

**AT20 – TEREX-FRANNA AT MOBILE CRANE**



**TECHNICAL SPECIFICATIONS**

Maximum lifting capacity / radius:	20t @ 1.4m Radius
Main boom:	3.5 – 11.86m (4 section)
Main boom extension:	11.86 / 15.86m
Maximum system length:	15.86 + 2.66 = 18.4m
Overall length:	9.670m
Carrier length:	6.615m
Turning radius over boom head:	11.4 / 9.7m
Carrier engine:	Mercedes OM906LA inline 6.37litre, 6 cylinder, EC Turbo with Intercooled Turbo timer 205kw @ 2800rpm 1100nm @ 1000rpm. Onhighway Euro 3 compliant.
Maximum travel speed:	85 km/h
Drive Axles:	Kessler D71 PL478 Heavy Duty High Speed Planetary Axles. Front axle fitted with driver selectable diff lock.
Steering:	Full Power ORBITROL through twin Hydraulic double acting rams with end stop cushioning. Priority flow from main pump supply plus electro hydraulic emergency supply.
Tyres:	12.00 x 20 x 20 Ply Front & Rear
Maximum gradeability:	50%



## DEFINITIONS

**Articulation** – The crane pivots in the middle to allow steering and slewing the load. Working areas for the purpose of load rating are less than 10° articulation either way and greater than 10° (up to 40° articulation is possible either way). See *working area diagram*

**Freely Suspended Load** – Load hanging free with no direct external force applied except by the hoist line.

**Load Radius** – Horizontal distance from the centre of the front wheels forwards to the centre of the hoist line or tackle with load applied.

**Loaded Boom Angle** – This is given to assist in setting up the crane only. It gives only an approximation of the radius for a specified boom length. No allowance is made for boom or tyre deflection. The ratings are for the boom length and Load Radius shown.

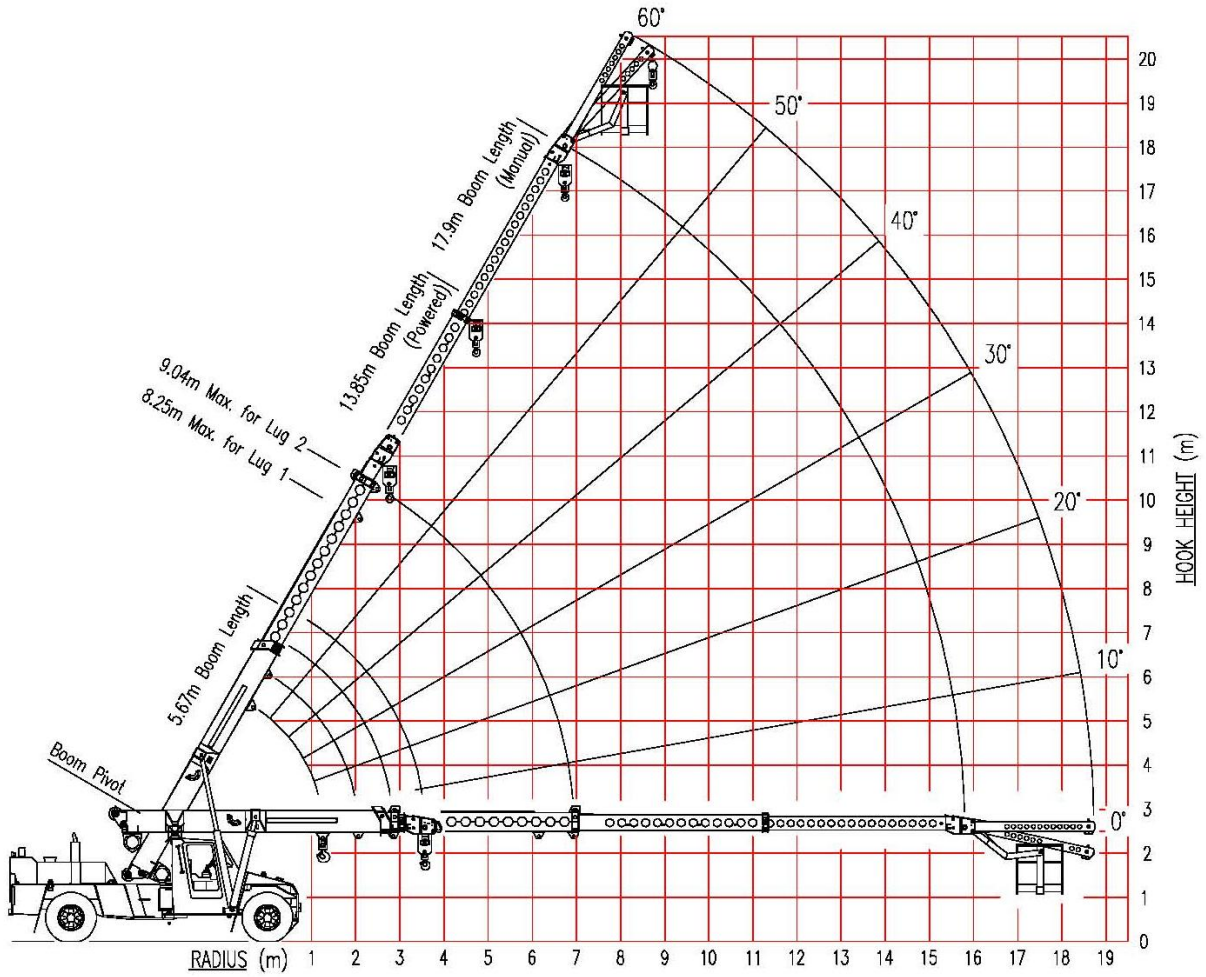
**Rated Lifting Capacity** – The total suspended load, including the weight of material and load handling equipment, that the machine can safely lift under ideal conditions at a given boom length and load radius.

