



CONSTRUCT ENGINEERING

A division of Westfield Nominees

Humma 55-25

LOAD CHARTS

Revision 4



Contains the following load charts:

- Main winch (Standard & Stationary)
- Sliding hook 1 & 2
- Rhino hook



CONSTRUCT ENGINEERING



CAUTION

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

**DO NOT OPERATE THIS MACHINE UNLESS
YOU HAVE READ AND UNDERSTOOD THE
OPERATOR'S MANUAL AND LOAD CHARTS.**





DANGER

Clearance for Operating Equipment Near Power Lines

Special Provisions

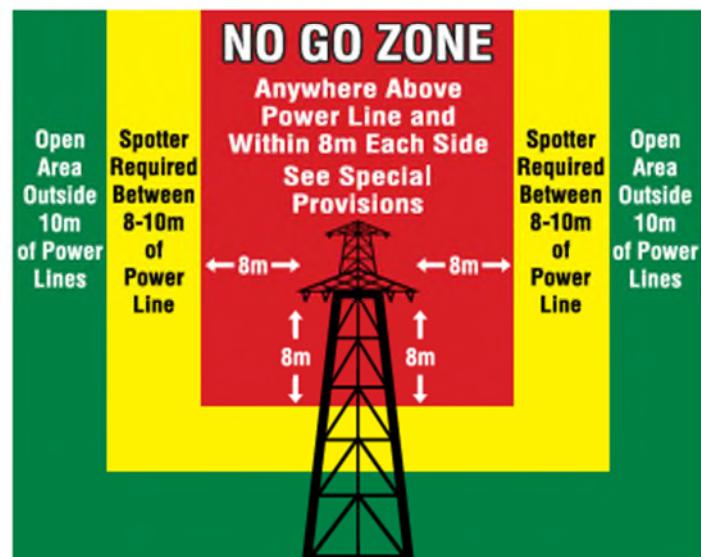
1. Ensure "Spotter" is provided.
2. Notify the Power Company when planning the work.
3. Obtain written permission from the Power Company.
4. DO NOT commence work until a pre-start site / job meeting and risk assessment have been completed.

The term "Spotter" is defined as a Safety Observer who is a person competent for the sole task of observing and warning against unsafe approach to overhead power lines and other electrical apparatus.

Overhead Power Lines on Poles



Overhead Power Lines on Towers





Date: 16 May 2019

WESTFIELD NOMINEES PTY LTD
31 CUTLER RD
JANDAKOT 6164

ATT: Peter Dalla Riva

EVIDENCE OF DESIGN REGISTRATION

Your application dated 18 February 2019 and submitted in accordance with regulation 4.3 of the Occupational Safety and Health Regulations 1996 has been processed and registered as follows:

Design Registration Number: WAC22384

Date of Registration: 16 May 2019

Description of Plant: Mobile Crane, Model: Humma 55-25 DRA Articulated Pick & Carry Crane, Manufacturer: Humma Cranes, DRA Engineering, 31 Cutler Road, Jandakot WA 6164

Design Conditions: Maximum rated capacity: 55 tonne
Maximum boom length: 20.73 m

Design Code: AS1418.5-2013

This registration is for the design shown on drawing numbers UV50-000-00 Rev 1, UV50-400-00 Rev C Sheet 1 to 6, Humma 55 - 25 Load charts Rev 0, Crane tilt diagrams Sheet 1 to 3, UV50-700-00 Rev B Sheet 1 to 4, UV50-100-00 Rev A Sheet 1 to 2, 180706HYD Rev 1, UV50-25HYD Rev 02, 180706PNEU Rev 02, HUMMA Cranes presentation brochure, Humma 55 - 25 Mobile crane Operation Manual Rev 1.

Please ensure the registered number is prominently displayed on or in the vicinity of the plant in accordance with regulation 4.2(1)(d).

This Evidence is for registration purposes only and not to be construed as safety approval. Any subsequent alterations made to the registered design will require re-registration in accordance with regulation 4.11.


Kazim Raza
Senior Inspector Engineer
Plant & Engineering



SAFETY POINTS FOR HUMMA 55-25 OPERATION

1. Ensure Suspension is lowered and locked prior to lifting.
2. Ensure Suspension is raised prior to road travel.
3. Maximum ground speed during "Pick & Carry" operation is 1.44km/hour (0.4m/s).
4. Crane must be driven at the prescribed 1.44 km/hr to ensure the auto level system will operate effectively.
5. Do not exceed 5km/hr in crane mode with or without load on the hook. Damage to the suspension may occur
6. Ensure loads are as close to the ground as possible when mobiling.
7. Use the minimum possible boom length and shortest angle when mobiling loads.
8. Do not have unnecessary amounts of winch rope between the load and the boom head.
9. Ensure tyres are correctly inflated to specified pressures.
10. Ensure brakes are correctly adjusted and operating efficiently.
11. Do not articulate when stationary with service or park brakes applied.
12. Do not allow loads to swing outside width of front wheels.
13. Dual tag lines are highly recommended to tie the load to the crane chassis in auto level mode to limit load swing.
14. Never leave cabin with load suspended.
15. Do not handle loads in strong winds above 10m/s. Contact DRA for 15m/s chart.
16. Always lift through centre of gravity of load.
17. Check winch rope frequently.
18. Check tyres for damage frequently.
19. Check wheel nuts for correct tension and for damage.
20. Check hydraulic hoses frequently for damage.
21. Never overload the HUMMA 55-25 Crane.
22. Do not drag loads or use the boom to push, pull or tow.
23. Carry personnel only in the cabin.
24. Never attempt to engage 4WD or Hi/Low range when in gear or moving.
25. Do not allow cylinders to bottom out at high speeds.
26. Do not attempt to continue steering when crane reaches full articulation.
27. Only change suspension mode on flat level ground with crane straight ahead.
28. Do not use the front tie down points for towing. For tie down or tagging loads only.
29. Never operate crane if leaks in hydraulic suspension system.
30. Never work on crane suspension hydraulic system without full understanding of the system as uncontrolled movements can occur.
31. If at any time the operator is unsure of the operation and behavior of the crane, the crane must be stopped and the load must be lowered to the ground and put into a safe configuration for investigation.
32. Crane must be operated with smooth inputs to crane controls and steering.
33. Auto level ability will decrease with load capacity and articulation angle.
34. If fitting fish plates to hook block ensure correct pinning as per the drawing.
35. Steering effort while stationary will increase with load on the hook due to tyre size. At very high loads steering while moving is required.
36. Never enter the wheel wells on the crane as movement during operation can occur.
37. Never place any body part through the cutouts in the booms.
38. Do not travel on the road with check plates mounted to the 38T hook block or with the 50T hook block mounted.

HUMMA 55-25 MOBILE CRANE

Quick start guide

Before attempting to start the engine ensure that the battery isolation switch and starter isolation switches are turned on. Switches can be found in the battery box on the driver's side of the crane, rear of articulation joint.

The Humma 55-25 Mobile Crane is fitted with a neutral start safety switch. It is necessary to have the Electronic Gear Selector (EGS) in neutral before starting the engine, if the EGS is not in neutral the engine will not start.

The ignition switch is mounted to the right of the instrument panel. To start the engine, insert the ignition key, and turn the key clockwise 2 clicks. The fuel pump will start to prime and the displays will turn on. Wait until the fuel pump stops priming. Turn key clockwise, when the engine fires, release the key. If the engine does not start, wait until the starter motor stops turning before trying again.

Make sure that the crane has sufficient air pressure before attempting to drive the Humma 55-25. If there is not sufficient air pressure the brakes will be inadequate and you may not be able to disengage the park brake. The low air light will come on and there will be an audible alarm until sufficient brake air pressure is met. Once sufficient air pressure has been acquired the alarm will stop and the light will turn off. A brake protection valve operates to ensure brakes have priority to the air supply under 90psi. Once air pressure reaches 90psi air controls (i.e. seat, airbags, horn etc.) will be active. Governed pressure is approx. 120psi.

To select gears with the EGS you simply press D for forward and R for reverse. Never attempt to change vehicle direction when the vehicle is moving. Never switch directly from D to R or vice versa. Ensure the vehicle is stationary and put into N first.

To swap between high and low range the vehicle must be stationary in Neutral gear and have the park brake applied. The drivetrain controls will not work unless the park brake is applied.

Before moving off, make sure that the park brake has been disengaged and that the holding brake is also disengaged.

