



ALL TERRAIN CRANE Annual Report

ATC A 208864-16



CraneSafe®

Div of The Crane Industry Council of Australia
ABN 73 002 565 773

PO Box 136
MOUNT WAVERLEY VIC 3149
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Initial Inspection Date: 09/12/2025

Conforms to Checklist: Yes

Issued Date: 10/12/2025

Next Inspection Date: 20/12/2026

INSPECTED FOR & OWNED BY

Metcalf Crane Services Pty Ltd

ABN 43 076 537 749

PO Box 54 SOMERTON

VIC 3062

REPRESENTATIVE

Mr. Tim Metcalf

03 9308 0044

workshop@metcalfcranes.com.au



Tadano Demag AC220-5

LOWER HOURS
4964

UPPER HOURS
3268

KILOMETERS
4715

SERIAL NUMBER
82541

PLANT NUMBER
UNIT 109

MAX LOAD
220000 kg

NUMBER OF AXLES
5

DESIGN REGISTRATION NO.
Q29373

PLANT REGISTRATION NO.
NOT AVAILABLE AT THE
TIME OF INSPECTION

ROAD REGISTRATION
XV311K

YOM
2019

Assessed By

Name John Carroll

Phone 0418 508 870

Company Jatco Engineering VIC Pty Ltd

Reg No. VIC1017

Email info@jatco.com.au

Address PO Box 260 BALLARAT VIC 3353

Assessment

Country Where Assessed	Australia	State	VIC
Operators Manual in English	OK	Log Book	OK
Maintenance Records	OK	Crane Safety Manual	No
Major Inspection Report Sighted	No		

This report is confirmation that the crane has undergone an annual inspection to the appropriate standard and is considered safe for continued operation at time of inspection. This report is confirmation that the crane has undergone a visual inspection on the date(s) stated and meets the standards of the CICA assessment program at the time of inspection. The CICA annual inspection is in addition to and does not replace pre-operation and routine inspections, maintenance and repairs necessary to comply with work, health and safety laws and requirements. In no event shall either CICA or CICA Endorsed Assessors be liable for any direct, indirect, punitive, incidental, special or consequential damages, including but not limited to loss of income, revenue, opportunity, goodwill, profit, anticipated saving or value of equipment arising out of or in any way connected with the use of the services, whether based on contract, tort, strict liability or otherwise, even if advised of the possibility of any such damages. This report is provided solely for the benefit of the Company named on its face. No other person is entitled to rely on anything contained in this Report and must make and rely solely on their own inspection and assessment in all respects and for all purposes.

Accredited for compliance with ISO/IEC 17020

NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration and inspection reports

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Boom and Attachments

Base Section	OK	Luffing Jib(s)	N/A
No. 1 Section	OK	Masts	N/A
No. 2 Section	OK	Suspension Ropes	N/A
No. 3 Section	OK	Suspension Straps / Tubes	N/A
No. 4 Section	OK	Load Cell	OK
No. 5 Section	OK	Recoil Drums	OK
Additional Sections	OK	Superlift	N/A
Head Sheaves and bearings	OK	Superlift Winch	N/A
Idler Sheave and Bearing	OK	Superlift Winch Brakes	N/A
Rooster Sheave and Bearing	N/A	Boom / Attachments / Electrics	OK
Extension / Fly Jib Mounts	N/A	Proximity Switches	OK
Shimming and Alignment	OK	Boom Pinning System	OK
Boom Lift Cylinders	OK	Extension / Fly Jib	N/A
Lock Valve(s)	OK	Sheaves and Bearings	OK
Extension Cylinders	OK	Anemometer	OK
Lock Valve(s)	OK	Boom Hazard Striping	OK
Extend Ropes / Chains	N/A	Main Hoist Rope Socket and Pins	OK
Retract Ropes / Chains	N/A	Correct Assembly and Connection of	OK
Boom Length Recoil Drum(s)	OK	Hoist Rope Socket	
Mechanical Boom Angle Indicator	N/A	Auxiliary Hoist Rope Socket and Pins	N/A
Fixed Jib	N/A	Correct Assembly and Connection of	N/A
		Auxiliary Hoist Rope Socket	