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

**Work Areas** – Area measured in an arc about the centre pivot as shown on the working area diagram. Lamps on the dash indicate which zone the crane is in.

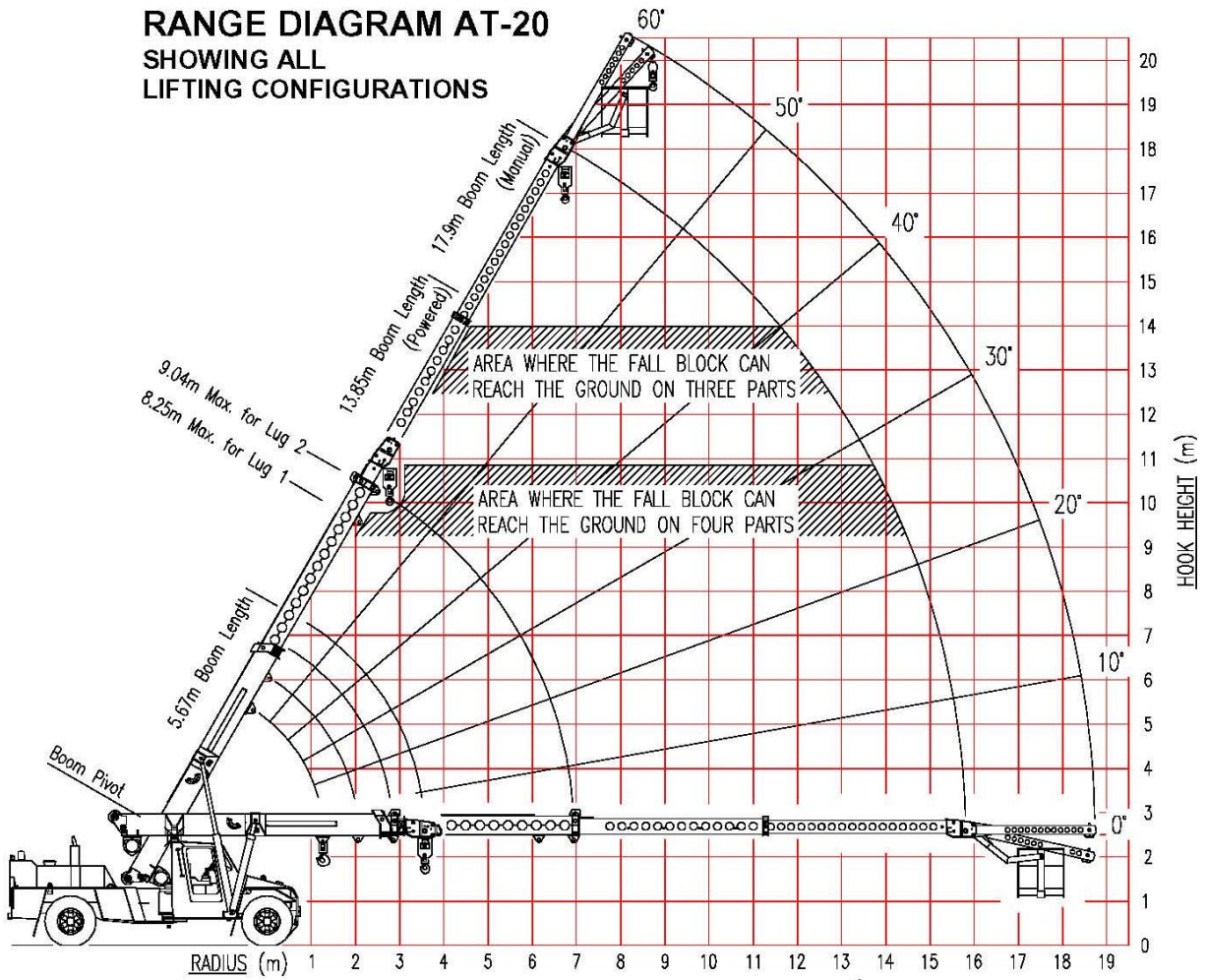


**RANGE DIAGRAM AT-20**  
 SHOWING ALL LIFT CONFIGURATIONS

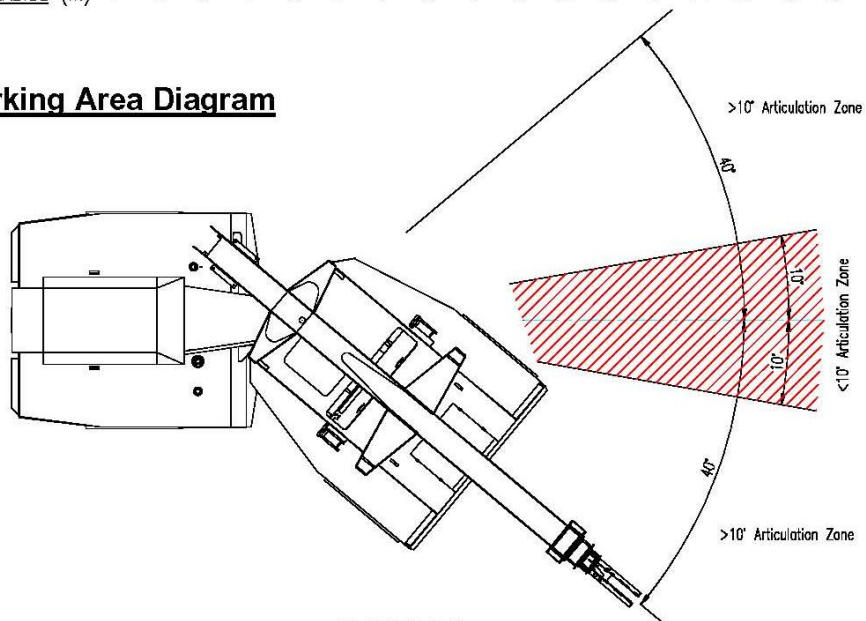




**RANGE DIAGRAM AT-20  
SHOWING ALL  
LIFTING CONFIGURATIONS**



**Working Area Diagram**





## **LIFTING CAPACITY**

### RANGE DIAGRAM (ALL LIFTS)

- LMI DUTY 01:** LIFTING CAPACITY ON WINCH – POWERED SECTIONS
- LMI DUTY 03:** LIFTING CAPACITY ON WINCH – MANUAL EXTENSION
- LMI DUTY 02:** LIFTING CAPACITY ON RHINO HOOK – POWERED SECTIONS
- LMI DUTY 04:** LIFTING CAPACITY ON RHINO HOOK – MANUAL EXTENSION
- LMI DUTY 05:** LIFTING CAPACITY ON FLYJIB (0° OFFSET) - POWERED SECTIONS
- LMI DUTY 06:** LIFTING CAPACITY ON FLYJIB (0° OFFSET) - MANUAL EXTENSION
- LMI DUTY 07:** LIFTING CAPACITY ON FLYJIB (12.5° OFFSET) - POWERED SECTIONS
- LMI DUTY 08:** LIFTING CAPACITY ON FLYJIB (12.5° OFFSET) - MANUAL EXTENSION
- LMI DUTY 09:** LIFTING CAPACITY ON FIXED LUG ON BUTT
- LMI DUTY 10:** LIFTING CAPACITY ON INNER LUG ON FIRST EXT.
- LMI DUTY 11:** LIFTING CAPACITY ON OUTER LUG ON FIRST EXT.
- LMI DUTY 12:** LIFTING CAPACITY IN MAN BASKET – POWERED SECTIONS
