

WELDING PROCEDURE SPECIFICATION SHEET (SITE)

**42 MTR CLEAR SPAN
(BOW STRING STEEL GIRDER)
RDSO DRAWING NO: RDSO/B-10437 (SERIES)**

Name of work: Nagpur Division Construction of LROB for elimination of manned LC No.448 at Km 867/29-31 between DURG-RSM (DURG-RASMARA) stations on DURG-NGP Section.

LOA No : NAGPUR-SECR-DIVISION-ENGINEERING / Br-Spl-16-NGP-2022-23 / 00843390079741

Fabricator (Regd. Office & Work Site):

M/s. Struc-Rite Metal Building Systems Unit-II, Borai, Durg -491001.

Contractor:

M/s PILCON ENGINEERING

CLIENT:

SOUTH EAST CENTER RAILWAY

W.P.S.S. INDEX SHEET
42 MTR SPAN BOW STRING STEEL GIRDERS
RDSO/B/10437 (SERIES)

WPSS NO	DESCRIPTION	WELD SIZE	PAGE NO.	REMARKS
SRMBS/PILCON-448/SHOP/WPS/42M/18	Fillet welding of Bow Arch with Bottom Long Beam.	18 MM	1-2	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/19	Fillet welding of Hanger with Bottom Long Beam and Hanger with Arch.	18 MM	3-4	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/20	Fillet welding Top Tie Beam with Hanger.	16 MM	5-6	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/21	Fillet welding of Top Diagonal Tie Beam with Hanger & Top Diagonal Tie Beam with Arch	16 MM	7-8	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/22	Fillet welding of Channel (ISM 150) with Stiffener of Int. & End Bottom Cross Beam	06 MM	9-10	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/23	Fillet welding of Top Tie Beam with Top Diagonal Tie Beam.	16 MM	11-12	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/24	Fillet welding of Int. Bottom Cross Beam with Hanger.	12 MM	13-14	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/25	Fillet welding of Bottom Cross Beam with Bottom Long Beam.	12 MM	15-16	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/26	Fillet welding of Cover Plate with Arch & Cover Plate with Bottom Long Beam.	18 MM	17-18	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/27	Fillet welding of Cover Plate with End Bottom Cross Beam.	12MM	19-20	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/28	Fillet welding of Stiffener with Arch & Bottom Long Beam	18 MM	21-22	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/29	Fillet welding of Stiffener with Hanger & Bottom Long Beam	18 MM	23-24	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/30	Fillet welding of Stiffener with Bottom Long Beam & Bottom Cross Beam	20 MM	25-26	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/31	Fillet welding of Stiffener with End Bottom Cross Beam with Cover Plate	20 MM	27-28	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/32	Fillet welding of Stiffener with End Bottom Cross Beam with Hanger	20 MM	29-30	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/33	Fillet welding of Stiffener with Arch with Hanger.	18 MM	31-32	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/34	Fillet welding of Stiffener with Top Diagonal Tie Beam & Arch Beam	16 MM	33-34	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/35	Fillet welding of Stiffener with Hanger & Top Tie Beam.	16 MM	35-36	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/36	Fillet Welding of Angle with Int. Bottom Cross Beam & Bottom Long Beam and Angle with Int. Bottom Cross Beam & Hanger	12 MM	37-38	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/37	Fillet Welding of Angle with Cover Plate & End Bottom Cross Beam	12 MM	39-40	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/38	Fillet Weld of Splice Plate with Bottom Long Beam	18 MM	41-42	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/39	Fillet weld of Splice Plate of Arch.	20 MM	43-44	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/40	Fillet weld of Cover plate (6mm) with Arch and Bottom Long Beam.	06 MM	45-46	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/41	Tack weld.	05 MM	47-48	FCAW

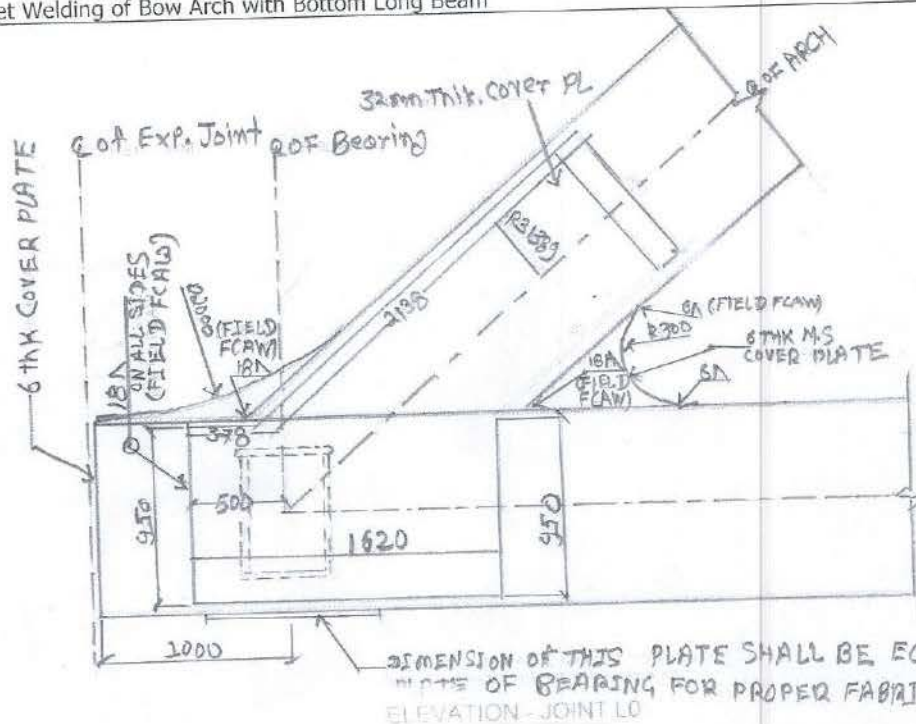


उप मुख्य अभियंता (मुख्य)
 Dy. Chief Engineer. (Br.) 28/2/2024
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 S.E.C Railway, Bilaspur
 SCER
 Railway Authority

RDSO
 Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 42 M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg -491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/18
01.	RDSO Drawing No.	:	RDSO/B-10437/4
02.	Welding Joint Description.	:	Fillet 18 mm – Fillet Welding of Bow Arch with Bottom Long Beam
03.	Base Metal.	:	25 mm x 22 mm IS: 2062 – 2011, Gr. : E350 B0
04.	Welding Process	:	FCAW
05.	Welding Position.	:	2F,3F,4F
06.	Welding Consumable.	:	
6.1	Electrode/Wire		
	Class	:	Class I OF IRS: M-46-2020, Flux cored MS wire.
	Dia	:	1.2 mm
	Drying Method	:	N.A.
6.2	Flux		
	Class	:	N.A.
	Type	:	N.A.
	Drying Method	:	N.A.
6.3	Shielding Gas	:	CO ₂
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches and Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
Joint design Details		:	
7.1	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.)		
	Fillet Welding of Bow Arch with Bottom Long Beam		



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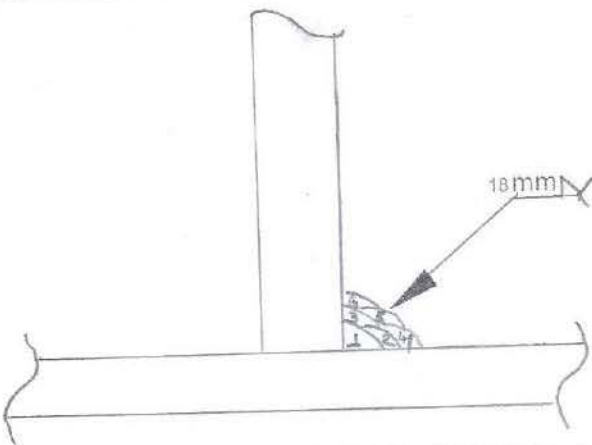


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7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code. Fillet Joint.
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	REVERSE
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1 (Root pass)	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
2	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
3	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
4	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
5	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
6	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N. A.
12.	Cleaning of weld bead before laying next weld bead	:	Yes, in case of multi layer. By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per CI.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual, & D.P
19.	Any other relevant Details	:	



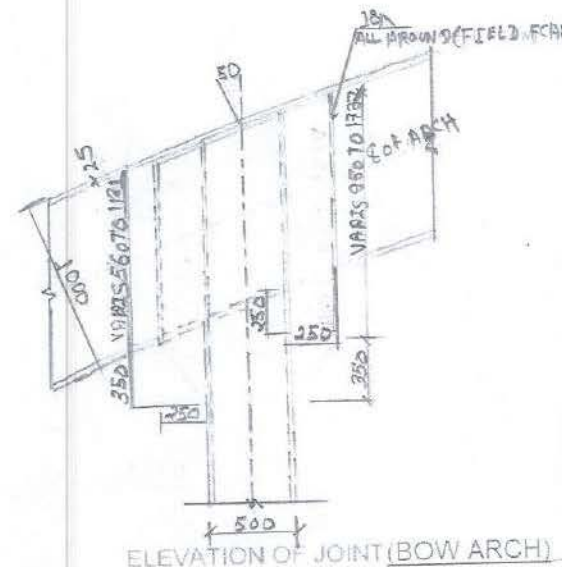
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Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 42 M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg -491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/19
01.	RDSO Drawing No.	:	RDSO/B-10437/9
02.	Welding Joint Description.	:	Fillet 18 mm – Fillet Welding of Hanger with Bottom Long Beam & Hanger with Arch Beam
03.	Base Metal.	:	28 mm x 22/25 mm IS: 2062 – 2011, Gr. : E350 B0
04.	Welding Process	:	FCAW
05.	Welding Position.	:	2F/3F/4F
06.	Welding Consumable.	:	
6.1	Electrode/Wire	Class	Class I OF IRS: M-46-2020, Flux cored MS wire.
		Dia	1.2 mm
		Drying Method	N.A.
6.2	Flux	Class	N.A.
		Type	N.A.
		Drying Method	N.A.
6.3	Shielding Gas	:	CO2
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches, and Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details		
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.) Fillet welding of Bottom Long Beam with Hanger & Arch with Hanger		



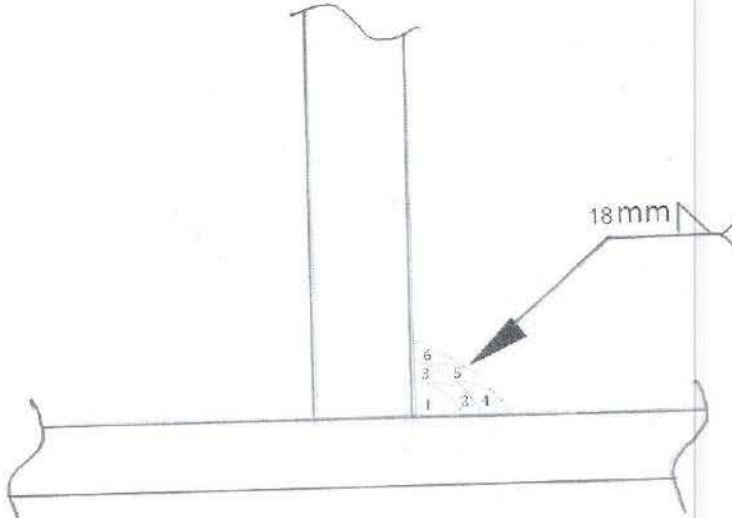
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7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code. Lap(Fillet Joint)
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	REVERSE
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1 (Root pass)	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
2	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
3	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
4	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
5	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
6 +1	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N. A.
12.	Cleaning of weld bead before laying next weld bead	:	Yes, in case of multi layer. By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Inter pass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P.
19.	Any other relevant Details	:	NIL



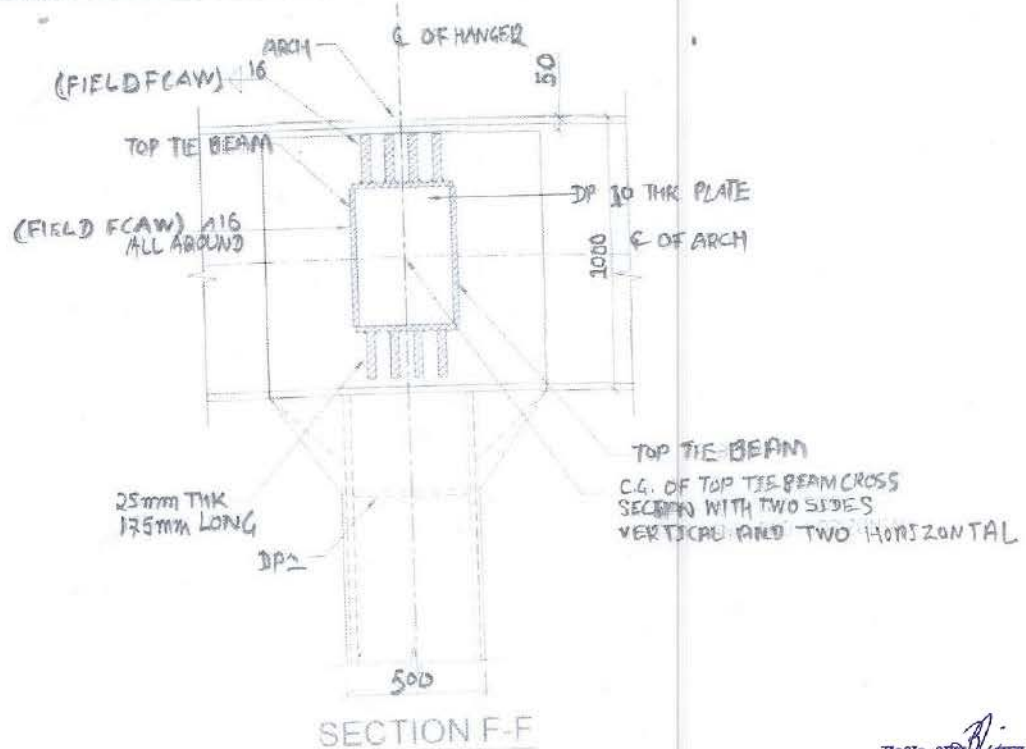
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WELDING PROCEDURE SPECIFICATION SHEET FOR 42 M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg -491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/20
01.	RDSO Drawing No.	:	RDSO/B-10437/3
02.	Welding Joint Description.	:	Fillet 16 mm - Fillet welding of Top Tie Beam with Hanger
03.	Base Metal.	:	20 mm x 28 mm, IS: 2062 - 2011, Gr. : E350 B0
04.	Welding Process	:	FCAW
05.	Welding Position.	:	2F/3F/4F
06.	Welding Consumable.	:	
6.1	Electrode/Wire	Class	Class I OF IRS: M-46-2020, Flux cored MS wire.
		Dia	1.2 mm
		Drying Method	N.A.
6.2	Flux	Class	N.A.
		Type	N.A.
		Drying Method	N.A.
6.3	Shielding Gas	:	CO2
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches and Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.) Fillet welding of Top Tie Beam with Hanger		



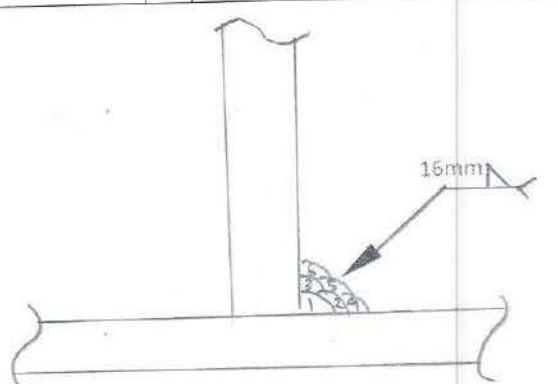
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Inspection Agency

7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code. Lap(Fillet Joint)
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	REVERSE
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1(Root pass)	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
2	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
3	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
4	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
5	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
6	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N. A.
12.	Cleaning of weld bead before laying next weld bead	:	Yes, in case of multi layer. By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P
19.	Any other relevant Details	:	NIL



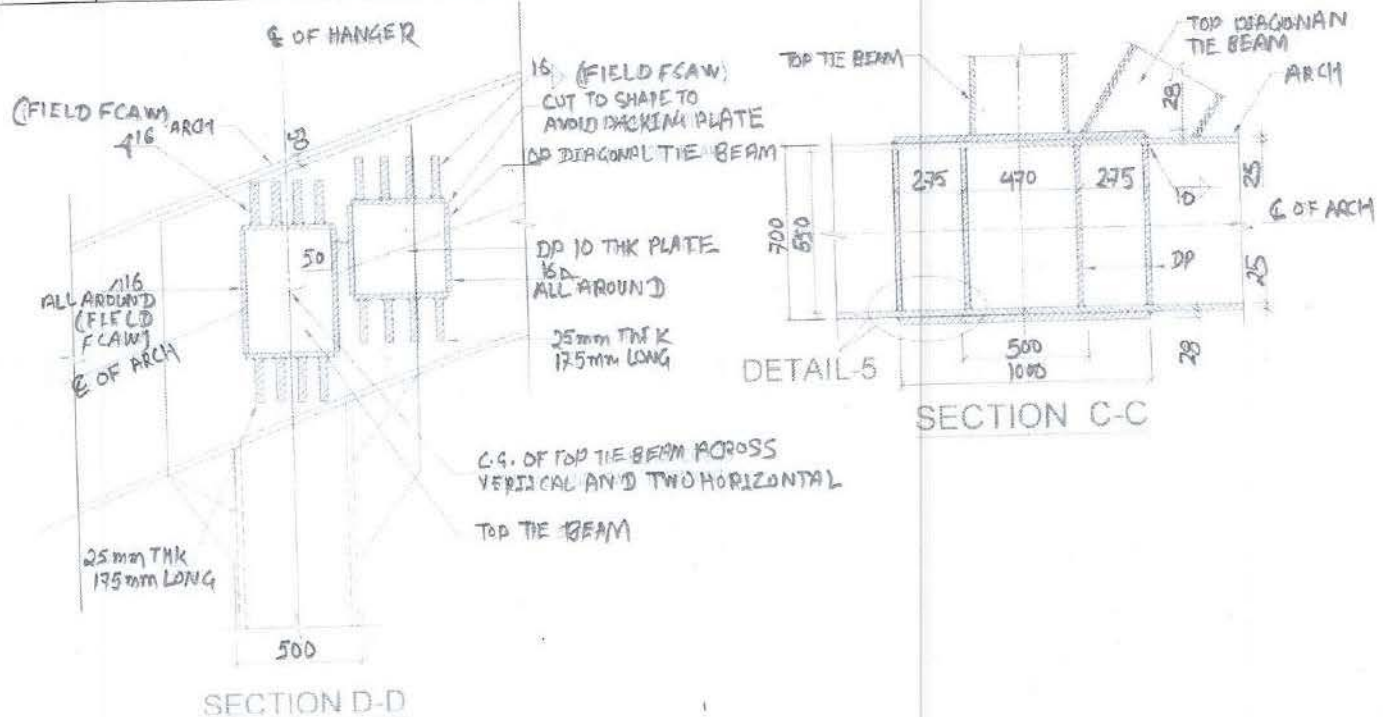
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WELDING PROCEDURE SPECIFICATION SHEET FOR 42 M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg -491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/21
01.	RDSO Drawing No.	:	RDSO/B-10437/2 & RDSO/B-10437/3
02.	Welding Joint Description.	:	Fillet 16 mm - Fillet welding of Top Diagonal Tie Beam with Hanger & Top Diagonal Tie Beam with Arch
03.	Base Metal.	:	20 mm x 28 mm & 20 mm x 25 mm, IS: 2062 - 2011, Gr. : E350 B0
04.	Welding Process	:	FCAW
05.	Welding Position.	:	2F/3F/4F
06.	Welding Consumable.	:	
6.1	Electrode/Wire	Class	Class I OF IRS: M-46-2020, Flux cored MS wire.
		Dia	1.2 mm
		Drying Method	N.A.
6.2	Flux	Class	N.A.
		Type	N.A.
		Drying Method	N.A.
6.3	Shielding Gas	:	CO2
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches and Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details		(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.)
			Fillet welding of Top Diagonal Tie Beam with Hanger & Arch.



