CSIR
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CERTIFICATE OF TEST

TEST OF NINE MEDIUM DUTY CAMLOK PROPS

Application Received: 22 June 2006

Certificate No.: T09948

Order No.: Letter/07-07-2006

Date of test: 22 June 2006

SUBMITTED BY

Messrs M Props (Pty) Ltd
Suite 20
Private Bag X22
BENMORE
2010

Test witnessed by: Mr Ed Groves
Mr Colin May
Mr Peter Flood
Mr John Von Ruben
Mr Mike Strong

INTRODUCTION

At the request of M Props (Pty) Ltd, nine Medium Duty Camlok Props were submitted for compression testing. The purpose of the test was to determine the attainable pre-load, the maximum load carrying capability and remote release under maximum load conditions of the Medium Duty Camlok Prop. Each prop was tested at three height locations.

- Location 1: The shortest height of the Camlok Prop (Min.)
- Location 2: The middle height of the Camlok Prop (Med.)
- Location 3: The longest height of the Camlok Prop (Max.)

TEST PROCEDURE

Testing Machine: 8896kN (1000sh ton) Mohr & Federhaff
Type Test: Destruction in compression

Prior to testing, a **10° inclined steel wedge** was mounted on the head of the Camlok Prop, the prop was then set to the correct test height. The Camlok Prop was tensioned between the top and lower platens of the 8896kN (1000sh ton) Mohr & Federhaff compression testing machine. A gradually increasing compression load was applied to the prop, until either **hole elongation** or **bending** of the tube occurred. The pressure was then released using the remote release system of the Camlok Prop.

Testing Officer: .....

Engineer: .....

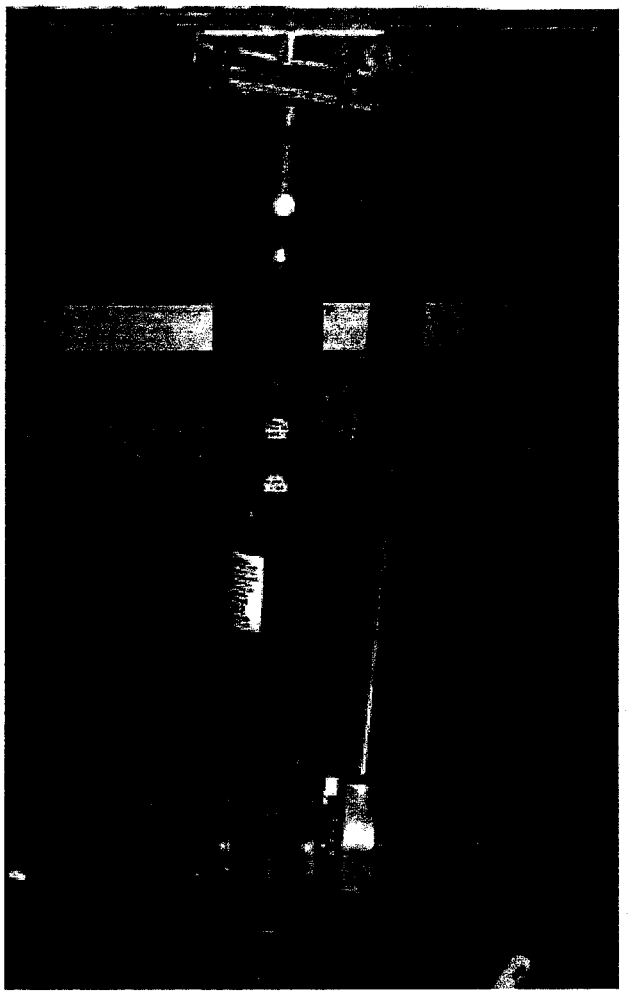


Photo 1: The medium duty Camlok prop installed in the testing machine with a 10° inclined steel wedge

Testing Officer: .....

Engineer: .....

TEST RESULTS

Table 1: Table showing all the relevant information as per client specification

Test No.	Position (m)	Preload (kN)	Maximum load carried (kN)	Displacement (mm)	Mode of yield/failure
M 1					
1a	Min. 0.700	26	140.63	19.24	Hole elongated
1b	Med. 0.980	40	143.16	15.01	Hole elongated
1c	Max. 1.050	38	169.43	31.04	Hole elongated/destruction
M 2					
2a	Min. 0.900	40	144.38	14.83	Hole elongated
2b	Med. 1.180	34	142.72	16.03	Hole elongated
2c	Max. 1.350	30	150.49	30.42	Hole elongated/destruction
M 3					
3a	Min. 1.000	45	142.51	15.60	Hole elongated
3b	Med. 1.280	32	137.65	14.85	Hole elongated
3c	Max. 1.500	45	154.47	21.86	Hole elongated/destruction
M 3A					
4a	Min. 1.100	39	143.36	15.57	Hole elongated
4b	Med. 1.380	39	138.06	18.01	Hole elongated
4c	Max. 1.700	32	148.31	26.77	Hole elongated, tube bent
M 4					
5a	Min. 1.350	42	134.38	22.16	Hole elongated
5b	Med. 1.770	46	126.00	21.18	Hole elongated
5c	Max. 2.150	54	110.43	15.12	Hole elongated, tube bent
M5					
6a	Min. 1.600	51	134.40	19.18	Hole elongated
6b	Med. 2.175	36	133.03	20.51	Hole elongated, tube bent
6c	Max. 2.650	37	104.53	15.01	Hole elongated
M 6					
7a	Min. 2.100	42	129.55	15.60	Hole elongated
7b	Med. 2.590	31	140.25	16.90	Hole elongated
7c	Max. 3.300	36	75.63	10.94	Tube flexed
M 6A					
8a	Min. 2.600	36	134.65	18.78	Hole elongated
8b	Med. 3.050	35	111.77	14.67	Hole elongated, tube bent
8c	Max. 3.800	44	71.99	4.34	Tube flexed
M 7					
9a	Min. 2.900	38	118.31	15.31	Hole elongated
9b	Med. 3.400	34	90.89	11.48	Tube flexed
9c	Max. 4.100	26	43.82	5.53	Tube flexed
M 8					
10a	Min. 3.650	33	38.55	4.22	Tube flexed
10b	Med. 4.200	32	48.35	5.56	Tube flexed
10c	Max. 4.850	30	60.93	10.02	Tube flexed

Testing Officer: . . . . . .

Engineer: . . . . . .

Photo 2a: Photo showing an elongated hole.

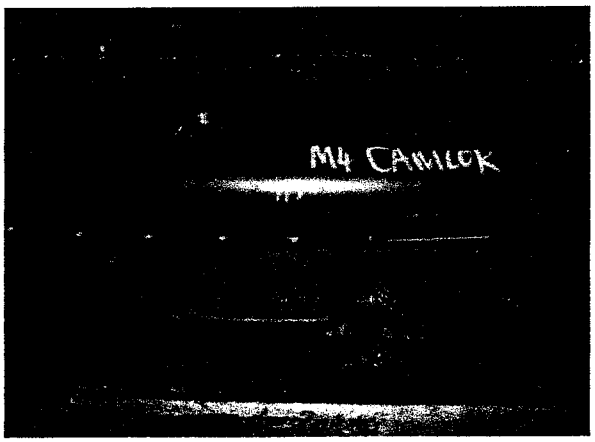


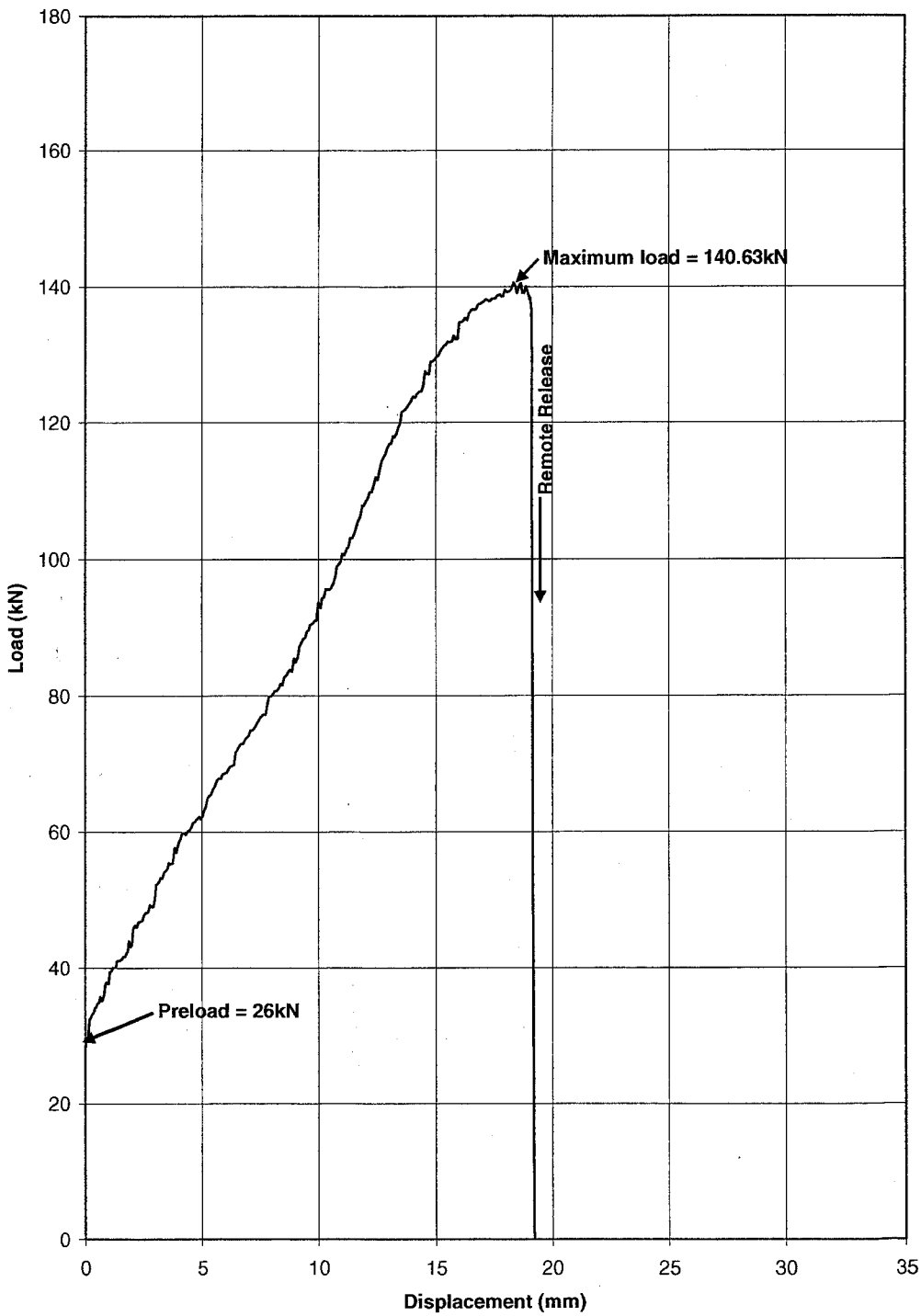
Photo 2b: Photo showing a bent/flexed tube.

Note: Despite pin hole elongation the prop could still be adjusted.

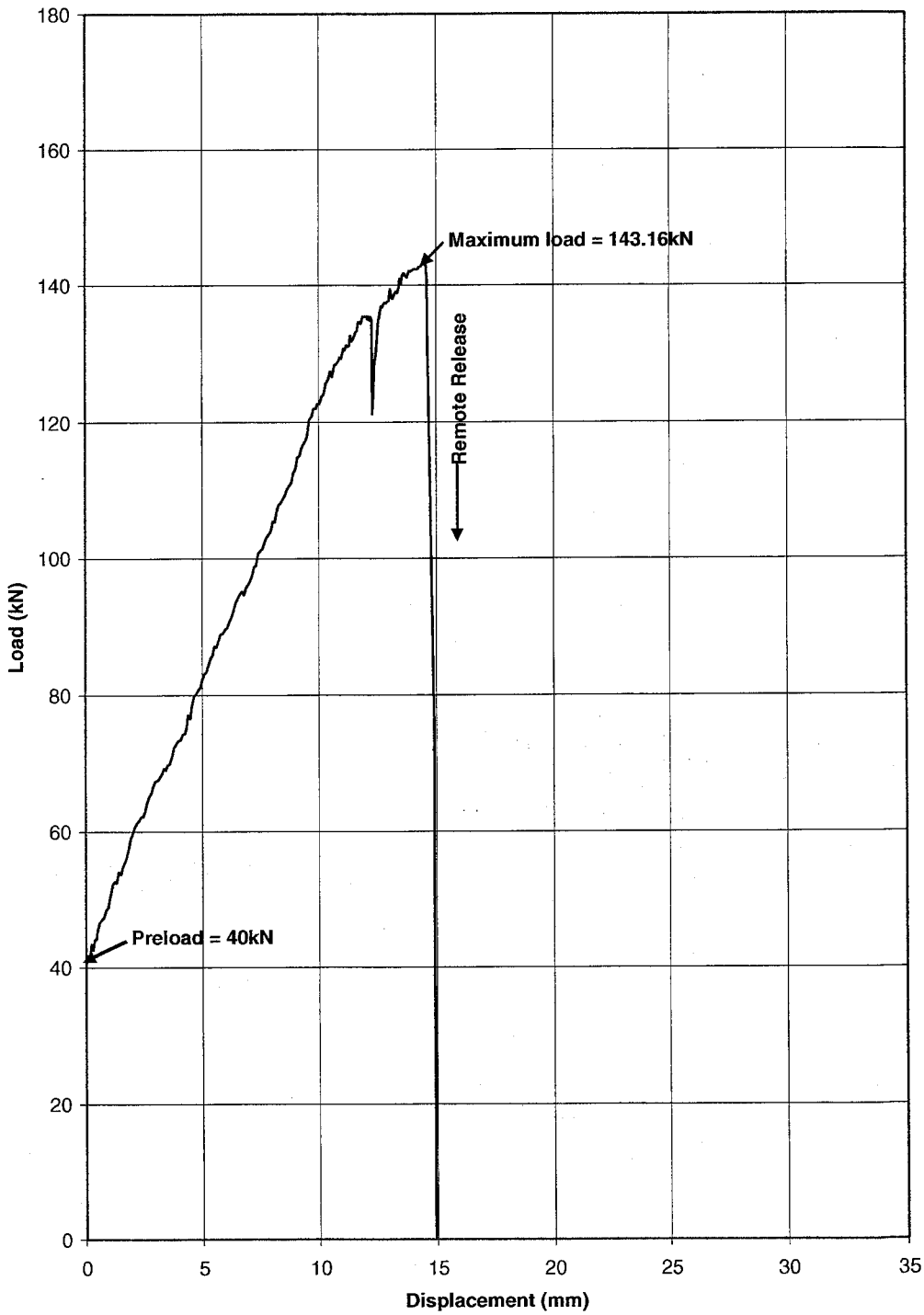
DISCLAIMER

1. The CSIR cannot be held responsible for product indifferences and cannot be held responsible for any accidents or incidents as a result thereof.
2. All CSIR standard terms and conditions of testing apply and will be forwarded upon request.
3. Due to the limited amount of sample(s) tested and the type of testing done, CSIR can only accept responsibility for the results from those specific samples tested.

Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M1
Location:	Min. position (0.700m)
Test No.:	1a
Maximum Force:	140.63kN



Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M1
Location:	Med. Position (0.980m)
Test No.:	1b
Maximum Force:	143.16kN



Notice:
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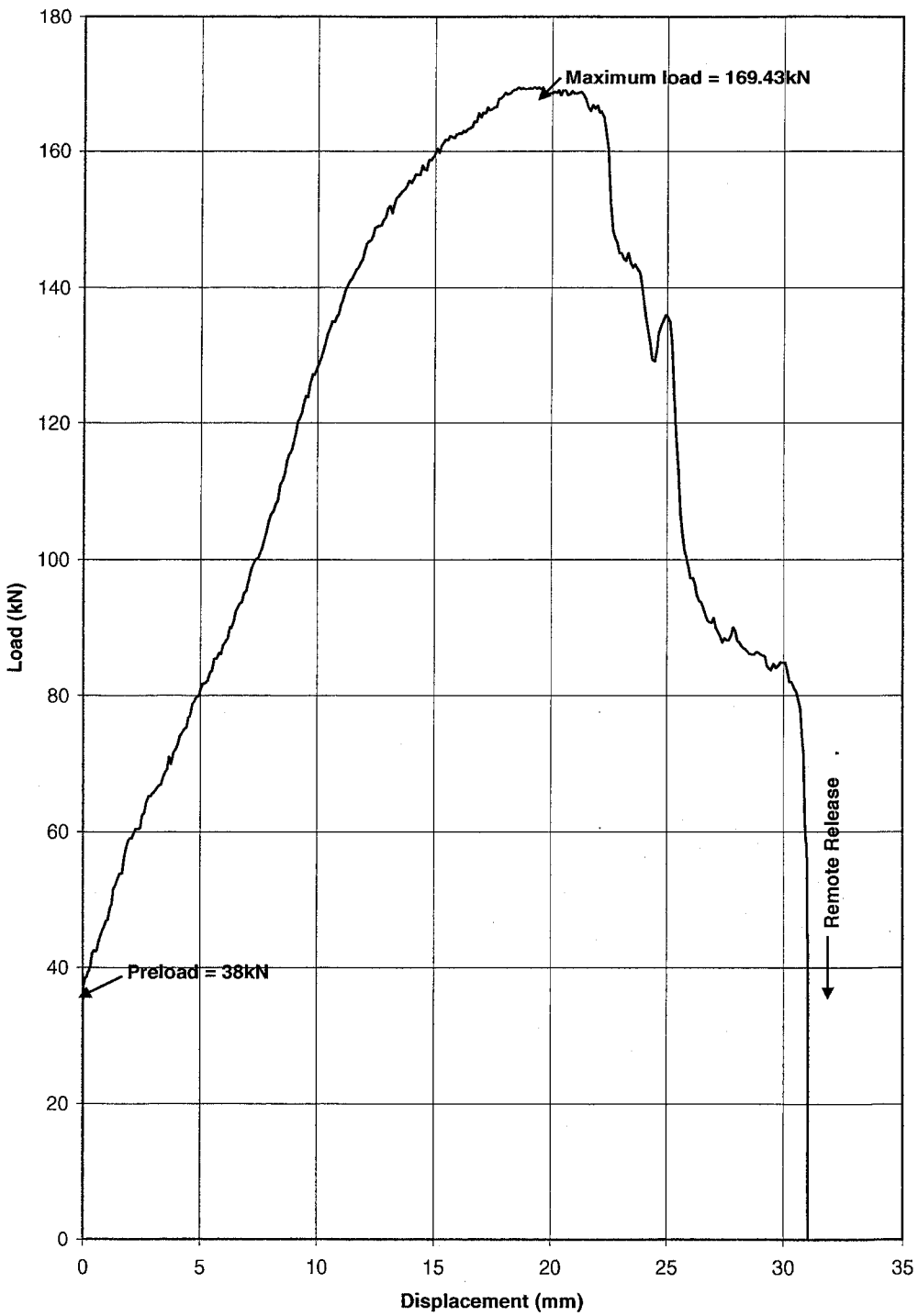
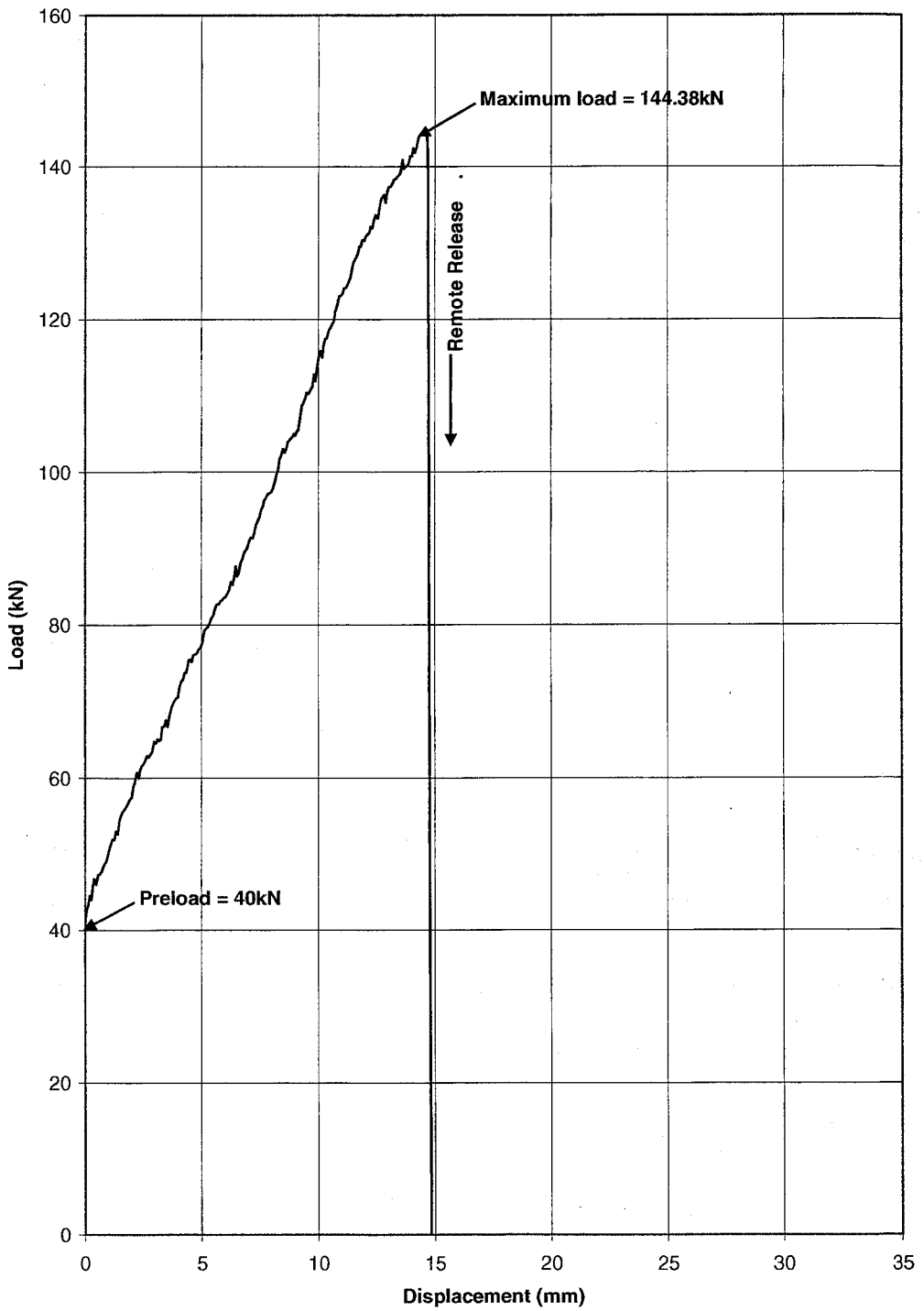
Testing Officer: .....

Engineer: .....

Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M1
Location:	Max. position (1.050m)
Test No.:	1c
Maximum Force:	169.43kN



Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M2
Location:	Min. position (0.900m)
Test No.:	2a
Maximum Force:	144.38kN



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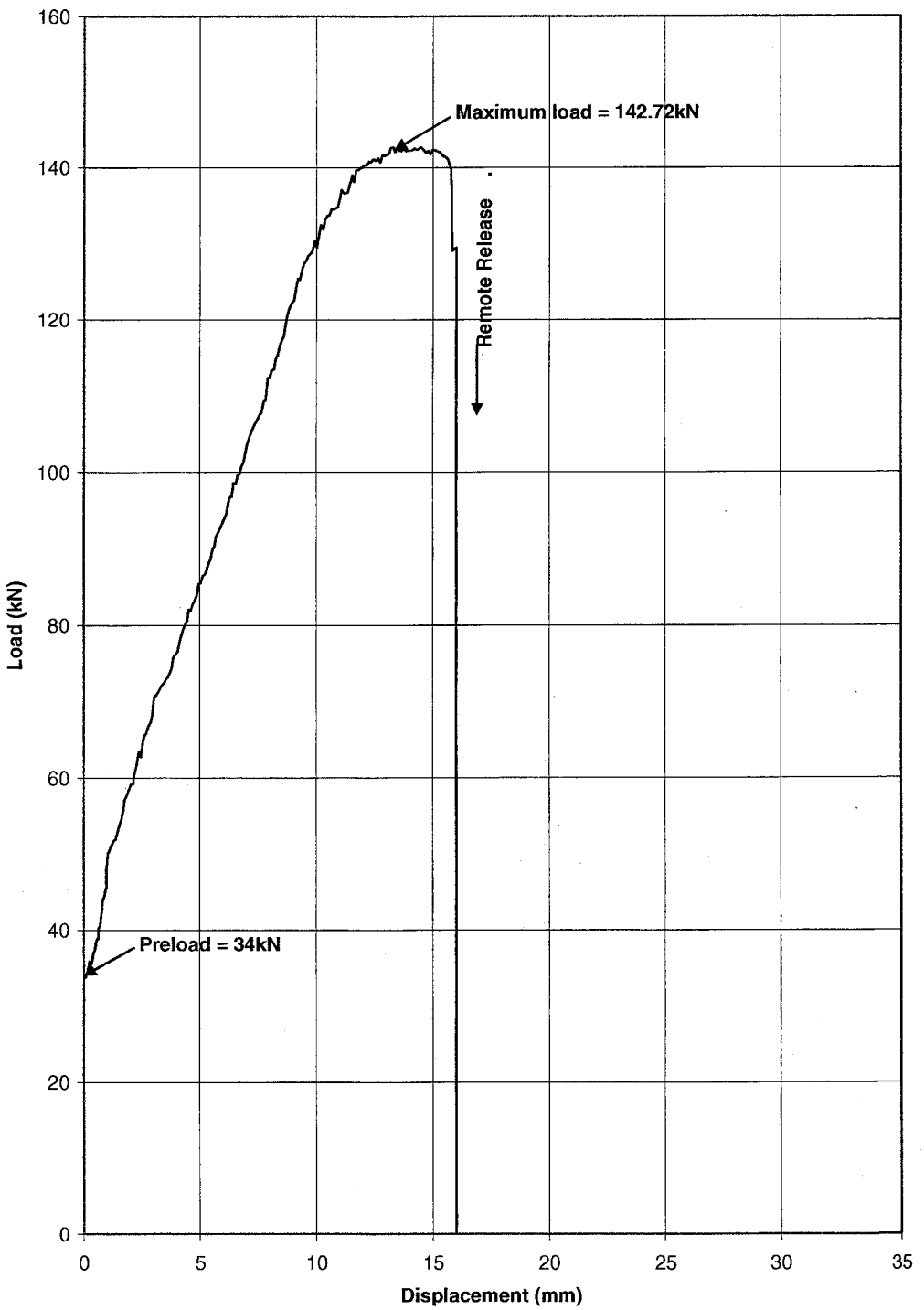
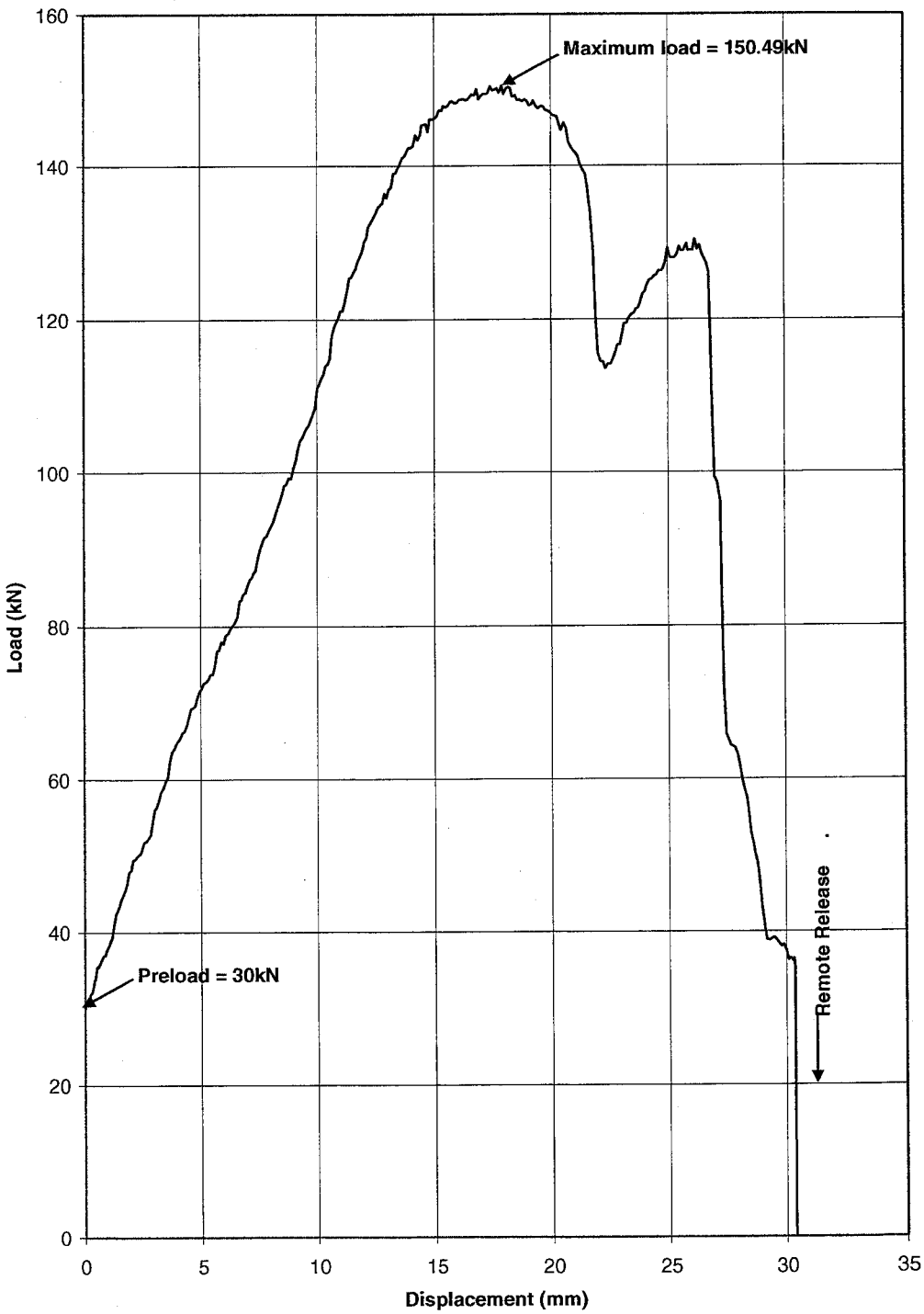
Engineer: . . . . . .

Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M2
Location:	Med. Position (1.180m)
Test No.:	2b
Maximum Force:	142.72kN



Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M2
Location:	Max. position (1.350m)
Test No.:	2c
Maximum Force:	150.49kN



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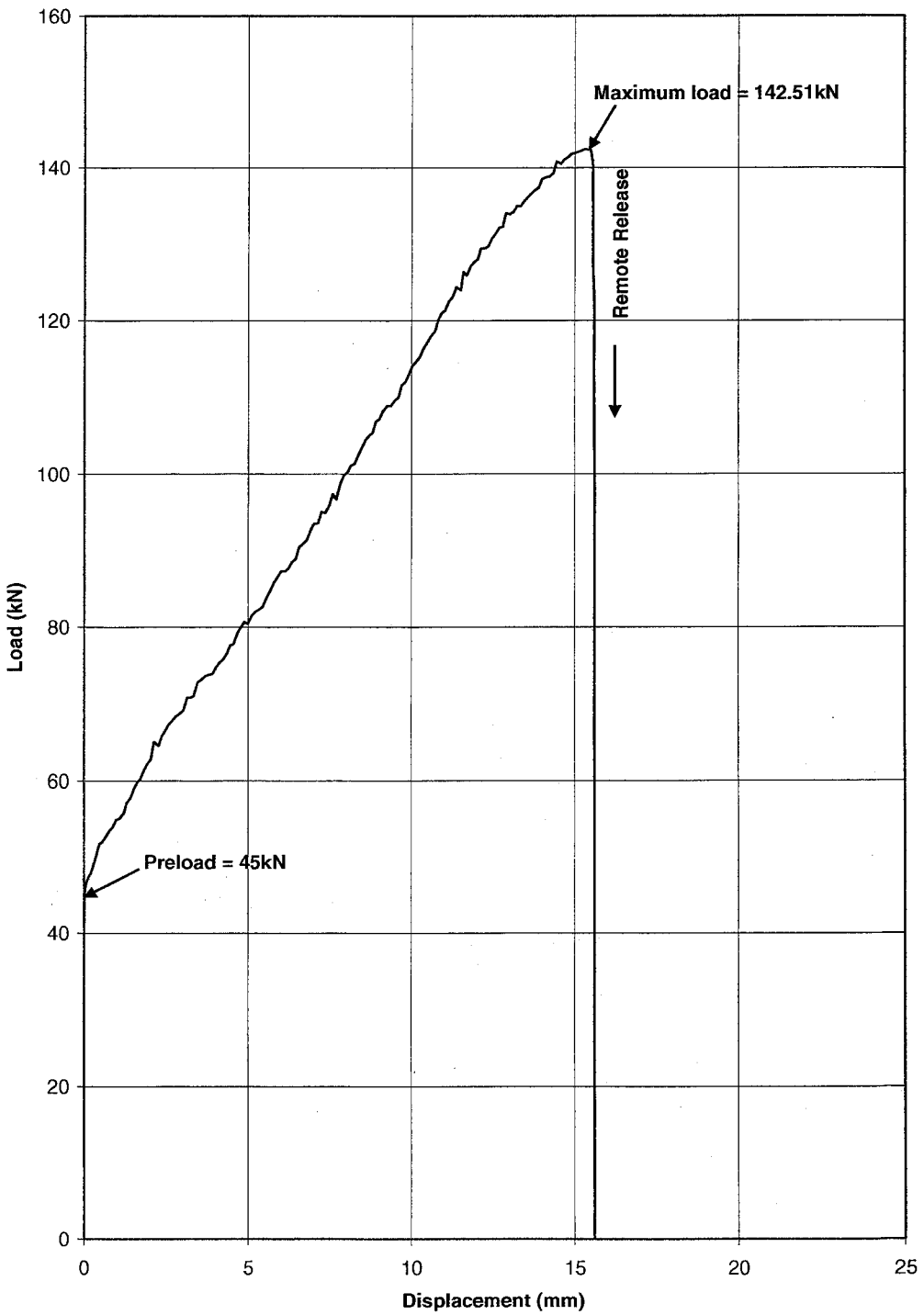
Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M3
Location:	Min. position (1.000m)
Test No.:	3a
Maximum Force:	142.51kN



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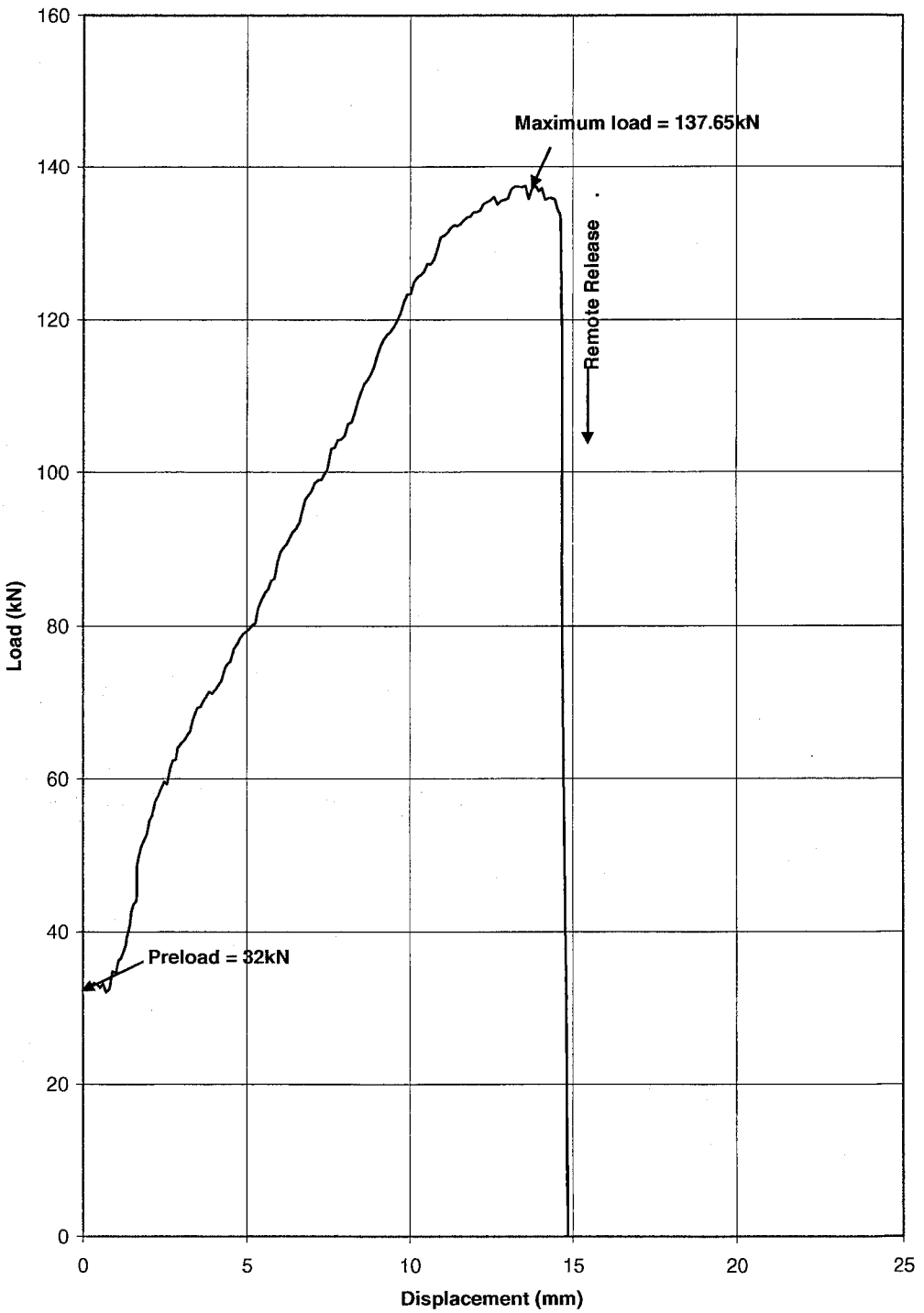
Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M3
Location:	Med. Position (1.280m)
Test No.:	3b
Maximum Force:	137.65kN



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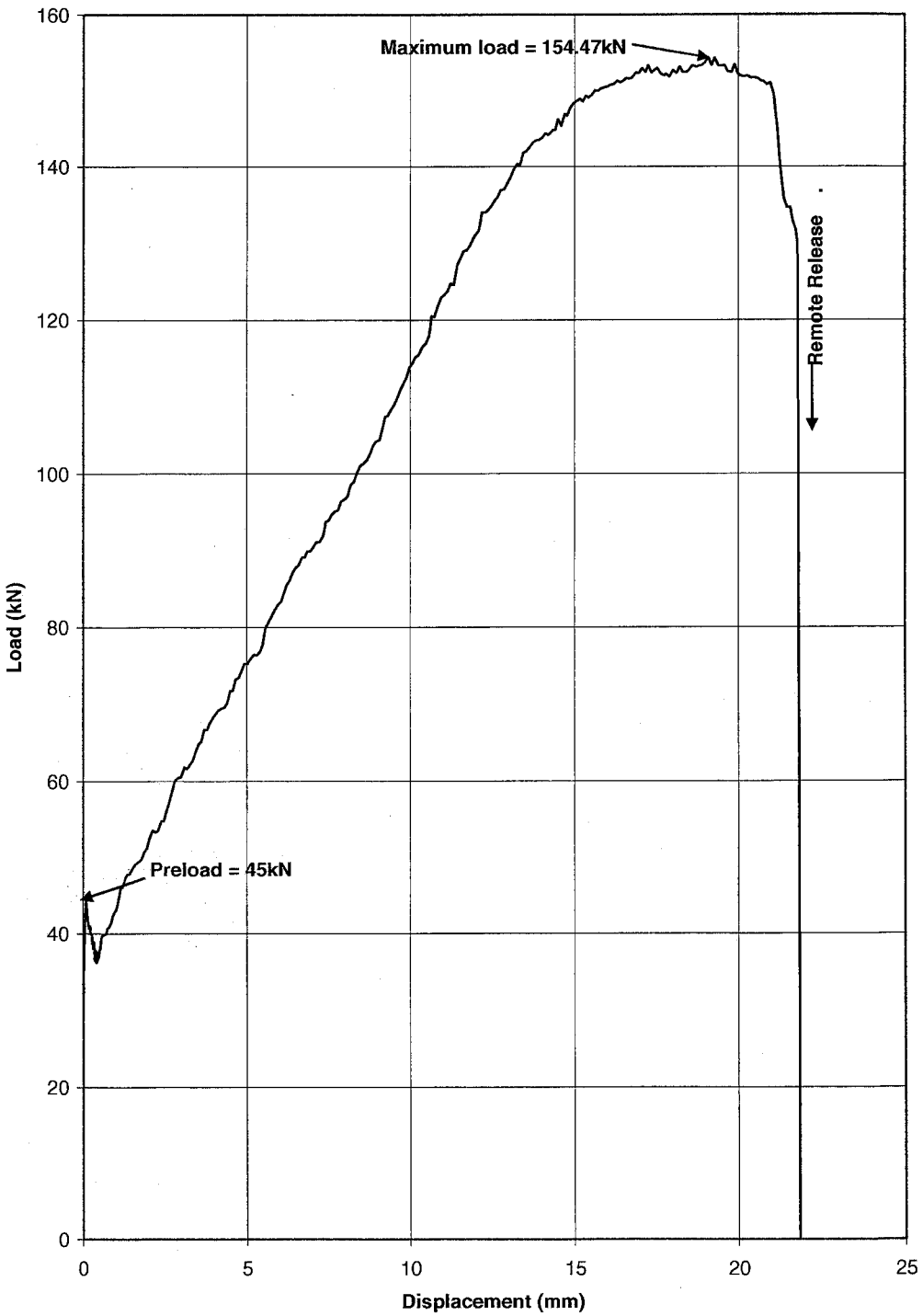
Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M3
Location:	Max. position (1.500m)
Test No.:	3c
Maximum Force:	154.47kN



