

VEHICLE CONTROL ARM LOAD TEST REPORT

Customer¹	Munji 4x4 Accessories Pty Ltd as trustee for The McLeod Family
Customer Address¹	4/27 Motorway Circuit, Ormeau, QLD, 4208
Requested By¹	Jared McLeod
Purchase Order¹	–
Issuing Laboratory	MechTest - Brisbane Laboratory
Report Number	RB23-9393-03
Job Description¹	Client requirements – Load each sample till failure, record peak load achieved
Identification	SB23-9393-03-01 through 03
Material Specification¹	SB23-9393-03-01 & 02 – Aluminium – Not further specified SB23-9393-03-03 – Steel – Not further specified
Test Specification¹	Client requirements – Load the test items to failure, record peak load achieved.
Test Results	Information only

Note 1: Information supplied by Client. This information may affect the validity of the result.

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- 2) The test results included in this document relate only to the items tested, in the condition that they were supplied to MechTest by the client.
 - a. It is the responsibility of the client to ensure that the samples tested are representative of the entire product batch.
 - b. The results detailed in this report shall not be taken to suggest that all products in all state of repair would perform in the same manner.
- 3) The test items were supplied by the client, MechTest takes no responsibility for the authenticity of the product described in this report.
- 4) The assembly instructions and installation procedure are the responsibility of the client, MechTest takes no responsibility.
- 5) This report is based in part on information which was provided to us by the client and/or others. MechTest does not warrant or guarantee the accuracy of this information.
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Form ID: AMTS-06-06-01 (R1)



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Accreditation Number 20414



Nikita Eshchenko

All samples will be discarded after 4 weeks, unless requested otherwise

RB23-9393-03 Vehicle Control Arm Load Testing Report, Page 1 of 11

31 July 2023

TEST RESULTS

Test Method	AMTS-04-06-01 & Client requirements: <ul style="list-style-type: none"> – Label each sample with a unique item number. – Position the sample into the jig so that the test item is supported through the bushing/cylinder and the load is applied perpendicular to the 4 holes on the other end of the sample. – Apply a gradual load to the test item till failure occurs. – Record the peak load achieved. – Release the load and inspect the sample for damage, deformation and failure modes.
Test Technician	Nikita Eshchenko
Job Location	MechTest – Brisbane
Test Date	26 July 2023
Loading Device	T00002 – 300 kN UTM

Table 1: Specimen details for SB23-9393-03-01.

Type of Component	Upgraded Munji vehicle suspension control arm
Manufacturer ID	I-S4-UCA
Item Material (if known)	Aluminium – Not further specified
Other Details	four M8 x 60 mm, grade 8.8 bolts used to transfer the load from the UTM to the test item

Table 2: Specimen details for SB23-9393-03-02.

Type of Component	Upgraded Munji vehicle suspension control arm
Manufacturer ID	I-S4-UCA
Item Material (if known)	Aluminium – Not further specified
Other Details	four M8 x 60 mm, grade 8.8 bolts used to transfer the load from the UTM to the test item

Table 3: Specimen details for SB23-9393-03-03.

Type of Component	OEM vehicle suspension control arm
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Manufacturer ID	–
Item Material (if known)	Steel – Not further specified
Other Details	four M8 x 60 mm, grade 8.8 bolts used to transfer the load from the UTM to the test item

Table 4: Test results – Load test results for SB23-9393-03-01 through 03.

Item	Peak Load [kN]	Comments
01	47.46	Failure occurred at the bottom bushing cylinder, cracking of material.
02	43.86	Failure occurred at the bottom bushing cylinder, cracking of material.
03	30.96	Test item deformed and begun to compact on itself at ≈ 23 kN.

Notes: Information only.

FIGURES



Figure 1: View of test item 01.



Figure 2: View of test item 02.



Figure 3: View of test item 03.



Figure 4: View of test arrangement for item 01.



Figure 5: View of test arrangement for item 02.



Figure 6: View of test arrangement for item 03.

