

**2007 Normet 1610B Explosive Charge Rig CU001**



<b>Make</b>	Normet		<b>Model</b>	1610B		
<b>Year</b>	2007	<b>Hours</b>	15878		As at	01/12/2019
<b>Mileage</b>				km	As at	
<b>Serial/VIN</b>	593			<b>Engine Serial</b>		
<b>Details</b>	<p>2007 Normet 1610B Explosive Charge Rig Asset # CU001.                  Set up with ANFO Kettles this Charmec presents average condition having been parked up and idle for some time.                  Available on an "As Is Where Is" basis running to drive on to buyers transport ex Pilbara.                  Offered for sale via online auction ex Site Nifty Copper Mine via Telfer Western Australia, running to drive on to buyers transport.                  See Google Maps link: <a href="https://goo.gl/maps/Xvaa3uBAFso9MP7A8">https://goo.gl/maps/Xvaa3uBAFso9MP7A8</a></p>					
<b>Asking price</b>	AUD	Under review - call for pricing				
<b>Ex site</b>	Australia, Western Australia, Telfer					

<b>Service history</b>	Current SMU reading is 199 while the overall frame hours are ~15,878 hours.
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**For further details, to make an offer or book an inspection, contact  
Global Equipment Solutions on Office: 08 9201 1142**













8.1.2 **CU001 NORMET 1610B**

<b>Asset Number</b>	<b>Make</b>	<b>Model</b>	<b>Serial Number</b>	<b>Current SMU reading (hrs)</b>	<b>All-time SMU</b>
CU001	Normet	1610B	593	199	15878

- Require rebuild
- Kettles still in test date

## DATA SHEET

OWNER	METALS X LIMITED
LOCATION OF EQUIPMENT	U.G WORKSHOP
EQUIPMENT NUMBER	1600-CU001
PLANT SERIAL NUMBER	593
REGISTRATION NUMBER	NA
DESIGN APPROVAL NUMBER	WAH19590
LAST INSPECTION DATE	08/06/2018
NEXT INSPECTION DATE	08/06/2019
NEXT STATUTORY INSPECTION DATE	08/06/2020
MANUFACTURER	NORMET / CHARMEC
MANUFACTURE DATE	30/06/2007
MODEL	1610B
PLANT TYPE / DESCRIPTION	ELEVATED WORK PLATFORM
MRC	500KG
GROUP / TYPE	GROUP B & TYPE 2/3
MAX LIFT / HEIGHT	6.4M





**ASSET MANAGEMENT  
ENGINEERS**

PO BOX 421,  
BELMONT, WA, 6984

Phone: (08) 9446 7444

Fax: (08) 9446 7499

Website: www.asseteng.com.au

## STATUTORY INSPECTION REPORT

### EWP-BOOM TYPE

<b>Owner's Plant No:</b>	REVIEW593 on CUO1	<b>Inspection Date:</b>	08/06/2018	<b>Job No:</b>	4816
<b>Serial No:</b>	593	<b>Owner:</b>	Metals X		
<b>Design Reg No:</b>	WAH 19590	<b>Site:</b>	Nifty		
<b>Manufacturer:</b>	Normet / Charmec	<b>Location:</b>	U.G. Workshop		
<b>Manufacture Date:</b>	30/06/2007	<b>Site Contact:</b>	Louise Johnston / Yolanda Ryan		
<b>Material:</b>	TBA				
<b>Description:</b>	Elevating Work Platform	<b>Group/Type:</b>	Group B & Type 2/3 (AS 1418.10:2011)		
<b>MRC:</b>	500 t	<b>Max Lift Height:</b>	6.4 m		

<b>Inspector's Name:</b> Suresh Ramar	<b>Inspector's Signature:</b>
<b>Report QA Checked By:</b> Fang Wang	<b>Report QA Signature:</b>
<b>Next Inspection due:</b> 08/06/2019	(AS2550.10:2006)
<b>Next Statutory Inspection due on or before:</b> 08/06/2020	(MSIR 1995 - Regulation 6.40, Schedule 3)

I have inspected this Elevating Work Platform in accordance with Regulation 6.40(1) of the Mines Safety and Inspection Regulations 1995 and sections of AS 1418.1:2002, AS 1418.10:2011, AS 2550.1:2011 and AS 2550.10:2006 and assessed that it is suitable for continued operation. The following Non-Compliance(s) need to be rectified:-

**Compliance(s):**

- 1.Evidence of major rebuild and NDT reports after 10 years of operation must be made available.Refer AS2550.1-2011, c/s 7.3.5, 7.4.5, 7.5 and 9.4.2.
- 2.Design Registration number to be prominently displayed on or in the vicinity of the plant.
- 3.Provide evidence of major repairs carried out on the boom and replacement of work basket
- 4.All the control lever to be clearly identified
- 5.Add another Mufacture Data Lable decal in the platform.

**Recommendation(s):**

Nil.

**Inspection Note(s):**

Nil.

## Asset Management Engineers

<b>EQUIPMENT DATA</b>	<b>C</b>	<b>DNC</b>	<b>NA/NI</b>	<b>COMMENTS</b>
Unique Identity Number	✓			
Registration Number			NI	Not displayed
Evidence of Registration	✓			In CPEF
Operators / Maintenance Manuals			NI	Not in cab
<b>MANUFACTURER'S DATA LABEL</b>	<b>C</b>	<b>DNC</b>	<b>NA/NI</b>	<b>COMMENTS</b>
Manufacturer's Details	✓			On MDL
Model	✓			
Serial Number	✓			
Year of Manufacture	✓			
Rated Capacity	✓			
Max Allowable Manual Force	✓			
Max Allowable Wind Speed	✓			
Max Chassis Inclination	✓			
Insulation Rating (if applicable)			NA	
Compliance Statement to AS1418	✓			
<b>EQUIPMENT HISTORY / MAINTENANCE</b>	<b>C</b>	<b>DNC</b>	<b>NA/NI</b>	<b>COMMENTS</b>
Past Inspection Reports			NI	Not Available
Test Certificates			NI	
Logbook Available and Being Used			NI	
Routine Maintenance	✓			
Annual Maintenance	✓			
Major Inspections (10 yr.)		X		Due for 10 Yearly inspection
Prior Damage / Repairs			NI	Boom and basket replaced in 2012
<b>BOOM / CHASSIS</b>	<b>C</b>	<b>DNC</b>	<b>NA/NI</b>	<b>COMMENTS</b>
Chassis	✓			
Boom Sections	✓			
Welds	✓			
Bolted Connections	✓			
Platform Connection	✓			
Boom Locking Pins	✓			
Swing Mechanism / Bolts / Locking Pin	✓			
Boom Safety Prop (if Applicable)	✓			
Transport Supports / Cradle	✓			
Wire Rope / Chain / Cable	✓			
Lubrication	✓			
Tyres	✓			
Tyre Pressure Decal (Pneumatic Tyres)	✓			
Tyre Weight Decal (Foam Filled Tyres)			NA	
Maximum Point Load Decals			NI	Not fitted
Guards (Engine, Hazardous Areas)	✓			
Battery (Secure, Ventilation)	✓			
Fuel Tank and Decal	✓			
Lights / Indicators	✓			
<b>HYDRAULICS</b>	<b>C</b>	<b>DNC</b>	<b>NA/NI</b>	<b>COMMENTS</b>
Secure and Free of Damage / Leaks	✓			
Hydraulic Holding Valves	✓			