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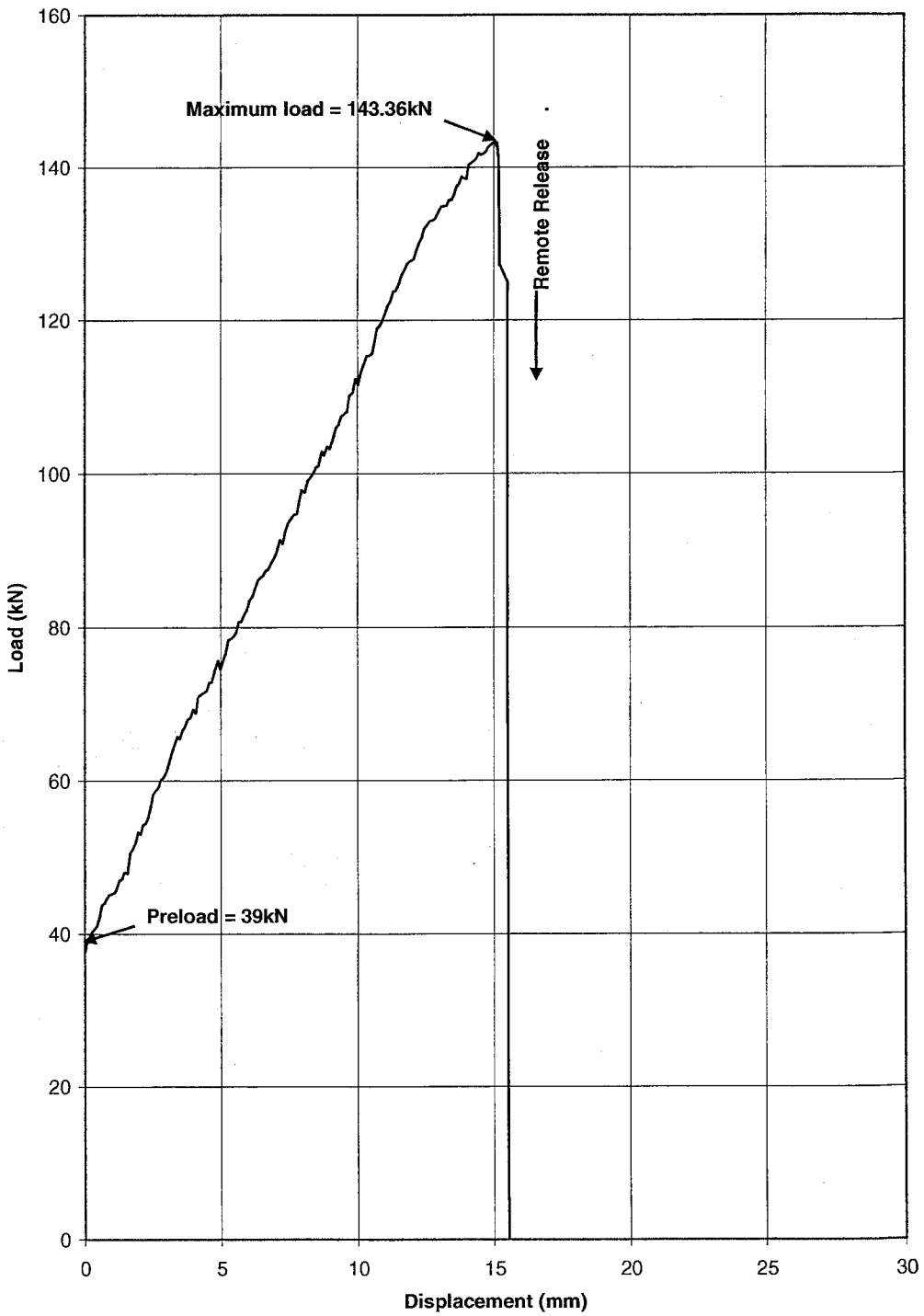
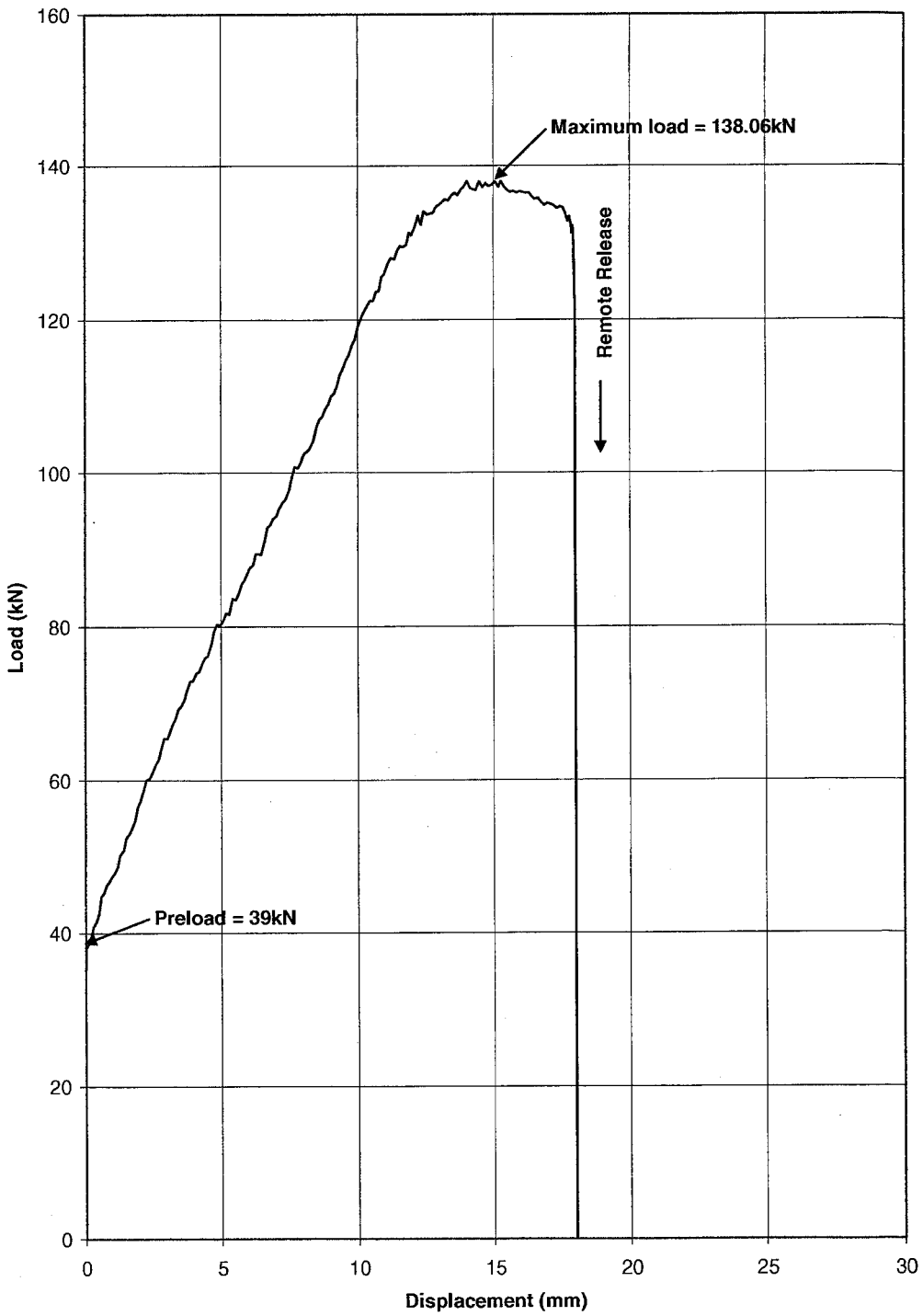
Engineer: . . . . . .

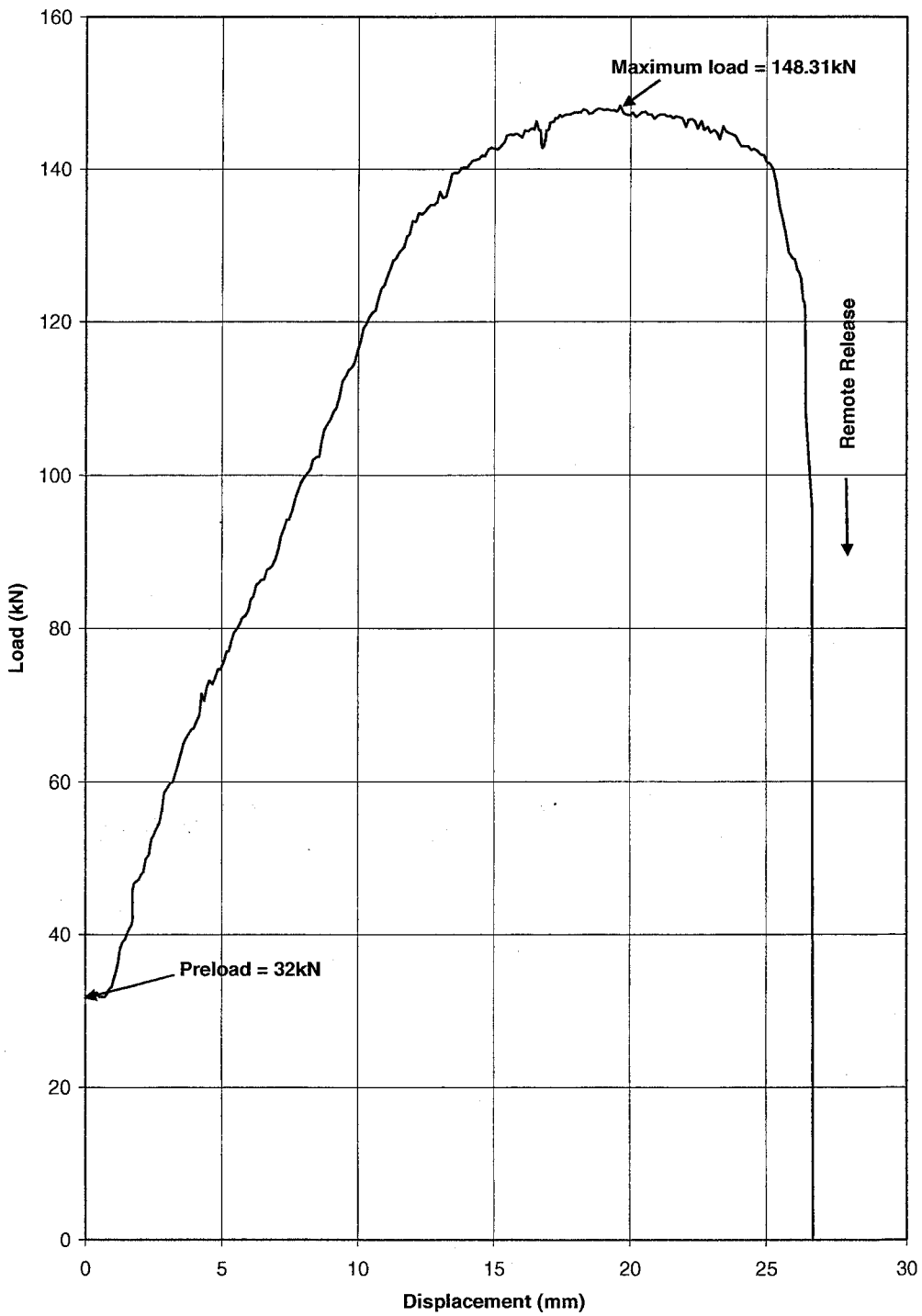
Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M3A
Location:	Min. position (1.100m)
Test No.:	4a
Maximum Force:	143.36kN



Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M3A
Location:	Med. Position (1.380m)
Test No.:	4b
Maximum Force:	138.06kN



Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M3A
Location:	Max. position (1.700m)
Test No.:	4c
Maximum Force:	148.31kN



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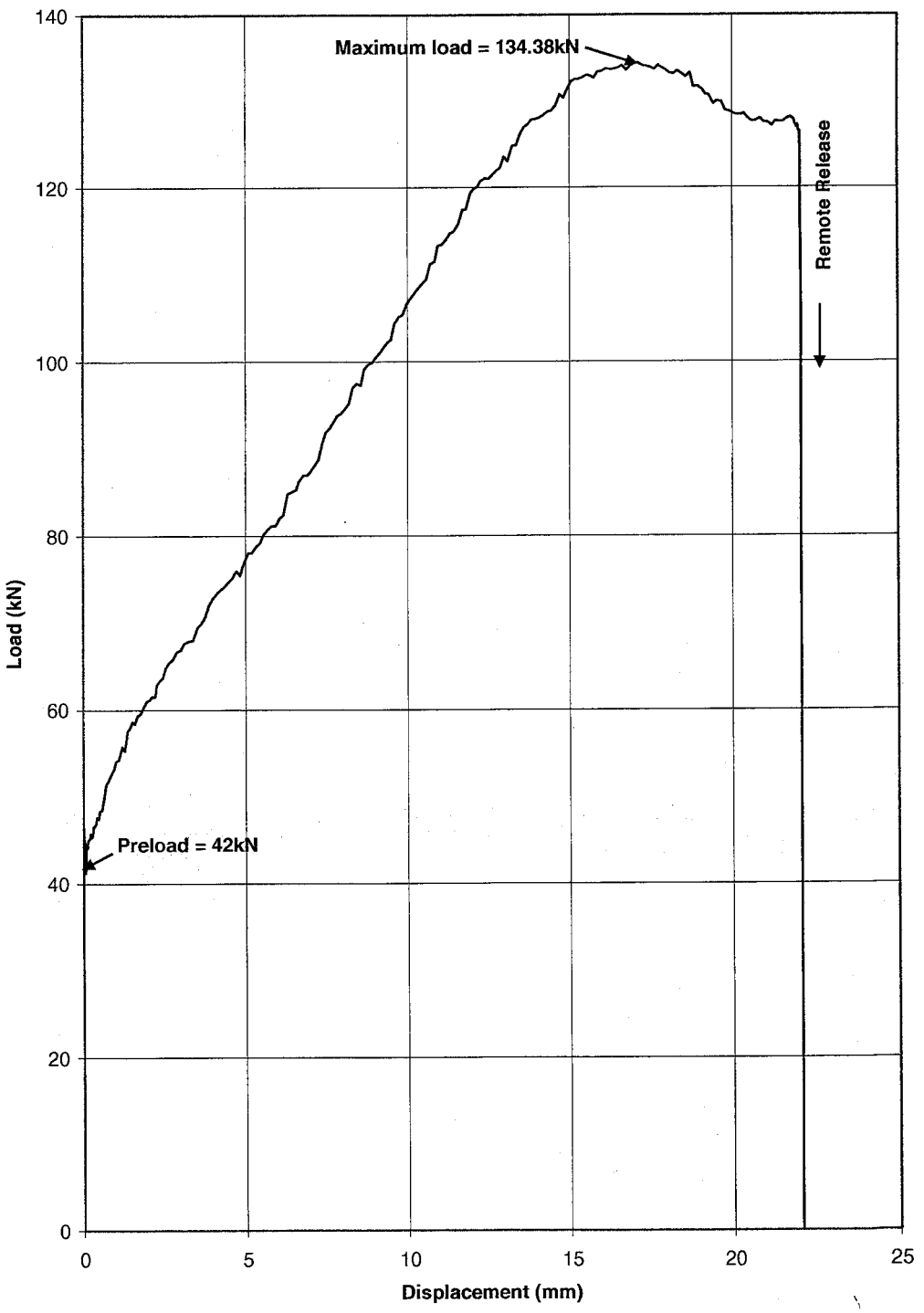
Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M4
Location:	Min. position (1.350m)
Test No.:	5a
Maximum Force:	134.38kN



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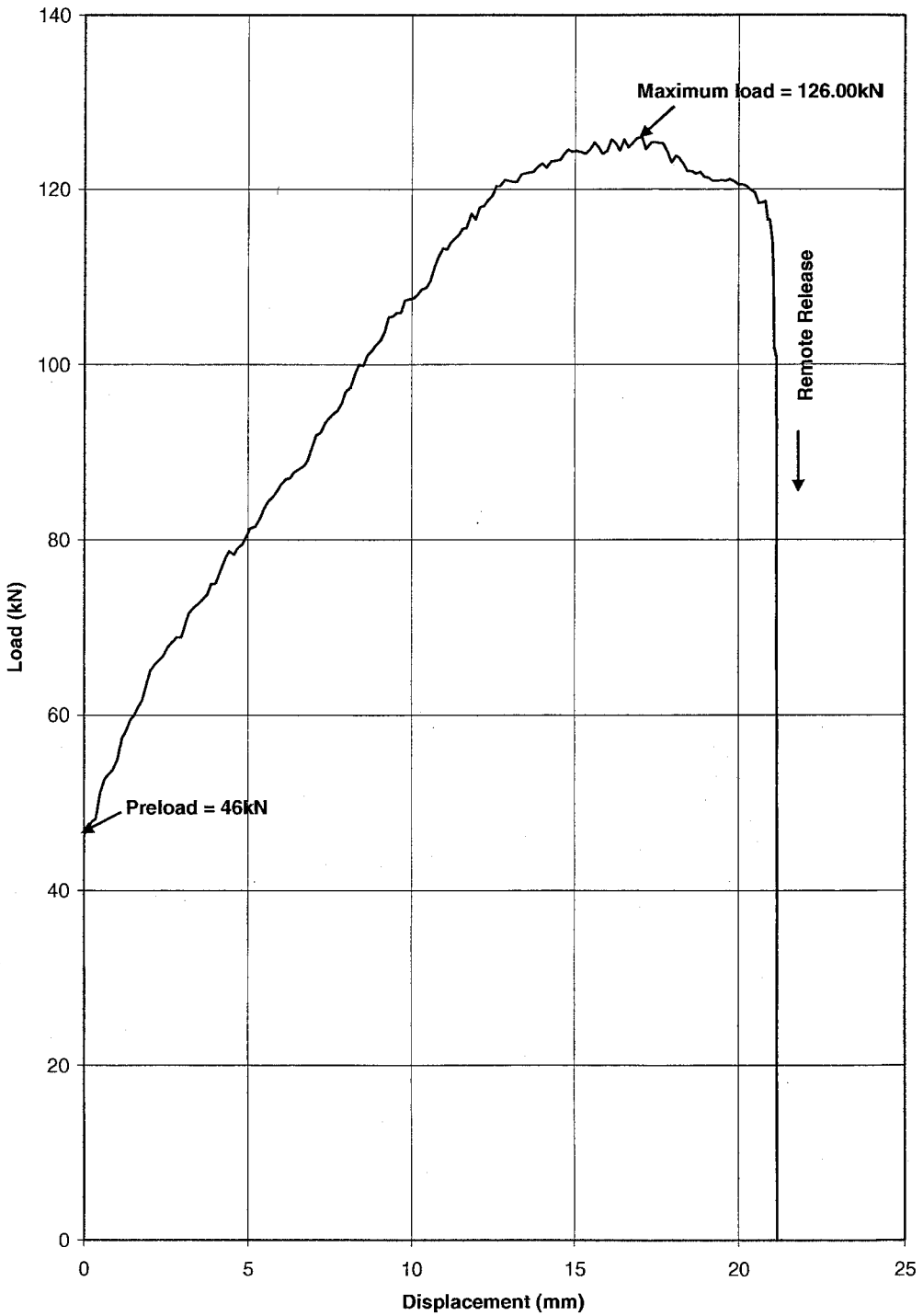
Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M4
Location:	Med. Position (1.770m)
Test No.:	5b
Maximum Force:	126.00kN