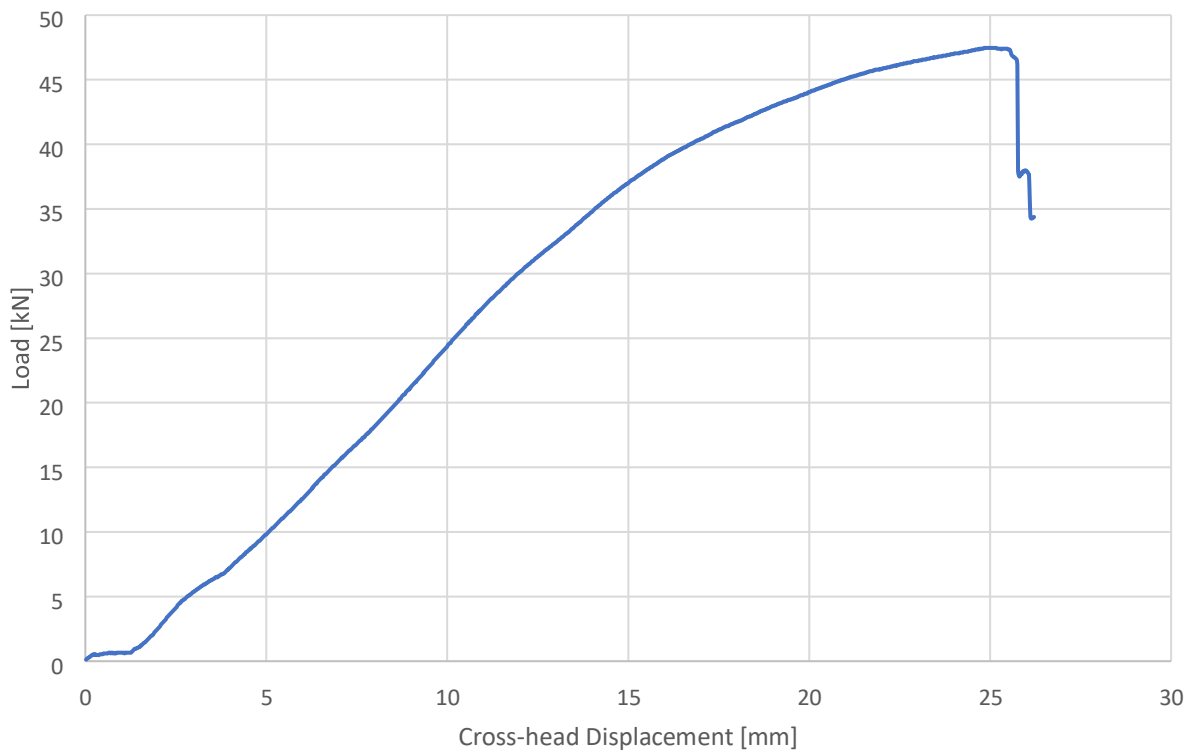


Figure 7: View of load vs cross-head displacement for sample 01.