ANTI-TWO BLOCKS

Boom Head	OK
Rooster Sheave	N/A
Extension / Fly	N/A

HOOK BLOCKS - WITH CRANE

Description	Single sheath block	Manufacturer's Identification	OK
		61783612	
Branded WLL (kg)	OK	Safety Latches	OK
80000kg		Sheaves and Bearings	OK
		1	
Swivel	OK	Hook Shank Retainer	OK
Branded with Tare Weight (kg)	OK		
850kg			

Revolving Frame and Cabin

Frame	OK	Heater	OK
Counterweight Attachment - Security	OK	Air Conditioner	OK
Counterweight Hazard Striping	OK	Gauges	OK
Boom Mounting Lugs	OK	Anti-Two block Alarms	OK
Boom Mounting Pins	OK	Horn	OK
Lift Cylinder Lugs	OK	Access Steps	OK
Lift Cylinder Pins	OK	Doors and Locks	OK
Cab Glass and Mirrors	OK	Crane Level Indicator	OK
Sheet Metal / Guards	OK	Outrigger Controls	OK
Seat Assembly	OK	Cab Mounts	OK
Throttle	OK	Front Wiper	OK
Dead Man Controls	OK	Roof Wiper	OK
Free Fall Lockout	N/A	Windscreen Wiper / Washer	OK
Decals / Signs - In English	OK	Switches and Relays	OK
Load Charts in English as per AS1418	OK	Upper Steering	N/A
Control Levers - Clearly Marked	OK	Upper Braking	N/A
Control Cables / Pilot Hoses	OK		

Slew System

Slew Transmission & Oil Level	OK	Base Weld	OK
No Leaks Present	OK	Smooth Operation	OK
Swing Brake	OK	Rotary Coupling	OK
Lock Valve(s)	OK	Slew Bolts	OK
House Lock	OK	Excessive Bearing Play	OK
Slew Pinion	OK	Excessive Backlash	OK
Slew Gear	OK	Electrical Swivel	OK
Slewing Ring	OK		

Main Winch

Winch Condition & Oil Level	OK	Brake Operation	OK
No Leaks Present	OK	Drum Turn Indicator	OK
Rope Spooling	OK	Main Wire Rope	OK
Winch Attachment, Pins / Bolts	OK	Correct Assembly and Connection of	OK
		Hoist Rope Anchor	

Auxiliary Winch

N/A

Comments

Not fitted at the time of inspection

Hydraulic System

No Hydraulic Leaks Present	OK	Main Winch Motor	OK
Hydraulic Reservoir & Oil Level	OK	Auxiliary Winch Motor	N/A
Return Filters and Housing	OK	Main Winch Valve	OK
Suction Lines and Hoses	OK	Auxiliary Winch Valve	OK
Oil Cooler(s)	OK	Boom Lift Valve	OK
Main Pump(s)	OK	Boom Extension Valve	OK
Slew Pump	OK	Pressure Lines and Hoses	OK
Steering Pump	OK	Power Steering Cylinders	OK
Pilot Pump	OK	Vertical Outrigger Cylinders	OK
Relief Valves	OK	Horizontal Outrigger Cylinders	OK
Pressure Filter and Housing	OK	Outrigger Control Valves	OK
Slew Motor(s)	OK	Outrigger Lock Valves	OK
Slew Valve	OK	Counterweight Lift Cylinder	OK

Air Systems

Compressor	OK	Brake Chambers	OK
Air Reservoirs	OK	Brake Valves	OK
Drain Valves	OK	Air Cylinders	OK
Air Lines	OK	Air Dryer	OK

Chassis Inspection

Frame	OK	Markings For Alternate Outrigger Widths	OK
Suspension System	OK	Outrigger Hazard Striping	OK
Steering Components	OK	Sheet Metal / Guards	OK
Driving Axles	OK	Decals / Signs - In English	OK
Non Driving Axles	OK	Doors and Locks	OK
Differentials	OK	Outrigger Controls and Labeling	OK
Planetary Drives	OK	Axle Levelling for Road Travel	OK
Drive Lines	OK	Crane Levelling System	OK
Brake(s)	OK	Condition of Tyres	OK
Parking Brake	OK	Appropriate Earthing	OK
Outrigger Boxes	OK	Earth Strap	OK
Outrigger Beams	OK	Fire Extinguisher	OK
Outrigger Pads	OK		