- LMI DUTY 13:** LIFTING CAPACITY IN MAN BASKET – MANUAL EXTENSION



	SWL (KG) LESS THAN 10 DEG ARTICULATION
	SWL (KG) GREATER THAN 10 DEG 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

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														
	12600	12600	12600	12600														
2.0	16800	16800	16500	15700	15100	14700	14350											
	12600	12600	12600	12600	12600	12600	12600											
2.5	13900	13900	13900	13850	13850	13850	13850	13200	13000									
	12150	12150	12100	12100	12100	12100	12100	12050	12050									
3.0	11450	11450	11450	11400	11400	11400	11400	11400	11400	11150	10250							
	9950	9950	9950	9950	9950	9950	9900	9900	9900	9900	9900							
3.5	9650	9650	9650	9650	9650	9650	9650	9650	9650	9650	9500	8150	7500					
	8400	8400	8400	8400	8400	8400	8400	8400	8350	8350	8350	8150	7500					
4.0	8400	8400	8400	8400	8400	8400	8400	8400	8350	8350	8350	8150	7500					
	8400	8400	8400	8400	8400	8400	8400	8400	8350	8350	8350	8150	7500					
4.5	8400	8400	8400	8400	8400	8400	8400	8400	8350	8350	8350	8150	7500					
	8400	8400	8400	8400	8400	8400	8400	8400	8350	8350	8350	8150	7500					
5.0	8400	8400	8400	8400	8400	8400	8400	8400	8350	8350	8350	8150	7500					
	8400	8400	8400	8400	8400	8400	8400	8400	8350	8350	8350	8150	7500					
6.0	8400	8400	8400	8400	8400	8400	8400	8400	8350	8350	8350	8150	7500					
