

## SPECIFICATION FOR SET OF CASING WAG-9 (CO'CO), ELECTRIC LOCOMOTIVES

**SPECIFICATION No. CLW/ES/3/0134 ALT.~~NIL~~ I**  
**ISSUE DATE:30.05.1997**

ENCLOSURES :

1. DRG. NOS. CLW/ES/3/SK-1/0134 ~~ALT.~~ I

ISSUED BY:

DY. CHIEF ELECTRICAL ENGINEER /D/CONV.  
CHITTARANJAN LOCOMOTIVE WORKS  
P.O. CHITTARANJAN – 713331  
DIST. BARDHAMAN (WEST), WEST BENGAL (INDIA)

PREPARED BY	CHECKED BY	APPROVED BY
<b>ASHISH KUMAR</b> Digitally signed by ASHISH KUMAR Date: 2023.01.31 17:20:52 +05'30'	<b>MANOJ KUMAR PAUL</b> Digitally signed by MANOJ KUMAR PAUL Date: 2023.01.31 18:06:22 +05'30'	<b>SYAMA PRASAD PATRA</b> Digitally signed by SYAMA PRASAD PATRA Date: 2023.02.01 10:42:09 +05'30'
SSE/DRG&DGN (M)	SSE/DRG	DY. CEE/D/CONV



Page 2 of 5	SPECIFICATION No. CLW/ES/03/0134	ALT.NIL <del>1</del>
-------------	----------------------------------	----------------------

### TABLE OF CONTENTS

1. SCOPE
2. SERVICE CONDITIONS
3. STANDARDS
4. SCOPE OF SUPPLY
5. SUBMISSION OF TENDER QUOTATION
6. DRAWINGS
7. TESTS
8. TECHNICAL DOCUMENTS TO BE SUPPLIED BY THE TENDERER

PREPARED BY		CHECKED BY		APPROVED BY	
<b>ASHISH KUMAR</b>	Digitally signed by ASHISH KUMAR	<b>MANOJ KUMAR PAUL</b>	Digitally signed by MANOJ KUMAR PAUL	<b>SYAMA PRASAD PATRA</b>	Digitally signed by SYAMA PRASAD PATRA
	Date: 2023.01.31 17:21:17 +05'30'		Date: 2023.01.31 18:06:44 +05'30'		Date: 2023.02.01 10:42:30 +05'30'
<b>SSE/DRG&amp;DGN (M)</b>		<b>SSE/DRG</b>		<b>DY. CEE/D/CONV</b>	



Page 3 of 5	SPECIFICATION No. CLW/ES/03/0134	ALT. <del>NIL</del> 1
-------------	----------------------------------	-----------------------

**ALTERATION RECORD SHEET**

ALT. No.	DATE	REASON	AUTHORITY
1		TO CORRECT THE MATERIAL SPECIFICATION	DY. CEE/D-III

Specification have been digitized and all alterations have been incorporated.

PREPARED BY		CHECKED BY		APPROVED BY	
ASHISH KUMAR	Digitally signed by ASHISH KUMAR Date: 2023.01.31 17:24:00 +05'30'	MANOJ KUMAR PAUL	Digitally signed by MANOJ KUMAR PAUL Date: 2023.01.31 18:07:07 +05'30'	SYAMA PRASAD PATRA	Digitally signed by SYAMA PRASAD PATRA Date: 2023.02.01 10:43:03 +05'30'
SSE/DRG&DGN (M)		SSE/DRG		DY. CEE/D/CONV	



**SPECIFICATION FOR SET OF CASING****1. SCOPE :**

This specification covers the manufacture and supply of SET OF CASING for WAG-9 (Co-Co), 6000 HP, 3-Phase, 25KV 50 Hz.AC locomotives.

**2. SERVICE CONDITION:-****2.1**

Maximum atmospheric temperature	: +70°C (in sun) & +50°C (in shade)
Normal humidity	: 60%
Maximum humidity	: 100% saturation during rainy season.
Altitude	: 160 m.a.s.l.
Rain fall	: Very heavy in certain areas. The equipment Should be designed in such a way as to Withstand its running at 10 km/hr in flood water level of 102mm above rail level.
Atmosphere during hot weather	: Extremely dusty and desert terrain in certain areas.
Coastal areas	: Locomotive and equipment will be designed to work in coastal area in humid and salty laden atmosphere.
Vibration	: The equipment sub-system and their mounting arrangement will be designed to withstand vibration and shock encountered in service as specified in correspondence unless otherwise prescribed.

**3. STANDARD:**

The relevant IEC, BS, ~~DIN 17457~~ <sup>IS 6911</sup> and Standard & Indian standard specification shall apply with respect to all materials used in the manufacture of SET OF CASING.

PREPARED BY		CHECKED BY		APPROVED BY	
ASHISH KUMAR	Digitally signed by ASHISH KUMAR	MANOJ KUMAR PAUL	Digitally signed by MANOJ KUMAR PAUL	SYAMA PRASAD PATRA	Digitally signed by SYAMA PRASAD PATRA
	Date: 2023.01.31 17:24:33 +05'30'		Date: 2023.01.31 18:07:34 +05'30'		Date: 2023.02.01 10:43:19 +05'30'
SSE/DRG&DGN (M)		SSE/DRG		DY. CEE/D/CONV	



Page 5 of 5	SPECIFICATION No. CLW/ES/03/0134	ALT.NIL 1
-------------	----------------------------------	-----------

#### 4. SCOPE OF SUPPLY:

Fig. No.	Description	Indent. No.	Qty./ Loco	Matl
1.	CASING	3EHP431128P0001	2	STAINLESS STEEL SHEET <del>6 X 0.1118-10</del>
1.	-DO-	3EHP431128P0002	2	COLD ROLLED AS PER <del>DIN 17457</del>

IS 6911: 2017 GRADE- X04Cr18Ni10Ti

#### 5. SUBMISSION OF TENDER QUOTATION:

- 5.1 All tender documents including the quotation shall be submitted in duplicate including any correspondence till a contact is finalised.
- 5.2 The tenderer shall give sufficient information to prove that his factory has adequate facilities and capacity to manufacture the SET OF CASING to meet fully the technical requirements of the specification and quality of materials and workmanship.
- 5.3 Quotation shall not be considered complete unless all information is furnished and are therefore liable to be rejected.
- 5.4 Detailed drawings of the SET OF CASING should be submitted for approval of purchaser.