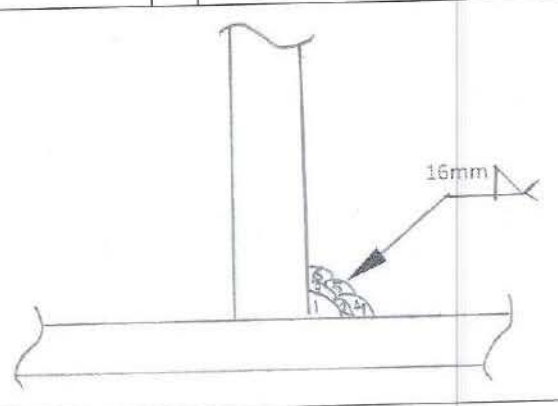
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आर.डी.एस.ओ., लखनऊ/R.D.S.O., Lucknow

RDSO
Inspection Agency

7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code. Fillet Joint.
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	REVERSE
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1 (Root pass)	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
2	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
3	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
4	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
5	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
6	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N. A.
12.	Cleaning of weld bead before laying next weld bead	:	Yes, in case of multi layer. By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual, & D.P
19.	Any other relevant Details	:	



14/11/2024
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 SCER
 Railway Authority

सहायक अभियंता एवं रसायन
 Asstt. Research Officer/M&C
 रेल मंत्रालय / Ministry of Railways
 लखनऊ / R.D.S.O., Lucknow

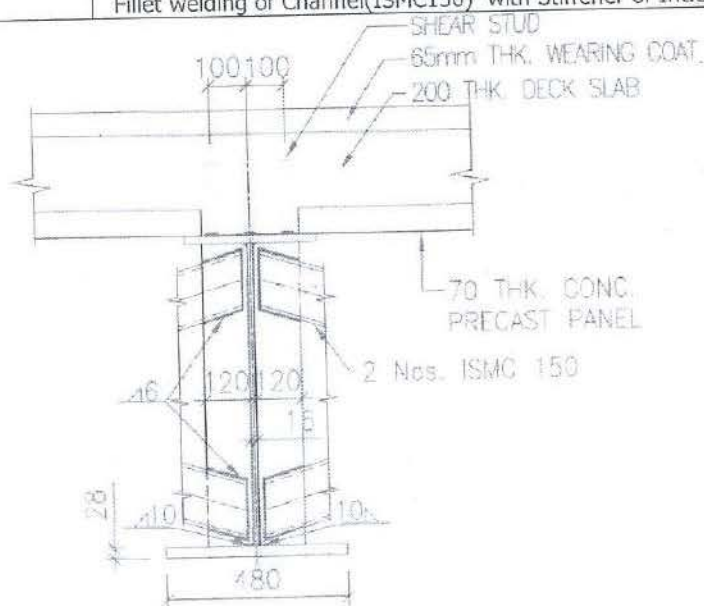
RDSO
 Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 42 M CLEAR SPAN BOW STRING GIRDER

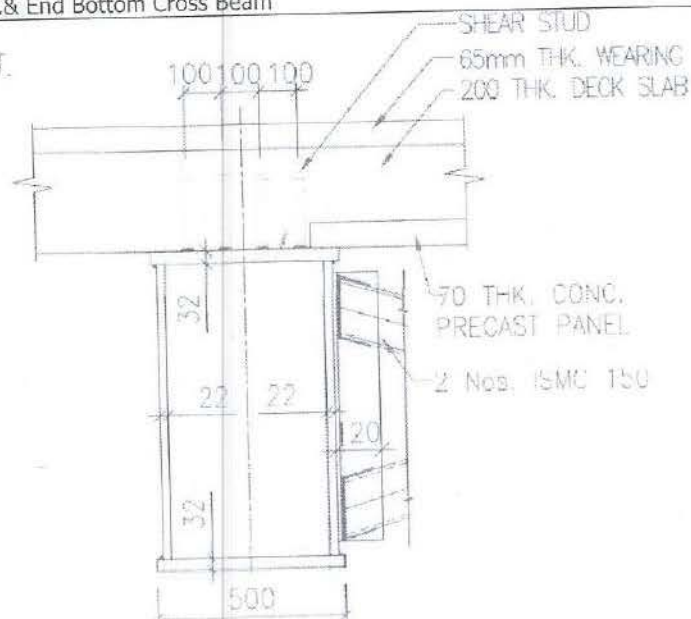
WELDING PROCEDURE SPECIFICATION SHEET FOR 42 M CLEAR SPAN BOW STRING BRIDGE

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg -491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/22
01.	RDSO Drawing No.	:	RDSO/B-10437/6
02.	Welding Joint Description.	:	Fillet 6 mm - Fillet welding of Channel(ISMC 150) with Stiffener of Int.& End Bottom Cross Beam
03.	Base Metal.	:	ISMC1500x10mm IS: 2062 – 2011, Gr. : E350 B0
04.	Welding Process	:	FCAW
05.	Welding Position.	:	2F/3F/4F
06.	Welding Consumable.	:	
6.1	Electrode/Wire	:	
	Class	:	Class I OF IRS: M-46-2020, Flux cored MS wire.
	Dia	:	1.2 mm
	Drying Method	:	N.A.
6.2	Flux	:	
	Class	:	N.A.
	Type	:	N.A.
	Drying Method	:	N.A.
6.3	Shielding Gas	:	CO2
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches and Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.)		
	Fillet welding of Channel(ISMC150) with Stiffener of Int.& End Bottom Cross Beam		

SHEAR STUD



SECTION B-B



SECTION E-E



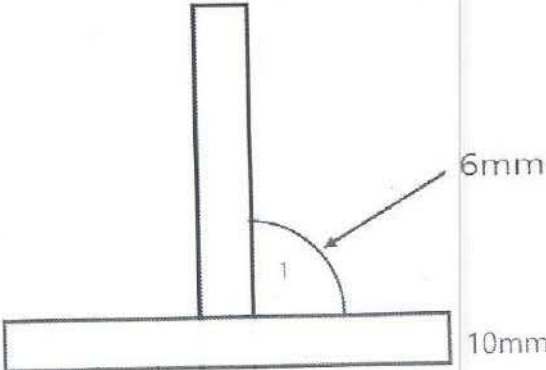
उप मुख्य अभियंता (पुल)
Dy.Chief Engineer (Br.)
वर्षापूर्व पूर्व मध्य रेलवे, बिलासपुर
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SCER
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संयोजक अधिकारी एवं रसायन
Assit. Research Officer/M&C
रेल मंत्रालय/Ministry of Railways
आयुक्त, लखनऊ/R.D.S.O., Lucknow

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7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code. Fillet Joint.
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	REVERSE
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1 (Root pass)	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25

10.2	Welding Sequence and technique	:	N.A.
	ISMC150 		

11.	Provision of run-on / run-off tabs	:	N. A.
12.	Cleaning of weld bead before laying next weld bead	:	N.A.
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P.
19.	Any other relevant Details	:	Fillet size connecting top lateral bracing and arch not mentioned in a drawing considered 25mm fillet with reference to connection between top tie beam and hanger.



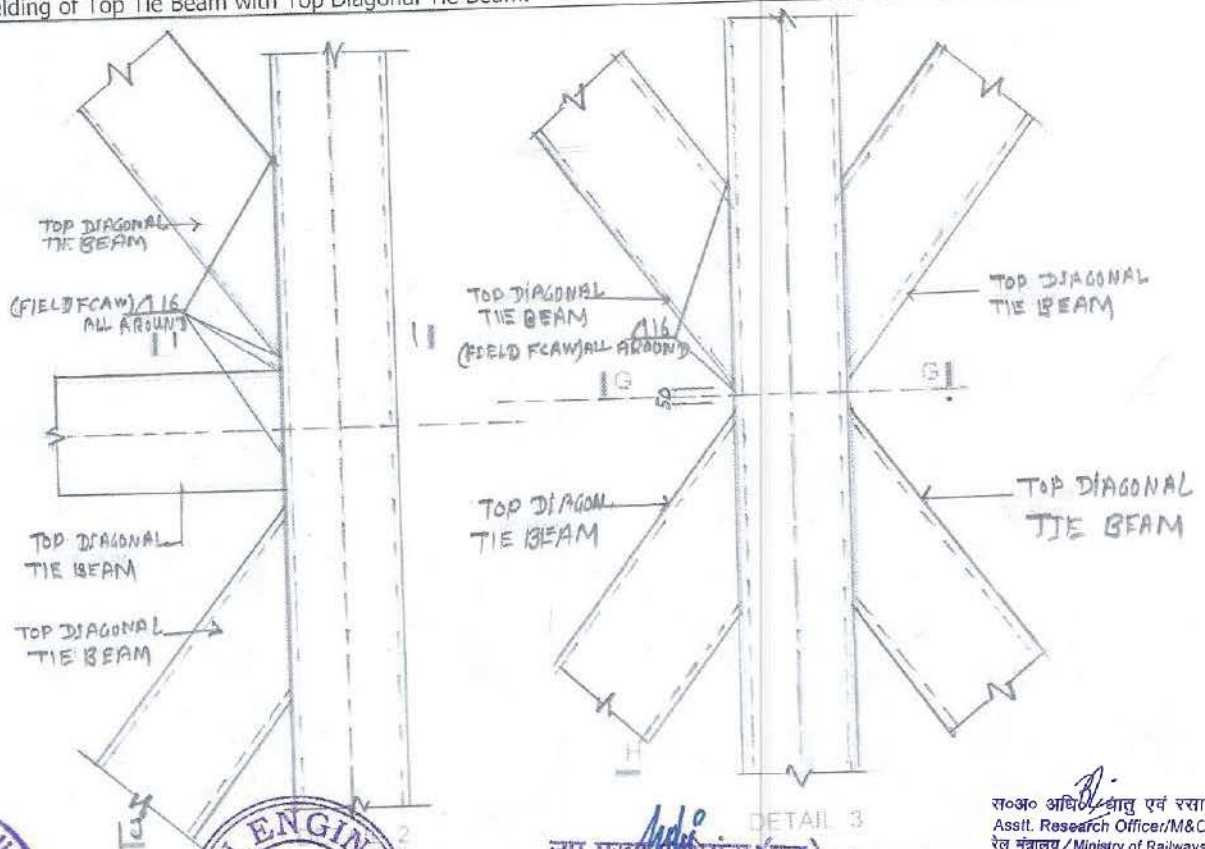
उप मुख्य अभियंता (ब्र.)
Dy.Chief Engineer (Br.)
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RDSO
Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 42 M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator	:	M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg -491001.
Welding Procedure specification No.	:	SRMBS/PILCON-448/SHOP/WPS/42M/23
01. RDSO Drawing No.	:	RDSO/B-10437/3
02. Welding Joint Description.	:	Fillet 16 mm - Fillet welding of Top Tie Beam with Top Diagonal Tie Beam.
03. Base Metal.	:	20 mm x 20 mm IS: 2062 - 2011, Gr. : E350 B0
04. Welding Process	:	FCAW
05. Welding Position.	:	2F/3F/4F
06. Welding Consumable.	:	
6.1 Electrode/Wire	Class :	Class I OF IRS: M-46-2020, Flux cored MS wire.
	Dia :	1.2 mm
	Drying Method	N.A.
6.2 Flux	Class :	N.A.
	Type :	N.A.
	Drying Method :	N.A.
6.3 Shielding Gas	:	CO2
07. Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches and Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
Joint design Details	:	
7.1	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.)	
	Fillet welding of Top Tie Beam with Top Diagonal Tie Beam.	



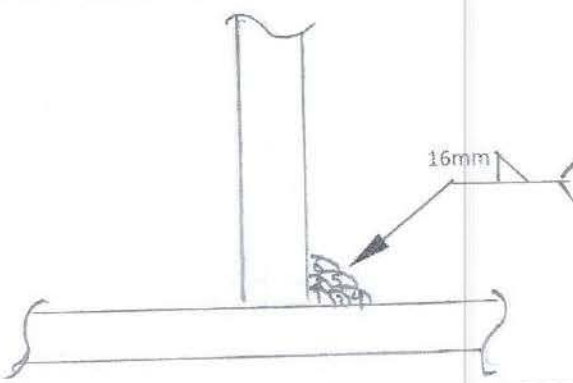
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7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code. Fillet Joint.
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	REVERSE
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1 (Root pass)	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
2	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
3	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
4	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
5	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
6	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N. A.
12.	Cleaning of weld bead before laying next weld bead	:	Yes, in case of multi layer. By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P
19.	Any other relevant Details	:	



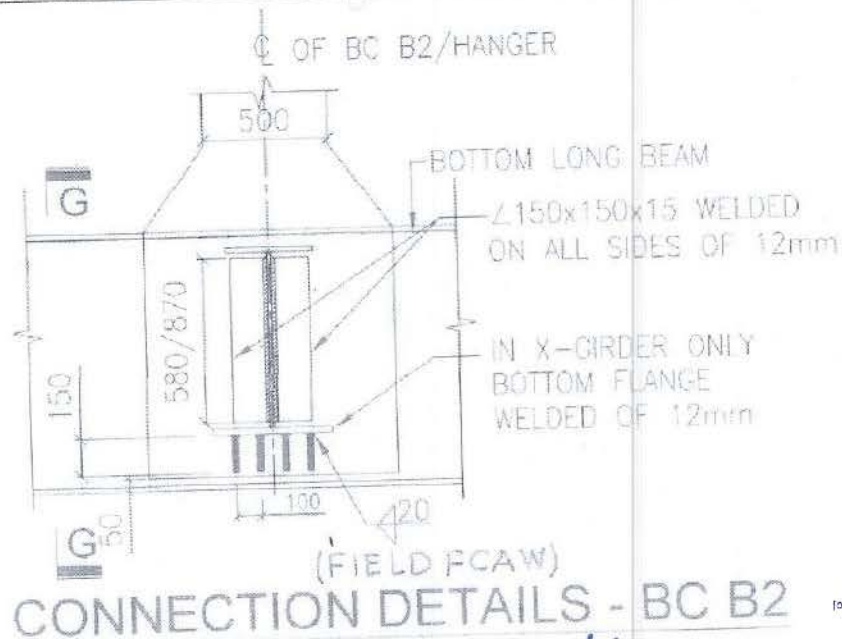
उप मुख्य अभियंता (मुख्य)
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Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 42 M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg -491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/24
01.	RDSO Drawing No.	:	RDSO/B-10437/6
02.	Welding Joint Description.	:	Fillet 12 mm – Int. Bottom Cross Beam with Hanger
03.	Base Metal.	:	32 mm x 28 mm IS: 2062 – 2011, Gr. : E350 B0
04.	Welding Process	:	FCAW
05.	Welding Position.	:	2F/3F/4F
06.	Welding Consumable.	:	
6.1	Electrode/Wire		
	Class	:	Class I OF IRS: M-46-2020, Flux cored MS wire.
	Dia	:	1.2 mm
6.2	Drying Method	:	N.A.
	Flux		
	Class	:	N.A.
6.3	Type	:	N.A.
	Drying Method	:	N.A.
6.3	Shielding Gas	:	CO2
	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches, and Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
	Joint design Details	:	
7.1	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.)		
	Fillet welding of Intermediate Bottom Cross Beam with Hanger Only Bottom Flange Welded.		



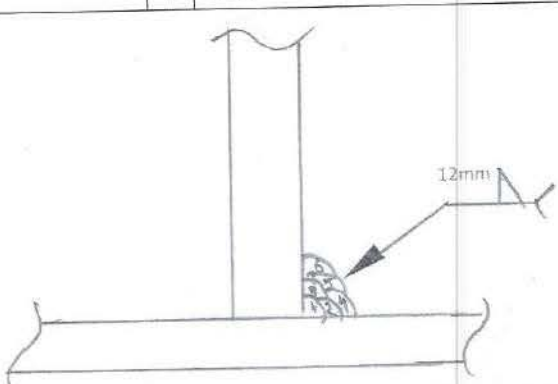
उप मुख्य अभियंता (मुख्य)
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7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code. Fillet Joint.
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	REVERSE
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1(Root pass)	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
2	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
3	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N. A.
12.	Cleaning of weld bead before laying next weld bead	:	Yes, in case of multi layer. By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P
19.	Any other relevant Details	:	NIL



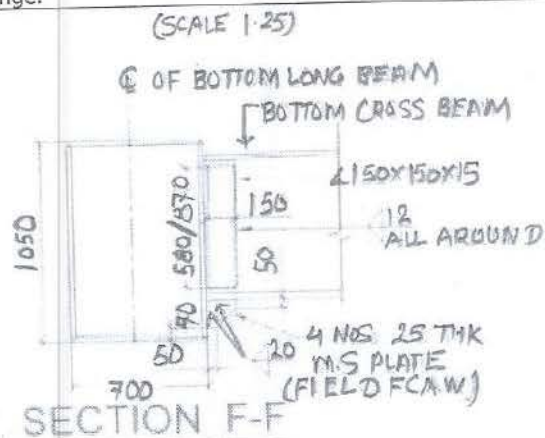
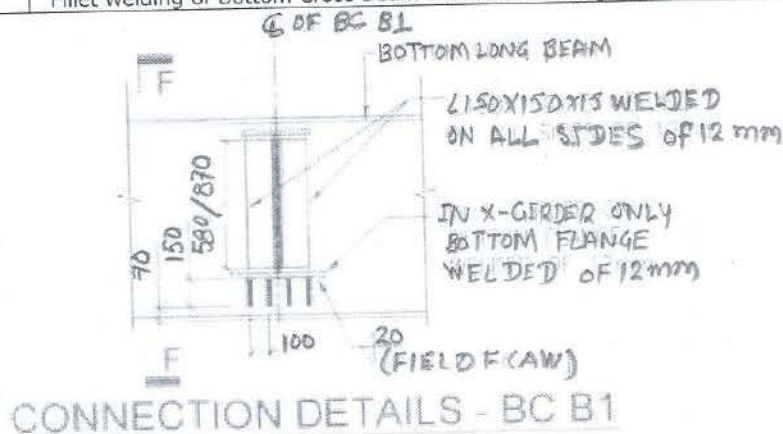
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Dy.Chief Engineer (Br.)
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RDSO
Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 42 M CLEAR SPAN BOW STRING GIRDER

WELDING PROCEDURE SPECIFICATION SHEET FOR 42 M CLEAR SPAN BOW STRING BRIDGE				
Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg -491001.	
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/25	
01.	RDSO Drawing No.	:	RDSO/B-10437/6	
02.	Welding Joint Description.	:	Fillet 12mm - Fillet welding of Bottom Cross Beam with Bottom Long Beam	
03.	Base Metal.	:	15 mm x 22 mm, IS: 2062 – 2011, Gr. : E350 B0	
04.	Welding Process	:	FCAW	
05.	Welding Position.	:	2F/3F/4F	
06.	Welding Consumable.	:		
6.1	Electrode/Wire			
	Class	:	Class I OF IRS: M-46-2020, Flux cored MS wire.	
	Dia	:	1.2 mm	
	Drying Method	:	N.A.	
6.2	Flux			
	Class	:	N.A.	
	Type	:	N.A.	
	Drying Method	:	N.A.	
6.3	Shielding Gas	:	CO2	
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches and Mill scale, Grease, Paint and Rust etc., which may affect weld quality.	
7.1	Joint design Details	:		
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.)			
	Fillet welding of Bottom Cross Beam with Bottom Long Beam Except Top Flange.			