	8400	8400	8400	8400	8400	8400	8400	8400	8350	8350	8350	8150	7500					
7.0	8400	8400	8400	8400	8400	8400	8400	8400	8350	8350	8350	8150	7500					
	8400	8400	8400	8400	8400	8400	8400	8400	8350	8350	8350	8150	7500					
8.0	8400	8400	8400	8400	8400	8400	8400	8400	8350	8350	8350	8150	7500					
	8400	8400	8400	8400	8400	8400	8400	8400	8350	8350	8350	8150	7500					
9.0	8400	8400	8400	8400	8400	8400	8400	8400	8350	8350	8350	8150	7500					
	8400	8400	8400	8400	8400	8400	8400	8400	8350	8350	8350	8150	7500					
10.0	8400	8400	8400	8400	8400	8400	8400	8400	8350	8350	8350	8150	7500					
	8400	8400	8400	8400	8400	8400	8400	8400	8350	8350	8350	8150	7500					
11.0	8400	8400	8400	8400	8400	8400	8400	8400	8350	8350	8350	8150	7500					
	8400	8400	8400	8400	8400	8400	8400	8400	8350	8350	8350	8150	7500					
11.75	8400	8400	8400	8400	8400	8400	8400	8400	8350	8350	8350	8150	7500					
	8400	8400	8400	8400	8400	8400	8400	8400	8350	8350	8350	8150	7500					

**LMI Duty**  
**Lifting on WINCH**  
MANUAL EXTENDED

**03**

	SWL (KG) LESS THAN 10 DEG ARTICULATION
	SWL (KG) GREATER THAN 10 DEG 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*

MANUAL EXT'N	
MAX LENGTH 17.90	
MAX RADIUS	SWL
<b>6.74</b>	2550
	60
	2250
<b>9.31</b>	2250
	50
	2050
<b>11.53</b>	2050
	40
	1900
<b>13.34</b>	1700
	30
	1800
<b>14.67</b>	1500
	20
	1650
<b>15.51</b>	1350
	10
	1600
<b>15.80</b>	1300
	0
	0

