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LIFT PLANNING DATA + RATED CAPACITY CHARTS

# AT-15

## 15 tonne articulated pick and carry crane

For developers, engineers, builders and lift planners

**15,000 kg**
**Maximum rated capacity**
inner or outer lug, 1.6 m radius

**10,500 kg**
**Maximum on the winch**
1.6 to 2.0 m radius

**13.86 m**
**Powered boom length**
5.66 m retracted

**20.51 m**
**Longest configuration**
manual extension plus fly jib

This document sets out the lifting capacities and planning data for our AT-15 so you can check early whether a lift is workable: what it will pick up, at what radius, on which lifting point, and what has to be allowed for. The capacity figures are transcribed from the manufacturer's rated capacity manual for this model. Operator instructions are left out.

**Planning reference only**

Use this document to plan and price a lift, not to operate the crane. The rated capacity manual carried in the crane and the crane's load moment indicator (LMI) govern every lift, and final lift planning is confirmed by Whitsunday Crane Hire against site conditions on the day.

CICA The Crane Industry Council of Australia

CraneSafe®

**Talk to us about your lift**

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WCH-AT15-LPD Rev A October 2026. Capacity data source: Manufacturer's Rated Capacity Manual, Model AT-15 Series II / III, book C1406C. Crane designed to AS 1418.1 and AS 1418.5 and tested to those standards for pick and carry operation on tyres.

# Crane at a glance

Headline figures for a first-pass check. Full charts follow.

## Specification

| Item | Value |
|---|---|
| Crane type | Hydraulic all terrain articulated pick and carry crane, model AT-15 Series II / III |
| Maximum rated capacity | 15,000 kg on the inner lug or outer lug at 1.6 m radius |
| Maximum on the winch | 10,500 kg at 1.6 to 2.0 m radius (3 parts of rope) |
| Powered boom | 5.66 m to 13.86 m at the winch head (5.95 m to 14.15 m at the rhino hook) |
| Manual third extension | Takes the boom to 17.91 m (winch) or 18.20 m (rhino hook) |
| Fly jib | 16.46 m, or 20.51 m with the manual extension set |
| Maximum working radius | On the winch with the boom at 0°: 11.81 m powered boom, 15.86 m with manual extension. Fly jib with manual extension: 18.46 m |
| Articulation | Up to 40° each way. Capacity reduces beyond 10° |
| Pick and carry | Permitted through the full articulation range. Maximum speed 0.4 m/s (1.44 km/h), transfer case in low range |
| Rated ground condition | Firm, level, uniform surface. Maximum 1% slope (0.6°) |
| Wind allowance | Wind on the boom up to 10 m/s (36 km/h) is included. Wind on the load is not |
| Winch rope | 13 mm 35W x 7 non-rotating Compak, minimum breaking force 138 kN, length 60 m |
| Tyres | Dual 11.00 x 20 or single 445/65R22.5. Load ratings and pressures are on page 3 |
| Design standards | AS 1418.1 and AS 1418.5 |

## Lifting configurations

| LMI duty | Lifting point | Boom length (m) | Max RC (kg) | Max radius (m) | RC at max radius <10° / >10° (kg) | Page |
|---|---|---|---|---|---|---|
| 01 | Winch, powered sections | 5.66 to 13.86 | **10,500** | 11.81 | 1,550 / 1,350 | 7 |
| 02 | Rhino hook, powered sections | 5.95 to 14.15 | **8,000** | 12.00 | 1,550 / 1,300 | 8 |
| 03 | Winch, manual extension set | 17.91 | **1,850** | 15.86 | 1,050 / 950 | 9 |
| 04 | Rhino hook, manual extension set | 18.20 | **1,750** | 16.15 | 1,000 / 900 | 9 |
| 05 | Fly jib | 16.46 | **750** | 14.41 | 500 / 500 | 9 |
| 06 | Fly jib, manual extension set | 20.51 | **750** | 18.46 | 500 / 500 | 9 |
| 10 | Inner lug on first extension | 3.65 to 7.75 | **15,000** | 5.70 | 3,300 / 2,800 | 10 |
| 11 | Outer lug on first extension | 4.70 to 8.80 | **15,000** | 6.75 | 2,750 / 2,350 | 11 |
| 12 | Man basket, powered sections | See page 12 | **275** | | | 12 |
| 13 | Man basket, manual extension set | 17.91 | **275** | 17.34 | 125 / 90 | 12 |

RC = rated capacity, the gross load on the lifting point including hook block and all lifting gear. Maximum radius is with the boom at 0°. Only one lifting point may be used at a time. Fly jib, man basket and spreader bars are attachments: confirm with us what is fitted for your job.

**Not covered by the capacity charts: ask us**

- Crane mass, axle loads and wheel loads for ground bearing, suspended slab, pavement and services checks.
- Overall dimensions, turning and access clearances for your site.
- Which tyres, hook block, fly jib, man basket and spreader bars are fitted or available for your job, and the crane's current inspection status.

# How to use the charts

What the rated capacities include, and what you need to allow for.

## Basis of the ratings

- Gross load. Rated capacity includes the hook block, hook, slings, spreader bars and any other lifting gear. Deduct their mass to get the net load you can lift.
- Freely suspended loads only. No dragging, pushing or side loading of the boom or load.
- Firm, level ground. Ratings assume a firm, uniform surface within 1% (0.6°) of level. Soft, uneven or sloping ground reduces capacity.
- Radius is measured horizontally from the centre of the front wheels forward to the centre of the rope or tackle, with the load applied.
- Two capacity sets. The crane steers by articulating. Ratings are given for less than 10° and greater than 10° of articulation either side of straight ahead. If the crane will articulate more than 10° at any point in the lift or carry, the greater than 10° figures apply.
- Structural or stability. Capacities above the red line in each chart are limited by structural or hydraulic strength. Capacities below it are limited by stability.
- Between listed values. Where the boom length or radius falls between chart values, use the smallest capacity shown at either the next larger radius or boom length (or the interpolated value shown on the LMI).
- Boom angles are loaded boom angles and a setup guide only. They make no allowance for boom or tyre deflection, so plan to the radius.
- Wind. Wind on the boom up to 10 m/s (36 km/h) is built in. Any extra side loading from wind on the load reduces the rated capacity and must be considered.
- Extensions and attachments. Manual extension, fly jib and man basket ratings are set by boom angle and do not increase when the powered sections are retracted.
- Hook reach. The range diagram on page 5 shows the areas where the fall block can reach the ground reeved on two parts and on three parts of rope.
- People. Personnel may only be lifted in the manufacturer's man basket correctly installed on the boom head (LMI duties 12 and 13), or other approved arrangement.
- Site factors. The operator reduces the working capacity for conditions on the day: ground, load swing, multi-crane lifts, powerlines, weather and surroundings.

