

INDIAN STANDARD  
SPECIFICATION NO. IND 1074279  
RENDERED  
Supersedes Prov Spec No. DMSRDL I&GS/2001/452  
Drawing Plate Attached: 01 Plates

*Sealed. vide  
DC No - 8490-TC  
dated 30.1.09*

GOVERNMENT OF INDIA  
MINISTRY OF DEFENCE  
DGQA ORGANISATION

SPECIFICATION  
FOR

# GAITERS GLACIER

(CAT No. - 8440-000518)

ISSUED BY

CONTROLLER  
CONTROLLERATE OF QUALITY ASSURANCE  
TEXTILES AND CLOTHING  
POST BOX NO 294  
KANPUR 208 004

PRICE : Rs. 245

YEAR : 2009

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*Issued to  
DA, ITBP Force,  
New Delhi  
18/4/17  
SCMC. CAT  
4*

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RECORD OF AMENDMENTS

AMENDMENT SI No.	DATE	DETAILS OF AMENDMENTS	AMENDMENT CARRIED OUT BY & DATE

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**0.0 FOREWORD**

0.1 This specification has been prepared by Controller, Controllerate of Quality Assurance (Textiles and Clothing), Post Box No. 294, Kanpur on behalf of the Director General of Quality Assurance, Ministry of Defence, New Delhi.

0.2 This specification supersedes provisional Specification No. DMSRDE/T&GS/2001/452.

0.3 This specification shall be used for tender enquiry procurement, manufacture and Q A of the item covered by this specification.

0.4 The Quality Assurance Authority for the store covered by this specification is the Controller, Controllerate of Quality Assurance (Textile & Clothing), P. B. No. 294, Kanpur 208001. Enquiries regarding this specification related to technical particulars shall be referred to the QA authority mentioned in the tender or contract.

0.5 Copies of any other reference document such as specification/Drawing/Instructions/guides can be obtained from AHSP or from respective agencies.

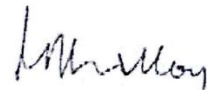
0.6 This is a restricted document and therefore should not be communicated to any one who is not authorised to receive it.

0.7 Any deviation from this specification will not be resorted to without the express written sanction of the Inspection Authority viz The Controller, Controllerate of Quality Assurance (Textile & Clothing), P. B. No. 294, Kanpur-268001 or his authorised representative.

0.8 The store must conform in all respects with this specification and other particulars issued with it.

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## 1.0 SCOPE

1.1 This specification covers the requirements of Gaiters Glacier against defence requirements and provides guidance to contractors/suppliers, manufacturers, QA agencies and indenters etc. The Gaiters Glacier is intended to be used by army personnel as a cover between trousers bottom and shoes mouth to provide complete protection against ingress of ice & water in glacier region

## 2.0 RELATED SPECIFICATIONS/REFERENCES

2.1 Reference is made in this Specification to:-

S.NO.	SPECIFICATION NO.	PARTICULARS
1.	Provisional specification No DMSRDE/T&GS/89/377(d)	Fabric Nylon, Polyurethane Coated, 250 GSM White
2.	IS: 9686-1980(reaffirmed 2002, Amdt-1)	Tape Elastic White
3.	IS: 14181-2002(Pt-1) (First revision, Amdt 2, 2008)	Plastic Slide Fasteners
4.	IS: 4229-1992 (Reaffirmed 2003, Amdt1)	Nylon Sewing Thread for Aerospace Purposes
5.	IS: 1912-84 (2 <sup>nd</sup> rev, Amdt-1, Reaffirmed 2001)	Jute Twine 3 Ply
6.	IS: 12734-2002	Textile Polypropylene Twine
7.	CQA(GS)/US/460	Boxes fibre board rigid corrugated
8.	CQA(GS)/US/434(a)	Polythene Bag
9.	JSS: 8046-6 & SS No. CIGS/SS/126(a)	Tape Adhesive Brown 50 mm
10.	JSS: 8135-10-2004	Polypropylene Strapping

2.2 Copies of IS specifications can be obtained on payment from Bureau of Indian Standards, 9 Bahadur Shah Jafar Marg, New Delhi or their regional offices.