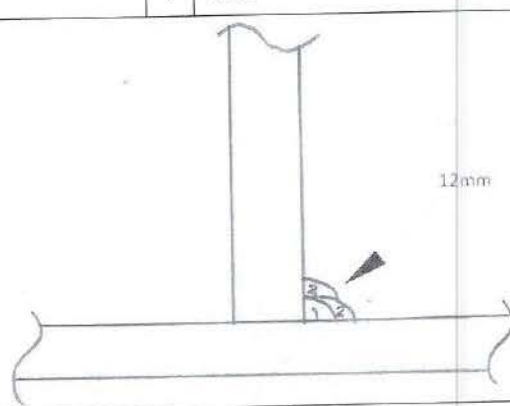
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आ० मा० सं०, लखनऊ/R.D.S.O., Lucknow

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7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code. Lap Joint.(fillet)
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	REVERSE
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1(Root pass)	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
2	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
3	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N. A.
12.	Cleaning of weld bead before laying next weld bead	:	Yes, in case of multi layer. By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P
19.	Any other relevant Details	:	NIL



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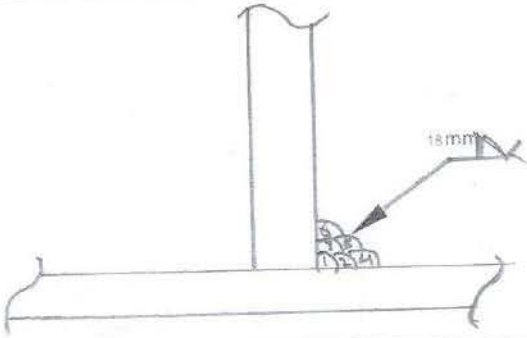
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RDSO
Inspection Agency



7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code. Lap Joint.(fillet)
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	REVERSE
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1 (Root pass)	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
2	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
3	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
4	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
5	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
6	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N. A.
12.	Cleaning of weld bead before laying next weld bead	:	Yes, in case of multi layer. By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P.
19.	Any other relevant Details	:	NIL



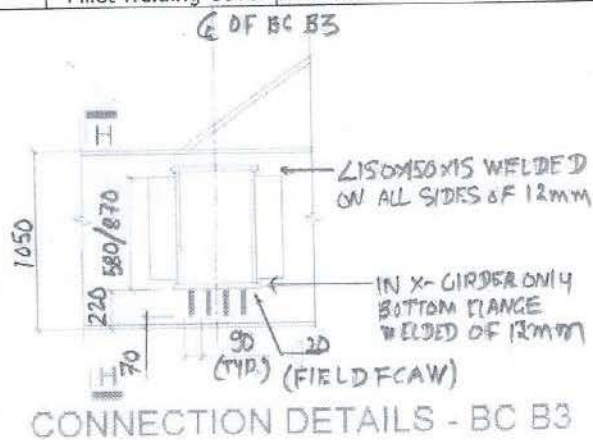
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लखनऊ/Lucknow

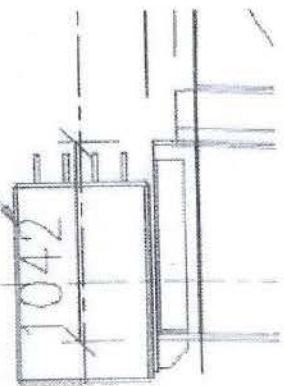
RDSO
Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 42 M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg -491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/27
01.	RDSO Drawing No.	:	RDSO/B-10437/6
02.	Welding Joint Description.	:	Fillet 12 mm – welding of Cover plate with End Bottom Cross Beam
03.	Base Metal.	:	32 mm x 15 mm, IS: 2062 – 2011, Gr. : E350 B0
04.	Welding Process	:	FCAW
05.	Welding Position.	:	2F/3F/4F
06.	Welding Consumable.		
6.1	Electrode/Wire	Class	Class I OF IRS: M-46-2020, Flux cored MS wire.
		Dia	1.2 mm
		Drying Method	N.A.
6.2	Flux	Class	N.A.
		Type	N.A.
		Drying Method	N.A.
6.3	Shielding Gas	:	CO2
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches and Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.)		
	Fillet welding Cover plate with End Bottom Cross Beam.		



BOTTOM
LONG BEAM



M/s SRMBS
Fabricator



M/s PILCON ENGG
Contractor

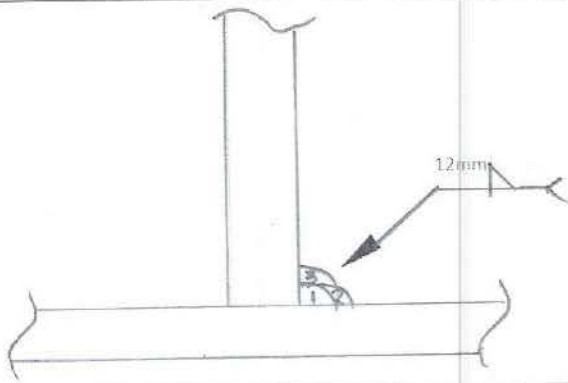
उप मुख्य अभियंता (पुल)
Dy. Chief Engineer (Br.)
वर्षा पूर्व मध्य रेलवे, बिलासपुर
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SCER
Railway Authority

संशोधन अधिकारी एवं सहायक
Asstt. Research Officer/M&C
रेल मंत्रालय/Ministry of Railways
लखनऊ/R.D.S.O., Lucknow

RDSO
Inspection Agency

7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code. Fillet Joint
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	REVERSE
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1(Root pass)	1.2 mm	180 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
2	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
3	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N. A.
12.	Cleaning of weld bead before laying next weld bead	:	Yes, in case of multi layer. By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per CI.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P.
19.	Any other relevant Details	:	NIL



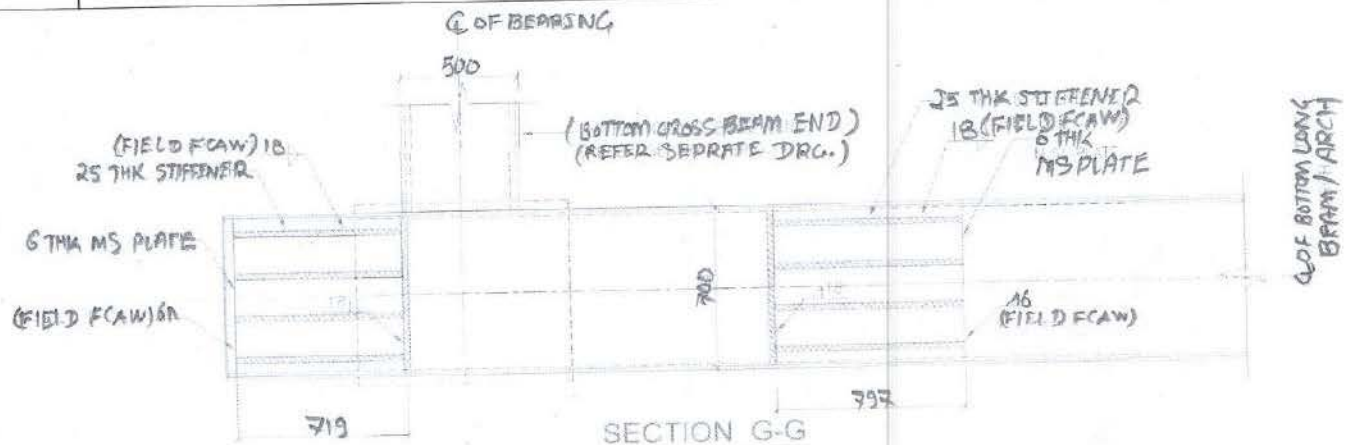
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RDSO
Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 42 M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg - 491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/28
01.	RDSO Drawing No.	:	RDSO/B-10437/4
02.	Welding Joint Description.	:	Fillet 18 mm - Stiffener with Arch & Bottom Long Beam
03.	Base Metal.	:	25 mm x 25 mm, 25 mm x 22 mm, IS: 2062 - 2011, Gr. : E350 B0
04.	Welding Process	:	FCAW
05.	Welding Position.	:	2F/3F/4F
06.	Welding Consumable.	:	
6.1	Electrode/Wire	Class	Class I OF IRS: M-46-2020, Flux cored MS wire.
		Dia	1.2 mm
		Drying Method	N.A.
6.2	Flux	Class	N.A.
		Type	N.A.
		Drying Method	N.A.
6.3	Shielding Gas	:	CO2
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches and Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.)		
	Fillet welding of Stiffener with Arch & Bottom Long Beam.		



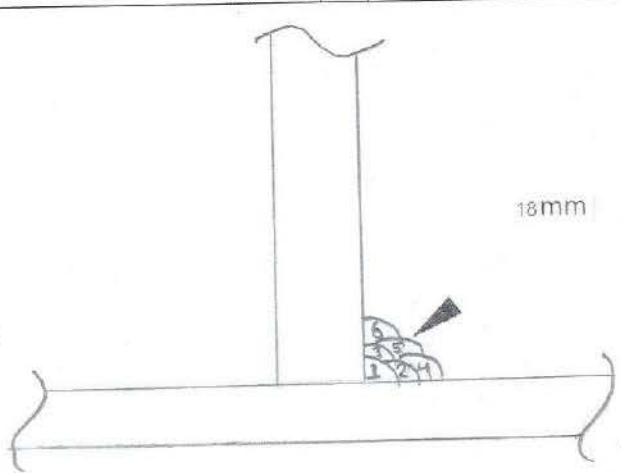
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1030 नागपुर, लखनऊ/R.D.S.O., Lucknow

RDSO
Inspection Agency

7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code. Fillet Joint
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	REVERSE
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1 (Root pass)	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
2	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
3	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
4	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
5	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
6	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N. A.
12.	Cleaning of weld bead before laying next weld bead	:	Yes, in case of multi layer. By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P.
19.	Any other relevant Details	:	NIL



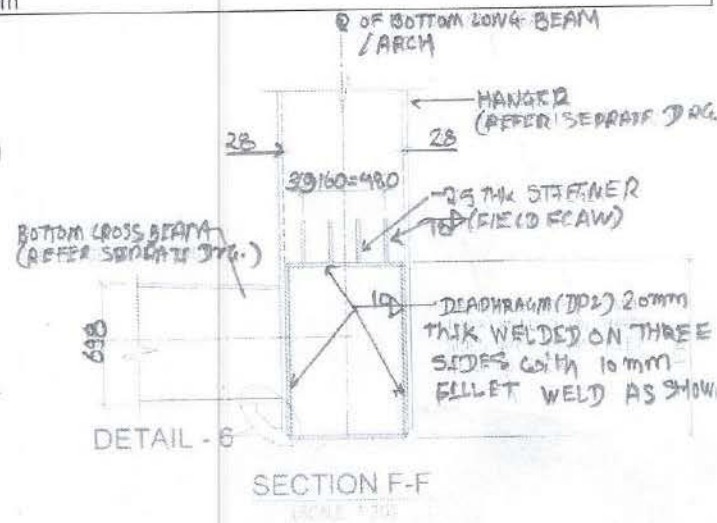
28/2/2024
 उप मुख्य अभियंता (पुल)
 Dy.Chief Engineer (Br.)
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 SCER
 Railway Authority

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RDSO
 Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 42 M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg -491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/29
01.	RDSO Drawing No.	:	RDSO/B-10437/5
02.	Welding Joint Description.	:	Fillet 18 mm - Stiffener with Hanger & Bottom Long Beam
03.	Base Metal.	:	25 mm x 22/25 mm, IS: 2062 – 2011, Gr. : E350 B0
04.	Welding Process	:	FCAW
05.	Welding Position.	:	2F/3F/4F
06.	Welding Consumable.	:	
6.1	Electrode/Wire	:	Class I OF IRS: M-46-2020, Flux cored MS wire.
	Class	:	
	Dia	:	1.2 mm
6.2	Flux	:	N.A.
	Class	:	N.A.
	Type	:	N.A.
6.3	Shielding Gas	:	CO2
	Drying Method	:	N.A.
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches and Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.)		
	Fillet welding of Stiffener with Hanger & Bottom Long Beam		



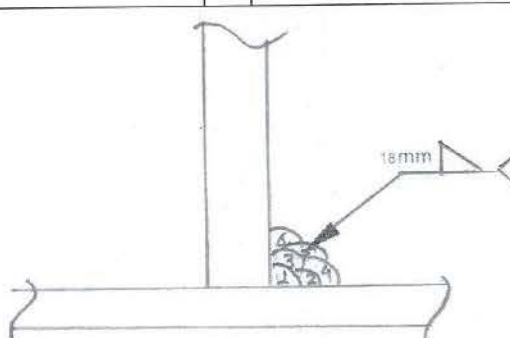
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लखनऊ/R.D.S.O., Lucknow

RDSO
Inspection Agency

7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code. Fillet Joint
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	REVERSE
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1 (Root pass)	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
2	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
3	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
4	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
5	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
6	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N. A.
12.	Cleaning of weld bead before laying next weld bead	:	Yes, in case of multi layer. By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P.
19.	Any other relevant Details	:	NIL



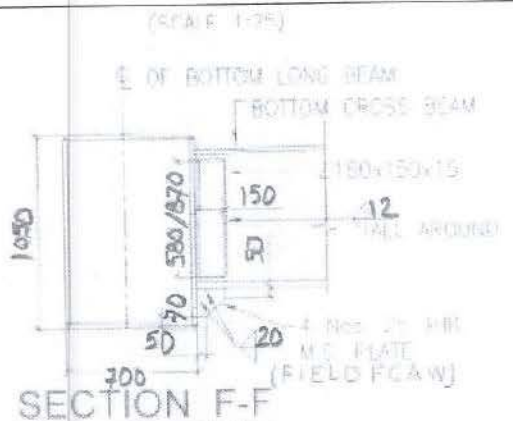
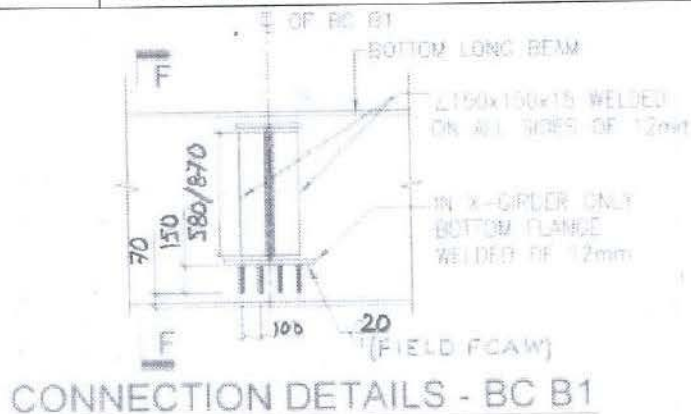
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लखनऊ / R.D.S.O., Lucknow

RDSO
Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 42 M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg -491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/30
01.	RDSO Drawing No.	:	RDSO/B-10437/6
02.	Welding Joint Description.	:	Fillet 20mm - Stiffener with Bottom Long Beam & Bottom Cross Beam
03.	Base Metal.	:	25 mm x 22/28 mm, IS: 2062 – 2011, Gr. : E350 B0
04.	Welding Process	:	FCAW
05.	Welding Position.	:	2F/3F/4F
06.	Welding Consumable.	:	
6.1	Electrode/Wire	:	Class I OF IRS: M-46-2020, Flux cored MS wire.
	Class	:	
	Dia	:	1.2 mm
6.2	Drying Method	:	N.A.
	Flux	:	
	Class	:	N.A.
6.3	Type	:	N.A.
	Drying Method	:	N.A.
6.3	Shielding Gas	:	CO2
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches and Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.) Fillet welding of Stiffener with Bottom Cross Beam & Bottom Long Beam		



सं०३१० अधि०/आनु एवं रसा०
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लखनऊ/Lucknow

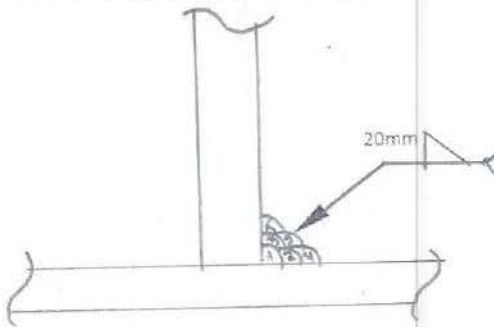


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SCER
Railway Authority

RDSO
Inspection Agency

7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code. Fillet Joint
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	REVERSE
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1(Root pass)	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
2	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
3	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
4	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
5	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
6	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N. A.
12.	Cleaning of weld bead before laying next weld bead	:	Yes, in case of multi layer. By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P.
19.	Any other relevant Details	:	NIL

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लखनऊ/R.D.S.O. Lucknow

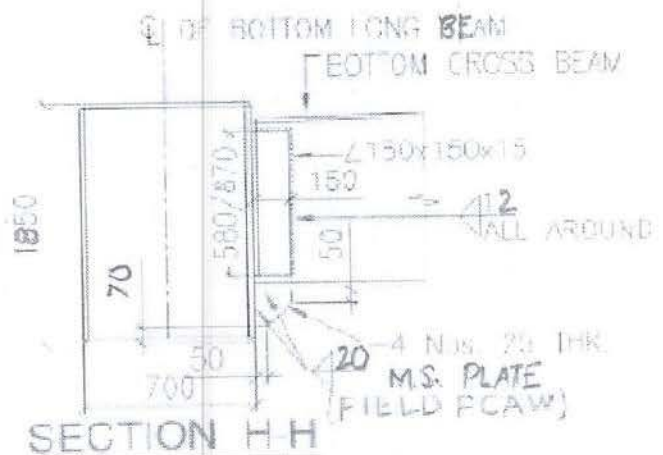
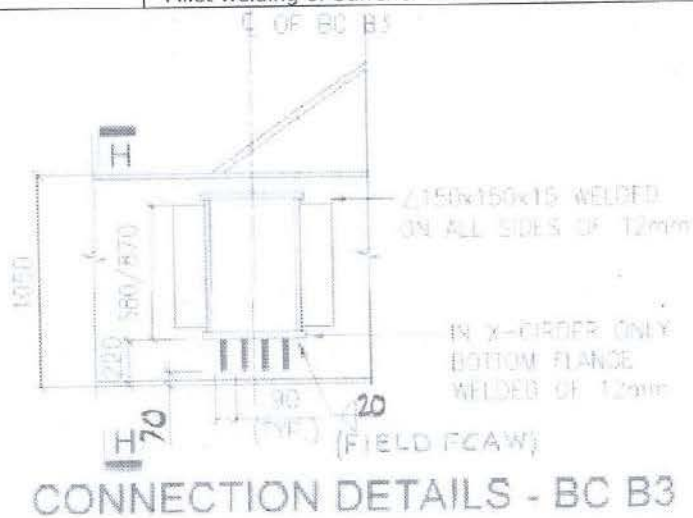


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Railway Authority

RDSO
Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 42 M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg - 491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/31
01.	RDSO Drawing No.	:	RDSO/B-10437/6
02.	Welding Joint Description.	:	Fillet 20 mm - Fillet welding of Stiffener with End Bottom Cross Beam with Cover Plate
03.	Base Metal.	:	25 mm x 22/32 mm IS: 2062 - 2011, Gr. : E350 B0
04.	Welding Process	:	FCAW
05.	Welding Position.	:	2F/3F/4F
06.	Welding Consumable.	:	
6.1	Electrode/Wire	Class	Class I OF IRS: M-46-2020, Flux cored MS wire.
		Dia	1.2 mm
		Drying Method	N.A.
6.2	Flux	Class	N.A.
		Type	N.A.
		Drying Method	N.A.
6.3	Shielding Gas	:	CO2
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches and Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.) Fillet welding of Stiffener with End Bottom Cross Beam with Cover Plate.		