## Tyre load rating

| Tyres | Condition | Load rating per tyre |
|---|---|---|
| Dual | Pick and carry | 7,100 kg at 830 kPa (120 psi) |
| Dual | Highway | 2,625 kg at 690 kPa (100 psi) |
| Single | Pick and carry | 13,870 kg at 920 kPa (133 psi) |
| Single | Pick and carry | 12,650 kg at 830 kPa (120 psi) |
| Single | Highway | 5,250 kg at 660 kPa (95 psi) |

Dual tyres are 11.00 x 20. Single tyres are 445/65R22.5. Pick and carry ratings are for speeds under 1.44 km/h, highway ratings for 90 km/h. Rated capacity depends on tyre rating, tyre condition and tyre inflation pressure.

## Hook block capacity by parts of rope

| Parts of rope | Permissible hook block RC (kg) |
|---|---|
| 1 | 3,500 |
| 2 | 7,000 |
| 3 | 10,500 |

## Attachment masses to deduct

| Attachment | Part no. | Mass (kg) |
|---|---|---|
| Single part hook block | PL16M2090 | 30 |
| Two / three part hook block | PLA2018 | 70 |
| 8 tonne hook | T167076 | 7 |
| 16 tonne hook | T167078 | 17.5 |
| 12 tonne spreader bar | PL16A3035 | 94 |
| 15 tonne spreader bar | PL15A8023 | 107 |
| 15 tonne spreader bar | T177770 | 107 |

Masses apply to manufacturer supplied equipment. Slings, shackles and other rigging are additional.

## Side slopes up to 5° (8.75%)

Travelling with a suspended load across a slope should be avoided (AS 2550.5). Where a side slope of up to 5° cannot be avoided, the rated capacity must be reduced by a percentage that depends on where the lifting point sits in the working range. In the manufacturer's side slope chart the reduction runs from 10% to 60%. The LMI does not apply this reduction automatically. Potholes and depressions have the same effect as a slope.

The manufacturer's side slope chart and worked example are on page 4.

## Tyre inflation pressure

| Tyres | Position | Pick and carry | Highway travel |
|---|---|---|---|
| Dual | Front | 830 kPa (120 psi)<br>Max RC 15 tonne | 830 kPa (120 psi) |
| Dual | Rear | 690 kPa (100 psi) | 690 kPa (100 psi) |
| Single | Front | 830 kPa (120 psi)<br>Max RC 12 tonne | 830 kPa (120 psi) |
| Single | Front | 920 kPa (133 psi)<br>Max RC 15 tonne | Do not use at<br>920 kPa (133 psi) |
| Single | Rear | 660 kPa (95 psi) | 660 kPa (95 psi) |

# Side slope reduction chart

Percentage reduction in rated capacity for the AT-15 on a 5° (8.75%) side slope.

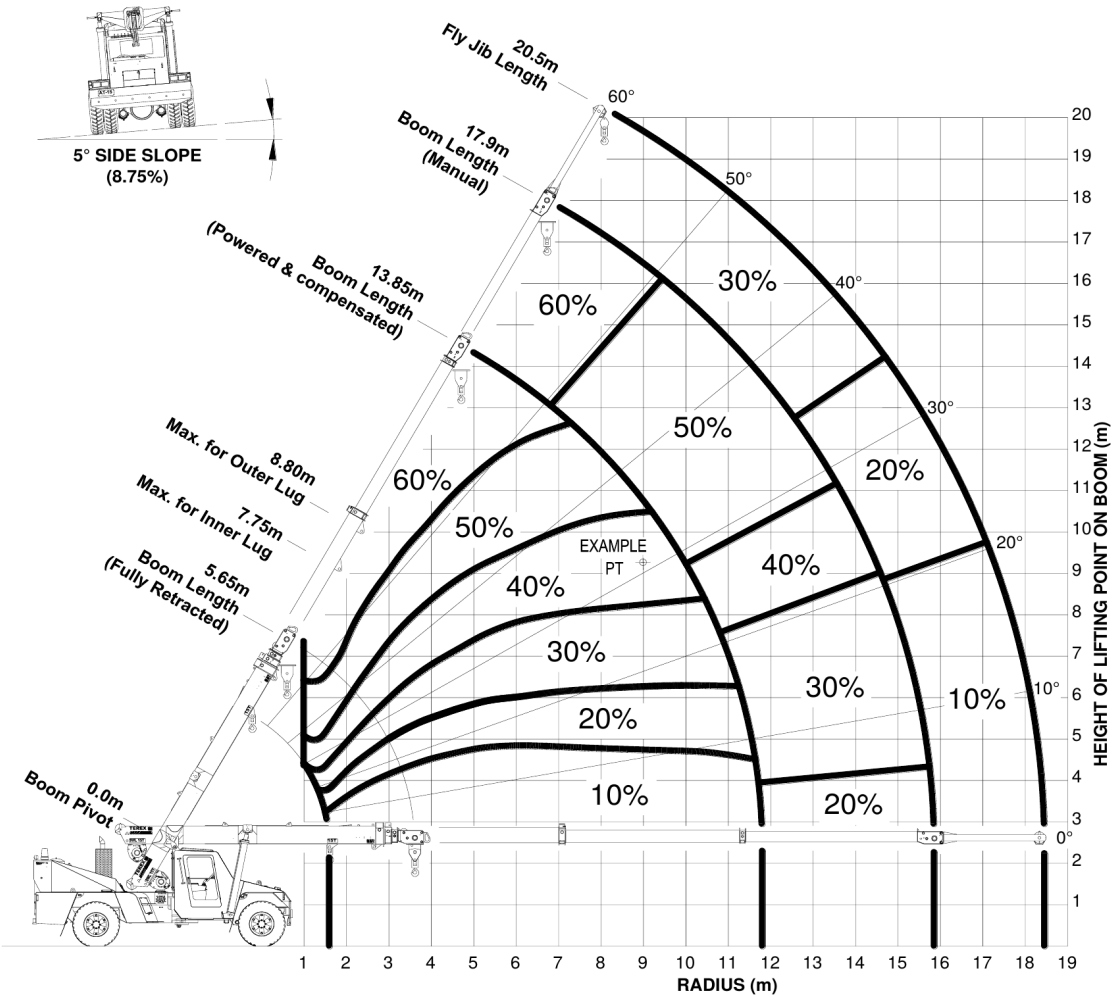



Diagram from the manufacturer's rated capacity manual for the AT-15.