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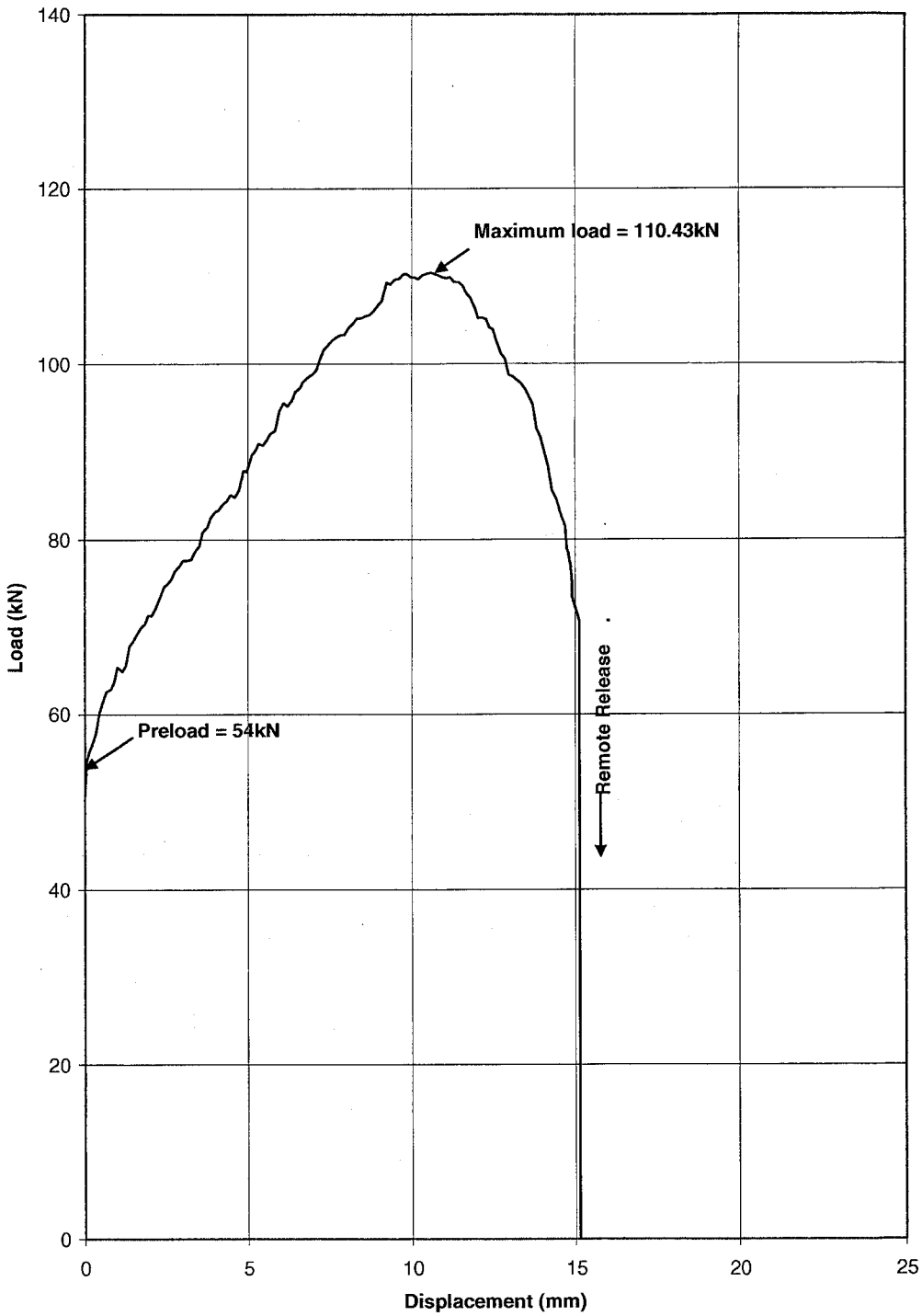
Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M4
Location:	Max. position (2.150m)
Test No.:	5c
Maximum Force:	110.43kN



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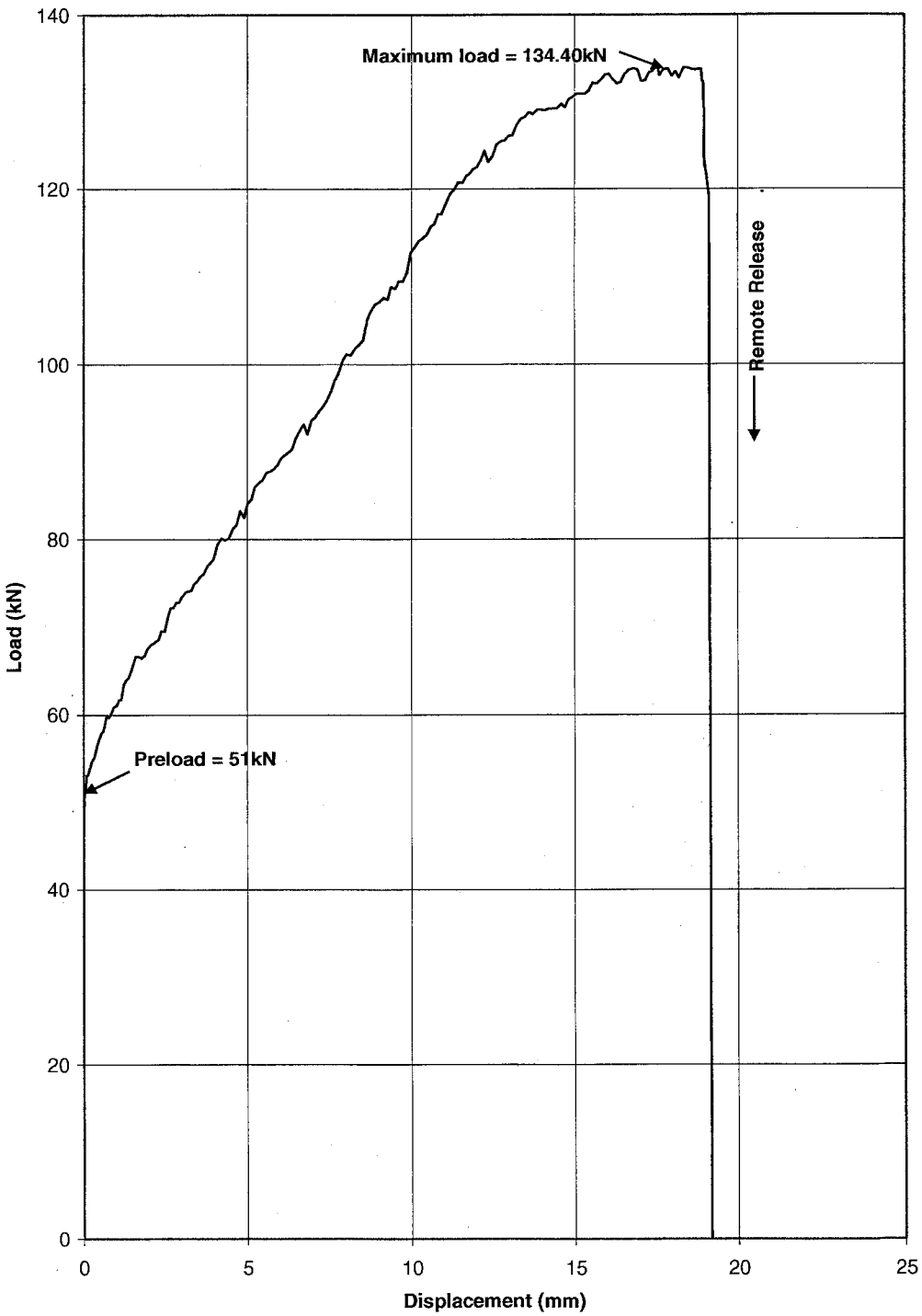
Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M5
Location:	Min. position (1.600m)
Test No.:	6a
Maximum Force:	134.40kN



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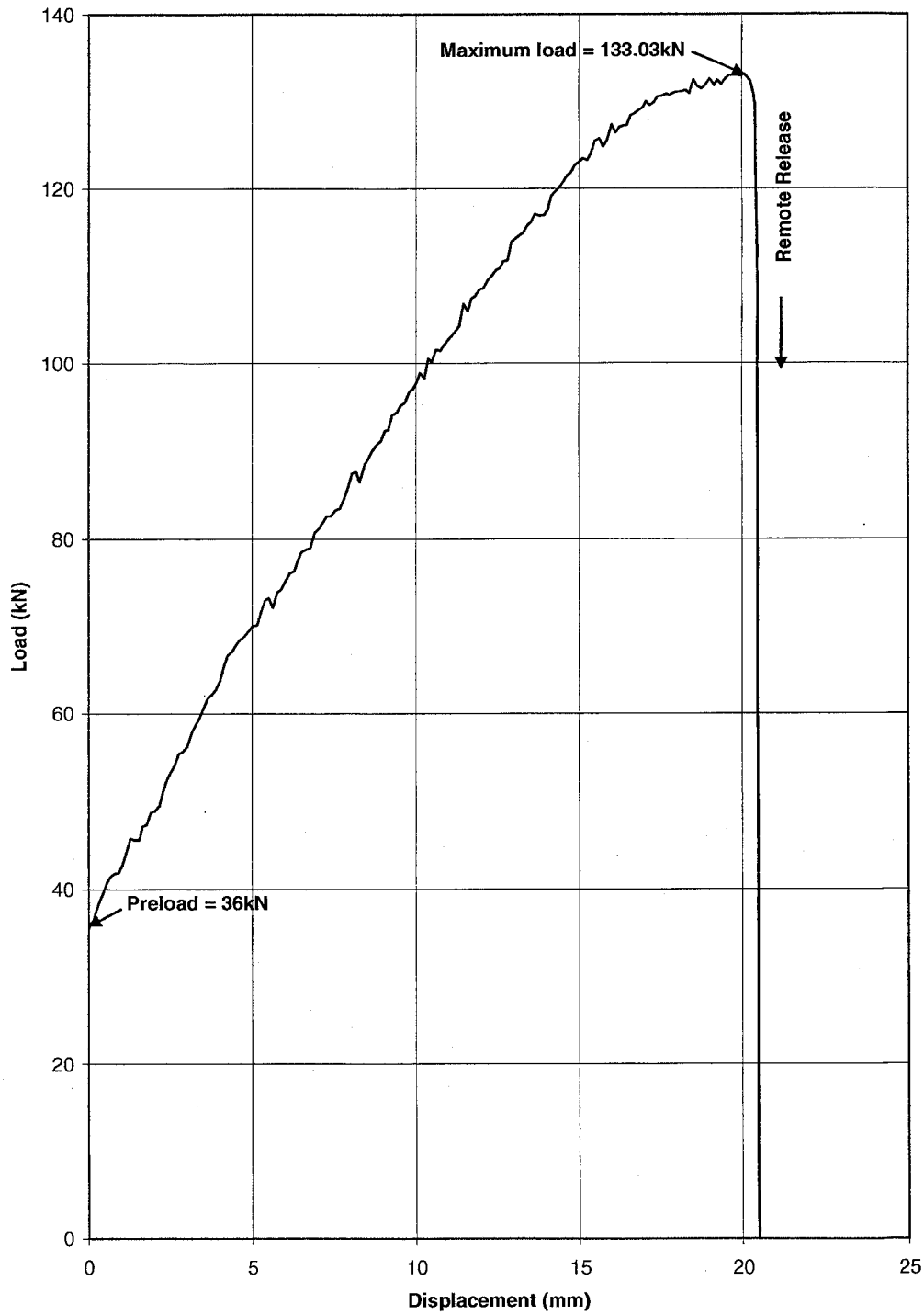
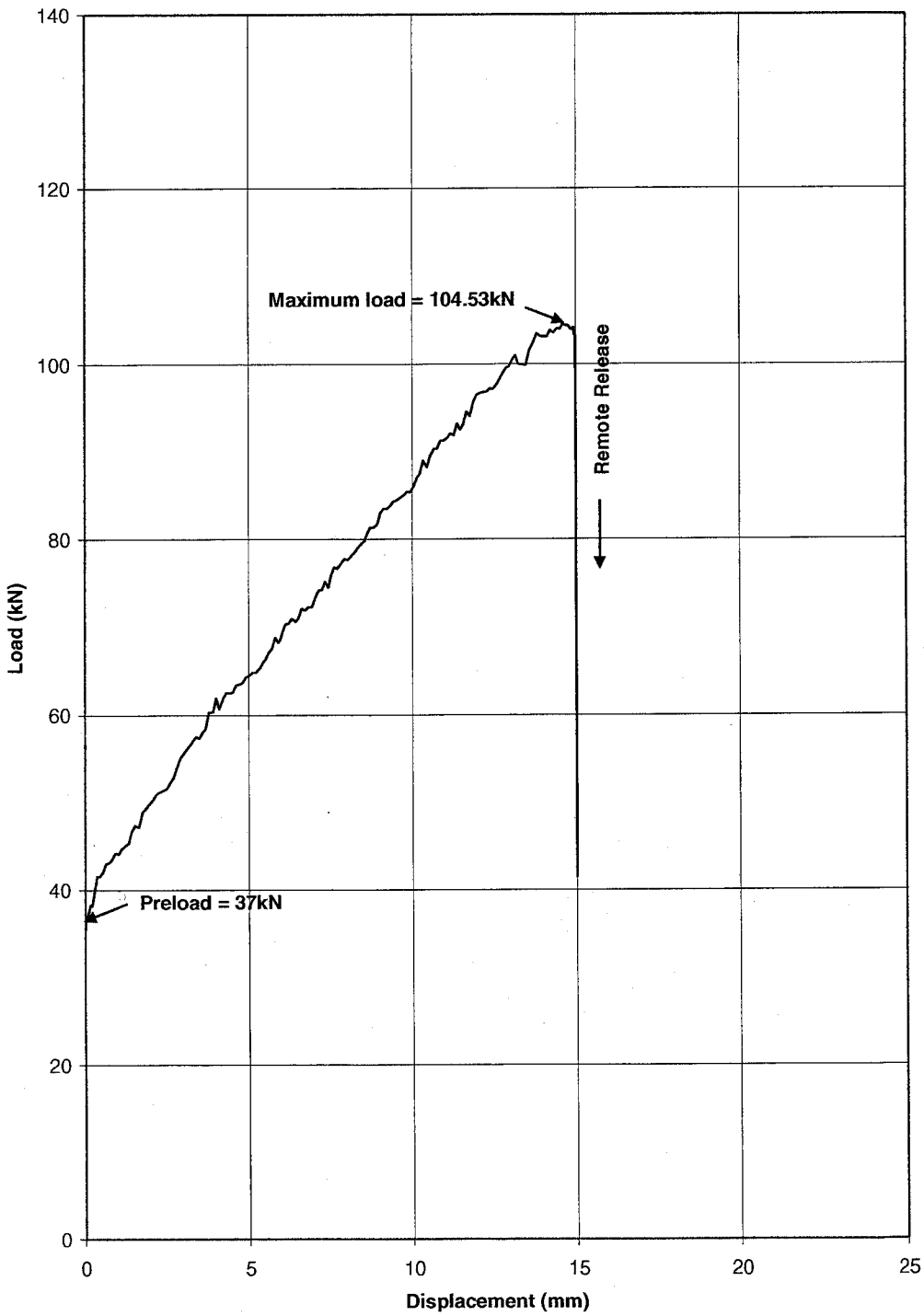
Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M5
Location:	Med. Position (2.175m)
Test No.:	6b
Maximum Force:	133.03kN



Testing Officer: .....