C: Complies

DNC: Does Not Comply

NA: Not Applicable

NI: Not Inspected

## Asset Management Engineers

Tank Fluid Level Indicator	✓			
<b>STABILITY</b>	<b>C</b>	<b>DNC</b>	<b>NA/NI</b>	<b>COMMENTS</b>
Inclination Indicator (eg. Audible Alarm. Type 1 may only have Spirit Level)	✓			
Stabilizers	✓			
Feet Accommodate 10° Unevenness	✓			
Decal Stating Stabilizers Must Be Used	✓			
Secure In Transport Position	✓			
Interlock to Prevent Platform Movement Outside Permitted Positions Until Stabilizers In Place	✓			
Interlock to Prevent Stabilizer Movement If Work Platform Is Not Stowed or Outside Permitted Range	✓			
<b>WORK PLATFORM</b>	<b>C</b>	<b>DNC</b>	<b>NA/NI</b>	<b>COMMENTS</b>
Handrails (> 950mm high)	✓			
Intermediate Rails (< 550mm from Top Rail and Toe Board)	✓			
Toe Board (> 100mm high)	✓			
Vertical Rails (< 180mm gap)	✓			
Grab Rail (Recommended)	✓			
Guard Above Controls (> 50mm)	✓			
Floor (Min dimension < 15mm)	✓			
Gates (Self closing / latching)	✓			
Anchorage points	✓			
Crush Zone Guards / Protection	✓			
<b>WORK PLATFORM - DECAL CONDITION</b>	<b>C</b>	<b>DNC</b>	<b>NA/NI</b>	<b>COMMENTS</b>
Rated Capacity (kg)		X		
Rated Capacity (no. people + kg)		X		
Max Manual Force (N)		X		
Max Wind Speed		X		
Insulated or Non-Insulated		X		
Insulation Rating (if applicable)			NA	
Safe Approach Distance Powerlines	✓			Underground EWP
Anchor Points (no. of people)	✓			
<b>CONTROLS</b>	<b>C</b>	<b>DNC</b>	<b>NA/NI</b>	<b>COMMENTS</b>
Labels		X		Not clearly marked in cab and workplatform
Free of Damage		X		Missing decals
Hold to Run	✓			
Protected from Unintentional Activation	✓			
Safe Location for Operator	✓			
Located Away From Exhaust	✓			
Operators Have A Visual of Corresponding Movement	✓			
Only Selected Control Station is Active	✓			
Ground Controls Can Override Platform	✓			Functioning
Emergency Stops	✓			
No Unauthorized Use (ie. Key Start)	✓			
Horn in Platform (Type 3 only)	✓			
Means of Communication With Driver	✓			2way radio and hand signals
<b>EMERGENCY LOWERING</b>	<b>C</b>	<b>DNC</b>	<b>NA/NI</b>	<b>COMMENTS</b>

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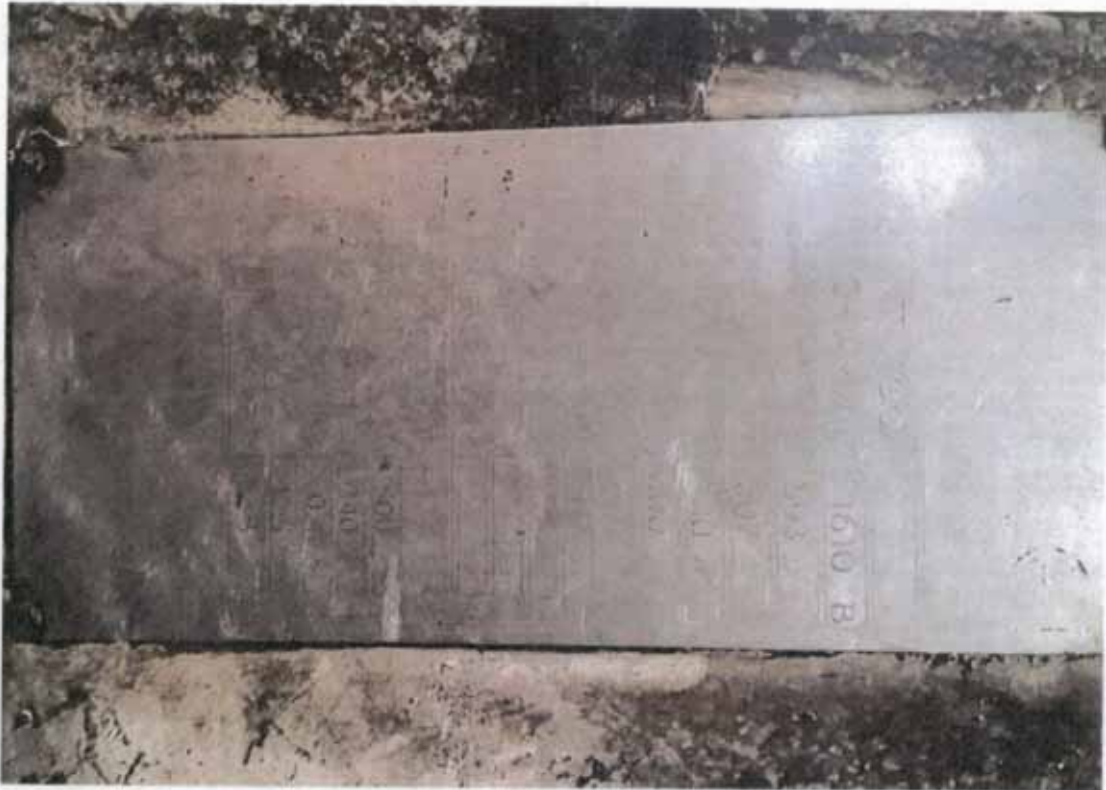
Asset Management Engineers

Controls and Instructions	✓			
Overrides Platform E-Stop	✓			
Functional Test	✓			
<b>TRAVEL / MOVEMENT</b>	<b>C</b>	<b>DNC</b>	<b>NA/NI</b>	<b>COMMENTS</b>
Interlock fitted (Pedestrian Controlled and Type 1 EWPs) to prevent travel while work platform is out of stowed position.	✓			
Max Travel Speed 1.7m/s (Pedestrian Controlled EWPs) 1.5m/s (Type 3 Vehicle Mounted) 3.0m/s (Type 3 Rail Mounted) 0.7m/s (All Other Type 3).	✓			
Max Slew Speed 1.4m/s (Horizontal Speed at Outer Edge of Platform At Max Range)	✓			
Max Platform Raise / Lower Speed 0.8m/s	✓			
Max Telescoping Speed 0.8m/s	✓			
Brakes (Travel Movement)	✓			
Brakes (All Drives)	✓			
Smoothness and Limits of Motion	✓			
Platform Automatic Levelling (< 5° variation)	✓			
<b>OTHER</b>	<b>C</b>	<b>DNC</b>	<b>NA/NI</b>	<b>COMMENTS</b>
Ancillary Equipment	✓			
Additional Items Specified By Manufacturer			NA	