2.3 Copies of CQA (GS) and CQA (T&C) specifications i.e. IND/GIS & IND/TC series can be obtained on payment from Controllerate of Quality Assurance (GS), Post Box No.127 and Controllerate of Quality Assurance (T&C), Post Box No. 294 Kanpur respectively.

2.4 Copies of DMSRDE Specifications may be obtained from The Director, DMSRDE, G.T.Road, Kanpur on payment.

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2.5 Copies of ISS specifications may be obtained from The Director, Directorate of Standardisation, Ministry of Defence, Standardisation Documentation Center, Room No. 13, J Block, DRHQ PO, New Delhi on payment.

**3.0 STANDARD PATTERN**

3.1 The standard pattern of Gaiters Glacier held in the custody of the Controller CQA (T&C), Kanpur shall constitute the standard as regards any particulars/properties not noted/defined in this specification

**4.0 MATERIAL**

4.1 The Gaiters Glacier shall be manufactured from the materials as per details given below.

COMPONENTS	MATERIALS	PARTICULARS
Body	Fabric Nylon Polyurethane Coated, 250 GSM white 100 cm wide	Provisional specification No.DMSRDE/T&GS/89/377(d) (variety No.3)
Top Band	Tape Elastic 50 mm wide, white	IS: 9686
Bottom Band	Tape Elastic 25 mm wide, white	-do-
Middle Band	Tape Elastic 15 mm wide, white	-do-
Plastic Slide Fastener	Plastic Slide Fastener 45 cm open end medium special duty flat autolock white	IS: 14181-2002(Pt-1) (First revision, Amd 2, 2008)
Metallic fitting & leather strip	Buckle, hook, strip and wire	As per Appendix 'A'
Sewing Thread	Nylon Sewing thread white	IS. 4229 (V No.L-2)

**5.0 MANUFACTURE / PROCESSING**

5.1 The Gaiters Glacier shall be manufactured in shape, design and construction for left and right legs in same fashion except reverse to each other as per details given below :-

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5.2 Polyurethane coated surface of the fabric shall be kept inward. The fabric shall be cut in two pieces of rectangular tapering shape. These two rectangular pieces of the fabric shall be joined together longitudinally by two rows of machine stitching, as shown in the drawing plate attached.

5.3 Tape elastic white 50 mm wide shall be joined at the top end of Gaiter initially by single row of machine stitching and then another row of stitching in turned body after stretching the tape elastic up to the width of Nylon fabric so that puckering is formed at the joins of tape elastic and Nylon fabric as shown in the plate attached.

5.4 Tape elastic white 15 mm wide shall be stitched in the middle portion of Gaiter at the height of 20 cm from bottom end by single row machine stitching to form puckering as shown in the plate attached.

5.5 Tape elastic white 25 mm wide shall be stitched at the bottom end of Gaiter by three rows machine stitching equispaced within the width of the tape to form puckering as shown in the plate attached.

5.6 Plastic slide fastener open end medium special duty flat autolock white 45 cm shall be stitched at both the ends of Gaiters longitudinally by two rows of machine stitching keeping retainer of zip towards bottom as shown in the plate attached.

5.7 Metallic fitting (Buckle, hook, strip and wire etc.) and leather strip shall be fitted at the bottom end of the Gaiters at appropriate places i.e. reverse in left and right leg as shown in the plate attached.

#### 6.0 DIMENSIONS & TOLERANCES

6.1 The Gaiters Glacier shall conform to the dimensions as given in the dimension chart, drawing plate attached & Appendix 'A' to this specification.

#### 7.0 WORKMANSHIP AND FINISH

7.1 In appearance, shade, general workmanship & finish and in all other respects not noted / defined in this specification, the Gaiters Glacier shall conform to the sealed pattern held in the custody of Controller CQA (T&C) Kanpur.

#### 8.0 MARKING

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8.1 The Gaiters Glacier shall be provided with bilingual printed size label made of cloth material symmetric white securely stitched on the top portion or the longitudinal seam at inner side, in a manner as to allow observe Hindi letters at top side and English at back side. The label shall be legibly marked with manufacturer's name, initial or recognized trade mark, nomenclature, DS Cat No. & year of manufacture of the store.

#### 9.0 PRE-INSPECTION OF SUPPLIES BY THE PRODUCER

9.1 Manufacturers/Contractors must satisfy themselves first by carrying out thorough pre-inspection of each lot/batch that the stores manufactured are in accordance with the contract and fully conform to the specification, before tendering to QA officer nominated under the terms of contract.

