
British Railways Board

Mechanical & Electrical Engineering Department

NON-METALLIC FLEXIBLE HOSES FOR USE ON T&RS





Engineering Data
Section

MAINTENANCE SUPPORT DOCUMENT

NON-METALLIC FLEXIBLE HOSES FOR USE ON T&RS

No:	MT 111
ISSUE:	6
REVISION:	A
PAGE:	2
DATE:	FEB 1993

APPROVAL AND AUTHORISATION SIGNATURES

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ISSUE AND REVISION RECORD

This Maintenance Support Document will be revised when necessary by the issue of amended page(s), accompanied by a revision letter defining the amendments made. The amended or additional part of revised pages will be marked with a vertical black line and relevant issue and revision letter positioned centrally on the right hand side of the line adjacent to it.

Issue/ Revision	Issued/ Revised Page No.s	Date	Issued/ Revised By
6 A	Total. Silicone Section	FEB 1993	C.Tonkin

Issue/ Revision	Issued/ Revised Page No.s	Date	Issued/ Revised By



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PURPOSE

The purpose of this Maintenance Support Document is to assist Maintenance staff and Parts Management staff in the identification of non-metallic flexible hoses.

SCOPE

This Maintenance Support Document applies to all non-metallic flexible hoses shown on BR drawings.

RESPONSIBILITIES

The responsibility for the production and control of this document rests with the Technical Services Director or his delegated representative.

TECHNICAL QUERIES

If any Technical Queries arise pertaining to this document, please contact:

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Engineering Data Section
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SECTION A

NITRILE HOSES

TYPES A, B, C, D & P



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MAINTENANCE SUPPORT DOCUMENT

NON-METALLIC FLEXIBLE HOSES FOR USE ON T&RS

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CONTENTS

NOTE: Hoses in each section/type are in ascending bore-size order.

SECTION A	Nitrile hoses types A, B, C, D & P.
SECTION B	Silicone hoses types A, B, C, D & P.
SECTION C	Air brake hoses.
SECTION D	Hose protection bands.
SECTION E	Standard hose clips.
Appendix 1	Index of drawings contained in the publication MT/111.



Engineering Data
Section

BRITISH RAILWAYS BOARD

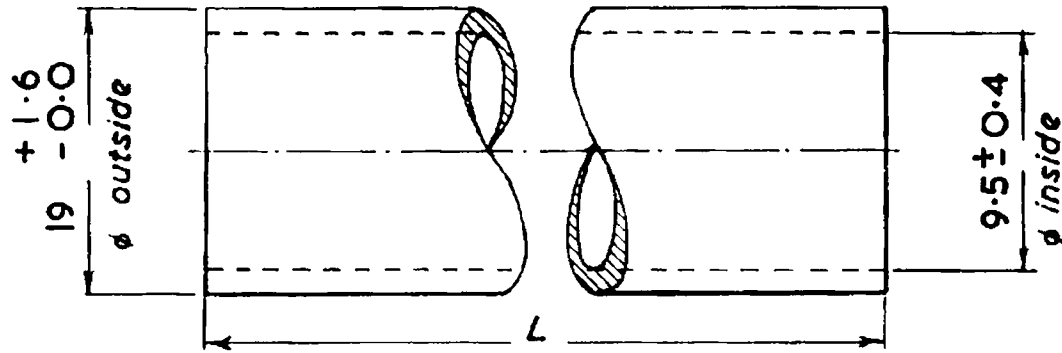
MAINTENANCE SUPPORT DOCUMENT

MT / 111

NON-METALLIC FLEXIBLE HOSES

FOR USE ON

TRACTION AND ROLLING STOCK



9.5 mm BORE

_ B.R. SPEC. 488 B. _

ISSUE LETTER	ALTERATION	MAN'S INITIALS	DATE
A	ITEM 02 ADDED	JR	3/79
B	NEW DRG NO. ADDED	JR	3/79
C	ITEM 02 CLASS 141 ADDED	JR	3/79
D	ITEM 02 CLASS 142 ADDED	GH	3/79

ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE/ CLASS
01	120	143061		20 DEMU.
02	55	143062	Compressor coolant system.	DMU. 141/42

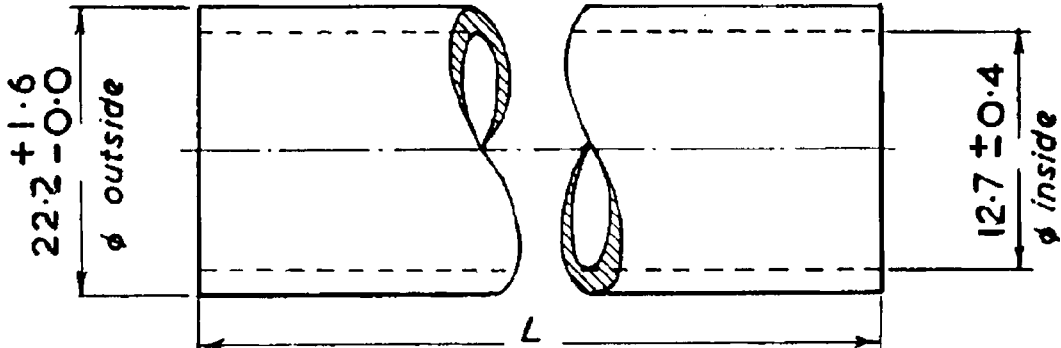
FORMERLY BR DRG. No.
L-A3-3850

**NITRILE
RUBBER HOSE
TYPE 'A'**

CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

Scale	_____	A	B	C	D
Drawing No	M-A3-9024562				
Drawn	J.R.S.	Traced	—	Check'd	—
Date	6/72				

N.F.D



12.7 mm BORE

— B.R. SPEC. 488 B. —

ITEM No.	DIMENSION L mm.	B.R.CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01	75	143065		33,141,142
02				
03	130	143067		26.
04	140	143068		25-27
05	150	143069		33,45,46,50.
06				
07				
08	265	143077		50.
09				
10				
11				
12				
13				
14	560	143080		141,142
15	165	143071		141,142

ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	1/D WAS 13.0/D WAS 22.5. ITEM 3 CLASS 35,42 & 53 DEL. " 8 " 42 DEL. " 11 & 12 DEL.	J.R.S.	6/72
B	ITEM 3 CLASS 52 DEL. " 7,10 & 13 DEL.	J.R.S.	6/72
C	ITEM 4 CLASS 24 & 55 DEL. " 5 " 44 & 55 " " 6 DEL. " 9 " " 14 & 15 ADDED	J.R.S.	7/72
D	NEW DRG NO ADDED	J.R.S.	7/72
E	ITEM 01 CLASS 141 ADDED	J.R.S.	7/72
F	ITEMS 01, 14, 15 CLASS 142 ADDED	J.R.S.	7/72
G	ITEMS 14 & 15 CLASS 141 DELETED	J.R.S.	7/72

FORMERLY BR DRG No. L-A3-3851

NITRILE RUBBER HOSE TYPE 'A'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

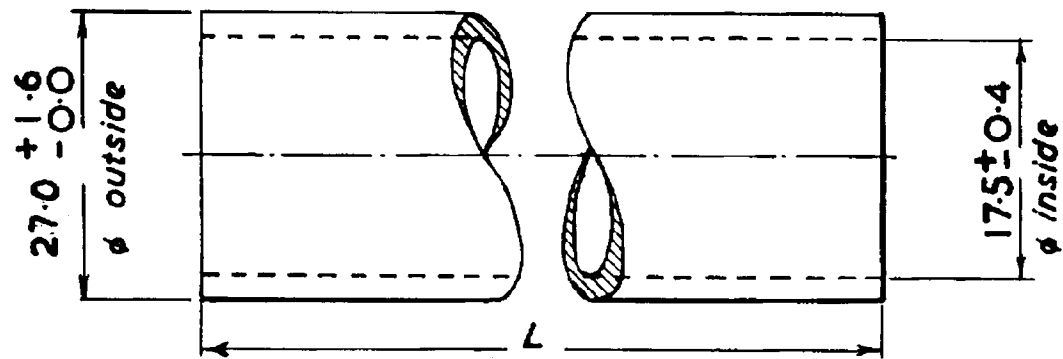
Scale _____

A	B	C	D	E
F	G			

Drawing No. M-A3-9024563

Drawn	Traced	Check'd	Date
J.R.S.	—	—	6/72

MFD



17.5 mm BORE

- B.R. SPEC. 488 B. -

ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	BORE ALTERED FROM 18mm. O/D REDUCED.	JRS	4/73
B	ITEM 04 ADDED	JRS	1/74
C	FOR CLARIFICATION IMPERIAL BORE SIZE ADDED	JRS	1/76
D	ALTERATION 'C' DELETED I/D WAS 17. O/D WAS 26.5	JRS	4/76
E	NEW DRG NO ADDED	JRS	2/87
F	ITEM 01 DELETED	JRS	1/93
G	ITEM 05 ADDED.	JRS	1/93

ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01	75	143125		47
02	150	143126		37.40.73.DEMU.
03	100	143127		47.
04	230	143128	exhauster drain	47.
05	1150	143129		60

FORMERLY BR DRG. No
L-A3-3853

**NITRILE
RUBBER HOSE
TYPE 'A'**

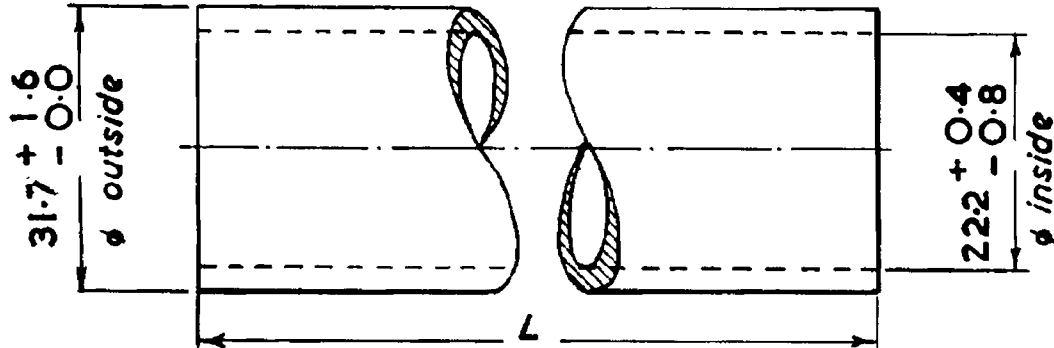
CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

Scale **A B C D E**
F G

Drawing No.
M-A3-9024565

Drawn Traced Check'd Date
JRS — — 6/92

MEMO



22.2 mm BORE

- B.R. SPEC. 488 B. -

ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01				
02	60	143172		500hp DMU.
03				
04				
05				
06				
07	180	143184		45.46.
08				
09				
10	305	143196	CLASSES IO, III	DMU.
11	2000	143186	MOD. MB 2515/035	DMU.
12	3000	143188		440.492.
13	2500	143189		440
14	80	143190		141 142
15	150	143192		60

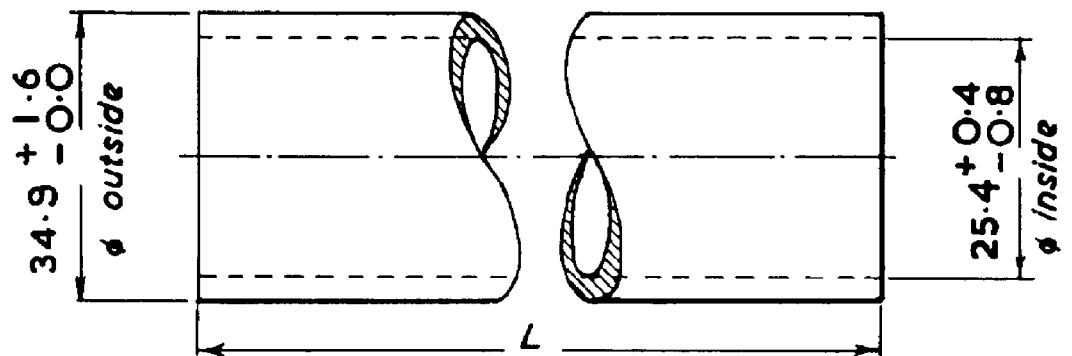
ISSUE LETTER	ALTERATION	DMAN'S INITIALS	DATE
A	1/D WAS 22.0/D WAS 31.5. ITEM 03 & 05 CLASS 35 DEL.	R.S.	6/76
B	ITEM 04 & 10 DEL.	P.C.	6/78
C	ITEM 10 REINSTATED WITH REF TO CLASSES 101, 111 & DMU.	P.C.	4/80
D	ITEM 11 ADDED.	P.S.	2/80
E	ITEM 01, 05, 06, 08, 09 DEL. - 07 CLASS 44 DEL. - 12 ADDED	P.S.	3/82
F	NEW DRG NO. ADDED	P.R.	4/83
G	ITEM 13 ADDED	P.R.	1/84
H	ITEM 14 ADDED	P.R.	1/84
J	ITEM 14 CLASS 142 ADDED	GH	1/85
K	ITEM 15 ADDED	P.R.	1/85

FORMERLY BR DRG. NO.
L-A3-3855

NITRILE
RUBBER HOSE
TYPE 'A'

CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

Scale	_____	A	B	C	D	E
Drawing No.	M-A3-9024567	F	G	H	J	K
Drawn	JRS	Traced	—	Check'd	—	Date
						6/72



25.4 mm BORE

- B.R. SPEC. 488 B. -

ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01	50	143201		40,73.DEMU.DMU.
02	75	143204		DEMU.
03	90	143207		33.
04	100	143208		73.
05				
06	130	143213		33,8.9. 13,73.DEMU.
07	205	143218		DEMU,141,142
08	380	143224		73,150.
09	455	143228		58,141.
10	65	143202		HST.
11	355	143222		37
12	290	19022		142V
13	750	19023		142V
14	3050	19024		20
15	700	19026		143
16	500	143001		142
17	1400	143386		142

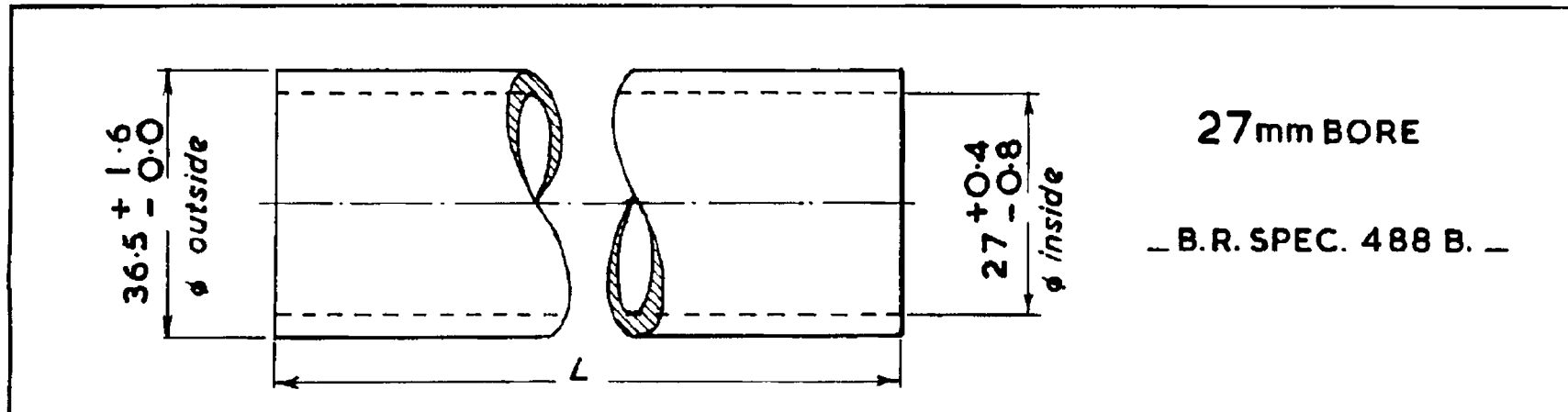
ISSUE LETTER	ALTERATION	DMAN'S INITIALS	DATE
A	ITEM 10 ADDED	JRS	1/70
B	FOR CLARIFICATION IMPERIAL BORE SIZE ADDED	JRS	1/76
C	ALTERATION B DEL. I/D WAS 25; O/D WAS 34.5	JRS	1/76
D	ITEMS 05 & 09 DEL. 04 DEL. CLASS 74. 06 - - - 11.	JRS	1/78
E	ITEM 09 REINSTATED FOR CLASS 58.	JRS	1/81
F	ITEM 1 CLASS 20, 31 & 37 DEL. 2 - - - 55 DEL. 7 - - - 7 & 9 CLASS 141 ADDED	JRS	1/82
G	ITEM 11 ADDED	JRS	1/83
H	NEW DRG NO. ADDED	JRS	1/84
J	ITEM 08 CLASS 150 ADDED	JRS	1/84
K	ITEMS 09 & 07 CLASS 142 ADDED	JRS	1/85
L	ITEMS 12 & 13 ADDED.	JRS	1/86
M	ITEM 14 ADDED	JRS	1/86
N	ITEM 15 & 16 ADDED	JRS	1/86
P	ITEM 17 ADDED.	JRS	1/87

FORMERLY BR DRG No.
L-A3-3856

**NITRILE
RUBBER HOSE
TYPE 'A'**

CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

Scale	A	B	C	D	E
Drawing No. M-A3-9024568	F	G	H	J	K
Drawn	L	M	N	P	
Traced	—				
Check'd	—				
Date	JRS				1/87



ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	ITEM 10 DEL.	JRS	4/76
B	ITEM 5 ADDED	JRS	7/79
C	NEW DRG NO. ADDED	MED	
D	ITEM 06 ADDED	JRS	
E	ITEM 07 ADDED	JRS	

27mm BORE
- B.R. SPEC. 488 B. -

ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01				
02	230	143236		47.
03	305	143240		DEMU.
04	710	143243		40.
05	560	143244	Mod. MD 260 '47	50.
06	150	143235		4714
07	2200	143246	FOR D.C. POWER FLEX ASSY.	SALMON WAGON

FORMERLY BR DRG No.
L-A3-3857

NITRILE RUBBER HOSE TYPE 'A'

CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

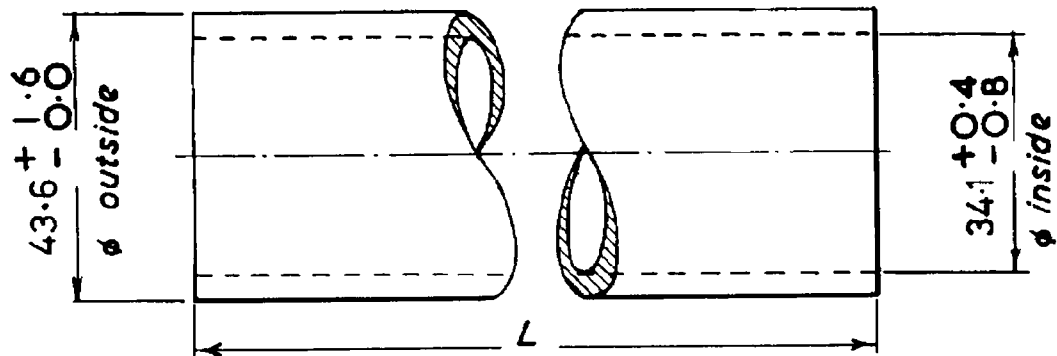
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Drawing No. M-A3-9024569

Drawn	Traced	Check'd	Date
JRS	—	—	6/72

MED



34.1 mm BORE

- B.R. SPEC. 488 B. -

ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01	130	143285		08,09
02				
03	180	143289		33,510.
04				
05	50	143283		03.
06	460	143293		210,510.
07	630	143294	Mk III SLEEPER.	
08	100	143284		253,254
09	750	143304	Mk III SLEEPER	
10	550		INT. DEM. COACH	

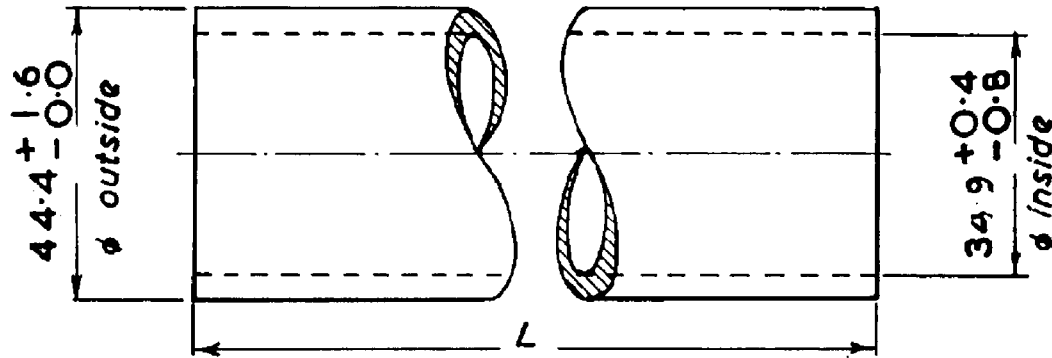
ISSUE LETTER	ALTERATION	DMAN'S INITIALS	DATE
A	ITEM 01 CLASSES 89,10&13 ADDED.	F.R.S.	15/78
B	//D WAS 34, O/D WAS 43.5. ITEM 1 CLASS 35 DEL. " 2 REMARK " " 4 CLASS 35,42,53 DEL.	F.R.S.	6/78
C	ITEM 06 ADDED.	F.R.S.	7/78
D	ITEM 01 CLASS 11 DEL. - 02&04 DEL.	F.R.S.	6/78
E	ITEM 07 ADDED.	F.R.S.	10/78
F	ITEM 08 ADDED.	F.R.S.	7/80
G	ITEM 09 ADDED.	F.R.S.	7/80
H	ITEMS 03&06 CLASS 510 ADDED.	F.R.S.	7/80
J	ITEM 01 DEL.	F.R.S.	1/83
K	NEW DRG NO ADDED	F.R.S.	1/83
L	ITEM 10 ADDED	F.R.S.	1/83
M	ITEM 01 REINSTATED	F.R.S.	1/86

FORMERLY BR DRG No. L-A3-3861

NITRILE RUBBER HOSE TYPE 'A'

DIRECTOR of MECHANICAL & ELECTRICAL ENGINEERING
BRITISH RAILWAYS BOARD
DESIGN SUPPORT GENERAL
DERBY

Scale _____	A	B	C	D	E
Drawing No. M-A3-9024572	F	G	H	J	K
	L	M			
Drawn JRS	Traced -	Checked -	Date 6/72		



34.9 mm BORE

— B.R. SPEC. 488 B. —

ISSUE LETTER	ALTERATION	DRAWN INITIALS	DATE
A	ITEM 09 ADDED	JRS	6/72
B	ID WAS 35; O.D. WAS 44.5 ITEM 3 CLASS 42 & 53 DEL. - 9 DEL.	JRS	4/72
C	ITEM 2 CLASS 11 DEL. - 3 - 52 -	JRS	6/72
D	ITEM 3 CLASS 31 ADDED	JRS	6/72
E	ITEM 3 CLASS 31 DEL. - 4 DEL. - 6 CLASS 317 ADDED	JRS	6/72
F	ITEM 10 ADDED.	JRS	6/72
G	ITEM 11 ADDED.	JRS	6/72
H	ITEM 2 CLASS 141 ADDED. - 5 DEL.	JRS	6/72
J	NEW DRG. NO. ADDED	JRS	6/72
K	ITEMS 02 & 07 CLASS 142 ADDED	JRS	6/72
L	ITEM 02 CLASS 141 DEL.	JRS	6/72

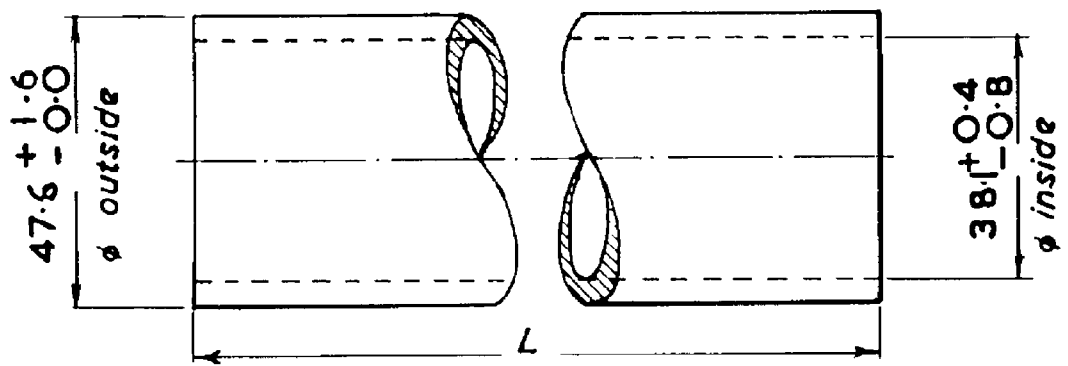
FORMERLY BR DRG No. L-A3-3862

NITRILE RUBBER HOSE TYPE 'A'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
STANDARDS & RATIONALIZATION
DERBY

Scale	_____	A	B	C	D	E
Drawing No.	M-A3-9024573	F	G	H	J	K
Drawn	JRS					
Traced	—					
Check'd	—					
Date	6/72					

ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01	90	143295		50.
02	40	143296		8.9, 13.1, 14, 142
03	50	143297		37, 47.50
04				
05				
06	405	143300		50.317.
07	455	143301		50.142
08	610	143302		37.
09				
10	240	143311		140.
11	800	143329	MODIM0100/005	HST(CAT.VEHL'S)



38.1 mm BORE
_ B. R. SPEC. 488 B. _

ISSUE LETTER	ALTERATION	ISSUER'S INITIALS	DATE
A	I/D WAS 38 O/D WAS 47.5. ITEM 06 DEL.	S.S.	4/76
B	ITEM 05 CLASS II DEL.	S.S.	4/76
C	ITEM 02 CLASS 07 DEL.	S.S.	2/80
D	ITEMS 08 & 09 ADDED.	S.S.	4/80
E	ITEM 10 ADDED	S.S.	7/81
F	ITEM 11 ADDED	S.S.	7/80
G	ITEM 02 CLASS 20,31,40 & DMU DEL. 05 & 07 DEL.	S.S.	11/82
H	NEW DRG NO ADDED		
J	ITEM 02 & 04 CLASS 141 ADDED.		
K	ITEM 02 CLASS 142 ADDED		
L	ITEM 12 ADDED		
M	ITEM 13 ADDED		

ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01	60	143306		20.40.73.DEMU.03.DMU.
02	75	143307		50.141.142
03	80	143308		26.
04	90	143309		31.37.03.141.
05				
06				
07				
08	110	143313		140.
09	140	143314		140.
10	380	143500		510.
11	500	143502		509.
12	20000	143504	TO BE CUT TO LENGTH AS REQU.	45
13	150	143310		08, 09

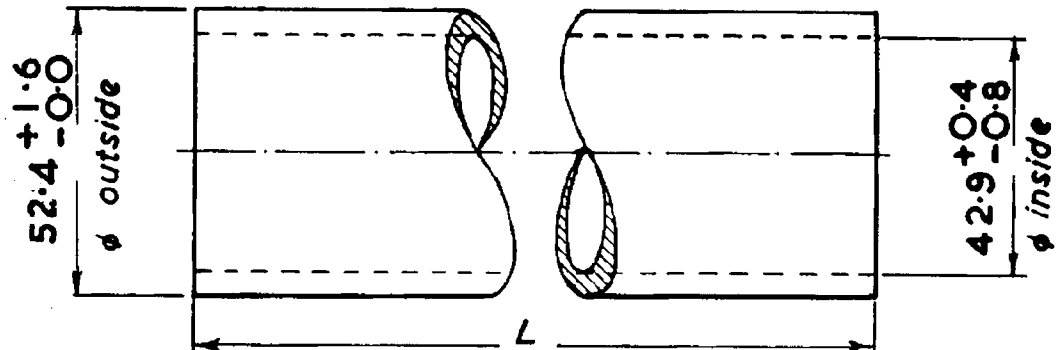
FORMERLY BR DRG No. L-A3-3863

NITRILE RUBBER HOSE TYPE 'A'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
 BRITISH RAILWAYS BOARD
 STANDARDS & RATIONALIZATION
 DERBY

Scale	A B C D E				
Drawing No.	F G H J K				
M-A3-9024574	L M				
Drawn	Traced	Check'd	Date		
JRS	-	-	6/72		

MFD



42.9mm BORE
- B.R. SPEC. 488 B. -

ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	ITEM 10 ADDED	JRS	10/72
B	FOR CLARIFICATION IMPERIAL BORE SIZE ADDED	JRS	1/76
C	I/D WAS 42, O/D WAS 51.5, ITEM 2 CLASS 42 DEL. " 4 " 53 " " 6 " " ALTERATION B DEL.	JRS	4/76
D	ITEM 10 DEL FOR FUTURE USE 5/L-A3-3864	JRS	10/77
E	ITEM 1 CLASS 52 DEL.	JRS	4/76
F	NEW DRG NO ADDED	JRS	1/72
G	ITEM 04 CLASS 50 ADDED	JRS	1/72
H	ITEM 11 ADDED.	JRS	2/73

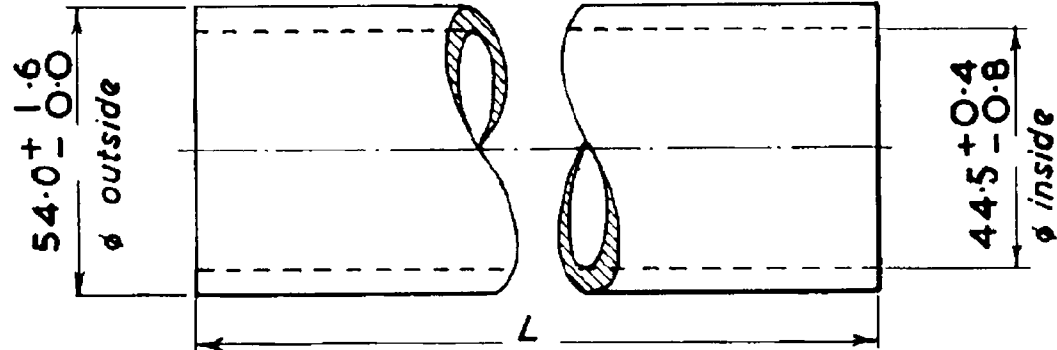
ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01	130	143316		20.
02	150	143317		37.
03	180	143318		47.31.37.
04	230	143319		47.50
05	255	143320		26.27.33.
06	280	143321		50.
07	305	143322		47.
08	610	143323		33.
09	100	143315		03.
10				
11	830	143427		60

FORMERLY BR DRG. No.
L-A3-3864

NITRILE RUBBER HOSE TYPE 'A'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

Scale		A	B	C	D	E
Drawing No	M-A3-9024575	F	G	H		
Drawn	JRS	Traced	—	Checked	—	Date
						6/72



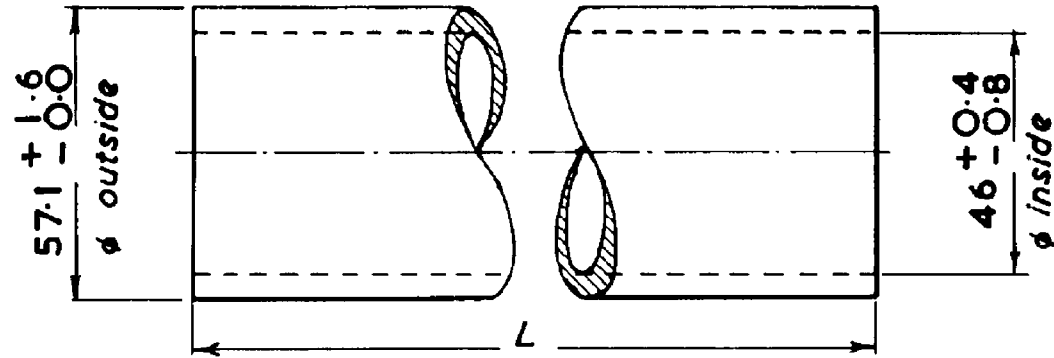
44.5mm BORE

- B.R. SPEC. 488 B. -

REV. LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	1/D WAS 45.0/D WAS 54.5. ITEM 3 CLASS 42&53 DEL.	25	6/70
B	ITEM 5 ADDED	25	7/77
C	ITEM 3 CLASS 55 DEL.	25	1/82
D	NEW DRG. NO. ADDED	25	1/82
E	ITEM 04 CLASS 141 ADDED	25	1/82
F	ITEM 06 ADDED	25	1/82
G	ITEM 04 CLASS 142 ADDED	GH	6/89
H	ITEM 04 CLASS 141 DEL.	25	1/82

FORMERLY BR DRG. NO. L-A3-3865													
NITRILE RUBBER HOSE TYPE 'A'													
CHIEF MECHANICAL & ELECTRICAL ENGINEER BRITISH RAILWAYS BOARD DERBY													
Scale	<table border="1"> <tr> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td>E</td> </tr> <tr> <td>F</td> <td>G</td> <td>H</td> <td></td> <td></td> </tr> </table>			A	B	C	D	E	F	G	H		
A	B	C	D	E									
F	G	H											
Drawing No M-A3-9024576													
Drawn J.R.S.	Traced -	Check'd -	Date 6/72										

ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01	75	143326		33.
02	115	143327		25. 27.45. 46.
03	130	143328		24. 25.
04	70	143325		DMU, 141, 142
05	200	143330	Traction Motor Cable cover	253, 254
06	2667	19017		45



46 mm BORE

— B.R. SPEC. 488 B. —

ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	CLASS 20 ADDED TO ITEM 1	JRS	6/76
B	NEW DRG NO ADDED	MFD	6/76

ITEM No.	DIMENSION L mm.	B.R.CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS.
01	40	143331		31.37.40.50.20.

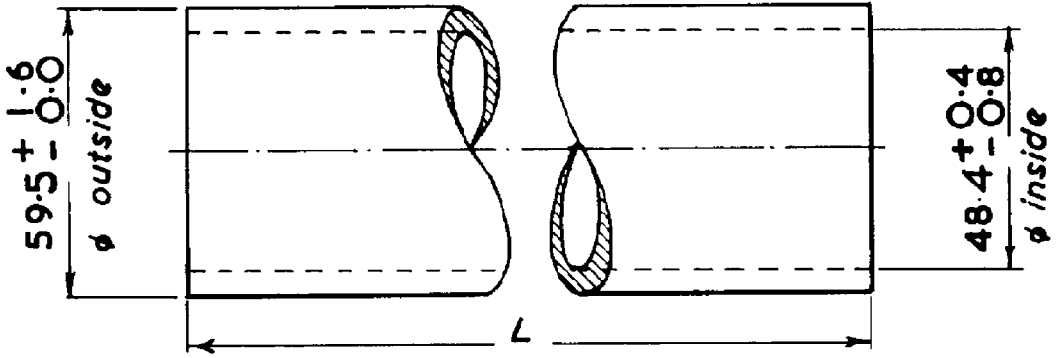
FORMERLY BR DRG. No. L-A3-3866

NITRILE RUBBER HOSE TYPE 'A'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

Scale _____		A	B		
Drawing No. M-A3-9024577					
Drawn	Traced	Check'd	Date		
JRS	—	—	6/76		

MFD



48.4 mm BORE

- B.R. SPEC. 488 B. -

ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	ITEM 6, ADD CLASS 40. FOR CLARIFICATION IMPERIAL BORE SIZE ADDED	K.S.	1/76
B	ID WAS 48. OD WAS 59.1. ITEM 02 CLASS 53 DEL. 03 DEL. IMPERIAL BORE DEL.	P.S.	2/76
C	ITEM 04 DEL.	S.E.	2/78
D	ITEM 04 REINSTATED	S.E.	2/78
E	ITEM 06 CLASS 44 DEL. - 07 ADDED. - 02 CLASS 141 ADDED.	S.E.	1/82
F	NEW DRG NO. ADDED	GH	5/85
G	ITEM 02 CLASS 142 ADDED	NB	11/87
H	ITEM 02 CLASS 141 DEL	S.B.	2/89
J	ITEM 02 CLASS 47 DEL		

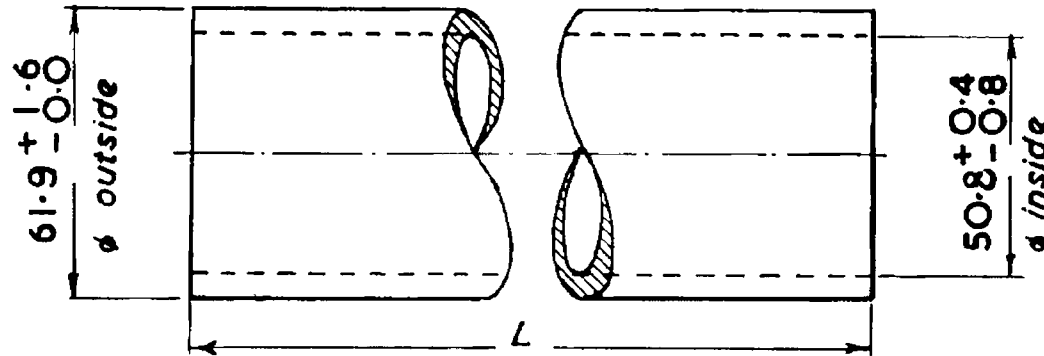
ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01	150	143335		31.37.40.47.
02	230	143336		47.14.142
03				
04	405	143338		58.
05	840	143339		47.
06	120	143334		45.46.40.
07	250	143406		141.

FORMERLY BR DRG. No.
L-A3-3867

NITRILE
RUBBER HOSE
TYPE 'A'

CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

Scale	_____	A	B	C	D	E
		F	G	H	J	
Drawing No.	M-A3-9024578					
Drawn	Traced	Check'd	Date			
JRS	—	—	6/78			



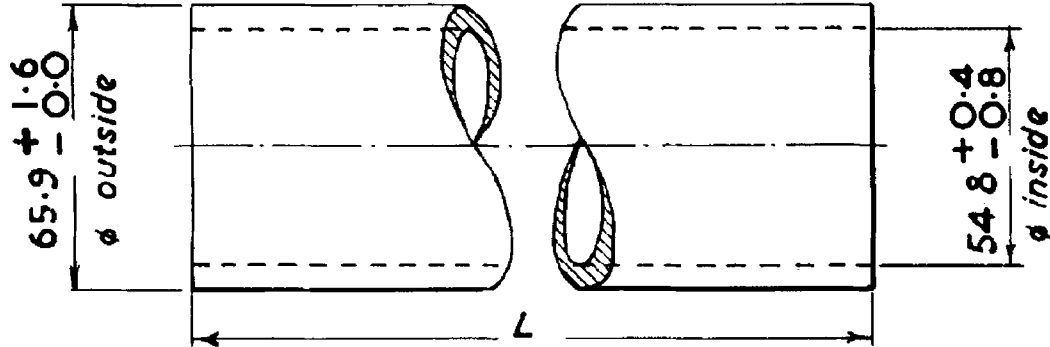
50.8 mm BORE

— B.R. SPEC. 488 B. —

ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01				
02	115	143342		25.27 45.46.47.
03	130	143343		8.9.13.
04				
05	180	143345		150.25.50.
06	230	143346		26.73.
07				
08	305	143348		45.
09				
10				
11	250	143332		140. 141 142

USUAL LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	CLASS 65 ADDED TO ITEM 03	JRS	3/73
B	FOR CLARIFICATION IMPERIAL BORE SIZE ADDED	JRS	1/76
C	WAS 50.0/ WAS 611. ITEM CLASS 42 & 53 DEL. - 3 - 42 DEL. AMD B DEL.	JRS	1/76
D	ITEM 10 ADDED.	JRS	7/78
E	ITEM CLASS 07 DEL. - 3 - 11 & 52 DEL.	JRS	7/78
F	ITEM 11 ADDED.	JRS	7/80
G	ITEM 14.7.9 & 10 DEL. - 2 & 8 CLASS 44 DEL. - 3 CLASS 55 & DMU DEL. - 5 - 24 DEL. - 11 - 141 ADDED.	JRS	11/82
H	NEW DRG. NO. ADDED	JRS	1/72
J	ITEM 05 CLASS 150 ADDED	JRS	1/50
K	ITEM 06 CLASS 73 ADDED	JRS	1/50
L	ITEM 11 CLASS 142 ADDED	JRS	1/72
FORMERLY BR DRG No. L-A3-3868			
NITRILE RUBBER HOSE TYPE 'A'			
CHIEF MECHANICAL & ELECTRICAL ENGINEER BRITISH RAILWAYS BOARD STANDARDS & RATIONALIZATION DERBY			
Scale	_____	A	B
		C	D
		E	
Drawing No	M-A3-9024579	F	G
		H	J
		K	
Drawn	J.R.S	Traced	—
Checked	—	Check'd	—
Date	6/72		

MED



54.8 mm BORE

- B.R. SPEC. 488 B. -

ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE/ CLASS
01				
02	120	143352		141.
03				
04	210	143353		253, 254.
05				
06	140	143367		140, 141 , 142
07	390	143405	MKIII SLEEPERS	

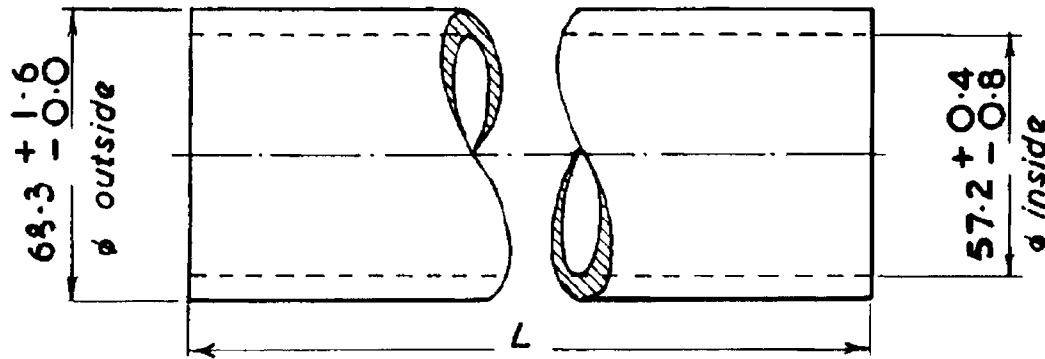
ISSUE LETTER	ALTERATION	D.WAS INITIALS	DATE
A	ITEM 03 ADDED.	<i>2</i>	<i>4/72</i>
B	ITEM 03 DEL & SUPERSEDED BY 01/L-A3-3926	<i>2</i>	<i>4/72</i>
C	ITEM 04 ADDED	<i>2</i>	<i>4/72</i>
D	1/DWAS55.0/DWAS66.1. ITEM 1 CLASS 35853 DEL. - 2 - 53 DEL.	<i>2</i>	<i>4/72</i>
E	ITEMS 1 & 2 DEL.	<i>2</i>	<i>4/72</i>
F	ITEM 5 ADDED.	<i>2</i>	<i>4/72</i>
G	ITEM 06 ADDED.	<i>2</i>	<i>4/72</i>
H	ITEM 07 ADDED.	<i>2</i>	<i>4/72</i>
J	ITEM 02 REINSTATED. - 06 CLASS 141 ADDED.	<i>2</i>	<i>4/72</i>
K	ITEM 05 DELETED	<i>2</i>	<i>4/72</i>
L	NEW DRG NO. ADDED		
M	ITEM 06 CLASS 142 ADDED		
N	ITEM 06 CLASS 141 DEL.		