Overview



Overview



Overview



Overview



Overview



Overview



Overview

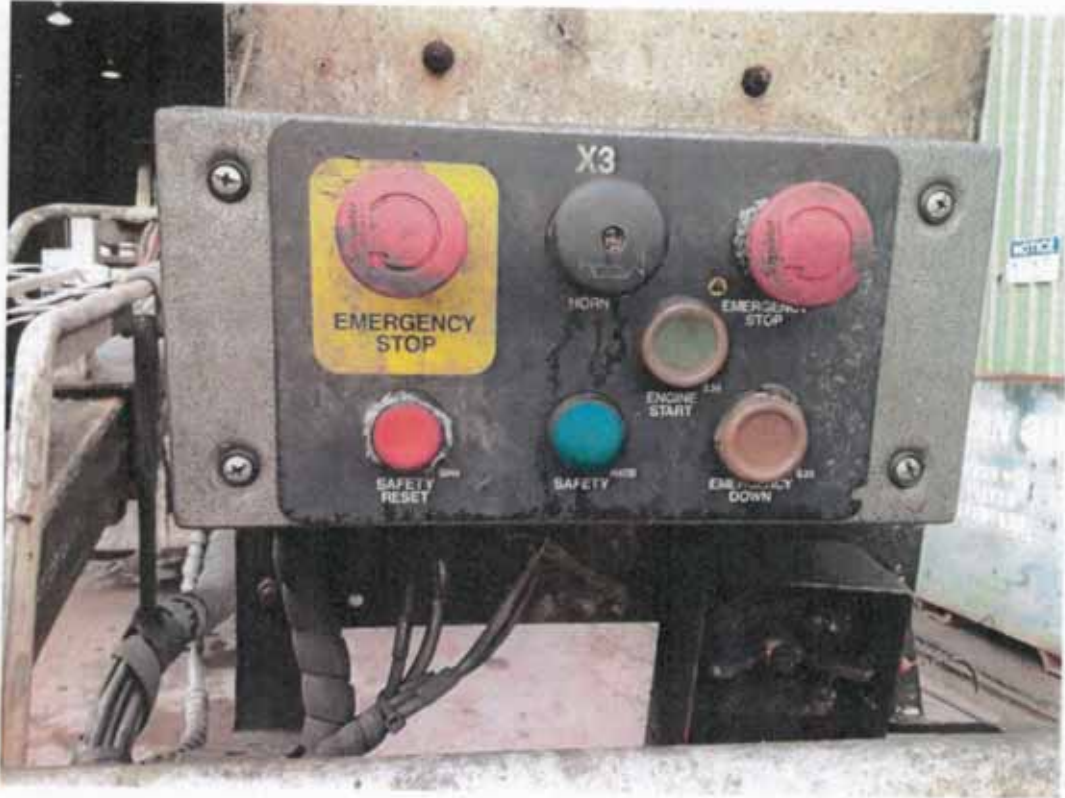


Overview





Overview



Overview



Overview



Overview



## Overview





**ASSET MANAGEMENT  
ENGINEERS**

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## STATUTORY INSPECTION REPORT

### ELEVATING WORK PLATFORM

**Owner's Plant No:** REVIEW593 on CUO1 (1)

**Inspection Date:** 30/03/2017

**Job No:** 3716

**EWP Serial No:** 593 (2)

**Owner:** Metals X

**Design Registration No:** WAH 19590

**Site:** Nifty

**Manufacturer:** Normet / Charmec

**Location:** U.G. Workshop

**Manufacture Date:** 30/06/2007

**Site Contact:** Kareese Kay

**Description:** Elevating Work Platform

**MRC:** 500 kg

**Maximum Lift Height:** 6.4 Meters

I have inspected this Elevating Work Platform in accordance with AS 2550.1:2011, AS 2550.10:2011, AS 1418.1:2002, AS 1418.10:2011 and Regulation 6.40(1) of the Mines Safety and Inspection Regulations 1995 and assessed that it is suitable for continued operation subject to the following Non-Compliance(s) being rectified:-

**Non-Compliance(s):**

*10 YEAR, "August 2012" PSL*

1. The equipment is to undergo a major 10 yearly overhaul with the documentation placed in the equipment file.
2. Replace the missing Manufacturers Data Label.
3. Provide a Log Book for all operators/service people to populate.

**Inspection notes:**

4. The initial inspection could not be completed due to a hydraulic fault, A secondary inspection was completed when the fault had been rectified.



**Inspector's Name:** Michael Dodd

**Inspector's Signature:** *[Signature]*

**Report QA Checked by:** Fang Wang

**Report QA Signature:** *[Signature]*

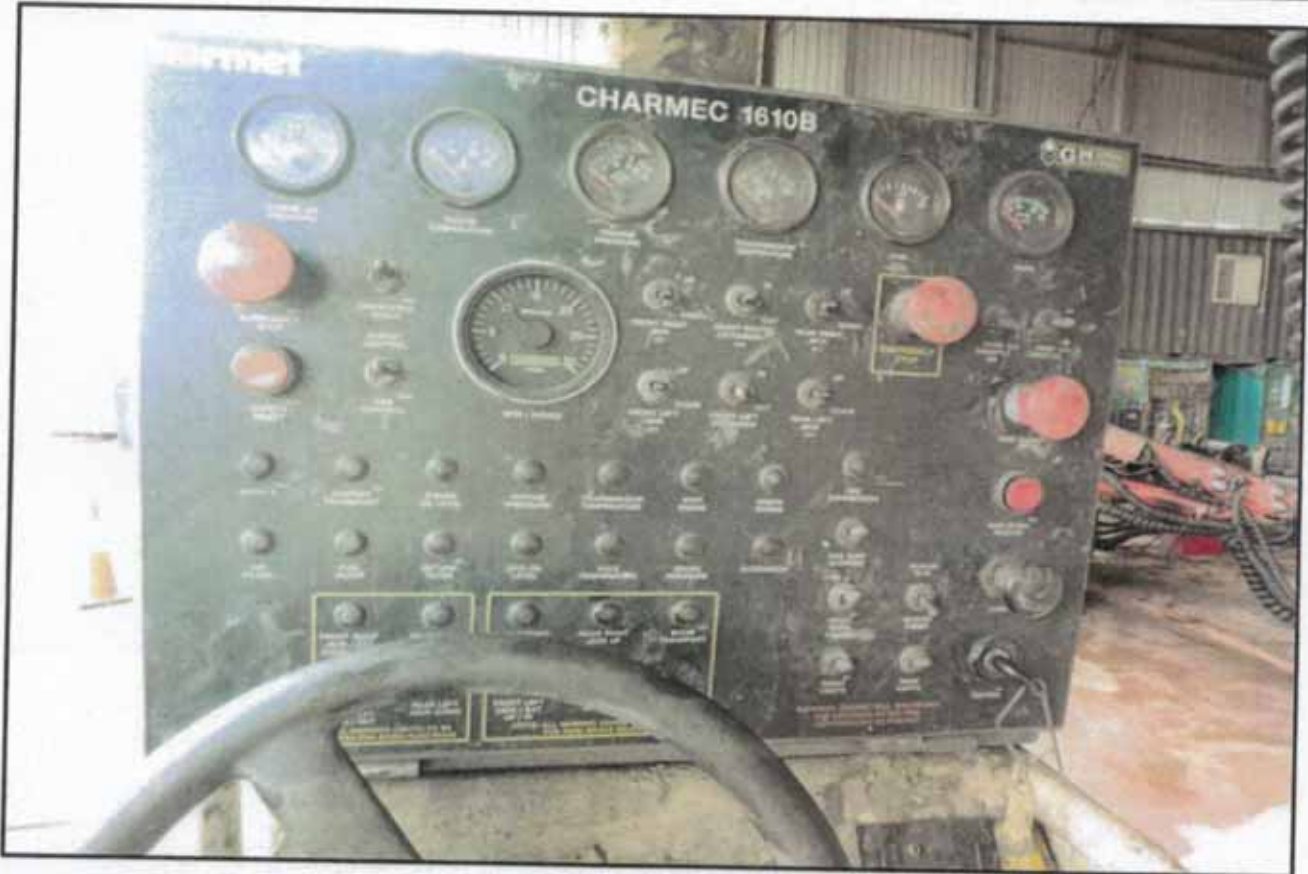
**Next Statutory Inspection due on or before:** 30/03/2019 (MSIR 1995 - Regulation 6.40, Schedule 3)

C: Complies    DNC: Does Not Comply    NA: Not Applicable    NI: Not Inspected

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Placards, Decals, Warnings & Control Markings	✓			Reasonable
Boom	✓			Good
Basket	✓			Compliant
Additional Items Specified by the Manufacturer	✓			Falling Object Protective Structure



C: Complies    DNC: Does Not Comply    NA: Not Applicable    NI: Not Inspected

## ELEVATING WORK PLATFORM STATUTORY INSPECTION REPORT

Asset Management Engineers

EQUIPMENT DATA	C	DNC	NA/NI	COMMENTS
Unique Identity Number	✓			CU01
Registration Number	✓			
Manufacturer's Details				
i) Drawings			NI	
ii) Design and Approval	✓			In the Equipment file
iii) Manufacturing Reports			NI	
EQUIPMENT HISTORY / MAINTENANCE	C	DNC	NA/NI	COMMENTS
Inspection Reports			NI	None previous
Test Certificates			NI	
Ancillary Equipment Details (eg. Wire Rope Certificates)			NI	
Routine Maintenance	✓			
Annual Maintenance (1)		x		To undergo 10 yearly major
EQUIPMENT INSPECTION	C	DNC	NA/NI	COMMENTS
Inspection Conditions: Visibility, Access Cleanliness etc.	✓			OK
Logbook Available and Being Used (3)		x		Not present
Functions and Control Speed(s), Smoothness and Limits of Motion	✓			Checked and Compliant
Base or Ground Controls Including the Provisions of Overriding of Upper Controls	✓			Checked and Compliant
Chain and Cable Mechanisms Adjustment, Wear and Damage			NA	
Emergency & Safety Devices Including Interlocks & Emergency Lowering Devices	✓			All Operational
Lubrication of Moving Parts, Inspection of Filter Element(s), Hydraulic Oil and Coolant as Specified by the Manufacturer	✓			Compliant
Visual Inspection: Check for Conformance with Manufacturer's Specifications and the Safe Condition of all Vital Components including the Structure, Mechanisms, Electrical Equipment, Safety Devices, Brakes, Controls, Lighting, Indicators and Communication Systems	✓			Compliant
Guardrails and Guarding	✓			Compliant
Safety Harness Attachments & Connections	✓			Compliant
Ancillary Equipment	✓			Fire Suppression Equipment