Electrical Systems

Battery Box	OK	Directional indicators	OK
Battery Cables	OK	Hazard Lights	OK
Battery Isolator	OK	Clearance Lights	OK
Starter	OK	Switches and Relays	OK
Head Lights	OK	Rotating Beacon(s)	OK
Tail Lights	OK	Reverse Alarm	OK
Stop Lights	OK	Horn for Road Travel	OK

Drive Systems

Radiator & Coolant Level	OK	Fuel Tank & Diesel Level	OK
Radiator Hoses	OK	Power Shift / Range Shift	OK
Fan	OK	Drive Coupling	OK
Fan Guard	OK	Abnormal Transmission Noise	OK
Oil Cooler(s)	OK	No Leaks Present	OK
Fuel Lines	OK	Pump Drives	OK
Throttle	OK	Pump Disconnects (PTO)	OK
Engine Mounts	OK	Output Coupling	OK
Power Transmission Belts	OK	Engine Braking	OK
Muffler / Spark Arrestor	OK	Transmission Retarder	OK
Engine Oil Pressure & Oil Level	OK	Telma Brake	N/A
No Abnormal Engine Noises Present	OK	ABS Brakes	OK

Superstructure Drive System

N/A

Carrier Cabin

Cab Glass and Mirrors	OK	Decals / Signs - In English	OK
Sheet Metal and Guarding	OK	Heater	OK
Seat and Assembly including Seat Belts	OK	Air Conditioner	OK
Throttle	OK	Gauges	OK
Foot Brake	OK	Indication and Warning Lights	OK
Clutch Pedal	N/A	Windscreen Wiper / Washer	OK
Steering Wheel Free Play	OK	Exhaust / Telma Brakes	OK

Functional Tests - Main Winch

Rated Capacity Indicator (RCI)

Load Chart Reference Number LC 106

Printed Chart - No Load OK

	Printed Chart	RCI
Boom Angle, deg	N/A°	N/A°
Boom Length, m	78.00m	78.00m
Radius, m	20.00m	20.00m
Load, kg	8500kg	8500kg

RCI Load Charts 75%

Rated Capacity Limiter (RCL)

Load Chart Reference Number LC 106

Rated Load - Boom Fully Extended OK

	RCI	Measured
Radius, m	23.30m	23.30m
Load, kg	6300kg	5240kg

Rated Load in Stability OK

	RCI	Measured
Radius, m	23.30m	23.30m
Load, kg	6300kg	5240kg

Line Pull Test OK

	RCI	Measured
Load, kg	9900kg	10200kg

Winch Brake Test OK

	RCI	Measured
Load, kg	9900kg	10200kg

RCL Warning Lights and Alarms OK

Rated Capacity Limiter Fitted OK

Functional Tests - Auxiliary Winch

N/A

Crack Inspection

No Cracks DetectedOK

Any third party testing is not included in the CraneSafe NATA accreditation.