When driving on the road or with no load, the suspension should be raised to increase the comfort of the ride. **When lifting a load the suspension must be lowered and locked.** When the suspension is lowered and the crane is in low range, the LMI switches on allowing the crane duty to be selected. **Make sure the locked indicator light comes on before lifting any loads and ensure the crane is on flat level ground BEFORE lowering the suspension.**



Motion cuts are installed on the crane and lock out crane operations when in travel mode (suspension raised) or when the LMI goes into an overload situation.

To use the crane for lifting mode the operator must select low range and also lower the suspension. If the LMI does not switch on then the operator must engage D on the shift selector and then N to ensure correct full throw on the transfer case air shift.

CAUTION:

1. Ensure that sufficient training by a competent person has taken place before operating this machine.
2. Operators must hold the correct licence to operate this machine.
3. Ensure that suspension is lowered and locked before lifting any loads.
4. Only lower suspension when stationery and on flat level ground unarticulated.
5. 4WD & Diff lock must only be used off road in soft terrain. Do not use on hard surfaces.
6. Motion cut overrides must not be used when or for lifting loads. They are only to be used for adjusting the boom and winch when in travel mode.
7. Do not continue to use the crane if there are system errors or warnings.

Failure to adhere to these rules can result in serious damage to the crane and can endanger the crane operator.

Quick Guide For Entering Crane Mode:

1. Ensure crane stationary and park brake engaged.
2. Press suspension lower button on screen at top right (picture of airbag).
3. Press range button (bottom right H or L) on screen ensure L is solid, not flashing.
4. Wait for suspension to finish lowering and draining accumulators (30-40 seconds)
5. Rear view screen will change to LMI.
6. Select duty, hook, rope falls and crane will be operational.
7. Select auto level on or off.

Quick Guide For Entering Travel Mode:

1. Ensure load removed from hook and boom in travelling configuration with park brake engaged.
2. Turn off auto levelling if on.
3. Press suspension lower button on screen at top right (picture of airbag).
4. Press range button on screen (bottom right H or L) ensure H is solid, not flashing.
5. Wait for suspension to fully lower and unlock, then raise to travel height.
6. Proceed to drive.



OPERATION ON SIDE SLOPES

Mobile cranes are primarily designed to be used on firm, flat, level ground (to within 1% gradient), according to AS 1418.5, any deviation from this requires that the Rated Capacity shall be reduced accordingly. As per AS 2550.5 negotiation of slopes by mobile crane travelling with suspended loads should be avoided. The following precaution should be taken when operation on side slopes of up to 5° (8.75% gradient) - **REMEMBER** surface depressions and potholes will create the same effect as side slope.

- Ensure the tyres are correctly **INFLATED** as per inflation chart.
- Ensure the ground condition is consistent and **FIRM** enough to support the axle loads.
- When planning a lift, **REDUCE** the rated capacity of the crane to the percentage value for the crane as shown in chart RC55-SS01 for operation on side slopes up to 5° (8.75% gradient). The LMI will automatically derate as per the chart.
- Use the crane's side slope inclinometer as a guide only, it is most accurate when the crane's articulation is straight ahead without suspending a load. All articulated chassis crane will show some degree of side tilt, when articulated with a load - this should not be confused with the ground's side slope.
- Use the **MINIMUM** boom length and 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 toward the direction of the articulation whilst steering.
- Keep the load on the **UPHILL** of the crane where possible, especially when articulated - **REMEMBER** the working radius will increase if the load is suspended in the downhill position.
- Load swing greatly reduces stability - **REMEMBER** to tagline load to prevent pendulum motion of the load. Travel and crane motions should be applied gently to minimise this effect.
- The load's weight should be checked first by test lifting with the crane straight ahead. Side slope lifting is outside the capabilities of the LMI.

REMEMBER: It is up to the operator to assess the situation and crane position.

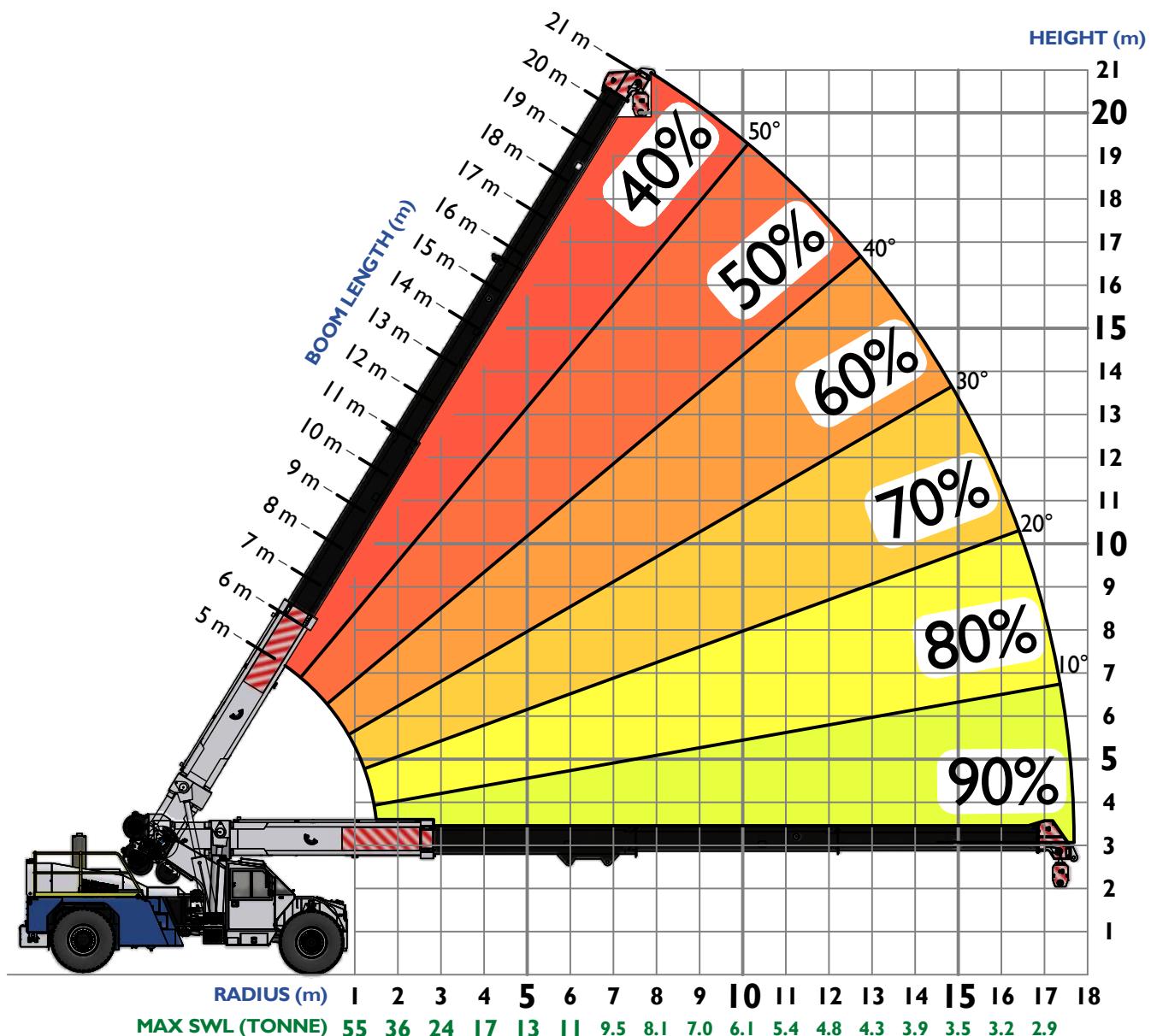
Side slope deration should only be used as a last resort if no other crane positions are available.

Auto levelling system will assist in levelling the crane in the majority of configurations up to full articulation. It should not be relied upon to eliminate side slopes completely.



