## **DISCLAIMER**

The details like name of project, name of fabricator, etc. are indicative only. These should never be referred for any WPSS related matters. Only the technical details should be referred and followed for the WPSS purpose.

# Model WPSS for Railway OPEN WEB GIRDER (25t Loading)

Railway Open Web Girder (25t loading)
91.4m clear span
MODEL WPSS No- RDSO/ Infra-II/ B&S/ RG/
OWG./ WPSS 91.4 series (43 nos)

## Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd.,

Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City,

Mullana, Ambala (HR) 133104

Welding procedure specification No.

MGCPL/20-21/DFCCIL/SSM-RFO/91 4M/SAW/WPSS-01

1. Drawing No. RDSO/B-17184 (L0-L1-L2) DETAILS OF BOTTOM CHORD

Weld joint description 2.

WEB(16 MM) WITH FLANGE (12MM) FILLET WELD (8MM)

Base metal 3.

IS:2062: 2011 E 350 Quality -B0

Welding process 4.

Submerged Arc Welding (SAW)

Welding position 5

Flat (1F)

Welding consumables 6.

Class:

W2 of IRS M.39

Electrode/wire - Electrode 61

Copper coated solid wire

Type: Dia:

4.0 mm (copper coated)

Drying Method:

N.A

6.2 Flux Class: F2 of IRS M.39

Type:: Agglomerated

Drying Method: 250° C to 300° C for two hour before use.

Shielding gas 6.3

N.A

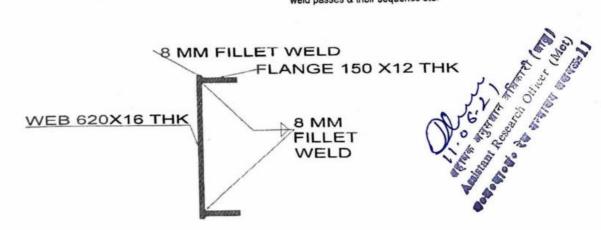
Base metal preparation 7.0

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

7.1 Joint design details Sketch showing arrangements of parts, weld groove details,

weld passes & their sequence etc.



Joint preparation 7.2

As per IS 4353- 1995, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC -2001

8. Welding current Sillant Private

DC Type: Polarity: Reverse

## Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104 MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-

Welding procedure specification No. 02

Drawing No. 1.

RDSO/B-17184 (L2-L3-L4) DETAILS OF BOTTOM CHORD

Weld joint description

Base metal

Welding process 4.

Welding position 5.

Welding consumables 6.

Electrode/wire - Electrode 6.1

WEB(20 MM) WITH FLANGE (16MM)FILLET WELD (8MM) WEB (20MM) WITH ADDITIONAL (16MM) PLATE (8 MM) IS:2062: 2011 E 350 Quality -B0

Submerged Arc Welding (SAW)

W2 of IRS M.39

Copper coated solid wire

4.0 mm (copper coated)

N.A

Drying Method:

Class: F2of IRS M.39

Type: : Agglomerated

Drying Method: 250° C to 300° C for two hour before use.

Shielding gas 6.3

Flux

6.2

7.0

Base metal preparation

Class Type:
Type:
Dia:
Dr Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Joint design details 7.1

Sketch showing arrangements of parts, weld groove details, weld passes & their sequence etc.

⊗ MM FILLET WELD

**ANGE 150 X16 THK** 

WEB 620X20 THK

8 MM FILLET WELD

ADDL.WEB 480 X16 THK

Joint preparation 7.2

Sultant Privar

As per IS 4353- 1995, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC -2001

Assistant Research Officer (Met.)

## 91.4M OWG (25T LOADING)

8 Welding current

Type: DC

Polarity: Reverse

9 Welder qualification

First welder as per IS-7307(Part-I) First welder at all test then

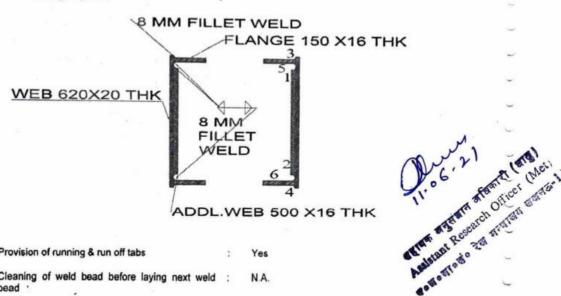
other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

10.1 Welding parameter

Weld	Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage	Wire feed	Travel	Electrode	Gas flow
Front side	Back Side	(mm)	Amp.	(volt)	Speed (m/min)	Speed (m/min)	Stick out (mm)	(l/min)
single	single	4	450-550	28-30	controlled by	0.45-0.50	15-20	N.A

10.2 Welding sequence



11. Provision of running & run off tabs

Yes

12. Cleaning of weld bead before laying next weld : N.A.

bead '

13. Root preparation before welding other side of : groove weld

N.A.

Preheating & interpass temperature 14.

Min-150°C , Interpass Max- 250°C

15. Peening

N.A

16. Post weld treatment

N.A. ;

17. Rectification of weld defects By grinding of the defective weld & rectifying the weld

as per Cl 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28-12 after conducting D P

Inspection of weld 18.

## Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City,

Mullana, Ambala (HR) 133104 MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-03

Welding procedure specification No.

Drawing No. 1.

RDSO/B-17184 (L4-L5-L6) DETAILS OF BOTTOM CHORD

Weld joint description 2.

Base metal 3.

Welding process 4.

Welding position 5.

Welding consumables 6.

Electrode/wire - Electrode Street Street Street Land 6.1 The Research Officer Odder

WEB(25 MM) WITH FLANGE (20 MM)FILLET WELD (8MM) WEB(25 MM) WITH ADD.(16 MM) FILLET WELD (8 MM)

IS:2062: 2011 E 350 Quality B0

Submerged Arc Welding (SAW)

Flat

Class:

W2 of IRS M.39

Type:

Copper coated solid wire

4.0 mm (copper coated)

N.A

Drying Method:

Class: F2of IRS M.39

Type: : Agglomerated

Drying Method: 250° C to 300° C for two hour before use.

Shielding gas 6.3

Flux

6.2

Base metal preparation 7.0

And the Respection Office of Maria and Dr. Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Joint design details 7.1

Sketch showing arrangements of parts, weld groove details, weld passes & their sequence etc.

8 MM FILLET WELD

ANGE 150 X20 THK

WEB 620X25 THK

8 MM FILLET WELD

ADDL.WEB 480 X16 THK

Joint preparation 7.2

Want Pri

As per IS 4353- 1995, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC -2001

8. Welding current

Type: DC Polarity: Reverse

9. Welder qualification

First welder as perIS-7307(part-I) First welder at all test then

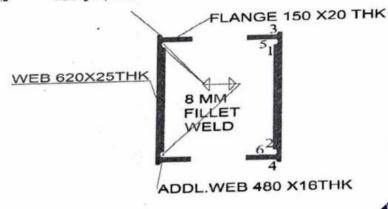
other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

10.1 Welding parameter

Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Speed (m/min)	Stick out (mm)	(l/min)	T
Back	(mm)			(morning)	(		NI A	• '
Side			20.20	controlled by	0.45-0.50	15-20	N.A	1
single	4	450-500	26-30	current				- '
	Back Side	Wire dia.  Back (mm)  Side	Wire dia. Amp.  Back (mm) Side	Pass Vire dia. Amp. (volt)  Back (mm) Side 450 500 28.30	Pass Electrodes/ Wire dia. (mm) Speed (m/min) Speed (m/min) Speed (m/min) Speed (m/min)	Pass Electrodes/ Wire dia. (mm) Side (mmin) Arp. (volt) Speed (m/min) Speed (m/min) Speed (m/min) (m/min) Speed (m	Pass Electrodes/ Wire dia. (mm)  Back (mm) Side Side After Voltage (volt)  Arc Voltage (volt) Speed (m/min)  Speed (m/min)	Pass Electrodes/ Wire dia. (mm) Side Side Side Side Side Side Side Side

10.2 Welding sequence



Astron Research Strings Indeed 1

11. Provision of running & run off tabs

Yes

Cleaning of weld bead before laying next weld :

N.A.

bead

Root preparation before welding other side of :

 Root prepara groove weld : N.A.

14. Preheating & interpass temperature

15. Peening

N.A

16. Post weld treatment

10,000

N.A.

17. Rectification of weld defects

By grinding of the defective weld & rectifying the weld as per Cl 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28-12 after conducting D P

test.

18. Inspection of weld

Visually, D.P.Test & Macro Etching

Min-150°C, Interpass Max- 250°C

## Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104 MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-03A

Welding procedure specification No.

Drawing No.

RDSO/B-17184 (L6-L7) DETAILS OF BOTTOM CHORD

IS:2062: 2011 E 350 Quality B0

Submerged Arc Welding (SAW)

Weld joint description 2.

Base metal 3.

Welding process 4.

Welding position 5.

Welding consumables 6.

Man South State of the State of Electrode/wire - Electrode 6.1

Class:

Flat

W2 of IRS M.39

WEB(25 MM) WITH FLANGE (25 MM)FILLET WELD (8MM) WEB(25 MM) WITH ADD (25 MM) FILLET WELD (8 MM)

Type:

Copper coated solid wire

4.0 mm (copper coated)

N.A

Drying Method:

Class: F2of IRS M.39

Type: : Agglomerated

Drying Method: 250°C to 300°C for two hour before use.

6.2

6.3

7.1

Red Red Description of Late Andrew Shielding gas

Base metal preparation 7.0

N.A

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Sketch showing arrangements of parts, weld groove details,

weld passes & their sequence etc.

√8 MM FILLET WELD

LANGE 150 X25 THK

WEB 620X25 THK

Sultant Pris

8 MM FILLET WELD

ADDL.WEB 480 X25 THK

Joint preparation

As per IS 4353- 1995, CI. 7, IRS B1 - 2001, CI. 17.3, & WBC -2001

#### Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road,

Opposite E-max Education City, Mullana, Ambala (HR) 133104

Welding procedure specification No.

MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-03A

1. Drawing No. RDSO/B-17184 (L6-L7) DETAILS OF BOTTOM CHORD

2. Weld joint description WEB(25 MM) WITH FLANGE (25 MM)FILLET WELD (8MM) WEB(25 MM) WITH ADD (25 MM) FILLET WELD (8 MM)

3. Base metal

4. 5. IS:2062: 2011 E 350 Quality B0

Welding process

Submerged Arc Welding (SAW)

Welding position

Welding consumables 6.

Class:

W2 of IRS M.39

61

Type:

Copper coated solid wire

Electrode/wire - Electrode

Dia.

4.0 mm (copper coated)

6.2

Drying Method:

N.A

Class: F2of IRS M.39

Type: : Agglomerated

Drying Method: 250° C to 300° C for two hour before use.

6.3

Strand of the state of the stat Resident Desperation of the Later anielding gas

Base metal preparation

N.A

7.0

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

7.1

Sketch showing arrangements of parts, weld groove details, weld passes & their sequence etc.

**8 MM FILLET WELD** 

LANGE 150 X25 THK

WEB 620X25 THK

Sullant Pr

**8 MM** FILLET WELD

ADDL.WEB 480 X25 THK

Joint preparation 7.2

As per IS 4353- 1995, Cl. 7, IRS B1 - 2001, Cl. 17 3, & WBC -2001

8. Welding current

DC Type:

Polarity: Reverse

9. Welder qualification First welder as perIS-7307(part-I) First welder at all test then

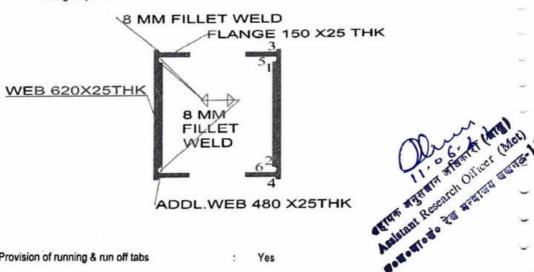
other welder As per IS 7310 (Part I) - 1974

Welding parameters and technique 10.

10.1 Welding parameter

Weld	Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Electrode Stick out	Gas flow (I/min)
Front	Back Side	(mm)			(m/min)	(m/min)	(mm)	
single	single	4	450-550	28-30	controlled by current	0.45-0.50	15-20	N.A

10.2 Welding sequence



11. Provision of running & run off tabs Yes

12. Cleaning of weld bead before laying next weld : N.A.

13. Root preparation before welding other side of : N.A.

groove weld

Preheating & interpass temperature 14. Min-150°C, Interpass Max- 250°C

15. Peening N.A

Post weld treatment 16. N.A

17. Rectification of weld defects By grinding of the defective weld & rectifying the weld

as per CI 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28-12 after conducting D P

Arthur Research Officer (Men) 11

Inspection of weld 18.

#### Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City,

Welding procedure specification No.

Mullana, Ambala (HR) 133104 MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-04

Drawing No. 1.

RDSO/B-17184 (U0-U1-U2) DETAILS OF TOP CHORD

2. Weld joint description WEB (10MM) WITH FLANGE (16MM) FILLET WELD (8MM) WEB(10 MM) WITH TOP PLATE(12MM) OUTER SIDE (8MM)

Base metal 3.

IS:2062: 2011 E 350 Quality-B0

Welding process

Submerged Arc Welding (SAW)

Welding position 5.

Class:

W2 of IRS M.39

Welding consumables 6. Electrode/wire - Electrode

Copper coated solid wire Type:

6.1

4.0 mm (copper coated)

N.A

6.2

Class: F2of IRS M.39 Type:: Agglomerated

Drying Method: 250° C to 300° C for two hour before use.

6.3

7.0

anielding gas

Base metal preparation

Agying Method:

Type: : An

Arying Method:

Type: : An

Property of the Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

7.1

Sketch showing arrangements of parts, weld groove details, weld passes & their sequence etc.

**TOP 634X12 THK** 

8 MM FILLET WELD WEB 620X10 THK

**8 MM** FILLET WELD

FLANGE 150 X16 THK

As per IS 4353- 1995, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC -

Joint preparation 7.2



8. Welding current

0

(8)

Type: DC Polarity: Reverse

Welder qualification

First welder as per IS-7307(part-I) First welder at all test then

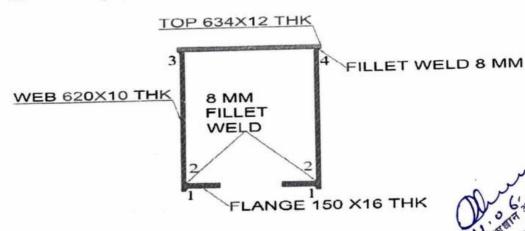
other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

10.1 Welding parameter

Weld	Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	peed Speed (m/min) Speed (m/mi	Stick out (mm)	Gas flow (I/min)
Front	Back	(mm)			(m/min)	(monumy	1	
side	Side			20.20	controlled by	0.45-0.50	15-20	N.A
single	single	4	450-550	28-30	current	0.40 0.00		

10.2 Welding sequence



11. Provision of running & run off tabs

yes

12. Cleaning of weld bead before laying next weld :

N.A.

bead

13. Root preparation before welding other side of :

groove weld

N.A.

14 Preheating & interpass temperature

Min-150°C , Interpass Max- 250°C

15. Peening

N.A

16. Post weld treatment

N.A.

17. Rectification of weld defects

By grinding of the defective weld & rectifying the weld

as per CI 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28-12 after conducting D P

test.

Inspection of weld

Visually, D.P.Test & Macro Etching

Andread Research Officer (Market)

#### Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104

Welding procedure specification No.

MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/GMAW/WPSS-05

1. Drawing No. RDSO/B-17184 (U2-U3-U4) DETAILS OF TOP CHORD

2. Weld joint description WEB(10 MM) WITH TOP PLATE (12MM) INNER SIDE (8MM)

3. Base metal

4.

5.

IS:2062: 2011 E 350 Quality B0

Welding process

**GMAW** 

Welding position

horizontal

6. Welding consumables

Class:

Class 1 of IRS M.46

Electrode/wire - Electrode 6.1

Type:

Copper coated solid wire

Dia:

1.2 mm (copper coated)

6.2

Drying Method:

N.A

Class: N.A. Type:: N.A.

Drying Method: N.A.

63

CO2

Assistant Research On set Man. Type desired and the state of t 7.0

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc., ...

which might affect weld quality.

7.1

Sketch showing arrangements of parts, weld details, weld

passes & their sequence etc.

#### **TOP 634X12 THK**

8 MM FILLET WELD

WEB 620X10 THK

FLANGE 150 X22 THK

As per IS 10178, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC - 2001

DC Type: Polarity: Reverse

Joint preparation 7.2

Welding current

Mant Pri

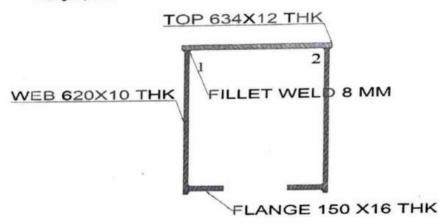
9. Welder qualification First welder as per IS-7307(part-I)First welder at all lest then other welder As per IS 7310 (Part I) - 1974

10 Welding parameters and technique

10.1 Welding parameter

Weld	12.704	Electrodes/ Wire dia. (mm)  Current Amp.  1.2  180-220	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Stick out	Gas flow (I/min)	
Front		(mm)			(m/min)	(m/min)	(mm)	15-18
		1.2	180-220	22-26	Controlled by current	N.A.	12-15	10-10

10.2 Welding sequence



Provision of running & run off tabs 11.

yes

12. Cleaning of weld bead before laying next weld :

N.A.

bead

13. Root preparation before welding other side of : N.A.

groove weld

14. Preheating & interpass temperature

Min-75°C, Interpass Max- 250°C

15. Peening N.A

16. Post weld treatment N.A.

17. Rectification of weld defects

By grinding of the defective weld & rectifying the weld as per Cl 32.2 of IS 9595-96, using A3 class of

electrodes of specn IRS M 28-12 after conducting D P

test.

18. Inspection of weld Visually, D.P.Test & Macro Etching

C Assistant Research Office of the Market. 1

## Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City,

Mullana, Ambala (HR) 133104

MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-06 Welding procedure specification No.

Drawing No. 1.

RDSO/B-17184 (U2-U3-U4) DETAILS OF TOP CHORD

Weld joint description 2.

Base metal

3. Welding process 4.

Welding position 5.

Welding consumables 6.

Electrode/wire - Electrode 6.1

WEB (20 MM) WITH FLANGE (16MM) FILLET WELD (8MM) WEB(20 MM) WITH TOP PLATE(16MM) OUTER SIDE (8MM)

IS:2062 : 2011 E 350 Quality BO

Submerged Arc Welding (SAW)

Class:

W2 of IRS M.39

Copper coated solid wire

4.0 mm (copper coated)

N.A

6.2

Shielding gas

Base metal preparation as explosion of the state of the

Drying Method: 250° C to 300° C for two hour before use.

6.3

7.0

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Sketch showing arrangements of parts, weld groove details.

weld passes & their sequence etc.

7.1

TOP 634X16 THK

8 MM FILLET WELD WEB 620X20 THK

**8 MM** FILLET WELD

ANGE 150 X16 THK

Joint preparation 7.2

2001

As per IS 4353- 1995, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC -

8. Welding current

Sullant Pr

Type: DC Polarity: Reverse

Welder qualification

First welder as per IS-7307 (part-I) First welder at all test then

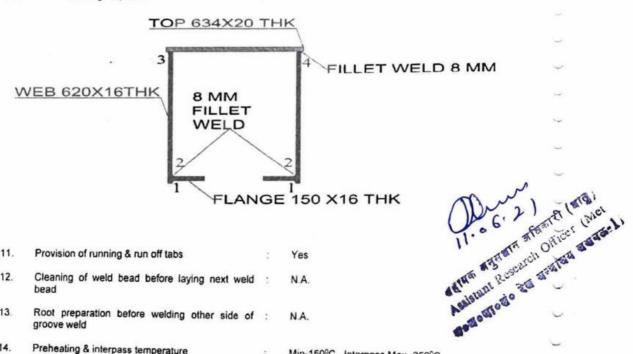
other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

10.1 Welding parameter

Weld	Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Electrode Stick out	Gas flow (I/min)
Front side	Back Side	(mm)	5/35/ <b>3</b> ()	1,500,000,000	(m/min)	(m/min)	(mm)	
single	single	4	450-550	28-30	controlled by current	0.45-0.50	15-20	N.A

10.2 Welding sequence



11. Provision of running & run off tabs

Yes

12. Cleaning of weld bead before laying next weld : bead

N.A.

Root preparation before welding other side of : 13. groove weld

N.A.

14.

Min-150°C , Interpass Max- 250°C

Preheating & interpass temperature

N.A

16. Post weld treatment

Peening

15.

N.A.

17. Rectification of weld defects

By grinding of the defective weld & rectifying the weld as per CI 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28-12 after conducting D P

18. Inspection of weld

## Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104

Welding procedure specification No.

MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/GMAW/WPSS-07

1. Drawing No. RDSO/B-17184 (U2-U3-U4) DETAILS OF TOP CHORD

Weld joint description 2.

Base metal 3.

Welding process

Welding position 5.

Welding consumables 6.

Electrode/wire - Electrode 6.1

WEB(20 MM) WITH TOP PLATE(16MM) INNER SIDE (8MM)

IS:2062: 2011 E 350 Quality- B0

**GMAW** 

horizontal

Class:

Class 1 of IRS M.46

Type

Copper coated solid wire

1.2 mm (copper coated)

N.A

6.2

7.1

Addition of o Park Town of the Property of the Type:: N.A.

Drying M
Base metal preparation of the property of the property

Drying Method: N.A.

6.3

7.0

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Sketch showing arrangements of parts, weld details, weld

passes & their sequence etc.

**TOP 634X20 THK** 

8 MM FILLET WELD

**WEB 620X16 THK** 

7.2 Joint preparation

8

9

Welder qualification Survey

FLANGE 150 X16 THK As per IS 10178, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC - 2001

Type: DC Polarity. Reverse

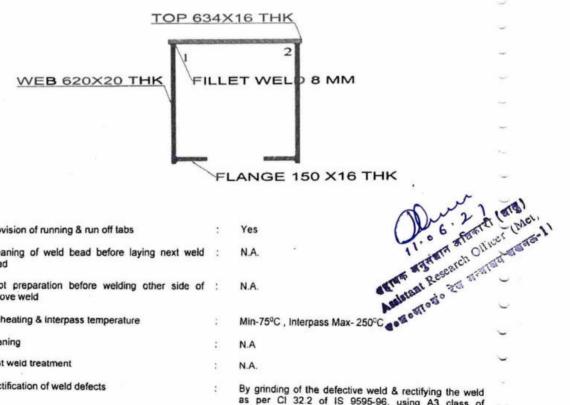
First Welder as per IS-7307(part-I) First welder at all test then other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

10.1 Welding parameter

Weld	Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Electrode Stick out	Gas flow (I/min)
Front side	Back Side	(mm)		,	(m/min)	(m/min)	(mm)	
	single	1.2	180-220	22-26	Controlled by Current	N.A.	12-15	15-18

10.2 Welding sequence



11. Provision of running & run off tabs

Cleaning of weld bead before laying next weld : 12.

13. Root preparation before welding other side of :

groove weld

14. Preheating & interpass temperature

15. Peening

16. Post weld treatment

17. Rectification of weld defects By grinding of the defective weld & rectifying the weld as per Cl 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28-12 after conducting D P

test.

18. Inspection of weld

## Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City

Welding procedure specification No.

Mullana, Ambala (HR) 133104 MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-08

Drawing No. 1.

RDSO/B-17184 (U4-U5-U6) DETAILS OF TOP CHORD

Weld joint description 2.

3.

4.

Base metal

Welding process

Welding position 5.

Welding consumables 6.

Electrode/wire - Electrode Street of the state of the stat 6.1 Address Research Officer Dich.

WEB (32 MM) WITH FLANGE (20MM) FILLET WELD (8MM) WEB(32 MM) WITH TOP PLATE(20MM) OUTER SIDE (8MM)

IS:2062 : 2011 E 350 Quality B0

Submerged Arc Welding (SAW)

Flat

Class:

W2 of IRS M.39

Type:

Copper coated solid wire

4.0 mm (copper coated)

Drying Method:

N.A

Class: F2of IRS M.39

Type: : Agglomerated

Drying Method: 250°C to 300°C for two hour before use.

Flux

6.2

6.3

Shielding gas

Base metal preparation 7.0

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Sketch showing arrangements of parts, weld groove details,

weld passes & their sequence etc.

Joint design details 7.1

**TOP 634X20 THK** 

Dy 2 2001

8 MM FILLET WELD WEB 620X32 THK

8 MM FILLET WELD

ANGE 150 X20 THK

T :As per IS 4353- 1995, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC -

Sultani Pr

Joint preparation

8. Welding current

DC Type: Polarity: Reverse

9. Welder qualification First welder as per IS-7307 (part-I) First welder at all test then

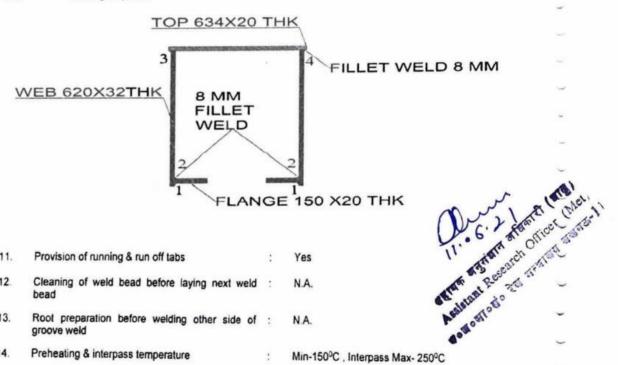
other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

10.1 Welding parameter

Weld	Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Electrode Stick out	Gas flow (I/min)
Front	Back Side	(mm)			(m/min)	(m/min)	(mm)	
single	single	4	450-550	28-30	controlled by current	0.45-0.50	15-20	N.A

10.2 Welding sequence



11. Provision of running & run off tabs

Yes

12. Cleaning of weld bead before laying next weld :

N.A.

bead

Root preparation before welding other side of : 13.

N.A.

groove weld

14. Preheating & interpass temperature

Min-150°C, Interpass Max- 250°C

15. Peening

N.A

16. Post weld treatment

17.

N.A.

Rectification of weld defects

By grinding of the defective weld & rectifying the weld as per Cl 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28-12 after conducting D P

test.

18 Inspection of weld

## Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G Contractors Pvt, Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104

Welding procedure specification No.

MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/GMAW/WPSS-09

Drawing No.

RDSO/B-17184 (U4-U5-U6) DETAILS OF TOP CHORD

Weld joint description 2.

Base metal 3. Welding process

4.

6.2

Welding position 5.

Welding consumables 6

Electrode/wire - Electrode 6.1

WEB(20 MM) WITH TOP PLATE(16MM) INNER SIDE (8MM) IS:2062 : 2011 E 350 Quality- B0

**GMAW** 

horizontal

Class:

Class 1 of IRS M.46

Type:

Copper coated solid wire

Dia:

1.2 mm (copper coated)

Drying Method:

N.A

Class: N.A.

Type: : N.A

Drying Method: N.A.

Shielding gas as metal pre-6.3

7.0

CO<sub>2</sub>

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Joint design details 7.1

Sketch showing arrangements of parts, weld details, weld passes & their sequence etc.

TOP 634X20 THK

**WEB 620X32 THK** 

8 MM FILLET WELD

Joint preparation 7.2

Welding current

9.

Welder qualification

FLANGE 150 X20 THK

As per IS 10178, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC - 2001

Type: Polarity: Reverse

First Welder as per IS-7307(part-I) First welder at all test

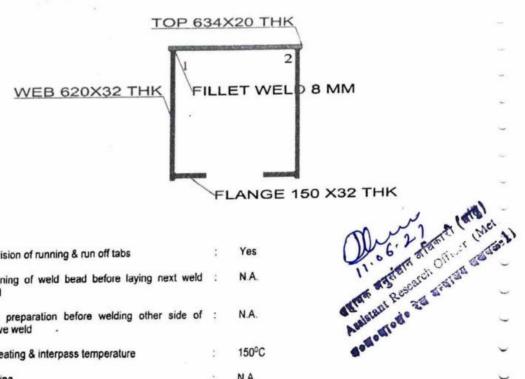
then other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

10.1 Welding parameter

Weld	Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Electrode Stick out	Gas flow (I/min)
Front	Back Side	(mm)			(m/min)	(m/min)	(mm)	
	single	1.2	180-220	22-26	Controlled by Current	N.A.	12-15	15-18

10.2 Welding sequence



11.	Provision of running & run off tabs	Yes
11.	Piovision of fairing a fair on toos	

Cleaning of weld bead before laying next weld : N.A. 12.

Root preparation before welding other side of : N.A. 13.

groove weld

150°C Preheating & interpass temperature 14.

N.A Peening 15.

N.A. 16. Post weld treatment

By grinding of the defective weld & rectifying the weld Rectification of weld defects 17. as per Cl 32.2 of IS 9595-96, using A3 class of

electrodes of specn IRS M.28-12 after conducting D P

test.

18. Inspection of weld

#### Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G. Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road,

Opposite E-max Education City, Mullana, Ambala (HR) 133104

Welding procedure specification No.

MGCPL/20-21/DFCCIL/SSM-RFO/91 4M/SAW/WPSS-10

Drawing No.

RDSO/B-17184 (U6-U7) DETAILS OF TOP CHORD

Weld joint description 2.