9.2 A declaration by the Contractor that necessary pre-inspection/tests have been carried out on the stores tendered and the same are fit for inspection and test shall be rendered along with the challan. The declaration shall include the method followed in pre-inspection showing features checked/tested and the test reports be submitted along with challan.

9.3 If the Quality Assurance officer finds that pre-inspection of the consignment as required above has not been properly carried out, the consignment is liable for rejection.

#### 10.0 QUALITY ASSURANCE

10.1 On examination of samples taken randomly as per sampling plan given at clause 11 shall show that the store should fully conforms to the requirement laid down in this specification. Bulk samples shall be forwarded to AHSP concerned from bulk supplies to check/monitor the quality whenever required.

10.2 Each pair of Gaiters Glacier as accepted shall be legibly and indelibly stamped near the size label with indelible ink using the authorized stamp as "Acceptance Mark".

#### 11.0 SAMPLING PROCEDURE

11.1 The maximum size of the lot is restricted to 10,000 Nos only.

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11.2 The supplier shall offer the store serially numbered and arranged in such a manner that the entire lot is easily accessible to the sampling officer.

11.3 Based on the lot size offered for Quality Assurance, sample units for visual examination and dimensional check at the time of sampling be drawn as per column (2) & Bulk Inspection as per column (4) of the table given below using technique of random sampling as per IS: 4905.

11.4 On having been satisfied with the preliminary examination, samples if required for laboratory test/examination shall be drawn as per column (5) & (7) of the table given below:

**TABLE FOR SCALE OF SAMPLING AND PERMISSIBLE NUMBER  
BASED ON 4% AQL ISO: 2859-1989**

Lots Size in Nos./ pairs	Sampling Plan for						
	Visual Examination/ dimensional check at the time of sampling		Sample Size for Details Check at Bulk QA stage	Physical Parameters (For laboratory tests)		Chemical Parameters (For laboratory tests)	
	Sample Size	Accept ance No.		Sample Size	Accept ance No.	Sample Size	Accept ance No.
1	2	3	4	5	6	7	8
Upto 280	13	1	32	13	1	3	0
281-500	20	2	50	13	1	5	0
501-1200	32	3	80	20	2	5	0
1201-3200	50	5	125	20	2	13	1
3201-10000	80	7	200	32	3	13	1

- Note:-** i) Sampling shall be done randomly as per IS: 4905.  
ii) Sample for lab testing will be drawn from the samples drawn and mentioned in column (2) only

**12.0 CRITERIA FOR CONFORMITY**

12.1 All the sample units drawn shall be tested/examined to the specification requirements. If all the sample units are found to conform to the requirements of this specification the lot shall be considered to be in conformity to the specification.

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13.0 TEST METHOD

13.1 The basic cloth and garment used shall conform to the specification requirements when tested as per method laid down in the relevant specification ensuring high degree of repeatability and reproducibility.

14.0 PACKAGING

14.1 Materials. The following materials shall be used for packaging of Gaiters Glacier.

S.No.	Materials	Specification
(i)	Boxes fibre board rigid corrugated	CQA(GS)/US-460
(ii)	Polythene Bag	CQA(GS)/US/434(a)
(iii)	Tape Adhesive Brown 50 mm	JSS: 8046-6 & SS No: CIGS/SS/126(a)
(iv)	Polypropylene Strapping 0.5 mm thick & 15 mm wide	JSS: 8135-10-2004
(v)	Jute Twine 3 Ply. Or Textile Polypropylene twine	IS: 1912-84 (V. No-2) Or IS : 12734 :2002

14.2 METHOD

14.2.1 The store shall be delivered/packed in new, dry and clean condition. Each pair of Gaiters shall be put in a polythene bag of suitable size. Five such packets shall then be made into unit pack (bundle) by suitably placing one over the other and then suitably tying them with three ply jute twine or textile polypropylene twine at two places maintaining the distance between two strings and edges not more than 25cm.