C: Complies DNC: Does Not Comply NA: Not Applicable NI: Not Inspected

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S:\Jobs\Jobs\3716 Metals X Nifty CP Inspections\03 Reports\Mikes Reports\3716 REVIEW593 EWP Normet 30.03.2017.xlsx

# INSPECTION REPORT

Client: Aditya Birla Minerals Ltd  
Address: PO Box 3074  
Adelaide Tce, West Perth  
WA 6832

Site : Nifty Copper Operations  
Address: 3074, Adelaide Tce  
Perth,  
WA 6872

Job No: I02841  
Contact: Gerry Noonan  
Tel No: (08) 9179 0900  
Fax No: (08) 9179 0918

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Owner	Aditya Birla Minerals Ltd		
Plant Location	Underground	Area	
Plant Unique Id No.	Review 593		
Serial Number	593		
Registration Number	P10347		
Design Approval No.	WAH19590		
Model Number	1610B		
Last Inspection Date	13/06/2013		
Next Inspection Date	13/06/2015	Inspection Status	CMI
Manufacturer	Normet Corporation		

## SPECIALISED DETAILS

Plant Type/Description	Boom Type Elevated Work Platform		
SWL (Main)	500 Kilogram(s)		
SWL (Aux)	Kilogram(s)		
Date of Manufacture	30/06/2007		
Operators Manual	No		
Maintenance Manual	No		
Logbook	No		
Plant Record Book available	Yes	Details recorded in CPRB	Yes

## Inspection of Boom Type Elevated Work Platform

Inspection Criteria: AS1418.10 (Int)-2004 and AS2550.10-2006

### General

Item	Check List	Comments	Compliance
1	Registration Number	P10347	Yes
2	Maintenance Records	Yes	Yes
3	Inspection Records	Yes	Yes
4	Repairs	Sighted	Yes

### Inspection Check List


Item	Check List	Comments	Compliance
1	Functions and controls speed(s), smoothness and limits of motion.	Satisfactory condition	Yes
2	Base or ground controls including the provisions for overriding of upper controls.	Satisfactory condition	Yes
3	Chain and cable mechanisms adjustment, wear and damage	Not applicable	N/A
4	Emergency and safety devices including interlocks and emergency lowering devices.	Satisfactory condition	Yes
5	Lubrication of moving parts, inspection of filter element(s), hydraulic oil and coolant as specified by the manufacturer.	Satisfactory condition	Yes
6	Visual inspection: check for conformance with manufacturer's specifications and the safe condition of all vital components including; the structure, mechanisms, electrical equipment, safety devices, brakes, controls, lighting, indicators and com systems;	Satisfactory condition	Yes
7	Guardrails and guarding;	Satisfactory condition	Yes
8	Attachments, connections; and ancillary equipment	Satisfactory condition	Yes
9	Placards, decals, warnings and control markings.	Satisfactory condition	Yes
10	Boom	Satisfactory condition	Yes
11	Basket	Gates not self-closing - crack	No
12	Additional Items specified by the manufacturer	Operation manual	Yes



**General Comments:****Noncompliances:**

1. Basket gate shall be self-closing and self-locking.
2. Crack detected on basket frame, shall be repaired.
3. Operation manual shall be made available in the machine.
4. All the relevant documents shall be sourced and held in file.
5. Unique ID shall be allocated and displayed.

**Providing all Noncompliances are actioned the plant has been assessed as suitable for continued service/use under AS1418.10 (Int)-2004 and AS2550.10-2006.**

<b>Inspector</b>	<b>Anil Thomas</b>		<b>13/06/2013</b>
	<b>Name</b>	<b>Sign</b>	<b>Inspection Date</b>



**Plant Type/Description**  
**Plant Unique Identification No.**  
**Plant Serial Number**  
**Registration Number**

**Boom Type Elevated Work Platform**  
**Review 593**  
**593**  
**P10347**



**Basket gate shall be self-closing and self-locking.**



**Crack detected on basket, frame shall be repaired.**

# INSPECTION REPORT

33

Client: Aditya Birla Minerals Ltd

Site: Nifty Copper Operations  
Address: 3074  
Adelaide Tce, Perth  
WA 6872

Job No: P02133  
Contact: Mr Gerry Noonan  
Tel No: (08) 9179 0900  
Fax No: (08) 9179 0918

Owner	Aditya Birla Minerals Ltd		
Plant Location	Underground	Area	
Plant Unique Id No.	Review 593		
Serial Number	593		
Registration Number	P10347		
Design Approval No.	WAH19590		
Model Number	1610B		
Last Inspection Date	08/06/2010		
Next Inspection Date	08/06/2012	Inspection Status	CMI
Manufacturer	Normet Corporation		

## SPECIALISED DETAILS

Plant Type/Description	Boom Type Elevated Work Platform		
SWL (Main)	500 Kilogram(s)		
SWL (Aux)	Kilogram(s)		
Date of Manufacture	30/06/2007		
Operators Manual	No		
Maintenance Manual	No		
Logbook	No		
Plant Record Book available?	Yes	Details recorded in CRPB	Yes

**Inspection of Boom Type Elevated Work Platform**  
**Inspection Criteria: AS1418.10 (Int)-2004 and AS2550.10-2006**

**General**

Item	Check List	Comments	Compliance
1	Registration Number	P10347	Yes
2	Maintenance Records	Yes	Yes
3	Inspection Records	Yes	Yes
4	Repairs	Minor repairs ongoing	Yes

**Inspection Check List**

Item	Check List	Comments	Compliance
1	Functions and controls speed(s), smoothness and limits of motion.	All tested ok	Yes
2	Base or ground controls including the provisions for overriding of upper controls.	All tested ok	Yes
3	Chain and cable mechanisms adjustment, wear and damage		N/A
4	Emergency and safety devices including interlocks and emergency lowering devices.	Horn and amber beacon failed	No
5	Lubrication of moving parts, inspection of filter element(s), hydraulic oil and coolant as specified by the manufacturer.	Well lubricated	Yes
6	Visual inspection: check for conformance with manufacturer's specifications and the safe condition of all vital components including; the structure, mechanisms, electrical equipment, safety devices, brakes, controls, lighting, indicators and com systems;		N/A
7	Guardrails and guarding;	Damaged basket and at rear	No
8	Attachments, connections; and ancillary equipment	Welding onto rear guardrail	No
9	Placards, decals, warnings and control markings.	Intact - some work / faded	Yes
10	Boom	Satisfactory	Yes
11	Basket	Gates not self closing	No
12	Additional Items specified by the manufacturer		N/A

**General Comments:**

Some warning / safety labels faded and or damaged - replace accordingly  
Basket control labels were covered in grime - cleaned at time of inspection.  
Harness anchorage points not clearly labelled  
No operators manual sighted  
Earthing to Anfo kettles corroded - electrical continuity testing and possible repair required  
Rear handrails corroded / bent / holed and safety drop bar missing – it is recommended to replace the complete assembly (both sides).

