04
1.4	21400	20300	20000	19900					
	16000	16000	16000	16000					
	46	50	54	57					
1.7	20400	19750	19000	18850	17400	15650			
	16000	16000	16000	16000	16000	15650			
	41	45	50	54	57	59			
2.0	18250	18150	17900	17050	16350	14700	13400		
	16000	16000	15900	15800	15700	14650	13400		
	35	40	46	50	54	56	59		
2.5	14400	14300	14150	14050	13950	13300	12350	11550	10350
	12750	12650	12500	12400	12300	12250	12150	11550	10350
	23	31	38	44	48	52	54	57	60
3.0	12450	11700	11600	11550	11450	11350	11200	10650	9550
	11000	10350	10250	10150	10050	10000	9900	9850	9550
	(2.9)	17	29	37	42	46	50	53	56
3.5		10900	9800	9700	9650	9550	9500	9450	8800
		9600	8600	8500	8450	8400	8300	8250	8200
		(3.2)	16	28	35	41	45	48	52
4.0			9150	8350	8250	8200	8150	8100	8050
			8050	7300	7250	7150	7100	7050	7000
			(3.7)	15	27	34	39	43	48
4.5				7850	7200	7150	7100	7050	7000
				6650	6300	6250	6200	6150	6050
				(4.2)	15	26	33	38	44
5.0					6850	6300	6250	6200	6150
					5950	5450	5450	5400	5350
					(4.7)	14	25	32	39
5.5						6000	5550	5550	5500
						5200	4800	4750	4700
						(5.2)	14	24	33
6.0							5300	4950	4900
							4600	4250	4200
							(5.7)	13	27
6.5								4750	4400
								4050	3750
								(6.2)	19
6.9									4000
									3450
									(6.9)

Lifting in MAN BASKET

LMI Duty **12**

Manual Retracted

Pitch = 0°
Roll = 0°

MANBASKET	
MAX LEN = 15.35	
RADIUS	RC
6.0	275
	275
	60
8.1	275
	275
	50
10.0	275
	275
	40
11.4	275
	275
	30
12.5	275
	275
	20
13.1	275
	275
	10
15.3	275
	275
	0

RC (kg) AT 0 DEG ARTICULATION
RC (kg) AT FULL ARTICULATION
BOOM ANGLE

Read and understand warning notes before operating crane
Loads above bold red line are structural

NOTE:
Radius shown is for boom fully extended.
Boom Length (Max) = 15.345 m
Boom length is measured from the Boom pivot to the manbasket pivot. The ratings do not change if the power sections are retracted with the Manbasket installed

LMI Duty **13**

Manual Extended

Pitch = 0°
Roll = 0°

MANBASKET	
MAX LEN = 19.40	
RADIUS	RC
8.0	275
	275
	60
10.7	275
	275
	50
13.1	275
	275
	40
14.9	275
	275
	30
16.3	275
	275
	20
17.1	275
	225
	10
19.4	275
	205
	0

RC (kg) AT 0 DEG ARTICULATION
RC (kg) AT FULL ARTICULATION
BOOM ANGLE

Read and understand warning notes before operating crane
Loads above bold red line are structural

NOTE:
Radius shown is for boom fully extended.
Boom Length (Max) = 19.395 m
Boom length is measured from the Boom pivot to the manbasket pivot. The ratings do not change if the power sections are retracted with the Manbasket installed