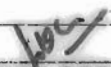

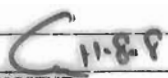
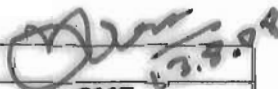


GOVERNMENT OF INDIA
(Ministry of Railways)

SPECIFICATION FOR
SAFETY FOOTWEAR
FOR PROFESSIONAL USE

Mechanical Drawing Office
RAIL WHEEL FACTORY
Yelahanka, Bangalore -560064
INDIA

Issued by
SSE/D

			
SAFETY OFFICER PROPOSED	AME/HQ 11/8/08 VERIFIED	CWE/P REVIEWED	CME APPROVED

SPECIFICATION FOR SAFETY FOOTWEAR FOR PROFESSIONAL USE.

1.0 Scope

The specification covers the supply of Leather Safety Footwear conforming to IS 15298(Part 2): 2002, and with the following requirements, for workers engaged in Rail Wheel Factory.

2.0 Design & Size

2.1 Design: Design B ankle boot .

2.2 Classification: Code1 (Table 1 of clause 4 of IS 15298 Part 2: 2002).

2.3 Size: Size shall be in accordance to UK standards.

2.4 Weight: Weight of the Boot per pair of size 8 shall be approximately 1500gms. Tenders shall indicate weights size wise in the offer.

3.0 Materials

3.1 Upper: Printed corrected grain leather black in colour and thickness of 2.0mm minimum (Clause 3.4.2 of IS 15298 Part1:2002).

3.2 Lining: Soft leather. Shall have breathe-ability and quick absorbent properties for added comfort.

3.3 Tongue: Full bellow of soft leather, without wrinkles and cuts or defects, to prevent entry of flying hot metal particles inside the footwear.

3.4 Collar: Soft leather sponged collar, for extra comfort and to prevent entry of hot metal particles inside the footwear.

3.5 Eyelets: Powder coated "D" type steel ring eyelets, riveted, four in number.

3.6 Laces: Black coloured flat Polypropylene laces of adequate length. Minimum breaking strength shall be 600 N. (Test method SATRA TM 94; 1993).

3.7 Thread: Synthetic/ Nylon threads for best stitching strength. Threads shall be acid, alkali and fire proof.

			
SAFETY OFFICER	AME/HQ 11/8/08	CWE/P	CME 12.8.08
PROPOSED	VERIFIED	REVIEWED	APPROVED

- 3.8 **Outsole:** Direct Injection Molded or Vulcanized solid Nitrile Rubber. Shall be anti-slip, oil resistant, and heat Resistant upto 300°C (Designation HRO). Outsole shall have electrical resistance to withstand 20000 Volts minimum for one minute showing no leakage current in excess of 5 mA when tested as per IS 2584-1963. Cleat thickness of the outsole at different points shall be as per the RWF Drg. No. RWF/MISC/M-640 Alt 5.
- 3.9 **Toecap:** Steel powder coated. - Should withstand impact load of 200 Joules
- 3.10 **Insole:** Leather Board insole for Heat Insulation (Designation Hi)
- 3.11 **In-sock:** Shall be of full-length leather to provide comfort by quickly absorbing sweat, and give comfort during long hours of wearing.

4.0 Marking

In addition to the markings specified in IS 15298 (Part2): 2002, Indian Railways logo has to be embossed on outer quarter of each boot, as shown in RWF sketch.

5.0 Supply



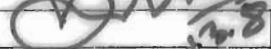
Boots to size 5-11 to UK standards are to be supplied. Vendors shall have to exchange boots with a particular size as required, to the extent of about of 5% of the total quantity ordered.

6.0 Packing

Boots shall be placed in Polythene covers, and packed in cardboard box of suitable size and thickness, to avoid damage during transit. The cardboard box shall be printed with "RAIL WHEEL FACTORY" through out.

7.0 Test certificate

The supply shall be accompanied with Test Certificate, indicating conformance of the supplied lot with all the parameters specified in the specification IS 15298 (Part-2): 2002 and to IS 2584:1963 for Electrical Resistance. Samples from the offered lot will be selected in presence of RWF representative, at firm premises and sent for testing. Test certificate shall be issued from M/s. CLI/Mumbai, M/s. FDDI/Noida, M/s. CLRI/Chennai, or any other Government approved test laboratories.