**Non-Compliances:**

Basket gates self closing functions not operational  
Horn not operational  
Beacon not rotating  
No operators manual sighted

**Providing all non-compliances are actioned the plant has been assessed as suitable for continued service/use under AS1418.10 (Int)-2004 and AS2550.10-2006.**

Inspector Edwin Roberts

08/06/2010



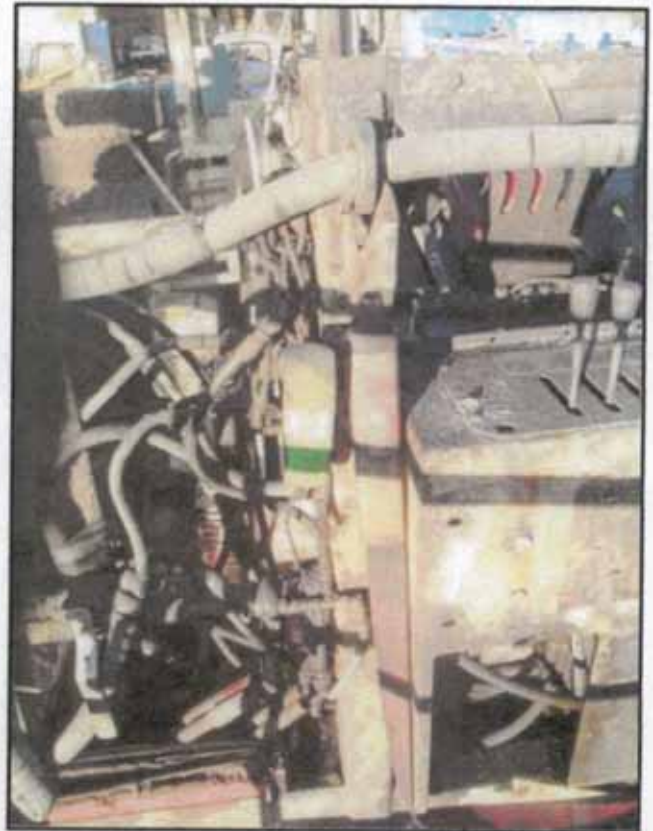
Name:

Signature:

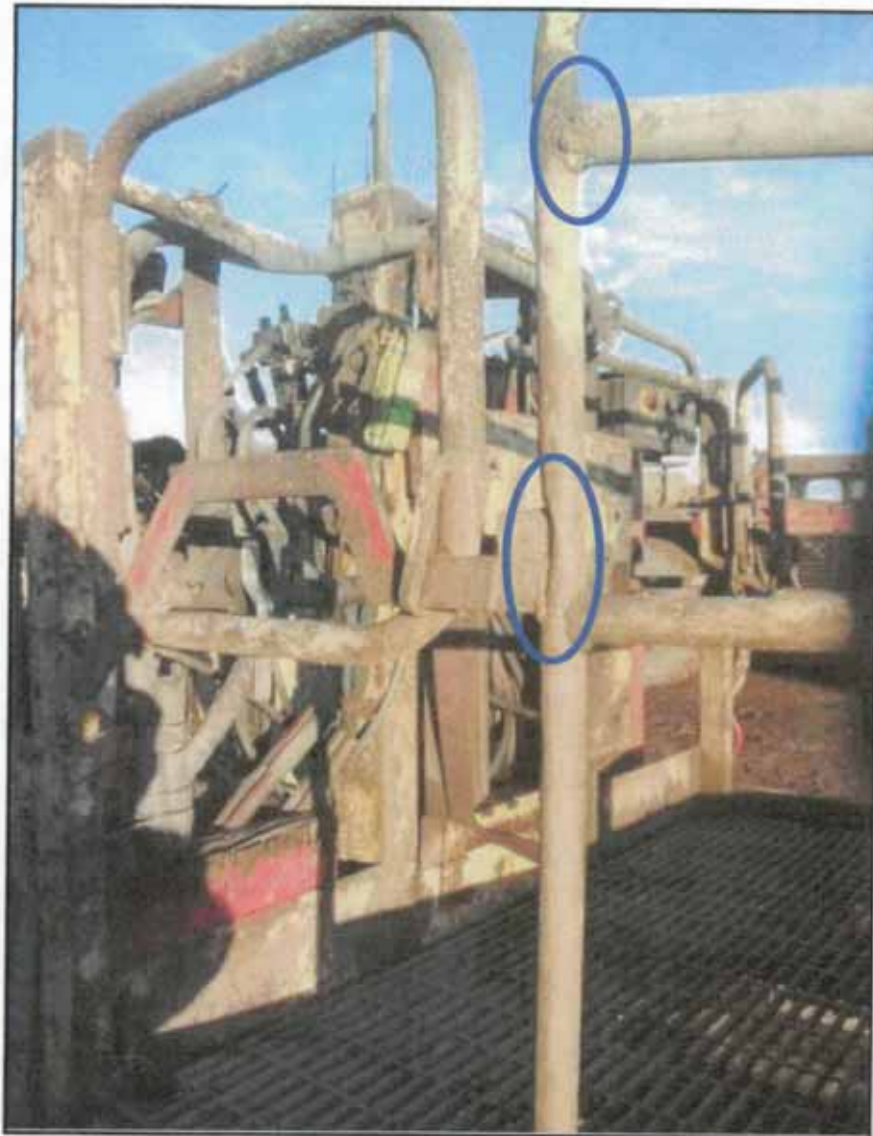
Inspection Date:



Repair minor hydraulic oil leaks.



- Clearly identify harness anchorage points.
- Ensure controls labelling is kept clear and legible (improve housekeeping).



- Repair self-closing mechanisms for both basket gates.
- Repair Basket rails and non-standard weld in accordance with the manufacturer's recommendations.

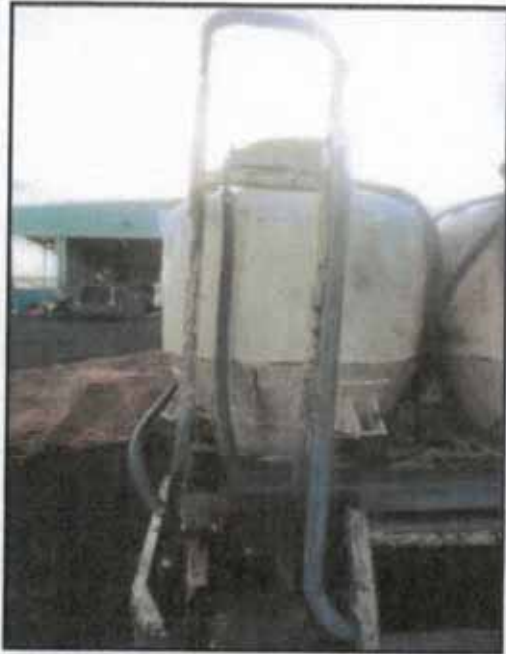




Check the electrical continuity of the Anfo kettles earthing and repair as necessary.



Repair burst air line



Replace complete (both sides) rear platform rail assembly.

**Plant Type/Description**  
**Plant Unique Identification No.**  
**Plant Serial Number**  
**Registration Number**

Boom Type Elevated Work Platform  
Review 593  
593  
P10347



Your ref: P10347  
Obj Id:  
Enquiries: Rod McFarlane - Ph 08 9358 8491 Fax 08 9325 2280  
Email: rod.mcfarlane@dmp.wa.gov.au

To The Registered Manager  
Richard Beazley  
Aditya Birla Minerals Pty  
3074 Adelaide Terrace  
Perth  
WA 6872

**REGISTRATION OF CLASSIFIED PLANT- BOOM TYPE ELEVATING WORK PLATFORM = MAKE: NORMET CHARMEC 1610 B = SWL 500 KG OR TWO PEOPLE = PLANT ID REVIEW 593 = LOCATION: NIFTY COPPER OPERATIONS, EAST PILBARA**

I refer to the application, sent on your behalf, for the registration of the above-mentioned EWP dated 17<sup>th</sup> July 2009. The application was reviewed and accepted. This letter confirms that the above-mentioned item has been registered pursuant to Regulation 6.34 of the *Mines Safety & Inspection Regulations 1995 (MSIR)*.

The table below details the EWP and the respective registration number allocated to it.