55T MOBILE CRANE

SIDESLOPE DERATE CHART RC55-SS01



OPERATOR MUST FOLLOW SIDE SLOPE OPERATION INSTRUCTIONS

1. PERCENTAGE DERATION CHART BASED ON 66.6% OF STABILITY AS PER AS1418.5, WITH THE CRANE ON A FIRM SIDE SLOPE OF 5 DEGREES (8.75% GRADIENT)
2. PERCENTAGE DERATION IS APPLIED TO THE RATED CAPACITY READ FROM THE APPROPRIATE LOAD CHART

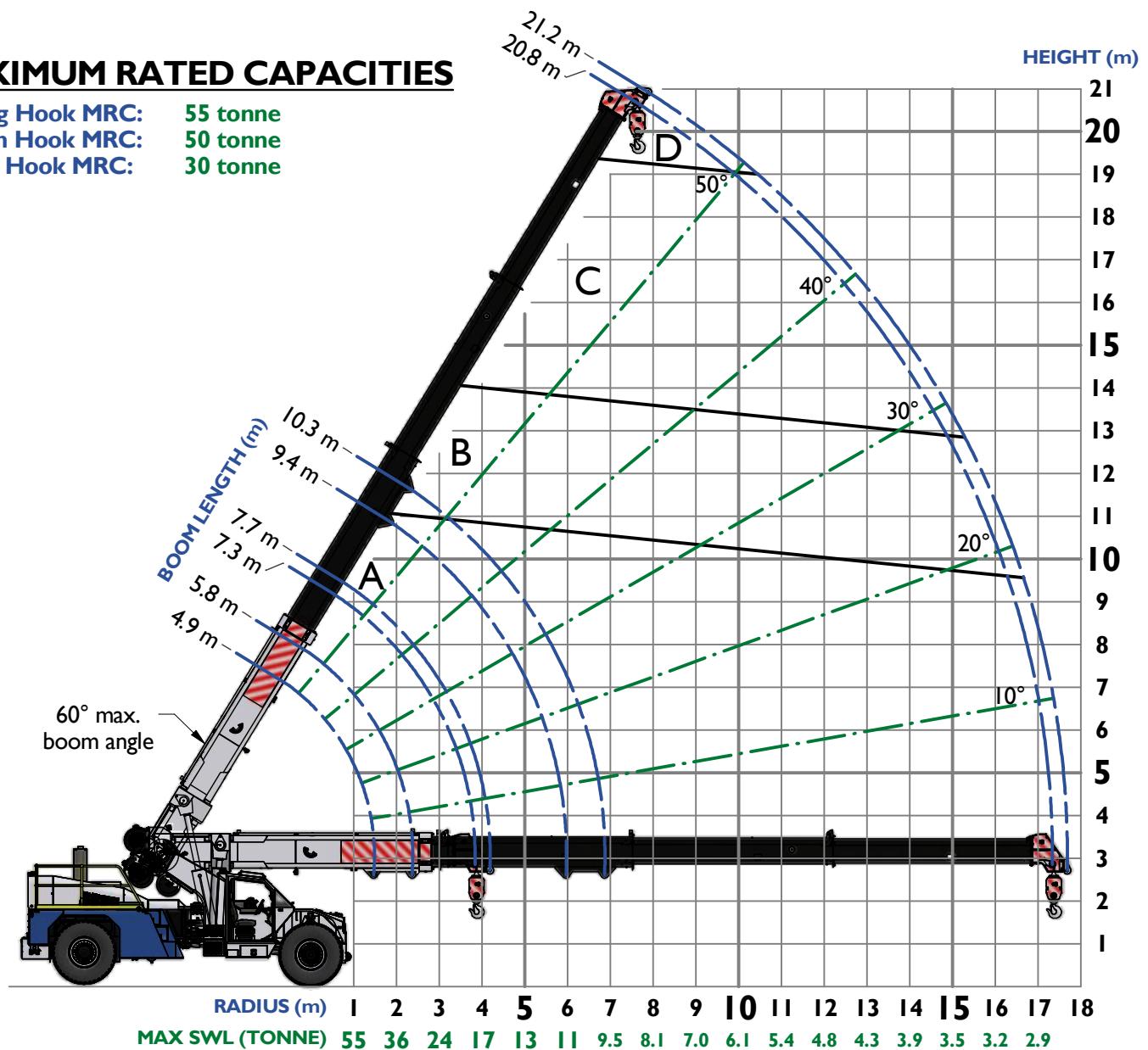
$$\text{MRC (AT } 5^\circ \text{ SIDESLOPE)} = \frac{\text{DERATE \%}}{100 \%} \times \text{MRC (FROM LOAD CHART)}$$

55T MOBILE CRANE

RANGE CHART RC55-RC01

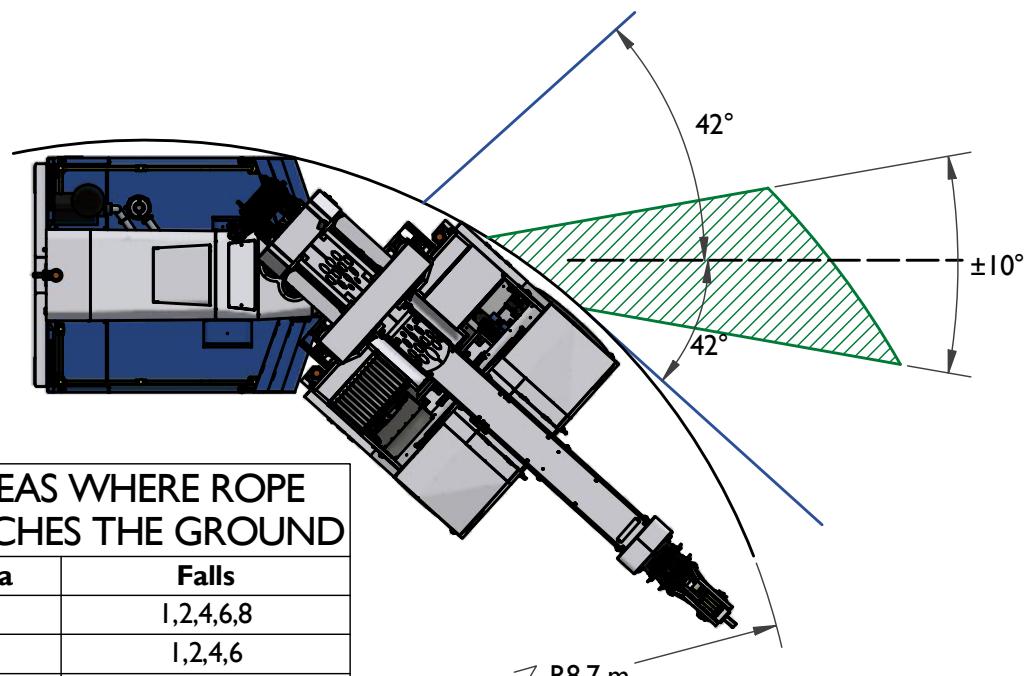
MAXIMUM RATED CAPACITIES

Sliding Hook MRC: 55 tonne
 Winch Hook MRC: 50 tonne
 Rhino Hook MRC: 30 tonne



WINCH ROPE SPEC.

Property	Value
Diameter	18mm
Construction	35x7
Grade	2160
M.B.F	321kN
Lay	RHLL
Mass	1.63kg/m



WINCH S.W.L	
Falls	Max S.W.L (Tonne)
1	6.25
2	12.5
4	25
6	37.5
8	50

CRANE SPECIFICATIONS

TYRE SPECIFICATIONS

Type	Speed Condition	Lifted Load Condition	Load Rating	Req. Inflation Pressure
DUAL TYRES 32PR 16.00-25	<1.44KM/HR (0.4M/S)	<40,000KG	16,250KG PER TYRE	125PSI
	<1.44KM/HR (0.4M/S)	>40,000KG	20,000KG PER TYRE	150PSI
	80KM/HR	NO LOAD	N/A	90PSI
DUAL TYRES 28PR 16.00-25	<1.44KM/HR (0.4M/S)	<35,000KG	14,950KG PER TYRE	110PSI
	<1.44KM/HR (0.4M/S)	<42,000KG	16,675KG PER TYRE	135PSI
	STATIONARY	>42,000KG	20,125KG PER TYRE	135PSI
	80KM/HR	NO LOAD	N/A	90PSI

WIRE ROPE SPECIFICATIONS

LOCATION	DIAMETER	MIN. BREAKING FORCE (MBF)	CONSTRUCTION
MAIN WINCH ROPE	Ø18mm	321KN	35X7 NON-ROTATING, RHLL, GRADE 2160, 100M LONG, SOLID HEART THIMBLE ONE END, BRAZER OTHER END
INTERNAL EXTENSION ROPES	Ø22mm	484KN	35X7 NON-ROTATING, RHLL, GRADE 2160, 6.17M LONG, SOLID HEART THIMBLES BOTH ENDS