Engineer: .....

Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M5
Location:	Max. position (2.650m)
Test No.:	6c
Maximum Force:	104.53kN



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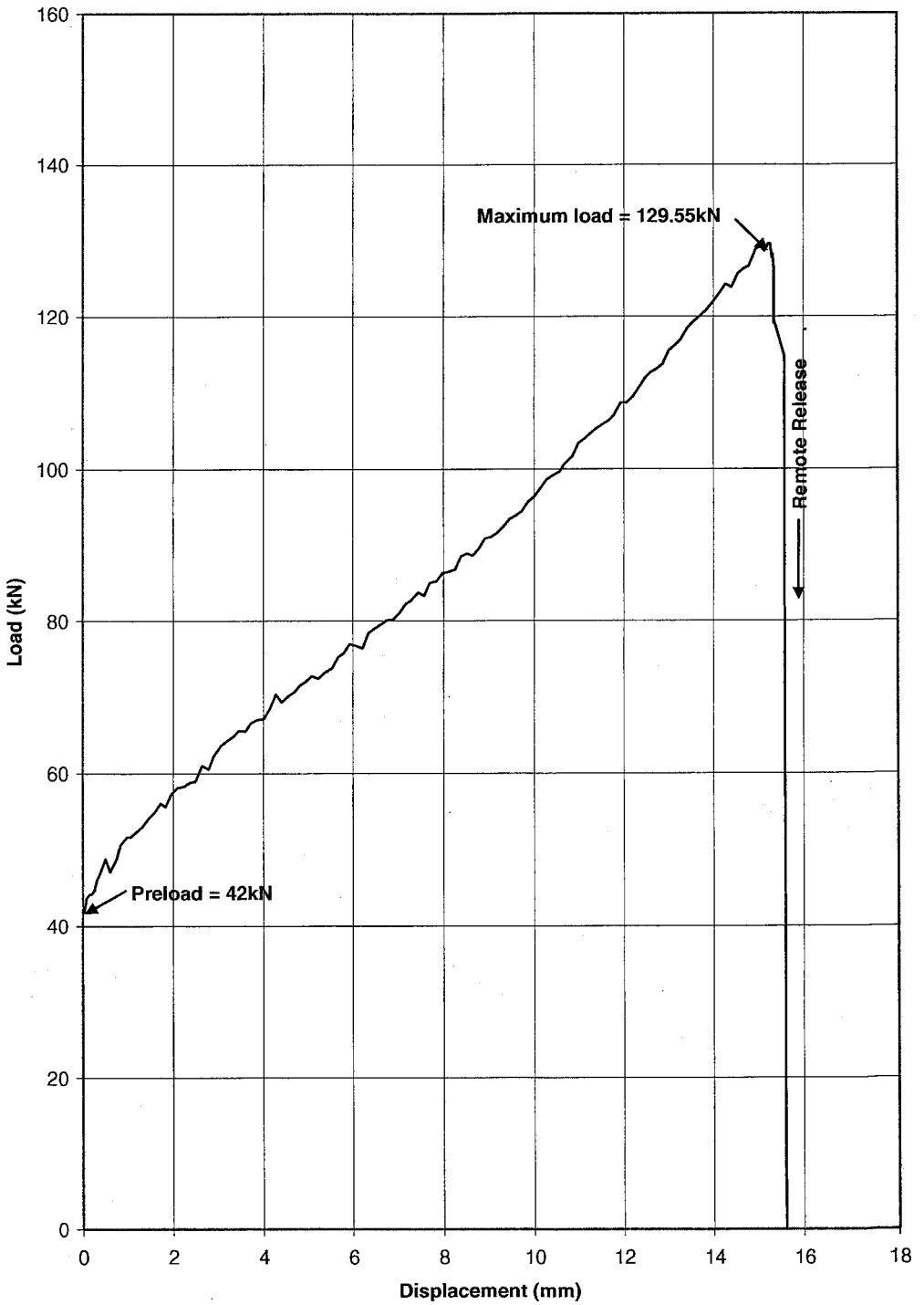
Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M6
Location:	Min. position (2.100m)
Test No.:	7a
Maximum Force:	129.55kN



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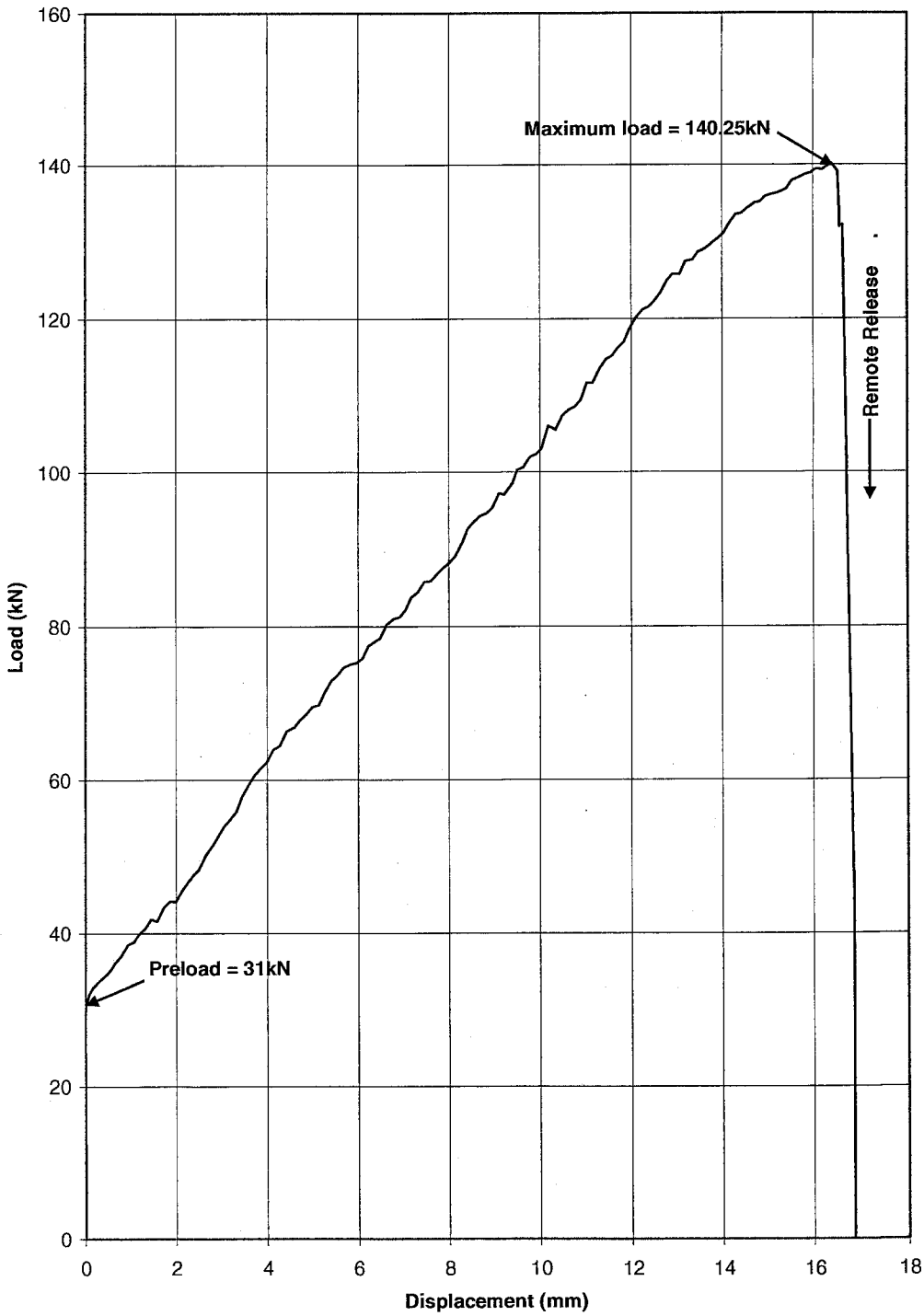
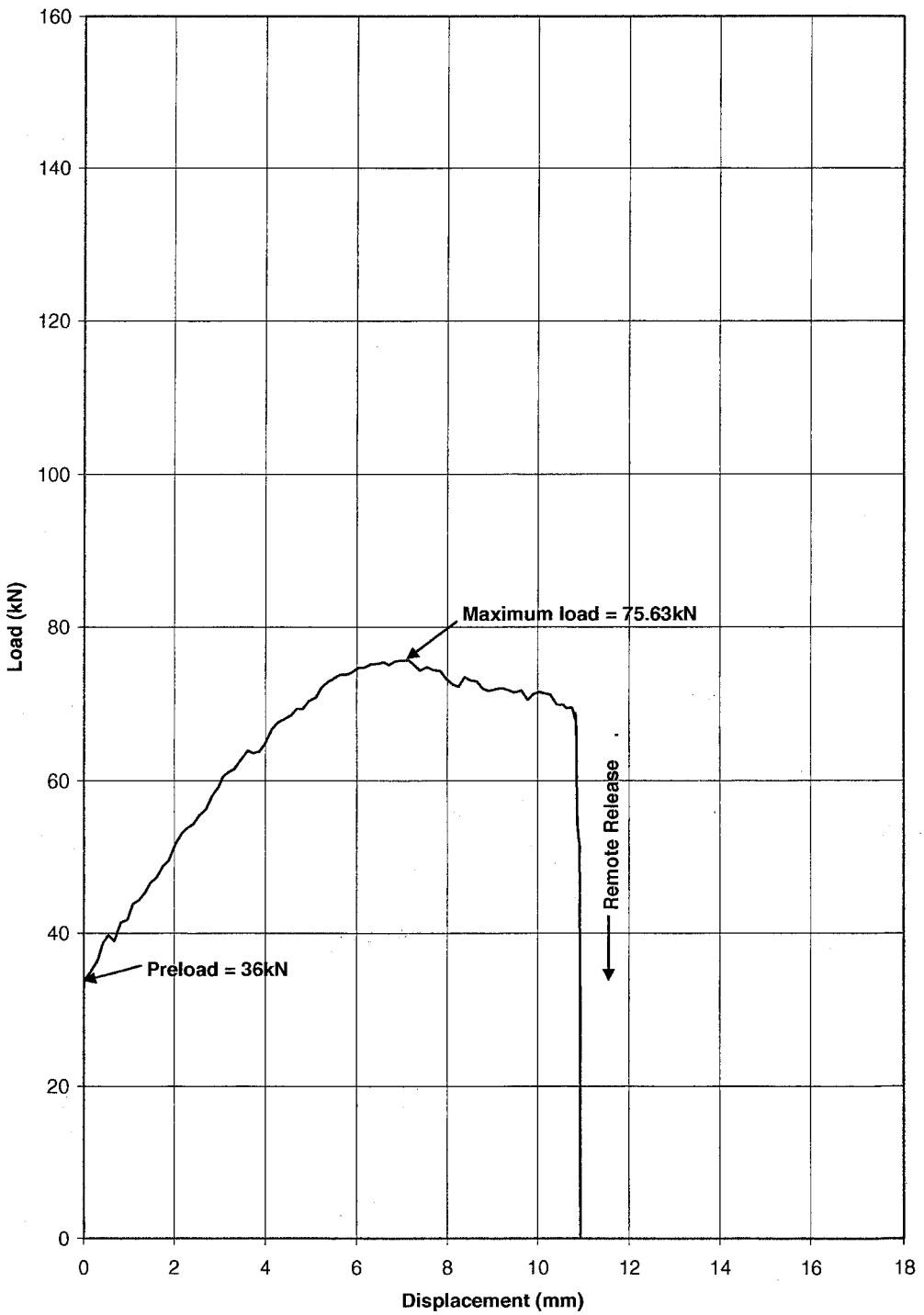
Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M6
Location:	Med. Position (2.590m)
Test No.:	7b
Maximum Force:	140.25kN



Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M6
Location:	Max. position (3.300m)
Test No.:	7c
Maximum Force:	75.63kN