## Chart notes

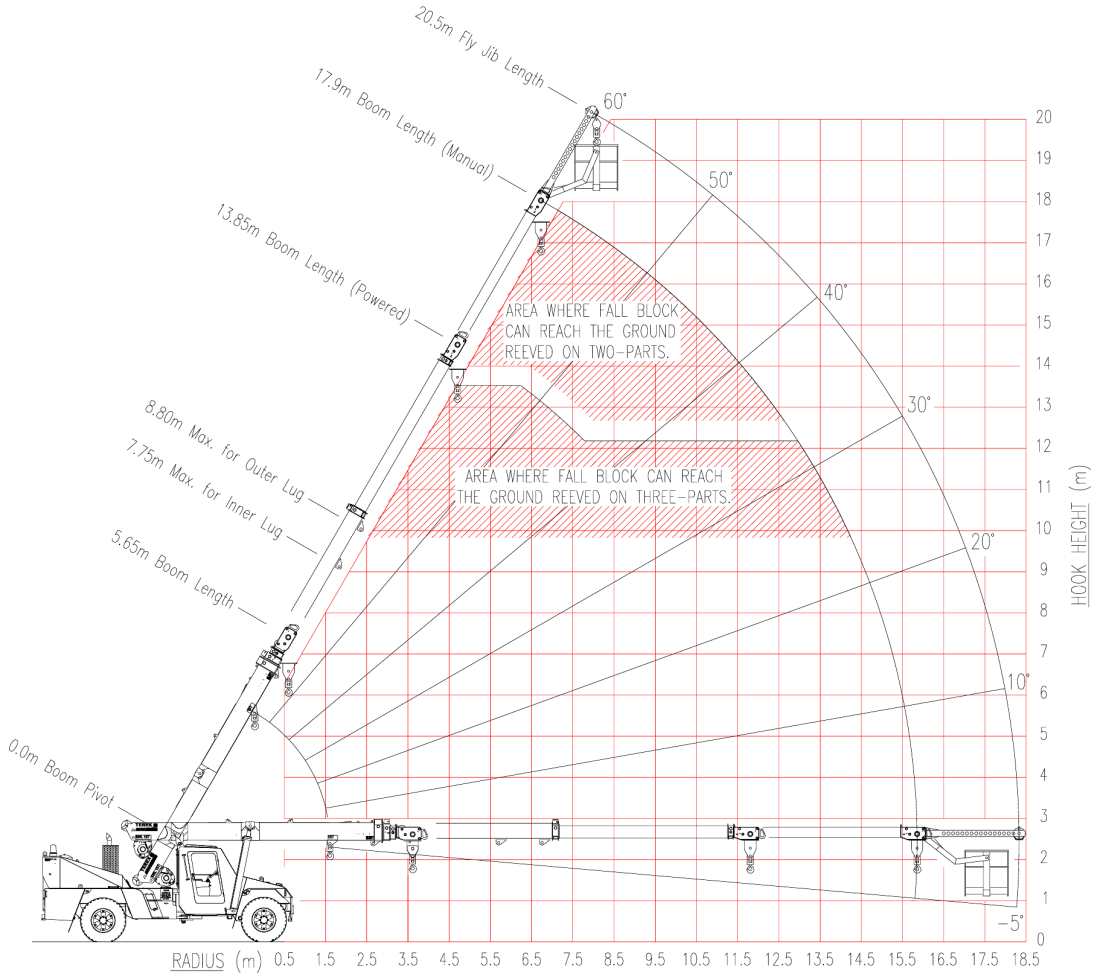
- The chart is based on 66.6% stability as per AS 1418.5 with the crane on a firm side slope of 5° (8.75% gradient).
- The percentage reduction depends on the location of the lifting point on the boom.
- Apply the percentage to the rated capacity read from the capacity chart for the applicable boom length, loaded boom angle, load radius and articulation angle.
- The crane's load indicator does not apply this reduction automatically.

**WORKED EXAMPLE FROM THE MANUFACTURER**

Winch (LMI duty 01), boom 13.0 m, loaded boom angle 31°, radius 9.0 m, articulation greater than 10°. This is the "example pt" marked on the chart.
Rated capacity on level ground: 2,000 kg.
Reduction at 5° side slope: 40%.
Rated capacity on the slope: 2,000 kg less 40% = 1,200 kg.

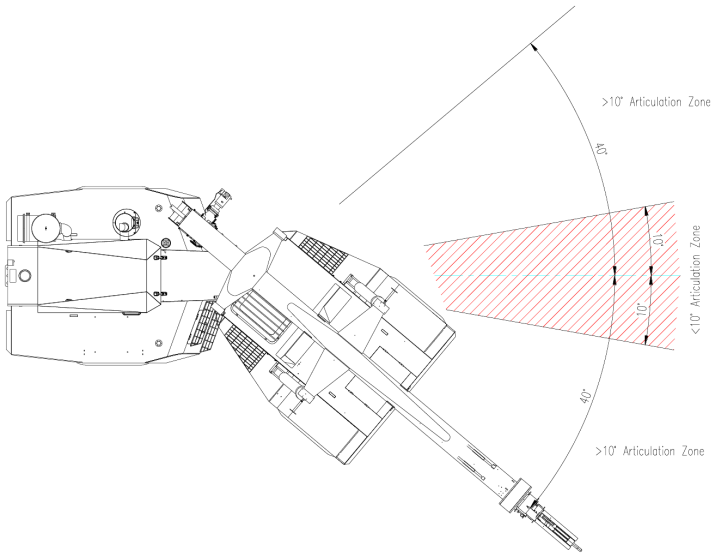
# Range diagram and working area

Hook height against radius for all lifting configurations, and the two articulation zones.




Hatched areas show where the fall block can reach the ground reeved on two parts, and reeved on three parts. Diagram from the manufacturer's rated capacity manual for the AT-15.