WEB (32 MM) WITH FLANGE (32MM) FILLET WELD (8MM) WEB(32 MM) WITH TOP PLATE(25MM) OUTER SIDE (8MM)

3. Base metal IS:2062 : 2011 E 350 Quality B0

Welding process 4.

Submerged Arc Welding (SAW)

Welding position 5.

Flat

Welding consumables

Class:

W2 of IRS M.39

6. Electrode/wire - Electrode 6.1

Type:

Copper coated solid wire

SEREN STREET STREET, INTEL Agistant Research on the Class: F2

4.0 mm (copper coated)

N.A

6.2 Flux Class: F2of IRS M.39

Type: : Agglomerated

Drying Method: 250° C to 300° C for two hour before use.

Shielding gas 6.3

Base metal preparation 7.0

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Joint design details 7.1

Sketch showing arrangements of parts, weld groove details, weld passes & their sequence etc.

**TOP 634X25 THK** 

8 MM FILLET WELD WEB 620X32 THK

Sultant Pil

**8 MM** FILLET WELD

FLANGE 150 X32 THK

As per IS 4353- 1995, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC -

Joint preparation

8. Welding current Type: DC

Polarity: Reverse

9. Welder qualification First welder as per IS-7307 (part-I) First welder at all test then

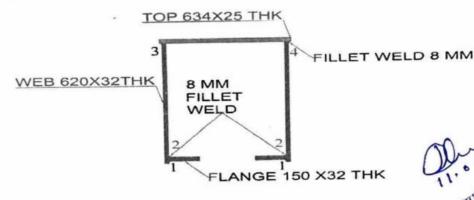
other welder As per IS 7310 (Part I) - 1974

Welding parameters and technique 10.

Welding parameter 10.1

Weld	Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Stick out	Gas flow (I/min)
Front side	Back Side	(mm)			(m/min)	(m/min)	(mm)	N.A
single	single	4	450-550	28-30	controlled by current	0.45-0.50	15-20	N.A

10.2 Welding sequence



State of Camputation of the State of the Sta Assirbert Respection Officer (Met) ARBREAT RESERVED STOTIST TO STOTE AND A STOTIST OF STOT

11. Provision of running & run off tabs Yes 12. Cleaning of weld bead before laying next weld : N.A.

Root preparation before welding other side of : groove weld

N.A.

14. Preheating & interpass temperature Min-150°C , Interpass Max- 250°C

15. Peening N.A

16 Post weld treatment N.A.

17. Rectification of weld defects By grinding of the defective weld & rectifying the weld as per Cl 32.2 of IS 9595-96, using A3 class of

electrodes of specn IRS M.28-12 after conducting D P

Visually, D.P.Test & Macro Etching

18. Inspection of weld

13

## Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G. Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104

Welding procedure specification No.

MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/GMAW/WPSS-11

Drawing No. 1

RDSO/B-17184 (U6-U7) DETAILS OF TOP CHORD

Weld joint description 2.

Base metal

3.

Welding process 4.

Welding position 5.

Welding consumables 6.

Electrode/wire - Electrode 6.1

WEB(20 MM) WITH TOP PLATE(16MM) INNER SIDE (8MM)

IS.2062 : 2011 E 350 Quality- B0

**GMAW** 

horizontal

Class 1 of IRS M.46 Class:

Type:

Copper coated solid wire

Dia:

1.2 mm (copper coated)

Drying Method:

N.A

6.2

STATE STREET STEPHEN (SIG) Joyling Met Williams Research Oil west of the Fyno. merding gas Autrum Rescurer of Figure Type:: N.A.

Drying Methodology

Base metal preparation

Drying Method: N.A.

6.3

7.0

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Joint design details 7.1

Sketch showing arrangements of parts, weld details, weld passes & their sequence etc.

**TOP 634X25 THK** 

8 MM FILLET WELD

WEB 620X32 THK

7.2 Joint preparation

8. Welding current

9.

Welder qualification

altani p

As per IS 10178, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC - 2001

FLANGE 150 X32 THK

Type: Polarity: Reverse

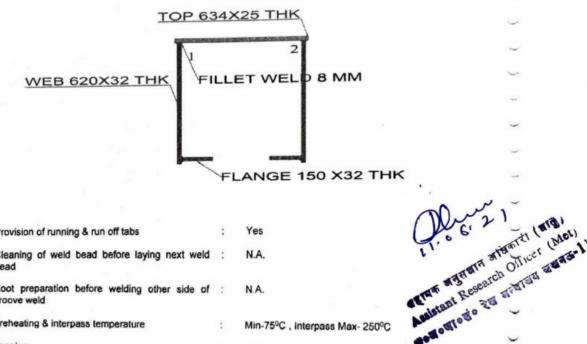
First Welder as per IS-7307(part-I) First welder at all test then other welder As per IS 7310 (Part I) - 1974

## 91.4M OWG (25T LOADING)

- Welding parameters and technique 10
- Welding parameter 10.1

Weld	Weld Pass Front Back Side Side single	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Speed (m/min)	Stick out (mm)	Gas flow (I/min)
1.000.000.000.000.000.000.000.000.000.0	(mm)	(mm)			(m/min)	(minny	, ,	45.40
side		1.2	180-220	22-26	Controlled by	N.A.	12-15	15-18

10.2 Welding sequence



11.	Provision of	f running	&	run	off	tabs

Yes

Cleaning of weld bead before laying next weld : 12.

N.A.

Root preparation before welding other side of : 13. groove weld

N.A.

14. Preheating & interpass temperature Min-75°C, Interpass Max- 250°C

15. Peening

0

N.A

16. Post weld treatment

17. Rectification of weld defects

N.A. By grinding of the defective weld & rectifying the weld

as per Cl 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28-12 after conducting D P test.

18. Inspection of weld

## Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104 MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-012

Welding procedure specification No.

Drawing No. 1.

RDSO/B-17184 (L0-M0 & M0-L0) DETAILS OF END RAKER

Weld joint description 2.

Base metal 3.

Welding process 4.

Welding position 5.

Welding consumables 6.

Electrode/wire - Electrode 6.1

WEB (25 MM) WITH FLANGE (20MM) FILLET WELD (8MM) WEB(25MM) WITH TOP PLATE(25MM) OUTER SIDE (8MM)

IS:2062: 2011 E 350 Quality - B0

Submerged Arc Welding (SAW)

Flat

Class:

W2 of IRS M.39

Type:

Copper coated solid wire

4.0 mm (copper coated)

N.A

6.2 Flux Oia:

Oii

Oia:

O Type:: AgglomDraw Draw Office of State of the State of

Drying Method: 250°C to 300°C for two hour before use.

Shielding gas 6.3

Base metal preparation 7.0

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Joint design details 7.1

Sketch showing arrangements of parts, weld groove details, weld passes & their sequence etc.

**TOP 634X25 THK** 

8 MM FILLET WELD **WEB 620X25 THK** 

**8 MM** FILLET WELD

FLANGE 150 X20 THK

7.2 Joint preparation

Welding current

Sullant Priv

As per IS 4353- 1995, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC -2001

Type: DC 447 Polarity: Reverse

9. Welder qualification First welder as per IS-7307(part-I) First welder at all test

then other welder As per IS 7310 (Part I) - 1974

0.45-0.50

10. Welding parameters and technique

10.1 Welding parameter

single

single

Weld	Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Stick out	Gas flow (I/min)
Front	Back	(mm)			(m/min)	(m/min)	(mm)	
side	Side		450 F60	20.20	controlled by	0.45-0.50	15-20	N.A

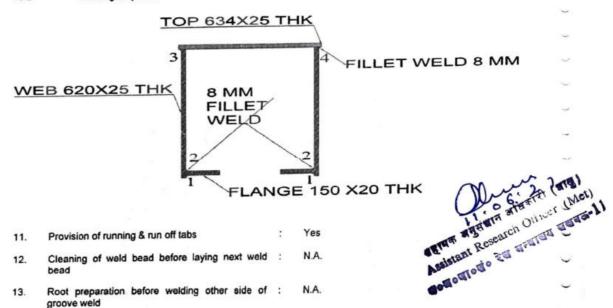
controlled by

current

28-30

450-550

10.2 Welding sequence



Provision of running & run off tabs 11.

Yes

Cleaning of weld bead before laying next weld : 12.

N.A.

bead

Root preparation before welding other side of :

N.A.

13. groove weld

Preheating & interpass temperature 14.

Min-150°C, Interpass Max- 250°C

15. Peening N.A

Post weld treatment 16.

Rectification of weld defects 17.

N.A.

By grinding of the defective weld & rectifying the weld as per CI 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28-12 after conducting D P

18. Inspection of weld

## Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City. Mullana, Ambala (HR) 133104 MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/GMAW/WPSS-013

Welding procedure specification No.

RDSO/B-17184 (L0-M0 & M0-L0) DETAILS OF END RAKER

1. Drawing No.

Weld joint description 2.

3. Base metal

Welding process 4.

Welding position 5.

Welding consumables 6.

Electrode/wire - Electrode 6.1

WEB(28 MM) WITH TOP PLATE(28MM) INNER SIDE (8MM)

IS:2062: 2011 E 350 Quality -B0

**GMAW** 

horizontal

Class:

Class 1 of IRS M.46

Type:

Copper coated solid wire

1.2 mm (copper coated)

N.A

Flux 6.2

SETTING TO GET STREET TO THE STREET OF THE S Market Research Officer Astronomy Class: N.A.

To alie

Drying Method: N.A.

Shielding gas 6.3

Base metal preparation 7.0

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Joint design details 7.1

Sketch showing arrangements of parts, weld details, weld

passes & their sequence etc.

#### **TOP 634X25 THK**

WEB 620X25 THK

8 MM FILLET WELD

**8 MM** FILLET WELD

Joint preparation 7.2

Welding current 8.

9.

Welder qualification

Sullant Pil

FLANGE 150 X20 THK

As per IS 10178, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC - 2001

DC Type: Polarity: Reverse

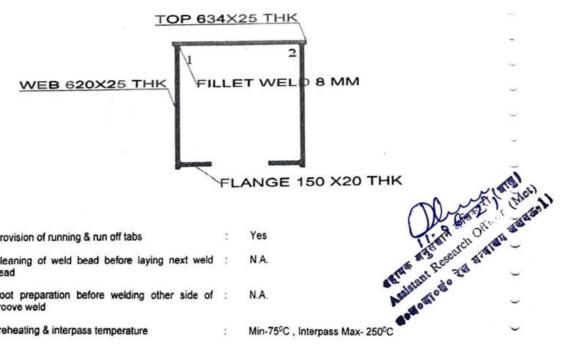
First welder as per IS-7307(part-I) First welder at all test then other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

10.1 Welding parameter

Weld	Pass	Electrodes/ Wire dia	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Stick out	Gas flow (I/min)
Front	Back Side	(mm)			(m/min)	(m/min)	(mm)	45.40
	single	1.2	200-220	24-26	4-5	N.A.	12-15	15-18

10.2 Welding sequence



Provision of running & run off tabs 11.

Yes

12. Cleaning of weld bead before laying next weld : N.A.

13. Root preparation before welding other side of : groove weld

N.A.

Preheating & interpass temperature 14.

Min-75°C, Interpass Max- 250°C

Peening 15.

N.A

Post weld treatment 16.

NA.

17. Rectification of weld defects By grinding of the defective weld & rectifying the weld as per Cl 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28-12 after conducting D P

test.

18. Inspection of weld

## Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104

Welding procedure specification No.

MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-14

Drawing No. 1.

RDSO/B-17184 (M0-U1, M0-L1) DETAILS OF DIAGONALS

Weld joint description 2.

WEB(20 MM) WITH FLANGE (16MM) FILLET WELD (8MM)

Base metal 3.

5.

IS:2062: 2011 E 350 Quality -B0

Welding process 4.

Submerged Arc Welding (SAW)

Welding position

Flat

Welding consumables 6.

Class:

W2 of IRS M.39

Electrode/wire - Electrode 6.1

Type:

Copper coated solid wire

4.0 mm (copper coated)

6.2

7.0

Class: F2of IRS M.39

Type: : Agglomerated

Drying Method: 250°C to 300°C for two hour before use.

6.3

And Research Office of Mary

chielding gas

Base metal preparation

Dia:

Dia:

Drying Method:

Class: F2of IRS M.

Type: : And

Dia:

Dia:

Drying Method:

Type: : And

Dia:

Dia:

Dia:

Olia:

Olia:

Dia:

Olia:

Olia: Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

7.1

Sketch showing arrangements of parts, weld groove details, weld passes & their sequence etc.

8 MM FILLET WELD **ANGE 150 X16 THK** 

WEB 400X20 THK

**8 MM** FILLET WELD

7.2 Joint preparation Sullant Pri

As per IS 4353- 1995, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC -2001

एप मुख्य परियोजना प्रबंधक

8. Welding current

Type: DC

Polarity: Reverse

9. Welder qualification

First welder as per IS-7307(part -I) First welder at all test

then other welder As per IS 7310 (Part I) - 1974

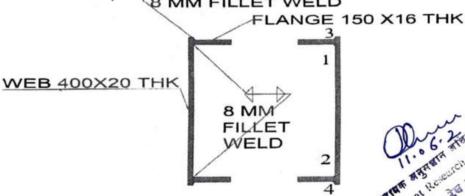
10. Welding parameters and technique

10.1 Welding parameter

Weld	/eld Pass Electrodes/ Wire dia.				Wire feed Speed	Travel Speed	Electrode Stick out	Gas flow (I/min)
Front	Back Side	(mm)		(10.17)	(m/min)	(m/min)	(mm)	, , , , , ,
single	single	4	450-550	28-30	controlled by current	0.45-0.50	15-20	N.A

10.2 Welding sequence

8 MM FILLET WELD



11. Provision of running & 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 & interpass temperature

Min-150°C , Interpass Max- 250°C

15. Peening N.A

16. Post weld treatment

17. Rectification of weld defects N.A.

By grinding of the defective weld & rectifying the weld as per Cl 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28-12 after conducting D P

Arabana Reserved of lands

Augustan Research January Internal

18. Inspection of weld

#### Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City. Mullana, Ambala (HR) 133104 MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-15

Welding procedure specification No.

RDSO/B-17184 (M1-U2) **DETAILS OF DIAGONALS** 

1. Drawing No.

2 Weld joint description

3. Base metal

4. Welding process

5 Welding position

6. Welding consumables

Street Address of the Asian Street Land Electrode/wire - Electrode 6.1 Alle Street Restate on Officer date.

WEB(20 MM) WITH FLANGE (12MM)FILLET WELD (8MM)

IS:2062: 2011 E 350 Quality-B0

Submerged Arc Welding (SAW)

Flat

Class:

W2 of IRS M.39

Type:

Copper coated solid wire

Dia:

4.0 mm (copper coated)

Drying Method:

N.A

Class: F2of IRS M.39

Type: : Agglomerated

Drying Method: 250° C to 300° C for two hour before use.

6.3 Shielding gas

Flux

6.2

7.1

Base metal preparation 7.0

STREET RESERVED ON DEST INGS IN THE TOTAL PROPERTY IN N.A

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Sketch showing arrangements of parts, weld groove details,

weld passes & their sequence etc.

Joint design details

## **8 MM FILLET WELD**

LANGE 150 X12 THK

WEB 400X20 THK

**8 MM** FILLET WELD

Joint preparation 7.2

Welding current 8.

Sultant Private

As per IS 4353- 1995, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC -

या "Type रियो प्रदा प्रयोशक Rolarity: Reverse

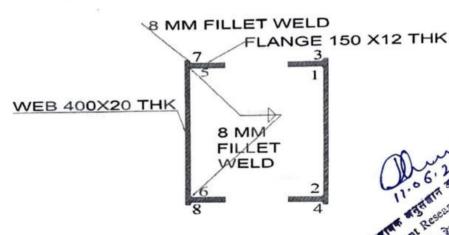
9. Welder qualification First welder as per IS-7307(part-I) first welder at all test then other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

10.1 Welding parameter

Weld Pass		Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Stick out	Gas flow (I/min)
Front	Back Side	(mm)		404,000,004	(m/min)	(m/min)	(mm)	N.A
single	single	4	450-550	28-30.	controlled by current	0.45-0.50	15-20	N.A

Welding sequence 10.2



11. Provision of running & run off tabs Yes

12. Cleaning of weld bead before laying next weld N.A.

13. Root preparation before welding other side of : N.A. groove weld

14. Preheating & interpass temperature Min-150°C, Interpass Max- 250°C

15. Peening N.A

16. Post weld treatment N.A.

17. Rectification of weld defects By grinding of the defective weld & rectifying the weld as per Cl 32.2 of IS 9595-96, using A3 class of

electrodes of specn IRS M.28-12 after conducting D P

STERN STERN CONTROL (Met. Aging Research Officer (Met)

Authunt Research Officer Langer!

18 Inspection of weld

#### Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104

Welding procedure specification No.

MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-16

Drawing No. 1.

RDSO/B-17184 (M1-L2) DETAILS OF DIAGONALS

Weld joint description 2

WEB(16 MM) WITH FLANGE (12MM) FILLET WELD (8MM)

3. Base metal

5.

IS:2062: 2011 E 350 Quality B0

Welding process

Submerged Arc Welding (SAW)

Welding position

Flat

Welding consumables 6.

Class:

W2 of IRS M.39

Electrode/wire - Electrode 6.1

Type:

Copper coated solid wire

Tradition Description Officer Distery

Dia:

4.0 mm (copper coated)

Flux 6.2

Drying Method:

N.A

Class: F2of IRS M.39

Type:: Agglomerated

Drying Method: 250° C to 300° C for two hour before use.

Shielding gas 6.3

N.A

Base metal preparation 7.0

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc., which might affect weld quality.

7.1 Joint design details Sketch showing arrangements of parts, weld groove details, weld passes & their sequence etc.

**8 MM FILLET WELD** 

ANGE 150 X12 THK

**WEB 400X16 THK** 

**8 MM** FILLET WELD

7.2 Joint preparation As per IS 4353- 1995, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC -2001

8. Welding current of sultant Pring Type DC Polarity: Reverse

Welder qualification

First welder as per IS-7307 (part-I) First welder at all test

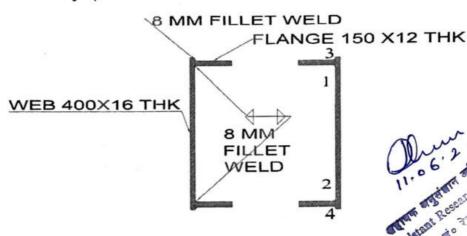
then other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

10.1 Welding parameter

Weld	Weld Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Electrode Stick out	Gas flow (I/min)
Front side	Back Side	(mm)	•		(m/min)	(m/min)	(wŵ)	
single	single	4	450-550	28-30	controlled by current	0.45-0.50	15-20	N.A

10.2 Welding sequence



Andrant Research Officer was and

Provision of running & run off tabs

12. Cleaning of weld bead before laying next weld :

bead

13. Root preparation before welding other side of : N.A.

groove weld

14. Preheating & interpass temperature : Min-150°C , Interpass Max- 250°C

15. Peening : N.A

16. Post weld treatment : N.A.

17. Rectification of weld defects : By grinding of the defective weld & rectifying the weld as per Cl 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28-12 after conducting D P

test.

Yes

N.A.

18. Inspection of weld

# Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104 MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-17

Welding procedure specification No.

Drawing No. 1.

Weld joint description

Base metal 3.

2.

Welding process 4.

Welding position 5.

Welding consumables 6.

Electrode/wire - Electrode 6.1

6.2

A Latitati Resented of the first Date! Shielding gas ask and a same metal of the same and a same a same and a same a same a same a same a same a same a sa

6.3

7.0

Joint design details 7.1

RDSO/B-17184 (M2-U3, M2-L3, M3-U4, M3-L4,

M6-U7 & M6-L7) DETAILS OF DIAGONALS

WEB(12 MM) WITH FLANGE (12MM)FILLET WELD (8MM)

IS:2062 : 2011 E 350 Quality B0

Submerged Arc Welding (SAW)

Flat

W2 of IRS M.39 Class:

Copper coated solid wire Type:

4.0 mm (copper coated) Dia:

N.A Drying Method:

Class: F2of IRS M.39

Type: : Agglomerated

Drying Method: 250° C to 300° C for two hour before use.

N.A

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc., which might affect weld quality.

Sketch showing arrangements of parts, weld groove details, weld passes & their sequence etc.

8 MM FILLET WELD

**ANGE 150 X12 THK** 

**WEB 400X12 THK** 

8 MM FILLET WELD

Joint preparation 7.2

8.

Welding current

onsultant Pri

As per IS 4353- 1995, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC -2001

उप मध्य प्रिकेश प्रदेशक DC nagar Chi Polarity: Reverse

Welder qualification

First welder as per IS-7307 (part-I) First welder at all test

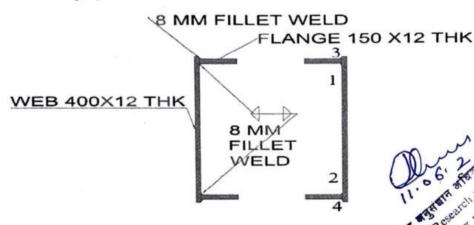
then other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

10.1 Welding parameter

Weld	Weld Pass	eld Pass Electrodes/ Wire dia.		Current Amp.	Current Arc Voltage Amp. (volt)		Travel Speed	Electrode Stick out	Gas flow (I/min)
Front	Back Side	(mm)		(,	Speed (m/min)	(m/min)	(mm)		
single	single	4	450-550	28-30	controlled by current	0.45-0.50	15-20	N.A	

10.2 Welding sequence



Market Research Andrew British

11. Provision of running & run off tabs : Yes

12. Cleaning of weld bead before laying next weld : N.A.

bead

Root preparation before welding other side of : N.A.

groove weld

14. Preheating & interpass temperature : Min-150°C , Interpass Max- 250°C

15. Peening : N.A

16. Post weld treatment : N.A.

17. Rectification of weld defects : By grinding of the defective weld & rectifying the weld as per Cl 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28 after conducting D P test.

18. Inspection of weld : Visually, D.P.Test & Macro Etching

## Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104 MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-18

Welding procedure specification No.

Drawing No. 1.

RDSO/B-17184 (M4-U5, M4-L5, M5-U6 & M5-L6)

DETAILS OF DIAGONALS

Weld joint description 2.

Base metal 3.

Welding process

Welding position 5.

Welding consumables 6.

Electrode/wire - Electrode Typ Typ Dia. Manager Research Officer Mach) 6.1

WEB(10 MM) WITH FLANGE (12MM)FILLET WELD (8MM)

IS:2062 : 2011 E 350 Quality B0 Submerged Arc Welding (SAW)

Flat

Class:

W2 of IRS M.39

Copper coated solid wire

4.0 mm (copper coated)

Drying Method:

N.A

Class: F2of IRS M.39

Type: : Agglomerated

Drying Method: 250° C to 300° C for two hour before use.

6.3 Shielding gas

Flux

6.2

7.1

1

10

Base metal preparation 7.0

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Joint design details

Sketch showing arrangements of parts, weld groove details, weld passes & their sequence etc.

8 MM FILLET WELD

LANGE 150 X12 THK

**WEB 400X10 THK** 

8 MM FILLET WELD

Joint preparation 7.2

As per IS 4353- 1995, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC -

Welding current 8.

orsultant Priza

Type: DC Polarity Reverse

9 Welder qualification First welder as per IS-7307 (part-I) First welder at all test

then other welder As per IS 7310 (Part I) - 1974

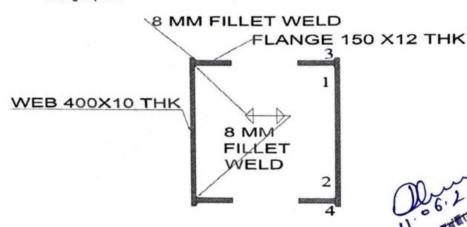
10. Welding parameters and technique

10.1 Welding parameter

Weld Pass	Pass	Electrodes/ Wire dia.		Arc Voltage (volt)	Wire feed Speed	Travel Speed	Electrode Stick out	Gas flow (I/min)
Front side	Back Side	(mm)			(m/min)	(m/min)	(mm)	
single	single	4	450-550	28-30	controlled by	0.45-0.50	15-20	N.A

current

10.2 Welding sequence



11. Provision of running & 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 & interpass temperature

Min-150°C , Interpass Max- 250°C

15. Peening N.A

16 Post weld treatment

N.A.

17. Rectification of weld defects

By grinding of the defective weld & rectifying the weld as per Cl 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28-12 after conducting D P

The Received of And

A TO THE THE WAY TO A TO THE WAY TO A !!

test.

18. Inspection of weld

# Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City. Mullana, Ambala (HR) 133104

Welding procedure specification No.

MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-19

1. Drawing No. RDSO/B-17184 (M1-U1 & M1-L1) DETAILS OF VERTICALS

Weld joint description 2.

WEB(16 MM) WITH FLANGE (25MM)FILLET WELD (6MM)

Base metal 3.

IS:2062: 2011 E 350 Quality -B0

Welding process 4.

Submerged Arc Welding (SAW)

Welding position 5.

Flat

Welding consumables 6.

Class:

W2 of IRS M.39

Copper coated solid wire

Street Branch Committee Co Electrode/wire - Electrode 6.1

4.0 mm (copper coated)

N.A

Flux 6.2

Class: F2of Class: F2of IRS M.39

Type: : Agglomerated

Drying Method: 250° C to 300° C for two hour before use.

Shielding gas 6.3

Base metal preparation 7.0

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Joint design details 7.1

Sketch showing arrangements of parts, weld groove details, weld passes & their sequence etc.

FLANGE 310X25 THK

WEB 560X16 THK

6 MM

Joint preparation 7.2

As per IS 4353- 1995, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC -2001

Welding current 8.

Sultant Prins

Type DC Polarity Reverse DC usign

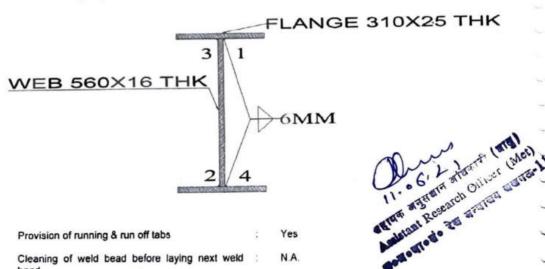
9. Welder qualification First welder as per IS-7307(part-I) First welder at all test then other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

10.1 Welding parameter

Weld	Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Electrode Stick out	Gas flow (I/min)
Front side	Back Side	(mm)			(m/min)	(m/min)	(mm)	
single	single	4	450-500	28-30	controlled by current	0.50-0.55	15-20	N.A

10.2 Welding sequence



Yes Provision of running & run off tabs 11. 12. Cleaning of weld bead before laying next weld N.A.

Root preparation before welding other side of : 13. groove weld

14. Preheating & interpass temperature Min-150°C . Interpass Max- 250°C

15. Peening N.A 16 Post weld treatment N.A.

17. Rectification of weld defects

By grinding of the defective weld & rectifying the weld as per Cl 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28-12 after conducting D P

Andread Research Officer Inder 1

N.A.

18. Inspection of weld

bead

# Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104 MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-20

Welding procedure specification No.

Drawing No. 1.

RDSO/B-17184 (M2-U2 & M2-L2) DETAILS OF VERTICALS

IS:2062: 2011 E 350 Quality -B0

Weld joint description 2

Base metal

3.

Welding process

Welding position 5.

Welding consumables 6.

Electrode/wire - Electrode 6.1

Submerged Arc Welding (SAW)

Flat

Class:

W2 of IRS M.39

WEB(16 MM) WITH FLANGE (16MM)FILLET WELD (6MM)

Type:

Copper coated solid wire

4.0 mm (copper coated)

N.A

6.2

7.1

Drying Method: 250° C to 300° C for two hour before use.

Shielding gas 6.3

Base metal preparation . 7.0

Joint design details

Hard a state of a stat Type:: Agglomers Drying Method:

Drying Method:

Type:: Agglomers

Drying Method: Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Sketch showing arrangements of parts, weld groove details,

weld passes & their sequence etc.

ANGE 310X16 THK

**WEB 578X16 THK** 

6 MM

Joint preparation 7.2

Sultant Privar

As per IS 4353- 1995, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC -2001

व मुख्य परियोजना प्रयंगक

8. Welding current

Type: DC

Polarity: Reverse

9. Welder qualification

First welder as per IS-7307(part-I) First welder at all test

then other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

10.1 Welding parameter

Weld		Weld Pass Electrodes/ Wire dia.		Current /	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Electrode Stick out	Gas flow (I/min)
Front side	Back Side	(mm)		,,,,,	(m/min)	(m/min)	(mm)	,,	
single	single	4	450-500	28-30	controlled by current	0.50-0.55	15-20	N.A	

10.2 Welding sequence



Provision of running & run off tabs 11.

Yes

12. Cleaning of weld bead before laying next weld

N.A.

13. Root preparation before welding other side of : groove weld

N.A.

Preheating & interpass temperature 14.

Min-150°C, Interpass Max- 250°C

15. Peening

N.A

16. Post weld treatment N.A.

17. Rectification of weld defects

By grinding of the defective weld & rectifying the weld as per Cl 32.2 of IS 9595-96, using A3 class of

electrodes of specn IRS M.28-12 after conducting D P

18. Inspection of weld

### Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd.,

Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City,

Mullana, Ambala (HR) 133104

Welding procedure specification No.

MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-21 RDSO/B-17184 (M3-U3, M3-L3, M4-U4, M4-L4, M5-U5, M5-L5,

M6-U6, M6-L6 & U7-L7) **DETAILS OF VERTICALS** 

Weld joint description 2.

Drawing No.

WEB(10 MM) WITH FLANGE (12MM)FILLET WELD (6MM)

3. Base metal

1.

IS:2062: 2011 E 350 Quality -B0

4. Welding process Submerged Arc Welding (SAW)

Welding position 5.

Flat

Welding consumables 6.

W2 of IRS M.39 Class:

Copper coated solid wire

N.A

State of the state Electrode/wire - Electrode 6.1

Type: Dia:

4.0 mm (copper coated)

62

Drying Method: Class: F2of IRS M.39

Type: : Agglomerated

Drying Method: 250°C to 300°C for two hour before use.

6.3 Shielding gas

A Land and Restricted Office of Bales, N.A

THE REAL PROPERTY OF THE PARTY Base metal preparation 7.0

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

7.1 Joint design details Sketch showing arrangements of parts, weld groove details,

weld passes & their sequence etc.

## FLANGE 310X12 THK

**WEB 586X10 THK** 

Sullant Pring

6 MM

Joint preparation 7.2

As per IS 4353- 1995, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC -**७2001**व वरियोजना प्रबंधक

Welding current 8.

DC Type:

Polarity: Reverse

Welder qualification 9.

First welder as per IS-7307(part-I) First welder at all test

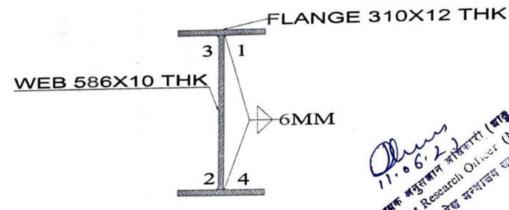
then other welder As per IS 7310 (Part I) - 1974

Welding parameters and technique 10.

Welding parameter 10.1

Weld	Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed (m/min)	Travel Speed (m/min)	Stick out (mm)	(l/min)
Front	Back	(mm)			(m/min)	(manner)		NI A
side	Side			20.20	controlled by	0.45-0.50	15-20	A.N
single	single	4	450-500	28-30	current			

Welding sequence 10.2



Markan Research On the Property of the Parket of the Parke Assistant Research Officer (Met)

Provision of running & run off tabs 11.

Yes

12. Cleaning of weld bead before laying next weld :

13.

Root preparation before welding other side of :

groove weld

N.A.

14. Preheating & interpass temperature Min-150°C, Interpass Max- 250°C

15. Peening N.A

16 Post weld treatment

17. Rectification of weld defects N.A.

By grinding of the defective weld & rectifying the weld

as per Cl 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28-12 after conducting D P

18. Inspection of weld

# Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104 MGCPL/20-21/DFCCIL/SSM-RFO/91 4M/SAW/WPSS-22

Welding procedure specification No.

- Drawing No.
- Weld joint description 2
- Base metal 3.
- Welding process 4.
- Welding position 5.
- Welding consumables
- Electrode/wire Electrode

WEB(16 MM) WITH FLANGE (40 MM) FILLET WELD (12 MM)

IS:2062 : 2011 E 350 Quality- B0

DETAILS OF CROSS GIRDERS

Submerged Arc Welding (SAW)

Flat

RDSO/B-17184

W2 of IRS M.39 Class:

Copper coated solid wire

4.0 mm (copper coated)

A Land Research Officer Postorio do Tel Lindra

Drying Method: 250° C to 300° C for two hour before use.

Shielding gas 6.3

6.2

1

0

0

0

Base metal preparation 7.0

Joint design details 7.1

Drying Method:

Type:: Agglome

Drying Method:

Type:: Agglome

Drying Method:

Type:: Agglome Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc., which might affect weld quality.

> Sketch showing arrangements of parts, weld groove details, weld passes & their sequence etc.

FLANGE 400 X40 THK

WEB 1120 X 16 THK

12 MM

7.2 Joint preparation

8 Welding current Saultant Private

As per IS 4353- 1995, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC -2001

DC -Type: Polarity. Reverse

Welder qualification 9.

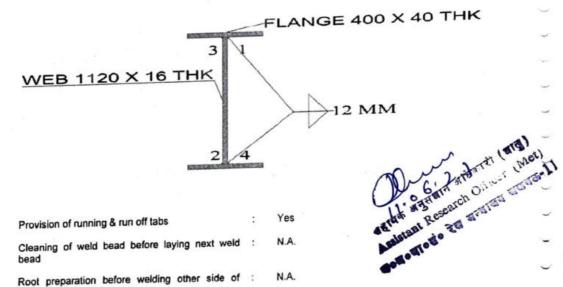
First welder as per IS-7307(part-I)First wilder at all test then other welder As per IS 7310 (Part I) - 1974

Welding parameters and technique 10.

Welding parameter 10.1

Weld	Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed (m/min)	Travel Speed (m/min)	Stick out (mm)	(I/min)
Front	Back	(mm)			(11011111)		45.00	N.A
side	Side		150 500	28-30	controlled by	0.35-0.40	15-20	110.7
single	single	4	450-500	20-30	current			

Welding sequence 10.2



Provision of running & run off tabs 11.

Yes

12.

N.A.

bead

Root preparation before welding other side of :

Cleaning of weld bead before laying next weld :

N.A.

13.

groove weld

14.

15.

Preheating & interpass temperature

N.A

16.

6

N.A.

Rectification of weld defects 17.

By grinding of the defective weld & rectifying the weld as per CI 32.2 of IS 9595-96, using A3 class of

electrodes of specn IRS M.28 after conducting D P test.

Inspection of weld 18.

Peening

Post weld treatment

Visually, D.P.Test & Macro Etching

Min-150°C , Interpass Max- 250°C

# Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City. Mullana, Ambala (HR) 133104 MGCPL/20-21/DFCCIL/SSM-RFO/91 4M/SAW/WPSS-23

Welding procedure specification No.

RDSO/B-17184

Weld joint description

DETAILS OF STRINGERS

Drawing No. 1.

2.

6.1

7.0

7.1

Base metal 3.

IS:2062 : 2011 E 350 Quality -B0

Welding process 4.

Submerged Arc Welding (SAW)

Welding position 5.

Class:

W2 of IRS M.39

Welding consumables 6. Electrode/wire - Electrode

Type:

Copper coated solid wire

WEB(12 MM) WITH FLANGE (20 MM)FILLET WELD (12 MM)

4.0 mm (copper coated)

Dia:

Drying Method:

N.A

Flux 6.2

Class: F2of IRS M.39

Type: : Agglomerated

Drying Method: 250°C to 300°C for two hour before use.

6.3

Shlelding gas

Base metal preparation

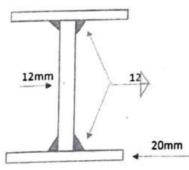
Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Sketch showing arrangements of parts, weld groove details,

weld passes & their sequence etc.

Joint design details



parts, weld gro

parts,

Joint preparation 7.2

8.

As per IS 4353- 1995, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC -2001

Welding current

Sonsultant Priza

उप मुख्य परियोजना प्रवासक Cy CType: DC .... Polarity: Reverse

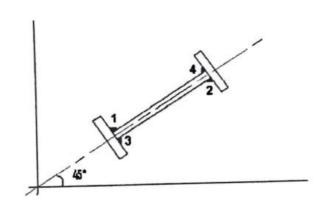
9. Welder qualification First welder As per IS-7307(part-I) first welder at all test then other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

10.1 Welding parameter

Weld	Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Stick out (mm)	Gas flow (I/min)
Front side	Back Side	(mm)	35		(m/min)	(m/min)		N A
single	single	4	450-500	28-30	controlled by current	0.35-0.40	15-20	N.A

10.2 Welding sequence



Andruar Research Principles of the State of

Provision of running & run off tabs 11.

Yes

Cleaning of weld bead before laying next weld : 12. bead

N.A.

Root preparation before welding other side of : 13. groove weld

N.A.

Preheating & interpass temperature

14.

Min-150°C, Interpass Max- 250°C N.A

Peening Post weld treatment 16.

15.

Rectification of weld defects 17.

N.A.

By grinding of the defective weld & rectifying the weld as per Cl 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28-12 after conducting D P

Inspection of weld 18

# Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104

Welding procedure specification No.

Drawing No. 1.

Weld joint description

Base metal 3.

2.

6.2

Welding process

Welding position 5.

Welding consumables 6.

Electrode/wire - Electrode 6.1

MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-24

DETAILS OF PORTAL GIRDER

WEB(15 MM) WITH FLANGE (15 MM)FILLET WELD (6 MM) IS:2062 : 2011 E 350 Quality -B0

Submerged Arc Welding (SAW)

Flat

W2 of IRS M.39 Class:

RDSO/B-17184

Copper coated solid wire

4.0 mm (copper coated)

N.A

Class: F2of IRS M.39

Type: : Agglomerated

Drying Method: 250° C to 300° C for two hour before use.

Shielding gas 6.3

Flux

Base metal preparation 7.0

Joint design details 7 1

Class: F2of IT Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Sketch showing arrangements of parts, weld groove details,

weld passes & their sequence etc.

## ANGE 310 X 12 THK

WEB 625 X 10 THK **∌6 MM** 

Joint preparation 7.2

8.

Welding-current

Sullant Pring

As per IS 4353- 1995, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC -2001

Type: DC Polarity: Reverse

9. Welder qualification

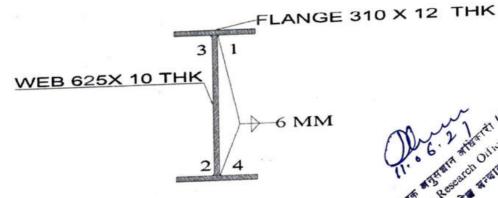
First welder As per IS-7307(part-I) first welder at all test then other welder As per IS 7310 (Part I) - 1974

Welding parameters and technique

10.1 Welding parameter

Weld	Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed (m/min)	Travel Speed (m/min)	Stick out (mm)	(I/min)
Front	Back	(mm)			(11111111)		15-20	N.A
side	Side			28-30	controlled by	0.50-0.55	15-20	14.65
single	single	4	450-500	26-30	current			

10.2 Welding sequence



Office of the state of the stat

11. Provision of running & run off tabs

Yes

Cleaning of weld bead before laying next weld : bead

Root preparation before welding other side of : groove weld

N.A.

N.A.

14. Preheating & interpass temperature

Min-150°C , Interpass Max- 250°C

15. Peening

N.A

16. Post weld treatment

N.A.

17. Rectification of weld defects

By grinding of the defective weld & rectifying the weld as per Cl 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28-12 after conducting D P

test.

18. Inspection of weld

## Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104 MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-25

Welding procedure specification No.

Drawing No.

RDSO/B-17184

DETAILS OF SWAY GIRDER

Weld joint description 2.

Base metal 3.

6.1

Welding process 4.

Welding position 5.

Welding consumables 6.

Electrode/wire - Electrode

WEB(10 MM) WITH FLANGE (10 MM)FILLET WELD (6 MM)

IS:2062: 2011 E 350 Quality -B0

Submerged Arc Welding (SAW)

Flat

Class:

W2 of IRS M.39

Туре:

Copper coated solid wire

Dia:

4.0 mm (copper coated)

**Drying Method:** 

N.A

6.2 Flux

THE WASHING MESSAGE LAND Assert Research Officer (Mer) Server description of the server

Class: F2of IRS M.39

Type: : Agglomerated

Drying Method: 250°C to 300°C for two hour before use.

Shielding gas 6.3

Base metal preparation 7.0

N.A

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Joint design details 7.1

Sketch showing arrangements of parts, weld groove details, weld passes & their sequence etc.

FLANGE 250 X 10 THK

WEB 620 X 10 THK

→ 6 MM

Joint preparation 7.2

As per IS 4353- 1995, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC -2001

चिप सुख्य परियोजना प्रवेषक

asultant Priva

Welding current 8.

Type: DC

Polarity: Reverse

Welder qualification 9.

First welder As per IS-7307(part-I) first welder at all test

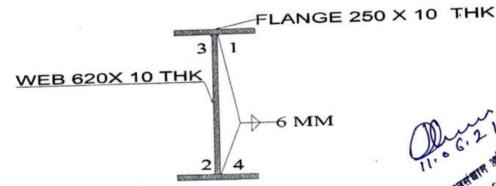
then other welder As per IS 7310 (Part I) - 1974

Welding parameters and technique 10.

Welding parameter 10.1

Weld Pass		Electrodes/	Current	Arc Voltage	Wire feed	Travel	Electrode Stick out	Gas flow (I/min)
	Wire dia.	Amp.	(volt)	Speed (m/min)	Speed Speed Stick out (m/min) (mm)			
Front	1.000	(mm)					15-20	N.A
side single	Side single	4	450-500	28-30	controlled by current	0.50-0.55	15-20	

Welding sequence 10.2



Provision of running & run off tabs 11.

Yes

Cleaning of weld bead before laying next weld : 12.

N.A.

Root preparation before welding other side of : 13.

groove weld

N.A.

14. Preheating & interpass temperature Min-150°C, Interpass Max- 250°C

15. Peening N.A

16. Post weld treatment

Rectification of weld defects 17.

N.A.

By grinding of the defective weld & rectifying the weld

as per Cl 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28-12 after conducting D P

And Research Outself (Mar.)

Assetunt Research Officer (Mer)

test.

18. Inspection of weld

# Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104 MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/GMAW/WPSS-25

Welding procedure specification No.

Drawing No.

RDSO/B-17184

DETAILS OF TOP LAT. BRACING

2. Weld joint description

Base metal 3.

Welding process 4.

Welding position 5.

Welding consumables 6

Electrode/wire - Electrode 6.1

WEB(12 MM) WITH FLANGE (12 MM)FILLET WELD (6 MM)

IS:2062: 2011 E 350 Quality -B0

GMAW SAW DE

Horizontal-Vertical , FLA T

20

CLASS-1011RSM-46 W2 OF IRS:M-39

Copper coated solid wire

1.2 mm (copper coated)

Class: No. F2 of IRS; M-39 &

Type:: D. Agglowerated

Drying Method: N.A. 250-300 feel of lowers

6.3 Shielding gas

Flux

6.2

Base metal preparation 7.0

7.1 Joint design details

Type. Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Sketch showing arrangements of parts, weld groove details,

weld passes & their sequence etc.

FLANGE 300 X 12 THK

WEB 160 X 12 THK

**96** MM

Joint preparation 7.2

orsultant Pr

As per IS 10178- 1995, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC च-2001 स्वास्त्रम प्रदेशक

8 Welding current

DC Type:

Polarity: Reverse

9. Welder qualification First welder As per IS-7307(part-I) first welder at all test

then other welder As per IS 7310 (Part I) - 1974

Welding parameters and technique 10.

10.1 Welding parameter

Weld	Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Electrode Stick out (mm)	Gas flow (Vmin)
Front side	Back Side	(mm)	O.		(m/min)	(m/min)	De	45.00
single	single	4.0	180-220 150-50	22-26	controlled by current	N.A. 0.55	15-29	15-20

Welding sequence 10.2

FLANGE 300 X 12 THK

**WEB 160X 12 THK** 

6 MM

Provision of running & run off tabs Yes 11. 12. Cleaning of weld bead before laying next weld : N.A. bead

13. Root preparation before welding other side of : groove weld

N.A.

3

Preheating & interpass temperature 14.

Min-75°C, Interpass Max- 250°C

15. Peening N.A

N.A.

16. Post weld treatment

Rectification of weld defects 17.

By grinding of the defective weld & rectifying the weld

as per Cl 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28 after conducting D P test.

A State of the Sta

18. Inspection of weld

# Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104

Welding procedure specification No.

MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-027

Drawing No. 1.

RDSO/B-17184/4/1 (L0-L1-L2) BATTEN & DIAPHARGAM WELDING OF BOTTOM CHORD

Weld joint description 2.

LO-L1-L2 WEB(16 MM) + DIAPHRAGM PLATE (10MM) FLANGE (12MM) +BATTEN PLATE(10MM)

Base metal 3

IS:2062: 2011 E 350 Quality -B0 **GMAW** 

Welding process

Horizontal-Vertical

Welding position 5.

Class:

Class-I of IRS M.46

Welding consumables 6.

Type:

Copper coated solid wire

Electrode/wire - Electrode 6.1

1.2 mm (copper coated)

N.A

Flux 6.2

To be the design of the state o Assistant Research On less de les de

Class: N.A.

Drying Method:

Type:: N.A.

Drying Method: N.A.

Shielding gas 6.3

CO2

Base metal preparation 7.0

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

7.1 Joint design details Sketch showing arrangements of parts, weld groove details,

weld passes & their sequence etc.

ANGE 150 X12THK

**WEB 620X16 THK** 



DIAPHRAGMS 10 THK

BATTEN PL. 10 THK

**6 MM** FILLET WELD

उप मुख्य परियोजना प्रचंधक

As per IS 10178, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC - 2001

of sultant P Joint preparation

8. Welding current

DC Type:

Polarity: Reverse

Welder qualification 9.

First welder as per IS-7307(Part-I) First welder at all test then

other welder As per IS 7310 (Part I) - 1974

Welding parameters and technique 10.

10.1 Welding parameter

Weld	i Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed (m/min)	Electrode Stick out (mm)	Gas flow (I/min)
Front	Back	(mm)			(m/min)	1) (112111117)		15-20
side	Side single	1.2MM	180-220	22-26	controlled by current	N.A.	12-15	15-20
						O.	6. 2 1 6. 2 1 Start Restaton	THE WALL
	Descripion	of running & run	off tabs	;	N.A.	W. Harris	tant Reside	Δ.
11.						Man	Mis	
12.	Cleaning bead	of weld bead b	pefore laying	next weld :	N.A.	40	N.	
				er side of :	N.A.			

Root preparation before welding other side of : 13.

groove weld

Min-75°C, Interpass Max- 250°C

Preheating & interpass temperature 14.

N.A

Post weld treatment 16.

Peening

15.

N.A.

Rectification of weld defects 17.

By grinding of the defective weld & rectifying the weld as per CI 32.2 of IS 9595-96, using A3 class of

electrodes of specn IRS M.28-12 after conducting D P

test.

Inspection of weld 18.

### Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104

Welding procedure specification No.

MGCPL/20-21/DFCCIL/SSM-RFO/91 4M/SAW/WPSS-028

Drawing No. 1.

RDSO/B-17184/4/1 (L2-L3-L4)

BATTEN & DIAPHARGAM WELDING OF BOTTOM CHORD

2. Weld joint description L2-L3-L4

WEB(20 MM) + DIAPHRAGM PLATE (10MM) FLANGE (16MM) +BATTEN PLATE(10MM)

Base metal 3.

Welding process

Welding position

6. Welding consumables

Electrode/wire - Electrode 6.1

IS:2062: 2011 E 350 Quality -B0

**GMAW** 

Horizontal-Vertical

Class:

Class-I of IRS M.46

Type:

Copper coated solid wire

1.2 mm (copper coated)

Drying Method:

N.A

6.2 Flux

7.0

Arter Research Officer dutor Assirant Research Officer (Mes)

Class, N.A.

Type:: N.A.

Drying Method: N.A.

Shielding gas 6.3

Base metal preparation

CO2

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Joint design details 7.1

Sketch showing arrangements of parts, weld groove details,

weld passes & their sequence etc.

FLANGE 150 X16THK

**WEB 620X20 THK** 

DIAPHRAGMS 10 THK

BATTEN PL. 10 THK

**6 MM** FILLET WELD

उप गुढ्य परिधोजना प्रचान्त Dy. Chief Project

Store - As per IS 10178, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC - 2001

soint preparation

7.2

8. Welding current

DC Type:

Polarity: Reverse

9. Welder qualification First welder as per IS-7307(Part-I) First welder at all test then

other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

10.1 Welding parameter

Gas flow Electrode Travel Arc Voltage Wire feed Weld Pass Current Electrodes/ (I/min) Stick out Speed (volt) Speed Wire dia. Amp. (m/min) (mm) (m/min) Front Back (mm) Side side 15-20 12-15 N.A. controlled by 22-26 single 1.2MM 180-220 current J. 6. 2 Area of o age area of the state of t

10.2 Welding sequence

N.A. Provision of running & run off tabs 11.

Cleaning of weld bead before laying next weld : N.A.

bead

12.

Root preparation before welding other side of : 13.

groove weld

Min-75°C . Interpass Max- 250°C Preheating & interpass temperature 14.

N.A 15. Peening

N.A. Post weld treatment 16.

By grinding of the defective weld & rectifying the weld 17. Rectification of weld defects

N.A.

as per Cl 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28 after conducting D P test.

Inspection of weld Visually, D.P.Test & Macro Etching 18.

# Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kaipi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104

Welding procedure specification No.

MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-029

Drawing No. 1.

RDSO/B-17184/4/2 (L4-L5-L6) BATTEN & DIAPHARGAM WELDING OF BOTTOM CHORD

Weld joint description 2.

L4-L5-L6 WEB(25 MM) + DIAPHRAGM PLATE (10MM) FLANGE (20MM) +BATTEN PLATE(10MM)

Base metal 3.

IS:2062: 2011 E 350 Quality -B0

Welding process

**GMAW** 

Welding position 5

Horizontal-Vertical

Welding consumables 6 Electrode/wire - Electrode 6.1

Class:

Class-I of IRS M.46

Type:

Copper coated solid wire

1.2 mm (copper coated)

N.A

6.2 Flux

Drying Method: N.A.

Shielding gas 6.3

Market Rose Lett Officer (Men)

Base metal preparation 7.0

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Joint design details 7.1

Sketch showing arrangements of parts, weld groove details, weld passes & their sequence etc.

FLANGE 150 X20THK

WEB 620X25 THK

DIAPHRAGMS 10 THK

BATTEN PL. 10 THK

**6 MM** FILLET WELD

osultant p

एए नाया परियोजना प्रबंधफ

Dy Chief Project Monager

Joint preparation

As per IS 10178, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC - 2001

8. Welding current

DC Type:

current

9. Welder qualification Polarity: Reverse First welder as per IS-7307(Part-I) First welder at all test then

other welder As per IS 7310 (Part I) - 1974

Welding parameters and technique 10.

10.1 Welding parameter

Gas flow Electrode Travel Wire feed Arc Voltage Current Electrodes/ Weld Pass (I/min) Stick out Speed Speed (volt) Amp. Wire dia. (m/min) (mm) (m/min) (mm) Front Back side Side 15-20 12-15 N.A. 22-26 controlled by 180-220 1.2MM single

10.2 Welding sequence

M. 6. 2 started and wheel I have been a started and a star

Provision of running & run off tabs 11.

N.A.

Cleaning of weld bead before laying next weld : 12. bead

N.A.

Root preparation before welding other side of : 13. groove weld

N.A.

Preheating & interpass temperature 14.

Min-75°C, Interpass Max- 250°C

15. Peening N.A

16. Post weld treatment N.A.

Rectification of weld defects 17.

By grinding of the defective weld & rectifying the weld as per Cl 32.2 of IS 9595-96, using A3 class of

electrodes of specn IRS M.28 after conducting D P test.

Inspection of weld 18.

#### Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104

Welding procedure specification No.

MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-030

1. Drawing No. RDSO/B-17184/4/2 (L6-L7)

BATTEN & DIAPHARGAM WELDING OF BOTTOM CHORD

2. Weld joint description L6-L7

WEB(25 MM) + DIAPHRAGM PLATE (10MM) FLANGE (25MM) +BATTEN PLATE(10MM)

3. Base metal

5.

6.1

IS:2062: 2011 E 350 Quality -B0

4 Welding process **GMAW** 

Welding position

Horizontal-Vertical

6.

Welding consumables Electrode/wire - Electrode

Class:

Class-I of IRS M.46

Type:

Copper coated solid wire

1.2 mm (copper coated)

6.2

N.A

वय मुख्य प्रतिसारन के कर्त

Drying Method: N.A.

6.3

7.0

Onleiding gas

Antique of the state of the s Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

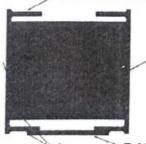
which might affect weld quality.

7.1

Sketch showing arrangements of parts, weld groove details,

weld passes & their sequence etc.

FLANGE 150 X25THK



DIAPHRAGMS 10 THK

BATTEN PL. 10 THK

6 MM FILLET WELD

As per IS 10178, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC - 2001

8. Welding current Type: DC

Polarity: Reverse

9. Welder qualification First welder as per IS-7307(Part-I) First welder at all test then

other welder As per IS 7310 (Part I) - 1974

Welding parameters and technique 10.

10.1 Welding parameter

Weld Pass		Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Stick out	Gas flow (I/min)
Front side	Back Side	(mm)	,		(m/min)	(m/min)	(mm)	15 20
	single	1.2MM	180-220	22-26	controlled by current	N.A.	12-15	15-20

Welding sequence 10.2

N.A. Provision of running & run off tabs 11.

Cleaning of weld bead before laying next weld : N.A. 12.

bead

Root preparation before welding other side of : 13.

groove weld

Market Brown of State West of the State of t Min-75°C, Interpass Max- 250°C Preheating & interpass temperature 14.

N.A 15. Peening

N.A. 16. Post weld treatment

17. Rectification of weld defects By grinding of the defective weld & rectifying the weld

as per Cl 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28-12 after conducting D P

test.

N.A.

Inspection of weld

# Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104

MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-031

Welding procedure specification No.

Drawing No. 1.

RDSO/B-17184/5/1

LACING BATTEN & DIAPHARGAM WELDING OF TOP

CHORD

Weld joint description 2.

U0-U1-U2 WEB(10 MM) + DIAPHRAGM PLATE (10MM) FLANGE (16MM) +BATTEN PLATE(10MM) FLANGE (16MM)+LACING PLATE (16MM)

Base metal 3.

Welding process 4.

Welding position 5.

Welding consumables 6.

Electrode/wire - Electrode 6.1

IS:2062: 2011 E 350 Quality -B0

**GMAW** 

Horizontal-Vertical

Class-I of IRS M.46

Copper coated solid wire

1.2 mm (copper coated)

Flux 6.2

Class Type:
Type:

And Research Office of the State of th

Drying Method: N.A.

Shielding gas 6.3

Base metal preparation 7.0

Class: N.A.
Tyn-Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Joint design details 7.1

Sketch showing arrangements of parts, weld groove details,

weld passes & their sequence etc.

**WEB 620X10 THK** LACING 16 THK DIAPHRAGMS 10 THK FLANGE 150 X16THK **6 MM** BATTEN PL. 10 THK FILLET WELD 6 MM FILLET WELD

7.2 Joint preparation

As per IS 10178, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC - 2001

Welding current

Type: DC

Polarity: Reverse

Welder qualification

First welder as per IS-7307(Part-I) First welder at all test then

other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

10.1 Welding parameter

:

Weld Pass		Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Electrode Stick out	Gas flow (I/min)
Front side	Back Side	(mm)		(15.17	(m/min)	(m/min)	(mm)	
	single	1.2MM	180-220	22-26	controlled by current	N.A.	12-15	15-20

10.2 Welding sequence

Agricult Research Oniver Marie 1

11. Provision of running & run off tabs

N.A.

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 & interpass temperature

Min-75°C , Interpass Max- 250°C

15. Peening

N.A

16. Post weld treatment

N.A.

17. Rectification of weld defects

By grinding of the defective weld & rectifying the weld as per Cl 32.2 of IS 9595-96, using A3 class of

electrodes of specn IRS M.28 after conducting D P test.

18. Inspection of weld

## Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104

Welding procedure specification No.

MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-032

Drawing No.

RDSO/B-17184/5/1

LACING BATTEN & DIAPHARGAM WELDING OF TOP

CHORD

Weld joint description 2.

U2-U3-U4

WEB(25 MM) + DIAPHRAGM PLATE (10MM) FLANGE (16MM) +BATTEN PLATE(10MM)

FLANGE (16MM)+LACING PLATE (16MM)

Base metal 3.

IS:2062: 2011 E 350 Quality -B0

Welding process 4.

**GMAW** 

Welding position 5.

Horizontal-Vertical

Welding consumables 6.

Class:

Class-I of IRS M.46

Electrode/wire - Electrode 6.1

Type:

Copper coated solid wire

1.2 mm (copper coated)

Manual Research Officer West Class: N.A AMBRITAN RESERVED OF WASHINGTH TONES

N.A

Flux 6.2

Drying Method: N.A.

Shielding gas 6.3

Base metal preparation 7.0

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Joint design details 7.1

Sketch showing arrangements of parts, weld groove details,

weld passes & their sequence etc.

WEB 620X25 THK

DIAPHRAGMS 10 THK

ACING 18 THK

FLANGE 150 X16THK

BATTEN PL. 10 THK

6 MM FILLET WELD

6 MM FILLET WELD Consultanto

उप मुख्य परिभीताल प्रार्थित प्र

7.2 Joint preparation As per IS 10178, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC - 2001

8. Welding current

DC Type: Polarity: Reverse

9. Welder qualification First welder as per IS-7307(Part-I) First welder at all test then

other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

10.1 Welding parameter

Weld Pass		Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Stick out	Gas flow (I/min)
Front side	Back Side	(mm)			(m/min)	(m/min)	(mm)	45.00
	single	1.2MM	180-220	22-26	controlled by current	N.A.	12-15	15-20

10.2 Welding sequence

Provision of running & run off tabs 11.

N.A.

Cleaning of weld bead before laying next weld : 12.

N.A.

bead

Root preparation before welding other side of : 13.