COUNTERWEIGHTS

LOCATION	PART NUMBER	WEIGHT
REAR OF CRANE	UV50-285-00A	5,500KG

WINCH RATED CAPACITIES

ROPE FALLS	MAX LIFTED LOAD (WINCH)
2	12,500KG
4	25,000KG
6	37,500KG
8	50,000KG

LIFTING ATTACHMENT SPECIFICATIONS

NAME	PART NUMBER	TARE WEIGHT
8 FALL HOOK BLOCK	UV50-410-00	450KG
6 FALL HOOK BLOCK	UV50-418-00	200KG
30T SWIVEL HOOK	SUP00285	35KG
SPREADER BAR	SB-00-00	100KG
3 PART FLYJIB	FJ-00-00A	150KG
FLYJIB HOOKBLOCK	FJHB-00-00	50KG

DESIGNED AND MANUFACTURED TO AUSTRALIAN STANDARDS

AS 1418.5-2013 and AS 2550.5-2016



CONSTRUCT ENGINEERING

LOAD CHART— RATED CAPACITY CHART 103, 104

RATED CAPACITIES ON SLIDING HOOK I (Kilograms)

$\pm 10^\circ, \pm 42^\circ$ ARTICULATION

CAPACITIES ON SLIDING HOOK I IN KILOGRAMS										103 LMI CHART	104 LMI CHART	
		NO COUNTERWEIGHT		BOOM LENGTH (m)								
RADIUS (m)		4.94	5.5	6	6.5	7	7.5	8	8.5	9	9.435	
		38367	38537	38610	38657	38688	38711	38728	38740	38750		
1.3		34165	34335	32992	30058	27781	25949	24436	23163	22076		
		22	36	42	47	51	54	57	59	61		
		32624	32986	33066	33114	33146	33169	33186	33199	33209		
1.5		28978	29344	29424	27056	24913	23203	21800	20624	19622		
		<u>1.50</u>	31	39	45	49	52	55	58	60		
		22996	24036	24097	24134	24160	24178	24192	24202	24210		
2		20342	21305	21366	20333	18785	17539	16508	15638	14984		
		<u>2.06</u>	30	37	43	47	50	53	56	58		
		17962	18668	18717	18747	18768	18784	18795	18803			
2.5		15826	16483	16532	16206	15019	14056	13253	12655			
		<u>2.56</u>	28	36	41	45	49	52	54			
		14574	15090	15130	15156	15174	15187	15196				
3		12787	13269	13310	13335	12445	11673	11104				
		<u>3.06</u>	27	34	40	44	47	50				
	IMPORTANT NOTES				12138	12535	12569	12591	12607	12618		
3.5	1) CAPACITIES OUTSIDE OF STRUCTURAL REGION ARE BASED ON 66.7% STABILITY (PICK & CARRY). 2) CRANE MUST NOT EXCEED 1.4KM/HR WHILE MOBILING WITH LOAD AND 5KM/HR UNLOAD-ED.				10603	10974	11009	11031	10559	10001		
	3) LOAD MUST BE CARRIED ON SHORTEST POSSIBLE BOOM LENGTH AND ANGLE AND CLOSE TO THE GROUND WHEN MOBILING.				<u>3.56</u>	26	33	38	43	45		
4	4) PICK AND CARRY ON FIRM LEVEL GROUND (<1% GRADIENT) 5) IN APPLICABLE CHART REGIONS —AUTO LEVELLING SUSPENSION CAN BE USED TO LEVEL UP TO 5 DEGREES SIDE SLOPE DEPENDING ON LOAD AND ARTLCULATION ANGLE. IT MUST NOT BE USED ON SIDE SLOPES OVER 5 DEGREE.				10302	10619	10649	10668	10681			
	6) MAXIMUM IN-SERVICE WIND SPEED (AVERAGE): 10M/S (36KM/HR).				8956	9253	9283	9303	9186			
4.5	7) CONTACT DRA GROUP FOR USE OF THIS LOAD CHART AT WIND SPEEDS ABOVE 10M/S.				<u>4.06</u>	25	32	37	41			
					8870	9129	9155	9171				
					7671	7915	7941	7957				
5					<u>4.56</u>	24	31	36				
					7720	7937	7958					
					6640	6845	6866					
					<u>5.06</u>	23	29					
					6777	6959						
5.5	GREEN 10 DEG ARTICULATION YELLOW 42 DEG ARTICULATION				5794	5966						
					<u>5.56</u>	22						
					6085							
5.997	RED OUTLINED VALUES INDICATE STRUCTURAL REGION UNDER LINED VALUES INDICATE RADIUS AT 0 DEG				5174							
					<u>5.99</u>							

LOAD CHART— RATED CAPACITY CHART 203, 204

RATED CAPACITIES ON SLIDING HOOK I (Kilograms)

$\pm 10^\circ, \pm 42^\circ$ ARTICULATION

CAPACITIES ON SLIDING HOOK I IN KILOGRAMS										203 LMI CHART
5500 KG COUNTERWEIGHT										204 LMI CHART
RADIUS (m)	BOOM LENGTH (m)									
	4.94	5.5	6	6.5	7	7.5	8	8.5	9	9.435
	55000	55000	55000	55000	55000	55000	55000	55000	53207	
1.3	49578	49748	47770	43504	40197	37539	35345	33500	31925	
	22	36	42	47	51	54	57	59	61	
	48251	48591	48672	48720	48752	48775	48792	48805	48815	
1.5	42353	42702	42782	39319	36192	33700	31656	29944	28487	
	<u>1.50</u>	31	39	45	49	52	55	58	60	
	34371	35741	35801	35839	35864	35882	35896	35907	35914	
2	30078	31323	31384	29850	27567	25732	24214	22935	21973	
	<u>2.06</u>	30	37	43	47	50	53	56	58	
	27113	28032	28080	28111	28132	28147	28159	28167		
2.5	23659	24498	24546	24048	22277	20842	19648	18758		
	<u>2.56</u>	28	36	41	45	49	52	54		
	22229	22893	22933	22959	22977	22990	22999			
3	19340	19948	19988	20014	18669	17505	16648			
	<u>3.06</u>	27	34	40	44	47	50			
	18717	19223	19257	19280	19295	19306				
3.5	16234	16699	16733	16755	16032	15179				
	<u>3.56</u>	26	33	38	43	45				
	16071	16471	16501	16520	16533					
4	13894	14262	14292	14312	14126					
	<u>4.06</u>	25	32	37	41					
	14005	14331	14357	14373						
4.5	12067	12368	12394	12409						
		<u>4.56</u>	24	31	36					
	12348	12619	12640							
5	10601	10852	10873							
		<u>5.06</u>	23	29						
	10989	11215								
5.5	9400	9609								
	<u>5.56</u>	22								
	9991									
5.997	8517									
	5.99									
	GREEN 10 DEG ARTICULATION									
	YELLOW 42 DEG ARTICULATION									
	RED OUTLINED VALUES INDICATE STRUCTURAL REGION									
	UNDER LINED VALUES INDICATE RADIUS AT 0 DEG									

LOAD CHART— RATED CAPACITY CHART 105, 106

RATED CAPACITIES ON SLIDING HOOK 2 (Kilograms)