## Working area diagram

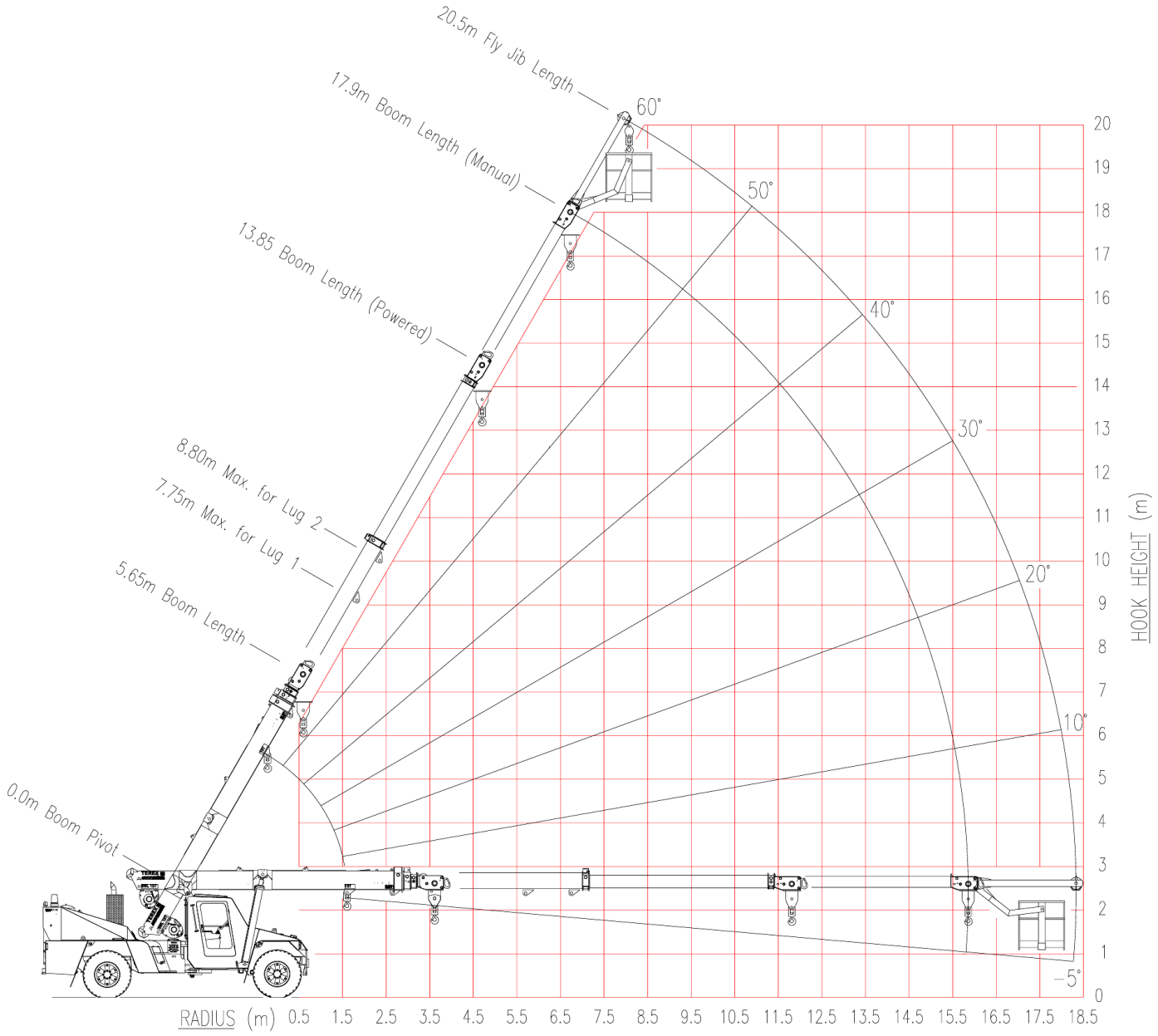



Rated capacities are given for two working areas: less than 10° of articulation, and greater than 10° of articulation, in either direction from straight ahead. Up to 40° of articulation is possible in either direction.

In the capacity charts the bold figures apply in the less than 10° zone and the shaded figures in the greater than 10° zone.

# Range diagram

Showing all lift configurations. Hook height (m) against radius (m).




Boom positions shown: 5.65 m boom length, 7.75 m maximum for lug 1 (inner lug), 8.80 m maximum for lug 2 (outer lug), 13.85 m powered boom length, 17.9 m boom length with manual extension, and 20.5 m fly jib length. Radius is measured from the centre of the front wheels. Diagram from the manufacturer's rated capacity manual for the AT-15.

# Lifting on the winch, powered sections

LMI Duty 01. Boom length 5.66 m to 13.86 m.

**10,500** Rated capacity in kg. Bold = articulation less than 10°. Articulation greater than 10°. Above the red line: structural limit. Below: stability limit.

*48* Loaded boom angle in degrees (setup guide only). A figure in brackets is the radius in metres with the boom at 0°. Gross ratings: deduct hook block, slings and all lifting gear.