N.A.

groove weld

Andream Research Officer (Mer.)

14. Preheating & interpass temperature

Selection of a few street when I were 11 Min-75°C, Interpass Max- 250°C

Visually, D.P.Test & Macro Etching

15. Peening N.A

16. Post weld treatment N.A.

17

Rectification of weld defects By grinding of the defective weld & rectifying the weld

as per CI 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28 after conducting D P test.

18. Inspection of weld

### Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City,

Welding procedure specification No.

Mullana, Ambala (HR) 133104 MGCPL/20-21/DFCCIL/SSM-RFO/91 4M/SAW/WPSS-033

1.

Drawing No.

RDSO/B-17184/5/2

LACING ,BATTEN & DIAPHARGAM WELDING OF TOP

CHORD

2. Weld joint description U4-U5-U6

WEB(32 MM) + DIAPHRAGM PLATE (10MM) FLANGE (20MM) +BATTEN PLATE(10MM) FLANGE (20MM)+LACING PLATE (16MM)

3. Base metal IS:2062: 2011 E 350 Quality -B0

Welding process 4.

**GMAW** 

Welding position 5.

Horizontal-Vertical

6. Welding consumables

Class:

Class-I of IRS M 46

Market State of the Control of the C Electrode/wire - Electrode 6.1

Copper coated solid wire

1.2 mm (copper coated)

N.A

6.2 Flux

Drying Method: N.A.

6.3 Shielding gas

Base metal preparation 7.0

Tyle Dia: Type State of State o Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Joint design details 7.1

Sketch showing arrangements of parts, weld groove details,

weld passes & their sequence etc.

WEB 620X32 THK FLANGE 150 X20THK

DIAPHRAGMS 10 THK

ACING 16 THK

BATTEN PL. 10 THK

6 MM FILLET WELD

6 MM FILLET WELD sultant A

उप सच्य परिजी तो प्रध्यक

7.2 Joint preparation As per IS 10178, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC - 2001

8. Welding current

DC Type: Polarity: Reverse

9 Welder qualification First welder as per IS-7307(Part-I) First welder at all test then

other welder As per IS 7310 (Part I) - 1974

Welding parameters and technique 10.

10.1 Welding parameter

Gas flow Electrode Travel Wire feed Arc Voltage Current Weld Pass Flectrodes/ (I/min) Speed Stick out Speed (volt) Wire dia. Amp. (mm) (m/min) (m/min) (mm) Front Back side Side 15-20 12-15 N.A. controlled by 22-26 180-220 1.2MM single current

10.2 Welding sequence

N.A. Provision of running & run off tabs 11.

N.A. 12. Cleaning of weld bead before laying next weld :

bead

13. Root preparation before welding other side of : N.A.

groove weld

14. Preheating & interpass temperature Min-75°C, Interpass Max- 250°C

15. Peening N.A

16. Post weld treatment N.A.

17. Rectification of weld defects By grinding of the defective weld & rectifying the weld as per Cl 32.2 of IS 9595-96, using A3 class of

electrodes of specn IRS M.28 after conducting D P test.

18 Inspection of weld

# Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City,

Mullana, Ambala (HR) 133104

Welding procedure specification No.

MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-034

Drawing No. 1.

RDSO/B-17184/5/2

LACING ,BATTEN & DIAPHARGAM WELDING OF TOP

CHORD

Weld joint description 2.

U6-U7

WEB(32 MM) + DIAPHRAGM PLATE (10MM)

FLANGE (32MM) +BATTEN PLATE(10MM) FLANGE (32MM)+LACING PLATE (16MM)

Base metal 3.

IS:2062: 2011 E 350 Quality -B0

Welding process 4.

**GMAW** 

Horizontal-Vertical

Welding position 5.

Welding consumables 6.

Class-I of IRS M.46

Electrode/wire - Electrode 6.1

Copper coated solid wire

A state of Description of the state of the s Class Type: Dia:

1.2 mm (copper coated)

Drying Method:

N.A

Flux 6.2

Class: N.A.

Type:: N.A.

Drying Method: N.A.

Shielding gas .6.3

Base metal preparation 7.0

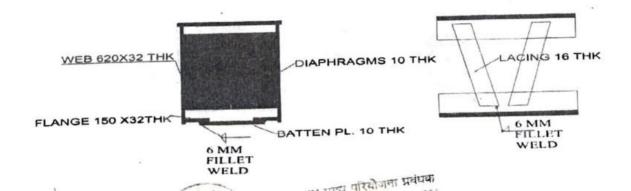
Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Joint design details 7.1

Sketch showing arrangements of parts, weld groove details,

weld passes & their sequence etc.



:

7.2 Joint preparation As per IS 10178, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC - 2001

8. Welding current

DC Type: Polarity: Reverse

9. Welder qualification First welder as per IS-7307(Part-I) First welder at all test then other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

10.1 Welding parameter

Weld	Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed (m/min)	Electrode Stick out (mm)	Gas flow (l/min)
Front	Back	(mm)			(m/min)	(m/min)		
side	Side single	1.2MM	180-220	22-26	controlled by	N.A.	12-15	15-20

Welding sequence 10.2

11.

15.

Provision of running & run off tabs

N.A.

Cleaning of weld bead before laying next weld : 12. bead

N.A.

N.A.

N.A

Root preparation before welding other side of : 13. groove weld

A State of the Sta

Min-75°C, Interpass Max- 250°C Preheating & interpass temperature 14.

N.A. 16 Post weld treatment

By grinding of the defective weld & rectifying the weld Rectification of weld defects 17. as per Cl 32.2 of IS 9595-96, using A3 class of

electrodes of specn IRS M.28-12 after conducting D P test.

Inspection of weld 18

Peening

## Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104

Welding procedure specification No.

MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-035

Drawing No. 1.

Weld joint description 2.

3.

Base metal Welding process 4.

5. Welding position

Welding consumables 6.

Electrode/wire - Electrode 6.1

RDSO/B-17184/6

LACING BATTEN & DIAPHARGAM WELDING OF END

RAKER

L0-M0-U0

WEB(25 MM) + DIAPHRAGM PLATE (10MM) FLANGE (20MM) +BATTEN PLATE(10MM) FLANGE (20MM)+LACING PLATE (16MM)

IS:2062: 2011 E 350 Quality -B0

**GMAW** 

Horizontal-Vertical

Class:

Class-I of IRS M.46

Copper coated solid wire

1.2 mm (copper coated)

N.A

My 6' V Report of the Control of the

6.2

6.3

7.0

7.1

Drying Method: N.A.

Shielding gas

Base metal preparation

And the state of t Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Sketch showing arrangements of parts, weld groove details,

weld passes & their sequence etc.

WEB 25 THK FLANGE 150 X20THK 6 MM

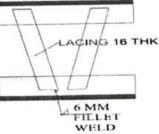
FILLET

WELD

Sullant Pri

DIAPHRAGMS 10 THK

BATTEN PL. 10 THK



उप मुख्य परिधीजना प्रचंधक by Charf Placet Manager

7.2 Joint preparation As per IS 10178, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC - 2001

8. Welding current

DC Type:

Polarity: Reverse

9. Welder qualification First welder as per IS-7307(Part-I) First welder at all test thei

other welder As per IS 7310 (Part I) - 1974

Welding parameters and technique 10.

10.1 Welding parameter

Weld	Pass	Electrodes/ Wire dia	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed (m/min)	Stick out (mm)	Gas flow (I/min)
Front side	Back Side	(mm)			(m/min)			15-20
aide	single	1.2MM	180-220	22-26	controlled by current	N.A.	12-15	13-20
10.2	W	elding sequence		:				
11.		n of running & ru		: nevt weld	N.A.	No 6'	A Standard Officer	The 11
11. 12.	Cleaning	of weld bead	before laying	next weld :	N.A. N.A. N.A.	And September	Art and office to the state of	They il

14.

Preheating & interpass temperature

Min-75°C, Interpass Max- 250°C

N.A 15. Peening

Post weld treatment 16. N.A.

Rectification of weld defects 17. By grinding of the defective weld & rectifying the weld

as per Cl 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28 after conducting D P test.

18. Inspection of weld

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104 MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-036

Welding procedure specification No.

1. Drawing No. RDSO/B-17184/1 TO 17184/18 BATTEN WELDING OF DIAGONALS

Weld joint description 2.

M0-L1, M0-U1 FLANGE (16MM) +BATTEN PLATE(10MM)

Base metal 3.

4.

Welding process

Welding position 5.

Welding consumables

Electrode/wire - Electrode 6.1

IS:2062: 2011 E 350 Quality -B0

**GMAW** 

Horizontal-Vertical

Class:

Class-I of IRS M.46

Copper coated solid wire

1.2 mm (copper coated)

Drying Method:

N.A

Flux 6.2

7.1

Class: N.A.

Type: : N.A.

Drying Method: N.A.

Shielding gas 6.3

Base metal preparation 7.0

Joint design details

Typ Dia: Dr Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

Sketch showing arrangements of parts, weld groove details,

weld passes & their sequence etc.

FLANGE 150 X16THK

BATTEN PL. 10 THK

6 MM FILLET WELD



8. Welding current

Type: DC

Polarity: Reverse

9. Welder qualification

First welder as per IS-7307(Part-I) First welder at all test then

other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

10.1 Welding parameter

Weld	Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed	Travel	Electrode	Gas flow
Front side	Back Side	(mm)	Amp.	(VOII)	Speed (m/min)	Speed (m/min)	Stick out (mm)	(l/min)
	single	1.2MM	180-220	22-26	controlled by	N.A.	12-15	15-20

10.2 Welding sequence

15.

Peening

11. Provision of running & run off tabs N.A.

12. Cleaning of weld bead before laying next weld : N.A. bead

13. Root preparation before welding other side of : N.A. groove weld

A state of the sta 14. Preheating & interpass temperature

Min-75°C, Interpass Max- 250°C

16. Post weld treatment N.A.

17. Rectification of weld defects By grinding of the defective weld & rectifying the weld

N.A

as per Cl 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M 28 after conducting D P test.

18. Inspection of weld Visually, D.P.Test & Macro Etching

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104 MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-037

Welding procedure specification No.

Drawing No. 1.

RDSO/B-17184/1 TO 17184/18 BATTEN & LACING WELDING OF DIAGONALS

Weld joint description 2

M1-L2, M2-L3, M3-L4, M4-L5, M5-L6, M6-L7, M1-U2, M2-U3,

M3-U4, M4-U5, M5-U6 & M6-U7 FLANGE (12MM) +BATTEN PLATE(10MM) FLANGE (12MM) +LACING PLATE(16MM)

Base metal 3

4

Welding process

Welding position

Welding consumables 6.

Electrode/wire - Electrode 6.1

IS:2062: 2011 E 350 Quality -B0

**GMAW** 

Horizontal-Vertical

Class-I of IRS M.46

Copper coated solid wire

1.2 mm (copper coated)

Class Type:
Type:

Office of the Dial and Dial a Drying Method:
Class: N.A.

Typ

N.A

Flux 6.2

7.1

Drying Method: N.A.

Shielding gas 6.3

Base metal preparation 7.0

Joint design details

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

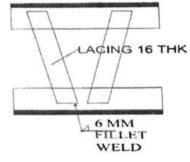
Sketch showing arrangements of parts, weld groove details,

weld passes & their sequence etc.

FLANGE 150 X12THK

BATTEN PL. 10 THK

**6 MM** FILLET WELD



72 Joint preparation As per IS 10178, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC - 2001

8. Welding current Type:

Polarity: Reverse

9. Welder qualification First welder as per IS-7307(Part-I) First welder at all test then

other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

10.1 Welding parameter

Weld	Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Electrode Stick out	Gas flow (I/min)
Front side	Back Side	(mm)			(m/min)	(m/min)	(mm)	
	single	1.2MM	180-220	22-26	controlled by current	N.A.	12-15	15-20

10.2 Welding sequence

Provision of running & run off tabs 11.

N.A.

Cleaning of weld bead before laying next weld : 12.

N.A.

bead

Root preparation before welding other side of :

N.A.

groove weld

Preheating & interpass temperature 14.

And the store of the state of t Min-75°C , Interpass Max- 250°C

Peening 15.

13.

N.A

Post weld treatment 16.

N.A.

Rectification of weld defects 17.

By grinding of the defective weld & rectifying the weld

as per Cl 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28-12 after conducting D P

tost.

Inspection of weld 18.

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road,

Opposite E-max Education City, Mullana, Ambala (HR) 133104

Welding procedure specification No.

MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-038

1. Drawing No. RDSO/B-17184/12

END PLATE OF CROSS GIRDER WITH WEB & FLANGE OF

**CROSS GIRDER** 

Weld joint description 2.

WEB (16MM) +END PLATE (20MM) WELDING -12MM

FLANGE (40MM) +END PLATE(20MM)- WELDING -12MM

3. Base metal

4.

5.

6.1

IS:2062: 2011 E 350 Quality -B0

Welding process

**GMAW** 

Welding position

Horizontal-Vertical

6. Welding consumables

Electrode/wire - Electrode

Class:

Class-I of IRS M.46

Type:

Copper coated solid wire

Dia:

1.2 mm (copper coated)

Drying Method:

N.A

6.2 Flux

Drying Method: N.A.

Shielding gas 6.3

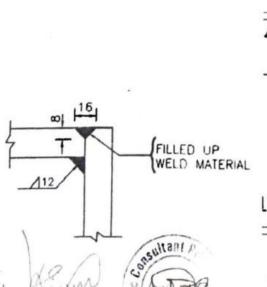
70 Base metal preparation

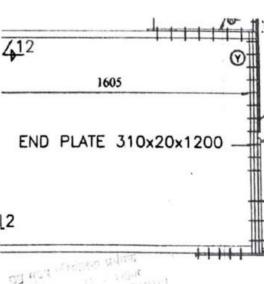
Manual Resident Office Interior Type:: N Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

which might affect weld quality.

7.1 Joint design details Sketch showing arrangements of parts, weld groove details,

weld passes & their sequence etc.





7.2 Joint preparation

8.

9.

As per IS 10178, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC - 2001

Welding current

Welder qualification

Type: DC Polarity: Reverse

First welder as per IS-7307(Part-I) First welder at all test then

other welder As per IS 7310 (Part I) - 1974

Welding parameters and technique 10.

10.1 Welding parameter

Weld	Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Electrode Stick out (mm)	Gas flow (I/min)
Front	Back	(mm)			(m/min)	(m/min)	(11111)	
side	Side single	1.2MM	180-220	22-28	current	N.A.	12-15	15-20
						Q	6 7 Control of the state of the	tel Office
11.	Provision	of running & ru	n off tabs		N.A.	11	A See Pros	1
12.	Cleaning bead	of weld bead	before laying	next weld :	WE S	5	Agistas, N. o.	
13.	Root pre	eparation before	welding oth	er side of :	N.A.			
							-	

14.

Preheating & interpass temperature

Peening 15.

Post weld treatment 16.

17. Rectification of weld defects Min-75°C, Interpass Max- 250°C

N.A

N.A.

By grinding of the defective weld & rectifying the weld

as per CI 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28-12 after conducting D P test.

Inspection of weld 18

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104 MGCPL/20-21/DFCCIL/SSM-RFO/91 4M/SAW/WPSS-039

Welding procedure specification No.

1. Drawing No. RDSO/B-17184/12 END CLEAT OF CROSS-GIRDER

2.

Weld joint description

Base metal 3.

Welding process 4

Welding position 5.

Welding consumables 6.

Electrode/wire - Electrode 6.1

WEB (16MM) +FLANGE (16MM)

IS:2062 : 2011 E 350 Quality -B0

**GMAW** 

Horizontal-Vertical

Class:

Class-I of IRS M.46

Type:

Copper coated solid wire

1.2 mm (copper coated)

g Method:

N.A

Type:: N.A.

September 1 September 1 Drying Method: N.A.

6.2

Flux

Shielding gas 6.3

Base metal preparation 7.0

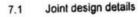
CO2

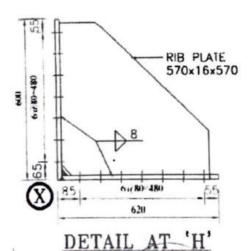
Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc.,

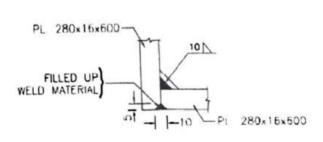
which might affect weld quality.

Sketch showing arrangements of parts, weld groove details,

weld passes & their sequence etc.







DETAIL AT 'X'

7.2 Joint preparation As per IS 10178, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC - 2001

8. Welding current

DC Type:

Polarity: Reverse

9. Welder qualification First welder as per IS-7307(Part-I) First welder at all test then

other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

10.1 Welding parameter

Weld	Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Electrode Stick out	Gas flow (I/min)
Front side	Back Side	(mm)		,,,,,,	(m/min)	(m/min)	(mm)	
	single	1.2MM	180-220	22-26	controlled by current	N.A.	12-15	15-20

10.2

Welding sequence

15. 15. 16. 2 Restrict September (Street Street) 11. 66. 2 Restrict September (Street Street) 12. 66. 2 Restrict September (Street Street) 13. 66. 2 Restrict September (Street Street) 14. 66. 2 Restrict September (Street Street) 15. 66. 2 Restrict September (Street Street) 16. 66. 2 Restrict September (Street Street Street) 16. 66. 2 Restrict September (Street Street S

11. Provision of running & run off tabs

N.A.

12. Cleaning of weld bead before laying next weld :

N.A.

bead

13. Root preparation before welding other side of : N.A.

groove weld

14. Preheating & interpass temperature

Min-75°C, Interpass Max- 250°C

15. Peening

N.A

16. Post weld treatment

N.A.

17. Rectification of weld defects

By grinding of the defective weld & rectifying the weld as per Cl 32.2 of IS 9595-96, using A3 class of

electrodes of specn IRS M.28-12 after conducting D P

test.

18. Inspection of weld

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City,

Welding procedure specification No.

Drawing No.

Weld joint description 2.

3. Base metal

Welding process

Welding position 5.

Welding consumables

Electrode/wire - Electrode 6.1

6.2 Flux

Shielding gas 6.3

Base metal preparation 7.0

7.1 Joint design details

Mullana, Ambala (HR) 133104 MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-040

> RDSO/B-17184/12 PAD PLATE OF END CROSS GIRDER

WEB (16MM) +FLANGE (16MM) WELDING -8MM

IS:2062: 2011 E 350 Quality -B0

**GMAW** 

Horizontal-Vertical

Class:

Class-I of IRS M.46

Type:

Copper coated solid wire

Dia:

1.2 mm (copper coated)

Drying Method:

N.A

Class: N.A.

Type:: N.A.

Drying Method: N.A.

CO2

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc., which might affect weld quality.

Sketch showing arrangements of parts, weld groove details, weld passes & their sequence etc.

40 MM 12 MM.

And Research Officer Research

Joint preparation 7.2

Welding current 8.

Welder qualification

As per IS 10178, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC - 2001

DC Type: Polarity: Reverse

First welder as per IS-7307(Part-I) First welder at all test then other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

Welding parameter

OSUIT BILL P

जंग मुख्य परियोजना प्रयंचक

Weld	Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Stick out	Gas flow (I/min)
Front side	Back Side	(mm)	•		(m/min)	(m/min)	(mm)	
	single	1.2MM	180-220	22-26	controlled by current	N.A.	12-15	15-20

10.2 Welding sequence

11. Provision of running & run off tabs : N.A.

12. Cleaning of weld bead before laying next weld : N.A.

bead

13. Root preparation before welding other side of : N.A.

groove weld

14. Preheating & interpass temperature : Min-75°C , Interpass Max- 250°C

15. Peening : N.A

16. Post weld treatment : N.A.

17. Rectification of weld defects : By grinding of the defective weld & rectifying the weld

as per CI 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28-12 after conducting D P

test.

18. Inspection of weld : Visually, D.P.Test & Macro Etching

Name and Address of Fabricator

: M/s M.G.Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104 MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-041

Welding procedure specification No.

Drawing No. 1.

RDSO/B-17184/13/1 END STRINGER BRACKET

Weld joint description 2.

WEB (16MM) +FLANGE (16MM)

Base metal 3.

5.

6.2

IS:2062: 2011 E 350 Quality -B0

Welding process

**GMAW** Horizontal-Vertical

Welding position Welding consumables 6.

Class-I of IRS M.46

Electrode/wire - Electrode 6.1

Class: Copper coated solid wire Type:

Dia:

1.2 mm (copper coated)

Drying Method:

N.A

Flux

Class: N.A.

Type:: N.A.

Drying Method: N.A.

Shielding gas 6.3

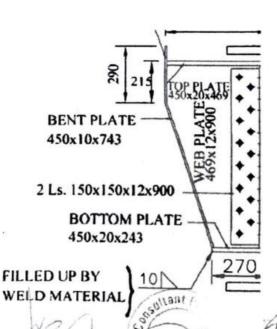
CO2

Base metal preparation 7.0

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc., which might affect weld quality.

Joint design details 7.1

Sketch showing arrangements of parts, weld groove details, weld passes & their sequence etc.



weld grand of the state of the

7.2 Joint preparation As per IS 10178, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC - 2001

8. Welding current Type:

Polarity: Reverse

9 Welder qualification First welder as per IS-7307(Part-I) First welder at all test the

other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

10.1 Welding parameter

Weld	Pass	Electrodes/ Wire dia	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Electrode Stick out	Gas flow (I/min)
Front	Back Side	(mm)	× × × × × × × × × × × × × × × × × × ×		(m/min)	(m/min)	(mm)	45.00
	single	1.2MM	180-220	22-26	controlled by current	N.A.	12-15	15-20

10.2 Welding sequence

N.A. Provision of running & run off tabs 11.

J. YES Cleaning of weld bead before laying next weld : 12.

Root preparation before welding other side of : 13.

groove weld

Market Research Officer and Inder Min-75°C, Interpass Max- 250°C Preheating & interpass temperature 14.

N.A Peening 15.

N.A. Post weld treatment 16.

By grinding of the defective weld & rectifying the weld Rectification of weld defects 17.

as per CI 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28-12 after conducting D P

test.

N.A.

Inspection of weld 18.

Name and Address of Fabricator

Welding procedure specification No.

1. Drawing No.

2. Weld joint description

3. Base metal

4. Welding process

Welding position

Welding consumables

6.1 Electrode/wire - Electrode

6.2 Flux

6.3 Shielding gas

7.0 Base metal preparation

7.1 Joint design details

STHFINING PL
SSANGONIO
(BOTH SIDE)

12)

M/s M.G Contractors Pvt. Ltd.,
Vill- Gola, Kalpi-Naraingarh Road,
Opposite E-max Education City,
Mullana, Ambala (HR) 133104
MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/SAW/WPSS-042

RDSO/B-17184/13/2 Stiffening plate with Stringer Web

WEB (12MM) +SF PLATE (10MM) WELDING -8MM

IS:2062: 2011 E 350 Quality -B0

GMAW

Horizontal-Vertical

Class:

Class-I of IRS M.46

Type:

Copper coated solid wire

Dia:

1.2 mm (copper coated)

Drying Method:

N.A

Class: N.A.

Type:: N.A.

Drying Method: N.A.

CO2

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc., which might affect weld quality.

Sketch showing arrangements of parts, weld groove details, weld passes & their sequence etc.



ट्राप मुख्य परियोजना प्रयंशम Chief Project Manager

7.2 Joint preparation As per IS 10178, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC - 2001

8. Welding current Type: DC

Polarity: Reverse

9. Welder qualification First welder as per IS-7307(Part-I) First welder at all test the

other welder As per IS 7310 (Part I) - 1974

10. Welding parameters and technique

10.1 Welding parameter

Weld	Pass	Electrodes/ Wire dia.	Current Amp.	Arc Voltage (volt)	Wire feed Speed	Travel Speed	Electrode Stick out	Gas flow (I/min)
Front side	Back Side	(mm)			(m/min)	(m/min)	(mm)	
	single	1.2MM	180-220	22-26	controlled by current	N.A.	12-15	15-20

10.2

Welding sequence

Assistant of other designation of the state of the state

Provision of running & run off tabs 11.

N.A.

Cleaning of weld bead before laying next weld : 12. bead

N.A.

Root preparation before welding other side of : 13.

N.A.

groove weld

14. Preheating & interpass temperature Min-75°C, Interpass Max- 250°C

15. Peening N.A

16. Post weld treatment N.A.

17. Rectification of weld defects By grinding of the defective weld & rectifying the weld as per Cl 32.2 of IS 9595-96, using A3 class of

electrodes of specn IRS M.28 after conducting D P test.

18. Inspection of weld

# Welding Procedure Specification Sheet (WPSS)

Name and Address of Fabricator

: M/s M.G Contractors Pvt. Ltd., Vill- Gola, Kalpi-Naraingarh Road, Opposite E-max Education City, Mullana, Ambala (HR) 133104

All relevant drawings.

Horizontal-Vertical

5 mm Tack welds on all joints.

IS:2062 : 2006 E 350 Quality-B0

MGCPL/20-21/DFCCIL/SSM-RFO/91.4M/MMAW/WPSS-43

Welding procedure specification No.

Drawing No.

Weld joint description 2.

Base metal 3.

Welding process

. Welding position 5.

Welding consumables 6.

Electrode/wire - Electrode 6.1

Class:

**MMAW** 

B1/B2 class of electrodes of IRS M.28

Type:

Medium coated

Dia:

3.15 mm

Drying Method:

As recommended by the electrode

manufacturer.

6.2 Flux Class: N.A Type: N.A

Drying Method: N.A

Shielding gas 6.3

N.A

Base metal preparation 7.0

Fusion faces and adjacent surfaces are cleaned and made free from cracks, notches, mill scale, grease, paint, rust etc., which

might affect weld quality.

Joint design details 7.1

Length of Tack weld 50 mm, Gap between two Tack welds 300

mm.

(Sketch showing arrangements of parts, weld groove details, weld passes & their sequence etc.)

Joint preparation 7.2

As per IS 9595, Cl. 7, IRS B1 - 2001, Cl. 17.3, & WBC - 2001

8. Welding current

9.

Type: DC Polarity: Reverse

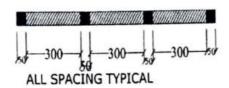
Welder qualification

First welder as per IS-7303(part-I) First welder at all then other welder As per IS 7310 (Part I) – 1974

Welding parameters and technique 10.

10.1 Welding parameter

#### 10.2 Welding sequence



Weld	Pass	Electrodes/ Wire dia. (mm)	Current Amp.	Arc Voltage (volt)		/ire feed Speed (m/min)	Travel Speed (m/min)	Electrode Stick out (mm)	Gas flow (I/min)	
1s	it.	4	120-160	20-26		N.A	N.A	N.A	N.A	_
11. 12.	Provis Clean bead	ion of running & ing of weld bea	d before layin		: N	.A. .A.	ON O C.	Not the second	GETS BESTS	V
13.	Root groove	preparation before weld	ore welding o	ther side of	; N	.Α.	A Brain	Sail odo To		
14.	Prehe	ating & interpass	temperature		; N	Α.	404	000		
5.	Peenir	ng			: N	Α.	•			

11.	Provision of running & 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 & interpass temperature	;	N.A
15.	Peening	:	N.A

By grinding of the defective weld & rectifying the weld as per C 1 - 32.2 of IS 9595-96, using A3 class of electrodes of specn IRS M.28 after conducting D P test.

18 Inspection of weld

16.

17.

Post weld treatment

Rectification of weld defects

Visually

N.A

Railway Open Web Girder (25t loading)
106.7m clear span
MODEL WPSS No- RDSO/ Infra-II/ B&S/ RG/
OWG./ WPSS 106.7 series (30 nos)

# Page 1 of 6( Appendix-V (Ref.CI.26 of B I-2001). Welding Procedure Specification Sheet for 106.7 m. Span Open Web Girder (Welded through type) 25 T Loading – 2008

Name	and address of Fabricator	:	M/s. Royal Infraconstru Ltd., Urla Industrial Growth Centre, Raipur – 493221 (C.G.)
*** * **	P 10 10 11 N	:	ROYAL/SIVOK-RANGPO/106.7/01 dated 5/8/2022
	ng Procedure specification No.	1	RDSO/B-17185/R (G.A.)
01	Drawing No.	_	Fillet 8 mm
02.	Welding Joint Description.	:	IS: 2062:2011 E-350 C.
03.	Base Metal.	1:	
04.	Welding Process	:	S.A.W.
05.	Welding Position.	:	Flat
06.	Welding Consumable.		
6.1	Electrode/Wire Class	:	W2 of IRS M.39-2001. Copper coated Solid Wire.
	Drying Method		N.A.
6.2	Flux		
,	. Class Type	:	F2 of IRS M.39 – 2001 Agglomerated.
	Drying Method	:	Recommendation as per manufacturer.
6.3	Shielding Gas	:	N.A.
07.	Base Metal Preparation	:	Fusion Faces and adjacent surfaces are cleaned and made free free Cracks, Notches, Mill scale, Grease, Paint, Rust etc., which maffected weld quality.
7.1	Joint design Details	:	
	(Sketch showing arrangements of parts, weld beat , weld passes & their sequence etc.,)  1. Bottom Chord LO –L1– L2		20 8 MM WELD  8 MM WELD  20 Accistant Research Officer (In Acc
7.2	Joint preparation	:	As Per IS: 4353 – 1995, CI.7, IRS B1-2001, CI.17.3 & WBC – 2001.
08.	Welding Current	:	2001.
		•	2007
	Туре	:	DC
	Polarity	:	Reverse
1 250	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 1974
09.			()
10.	Welding Parameters and technique  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	4	550 - 600	28 - 32	1.4 - 1.8	0.35 - 0.50	15 – 20	N.A.