Manufacturer Additional

N/A

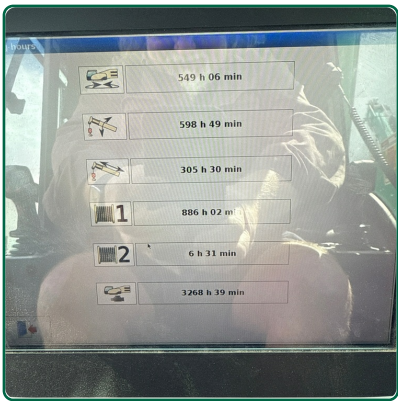
Site Requirements

N/A

Crane



Model



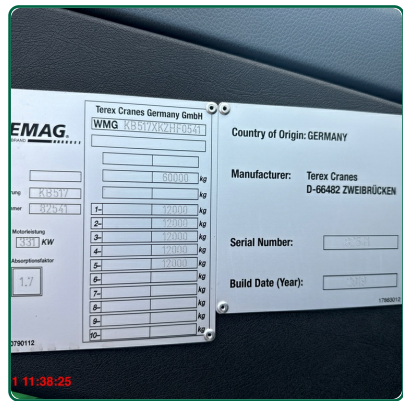
Upper Engine Hours



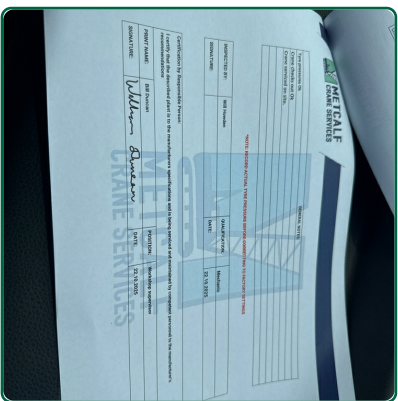
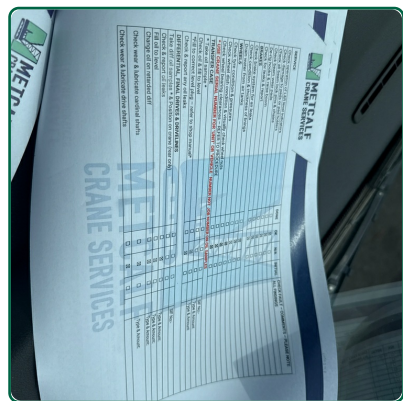
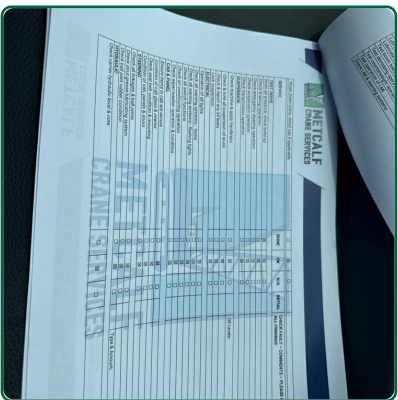
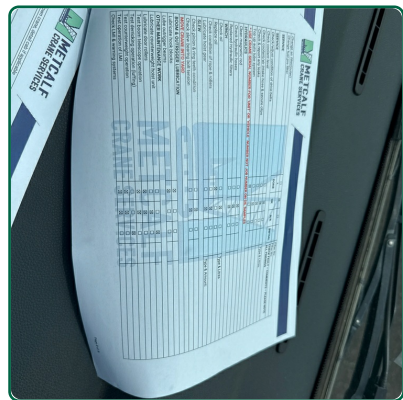
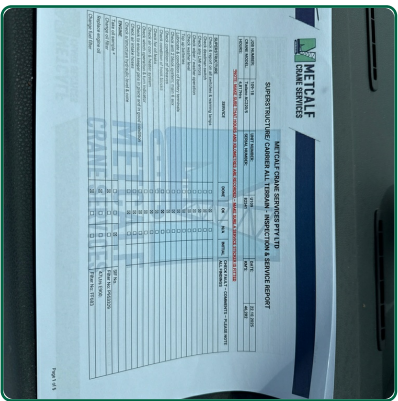
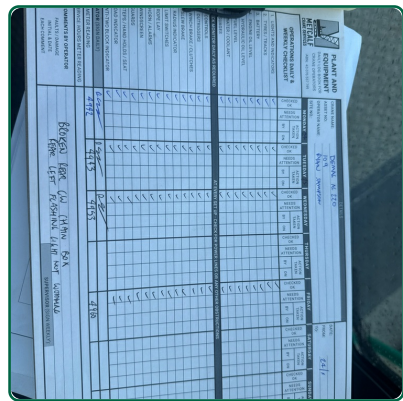
Lower Engine Hours