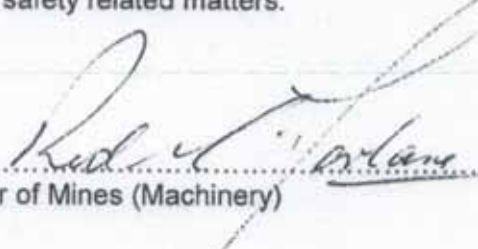
Reg No.	Description	Serial No.	Mine	Owner	Design Reg.
<u>P10347</u>	ELEVATING WORK PLATFORM	593	NIFTY COPPER OPERATIONS	ADITYA BIRLA MINERALS LTD	WAH19590

Before the EWP is used at a mining operation the following requirements must be completed:

1. The respective registration number must be marked appropriately on the EWP in a prominent manner.
2. The EWP must be maintained in accordance with relevant Australian Standards and the manufacturer's instructions.
3. A Competent Person appointed by the Registered Manager of a mine must inspect the EWP pursuant to the conditions of the General Exemption for Regulation 6.40 of the *MSIR*.

Please do not hesitate to contact myself if you have any questions regarding this or other machinery safety related matters.

Regards

Rod McFarlane   
Special Inspector of Mines (Machinery)

22<sup>nd</sup> July 2009

Cc: Edwin Roberts. AMMS Group. Edwin.roberts@amms.com.au

Resources Safety Division  
Level 1 303 Sevenoaks St (Cnr Grose Ave) Cannington Western Australia 6107  
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**Charmec 1610 B****1617 0060**

1. Operator manual
2. Lubrication and maintenance schedule
3. Lubrication manual
4. Maintenance manual
5. Basket Boom NBB 3 s  
Operation and maintenance manual
6. Charging device  
Operation and maintenance manual
7. Safety instructions
8. Fire extinguisher
9. Schema
10. Certificate of construction inspection and first  
pressure test for pressure vessel



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Code: ..... 1617 0060

Chassis No. 591

Equipment: ... Basket boom NBB 3S, Anfo 2 x 500l

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**Charmec 1610 B****1617 0060**

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**Charmec 1610 B**

1617 0060

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**1. VEHICLE DATA**

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**1.1. TECHNICAL INFORMATION 1700618****FUNCTION**

The carrier is a diesel-engined vehicle provided with hydrodynamic transmission, four-wheel drive and hydraulic centre pivot steering.

**ENGINE**

Mercedes-Benz ..... OM 904 LA  
Output ..... 110 kW / 2200 rpm / min  
Exhaust gas purifier ..... Catalytic ECS

**TRANSMISSION**

*Hydrodynamic transmission*

Dana Powershift ..... Three speeds forward and reverse.  
Type ..... 24000 series

**AXLES**

Dana ..... 176  
Planetary type, four wheel drive

**TYRES** ..... 12.00 - 20 PR 18  
Wheel nut tightening torque ... 550 Nm

**BRAKES**

*Drive brake:*

Hydraulic power assisted two-circuit oil immersed multidisc brakes in both axles.

*Safety brake/parking brake:*

Hydraulically released fail safe brake.

**STEERING AND CONTROLS**

Hydraulic frame steering  
Steering valve ..... ORBITROL  
Frame articulation ..... +/- 40°  
Frame oscillation ..... +/- 10°

**HYDRAULICS:**

Output ..... 175 bar, 78 l/min / 2300 rpm

**ELECTRICAL SYSTEM**

Voltage ..... 24 V, negative ground  
Battery ..... 2 x 110 Ah  
Alternator ..... 80 A  
Lights ..... (2+2) x 70 W  
Work lights ..... 4 x 70 W  
Turning lights  
Brake lights