10.2	Welding Sequence and technique	<u> </u> :	Welding from run on to run off tabs at the free ends.
			4

11.	Provision of run-on / run-off tabs	:	Yes
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	N.A. 110-150°C
15.	Peening	:	N.A. ব্যাহর ১০ বারিকারী
16.	Post Weld treatment	1:	N.A. পুরুষ্ণার্থের ইন্দ্র মুস্থান্তর
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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	:	Visual, D.P. Test & Macro Etching.
19.	Any other relevant Details	:	Bottom Chord L0 –L1 & L1 – L2, Diagonal U1–L2 & End Raker L0- U1.

 $\frac{Page \ 3 \ of \ 6C}{\text{Appendix-V (Ref.CI.26 of B I-2001)}}.$ 

-						
Na	ame	and address of Fabricator		:	M/s. Royal Infraconst	ru Ltd.,
W	/eldi	ng Procedure specification No.	_	-	Urla Industrial Growth	n Centre, Raipur – 493221 (C.G.)
0	)1.	Drawing No.	_	+	RDSO/B-17185/R (G./	PO/106.7/02 dated 5/8/2022
_	)2,	Welding Joint Description.	_	1		4.)
	3.	Base Metal.	_	1		<u> </u>
_	4.	Welding Process		1	S.A.W.	C.
	5.	Welding Position.		1	Flat	
_ 00	6	Welding Consumable.		÷	1100	
		Electrode/Wire				
		· Cla	iss	:	W2 of IRS M.39-2001.	
6.	.1	Ту	pe	:	Copper coated Solid W	/ire.
-	_	Drying Metho	bc	:	N.A.	
6.2	2	Flux				
1		Clas	ss	:	F2 of IRS M.39 - 2001	
1	- 1	Tor	_			*
		Тур		•	Agglomerated.	
6.3	, +	Drying Metho Shielding Gas	d	:	Recommendation as pe	r manufacturer.
0.3	'			:	N.A.	1 = 11
07.		Base Metal Preparation		:	Fusion Faces and adjace Cracks, Notches, Mill so affected weld quality.	ent surfaces are cleaned and made free from ale, Grease, Paint, Rust etc., which may
7.1		Joint design Details	$\top$	:	arrected weld quality.	
)	0	beat, weld passes & their sequence etc.,)  Component :- Bottom Chord L2 - L3 – L4  Flange with Web			800	Vestalate interpretation
7.2	Jo	int preparation	:	A	L2-L3-L4 s Per IS: 4353 – 1995, 0	प्राप्त के के अन्यास्य स्था П.7, IRS B1-2001, CI.17.3 & WBC – 2001.
08.	We	elding Current	:	1		
		Туре	;	D	С	AEW.
		Polarity	:	R	everse	
09.	We	elder qualification	:	As	per IS: 7310/7307 (Par	t-I) – 1974
0		elding Parameters and technique	:			9000
0.1	Wel	Iding Parameters Praseniit Purkayasth		_		ROYAL-ITL (JV)

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	4	530 - 570	28 - 32	1.4 - 1.8	0.35 - 0.50	15-20	N.A.

0.2	Welding Sequence and technique	:	Welding from run on to run off tabs at the free ends.	
			1	

11.	Provision of run-on / run-off tabs	1:	Yes
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	HA- C10-150°C) CETTE TO
15.	Peening	1:	N.A.
16.	Post Weld treatment	1:	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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	:	Visual, D.P. Test & Macro Etching.
19.	Any other relevant Details	:	Bottom Chord L2 - L3 - L4

Page 5 of 60 Appendix-V (Ref.CI.26 of B I-2001).

vanie	and address of Fabricator	:	M/s. Royal Infraconstru Ltd., Urla Industrial Growth Centre, Raipur – 493221 (C.G.)
Weldin	g Procedure specification No.		Una Industrial Growth Centre, Kalpur – 493221 (C.G.)
01.	Drawing No.	:	ROYAL /SIVOK-RANGPO/106.7/03 dated 5/8/2022
02.	Welding Joint Description.	:	RDSO/B-17185/R (G.A.)
03.	Base Metal.	:	Fillet 8 mm
04.	Welding Process	:	IS: 2062:2011 E-350 C.
05.	Welding Process	:	S.A.W.
06.	Welding Position.	:	Flat
00.	Welding Consumable.		
6.1	Electrode/Wire Class Type	:	W2 of IRS M.39-2001.  Copper coated Solid Wire.
6.3	Drying Method	:	N.A.
6.2	Flux		
	Class Type	:	F2 of IRS M.39 – 2001 Agglomerated.
	Drying Method		Recommendation as per manufacturer.
6.3	Shielding Gas	:	N.A.
	Page Matal R		
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	:	
7	beat, weld passes & their sequence etc.,)  Component :- Bottom Chord L4 –L5-L6  Flange with Web		25 MM WELD  25 L4-L5-L6
7.2	Joint preparation	:	As Per IS: 4353 ~ 1995, CI.7, IRS B1-2001, CL17.3 & WBC ~ 2001.
08.	Welding Current	:	- W
	Туре	:	DC .
	Polarity	:	Reverse
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 1974
10.	Welding Parameters and technique	:	
10.1	Welding Parameters Prasenjit Purkayastha	:	ROYAL -ITL (JV)

Page 6 of 60 Appendix-V (Ref.CI.26 of BI-2001)

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.)
	4	530 - 570	28 - 32	1.4 - 1.8	0.35 - 0.50	15-20	N.A.

10.2	Welding Sequence and technique	:	Welding from run on to run off tabs at the free ends.
			-3
			<u>-1</u>

11.	Provision of run-on / run-off tabs	1:	Yes
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	HA. (110'-160°C)
15.	Peening	:	NA Y
16.	Post Weld treatment	:	N.A. • अव्योधक क्षत्रकात कविनारी (
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 B1 class of Electrodes of specin. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	:	Visual, D.P. Test & Macro Etching.
19.	Any other relevant Details	1:	Bottom Chord L4 - L5-L6

		1:	M/s. Royal Infraconstru Ltd.,
Weldi	ing Procedure specification No.	1	Urla Industrial Growth Centre, Raipur – 493221 (C.G.)
01.	Drawing No.	1:	ROYAL/SIVOK-RANGPO/106.7/04 dated 5/8/2022
02.	Waldian Taint B	:	RDSO/B-17185/R (G.A.)
03.	Welding Joint Description.	:	
	Base Metal.	1:	IS: 2062:2011 E-350 C.
04.	Welding Process	1:	
05.	Welding Position.	1	
06.	Welding Consumable.	+	ridt
	Electrode/Wire	-	
٠.	Class	:	W2 of IRS M.39-2001.
6.1	Туре	:	Copper coated Solid Wire.
	Drying Method	١.	N.A.
6.2	Flux Drying Hediod	·	N.A.
		_	
2	Class	:	F2 of IRS M.39 – 2001
(	Туре	:	Agglomerated.
			23
	Drying Method		Recommendation as per manufacturer.
6.3	Shielding Gas	i -	
0.5		:	N.A.
	Base Metal Preparation		Fusion Faces and adjacent surfaces are cleaned and made free from
07.	70 W		Cracks Notches Mill scale Grasse Point Durch and made free from
	1.00		Cracks, Notches, Mill scale, Grease, Paint, Rust etc., which may affected weld quality.
7.	Joint design Details	-	anected weld quality.
7.1	Jeogn Dealis	:	
9	(Sketch showing arrangements of parts, weld beat, weld passes & their sequence etc.,)  Component: - Bottom Chord L6-L7-L8 & L8-L9  Flange with Web		32 SHIP STREET S
7.2	Joint preparation	;	As Per IS: 4353 – 1995, CI.7, IRS B1-2001, CI.17.3 & WBC – 2001.
08.	Welding Current	:	,,
	Туре	$\neg$	1000
$\dashv$		:	DC .
$\perp$	Polarity	:	Reverse
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 1974
10. V	Welding Parameters and technique	:	and a
1	Welding Parameters Praseniit Purkayasti		

Page 8 of 60 Appendix-V (Ref.CI.26 of BI-2001)

	Veld ence No.	Electrodes wire dia. (mm)	Current (Amps)	imps) (Volt)		Wire Feed Speed (m/min)	Travel Speed (m/min) 0.35 – 0.50	Electrical Stick out (mm)	Gas Flow (I/min.) N.A.
	1	4	530 - 560			1.4 - 1.8			
10.2	Welding :	Sequence and te	chnique		:	Welding from run o	on to run off tabs	at the free ends.	

10.2 Welding Sequence and technique	:	Welding from run on to run off tabs at the free ends.	
		2 2 4	

11.	Provision of run-on / run-off tabs	1:	Yes
12.	Cleaning of weld bead before laying next weld bead	1:	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	NA 110°C-150°C)
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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	:	Visual, D.P. Test & Macro Etching.
19.	Any other relevant Details	:	Bottom Chord L6-L7-L8 & L8-L9

Appendix-V (Ref.Cz-26 of B I-2001).

Nam	e and address of Fabricator		: M/s. Royal Infraconstru Ltd., Urla Industrial Growth Centre, Raipur – 493221 (C.G.)
Weld	ling Procedure specification No.	+	: ROYAL/SIVOK-RANGPO/106.7/05 dated 5/8/2022
01.	Drawing No.	_	RDSO/B-17185/R (G.A.)
02.	Welding Joint Description.	-	Fillet 8mm
03.	Base Metal.	+	
04.	Welding Process	+	
		-	
05.	Welding Position.	+:	Flat
06.	Welding Consumable.	_	
	Electrode/Wire Class	:	W2 of IRS M.39-2001.
6.1	Туре	:	Copper coated Solid Wire.
	Drying Method	:	N.A.
6.2	Flux	1	
	Class	:	F2 of IRS M.39 – 2001
	Туре	:	Agglomerated.
	Drying Method	:	Recommendation as per manufacturer.
6.3	Shielding Gas	:	
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	:	ja sa
	(Sketch showing arrangements of parts, weld beat, weld passes & their sequence etc.,)  Component: - Top Chord U0- U1 – U2  Web with Flange		12 12 Agricus against afterial (and Agricus Research Officer (M. Agricus De 19:20 and
7.2	Joint preparation	:	As Per IS: 4353 – 1995, CI.7, IRS B1-2001, CI.17.3 & WBC – 2001.
8.	Welding Current	:	1874年
-	Туре	:	DC
$\dashv$	Polarity	:	Reverse
9.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 1974
200	Welding Parameters and technique	:	
: 1	Welding Parameters Prasenjit Purkayastha	-	ROYAL-I)TL (JV)

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	4	530 - 560	28 - 30	1.4 - 1.8	0.35 - 0.50	15 - 20	N.A.

10.2	Welding Sequence and technique	:	Welding from run on to run off tabs at the free ends.
			П
	9		

11.	Provision of run-on / run-off tabs	1	Yes
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	NA. (110°C - 15°C )
15.	Peening ·	:	N.A. ggras - Cliost (M.
16.	Post Weld treatment	:	N.A. COMONTONIO TO MANIEU COMO
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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	:	Visual, D.P. Test & Macro Etching.
19.	Any other relevant Details	:	Top Chord Top Chord U0- U1 – U2

Name	and address of Fabricator	:	M/s. Royal Infraconstru Ltd., Urla Industrial Growth Centre, Raipur – 493221 (C.G.)
Weldir	ng Procedure specification No.	:	ROYAL/SIVOK-RANGPO/106.7/06 dated 5/8/2022
01.	Drawing No.	:	RDSO/B-17185/R (G.A.)
02.	Welding Joint Description.	:	Fillet 8 mm
03.	Base Metal.	:	IS: 2062:2011 E-350 C.
04.	Welding Process	:	S.A.W.
05.	Welding Position.	:	Flat
06.	Welding Consumable.		
6.1	Electrode/Wire Class	:	W2 of IRS M.39-2001.  Copper coated Solid Wire.
	Type Drying Method	:	N.A.
6.2	Flux	İ	7474
	Class	:	F2 of IRS M.39 – 2001
	Туре	:	Agglomerated.
	Drying Method	:	Recommendation as per manufacturer.
6.3	Shielding Gas	:	N.A.
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	:	
	(Sketch showing arrangements of parts, weld beat, weld passes & their sequence etc.,) Component :- Top Chord U0 – U1- U2 Web with Top flange	2	8 MM WELD 4  8 MM WELD 4  20  12  20  US UI UZ
7.2	Joint preparation	:	As Per IS:4353 – 1995, CI.7, IRS B1-2001, CI.17.3 & WBC – 2001.
08.	Welding Current	:	ALC: A
	Туре	:	
	Polarity	:	Reverse Filmin
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 1974
10.	Welding Parameters and technique	:	Arriver Remark Officer
10.1	Welding Parameters	:	Tenous Tanno

Page 12 of 60 Appendix-V (Ref.CI.26 of BI-2001)

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	4	540 - 570	28 - 32	1.4 - 1.8	0.35 - 0.50	15 - 20	N.A.

0.2	Welding Sequence and technique	:	Welding from run on to r	un off tabs at the free ends.	
			3	2-4	

11.	Provision of run-on / run-off tabs	:	Yes
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	HA(110°C-150°C)
15.	Peening	:	N.A. 44 (110°C -150°C)
16.	Post Weld treatment	:	N.A. Ogganative
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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	:	Visual, D.P. Test & Macro Etching.
19.	Any other relevant Details	1	Top Chord U0 – U1- U2

Page 13 of 60 Appendix-V (Ref.CI.26 of B I-2001).

		_	
Nam	e and address of Fabricator	:	M/s. Royal Infraconstru Ltd., Urla Industrial Growth Centre, Raipur – 493221 (C.G.)
Mold	ling Deserving specification No.	1:	
01.	ling Procedure specification No.  Drawing No.	+:	
02.		Ħ	
03.	Base Metal.	1	
04.	Welding Process	1	
05.		1	
06.	Welding Position.	+	7100
06.	Welding Consumable. Electrode/Wire	-	
	Class	:	W2 of IRS M.39-2001.
6.1	Туре	:	Copper coated Solid Wire.
	Drying Method	:	N.A
6.2	Flux		
,	Class	:	F2 of IRS M.39 – 2001
	Туре	:	Agglomerated.
	Drying Method	:	Recommendation as per manufacturer.
6.3	Shielding Gas	:	N.A.
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	:	distance view quanty.
	(Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,) Component :- Top Chord U2- U3 – U4 Web with Flange		
			प्रधानम यहणसान प्रविकारी (1 Assistant Research Officer ( 25— U2-U3-U4
7.2	Joint preparation	:	As Per IS:4353 – 1995, CI.7, IRS B1-2001, CI.17.3 & WBC – 2001.
08.	Welding Current	:	7797 ) 20 A A
	Туре	:	DC
	Polarity	:	Reverse
9.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 1974
0.	Welding Parameters and technique	:	- 200 AT 1
	Welding Parameters		

Weld Sequence No.	Electrodes wire dia.	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	electrical Stick out (mm)	(I/min.)
	(mm)		20 22	1.4 - 1.8	0.35 - 0.50	15 - 20	N.A.
1	4	530 - 570	28 - 32	1.4 - 1.5	0.35 - 0.30	1 .5	

0.2	Welding Sequence and technique	:	Welding from run on to run off tabs at the free ends.
-		•	П
			_2

11.	Provision of run-on / run-off tabs	1:	Yes
12.	Cleaning of weld bead before laying next weld bead	1	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	:	NA. STIPTUM
14.	Preheating and inter pass temperature	:	₩★ 110°C-15°C श्रमार प्राच्या प्राच्या प्राच्या (
15.	Peening	1	NA. Aubit-112- 45
16.	Post Weld treatment	:	NA.
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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	1:	Visual, D.P. Test & Macro Etching.
19.	Any other relevant Details	1:	Top Chord U2- U3 - U4

Nam	ne and address of Fabricator	1:	M/s. Royal Infraconstru Ltd., Urla Industrial Growth Centre, Raipur – 493221 (C.G.)
1		-	Una Industrial Growth Certife, Raipur = 433221 (C.G.)
	ding Procedure specification No.	1:	
01.		:	
02.	The start of secure of the sec	1:	
03.	Base Metal.	:	
04.	Welding Process	1:	S.A.W.
05.		1:	
06.		†	
	Electrode/Wire Class	١.	W2 of IRS M.39-2001.
6.1		:	Copper coated Solid Wire.
	Туре		SSS STATE OF THE S
	Drying Method	1:	N.A.
6.2	Flux		
	Class	:	F2of IRS M.39 – 2001
	Туре	:	Agglomerated.
	Drying Method	:	Recommendation as per manufacturer.
6.3	Shielding Gas	:	N.A.
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	:	3-
	(Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,)  Component :- Top Chord U2 – U3- U4  Web with Top flange		8 MM WELD 4  8 MM WELD 4  16  U2U3-U4
7.2	Joint preparation	:	As Per IS:4353 – 1995, CI.7, IRS B1-2001, CI.17.3 & WSC – 2001.
08.	Welding Current	:	-833
	Туре	:	DC
	Polarity	:	Reverse
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 1974
10.	Welding Parameters and technique	:	
10.1	Welding Parameters	:	TANAL PA
10.1	Welding Parameters	$\dashv$	246.3 386.43

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	4	530 - 570	28 - 32	1.4 - 1.8	0.35 - 0.50	15-20	N.A.

10.2	Welding Sequence and technique	:	Welding from run on to run off tabs at the free ends.
			3—1 2—4

11.	Provision of run-on / run-off tabs	1:	Yes
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	NA 110.C - 12.0.C
15.	Peening	:	N.A. Azelejant kenner a - mer (14)
16.	Post Weld treatment	:	N.A. ರಾವಕ್ಷಣದೇ ಕಟ್ಟ ಸಾವಾದ ದರ್ಶನ
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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	1:	Visual, D.P. Test & Macro Etching.
19.	Any other relevant Details	1:	Top Chord U2 – U3- U4

Nan	ne and address of Fabricator	1:	
14/-1	dia- D	+	Urla Industrial Growth Centre, Raipur – 493221 (C.G.)
wei	ding Procedure specification No.	1:	
01		1:	
02.	and a country of the	1:	
03.		1:	
04.		1:	S.A.W.
05.		:	Flat
06.	Welding Consumable.	T	
6.1	Electrode/Wire Class	1 *	
	Type		
6.2	Flux Drying Method	+:	N.A.
0.2	riux		
	Class	1	F2 of IRS M.39 – 2001
	Туре	1:	Agglomerated.
	Drying Method	1:	December delice as not manufactured and marriage of the second
2-ji-20	Chialdian Can		
6.3	Shielding Gas	:	N.A. Archiant Dans
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	:	arrected werd quality.
	(Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,)  Component :- Top Chord U4 – U5- U6 & U6- U7-U8 & U8-U9  End Raker – M0-UO & M0-L0  Web with Top flange  Web With flange		8 MM WELD  9 MM WELD  9 MM WELD  9 MM WELD  10
7.2	Joint preparation	:	As Per IS:4353 – 1995, CI.7, IRS B1-2001, CI.17.3 & WBC – 2001.
08.	Welding Current	:	32
	Туре		DC
	Polarity	:	Reverse
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 1974
10.	Welding Parameters and technique	:	147
	Welding Parameters		572.5
0.1	i vveiding Paramerers	- 1	

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	4	530 - 570	28 - 32	1.4 - 1.8	0.35 - 0.50	15 - 20	N.A.

10.2	Welding Sequence and technique	:	Welding from run on to run off tabs at the free ends.
			3

11.	Provision of run-on / run-off tabs	:	Yes
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	NA 1102-150°C
15.	Peening	:	N.A. As trees
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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	;	Visual, D.P. Test & Macro Etching.
19.	Any other relevant Details	1:	Top Chord & End Raker

Page 19 of 60
Appendix-V (Ref.Cl.26 of B I-2001).
Welding Procedure Specification Sheet for 106.7 m. Span Open Web Girder (Welded through type) 25 T Loading – 2008

Nam	e and address of Fabricator	T	M/s. Royal Infraconstru Ltd.,
-		_	Urla Industrial Growth Centre, Raipur – 493221 (C.G.)
Weld	ling Procedure specification No.		ROYAL/SIVOK-RANGPO/106.7/10 dated 5/8/2022
01.	Drawing No.		: RD5O/B-17185/R (G A.)
02.	Welding Joint Description.	1	Fillet 8 mm
03.	Base Metal.	1	15: 2062:2011 E-350 C.
04.	Welding Process	1	S.A.W.
05.	Welding Position.	-	
06.	Trecong rosaion.	-	Flat
00,	Welding Consumable.	_	
6.1	Electrode/Wire Class		
	Type  Drying Method		Copper coated Solid Wire.  N.A.
6.2	Flux	+	l libi
ν,	Class	1	
	Drying Method		Recommendation as per manufacturer.
6.3	Shielding Gas	:	N.A.
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	;	aretico viso gosty.
ŧ.	(Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,)  Component :- Diagonal-M0-U1 & M0-L1  Web With Flange		25 20 20 Assistant & area Context (II Assista
.2	Joint preparation	:	As Per IS: 4353 - 1995, CI.7, IRS B1-2001, CI.17.3 & WBC - 2001.
8.	Welding Current	:	W.C.
T	Туре	:	DC
1	Polarity	:	Reverse
9.	Welder qualification	:	As per IS: 7310/7307 (Part-I) - 1974
0.	Welding Parameters and technique	:	

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	4	530 - 570	28 - 32	1.4 - 1.8	0.35 - 0.50	15-20	N.A.

10.2	Welding Sequence and technique	Welding from run on to run off tabs at the free ends.	
		-2	
,		1 -4	

11.	Provision of run-on / run-off tabs	T :	Yes
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	1:	NA-110'e-150'C
15.	Peening	:	N.A.
16.	Post Weld treatment	:	N.A.
<i>1</i> 7.	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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	:	Visual, D.P. Test & Macro Etching.
19.	Any other relevant Details	:	Diagonal- M0-U1 & M0-L1

V	Velding Procedure Specification Sheet for 106.	7 m.	Span Open Web Girder (Welded through type) 25 T Loading – 2
Nan	ne and address of Fabricator	1:	M/s. Royal Infraconstru Ltd., Urla Industrial Growth Centre, Ralpur – 493221 (C.G.)
		+	
	ding Procedure specification No.	_	
01		_	
02		+:	
03		-	
04.		+:	
05		+:	Fidt
06.		+	
	Electrode/Wire Class	:	W2 of IRS M.39-2001.
6.1	Туре	: :	Copper coated Solid Wire.
	Drying Method	:	N.A.
6.2			
		1	
j	Class	1:	F2 of IRS M.39 - 2001
		1 1	
	Туре	1:	Agglomerated.
			1 AT
	Drying Method	:	Recommendation as per manufacturer.
6.3	Shielding Gas	:	N.A.
	Base Metal Preparation		Fusion Faces and adjacent surfaces are cleaned and made free from
07.	- 10 min 2	1:	Cracks, Notches, Mill scale, Grease, Paint, Rust etc., which may
			affected weld quality.
7.1	Joint design Details	:	
	11	1.	
	(Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,)  Component :- Diagonal-M1-U2 & M1-L2  Web With Flange		20 TO TO TO THE STANDARD TO TH
			→8 MM WELD  M1-U2 & M1-L2
7.2	Joint preparation	:	As Per IS:4353 – 1995, CI.7, IRS B1-2001, CI.17.3 & WBC – 2001.
18.	Welding Current	:	EASTER .
	Туре		DC
	Polarity	. 1	Reverse
			NOTE THE REAL PROPERTY.
9.	Welder qualification	;	As per IS: 7310/7307 (Part-I) – 1974
	Medde - Bearing	.	70 po 20. 7510/7507 (Fait-1) = 15/4
0.	Welding Parameters and technique	:	
	Welding Parameters		A.A. Salar

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	4	530 - 570	28 - 32	1.4 - 1.8	0.35 - 0.50	15 - 20	N.A.

10.2	Welding Sequence and technique	:	Welding from run on to run off tabs at the free ends.	
			—3 —2	
			1 4	1

11.	Provision of run-on / run-off tabs	:	Yes
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	HA- 110°C - 150°C
15.	Peening	:	N.A. बहाबक एड्डफ्ल स्ट्रिकारी (प
16.	Post Weld treatment	:	N.A. Arabitar: Record Officer (1
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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	:	Visual, D.P. Test & Macro Etching.
19.	Any other relevant Details	:	Diagonal-M1-U2 & M1-L2

Name and address of Fabricator		:	M/s. Royal Infraconstru Ltd., Urla Industrial Growth Centre, Raipur – 493221 (C.G.)
Welding Procedure specification No.	/elding Procedure specification No.		ROYAL/SIVOK-RANGPO/106.7/12 dated 5/8/2022
01. Drawing No.		<u>:</u>	RDSO/B-17185/R (G.A.)
02. Welding Joint Description.		÷	Fillet 8 mm
03. Base Metal.		÷	IS: 2062:2011 E-350 C.
04. Welding Process		÷	S.A.W.
05. Welding Position.		÷	Flat
		<u>.</u>	ridi
		_	
Electrode/Wire	Class		W3 of TDC M 30 3001
	Class	٠	W2 of IRS M.39-2001.
6.1	T		Conser costed Calid Mira
	Туре	•	Copper coated Solid Wire.
	Oneina Mathad		N.A.
6.2 Flux	Orying Method	•	IV.A.
0.2 1 Tux		-	
	Class		53 -6 TDC M 20 2001
	Class	:	F2 of IRS M.39 – 2001
	Tuno		A
	Туре	:	Agglomerated.
	Orying Method		Recommendation as per manufacturer.
Chielding Cas	- Ing riculou	·	
6.3 Sillelding Gas		:	N.A.
Base Metal Preparation			Fusion Faces and adjacent surfaces are cleaned and made free from
07.		:	Cracks, Notches, Mill scale, Grease, Paint, Rust etc., which may
			affected weld quality.
7.1 Joint design Details			
7.1		:	Will.
(Sketch showing arrangements of p beat weld passes & their sequence Component :- Diagonal-M2-U3 , Mi U4, M3-L4 & M4-U5,M4-L5 Web With Flange	etc.,)		M2-U3, NE-L3 & NE-U4, M3-L4 & M4-U5, M4-L5
7.2 Joint preparation		:	As Per IS:4353 – 1995, CI.7, IRS B1-2001, CI.17.3 & WBC – 2001.
08. Welding Current		:	2000年100
	Туре	:	DC
		-	AN ENGLISH
	Polarity	:	Reverse
09. Welder qualification		:	As per IS: 7310/7307 (Part-I) – 1974
10. Welding Parameters and technique		:	
Welding Parameters		+	GROSSIN ST.
10.1 Weiding raidinetes	1:		ROYAL -ITL (JV)

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	4	530 - 570	28 - 32	1.4 - 1.8	0.35 - 0.50	15 - 20	N.A.

10.2	Welding Sequence and technique	:	Welding from run on to run off tabs at the free ends.
12			4

11.	Provision of run-on / run-off tabs	:	Yes
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	NA. 110°C - 1.50°C
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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	:	Visual, D.P. Test & Macro Etching.
19.	Any other relevant Details	:	Diagonal-M2-U3 , M2-L3 & M3-U4, M3-L4 & M4-U5,M4-L5

Name	e and address of Fabricator	1:	M/s. Royal Infraconstru Ltd., Urla Industrial Growth Centre, Ralpur – 493221 (C.G.)
Mold	- D1	+-	ROYAL/SIVOK-RANGPO/106.7/13 dated 5/8/2022
Wek	ing Procedure specification No.	1:	
01.	Drawing No.	1:	RDSO/B-17185/R (G.A.)
02.	Welding Joint Description.	1:	Fillet 8 mm
03.	Base Metal.	1:	IS: 2062:2011 E-350 C.
04.	Welding Process	1:	S.A.W.
05.	Welding Position.	1:	Flat
06.	Welding Consumable.		
6.1	Electrode/Wire Class		W2 of IRS M.39-2001.
	Type Drying Method		Copper coated Solid Wire.  N.A.
6.2	Flux	+	N.A.
	Class	:	F2of IRS M.39 – 2001
	Туре	:	Agglomerated.
	Drying Method	:	Recommendation as per manufacturer.
6.3	Shielding Gas	:	N.A.
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	:	p 9/2 m
	(Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,)  Component :- Diagonal-M5-U6 , M5-L6 & M6-U7, M6-L7 & M7-U8,M7-L8,M8-U9,M8-L9  Web With Flange		12 8 MM WELD  ***********************************
7.2	Joint preparation	:	As Per IS:4353 – 1995, CI.7, IRS B1-2001, CI.17.3 & WBC – 2001.
08.	Welding Current	:	T CONTRACT
	Туре	:	DC .
	Polarity	:	Reverse
9.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 1974
0.	Welding Parameters and technique	:	78.7
0.1	Welding Parameters	:	ROYAL-DEL (JV)

### Appendix-V (Ref.CI.26 of BI-2001)

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	4	530 - 570	28 - 32	1.4 - 1.8	0.35 - 0.50	15 - 20	N.A.

