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TENDER SPECIFICATION FOR PIPE SADDLE FOR WAG-9(CO-CO) / WAP-5 (BO-BO) ELECTRIC LOCOMOTIVES

**TENDER SPECIFICATION
No. CLW/ES/3/0038 ALT-~~E~~ F**

ENCLOSURES:

1. ANNEXURE:
2. DRG.NOS.
CLW/ES/3/SK-1/0038
&
CLW/ES/3/SK-2/0038

ISSUED BY:

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

PREPARED BY	CHECKED BY	APPROVED BY
NIRANJAN KUMAR <small>Digitally signed by NIRANJAN KUMAR Date: 2023.03.13 16:24:17 +05'30'</small> SSE/DRG&DGN (M)	MANGLES HWAR GIRI <small>Digitally signed by MANGLESHWAR GIRI Date: 2023.03.16 11:32:40 +05'30'</small> SSE/DRG&DGN (M)	SYAMA PRASAD PATRA <small>Digitally signed by SYAMA PRASAD PATRA Date: 2023.03.17 18:04:30 +05'30'</small> DY. CEE/D/CONV

Validity unknown
 Digitally signed by
 NIRANJAN KUMAR
 Date: 2023.05.09
 16:01:41 IST
 Reason: IIEPS-CRIS
 Location: New Delhi

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ALTERATION RECORD SHEET

Amen dment No.	ALT. No.	DATE	REASON	AUTHORITY
01	A	31.05.1999	1) Material grades have been changed. 2) Dimension of Hex screw have been changed. 3) New sketch CLW/ES/3/SK-2/0038 have been added.	-sd-
02	B	17.04.2001	1) New 32PP pipe saddle have been added.	-sd-
03	C	22.04.2002	1) New note have been added at page-5.	-sd-
04	D	03.03.2003	Non-metallic parts of the pipe saddles should be fire retardant /self extinguish as per note of page-3.	-sd-
05	E	07.04.2011	Length of screw for 20PP changed from 55 to 50 mm on the basis of Letter no- SSE/ELA/19/St-V-01C dt-11.03.2011.	-sd-

06 F

3) Alternate marking process is added at Sl.No.1 of Note on page no. 5.

2) Length of screw for 16 PP changed from 35 to 45mm and material ^{its} Grade of

Specifications have been digitized and all alterations have been incorporated

all screw has been changed ~~at~~ in Drg no. CLW/ES/3/SK-1/0038

3) Locking plate is replaced by spring washer M6 in drg no. CLW/ES/3/SK-1/0038 & CLW/ES/3/SK-2/0038.

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NIRANJAN KUMAR Digitally signed by NIRANJAN KUMAR Date: 2023.03.13 16:24:56 +05'30' SSE/DRG&DGN (M)	MANGLES HWAR GIRI Digitally signed by MANGLESHWAR GIRI Date: 2023.03.16 11:36:20 +05'30' SSE/DRG&DGN (M)	SYAMA PRASAD PATRA Digitally signed by SYAMA PRASAD PATRA Date: 2023.03.17 18:05:52 +05'30' DY. CEE/D/CONV

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**SPECIFICATION FOR PIPE SADDLE FOR
WAG-9(CO-CO) & WAP-5 (BO-BO) ELECTRIC LOCOMOTIVE**

INDEX

1. SCOPE
2. CLIMATIC AND ENVIRONMENTAL CONDITION
3. STANDARD
4. QUALITY ASSURANCE
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6. SUBMISSION OF TENDER QUOTATION
7. SCOPE OF SPECIFICATION
8. PACKING
9. DRAWINGS

NOTE: " THE MATERIAL MUST BE OF INFLAMMABILITY CLASS FH2-5MM. AS DEFINED IN THE IS: 11731 (PART-I):1986- HORIZONTAL SPECIMEN METHOD OF TEST FOR SOLID INSULATING MATERIALS AND CLASS FVO AS PER IS: 11731 (PART-2):1986- VERTICAL TEST METHOD. THE TEST SHALL BE CARRIED OUT AS A PROTOTYPE TEST ON SAMPLES PREPARED OUT OF THE SAME BATCH SUPPLIED."