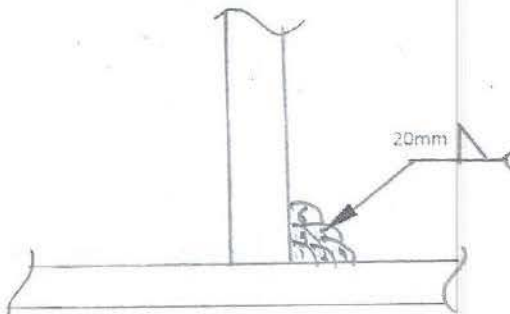
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लुधियाना, लुधियाना/R.D.S.O., Lucknow

RDSO
Inspection Agency

7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code. Fillet Joint
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	REVERSE
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1(Root pass)	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
2	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
3	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
4	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
5	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
6	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N. A.
12.	Cleaning of weld bead before laying next weld bead	:	Yes, in case of multi layer. By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P.
19.	Any other relevant Details	:	NIL



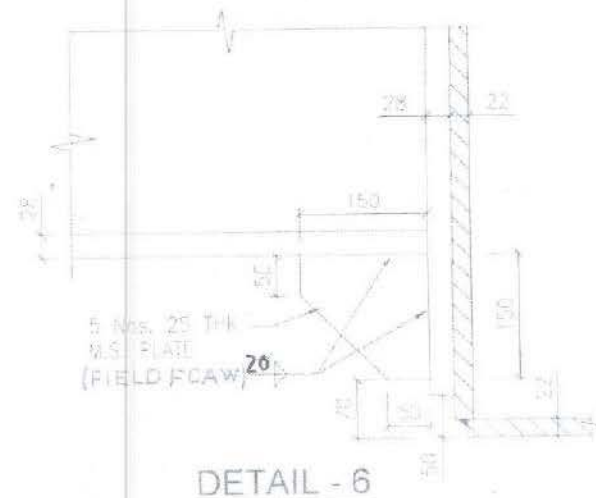
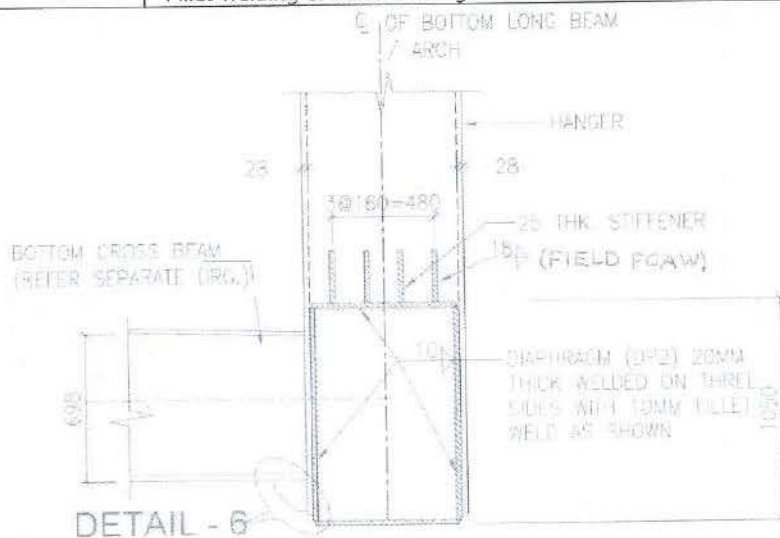
28/12/2024
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RDSO
 Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 42 M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg - 491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/32
01.	RDSO Drawing No.	:	RDSO/B-10437/6
02.	Welding Joint Description.	:	Fillet 20 mm - Fillet welding of Stiffener with End Bottom Cross Beam with Hanger
03.	Base Metal.	:	25 mm x 28 mm IS: 2062 - 2011, Gr. : E350 B0
04.	Welding Process	:	FCAW
05.	Welding Position.	:	2F/3F/4F
06.	Welding Consumable.		
6.1	Electrode/Wire	Class	Class I OF IRS:M-46-2003, Flux cored MS wire.
		Dia	1.2 mm
		Drying Method	N.A.
6.2	Flux	Class	N.A.
		Type	N.A.
		Drying Method	N.A.
6.3	Shielding Gas	:	CO2
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches and Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.) Fillet welding of Fillet welding of Stiffener with End Bottom Cross Beam with Hanger.		



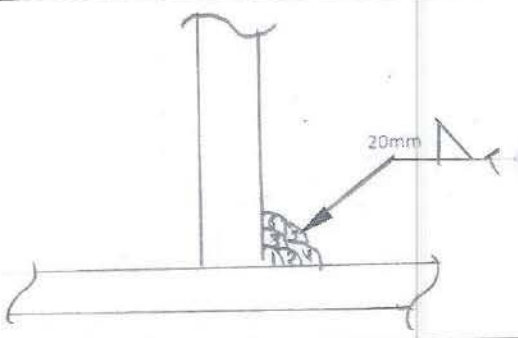
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7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code. Fillet Joint
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	REVERSE
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1(Root pass)	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
2	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
3	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
4	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
5	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25
6	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 – 25

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N. A.
12.	Cleaning of weld bead before laying next weld bead	:	Yes, in case of multi layer. By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P.
19.	Any other relevant Details	:	NIL



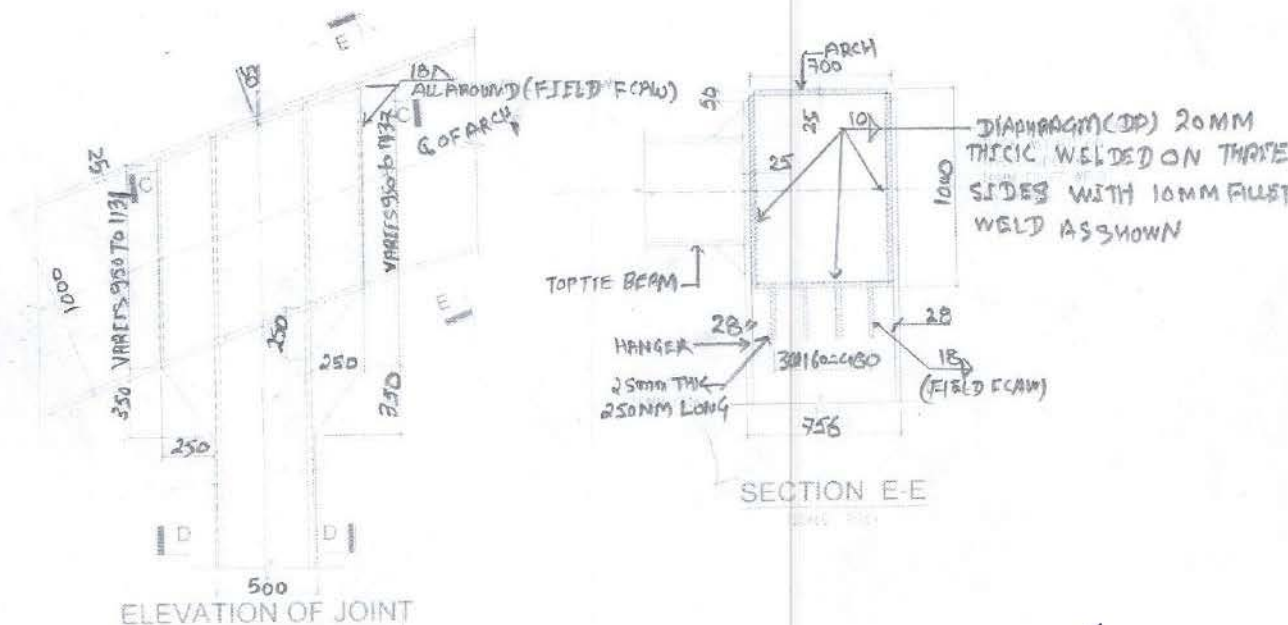
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WELDING PROCEDURE SPECIFICATION SHEET FOR 42 M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg -491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/33
01.	RDSO Drawing No.	:	RDSO/B-10437/2
02.	Welding Joint Description.	:	Fillet 18 mm - Stiffener with Arch & Hanger
03.	Base Metal.	:	25 mm x 28/25 mm, IS: 2062 - 2011, Gr. : E350 B0
04.	Welding Process	:	FCAW
05.	Welding Position.	:	2F/3F/4F
06.	Welding Consumable.	:	
6.1	Electrode/Wire	Class	: Class I OF IRS: M-46-2020, Flux cored MS wire.
		Dia	: 1.2 mm
	Drying Method	:	N.A.
6.2	Flux	Class	: N.A.
		Type	: N.A.
	Drying Method	:	N.A.
6.3	Shielding Gas	:	CO2
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches, and Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.) Fillet welding of Stiffener with Arch & Hanger.		



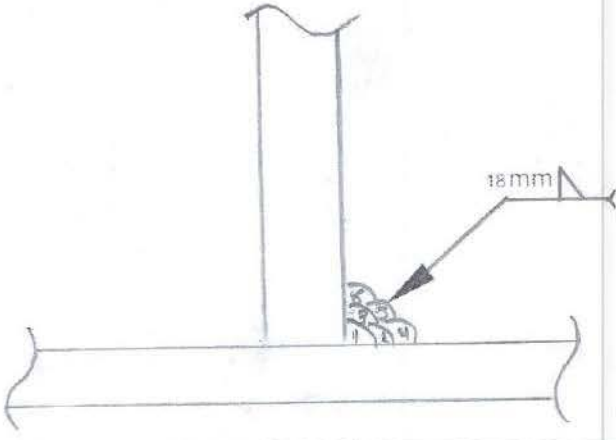
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7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code. Fillet Joint
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	REVERSE
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1 (Root pass)	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
2	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
3	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
4	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
5	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
6	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N. A.
12.	Cleaning of weld bead before laying next weld bead	:	Yes, in case of multi layer. By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P.
19.	Any other relevant Details	:	NIL



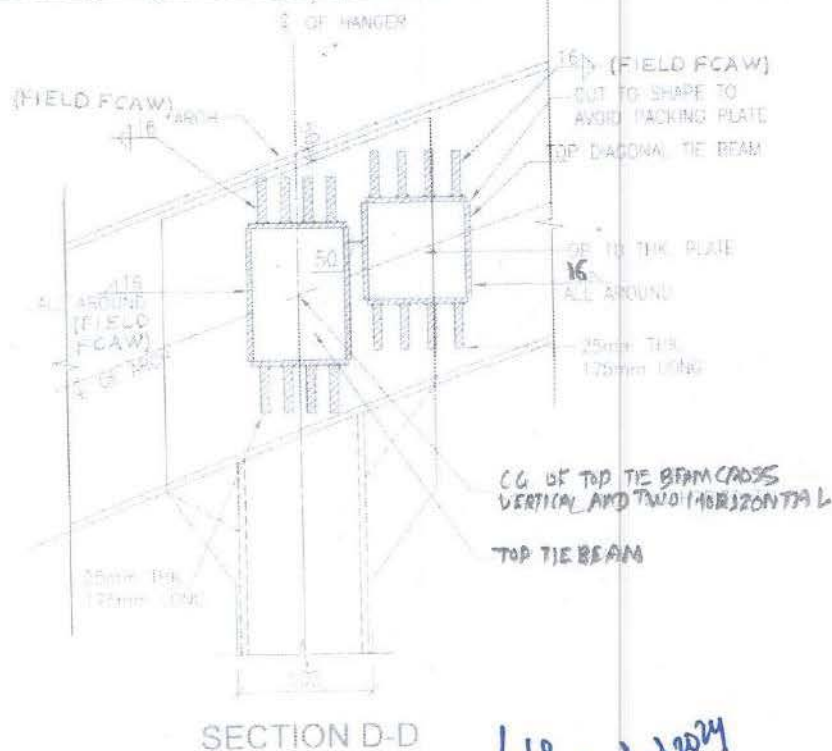
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 Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 72 M CLEAR SPAN BOW STRING BEAM

WELDING PROCEDURE SPECIFICATION SHEET FOR 7.2 M CLEAR SPAN BOX GIRDER				
Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg -491001.	
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/34	
01.	RDSO Drawing No.	:	RDSO/B-10437/3	
02.	Welding Joint Description.	:	Fillet 16 mm - Fillet weld of Stiffener with Top Diagonal Tie Beam & Arch and Top Diagonal Tie Beam & Hanger	
03.	Base Metal.	:	25 mm x 25/28 mm IS: 2062 – 2011, Gr. : E350 B0	
04.	Welding Process	:	FCAW	
05.	Welding Position.	:	2F/3F/4F	
06.	Welding Consumable.	:		
6.1	Electrode/Wire			
	Class	:	Class I OF IRS: M-46-2020, Flux cored MS wire.	
	Dia	:	1.2 mm	
	Drying Method	:	N.A.	
6.2	Flux			
	Class	:	N.A.	
	Type	:	N.A.	
	Drying Method	:	N.A.	
6.3	Shielding Gas	:	CO2	
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches and Mill scale, Grease, Paint and Rust etc., which may affect weld quality.	
7.1	Joint design Details	:		
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.)			
	Fillet weld of Stiffener with Top Diagonal Tie Beam & Arch/ Hanger.			



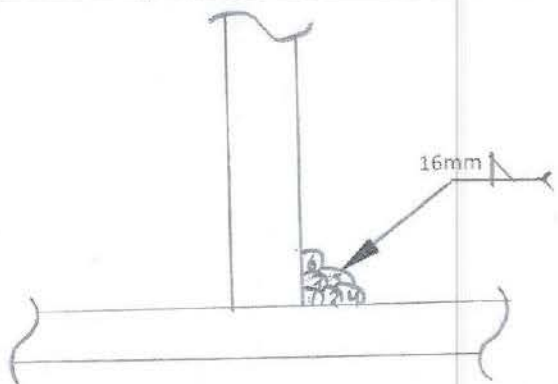
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7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code. Fillet Joint
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	REVERSE
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1 (Root pass)	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
2	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
3	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
4	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
5	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
6	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N. A.
12.	Cleaning of weld bead before laying next weld bead	:	Yes, in case of multi layer. By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual, & D.P
19.	Any other relevant Details	:	



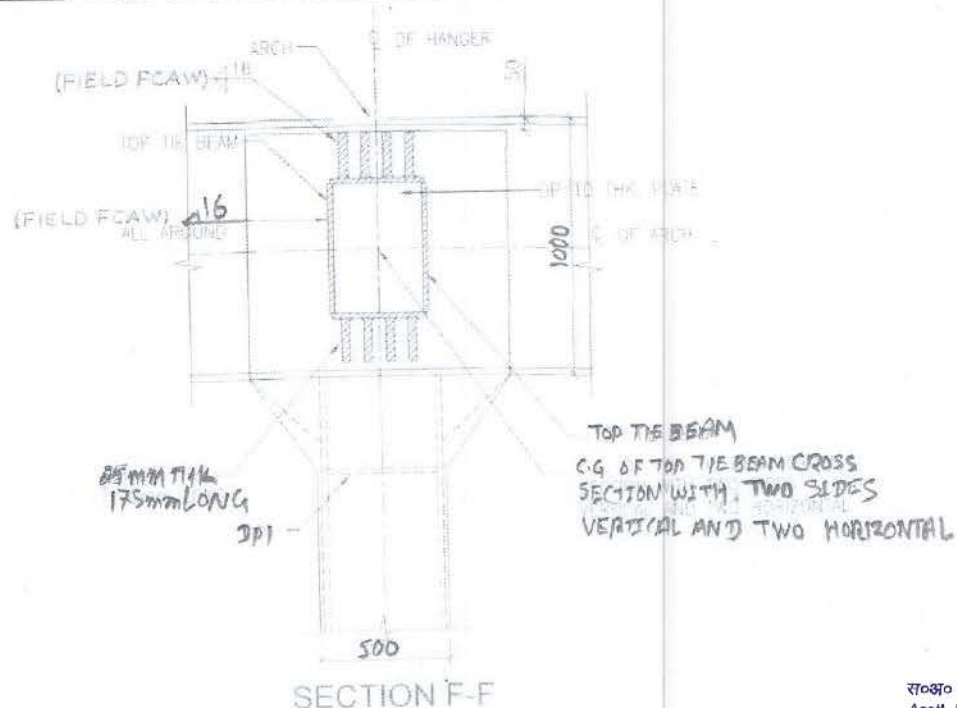

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RDSO
 Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 72 M CLEAR SPAN BOW STRING BEAM

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg -491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/35
01.	RDSO Drawing No.	:	RDSO/B-10437/3
02.	Welding Joint Description.	:	Fillet 16 mm - Stiffener with Hanger & Top Tie Beam
03.	Base Metal.	:	25 mm x 20/28 mm, IS: 2062 – 2011, Gr. : E350 B0
04.	Welding Process	:	FCAW
05.	Welding Position.	:	3F/4F
06.	Welding Consumable.		
6.1	Electrode/Wire	Class	Class I OF IRS: M-46-2020, Flux cored MS wire.
		Dia	1.2 mm
		Drying Method	N.A.
6.2	Flux	Class	N.A.
		Type	N.A.
		Drying Method	N.A.
6.3	Shielding Gas	:	CO2
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches and Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.)		
	Fillet weld of Stiffener with Hanger & Top Tie Beam.		