10.2	Welding Sequence and technique	:	Welding from run on to run off tabs at the free ends.	
			-2	
			1 4	+

11.	Provision of run-on / run-off tabs	:	Yes
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	1;	NA: 118.0-120.0
15.	Peening	1	N.A. Andatria
16.	Post Weld treatment	1:	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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	1:	Visual, D.P. Test & Macro Etching.
19.	Any other relevant Details	1:	Diagonal-M5-U6 , M5-L6 & M6-U7, M6-L7 & M7-U8,M7-L8,M8- U9,M8-L9

Page 27 of 60 Appendix-V (Ref.CI.26 of B I-2001).

### Welding Procedure Specification Sheet for 106.7 m. Span Open Web Girder (Welded through type) 25 T Loading - 2008

Name	and address of Fabricator	:	M/s. Royal Infraconstru Ltd., Urla Industrial Growth Centre, Raipur – 493221 (C.G.)
Weldi	ng Procedure specification No.	:	ROYAL/SIVOK-RANGPO/106.7/14 dated 5/8/2022
01.	Drawing No.	1	RDSO/B-17185/R (G.A.)
02.		1	
03.	Welding Joint Description.	1	IS: 2062:2011 E-350 C.
	Base Metal.	-	
04.	Welding Process	:	S.A.W.
05.	Welding Position.	:	Flat
06.	Welding Consumable.	_	
	Electrode/Wire Class	:	W2 of IRS M.39-2001.
6.1	Туре	:	Copper coated Solid Wire.
	Drying Method	:	N.A.
6.2	Flux		
	Class Type	:	F2 of IRS M.39 – 2001 Agglomerated.
			A COLUMN TO THE REAL PROPERTY OF THE PARTY O
	Drying Method Shielding Gas	:	Recommendation as per manufacturer.
6.3	Sheding das	:	N.A.
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	:	
ii ii	(Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,)  Component :- Bottom Chord- L2-L3 & L3-L4  Web With Additional Plate		32-1-8 MM WELD  -25  -25  -25  -25  -21-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-
7.2	Joint preparation	:	As Per IS: 4353 – 1995, CL7, IRS B1-2001, CL17.3 & WBC – 2001.
08.	Welding Current	:	
	Туре	:	DC .
	Polarity	:	Reverse
9.	Welder qualification	i	As per IS: 7310/7307 (Part-I) – 1974
	Welding Parameters and technique		CM COLO
0.	Wedning Farantees and teamings	:	

C

#### Page 28 of 60

### Appendix-V (Ref.CI.26 of BI-2001

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	4	530 - 560	26 - 30	1.4 - 1.8	0.35 - 0.50	15 - 20	N.A.

0.2 Welding Sequence and te	echnique	:	Welding from run on to run off tabs at the free ends.
			2

11.	Provision of run-on / run-off tabs	:	Yes
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	NA. 110°C - 150°C
15.	Peening	:	N.A. Astletaut Research Officer
16.	Post Weld treatment	:	N.A. ७०४०चा ५० वट मः यास्य चर
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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	:	Visual, D.P. Test & Macro Etching.
19.	Any other relevant Details	:	Bottom Chord- L2-L3 & L 3-L4 Additional Plate

Appendix-V (Ref.CI.26 of B I-2001).

# Welding Procedure Specification Sheet for 106.7 m. Span Open Web Girder (Welded through type) 25 T Loading – 2008

152

Name	e and address of Fabricator	1:	M/s. Royal Infraconstru Ltd., Urla Industrial Growth Centre, Raipur – 493221 (C.G.)
VA . 1.1:		1:	ROYAL/SIVOK-RANGPO/106.7/15 dated 5/8/2022
	ing Procedure specification No.	+:	RDSO/B-17185/R (G.A.)
01.	Drawing No.	+:	Fillet 8 mm
02.	Welding Joint Description.	+:	
03.	Base Metal.	_	
04.	Welding Process	1:	S.A.W.
05.	Welding Position.	:	Flat
06.	Welding Consumable.	-	
	Electrode/Wire Class	:	W2 of IRS M.39-2001.
6.1	Туре	:	Copper coated Solid Wire.
	Drying Method	1 :	N.A.
6.2	Flux	Ť	
0.2	Class	:	F2 of IRS M.39 – 2001
	Туре	:	Agglomerated.
	Drying Method	:	Recommendation as per manufacturer.
6.3	Shielding Gas	:	N.A.
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	:	
	(Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,)  Bottom Chord- L4-L5-L6 & L6-L7-L8 & L8 –L9  Web With Additional Plate		32————————————————————————————————————
7.2	Joint preparation	:	As Per IS: 4353 – 1995, CI.7, IRS B1-2001, CI.17.3 & WBC – 2001.
_	Welding Current	:	AL-A
08.	Type	:	DC
08.	. / - 1		ω.
08.		_	
08.	Polarity	:	Reverse
09.		+	Reverse As per IS: 7310/7307 (Part-I) – 1974
	Polarity	+	The state of the s

#### Page 30 of 60

### Appendix-V (Ref.CI.26 of BI-2001

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	4	560 - 600	28 - 32	2.3 - 3.2	0.22 - 0.32	15 - 20	N.A.

10.2	Welding Sequence and technique	:	Welding from run on to run off tabs at the free ends.
			2

11.	Provision of run-on / run-off tabs	:	Yes			
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning & grinding			
13.	Root preparation before welding other side of groove weld	;	N.A.			
14.	Preheating and inter pass temperature	:	NA. 110°C - 150°C			
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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.			
18.	Inspection of Weld	:	Visual, D.P. Test & Macro Etching.			
19.	Any other relevant Details	:	: Bottom Chord- L4-L5-L6 & L6-L7-L8 & L8 -L9 Additional Plate			

We	elding Procedure Specification Sheet for 106.7	m.	Span Open Web Girder (Welded through type) 25 T Loading – 2 M/s. Royal Infraconstru Ltd.,
vame	and address of Fabricator		Urta Industrial Growth Centre, Raipur – 493221 (C.G.)
Veldi	ing Procedure specification No.	1	ROYAL/STVOK-RANGPO/106.7/16 dated 5/8/2022
01.	Drawing No.	1	RDSO/B-17185/R (G.A.)
02.	Welding Joint Description.	1	Fillet 12mm
03.	Base Metal.	:	IS: 2062:2011 E-350 C.
04.	Welding Process	÷	S.A.W.
05.	Welding Position.	1	Flat
06.	Welding Consumable.		
	Electrode/Wire Class	:	W2 of IRS M.39-2001.
6.1	Туре	:	Copper coated Solid Wire.
	Drying Method	:	N.A.
6.2	Flux		
	Class	:	F2 of IRS M.39 – 2001
	Туре	:	Agglomerated.
_	Drying Method	:	Recommendation as per manufacturer.
6.3	Shielding Gas	:	N.A.
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	:	
	(Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,)  Component :- Cross Girder Web with Flange		20 12 MM WELD
.2	Joint preparation	:	As Per IS: 4353 - 1995, CL7, IRS B1-2001, CL17.3 & WBC - 2001.
8.	Welding Current	:	<b>医</b>
	Туре	:	DC .
	Polarity	:	Reverse
9.	Welder qualification	:	As per IS: 7310/7307 (Part-I) - 1974
D.	Welding Parameters and technique	:	The second secon
_	Welding Parameters	-	

Page 32 of 060 Appendix-V (Ref.CI.26 of BI-2001)

Weld Sequence No.	Electrodes wire dia.	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (I/min.)
50.	(mm)		- 20	1.4 - 1.8	0.35 - 0.50	15 - 20	N.A.
1	4	530 - 560	26 – 30	The second secon	0.35 - 0.50	15 - 20	N.A.
2	4	530 - 560	26 – 30	1.4 - 1.8	0.35 - 0.50		

10.2	Welding Sequence and technique	:	Welding from run on to run off tabs at the free ends.
			1&5—3&7
			4&82&6

11.	Provision of run-on / run-off tabs	:	Yes
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	;	N.A. Solvier
14.	Preheating and inter pass temperature	:	NA. 110°C - 180°C
15.	Peening	:	N.A. Assistant and a second
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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	:	Visual, D.P. Test & Macro Etching.
19.	Any other relevant Details	:	Cross Girder
19.	Any color recent	1.	

Name	e and address of Fabricator	1:	M/s. Royal Infraconstru Ltd., Urla Industrial Growth Centre, Raipur – 493221 (C.G.)
Weld	ing Procedure specification No.	1:	ROYAL/SIVOK-RANGPO/106.7/17 dated 5/8/2022
01.	Drawing No.	ti	RDSO/B-17185/R (G.A.)
02.	Welding Joint Description.	1:	Fillet 12mm
03.	Base Metal.	1:	IS: 2062:2011 E-350 C.
04.	Welding Process	1:	S.A.W.
05.	Welding Position.	1:	Flat
06.	Welding Consumable.		
6.1	Electrode/Wire Class	:	W2 of IRS M.39-2001.  Copper coated Solid Wire.
	Drying Method		N.A.
6.2	Flux	+·	IV.A.
0.2	Tiux	$\vdash$	
	Class	:	F2 of IRS M.39 – 2001
	Туре	:	Agglomerated.
	Drying Method	:	Recommendation as per manufacturer.
6.3	Shielding Gas	:	N.A.
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	:	
	(Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,)  Component :- Stringer  Web with Flange.		12 MM WELD  12 MM WELD  STRINGER
7.2	Joint preparation	:	As Per IS: 4353 – 1995, CL.7, IRS B1-2001, CI.17.3 & WBC – 2001.
08.	Welding Current	-1	K A Mari
	Туре	:	DC
	Polarity	:	Reverse
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 1974
10.	Welding Parameters and technique	:	

<u>Page 34 of 60</u> Appendix-V (Ref.CI.26 of BI-2001)

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	4	540 - 580	28 - 32	2.0 - 2.8	0.24 - 0.35	15 - 20	N.A.
2	4	540 - 580	28 - 32	2.0 - 2.8	0.24 - 0.35	15 - 20	N.A.

10.2	Welding Sequence and technique	:	Welding from run on to run off tabs at the free ends.
			1&5-3&7
	<u>*</u>		4&8

11.	Provision of run-on / run-off tabs	1:	Yes
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	NA. 110°C - 150°C
15.	Peening	:	N.A. Assistant Research Control Co
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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	:	Visual, D.P. Test & Macro etching
19.	Any other relevant Details	:	Stringer Web with Flange.

# Appendix-V (Ref.CI.26 of B I-2001). Welding Procedure Specification Sheet for 106.7 m. Span Open Web Girder (Welded through type) 25 T Loading – 2008

vame	and address of Fabricator	:	M/s. Royal Infraconstru Ltd., Urla Industrial Growth Centre, Raipur – 493221 (C.G.)
		_	ROYAL/SIVOK-RANGPO/106.7/18 dated 5/8/2022
veidi	ng Procedure specification No.	:	
01.	Drawing No.	:	RDSO/B-17185/R (G.A.)
02.	Welding Joint Description.	:	Fillet 08mm
03.	Base Metal.	:	IS: 2062:2011 E-350 C.
04.	Welding Process	:	S.A.W.
05.	Welding Position.	1:	Flat
06.	Welding Consumable.		
	Electrode/Wire Class	:	W2 of IRS M.39-2001.
6.1	Туре	:	Copper coated Solid Wire.
	Drying Method	:	N.A.
6.2	Flux		
	Class	:	F2 of IRS M.39 – 2001
	Tuna		Applomerated
	Туре		Agglomerated.
	Drying Method	:	Recommendation as per manufacturer.
6.3	Shielding Gas	:	N.A.
	Base Metal Preparation		Fusion Faces and adjacent surfaces are cleaned and made free from
07.		:	Cracks, Notches, Mill scale, Grease, Paint, Rust etc., which may
			affected weld quality.
7.1	Joint design Details	:	
	(Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,)  Component :- All Vertical  Web with Flange.		20 H8 MM WELD  20 H8 MM WELD  L-1-M-1-U-1 TO L9-M9-U9 VERTICAL
.2	Joint preparation	:	As Per IS: 4353 – 1995, CI.7, IRS B1-2001, CI.17.3 & WBC – 2001.
8.	Welding Current	:	
	Туре	:	DC .
	Polarity	:	Reverse
9.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 1974
0.	Welding Parameters and technique		
	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	4	540 - 580	28 - 32	2.0 - 2.8	0.24 - 0.35	15 - 20	N.A.

10.2	Welding Sequence and technique	:	Welding from run on to run off tabs at the free ends.	-
a v				
			1 -4	

11.	Provision of run-on / run-off tabs	:	Yes
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	NA. 110.C - 120.C SCIEG GRADIA NIVELLA (CILL
15.	Peening	:	N.A. Arthur Research Ciffere (23)
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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	:	Visual, D.P. Test & Macro etching
19.	Any other relevant Details	1	Vertical Web with Flange.

Name	and address of Fabricator	:	M/s. Royal Infraconstru Ltd., Urla Industrial Growth Centre, Raipur – 493221 (C.G.)
Weldi	ng Procedure specification No.	:	ROYAL/SIVOK-RANGPO/106.7/19 dated 5/8/2022
01.	Drawing No.	1	RDSO/B-17185/R (G.A.)
02.	Welding Joint Description.	1:	Fillet 08mm
03.	Base Metal.	1	IS: 2062:2011 E-350 C.
04.	Welding Process	:	S.A.W.
05.	Welding Position.	1:	Flat
06.	Welding Consumable.	1	
	Electrode/Wire		
	Class	:	W2 of IRS M.39-2001.
6.1			Non-
0.2	Туре	:	Copper coated Solid Wire.
	Drying Method	:	N.A.
6.2	Flux		
	Class	:	F2 of IRS M.39 – 2001
	Processor .	(8)	
	Туре	:	Agglomerated.
	Drying Method	:	Recommendation as per manufacturer.
6.3	Shlelding Gas	:	N.A.
	Rase Metal Preparation	-	
07.	Base Metal Preparation		Fusion Faces and adjacent surfaces are cleaned and made free from
٥,,		٠.	Cracks, Notches, Mill scale, Grease, Paint, Rust etc., which may
	Joint design Details	-	affected weld quality.
7.1	Some design Details	:	
	(Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,)  Component :- Sway Girder  Web with Flange.		10-8 MM WELD ARTHUR SWAY GIRDER
7.2	Joint preparation	:	As Per IS: 4353 – 1995, CI.7, IRS B1-2001, CI.17.3 & WBC – 2001.
08.	Welding Current	:	1969
	Туре	.	DC
	<u> </u>		
	Polarity	:-	Reverse
			Never see
09.	Welder qualification	:	As per IS: 7310/7307 (Part 1) 1074
			As per IS: 7310/7307 (Part-I) – 1974
10.	Welding Parameters and technique	:	777
$\rightarrow$	Welding Parameters	-	(4/QU) 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
10.1	welding Parameters	:	ROYAL -I)TL (JV)

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	4	540 - 580	28 - 32	2.0 - 2.8	0.24 - 0.35	15 - 20	N.A.

10.2	Welding Sequence and technique	:	Welding from run on to run off tabs at the free ends.
10			1-3
			4-11-2

11.	Provision of run-on / run-off tabs	:	Yes
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	HAT 110°C-1902 Squar again stored
15.	Peening	:	N.A. Audstant Research Olisses
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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	:	Visual, D.P. Test & Macro etching
19.	Any other relevant Details	1:	Sway Girder Web with Flange.

Page 39 of 60 Appendix-V (Ref.CI.26 of B I-2001).

rvame	and address of Fabricator	:	M/s. Royal Infraconstru Ltd., Urla Industrial Growth Centre, Raipur – 493221 (C.G.)
		1:	ROYAL/SIVOK-RANGPO/106.7/20 dated 5/8/2022
	ng Procedure specification No.	+÷	RDSO/B-17185/R (G.A.)
01.	Drawing No.	1:	Fillet 08mm
02.	Welding Joint Description.	<del>  :  </del>	IS: 2062:2011 E-350 C.
03.		+	S.A.W.
04.	Welding Process	1:	
05.	Welding Position.	1:	Flat
06.	Welding Consumable.	-	
	Electrode/Wire Class	:	W2 of IRS M.39-2001.
6.1	Туре	:	Copper coated Solid Wire.
	Drying Method	:	N.A.
6.2	Flux		
	Class	:	F2 of IRS M.39 – 2001
	Туре	:	Agglomerated.
	Drying Method	:	Recommendation as per manufacturer.
6.3	Shielding Gas	:	N.A.
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	:	<u> </u>
	(Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,)  Component :- Portal  Web with Flange.		10 -8 MM WELD
			PORTAL GIRDER
7.2	Joint preparation	:	PORTAL GIRDER  As Per IS: 4353 – 1995, CI.7, IRS B1-2001, CI.17.3 & WBC – 2001.
7.2	Joint preparation  Welding Current	:	25
			<u> </u>
	Welding Current		As Per IS: 4353 – 1995, CI.7, IRS B1-2001, CI.17.3 & WBC – 2001.
	Welding Current Type Polarity Welder qualification		As Per IS: 4353 – 1995, CI.7, IRS B1-2001, CI.17.3 & WBC – 2001.  DC
08.	Welding Current Type Polarity	:	As Per IS: 4353 – 1995, CI.7, IRS B1-2001, CI.17.3 & WBC – 2001.  DC  Reverse

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	4	540 - 580	28 - 32	2.0 - 2.8	0.24 - 0.35	15 - 20	N.A.

10.2	Welding Sequence and technique	:	Welding from run on to run off tabs at the free ends.
			1.70-2
			-3
			4-1/2

11.	Provision of run-on / run-off tabs	:	Yes .
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	NA: 110°C - 135°C
15.	Peening	:	N.A. अध्याप्य प्रस्ता प्रस्ताच्य प्रस
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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	:	Visual, D.P. Test & Macro etching
19.	Any other relevant Details	:	Portal Web with Flange.

IValli	ne and address of Fabricator	:	M/s. Royal Infraconstru Ltd., Urla Industrial Growth Centre, Raipur – 493221 (C.G.)
Wok	ding Dependum apprification No.	+:	ROYAL/SIVOK-RANGPO/106.7/21 dated 5/8/2022
01.	ding Procedure specification No.	†	RDSO/B-17185/R (G.A.)
02.		†:	Fillet 06mm
03.		†÷	IS: 2062:2011 E-350 C.
		-	S.A.W.
04.		1:	
05.		1:	Flat
06.		-	
	Electrode/Wire Class	:	W2 of IRS M.39-2001.
6.1	Туре	:	Copper coated Solid Wire.
	Drying Method	:	N.A.
6.2	Flux		
	Class	:	F2 of IRS M.39 – 2001
	Туре	:	Agglomerated.
	Drying Method	:	Recommendation as per manufacturer
	Shielding Gas	Ι.	N.A. ७०४०चा० छे । देख सन्यास्य संस
6.3		:	170000000
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	:	24.5
	(Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,)  Component :- Top Lateral Bracing LO Joint Bracket		TOP LATERAL BRACING
7.2	Joint preparation	:	As Per IS: 4353 – 1995, CI.7, IRS B1-2001, CI.17.3 & WBC – 2001.
08.	Welding Current	:	1000
	Туре	:	DC
	Polarity	:	Reverse
_	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 1974
09.			
09. 10.	Welding Parameters and technique	:	

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	4	540 - 580	28 - 32	2.0 - 2.8	0.24 - 0.35	15 - 20	N.A.

:	Welding from run on to run off tabs at the free ends.
	12
	:

11.	Provision of run-on / run-off tabs	T:	Yes
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	1:	N.A. 110°C - 150°C
15.	Peening	:	N.A. agram agailt
16.	Post Weld treatment	:	N.A. कुष्यव्याव्यं देव सन्याप्य दवय
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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	:	Visual, D.P. Test & Macro etching
19.	Any other relevant Details	1:	Top Lateral Bracing

Welding Procedure specification No.   : ROYAL/SIVOK-RANGPO/106.7/22 dated 5/8/2022	Name	and address of Fabricator	1	Urla Industrial Growth Centre, Raipur - 493221 (C.G.)
0.1. Drawing No.   1	Weldi	ng Procedure specification No.	1	ROYAL/SIVOK-RANGPO/106.7/22 dated 5/8/2022
20. Welding Joint Description. 3. Base Metal. 4. Welding Process 5. Welding Process 6. Welding Process 6. Welding Position. 6. Welding Consumable. 6. Electrode/Wire 6. Drying Method 7. Drying Method 7. Drying Method 8. N.A. 8. Type 8. Drying Method 9. N.A. 8. N.A. 8. Type 9. Drying Method 9. Drying Method 9. N.A. 9. Drying Method 9. N.A. 9. N.A. 9. Drying Method 9. N.A. 9. N.A. 9. Drying Method 9. Drying	01.	Drawing No.	_	RDSO/B-17185/R (G.A.)
33. Base Metal. 40. Welding Process 50. Welding Process 61. Grand Welding Process 62. Flux 63. Shielding Gas 64. Drying Method 65. Drying Method 65. Shielding Gas 66. Drying Method 67. Drying Method 68. Shielding Gas 69. Drying Method 60. Drying Method 61. Drying Method 62. Flux 63. Shielding Gas 64. Drying Method 65. Drying Method 66. Drying Method 67. Drying Method 68. Drying Method 69. Drying Method 69. Drying Method 60. Drying Method 61. Drying Method 62. Flux 63. Drying Method 63. Drying Method 64. N.A. 65. N.A. 66. N.A. 66. N.A. 67. Drying Method 67. Drying Method 68. Drying Method 69. Drying Method 60. Drying Method 60. Drying Method 60. Drying Method 60. Drying Method 61. Drying Method 62. Drying Method 63. N.A. 64. N.A. 65. N.A. 65. N.A. 66. N.A. 66. N.A. 67. Drying Method 69. Drying Method 60. Drying Method 61. Drying Method 61. Drying Method 62. Drying Method 63. Drying Method 64. Drying Method 65. Drying Method 66. Drying Method 67. Drying Method 67. Drying Method 68. Drying Method 69. Drying	02.		1	
05. Welding Process 05. Welding Position. 06. Welding Consumable. Electrode/Wire Class: Class: Type: Drying Method: Class: Type: Drying Method: N.A. Type: N.A. Type: Drying Method: N.A. Type: Cozeta 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:  (Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.) Component: Corner bracket Rib Plate for X Girder V type groove to be fill up by weld material in both plate.  7.2 Joint preparation Similar Corner bracket Rib Plate for X Girder V type groove to be fill up by weld material in both plate.  7.3 Joint preparation Similar Corner bracket Rib Plate for X Girder V type groove to be fill up by weld material in both plate.  7.4 Joint preparation Similar Corner bracket Rib Plate for X Girder V type groove to be fill up by weld material in both plate.  7.5 Joint preparation Similar Corner bracket Rib Plate for X Girder V type groove to be fill up by weld material in both plate.  7.5 Joint preparation Similar Corner bracket Rib Plate for X Girder V type groove to be fill up by weld material in both plate.  7.6 Joint preparation Similar Corner bracket Rib Plate for X Girder V type groove to be fill up by weld material in both plate.  7.6 Joint preparation Similar Corner bracket Rib Plate for X Girder Similar Corner bracket Rib Plate for X Girder V type groove to be fill up by weld material in both plate.  7.6 Joint preparation Similar Corner bracket Rib Plate for X Girder Similar	03.		-	
95. Welding Position. 96. Welding Consumable.  Electrode/Wire  Class  Type  Class  Type  Copper coated Solid Wire.  N.A.  Type  N.A.  Drying Method  N.A.  Type  Cozo  Fusion Faces and adjacent surfaces are cleaned and made free free for Cracks, Notiches, Mill scale, Grease , Paint, Rust etc., which may affected weld quality.  Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,) Component: Corner bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  Type  Velding Current  Type  DC  Polarity  Reverse  As per IS: 10178 – 1995, CL-9, IRS B1-2001, CL.17.3 & WBC – 20  Polarity  Reverse  As per IS: 7310/7307 (Part-I) – 1974			+-	
Of. Welding Consumable.  Electrode/Wire Class : I of IRS M 46-2013.  Type : Copper coated Solid Wire.  Drying Method : N.A.  Type : N.A.  Type : N.A.  Drying Method : N.A.  Type : N.A.  Type : N.A.  Drying Method : N.A.  Type : N.A.  Type : N.A.  Type : N.A.  Type : D.  Type growe to be fill up by weld material in both plate.  Type : D.  Polarity : Reverse			+	
Class : I of IRS M 46-2013.  Type : Copper coated Solid Wire.  N.A.  Type : N.A.  Type : N.A.  Drying Method : N.A.  Type : N.A.  Drying Method : N.A.  Drying Method : N.A.  Type : N.A.  Drying Method : N.A.  Drying Method : N.A.  Type : N.A.  Drying Method : N.A.  Type : N.A.  Drying Method : N.A.  Type : N.A.  Drying Method : N.A.  Drying Method : N.A.  Type : N.A.  Drying Method : N.A.  Type : N.A.  Drying Method : N.A.  Type : Copper coated Solid Wire.  N.A.  Type : N.A.  Type : N.A.  Drying Method : N.A.  Type : Copper coated Solid Wire.  N.A.  Type : N.A.  Full Solid Grease , Paint, Rust etc., which may affected weld quality.  Solid Grease , Paint, Rust etc., which may affected weld quality.  Solid Grease , Paint, Rust etc., which may affected weld quality.  Solid Grease , Paint, Rust etc., which may affected weld quality.  Solid Grease , Paint, Rust etc., which may affected weld quality.  Solid Grease , Paint, Rust etc., which may affected weld quality.  Solid Grease , Paint, Rust etc., which may affected weld quality.  Solid Grease , Paint, Rust etc., which may affected weld quality.  Solid Grease , Paint, Rust etc., which may affected weld quality.  Solid Grease , Paint, Rust etc., which may affected weld quality.  Solid Grease , Paint, Rust etc., which may affected weld quality.  Solid Grease , Paint, Rust etc., which may affected weld quality.  Solid Grease , Paint, Rust etc., which may affected weld quality.  Solid Grease , Paint, Rust etc., which may affected weld quality.  Solid Grease , Paint, Rust etc., which may affected weld quality.  Solid Grease , Paint, Rust etc., which may affected weld quality.  Solid Grease , Paint, Rust etc., which may affected weld quality.  Solid Grease , Paint, Rust etc., which may affected weld quality.  Solid Grease , Paint, Rust etc., Wilch may affected weld quality.  Solid Grease , Paint, Rust etc., Wilch may affected weld quality.  Solid Grease , Paint, Rust etc., Wilch may affected weld quality.  Solid Grease , Paint, Rust etc., Wilch may affected weld quality.			+-	Tionzontai
Class : I of IRS M 46-2013.  Type : Copper coated Solid Wire.  N.A.  Class : N.A.  Type : N.A.  Drying Method : N.A.  Type : CO2  Base Metal Preparation : Co2  Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches, Mill scale, Grease , Paint, Rust etc., which may affected weld quality.  Class : N.A.  N.A.  1. Joint design Details : CO2  Component :- Corner bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  Type : As Per IS: 10178 – 1995, CL.9, IRS B1-2001, CL.17.3 & WBC – 20  Polarity : Reverse  99. Welding Current :- As per IS: 7310/7307 (Part-1) – 1974	-00.	Flortrode/Wire	+	
Copper coated Solid Wire.  Copper coated Solid Wire.  In A.  Class : N.A.  Type : N.A.  Drying Method : N.A.  Class : N.A.  Type : N.A.  Drying Method : N.A.  Shielding Gas : CO2  Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches, Mill scale, Grease , Paint, Rust etc., which may affected weld quality.  Component :- Corner bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  Component :- Corner bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  Component :- Corner bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  Component :- Corner bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  Component :- Corner bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  Component :- Corner bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  Component :- Corner bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  Component :- Corner bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  Component :- Corner bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  Component :- Corner bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  Component :- Corner bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  Component :- Corner bracket Rib Plate for X Girder  Component :- Corner bracket Rib Plate for X Girder  Component :- Corner bracket Rib Plate for X Girder  Component :- Corner bracket Rib Plate for X Girder  Component :- Corner bracket Rib Plate for X Girder  Component :- Corner bracket Rib Plate for X Girder  Component :- Corner bracket Rib Plate for X Girder  Component :- Corner bracket Rib Plate for X Girder  Component :- Corner bracket Rib Plate for X Girder			:	I of IRS M 46-2013.
Class : N.A. Type : N.A.  Drying Method : N.A.  Shiekling Gas : CO2  Base Metal Preparation : Fusion Faces and adjacent surfaces are cleaned and made free fracks, Notches, Mill scale, Grease , Paint, Rust etc., which may affected weld quality.  Class : N.A.  Type : N.A.  Drying Method : N.A.  Shiekling Gas : CO2  Fusion Faces and adjacent surfaces are cleaned and made free fracks, Notches, Mill scale, Grease , Paint, Rust etc., which may affected weld quality.  Class : N.A.  Type : CO2  Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,) Component :- Corner bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  PL. 310x16x590  WeLD MATERIAL  Type : DC  Polarity : Reverse  9. Welding Current :- As Per IS: 7310/7307 (Part-1) – 1974  10. Welding Parameters and technique :- As Per IS: 7310/7307 (Part-1) – 1974	6.1	Туре	:	Copper coated Solid Wire.
Class : N.A.  Type : N.A  Drying Method : N.A  Shielding Gas  7.1 Joint design Details : CO2  (Sketch showing arrangements of parts, weld beat weld passes & their sequence etc., Compenent : Corner bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  7.2 Joint preparation : As Per IS: 10178 – 1995, CL.9, IRS B1-2001, CL.17.3 & WBC – 20  Polarity : Reverse  9. Welding Current : As per IS: 7310/7307 (Part-1) – 1974  Welding Parameters and technique : As Per IS: 7310/7307 (Part-1) – 1974			1:	N.A.
Type Drying Method Shlekling Gas CO2 Pusion Faces and adjacent surfaces are cleaned and made free free Cracks, Notches, Mill scale, Grease , Paint, Rust etc., which may affected weld quality.  (Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,) Component: Comer bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  7.2 Joint preparation English PLATE S70×16×570  RIB	6.2	Flux		
Drying Method : N.A  Shielding Gas : CO2  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.  Sketch showing arrangements of parts, weld beat weld passes & their sequence etc., Component :- Corner bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  PL. 310x16x590  FILLED UP  WELD MATERIAL  Joint preparation : As Per IS: 10178 – 1995, CL.9, IRS B1-2001, CL.17.3 & WBC – 20  Reverse  9. Welding Current : As per IS: 7310/7307 (Part-1) – 1974  10. Welding Parameters and technique :		Class	:	N.A.
Drying Method : N.A  Shielding Gas : CO2  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.  Sketch showing arrangements of parts, weld beat weld passes & their sequence etc., Component :- Corner bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  PL. 310x16x590  FILLED UP  WELD MATERIAL  Joint preparation : As Per IS: 10178 – 1995, CL.9, IRS B1-2001, CL.17.3 & WBC – 20  Reverse  9. Welding Current : As per IS: 7310/7307 (Part-1) – 1974  10. Welding Parameters and technique :		Type	١.	NA.
6.3 Shielding Gas : CO2  Base Metal Preparation : Fusion Faces and adjacent surfaces are cleaned and made free from the Cracks, Notches, Mill scale, Grease, Paint, Rust etc., which may affected weld quality.  7.1 Joint design Details :  (Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,) Component :- Corner bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  7.2 Joint preparation : As Per IS: 10178 – 1995, CL.9, IRS B1-2001, CL.17.3 & WBC – 20  Reverse : As Per IS: 7310/7307 (Part-I) – 1974  10. Welding Parameters and technique : As Per IS: 7310/7307 (Part-I) – 1974		Type	1	The state of the s
Base Metal Preparation  Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches, Milli scale, Grease, Paint, Rust etc., which may affected weld quality.  (Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,) Component: - Comer bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  PL. 310x16x590  FILLED UP  WELD MATERIAL  7.2 Joint preparation  : As Per IS: 10178 – 1995, CL.9, IRS B1-2001, CL.17.3 & WBC – 20  Reverse  9. Welding Current  Type: DC  Polarity: Reverse  9. Welding Parameters and technique  : As per IS: 7310/7307 (Part-I) – 1974			:	N.A
27.1 Joint design Details  (Sketch showing arrangements of parts, weld beat weld passes & their sequence etc) Component: - Corner bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  7.2 Joint preparation  1. As Per IS: 10178 – 1995, CL.9, IRS B1-2001, CL.17.3 & WBC – 20  (Sketch showing arrangements of parts, weld beat weld passes & their sequence etc)  FILLED UP WELD MATERIAL  7.2 Joint preparation  1. As Per IS: 10178 – 1995, CL.9, IRS B1-2001, CL.17.3 & WBC – 20  (Sketch showing arrangements of parts, weld beat weld quality.  8. BP LATE 570×16×570  9. BP LATE 570×	6.3	Shielding Gas	:	CO2
27.1 Joint design Details  (Sketch showing arrangements of parts, weld beat weld passes & their sequence etc) Component: - Corner bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  7.2 Joint preparation  1. As Per IS: 10178 – 1995, CL.9, IRS B1-2001, CL.17.3 & WBC – 20  (Sketch showing arrangements of parts, weld beat weld passes & their sequence etc)  FILLED UP WELD MATERIAL  7.2 Joint preparation  1. As Per IS: 10178 – 1995, CL.9, IRS B1-2001, CL.17.3 & WBC – 20  (Sketch showing arrangements of parts, weld beat weld quality.  8. BP LATE 570×16×570  9. BP LATE 570×		Base Metal Preparation	$\vdash$	Fusion Faces and adjacent surfaces are cleaned and made free from
affected weld quality.    Sketch showing arrangements of parts, weld beat weld passes & their sequence etc)   Component :- Corner bracket Rib Plate for X Girder   V type groove to be fill up by weld material in both plate.   Significant   V type groove to be fill up by weld material in both plate.   Significant   Signif	07.		:	Cracks, Notches, Mill scale, Grease, Paint, Rust etc., which may
7.1 Joint design Details  (Sketch showing arrangements of parts, weld beat weld passes & their sequence etc) Component: - Corner bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  7.2 Joint preparation  1. As Per IS: 10178 – 1995, CL.9, IRS B1-2001, CI.17.3 & WBC – 20  1. Welding Current  Type  1. DC  Polarity  RIB PLATE  570×16×570  RIB PLATE  570×16×570  RIB PLATE  570×16×570  RIB PLATE  570×16×590  FILLED UP  WELD MATERIAL  2. As Per IS: 10178 – 1995, CL.9, IRS B1-2001, CI.17.3 & WBC – 20  Reverse  9. Welder qualification  1. As per IS: 7310/7307 (Part-I) – 1974  10. Welding Parameters and technique  1. Severse			1	
(Sketch showing arrangements of parts, weld beat weld passes & their sequence etc) Component: - Corner bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  7.2 Joint preparation  EL. 310x16x590  FILLED UP WELD MATERIAL  7.2 Joint preparation  Sequence etc)  FILLED UP WELD MATERIAL  7.2 Joint preparation  Sequence etc)  FILLED UP WELD MATERIAL  Type  DC Polarity  Reverse  9. Welding Current  Type  Polarity  Reverse  9. Welder qualification  Sequence etc)  RIB PLATE  570x16x570  RIB PLATE  570x16	71	Joint design Details	١.	3/1
(Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,) Component: - Corner bracket Rib Plate for X Girder  V type groove to be fill up by weld material in both plate.  7.2 Joint preparation  B. Welding Current  Type  DC  Polarity  RIB PLATE  570×16×570  FILLED UP  WELD MATERIAL  1. As Per IS: 10178 – 1995, CL.9, IRS B1-2001, CI.17.3 & WBC – 20  Polarity  Reverse  9. Welder qualification  As per IS: 7310/7307 (Part-I) – 1974  10. Welding Parameters and technique  :	7.1		:	
08. Welding Current  Type : DC  Polarity : Reverse  09. Welder qualification : As per IS: 7310/7307 (Part-I) – 1974  10. Welding Parameters and technique :		beat weld passes & their sequence etc.,) Component :- Comer bracket Rib Plate for X Girder  V type groove to be fill up by weld material in		FILLED UP WELD MATERIAL
Type : DC  Polarity : Reverse  O9. Welder qualification : As per IS: 7310/7307 (Part-I) – 1974  10. Welding Parameters and technique :	7.2	Joint preparation	:	As Per IS: 10178 – 1995, CL.9, IRS B1-2001, CI.17.3 & WBC – 2001
Polarity: Reverse  O9. Welder qualification: As per IS: 7310/7307 (Part-I) – 1974  10. Welding Parameters and technique:	08.	Welding Current	:	C\$279
Polarity: Reverse  O9. Welder qualification: As per IS: 7310/7307 (Part-I) – 1974  10. Welding Parameters and technique:		Type		CARAMA
09. Welder qualification : As per IS: 7310/7307 (Part-I) – 1974  10. Welding Parameters and technique :		(i)	•	
10. Welding Parameters and technique : As per IS: 7310/7307 (Part-I) – 1974		Polarity	:	Reverse
10. Welding Parameters and technique :	9.	Welder qualification	;	As per IS: 7310/7307 (Part-I) – 1974
		14/-14/ B	_	, ( ) in
0.1 Welding Parameters	.o.	Weiding Parameters and technique	:	ALCO CONTRACTOR OF THE PARTY OF