FORMERLY BR DRG No
L-A3-3869

**NITRILE
RUBBER HOSE
TYPE 'A'**

CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
STANDARDS & RATIONALIZATION
DERBY

Scale	___	A	B	C	D	E
Drawing No.	M-A3-9024580	F	G	H	J	K
Drawn	TRS	L	M	N		
Traced	-					
Check'd	-					
Date	6/72					



57.2 mm BORE

- B.R. SPEC. 488 B. -

ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	ITEM 11 ADDED	JRS	6/72
B	I/D WAS 58; O/D WAS 69.1	JRS	6/72
C	ITEM 3 DELETE CLASS 74	JRS	6/72
D	ITEM 11 WAS CLASS 47/b	JRS	6/72
E	ITEM 7 DELETED	JRS	6/72
F	ITEM 6 CLASS 56 ADDED	JRS	6/72
G	ITEM 4 DELETE CLASS 24	JRS	6/72
H	ITEM 5 DELETE CLASS 55 8 & 9 DELETED	JRS	6/72
J	ITEM 11 DELETED	JRS	6/72
K	NEW DRG NO. ADDED	JRS	6/72

ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01	75	143356		50.73.DEMU.
02	100	143357		37.
03	150	143358		37.50.
04	180	143359		25-27
05	190	143360		DEMU
06	205	143361		31.56.
07				
08				
09				
10	420	143365		73.
11				

FORMERLY BR DRG. No.
L-A3-3870

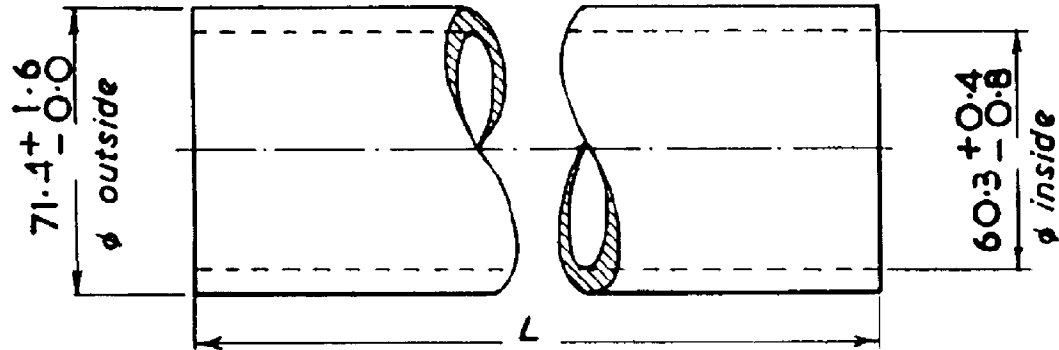
**NITRILE
RUBBER HOSE
TYPE 'A'**

CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

Scale	A	B	C	D	E
Drawing No. M-A3-9024581	F	G	H	J	K
Drawn	Traced	Check'd	Date		
JRS	—	—	6/72		

SWINDON

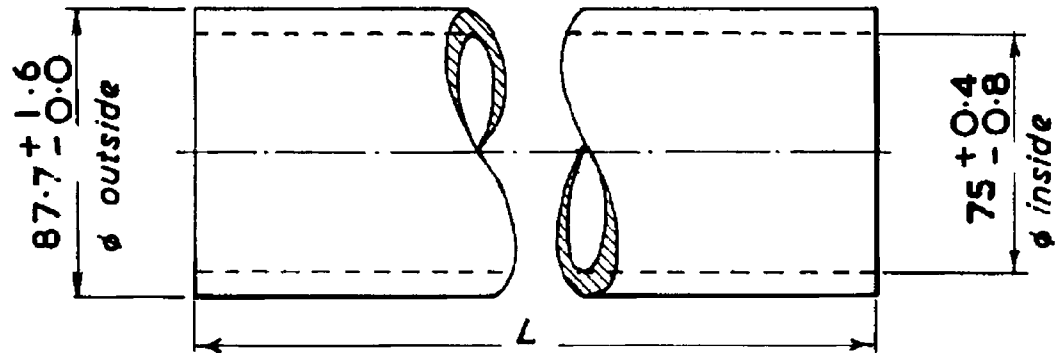
1 9 7 2



60.3 mm BORE

- B.R. SPEC. 488 B. -

ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS	ISSUE LETTER	ALTERATION	ISSUE INITIALS	DATE
01					A	CLASS 56 ADDED TO ITEMS 6&7	RS	9/75
02					B	FOR CLARIFICATION IMPERIAL BORE SIZE ADDED	RS	1/76
03					C	VD WAS 60.0/D WAS 71.1. ITEM 1 CLASS 42,53, ITEM 2 REMARK, ITEM 5 CLASS 53 & ALTERATION 'B' DELETED	RS	6/76
04					D	ITEM 9 ADDED	RS	9/76
05	230	143375		47	E	ITEM 10 ADDED	RS	12/76
06					F	ITEM 10 CLASS 31 ADDED DL/399	RS	6/77
07					G	ITEMS 1,2&8 DELETED ITEM 4 DELETE CLASS 07 ITEM 7 DELETE CLASS 74	RS	6/78
08					H	ITEM 6 DELETE CLASS 252	RS	5/80
09	150	143370		56	J	ITEM 11 ADDED	RS	6/80
10	450	143379		56.31.	K	ITEMS 3&4 DELETED	RS	5/82
11	1400	143380		58.	L	ITEM 5 DELETE CLASS 31	RS	5/85
12	670	143438		60	M	ITEMS 6&7 DELETED	DC	8/85
13					N	NEW DRG NO. ADDED	RS	1/87
					P	ITEM 12 ADDED	RS	1/87
					R	ITEM 12 DELETED	GH	1/87
					S	ITEM 13 ADDED.	RS	2/88
					FORMERLY BR DRG. No. L-A3-3871			
					NITRILE RUBBER HOSE TYPE 'A'			
					CHIEF MECHANICAL & ELECTRICAL ENGINEER BRITISH RAILWAYS BOARD DERBY			
					Scale _____ S B C D E			
					Drawing No. M-A3-9024582 F G H J K			
					L M N P R			
					Drawn Traced Check'd Date			
					RS — — 6/72			



75 mm BORE

— B.R. SPEC. 488 B. —

ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	ITEM 1 AND 3 CANCEL, TRANSFERRED TO 76M BORE ITEM 5 AND 9 RESPECTIVELY. ITEM 2 NOT REQ'D. CANCEL	JRS	7/73
B	ITEM 05 ADDED	JRS	4/74
C	ITEM 03 REINSTATED AT REQUEST OF S.R. DUE TO PIPE DIFFICULTIES. ITEM 04, CLASS 41 ALTERED TO 252. (HST)	JRS	6/74
D	S.R. CLARIFICATION. ITEM 03 NOT REQ'D. CORRES. D504545	JRS	3/75
E	ITEM 4 DELETED. ITEM 5 CLASS 254 ADDED	JRS	3/80
F	NEW DRG. NO. ADDED	JRS	3/80
G	ITEM 05 LENGTH WAS 850	JRS	3/80

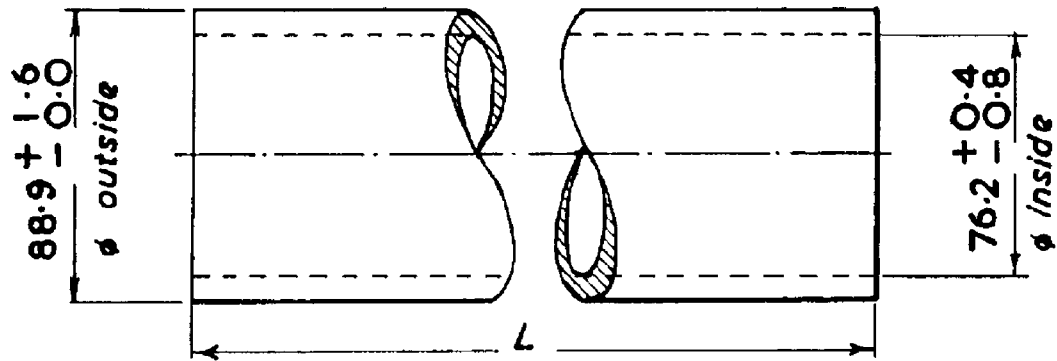
FORMERLY BR DRG. No. L-A3-3874

NITRILE RUBBER HOSE TYPE 'A'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

Scale	_____	A	B	C	D	E
Drawing No.	M-A3-9024586	F	G	M	F	D
Drawn	JRS	Traced	—	Check'd	—	Date
						6/72

ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01				
02				
03				
04				
05	620	143400		253,254



76.2 mm BORE
 — B.R. SPEC. 488 B. —

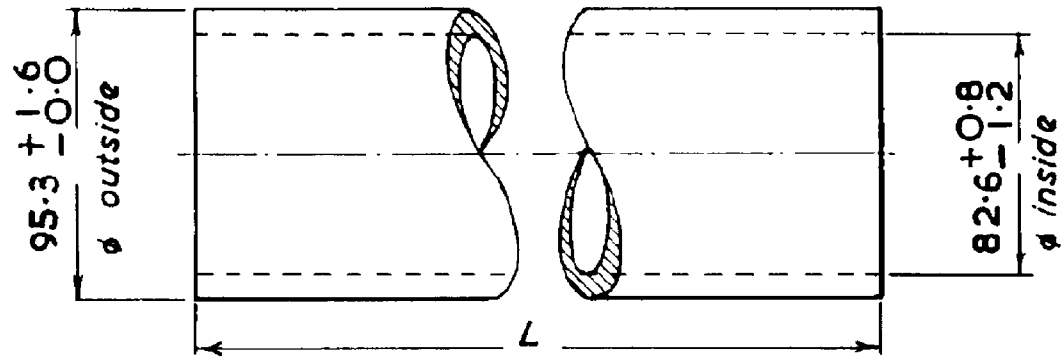
ISSUE LETTER	ALTERATION	DRS INITIALS	DATE
A	CLASS 52 ADDED TO ITEM 08 & 11.	JRS	2/73
B	ITEM 13. CLASS 35 DELETED CLASS 42 ADDED	JRS	6/73
C	ITEM 5. CLASS 24-27 ADDED. ITEM 9. CLASS 33 ADDED. BOTH WERE 75M.	JRS	7/73
D	ITEM 09 CLASS 33 REMOVED AT S.R. REQUEST	JRS	4/74
E	S.R. CLARIFICATION-ITEM 09 ADD CLASS 33 CORRES. DLO4545.	JRS	3/75

ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE/ CLASS
01				
02	90	143408		37.
03	100	143409		08,09
04	115	143410		50
05	130	143411		25-27
06	150	143412		20 DEMU
07	165	143413		20.
08				
09				
10				
11	230	143417		26,27
12	305	143418		25
13				
14				
15	950	143444		58

F	I/D WAS 76.0/D WAS 88.7. ITEM 5 CLASS 42; ITEM 8 CLASS 42, 53; ITEM 12 CLASS 53 & ITEM 13 DELETED.	JRS	6/76
G	ITEMS 1, 3 & 4 DELETE CLASS 11; ITEMS 8 & 11 DELETE CLASS 52	JRS	6/76
H	ITEMS 1, 3 & 4 DELETE CLASS 8, 9 & 13	PC	5/83
J	ITEMS 5 & 12 DELETE CLASS 24	PC	5/83
K	ITEMS 6 & 9 DELETE CLASS 33	PC	5/83
L	ITEMS 8, 9, 10 & 14 DELETED	PC	5/83
M	NEW DRG. NO ADDED	JRS	1/84
N	ITEM 03 REINSTATED	JRS	1/84
P	ITEM 15 ADDED	JRS	1/84

NITRILE RUBBER HOSE TYPE 'A'
 DIRECTOR of MECHANICAL & ELECTRICAL ENGINEERING
 BRITISH RAILWAYS BOARD
 DESIGN SUPPORT GENERAL DERBY

Scale	_____	A	B	C	D	E
Drawing No.	M-A3-9024587	F	G	H	J	K
Drawn	J.R.S	L	M	N	P	
Traced	—					
Check'd	—					
Date	6/72					



82.6 mm BORE

— B.R. SPEC. 488 B. —

ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	ITEM 04 ADDED	J.S.	2/72
B	I/D WAS B2 O/D WAS 947	J.S.	2/72
C	ITEM 03 CLASS 40 ADDED	J.S.	1/78
D	ITEM 2 DELETE CLASS 74	J.S.	6/78
E	ITEM 1 DELETE CLASS 44	P.C.	5/85
F	ITEM 04 DELETED	J.S.	11/85
G	NEW DRG. NO. ADDED	J.S.	11/85

ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01	130	143423		37.45-47
02	150	143424		37.40.50.
03	180	143425		50.73.40.
04				

FORMERLY BR DRG No.
L-A3-3876

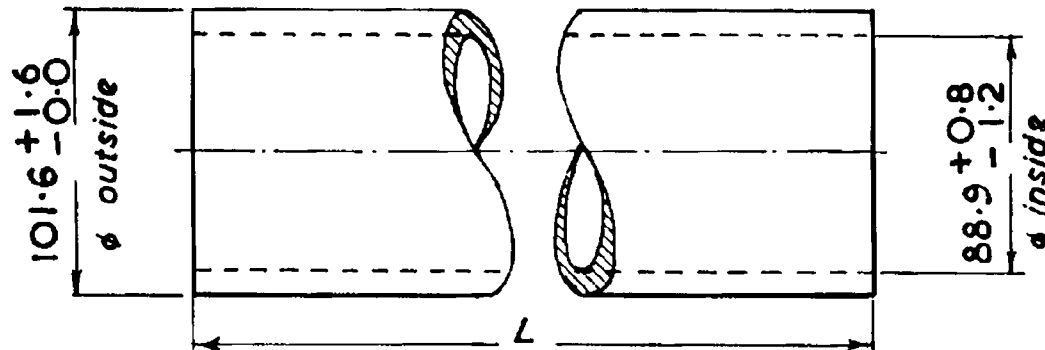
**NITRILE
RUBBER HOSE
TYPE 'A'**

CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

Scale	_____	A	B	C	D	E
Drawing No	M-A3-9024588	F	G			
Drawn	J.S.	Traced	—	Check'd	—	Date
						6/72

SWINDON

MFD



88.9 mm BORE

- B. R. SPEC. 488 B. -

ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01	60	143429	Mk.III SLEEPER	20.40.50.
02				
03	150	143431		47.
04				
05	180	143433		33
06	230	143434		47
07				
08				
09	120	143451		60
10	525	143453		60

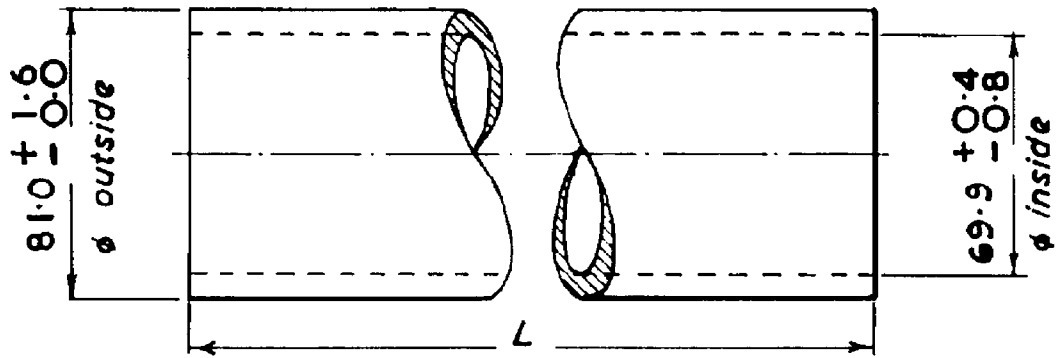
ISSUE LETTER	ALTERATION	DRG. MAN'S INITIALS	DATE
A	CLASS 47 ADDED TO ITEM 07	R ₃	3/73
B	ITEM 5, ITEM 6 CLASS 53 & ITEM 7 CLASS 35 & 53 DELETED. I/D WAS 90, O/D WAS 102.7	R ₂	6/76
C	ITEM 08 ADDED (DL/399)	R ₆	6/77
D	ITEM 2 DELETED. ITEM 7 DELETE CLASS 52	R ₆	6/76
E	ITEM 5 & CAT. No. REINSTATED FOR CLASS 33 MOD. MB601/157	R ₃	1/79
F	REF MK III SLEEPER ADDED TO ITEM 1	R ₆	5/80
G	ITEM 1 CLASS 50 ADDED	R ₆	6/80
H	ITEM 4 DELETED	PC	5/81
J	ITEM 8 DELETED	PC	5/83
K	ITEM 7 DELETED	R ₆	6/81
L	NEW DRG. NO. ADDED		1/84
M	ITEM 06 DELETED	R ₆	5/81
N	ITEMS 09 & 10 ADDED	R ₆	6/81

FORMERLY BR DRG. No.
L-A3-3877

**NITRILE
RUBBER HOSE
TYPE 'A'**

CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

Scale	_____	A	B	C	D	E
Drawing No. M-A3-9024589		F	G	H	J	K
		L	M	N		
Drawn	J.R.S.	Traced	—	Check'd	—	Date
						6/72



69.9 mm BORE

- B.R. SPEC. 488 B. -

ALTERATION	DRAWN S INITIALS	DATE
A ITEM 06.REMARK ADDED	R ₅	1/73
B ITEM 09.CLASS 55 ADDED	R ₅	1/73
C I/D WAS 70,O/D WAS 81-1. ITEM 4 CLASS 35,53 DELETED	R ₅	6/76
D ITEM 4 DELETE CLASS 52	R ₆	6/78
E REF TO CLASS 31 ADDED TO ITEM 01	R ₅ G	5/80
F ITEM 1,2&3 DELETE CLASS 37	PC	5/83
G ITEM 7 DELETE CLASS 44	PC	5/83
H ITEM 8 DELETED	PC	5/83
J ITEM 9 DELETE CLASS 44 & 55	PC	5/83
K ITEM 04 DELETED	R ₅	6/76
L NEW DRG. NO. ADDED	R ₅	6/76
M ITEM 04 REINSTATED	R ₅	6/76

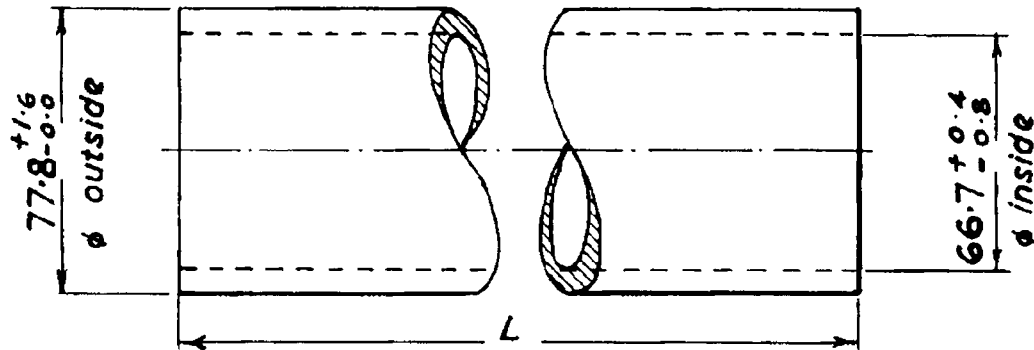
FORMERLY BR DRG. No. L-A3-3873

NITRILE RUBBER HOSE TYPE 'A'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

Scale	A	B	C	D	E
Drawing No	F	G	H	J	K
M-A3-9024585	L	M			
Drawn	Traced	Check'd	Date		
JRS	—	—	6/72		

ITEM No.	DIMENSION L mm.	B.R.CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01	50	143391		31
02				
03				
04	130	143394		47
05	150	143395		37.40.50.
06	165	143396	EXPERIMENTAL HOSE	73.
07	180	143397		45.46.73.DEMU
08				
09	305	143399		45.46.



66.7 mm BORE

- B.R. SPEC. 488 B. -

ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE	
	A I/D WAS 66; O/D WAS 77.1			R.S. 6/76
	B NEW DRG. NO. ADDED			J.R.D.
C	ITEM 02 ADDED			

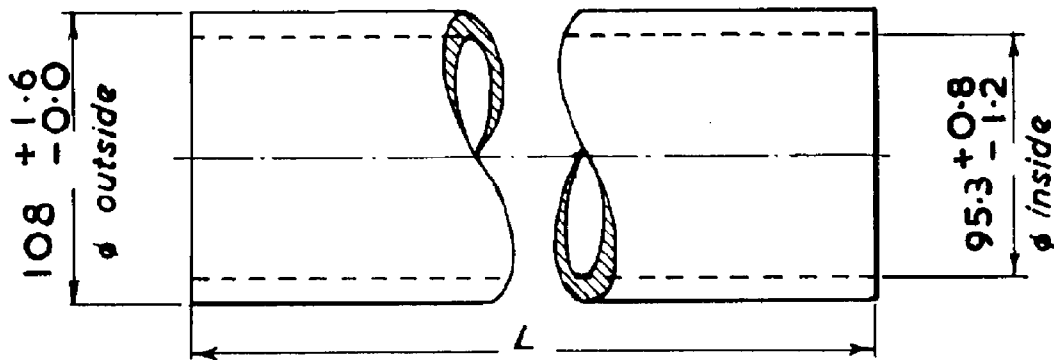
ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01	200	143390		47.
02	750	143428		60

FORMERLY BR DRG. No. L-A3-3829

NITRILE RUBBER HOSE TYPE 'A'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

Scale		A	B	C	
Drawing No.	M-A3-9024584				
Drawn	JRS	Traced	-	Check'd	-
				Date	9/76



95.3 mm BORE

_ B.R. SPEC. 488 B. _

ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	1/D WAS 95; 0/D WAS 107.7	J.R.S.	6/76
B	ITEMS 1, 2 & 4 DELETE CLASS 44	PC	5/83
C	ITEM 3 DELETED	PC	5/83
D	ITEM 1 DELETE CLASS 31	PC	5/83
E	NEW DRG. NO. ADDED	J.R.S.	6/72

ITEM No.	DIMENSION L mm.	B.R.CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01	150	143440		3745.46.
02	180	143441		4546.
03				
04	305	143443		4546.

FORMERLY BR DRG. No.
L-A3-3879

**NITRILE
RUBBER HOSE
TYPE 'A'**

CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

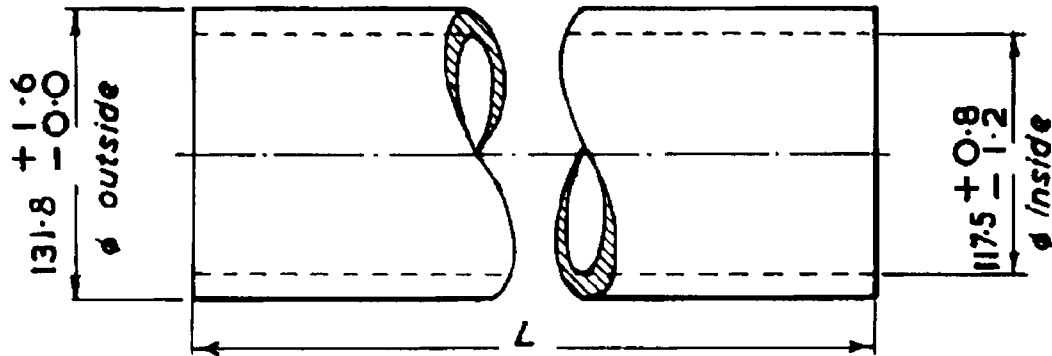
Scale A | B | C | D | E

Drawing No
M-A3-9024590

Drawn Traced Check'd Date
J.R.S. — — 6/72

SWINDON

MFD



117.5 mm BORE

_ B.R. SPEC. 488 B. _

ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	1/D WAS 118, O/D WAS 132.3	TR	6/76
B	NEW DRG. NO. ADDED	LVA	7/76
C	ITEM 02 ADDED	GH	7/76
D	ITEM 02 DELETED	GH	8/76

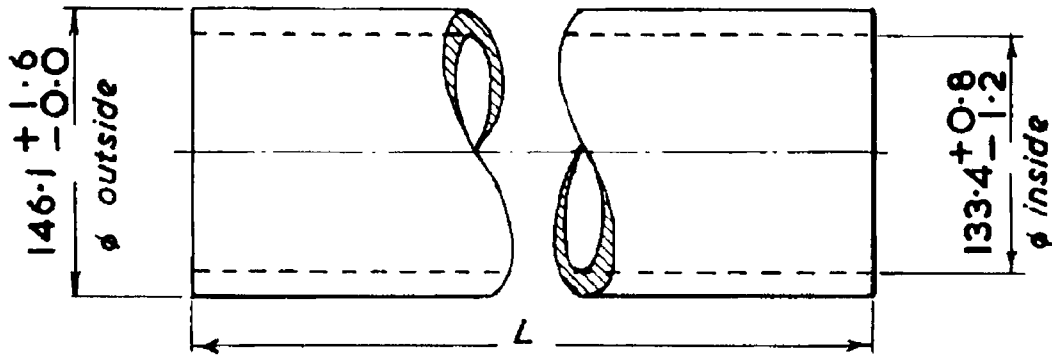
ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01	100	143462		40
02				

FORMERLY BR DRG.No. L-A3-3878

NITRILE RUBBER HOSE TYPE 'A'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

Scale		A	B	C	D
Drawing No.	M-A3-9024592				
Drawn	JRG	Traced	-	Check'd	-
Date	12-2-79				



133.4mm BORE

— B. R. SPEC. 488 B. —

EXCEPT — PRESSURES TO BE :-
 CLAUSE 1.2. WORKING — 3.46 bar
 7.7.1. PROOF — 4.35 bar
 7.7.2. MAX. — 13.8 bar
 (1 bar = 14.5 lb f/in²)

ISSUE LETTER	ALTERATION	DESIGNER'S INITIALS	DATE
A	I/D WAS 133.3, O/D WAS 146	J.R.S.	6/76
B	NEW DRG. NO. ADDED	A.M.D.	6/76

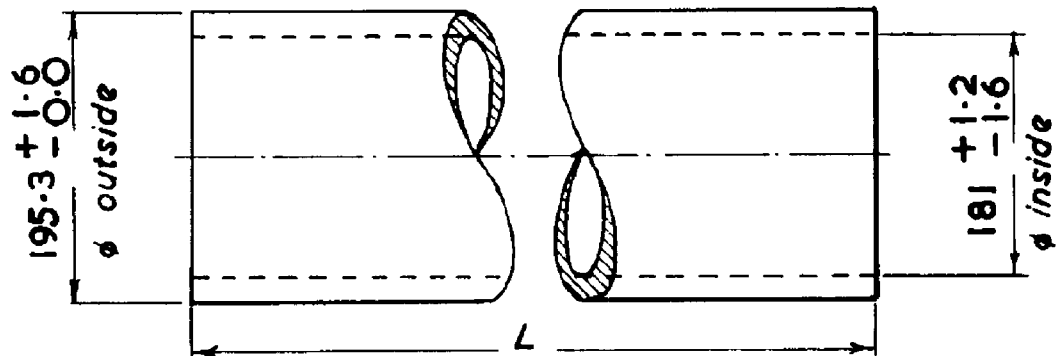
ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/ NUMBER	REMARKS	VEHICLE / CLASS
01	90	143466		DEMU.

FORMERLY BR DRG. No.
L-A3-3886

**NITRILE
RUBBER HOSE
TYPE 'A'**

CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

Scale		A	B		
Drawing No	M-A3-9024593				
Drawn	J.R.S.	Traced	—	Check'd	—
				Date	6/72



181 mm BORE

— B.R. SPEC. 488 B. —

EXCEPT — PRESSURES TO BE —
 CLAUSE 1.2. WORKING — 3.46 bar
 7.7.1. PROOF — 4.35 bar
 7.7.2. MAX. — 13.8 bar
 (1 bar = 14.5 lbf/in²)

ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	I/D WAS 180; O/D WAS 194.3	K. S.	6/72
B	NEW DRG. NO. ADDED	J.R.S.	6/72

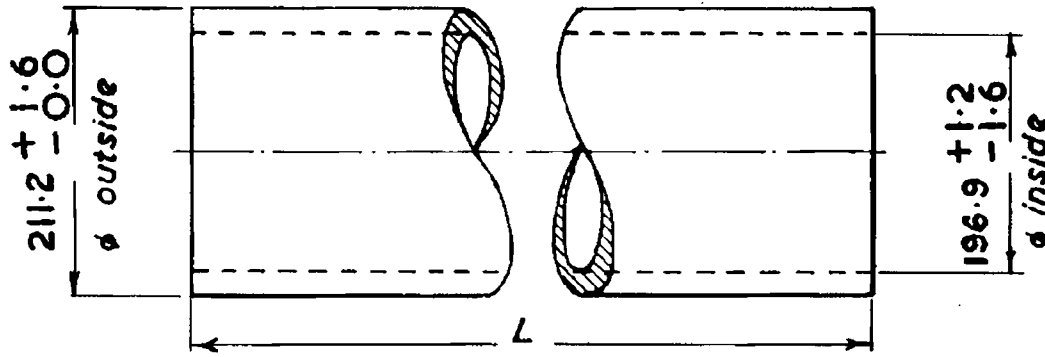
ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01	80	143478		20.

FORMERLY BR DRG. No.
L-A3-3890

**NITRILE
RUBBER HOSE
TYPE 'A'**

CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

Scale	_____				A	B		
Drawing No.	M-A3-9024594							
Drawn	Traced	Check'd	Date					
J.R.S.	—	—	6/72					



196.9 mm BORE

_ B.R. SPEC. 488 B. _
 EXCEPT PRESSURES TO BE :-
 CLAUSE 1.2. WORKING — 3.46 bar
 7.7.1. PROOF — 4.35 bar
 7.7.2. MAX. — 13.8 bar
 (1 bar = 14.5 lbf/in²)

ISSUE LETTER	ALTERATION	DRW'G. INITIALS	DATE
A	//D WAS 198.0/D WAS 212.3	R ₃	6/76
B	ITEM 2 DELETED & REPLACED BY ITEM 3	R ₃	6/76
C	ITEM 3 DELETED	PC	5/88
D	NEW DRG NO ADDED	J.R.S.	1/92

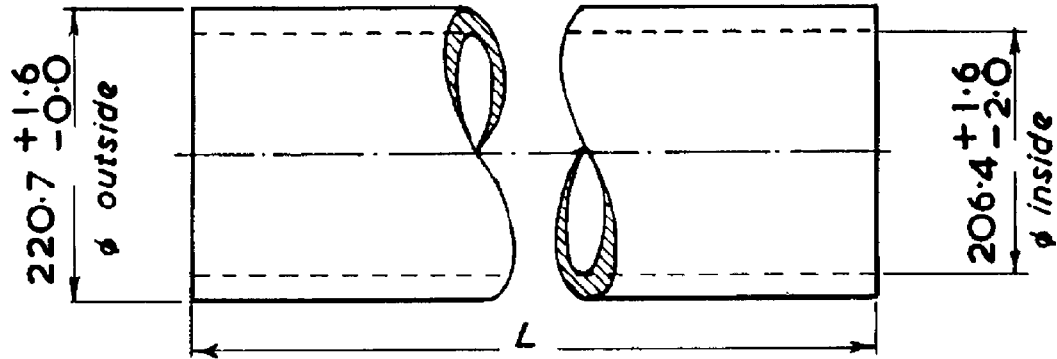
ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01	90	143481		37.
02				
03				

FORMERLY BR DRG. No. L-A3-3891

NITRILE RUBBER HOSE TYPE 'A'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
 BRITISH RAILWAYS BOARD
 DERBY

Scale		A	B	C	D
Drawing No.	M-A3-9024595				
Drawn	J.R.S.	Traced	—	Check'd	—
				Date	6/72



206.4mm BORE

_ B.R. SPEC. 488 B. _
 EXCEPT PRESSURES TO BE :-
 CLAUSE 1.2. WORKING 3.46 bar
 7.7.1. PROOF 4.35 bar
 7.7.2. MAX. 13.8 bar
 (1 bar = 14.5 lbf/in²)

ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01	90	143485		3773 DEMU
02				

ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	ITEM 01 CLASS 50 REMOVED ITEM 02 ADDED	J.S.	3/4/72
B	I/D WAS 206.3; O/D WAS 220.6	J.S.	6/72
C	ITEM 2 DELETED	PC	5/83
D	NEW DRG NO ADDED	K.S.	4/93

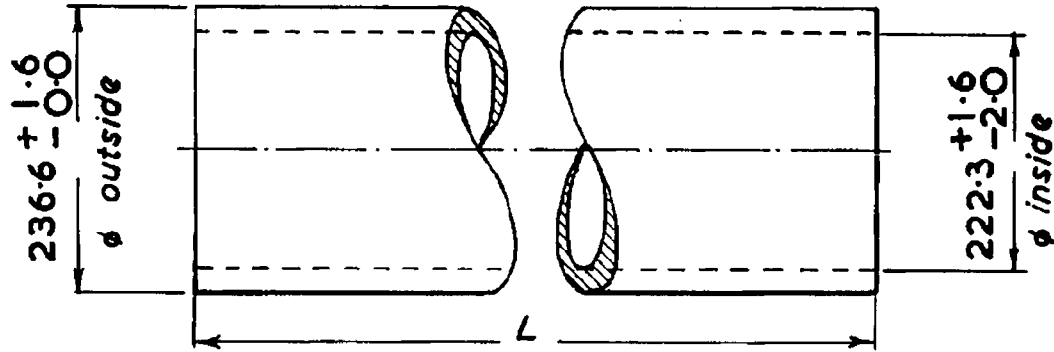
FORMERLY BR DRG. No.
L-A3-3892

**NITRILE
RUBBER HOSE
TYPE 'A'**

CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

Scale _____		A	B	C	D
Drawing No. M-A3-9024596					
Drawn J.R.S.	Traced —	Check'd —	Date 6/72		

SWINDON **MFD**



222.3mm BORE

_ B. R. SPEC. 488 B. _
 EXCEPT _ PRESSURES TO BE :-
 CLAUSE 1.2. WORKING _ 3.46 bar
 7.7.1. PROOF _ 4.35 bar
 7.7.2. MAX. _ 13.8 bar
 (1 bar = 14.5 lbf/in²)

ISSUE LETTER	ALTERATION	DMAN'S INITIALS	DATE
A	I/D WAS 222.0/D WAS 236.5	6/76	
B	NEW DRG NO ADDED		

ITEM No.	DIMENSION L mm.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE/ CLASS
01	90	143488		31
02	135	143489		31

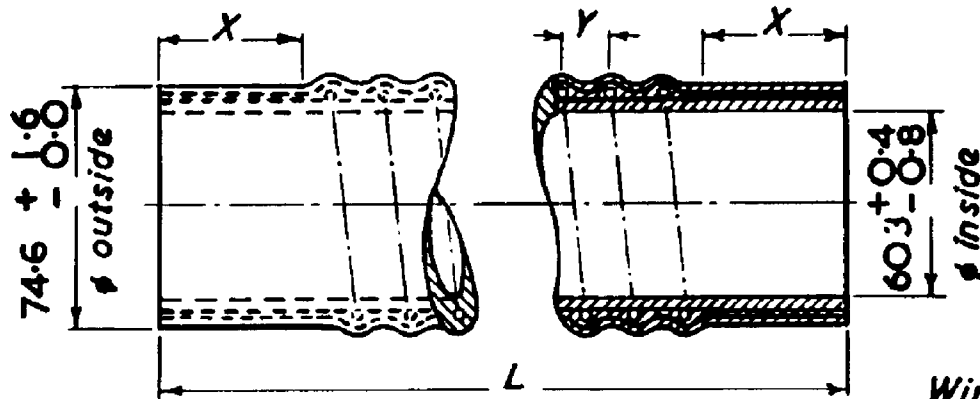
FORMERLY BR DRG. No.
 L-A3-3893

**NITRILE
 RUBBER HOSE
 TYPE 'A'**

CHIEF MECHANICAL &
 ELECTRICAL ENGINEER
 BRITISH RAILWAYS BOARD
 DERBY

Scale		A	B		
Drawing No. M-A3-9024597					
Drawn J.R.S.	Traced —	Check'd —	Date 6/72		

BR 908 13



60.3 mm BORE

B.R. SPEC. 488 B.

Wire Reinforcement 13 SWG.

ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	FOR CLARIFICATION IMPERIAL BORE SIZE ADDED	J.R.S.	1/16
B	I/D WAS 60; O/D WAS 74.3 ITEM 2 & ALTERATION 'A' DELETED	J.R.S.	8/76
C	ITEM 03 DELETED (DL/399 & NOT REQ 47)	J.R.S.	6/77
D	ITEM 03 REINSTATED FOR USE ON EXHAUSTER	J.R.S.	3/18
E	ITEM 04 ADDED	J.R.S.	4/80
F	ITEM 3 DELETED	PC	5/83
G	ITEM 3 REINSTATED	J.R.	10/83
H	NEW DRG NO ADDED	J.R.	7/85
J	ITEM 01 DELETED	J.R.	8/87

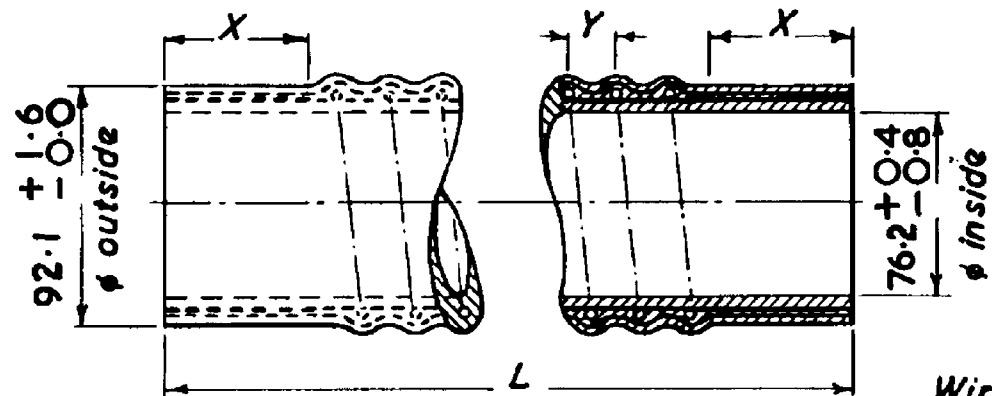
ITEM No.	DIMENSION			B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
	L'mm	X'mm	Y'mm			
01	305	75	116	143618		31.
02						
03	455	75	"	143620		47
04	900	75	"	143631		210.317

FORMERLY BR DRG. No. L-A3-3898

NITRILE RUBBER HOSE TYPE 'B'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

Scale					
Drawing No. M-A3-9024600	A	B	C	D	E
	F	G	H	J	
Drawn	Traced	Check'd	Date		
J.R.S.	—	—	6/72		



76.2 mm BORE
 — B.R. SPEC. 488 B. —

Wire Reinforcement 13SWG.

ISSUE LETTER	ALTERATION	DRW'N S INITIALS	DATE
A	1/D WAS 76, O/D WAS 91.9	R.S.	6/76
B	NEW DRG NO ADDED		

ITEM No.	DIMENSION			B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
	Z'mm	X'mm	Y'mm			
01	535	75	111 ± 1.6	143632		3L

FORMERLY BR DRG. No. L-A3-3902

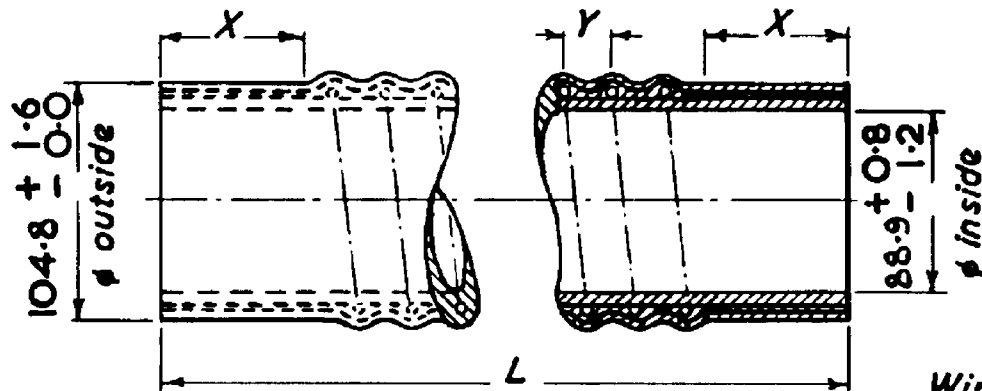
NITRILE RUBBER HOSE TYPE 'B'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
 BRITISH RAILWAYS BOARD
 DERBY

Scale	—	A	B		
Drawing No.	M-A3-9024601				
Drawn	Traced	Check'd	Date		
J.R.S.	—	—	6/72		

BR 088-13





88.9mm BORE

___ B.R. SPEC. 488 B. ___

Wire Reinforcement 11 SWG.

ISSUE LETTER	ALTERATION	DR. MAN'S INITIALS	DATE
A	I/D WAS 90.0/D WAS 105.9 ITEMS 1&3 DELETED	J.R.S.	6/76
B	ITEM 02 DELETED (DL/399)	J.R.S.	6/77
C	ITEM 04 ADDED	J.R.S.	2/80
D	NEW DRG NO ADDED	J.R.S.	6/83
E	ITEM 05 ADDED	J.R.S.	6/83

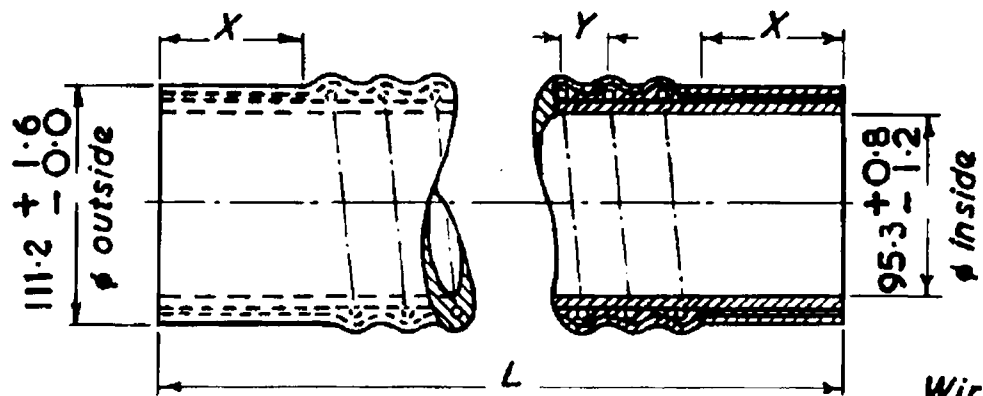
ITEM No.	DIMENSION			B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
	L'mm	X'mm	Y'mm			
01						
02						
03						
04	900	75	12.7±1.6	143638	MK III SLEEPERS	
05	750	"	"		INT. DEM. COACH	

FORMERLY BR DRG. No.
L-A3-3903

**NITRILE
RUBBER HOSE
TYPE 'B'**

CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

Scale	___	A	B	C	D	E
Drawing No.	M-A3-9024602					
Drawn	J.R.S.	Traced	---	Check'd	---	Date
						6/72



95.3 mm BORE

B.R. SPEC. 488 B.

Wire Reinforcement 11 SWG.

ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	I/D WAS 95; O/D WAS 110.9	J.S.	6/76
B	ITEM 2 DELETED	P.C.	5/83
C	NEW DRG NO ADDED	J.A.	4/77
D	ITEM 1 DELETED	K.B.	2/79

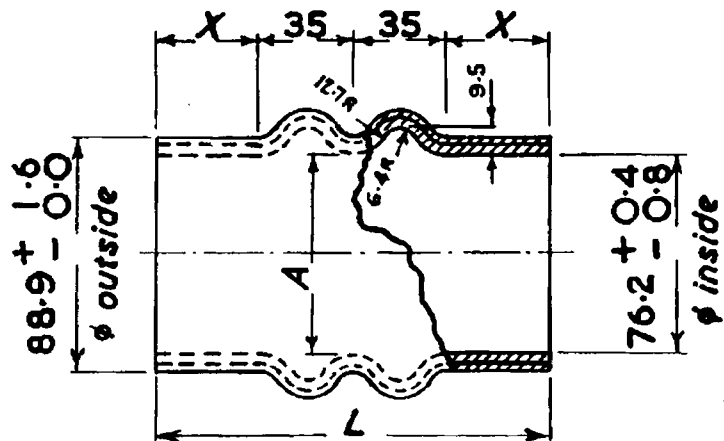
ITEM No.	DIMENSION			B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
	Z' mm	X' mm	Y' mm			
01	305	75	27 ± 1.6	143640		47.
02						

FORMERLY BR DRG. No. L-A3-3904

NITRILE RUBBER HOSE TYPE 'B'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

Scale		A	B	C	D
Drawing No.	M-A3-9024603				
Drawn	J.R.S.	Traced	—	Check'd	—
Date	6/72				



76.2 mm BORE

— B.R. SPEC. 488B. —

'A' not to be less than nom. bore.

ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	I/D WAS 76.0/I/D WAS 88.7 ITEM 1 CLASS 42,53 DELETED	J.R.S.	6/76
B	CLASS 210 ADDED TO ITEM 1	J.R.S.	11/77
C	ITEM 1 DELETE CLASS 52	J.R.S.	6/78
D	NEW DRG NO ADDED	J.R.S.	1/78

ITEM No.	DIMENSION		B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
	'L' mm	'X' mm			
01	160	45	143711		210

FORMERLY BR DRG. No. L-A3-3906

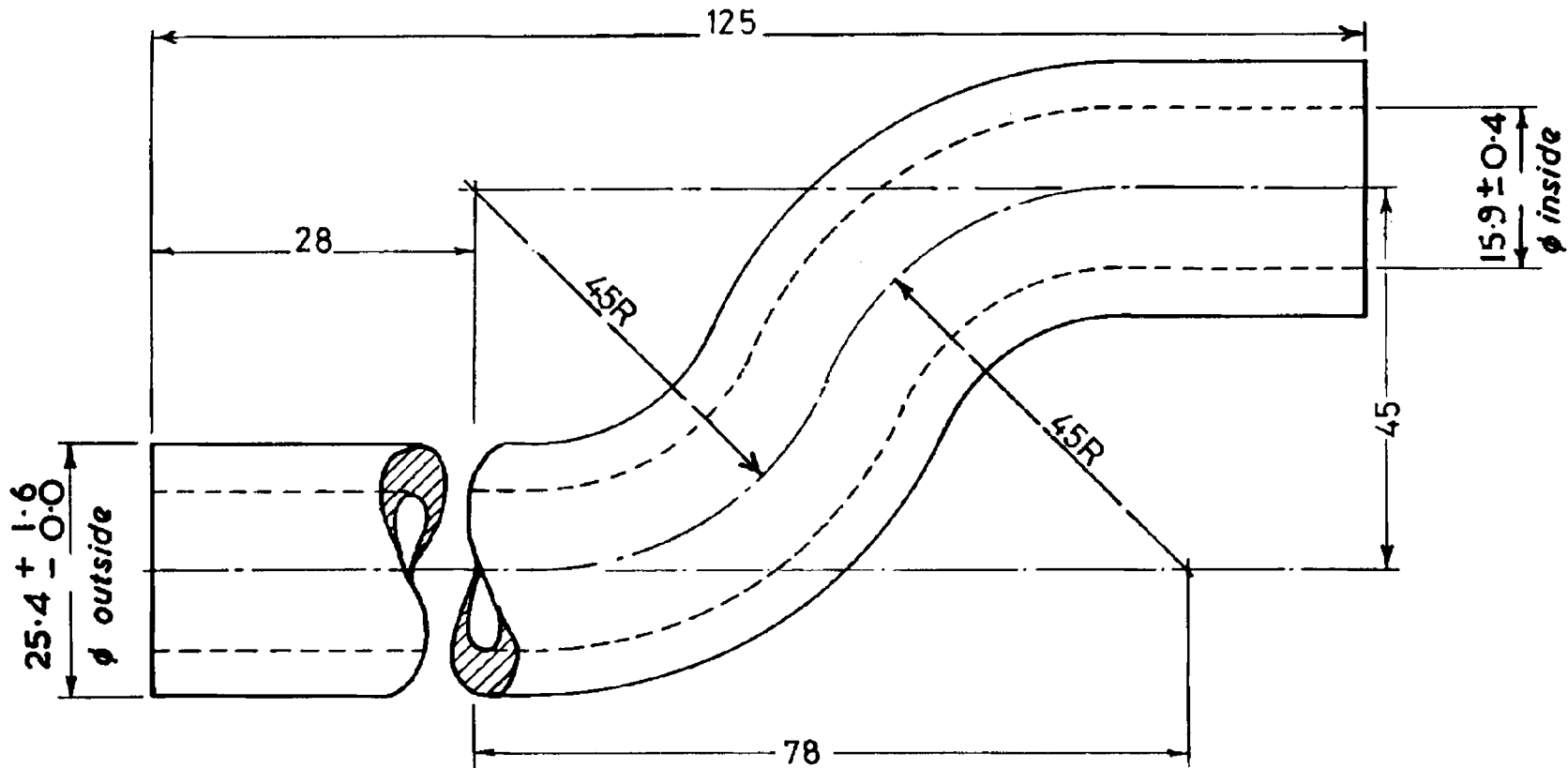
NITRILE RUBBER HOSE, TYPE 'C'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

Scale _____	A	B	C	D
Drawing No. M-A3-9024604				
Drawn	Traced	Check'd	Date	
J.R.S.			6/72	

15.9 mm BORE

B.R. SPEC. 488 B.



ISSUE LETTER	ALTERATION	D MANS INITIALS	DATE
A	I/D WAS 16, O/D WAS 25.5	J.S.	7/72
B	DIMN 125 WAS 121, 28 WAS 38, 50R WAS 32R, 50 WAS 38, DIMN 87 ADDED, RADII EXTENDED TO HOSE, CLASS 56 ADDED, SCALE DELETED.	J.S.	7/72
C	DIMN 45 WAS 50, 78 WAS 87, 45R WAS 50R.	J.S.	7/72
D	NEW DRG NO ADDED		

MFD

FORMERLY BR DRG. No. L-A3-3909

NITRILE RUBBER HOSE TYPE 'D'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY.

ITEM No.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
OI	143751		20.31.37.40.50.73.DEMU

56.

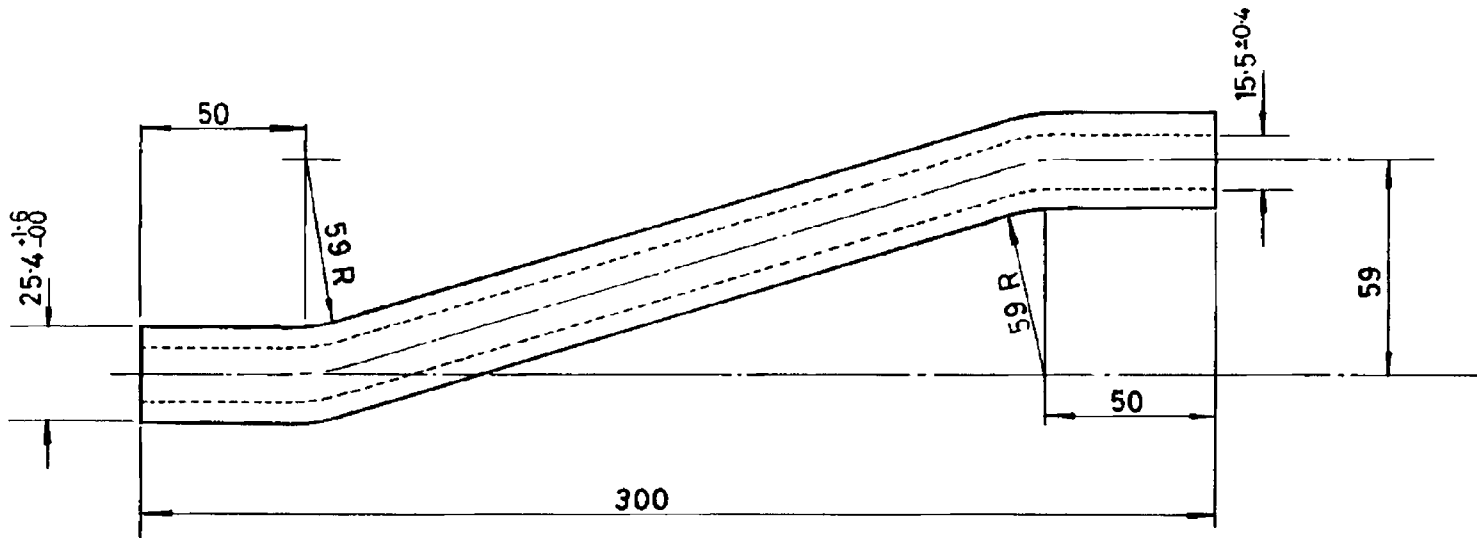
COMPOUND BEND

Scale	—	A	B	C	D
Drawing No.	M-A3-9024605				
Drawn	J.R.S.	Traced	—	Check'd	—
				Date	6/72

SWINDON

M.F.D.

HOSE TO BR SPEC. 488 B



15.5 mm BORE

ISSUE LETTER	ALTERATION	DESIGNER'S INITIALS	DATE
A	FIRST ISSUE		10/84

MF-1

NITRILE RUBBER
HOSE
TYPE D

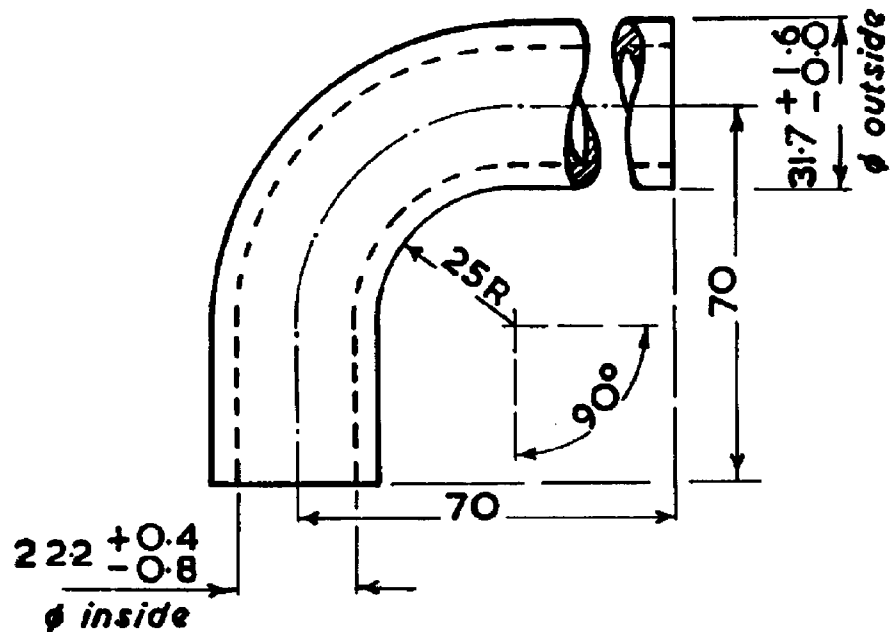
DIRECTOR OF MECHANICAL
& ELECTRICAL ENGINEERING
BRITISH RAILWAYS BOARD
DESIGN SUPPORT GENERAL
DERBY

ITEM N ^o	BR. CAT. N ^o	10/	REMARKS	VEH/ CLASS
01	19009			142

Scale	—	A			
Drawing N ^o	M-A3-9029154				
Drawn	Traced	Checked	Date		
G.I.M.			10/84		

22.2 mm BORE

— B.R. SPEC. 488B —



ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	I/D WAS 22.0/D WAS 31.5	J.S.	6/76
B	NEW DRG NO ADDED	J.S.	7/72

FORMERLY BR DRG. No. L-A3-3923

NITRILE RUBBER HOSE TYPE D

CHIEF MECHANICAL & ELECTRICAL ENGINEER, BRITISH RAILWAYS BOARD DERBY

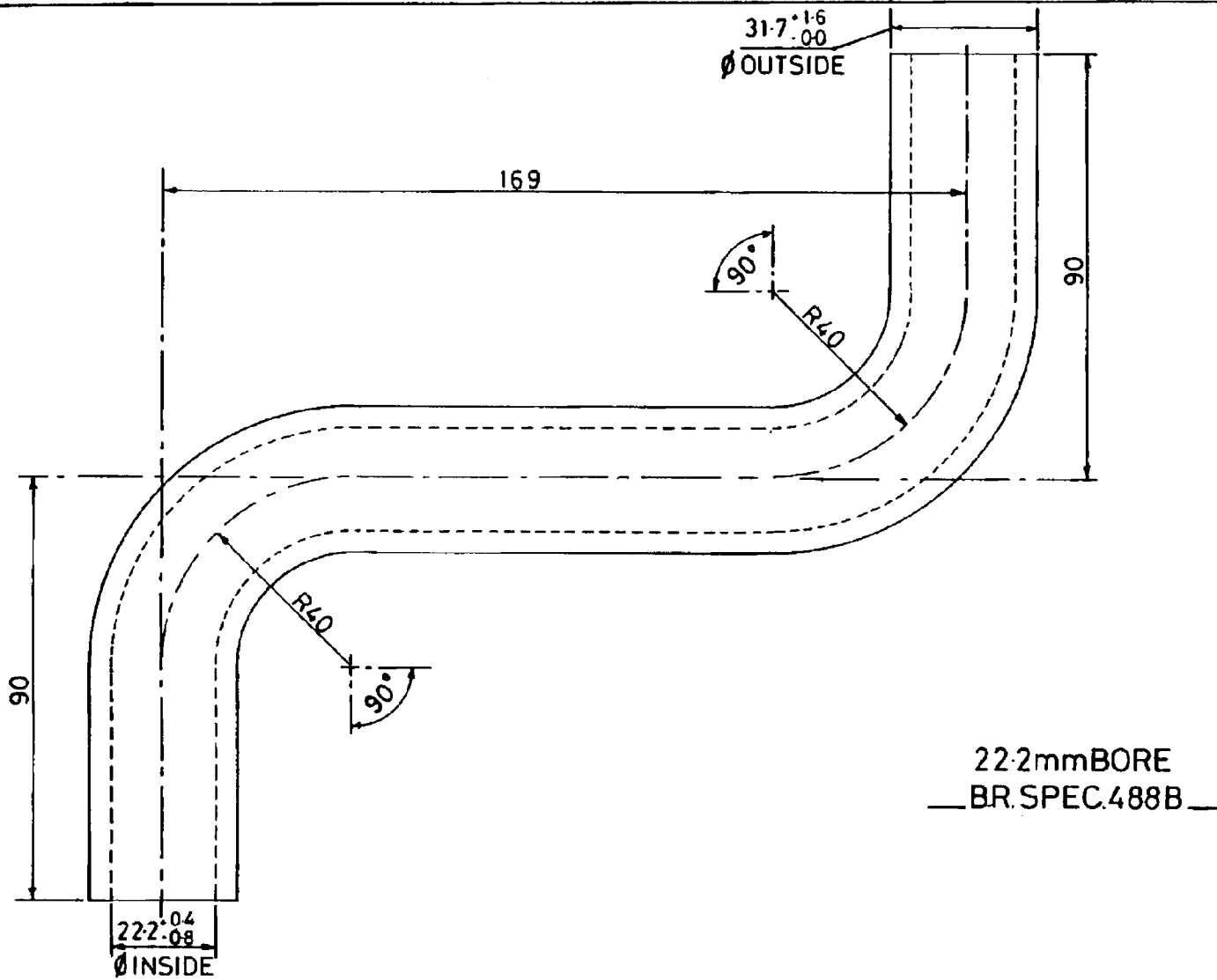
ITEM No.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01	143753		03.

ELBOW

Scale	1:1	A	B		
Drawing No.	M-A3-9024606				
Drawn	J.R.S.	Traced	—	Check'd	—
				Date	7/72

SWINDON

MED



22.2mm BORE
BR SPEC. 488B

ISSUE LETTER	ALTERATION	DMAN'S INITIALS	DATE
A	FIRST ISSUE	SG	18/82
B	NEW DRG. NO. ADDED	1 R	1/84
C	Ø INSIDE CHANGED FROM 22.2 ^{+0.08} TO 22.2 ^{+0.04}	AMT	1/84

FORMERLY BR DRG. No.
L-A3-3943

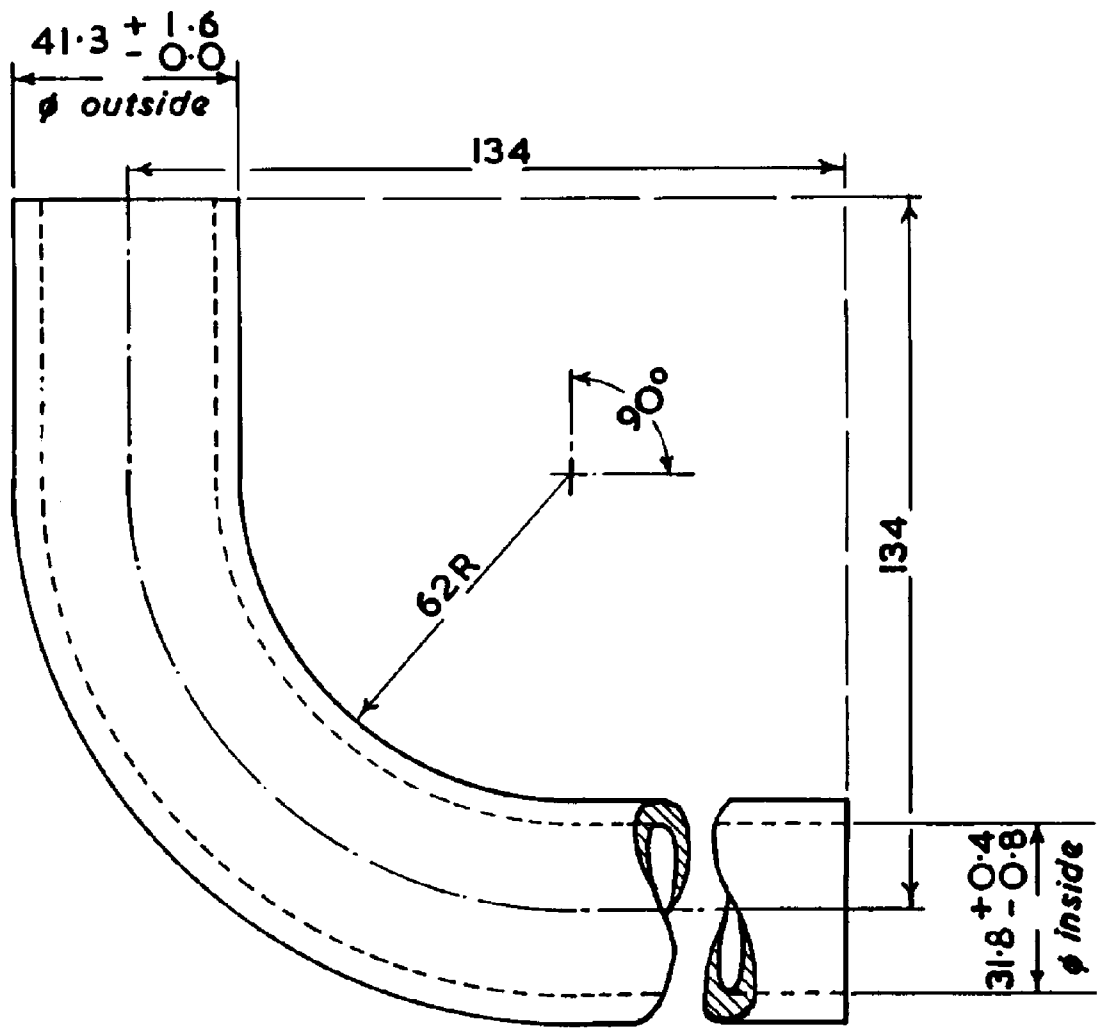
NITRILE
RUBBER HOSE
TYPE 'D'

CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
STANDARDS & RATIONALIZATION
DERBY

ITEM No.	BR CATALOGUE NUMBER 10/	REMARKS	VEHICLE / CLASS
01	143774		141

DOUBLE ELBOW

Scale	1:1	A	B	C		
Drawing No.	M-A3-9024607					
Drawn	Traced	Checked	Date			
PSG	—		12/82			



31.8 mm BORE

—B.R. SPEC. 488 B.—

ISSUE LETTER	ALTERATION	D. HANDS INITIALS	DATE
A	//DWAS 32.0/DWAS 415		6/72
B	ITEM 1 CLASS 55 DEL. 141 ADDED.		6/72
C	NEW DRG NO ADDED		6/72
D	ITEM 01 CLASS 142 ADDED	GHS	6/72
E	ITEM 01 CLASS 141 DEL.		6/72

FORMERLY BR DRG. No.
L-A3-3910

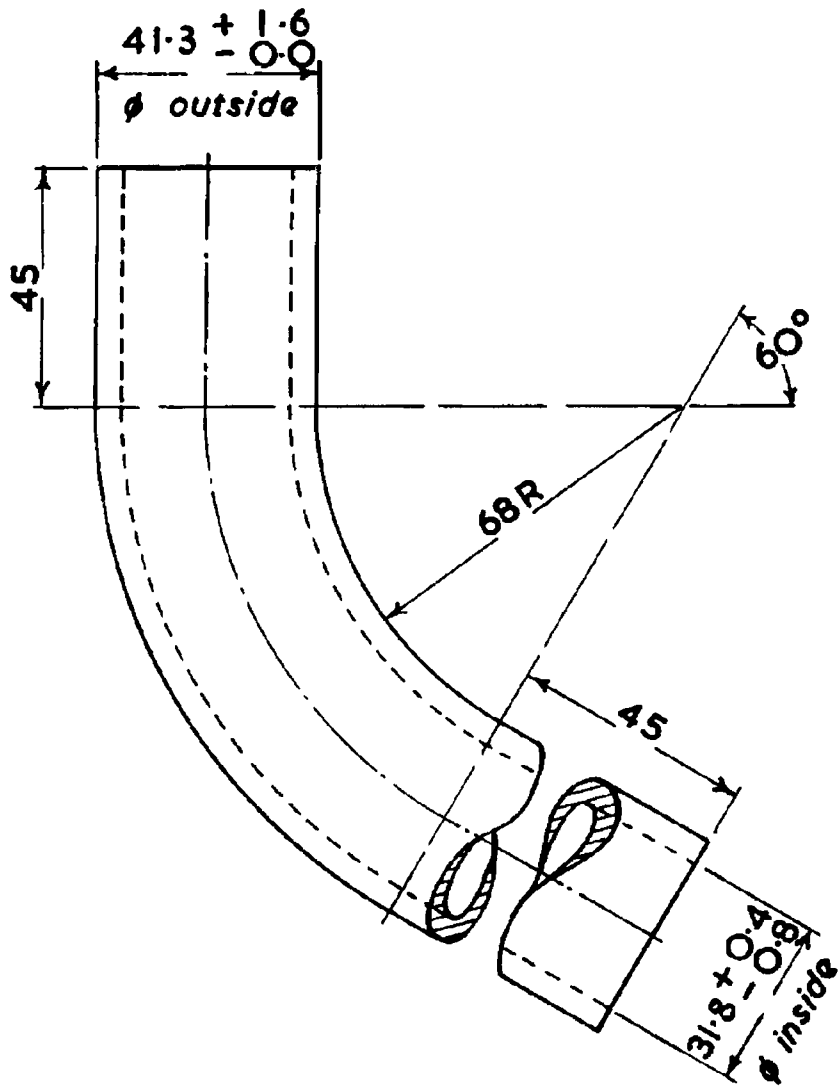
**NITRILE
RUBBER HOSE
TYPE 'D'**

CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY.

ITEM No.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01	143754		141, 142

ELBOW

Scale	1:1	A	B	C	D	E
Drawing No.	M-A3-9024608					
Drawn	JRS	Traced	—	Check'd	—	Date
						6/72



31.8 mm BORE

— B.R. SPEC. 488 B.—

ISSUE LETTER	ALTERATION	D MANS INITIALS	DATE
A	1/D WAS 32.0/D WAS 41.5.	JR	6/72
B	ITEM 01 CLASS 55 DEL. 141 ADDED.	JR	6/72
C	NEW DRG NO ADDED	MED	6/72

FORMERLY BR DRG. No.
L-A3-3911

**NITRILE
RUBBER HOSE
TYPE 'D'**

CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY.

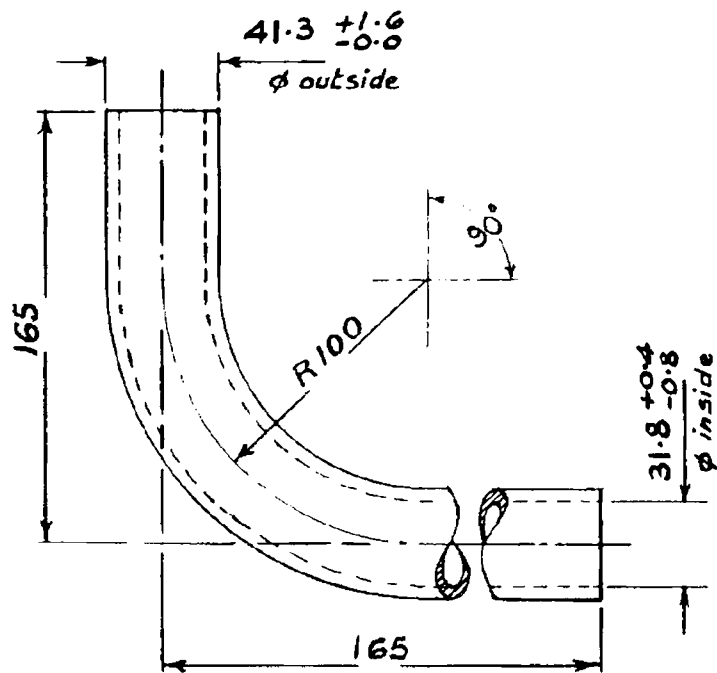
ITEM No.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01	143755		141.

SINGLE BEND

Scale	1:1	A	B	C	
Drawing No.	M-A3-9024609				
Drawn	JRS	Traced	—	Check'd	—
				Date	6/72

SWINDON

MD



31.8 mm. BORE
 — B.R. SPEC. 488B —

ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	BR.CAT.No.CHANGE FROM 10/143602	Pa	3/75
B	I/D WAS 32, O/D WAS 41.5.	Pa	6/76
C	ITEM 1 CLASS 55 DEL. 141 ADDED.	Pa	7/82
D	NEW DRG. NO. ADDED	Pa	7/85
E	ITEM 01 CLASS 142 ADDED	GH	8/85
F	ITEM 01 CLASS 141 DEL.	Pa	1/88

FORMERLY BR DRG. No. L-A3-3924

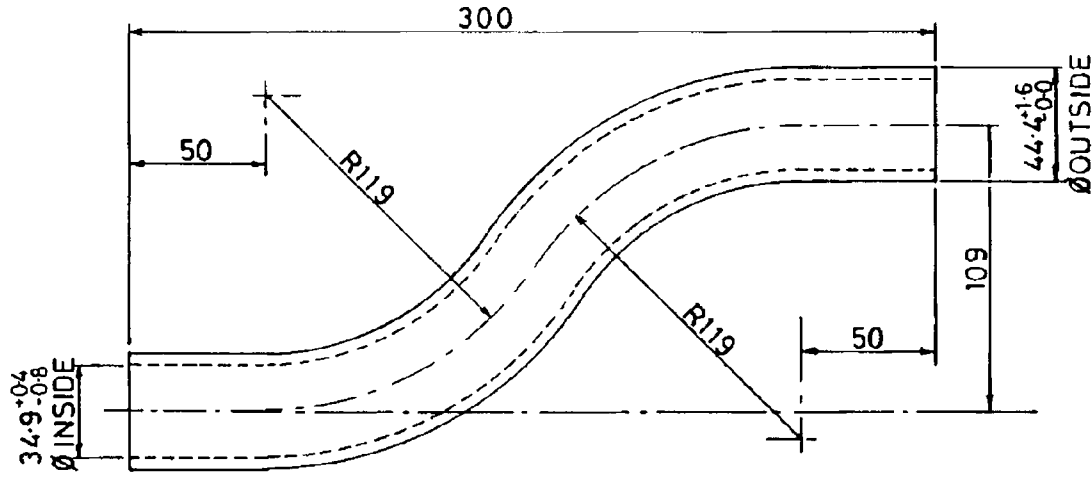
NITRILE RUBBER HOSE TYPE 'D'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
 BRITISH RAILWAYS BOARD

ITEM No.	B.R. CATALOGUE No.	REMARKS	VEHICLE / CLASS
01	10/ 143756		141 142

Scale 1:2	A	B	C	D	E
Drawing No M-A3-9024610	F				
Drawn J.R.S.	Traced	Checked	Date		
			MARCH 75		

34.9mm BORE
BR SPEC. 488B



ISSUE LETTER	ALTERATION	DRMANS INITIALS	DATE
A	FIRST ISSUE	PS	12/82
B	NEW DRG NO ADDED	M/F	1/82

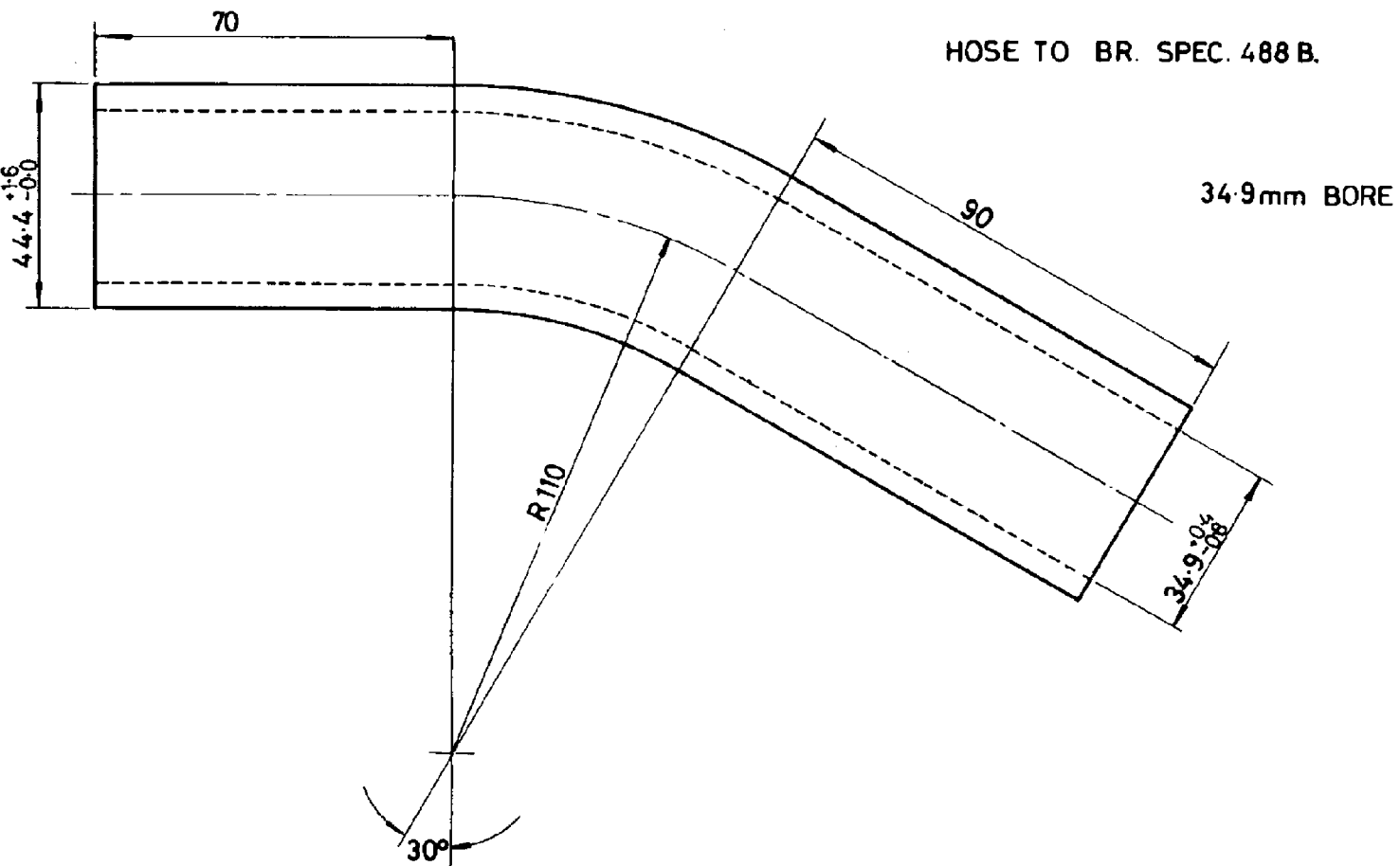
FORMERLY BR DRG No
L-A3-3942

NITRILE
RUBBER HOSE
TYPE 'D'

CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
STANDARDS & RATIONALIZATION
DERBY

ITEM No	BR CATALOGUE NUMBER 10/	REMARKS	VEHICLE / CLASS
01	143772		141
			COMPOUND BEND

Scale	1:2	A	B		
Drawing No.	M-A3-9024611				
Drawn	Traced	Checked	Date		
PSG	—		12/82		



ISSUE LETTER	ALTERATION		DRAWN'S INITIALS	DATE
	A	FIRST ISSUE		

MF

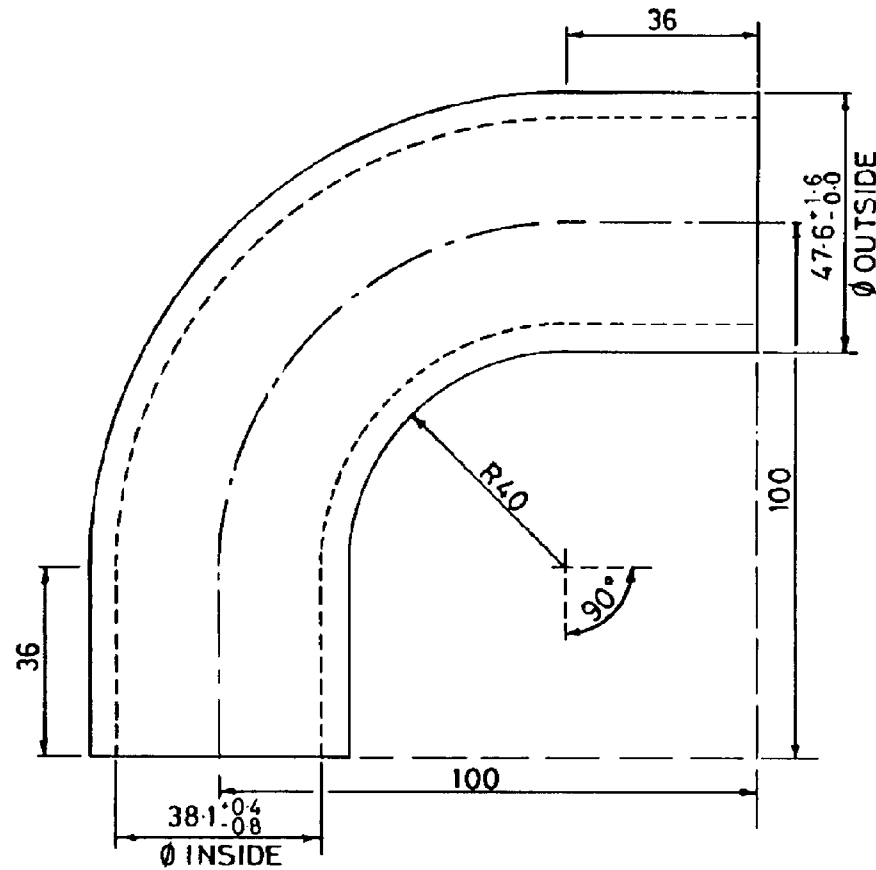
NITRILE RUBBER
HOSE
TYPE D

DIRECTOR OF MECHANICAL
& ELECTRICAL ENGINEERING
BRITISH RAILWAYS BOARD
DESIGN SUPPORT GENERAL
DERBY

ITEM N ^o	BR. CAT. N ^o	10/	REMARKS	VEH/CLASS
01	19011			142

Scale	_____	A			
Drawing N ^o	M-A3-9029155				
Drawn	Traced	Checked	Date		
G.I.M.		<i>[Signature]</i>	10/84		

38.1mm BORE
 — B.R. SPEC.488B



ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	FIRST ISSUE	P.S.	12/82
B	ITEM 01 DIMENSION 36 WAS 30	PC	5/83
C	NEW DRG NO ADDED	P.S.	1/85
D	ITEM 01 CLASS 142 ADDED	GH	1/85

FORMERLY BR DRG. No.
 L-A3 3941

NITRILE
 RUBBER HOSE
 TYPE 'D'

CHIEF MECHANICAL &
 ELECTRICAL ENGINEER
 BRITISH RAILWAYS BOARD
 STANDARDS & RATIONALIZATION
 DERBY

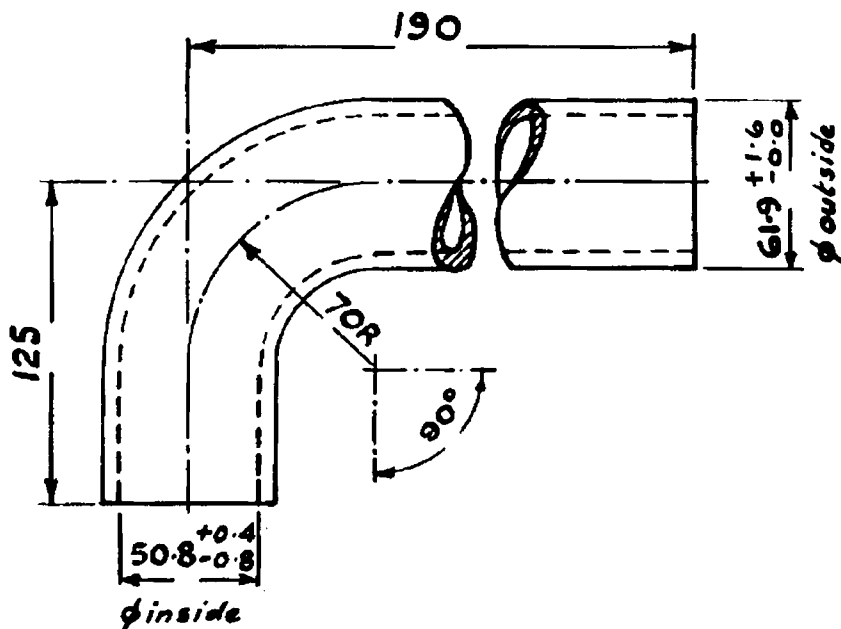
ITEM No.	B.R. CATALOGUE NUMBER 10/	REMARKS	VEHICLE / CLASS
01	143773		141 142
			ELBOW

Scale 1:1	A	B	C	D
Drawing No. M-A3-9024612				
Drawn	Traced	Checked	Date	
P.S.G.	—		12/82	

MJD

50.8 mm BORE

_ B.R. SPEC. 488B _



ISSUE LETTER	ALTERATION	DMU'S INITIALS	DATE
A	NEW DRG NO. ADDED	JRS	7/76

FORMERLY BR DRG. No. L-A3-3934

NITRILE RUBBER HOSE TYPE D

CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

ITEM No.	B.R. CATALOGUE NUMBER	REMARKS	VEHICLE/CLASS
01	10/143761	MET. CAM. RE-ENGINE	DMU

ELBOW

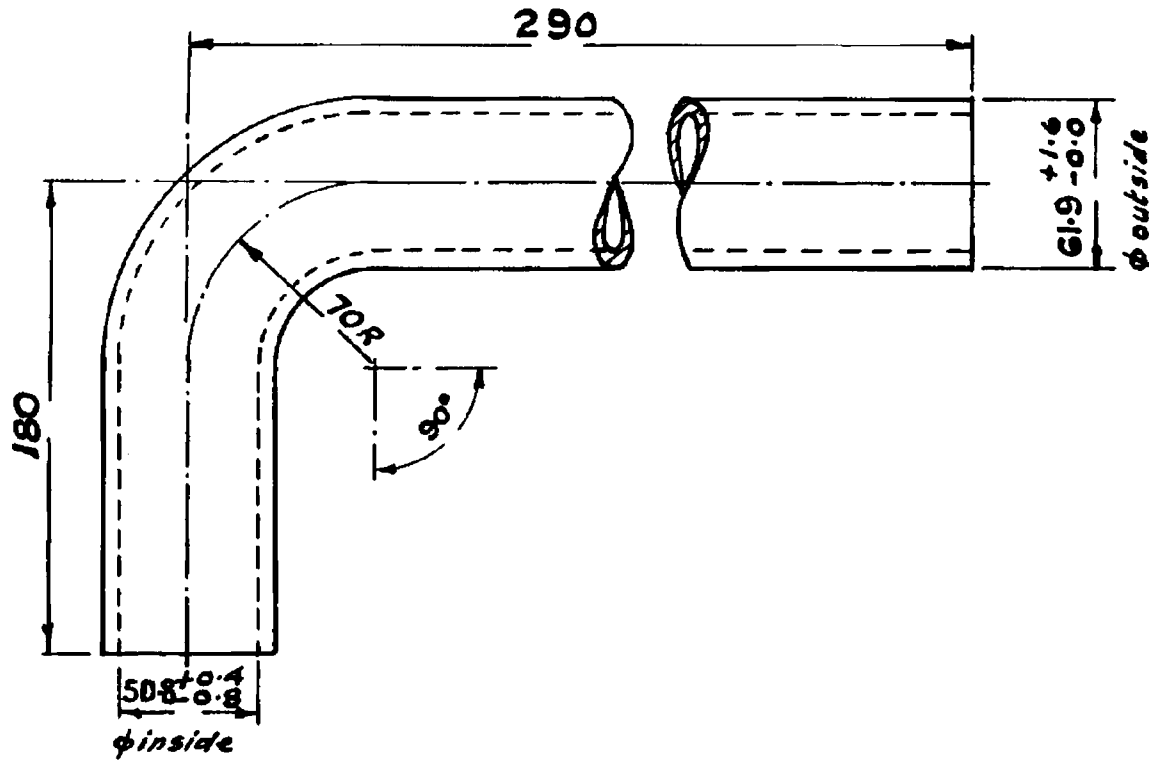
Scale	A			
Drawing No.	M-A3-9024613			
Drawn	Traced	Check'd	Date	
JRS			7/76	

SWINDON.

MET

50.8 mm BORE

— B.R. SPEC. 488B —



ISSUE LETTER	ALTERATION	DMAN'S INITIALS	DATE
A	I/D WAS 51.0/I/D WAS 62.1	JRS	6/76
B	NEW DRG NO ADDED	JRS	3/76

FORMERLY BR DRG. No. L-A3-3931

NITRILE RUBBER HOSE TYPE 'D'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

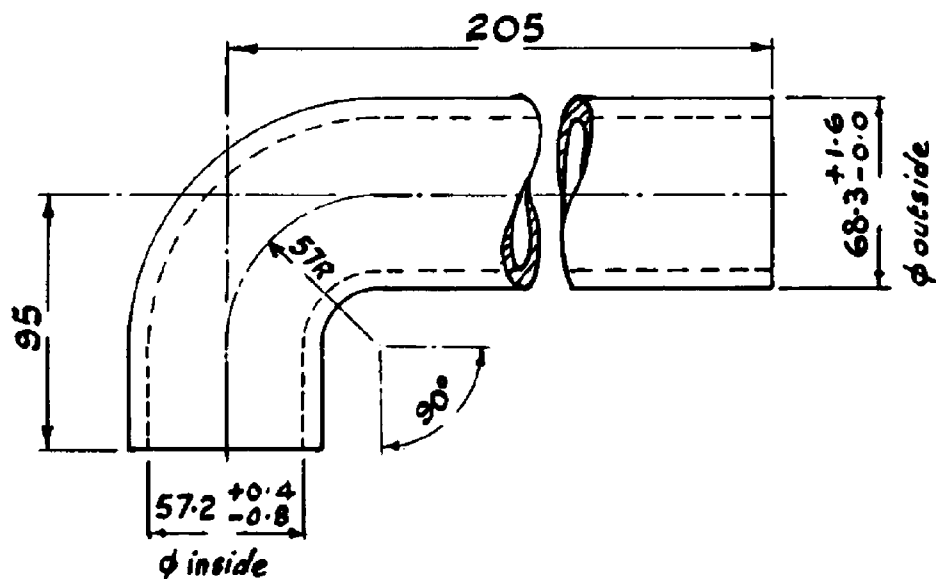
Scale	—	A	B		
Drawing No.	M A3 9024614				
Drawn	JRS	Traced	—	Check'd	—
				Date	3/76

ITEM No.	B.R. CATALOGUE NUMBER	REMARKS	VEHICLE / CLASS
01	10/143763	EX. 10/13998 - 1 L-A3-3972	DMU

ELBOW

57.2 mm BORE

— B.R. SPEC. 488B —



ISSUE LETTER	ALTERATION	DMAN'S INITIALS	DATE
A	I/D WAS 58; O/D WAS 69.1	R.S.	6/76
B	NEW DRG NO ADDED	J.R.	1/77

FORMERLY BR DRG. No.
L-A3-3932

**NITRILE
RUBBER HOSE
TYPE 'D'**

CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

ITEM No.	B.R. CATALOGUE NUMBER	REMARKS	VEHICLE / CLASS
01	10/143764	EX.10/13999-DE36734/F	DMU

ELBOW

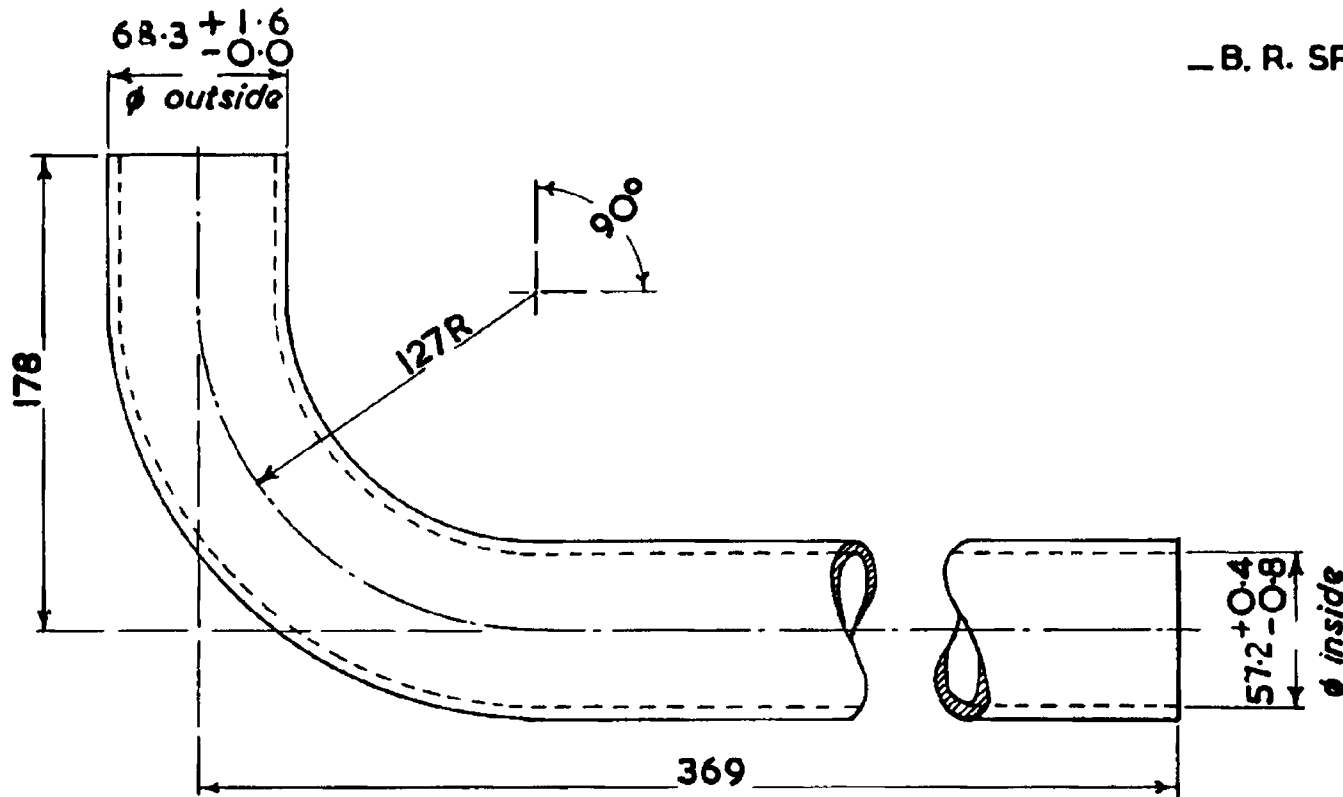
Scale	—	A	B		
Drawing No.	M-A3-9024615				
Drawn	JRS	Traced	—	Check'd	—
				Date	3/76

SWINDON

MFD

57.2 mm BORE

— B. R. SPEC. 488 B. —



ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	I/D WAS 58; O/D WAS 69.1	JRS	4/78
B	NEW DRG NO ADDED	JRS	4/78

FORMERLY BR DRG. No.
L-A3-3912

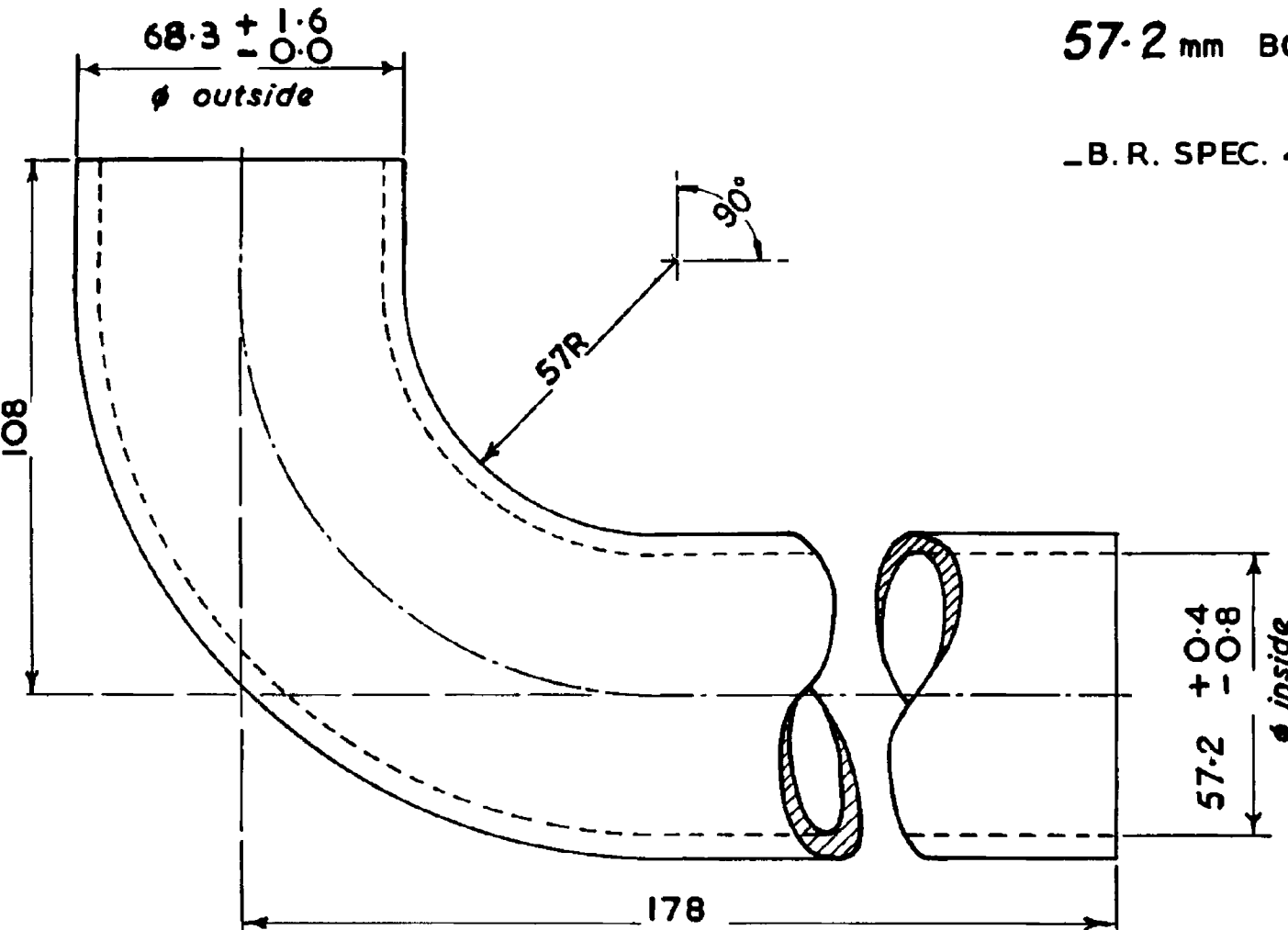
**NITRILE
RUBBER HOSE
TYPE 'D'**

CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

ITEM No.	B.R. CATALOGUE NUMBER IO/	REMARKS	VEHICLE / CLASS
01	143758		123.