		11.8.8	
SAFETY OFFICER	AME/HQ	CWE/P	CME
PROPOSED	VERIFIED	REVIEWED	APPROVED

8.0 Guarantee

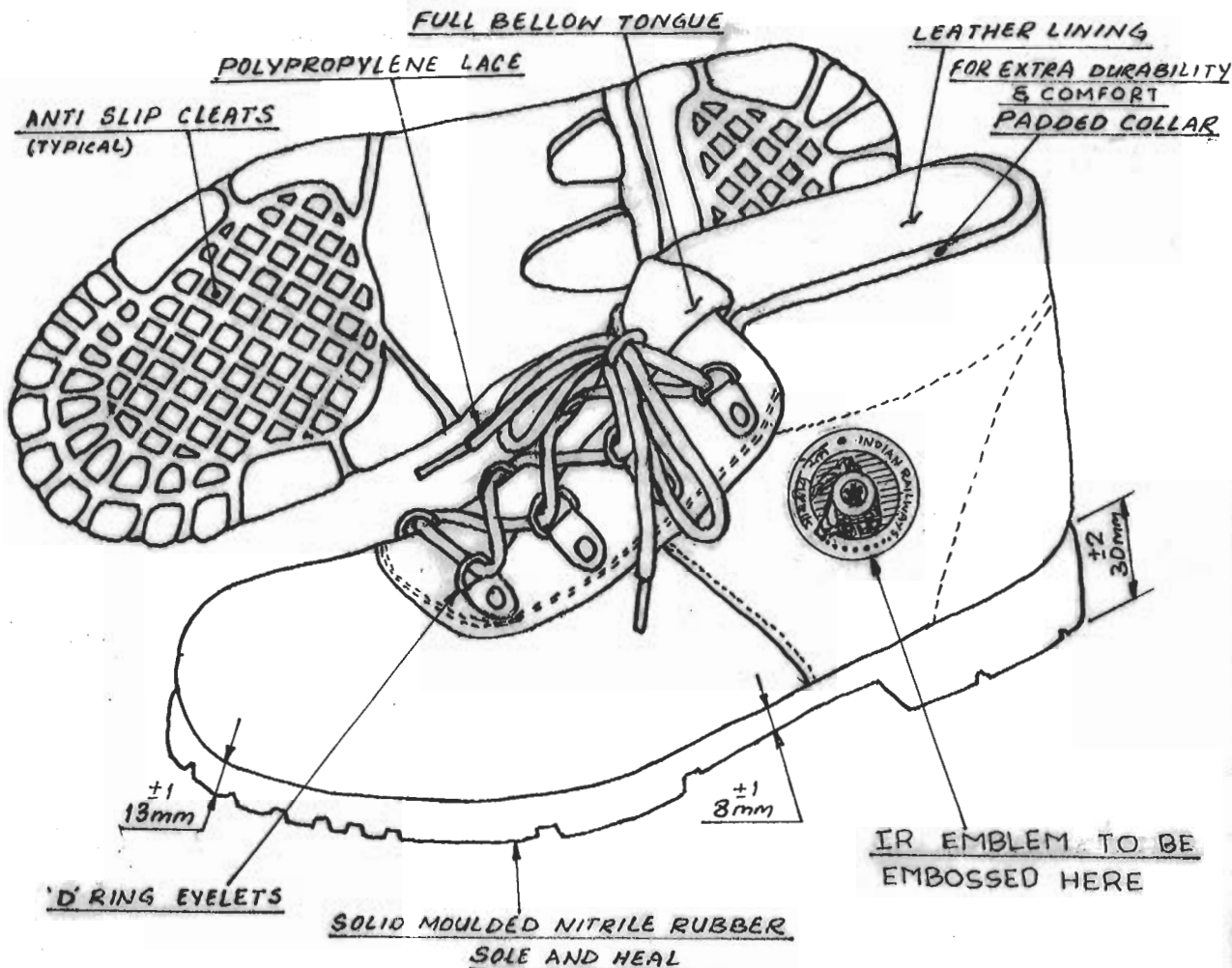
Boots shall be guaranteed for a period of 6 months in use, or 12 months from the date of supply. However the decision of RWF shall be final in this regard. RWF reserves the right to accept or reject in case of any anomaly noted in the samples of entire lot even after acceptance and receipt of material at RWF.

			
SAFETY OFFICER PROPOSED	AME/HQ 11/8.8 VERIFIED	CWE/P REVIEWED	CME APPROVED

13-8-08

DO NOT SCALE DRAWING

ALT	DESCRIPTION	JOB No.	APPROVED
4			
2.11.04	REVISED AND REDRAWN	4630	<i>[Signature]</i>
5			
4.8.08	RWF EMBLEM CHANGED TO IR EMBLEM	5167	<i>[Signature]</i>



TOLERANCE CLASS	PERMISSIBLE DEVIATION FOR ANGULAR DIMENSIONS (MIN)		PERMISSIBLE DEVIATIONS FOR RANGES OF LENGTHS IN mm OF THE SHORTER SIDE OF ANGLE CONCERNED	
	UP TO	OVER TO	UP TO	OVER TO
F FINE	±1'	±1'	±0.10	±0.15
M MEDIUM	±1'	±1'	±0.15	±0.20
C COARSE	±1'	±1'	±0.20	±0.30
V VERY COARSE	±1'	±1'	±0.30	±0.50

ALL DIMENSIONS ARE IN 'MILLIMETRES'.
 PERMISSIBLE DEVIATION FOR UNTOLERANCED DIMENSIONS AS PER IS:2102 CLASS 'm'

D.V.
 DY.CME/
 APPROVED

[Signature]
 WM/
 REVIEWED

[Signature]
 SAFETY OFFICER
 VERIFIED

INDIAN RAILWAYS

SAFETY FOOT WEAR

RAIL WHEEL FACTORY BANGALORE

REF DRG.			
SCALE	AME/D	<i>[Signature]</i>	23/2/05
-	SSE/D	<i>[Signature]</i>	21/2/05
PROJECTION	CHD		
	DRN/TRD	Ravi	2.11.2004
ALT.	5		
DRG No. RWF/MISC/M-640			
JOB No. 2094			

SURFACE FINISH	Gr. NUMBER	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10	N11	N12
Ra. um		0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50