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NIRANJAN KUMAR Digitally signed by NIRANJAN KUMAR Date: 2023.03.13 16:25:22 +05'30'	MANGLES HWAR GIRI Digitally signed by MANGLESHWAR GIRI Date: 2023.03.16 11:37:16 +05'30'	SYAMA PRASAD PATRA Digitally signed by SYAMA PRASAD PATRA Date: 2023.03.17 18:06:14 +05'30'
SSE/DRG&DGN (M)	SSE/DRG&DGN (M)	DY. CEE/D/CONV

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SPECIFICATION FOR PIPE SADDLE

1. SCOPE:

This Specification applies to pipe saddle for WAG-9 (Co-Co), 6000 H.P, 3Phase, 25 kv. 50Hz. AC locomotive.

2. CLIMATIC AND ENVIRONMENTAL CONDITION:

Maximum atmospheric temperature : +70°C (in Sun) & +50°C (in Shade)

*Humidity : 100% saturation during rainy season.

Reference site condition:

i) Ambient Temperature : max.: 55°C, min. : 0°C

ii) Humidity : 60%

iii) Altitude : 1000 m above mean sea level.

iv) Rain fall : Very heavy in certain areas. The locomotive will be designed in Such a way as to permit its running at 10 Km/hr. in flood water Level of 102 mm above rail level.

*Atmosphere during hot weather : Extremely dusty and desert terrain in certain areas.

*Coastal Area : Locomotive and equipment will be design to work in Coastal areas in humid and salty laden atmosphere.

*Vibration : The equipment, sub-system and their mounting arrangement will be designed to withstand vibrations and shocks encountered in service as specified in corresponding IEC publication unless otherwise prescribed.

3. STANDARD : As per relevant IEC

4. QUALITY ASSURANCE : Quality assurance should be as per ISO:9000.

5. TEST: Type test and routine test shall be carried out according to the relevant IS/IEC standard.

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NIRANJAN KUMAR Digitally signed by NIRANJAN KUMAR Date: 2023.03.13 16:25:48 +05'30'	MANGLES HWAR GIRI Digitally signed by MANGLESHWAR GIRI Date: 2023.03.16 11:38:20 +05'30'	SYAMA PRASAD PATRA Digitally signed by SYAMA PRASAD PATRA Date: 2023.03.17 18:06:42 +05'30'
SSE/DRG&DGN (M)	SSE/DRG&DGN (M)	DY. CEE/D/CONV

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6. SUBMISSION OF TENDER QUOTATION:

- 6.1 All tender documents including the quotation shall be submitted in triplicate including any Correspondence till a contract is finalised.
- 6.2 The tenderer shall give sufficient information to prove that his factory has adequate facilities and Capacity to manufacture the above materials to meet fully the technical requirements of the Specification, quality of material and workmanship.
- 6.3 Quotation shall not be considered complete unless all information is furnished and are therefore liable to be rejected.
- 6.4 Detail drawings of the above materials should be submitted for approval of purchaser.
- 6.5 Past test reports (if any).

7. SCOPE OF SPECIFICATION :

This specification covers the details of the following items:-

Sl.No.	Description	Identification No.	DRG. No.
1.	PIPE SADDLE 16PP	HZN 450554R0224	CLW/ES/3/SK-1/0038
2.	PIPE SADDLE 20PP	HZN 450554R0231	CLW/ES/3/SK-1/0038
3.	PIPE SADDLE 30PP	HZN 450554R0243	CLW/ES/3/SK-1/0038
4.	PIPE SADDLE 32PP	HZN 450554R0251	CLW/ES/3/SK-1/0038

8. PACKING:

INDIVIDUAL TYPES OF PIPE SADDLES IS TO BE PACKED IN DIFFERENT BOXES AT THE TIME OF SUPPLY WITH IDEN. NO. CLEARLY MENTIONED ON EACH PACKET.

NOTE:-

- mark by embossing on the 'WELD-ON-PLATE' and 'TOP PLATE'*
- The tenderer shall ~~fix name plate on the equipment~~ indicating:
 - Month & Year of manufacture
 - Sl.No. of equipment
 - Manufacturer name
 - Standard fastners of M/s TVS, M/s LPS, M/s UNBRESKO and spring washer of M/s FORBES make only to be used.