14.2.3 Suitable number of such unit packs shall be placed properly placed in Box fibre board rigid corrugated triple wall seven ply of size 700mm X 450mm X 450 mm to the specification No. CQA (GS)/US/460. The empty space if any left out in the box shall be filled with suitable cushioning material (not effecting the preservation of the store) to make the package compact. The gross weight of the package shall not exceed 40 kg. All joints of the box shall be properly closed with tape adhesive brown 50 mm. The boxes shall be bound with two bands of polypropylene strapping across width and two bands across length. Each polypropylene strapping shall be one complete piece and the ends shall be sealed with machine.

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### 14.3 MARKING OF PACKAGE

14.3.1 Before dispatch, each Box/package shall be legibly marked by stencil showing the following details:-

- i) Nomenclature and cat part No. of stores
- ii) Quantity packed in the package.
- iii) Month and year of packing.
- iv) Name or trade mark of manufacturer.
- v) Gross Mass of package in kg.
- vi) Serial No. of package.
- vii) Inspection Note No. and date.
- viii) AT / S.O. No. and date.
- ix) Name and address of the consignee.

### 15.0 TECHNICAL LITERATURE AND DOCUMENTS

15.1 Refer clause 2 of this Specification

### 16.0 ADVANCE SAMPLES

16.1 Manufacturers who have not supplied this store during the last three years have to submit advance samples manufactured from specified materials for inspection, testing, and trial/clearance by AHSP prior to commencement of bulk production. Number of samples required for material, dimensional check and test/proof shall be one or as laid down in the contract.

### 17.0 WARRANTY

17.1 Except as otherwise provided in the invitation to the tender, the Contractor/seller hereby declare that the goods, stores, articles sold/supplied to the purchaser under this contract shall be of the best quality and workmanship and new in all respects and shall be strictly in accordance with the specifications and particulars contained/mentioned in the contract.

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17.2. The Contractor/seller hereby guarantees that the said goods/stores/articles would continue to conform to the description and quality aforesaid for a period of 12 months from the date of delivery of the said goods/stores/articles to the purchaser or 15 months from the date of shipment/dispatch from the contractor's work, whichever is earlier and that notwithstanding the fact that the purchaser (inspector) may have inspected and/or approved the said goods/stores, articles, if during the aforesaid period of 12/15 months the said goods/stores/articles, be discovered not to be conform to the description and quality aforesaid or not having satisfactory performance or have deteriorated and the decision of the purchaser in that behalf shall be final and binding on the Contractor/seller to rectify/replace by acceptable goods/stores/articles or such portion or portions thereof as is found to be defective by the purchaser within a reasonable period not exceeding 3 months or as may be allowed by the purchaser in his discretions on the application made thereof by the Contractor/seller and in such an event the above mentioned warranty period shall apply to goods/stores/articles rectified/replaced from the date of rectification/replacement thereof, otherwise the Contractor/seller shall pay to the purchaser such compensation as determined by the purchaser as may arise by reason of the break of the Warranty herein contained".

18.0 DEFENCE STORE CATALOGUE No.

18.1 The store covered by this specification shall bear the following DS Cat. No.

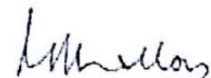
<u>Store</u>	<u>DS Cat Part NO.</u>
Gaiters Glacier	8440-000518

19.0 DRAWINGS/SKETCHES :-

19.1 Four drawing plates attached to this specification.

20.0 SUGGESTIONS FOR IMPROVEMENT

20.1 This specification is a live document and subject to change/up-dating. Any suggestions for improvement of this document may be sent to :-

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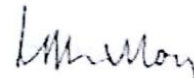
20.2 Communication: Communication regarding any suggestions for improvement of the said documents may be made to:

CONTROLLER  
CONTROLLERATE OF QUALITY ASSURANCE  
TEXTILES AND CLOTHING  
POST BOX No. 294  
KANPUR 208 001  
Tel. 0512-2324529  
Fax 0512-2324529  
e-mail- cqate@dataone.in

DATE:

CONTROLLER  
CONTROLLERATE OF QUALITY ASSURANCE  
TEXTILES AND CLOTHING  
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Appendix 'A'