Kilometers



Serial Number





Head Sheaves and bearings



Idler Sheave and Bearing



Load Cell



Main Hoist Rope Socket and Pins



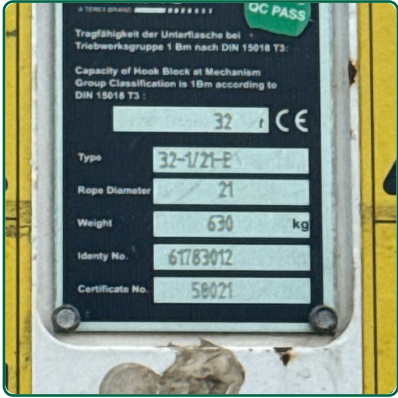
Correct Assembly and Connection of Hoist Rope Socket

Internal working satisfactory at the time of inspection

Extension Cylinders



Description



Manufacturer's Identification



Hook Shank Retainer



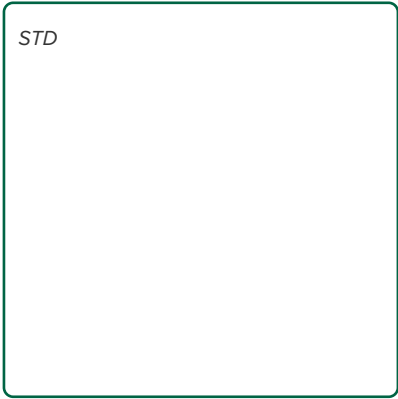
Lift Cylinder Lugs



Cab Glass and Mirrors



Decals / Signs - In English



Access Steps



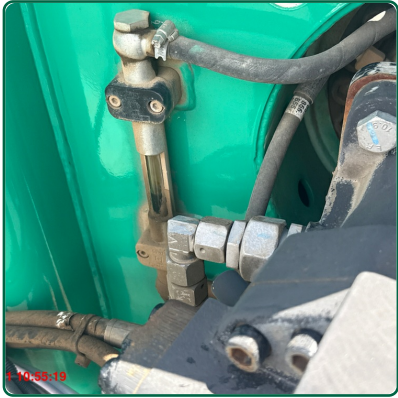
Lock Valve(s)



Slew Pinion



Winch Attachment, Pins / Bolts



Winch Condition & Oil Level



Rope Spooling



Correct Assembly and
Connection of Hoist Rope
Anchor

Hydraulic System

Working satisfactory at the time of inspection

Slew Motor(s)

Working satisfactory with no issues at the time of inspection

Brake Valves



Brake Valves

Chassis Inspection

Outrigger Pads



Outrigger Pads



Outrigger Pads



Outrigger Pads



Electrical Systems



Rotating Beacon(s)

Drive Systems



Transmission Retarder

Carrier Cabin



Exhaust / Telma Brakes



Exhaust / Telma Brakes

Functional Tests - Main Winch



Load Chart Reference Number



Line Pull Test



Load



Load



RCL Warning Lights and Alarms



Rated Load - Boom Fully Extended



Load



Load

5240kg+hook block and rigging motion cut as per the load chart

Rated Capacity Limiter Fitted

Crack Inspection

U109 crack test report 01.12.2025.pdf

No Cracks Detected

Wire Rope Certificate



Rope Termination (End 1)



Rope Termination (End 2)



Rope Termination (End 2)

TEST INSPECTION REPORT



Client:	Metcalf Crane Services	Report No:	25-J358-1
Address:	78-82 Freight Drive Somerton Victoria 3062	Inspection Date:	28/11 & 01/12 /2025
		Test Site:	78-82 Freight Drive Somerton

Equipment Details			
Manufacturer:	Demag	Model:	AC220-5
Vehicle Registration:	XV-31 IK	Serial No:	82541
Manufacture Date:	2019	Unit No:	109

1. FINDINGS SUMMARY

NDT crack testing was performed on the equipment listed above using eddy current testing in accordance with The Crane Industry Council of Australia's Guide to Major Inspections – July 2011.

No cracks or reportable discontinuities were detected.