ELBOW

Scale	1:2	A	B		
Drawing No.	M-A3-9024616				
Drawn	JRS	Traced	—	Check'd	—
				Date	6/72



57.2 mm BORE

B.R. SPEC. 488B.

ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	I/D WAS 58; O/D WAS 69.1	J.R.S.	5/75
B	NEW DRG NO ADDED	MFD	
C	RADIUS WAS 51	MFD	

FORMERLY BR DRG. No. L-A3-3913

NITRILE RUBBER HOSE, TYPE 'D'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

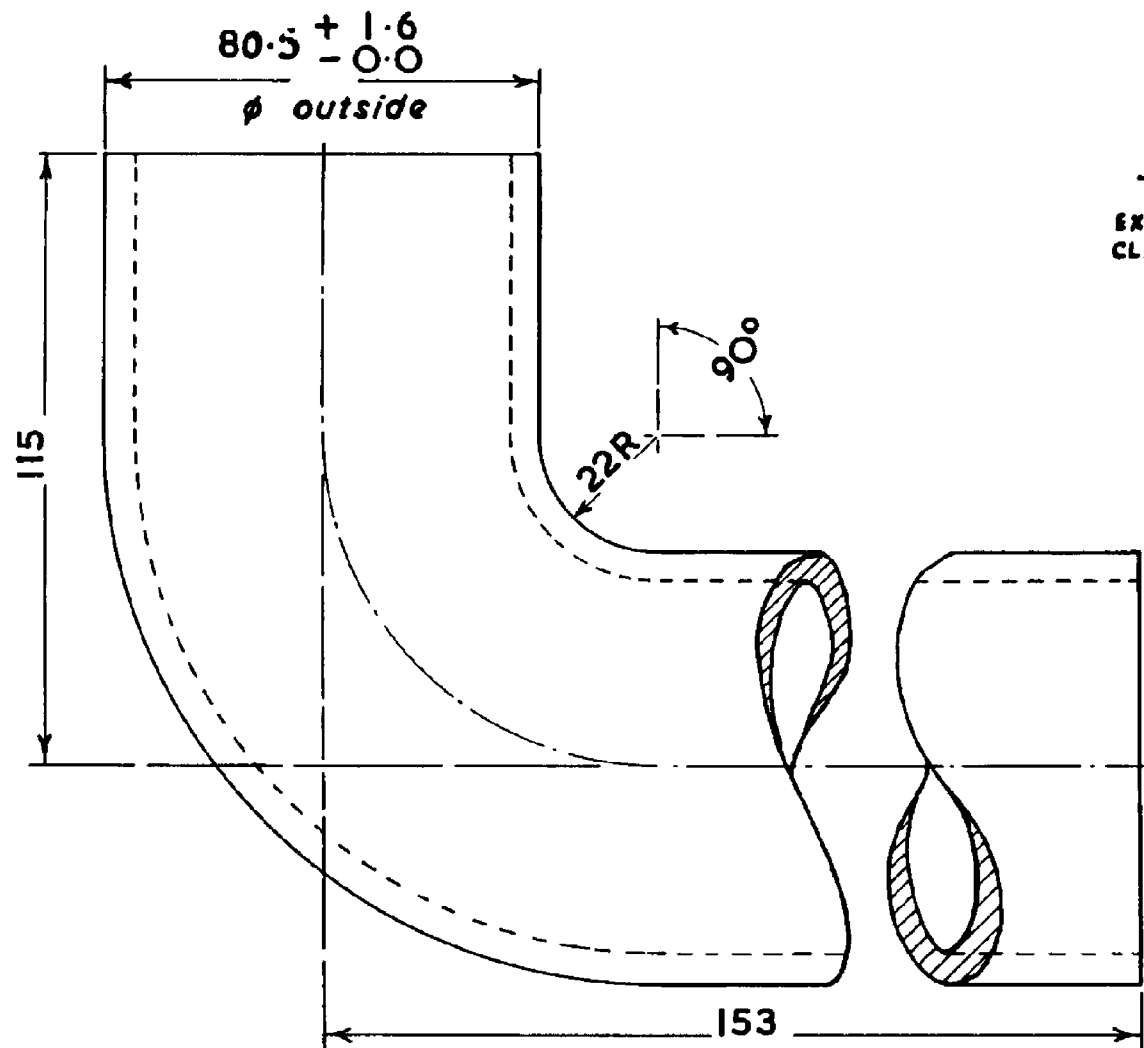
ITEM No.	B. R. CATALOGUE NUMBER. IO/	REMARKS	VEHICLE / CLASS
01	143759		37.40.

ELBOW

Scale	1:1	A	B	C	
Drawing No.	M-A3-9024617				
Drawn	J.R.S.	Traced	—	Check'd	—
Date	6/72				

SWINDON

MFD



69.9 mm BORE

— B.R. SPEC. 488 B. —
EXCEPT PRESSURES TO BE :-
CLAUSE 1.2 WORKING — 3.46 bar
7.7.2 MAX — 13.8 bar
(1 bar = 14.5 lb²/in²)

ISSUE LETTER	ALTERATION	DMAN'S INITIALS	DATE
A	I/D WAS 70.0; O/D WAS 81.1	J.R.S.	6/76
B	O/D WAS 81. EXCEPTIONS TO SPEC ADDED.	J.R.S.	8/77
C	NEW DRG NO ADDED	J.R.S.	1/78

FORMERLY BR DRG. No. L-A3-3914

NITRILE RUBBER HOSE TYPE 'D'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
 BRITISH RAILWAYS BOARD
 DERBY

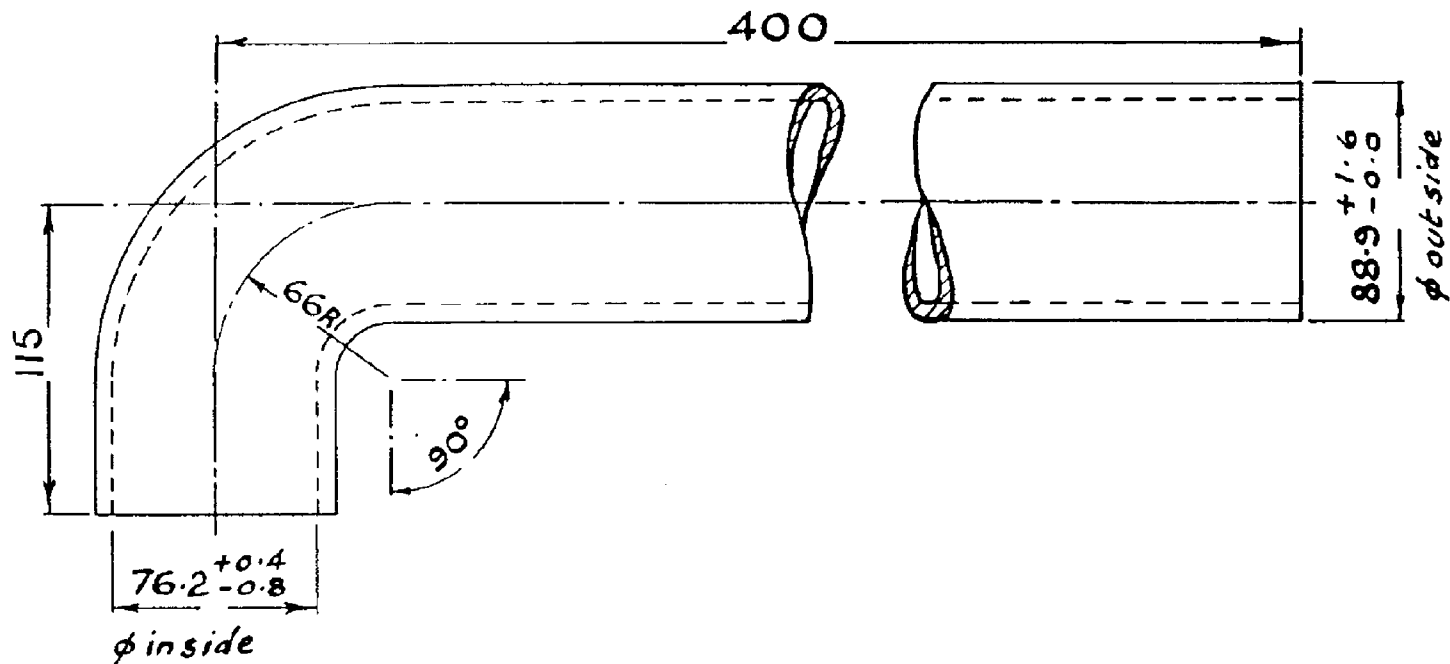
ITEM No.	B.R. CATALOGUE NUMBER. IO/	REMARKS	VEHICLE / CLASS
01	143762		40.37.

ELBOW

Scale	1:1	A	B	C	
Drawing No.	M-A3-9024618				
Drawn	Traced	Check'd	Date		
J.R.S.	—	—	6/78		

76.2 mm BORE

— B.R. SPEC. 4888 —



ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	NEW DRG NO ADDED	MFD	

FORMERLY BR DRG. No. L-A3-3938

NITRILE RUBBER HOSE TYPE 'D'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

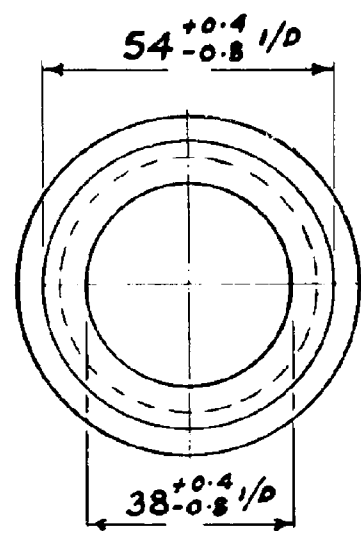
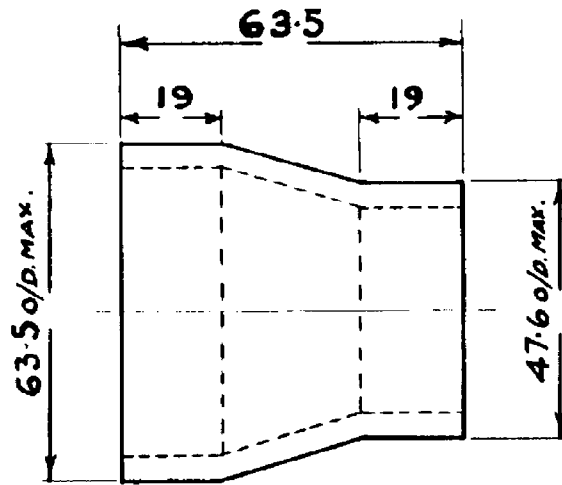
ITEM No.	B.R. CATALOGUE NUMBER	REMARKS	VEHICLE / CLASS
01	10/143767		210

ELBOW

Scale	1:2	A			
Drawing No.	M-A3-9024619				
Drawn	Traced	Check'd	Date		
JRS	—	—	11/77		

SWINDON

MFD



54 / 38 mm BORE

— NOT TO B.R. SPEC. 488B —

SHORE HARDNESS 60-65 BS Degree

FORMERLY BR DRG. No.
L-A3-2400

**NITRILE
RUBBER HOSE,
TYPE 'P'**

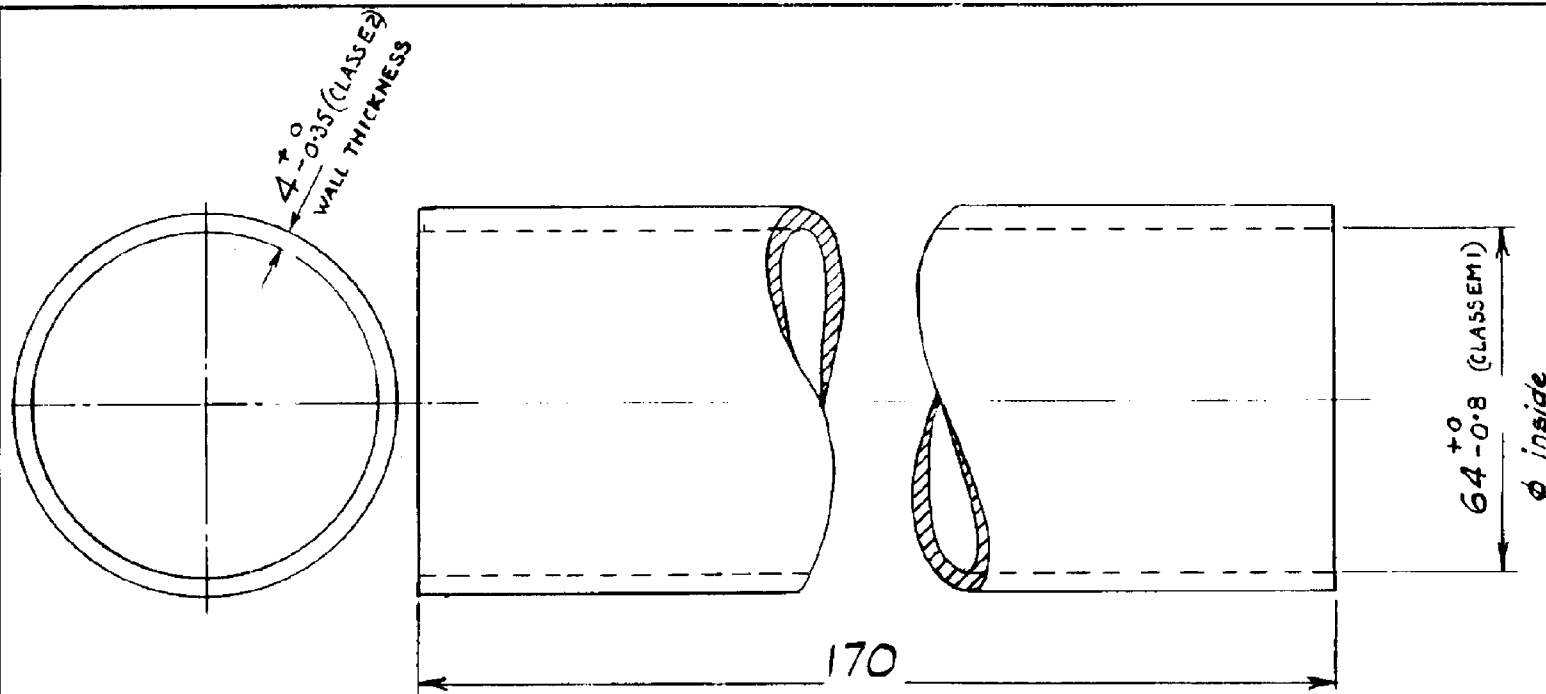
CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	CAT. N° CHANGED FROM 51/4834. LOCO CLASSES. REMARKS, REF TO LUB. OIL & P' TYPE HOSE ADDED.	J.R.S	1/75
B	HOSE DIMENSIONS MADE METRIC. BR. CAT. N° WAS 10/41472.	J.R.S	6/76
C	NEW DRG NO ADDED	J.R.S	1/75

ITEM No.	B.R. CATALOGUE NUMBER	REMARKS	VEHICLE / CLASS
01	10/143848	PUSH ROD SEAL GAITER	20.31.37.40.50.

MINERAL OIL DEVELOPMENT

Scale FULL SIZE	A	B	C		
Drawing No. M-A3-9024620					
Drawn J.R.S	Traced /	Check'd /	Date 11-6-71		



64 mm BORE

NOT TO BR.SPEC. 482B.

NOT REINFORCED

BS 3734 & BS. 2751 - SHORE HARDNESS 71-80 BS°

ISSUE LETTER	ALTERATION	D. MAN'S INITIALS	DATE
A	DUE TO REVISION OF BS3734 TOLERANCE ON I/D WAS 0.63 CLASS EM2 WALL THICKNESS NOW GIVEN TO COMPLY WITH SPEC. O/D DELETED. SHORE HARDNESS 78+2 BS°	R.B.	11/79
B	ITEM 1 DELETE CLASSES 248, 4.4	PC	5/83
C	NEW DRG NO ADDED		

FORMERLY BR DRG. No L-A3-3925

**NITRILE RUBBER HOSE
TYPE 'P'**

CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
DERBY

Scale 1:1	A	B	C
Drawing No M-A3-9024621			
Drawn J.R.S.	Traced	Checked	Date 3/75

ITEM No.	BR. CATALOGUE NUMBER 10/	REMARKS	VEHICLE / CLASS
01	143851	PUSH ROD SLEEVE	25-27.33.45-47



Engineering Data
Section

MAINTENANCE SUPPORT DOCUMENT

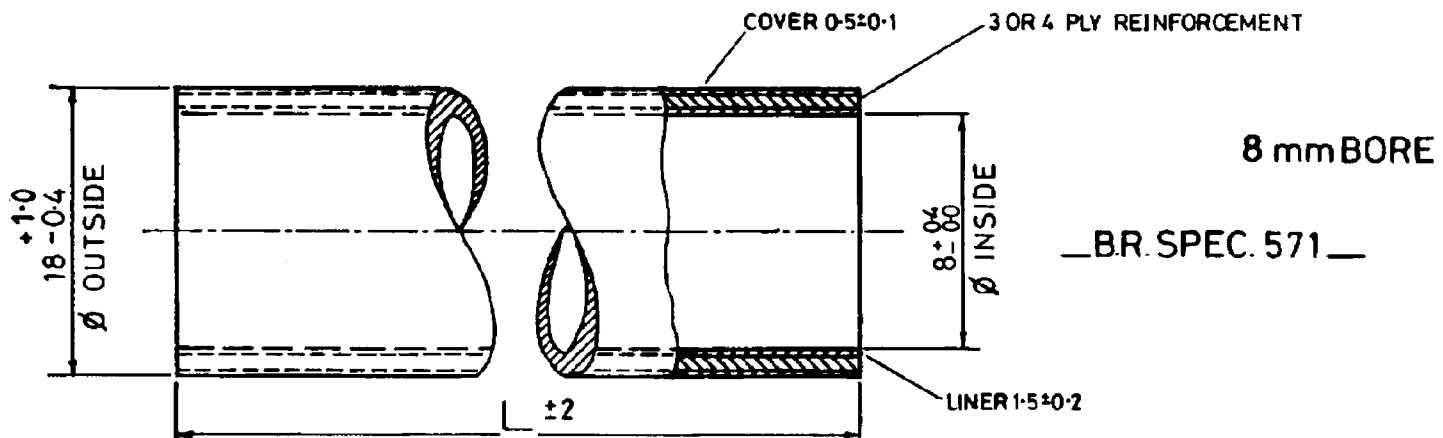
NON-METALLIC FLEXIBLE HOSES FOR USE ON T&RS

No:	MT 111
ISSUE:	6
REVISION:	A
DATE:	FEB 1993

SECTION B

SILICONE HOSES

TYPES A, B, C, D & P



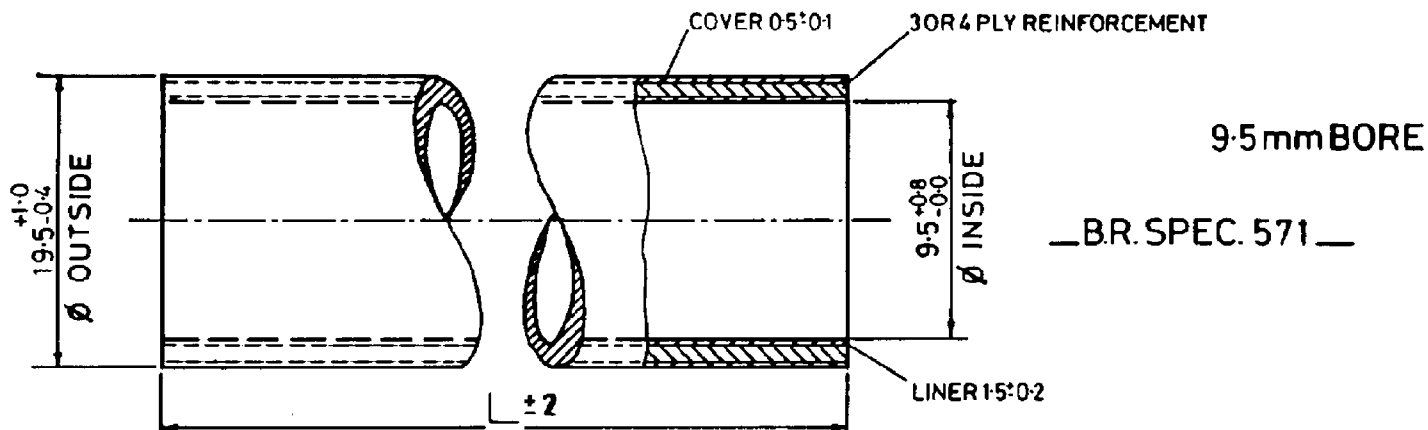
ISSUE LETTER	ALTERATION			INITIALS	DATE	
	A	FIRST ISSUE				
	B	ITEM 05 ADDED				
	C	ITEM 06 ADDED				
D	^{0.5} TOL WAS ±0.4. TOL ^{±2} ADDED TO DIM 'L'. EDS 2111					

ITEM No.	DIMENSION Lmm	B.R. CAT. No.	REMARKS	VEHICLE / CLASS
01	130	10/143645		150
02	350	10/143646		150
03	500	10/143647		150
04	650	10/143648		150
05	450	10/19018		15X
06	690	10/19036		150 / 1

SILICONE
 RUBBER HOSE
 TYPE 'A'

**CHIEF MECHANICAL &
 ELECTRICAL ENGINEER
 BRITISH RAILWAYS BOARD
 STANDARDS & RATIONALIZATION
 DERBY**

Scale		A	B	C	D
Drawing No	M-A3-9022957				
Drawn	Traced	Checked	Date		
I.R.			8/83		



ISSUE LETTER	ALTERATION	DATE
A	FIRST ISSUE	10/144055
B	ITEM 02 ADDED	10/144056
C	O/D TOL WAS ± 0.4 . TOL ± 2 ADDED TO DIM 'L'. EDS 2111	10/144056

ITEM No.	DIMENSION Lmm	BR.CAT. No.	REMARKS	VEHICLE / CLASS
01	120	10/144055		DMU,
02	55	10/144056		142

SILICONE RUBBER HOSE TYPE 'A'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
 BRITISH RAILWAYS BOARD
 STANDARDS & RATIONALIZATION
 DERBY

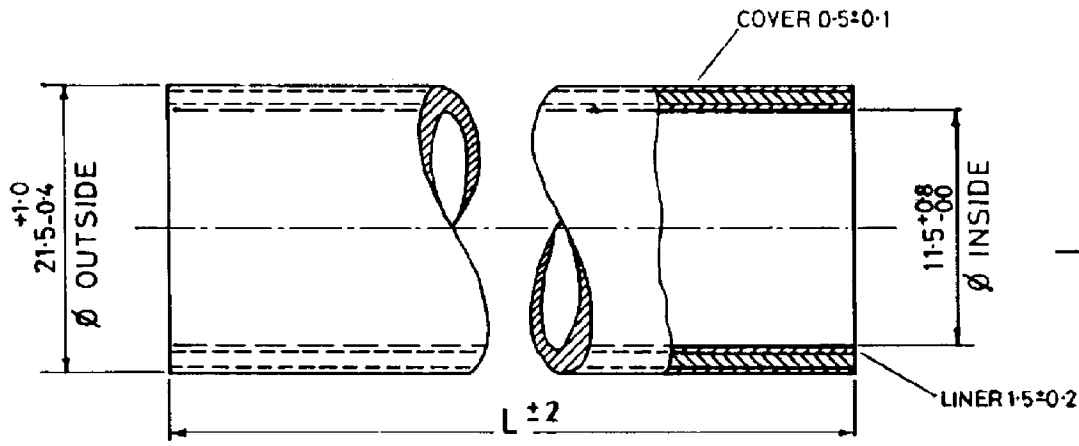
Scale: A B C

Drawing No: M-A3-9010214

Drawn/Traced/Checked/Date:
 PSG. / / 9/82

BRITISH RAILWAYS BOARD

MED



11.5 mm BORE
 —BR. SPEC. 571—

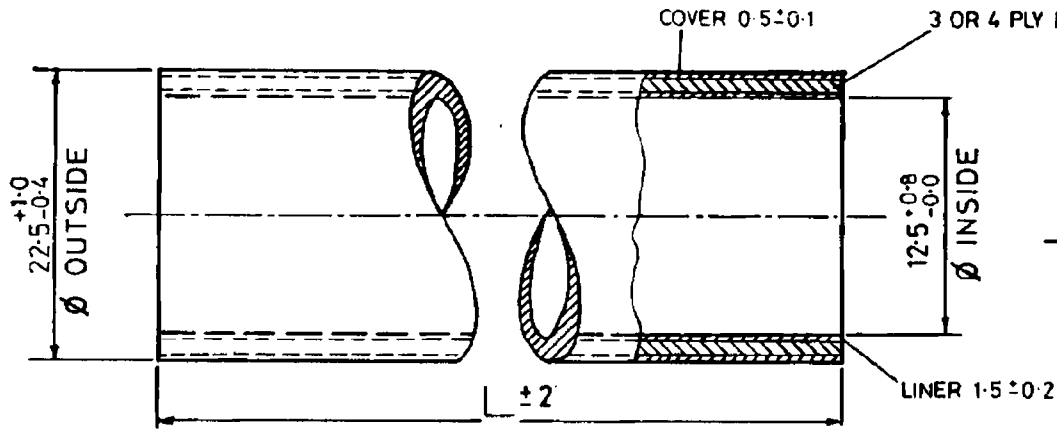
ISSUE LETTER	ALTERATION	DESIGNER'S INITIALS	DATE
A	FIRST ISSUE	C.R.	1984
B	ITEM 01 CLASS 14 ADDED ITEM 03 ADDED	K.B.	1988
C	TOL WAS ±0.4. TOL ±2 ADDED TO DIM 'L' EDS 2111	C.T.	21.12.92

ITEM No.	DIMENSION Lmm	BR.CAT. No.	REMARKS	VEHICLE/CLASS
01	150	10/19002		115, 114
02	100	10/19001		115
03	250	10/19025		114

SILICONE RUBBER HOSE TYPE 'A'

DIRECTOR OF MECHANICAL & ELECTRICAL ENGINEERING,
 BRITISH RAILWAYS BOARD,
 DESIGN SUPPORT-GENERAL,
 DERBY.

Scale	_____	A	B	C	
Drawing No	M-A3-9029050				
Drawn	Traced	Checked	Date		
'R.	—		9/84		



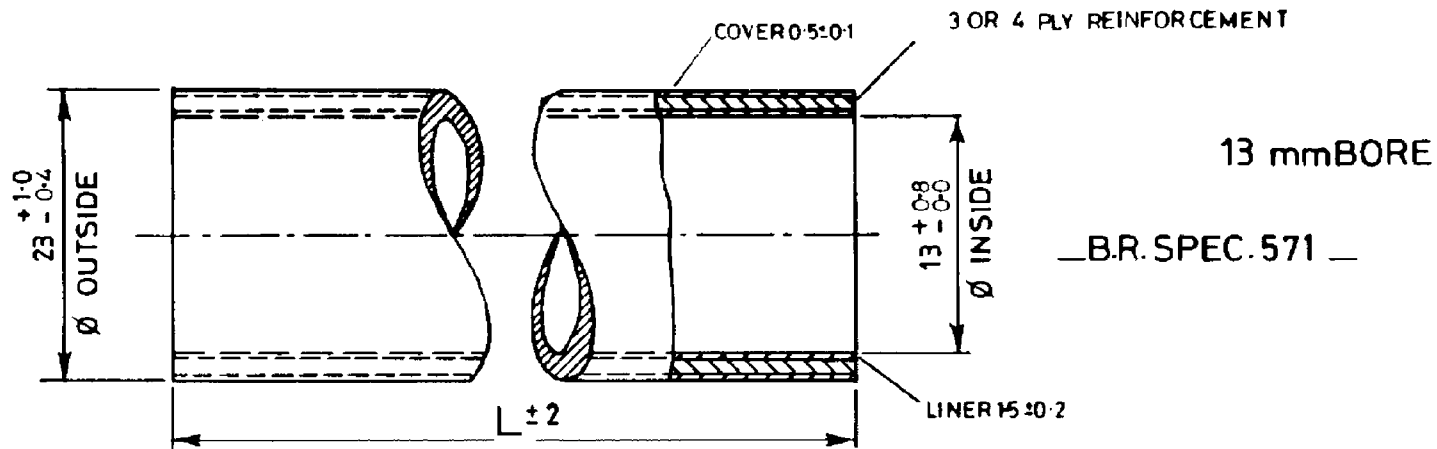
ISSUE LETTER	ALTERATION	INITIALS	DATE
A	FIRST ISSUE	MFD	
B	ITEMS 02 & 03 ADDED	MFD	
C	ITEM 04 ADDED AND CL142 ADDED TO ITEMS 02 & 03	MFD	17/88
D	ITEM 05 ADDED	MFD	17/88
E	ITEM 06 ADDED	MFD	17/88
F	90% TOL WAS ±0.4. TOL ±2 ADDED TO DIM 'L'. EDS 2111	MFD	21/12/92

ITEM No.	DIMENSION Lmm	BR.CAT. No.	REMARKS	VEHICLE / CLASS
01	50	10/144059		DMU.
02	560	10/144060		141, 142
03	165	10/144061		141, 142
04	75	10/144062		142
05	380	10/144063		128
06	140	10/144051		143

SILICONE
RUBBER HOSE
TYPE 'A'

CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
STANDARDS & RATIONALIZATION
DERBY

Scale A B C D E
 Drawing No
M-A3-9010215 F
 Drawn Traced Checked Date
 P.S.G. MFD 9/82



REVISE LETTER	ALTERATION	DATE
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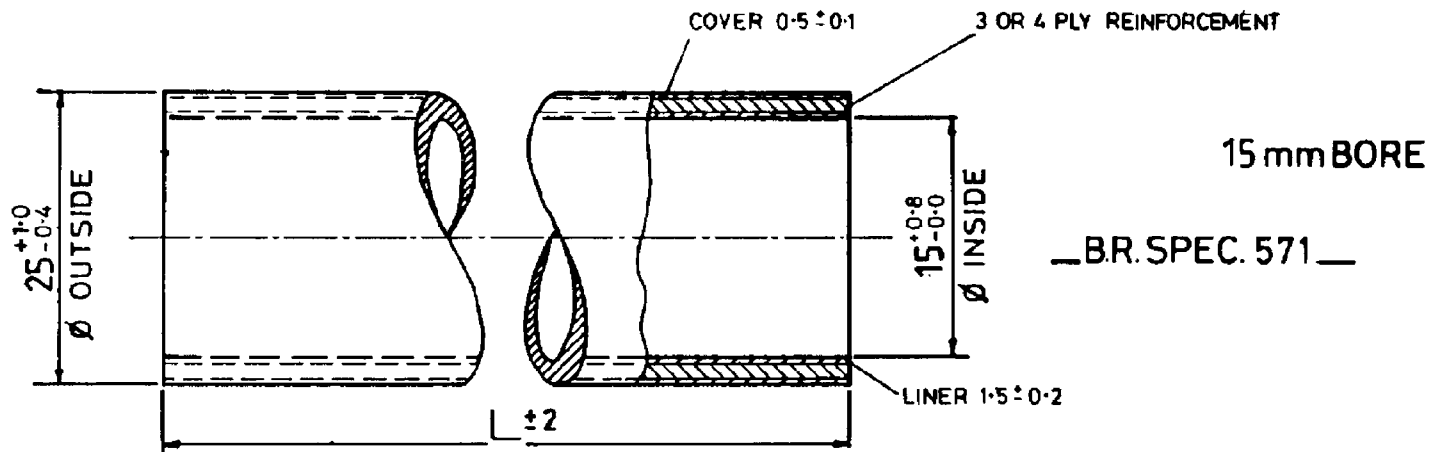
A	FIRST ISSUE	
B	$\varnothing D$ TOL. WAS ± 0.4 . TOL ± 2 ADDED TO DIM $\varnothing L$ EDS 2111	G.P. 21. CT 12. 22 9/8/77

ITEM No.	DIMENSION Lmm	BR.CAT. No.	REMARKS	VEHICLE/CLASS
01	650	10/19053		115

SILICONE RUBBER HOSE TYPE 'A'

DIRECTOR OF MECHANICAL & ELECTRICAL ENGINEERING. BRITISH RAILWAYS BOARD. DESIGN SUPPORT-GENERAL. DERBY.

Scale	_____	A	B
Drawing No.	M-A3-9039167		
Drawn	JCB	Traced	Checked
Traced		Checked	Date
Traced		Checked	Date
Traced		Checked	Date
Traced		Checked	Date



BR. SPEC. 571

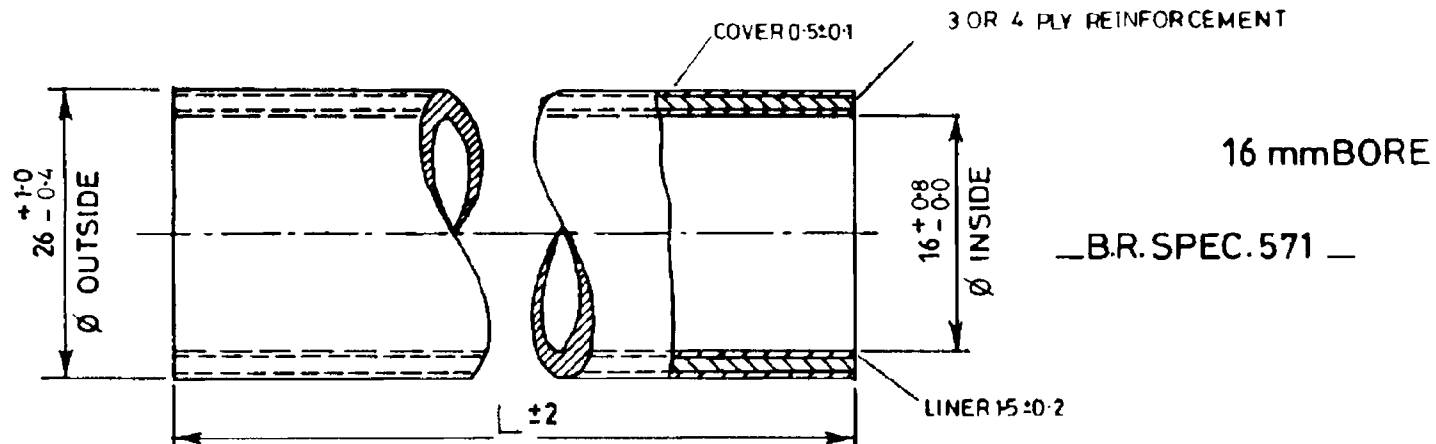
ISSUE LETTER	ALTERATION	INITIALS	DATE
A	FIRST ISSUE		
B	ØD TOL WAS ±0.4. TOL ±2 ADDED TO DIM. 'L'. EDS 2111	g.p. ST	12. 1982

ITEM No.	DIMENSION Lmm	BR.CAT. No.	REMARKS	VEHICLE / CLASS
01	90	10 / 19038		150 / 2

SILICONE RUBBER HOSE TYPE 'A'

**CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
STANDARDS & RATIONALIZATION
DERBY**

Scale	—	A	B		
Drawing No	M-A3-9039091				
Drawn/Traced/Checked/Date	M.G.V.	—			DEC 89



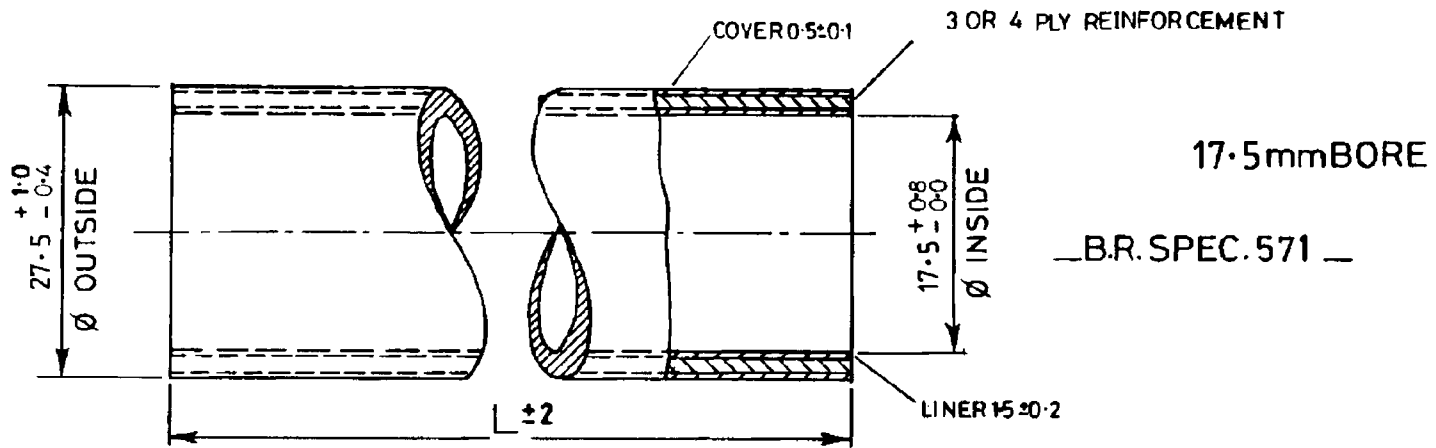
WORKS LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	FIRST ISSUE		
B	% TOL WAS ± 0.4. TOL ± 2 ADDED TO DIM ^M 'L'. EDS 2111.	K.P. 27	21. 12. 92

ITEM No.	DIMENSION Lmm	BR.CAT. No.	REMARKS	VEHICLE / CLASS
01	650	10 / 19054		115

**SILICONE
RUBBER HOSE
TYPE 'A'**

DIRECTOR OF MECHANICAL
& ELECTRICAL ENGINEERING,
BRITISH RAILWAYS BOARD,
DESIGN SUPPORT-GENERAL,
DERBY.

Scale	_____	A	B		
Drawing No.	M-A3-9039166				
Drawn	JCB	Traced		Checked	Date



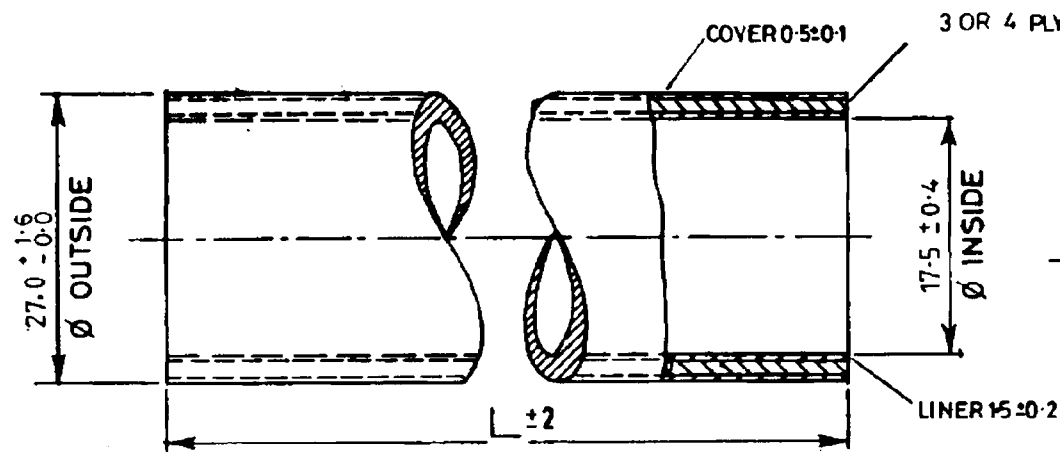
REVISION LETTER	ALTERATION	DRAWN INITIALS	DATE
A	FIRST ISSUE		1/71
B	Ø/D TOL WAS ±0.4. TOL ±2 ADDED TO DIM "L". EDS.2111	CP G.P. 12/1/72	21/12/72

ITEM No.	DIMENSION Lmm	BRCAT. No.	REMARKS	VEHICLE / CLASS
01	650	10/ 019061		108

SILICONE RUBBER HOSE TYPE 'A'

DIRECTOR OF MECHANICAL & ELECTRICAL ENGINEERING.
BRITISH RAILWAYS BOARD.
DESIGN SUPPORT-GENERAL.
DERBY.