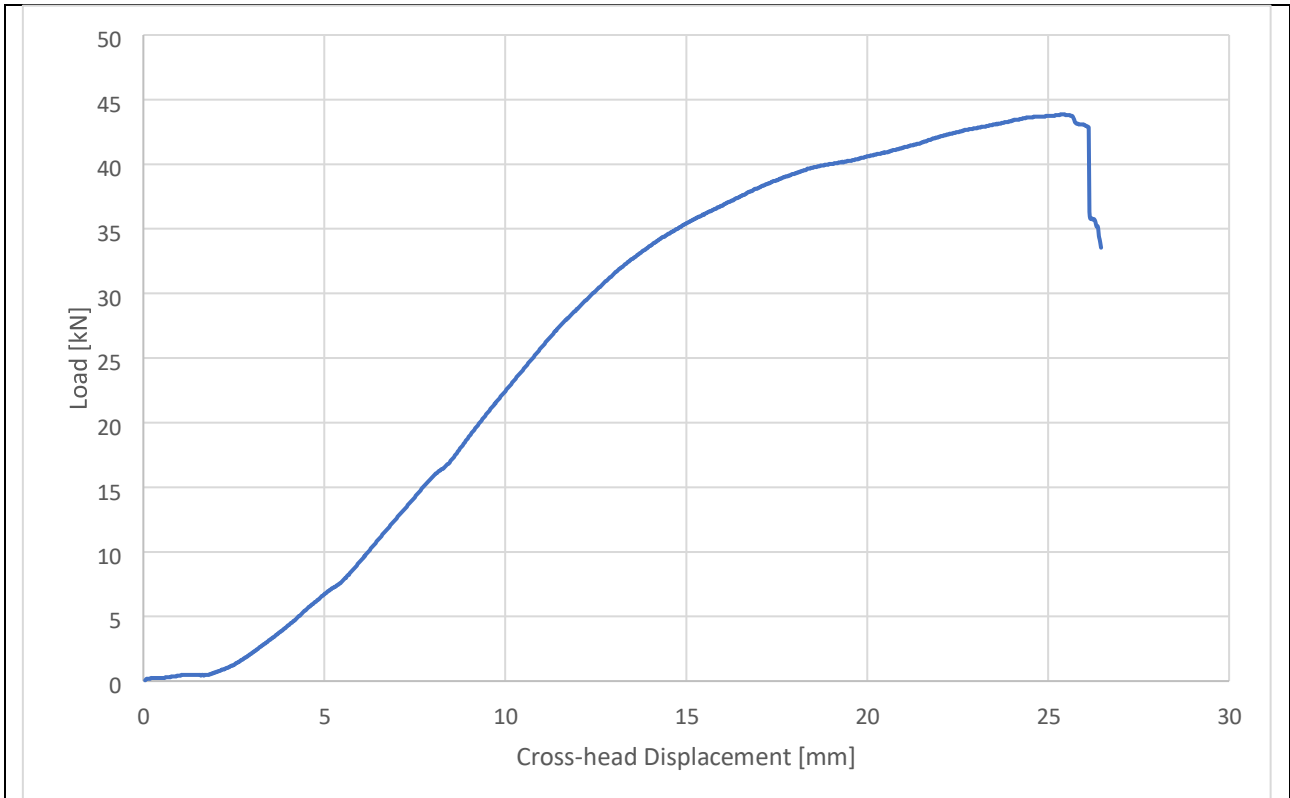


Figure 8: View of load vs cross-head displacement for sample 02.