METAL COMPONENTS OF GAITERS GLACIER

S. No.	Nomenclature	Qty per Set	Material & Governing specification
1.	Riveting Strip	6 Nos.	Stainless Steel Sheet 0.5 mm thick conforming to Grade X 07 Cr 18 Ni 9 of IS: 5522
2.	Buckle Steel with Loop 20 mm	2 Nos	
	a) Buckle		a) M.S. Sheets 2 mm thick Grade. ST-42-S of IS: 226. Buckle shall be nickel and Chromium plated conforming to service Grade No.4 classification No.S Ni 40 P Cr.r. of IS:1068
	b) Loop		b) M.S. Wire 2mm dia 1/2 Hard conforming to IS:280. Plating shall Conform as above
	c) Rivet		c) M.S. sheet 0.5 mm thick Grade ST-42-S of IS: 226. Plating shall conform as above.
3.	Hook Steel	2 Nos	M.S. sheet 1 mm thick Grade ST-42-S of IS: 226. Plating shall conform as above.
4.	Steel Wire Rope (Galvanized)	2 Pieces (160 mm length)	Galvanized steel wire rope 6x7 (6x1) construction having 2 mm dia conforming to IS: 3459
5.	Rivet steel 4mm (in two piece, male & female type)	10 Nos	Cold rolled mild steel sheet plating shall conform to service Grade 4 classification No.S Ni 40 p Cr.r of IS: 1068.
6.	Leather Strip 1.5 mm thick	2 Pieces (120mm)	Leather Chrome Tanned White Pigment finish
7.	Wire Rope Rod (to be soldered with steel wire rope)	2 Nos	M.S. wire 6 mm dia. Plating shall conform to service Grade No.4 classification No.S Ni 40 P Cr. r of IS: 1068.

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GAUTERS GLACIER

Size- Universal

Dimensions & tolerances

(all dimension are in cm)

	Overall length (open)	Width at top (open)	Width at centre (open)	Width at Bottom (open)	Length from centre to bottom	Length of steel wire rope	Overall length of Strap	Width at top (closed)	Width at Centre (closed)	Width at bottom (closed)
	43.0	25.0	30.0	35.0	20.0	16.0	12.0	12.5	15.0	17.5
Tolerances	± 0.5	± 0.5	± 0.5	± 0.5	± 0.5	± 0.5	± 0.5	± 0.5	± 0.5	± 0.5

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**GAITERS GLACIER**

**MATERIAL LIST**

M.TL. NO.	NOMENCLATURE
1	PLASTIC SLIDE FASTENER, MEDIUM SPECIAL DUTY, OPEN END, 45 CMS.
2	BUCKLE STEEL WITH LOOP 20 MM.
3	RIVETING STRIP
4	STEEL WIRE ROPE (GALVANIZED) 2 MM DIA.
5	HOOK STEEL
6	WIRE ROPE ROD
7	RIVET STEEL 4 MM (IN TWO PIECES MALE AND FEMALE TYPE)
8	TAPE ELASTIC 15 MM WHITE
9	TAPE ELASTIC 25 MM WHITE
10	TAPE ELASTIC 50 MM WHITE
11	LEATHER STRAP
12	FABRIC NYLON PU COATED 250 GSM