$\pm 10^\circ, \pm 42^\circ$ ARTICULATION

CAPACITIES ON SLIDING HOOK 2 IN KILOGRAMS											105 LMI CHART	106 LMI CHART	
RADIUS (m)	BOOM LENGTH (m)												
	5.84	6	6.5	7	7.5	8	8.5	9	9.5	10	10.335		
1.3	40045	40022	39951	39885	39824	39768	39718	39672					
	35571	34345	31187	28745	26786	25173	23819	22665					
	40	42	47	51	54	57	59	61					
1.5	34368	34350	34291	34234	34180	34131	34086	34045					
	30726	30708	28136	25831	23998	22497	21243	20178					
	37	39	45	49	52	55	58	60					
2	25121	25116	25084	25044	25005	24968	24933	24901	24871	24844			
	22390	22385	22352	21197	19526	18185	17078	16147	15351	14662			
	26	30	37	43	47	50	53	56	58	60			
2.5	20380	19523	19543	19522	19494	19465	19438	19411	19387	19364	19349		
	18102	17338	17358	17337	16937	15650	14610	13745	13013	12383	12009		
	2.40	13	28	36	41	45	49	52	54	56	57		
3	18933	15807	15827	15813	15792	15771	15749	15728	15709	15696			
	16797	13986	14006	13992	13972	13001	12163	11463	10866	10514			
	2.56	13	27	34	40	44	47	50	53	54			
3.5	15386	13152	13173	13163	13147	13130	13113	13096	13086				
	13600	11591	11612	11602	11586	11059	10368	9788	9447				
	3.06	12	26	33	38	43	46	49	50				
4	12836	11162	11181	11175	11163	11149	11135	11126					
	11301	9796	9816	9809	9797	9566	8986	8649					
	3.56	11	25	32	37	41	45	47					
4.5	IMPORTANT NOTES			10914	9613	9632	9628	9618	9607	9600			
	1) CAPACITIES OUTSIDE OF STRUCTURAL REGION ARE BASED ON 66.7% STABILITY (PICK & CARRY).			9568	8399	8418	8414	8405	8376	8036			
	2) CRANE MUST NOT EXCEED 1.4KM/HR WHILE MOBILING WITH LOAD AND 5KM/HR UNLOADED.			4.06	11	24	31	36	40	42			
5	3) LOAD MUST BE CARRIED ON SHORTEST POSSIBLE BOOM LENGTH AND ANGLE AND CLOSE TO THE GROUND WHEN MOBILING.			9414	8375	8393	8390	8383	8377				
	4) PICK AND CARRY ON FIRM LEVEL GROUND (<1% GRADIENT)			8216	7282	7301	7298	7290	7284				
	5) IN APPLICABLE CHART REGIONS —AUTO LEVELLING SUSPENSION CAN BE USED TO LEVEL UP TO 5 DEGREES SIDE SLOPE DEPENDING ON LOAD AND ARTICULATION ANGLE. IT MUST NOT BE USED ON SIDE SLOPES OVER 5 DEGREE.			4.56	10	23	30	35	38				
5.5	6) MAXIMUM IN-SERVICE WIND SPEED (AVERAGE): 10M/S (36KM/HR).			8211	7362	7379	7377	7374					
	7) CONTACT DRA GROUP FOR USE OF THIS LOAD CHART AT WIND SPEEDS ABOVE 10M/S.			7131	6369	6386	6384	6380					
				5.06	10	23	29	33					
6				7224	6517	6534	6534						
				6241	5607	5624	5624	5624					
				5.56	10	22	27						
6.5				6400	5803	5817							
				5498	4963	4977							
				6.06	9	19							
6.896	GREEN 10 DEG ARTICULATION												
	YELLOW 42 DEG ARTICULATION												
	RED OUTLINED VALUES INDICATE STRUCTURAL REGION											4869	4509
	UNDER LINED VALUES INDICATE RADIUS AT 0 DEG											6.56	5

LOAD CHART— RATED CAPACITY CHART 205, 206

RATED CAPACITIES ON SLIDING HOOK 2 (Kilograms)

±10°, ±42° ARTICULATION

CAPACITIES ON SLIDING HOOK 2 IN KILOGRAMS											205 LMI CHART
5500 KG COUNTERWEIGHT											206 LMI CHART
RADIUS (m)	BOOM LENGTH (m)										
	5.84	6	6.5	7	7.5	8	8.5	9	9.5	10	10.335
1.3	55000	55000	55000	55000	55000	55000	55000	53586			
	50867	49123	44633	41161	38376	36081	34155	32513			
	40	42	47	51	54	57	59.2	61			
1.5	49974	49955	49897	49839	49786	49737	49692	49651			
	44084	44066	40399	37110	34494	32354	30564	29042			
	37	39	45	49	52	55	58	60			
2	36826	36820	36788	36749	36710	36672	36637	36605	36575	36548	
	32408	32403	32371	30714	28308	26378	24785	23444	22297	21305	
	26	30	37	43	47	50	53	56	58	60	
2.5	30142	28887	28907	28885	28858	28829	28801	28775	28750	28727	28713
	26458	25353	25373	25351	24779	22909	21396	20140	19075	18161	17616
	2.40	13	28	36	41	45	49	52	54	56	57
3	28084	23609	23630	23616	23595	23573	23552	23531	23512	23499	
	24630	20665	20685	20671	20650	19225	17995	16968	16092	15574	
	2.56	13	27	34	40	44	47	50	53	54	
3.5	23041	19840	19861	19851	19835	19818	19801	19784	19774		
	20152	17316	17337	17327	17311	16531	15506	14645	14139		
	3.06	12	26	33	38	43	46	49	50		
4	19415	17014	17033	17027	17015	17001	16987	16978			
	16932	14805	14825	14818	14806	14464	13594	13089			
	3.56	11	25	32	37	41	45	47			
4.5	IMPORTANT NOTES				16683	14815	14834	14830	14820	14809	14802
	1) CAPACITIES OUTSIDE OF STRUCTURAL REGION ARE BASED ON 66.7% STABILITY (PICK & CARRY).				14506	12852	12871	12867	12857	12819	12303
	2) CRANE MUST NOT EXCEED 1.4KM/HR WHILE MOBILING WITH LOAD AND 5KM/HR UNLOADED.				4.06	11	24	31	36	40	42
5	3) LOAD MUST BE CARRIED ON SHORTEST POSSIBLE BOOM LENGTH AND ANGLE AND CLOSE TO THE GROUND WHEN MOBILING.				14550	13057	13075	13072	13064	13058	
	4) PICK AND CARRY ON FIRM LEVEL GROUND (<1% GRADIENT)				12612	11290	11308	11305	11298	11292	
	5) IN APPLICABLE CHART REGIONS —AUTO LEVELLING SUSPENSION CAN BE USED TO LEVEL UP TO 5 DEGREES SIDE SLOPE DEPENDING ON LOAD AND ARTICULATION ANGLE. IT MUST NOT BE USED ON SIDE SLOPES OVER 5 DEGREE.				4.56	10	23	30	35	38	
5.5	6) MAXIMUM IN-SERVICE WIND SPEED (AVERAGE): 10M/S (36KM/HR).				12839	11618	11635	11633	11630		
	7) CONTACT DRA GROUP FOR USE OF THIS LOAD CHART AT WIND SPEEDS ABOVE 10M/S.				11092	10012	10029	10027	10023		
					5.06	10	23	29	33		
6					11436	10419	10435	10436			
					9846	8946	8963	8963			
					5.56	10	22	27			
6.5					10264	9404	9418				
					8806	8045	8059				
					6.06	9	19				
YELLOW 42 DEG ARTICULATION				GREEN 10 DEG ARTICULATION					9271	8695	
6.896	RED OUTLINED VALUES INDICATE STRUCTURAL REGION								7924	7414	
	UNDER LINED VALUES INDICATE RADIUS AT 0 DEG								6.56	5	

LOAD CHART— RATED CAPACITY CHART 101, 102

RATED CAPACITIES ON MAIN WINCH ROPE (Kilograms)