**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.







**LMI Duty**

Lifting on RHINO HOOK

**04**

	SWL (KG) LESS THAN 10 DEG ARTICULATION
	SWL (KG) GREATER THAN 10 DEG 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*

MANUAL EXT'N	
MAX LENGTH 18.20	
MAX RADIUS	SWL
<b>6.91</b>	<b>2400</b>
	60
9.52	<b>2100</b>
	<b>2100</b>
11.78	50
	<b>1900</b>
13.62	<b>1900</b>
	40
14.97	<b>1800</b>
	<b>1650</b>
15.81	30
	<b>1750</b>
16.11	<b>1450</b>
	20
	<b>1550</b>
	<b>1350</b>
	10
	<b>1550</b>
	<b>1300</b>
	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.

**LMI Duty**  
Lifting on FLYJIB (0 offset)

**05**

FLYJIB	
MAX LENGTH 16.78	
MAX RADIUS	SWL
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

SWL (KG) LESS THAN 10 DEG ARTICULATION  
 SWL (KG) GREATER THAN 10 DEG 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 :**

16.78m 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**

Lifting on FLYJIB (0 offset)

**06**

MANUAL EXT'N	
MAX LENGTH 20.83	
MAX RADIUS	SWL
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

SWL (KG) LESS THAN 10 DEG ARTICULATION  
 SWL (KG) GREATER THAN 10 DEG 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 :**

20.83m 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.

**LMI Duty**  
**Lifting on FLYJIB**  
**(12.5 deg offset)**

**07**

FLYJIB	
MAX LENGTH 16.71	
MAX RADIUS	SWL
6.71	1500
	60
9.04	1200
	50
11.03	970
	40
12.63	850
	30
13.78	770
	20
14.46	750
	10
14.64	750
	0

 SWL (KG) LESS THAN 10 DEG ARTICULATION  
 SWL (KG) GREATER THAN 10 DEG 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 :**  
16.71m 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**  
**Lifting on FLYJIB**  
**(12.5 deg offset)**

**08**

MANUAL EXT'N	
MAX LENGTH 20.76	
MAX RADIUS	SWL
8.73	1300
	60
11.64	1120
	50
14.13	920
	40
16.14	820
	30
17.59	770
	20
18.45	750
	10
18.69	750
	0

 SWL (KG) LESS THAN 10 DEG ARTICULATION  
 SWL (KG) GREATER THAN 10 DEG 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 :**  
20.76m 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.














**LMI Duty**  
**Lifting in MANBASKET**

**12**

MANBASKET	
MAX LENGTH 13.85	
MAX RADIUS	SWL
<b>6.18</b>	250
	250
	60
8.36	250
	250
	50
10.22	250
	250
	40
11.71	250
	250
	30
12.79	250
	250
	20
13.42	250
	250
	10
13.58	250
	250
	0

 SWL (KG) LESS THAN 10 DEG ARTICULATION  
 SWL (KG) GREATER THAN 10 DEG ARTICULATION  
 BOOM ANGLE




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

**NOTE :**  
13.85m Boom length does not include Manbasket. Ratings for Manbasket are structural & based on Boom Angle, not radius. The ratings do not change if the power sections are retracted with the Manbasket installed

**LMI Duty**  
**Lifting in MANBASKET**

**13**

MANUAL EXT'N	
MAX LENGTH 17.90	
MAX RADIUS	SWL
<b>8.20</b>	250
	250
	60
10.96	250
	250
	50
13.32	250
	250
	40
15.22	250
	250
	30
16.59	250
	250
	20
17.41	250
	250
	10
17.63	250
	250
	0

 SWL (KG) LESS THAN 10 DEG ARTICULATION  
 SWL (KG) GREATER THAN 10 DEG ARTICULATION  
 BOOM ANGLE

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

**NOTE :**  
17.90m Boom length includes Manual 3rd extension but not Manbasket. Ratings for Manbasket are structural & based on Boom Angle, not radius. The ratings do not change if the power sections are retracted with the manual extended.



**FOOTPRINT**