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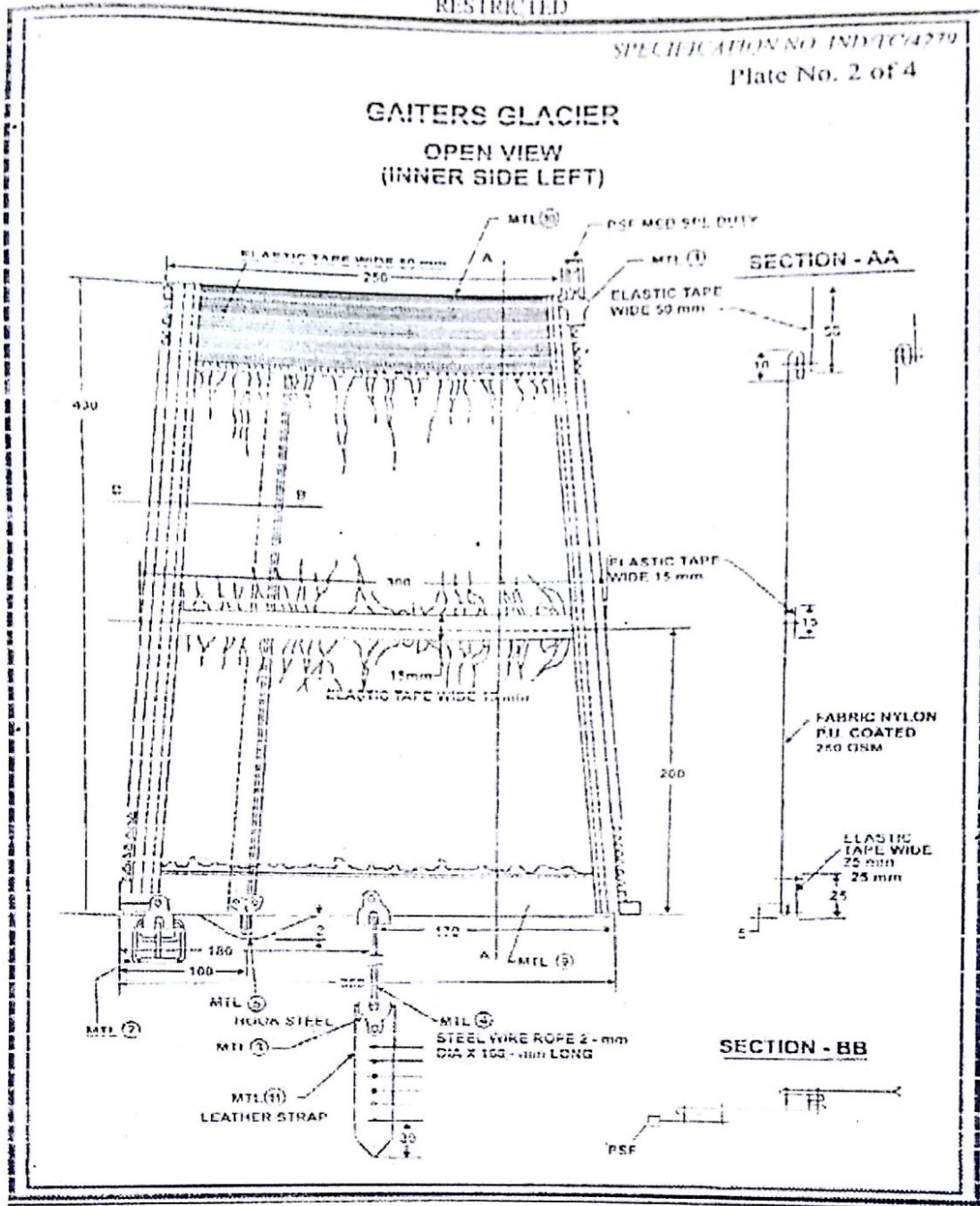
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Plate No. 2 of 4

### GAITERS GLACIER

OPEN VIEW  
(INNER SIDE LEFT)



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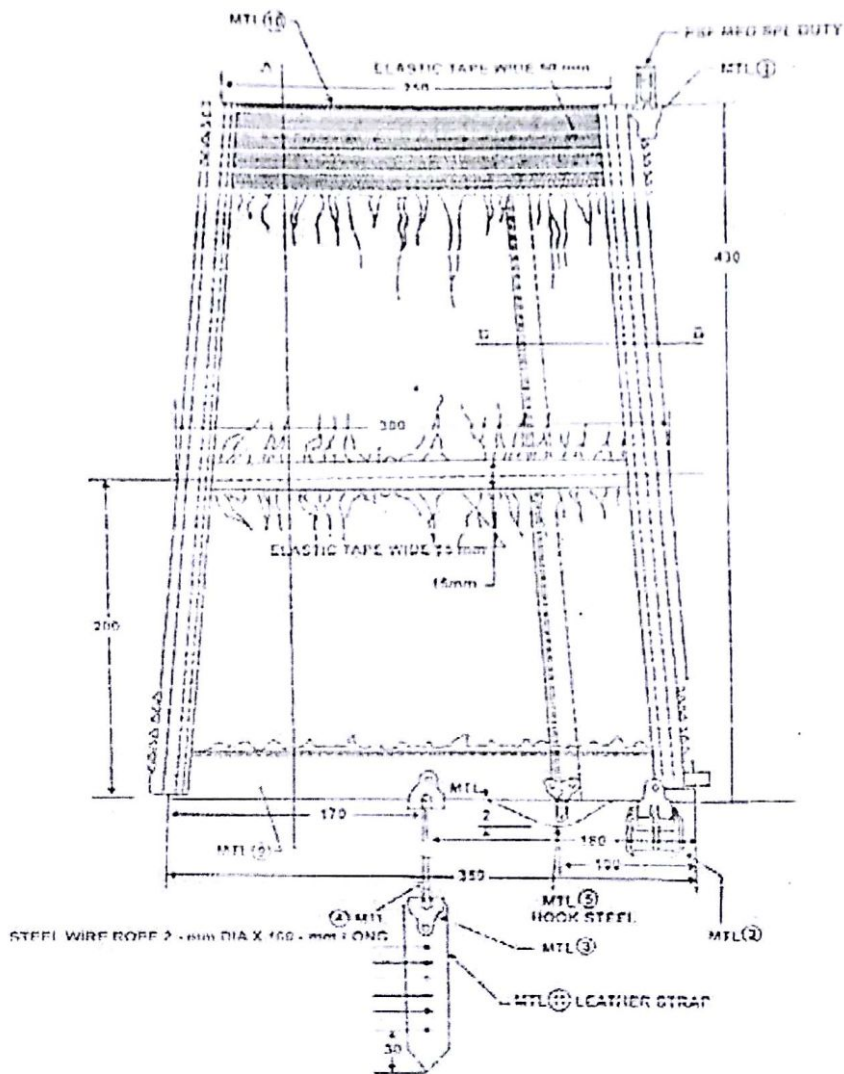
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DIRIG. NO. 3 OF 4