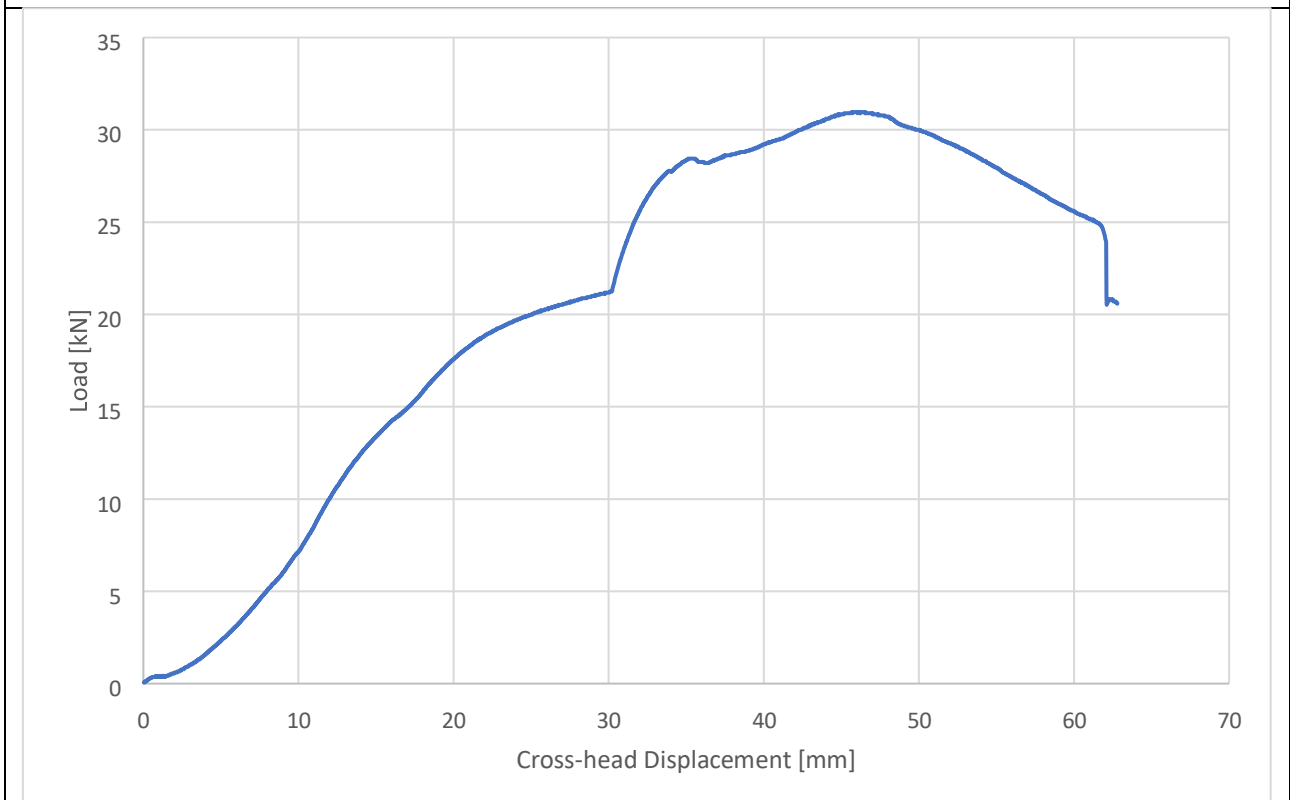


Figure 9: View of load vs cross-head displacement for sample 03.

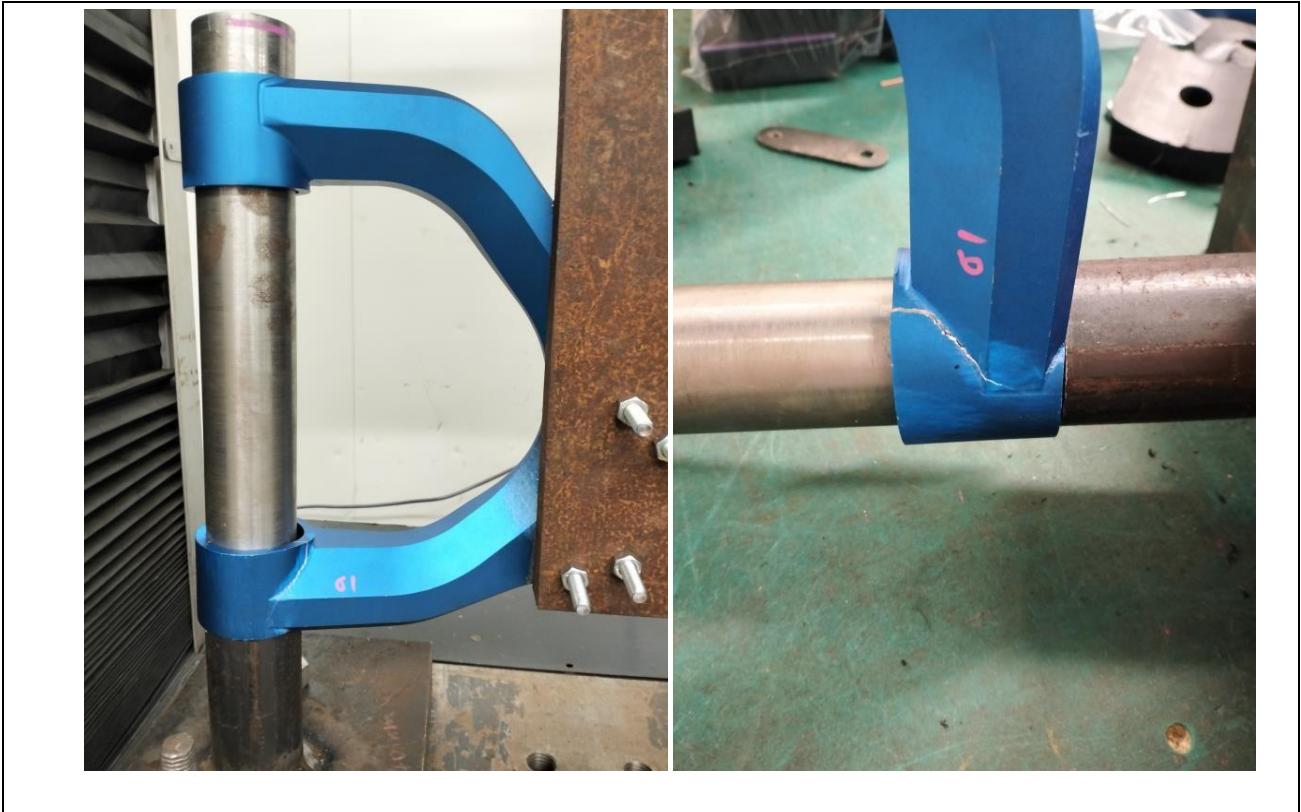


Figure 10: View of failure mode for sample 01.



Figure 11: View of failure mode for sample 02.



Figure 12: View of failure mode for sample 03.