$\pm 10^\circ, \pm 42^\circ$ ARTICULATION

CAPACITIES ON SHEAVE HOOK IN KILOGRAMS													101 LMI CHART	102 LMI CHART		
NO COUNTERWEIGHT		BOOM LENGTH (m)														
RADIUS (m)		7.236	8	9	10	11	12	13	14	15	16	17	18	19	20	20.732
1.4		38277	38000	37707												
		28570	25671	22893												
		50	54	59												
1.5		35599	35335	35056												
		27152	24347	21669												
		49	53	58												
2		26225	26008	25778	25593											
		22280	19758	17402	15695											
		43	49	54	58											
3		16842	16676	16497	16352	16233	16253									
		15021	14855	13224	11725	10614	9837									
		29	38	46	51	55	59									
4		12881	12001	11852	11729	11627	11645	11804	11939							
		11441	10635	10487	9793	8735	8019	7556	7171							
		3.79	23	36	43	49	53	56	59							
5		10260	9059	8952	8862	8880	9025	9149	9255	9348						
		9061	7966	7860	7632	6929	6492	6134	5834	5578						
		4.56	22	34	41	46	50	54	57	59						
6		7917	7095	7015	7034	7171	7288	7388	7475	7552	7620					
		6934	6185	6105	6124	5783	5437	5151	4909	4701	4520					
		5.56	21	32	39	44	48	52	55	57	59					
7		6289	5692	5714	5846	5958	6053	6137	6210	6275	6333	6385				
		5456	4912	4934	5066	4937	4657	4423	4224	4051	3900	3767				
		6.56	19	31	38	43	47	50	53	55	57	59				
8		5092	4720	4851	4959	5052	5133	5203	5266	5322	5372	5406				
		4369	4037	4168	4276	4284	4053	3858	3692	3546	3419	3334				
		7.56	19	29	36	41	45	48	51	54	56	57				
9		4255	4073	4181	4272	4351	4420	4481	4535	4584	4616					
		3617	3466	3466	3574	3665	3744	3568	3404	3263	3140	3059				
		8.56	18	28	35	40	44	47	50	52	55	57				
10		3701	3556	3647	3725	3793	3852	3906	3953	3985						
		3129	3010	3101	3179	3247	3169	3030	2910	2831						
		9.56	17	27	34	38	42	46	48	50	52	54				
11		3251	3134	3212	3279	3338	3390	3437	3468							
		2734	2637	2716	2783	2841	2834	2715	2638							
		10.56	17	26	33	37	41	44	46	48	50	52				
12	GREEN = 10 DEG ARTICULATION															
	YELLOW = 42 DEG ARTICULATION															
	RED OUTLINED VALUES INDICATE STRUCTURAL REGION															
13	UNDER LINED VALUES INDICATE RADIUS AT 0 DEG															
		2567	2486	2545	2596	2642	2672									
		2132	2065	2125	2176	2222	2252									
14	IMPORTANT NOTES															
	1) Capacities outside of structural region are based on 66.7% stability (pick & carry).															
	2) Crane must not exceed 1.4km/hr while mobilizing with load and 5km/hr unloaded.															
15	3) Load must be carried on shortest possible boom length and angle and close to the ground when mobilizing.															
	4) Pick and carry on firm level ground (<1% gradient).															
	5) In applicable chart regions — auto levelling suspension can be used to level up to 5 degrees side slope depending on load and articulation angle. It must not be used on side slopes over 5 degree.															
16	6) Maximum in-service wind speed (average): 10m/s (36km/hr).															
	7) Contact DRA Group for use of this load chart at wind speeds above 10m/s.															
17		12.56	15	25	31	35	38									
		2301	2231	2284	2329	2360										
		1898	1841	1893	1939	1969										
18		13.56	15	24	30	33										
		2071	2011	2058	2088											
		1696	1647	1693	1724											
19		14.56	15	23	28											
		1871	1819	1850												
		1519	1477	1508												
20		15.56	14	21												
		1694	1638													
		1365	1317													
21		16.56	10													
		1580														
		1264														
17.28																2

LOAD CHART— RATED CAPACITY CHART 201, 202

RATED CAPACITIES ON MAIN WINCH ROPE (Kilograms)

$\pm 10^\circ, \pm 42^\circ$ ARTICULATION

CAPACITIES ON SHEAVE HOOK IN KILOGRAMS													201 LMI CHART	202 LMI CHART
5500 KG COUNTERWEIGHT														
RADIUS (m)	BOOM LENGTH (m)													
(m)	7.236	8	9	10	11	12	13	14	15	16	17	18	19	20
1.4	50000	50000	47886											
	40465	36446	32586											
	50	54	59											
1.5	50000	50000	48289											
	38501	34608	30882											
	49	53	58											
2	37929	37712	37482	37297										
	31781	28261	24967	22572										
	43	49	54	58										
3	24645	24479	24300	24155	24036	24056								
	21700	21534	19242	17113	15533	14390								
	29	38	46	51	55	59								
4	19051	17853	17705	17581	17479	17498	17656	17791						
	16723	15644	15496	14526	12999	11926	11181	10568						
	3.79	23	36	43	49	53	56	59						
5	15395	13740	13634	13543	13561	13707	13830	13937	14030					
	13457	11974	11867	11569	10495	9772	9186	8698	8285					
	4.56	22	34	41	46	50	54	57	59					
6	12129	10997	10917	10936	11073	11189	11289	11377	11454	11522				
	10539	9524	9444	9463	8867	8284	7807	7406	7065	6769				
	5.56	21	32	39	44	48	52	55	57	59				
7	9859	9036	9058	9190	9302	9398	9481	9554	9619	9677	9729			
	8512	7774	7796	7928	7667	7185	6787	6451	6162	5911	5690			
	6.56	19	31	38	43	47	50	53	55	57	59			
8	8189	7646	7777	7885	7978	8059	8129	8192	8248	8298	8332			
	7020	6542	6672	6781	6740	6334	5996	5709	5461	5245	5102			
	7.56	19	29	36	41	45	48	51	54	56	57			
9	6990	6674	6782	6873	6952	7021	7082	7136	7185	7217				
	5958	5692	5801	5892	5970	5651	5361	5113	4898	4757				
	8.56	18	28	35	40	44	47	50	52	54	55			
10	6150	5897	5988	6066	6134	6193	6246	6294	6326					
	5225	5014	5105	5183	5250	5090	4838	4621	4481					
	9.56	17	27	34	38	42	46	48	50	52	54			
11	5468	5262	5340	5407	5466	5518	5565	5596						
	4631	4459	4537	4604	4663	4618	4397	4255						
	10.56	17	26	33	37	41	44	46	48	50	52			
12	4905	4733	4801	4859	4911	4957	4988							
	4140	3997	4065	4123	4175	4215	4070							
	RED OUTLINED VALUES INDICATE STRUCTURAL REGION			11.56	16	25	32	36	40	42				
13	4431	4286	4345	4397	4443	4473								
	3727	3607	3666	3717	3763	3794								
	12.56	15	25	31	35	38								
14	4027	3903	3956	4001	4032									
	3375	3272	3325	3370	3401									
	13.56	15	24	30	33									
15	3679	3572	3618	3648										
	3072	2983	3029	3059										
	14.56	15	23	28										
16	3375	3282	3313											
	2807	2730	2761											
	15.56	14	21											
17	3108	3015												
	2575	2495												
	16.56	10												
17.28	2935													
	2424													
	2													

IMPORTANT NOTES

- 1) CAPACITIES OUTSIDE OF STRUCTURAL REGION ARE BASED ON 66.7% STABILITY (PICK & CARRY).
- 2) CRANE MUST NOT EXCEED 1.4KM/HR WHILE MOBILING WITH LOAD AND 5KM/HR UNLOADED.
- 3) LOAD MUST BE CARRIED ON SHORTEST POSSIBLE BOOM LENGTH AND ANGLE AND CLOSE TO THE GROUND WHEN MOBILING.
- 4) PICK AND CARRY ON FIRM LEVEL GROUND (<1% GRADIENT)
- 5) IN APPLICABLE CHART REGIONS —AUTO LEVELLING SUSPENSION CAN BE USED TO LEVEL UP TO 5 DEGREES SIDE SLOPE DEPENDING ON LOAD AND ARTLCULATION ANGLE. IT MUST NOT BE USED ON SIDE SLOPES OVER 5 DEGREE.
- 6) MAXIMUM IN-SERVICE WIND SPEED (AVERAGE): 10M/S (36KM/H).
- 7) CONTACT DRA GROUP FOR USE OF THIS LOAD CHART AT WIND SPEEDS ABOVE 10M/S.

LOAD CHART— RATED CAPACITY CHART 107, 108

RATED CAPACITIES ON RHINO HOOK (Kilograms)