Page 44 of 60

#### Appendix-V (Ref.CI.26 of BI-2001)

Strake WI	Electricides with dia. (11811)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (n/min)	Travel Speed (nt/min)	Electrical Stick out (mm)	Gas Flow (I/min.)
1	1.2	180 - 220	24 - 28	1.4 - 2.2	N.A.	13 - 18	15 - 20
2	1.2	180 - 220	24 - 28	1,4 - 2,2	N.A.	13 - 18	15 - 20

10.2	Welding Sequence and technique	1:		
			28.418.3	
11.	Provision of run-on / run-off tabs	T:	N.A.	_
12,	Cleaning of weld bead before laying next weld bead	;	By brush cleaning & grinding	
13.	Root preparation before welding other side of groove weld	;	N.A.	
14.	Preheating and inter pass temperature	1:	NA 110°C - 150°C alian a transleady (	बाव
15.	Peening	1:	N.A. Aggistent Officer	(3.5.
6.	Post Weld treatment	1:	N.A. ২০০০ মান প্ৰতিষ্ঠা বিভাগ	च
7.	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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.	$\dashv$
S.	Inspection of Weld	:	Visual & D.P. Test.	$\dashv$

Rib of Corner Bracket

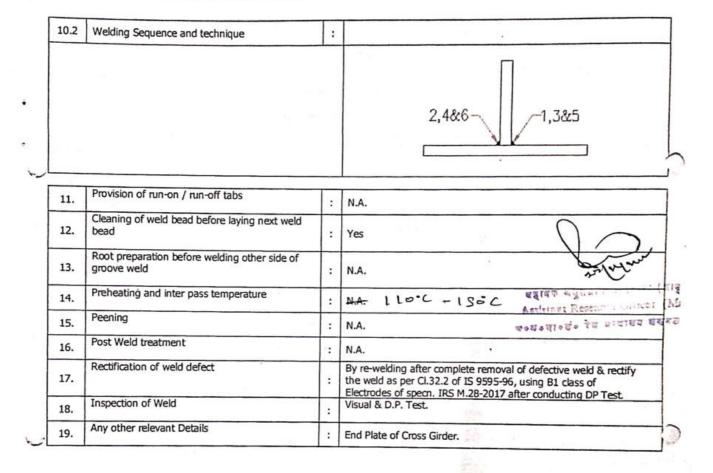
Any other relevant Details

Appendix-V (Ref.CI.26 of B I-2001).

Name	e and address of Pabricator	1:	11th Industrial Growth Centre, Raiour - 493221 (C.G.)
Web	ing Procedure specification No.	1:	
01.		1:	RDSO/S-17185/R (G.A.)
œ.		1:	Filet 12mm
03.		1:	IS: 2062:2011 E-350 C.
04.		1	GMAW
05.		-	Horizontal
06.	Weding Consumable.	+÷	1 Clacked
u	Electrode Wire	1	I of IRS M 46- 2013
5.1	Type	1	
	Drving Method	1:	N.A.
6.2	Flux	1	
the	Class	:	NA Organia
	Type	1	NA REPRESENTED ANTENNA
	Drying Method	1:	NA gates surveys
6.3	Shielding Gas	:	CO2 Amisteria a
07.	Sase Metal Preparation	:	Fusion Faces and adjacent surfaces are gleaned and made free from Cracks, Notches, Mill scale, Grease, Paint, Rust etc., which may affected weld quality.
7.1	Joint design Details	:	
	(Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,) Component:- Cross Girder Web with End Plate & Flange		20
	V type groove to be fill up by weld material in flange & end plate.		END PLATE CROSS GIRDER
7.2	Joint preparation	:	As Per IS: 10178 – 1995, CL.9, IRS B1-2001, CI.17.3 & WBC – 2001.
08.	Welding Current	:	
	Туре	:	DC
	Polarity	:	Reverse
9.	Webier qualification	:	As per IS: 7310/7307 (Part-I) – 1974
10.	Welding Parameters and technique	:	
0.1	Welding Parameters	:	ny'- Kielen

Page 46 of 60 Appendix-V (Ref.CI.26 of BI-2001)

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	1.2	180 - 220	24 - 28	1.4 - 2.2	N.A.	13 - 18	15 - 20
2	1.2	200 - 220	24 - 28	1.6 - 2.4	N.A.	13 - 18	15 - 20
3	1.2	180 - 220	24 - 28	1.4 - 2.2	N.A.	13 - 18	15 - 20



# Page 47 of 60 Appendix-V (Ref.CI.26 of B I-2001).

N	lame	and address of Fabricator	:	M/s. Royal Infraconstru Ltd., Urla Industrial Growth Centre, Raipur – 493221 (C.G.)
Tw	Veldin	ng Procedure specification No.	:	
1	01.	Drawing No.		RDSO/B-17185/R (G.A.)
_	02.	Welding Joint Description.		Fillet 6mm
_	03.	Base Metal.	:	
	04.	Welding Process	:	GMAW
-	05.		_	
_	-	Welding Position.	:	Horizontal
-	06.	Welding Consumable.		
1	6.1	Electrode/Wire Class	:	I of IRS M 46-2013.
		Туре	:	Copper coated Solid Wire.
-		Drying Method	:	N.A.
	6.2	Flux		
		Class	:	N.A.
		Туре	:	NA वस्त्रक संकृतका पर नारी (स
		Drying Method	:	NA ambrem R
1	6.3	Shielding Gas	:	CO2 ক্ৰম্ভন্ত ইন সংঘাধন ক্ষ
1	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	:	
*		(Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,) Component :- Batten Plate With Flange Diaph. Plate With Web		TIEST PLATE FOR ALL SECTION FOR ALL SECTION FOR ALL SECTION
7	7.2	Joint preparation	:	As Per IS: 10178 – 1995, CL.9, IRS 81-2001, CI.17.3 & WBC – 2001.
	08.	Welding Current	:	State 1
		Туре	:	c
-		Polarity	:	Reverse
1	09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 1974
1	10.	Welding Parameters and technique	:	S. Carlotte
	0.1	Welding Parameters	:	V. (102)

#### Page 48 of 60

#### Appendix-V (Ref.CI.26 of BI-2001)

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	1.2	180 - 220	24 – 28	1.4 - 2.2	N.A.	13 - 18	15 - 20

10.2	Welding Sequence and technique	:	
			2
11.	Provision of run-on / run-off tabs	1:	N.A.
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	HA: 110°C- LSO°C
15.	Peening	:	N.A. Arsistant Rest. Onicer (
16.	Post Weld treatment	:	N.A. Ansimal Resident del
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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P. Test.
	Any other relevant Details	1	

Page 49 of 60 Appendix-V (Ref.CI.26 of B I-2001).

Na	ame and address of Fabricator	:	M/s. Royal Infraconstru Ltd., Urla Industrial Growth Centre, Ralpur – 493221 (C.G.)		
W	alding December 16-15-15	١.			
-	elding Procedure specification No.	1			
	Drawing No.     Welding Joint Description.	1			
	3. Base Metal.	1			
		_			
_		:			
_	5. Welding Position.	:	Horizontal		
-0	6. Welding Consumable.	_			
	Electrode/Wire Class	:	I of IRS M 46-2013.		
6	.1 Туре	:	Copper coated Solid Wire.		
_	Drying Method	:	N.A.		
_ 6	.2 Flux				
1	Class	:	N.A.		
þ	Туре	:	N.A		
	Drying Method	:	N.A		
6	3 Shielding Gas	:	CO2		
07	Base Metal Preparation 7.	:	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.	Joint design Details				
	(Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,) Component:- Lacing (Flat-20x80) With Flange of Top Chord & End Raker Lacing (Flat-16x80) With Flange of Diagonal Lacing (Flat-16x80) With Flange of Vertical		Lacing FLAT-20X80 FLAT-16X80 FOR TOP CHORD, END RAKER & DIAGONAL Vertical		
	Joint preparation		As Per IS: 10178 – 1995, CL.9, IRS B1-2001, CI.17.3 & WBC – 2001.		
7.	2	:	, , , , , , , , , , , , , , , , , , , ,		
08		:	e weller		
	Туре	:	<b>∞</b>		
	Polarity	:	Reverse		
09	. Welder qualification	:	As per IS: 7310/7307 (Part-I) – 1974		
10	. Welding Parameters and technique	:			
10					

Page 50 of 60 Appendix-V (Ref.Cl.26 of BI-2001)

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	1.2	180 - 220	24 – 28	1.4 - 2.2	N.A.	13 - 18	15 - 20	

10.2	Welding Sequence and technique	:	
			2
11.	Provision of run-on / run-off tabs	T:	N.A.
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	HA: 110°C - 150°C
15.	Peening	:	N.A.
16.	Post Weld treatment	1:	N.A. Acides in the second of
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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	1:	Visual & D.P. Test.
19.	Any other relevant Details	:	Lacing

Name	and address of Fabricator	T	M/s. Royal Infraconstru Ltd., Urla Industrial Growth Centre, Raipur – 493221 (C.G.)		
111.11		+	DOWN (CRIOK DANCEO/106 7/26 dated 5/8/2022		
	ng Procedure specification No.	1:	ROYAL/SIVOK-RANGPO/106.7/26 dated 5/8/2022		
01.	Drawing No.	1:			
02.	Welding Joint Description.	1:	Fillet 10mm		
03.	Base Metal.	1:			
04.	Welding Process	:			
05.	Welding Position.	:	Horizontal		
06.	Welding Consumable.				
6.1	Electrode/Wire Class	:	I of IRS M 46-2013.  Copper coated Solid Wire.		
	Туре	1 :	Copper coated Solid Wife.		
	Drying Method	1:	N.A.		
6.2	Flux				
-		$\vdash$			
	Class	:	N.A.		
	Туре		N.A N.A		
	Drying Method				
-	Shielding Gas				
6.3	Silleiding das	:	CO2		
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		0		
	(Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,)  Component:- Comer Bracket for X girder  V type groove to be fill up by weld material in flange & end plate.		FILLED UP WELD VATERAL OF LOOP PL. 310x16x590		
7.2	Joint preparation	:	As Per IS: 10178 – 1995, CL.9, IRS B1-2001, CI.17.3 & WBC – 2001.		
08.	Welding Current	:	(2)40次元		
	Туре	:	DC		
	Polarity	:	Reverse		
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 1974		
10.	Welding Parameters and technique	:	72		
	Welding Parameters	_			

Weld Sequence No.	wire dia. (Am	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (I/min.)	
	(mm)		24 20	1.4 - 2.2	N.A.	13 - 18	15 - 20	
1	1.2	180 - 220	24 – 28		N.A.	13 - 18	15 - 20	
2	1.2	200 – 220	24 – 28	1.6 - 2.4		13 - 18	15 - 20	
3	12	180 - 220	24 - 28	1.4 - 2.2	N.A.	13-10		

10.2	Welding Sequence and technique	1:	П
			2,4&6

11.	Provision of run-on / run-off tabs	:	N.A.
12.	Cleaning of weld bead before laying next weld bead	:	Yes
13.	Root preparation before welding other side of groove weld	:	NA.
14.	Preheating and inter pass temperature	:	to the sound of th
15.	Peening	:	NA. १००० देव वन्यावय पर
16.	Post Weld treatment	:	NA.
17.	: the weld as per Cl.32.2 of IS 9595-96, using B1 class of		By re-welding after complete removal of defective weld & rectify the weld as per Cl.32.2 of IS 9595-96, using B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P. Test.
19.	Any other relevant Details	1:	Corner Bracket for X girder

Page 53 of 60 Appendix-V (Ref.CI.26 of B I-2001).

## Welding Procedure Specification Sheet for 106.7 m. Span Open Web Girder (Welded through type) 25 T Loading – 2008

Component :- E  V type groove to both plate.  7.2 Joint preparation  8. Welding Current		- 1	M/s. Royal Infraconstru Ltd., Urla Industrial Growth Centre, Raipur – 493221 (C.G.)
01. Drawing No. 02. Welding Joint De 03. Base Metal. 04. Welding Process 05. Welding Position 06. Welding Consum Electrode/Wire 6.1 6.2 Flux 6.3 Shielding Gas Base Metal Prep 07. 7.1 Joint design Det (Sketch showing beat weld passe) Component :- Electrode to the plate.  V type groove to both plate.  7.2 Joint preparation Welding Current	e 11 MI-	:	ROYAL/SIVOK-RANGPO/106.7/27 dated 5/9/22
02. Welding Joint De 03. Base Metal. 04. Welding Process 05. Welding Position 06. Welding Consum Electrode/Wire 6.1 6.2 Flux 6.3 Shielding Gas Base Metal Prep 07. 7.1 Joint design Det (Sketch showing beat weld passe) Component :- Electrode to the plate.  7.2 Joint preparation 08. Welding Current	fication No.	:	RDSO/B-17185/R (G.A.)
03. Base Metal. 04. Welding Process 05. Welding Position 06. Welding Consum Electrode/Wire 6.1 6.2 Flux 6.3 Shielding Gas Base Metal Prep 07. 7.1 Joint design Det (Sketch showing beat weld passe) Component :- Electrode/Wire  V type groove to both plate. 7.2 Joint preparation Welding Current		:	Fillet 12mm
04. Welding Process 05. Welding Position 06. Welding Consum Electrode/Wire 6.1 6.2 Flux 6.3 Shielding Gas 07. Joint design Det (Sketch showing beat weld passe Component :- Electrode to the plate.  7.2 Joint preparation 08. Welding Current	scription.	÷	IS: 2062:2011 E-350 C.
05. Welding Position 06. Welding Consum Electrode/Wire  6.1  6.2 Flux  6.3 Shielding Gas  07. Joint design Det  (Sketch showing beat weld passe Component :- Electrode Proposition of the Component of the Compone		-	GMAW
6.1 Welding Consum Electrode/Wire 6.1 6.2 Flux 6.3 Shielding Gas 07. Base Metal Prep 07. Joint design Det (Sketch showing beat weld passe Component :- Electrode/Wire  7.1 Joint preparation Welding Current  Welder qualifier		:	
6.1 Welding Consum Electrode/Wire  6.1 Flux  6.2 Flux  6.3 Shielding Gas  07. Joint design Det  (Sketch showing beat weld passe Component :- Electrode/Wire  7.1 Joint design Det  Welding Current  Welding Current		:	Horizontal
6.1  6.2 Flux  6.3 Shielding Gas  6.3 Base Metal Prep  7.1 Joint design Det  (Sketch showing beat weld passe Component :- E  V type groove to both plate.  7.2 Joint preparation  8. Welding Current	able.		
6.2 Flux  6.3 Shielding Gas  07. Base Metal Prep  07. (Sketch showing beat weld passe Component :- E  V type groove to both plate.  7.2 Joint preparation  08. Welding Current	Class	:	I of IRS M 46-2013.
6.3 Shielding Gas  07. Base Metal Prep  7.1 Joint design Det  (Sketch showing beat weld passe Component :- E  V type groove to both plate.  7.2 Joint preparation  8. Welding Current	Туре	:	Copper coated Solid Wire.
6.3 Shielding Gas  07. Base Metal Prep  07. Joint design Det  (Sketch showing beat weld passe Component :- E  V type groove to both plate.  7.2 Joint preparation  08. Welding Current	Drying Method	:	N.A.
7.1 Joint design Det  (Sketch showing beat weld pass)  Component :- E  V type groove to both plate.  7.2 Joint preparation  Welder qualified			
7.1 Joint design Det  (Sketch showing beat weld pass)  Component :- E  V type groove to both plate.  7.2 Joint preparation  Welder qualified	Class	:	N.A.
7.1 Joint design Det  (Sketch showing beat weld pass)  Component :- E  V type groove to both plate.  7.2 Joint preparation  Welder qualified	Туре	:	N.A
7.1 Joint design Det  (Sketch showing beat weld pass)  Component :- E  V type groove to both plate.  7.2 Joint preparation  Welder qualified	Drying Method	:	N.A
7.1 Joint design Det  (Sketch showing beat weld passe Component :- El  V type groove to both plate.  7.2 Joint preparation  8. Welding Current		:	CO2 Amintal Res
(Sketch showing beat weld passe Component :- El V type groove to both plate.  7.2 Joint preparation 8. Welding Current	aration	:	Fusion Faces and adjacent surfaces are cleaned and made free from Cracks, Notches, Mill scale, Grease, Paint, Rust etc., which may affected weld quality.
V type groove to both plate.  7.2 Joint preparation  Welding Current	tails	:	
08. Welding Current	g arrangements of parts, weld es & their sequence etc.,) and Bracket web with flange to be fill up by weld material in		12 MM WELD  12 MM WELD  STRINGER
Wolder qualifies	n	:	As Per IS: 10178 – 1995, CL9, IRS B1-2001, CI.17.3 & WBC – 2001.
Wolder qualifies	t	:	2 ABS.
Welder qualifica	Туре	:	DC PARTY
Welder qualifica	Polarity	:	Danish Color
09. Weder qualities	ation	:	As per IS: 7310/7307 (Part-I) – 1974
	eters and technique		7.5 P.S. 25. 7510/7507 (Fdict) — 1974
10. Welding Parame		1:	ROYAL -I)TL (JV)

Weld Sequence No.	Electrodes wire dia.	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	(I/min.)
	(mm)		24 20	1.4 - 2.2	N.A.	13 - 18	15 - 20
1	1.2	180 - 220	24 - 28	1.6 - 2.4	N.A.	13 - 18	15 - 20
2	1.2	200 - 220	24 – 28			13 - 18	15 - 20
2	1.2	180 - 220	24 - 28	1.4 - 2.2	N.A.	13 10	

0.2 Welding Sequence and technique	!	П
		1 79.5
		2,4&6

11.	Provision of run-on / run-off tabs	:	N.A.
12.	Cleaning of weld bead before laying next weld bead	:	Yes
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	N# 110.0 -120.0
15.	Peening	1:	N.A. Azalatnat Rassam Unitar (M.
10/20/20	Post Weld treatment	1:	N.A. वश्यवपावर्षक देश वस्यास्य प्रचार
16. 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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test.
18.	Inspection of Weld	:	Visual & D.P. Test.
19.	Any other relevant Details	1:	End Bracket web with flange

#### Welding Procedure Specification Sheet for 106.7 m. Span Open Web Girder (Welded through type) 25 T Loading - 2008

Name	and address of Fabricator	:	M/s. Royal Infraconstru Ltd., Urla Industrial Growth Centre, Raipur – 493221 (C.G.)
Weldir	ng Procedure specification No.	:	ROYAL/SIVOK-RANGPO/106.7/28 dated 5/8/2022
01.	Drawing No.	÷	RDSO/B-17185/R (G.A.)
02.	Welding Joint Description.	÷	Fillet 8 mm
03.	Base Metal.	÷	IS: 2062:2011 E-350 C.
04.	Welding Process	<u> </u>	GMAW
		:	
05.	Welding Position.	:	Horizontal
06.	Welding Consumable.	_	
6.1	Electrode/Wire Class Type	:	I of IRS M 46-2013.  Copper coated Solid Wire.
	D. i Market	١.	
	Drying Method	:	N.A.
6.2	Class Type	:	N.A. Or were
	Drying Method	:	N.A
6.3	Shielding Gas		CO2 Applicat Reads of the
0.3		:	८०२
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	:	
ļ	(Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,) Component :- Pad Plate girder with Bottom Flange of End Cross		WEB PLATE
7.2	Joint preparation	:	As Per IS: 10178 – 1995, CL.9, IRS B1-2001, CI.17.3 & WBC – 2001.
			100
08.	Welding Current	:	.46. YA
	Туре	:	DC
	Polarity	:	Reverse
09.	Welder qualification	:	As per IS: 7310/7307 (Part-I) – 1974
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	1.2	180 - 220	24 – 28	1.4 - 2.2	N.A.	13 - 18	15 - 20
2	1.2	180 - 220	24 – 28	1.4 - 2.2	N.A.	13 - 18	15 - 20

10.2	Welding Sequence and technique	:	
_			284 183
11.	Provision of run-on / run-off tabs	1:	N.A.
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	:	HA. 110°C -158C
15.	Peening	:	N.A. Arthur Russia
16.	Post Weld treatment	:	N.A. dedectede au grafe.
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 B1 class of Electrodes of specn. IRS M.28-2017 after conducting DP Test
18.	Inspection of Weld	:	Visual & D.P. Test.
19.	Any other relevant Details .	:	Pad Plate of End Cross Girder

Page 57 of 60
Appendix-V (Ref.CI.26 of B I-2001).