Scale		A	B		
Drawing No.	M-A3-9039130				
Drawn	JCB	Traced		Checked	Date



17.5 mm BORE
 BR. SPEC. 571

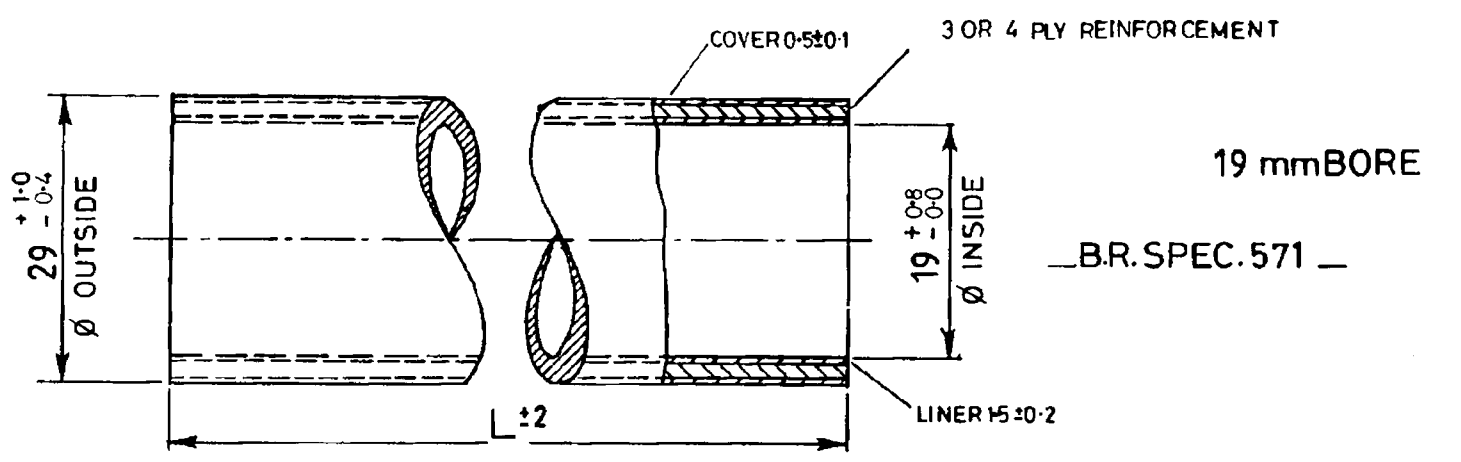
REV	ALTERATION	DATE	BY	CHKD
A	FIRST ISSUE			
B	TOL ±2 ADDED TO DIM ^Ø L [±] EDS 2111	13/12/92		

ITEM No.	DIMENSION Lmm	BR.CAT. No.	REMARKS	VEHICLE / CLASS
01	75	10/144003		47

SILICONE RUBBER HOSE TYPE 'A'

DIRECTOR OF MECHANICAL & ELECTRICAL ENGINEERING,
 BRITISH RAILWAYS BOARD.
 DESIGN SUPPORT-GENERAL.
 DERBY.

Scale	_____	A	B		
Drawing No.	M-A3-9038878				
Drawn	Traced	Checked	Date		
P.S.G.					



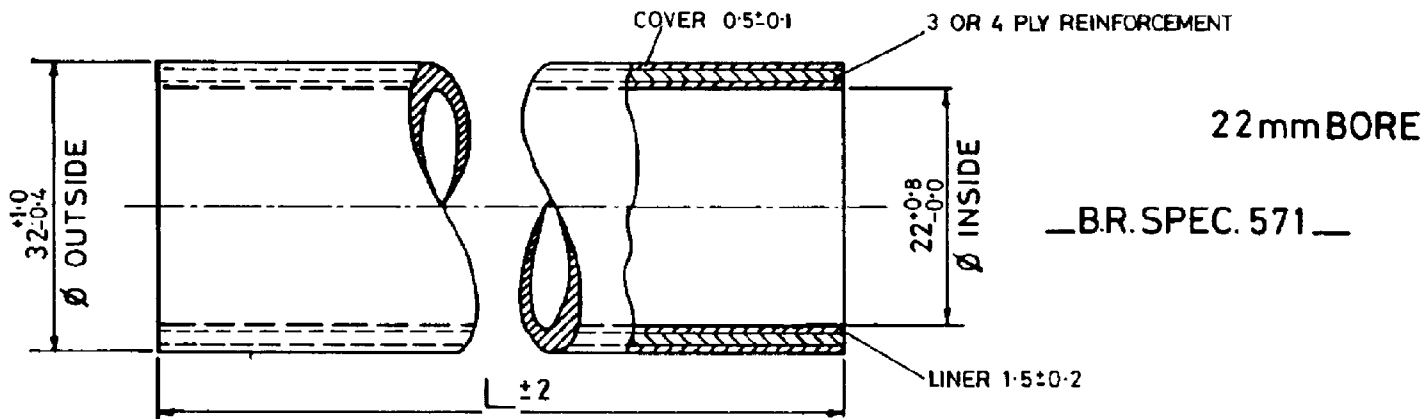
ISSUE LETTER	ALTERATION	DRAWN BY INITIALS	DATE
A	FIRST ISSUE	MGV	
B	9/6 TOL WAS ±0.4. TOL ±2 ADDED TO DIM "L". EDS 2111	CT. G.P.D. J. 2003	

ITEM No.	DIMENSION Lmm	BR.CAT. No.	REMARKS	VEHICLE /CLASS
01	80	10 / 19032		142
02	130	10 / 19033		142

SILICONE RUBBER HOSE TYPE 'A'

DIRECTOR OF MECHANICAL & ELECTRICAL ENGINEERING. BRITISH RAILWAYS BOARD. DESIGN SUPPORT-GENERAL. DERBY.

Scale	_____	A	B		
Drawing No.	M-A3-9039065				
Drawn	MGV	Traced		Checked	Date
					NOV 85



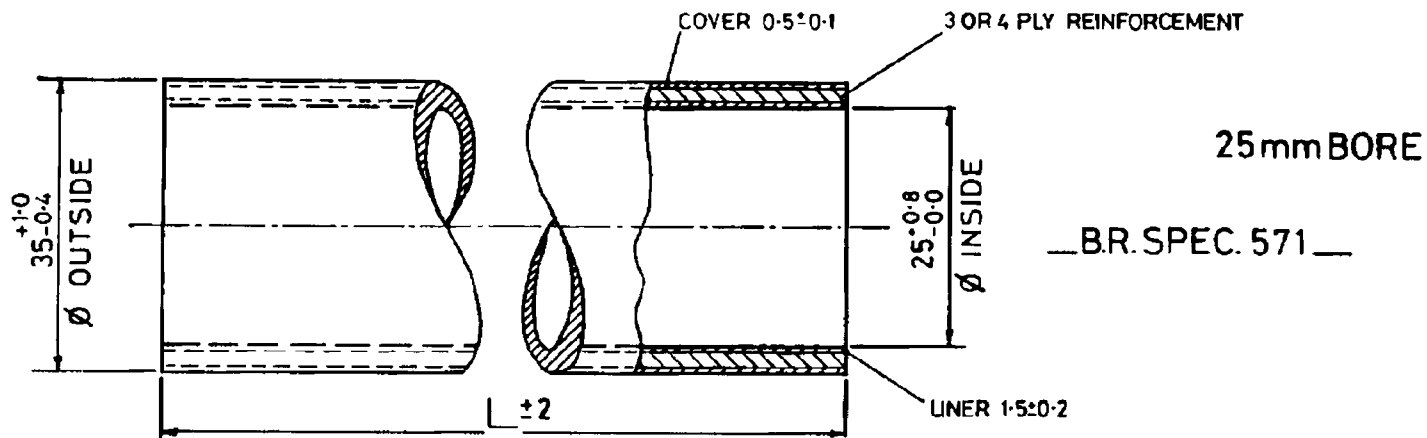
REVISION LETTER	ALTERATION	DATE
A	FIRST ISSUE	MFD
B	ITEM 02 ADDED	V.B. 1/82
C	CLASS 150/1 ADDED TO ITEM 02	V.B. 1/82
D	ITEMS 03,04 & 05 ADDED	V.B. 1/82
E	% TOL WAS ±0.4. TOL ±2 ADDED TO DIM ⁿ 'L'. EDS 2111	CT 23. 12. 82

ITEM No.	DIMENSION Lmm	BR.CAT. No.	REMARKS	VEHICLE / CLASS
01	70	10/144064		20,
02	80	10/144065		142, 150/1,
03	360	10/144066		141
04	470	10/144067		141
05	130	10/144070		141

**SILICONE
RUBBER HOSE
TYPE 'A'**

**CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
STANDARDS & RATIONALIZATION
DERBY**

Scale	—	A	B	C	D	E
Drawing No	M-A3-9010216					
Drawn / Traced / Checked / Date	P.S.G. / —					9/82



ISSUE LETTER	ALTERATION	ISSUES/INITIALS	DATE
A	FIRST ISSUE	MFD	10/82
B	ITEM 03 ADDED		
C	ITEM 04 ADDED		
D	ITEM 05 ADDED		
E	Ø D. TOL WAS ±0.4. TOL ±2. ADDED TO DIM 'L'. EDS 2111	CT 6P 12.	2/82

ITEM No.	DIMENSION Lmm	B.R.CAT. No.	REMARKS	VEHICLE / CLASS
01	70	10/144126		31, DMU,
02	60	10/144068		20,
03	1000	10/19014	TO BE CUT TO LENGTH AS REQUIRED.	
04	700	10/144069		150/1
05	650	10/19069		108

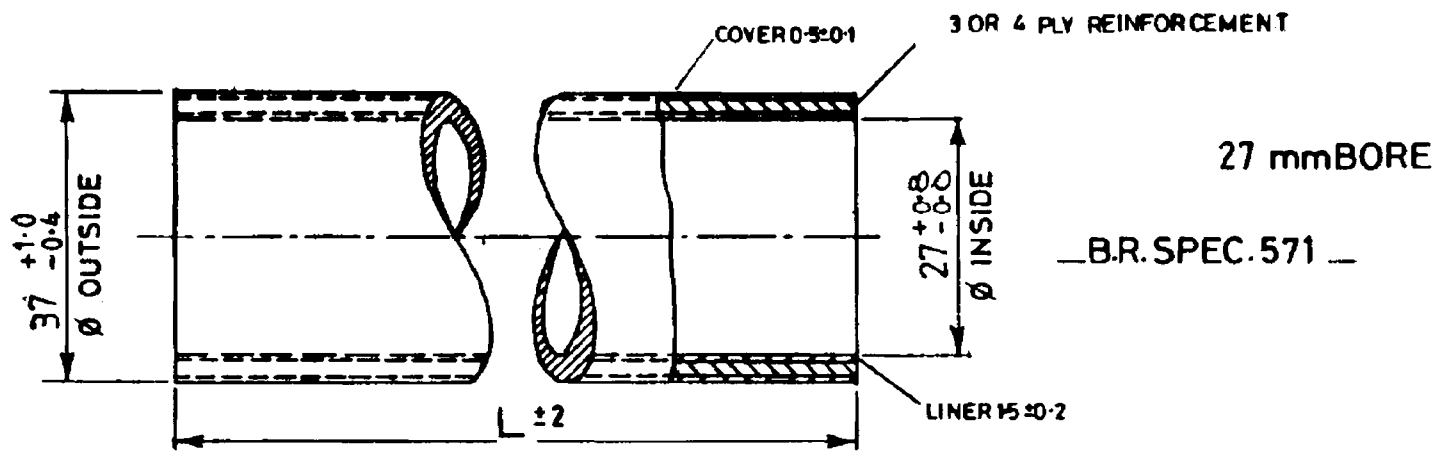
SILICONE RUBBER HOSE TYPE 'A'

**CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
STANDARDS & RATIONALIZATION
DERBY**

Scale: A B C D E

Drawing No: M-A3-9010217

Drawn	Traced	Checked	Date
P.S.G.			9/82



REV	ALTERATION	DATE
	A	
B	o/d IOL WAS ± 0.4 . TOL ± 2 ADDED TO DIM 'L'. EDS 2111	CT G.P. 12.92

ITEM No.	DIMENSION Lmm	BRCAT. No.	REMARKS	VEHICLE / CLASS
01	230	10 / 19047		47

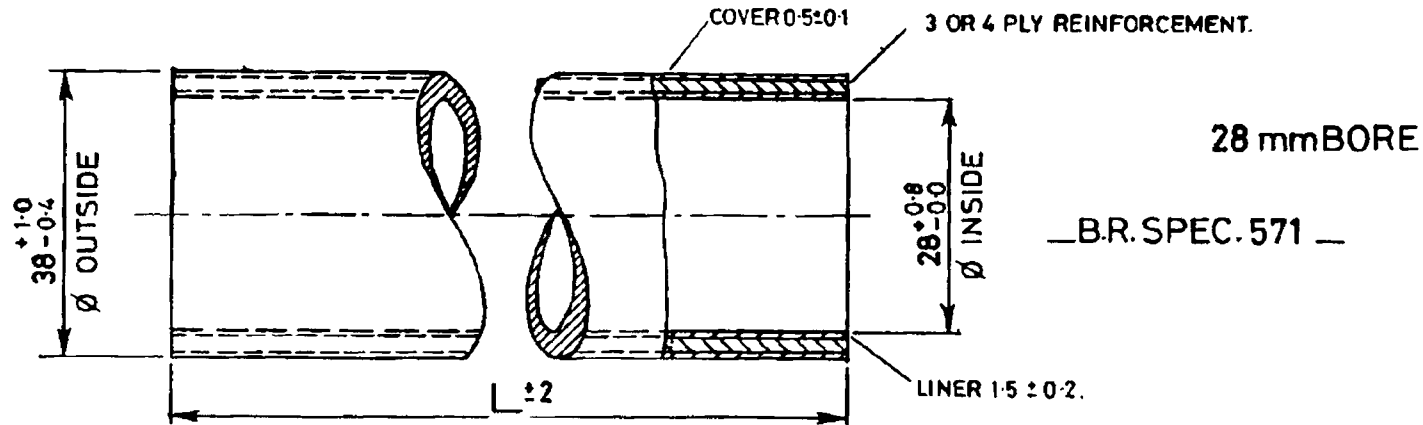
SILICONE RUBBER HOSE TYPE 'A'

DIRECTOR OF MECHANICAL & ELECTRICAL ENGINEERING, BRITISH RAILWAYS BOARD, DESIGN SUPPORT-GENERAL, DERBY.

Scale _____ A B

Drawing No. M-A3-9039180

Drawn Traced Checked Date
 MGV _____ h APR 90



ISSUE LETTER	ALTERATION	DATE
A	FIRST ISSUE	27/11/84
B	ϕ I.O.L WAS ± 0.4 . TOL ± 2 ADDED TO DIM'L'. EDS 2111	CT 29/11/84 7/93

ITEM No.	DIMENSION Lmm	BR.CAT. No.	REMARKS	VEHICLE / CLASS
01	70	10/144125		D.M.U.

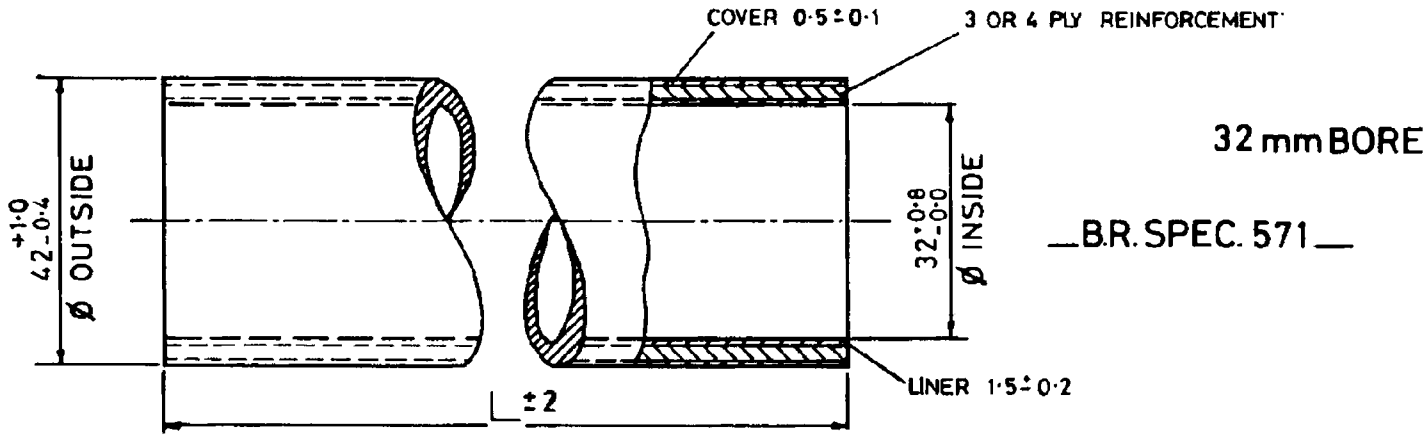
SILICONE RUBBER HOSE TYPE 'A'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
STANDARDS & RATIONALIZATION
DERBY

Scale: A B

Drawing No. M-A3-9010218

Drawn	Traced	Checked	Date
P.S.G.			27-84



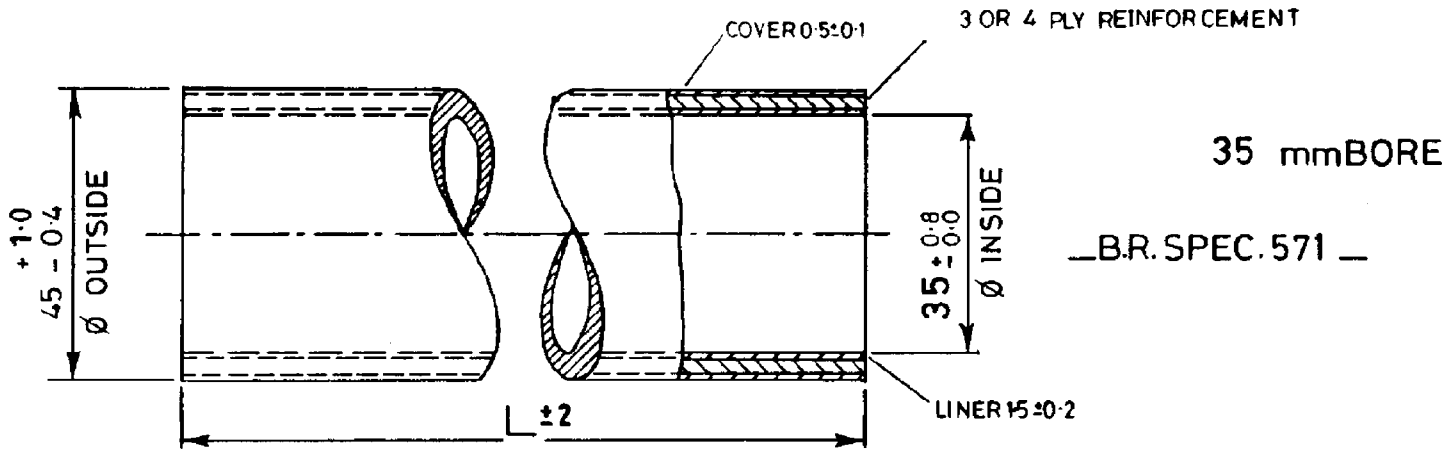
ISSUE LETTER	ALTERATION	DATE
A	FIRST ISSUE	2/74
B	ITEM 02 ADDED	3/74
C	ITEM 03 ADDED	1/4/74
D	ITEMS 04 05 & 06 ADDED	2/74
E	ITEMS 07 & 08 ADDED	2/74
F	%D TOL WAS ± 0.4 . TOL ± 2 ADDED TO DIM "L". EDS.2111	25.12.82

ITEM No.	DIMENSION Lmm	B.R.CAT. No.	REMARKS	VEHICLE / CLASS
01	70	10/144127		31, 37,
02	150	10/144123		08, 09, 13.
03	1000	10/19015	TO BE CUT TO LENGTH AS REQUIRED	
04	130	10/144164		141
05	90	10/144165		141
06	75	10/144166		141
07	175	10/144172		144
08	110	10/144173		143

SILICONE RUBBER HOSE TYPE 'A'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
 BRITISH RAILWAYS BOARD
 STANDARDS & RATIONALIZATION
 DERBY

Scale	---	A	B	C	D	E
Drawing No	M-A3-9010219	F				
Drawn	Traced	Checked	Date			
P.S.G.	---					8/82



ISSUE LETTER	ALTERATION	EDS MAN'S INITIALS	DATE
A	FIRST ISSUE	JCB	1.87
B	ITEM 01 CLASS 114 ADDED	2	2.87
C	ITEMS 02 & 03 ADDED.	MED	21.92
D	%D TOL WAS ±0.4. TOL ±2 ADDED TO DIM 'L'. EDS 2111	CR of JE	21.92

ITEM No.	DIMENSION Lmm	BR.CAT. No.	REMARKS	VEHICLE /CLASS
01	140	10/144168		141, 114
02	650	10/19094	WAS 9039168/01	115
03	100	10/144175		143

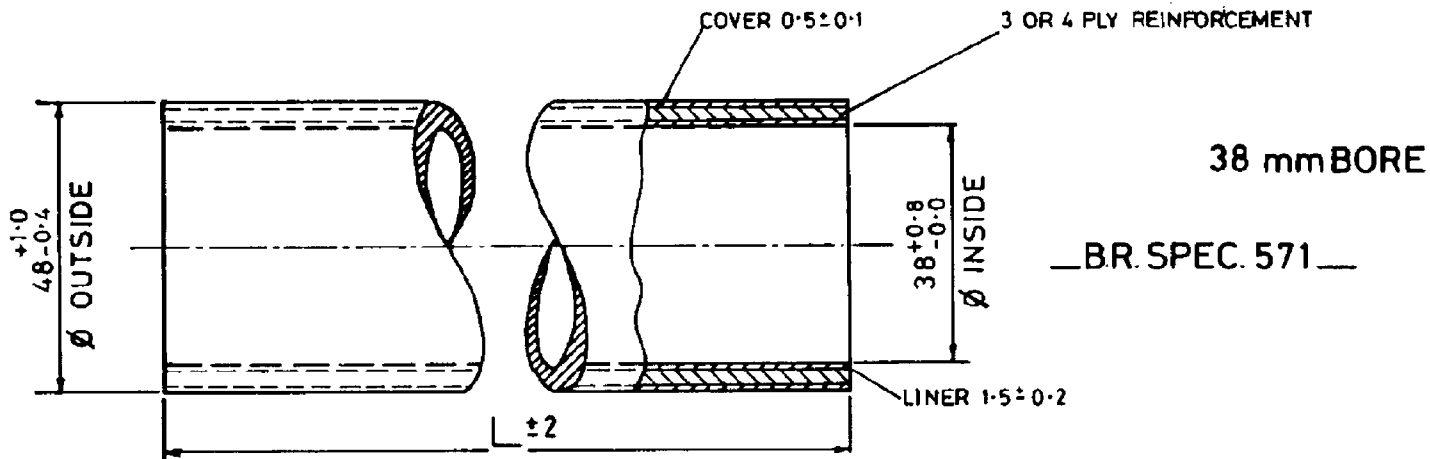
SILICONE RUBBER HOSE TYPE 'A'

DIRECTOR OF MECHANICAL & ELECTRICAL ENGINEERING. BRITISH RAILWAYS BOARD. DESIGN SUPPORT-GENERAL. DERBY.

Scale A B C D

Drawing No. M-A3-9029792

Drawn P.S.G. Traced Checked Date 1.87



REVISION LETTER	ALTERATION	DATE
A	FIRST ISSUE	20/02
B	ITEM 01 CLASS 08, 09 & 13 ADDED.	1/88
C	ITEM 01 CLASS 150 ADDED " 03 ADDED	MFD
D	ITEM 04 ADDED	MFD
E	ITEM 02 CLASS 37 ADDED	MFD
F	ITEM 01 CLASS 141 ADDED	MFD
G	ITEM 05 ADDED	MFD
H	ITEM 06 ADDED	MFD
J	ITEM 07 ADDED	MFD
K	ITEM 08 ADDED	MFD
L	ITEM 09 ADDED	MFD
M	%D TOL WAS ± 0.4. TOL ± 2 ADDED TO DIM" 'L'. EDS 2111	09/82

ITEM No.	DIMENSION Lmm	BR.CAT. No.	REMARKS	VEHICLE / CLASS
01	75	10/144128		20, 31, 40, DMU, 08, 09, 13, 150, 141
02	120	10/144129		31, 56, 37,
03	140	10/144149		150
04	400	10/144161		150
05	500	10/144180		154
06	380	10/144181		144
07	85	10/144121		150 / 1
08	105	10/144174		141
09	650	10/19111		108, 115

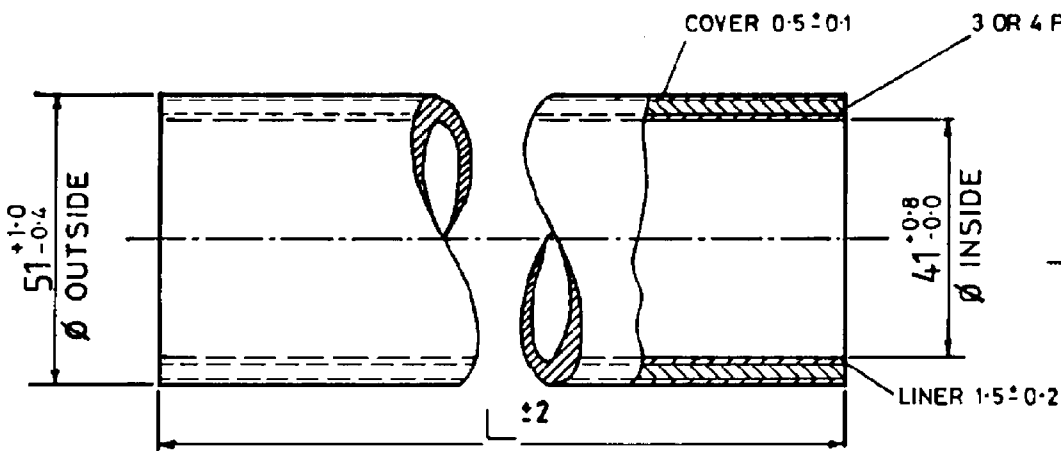
<p>SILICONE RUBBER HOSE TYPE 'A'</p>

SILICONE RUBBER HOSE TYPE 'A'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
 STANDARDS & RATIONALIZATION
 DERBY

Scale	---	A	B	C	D	E
Drawing No	M-A3-9010221	F	G	H	J	K
Drawn	Traced	Checked	Date			
P.S.G.	---					9/82

MFD



ISSUE LETTER	ALTERATION	DATE	INITIALS
A	FIRST ISSUE		
B	% D. TOL WAS ± 0.4 . TOL ± 2 . ADDED TO DIM. L ^Y EDS 2111		

ITEM No.	DIMENSION Lmm	B.R.CAT. No.	REMARKS	VEHICLE / CLASS
01	275	10 / 19039		150 / 2

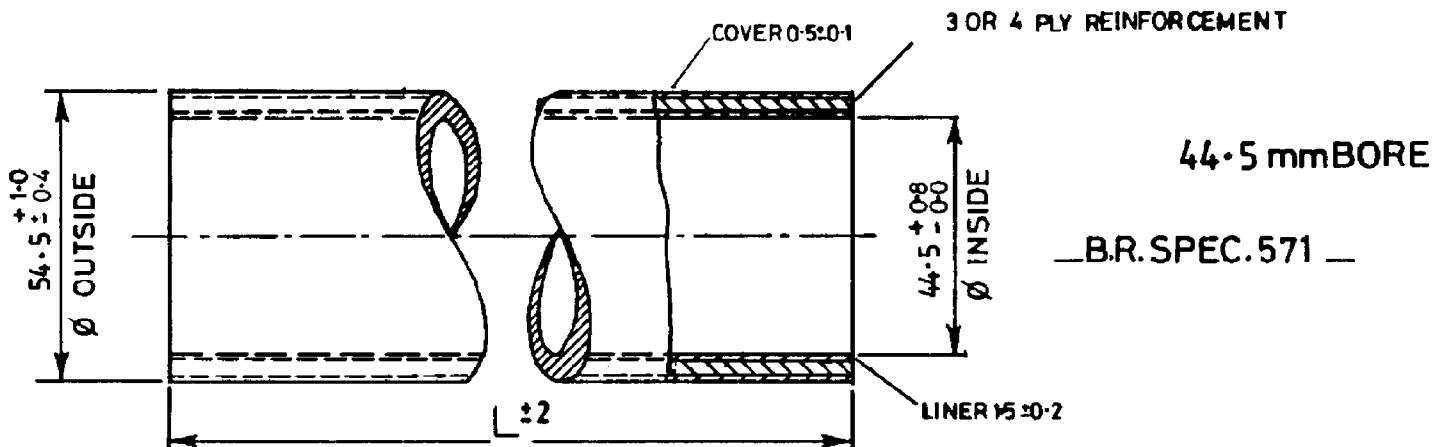
SILICONE RUBBER HOSE TYPE 'A'

**CHIEF MECHANICAL & ELECTRICAL ENGINEER
 BRITISH RAILWAYS BOARD
 STANDARDS & RATIONALIZATION
 DERBY**

Scale	—	A	B		
Drawing No	M-A3-9039092				
Drawn	Traced	Checked	Date		
M.G.V.	—			DEC 89	

© BRITISH RAILWAYS BOARD 1989





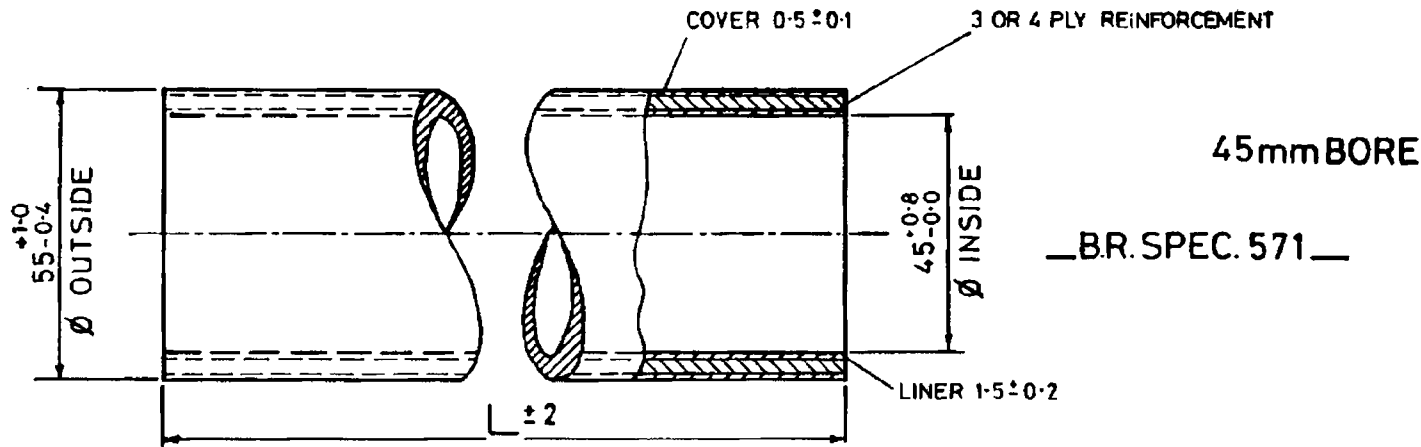
REVISION LETTER	ALTERATION	BY	DATE
A	FIRST ISSUE	ME	
B	9/2 TOL WAS ± 0.4 TOL ± 2 ADDED TO DIM. 'L'. EDS 2111	ME	

ITEM No.	DIMENSION Lmm	BR.CAT. No.	REMARKS	VEHICLE /CLASS
01	600	10/ 019081		116

**SILICONE
RUBBER HOSE
TYPE 'A'**

DIRECTOR OF MECHANICAL
& ELECTRICAL ENGINEERING,
BRITISH RAILWAYS BOARD,
DESIGN SUPPORT-GENERAL,
DERBY.

Scale	_____	A	B				
Drawing No.	M-A3-9039131						
Drawn	JCB	Traced		Checked		Date	



ISSUE LETTER	ALTERATION	INITIALS	DATE
A	FIRST ISSUE		
B	ITEM 02 ADDED		
C	ITEM 03 ADDED		
D	ITEM 04 ADDED. CL 142 143 AND 144 ADDED FOR ITEM 03.		
E	Ø D TOL WAS ± 0.4 . TOL ± 2 ADDED TO DIMM. 'L'. EDS 2111.		

ITEM No.	DIMENSION Lmm	B.R.CAT. No.	REMARKS	VEHICLE/ CLASS
01	165	10/144090		33, 45, 46,
02	475	10/19003		150/1
03	70	10/144091		141, 142, 143, 144
04	55	10/144052		141, 142, 143, 144

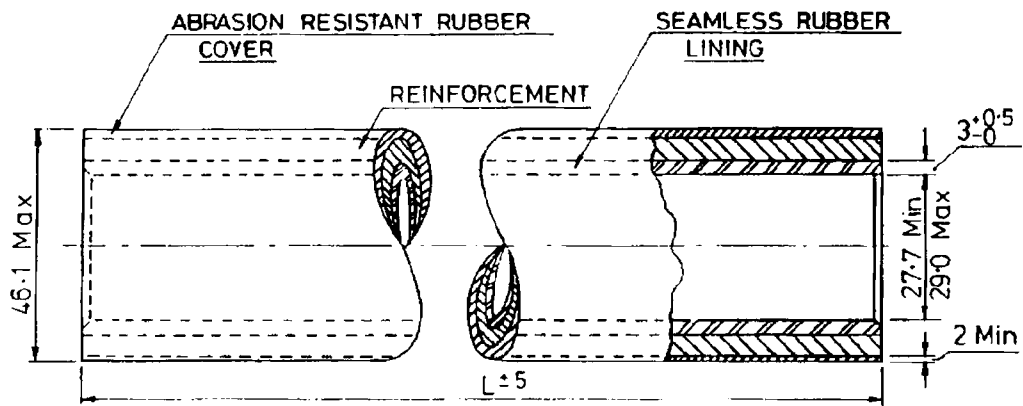
SILICONE RUBBER HOSE TYPE 'A'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
 BRITISH RAILWAYS BOARD
 STANDARDS & RATIONALIZATION
 DERBY

Scale	—	A	B	C	D	E
Drawing N ^o	M-A3-9010223					
Drawn	Traced	Checked	Date			
P.S.G.	—					9/82

ORALD INC. LTD. 0055H

MED 0055H



* APPROVED ALTERNATIVE HOSE CONSTRUCTION TO BS 3682 TYPE 1

28.5mm NOM BORE

CONSTRUCTION OF HOSE * (UIC 830 - 1)

1. REINFORCEMENT TO BE BRAIDED OR SPIRALLY WOUND POLYAMIDE OR POLYESTER
2. WALL THICKNESS IN ANY CROSS SECTION SHALL NOT VARY MORE THAN 1mm
3. HOSE TO HAVE A MINIMUM BURST PRESSURE OF 70 BAR
4. EACH HOSE SHALL BE BRANDED WITH EITHER RAISED OR EMBOSSED MARKS AT INTERVALS OF 400mm AS FOLLOWS(a) MANUFACTURERS MARK(b) U.I.C.830-1 (c)MONTH AND YEAR OF MANUFACTURE(d) B.R.
5. THE COMPOSITION AND METHOD OF REINFORCEMENT / CONSOLIDATION SHALL BE APPROVED BY THE C.M.& E.E. B.R.B.

ISSUE LETTER	ALTERATION	D' MAINS INITIALS	DATE
A	NEW DRG N° ADDED	P.S.G.	9/80
	RUBBER H.DNESS DEL. 2 Min. WAS 2.5 Nom NOTE 4 AMENDED	P.S.G.	10/80
C	ITEM 10 ADDED	P.S.G.	11/82
D	ITEM 08 LTH. WAS 860	P.S.G.	5/86
E	ITEMS 11,12 & 13 ADDED	P.B.	11/87
F	ITEM 14 ADDED	P.B.	5/87
G	ITEM 15 ADDED	P.B.	10/87
H	NOTE RE ALTERNATIVE SPEC ADDED	V.B.	28.1.88
J	ITEM 12 & 13 DELETED	B.H.	18.11.88
K	ITEM 16 ADDED.	L.I.	30.4.90
L	SUFFIX 'C' DELETED FROM UIC 830 - 1c. <small>EDS ISO4</small>	P.H.C.	9.8.90

ITEM N°.	DIMENSION L mm	B.R. CATALOGUE NUMBER	REMARKS
M-A3-9001473/01	510	10/142280	
" / 02	560	10/142284	
" / 03	610	10/142288	
" / 04	660	10/142293	
" / 05	710	10/142298	
" / 06	760	10/142303	
" / 07	810	10/142308	
" / 08	880	10/142312	
" / 09	15250	10/142322	TO BE CUT INTO LENGTHS AS REQUIRED
" / 10	635	10/142290	
" / 11	400	10/142275	
" / 12	530	10/142282	
" / 13	455	10/142270	
" / 14	17000	10/142330	
" / 15	1000	10/142331	
" / 16	535	10/142332	

FORMERLY B.R. DRG N° G-A3-1081

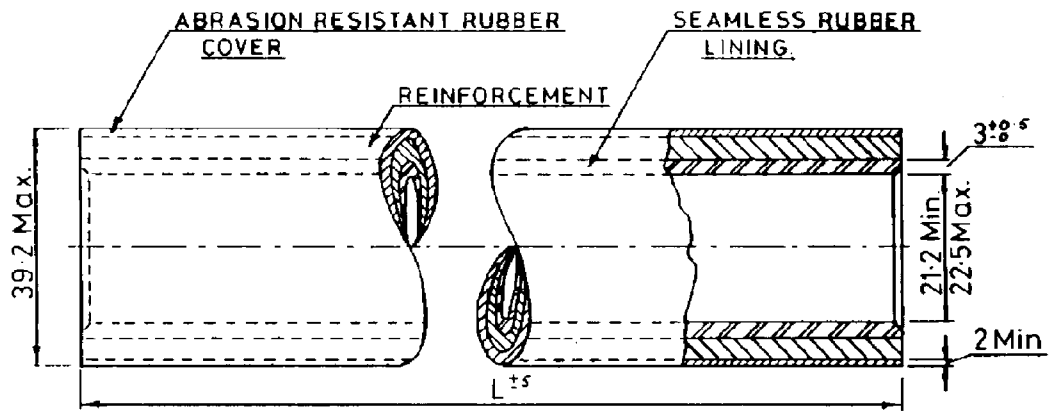
DETAILS OF RUBBER HOSE FOR COMPRESSED AIR BRAKE COUPLING ASSEMBLIES

CHIEF MECHANICAL AND ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
STANDARDS & RATIONALIZATION
DERBY

SHEET	A	B	C	D	E
Drawing N°	F	G	H	J	K
M-A3-9001473	L				
Drawn	Traced	Checked	Date		
P.S.G.			6/80		

DUPLICATE DRG

MFL



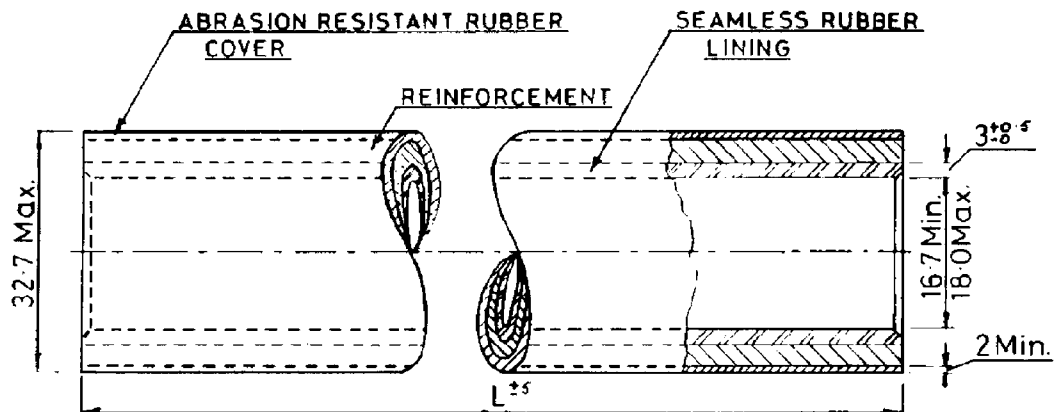
22.0 mm NOM. BORE

NOTES :-

1. REINFORCEMENT TO BE BRAIDED OR SPIRALLY WOUND POLYAMIDE OR POLYESTER.
2. WALL THICKNESS IN ANY CROSS SECTION SHALL NOT VARY MORE THAN 1mm.
3. HOSE TO HAVE A MINIMUM BURST PRESSURE OF 70 BAR.
4. EACH HOSE SHALL BE BRANDED WITH EITHER RAISED OR EMBOSSED MARKS AT INTERVALS OF 400mm AS FOLLOWS a)MANUFACTURERS MARK b)U.I.C.830-1c)MONTH AND YEAR OF MANUFACTURE d)B.R.
5. THE COMPOSITION AND METHOD OF REINFORCEMENT/CONSOLIDATION SHALL BE APPROVED BY THE C.M.& E.E. BRB.

ITEM No.	DIMENSION L mm	B.R. CATALOGUE NUMBER	REMARKS
M-A3-9001472/01	510	10/142200	
" /02	560	10/142205	
" /03	610	10/142210	
" /04	710	10/142215	
" /05	760	10/142220	
" /06	15250	10/142230	TO BE CUT INTO LENGTHS AS REQUIRED

ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	NEW DRG.No. ADDED	P.S.G.	9/80
B	RUBBER HARDNESS DEL 2Min. WAS 2.5 Nom. NOTE 4 AMENDED	M.P.D.	10/80
FORMERLY BR DRG.No. G-A3-1080			
DETAILS OF RUBBER HOSE FOR COMPRESSED AIR BRAKE COUPLING ASSEMBLIES			
CHIEF MECHANICAL & ELECTRICAL ENGINEER BRITISH RAILWAYS BOARD STANDARDS&RATIONALIZATION DERBY			
SHEET	A	B	
Drawing No	M-A3-9001472		
Drawn	Traced	Checked	Date
P.S.G.		M.P.D.	6/80



17.5 mm NOM. BORE

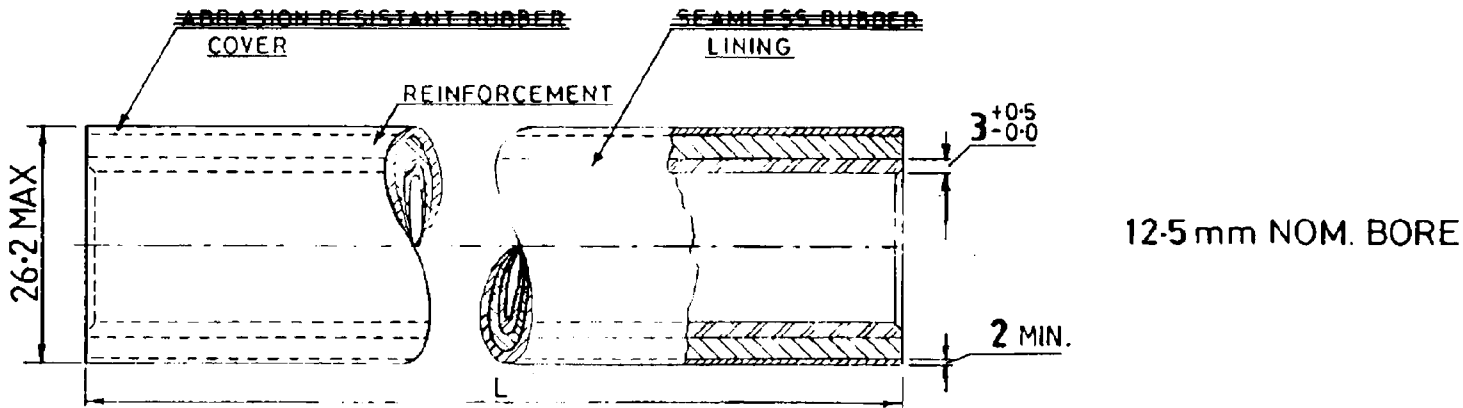
NOTES :-

1. REINFORCEMENT TO BE BRAIDED OR SPIRALLY WOUND POLYAMIDE OR POLYESTER.
2. WALL THICKNESS IN ANY CROSS SECTION SHALL NOT VARY MORE THAN 1mm.
3. HOSE TO HAVE A MINIMUM BURST PRESSURE OF 70 BAR.
4. EACH HOSE SHALL BE BRANDED WITH EITHER RAISED OR EMBOSSED MARKS AT INTERVALS OF 400mm AS FOLLOWS a) MANUFACTURERS MARK b) U.I.C. 830 -1 c) MONTH AND YEAR OF MANUFACTURE d) B.R.
5. THE COMPOSITION AND METHOD OF REINFORCEMENT/CONSOLIDATION SHALL BE APPROVED BY THE C.M.& E.E. BRB.