Authorised by:

Luke Machell
AINDT/ISO 9712
UT, ET, RT, MT, PT Level 2



08 December 2025

2. LOCATIONS INSPECTED

An eddy current testing inspection was performed in accordance with AS ISO 17643-2020 to detect surface breaking cracks on 100% of accessible welds on the following locations;

- Outrigger & outrigger box welds
- Turret welds
- Slew ring weld
- Boom collar, tip, stiffener, sheave mount, cylinder mount & attachment welds
- Pinning hole reinforcing welds
- Lifting/tiedown/earth lug welds
- Winch mount welds
- Counterweight mount welds
- Fly stowage bracket welds
- 32t sheave block welds & around pinning holes & hook inner radius, S/N: 58021
- Fly connection welds, 10% lacings, lacing butt welds, sheave mount & lifting lug welds

3. RESULTS

No cracks or other reportable discontinuities were detected.

4. INSPECTION DETAILS

Eddy current test details				
Test Standard:	AS ISO 17643-2020	Equipment:	IWel-001 #508451/02	
Acceptance Spec:	Nil cracks	Calibration:	24/01/2025	
Procedure No:	ET-01	Probe Serial #:	W02845	W02845
Material:	Carbon steel	Probe Type:	Orth	Orth
Material Thickness:	Not Specified	Frequency:	100 kHz	100 kHz
Surface Prep:	Cleaned	Gain:	50 dB	50 dB
Coating Type, Thick:	Non-conductive, <0.5mm	Phase Angle:	182°	182°
Welding Process:	Not Specified	Cal Block:	EDM block s/n: 34843	
Heat Treatment:	Not Specified	Sensitivity:	1.0mm EDM @80% FSH	
Type of Joint:	Fillet Welds		0.5mm EDM @50% FSH	
Test Personnel:	Luke Machell	Shim Thickness:	0.5mm	

5. TEST RESTRICTIONS

Limited access to some welds due to component geometry.

No testing on slew bolts due to bolts being cap head type with no probe access.