14/11/2024

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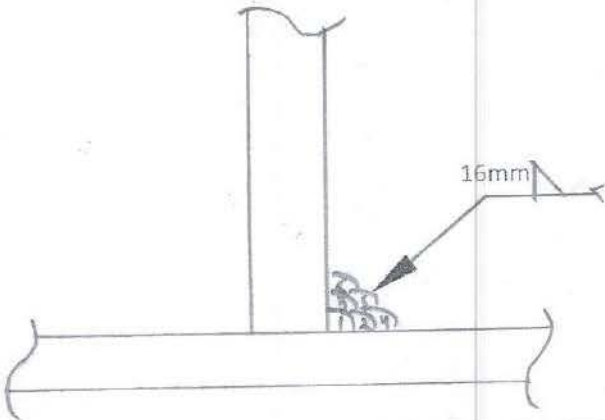
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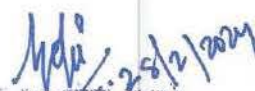
7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code. Fillet Joint
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	REVERSE
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1 (Root pass)	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
2	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
3	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
4	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
5	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
6	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N. A.
12.	Cleaning of weld bead before laying next weld bead	:	Yes, in case of multi layer. By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P.
19.	Any other relevant Details	:	NIL




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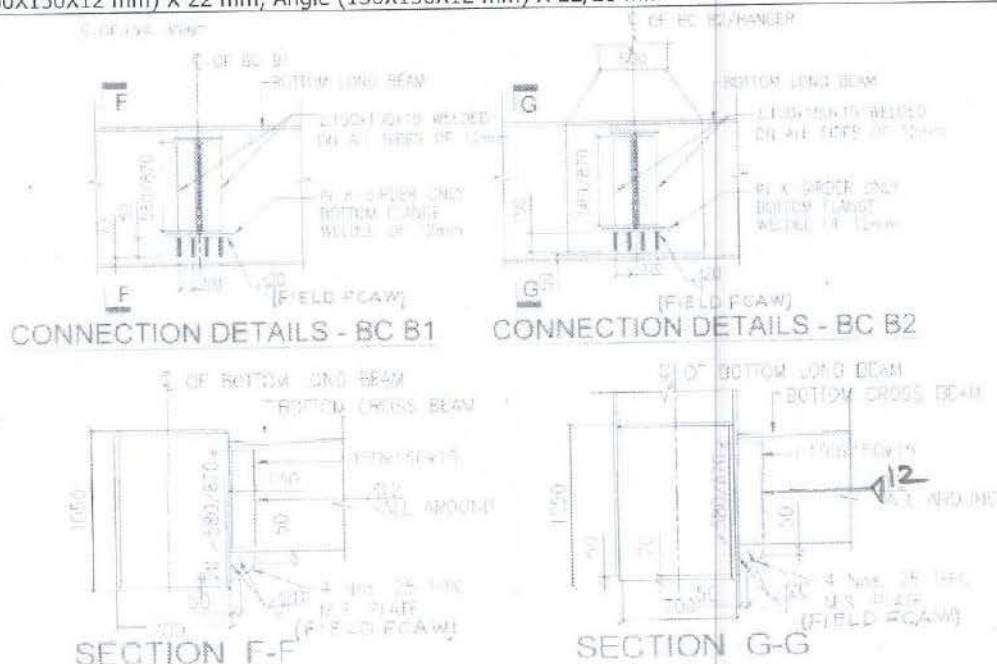
स०३०० अधि० प्रानु एवं रसा०
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RDSO
 Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 72 M CLEAR SPAN BOW STRING BEAM

WELDING PROCEDURE SPECIFICATION SHEET FOR 7/2 H CLEAR OF AN BOW STRONG

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg -491001.	
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/36	
01.	RDSO Drawing No.	:	RDSO/B-10437/6	
02.	Welding Joint Description.	:	Fillet 12 mm - Fillet Welding of Angle with Int. Bottom Cross Beam & Bottom Long Beam and Angle with Int. Bottom Cross Beam & Hanger	
03.	Base Metal.	:	Angle (150X150X15 mm) X 22 mm, Angle (150X150X15 mm) X 22/28 mm IS: 2062 – 2011, Gr. : E350 B0 & E250B0	
04.	Welding Process	:	FCAW	
05.	Welding Position.	:	2F/3F/4F	
06.	Welding Consumable.	:		
6.1	Electrode/Wire	:	Class I OF IRS: M-46-2020, Flux cored MS wire.	
	Class	:		
	Dia	:	1.2 mm	
	Drying Method	:	N.A.	
6.2	Flux	:		
	Class	:	N.A.	
	Type	:	N.A.	
	Drying Method	:	N.A.	
6.3	Shielding Gas	:	CO2	
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches and Mill scale, Grease, Paint and Rust etc., which may affect weld quality.	
7.1	Joint design Details	:		
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.)			
	Fillet Weld of Angle with Int. Bottom Cross Beam & Bottom Long Beam and Angle with Int. Bottom Cross Beam & Hanger Angle (150X150X12 mm) X 22 mm, Angle (150X150X12 mm) X 22/28 mm			



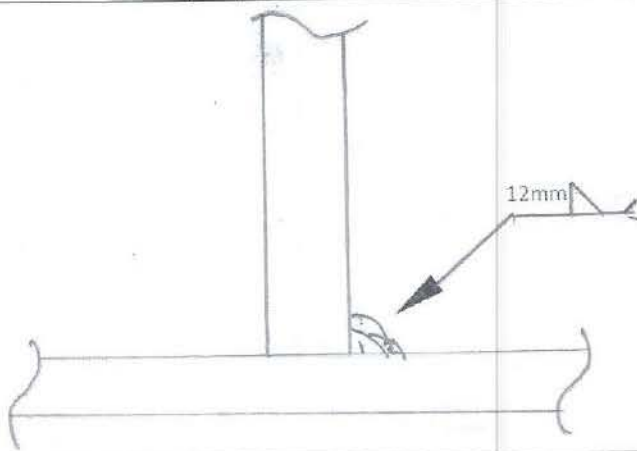
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Inspection Agency

7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code. Fillet Joint
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	REVERSE
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (I/min.)
1(Root pass)	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
2	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
3	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N. A.
12.	Cleaning of weld bead before laying next weld bead	:	Yes, in case of multi layer. By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P
19.	Any other relevant Details	:	NIL



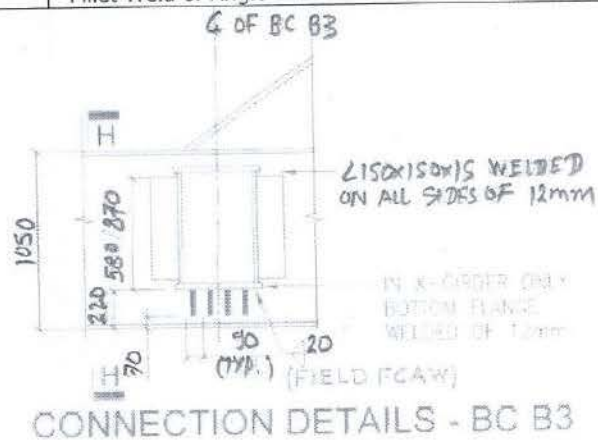
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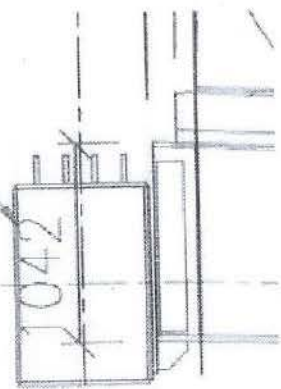
RDSO
 Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 72 M CLEAR SPAN BOW STRING BEAM

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg -491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/37
01.	RDSO Drawing No.	:	RDSO/B-10437/6
02.	Welding Joint Description.	:	Fillet 12 mm- Fillet Welding of Angle with Cover Plate & End Bottom Cross Beam
03.	Base Metal.	:	Angle 150x150x12mmx32/25mm IS: 2062 – 2011, Gr. : E350 B0 & E250BR/BO
04.	Welding Process	:	FCAW
05.	Welding Position.	:	2F/3F/4F
06.	Welding Consumable.		
6.1	Electrode/Wire	Class	Class I OF IRS: M-46-2020, Flux cored MS wire.
		Dia	1.2 mm
		Drying Method	N.A.
6.2	Flux	Class	N.A.
		Type	N.A.
		Drying Method	N.A.
6.3	Shielding Gas	:	CO2
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches and Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.)		
	Fillet Weld of Angle with Cover Plate & End Bottom Cross Beam.		



BOTTOM
LONG BEAM



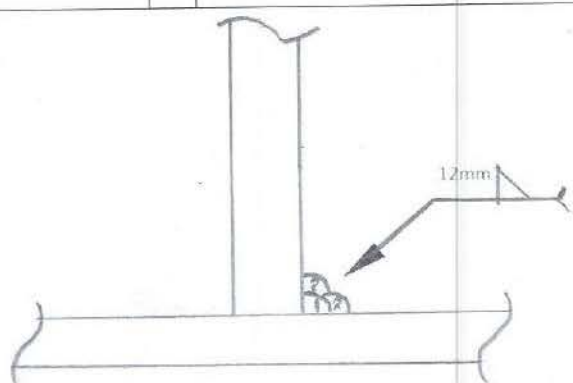
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7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code. Fillet Joint
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	REVERSE
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1(Root pass)	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
2	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
3	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N. A.
12.	Cleaning of weld bead before laying next weld bead	:	Yes, in case of multi layer. By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P
19.	Any other relevant Details	:	NIL



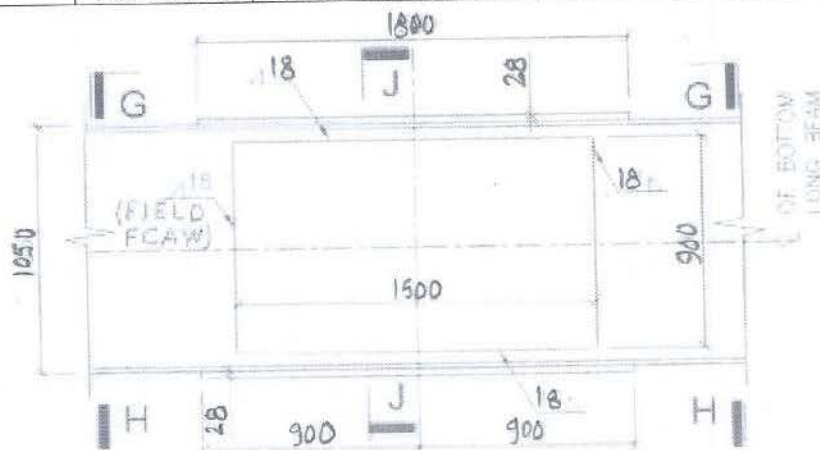
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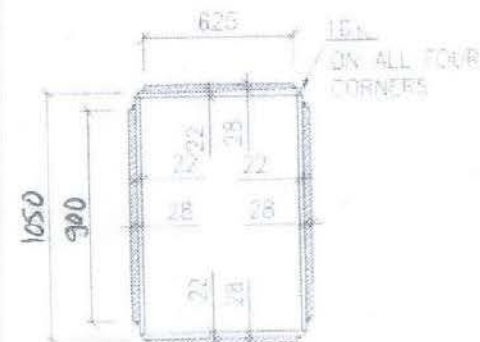
RDSO
 Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 72 M CLEAR SPAN BOW STRING BEAM

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg -491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/38
01.	RDSO Drawing No.	:	RDSO/B-10437/5
02.	Welding Joint Description.	:	Fillet 18 mm - Fillet Weld of Splice Plate with Bottom Long Beam
03.	Base Metal.	:	28 mm x 22 mm, IS: 2062 - 2011, Gr. : E350 B0
04.	Welding Process	:	FCAW
05.	Welding Position.	:	2F/3F/4F
06.	Welding Consumable.	:	
6.1	Electrode/Wire	:	Class I OF IRS: M-46-2020, Flux cored MS wire.
	Class	:	
	Dia	:	
	Drying Method	:	
6.2	Flux	:	N.A.
	Class	:	
	Type	:	
	Drying Method	:	
6.3	Shielding Gas	:	CO2
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches and Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.)
	Fillet Weld of Splice Plate with Bottom Long Beam	:	



DETAILS OF SPLICE - ELEVATION



SECTION J-J

(SCALE 1:10)



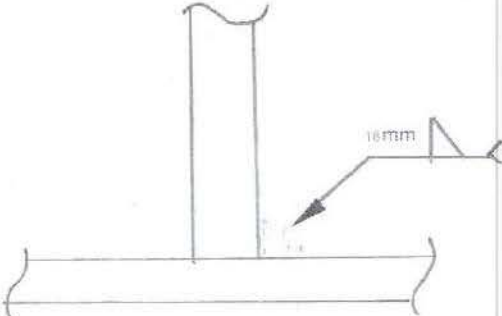
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7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code. Fillet Joint
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	REVERSE
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (I/min.)
1(Root pass)	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
2	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
3	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
4	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
5	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
6	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N. A.
12.	Cleaning of weld bead before laying next weld bead	:	Yes, in case of multi layer. By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P
19.	Any other relevant Details	:	NIL



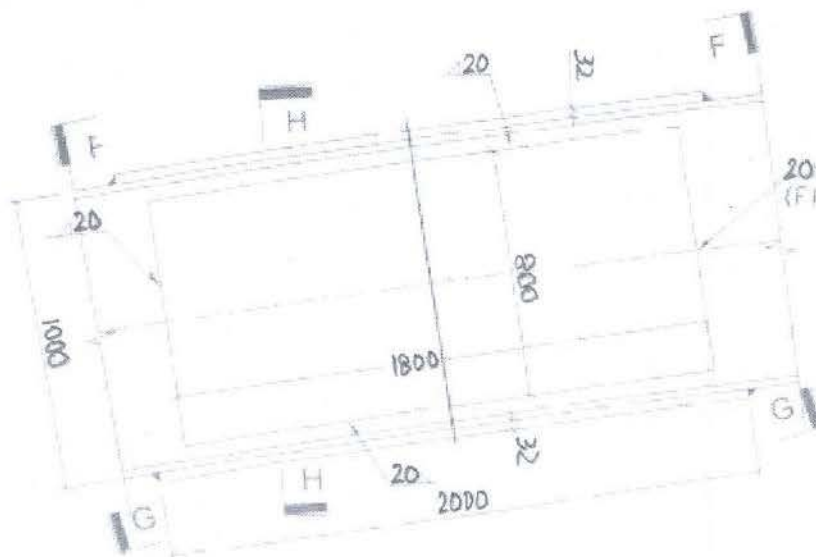
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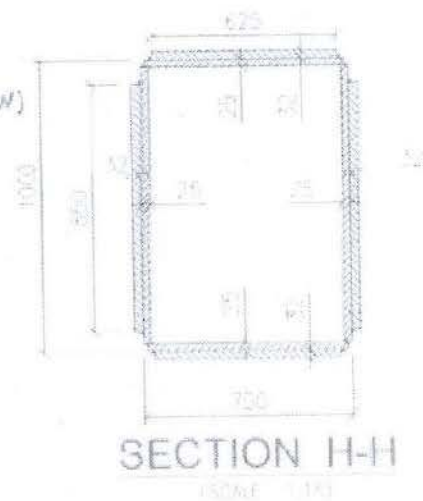
RDSO
Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 72 M CLEAR SPAN BOW STRING BEAM

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg -491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/39
01.	RDSO Drawing No.	:	RDSO/B-10437/2
02.	Welding Joint Description.	:	Fillet 20 mm - Fillet Weld of Splice Plate with Arch
03.	Base Metal.	:	32 mm x 25 mm, IS: 2062 - 2011, Gr. : E350 B0
04.	Welding Process	:	FCAW
05.	Welding Position.	:	2F/3F/4F
06.	Welding Consumable.	:	
6.1	Electrode/Wire	:	Class I OF IRS: M-46-2020, Flux cored MS wire.
	Class	:	
	Dia	:	1.2 mm
	Drying Method	:	N.A.
6.2	Flux	:	
	Class	:	N.A.
	Type	:	N.A.
	Drying Method	:	N.A.
6.3	Shielding Gas	:	CO2
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches and Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.) Fillet Weld of Splice Plate with Arch.		



DETAILS OF SPLICE - ELEVATION



SECTION H-H

(SCALE 1:10)



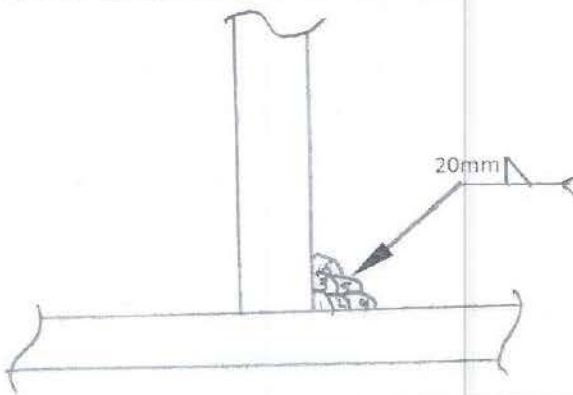
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7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code. Fillet Joint
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	REVERSE
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1 (Root pass)	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
2	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
3	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
4	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
5	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
6	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N. A.
12.	Cleaning of weld bead before laying next weld bead	:	Yes, in case of multi layer. By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P
19.	Any other relevant Details	:	



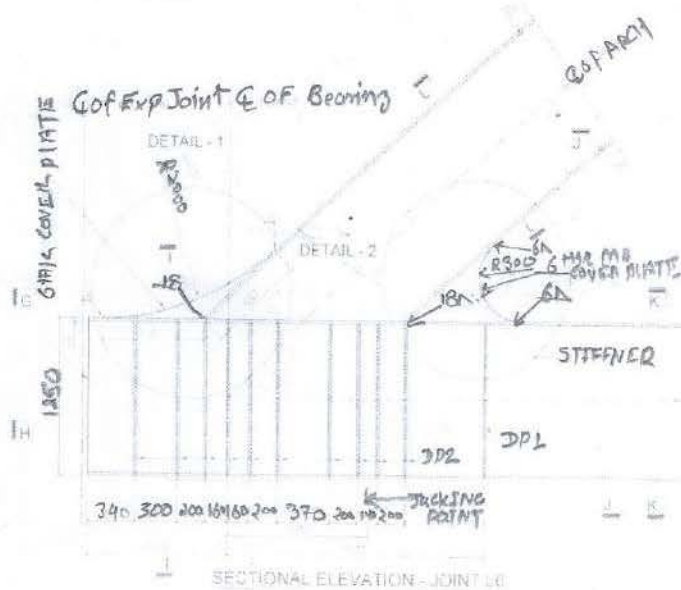
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Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 72 M CLEAR SPAN BOW STRING BEAM

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg -491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/40
01.	RDSO Drawing No.	:	RDSO/B-10437/1
02.	Welding Joint Description.	:	Fillet 6 mm - Fillet Weld of 6 mm cover plate with Arch and Bottom Long Beam
03.	Base Metal.	:	6 mm X 25/36mm, IS: 2062 - 2011, Gr. : E350 B0
04.	Welding Process	:	FCAW
05.	Welding Position.	:	2F/3F
06.	Welding Consumable.	:	
6.1	Electrode/Wire	Class	Class I OF IRS: M-46-2020, Flux cored MS wire.
		Dia	1.2 mm
		Drying Method	N.A.
6.2	Flux	Class	N.A.
		Type	N.A.
		Drying Method	N.A.
6.3	Shielding Gas	:	CO2
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches and Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.) Fillet Weld of 6 mm cover plate with Arch and Bottom Long Beam.		



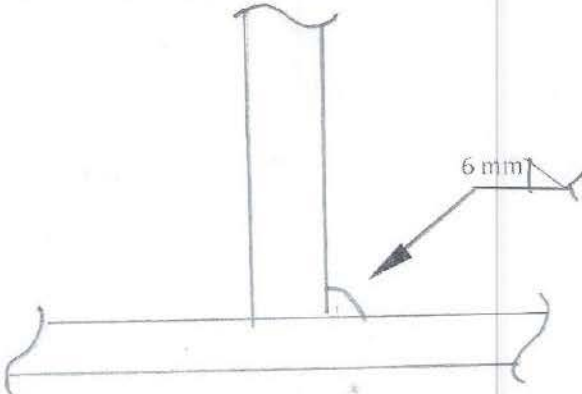
28/1/2024
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7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code. Fillet Joint
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	REVERSE
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1(Root pass)	1.2 mm	150 – 250	22 – 28	Controlled by current	N.A.	15	15 – 25

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N. A.
12.	Cleaning of weld bead before laying next weld bead	:	N.A.
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P
19.	Any other relevant Details	:	NIL

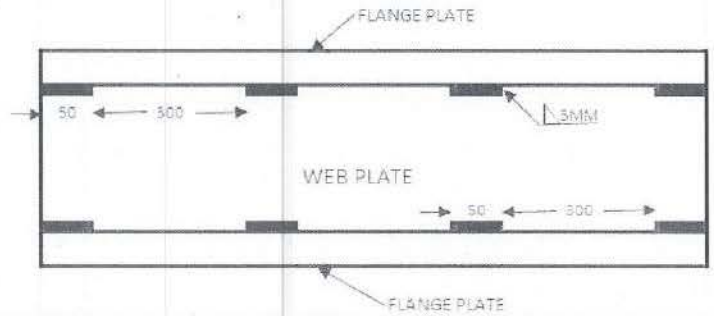


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 Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 72.0 m. CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg -491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/41
01.	RDSO Drawing No.	:	RDSO/B-10425 Series
02.	Welding Joint Description.	:	Fillet 5 mm - Tack Weld
03.	Base Metal.	:	IS: 2062 – 2011 E350/E250
04.	Welding Process	:	FCAW (Flux core Arc Welding)
05.	Welding Position.	:	Horizontal / Vertical
06.	Welding Consumable.	:	
6.1	Electrode/Wire	Class : Dia : Type : Drying Method :	Class I of IRS M 46-2013 1.2 mm Copper coated solid Wire. N.A.
6.2	Flux		
		Class : Type : Drying temperature :	N.A. N.A. N.A.
6.3	Shielding Gas	:	CO ₂
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches and Mill scale, Grease, Paint, Rust etc., which may affected weld quality.
7.1	Joint design Details	:	N.A.
	Length of Tack Weld 50 mm Distance between tack Weld 300 mm		 The diagram illustrates a cross-section of a bow string girder joint. It shows two horizontal flange plates connected by a vertical web plate. Tack welds are indicated by short horizontal lines at the intersections. Dimensions are provided: 50 mm for the length of each tack weld and 300 mm for the distance between adjacent tack welds. A 3mm fillet weld is also shown at the corner of the flange plate.
7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code.
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	Reverse
09.	Welder qualification	:	As per IS: 7310 /7307 (Part-I) – 1974
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

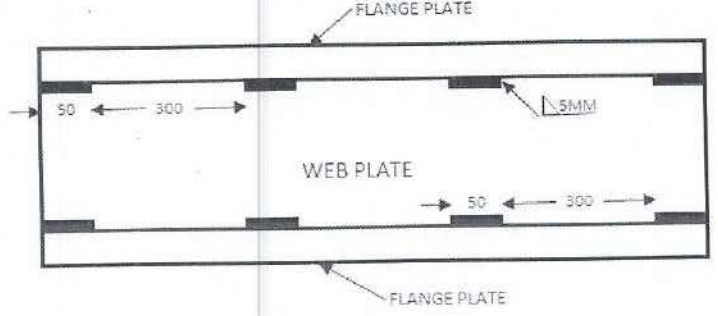


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Weld Pass No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1	1.2	150 – 220	20 – 26	3.5 – 4.0	N.A.	13 – 16	16 - 18

10.2	Welding Pass and technique	:	N.A.
Length of Tack Weld 50 mm Distance between tack Weld 300 mm			

11.	Provision of run-on / run-off tabs	:	N.A.
12.	Cleaning of weld bead before laying next weld bead	:	N.A.
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By grinding of the defective weld & rectify the weld as per CI.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & DPT
19.	Any other relevant Details	:	Tack Weld of all fit up component

M/s SRMBS
Fabricator



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RDSO
Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET (WORKSHOP)

**42 MTR CLEAR SPAN
(BOW STRING STEEL GIRDER)
RDSO DRAWING NO:RDSO/B/10437 (SERIES)**

Name of work: Nagpur Division Construction of LROB for elimination of manned LC No.448 at Km 867/29-31 between DURG-RSM (DURG-RASMARA) stations on DURG-NGP Section.