ISSUE LETTER	ALTERATION	D.MAN'S INITIALS	DATE
A	NEW DRG.No.ADDED	P.G.	9/80
B	RUBBERHDNESS DEL. 2 Min.WAS 2.5 Nom. NOTE 4 AMENDED	P.G.	10/80

MFD

ITEM No.	DIMENSION L mm	B.R. CATALOGUE NUMBER	REMARKS
M-A3-9001471/01	610	10/142155	FORMERLY BR DRG.No. G-A3-1079
			DETAILS OF RUBBER HOSE FOR COMPRESSED AIR BRAKE COUPLING ASSEMBLIES
			CHIEF MECHANICAL & ELECTRICAL ENGINEER BRITISH RAILWAYS BOARD STANDARDS&RATIONALIZATION DERBY
			SHEET _____ A B
			Drawing No M-A3-9001471
			Drawn Traced Checked Date P.S.G. _____ MFD 6/80



NOTES - CONSTRUCTION TO BS3682 TYPE 1 EXCEPT WHERE STATED OTHERWISE

1. REINFORCEMENT TO BE BRAIDED OR SPIRALLY WOUND POLYAMIDE OR POLYESTER.
- ~~2. WALL THICKNESS IN ANY CROSS SECTION SHALL NOT VARY MORE THAN 1mm.~~
3. HOSE TO HAVE A MINIMUM BURST PRESSURE OF 70 BAR.
- ~~4. EACH HOSE SHALL BE BRANDED WITH EITHER RAISED OR EMBOSSED MARKS AT INTERVALS OF 400mm AS FOLLOWS: (A) MANUFACTURERS MARK (B) 10 MONTH AND YEAR OF MANUFACTURE (C) BORE~~
- ~~5. THE COMPOSITION AND METHOD OF REINFORCEMENT/CONSOLIDATION SHALL BE APPROVED BY THE C.M. & E.E. BRB.~~

ISSUE LETTER	ALTERATION	DATE	BY
A	NEW DRG.No. ADDED	25/9/80	
B	RUBBER HDNESS DEL 2Min. WAS 2.5Nom. NOTE 4 AMENDED	25/9/80	MFD
C	DESCRIPTION OF COVER & LINING REMOVED. ACTUAL BORE DIMN REMOVED. NOTES 2,4&5 DELETED. BS. SPEC. N° ADDED.		MFD JGD

ITEM No.	DIMENSION Lmm	B.R. CATALOGUE NUMBER	REMARKS
M-A3-9001470/01	610	10/142105	FORMERLY BR DRG.No. G-A3-1078
			DETAILS OF RUBBER HOSE FOR COMPRESSED AIR BRAKE COUPLING ASSEMBLIES
			CHIEF MECHANICAL & ELECTRICAL ENGINEER BRITISH RAILWAYS BOARD STANDARDS & RATIONALIZATION DERBY
			SHEET — A B C
			Drawing No M-A3-9001470
			Drawn Traced Checked Date
			P.S.G. — — — 6/80



Engineering Data
Section

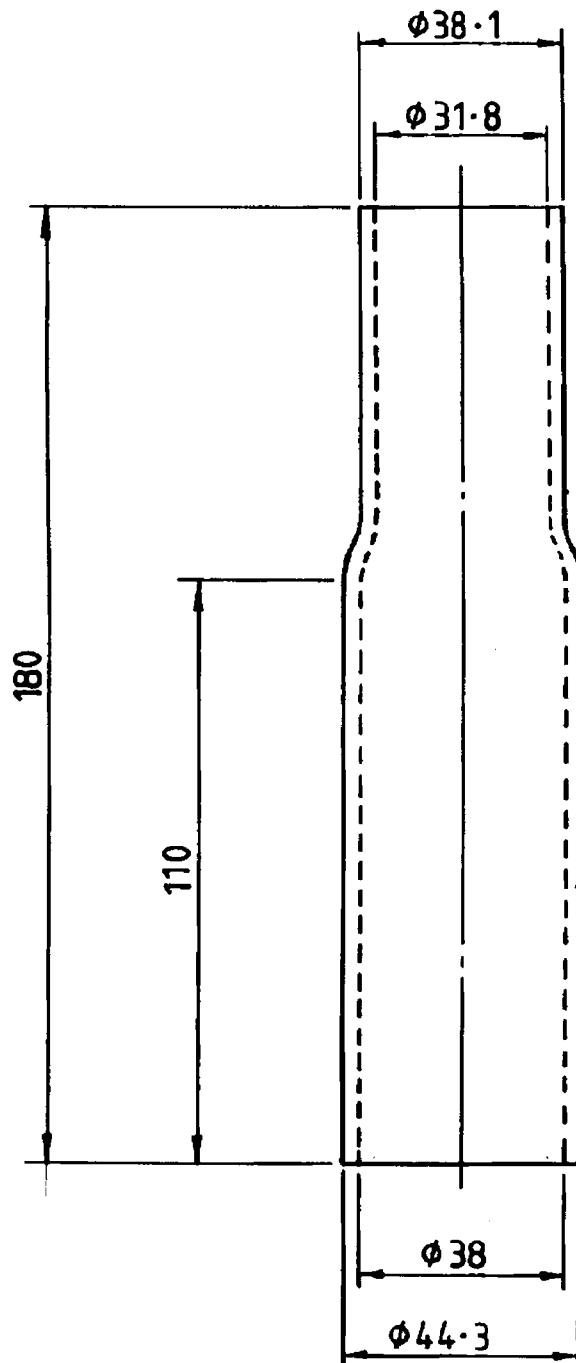
MAINTENANCE SUPPORT DOCUMENT

NON-METALLIC FLEXIBLE HOSES FOR USE ON T&RS

No:	MT 111
ISSUE:	6
REVISION:	A
DATE:	FEB 1993

SECTION C

AIR BRAKE HOSES



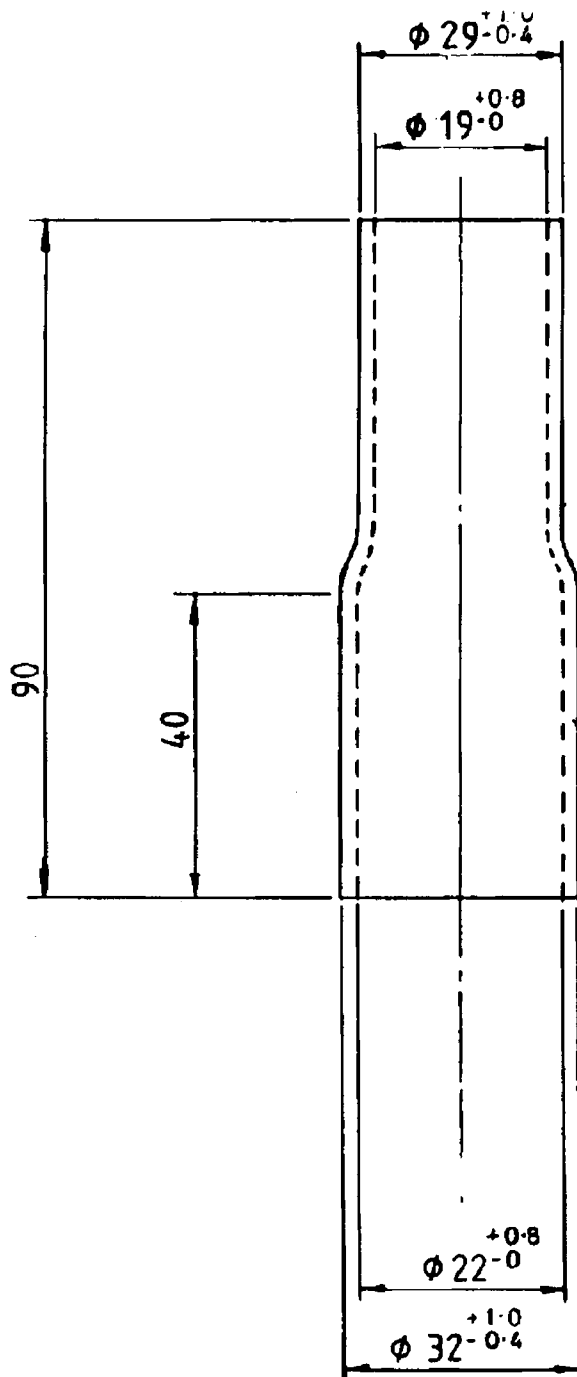
TO SPEC. BR571

01 REDUCER HOSE
BR. CAT. N° 10 / 19027

NOTE 'A' :- +1.0
OUTSIDE DIAMETERS TO BE -0.4.
INSIDE DIAMETERS TO BE +0, +0.8.
LENGTHS TO BE ± 2.0 .

VEHICLE USED ON - CL144

ISSUE	ALTERATION	D'VANS INITIALS	DATE
A	FIRST ISSUE	MFD	
B	NOTE 'A' RE TOLERANCING ADDED. EDS2275	MFD	
C	%D TOLS WERE ± 0.4 . EDS 2111		21/8/91
SILICONE RUBBER REDUCER HOSE			
DIRECTOR OF MECHANICAL & ELECTRICAL ENGINEERING BRITISH RAILWAYS BOARD DERBY			
Drawing No. M-A3-9039032		A	B C
Drawn	Traced	Checked	Date
M.G.V.			SEPT89



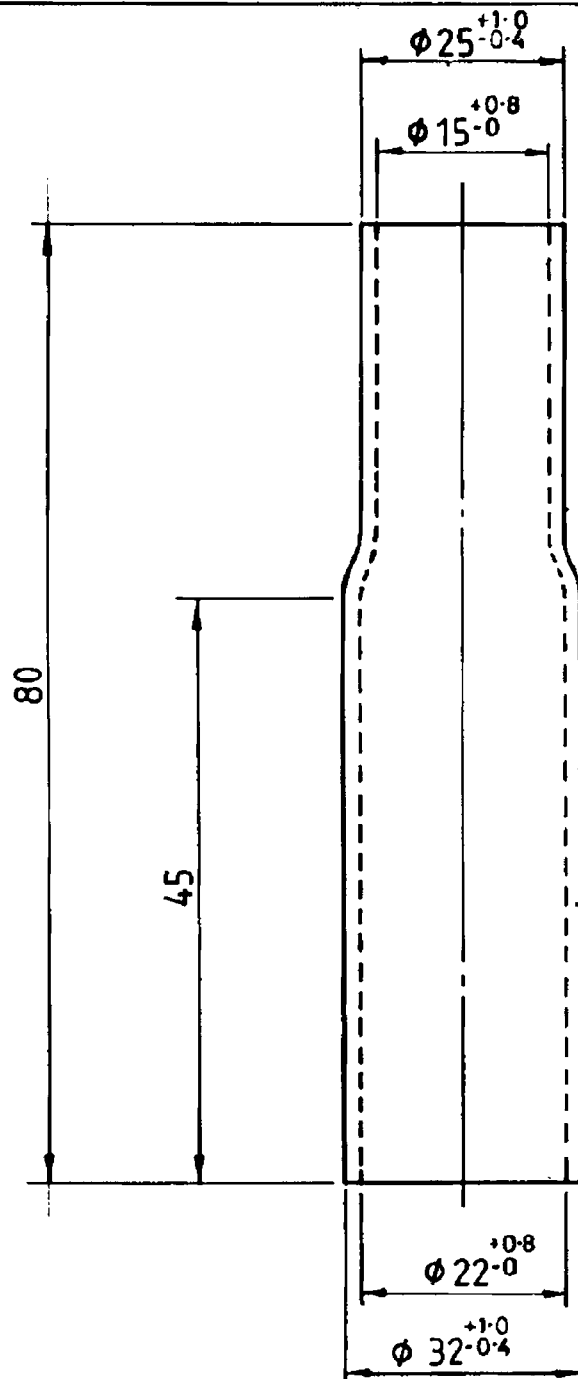
TO SPEC. BR571

01 REDUCER HOSE
BR. CAT. N°. 10 / 144045

NOTE 1
THE TOLERANCE ON DIMENSIONS FOR WHICH NO LIMITS ARE GIVEN SHALL BE ± 2 .

CL143
VEHICLE USED ON - CL144

ISSUE	ALTERATION	DMANS INITIALS	DATE
A	FIRST ISSUE	MFD	
B	Ø/D & I/D TOLS. ADDED. NOTE 1 ADDED EDS2111		27/11/99
SILICONE RUBBER REDUCER HOSE			
DIRECTOR of MECHANICAL & ELECTRICAL ENGINEERING BRITISH RAILWAYS BOARD DERBY			
Drawing No. M-A3-9039074		A	B
Drawn	Traced	Checked	Date
M.C.V.			NOV 89 MFD



TO SPEC. BR571

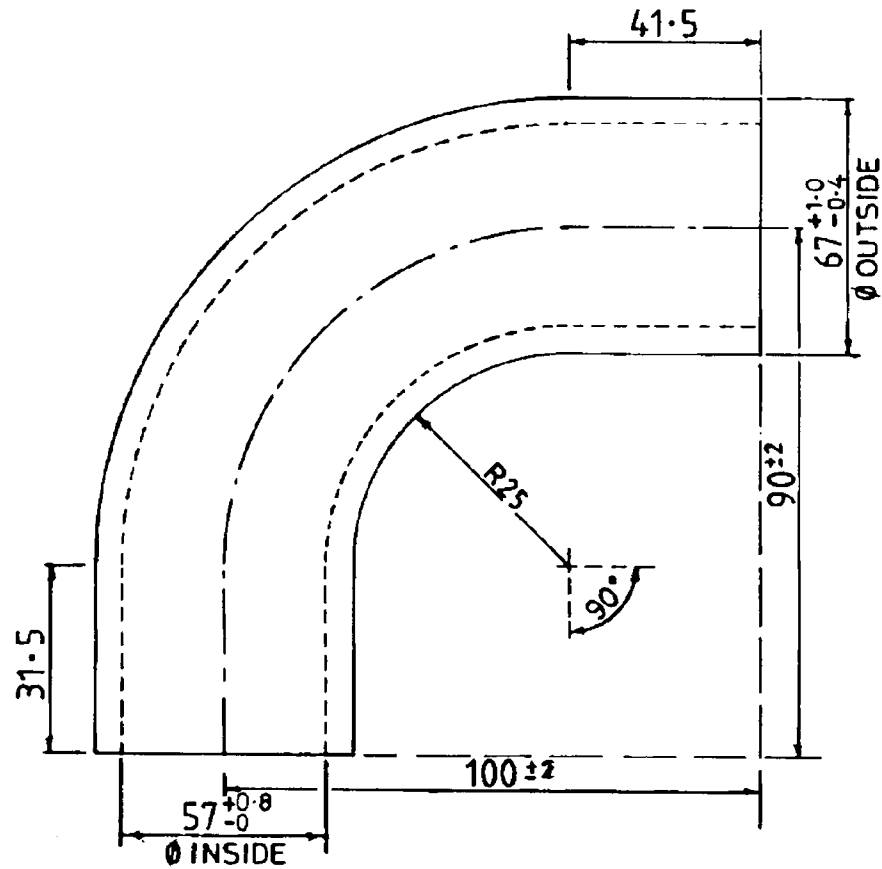
01 REDUCER HOSE
BR. CAT. N° 10 / 19028

NOTE 1
THE TOLERANCE ON DIMENSIONS FOR WHICH NO
LIMITS ARE GIVEN SHALL BE ± 2 .

VEHICLE USED ON - CL141

ISSUE	ALTERATION	D'VANS INITIALS	DATE
A	FIRST ISSUE		D
B	0/1 & 1/10 TOLS ADDED. NOTE 1 ADDED. EDS 2111	EDS	5.2.89
SILICONE RUBBER REDUCER HOSE			
DIRECTOR of MECHANICAL & ELECTRICAL ENGINEERING BRITISH RAILWAYS BOARD DERBY			
Drawing No. M-A3-9039064		A	B
Drawn	Traced	Checked	Date
M.G.V.			NOV 89

57 mm BORE
 — B.R. SPEC. 571



REVISION LETTER	ALTERATION	DATE
A	FIRST ISSUE	
B	% TOL WAS ±0.4. TOL ±2 ADDED TO DIM'S 100 & 90. EDS 2111.	27. 1. 90 G.P. 2. 95

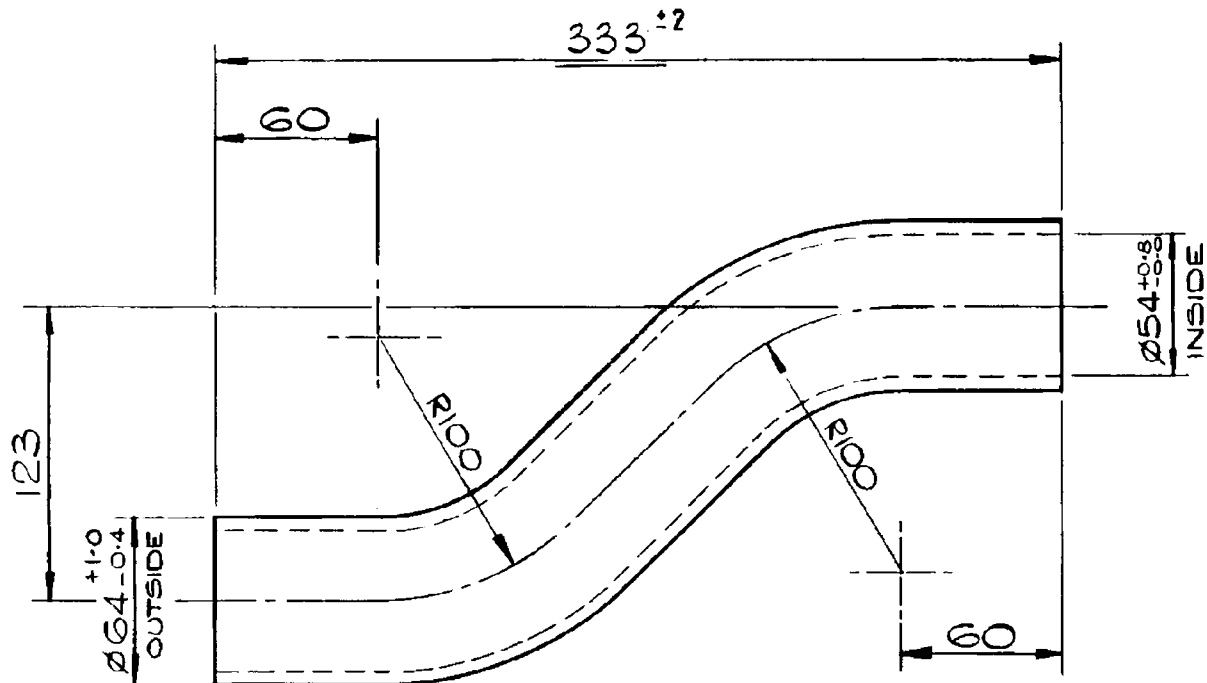
SILICONE
 RUBBER HOSE
 TYPE 'D'

CHIEF MECHANICAL &
 ELECTRICAL ENGINEER
 BRITISH RAILWAYS BOARD
 STANDARDS & RATIONALIZATION
 DERBY

ITEM No.	B.R. CATALOGUE NUMBER	REMARKS	VEHICLE / CLASS
01	10 / 19046		150 / 2
			ELBOW

Scale	1:1	A	B		
Drawing No.	M-A3-9039120				
Drawn	Traced	Checked	Date		
M.G.V.			JAN 90		

54 mm BORE
 - B.R. SPEC. 571 -



ISSUE LETTER	ALTERATION	DRAWN BY	DATE
A	FIRST ISSUE	MFD	7/83
B	333 DIM ⁿ WAS 326	JM	7/83
C	Ø/D TOL WAS ±0.4. TOL ±2 ADDED TO DIM ⁿ 333. EDS 2111	CT GP JW	6. 2. 73

SILICONE
 RUBBER HOSE
 TYPE 'D'

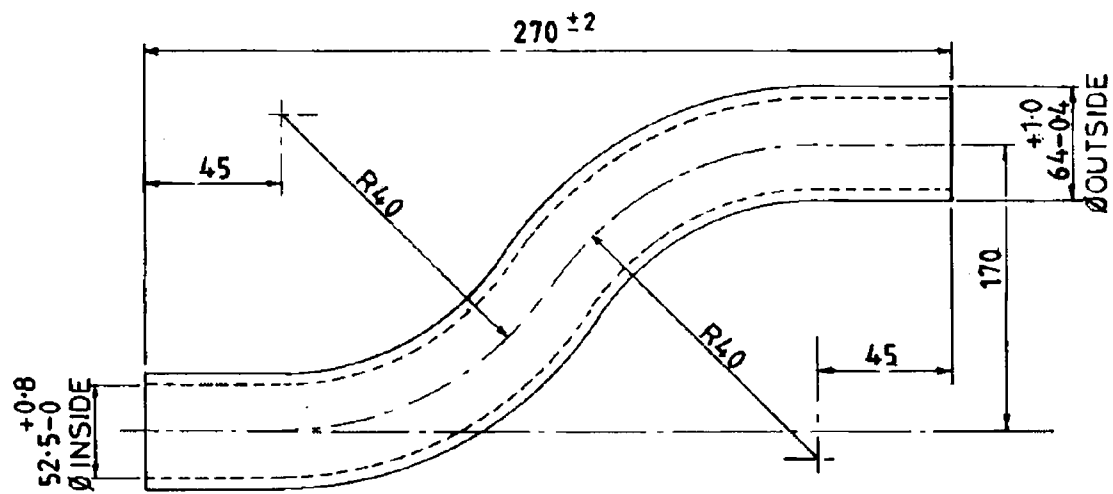
CHIEF MECHANICAL &
 ELECTRICAL ENGINEER
 BRITISH RAILWAYS BOARD
 STANDARDS & RATIONALIZATION
 DERBY

ITEM No.	B.R. CAT. No.	REMARKS	VEHICLE / CLASS
01	10/144186		150

COMPOUND BEND

Scale	1:2	A	B	C
Drawing No.	M-A3-9022743			
Drawn	Traced	Checked	Date	
SD		JET	7/83	

52.5mm BORE
— BR.SPEC. 571 —



ISSUE LETTER	ALTERATION	DRAWN INITIALS	DATE
A	FIRST ISSUE		
B	Ø P TOL WAS ±0.4. TOL ±2 ADDED TO DIM ⁿ 270 EDS 2111	G.P.	3.2.98

SILICONE
RUBBER HOSE
TYPE 'D'

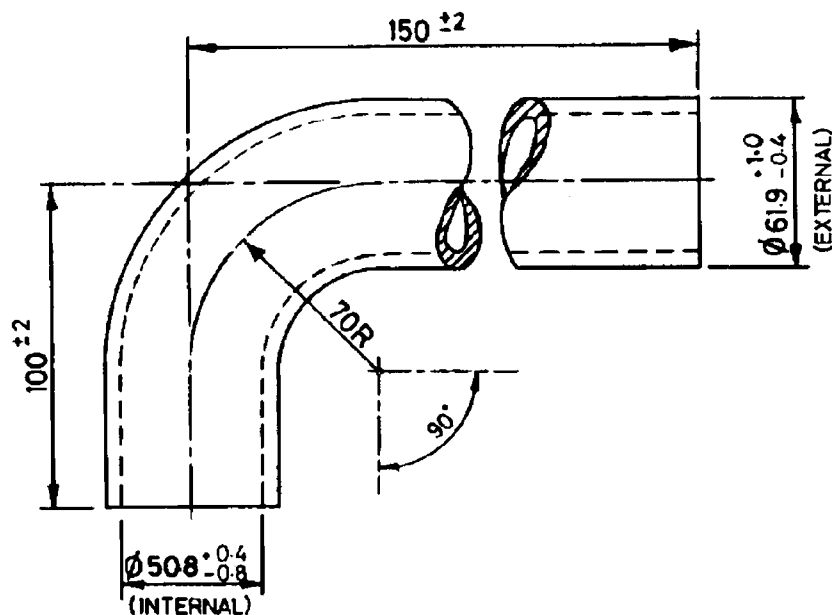
CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
STANDARDS & RATIONALIZATION
DERBY

ITEM No	BR CATALOGUE NUMBER 10/	REMARKS	VEHICLE / CLASS
01	19042		150 / 2

COMPOUND BEND

Scale	1:2	A	B		
Drawing No.	M-A3-9039095				
Drawn	Traced	Checked	Date		
M.G.V.			12/89		

50.8mm BORE
B.R. SPEC. 571



ISSUE LETTER	ALTERATION	D. MARKS INITIALS	DATE
A	FIRST ISSUE	DEI	3/78
B	ITEM 01 CLASS 142 ADDED	GH	6/86
C	MATL SPEC WAS NITRILE RUBBER TO BR 488B	R.	3/83
D	Ø/D TOL WAS +1.6 -0. TOL ± 2 ADDED TO DIMS 150 & 100. EDS 2111	CT	5. 2. 83

FD
MFC

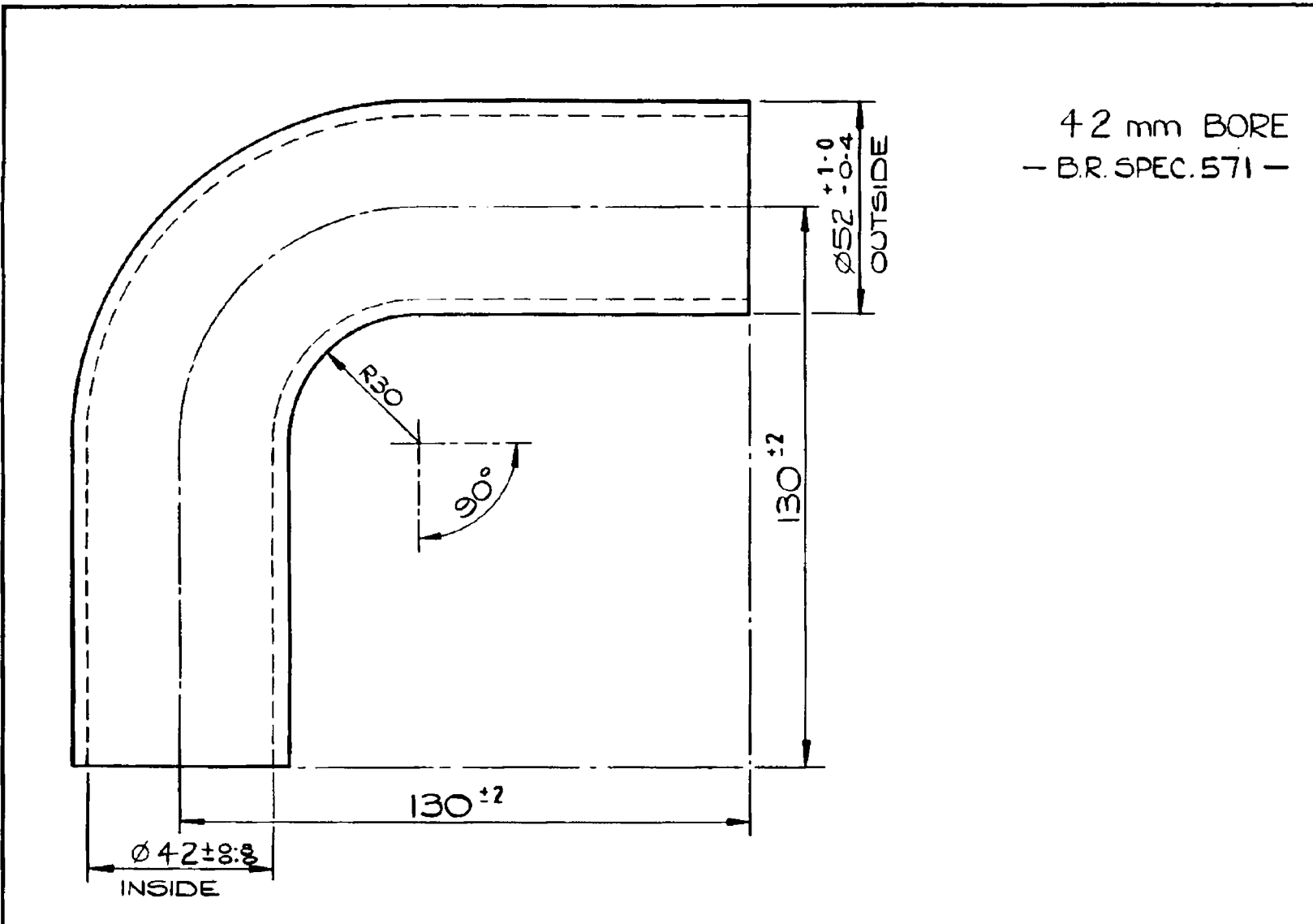
SILICONE RUBBER
HOSE
TYPE 'D'

DIRECTOR OF MECHANICAL
& ELECTRICAL ENGINEERING
BRITISH RAILWAYS BOARD
MATERIAL SERVICES
DERBY

ITEM No.	B.R. CATALOGUE NUMBER	REMARKS	VEHICLE / CLASS
01	10/143776		141142

ELBOW

Scale	—	A	B	C	D
Drawing No.	M-A3-9024622				
Drawn	Traced	Checked	Date		
DE			4/4/84		



ISSUE LETTER	ALTERATION	ID MARK'S INITIALS	DATE
A	FIRST ISSUE	SB	7/83
B	BORE WAS 42.8 O/D WAS 50	MFD	8/83
C	O/D TOL WAS ±0.4, TOL ±2 ADDED TO DIM'S 130. EDS 2111	CR. S. G.P. 2	9/83

SILICONE
RUBBER HOSE
TYPE 'D'

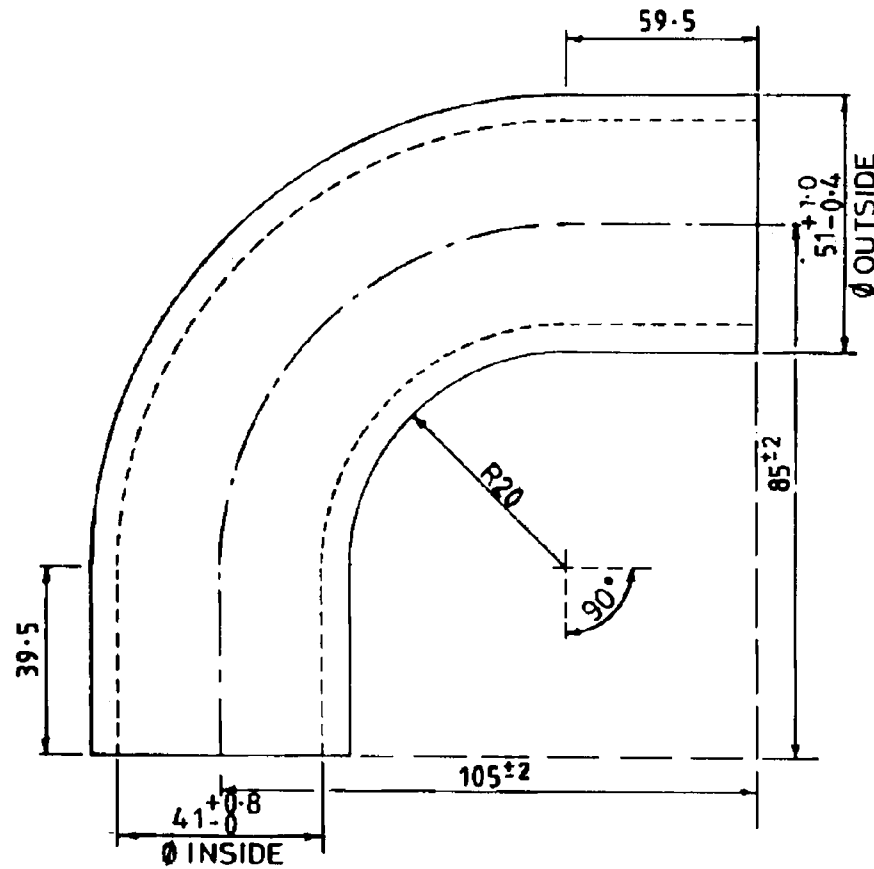
CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
STANDARDS & RATIONALIZATION
DERBY

ITEM No.	B.R. CAT. NO.	REMARKS	VEHICLE / CLASS
01	10/144196		150

ELBOW

Scale	1:1	A	B	C		
Drawing No	M-A3-9022742					
Drawn	Traced	Checked	Date			
SB		JET	7/83			

41 mm BORE
 _ B.R. SPEC. 571



REVISION	ALTERATION	DATE
A	FIRST ISSUE	
B	% TOL WAS ±0.4... TOL ±2. ADDED TO DIM'S 105 & 85. EDS 2111	2/89

MF

SILICONE
 RUBBER HOSE
 TYPE 'D'

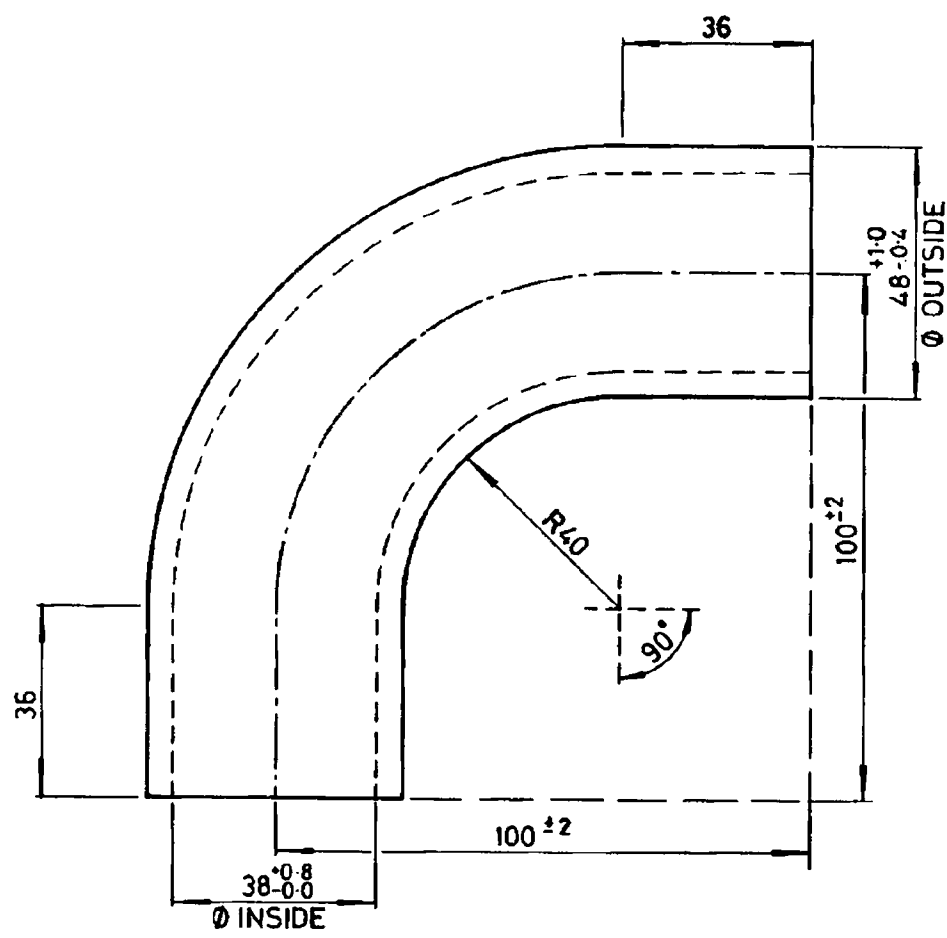
CHIEF MECHANICAL &
 ELECTRICAL ENGINEER
 BRITISH RAILWAYS BOARD
 STANDARDS & RATIONALIZATION
 DERBY

ITEM No.	B.R. CATALOGUE NUMBER 10/	REMARKS	VEHICLE / CLASS
01	19041		150 / 2
			ELBOW

Scale	1:1	A	B		
Drawing No.	M-A3-9039094				
Drawn	M.G.V.	Traced	Checked	Date	DEC 89

MFD

38mm BORE
 B.R. SPEC. 571



ISSUE LETTER	ALTERATION	ISSUED BY INITIALS	DATE
A	FIRST ISSUE	NA	1/65
B	Ø D TOL WAS ± 0.4. TOL ± 2 ADDED TO DIMS 100. EDS 2111	CP G.P.	5/83

SILICONE RUBBER HOSE TYPE 'D'

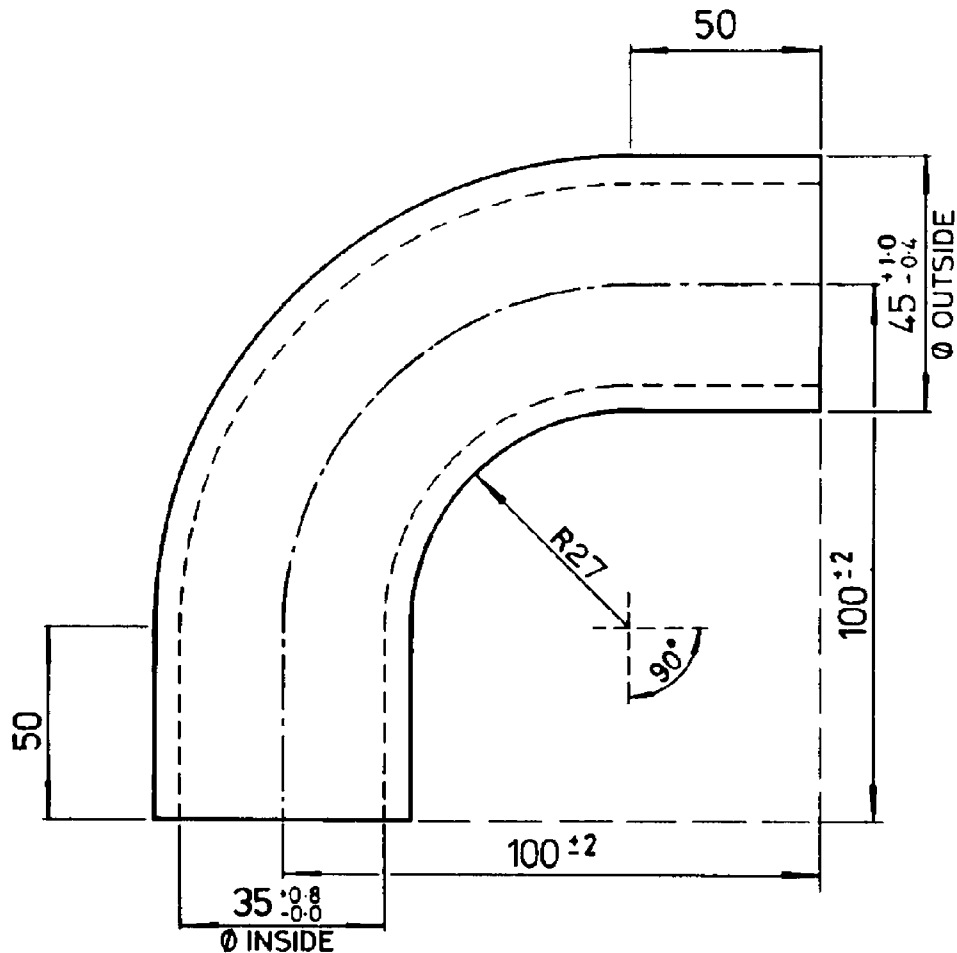
CHIEF MECHANICAL & ELECTRICAL ENGINEER
 BRITISH RAILWAYS BOARD

ITEM No.	B.R. CATALOGUE NUMBER 10/	REMARKS	VEHICLE / CLASS
01/M-A3-9021997	144192		150

Scale	1:1	A	B		
Drawing No.	M-A3-9021997				
Drawn	PC	Traced	Checked	Date	5/83

ELBOW

35 mm BORE
 B.R. SPEC. 571



REVISION LETTER	ALTERATION	BY NAME & INITIALS	DATE
A	FIRST ISSUE	JB	12.97
B	2% TOL WAS ±0.4 TOL ±2 ADDED TO DIM. 100. EDS 2111	CT GP 12/93	6. 12/93

SILICONE
 RUBBER HOSE
 TYPE 'D'

CHIEF MECHANICAL &
 ELECTRICAL ENGINEER
 BRITISH RAILWAYS BOARD

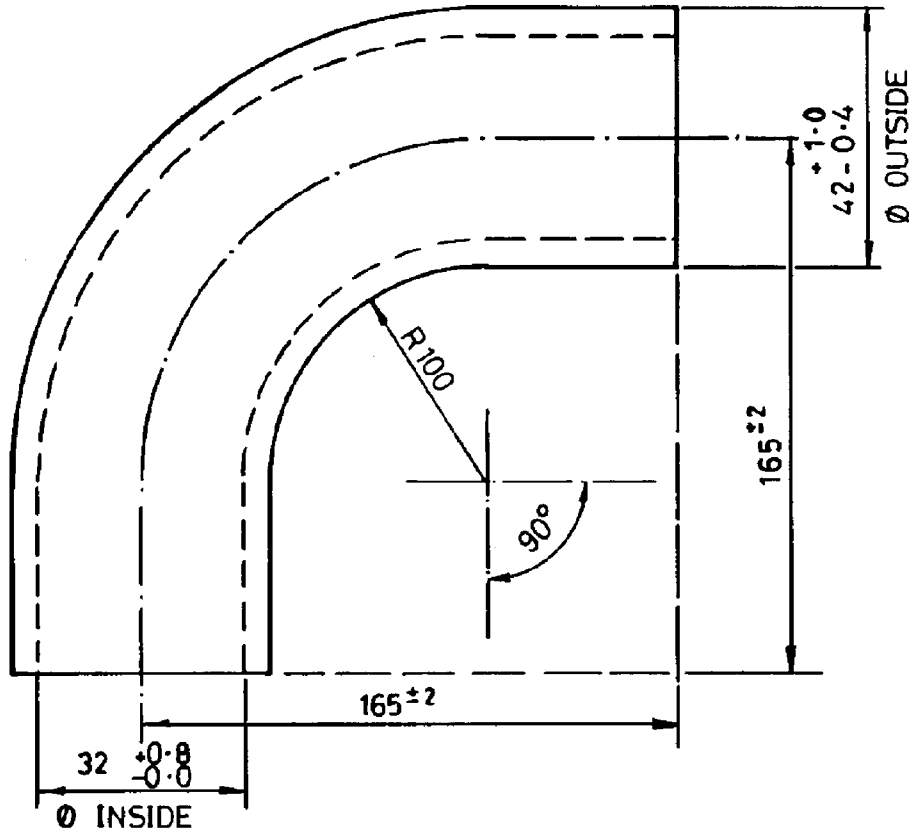
ITEM No.	B.R. CATALOGUE NUMBER 10/	REMARKS	VEHICLE / CLASS
01/M-A3-9038167	144182		144

Scale	1:1	A	B		
Drawing No.	M-A3-9038167				
Drawn	Traced	Checked	Date		
JB			12.97		

ELBOW

MFD

32 mm BORE
BR SPEC. 571



ISSUE	ALTERATION	D'VANS INITIALS	DATE
A	FIRST ISSUE	JCB	1/87
B	% TOL WAS ±0.4. TOL ±2 ADDED TO DIM ^s 165. EDS 2111	JCB	1/87

SILICONE RUBBER
HOSE
TYPE 'D'

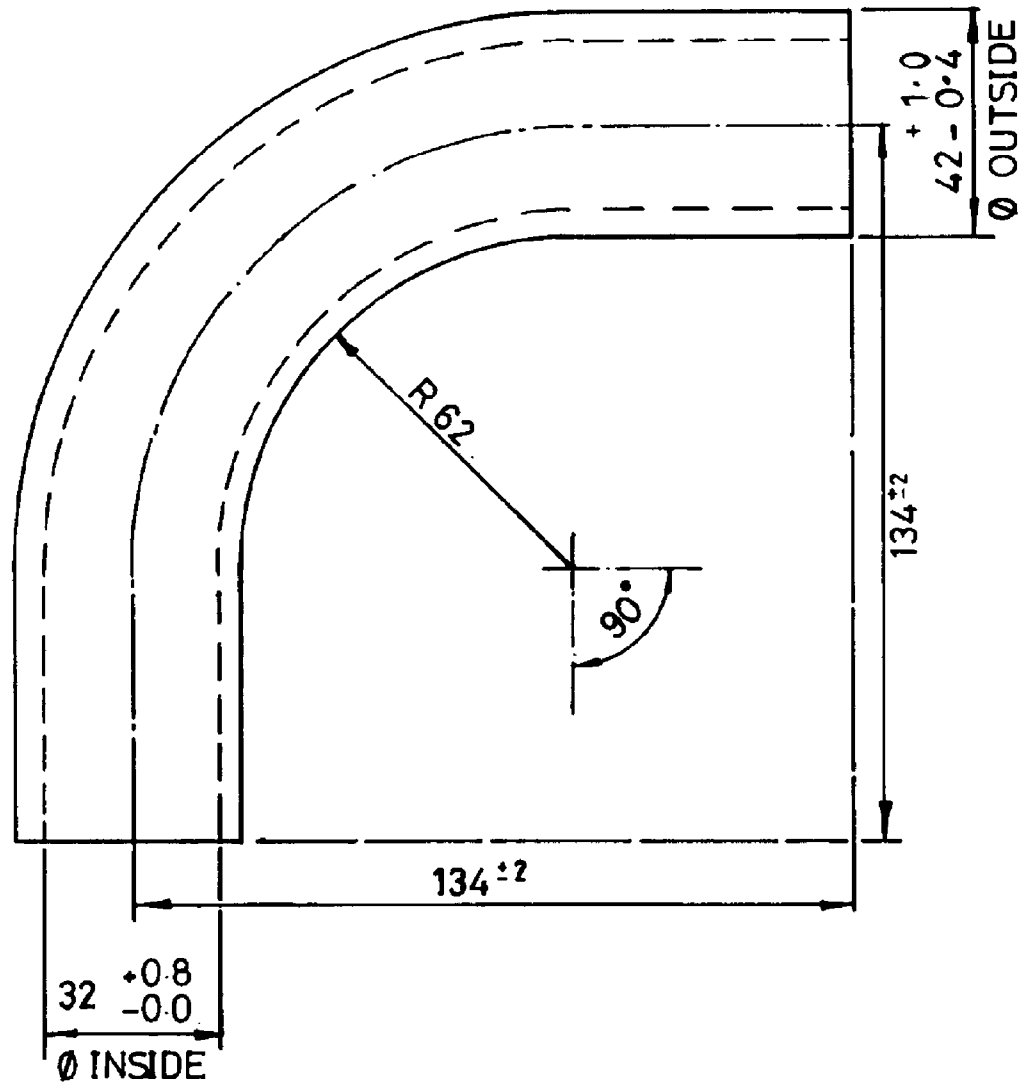
DIRECTOR of MECHANICAL &
ELECTRICAL ENGINEERING
BRITISH RAILWAYS BOARD
DERBY

ITEM N ^o	BR CATALOGUE NUMBER	REMARKS	VEHICLE / CLASS
01	10/14.4198		141

Drawing No.	A	B			
M-A3-9029796					
Drawn	Traced	Checked	Date		
JCB			1/87		

BR SPEC. 571

32 mm BORE

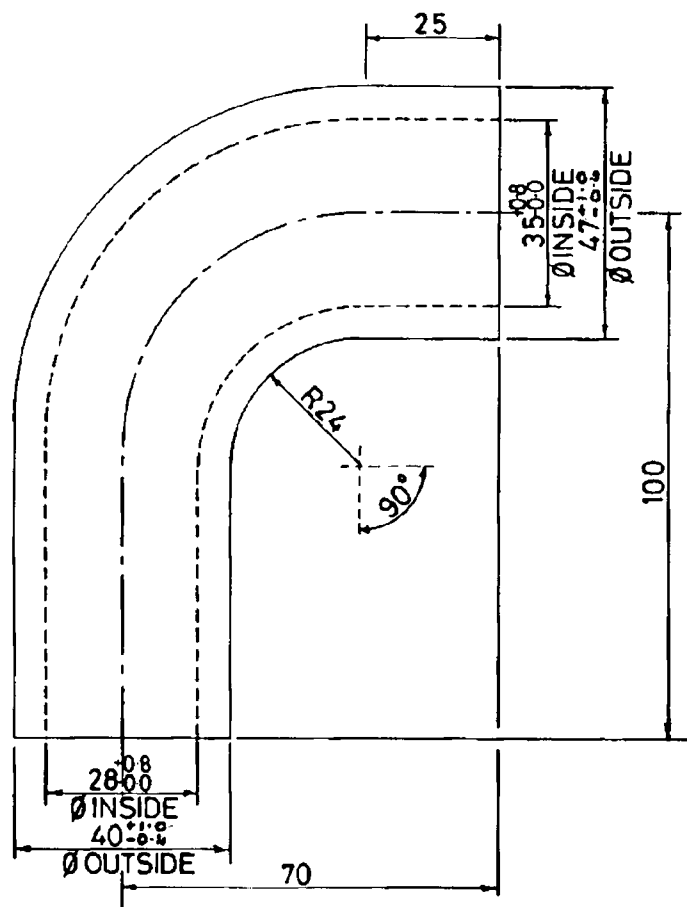


ISSUE	ALTERATION	D'VANS INITIALS	DATE
A	FIRST ISSUE	J.P.	1/87
B	1/2 TOL WAS ±0.4. TOL ±2 ADDED TO DIMS 134 EDS 2111	C.F. 1/87	1/87
<p>SILICONE RUBBER HOSE TYPE 'D'</p> <p>DIRECTOR of MECHANICAL & ELECTRICAL ENGINEERING BRITISH RAILWAYS BOARD DERBY</p>			
Drawing No.		A	B
M-A3-9029795			
Drawn	Traced	Checked	Date
JCB			1/87

ITEM No.	BR CATALOGUE NUMBER	REMARKS	VEHICLE / CLASS
01	10/144197		141

MFD

28/35mm BORE
BR. SPEC. 571



NOTE 1
THE TOLERANCE ON DIMENSIONS FOR WHICH NO LIMITS ARE GIVEN SHALL BE ±2

ISSUE LETTER	ALTERATION	DRAWN BY	DATE
A	FIRST ISSUE		
B	∅D TOLS WERE ±0.4. NOTE 1 ADDED. EDS 2111	CP	1/84

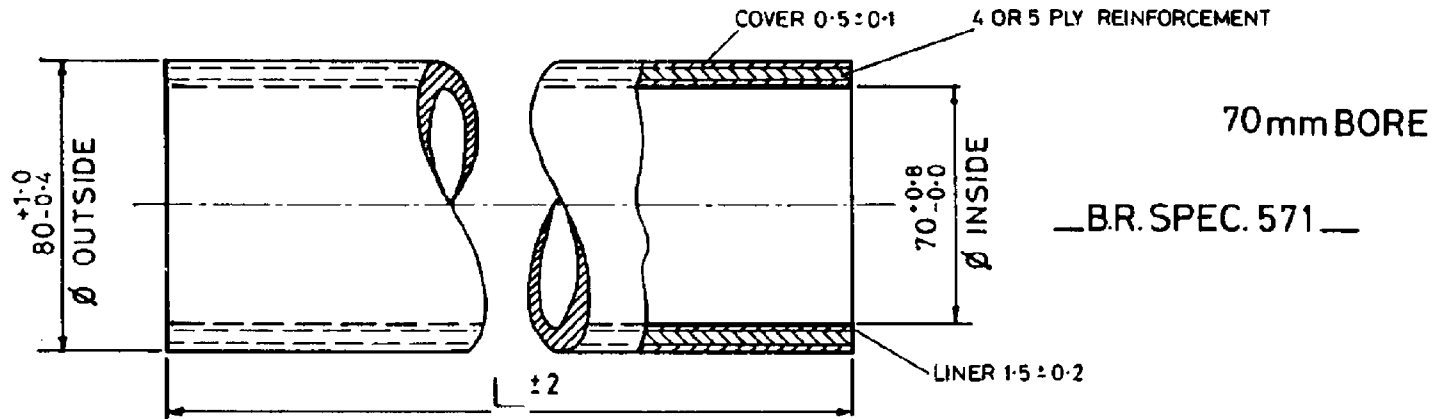
MFD

SILICONE RUBBER HOSE TYPE 'D'			
DIRECTOR OF MECHANICAL & ELECTRICAL ENGINEERING BRITISH RAILWAYS BOARD MATERIAL SERVICES DERBY			

Scale 1:1	A	B			
Drawing No. M-A3-9025406					
Drawn P.S.G.	Traced —	Checked <i>[Signature]</i>	Date 1/84		

ITEM No.	BR CATALOGUE NUMBER 10/	REMARKS	VEHICLE / CLASS
01/M-A3-9025406	144050		DMU.