| Radius (m) | | Boom length (m) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 5.66 | 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 | 13.86 |
| **1.6** | <10° | **10,500** | **10,500** | **10,500** | **10,500** | **10,500** | | | | | | | | | | | | | |
| | >10° | 10,500 | 10,500 | 10,500 | 10,500 | 10,500 | | | | | | | | | | | | | |
| | angle | *48* | *50* | *54* | *57* | *59* | | | | | | | | | | | | | |
| **2.0** | <10° | **10,500** | **10,500** | **10,500** | **10,500** | **10,500** | **10,500** | **10,500** | | | | | | | | | | | |
| | >10° | 10,500 | 10,500 | 10,500 | 10,500 | 10,500 | 10,500 | 10,500 | | | | | | | | | | | |
| | angle | *42* | *46* | *50* | *53* | *56* | *58* | *60* | | | | | | | | | | | |
| **2.5** | <10° | **10,400** | **10,350** | **10,350** | **10,350** | **10,350** | **10,350** | **10,350** | **9,950** | **9,650** | | | | | | | | | |
| | >10° | 9,250 | 9,250 | 9,250 | 9,250 | 9,250 | 9,250 | 9,250 | 9,200 | 9,200 | | | | | | | | | |
| | angle | *34* | *39* | *44* | *48* | *51* | *54* | *56* | *58* | *60* | | | | | | | | | |
| **3.0** | <10° | **8,500** | **8,500** | **8,500** | **8,500** | **8,500** | **8,500** | **8,500** | **8,500** | **8,500** | **8,300** | **7,350** | | | | | | | |
| | >10° | 7,600 | 7,600 | 7,600 | 7,600 | 7,600 | 7,550 | 7,550 | 7,550 | 7,550 | 7,550 | 7,350 | | | | | | | |
| | angle | *25* | *31* | *37* | *42* | *46* | *49* | *52* | *55* | *57* | *58* | *60* | | | | | | | |
| **3.5** | <10° | **7,200** | **7,200** | **7,200** | **7,200** | **7,200** | **7,200** | **7,150** | **7,150** | **7,150** | **7,150** | **6,750** | **5,950** | **5,650** | | | | | |
| | >10° | 6,400 | 6,400 | 6,400 | 6,400 | 6,400 | 6,400 | 6,400 | 6,400 | 6,350 | 6,350 | 6,350 | 5,950 | 5,650 | | | | | |
| | angle | *9* | *20* | *30* | *36* | *41* | *45* | *48* | *51* | *53* | *55* | *57* | *59* | *60* | | | | | |
| **4.0** | <10° | **6,950** | **6,250** | **6,200** | **6,200** | **6,200** | **6,200** | **6,200** | **6,200** | **6,200** | **6,150** | **6,150** | **5,500** | **5,250** | **5,000** | **4,800** | | | |
| | >10° | 6,150 | 5,550 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,450 | 5,250 | 5,000 | 4,800 | | | |
| | angle | *(3.61)* | *(3.95)* | *20* | *28* | *35* | *39* | *43* | *46* | *49* | *52* | *54* | *56* | *57* | *59* | *60* | | | |
| **4.5** | <10° | | | **5,450** | **5,400** | **5,400** | **5,400** | **5,400** | **5,400** | **5,400** | **5,400** | **5,400** | **5,150** | **4,900** | **4,650** | **4,500** | **4,300** | **4,150** | |
| | >10° | | | 4,850 | 4,800 | 4,800 | 4,800 | 4,800 | 4,800 | 4,800 | 4,800 | 4,800 | 4,800 | 4,800 | 4,650 | 4,500 | 4,300 | 4,150 | |
| | angle | | | *(4.45)* | *19* | *28* | *34* | *38* | *42* | *45* | *48* | *50* | *52* | *54* | *56* | *57* | *59* | *60* | |
| **5.0** | <10° | | | | **4,850** | **4,800** | **4,800** | **4,800** | **4,800** | **4,800** | **4,800** | **4,800** | **4,800** | **4,550** | **4,350** | **4,200** | **4,050** | **3,900** | **3,800** |
| | >10° | | | | 4,300 | 4,250 | 4,250 | 4,250 | 4,250 | 4,250 | 4,250 | 4,250 | 4,250 | 4,250 | 4,200 | 4,200 | 4,050 | 3,900 | 3,800 |
| | angle | | | | *(4.95)* | *18* | *27* | *33* | *37* | *41* | *44* | *47* | *49* | *51* | *53* | *55* | *56* | *58* | *59* |
| **6.0** | <10° | | | | | **4,300** | **3,900** | **3,850** | **3,850** | **3,850** | **3,850** | **3,850** | **3,850** | **3,850** | **3,850** | **3,700** | **3,550** | **3,300** | **3,200** |
| | >10° | | | | | 3,800 | 3,450 | 3,400 | 3,400 | 3,400 | 3,400 | 3,400 | 3,400 | 3,400 | 3,400 | 3,400 | 3,400 | 3,300 | 3,200 |
| | angle | | | | | *(5.45)* | *(5.95)* | *17* | *25* | *31* | *35* | *39* | *42* | *45* | *47* | *49* | *51* | *52* | *54* |
| **7.0** | <10° | | | | | | | **3,550** | **3,200** | **3,200** | **3,200** | **3,200** | **3,200** | **3,200** | **3,200** | **3,200** | **3,050** | **2,950** | **2,850** |
| | >10° | | | | | | | 3,100 | 2,800 | 2,800 | 2,800 | 2,800 | 2,800 | 2,800 | 2,800 | 2,800 | 2,800 | 2,800 | 2,800 |
| | angle | | | | | | | *(6.45)* | *(6.95)* | *16* | *24* | *29* | *34* | *37* | *40* | *43* | *45* | *47* | *48* |
| **8.0** | <10° | | | | | | | | | **2,950** | **2,700** | **2,700** | **2,700** | **2,700** | **2,700** | **2,700** | **2,700** | **2,650** | **2,600** |
| | >10° | | | | | | | | | 2,600 | 2,350 | 2,350 | 2,350 | 2,350 | 2,350 | 2,350 | 2,350 | 2,350 | 2,350 |
| | angle | | | | | | | | | *(7.45)* | *(7.95)* | *16* | *23* | *28* | *32* | *36* | *38* | *41* | *43* |
| **9.0** | <10° | | | | | | | | | | | **2,500** | **2,300** | **2,300** | **2,300** | **2,300** | **2,300** | **2,300** | **2,300** |
| | >10° | | | | | | | | | | | 2,200 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| | angle | | | | | | | | | | | *(8.45)* | *(8.95)* | *15* | *22* | *27* | *31* | *34* | *36* |
| **10.0** | <10° | | | | | | | | | | | | | **2,150** | **2,000** | **2,000** | **2,000** | **2,000** | **2,000** |
| | >10° | | | | | | | | | | | | | 1,850 | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 |
| | angle | | | | | | | | | | | | | *(9.45)* | *(9.95)* | *14* | *21* | *26* | *29* |
| **11.0** | <10° | | | | | | | | | | | | | | | **1,900** | **1,750** | **1,750** | **1,750** |
| | >10° | | | | | | | | | | | | | | | 1,600 | 1,500 | 1,500 | 1,500 |
| | angle | | | | | | | | | | | | | | | *(10.45)* | *(10.95)* | *14* | *19* |
| **11.81** | <10° | | | | | | | | | | | | | | | | | **1,650** | **1,550** |
| | >10° | | | | | | | | | | | | | | | | | 1,400 | 1,350 |
| | angle | | | | | | | | | | | | | | | | | *(11.45)* | *(11.81)* |

# Lifting on the rhino hook, powered sections

LMI Duty 02. Boom length 5.95 m to 14.15 m. When using the rhino hook, ensure the winch rope is fully tensioned.

**10,500** Rated capacity in kg. Bold = articulation less than 10°. Articulation greater than 10°. Above the red line: structural limit. Below: stability limit.

*48* Loaded boom angle in degrees (setup guide only). A figure in brackets is the radius in metres with the boom at 0°. Gross ratings: deduct hook block, slings and all lifting gear.