LOA No- NAGPUR-SECR-DIVISION-ENGINEERING / Br-Spl-16-NGP-2022-23 / 00843390079741

Fabricator (Regd. Office & Work Site):

M/s. Struc-Rite Metal Building Systems, Unit-II, Borai, Durg-491001.

Contractor:

M/s Pilcon Engineering

CLIENT:

SOUTH EAST CENTRAL RAILWAY

W.P.S.S. INDEX SHEET
42 MTR SPAN BOW STRING STEEL GIRDER
RDSO/B/10437(SERIES)

WPSS NO	DESCRIPTION	WELD SIZE	PAGE NO.	REMARKS
SRMBS/PILCON-448/SHOP/WPS/42M/01	Bottom Long Beam, Hanger Beam & Arch	10 mm	01-02	SAW
SRMBS/PILCON-448/SHOP/WPS/42M/02	End Bottom Cross beam	14 mm	03-04	SAW
SRMBS/PILCON-448/SHOP/WPS/42M/03	Top Tie Beam & Top Diagonal Tie Beam	8 mm	05-06	SAW
SRMBS/PILCON-448/SHOP/WPS/42M/04	Bottom Cross Beam (Intermediate)	12 mm	07-08	SAW
SRMBS/PILCON-448/SHOP/WPS/42M/05	DP1 at Bottom Long Beam & Hanger	10 mm	09-10	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/06	DP2/DP at Bottom Long Beam & Arch	10 mm	11-12	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/07	DP at Top Tie Beam & Top Diagonal Tie Beam	8 mm	13-14	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/08	Inside Welding at Bottom Long Beam & Arch	10 mm	15-16	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/09	Web Splice at Intermediate Bottom Cross Beam	14 mm	17-18	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/10	Top & Bottom Outer Splice at Intermediate Bottom Cross Beam	22 mm	19-20	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/11	Bottom Inside Splice at Intermediate Bottom Cross Beam	14 mm	21-22	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/12	Web Splice at End Bottom Cross Beam	18 mm	23-24	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/13	Top & Bottom Splice at End Bottom Cross Beam	22 mm	25-26	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/14	Splice at Top Tie Beam	16 mm	27-28	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/15	Stiffener at End & Intermediate Bottom Cross Beam	8 mm	29-30	FCAW
SRMBS/PILCON-448/SHOP/WPS/42M/16	Stud Welding of End Bottom Cross beam & Int. Bottom cross beam	7 mm	31-32	Arc stud with ferrule
SRMBS/PILCON-448/SHOP/WPS/42M/17	Tack Weld of all Component	5 mm	33-34	FCAW



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 Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 42.0M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Borai, Nagpura-491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/01
01.	RDSO Drawing No.	:	RDSO/B/10437/1
02.	Welding Joint Description.	:	Fillet 10 mm - Bottom Long Beam, Hanger & Arch
03.	Base Metal.	:	22mmx22mm, 25mmx28mm, 25mmx25mm, IS: 2062 - 2011, Gr. : E350 B0
04.	Welding Process	:	S.A.W.
05.	Welding Position.	:	1F
06.	Welding Consumable.	:	
6.1	Electrode/Wire	Class : Dia : Type : Drying Method :	W2 of IRS: M-39-2020. 4 mm Copper Coated Mild Steel Wire. N.A.
6.2	Flux	Class : Type : Drying Method :	F2 OF IRS M 39 - 2020 Agglomerated. Recommended as per manufacturer.
6.3	Shielding Gas	:	NA
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches, and Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.) (Web with flange)
7.2	Joint preparation	:	As Per IS: 4353 - 1995, IS: 7215 & Welded Bridge Code.
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	Reverse
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) - 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

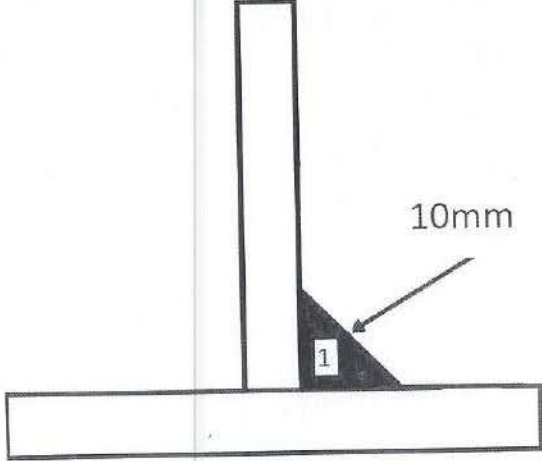


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Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1	4	490 – 550	28 – 32	2.0 – 2.5	0.30 – 0.50	15 – 20	N.A.

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	Yes
12.	Cleaning of weld bead before laying next weld bead	:	N.A.
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual, D.P., MPT & Macro etching Test.
19.	Any other relevant Details	:	

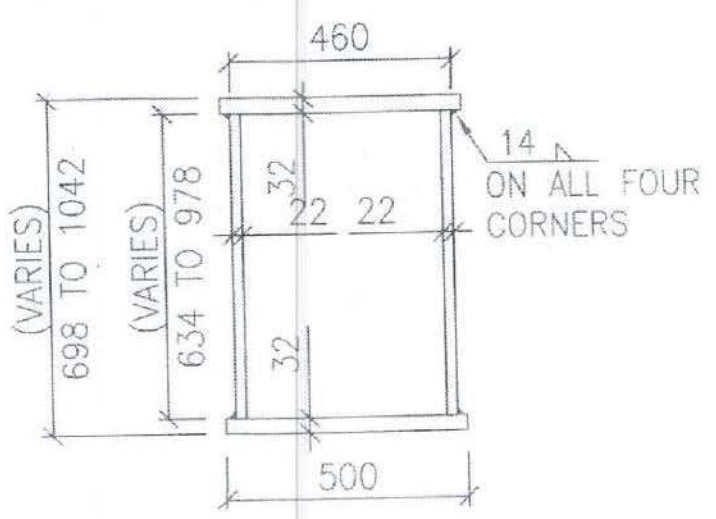
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WELDING PROCEDURE SPECIFICATION SHEET FOR 42.0M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Borai, Nagpura-491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/02
01.	RDSO Drawing No.	:	RDSO/B/10437/1
02.	Welding Joint Description.	:	Fillet 14 mm - End Bottom Cross beam
03.	Base Metal.	:	22mmx32mm IS: 2062 – 2011, Gr. : E350 B0
04.	Welding Process	:	S.A.W.
05.	Welding Position.	:	1F
06.	Welding Consumable.	:	
6.1	Electrode/Wire	Class : Dia : Type : Drying Method :	W2 of IRS: M-39-2020. 4 mm Copper Coated Mild Steel Wire. N.A.
6.2	Flux	Class : Type : Drying Method :	F2 OF IRS:M-39 – 2001 Agglomerated. Recommended as per manufacturer.
6.3	Shielding Gas	:	NA
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches, Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.) (Web with flange)  (END BOTTOM CROSS BEAM)
7.2	Joint preparation	:	As Per IS: 4353 – 1995, IS: 7215 & Welded Bridge Code.
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	Reverse
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

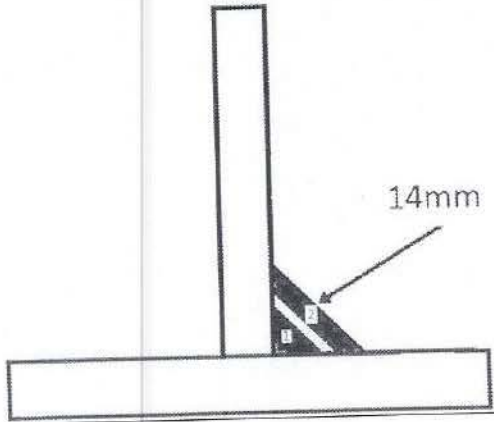


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Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1	4	490 – 550	28 – 32	2.0 – 2.5	0.30 – 0.50	15 – 20	N.A.
2	4	490 – 550	28 – 32	2.0 – 2.5	0.30 – 0.50	15 – 20	N.A.

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	Yes
12.	Cleaning of weld bead before laying next weld bead	:	Yes, By brush cleaning and grinding.
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual, D.P., MPT & Macro etching Test.
19.	Any other relevant Details	:	

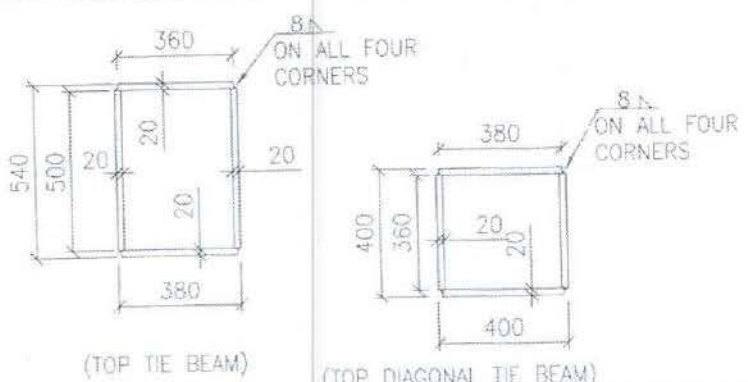


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Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 42.0M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Borai, Nagpura-491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/03
01.	RDSO Drawing No.	:	RDSO/B/10437/1
02.	Welding Joint Description.	:	Fillet 8 mm – Top Tie Beam & Top Diagonal Tie Beam
03.	Base Metal.	:	20mmx20mm IS: 2062 – 2011, Gr. : E350 B0
04.	Welding Process	:	S.A.W.
05.	Welding Position.	:	1F
06.	Welding Consumable.	:	
6.1	Electrode/Wire	Class	W2 of IRS: M-39-2020.
		Dia	4 mm
		Type	Copper Coated Mild Steel Wire.
		Drying Method	N.A.
6.2	Flux	Class	F2 OF IRS:M-39 – 2001
		Type	Agglomerated.
		Drying Method	Recommended as per manufacturer.
6.3	Shielding Gas	:	NA
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches, Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.) (Web with flange)		 (TOP TIE BEAM) (TOP DIAGONAL TIE BEAM)
7.2	Joint preparation	:	As Per IS: 4353 – 1995, IS: 7215 & Welded Bridge Code.
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	Reverse
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	



M/s SRMBS
Fabricator



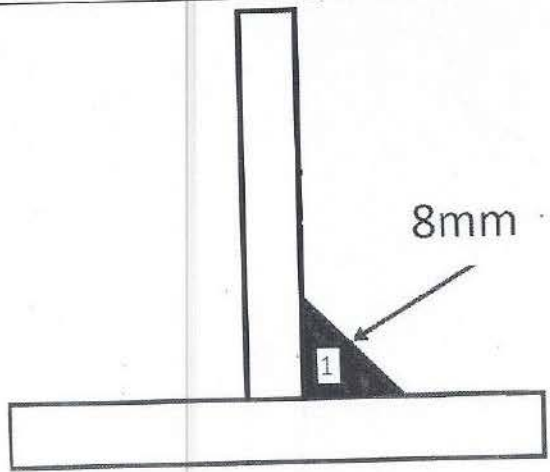
M/s PILCON ENGINEERING
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Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1	4	490 – 550	28 – 32	2.0 – 2.5	0.30 – 0.50	15 – 20	N.A.

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	Yes
12.	Cleaning of weld bead before laying next weld bead	:	N.A.
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual, D.P., MPT & Macro etching Test.
19.	Any other relevant Details	:	

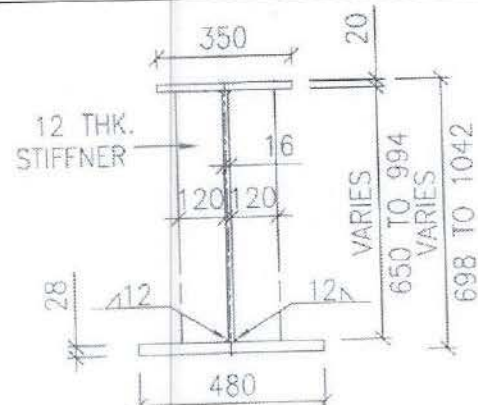


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WELDING PROCEDURE SPECIFICATION SHEET FOR 42.0M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		M/s. Struc-Rite Metal Building Systems, Borai, Nagpura-491001.	
Welding Procedure specification No.		SRMBS/PILCON-448/SHOP/WPS/42M/04	
01.	RDSO Drawing No.	RDSO/B/10437/1	
02.	Welding Joint Description.	Fillet 12 mm – Bottom Cross Beam (Intermediate)	
03.	Base Metal.	16mmx20/28mm IS: 2062 – 2011, Gr.: E350 B0	
04.	Welding Process	S.A.W.	
05.	Welding Position.	Flat	
06.	Welding Consumable.		
6.1	Electrode/Wire	Class : Dia : Type : Drying Method :	W2 of IRS: M-39-2020. 4 mm Copper Coated Mild Steel Wire. N.A.
6.2	Flux	Class : Type : Drying Method :	F2 OF IRS:M-39-2001 Agglomerated. Recommended as per manufacturer.
6.3	Shielding Gas	NA	
07.	Base Metal Preparation	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches, Mill scale, Grease, Paint and Rust etc., which may affect weld quality.	
7.1	Joint design Details	 (Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.) Intermediate Bottom cross beam (INTERMEDIATE BOTTOM CROSS BEAM)	
7.2	Joint preparation	As Per IS: 4353 – 1995, IS: 7215 & Welded Bridge Code.	
08.	Welding Current		
	Type	DC	
	Polarity	Reverse	
09.	Welder qualification	As per IS: 7310/7307 (Part-I) – 2019	
10.	Welding Parameters and technique		
10.1	Welding Parameters		

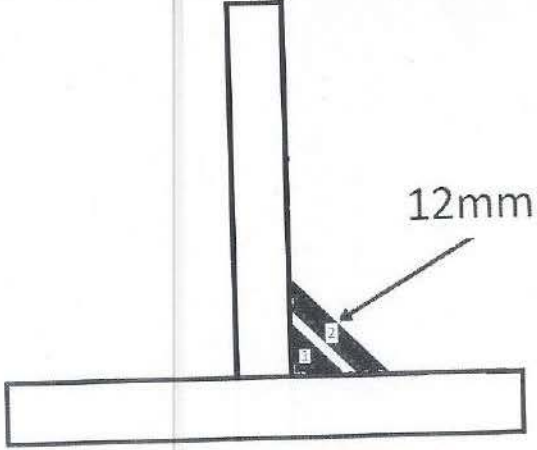


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Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1	4	490 – 550	28 – 32	2.0 – 2.5	0.30 – 0.50	15 – 20	N.A.
2	4	490 – 550	28 – 32	2.0 – 2.5	0.30 – 0.50	15 – 20	N.A.

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	Yes
12.	Cleaning of weld bead before laying next weld bead	:	N.A.
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual, D.P., MPT & Macro etching Test.
19.	Any other relevant Details	:	

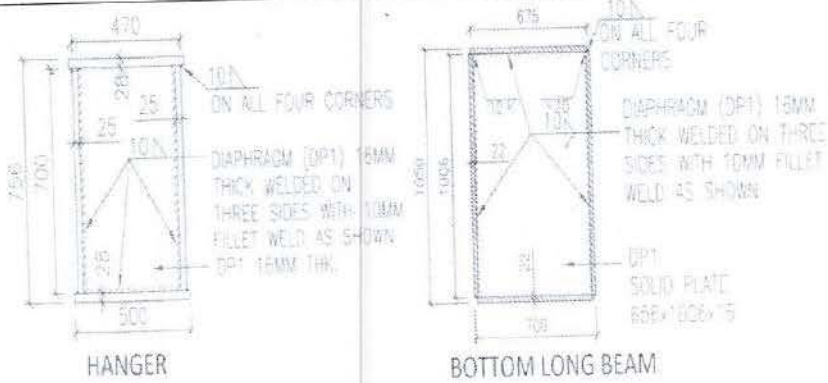


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RDSO
Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 42.0M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Borai, Nagpura-491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/05
01.	RDSO Drawing No.	:	RDSO/B/10437/4&5 & RDSO/B/10437/9
02.	Welding Joint Description.	:	Fillet 10 mm – DP1 at Bottom Long Beam & Hanger
03.	Base Metal.	:	16MX22/22MM, 16mmx25/28mm, IS: 2062 – 2011, Gr. : E350 B0
04.	Welding Process	:	F.C.A.W. (Flux core Arc Welding)
05.	Welding Position.	:	Horizontal /Vertical
06.	Welding Consumable.	:	
6.1	Electrode/Wire	Class	: Class 1 of IRS M 46-2013 (AWS A5.20-10/ E71T-12).
		Dia	: 1.2 mm
		Type	: Flux Cored Filler Wire.
		Drying Method	: N.A.
6.2	Flux	Class	: N.A.
		Type	: N.A.
		Drying Method	: N.A.
6.3	Shielding Gas	:	CO ₂
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches, Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.) Diaphragm Plate with Bottom long beam & Hanger (16MX22/22MM, 16mmx25/28mm)		
7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code.
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	Reverse
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

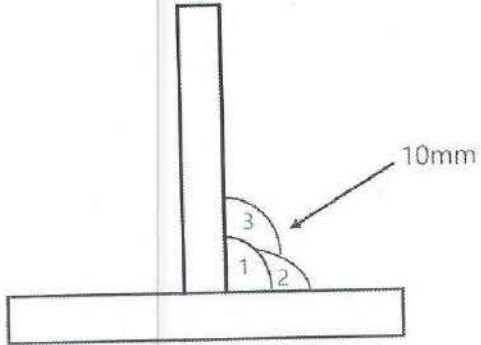


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Weld Pass No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1	1.2	200 - 240	24 - 26	4 - 6	N.A.	13 - 18	13 - 16
2	1.2	200 - 240	24 - 26	4 - 6	N.A.	13 - 18	13 - 16
3	1.2	200 - 240	24 - 26	4 - 6	N.A.	13 - 18	13 - 16