6. PHOTOGRAPHS

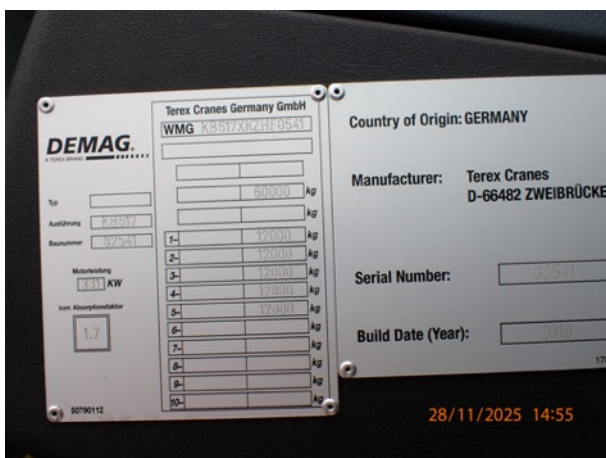


Photo 1: Serial plate



Photo 1: Registration plate



Photo 3: Unit number



Photo 4: Slew ring weld



Photo 5: Turret



Photo 6: Turret



Photo 7: Turret & lifting lug



Photo 8: Turret & butt pinning hole weld



Photo 9: Winch & counterweight mounts



Photo 10: Lower luffing cylinder mount



Photo 11: Boom



Photo 12: Boom pinning hole welds



Photo 13: Fly stowage bracket



Photo 14: Boom collar



Photo 15: Upper luffing cylinder mount

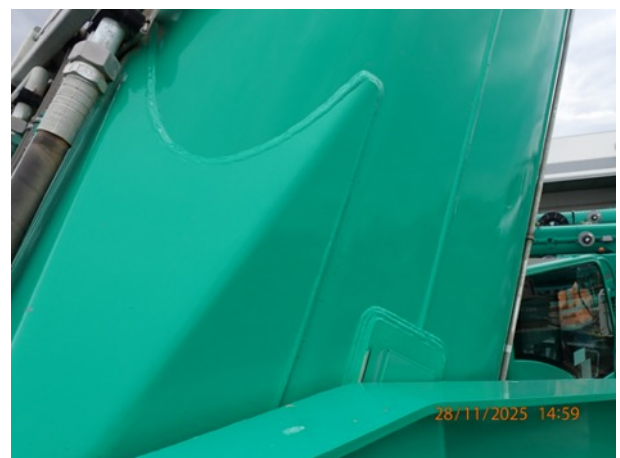


Photo 16: Boom welds



Photo 17: Outrigger



Photo 18: Outrigger welds



Photo 19: Outrigger box



Photo 20: Slew mount



Photo 21: Fly



Photo 22: Fly



Photo 23: Fly butt weld & lacings



Photo 24: Fly lifting lug



Photo 25: Fly sheave mount



Photo 26: Fly connections



Photo 27: Hook & sheave block



Photo 28: Cap head screws

Accreditation no. 19898

Company Name: Metcalf Crane Services Pty Ltd
Crane Make & Model: Tadano Demag AC220-5

Crane Serial No.: 82541
Year of Manufacture: 2019

Length of Rope: 330.00m
Rope Construction: Oliveria Maxiparts
Surface Finish: Coated
Direction of Rope Lay: Lang Left Hand Lay
Decision: Pass

Wire Rope Application: Main Hoist
Rope Termination (End 1): Swaged End Fitting
Rope Termination (End 2): Wedge Type Socket
Rope Diameter: 21.00mm



Position Inspected (approx. metres)		10	54	98	142	186	230	320
Number of Visible Wire Breaks (over a length of 6x the rope's dia) AS2759-2004 Clause 14.4		0	0	0	0	0	0	0
Degree of Damage and Deformation of Rope AS2759-2004 Clause 14.13		0	0	0	0	0	0	0
Abrasion of Outer Wires AS2759-2004 Clause 14.9	Degree of Deterioration	0	0	0	0	0	0	0
Corrosion AS2759-2004 Clause 14.8	Degree of Deterioration	0	0	0	0	0	0	0
Reduction of Rope Diameter AS2759-2004 Clause 14.9	Measurement (mm)	21.60	21.60	21.60	21.60	21.60	21.60	21.60
	Measurement 90° (mm)	21.60	21.50	21.50	21.60	21.60	21.60	21.60
Additional Comments								

Degree of Deterioration:

1 = slight, 2 = medium, 3 = high, 4 = very high, 5 = discard

At time of inspection, the rope measurements and construction was in accordance with the requirements of AS2759 - 2004 Section 13 and the operators manual supplied with the crane.

Date Inspected: 09/12/25
Date Issued: 10/12/2025

John Carroll
Assessor No: VIC1017

CraneSafe®



Accreditation no. 19898

Company Name: Metcalf Crane Services Pty Ltd
Crane Make & Model: Tadano Demag AC220-5

Crane Serial No.: 82541
Year of Manufacture: 2019

Item Inspected		
AS1418.5-2013 Annex K.1		
Hook Block	MANUFACTURERS ID no.	61783612
	FORM OF HOOK	Single
	NOMINAL LIFTING LOAD	80000kg
	MASS	850kg
AS1418.5-2013 Annex K.3		
Sheave	NUMBER OF SHEAVES	1
	ROPE DIAMETER	21mm
	KIND OF MATERIAL	Metal
	GROOVE WEAR	☒
	BRUISING	☒
	ROTATING / BEARING	☒
	CRACKS	☒
	CHIPS	☒
AS1418.5-2013 Annex K.2		
Lifting Hook	WEAR	☒
	CRACKS	☒
	DEFORMATION	☒
	SAFETY LATCH	☒
	SWIVEL	☒
	BEARING	☒
	HOOK BRUISING	☒
	Y - Y MEASUREMENT	160mm
AS1418.5-2013 Clause 4.2.13		



At time of Inspection, the hook block was in accordance with the requirements of AS1418 Part 5 2013 and the load charts supplied with the crane.