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NIRANJAN KUMAR Digitally signed by NIRANJAN KUMAR Date: 2023.03.13 16:26:17 +05'30' SSE/DRG&DGN (M)	MANGLES HWAR GIRI Digitally signed by MANGLESHWAR GIRI Date: 2023.03.16 11:39:27 +05'30' SSE/DRG&DGN (M)	SYAMA PRASAD PATRA Digitally signed by SYAMA PRASAD PATRA Date: 2023.03.17 18:07:02 +05'30' DY. CEE/D/CONV

Technical drawing of a mechanical part, showing a cross-section and a side view.

Dimensions:

- a : Total width of the cross-section.
- b : Total height of the cross-section.
- c : Height of the side view.
- d : Diameter of the central circular hole.
- e : Distance from the left edge to the center of the hole.
- f : Distance from the right edge to the center of the hole.
- g : Thickness of the rightmost flange.
- h : Distance from the top edge to the center of the hole.
- r : Radius of the central circular hole.
- s : Thickness of the top flange.
- t : Thickness of the bottom flange.

Numbered Callouts:








- 1: Bottom flange.
- 2: Central circular hole.
- 3: Top flange.
- 4: Left side flange.
- 5: Right side flange.

Side View:

- Width: 30
- Height: c

REF.NO,	DESCRIPTION	MATERIAL
1.	WELD-ON-PLATE	MILD STEEL,IS2062/IS226
2.	CLAMP	PLASTIC GREEN
3.	TOP PLATE	MILD STEEL,IS2062/IS226
4.	HEX. SCREW, L=60/55/50/35	MILD STEEL,GR.8.8
5.	LOCKING SHEET	MILD STEEL,IS2062/IS226

ITEMS IDEN. NO.	a	b	c	d	e	f	g	h	s	QTY/LOCO
PIPE SADDLE 16PP HZN450554R0224	42	39	19.5	16	26	40	M6X35 ⁴⁵	33	10	5 NOS
PIPE SADDLE 20PP HZN450554R0231	49	41	20.5	20	33	48	M6X50	35	10	6 NOS
PIPE SADDLE 30PP HZN450554R0243	60	48	24	30	40	57	M6X55	42	10	6 NOS
PIPE SADDLE 32PP HZN450554R0251	68	64	32	32	52	70	M6X60	58	10	4 NOS

												अधिकल्पित DGN				 <p>चित्तारंजन रेलइंजन कारखाना CHITTARANJAN LOCOMOTIVE WORKS, INDIA</p>							
												जॉचा व.अ.अ. CHD SSE		MANG LESHW AR GIRI		पदार्थ MATL		प्रति भार कि. ग्रा. WT. EACH IN KG					
परिवर्तन संख्या ALT. NO.		प्राधिकार AUTHY		वर्णन DESCRIPTION				दिनांकित बाह्य DATED INITIAL		समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE				विविष्टि SPECN									
सर्वह - कलहा का मान भा. मा. 3073 / व. मा. सं. 1302 SURFACE ROUGHNESS VALUE TO IS:8073 / ISO:1001		अनिर्दिष्ट सव - सीमा भा. मा. : 2102 / व. मा. सं. : 2768 UNSPECIFIED TOLERANCE TO IS : 2102 / ISO : 2768				TOL. CLS.		अनुमोदित स.नु.वि.अ. APPROVED DYCEE		SYAMA PRASAD PATRA		वर्णन DESCRIPTION		SPECIFICATION FOR PIPE SADDLE									
		वायु-वेल्डिंग चिह्न भा. मा. : 813 / व. मा. सं. : 2553 WELDING SYMBOLS TO IS:813 / ISO:2553						दिनांक DATE															
पदांक GRADE NO.		सं1 N1	सं2 N2	सं3 N3	सं4 N4	सं5 N5	सं6 N6	सं7 N7	सं8 N8	सं9 N9	सं10 N10	सं11 N11	सं12 N12	आरेखण संख्या DRAWING NO.									
Rz		0.16-0.3	0.5-0.7	0.9-1.1	1.5-2.8	2.5-10	5.0-6.3	9.0-12	16-25	30-40	50-63	75-100	160-250	CLW/ES/3/SK-1/0038									
Ra μ m		0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50										
चिह्न SYMBOL														परिवर्तन संख्या ALTERATION NO.									
												संदर्भ / REF.		ALT. -				पृष्ठ SHEET		1 OF 1		A4	

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