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N.A.
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P.
19.	Any other relevant Details	:	Diaphragm Plate(DP1)Welding



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Asstt. Research Officer/M&C
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०३०००००, लखनऊ/R.D.S.O., Lucknow

RDSO
Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 42.0M CLEAR SPAN BOW STRING GIRDER

WELDING PROCEDURE SPECIFICATION SHEET FOR 42.0M CLEAR SPAN BOW STRING BRIDGE			
Name and address of Fabricator		M/s. Struc-Rite Metal Building Systems, Borai, Nagpura-491001.	
Welding Procedure specification No.		SRMBS/PILCON-448/SHOP/WPS/42M/06	
01.	RDSO Drawing No.	RDSO/B/10437/4&5, RDSO/B/10437/2	
02.	Welding Joint Description.	Fillet 10 mm – DP2/DP at Bottom Long Beam & Arch	
03.	Base Metal.	20mmx22/22mm & 20mmx25/25mm, IS: 2062 – 2011, Gr. : E350 B0	
04.	Welding Process	F.C.A.W. (Flux core Arc Welding)	
05.	Welding Position.	Horizontal /Vertical	
06.	Welding Consumable.		
6.1	Electrode/Wire	Class : Dia : Type : Drying Method :	Class I of IRS M 46-2013 (AWS A5.20-10/ E71T-12). 1.2 mm Flux Cored Filler Wire. N.A.
6.2	Flux	Class : Type : Drying Method :	N.A. N.A. N.A.
6.3	Shielding Gas	CO ₂	
07.	Base Metal Preparation	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches, Mill scale, Grease, Paint and Rust etc., which may affect weld quality.	
7.1	Joint design Details	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.) DP2/DP at Bottom Long Beam & Arch (20mmx22/22mm & 20mmx25/25mm) BOTTOM LONG BEAM ARCH	
7.2	Joint preparation	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code.	
08.	Welding Current	Type :	DC
		Polarity :	Reverse
09.	Welder qualification	As per IS: 7310/7307 (Part-I) – 2019	
10.	Welding Parameters and technique		
10.1	Welding Parameters		



M/s SRMBS
Fabricator



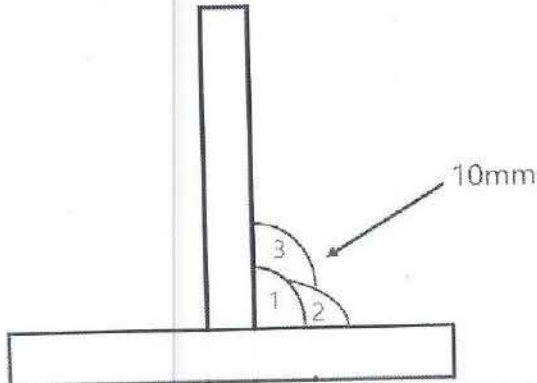
M/s PILCON ENGINEERING
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Weld Pass No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1	1.2	200 - 240	24 - 26	4 - 6	N.A.	13 - 18	13 - 16
2	1.2	200 - 240	24 - 26	4 - 6	N.A.	13 - 18	13 - 16
3	1.2	200 - 240	24 - 26	4 - 6	N.A.	13 - 18	13 - 16

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N.A.
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P.
19.	Any other relevant Details	:	



M/s SRMBS
Fabricator



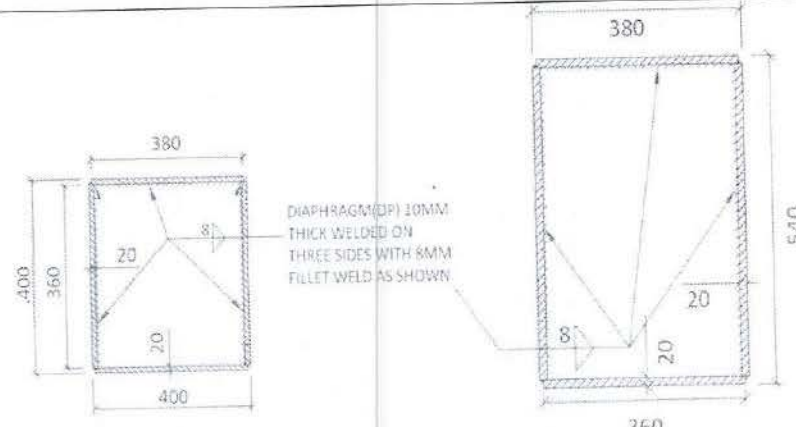
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14/01/2024
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RDSO
Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 42.0M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Borai, Nagpura-491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/07
01.	RDSO Drawing No.	:	RDSO/B/10437/3
02.	Welding Joint Description.	:	Fillet 8 mm – DP at Top Tie Beam & Top Diagonal Tie Beam
03.	Base Metal.	:	10mmx20/20mm IS: 2062 – 2011, Gr. : E350 B0
04.	Welding Process	:	F.C.A.W. (Flux core Arc Welding)
05.	Welding Position.	:	Horizontal /Vertical
06.	Welding Consumable.	:	
6.1	Electrode/Wire	:	Class I of IRS M 46-2013 (AWS A5.20-10/ E71T-12).
	Class	:	1.2 mm
	Dia	:	Flux Cored Filler Wire.
	Type	:	N.A.
6.2	Flux	:	N.A.
	Class	:	N.A.
	Type	:	N.A.
	Drying Method	:	N.A.
6.3	Shielding Gas	:	CO ₂
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches, Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.) DP at Top Tie Beam & Top Diagonal Tie Beam (10 MMX20/20MM)	:	 TOP DIAGONAL TIE BEAM TOP TIE BEAM
7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code.
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	Reverse
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

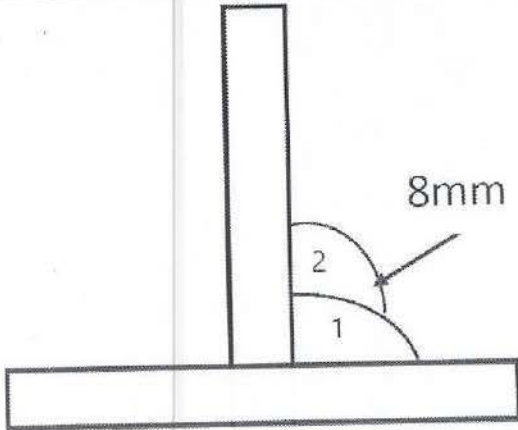


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Weld Pass No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
2	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N.A.
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P.
19.	Any other relevant Details	:	

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WELDING PROCEDURE SPECIFICATION SHEET FOR 42.0M CLEAR SPAN BOW STRING GIRDER

WELDING PROCEDURE SPECIFICATION SHEET FOR 42.0M CLEAR SPAN BOW STRING BRIDGE			
Name and address of Fabricator		M/s. Struc-Rite Metal Building Systems, Borai, Nagpura-491001.	
Welding Procedure specification No.		SRMBS/PILCON-448/SHOP/WPS/42M/08	
01.	RDSO Drawing No.	RDSO/B/10437/4&5, RDSO/B/10437/2	
02.	Welding Joint Description.	Fillet 10 mm - Inside Welding at Bottom Long Beam & Arch	
03.	Base Metal.	22mmx22mm, 25mmx25mm, IS: 2062 – 2011, Gr. : E350 B0	
04.	Welding Process	F.C.A.W. (Flux core Arc Welding)	
05.	Welding Position.	Horizontal /Vertical	
06.	Welding Consumable.		
6.1	Electrode/Wire	Class	Class I of IRS M 46-2013 (AWS A5.20-10/ E71T-12).
		Dia	1.2 mm
		Type	Flux Cored Filler Wire.
		Drying Method	N.A.
6.2	Flux	Class	N.A.
		Type	N.A.
		Drying Method	N.A.
6.3	Shielding Gas	CO ₂	
07.	Base Metal Preparation	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches, Mill scale, Grease, Paint and Rust etc., which may affect weld quality.	
	Joint design Details	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.)	
7.1			
7.2	Joint preparation	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code.	
08.	Welding Current		
	Type	DC	
	Polarity	Reverse	
09.	Welder qualification	As per IS: 7310/7307 (Part-I) – 2019	
10.	Welding Parameters and technique		
10.1	Welding Parameters		



M/s SRMBS
Fabricator



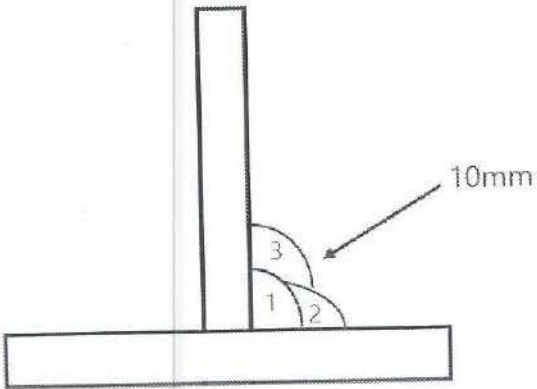
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RDSO
Inspection Agency

Weld Pass No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1	1.2	200 - 240	24 - 26	4 - 6	N.A.	13 - 18	13 - 16
2	1.2	200 - 240	24 - 26	4 - 6	N.A.	13 - 18	13 - 16
3	1.2	200 - 240	24 - 26	4 - 6	N.A.	13 - 18	13 - 16

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N.A.
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P.
19.	Any other relevant Details	:	



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RDSO
Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 42.0M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Borai, Nagpura-491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/09
01.	RDSO Drawing No.	:	RDSO/B/10437/6
02.	Welding Joint Description.	:	Fillet 14 mm – Web Splice at Intermediate Bottom Cross Beam
03.	Base Metal.	:	16mmx16mm, IS: 2062 – 2011, Gr. : E350 B0
04.	Welding Process	:	F.C.A.W. (Flux core Arc Welding)
05.	Welding Position.	:	Horizontal /Vertical
06.	Welding Consumable.	:	
6.1	Electrode/Wire	Class :	Class I of IRS M 46-2013 (AWS A5.20-10/ E71T-12).
		Dia :	1.2 mm
		Type :	Flux Cored Filler Wire.
		Drying Method :	N.A.
6.2	Flux	Class :	N.A.
		Type :	N.A.
		Drying Method :	N.A.
6.3	Shielding Gas	:	CO ₂
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches, Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.)		
	Web Splice at Intermediate Bottom Cross Beam (16MM X 16MM)		
7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code.
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	Reverse
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

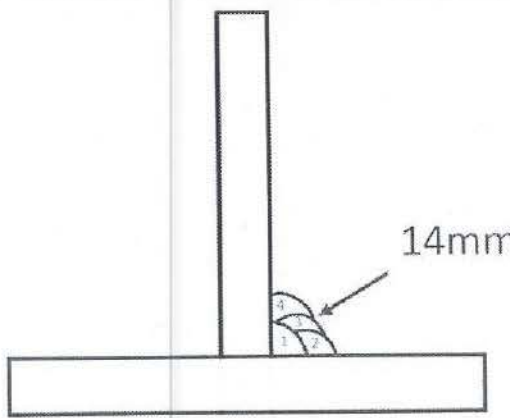


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लखनऊ/R.D.S.O., Lucknow

RDSO
Inspection Agency

Weld Pass No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
2	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
3	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
4	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N.A.
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P.
19.	Any other relevant Details	:	



M/s SRMBS
Fabricator



M/s PICON ENGINEERING
Contractor

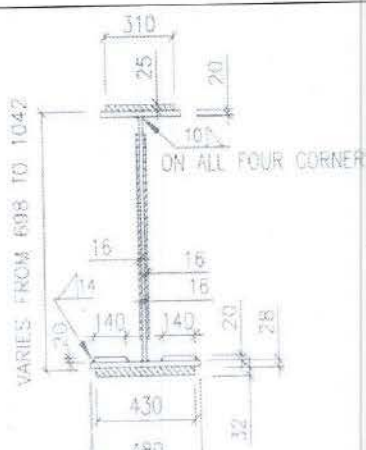
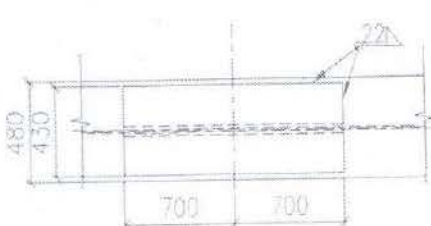
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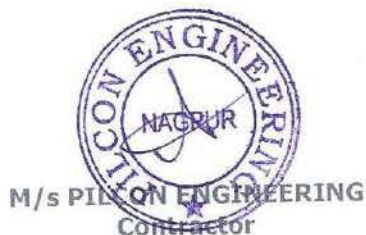
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RDSO
Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 42.0M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Borai, Nagpura-491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/10
01.	RDSO Drawing No.	:	RDSO/B/10437/6
02.	Welding Joint Description.	:	Fillet 22 mm – Top & Bottom Outer Splice at Intermediate Bottom Cross Beam
03.	Base Metal.	:	25/32mmx20/28mm IS: 2062 – 2011, Gr. : E350 B0
04.	Welding Process	:	F.C.A.W. (Flux core Arc Welding)
05.	Welding Position.	:	Horizontal /Vertical
06.	Welding Consumable.	:	
6.1	Electrode/Wire	Class	: Class I of IRS M 46-2013 (AWS A5.20-10/ E71T-12).
		Dia	: 1.2 mm
		Type	: Flux Cored Filler Wire.
		Drying Method	: N.A.
6.2	Flux	Class	: N.A.
		Type	: N.A.
		Drying Method	: N.A.
6.3	Shielding Gas	:	CO ₂
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches, Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.) Top & Bottom Outer Splice at Intermediate Bottom Cross Beam (25/32MM X 20/28MM)	:	 
7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code.
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	Reverse
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

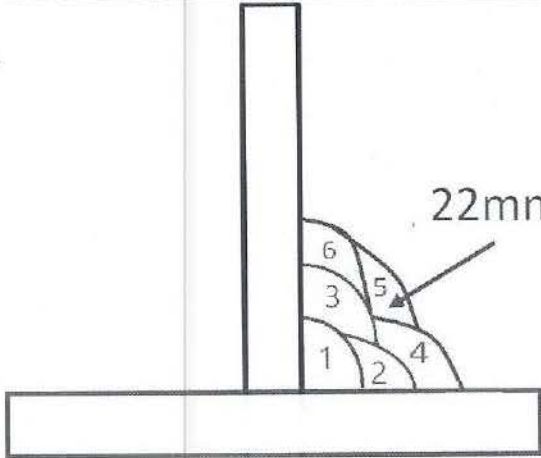


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Weld Pass No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
2	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
3	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
4	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
5	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
6	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N.A.
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P.
19.	Any other relevant Details	:	

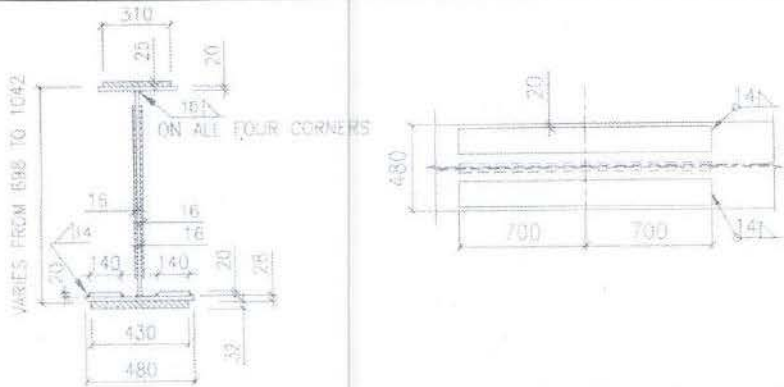
संलग्न अधिवक्ता एवं रसां
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SECR
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RDSO
Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 42.0M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Borai, Nagpura-491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/11
01.	RDSO Drawing No.	:	RDSO/B/10437/6
02.	Welding Joint Description.	:	Fillet 14 mm – Bottom Inside Splice at Intermediate Bottom Cross Beam
03.	Base Metal.	:	20mmx28mm IS: 2062 – 2011, Gr. : E350 B0
04.	Welding Process	:	F.C.A.W. (Flux core Arc Welding)
05.	Welding Position.	:	Horizontal /Vertical
06.	Welding Consumable.	:	
6.1	Electrode/Wire	Class	: Class I of IRS M 46-2013 (AWS A5.20-10/ E71T-12).
		Dia	: 1.2 mm
		Type	: Flux Cored Filler Wire.
		Drying Method	: N.A.
6.2	Flux	Class	: N.A.
		Type	: N.A.
		Drying Method	: N.A.
6.3	Shielding Gas	:	CO ₂
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches, Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.) Bottom Inside Splice at Intermediate Bottom Cross Beam (20MM X 28MM)	:	
7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code.
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	Reverse
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

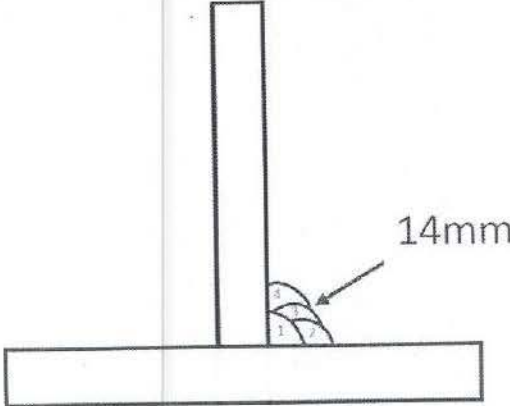


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Weld Pass No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
2	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
3	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
4	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N.A.
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per CI.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P.
19.	Any other relevant Details	:	

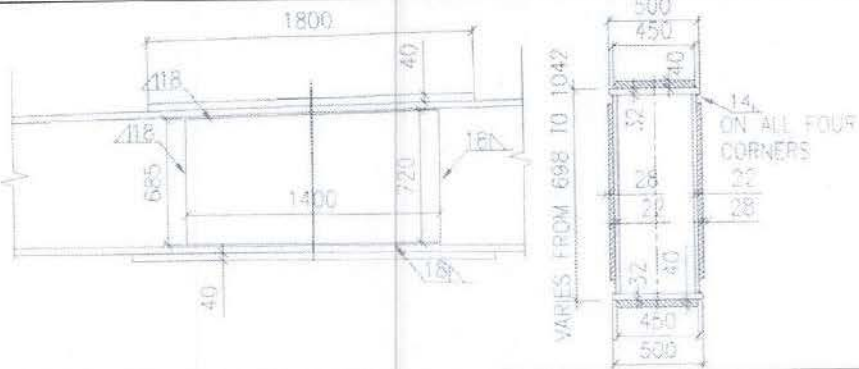


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WELDING PROCEDURE SPECIFICATION SHEET FOR 42.0M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Borai, Nagpura-491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/12
01.	RDSO Drawing No.	:	RDSO/B/10437/6
02.	Welding Joint Description.	:	Fillet 18 mm – Web Splice at End Bottom Cross Beam
03.	Base Metal.	:	28mmx22mm, IS: 2062 – 2011, Gr. : E350 B0
04.	Welding Process	:	F.C.A.W. (Flux core Arc Welding)
05.	Welding Position.	:	Horizontal /Vertical
06.	Welding Consumable.	:	
6.1	Electrode/Wire	Class : Dia : Type : Drying Method :	Class I of IRS M 46-2013 (AWS A5.20-10/ E71T-12). 1.2 mm Flux Cored Filler Wire. N.A.
6.2	Flux	Class : Type : Drying Method :	N.A. N.A. N.A.
6.3	Shielding Gas	:	CO ₂
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches, Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	 (Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.) Web Splice at End Bottom Cross Beam (28MM X 22MM)
7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code.
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	Reverse
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