Date Inspected: 09/12/25
Date Issued: 10/12/2025

John Carroll
Assessor No: VIC1017



ALL TERRAIN CRANE CERTIFICATE OF ANNUAL INSPECTION AND TESTING

Certificate Number: VIC208864 CraneSafe Assessment Number: ATC A 208864-16



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Inspection Date: 09/12/2025

Renewal Date: 20/12/2026

Issued Date: 10/12/2025

COMPANY

Metcalf Crane Services Pty Ltd
ABN 43 076 537 749
PO Box 54 SOMERTON VIC 3062

REPRESENTATIVE

Mr. Tim Metcalf Phone: 03 9308 0044
Email: workshop@metcalfcranes.com.au



Tadano Demag AC220-5

ASSESSED BY

John Carroll
Reg No: VIC1017
Phone: 0418 508 870
Email: info@jatco.com.au

COMPANY

Jatco Engineering VIC Pty Ltd
PO Box 260 BALLARAT
VIC 3353

LOWER HOURS

4964

UPPER HOURS

3268

SERIAL NUMBER

82541

PLANT NUMBER

UNIT 109

YEAR OF MANUFACTURE

2019

This certificate is confirmation that the crane has undergone an annual inspection to the appropriate standard and is considered safe for continued operation at time of inspection.

John Carroll

Inspection

Inspection in Accordance With
AS2550.1 & AS2550.5 EN (FEM&ISO) JIS Codes of Practice Manufacturer's Instructions.

Comments

Inspection to crane safe check list only

Accredited for compliance with ISO/IEC 17020

NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration and inspection reports

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ALL TERRAIN CRANE LOAD INDICATOR CERTIFICATION

Certificate Number: VIC208864 CraneSafe Assessment Number: ATC A 208864-16



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COMPANY

Metcalf Crane Services Pty Ltd
ABN 43 076 537 749
PO Box 54 SOMERTON VIC 3062

REPRESENTATIVE

Mr. Tim Metcalf Phone: 03 9308 0044
Email: workshop@metcalfcranes.com.au

ASSESSED BY

John Carroll
Reg No: VIC1017
Phone: 0418 508 870
Email: info@jatco.com.au

COMPANY

Jatco Engineering VIC Pty Ltd
PO Box 260 BALLARAT
VIC 3353

Tadano Demag AC220-5

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4964

UPPER HOURS
3268

SERIAL NUMBER
82541

PLANT NUMBER
UNIT 109

YEAR OF MANUFACTURE
2019

RATED CAPACITY INDICATOR (RCI)

Load Chart Reference Number LC 106

PRINTED CHART - NO LOAD

	Printed Chart	Rated Capacity Indicator
Boom Angle, deg	N/A	N/A
Boom Length, m	78.00	78.00
Radius, m	20.00	20.00
Load, kg	8,500.00	8,500.00

RATED CAPACITY LIMITER (RCL)

Load Chart Reference Number LC 106

RATED LOAD - BOOM FULLY EXTENDED

	Rated Capacity Indicator	Measured
Radius, m	23.30	23.30
Load, kg	6,300.00	5,240.00

RATED LOAD IN STABILITY

	Rated Capacity Indicator	Measured
Radius, m	23.30	23.30
Load, kg	6,300.00	5,240.00

LINE PULL TEST

	Rated Capacity Indicator	Measured
Load, kg	9,900.00	10,200.00

WINCH BRAKE TEST

	Rated Capacity Indicator	Measured
Load, kg	9,900.00	10,200.00

At the time of test, the load indicator was reading in accordance with the requirements of AS1418.1 & AS1418.5 and the load charts supplied with the crane

John Carroll

Load Chart Reference Number



Line Pull Test



Load



Load



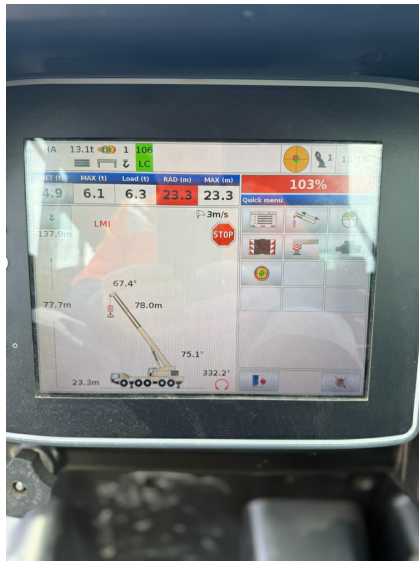
RCL Warning Lights and Alarms



Rated Load - Boom Fully Extended



Load



Load