### GAITERS GLACIER

OPEN VIEW  
(INNER SIDE RIGHT)



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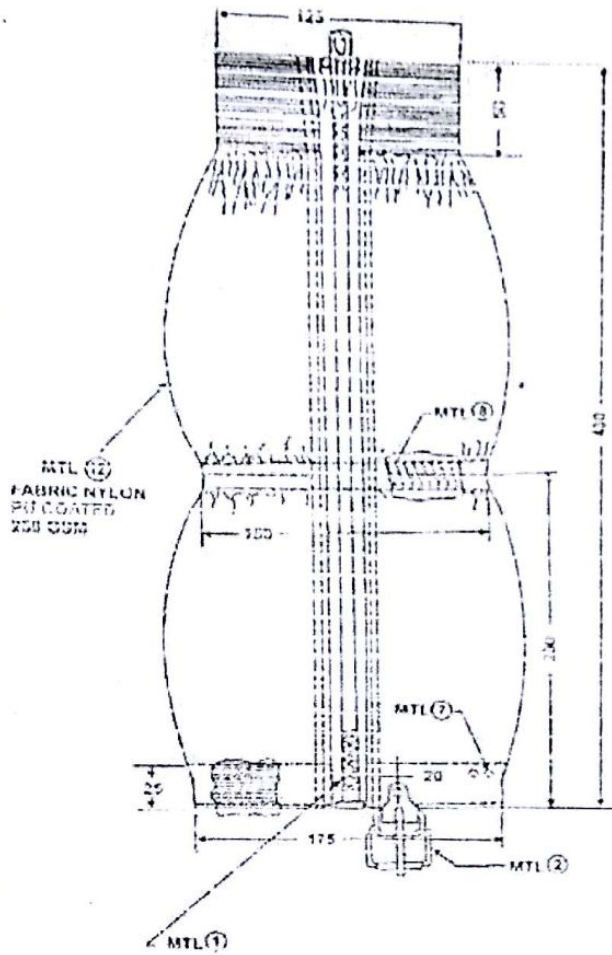
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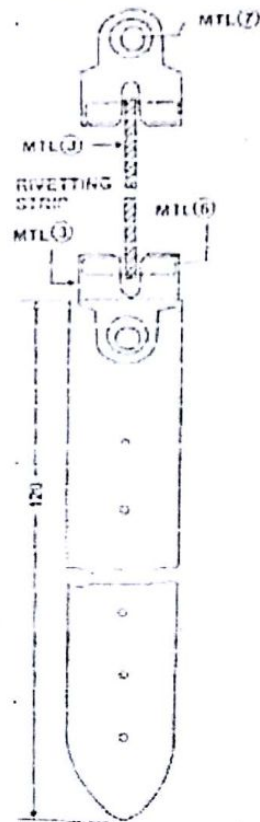
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### GAITERS GLACIER

#### CLOSED VIEW



#### DETAIL OF TYING STRIP



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