$\pm 10^\circ, \pm 42^\circ$ ARTICULATION

CAPACITIES ON RHINO HOOK IN KILOGRAMS													107 LMI CHART	108 LMI CHART			
NO COUNTERWEIGHT		BOOM LENGTH (m)															
RADIUS (m)		7.58	8	9	10	11	12	13	14	15	16	17	18	19	20	21.08	
1.3	30000	30000	30000														
	28526	26994	24129														
	54	56	60														
1.5	30000	30000	30000														
	25617	24189	21532														
	52	54	59														
2	26544	26419	26166	25963													
	20975	19690	17340	15639													
	47	50	55	59													
3	17076	16980	16784	16625	16493	16400											
	15255	15159	13247	11739	10625	9777											
	35	39	47	52	56	59											
4	12316	12247	12086	11951	11839	11759	11913	12044									
	10950	10881	10720	9853	8783	7989	7526	7141									
	14	24	37	44	49	53	57	59									
5	10468	9257	9143	9044	8973	9115	9236	9339	9430								
	9269	8164	8050	7709	6920	6481	6122	5821	5564								
	4.56	23	34	42	47	51	54	57	59								
6	8088	7261	7176	7113	7248	7362	7460	7545	7620	7686							
	7105	6351	6266	6202	5785	5437	5149	4905	4697	4515							
	5.56	21	33	40	45	49	52	55	57	59							
7	6434	5835	5781	5912	6022	6117	6198	6270	6333	6390	6440						
	5601	5054	5000	5132	4946	4663	4427	4226	4053	3901	3767						
	6.56	20	31	38	43	47	51	53	56	58	60						
8	5218	4775	4908	5016	5108	5187	5257	5318	5373	5422	5469						
	4495	4093	4225	4333	4297	4063	3867	3698	3552	3423	3300						
	7.56	19	30	37	42	46	49	52	54	56	58						
9	4297	4122	4231	4322	4400	4468	4528	4581	4629	4675							
	3659	3515	3624	3715	3778	3581	3416	3273	3148	3030							
	8.56	18	29	35	40	44	47	50	53	55	58						
10	3738	3599	3692	3770	3837	3896	3948	3995	4040								
	3167	3053	3146	3223	3291	3184	3044	2922	2806								
	9.56	18	28	34	39	43	46	49	51								
11	3285	3173	3252	3319	3378	3429	3475	3520									
	2768	2676	2756	2823	2881	2851	2730	2617									
	10.56	17	27	33	38	42	45	48									
12	GREEN = 10 DEG ARTICULATION				2910	2818	2887	2945	2997	3042	3086						
	YELLOW = 42 DEG ARTICULATION				2438	2363	2431	2490	2541	2565	2454						
	RED OUTLINED VALUES INDICATE STRUCTURAL REGION				11.56	16	26	32	37	40	44						
13	UNDER LINED VALUES INDICATE RADIUS AT 0 DEG				2596	2518	2578	2630	2675	2719							
					2161	2098	2158	2209	2255	2299							
					12.56	16	25	31	36	40							
14	IMPORTANT NOTES												2327	2261	2314	2360	2404
	1) CAPACITIES OUTSIDE OF STRUCTURAL REGION ARE BASED ON 66.7% STABILITY (PICK & CARRY).												1924	1871	1924	1970	2014
	2) CRANE MUST NOT EXCEED 1.4KM/HR WHILE MOBILING WITH LOAD AND 5KM/HR UNLOADED.												13.56	15	24	30	35
15	3) LOAD MUST BE CARRIED ON SHORTEST POSSIBLE BOOM LENGTH AND ANGLE AND CLOSE TO THE GROUND WHEN MOBILING.												2095	2039	2086	2130	
	4) PICK AND CARRY ON FIRM LEVEL GROUND (<1% GRADIENT)												1720	1675	1722	1766	
	5) IN APPLICABLE CHART REGIONS —AUTO LEVELLING SUSPENSION CAN BE USED TO LEVEL UP TO 5 DEGREES SIDE SLOPE DEPENDING ON LOAD AND ARTLCULATION ANGLE. IT MUST NOT BE USED ON SIDE SLOPES OVER 5 DEGREE.												14.56	15	24	30	
16	6) MAXIMUM IN-SERVICE WIND SPEED (AVERAGE): 10M/S (36KM/HR).												1894	1844	1890		
	7) CONTACT DRA GROUP FOR USE OF THIS LOAD CHART AT WIND SPEEDS ABOVE 10M/S.												1543	1503	1548		
													15.56	15	24	30	
17													1716	1676			
													1386	1355			
													16.56	15	24	30	
17.63													1550				
													1240				
													3				

LOAD CHART— RATED CAPACITY CHART 207, 208

RATED CAPACITIES ON RHINO HOOK (Kilograms)

$\pm 10^\circ, \pm 42^\circ$ ARTICULATION

CAPACITIES ON RHINO HOOK IN KILOGRAMS													207 LMI CHART	208 LMI CHART
5500 KG COUNTERWEIGHT														
RADIUS (m)	BOOM LENGTH (m)													
(m)	7.58	8	9	10	11	12	13	14	15	16	17	18	19	20
1.3	30000	30000	30000											
	30000	30000	30000	30000										
	54	56	60											
1.5	30000	30000	30000	30000										
	52	54	59											
2	29799	28018	24753	22384										
	47	50	55	59										
3	24879	24783	24587	24427	24296	24203								
	21934	21838	19160	17036	15462	14256								
	35	39	47	52	56	59								
4	18168	18099	17938	17804	17691	17612	17765	17897						
	15959	15890	15730	14515	12983	11840	11100	10491						
	14	24	37	44	49	53	57	59						
5	15604	13939	13824	13725	13655	13797	13917	14021	14112					
	13665	12172	12057	11594	10439	9718	9134	8649	8239					
	4.56	23	34	42	47	51	54	57	59					
6	12300	11163	11078	11014	11149	11263	11361	11447	11521	11588				
	10710	9690	9605	9542	8833	8251	7774	7375	7034	6740				
	5.56	21	33	40	45	49	52	55	57	59				
7	10003	9179	9125	9256	9366	9461	9542	9614	9677	9734	9784			
	8656	7917	7863	7994	7647	7165	6766	6430	6142	5891	5671			
	6.56	20	31	38	43	47	51	53	56	58	60			
8	8315	7702	7834	7942	8034	8114	8183	8244	8299	8348	8395			
	7146	6597	6730	6838	6730	6322	5984	5697	5449	5232	5027			
	7.56	19	30	37	42	46	49	52	54	56	58			
9	7032	6722	6832	6923	7001	7069	7129	7182	7230	7276				
	6000	5741	5851	5942	5995	5646	5355	5106	4891	4688				
	8.56	18	29	35	40	44	47	50	53	55	58			
10	6187	5940	6033	6111	6178	6237	6289	6336	6381					
	5263	5057	5149	5227	5294	5089	4836	4619	4416					
	9.56	18	28	34	39	43	46	49	51					
11	5502	5301	5380	5447	5506	5557	5603	5648						
	4665	4498	4577	4644	4703	4621	4399	4194						
	10.56	17	27	33	38	42	45	48						
12	GREEN = 10 DEG ARTICULATION				4936	4769	4837	4896	4947	4993	5037			
	YELLOW = 42 DEG ARTICULATION				4171	4032	4101	4160	4211	4221	4011			
	RED OUTLINED VALUES INDICATE STRUCTURAL REGION				11.56	16	26	32	37	40	44			
	UNDER LINED VALUES INDICATE RADIUS AT 0 DEG.				4460	4318	4379	4430	4476	4520				
13					3756	3639	3699	3751	3796	3840				
					12.56	16	25	31	36	40				
14	IMPORTANT NOTES													4076
	1) CAPACITIES OUTSIDE OF STRUCTURAL REGION ARE BASED ON 66.7% STABILITY (PICK & CARRY).													35
15	2) CRANE MUST NOT EXCEED 1.4KM/HR WHILE MOBILING WITH LOAD AND 5KM/HR UNLOADED.													3691
	3) LOAD MUST BE CARRIED ON SHORTEST POSSIBLE BOOM LENGTH AND ANGLE AND CLOSE TO THE GROUND WHEN MOBILING.													3058
16	4) PICK AND CARRY ON FIRM LEVEL GROUND (<1% GRADIENT)													2801
	5) IN APPLICABLE CHART REGIONS — AUTO LEVELLING SUSPENSION CAN BE USED TO LEVEL UP TO 5 DEGREES SIDE SLOPE DEPENDING ON LOAD AND ARTICULATION ANGLE. IT MUST NOT BE USED ON SIDE SLOPES OVER 5 DEGREE.													3353
17	6) MAXIMUM IN-SERVICE WIND SPEED (AVERAGE): 10M/S (36KM/HR).													2534
	7) CONTACT DRA GROUP FOR USE OF THIS LOAD CHART AT WIND SPEEDS ABOVE 10M/S.													2878
17.63														2377
														3

STATIONARY LOAD CHART— RATED CAPACITY CHART 109, 110

STATIONARY RATED CAPACITIES ON MAIN WINCH ROPE (Kilograms)