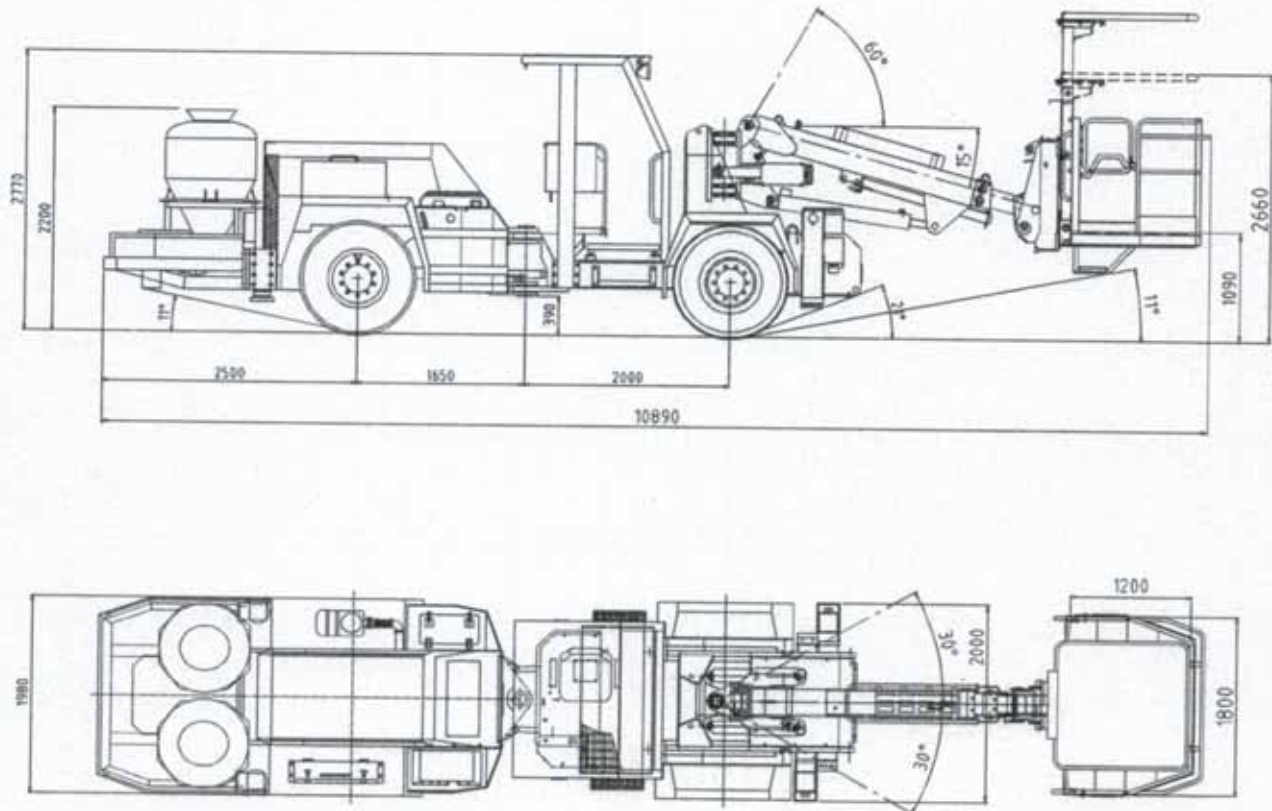


Fig. 2. Dimensioned drawing 1700618

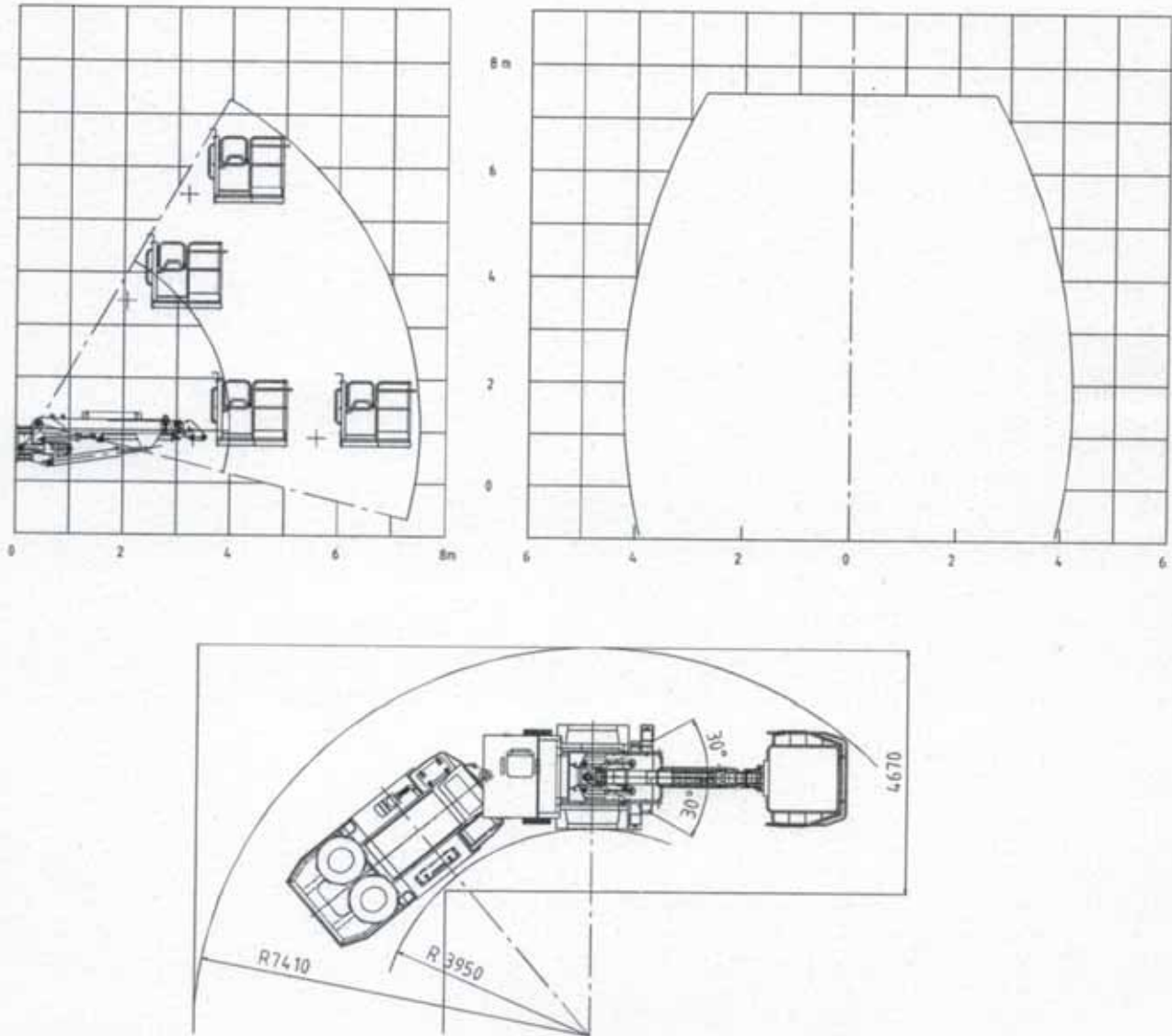


Fig. 3. Dimensioned drawing 1700618



**Charmec 1610 B**

1617 0060

**PERFORMANCE**

Gear: .....	Speed:
I-gear .....	5,0 km/h
II-gear .....	10,0 km/h
III-gear .....	25,0 km/h
Max. tractive effort .....	132 kN

**MAIN DIMENSIONS**

Length .....	10890 mm
Width .....	2000 mm
Height .....	2770 mm
Wheel base .....	3650 mm
Track .....	1650 mm
Ground clearance .....	390 mm

**TURNING RADIUS**

Outer .....	7410 mm
Inner .....	3950 mm

**WEIGHT**

Operating .....	13800 kg
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**BASKET BOOM NBB 3S**

Max. load .....	500 kg
Lifting height .....	6400 mm
Boom swing .....	+/- 30°
Automatic levelling of basket	
Hydraulic support legs	

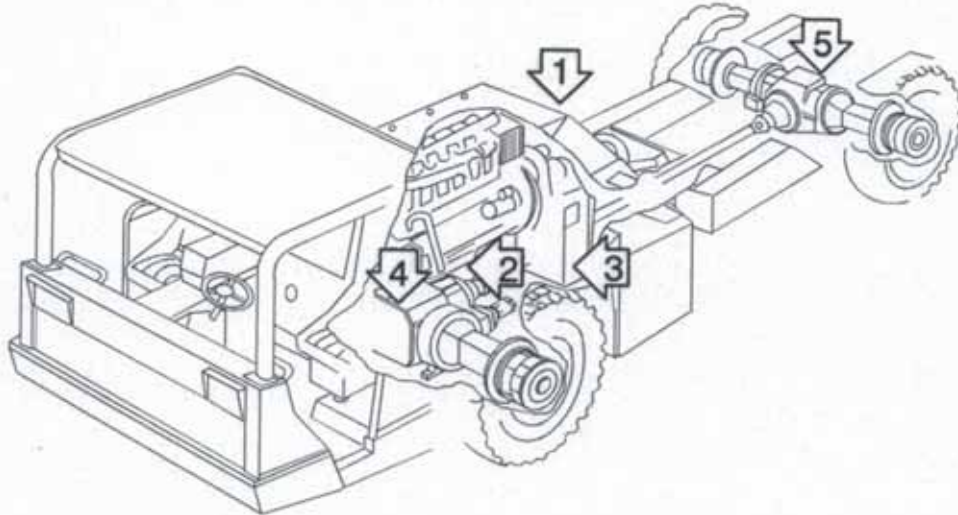
**ANFO SYSTEM**

Tank volume .....	2 x 500 l
Pressure .....	Max. 8 bar
Remote controls in basket	

Diesel start / stop from the basket

**VEHICLE IDENTIFICATION**

In order to identify the vehicle and its components correctly when discussing technical points or ordering of spare parts, please check the models serial numbers as follows:



*Fig. 1. Vehicle identification*

- 1. Vehicle  
Type .....  
Serial No. ....
  
- 2. Engine  
Type .....  
Serial No. ....
  
- 3. Transmission  
Type .....  
Serial No. ....
  
- 4. Front axle  
Type .....  
Serial No. ....
  
- 5. Rear axle  
Type .....  
Serial No. ....

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**OPERATOR MANUAL**

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*Code: . . . . . 1617 0060*

*Chassis No. 591*

*Equipment: . . . Basket boom NBB 3S, Anfo 2 x 500 l*

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This manual is a guide to the proper and safe operation of the vehicle. In respect of operation the equipment outfit over the vehicle causes changes and additions which must be considered separately. The information contained in this manual is current for this vehicle. Continued product improvement, and different versions of the equipment may result in changes to the vehicle which are not covered.