ELBOW



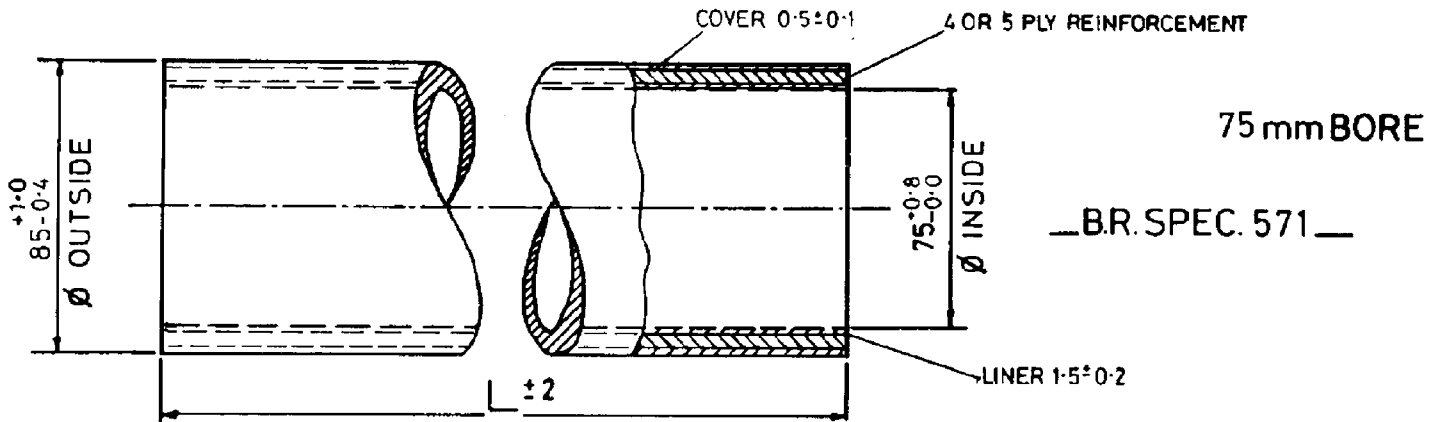
ISSUE LETTER	ALTERATION		DRAWN INITIALS	DATE
	A	FIRST ISSUE		
B	0% TOL WAS ± 0.4 TOL ± 2 ADDED TO DIM'S 'L' EDS 2111			4. 1. 03

ITEM No.	DIMENSION Lmm	BR.CAT. No.	REMARKS	VEHICLE / CLASS
01	160	10/144135		31, 37, 47, 50.

**SILICONE
RUBBER HOSE
TYPE 'A'**

**CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
STANDARDS & RATIONALIZATION
DERBY**

Scale	—	A	B		
Drawing No	M-A3-9010229				
Drawn	Traced	Checked	Date		
P.S.G.	—		9/82		



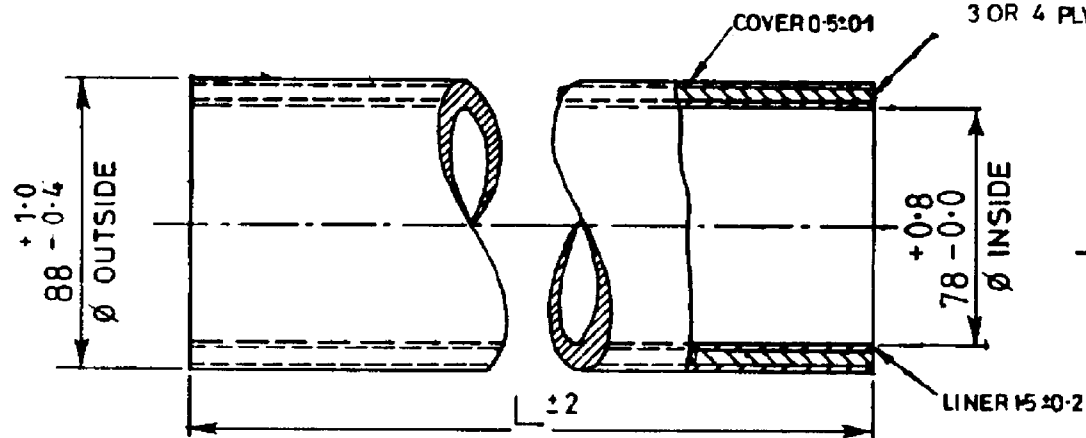
REVISION LETTER	ALTERATION	DATE	BY
A	FIRST ISSUE	11/82	J.P.
B	ITEM 01 CLASS 08,09 & 13 ADDED	11/82	J.P.
C	ITEMS 04, 05, CLASS 26 ADDED	11/82	J.P.
D	0.5 TOL WAS ± 0.4 , TOL ± 2 ADDED TO DIM 'L'. EDS 2111	11/82	J.P.

ITEM No.	DIMENSION Lmm	B.R.CAT. No.	REMARKS	VEHICLE / CLASS
01	115	10/144134		31,08,09,13,
02	155	10/144140		33,
03	205	10/144145		33,
04	230	10/140014		26,
05	130	10/140012		26,

SILICONE RUBBER HOSE TYPE 'A'			
CHIEF MECHANICAL & ELECTRICAL ENGINEER BRITISH RAILWAYS BOARD STANDARDS & RATIONALIZATION DERBY			
Scale		A	B
Drawing N ^o		C	D
M-A3-9010230			
Drawn	Traced	Checked	Date
P.S.G.			9/82

00142-000 L.V. 00001

MED



REV. LETTER	ALTERATION		DATE
	A	FIRST ISSUE	
B	<small>^{O/D} TOL WAS ± 0.4 TOL CT AS ± 2 ADDED TO DIM ¹ 6.2 JL EDS 2111</small>		

ITEM No.	DIMENSION Lmm	BR.CAT. No.	REMARKS	VEHICLE/CLASS
.01	90	10/144162		150/1

SILICONE RUBBER HOSE TYPE 'A'

**DIRECTOR OF MECHANICAL & ELECTRICAL ENGINEERING
 BRITISH RAILWAYS BOARD.
 DESIGN SUPPORT-GENERAL.
 DERBY.**

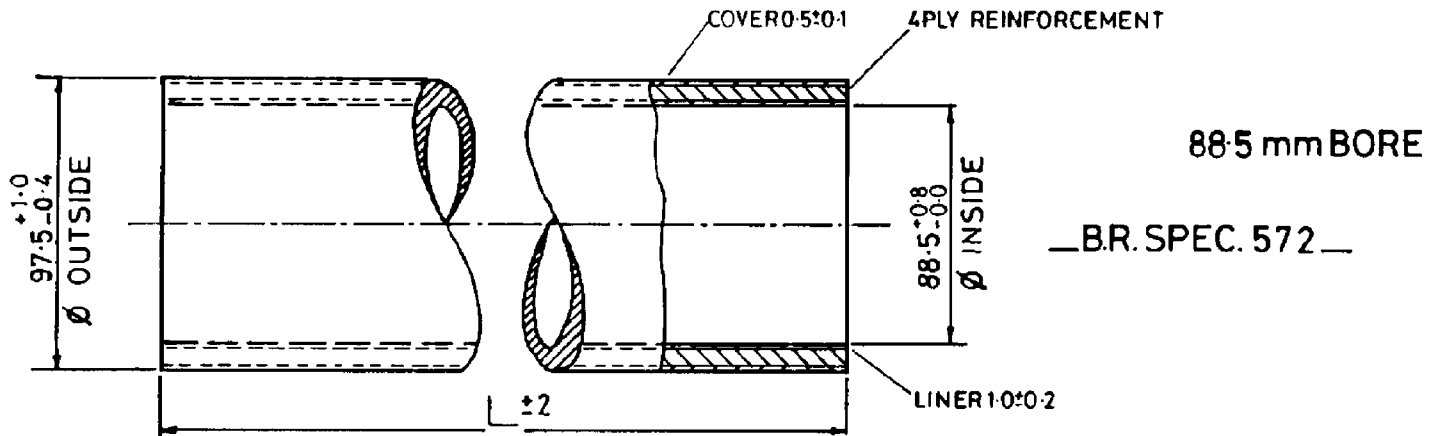
Scale A B

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Drawing No. M-A3-9038917

Drawn Traced Checked Date
 MGVSS

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ISSUE LETTER	ALTERATION	INITIALS	DATE
A	FIRST ISSUE		
B	ITEM 02 ADDED		
C	BORE WAS 87.0 O/D WAS 96.0		
D	O/D TOL WAS ±0.5. TOL ±2 ADDED TO DIM 'L'. EDS 2111		

ITEM No.	DIMENSION Lmm	BR.CAT. No.	REMARKS	VEHICLE / CLASS.
01	60	10/144112		50.
02	200	10/19007		58

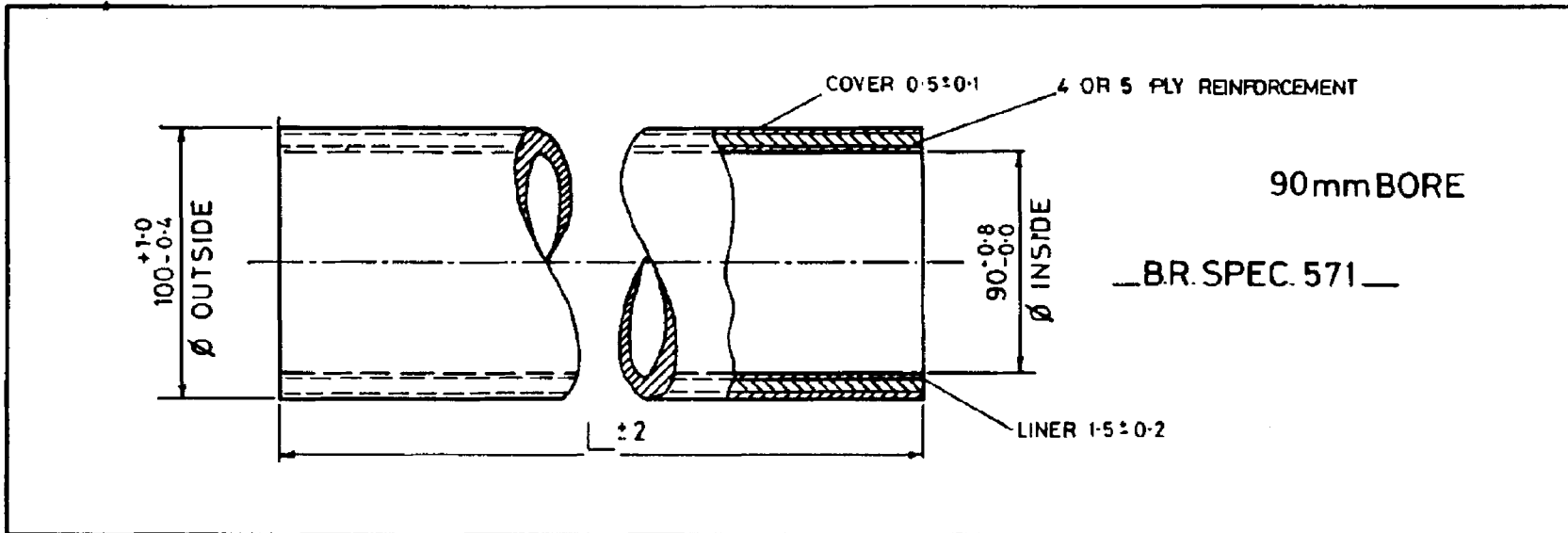
SILICONE RUBBER HOSE TYPE 'A'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
STANDARDS & RATIONALIZATION
DERBY

Scale A B C D

Drawing No
M-A3-9012379

Drawn Traced Checked Date
P.S.G. 9/82



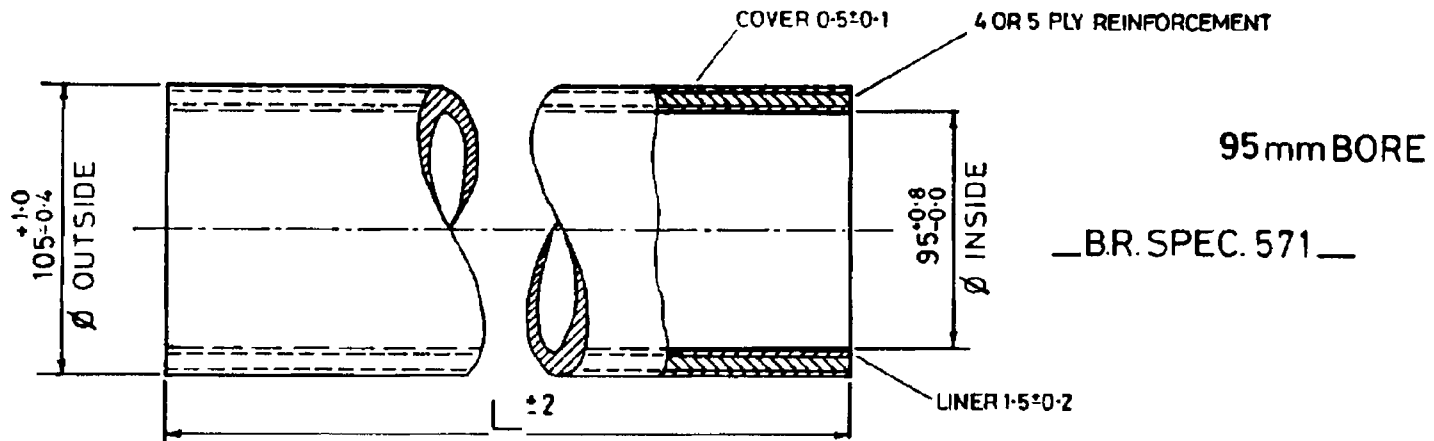
ISSUE LETTER	ALTERATION	INITIALS	DATE
A	FIRST ISSUE		
B	ITEM 03 ADDED		10/82
C	ϕ TOL WAS ± 0.4 . TOL ± 2 ADDED TO DIM'L. EDS 2111		10/82

ITEM No.	DIMENSION Lmm	B.R.CAT. No.	REMARKS	VEHICLE / CLASS
01	150	10/144150		47.
02	380	10/144136		31.
03	230	10/144004		47

SILICONE RUBBER HOSE TYPE 'A'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
STANDARDS & RATIONALIZATION DERBY

Scale		A	B	C	
Drawing No	M-A3-9010232				
Drawn	Traced	Checked	Date		
P.S.G.				9/82	



ALTERATION		ISSUE LETTER	DATE
A	FIRST ISSUE	MFD	
B	95mm BORE TOL WAS ±0.4. TOL ±2 ADDED TO DIM. 'L'. EDS 2111		2/92

ITEM No.	DIMENSION Lmm	B.R.CAT. No.	REMARKS	VEHICLE / CLASS
01	150	10/144138		31.

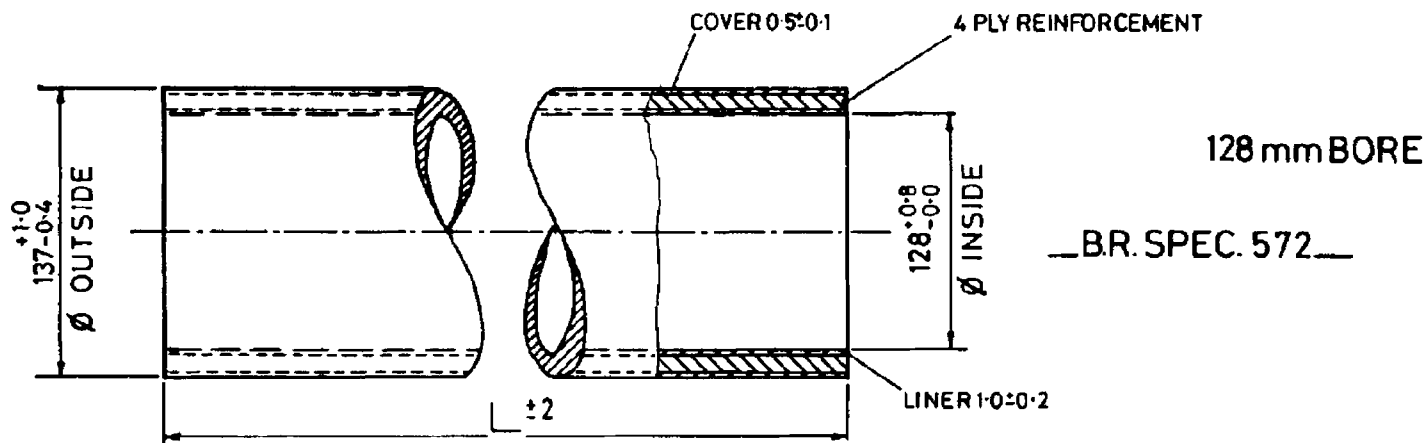
**SILICONE
RUBBER HOSE
TYPE 'A'**

**CHIEF MECHANICAL &
ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
STANDARDS & RATIONALIZATION
DERBY**

Scale A B

Drawing No
M-A3-9010234

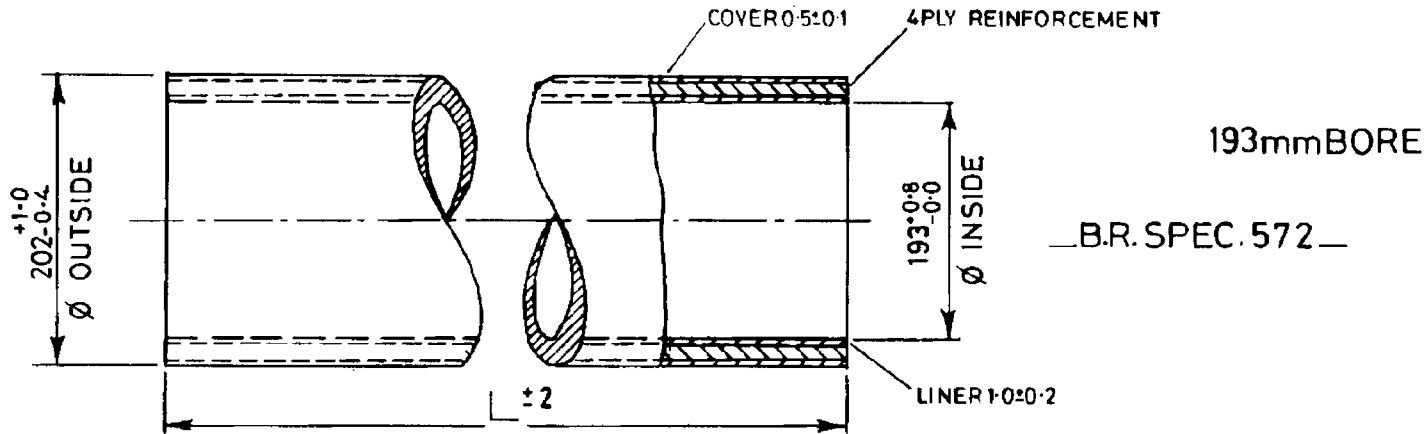
Drawn	Traced	Checked	Date
P.S.G.	—	—	9/82



ISSUE LETTER	ALTERATION		DATE
	A	FIRST ISSUE	10/82
B	Ø D TOL WAS ±0.5. TOL ±2 ADDED TO DIM 'L' EDS 2111		6. 1.

ITEM No.	DIMENSION Lmm	BR.CAT. No.	REMARKS	VEHICLE / CLASS
01	75	10/144115		50.

SILICONE RUBBER HOSE TYPE 'A'			
CHIEF MECHANICAL & ELECTRICAL ENGINEER BRITISH RAILWAYS BOARD STANDARDS & RATIONALIZATION DERBY			
Scale	—	A	B
Drawing N ^o	M-A3-9012380		
Drawn	Traced	Checked	Date
PSG.	—		9/82



ISSUE LETTER	ALTERATION	DATE	INITIALS
A	FIRST ISSUE		
B	∅ ID TOL WAS ± 0.5. TOL ± 2 ADDED TO DIM 'E'. EDS 2111	6/7/83	[Signature] G.P.

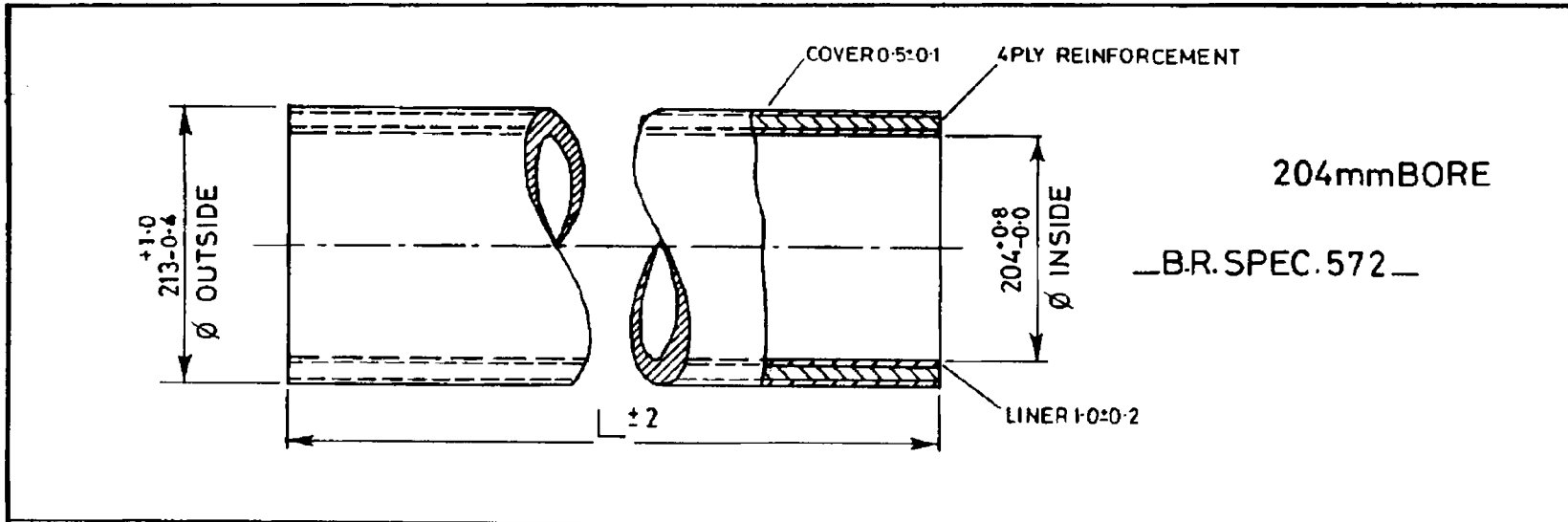
B.R. SPEC. 572

ITEM No.	DIMENSION Lmm	BR.CAT. No.	REMARKS	VEHICLE / CLASS
01	70	10/144122		56,
02	100	10/144118		50,
03	125	10/144119		50,

SILICONE RUBBER HOSE TYPE 'A'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
 BRITISH RAILWAYS BOARD
 STANDARDS & RATIONALIZATION
 DERBY

Scale	A	B		
Drawing No.				
M-A3-9012382				
Drawn	Traced	Checked	Date	
P.S.G.			9/82	



REV. LETTER	ALTERATION	DRAWN INITIALS	DATE
A	FIRST ISSUE		1/78
B	%D TOL WAS ± 0.5 . TOL ± 2 ADDED TO DIM 'L'. EDS 2111	GP	6. 1. 78

ITEM No.	DIMENSION Lmm	BR.CAT. No.	REMARKS	VEHICLE / CLASS
01	125	10/144163		50.

SILICONE RUBBER HOSE TYPE 'A'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
 BRITISH RAILWAYS BOARD
 STANDARDS & RATIONALIZATION
 DERBY

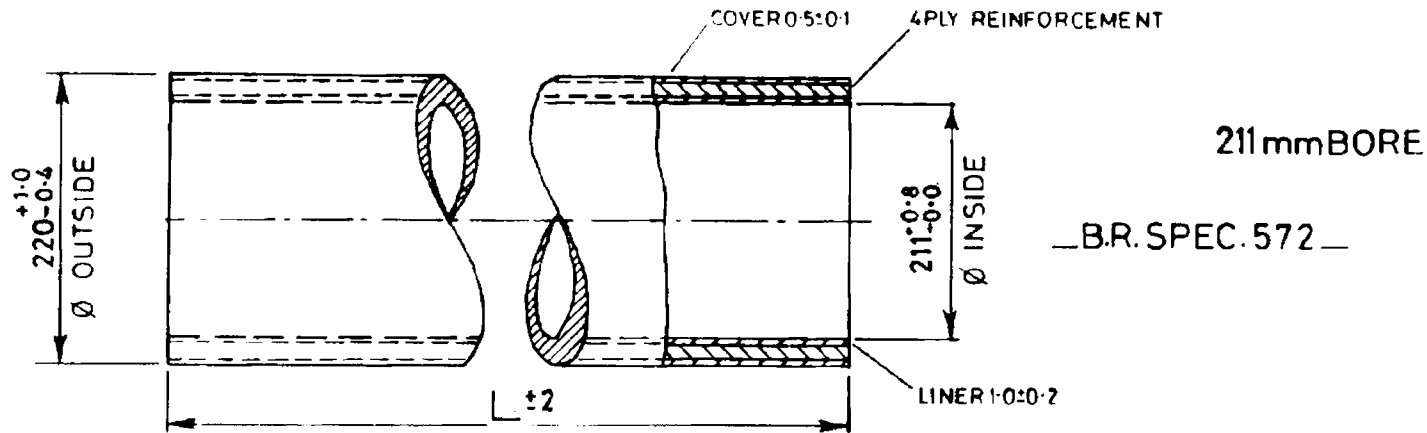
Scale: A B

Drawing No. M-A3-9012383

Drawn Traced Checked Date

P.S.G. 9/82

BR 886/13



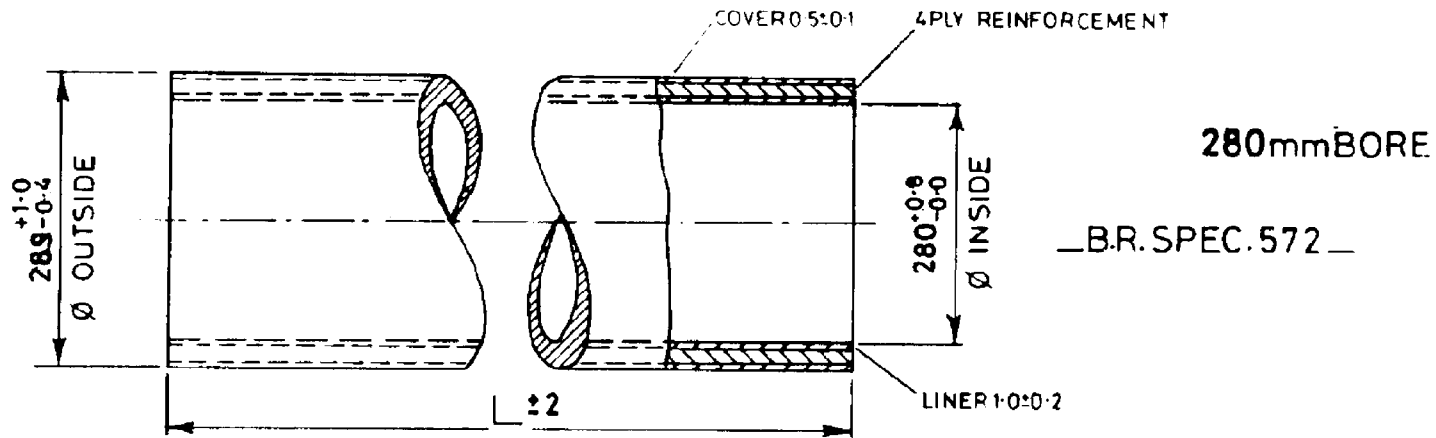
ISSUE LETTER A B	ALTERATION			DATE
	FIRST ISSUE	MFD		
% TOL WAS ±0.5. TOL ±2 ADDED TO DIM'L. EDS 2111.				CT 6.1. 9/82

ITEM No.	DIMENSION Lmm	BR.CAT. No.	REMARKS	VEHICLE / CLASS
01	115	10/144167		56.

SILICONE RUBBER HOSE TYPE 'A'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
 STANDARDS & RATIONALIZATION
 DERBY

Scale	A	B		
Drawing No.				
M-A3-9012384				
Drawn	Traced	Checked	Date	
P.S.G.			9/82	



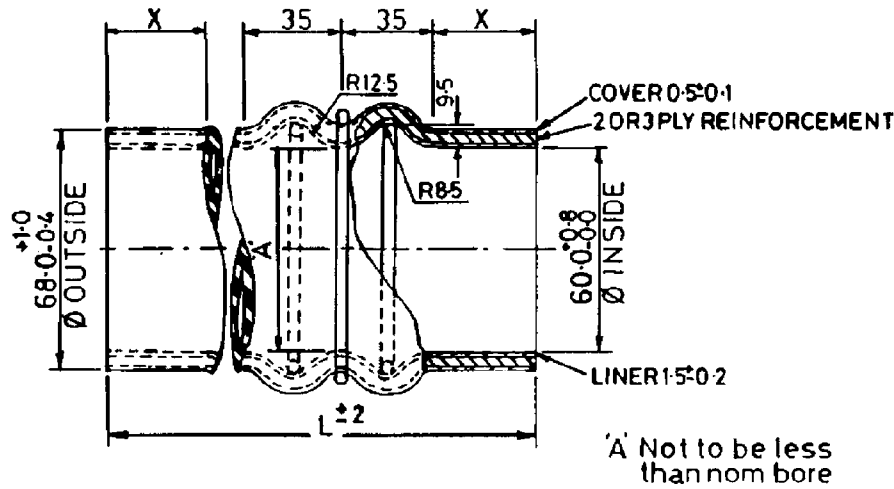
ITEM No.	DIMENSION Lmm	BR.CAT. No.	REMARKS	VEHICLE / CLASS
01	70	10/144146		56,
02	90	10/144147		56,
03	150	10/144148		56,

ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	FIRST ISSUE	MFD	1/82
B	±0 TOL WAS ±0.5. TOL ±2 ADDED TO DIM 'L'. EDS 2111	CP	6.1.82

SILICONE RUBBER HOSE TYPE 'A'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
 BRITISH RAILWAYS BOARD
 STANDARDS & RATIONALIZATION
 DERBY

Scale	A	B		
Drawing No.				
M-A3-9012387				
Drawn	Traced	Checked	Date	
P.S.G.			9/82	



60.0 mm BORE
BR. SPEC. 571

ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	FIRST ISSUE	<i>WFD</i>	
B	WIRE REINFORCEMENT ALTERED	<i>WFD</i>	
C	POSITION OF DIMN. 'A' CLARIFIED		
D	9/8 TOL WAS ±0.4. TOL ±2 ADDED TO DIMN. 'L'. EDS 2111	<i>GP</i>	7. <i>1982</i>

ITEM No.	DIMENSION		B.R.CAT. No.	REMARKS	VEHICLE / CLASS
	Lmm	X mm			
01	230	50	10/144010		47,

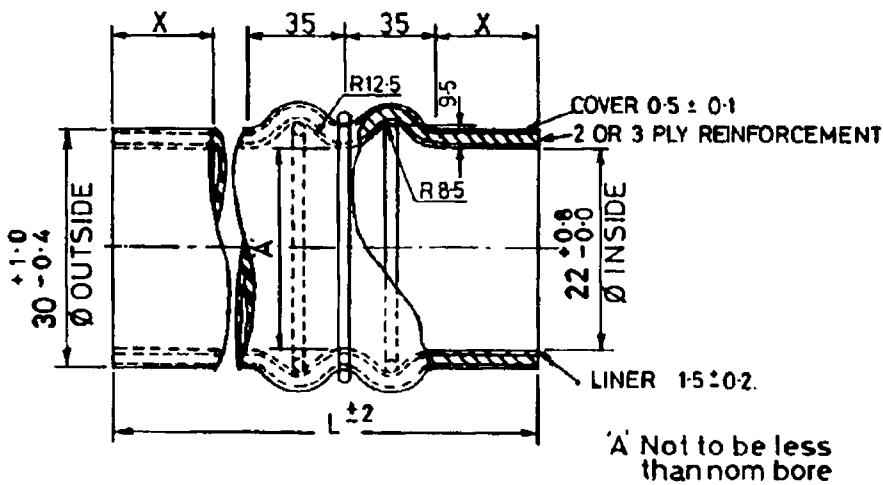
SILICONE RUBBER HOSE TYPE 'C'

DIRECTOR OF MECHANICAL & ELECTRICAL ENGINEERING
BRITISH RAILWAYS BOARD
DESIGN SUPPORT-GENERAL
DERBY

Scale A B C D

Drawing No. M-A3-9010245

Drawn	Traced	Checked	Date
PSG	—	<i>WFD</i>	9/82



22 mm BORE

BR.SPEC.571

WIRE REINFORCEMENT 122 DIA
TO BS 3592; PART 1; TABLE 1.

ISSUE LETTER	ALTERATION	DIMAS INITIALS	DATE
A	FIRST ISSUE	MFB	13.2.84
B	WIRE REINFORCEMENT ALTERED	MFB	17.2.84
C	POSITION OF DIMN. 'A' CLARIFIED	MFB	2.91
D	90 TOL WAS ±0.4. TOL ±2 ADDED TO DIMM 'L'. EDS 2111	MFB	19.7.84

ITEM No.	DIMENSION		B.R.CAT. No.	REMARKS	VEHICLE / CLASS
	Lmm	X mm			
01	210	30	10/144005		D.M.U.

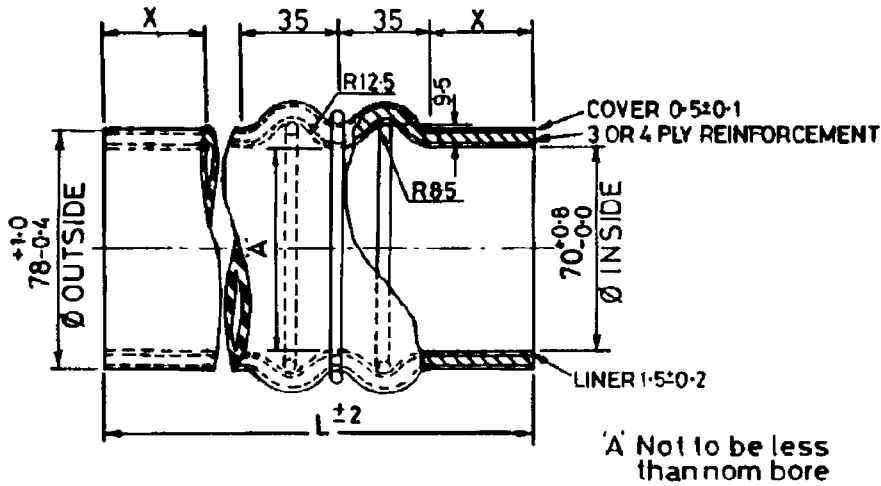
SILICONE RUBBER HOSE TYPE 'C'

DIRECTOR OF MECHANICAL & ELECTRICAL ENGINEERING
BRITISH RAILWAYS BOARD
DESIGN SUPPORT-GENERAL
DERBY

Scale _____ A B C D

Drawing No.
M-A3-9025958.