| Radius (m) | | Boom length (m) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 5.95 | 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 |
| **1.6** | <10° | **8,000** | **8,000** | **8,000** | **8,000** | | | | | | | | | | | | | | |
| | >10° | 8,000 | 8,000 | 8,000 | 8,000 | | | | | | | | | | | | | | |
| | angle | *50* | *54* | *57* | *59* | | | | | | | | | | | | | | |
| **2.0** | <10° | **8,000** | **8,000** | **8,000** | **8,000** | **8,000** | **8,000** | | | | | | | | | | | | |
| | >10° | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 | | | | | | | | | | | | |
| | angle | *45* | *50* | *53* | *56* | *58* | *60* | | | | | | | | | | | | |
| **2.5** | <10° | **8,000** | **8,000** | **8,000** | **8,000** | **8,000** | **8,000** | **8,000** | **8,000** | | | | | | | | | | |
| | >10° | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 | | | | | | | | | | |
| | angle | *38* | *44* | *48* | *51* | *54* | *56* | *58* | *60* | | | | | | | | | | |
| **3.0** | <10° | **7,750** | **8,000** | **8,000** | **8,000** | **8,000** | **8,000** | **8,000** | **8,000** | **8,000** | **7,950** | | | | | | | | |
| | >10° | 7,650 | 7,650 | 7,650 | 7,650 | 7,600 | 7,600 | 7,600 | 7,600 | 7,600 | 7,600 | | | | | | | | |
| | angle | *30* | *37* | *42* | *46* | *49* | *52* | *55* | *57* | *59* | *60* | | | | | | | | |
| **3.5** | <10° | **7,250** | **7,250** | **7,250** | **7,250** | **7,200** | **7,200** | **7,200** | **7,200** | **7,200** | **7,200** | **6,300** | **5,700** | | | | | | |
| | >10° | 6,450 | 6,450 | 6,450 | 6,450 | 6,450 | 6,450 | 6,400 | 6,400 | 6,400 | 6,400 | 6,300 | 5,700 | | | | | | |
| | angle | *19* | *30* | *36* | *41* | *45* | *48* | *51* | *53* | *55* | *57* | *59* | *60* | | | | | | |
| **4.0** | <10° | **6,400** | **6,250** | **6,250** | **6,250** | **6,250** | **6,250** | **6,200** | **6,200** | **6,200** | **6,200** | **5,850** | **5,300** | **5,050** | **4,850** | | | | |
| | >10° | 5,700 | 5,550 | 5,550 | 5,550 | 5,550 | 5,550 | 5,550 | 5,500 | 5,500 | 5,500 | 5,500 | 5,300 | 5,050 | 4,850 | | | | |
| | angle | *(3.90)* | *20* | *29* | *35* | *39* | *43* | *46* | *49* | *52* | *54* | *56* | *57* | *59* | *60* | | | | |
| **4.5** | <10° | | **5,500** | **5,450** | **5,450** | **5,450** | **5,450** | **5,450** | **5,450** | **5,450** | **5,450** | **5,450** | **4,950** | **4,700** | **4,550** | **4,350** | **4,200** | | |
| | >10° | | 4,900 | 4,850 | 4,850 | 4,850 | 4,850 | 4,850 | 4,850 | 4,800 | 4,800 | 4,800 | 4,800 | 4,700 | 4,550 | 4,350 | 4,200 | | |
| | angle | | *(4.45)* | *19* | *28* | *34* | *38* | *42* | *45* | *48* | *50* | *52* | *54* | *56* | *57* | *59* | *60* | | |
| **5.0** | <10° | | | **4,900** | **4,850** | **4,850** | **4,850** | **4,850** | **4,850** | **4,800** | **4,800** | **4,800** | **4,600** | **4,400** | **4,250** | **4,100** | **3,950** | **3,800** | **3,750** |
| | >10° | | | 4,300 | 4,300 | 4,300 | 4,300 | 4,300 | 4,250 | 4,250 | 4,250 | 4,250 | 4,250 | 4,250 | 4,250 | 4,100 | 3,950 | 3,800 | 3,750 |
| | angle | | | *(4.95)* | *19* | *27* | *33* | *37* | *41* | *44* | *47* | *49* | *51* | *53* | *55* | *56* | *58* | *59* | *59* |
| **6.0** | <10° | | | | **4,350** | **3,950** | **3,900** | **3,900** | **3,900** | **3,900** | **3,900** | **3,900** | **3,900** | **3,900** | **3,750** | **3,600** | **3,500** | **3,200** | **3,200** |
| | >10° | | | | 3,850 | 3,450 | 3,450 | 3,450 | 3,450 | 3,450 | 3,450 | 3,450 | 3,400 | 3,400 | 3,400 | 3,400 | 3,400 | 3,200 | 3,200 |
| | angle | | | | *(5.45)* | *(5.95)* | *17* | *25* | *31* | *35* | *39* | *42* | *45* | *47* | *49* | *51* | *53* | *54* | *55* |
| **7.0** | <10° | | | | | | **3,550** | **3,250** | **3,250** | **3,250** | **3,250** | **3,250** | **3,250** | **3,200** | **3,200** | **3,100** | **3,000** | **2,900** | **2,850** |
| | >10° | | | | | | 3,150 | 2,850 | 2,850 | 2,850 | 2,850 | 2,850 | 2,850 | 2,850 | 2,800 | 2,800 | 2,800 | 2,800 | 2,800 |
| | angle | | | | | | *(6.45)* | *(6.95)* | *17* | *24* | *29* | *34* | *37* | *40* | *43* | *45* | *47* | *49* | *49* |
| **8.0** | <10° | | | | | | | | **3,000** | **2,750** | **2,750** | **2,750** | **2,750** | **2,750** | **2,700** | **2,700** | **2,700** | **2,600** | **2,550** |
| | >10° | | | | | | | | 2,600 | 2,400 | 2,400 | 2,400 | 2,400 | 2,400 | 2,400 | 2,400 | 2,350 | 2,350 | 2,350 |
| | angle | | | | | | | | *(7.45)* | *(7.95)* | *16* | *23* | *28* | *32* | *36* | *38* | *41* | *43* | *44* |
| **9.0** | <10° | | | | | | | | | | **2,550** | **2,350** | **2,350** | **2,350** | **2,350** | **2,350** | **2,350** | **2,350** | **2,350** |
| | >10° | | | | | | | | | | 2,200 | 2,050 | 2,050 | 2,050 | 2,050 | 2,050 | 2,050 | 2,050 | 2,050 |
| | angle | | | | | | | | | | *(8.45)* | *(8.95)* | *15* | *22* | *27* | *31* | *34* | *37* | *38* |
| **10.0** | <10° | | | | | | | | | | | | **2,200** | **2,050** | **2,050** | **2,050** | **2,050** | **2,000** | **2,000** |
| | >10° | | | | | | | | | | | | 1,900 | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 |
| | angle | | | | | | | | | | | | *(9.45)* | *(9.95)* | *15* | *21* | *26* | *30* | *31* |
| **11.0** | <10° | | | | | | | | | | | | | | **1,900** | **1,800** | **1,750** | **1,750** | **1,750** |
| | >10° | | | | | | | | | | | | | | 1,650 | 1,500 | 1,500 | 1,500 | 1,500 |
| | angle | | | | | | | | | | | | | | *(10.45)* | *(10.95)* | *14* | *20* | *22* |
| **12.00** | <10° | | | | | | | | | | | | | | | | **1,650** | **1,550** | **1,550** |
| | >10° | | | | | | | | | | | | | | | | 1,400 | 1,350 | 1,300 |
| | angle | | | | | | | | | | | | | | | | *(11.45)* | *(11.95)* | *(12.00)* |

# Manual extension and fly jib

LMI Duties 03 to 06. Rated capacity by loaded boom angle.