#### 6. DRAWINGS:

The following drawings are attached with specification : Drg. No. : 1. CLW/ES/3/SK-1/0134 **ALT-1**

- 6.1 Technical documents and drawings to be furnished by the supplier as part of the contract.

#### 7. TEST:

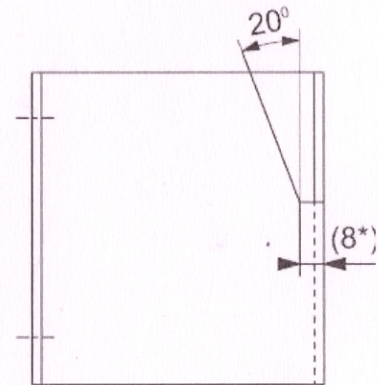
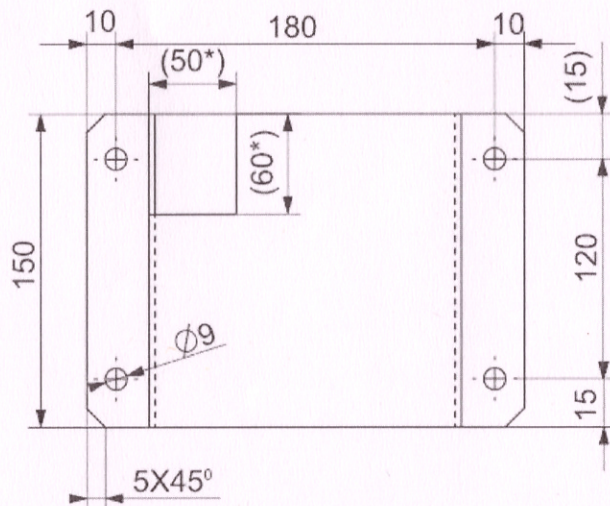
Type test and routine test shall be carried out according to the standard.

#### 8. TECHNICAL DOCUMENTS TO BE SUPPLIED BY THE SUPPLIER:

- |       |   |             |
|-------|---|-------------|
| (i)   | Type test reports                       | : 10 copies |
| (ii)  | Routine test report along with each set | : 4 copies  |
| (iii) | Maintenance manual                      | : 20 copies |
| (iv)  | Detailed drawings                       | : 6 copies  |

PREPARED BY		CHECKED BY		APPROVED BY	
ASHISH KUMAR	Digitally signed by ASHISH KUMAR	MANOJ KUMAR PAUL	Digitally signed by MANOJ KUMAR PAUL	SYAMA PRASAD PATRA	Digitally signed by SYAMA PRASAD PATRA
	Date: 2023.01.31 17:24:55 +05'30'		Date: 2023.01.31 18:07:56 +05'30'		Date: 2023.02.01 10:43:42 +05'30'
SSE/DRG&DGN (M)		SSE/DRG		DY. CEE/D/CONV	

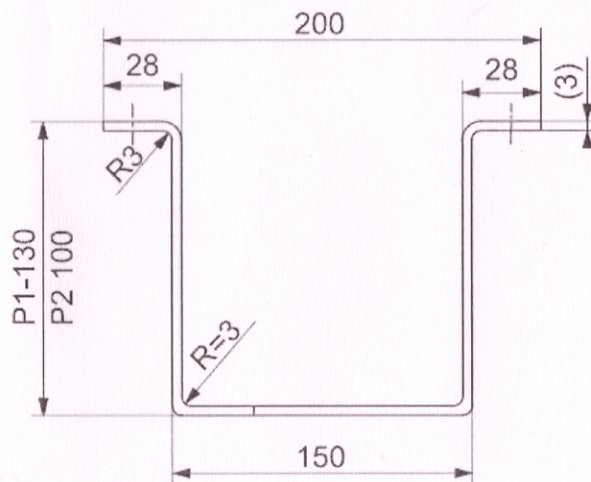





(\*)CUT OUT ONLY IN POS. 1 OF  
ABB REF. IDENT.NO.  
**3EHP431128P0001**

COLD ROLLED STAINLESS  
STEEL SHEET ~~6xCrNiTi88/10~~  
AS PER DIN17457

AS PER IS 6911: 2017  
GRADE - X04Cr18Ni10Ti



Prepared By: SSE/Drg	APPROVED BY: DY.CEE/D/Conv.	CHITTARANJAN LOCOMOTIVE WORKS
ASHISH KUMAR Digitally signed by ASHISH KUMAR Date: 2023.02.27 17:41:48 +05'30'	SYAMA PRASAD PATRA Digitally signed by SYAMA PRASAD PATRA Date: 2023.03.23 18:19:53 +05'30'	 SPECIFICATION FOR SET OF CASING WAG-9 (Co- Co),ELECTRIC LOCOMOTIVES
Checked By: AEE/SEE		Drg. NO.CLW/ES/3/SK-1/0134 <b>ALT 1</b>