Drawn M.J.G. **Traced** — **Checked** MFB **Date** 27.2.84



BR.SPEC.571

**WIRE REINFORCEMENT 2.3 DIA
TO BS 3592 PART 1 TABLE 1**

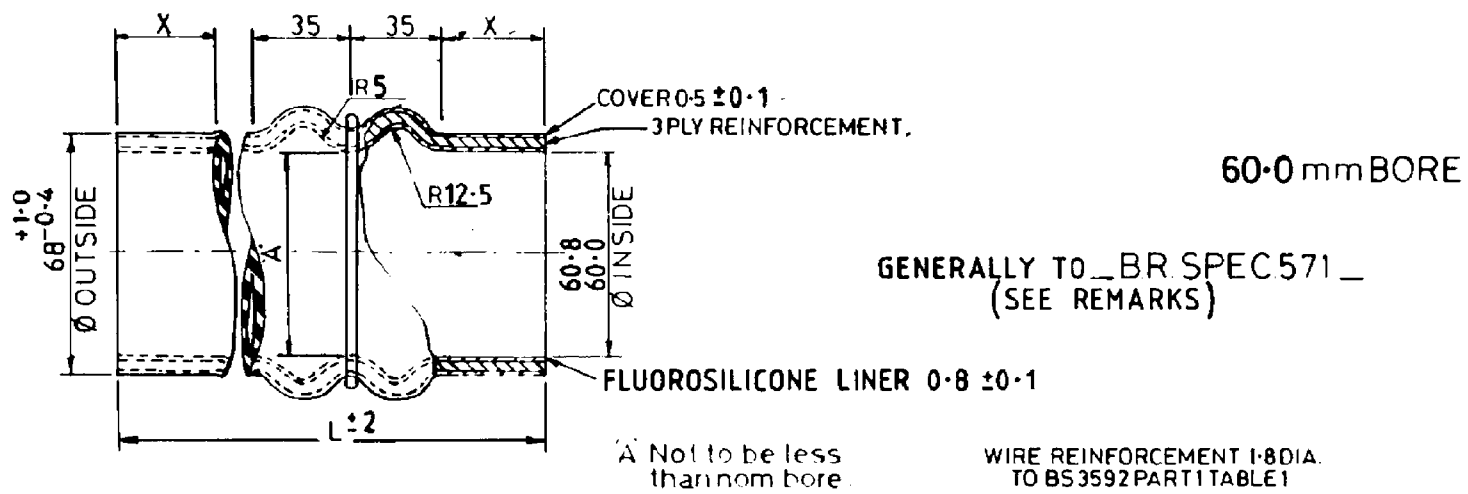
ISSUE LETTER	ALTERATION	INITIALS	DATE
A	FIRST ISSUE	[Signature]	
B	WIRE REINFORCEMENT ALTERED	[Signature]	
C	POSITION OF DIMN. 'A' CLARIFIED	[Signature]	
D	%D TOL WAS ±0.4. TOL ±2 ADDED TO DIM 'L'. EDS 2111	[Signature]	

ITEM No.	DIMENSION		B.R.CAT. No.	REMARKS	VEHICLE / CLASS
	Lmm	X mm			
01	230	50	10/144035		45,46,

SILICONE RUBBER HOSE TYPE 'C'

DIRECTOR OF MECHANICAL & ELECTRICAL ENGINEERING
BRITISH RAILWAYS BOARD
DESIGN SUPPORT-GENERAL
DERBY

Scale	_____	A	B	C	D
Drawing No.	M-A3-9010246				
Drawn	Traced	Checked	Date		
P.S.G.		M/	9/82		



ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	FIRST ISSUE		
B	POSITION OF DIMN. 'A' CLARIFIED	M.V.	12/9/89
C	TOL ± 5% ADDED TO HOSE % TOL ± 2 ADDED TO DIM 'L'. - EDS 2111	M.V.	12/9/89

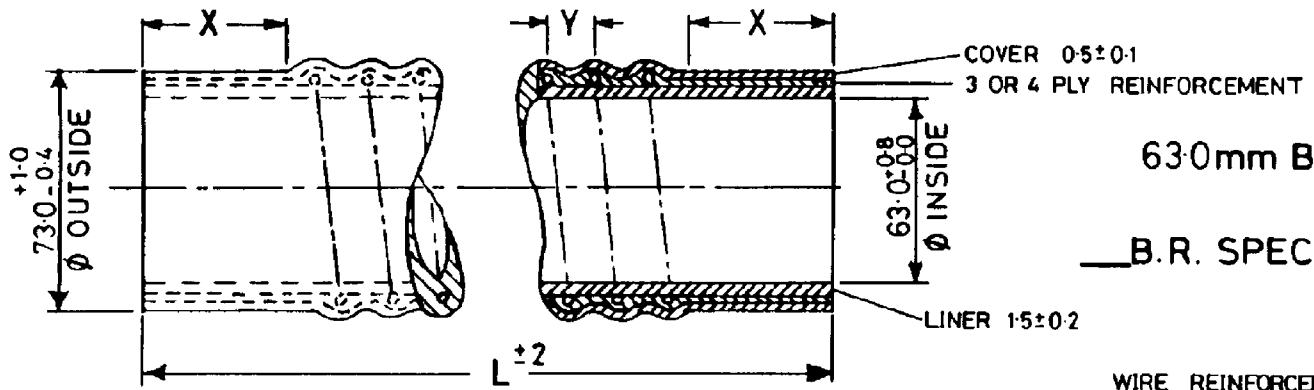
ITEM No.	DIMENSION		BR CAT No	REMARKS	VEHICLE / CLASS
	L mm	X mm			
01	305	75	10 / 144012	MINIMUM WORKING PRESSURE 4 BAR	31

SILICONE RUBBER HOSE TYPE 'C'

DIRECTOR OF MECHANICAL & ELECTRICAL ENGINEERING
 BRITISH RAILWAYS BOARD
 DESIGN SUPPORT-GENERAL
 DERBY

Scale		A	B	C	
Drawing No.	M-A3-9039019				
Drawn	M.G.V.	Traced		Checked	Date
					9/89

BR 999 117



63.0mm BORE

 B.R. SPEC. 571

WIRE REINFORCEMENT 1.8 DIA
TO BS 3592 PART 1 TABLE 1

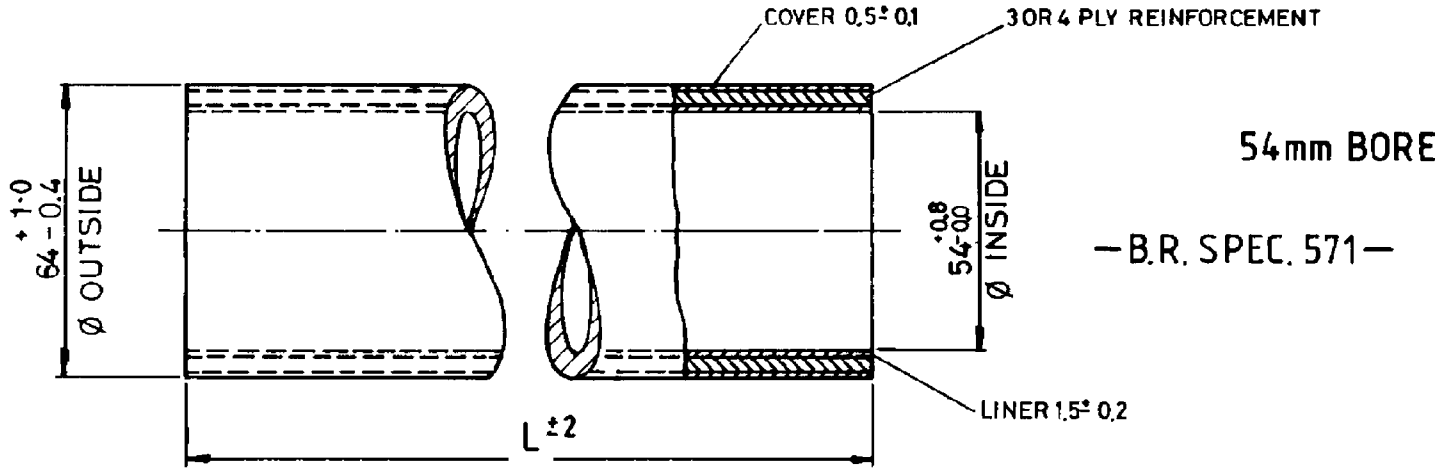
ALTERATION				ISSUE LETTER	DATE
A	FIRST ISSUE				
B	%B TOL WAS ±0.4 TOL ±2 ADDED TO DIM 'L' EDS 2111				

ITEM No.	DIMENSION			B.R. CATALOGUE NUMBER 10/	REMARKS	VEHICLE / CLASS
	L mm	X mm	Y mm			
01	220	50	95±1.6	10/144020		DMU

SILICONE RUBBER HOSE TYPE 'B'

CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD
STANDARDS & RATIONALIZATION
DERBY.

Scale		A	B			
Drawing No	M-A3-9010241					
Drawn	Traced	Checked	Date			
IR.			8/83			



ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	FIRST ISSUE	R.A.	1/00
B	ITEM 03 ADDED	M.F.	12/89
C	ITEM 04 ADDED	M.V.	2/91
D	%D TOL WAS ±0.4. TOL ±2 ADDED TO DIM ⁿ 'L'. EDS 2111	CY G.P.	4/93

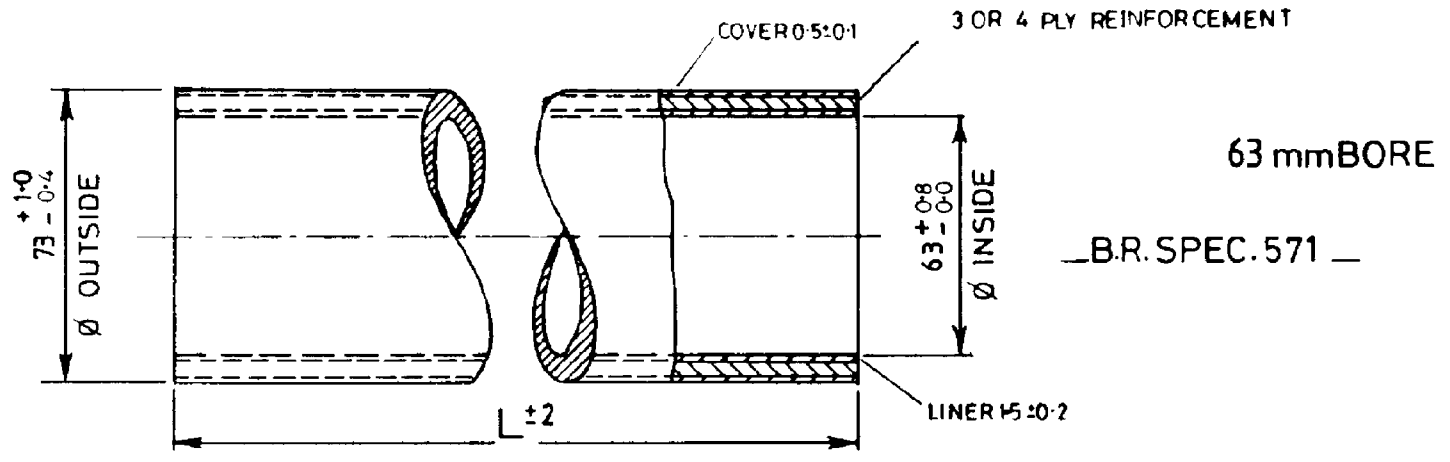
ITEM No.	DIMENSION L mm	B.R. CAT. No.	REMARKS	VEHICLE/CLASS
01	210	10/19019		TRV
02	110	10/19021		TRV
03	400	10/19029		150 / 1
04	600	10/19103		108

THIS DRAWING SUPERSEDES DRAWING No. M-A3-8800025.

SILICONE RUBBER HOSE TYPE 'A'

DIRECTOR OF MECHANICAL & ELECTRICAL ENGINEERING, BRITISH RAILWAYS BOARD, DESIGN SUPPORT-GENERAL DERBY.

Scale	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D			
Drawing No.	M-A3-9029392			
Drawn	Traced	Checked	Date	
R. El...		M...		



REV. LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	FIRST ISSUE		
B	%D TOL WAS ±0.4. TOL ±2 ADDED TO DIM. 'L'. EDS 2111	OT M.P.	

ITEM No.	DIMENSION Lmm	BRCAT. No.	REMARKS	VEHICLE /CLASS
01	600	10 / 19141.		115

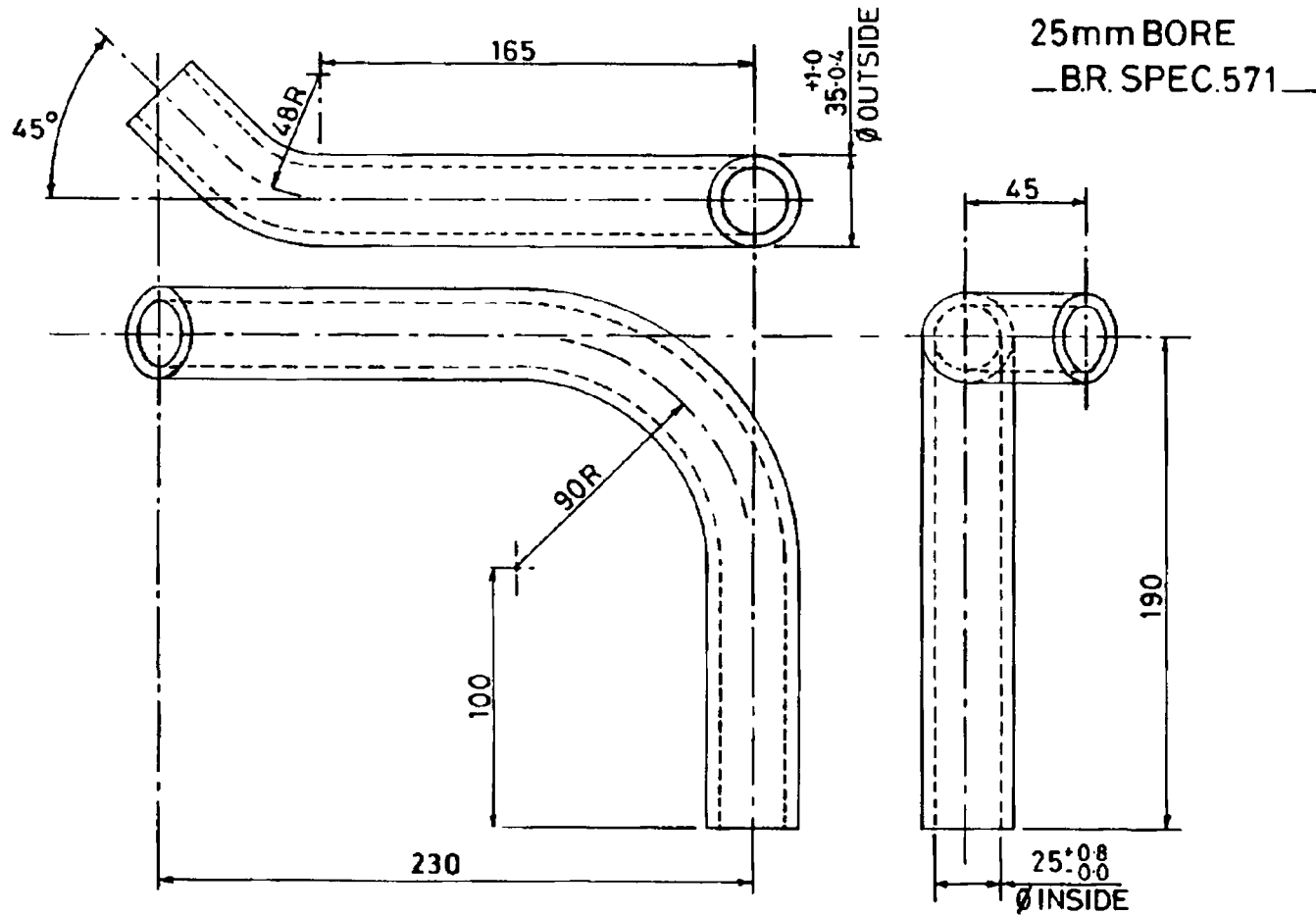
SILICONE RUBBER HOSE TYPE 'A'

DIRECTOR OF MECHANICAL & ELECTRICAL ENGINEERING,
BRITISH RAILWAYS BOARD,
DESIGN SUPPORT-GENERAL,
DERBY.

Scale A B

Drawing No. M-A3-9039169

Drawn	Traced	Checked	Date
JCB			



NOTE 1
THE TOLERANCE ON DIMENSIONS FOR WHICH NO
LIMITS ARE GIVEN SHALL BE ± 2 .

ISSUE LETTER	ALTERATION	DRAWN'S INITIALS	DATE
A	FIRST ISSUE		
B	DIM. 230 WAS 225		
C	% TOL WAS ± 0.4 . NOTE 1 ADDED. EDS 2111		

SILICONE
RUBBER HOSE
TYPE 'D'

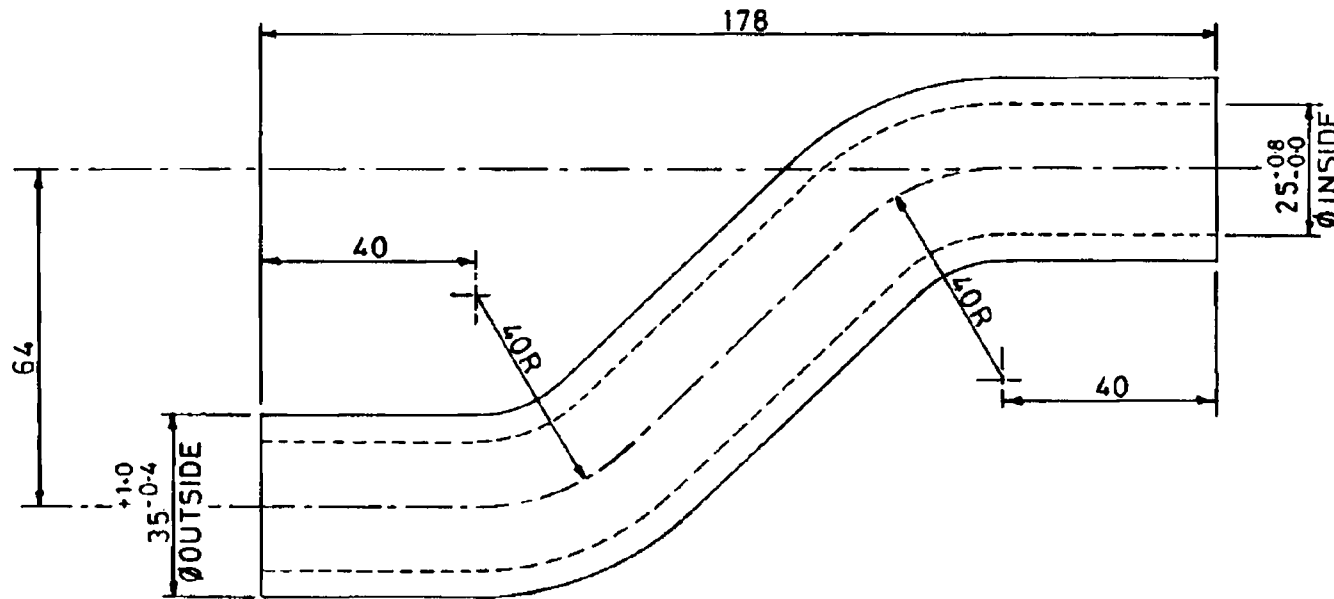
**CHIEF MECHANICAL &
ELECTRICAL ENGINEER**
BRITISH RAILWAYS BOARD
STANDARDS & RATIONALIZATION
DERBY

Scale	1:2	A	B	C		
Drawing No.	M-A3-9016297					
Drawn	Traced	Checked	Date			
P.S.G.	—		12/82			

ITEM No.	BR. CAT. No.	REMARKS	VEHICLE / CLASS
01	10/144190		DMU.

COMPOUND BEND

25mm BORE
 —BR. SPEC.571—



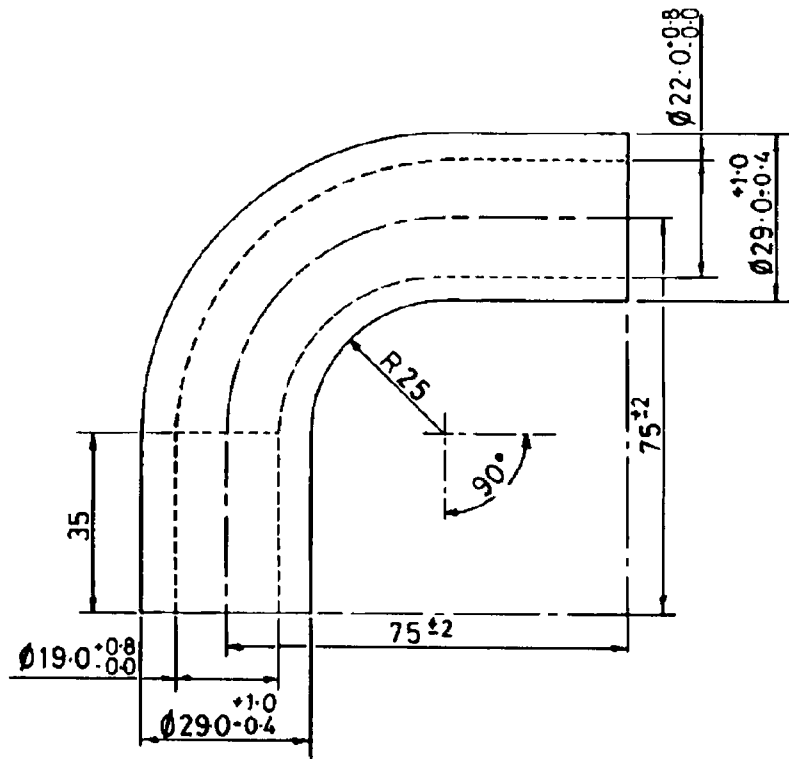
NOTE. 1
 THE TOLERANCE ON DIMENSIONS FOR WHICH
 NO LIMITS ARE GIVEN SHALL BE ± 2 .

ISSUE LETTER	ALTERATION	DRAWN INITIALS	DATE
A	FIRST ISSUE	MFD	
B	Ø/D TOL WAS ± 0.4 . NOTE 1 ADDED. EDS 2111	CT. f. e. MFD	12/82

SILICONE RUBBER HOSE TYPE 'D'			
CHIEF MECHANICAL & ELECTRICAL ENGINEER BRITISH RAILWAYS BOARD STANDARDS & RATIONALIZATION DERBY			
Scale	1:1	A	B
Drawing No.	M-A3-9016296		
Drawn	Traced	Checked	Date
P.S.G.	—		12/82

ITEM No.	BR.CAT. No.	REMARKS	VEHICLE / CLASS
01	10/14.4185		DMU.

COMPOUND BEND



22mm BORE
 REDUCING TO
 19mm BORE
 BR SPEC. 571

ISSUE LETTER	ALTERATION	DRAWN INITIALS	DATE
A	FIRST ISSUE	P.S.G.	2/83
B	ITEM 01 CLASS 150 ADDED	I.R.	9/83
C	ØD TOL WAS ±0.4. TOL ±2 ADDED TO DIM# 75 EDS 2111	C.T. G.P.	4. 2/83

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SILICONE
 RUBBER HOSE
 TYPE 'D'

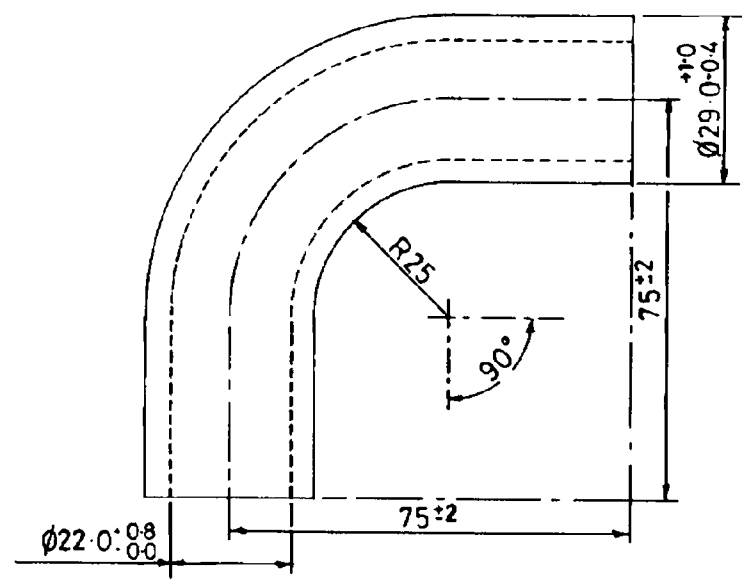
CHIEF MECHANICAL &
 ELECTRICAL ENGINEER
 BRITISH RAILWAYS BOARD
 STANDARDS & RATIONALIZATION
 DERBY

ITEM No.	BR. CAT. No.	REMARKS	VEHICLE / CLASS
01	10/144195		DMU. 150

ELBOW

Scale	1:1	A	B	C	
Drawing No.	M-A3-9020634				
Drawn	Traced	Checked	Date		
P.S.G.	—		2/83		

22mm BORE
 BR.SPEC. 571



ISSUE LETTER	ALTERATION	DMU'S INITIALS	DATE
A	FIRST ISSUE		
B	ØD TOL WAS ±0.4. TOL ±2 ADDED TO DIMS 75 EDS 2111	CT G.P. 93	11/1/93

MFD

SILICONE
 RUBBER HOSE
 TYPE 'D'

CHIEF MECHANICAL &
 ELECTRICAL ENGINEER
 BRITISH RAILWAYS BOARD
 STANDARDS & RATIONALIZATION
 DERBY

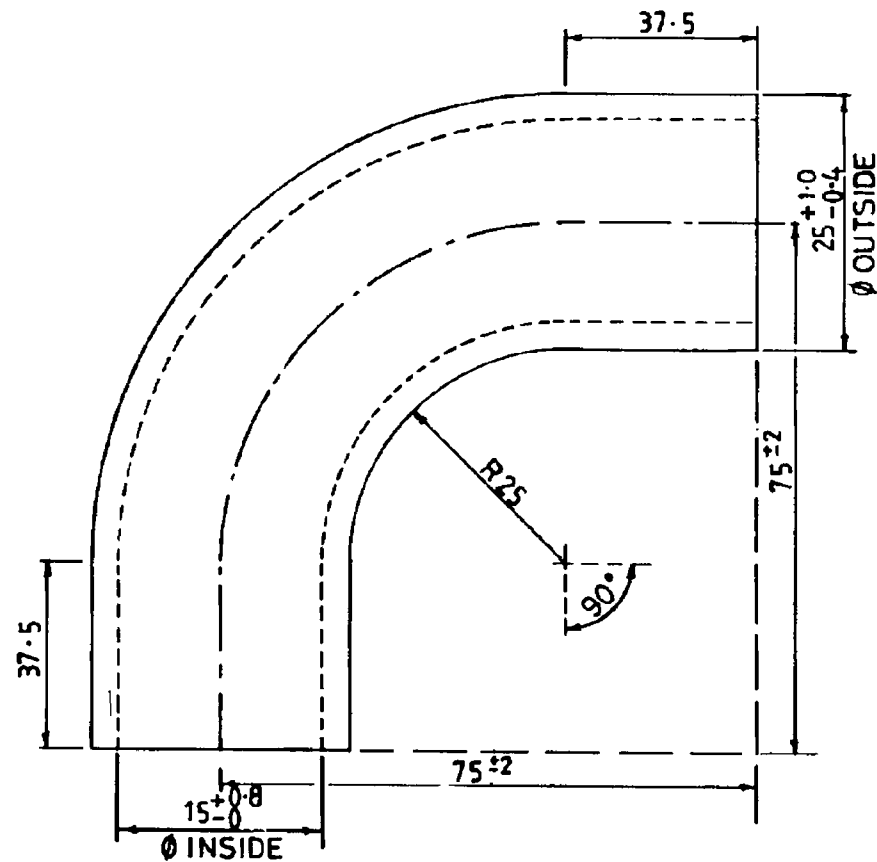
ITEM No.	BR. CAT. No.	REMARKS	VEHICLE/CLASS
01	10/144194		DMU

ELBOW

Scale	1:1	A	B		
Drawing No.	M-A3-9020633				
Drawn	Traced	Checked	Date		
P.S.G.	—		3/83		

MFD

15 mm BORE
 — B.R. SPEC. 571



REV. LETTER	ALTERATION	DRW'G'S INITIALS	DATE
A	FIRST ISSUE		
B	% TOL WAS ±0.4. TOL ±2 ADDED TO DIM ^s 75. EDS.2111.	CT 5. G.P. 2. D.Y. 8-95	

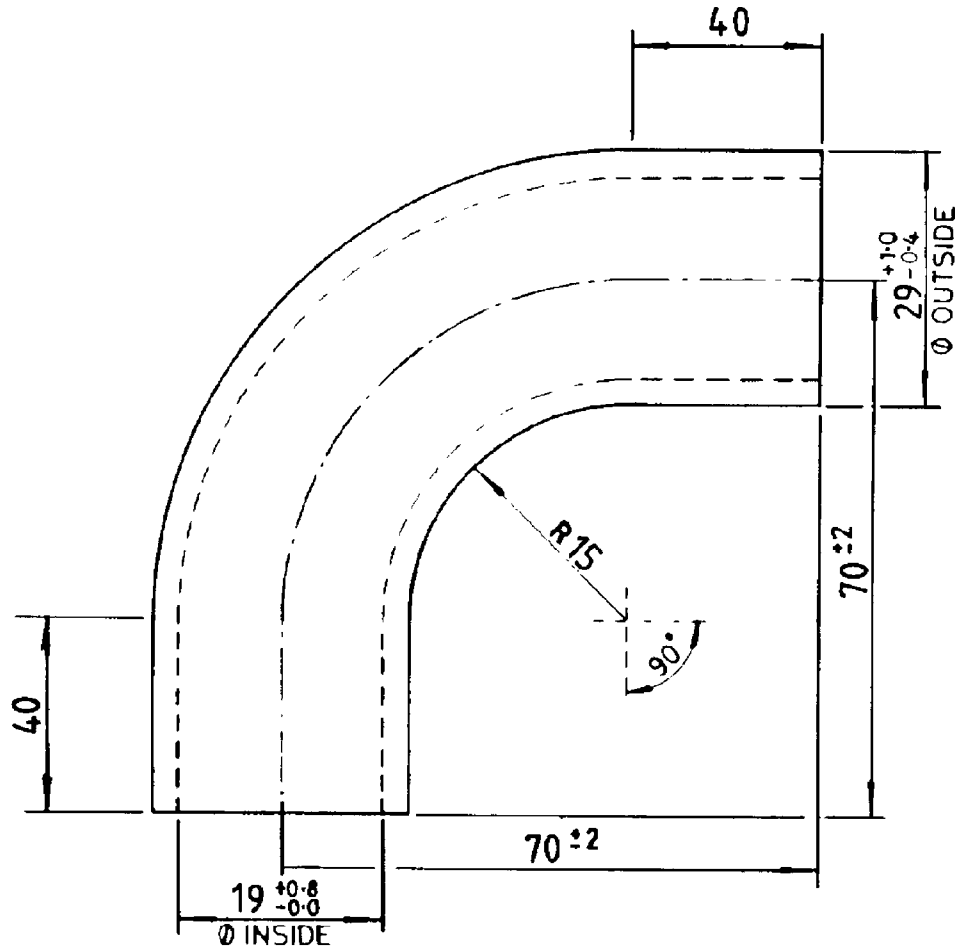
SILICONE
 RUBBER HOSE
 TYPE 'D'

**CHIEF MECHANICAL &
 ELECTRICAL ENGINEER**
BRITISH RAILWAYS BOARD
 STANDARDS & RATIONALIZATION
 DERBY

ITEM No.	B.R. CATALOGUE NUMBER 10/	REMARKS	VEHICLE / CLASS
01	19037		150 / 2
			ELBOW

Scale 1:1	A	B		
Drawing No. M-A3-9039093				
Drawn M.G.V.	Traced	Checked	Date	
			DEC 89	

19 mm BORE
 B.R. SPEC. 571



REVISION LETTER	ALTERATION	DATE
A	FIRST ISSUE	
B	Ø TOL. WAS ±0.4. TOL ±2 ADDED TO DIM. 70. EDS 2111	10/2/89

SILICONE
 RUBBER HOSE
 TYPE 'D'

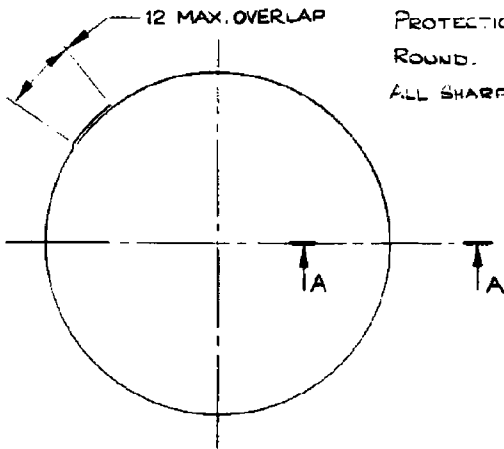
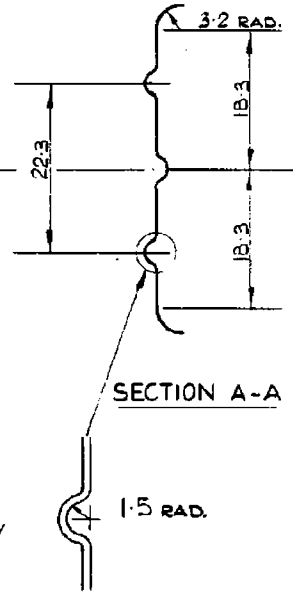
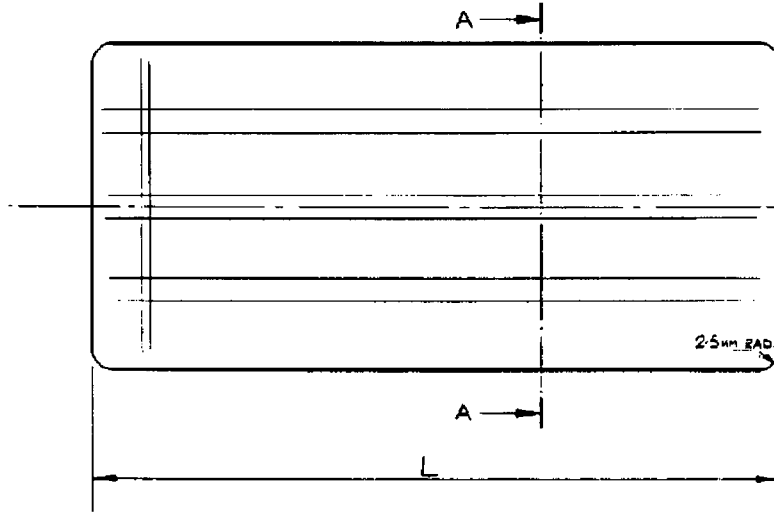
CHIEF MECHANICAL &
 ELECTRICAL ENGINEER
 BRITISH RAILWAYS BOARD

ITEM No	BR CATALOGUE NUMBER	REMARKS	VEHICLE / CLASS
01	10 / 19034		144

Scale	—	A	B		
Drawing No.	M-A3-9039066				
Drawn	MGV	Traced	Checked	Date	NOV 89

ELBOW

MATERIAL TABLE			
HOSE BORE	BAND TH'KNSS	SPECIFICATION	BR CAT No. 12/
0-38	0-30	TIN PLATE TO BS 2920 (1973) COATING E11.2/11.2	159702
38-95	0-43	TIN PLATE TO BS 2920 (1973) COATING E11.2/11.2	159722



PROTECTION BAND TO BE FORMED PERFECTLY ROUND.
ALL SHARP CORNERS & EDGES TO BE REMOVED.

ITEM	L MM	HOSE BORE DIA	ITEM	L MM	HOSE BORE DIA
01	163	38	09	342	95
02	185	45	10	112	22
03	200	50	11	213	54
04	222	57	12	175	42
05	232	60	13	316	87
06	263	70	14	—	—
07	279	75	15	148	32
08	326	90	16	254	67
17	129	27	18	196	48.5

ISSUE	GRID REF	ALTERATION	DATE
A		FIRST ISSUE	MFD MAR 85
B		THICKNESS ALTERED FOR SMALLER BORE SIZES INFORMATION TABULATED	JUNE 85
C		DIMENSION TABLE AMENDED THUS:- ITEM 1 'L' WAS 172, ITEM 2 'L' WAS 195, " 3 " " 212, " 4 " " 235, " 5 " " 235, " 6 " " 272, " 7 " " 290, " 8 " " 330, " 9 " " 345, " 10 " " 104, " 11 " " 210, " 12 " " 165, " 13 " " 62, HOSE BORE WAS 8; " 14 " " 312 " " 87. CAT. N°S. ADDED	DEC 85
D		DELETION OF ITEM 14 CONFIRMED	FEB 86
E		ITEM 15 ADDED	MFD FEB 88
F		ITEMS 16, 17 & 18 ADDED	APRIL 90
G		SECTION A-A IDENTIFIED	APR 92

18	880/001018
17	880/001017
16	880/001016
15	880/001015
13	880/001013
12	880/001012
11	880/001011
10	880/001010
09	880/001009
08	880/001008
07	880/001007
06	880/001006
05	880/001005
04	880/001004
03	880/001003
02	880/001002
01	880/001001

HOSE PROTECTION BAND(DOUBLE) SEE TABLE.

PER ASSY REF DESCRIPTION CAT PART NO. VARS SPEC N. WT kg

QUANTITIES

CHIEF MECHANICAL & ELECTRICAL ENGINEER
BRITISH RAILWAYS BOARD

G	PGK	Inst	JK
F	V.B	Inst	
E	V.B		
D	REL		
C	REL		
B	J.R.		
A	REL		

DATE ORDER

DOUBLE PROTECTION BAND FOR USE WITH SILICONE RUBBER HOSES. REF. ENG. INST. G.83.

DRAWING No. M-A2-8800010

SCALE 2:1

UNLESS OTHERWISE STATED DIMENSIONS GIVEN TO TOP BETWEEN SURFACES FOR WHICH NO LIMITS ARE GIVEN SHALL BE WITHIN THE TOLERANCES GIVEN BELOW.

NOMINAL SIZE	UP TO	OVER 30 TO 120	OVER 120 TO 400	OVER 400 TO 1000	OVER 1000 TO 2000	OVER 2000 TO 4000	OVER 4000 TO 8000	OVER 8000 TO 12000	OVER 12000 TO 16000	OVER 16000 TO 20000
MACHINED	±0.2	±0.5	±0.8	±1.2	±2	±3	±4	±5	±6	±7
FABRICATED	±1	±1.5	±2	±3	±4	±6	±8	±10	±12	±16

UNLESS OTHERWISE STATED WELDING TO BE IN ACCORDANCE WITH B.R. SPECIFICATION S22. PLATE PREPARATION-IF GAS CUT EXPOSED EDGES MARKED SHALL BE IN ACCORDANCE WITH ENGINEERING INSTRUCTION G.C.

GENERAL-TEMPORARY OR PERMANENT CONNECTIONS OR ATTACHMENTS OTHER THAN THOSE SHOWN ON THE DRAWING ARE NOT PERMITTED WITHOUT THE APPROVAL OF THE BRITISH RAILWAYS BOARD.
SHARP EDGES TO BE DEBURRED.
ALL DIMENSIONS ARE IN MILLIMETRES.
SCREW THREADS OF I.S.O. METRIC FORM TO BS 3643 PART 2 CLASS 6H/6g.
GENERAL DRAWING OFFICE PRACTICE TO B.S. 308.
SURFACE TEXTURE ON MACHINED SURFACES TO BE NOT COARSER THAN N8BS1134

THIS DRAWING IS CONFIDENTIAL AND THE PROPERTY OF THE BRITISH RAILWAYS BOARD. IT MUST NOT BE LOANED, COPIED OR USED FOR OTHER PURPOSES AND THE INFORMATION CONTAINED MUST NOT BE COMMUNICATED TO ANY PERSON OUTSIDE THE BRITISH RAILWAYS BOARD WITHOUT WRITTEN APPROVAL OF THE CHIEF MECHANICAL & ELECTRICAL ENGINEER BRITISH RAILWAYS BOARD, RAILWAY TECHNICAL CENTRE DERBY DE2 8UP.

PROJECTION



Engineering Data
Section

MAINTENANCE SUPPORT DOCUMENT

NON-METALLIC FLEXIBLE HOSES FOR USE ON T&RS

No:	MT 111
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REVISION:	A
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APPENDIX 1

INDEX OF HOSE DRAWINGS



Engineering Data
Section

MAINTENANCE SUPPORT DOCUMENT

NON-METALLIC FLEXIBLE HOSES FOR USE ON T&RS

No: MT 111
ISSUE: 6
REVISION: A
DATE: FEB 1993

Drawing Index Section A, Nitrile Hoses Types A, B, C, D & P.

Drawing No.	Issue	Drawing No.	Issue	Drawing No.	Issue	Drawing No.	Issue
M-A3-9024562	D	M-A3-9024576	H	M-A3-9024590	E	M-A3-9024604	D
M-A3-9024563	G	M-A3-9024577	B	M-A3-9024591	B	M-A3-9029154	A
M-A3-9024564	D	M-A3-9024578	J	M-A3-9024592	D	M-A3-9024605	D
M-A3-9024565	G	M-A3-9024579	L	M-A3-9024593	B	M-A3-9024606	B
M-A3-9024566	K	M-A3-9024580	N	M-A3-9024594	B	M-A3-9024607	C
M-A3-9024567	K	M-A3-9024581	K	M-A3-9024595	D	M-A3-9024608	E
M-A3-9024568	P	M-A3-9024582	S	M-A3-9024596	D	M-A3-9024609	C
M-A3-9024569	E	M-A3-9024583	M	M-A3-9024597	B	M-A3-9024610	F
M-A3-9024570	F	M-A3-9024584	C	M-A3-9024598	B	M-A3-9024611	B
M-A3-9024571	J	M-A3-9024585	M	M-A3-9024599	E	M-A3-9029155	A
M-A3-9024572	M	M-A3-9024586	G	M-A3-9024600	J	M-A3-9024612	D
M-A3-9024573	L	M-A3-9024587	P	M-A3-9024601	B	M-A3-9024613	A
M-A3-9024574	M	M-A3-9024588	G	M-A3-9024602	E	M-A3-9024614	B
M-A3-9024575	H	M-A3-9024589	N	M-A3-9024603	D	M-A3-9024615	B



Engineering Data
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MAINTENANCE SUPPORT DOCUMENT

NON-METALLIC FLEXIBLE HOSES FOR USE ON T&RS

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ISSUE: 6
REVISION: A
DATE: FEB 1993

Drawing Index Section A, Nitrile Hoses Types A, B, C, D & P.

Drawing No.	Issue	Drawing No.	Issue	Drawing No.	Issue	Drawing No.	Issue
M-A3-9024616	B						
M-A3-9024617	C						
M-A3-9024618	C						
M-A3-9024619	A						
M-A3-9024620	C						
M-A3-9024621	C						



Engineering Data
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MAINTENANCE SUPPORT DOCUMENT

NON-METALLIC FLEXIBLE HOSES FOR USE ON T&RS

No: MT 111
ISSUE: 6
REVISION: A
DATE: FEB 1993

Drawing Index Section B, Silicone Hoses Types A, B, C, D & P.

Drawing No.	Issue	Drawing No.	Issue	Drawing No.	Issue	Drawing No.	Issue
M-A3-9022957	D	M-A3-9010219	F	M-A3-9010228	D	M-A3-9012386	C
M-A3-9010214	C	M-A3-9029792	D	M-A3-9039169	B	M-A3-9012387	B
M-A3-9029050	C	M-A3-9010221	M	M-A3-9010235	D	M-A3-9010240	B
M-A3-9010215	F	M-A3-9039092	B	M-A3-9039182	B	M-A3-9010241	B
M-A3-9039167	B	M-A3-9039131	B	M-A3-9010229	B	M-A3-9025958	D
M-A3-9039091	B	M-A3-9010223	E	M-A3-9010230	D	M-A3-9010245	D
M-A3-9039166	B	M-A3-9039096	B	M-A3-9038917	B	M-A3-9039019	C
M-A3-9039130	B	M-A3-9039134	B	M-A3-9012379	D	M-A3-9010246	D
M-A3-9038878	B	M-A3-9029793	D	M-A3-9010232	C	M-A3-9010250	E
M-A3-9039065	B	M-A3-9010225	G	M-A3-9010234	B	M-A3-9039093	B
M-A3-9010216	E	M-A3-9039132	B	M-A3-9012380	B	M-A3-9039066	B
M-A3-9010217	E	M-A3-9029392	D	M-A3-9012382	B	M-A3-9020634	C
M-A3-9039180	B	M-A3-9029794	D	M-A3-9012383	B	M-A3-9020633	B
M-A3-9010218	B	M-A3-9010227	D	M-A3-9012384	B	M-A3-9016297	C



Engineering Data
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REVISION: A
DATE: FEB 1993

Drawing Index Section B, Silicone Hoses Types A, B, C, D & P.

Drawing No.	Issue	Drawing No.	Issue	Drawing No.	Issue	Drawing No.	Issue
M-A3-9016296	B	M-A3-9039074	B				
M-A3-9025406	B	M-A3-9039032	C				
M-A3-9029795	B						
M-A3-9029796	B						
M-A3-9038167	B						
M-A3-9021997	B						
M-A3-9039094	B						
M-A3-9022742	C						
M-A3-9024622	D						
M-A3-9039095	B						
M-A3-9022743	C						
M-A3-9039120	B						
M-A3-9039064	B						
M-A3-9029098	B						



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Drawing Index Section C, Airbrake Hoses.

Drawing No.	Issue	Drawing No.	Issue	Drawing No.	Issue	Drawing No.	Issue
M-A3-9001470	C						
M-A3-9001471	B						
M-A3-9001472	B						
M-A3-9001473	L						



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SECTION D

HOSE PROTECTION BANDS



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MAINTENANCE SUPPORT DOCUMENT

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Drawing Index Section D, Hose Protection Bands.

Drawing No.	Issue	Drawing No.	Issue	Drawing No.	Issue	Drawing No.	Issue
M-A2-8800009	H						
M-A2-8800010	G						



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SECTION E

STANDARD HOSE CLIPS



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METRIC JUBLIEE

Clips to BS5315 for hose in BR publication MT/111

WORKING RANGE		DESIGNATING SIZE	BR CAT No.	WORKING RANGE		DESIGNATING SIZE	BR CAT No.
MIN	MAX			MIN	MAX		
9.5	12	12	008/112951	70	90	90	008/112965
11	16	16	008/112952	85	100	100	008/112966
13	20	20	008/112953	90	120	120	008/112967
16	22	22	008/112954	120	140	140	008/112968
18	25	25	008/112955	130	150	150	008/112969
22	30	30	008/112956	135	165	165	008/112970
25	35	35	008/112957	160	190	190	008/112971
27	40	40	008/112958	185	215	215	008/112972
35	45	45	008/112959	205	240	240	008/112973
35	50	50	008/112960	235	270	270	008/112974
40	55	55	008/112961	255	290	290	008/112975
45	60	60	008/112962	285	320	320	008/112976
55	70	70	008/112963				
60	80	80	008/112964				



Engineering Data
Section

MAINTENANCE SUPPORT DOCUMENT

NON-METALLIC FLEXIBLE HOSES FOR USE ON T&RS

No: MT 111
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HI-TORQUE

Clips for hose in BR publication MT/111

WORKING RANGE		DESIGNATING SIZE	BR CAT No.	WORKING RANGE		DESIGNATING SIZE	BR CAT No.
MIN	MAX			MIN	MAX		
29.0	38.0	1.1/2	008/112871	197.0	216.0	8.1/2	008/112885
32.0	58.0	2	008/112872	210.0	229.0	9	008/112886
44.0	64.0	2.1/2	008/112873	222.0	241.0	9.1/2	008/112887
57.0	76.0	3	008/112874	235.0	254.0	10	008/112888
70.0	89.0	3.1/2	008/112875	248.0	267.0	10.1/2	008/112889
83.0	101.0	4	008/112876	260.0	279.0	11	008/112890
95.0	114.0	4.1/2	008/112877	273.0	292.0	11.1/2	008/112891
108.0	127.0	5	008/112878	286.0	305.0	12	008/112892
120.0	140.0	5.1/2	008/112879				
133.0	152.0	6	008/112880				
146.0	165.0	6.1/2	008/112881				
159.0	178.0	7	008/112882				
171.0	190.0	7.1/2	008/112883				
184.0	203.0	8	008/112884				