LMI DUTY 03

## Winch, manual extension set

Maximum boom length 17.91 m

| Boom angle | Radius (m) | RC <10° (kg) | RC >10° (kg) |
|---|---|---|---|
| 60° | 6.72 | **1,850** | 1,850 |
| 50° | 9.29 | **1,600** | 1,600 |
| 40° | 11.53 | **1,300** | 1,300 |
| 30° | 13.35 | **1,150** | 1,150 |
| 20° | 14.70 | **1,050** | 1,050 |
| 10° | 15.54 | **1,050** | 950 |
| 0° | 15.86 | **1,050** | 950 |

17.9 m boom length includes the manual third extension. Ratings for the manual extension are structural and based on boom angle, not radius. They do not change if the powered sections are retracted. Loads above the bold red line are structural.

LMI DUTY 04

## Rhino hook, manual extension set

Maximum boom length 18.20 m

| Boom angle | Radius (m) | RC <10° (kg) | RC >10° (kg) |
|---|---|---|---|
| 60° | 7.01 | **1,750** | 1,750 |
| 50° | 9.58 | **1,500** | 1,500 |
| 40° | 11.82 | **1,200** | 1,200 |
| 30° | 13.64 | **1,050** | 1,050 |
| 20° | 14.99 | **1,000** | 1,000 |
| 10° | 15.83 | **1,000** | 950 |
| 0° | 16.15 | **1,000** | 900 |

18.2 m boom length includes the manual third extension. Ratings for the manual extension are structural and based on boom angle, not radius. They do not change if the powered sections are retracted. Loads above the bold red line are structural.

LMI DUTY 05

## Fly jib

Maximum boom length 16.46 m

| Boom angle | Radius (m) | RC <10° (kg) | RC >10° (kg) |
|---|---|---|---|
| 60° | 6.04 | **750** | 750 |
| 50° | 8.40 | **700** | 700 |
| 40° | 10.44 | **650** | 650 |
| 30° | 12.11 | **600** | 600 |
| 20° | 13.35 | **550** | 550 |
| 10° | 14.13 | **500** | 500 |
| 0° | 14.41 | **500** | 500 |

16.46 m boom length includes the fly jib. Ratings for the fly jib are structural and based on boom angle, not radius. They do not change if the powered sections are retracted. Loads above the bold red line are structural.

LMI DUTY 06

## Fly jib, manual extension set

Maximum boom length 20.51 m

| Boom angle | Radius (m) | RC <10° (kg) | RC >10° (kg) |
|---|---|---|---|
| 60° | 8.07 | **750** | 750 |
| 50° | 11.00 | **700** | 700 |
| 40° | 13.54 | **650** | 650 |
| 30° | 15.62 | **600** | 600 |
| 20° | 17.15 | **550** | 550 |
| 10° | 18.11 | **500** | 500 |
| 0° | 18.46 | **500** | 500 |

20.51 m boom length includes the manual third extension and fly jib. Ratings for the fly jib are structural and based on boom angle, not radius. They do not change if the powered sections are retracted. Loads above the bold red line are structural.

# Lifting on the inner lug

LMI Duty 10. Inner lug on first extension. Boom length 3.65 m to 7.75 m.

| Radius (m) | | Boom length (m) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 3.65 | 4.00 | 4.50 | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | 7.75 |
| 1.6 | <10° | **15,000** | **15,000** | **15,000** | **14,500** | **13,650** | **12,550** | **11,700** | **11,200** | |
| | >10° | 13,900 | 13,950 | 13,850 | 13,800 | 13,650 | 12,550 | 11,700 | 11,200 | |
| | angle | *(1.60)* | *24* | *36* | *43* | *48* | *53* | *56* | *59* | |
| 2.0 | <10° | | **12,550** | **12,250** | **12,200** | **12,150** | **11,500** | **10,700** | **10,250** | **9,700** |
| | >10° | | 11,150 | 10,850 | 10,800 | 10,750 | 10,700 | 10,650 | 10,250 | 9,700 |
| | angle | | *(1.95)* | *26* | *36* | *43* | *48* | *51* | *55* | *59* |
| 2.5 | <10° | | | **9,700** | **9,500** | **9,450** | **9,400** | **9,350** | **9,250** | **8,750** |
| | >10° | | | 8,550 | 8,350 | 8,350 | 8,300 | 8,250 | 8,250 | 8,200 |
| | angle | | | *(2.45)* | *25* | *34* | *41* | *46* | *49* | *54* |
| 3.0 | <10° | | | | **7,800** | **7,650** | **7,600** | **7,600** | **7,550** | **7,550** |
| | >10° | | | | 6,850 | 6,700 | 6,700 | 6,650 | 6,650 | 6,600 |
| | angle | | | | *(2.95)* | *23* | *33* | *39* | *44* | *49* |
| 3.5 | <10° | | | | | **6,450** | **6,350** | **6,300** | **6,300** | **6,250** |
| | >10° | | | | | 5,650 | 5,550 | 5,500 | 5,500 | 5,450 |
| | angle | | | | | *(3.45)* | *22* | *31* | *38* | *44* |
| 4.0 | <10° | | | | | | **5,400** | **5,350** | **5,350** | **5,300** |
| | >10° | | | | | | 4,700 | 4,650 | 4,650 | 4,600 |
| | angle | | | | | | *(3.95)* | *22* | *30* | *39* |
| 4.5 | <10° | | | | | | | **4,650** | **4,600** | **4,550** |
| | >10° | | | | | | | 4,000 | 3,950 | 3,950 |
| | angle | | | | | | | *(4.45)* | *21* | *32* |
| 5.0 | <10° | | | | | | | | **4,000** | **3,950** |
| | >10° | | | | | | | | 3,450 | 3,400 |
| | angle | | | | | | | | *(4.95)* | *25* |
| 5.5 | <10° | | | | | | | | | **3,450** |
| | >10° | | | | | | | | | 2,950 |
| | angle | | | | | | | | | *13* |
| 5.7 | <10° | | | | | | | | | **3,300** |
| | >10° | | | | | | | | | 2,800 |
| | angle | | | | | | | | | *(5.70)* |

Bold = articulation under 10°. Shaded = articulation over 10°. Italic = loaded boom angle (brackets: radius in m at 0°).
Above the red line: structural limit. Below it: stability limit. Rated capacity in kg, gross. Deduct slings and all lifting gear.