$\pm 10^\circ, \pm 42^\circ$ ARTICULATION

CAPACITIES ON SHEAVE HOOK IN KILOGRAMS													109 LMI CHART	110 LMI CHART		
NO COUNTERWEIGHT		BOOM LENGTH (m)														
RADIUS (m)		7.236	8	9	10	11	12	13	14	15	16	17	18	19	20	20.732
1.4		43062	42750	42420												
		32141	28880	25755												
		50	54	59												
1.5		40049	39752	39438												
		30546	27390	24377												
		49	53	58												
2		29503	29259	29000	28792											
		25065	22227	19578	17656											
		43	49	54	58											
3		18948	18760	18559	18396	18262	18284									
		16899	16712	14877	13190	11941	11067									
		29	38	46	51	55	59									
4		14491	13501	13334	13195	13080	13101	13279	13431							
		12872	11965	11798	11017	9827	9021	8500	8067							
		3.79	23	36	43	49	53	56	59							
5		11542	10191	10071	9969	9990	10153	10292	10412	10517						
		10194	8962	8842	8587	7795	7304	6901	6563	6275						
		4.56	22	34	41	46	50	54	57	59						
6		8907	7982	7892	7914	8068	8199	8311	8410	8496	8573					
		7801	6958	6868	6889	6506	6117	5795	5523	5289	5085					
		5.56	21	32	39	44	48	52	55	57	59					
7		7075	6403	6428	6577	6702	6810	6904	6986	7060	7125	7183				
		6138	5526	5550	5699	5555	5239	4976	4752	4558	4388	4238				
		6.56	19	31	38	43	47	50	53	55	57	59				
8		5728	5310	5457	5579	5684	5774	5854	5924	5987	6044	6081				
		4915	4542	4689	4811	4820	4559	4341	4153	3990	3846	3751				
		7.56	19	29	36	41	45	48	51	54	56	57				
9		4787	4582	4704	4806	4895	4972	5041	5102	5157	5194					
		4069	3899	4021	4124	4212	4014	3830	3671	3532	3441					
		8.56	18	28	35	40	44	47	50	52	54	55				
10		4163	4001	4103	4191	4267	4334	4394	4447	4483						
		3520	3386	3489	3576	3652	3565	3409	3274	3185						
		9.56	17	27	34	38	42	46	48	50						
11		3657	3526	3614	3689	3755	3814	3867	3902							
		3075	2967	3055	3130	3197	3188	3055	2968							
		10.56	17	26	33	37	41	44	46							
12		3239	3130	3207	3272	3330	3382	3417								
		2708	2618	2694	2760	2818	2866	2781								
		RED OUTLINED VALUES INDICATE STRUCTURAL REGION			11.56	16	25	32	36	40	42					
13		2888	2796	2863	2921	2972	3007									
		2398	2324	2390	2448	2500	2534									
		12.56	15	25	31	35	38									
14		2588	2510	2569	2620	2654										
		2135	2071	2130	2181	2215										
		13.56	15	24	30	33										
15		2330	2263	2315	2349											
		1907	1853	1905	1939											
		14.56	15	23	28											
16		2104	2046	2081												
		1709	1662	1697												
		15.56	14	21												
17		1906	1843													
		1535	1481													
		16.56	10													
17.28		1778														
		1422														
		2														

IMPORTANT NOTES

- 1) CAPACITIES OUTSIDE OF STRUCTURAL REGION ARE BASED ON 66.7% STABILITY (PICK & CARRY).
- 2) CRANE MUST NOT EXCEED 1.4KM/HR WHILE MOBILING WITH LOAD AND 5KM/HR UNLOADED.
- 3) LOAD MUST BE CARRIED ON SHORTEST POSSIBLE BOOM LENGTH AND ANGLE AND CLOSE TO THE GROUND WHEN MOBILING.
- 4) PICK AND CARRY ON FIRM LEVEL GROUND (<1% GRADIENT)
- 5) IN APPLICABLE CHART REGIONS —AUTO LEVELLING SUSPENSION CAN BE USED TO LEVEL UP TO 5 DEGREES SIDE SLOPE DEPENDING ON LOAD AND ARTICULATION ANGLE. IT MUST NOT BE USED ON SIDE SLOPES OVER 5 DEGREE.
- 6) MAXIMUM IN-SERVICE WIND SPEED (AVERAGE): 10M/S (36KM/HR).
- 7) CONTACT DRA GROUP FOR USE OF THIS LOAD CHART AT WIND SPEEDS ABOVE 10M/S.

STATIONARY LOAD CHART— RATED CAPACITY CHART 209, 210

STATIONARY RATED CAPACITIES ON MAIN WINCH ROPE (Kilograms)

$\pm 10^\circ, \pm 42^\circ$ ARTICULATION

CAPACITIES ON SHEAVE HOOK IN KILOGRAMS													209 LMI CHART		210 LMI CHART		
5500 KG COUNTERWEIGHT																	
RADIUS (m)	BOOM LENGTH (m)																
(m)	7.236	8	9	10	11	12	13	14	15	16	17	18	19	20		20.732	
1.4	50000	50000	47886														
	45523	41002	36659														
	50	54	59														
1.5	50000	50000	48289														
	43313	38934	34743														
	49	53	58														
2	42670	42426	42168	41960													
	35754	31794	28088	25394													
	43	49	54	58													
3	27726	27539	27337	27175	27040	24056											
	24413	24226	21647	19253	17474	14390											
	29	38	46	51	55	59											
4	21433	20085	19918	19779	19664	17498	17656	17791									
	18813	17600	17433	16342	14624	11929	11181	10568									
	3.79	23	36	43	49	53	56	59									
5	17320	15458	15338	15236	15257	13707	13830	13937	14030								
	15139	13470	13351	13016	11807	9772	9186	8698	8285								
	4.56	22	34	41	46	50	54	57	59								
6	13645	12371	12281	12303	12457	12588	11289	11377	11454	11522							
	11857	10715	10625	10646	9976	9320	7807	7406	7065	6769							
	5.56	21	32	39	44	48	52	55	57	59							
7	11091	10166	10191	10339	10464	10572	9481	9554	9619	9677	9729						
	9575	8746	8771	8919	8626	8083	6787	6451	6162	5911	5690						
	6.56	19	31	38	43	47	50	53	55	57	59						
8	9213	8602	8749	8871	8975	9066	9146	8192	8248	8298	8332						
	7898	7360	7506	7628	7582	7125	6745	5709	5461	5245	5102						
	7.56	19	29	36	41	45	48	51	54	56	57						
9	7864	7508	7630	7732	7821	7899	7967	7136	7185	7217							
	6703	6404	6526	6628	6717	6358	6031	5113	4898	4757							
	8.56	18	28	35	40	44	47	50	52	54	56						
10	6918	6634	6737	6824	6900	6968	7027	7081	7081	7081	7081						
	5878	5640	5743	5830	5906	5726	5442	5199	5199	5199	5199						
	9.56	17	27	34	38	42	46	48	50	52	54						
11	6152	5920	6008	6083	6149	6208	6261	6261	6261	6261	6261						
	5210	5016	5104	5180	5246	5195	4947	4787	4787	4787	4787						
	10.56	17	26	33	37	41	44	46	48	50	52						
12	GREEN = 10 DEG ARTICULATION				5518	5325	5401	5467	5525	5577	5612						
	YELLOW = 42 DEG ARTICULATION				4658	4497	4573	4639	4697	4742	4579						
	RED OUTLINED VALUES INDICATE STRUCTURAL REGION				11.56	16	25	32	36	40	42						
13	UNDER LINED VALUES INDICATE RADIUS AT 0 DEG				4985	4822	4889	4947	4998	5032	5032						
					4193	4058	4124	4182	4233	4268	4268						
					12.56	15	25	31	35	38	38						
14	IMPORTANT NOTES																
	1) CAPACITIES OUTSIDE OF STRUCTURAL REGION ARE BASED ON 66.7% STABILITY (PICK & CARRY)																
	2) CRANE MUST NOT EXCEED 1.4KM/HR WHILE MOBILING WITH LOAD AND 5KM/HR UNLOADED																
15	3) LOAD MUST BE CARRIED ON SHORTEST POSSIBLE BOOM AND ANGLE CLOSE TO THE GROUND																
	4) PICK AND CARRY ON FIRM LEVEL GROUND (<1% GRADIENT)																
	5) IN APPLICABLE CHART REGIONS —AUTO LEVELLING SUSPENSION CAN BE USED TO LEVEL UP TO 5 DEGREES SIDE SLOPE DEPENDING ON LOAD AND ARTICULATION ANGLE. IT MUST NOT BE USED ON SIDE SLOPES OVER 5 DEGREES.																
16	6) MAXIMUM IN-SERVICE WIND SPEED (AVERAGE): 10M/S (36KM/HR)																
	7) CONTACT DRA GROUP FOR USE OF THIS LOAD CHART AT WIND SPEEDS ABOVE 10M/S																
					16.56	14	21	28	33	40	42						
17.28					3497	3392	2896	2896	2896	2727	2727						
					3497	3392	2896	2896	2896	2727	2727						
					3302	3302	2727	2727	2727	2727	2727						