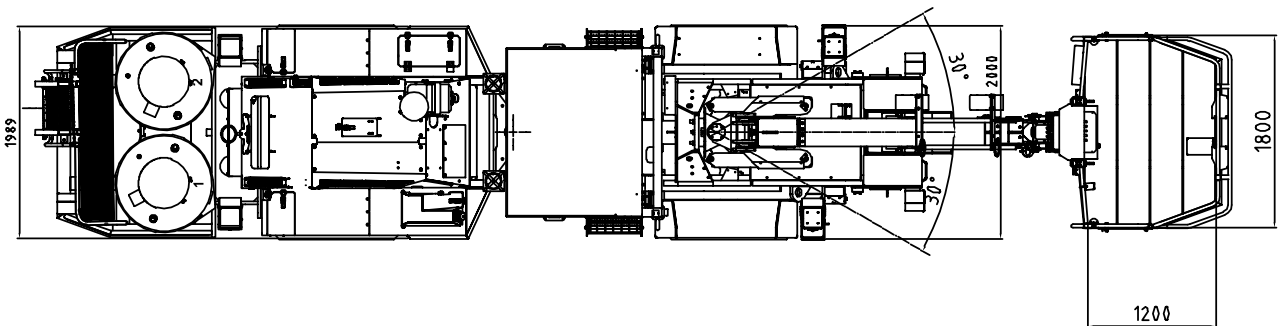
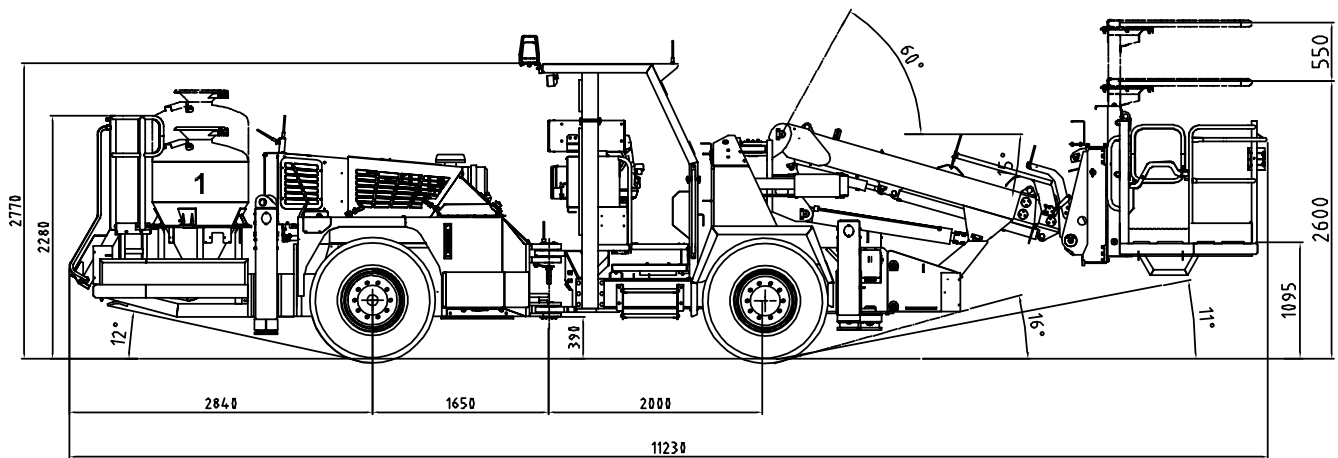
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# Charmec 1610 B

ANFO Loader with boom

TI 100005408  
DRW  
DATE 04.09.2008  
PAGE 1 / 3  
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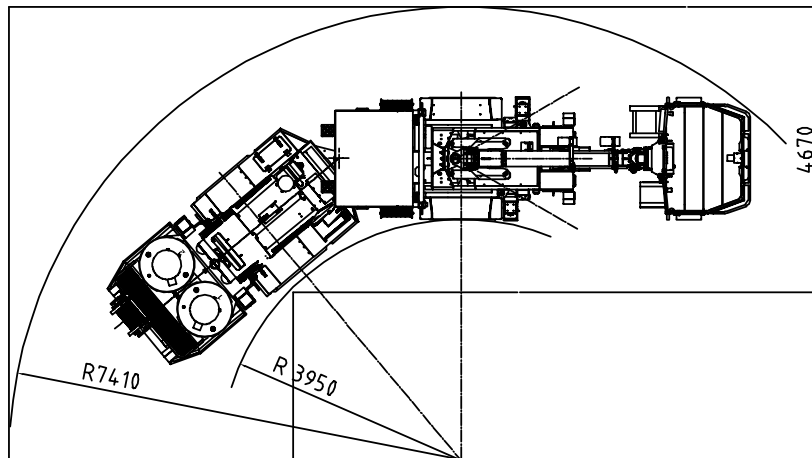
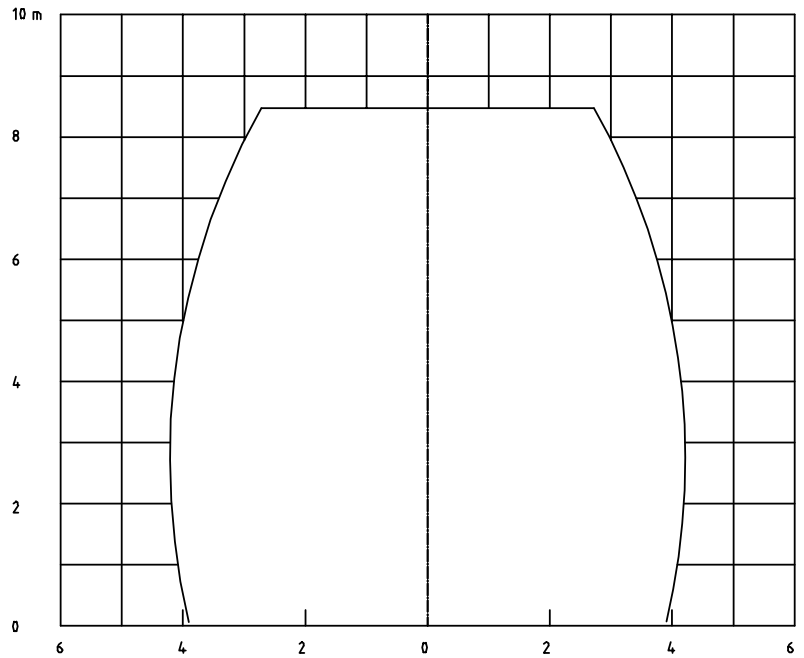
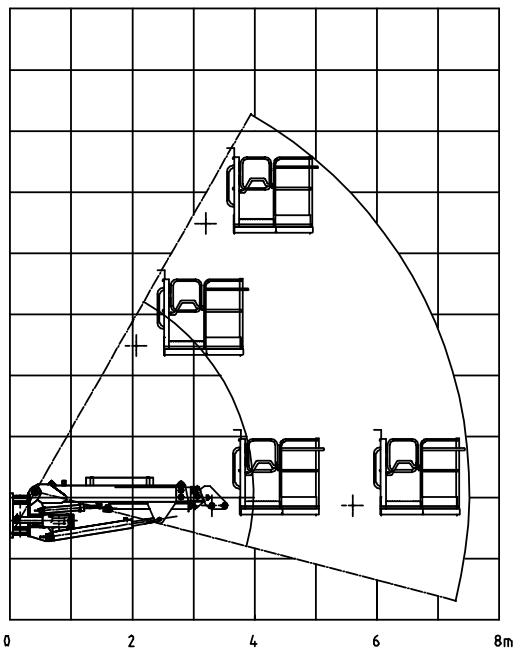
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ANFO Loader with boom

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**DIMENSIONS**

Length	11230 mm
Width	2400 mm
Height	2770 mm
Wheel base	3650 mm
Track	1650 mm
Ground clearance	390 mm

**WEIGHT**

Operating	13800 kg
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**TURNING RADIUS**

Outer	7410 mm
Inner	3900 mm

**NBB3S BASKET BOOM**

Lifting capacity	500 kg
Lifting height	6400 mm
Boom slew	+/- 30°
Vertical working reach	7450 mm
Horizontal working reach	8450 mm
Hydraulic support legs	
Diesel start/stop from basket	
Battery operated emergency pump	

**ANFO SYSTEM**

Tank volume	2x500 l
Pressure	max. 8 bar
Remote controls in basket	

**PERFORMANCE CURVE**

1st gear	max. 5 km/h
2nd gear	10 km/h
3rd gear	25 km/h
Max. tractive effort	132 kN

**TRANSMISSION**

Dana Spicer powershift  
 3 speeds forwards and reverse  
 4-wheel drive

**AXLES**

Planetary type	
rear axle fixed	
front axle oscillation	+/- 10°

**TYRES**

12.00 - 20 PR 18

**BRAKES**

**Service brake:** hydraulically powered two-circuit oil immersed multidisc brakes in both axles

**Safety/Parking brake:** hydraulically released fail-safe - type brake

**STEERING**

Hydraulic frame steering,  
 Orbitrol type  
 Frame articulation +/- 40°

**HYDRAULICS**

175 bar, 137 l/min/2200 rpm

**ENGINE**

Deutz TCD 2013 L4  
 120 kW/2300 rpm

**ELECTRICAL SYSTEM**

24 V negative ground  
 Battery 2 x 110 Ah  
 Alternator 80 A  
 Lights (2+2) x 70 W

**OPTIONS AND ACCESSORIES:****ENGINE**

Mercedes- Benz 904 LA  
 110 kW/2200 rpm

**SAFETY CANOPY FOR BASKET**

Lifting capacity with safety canopy 400 kg

**ANFO SYSTEM 2x720 L**