# Lifting on the outer lug

LMI Duty 11. Outer lug on first extension. Boom length 4.70 m to 8.80 m.

| Radius (m) | | Boom length (m) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 4.70 | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | 7.50 | 8.00 | 8.80 |
| 1.6 | <10° | **15,000** | **15,000** | **14,650** | **14,000** | **13,050** | **11,900** | | | |
| | >10° | 14,650 | 14,550 | 14,400 | 14,000 | 13,050 | 11,900 | | | |
| | angle | *39* | *43* | *48* | *53* | *56* | *59* | | | |
| 2.0 | <10° | **12,900** | **12,850** | **12,700** | **12,600** | **12,000** | **10,900** | **10,150** | | |
| | >10° | 11,500 | 11,450 | 11,350 | 11,250 | 11,150 | 10,900 | 10,150 | | |
| | angle | *31* | *36* | *43* | *48* | *51* | *55* | *57* | | |
| 2.5 | <10° | **10,100** | **10,050** | **9,950** | **9,900** | **9,800** | **9,750** | **9,200** | **8,850** | **7,700** |
| | >10° | 9,000 | 8,950 | 8,850 | 8,800 | 8,700 | 8,650 | 8,600 | 8,550 | 7,700 |
| | angle | *15* | *25* | *34* | *41* | *46* | *49* | *53* | *55* | *59* |
| 3.0 | <10° | **9,450** | **8,350** | **8,150** | **8,050** | **8,000** | **7,950** | **7,900** | **7,850** | **7,050** |
| | >10° | 8,400 | 7,400 | 7,200 | 7,150 | 7,100 | 7,000 | 6,950 | 6,950 | 6,850 |
| | angle | *(2.65)* | *(2.95)* | *23* | *33* | *39* | *44* | *48* | *51* | *55* |
| 3.5 | <10° | | | **6,900** | **6,750** | **6,700** | **6,650** | **6,600** | **6,550** | **6,500** |
| | >10° | | | 6,100 | 5,950 | 5,900 | 5,850 | 5,800 | 5,800 | 5,700 |
| | angle | | | *(3.45)* | *22* | *31* | *38* | *42* | *46* | *51* |
| 4.0 | <10° | | | | **5,850** | **5,700** | **5,700** | **5,650** | **5,600** | **5,550** |
| | >10° | | | | 5,150 | 5,050 | 5,000 | 4,950 | 4,900 | 4,850 |
| | angle | | | | *(3.95)* | *22* | *30* | *36* | *41* | *47* |
| 4.5 | <10° | | | | | **5,000** | **4,900** | **4,900** | **4,850** | **4,800** |
| | >10° | | | | | 4,400 | 4,300 | 4,250 | 4,250 | 4,200 |
| | angle | | | | | *(4.45)* | *21* | *29* | *35* | *42* |
| 5.0 | <10° | | | | | | **4,350** | **4,250** | **4,250** | **4,200** |
| | >10° | | | | | | 3,800 | 3,700 | 3,700 | 3,650 |
| | angle | | | | | | *(4.95)* | *20* | *28* | *37* |
| 5.5 | <10° | | | | | | | **3,800** | **3,750** | **3,700** |
| | >10° | | | | | | | 3,300 | 3,250 | 3,200 |
| | angle | | | | | | | *(5.45)* | *19* | *31* |
| 6.0 | <10° | | | | | | | | **3,350** | **3,300** |
| | >10° | | | | | | | | 2,900 | 2,850 |
| | angle | | | | | | | | *(5.95)* | *24* |
| 6.5 | <10° | | | | | | | | | **2,950** |
| | >10° | | | | | | | | | 2,500 |
| | angle | | | | | | | | | *14* |
| 6.8 | <10° | | | | | | | | | **2,750** |
| | >10° | | | | | | | | | 2,350 |
| | angle | | | | | | | | | *(6.75)* |

Bold = articulation under 10°. Shaded = articulation over 10°. Italic = loaded boom angle (brackets: radius in m at 0°).
Above the red line: structural limit. Below it: stability limit. Rated capacity in kg, gross. Deduct slings and all lifting gear.

# Man basket

LMI Duty 12 (powered sections) and LMI Duty 13 (manual extension set).

LMI DUTY 12

## Man basket, powered sections

Manual extension retracted

| Item | Value |
|---|---|
| Maximum man basket rated capacity | 275 kg |
| Basket weight | 225 kg |

The total weight of the man basket plus men and equipment is not to exceed one third of the safe working load read from the winch chart (LMI Duty 01, page 7) for the boom length and radius being used.

LMI DUTY 13

## Man basket, manual extension set

Maximum boom length 17.91 m

| Boom angle | Radius (m) | RC <10° (kg) | RC >10° (kg) |
|---|---|---|---|
| 60° | 7.98 | **275** | 275 |
| 50° | 10.71 | **275** | 275 |
| 40° | 13.05 | **205** | 205 |
| 30° | 14.93 | **155** | 155 |
| 20° | 16.30 | **125** | 125 |
| 10° | 17.11 | **125** | 90 |
| 0° | 17.34 | **125** | 90 |

17.91 m boom length includes the manual third extension but not the man basket. Ratings for the man basket are structural and based on boom angle, not radius. They do not change if the powered sections are retracted. Loads above the bold red line are structural.

## Terms used in this document

| | |
|---|---|
| Rated capacity (RC) | The total freely suspended load, including the load and all load handling equipment, that the crane can safely lift under ideal conditions at a given boom length and load radius. |
| Load radius | Horizontal distance from the centre of the front wheels forward to the centre of the winch rope or tackle with the load applied. |
| Loaded boom angle | 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. |
| Articulation | The crane pivots in the middle to steer and to slew the load, up to 40° either way. Working areas for rating purposes are less than 10° and greater than 10° from straight ahead. |
| Deration | A decrease in rated capacity due to external influences, expressed as a percentage. |
| Side load | Any external force applied to the boom or the load in a horizontal direction. |
| LMI | Load moment indicator. A system which indicates, visually and audibly, to the operator when the rated capacity is approached and reached. |

## Planning a lift? Send us the details.

Load mass and dimensions, pick up and set down positions, access, ground conditions and any overhead services.

**Jack 0438 461 185** **Casey 0438 060 694** **whitsundaycranes.com.au**

Capacity data in this document is transcribed from the Manufacturer's Rated Capacity Manual, Model AT-15 Series II / III, book C1406C, for the crane as originally manufactured. Ratings apply only when the manufacturer's instructions are followed, and modifications or non-specified attachments can reduce them. If anything here differs from the manual carried in the crane, the manual in the crane applies.