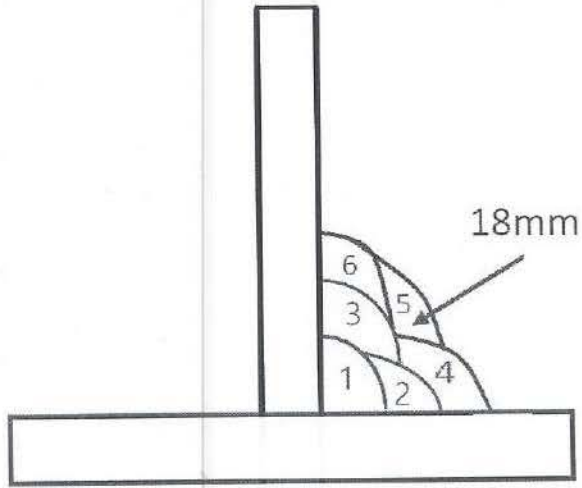


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Weld Pass No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
2	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
3	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
4	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
5	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
6	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N.A.
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P.
19.	Any other relevant Details	:	

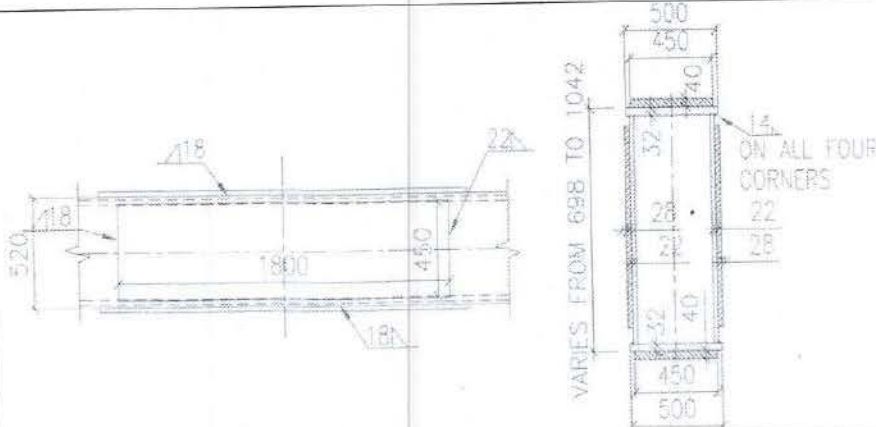


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WELDING PROCEDURE SPECIFICATION SHEET FOR 42.0M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		M/s. Struc-Rite Metal Building Systems, Borai, Nagpura-491001.	
Welding Procedure specification No.		SRMBS/PILCON-448/SHOP/WPS/42M/12	
01.	RDSO Drawing No.	RDSO/B/10437/6	
02.	Welding Joint Description.	Fillet 22 mm – Top & Bottom Splice at End Bottom Cross Beam	
03.	Base Metal.	40mmx32mm, IS: 2062 – 2011, Gr. : E350 B0	
04.	Welding Process	F.C.A.W. (Flux core Arc Welding)	
05.	Welding Position.	Horizontal /Vertical	
06.	Welding Consumable.		
6.1	Electrode/Wire	Class : Dia : Type : Drying Method :	Class I of IRS M 46-2013 (AWS A5.20-10/ E71T-12). 1.2 mm Flux Cored Filler Wire. N.A.
6.2	Flux	Class : Type : Drying Method :	N.A. N.A. N.A.
6.3	Shielding Gas	CO ₂	
07.	Base Metal Preparation	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches, Mill scale, Grease, Paint and Rust etc., which may affect weld quality.	
7.1	Joint design Details		
7.2	Joint preparation	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code.	
08.	Welding Current		
	Type	DC	
	Polarity	Reverse	
09.	Welder qualification	As per IS: 7310/7307 (Part-I) – 2019	
10.	Welding Parameters and technique		
10.1	Welding Parameters		

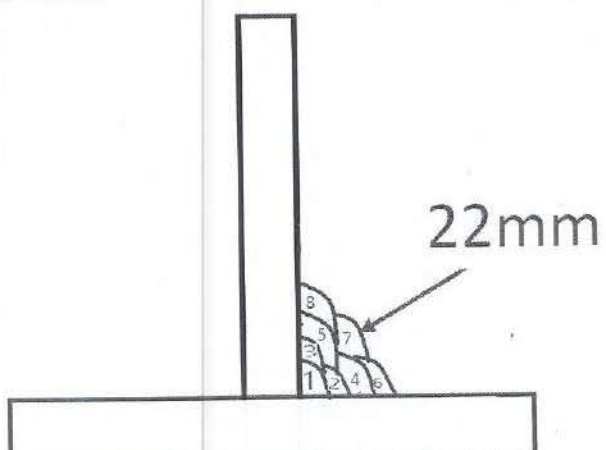


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Weld Pass No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
2	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
3	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
4	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
5	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
6	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
7	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16
8	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 - 18	13 - 16

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N.A.
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P.
19.	Any other relevant Details	:	

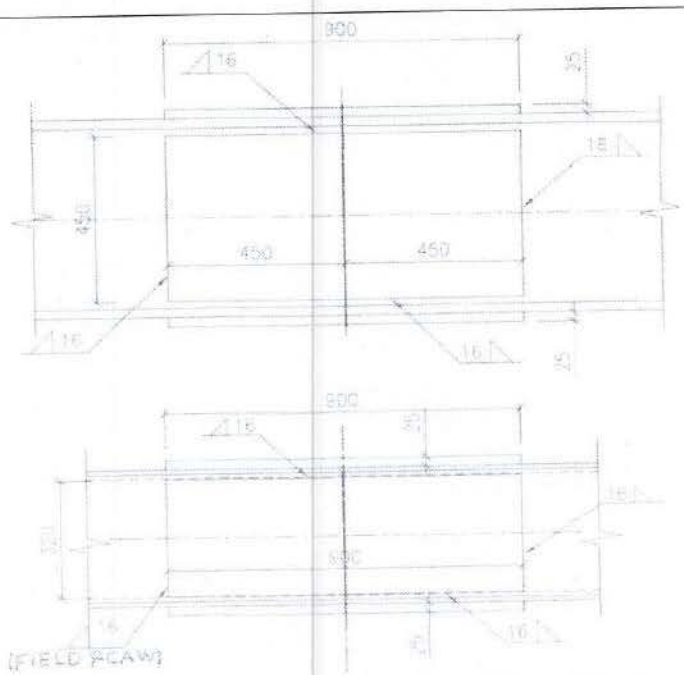


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Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 42.0M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Borai, Nagpura-491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/13
01.	RDSO Drawing No.	:	RDSO/B/10437/3
02.	Welding Joint Description.	:	Fillet 16 mm – Splice at Top Tie Beam
03.	Base Metal.	:	25mmx20mm, IS: 2062 – 2011, Gr. : E350 B0
04.	Welding Process	:	F.C.A.W. (Flux core Arc Welding)
05.	Welding Position.	:	Horizontal /Vertical
06.	Welding Consumable.	:	
6.1	Electrode/Wire	Class : Dia : Type : Drying Method :	Class I of IRS M 46-2013 (AWS A5.20-10/ E71T-12). 1.2 mm Flux Cored Filler Wire. N.A.
6.2	Flux	Class : Type : Drying Method :	N.A. N.A. N.A.
6.3	Shielding Gas	:	NA
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches, Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details	:	 (Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.) Splice at Top Tie Beam (25MM X 20MM)
7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code.
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	Reverse
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

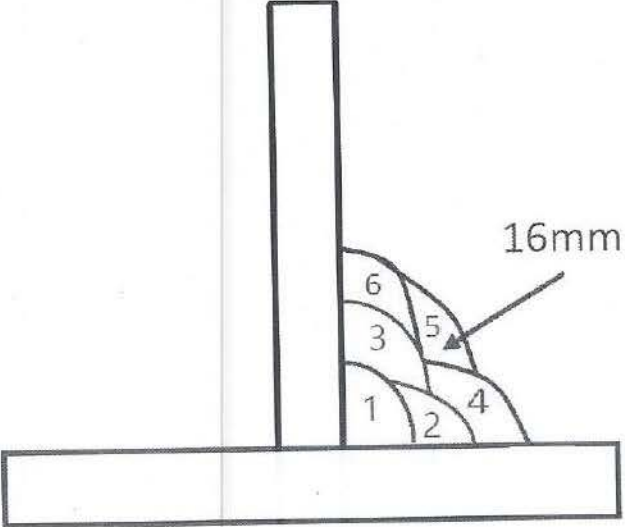


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Weld Sequence No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1 (Root pass)	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
2	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
3	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
4	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
5	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25
6	1.2 mm	150 – 250	24 – 30	Controlled by current	N.A.	15	15 - 25

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N.A.
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P.
19.	Any other relevant Details	:	



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WELDING PROCEDURE SPECIFICATION SHEET FOR 42.0M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Borai, Nagpura-491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/15
01.	RDSO Drawing No.	:	RDSO/B/10437/6
02.	Welding Joint Description.	:	Fillet 8 mm – Stiffener at End & Intermediate Bottom Cross Beam
03.	Base Metal.	:	12mmx28/16/20mm & 12mmx22mm, IS: 2062 – 2011, Gr. : E350 B0
04.	Welding Process	:	F.C.A.W. (Flux core Arc Welding)
05.	Welding Position.	:	Horizontal /Vertical
06.	Welding Consumable.	:	
6.1	Electrode/Wire	Class : Dia : Type : Drying Method :	Class I of IRS M 46-2013 (AWS A5.20-10/ E71T-12). 1.2 mm Flux Cored Filler Wire. N.A.
6.2	Flux	Class : Type : Drying Method :	N.A. N.A. N.A.
6.3	Shielding Gas	:	NA
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches, Mill scale, Grease, Paint and Rust etc., which may affect weld quality.
7.1	Joint design Details (Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.) Stiffener at End & Intermediate Bottom Cross Beam (12mmx28/16/20mm & 12mmx22mm)	:	
7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code.
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	Reverse
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

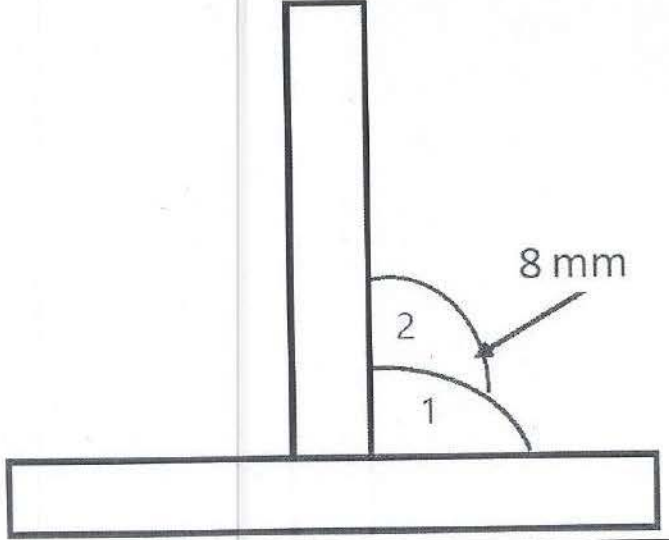


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Weld Pass No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (l/min.)
1	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 – 18	13 – 16
2	1.2	200 – 240	24 – 26	4 – 6	N.A.	13 – 18	13 – 16

10.2	Welding Sequence and technique	:	N.A.
			

11.	Provision of run-on / run-off tabs	:	N.A.
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning and grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	Preheat Temp.-Min.150°C & Interpass Temp.-250°C Max.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P.
19.	Any other relevant Details	:	

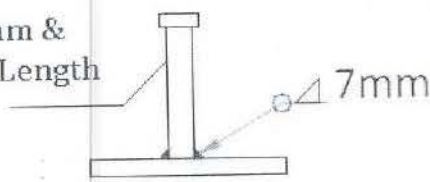


28/2/2024
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 Dy.Chief Engineer (Br.)
 वरिष्ठ पूर्व मध्ये रेलवे, बिलासपुर
 S.E.C Railway Bilaspur
 SECR
 Railway Authority

स०अ० अधिकारी एवं रसा०
 Assit. Research Officer/M&C
 रेल मंत्रालय / Ministry of Railways
 लखनऊ, लखनऊ / R.D.S.O., Lucknow

RDSO
 Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 42.0M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Borai, Nagpura-491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/16
01.	RDSO Drawing No.	:	RDSO/B/10437/6
02.	Welding Joint Description.	:	Stud Welding 7mm Fillet on End Bottom Cross beam & Int. Bottom cross beam
03.	Base Metal.	:	Ø25x200 & 18/25/32mm plate, IS: 2062 – 2011, Gr. : E350 B0 & SD1 of ISO 13918.
04.	Welding Process	:	DASW.(Drawn Arc Stud Welding)
05.	Welding Position.	:	Downward
06.	Welding Consumable.	:	
6.1	Electrode/Wire	Class	: N.A.
		Dia	: N.A.
		Type	: N.A.
		Drying Method	: N.A.
6.2	Flux	Class	: N.A.
		Type	: N.A.
		Drying Method	: N.A.
6.3	Shielding Gas	:	N.A.
07.	Base Metal Preparation	:	Stud to be cut, straight, square & fitted with Aluminum & surrounding area of weld to be free from scale, dirt, grease, paint etc.
7.1	Joint design Details	:	
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.) Stud with Top flange of End & Intermediate cross girder and Stud with Splice plate on Top flange of End & Intermediate cross Beam		Dia. 25 mm & 200 mm Length 
7.2	Joint preparation	:	As Per IS: 4353 – 1995, IS: 7215 & Welded Bridge Code.
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	Straight polarity
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 2019
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	



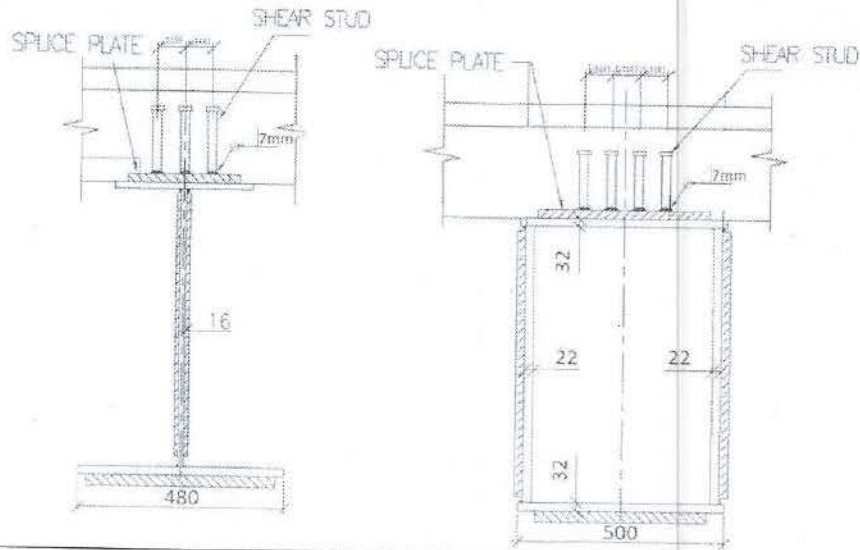
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Weld Sequence No.	Diameter of Stud (mm)	Current (Amps)	Time(Sec.)	Lift(mm)	Plunge(mm)
1	25	1850 - 2500	1.2 – 1.4	0.125	0.25

10.2 Welding Sequence and technique : N.A.



11.	Provision of run-on / run-off tabs	:	N.A.
12.	Cleaning of weld bead before laying next weld bead	:	N.A.
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	N.A.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	Remove of defective stud & new stud weld after proper grinding of surface (As per RDSO BS : 115) Latest Revision
18.	Inspection of Weld	:	Visual, Ring Test, Bend Test, Verticality & Burn off length, Weld size,
19.	Any other relevant Details	:	

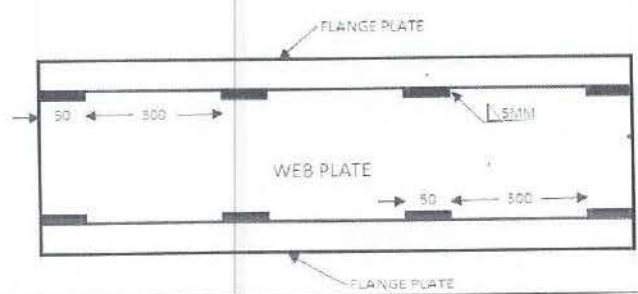


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RDSO
Inspection Agency

WELDING PROCEDURE SPECIFICATION SHEET FOR 42.0M CLEAR SPAN BOW STRING GIRDER

Name and address of Fabricator		:	M/s. Struc-Rite Metal Building Systems, Borai, Nagpura-491001.
Welding Procedure specification No.		:	SRMBS/PILCON-448/SHOP/WPS/42M/17
01.	RDSO Drawing No.	:	RDSO/B/10437 (SERIES)
02.	Welding Joint Description.	:	Fillet 5 mm Tack Weld - Tack Weld of all Component
03.	Base Metal.	:	IS: 2062 – 2011 E350/E250
04.	Welding Process	:	FCAW (Flux core Arc Welding)
05.	Welding Position.	:	Flat
06.	Welding Consumable.	:	
6.1	Electrode/Wire	:	Class I of IRS M 46-2013 (AWS A5.20-10/ E71T-12).
	Class	:	1.2 mm
	Type	:	Flux Cored Filler Wire.
	Drying Method	:	N.A.
6.2	Flux	:	
	Class	:	N.A.
	Type	:	N.A.
	Drying Method	:	N.A.
6.3	Shielding Gas	:	CO ₂
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches, Mill scale, Grease, Paint, Rust etc., which may affected weld quality.
7.1	Joint design Details	:	N.A.
	(Sketch showing arrangements of parts, Weld bead details, Weld passes & their sequence etc. Length of track Weld 50mm Gap between two track Weld appr.300mm Weld Size	:	
7.2	Joint preparation	:	As Per IS: 10178 – 1995, IS: 7215 & Welded Bridge Code.
08.	Welding Current	:	
	Type	:	DC
	Polarity	:	Reverse
09.	Welder qualification	:	As per IS: 7310 /7307 (Part-I) – 1974
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	

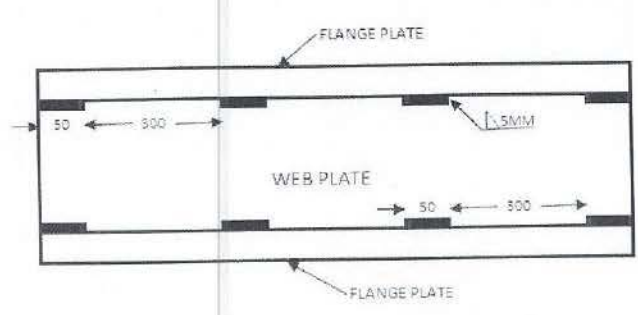


०५ मुख्य अधिकारी
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Weld Pass No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (I/min.)
1	1.2	200 – 240	24 – 26	3.5 – 5.0	N.A.	13 - 18	13 - 16

10.2	Welding Sequence and technique	:	N.A.
Length of track Weld 50mm Gap between two track Weld appr.300mm Weld Size			

11.	Provision of run-on / run-off tabs	:	N.A.
12.	Cleaning of weld bead before laying next weld bead	:	N.A.
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	N.A.
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
17.	Rectification of weld defect	:	By grinding of the defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using Flux Cored Wire (Class I of IRS M 46) after conducting DP Test.
18.	Inspection of Weld	:	Visual & DPT
19.	Any other relevant Details	:	



Handwritten signature and date 28/2/2024
Dy. Chief Engineer (L.)
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