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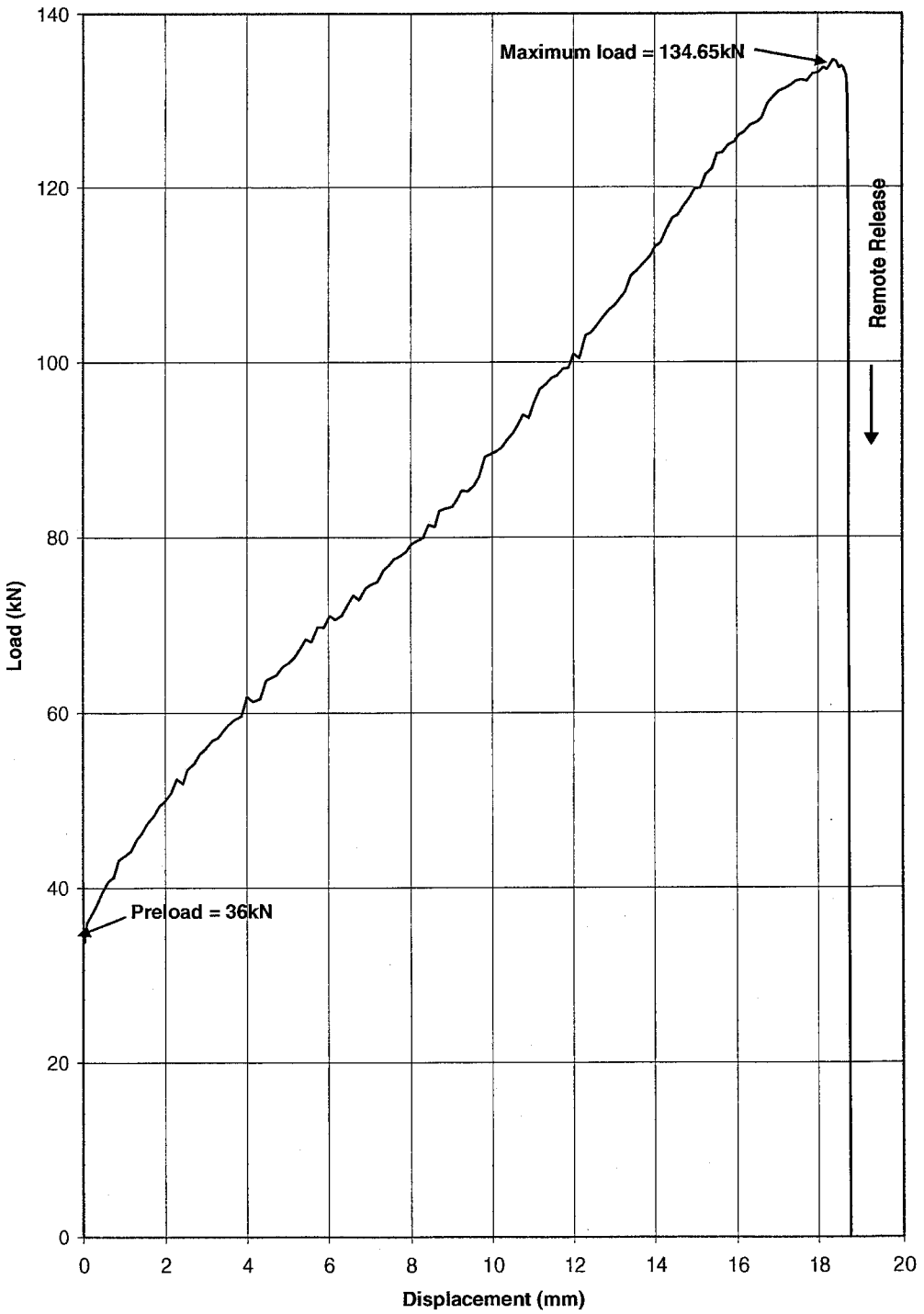
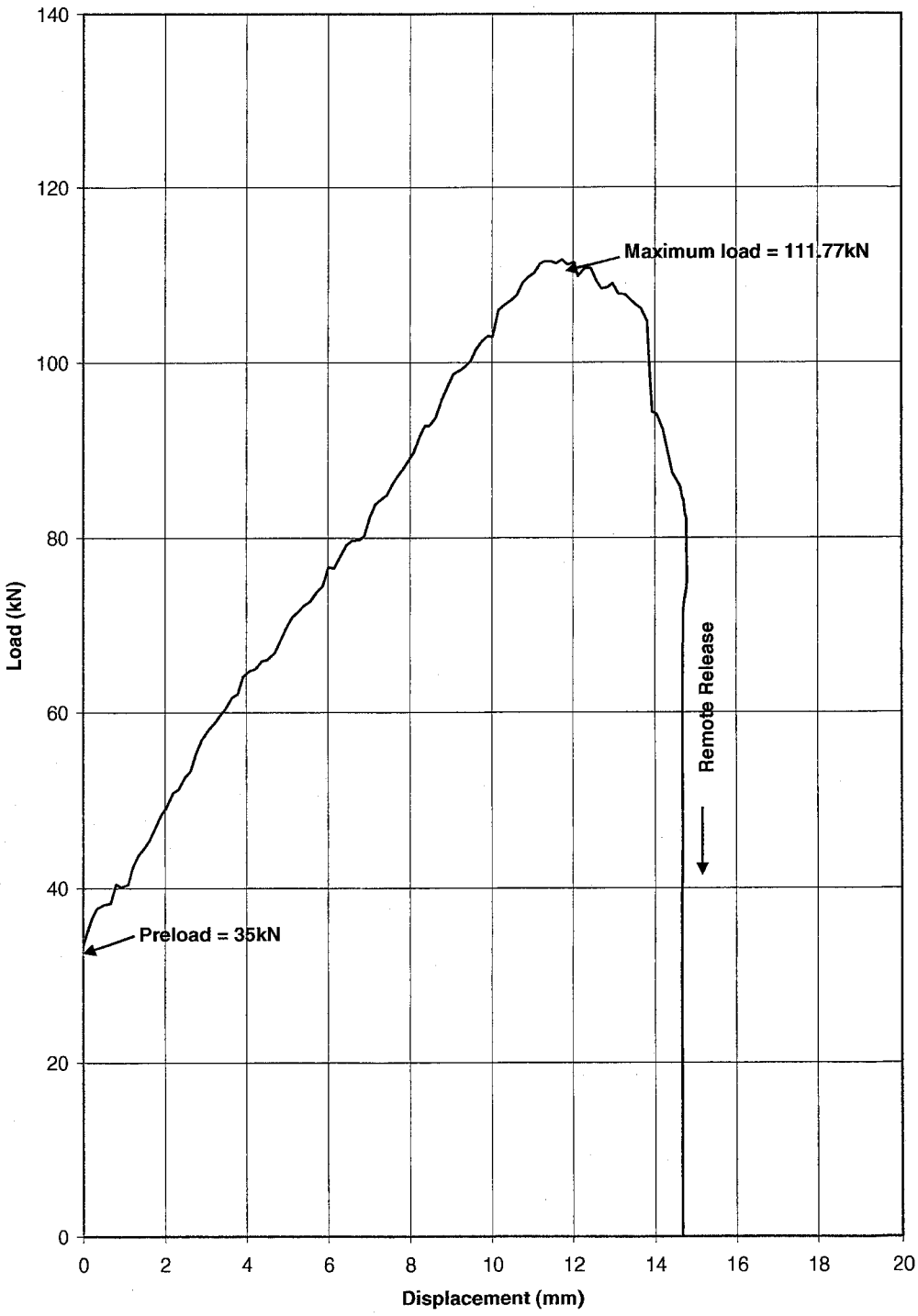
Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M6A
Location:	Min. position (2.600m)
Test No.:	8a
Maximum Force:	134.65kN



Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M6A
Location:	Med. Position (3.050m)
Test No.:	8b
Maximum Force:	111.77kN



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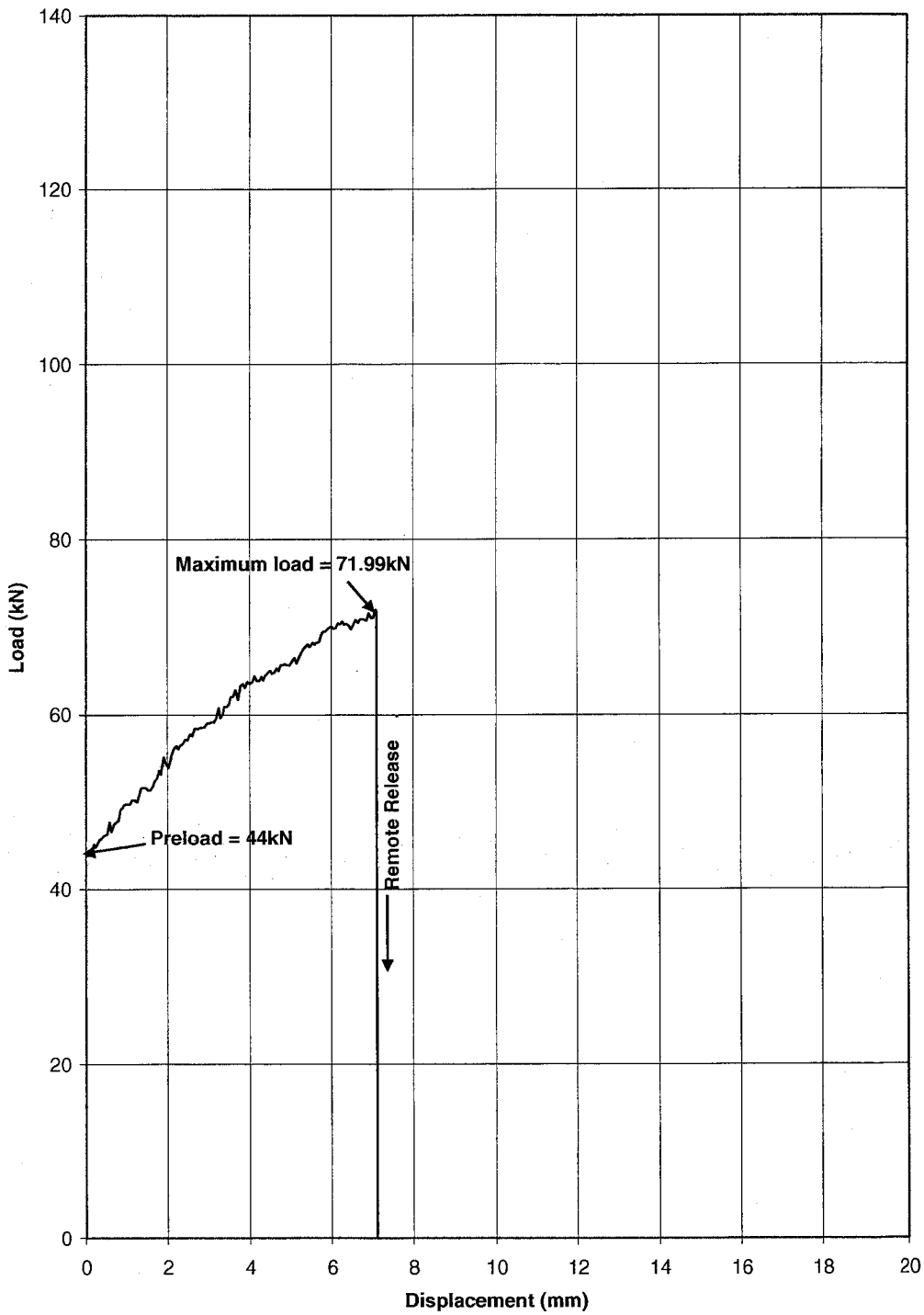
Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M6A
Location:	Max. position (3.800m)
Test No.:	8c
Maximum Force:	71.99kN



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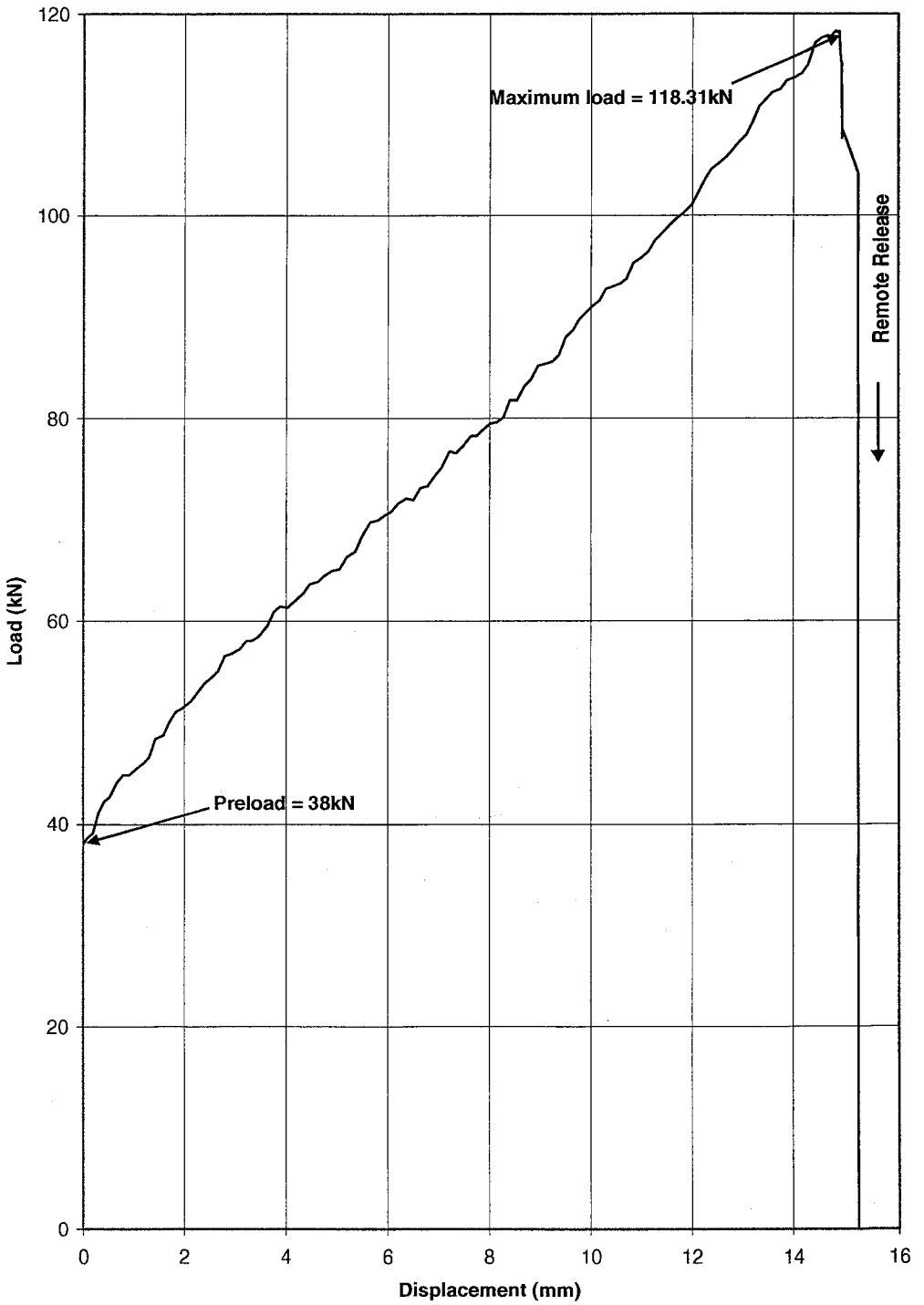
Engineer: .....

Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M7
Location:	Min. position (2.900m)
Test No.:	9a
Maximum Force:	118.31kN



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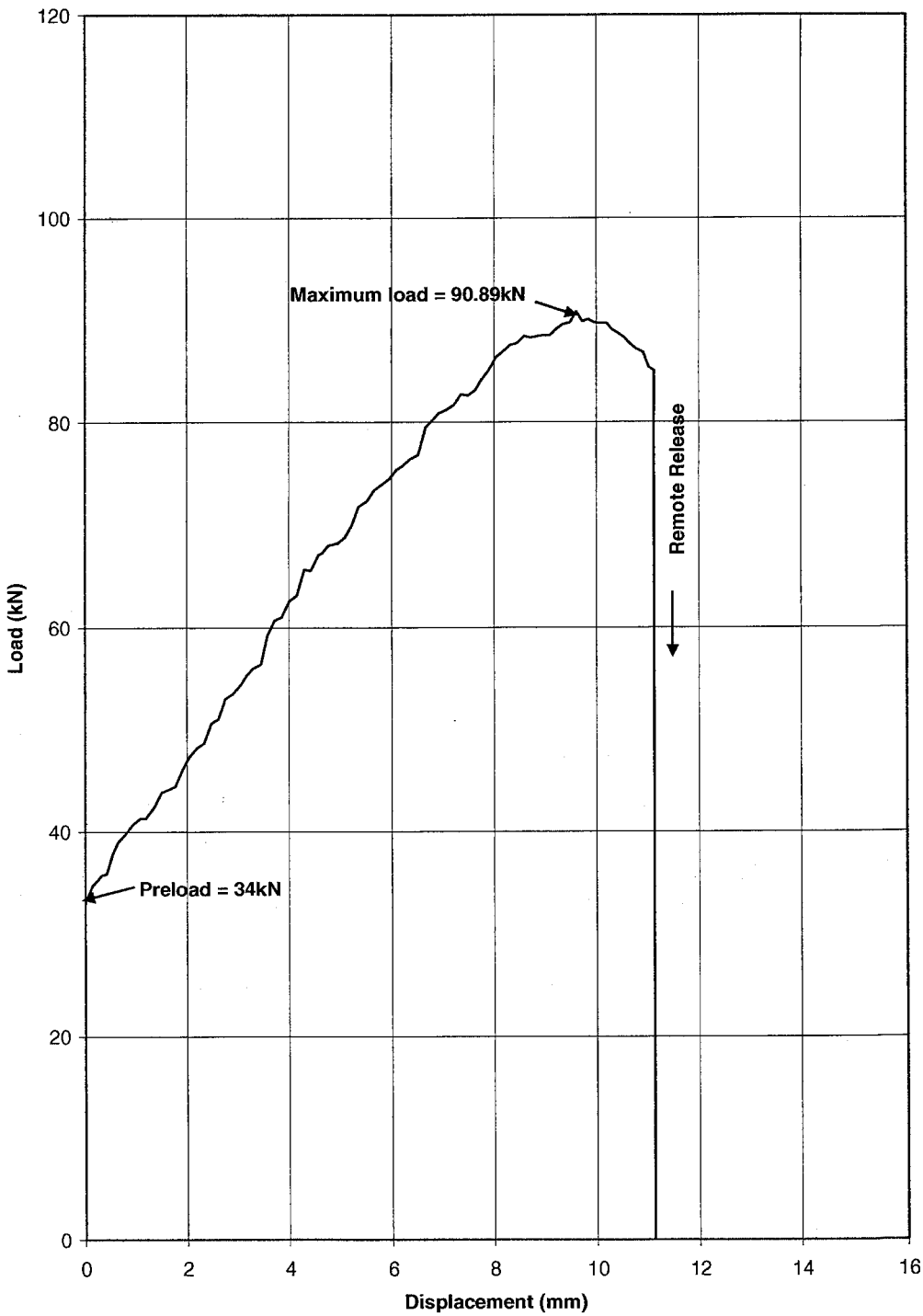
Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M7
Location:	Med. Position (3.400m)
Test No.:	9b
Maximum Force:	90.89kN



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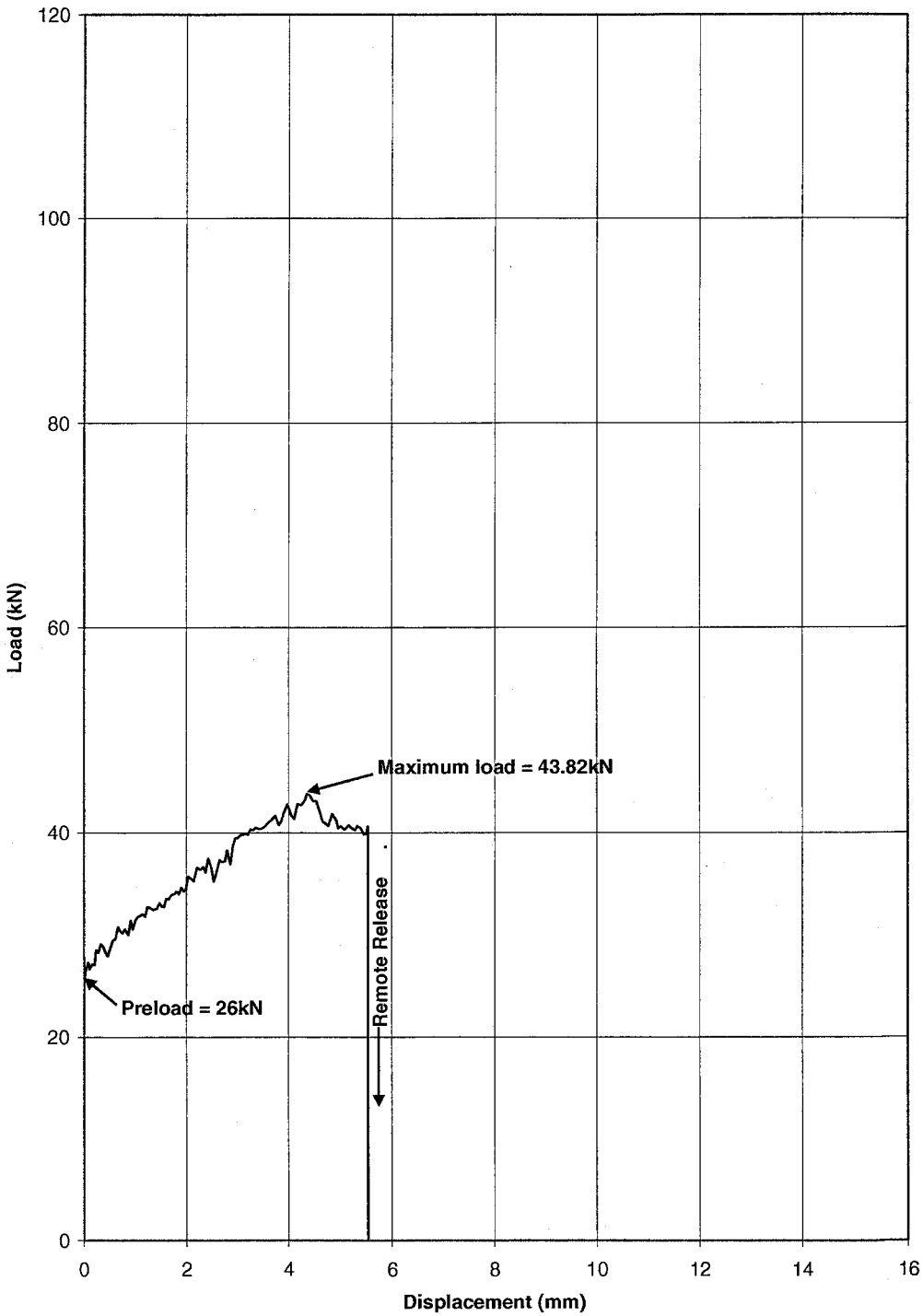
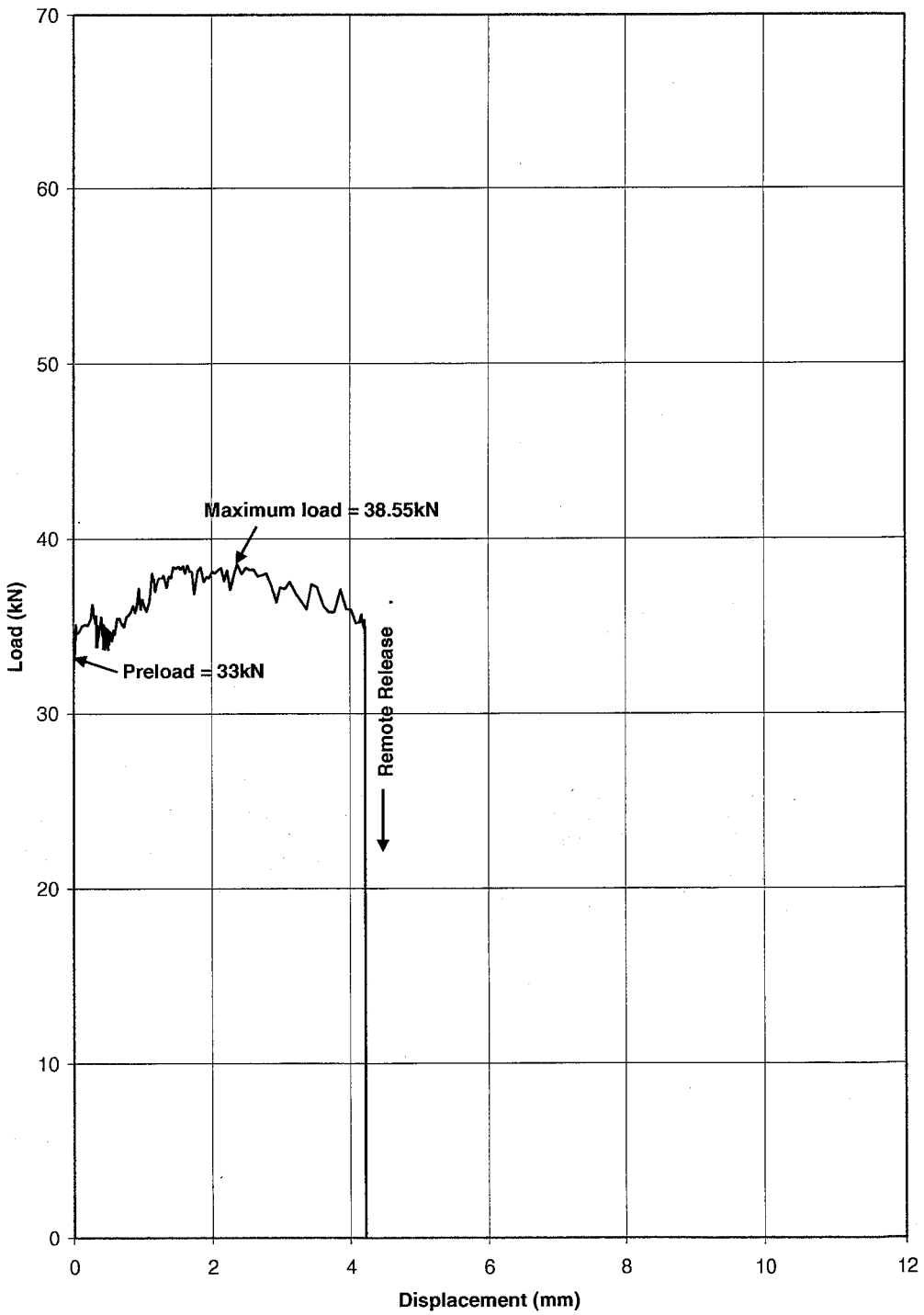
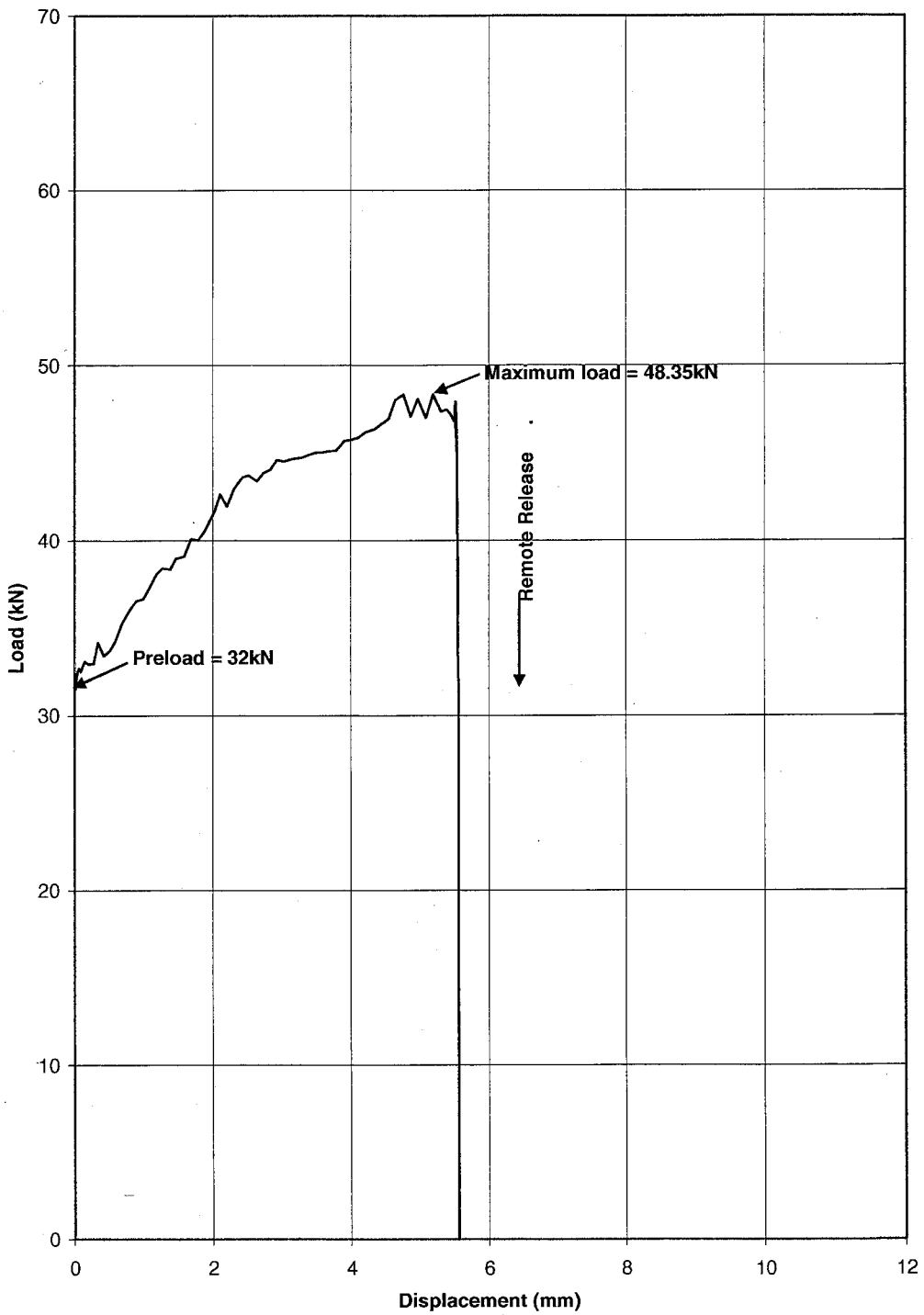
Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M7
Location:	Max. position (4.100m)
Test No.:	9c
Maximum Force:	43.82kN



Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M8
Location:	Min. position (3.650m)
Test No.:	10a
Maximum Force:	38.55kN



Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M8
Location:	Med. Position (4.200m)
Test No.:	10b
Maximum Force:	48.35kN



Certificate No.:	T09948
Date of test:	22 June 2006
Applicant:	M-Props
Description:	Medium duty Camlok prop – M8
Location:	Max. position (4.850m)
Test No.:	10c
Maximum Force:	60.93kN