#### Welding Procedure Specification Sheet for 106.7 m. Span Open Web Girder (Welded through type) 25 T Loading – 2008

Vame	and address of Fabricator	1:	M/s. Royal Infraconstru Ltd., Urla Industrial Growth Centre, Raipur – 493221 (C.G.)			
		1:	ROYAL/SIVOK-RANGPO/106.7/29 dated 5/8/2022			
	ng Procedure specification No.	_	RDSO/B-17185/R (G.A.)			
01.	Drawing No.	1	Fillet 8 mm			
02.	Welding Joint Description.	1:	IS: 2062:2011 E-350 C.			
03.	Base Metal.	:				
04.	Welding Process	1:	GMAW			
05.	Welding Position.	:	Horizontal			
06.	Welding Consumable.					
	Electrode/Wire Class	:	I of IRS M 46-2013.			
6.1	Туре	:	Copper coated Solid Wire.			
٠,	Drying Method	:	N.A.			
6.2	Flux					
	Class	:	N.A.			
	Туре	;	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, Mill scale, Grease, Paint, Rust etc., which may affected weld quality.			
7.1	Joint design Details	:	Ope			
	(Sketch showing arrangements of parts, weld beat weld passes & their sequence etc.,) Component:- End Diaphragm of LO Joint.		12			
.2	Joint preparation	:	As Per IS: 10178 – 1995, CL.9, IRS B1-2001, CI.17.3 & WBC – 2001.			
8.	Welding Current	:	THE 46'			
	Туре	:	DC			
	Polarity	:	Reverse			
. 1	Welder qualification	:	As per IS: 7310/7307 (Part-I) - 1974			
9.						
9. 0.	Welding Parameters and technique Welding Parameters	:				

Page 58 of 60 Appendix-V (Ref.CI.26 of BI-2001)

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	1.2	180 - 220	24 – 28	1.4 - 2.2	N.A.	13 - 18	15 - 20	
2	1.2	180 - 220	24 – 28	1.4 – 2.2	N.A.	13 - 18	15 - 20	

0.2	Welding Sequence and technique	:	
			284————————————————————————————————————
11.	Provision of run-on / run-off tabs	T:	N.A.
12.	Cleaning of weld bead before laying next weld bead	:	By brush cleaning & grinding
13.	Root preparation before welding other side of groove weld	:	N.A.
14.	Preheating and inter pass temperature	1:	NA: 110°C -150C
15.	Peening	1:	N.A.
16.	Post Weld treatment	:	N.A. Comerned to everte as
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld & rectify
18.	Inspection of Weld	:	Visual & D.P. Test.
19.	Any other relevant Details	٦.	End Diaphragm

Page 59 of 60

### Appendix-V (Ref.CI.26 of B I-2001). Welding Procedure Specification Sheet for 106.7 m. Span Open Web Girder (Welded through type) 25 T Loading – 2008

Na	me and address of Fabricator		: M/s. Royal Infraconstru Ltd. Urla Industrial Growth Centre, Raipur – 492003 (C.G.)
We	dding Procedure specification No.	+	: ROYAL/SIVOK-RANGPO/106.7/30 dated 5/8/2022
01.		1	: RDSO/B-17185/R (G.A.)
02.		-	Fillet 5 mm Tack Weld
03.		1	15: 2062:2011 E-350 C.
04.	Welding Process	1:	GMAW (GMAW machine with CO2 Gas Cylinder.)
05.		1:	
06.	Welding Consumable.	+	1
6.1	Electro 'e/'Vire	+	
	Class	:	I of IRS M 46-2013.
	Турс	: :	Copper coated Solid Wire.
	Drying Method	1:	N.A.
6.2	Flux		00
		+	
	Class	1:	NA.
	Туре	1:	NA
			NA AGIAN A MA CIRCUTTI (MIL
.3	Shielding Gas Drying Method	-	135
		1:	CO: Assessment to be relied assess
7.	Base Metal Preparation	1:	Fusion Faces and adjacent surfaces are cleaned and made free from
			Cracks, Notches, Mill scale, Grease, Paint, Rust etc., which may affected weld quality.
.1	Joint design Details	1	arected web quarty.
	(Sketch showing arrangements of parts, weld bead details, weld passes & their sequence etc.,)		Length of tack Weld 50mm Gap between two tack Weld appr.300mm Weld Size-5 mm
2	Joint preparation	:	As Per IS: 10178 – 1995, CL.9, IRS B1-2001, CI.17.3 & WBC – 2001.
	Welding Current	:	2001, C.17.3 & WBC - 2001.
	Туре	:	DC DC
	Polarity	:	Reverse
	Welder qualification		As per IS: 7310 /7307 (Part-I) – 1974
+	Welding Parameters and technique	+	Cong Dia
1	Welding Parameters	1	Park to
		:	The state of the s

6

#### Page 60 of 60

#### Appendix-V (Ref.CI.26 of BI-2001)

(mm) 13-16 16-18	Weld Pass No.	Electrodes wire dia.	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed (m/min)	Travel Speed (m/min)	Electrical Stick out (mm)	Gas Flow (I/min.)
		(mm)	180 – 200	24 – 26	1.6 - 2.0	N.A.	13 – 16	16-18

10.2	Welding Sequence and technique	:	
			Length of tack Weld 50mm Gap between two tack Weld appr.300mm Weld Size-5 mm
11.	Provision of run-on / run-off tabs		А.

11.	Provision of run-on / run-off tabs	1:	N.A.	
12.	Cleaning of weld bead before laying next weld bead	:	N.A.	2
13.	Root preparation before welding other side of groove weld	:	N.A. वश्चायज स्वादाय स्ति	- 15 C
14.	Preheating and inter pass temperature	:	NA: 110°C - 150°C Applicant Research	
15.	Peening	:	N.A. অঞ্চলকার বার বিশ্ববাদ	च च्याब
16.	Post Weld treatment	:	N.A.	
17.	Rectification of weld defect	:	By re-welding after complete removal of defective weld.	
18.	Inspection of Weld	:	Visual & D.P.Test.	
19.	Any other relevant Details	:	Tack welds of all welded components.	_

Railway Open Web Girder (25t loading)
30.5 m clear span ( under slung)
MODEL WPSS No- RDSO/ Infra-II/ B&S/ RG/
OWG./ WPSS / 30.5 US series (12 nos)

Velder qualification :		As per IS: 7310 (Part 1) 1974, & IS 7307
70,0.1.7		Reverse 10. 7310 (Port 1) 1074
Туре	:	DC
Velding Current		300.4
oint preparation	:	As Per IRS B1-2001 Cl. 17.3, IRS WBC-2001, IS 4353-1995 Cl.7
(Sketch showing arrangements of parts, weld groove details, weld passes & their sequence etc.)		Part sketch shown.  Flange Plate  150  8 Single Pass Side Plate  400  Flange Plate 16mm to Side Plate Thk. 10mm of Top Chord
Base Metal Preparation	:	Material to be cut straight & square by controlled gas cutting. Fusion faces and adjacent surfaces are cleaned and made free from Cracks Notches, Mill Scale, Grease Paint, Rust etc. which may affect Weld Quality.
Shielding Gas	:	N.A.
Drying Method	:	As recommended by Manufacturer
Class Type	:	F1 of IRS M:39 - 2001 Agglomerated
Flux		
Drying Method		N.A.
Electrode/Wire Class Type	1	W1 of IRS M:39-2001 Copper Coated Mild Steel Wire
Trialding Collisionates		- 105
Welding Process Welding Position.	+	S.A.W Flat
- Motal.	<u>:</u>	IS: 2062 – 2011 Gr. E250 BO
Welding Joint Description.		Fillet
ng Procedure specification No.	╁	PEC/RVNL-PUNE/US(30.5)/WPSS/01  RDSO/B-17146 # Top Chord Flange & Side Plate on Section A-A
		Light Industrial Area, Bhilal – 490026 (C.G.)

337	- Baramo	ters and technique						
	Welding Parame Welding Pa	ters and technique	:					
i No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Volt (Volt	age )	Wire Feed Speed	Travel Speed (m/min)	Electrode Stick out	Gas Flow (L/min.)
-	4.00	450-500	25-29		(m/min)	25 20 252 13	(mm)	N.A.
mm)		al alama			1.0-1.2	0.45-0.50	15-20	
velding S	sequence and te	chnique						
	_		_					
	-	4		-90	Weld	ding from Run	– on – off tab	s
[]	- !	2						
53 51 11					To the			
7.73	of run-on / run-o		:	Yes		1		
ad		ore laying next we		N.A.		71.1-		
oot prepa oove wel	ration before we d	elding other side o	f :	N.A.	8	1,1		
eheating	and inter pass t	emperature	:	N.A.		1. 1.		
ening		11.0	:	Not I	Required	-		
st Weld t	reatment		:	Not I	Required	1		
	of weld defect	* *	:	IS 95 M.28	95-96 Cl. 32.2, 1 -02, after condu	omplete removal ousing A2 Class of ecting D.P. Test.	f defect by grind electrodes of Spe	ding as per ecn. IRS
spection o	of Weld		:		I, D.P. Test & Ma		^	•
v other re	elevant Details w	ith acceptance lev	el :	TRS-F	1 IRC-24 IS-73	307,IS-7310,IS-959	95 15 816	-/-

		(Underslung) Open Web Girder
iddress of Signature of PEC	Т.	T
· · · · · · · · · · · · · · · · · · ·	13	M/s. PRECISION ENGINEERING CORPORATION. Plot No 139-C&F
codure specification No.	-	Light Industrial Area, Bhilai – 490026 (C.G.)  PEC/RVNL-PUNE/US/30 EXAMPLES (P.S.)
	-	PEC/RVNI - PUNE (4:00 Bhilai – 490026 (C.G.)
wing No. ding Joint Description.	_ :	PEC/RVNL-PUNE/US(30.5)/WPSS/02  RDSO/B-17146 # Top Challenge And Advanced Resource R
ding Joint Description	1:	RDSO/B-17146 # Top Chord Top Plate & Side Plate on Section A-A
watal.	:	IC: 2000
Transprocess	1:	IS: 2062 – 2011 Gr. E250 BO S.A.W
- DOCIFICIT.	_	
Iding Consumable.	+:	Flat
trode/Wire	-	
ctrode/ VIII C		
Class	:	W1 of IRS M:39-2001
		112 of IRS M:39-2001
Type	:  :	Copper C
	7	Copper Coated Mild Steel Wire
Drying Method	1.	Land to the second seco
7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	+:	N.A.
(P)		
SUM.		
. Class	1:	El of Inc. v. co.
	Ι.	F1 of IRS M:39 - 2001
Туре	١.	The state of the s
Туре	1:	Agglomerated
Drylog Matt		
Drying Method	1:	As recommended by Manufacturer
elding Gas	:	N.A.
	1	
e Metal Preparation	1:	Materials
E Pictur 1 - Pictur 1	1 :	Material to be cut straight & square by controlled gas cutting. Fusion
(A)		races and adjacent surfaces are cleaned and made free from Cracks
		Notches, Mill Scale, Grease Paint, Rust etc. which may affect Weld
20.7		Quality.
nt design Details	:	Part sketch shown.
N. 3		1
200	$\top$	1724
		Top Plate
		550x16
	1	
	1	
· ·	1	
	1	Side Plate
ketch showing arrangements of parts, weld		
roove details, weld passes & their sequence		400x10
	1	
etc.)		
	1	
		VIIIA VIIIA
	1	
		Ton Dieto This 16 to Git Till Till Till Till Till Till Till Ti
App.		Top Plate Thk. 16 mm to Side Plate 10 of Top Chord
		the state of the s
preparation	:	As Per IRS B1-2001 Cl. 17.3,
- Paradori		
	123	IRS WBC-2001,
		IRS WBC-2001, IS 4353-1995 CL7
		IRS WBC-2001, IS 4353-1995 Cl.7
	:	
ling Current	:	IS 4353-1995 Cl.7
ding Current Type	:	DC DC
ding Current  Type	:	IS 4353-1995 Cl.7
ding Current	:	DC DC

Paramet	ters and technique		1			
Welding Parameter Welding Parameter	rameters					
Electrodes wire dia. (mm)	Current (Amps)	Arc Voltag (Volt)	Speed	Travel Speed (m/min)	Electrode Stick out (mm)	Gas Flow (L/min.)
4.00	450-500	25-29	(m/min) 1.0-1.2	0.45-0.50	15-20	N.A.
ding Sequence and tec	cholaue					
ding Sequence and tel	Crimque	:				1.
	2		w	elding from Run	– on – off tab	os
				1		
rovision of run-on / run-		_ _  :	Yes	•		
leaning of weld bead be	fore laying next we	eld :	Yes N.A.			
eaning of weld bead be	fore laying next we	eld :				
eaning of weld bead be ad on the preparation before vove weld	fore laying next we welding other side	eld :	N.A.			
eaning of weld bead be ead propagation before v cove weld reheating and inter pass	fore laying next we welding other side	eld :	N.A.			
eaning of weld bead be ead; not preparation before v cove weld eheating and inter pass eening	fore laying next we welding other side	eld :	N.A. N.A.			
eaning of weld bead becad in the part of preparation before weld beating and inter pass sening as weld between the pass of the	fore laying next we welding other side of temperature	eld :	N.A.  N.A.  Not Required  Not Required  By re-welding aft IS 9595-96 Cl. 32 M.28-02, after co	er complete removal 2.2, using A2 Class of inducting D.P. Test.	of defect by grir f electrodes of Sp	nding as per becn. IRS
eaning of weld bead beread	fore laying next we welding other side of temperature	eld :	N.A.  N.A.  Not Required  Not Required  By re-welding aft IS 9595-96 Cl. 32 M.28-02, after co	2.2, using A2 Class of	of defect by grir f electrodes of Sp	nding as per pecn. IRS

41/14 Page 5

d address of Signature of PEC	1.	M/a
nd address o	1.	M/s. PRECISION ENGINEERING CORPORATION. Plot No 139-C&
nd address  Procedure Specification No.  Procedure Specification No.  Procedure Specification No.	-	Light Industrial Area, Bhilal – 490026 (C.G.)  PEC/RVNL-PUNF/US/20 EVALUES (C.G.)
adure specific	1:	PEC/RVNL-PUNE/US(30.5)/WPSS/03  RDSO/B-17146 # Top Charles and State Plants are Section Ball & Cal
Procedure  Drawing No.  Welding Joint Description.  Welding Joint Description.	1:	RDSO/B-17146 # Top Chord Flange & Side Plate on Section B-B & C-Fillet
Diding Joint Description	:	Fillet Top Chord Flange & Side Plate on Section 8-8 & C-
Weldung. Base Metal.	1:	IC: 20co
Base Mencess	1	IS: 2062 – 2011 Gr. E250 BO
Melding	_	
Welding Positionable	1:	Flat
Welding Consumable.  Welding Consumable.  Gedrode/Wire	_	
Welding Constitution Class Electrode/Wire Class		
Class	1:	W1 of the transfer
	1	W1 of IRS M:39-2001
Туре	1:	0-
Y.E.	1.	Copper Coated Mild Steel Wire
Drying Method	1	The state of the s
51 ying Mediod	+:-	N.A.
Flux		
200	-	
Class	1:	F
C1033	1.	F1 of IRS M:39 - 2001
***	1	
Туре	1:	Agglomerated
M		
Drying Method	1:	As recommended by Manufacturer
Shielding Gas	1:	N.A.
Shielding Gas	1.	N.A.
Base Metal Preparation	+-	
Base Metal Preparation	1:	Material to be cut straight & square by controlled gas cutting. Fusion
	1	faces and adjacent surfaces are cleaned and made free from Crack
	1	Notches, Mill Scale, Grease Paint, Rust etc. which may affect Wel
		Quality.
Joint design Details	1:	Part sketch shown.
Ti de la companya de		The state of strong
17		
		18
	1	
	1	
3		Flange Plate
	1	Transper France
	1	150
	1	8 Single Pass
(Sketch showing arrangements of parts, weld	1	Side Plate
groove details, weld passes & their sequence	1	
etc.)	1	1 minimumminno
0 E SESS	1	16 ////////////////////////////////////
a 2 2 2 3 3 4 1	1	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
	1	400
~	- 15	400
, A 1 = 2	1	CO.
	1	Flange Plate 18mm to Side Plate Thk. 16mm of Top Chord
	1	
Joint preparation	:	As Per IRS B1-2001 Cl. 17.3,
y charanoli		IRS WBC-2001,
		IS 4353-1995 CL7
Water	_	15 4553-1345 U./
Welding Current	:	
Туре	:	DC
	-	SERVICE CO.
Polarity	:	Reverse
Weldon audio		A TC: 7210 (Det 1) 1074
Yelder qualification	:	As per IS: 7310 (Part 1) 1974,
		& IS 7307

000	Welding Pa	eters and technique					
Weld No.	Electrodes wire dia. (mm)	Current (Amps)	Arc Voltag (Volt)	Speed	Travel Speed (m/min)	Electrode Stick out (mm)	Gas Flow (L/min.)
verke	4.00	450-500	25-29	(m/min)	0.45-0.50	15-20	N.A.
(conm)	4.00			1.0-1.2	0.45-0.50		
4 (8mm)	Sequence and te	chnique	:				
	]-	4 2		Wel	lding from Run	– on – off tab	os
Provision Cleaning bead	of run-on / run-	off tabs fore laying next we	id :	Yes N.A.			
Root pre	paration before w	velding other side o	of :	N.A.			
Preheatin	ng and inter pass	temperature	:	N.A.	4		41.14
Peening			:	Not Required	7		
Post Wel	d treatment		:	Not Required  By re-welding after		of defect by ari	inding as per
Rectificat	ion of weld defec	t :	;	IS 9595-96 Cl. 32.2	using A2 class of	f electrodes of S	pecn. IRS
Inmedia	n of Weld	12/20/2011	:	Visual, D.P. Test &	7307,IS-7310,IS-9	FOE IS 816/	
34		with acceptance le					

d address of Signature of PEC	:	M/s. PRECISION ENGINEERING CORPORATION. Plot No 139-C&F
of address	1:	Light industrial Area Rhilal – 490026 (C.G.)
Aufe Spanner	_	PEC/RVNL-PUNE/US(30.5)/WPSS/04  RDSO/R 171/05/05/05/04 Plate on Section B-B & C-C
Procedure 3PE- paying No. Yelding Joint Description.	+:	1 NOSO/6-1/146 # Top Chord Top Plate & Side Place Off
101111	1:	1 mct
Welding 35. Jase Metal. Jase Process	1:	IS: 2062 – 2011 Gr. E250 BO
22025	1:	S.A.W
100119	:	Flat
Velonia Consumable.		
<u>velding Conserve</u>		
Jectrode/ VIII Class	1:	WI of the way and
04	1.	W1 of IRS M:39-2001
Type	١.	Contract _ contract c
Туре	1:	Copper Coated Mild Steel Wire
Dadas Mallan	1	
Drying Method	1:	N.A.
lux	_	
T Class	١.	
Class	:	F1 of IRS M:39 - 2001
3)	1	
Type	:	Agglomerated
	1	- The state of the
Drying Method	1:	As recommended by Manufacturer
12	+:-	
hièlding Gas	1:	N.A.
	-	to controlled gas cutting. Fusion
ase Metal Preparation	1:	Material to be cut straight & square by controlled gas cutting. Fusion
	I	Notches, Mill Scale, Grease Paint, Rust etc. which may affect Weld
		Quality.
D-balle	1:	Part sketch shown.
oint design Details	١.	rate sketch shown.
		(4) Top Diete
		Top Plate
		550x20
		Side Plate
(Sketch showing arrangements of parts, weld		400x16
groove details, weld passes & their sequence		400016
etc.)		
ell.)		
*		
Auto and a second	- 1	WAA WAA
	- 1	Top Plate Thk. 20 mm to Side Plate 16 of Top Chord
the state of the s	_	
nt preparation	:	As Per IRS B1-2001 Cl. 17.3,
	1	IRS WBC-2001,
		IS 4353-1995 Cl.7
elding Current	:	AND THE PARTY OF THE POPULATION OF THE PARTY.
- Current	-	SHOW THE LAND OF LAND AND AND ADDRESS.
Туре	: 1	DC
Туре		
	. 1	Reverse
- 1 1 1		
Polarity	· 1	
	· 1	As per IS: 7310 (Part 1) 1974,

41 /17 Page 8

	ALC:OUT	eters and technic	que:					
	Welding P	arameters		_				
N N	Electrodes wire dia. (mm) 4.00	Current (Amps)	Arc Vo	olt)	Speed	Travel Speed (m/min)	Electrode Stick out	Gas Flow (L/min.)
(m)		450-500	25-	29	(m/min)		(mm)	N.A.
mm)					1.0-1.2	0.45-0.50	15-20	N.A.
Welding	Sequence and te	echnique		:				
		[I	]		Wel	lding from Run	– on – off tab	os
Deaning	n of run-on / run- g of weld bead be		weld	:	Yes N.A.			
Deaning head	g of weld bead be	fore laying next	- 1					
Cleaning bead Root progroove	g of weld bead be eparation before v weld	fore laying next	- 1	:				
Cleaning bead Root progroove	g of weld bead be	fore laying next	- 1	:	N.A.			
Cleaning bead Root progroove	g of weld bead be eparation before v weld ing and inter pass	fore laying next	- 1	:	N.A.			
Cleaning bead Root progroove Preheat	g of weld bead be eparation before v weld ing and inter pass	fore laying next	- 1	: : : : : : : : : : : : : : : : : : : :	N.A.  N.A.  Not Required  Not Required			
Cleaning bead Root propove Preheat Preheat Prest We	g of weld bead be eparation before v weld ing and inter pass	fore laying next welding other sid s temperature	- 1	: : : : : : : : : : : : : : : : : : : :	N.A.  N.A.  Not Required  Not Required  By re-welding after IS 9595-96 Cl. 32.2, M.28-02, after cond	, using A2 Class of lucting D.P. Test.	of defect by grir electrodes of Sp	nding as per pecn. IRS
Cleaning bead Root progroove Preheat Peening Post We	g of weld bead be eparation before v weld ing and inter pass	fore laying next welding other sid s temperature	de of	: :	N.A.  N.A.  Not Required  Not Required	, using A2 Class of lucting D.P. Test. Macro Etching.	electrodes or Sp	nding as per pecn. IRS

and address of Signature of PEC	_	
and address of Signature of PEC  And address of Signature of PEC  And procedure specification No.  Drawing No.  Joint Description.	1:	1 '/J FRE ISION ENGINEERS TON DICT NO. 133 CO.
and address	-	The structure of the st
	-:	PEC/RVNL-PUNE/US(30.5)/WPSS/05  RDSO/R-17145 (C.S.)
N Process  Wedding Joint Description.  Wedding Process  Walding Process	:	
Drawing	+	
Joint Description.	1:	Fillet
Welding wotal.	:	IS: 2062 – 2011 Gr. E250 BO
Webing Process Webing Position.	:	S.A.W
BBS: Welding Process Welding Position. Welding Consumable.	:	Flat
Webling consumable.		
Welding Position. Welding Consumable. Welding Consumable Electrode/Wire Class		
Electrone	:	W1 of IRS M:39-2001
	1	7 A G 11.59-2001
Type	1:	Copper Coated Mild Steel Wire
		- Spran coated Filla Steel Wile
Drying Method	1:	N.A.
Flux	+	
N Class	1:	E1 - 1700 M 00 0004
Class	1.	F1 of IRS M:39 - 2001
Туре	١.	N. C.
Туре	1:	Agglomerated
Drying Method	١.	A
	:	As recommended by Manufacturer
hielding Gas	:	N.A. Fusion
lase Metal Preparation	1:	Material to be cut straight & square by controlled gas cutting. Fusion
Base Metal Freparis		faces and adjacent surfaces are cleaned and made free from Cracks
		Notches, Mill Scale, Grease Paint, Rust etc. which may affect Weld
	1	Quality.
ont design Details	1:	Part sketch shown.
oint design Decans	<u> </u>	United States of the States of
		18
		Flange Plate 8
		450-48
		Side Fide
		400x20
(Sketch showing arrangements of parts, weld		
groove details, weld passes & their sequence		20 ////////////////////////////////////
etc.)		400
**************************************	- 1	The same of the sa
,		THE RESERVE THE PROPERTY OF TH
	1	Flange Plate Thk. 18 mm to Side Plate 20 of Bottom Chord L1-L2-L3
	-	As Per IRS B1-2001, Cl. 17.3,
nt preparation	*	IRS WBC-2001,
	- 1	IS 10178 -1995 Cl.9
A STATE OF THE STA	_	15 101/6 -1993 Ct.3
fing Current	:	980
3 -unicit		DC
Туре	-	1400 0
Туре	-	Reverse As per IS: 7310 (Part 1) 1974& IS 7307

	Welding P						
Weld wence No.	Electrode/ wire dia. (mm)	Current (Amps)	Arc Volta	Speed	Travel Speed (m/min)	Electrode Stick out (mm)	Gas Flov (L/min.)
	4.00	450-500	25-29	(m/min)	200000	15-20	N.A.
-8 (8mm)			23-29	1.0-1.2	0.45-0.50	15-20	
810	Sequence and te	chnique	:				
	7 8 6	4		W	elding from Run	ı – on – off tal	bs
	n of run-on / run-		:	N.A.			
Cleaning bead	of weld bead be	fore laying next we	eld :	N.A.			
bead	paration before w	velding other side of		N.A.			
bead Root pre groove v	paration before w	velding other side o					- 1 - 2 - 2
bead  Root pre groove v  Preheatii  Peening	eparation before w weld ng and inter pass	velding other side o	of :	N.A.  N.A.  Not Required			
bead  Röot pre- groove v  Preheatin  Peening  Post Wel	eparation before w weld ng and inter pass d treatment	velding other side of temperature	of :	N.A.  Not Required  Not Required			
bead  Röot pre- groove v  Preheatin  Peening  Post Wel	eparation before w weld ng and inter pass	velding other side of temperature	of :	N.A.  Not Required  Not Required  By re-welding aff IS 9595-96 Cl. 3: M.28-02, after co	ter complete remova 2.2, using A2 Class on anducting D.P. Test.	of electrodes of S	rinding as pe Specn. IRS
bead Röot pre- groove v Preheatii Peening Post Wel Rectificat	eparation before w weld ng and inter pass d treatment	velding other side of temperature	of :	N.A.  Not Required  Not Required  By re-welding aff IS 9595-96 Cl. 3: M.28-02, after cd.  Visual, D.P. Test	2.2, using A2 Class of	of electrodes of S	rinding as pe Specn. IRS

and address of Signature of PEC		: M/s. PRECISION ENGINEERING CORPORATION, Plot No 139-CE
and addition No.  a Procedure specification No.	- -	Light industrial Area Philai – 400026 (C.G.)
procedure specification	-	PEC/RVNL-PUNE/US(30.5)/WPSS/06
	1:	1 NOSU/8-1/145 # Bottom Chard (13-14-15) Addition
Welding Joint Description.	_	Triate Section R-R
welding Joint Description.	1:	Fillet
Welding season Metal.  Base Metal.		
Base Metal. Welding Process Welding Position.	:	S.A.W
Welding Position. Welding Position. Welding Consumable.	1:	
Welding Position: Welding Consumable. Welding Agwire		1100
Welding Conse Electrode/Wire	_	
Class	s :	Wit of the control
BAA	١.	W1 of IRS M:39-2001
Туре	١.	
1,700	:   :	Copper Coated Mild Steel Wire
Drying Method		
Brying Method	4:	N.A.
Flux		
007		
Class	:	F1 of IRS M:39 - 2001
	1	1 2 31 113 11.39 2001
Type	1:	Agglomerated
	1.	Aggiornerated
Drying Method	1.	As recommended by Manufactures
Shielding Gas	1:	As recommended by Manufacturer N.A.
Base Metal Preparation	1.	
Base Fictor 1 1 2		Material to be cut straight & square by controlled gas cutting. Fusio faces and adjacent surfaces are cleaned and made free from Crack Notches, Mill Scale, Grease Paint, Rust etc. which may affect Wel Quality.
Joint design Details	:	Part sketch shown.
(Sketch showing arrangements of parts, weld groove details, weld passes & their sequence etc.)		300x16 Additional Plate  300 Side Plate 400x25
		Addl. Plate Thk. 16 mm to Side Plate 25mm of Bottom Chord L3-L4-L5
nt preparation		As Per IRS B1-2001, Cl. 17.3,
nt preparation		As Per IRS B1-2001, Cl. 17.3, IRS WBC-2001,
m. stockers		As Per IRS B1-2001, Cl. 17.3, IRS WBC-2001, IS 10178 -1995 Cl.9
ding Current	:	As Per IRS B1-2001, Cl. 17.3, IRS WBC-2001, IS 10178 -1995 Cl.9
ding Current	:	As Per IRS B1-2001, Cl. 17.3, IRS WBC-2001, IS 10178 -1995 Cl.9
lding Current Type	:	As Per IRS B1-2001, Cl. 17.3, IRS WBC-2001, IS 10178 -1995 Cl.9

- OIE	Welding Parame	eters and technic	100:	-		-		-
Weld No.	Electrode/ wire dia. (mm)	Current (Amps)	Arc Vo	oltage olt)	Wire Feed Speed	Travel Speed (m/min)	Electrode Stick out	Gas Flor (L/mln.
Na Contract	4.00	450-500	25-	29	- (m/mln) 1,0-1,2	0,45-0.50	(mm) 15-20	N,A.
Welding	Sequence and to	echnique		: 1				
				- 1				
11. Provisio	n of run-on / run	-off tabs	weld		N.A.			
12. Geaning bead	of weld bead be	efore laying next			N.A. N.A.			
12. Geaning bead 13. Root progroove	of weld bead be eparation before weld	efore laying next		7				
12. Geaning bead 13. Root progroove	of weld bead be	efore laying next		:	N.A.			
12. Cleaning bead  13. Root progroove 14. Preheat  15. Peening	of weld bead be eparation before weld ing and inter pass	efore laying next		: 1	N.A. N.A. Not Required			
12. Cleaning bead  13. Root progroove 14. Preheat  15. Peening  6. Post We	of weld bead be eparation before weld ing and inter pass	efore laying next welding other si s temperature		: :	N.A.  N.A.  Not Required			
12. Cleaning bead  13. Root progroove 14. Preheat  15. Peening  6. Post We	of weld bead be eparation before weld ing and inter pass	efore laying next welding other si s temperature		: :	N.A.  N.A.  Not Required  Not Required  By re-welding after is 9595-96 Cl. 32.	er complete remov 2, using A2 Class aducting D.P. Test	of electrodes of	rinding as p Specn. IRS

100		(Underslung) Open Web Girder
and address of Signature of PEC	-	
nd address of	1:	M/s. PRECISION ENGINEERING CORPORATION, Plot No 139-C&F
procedure specification No.	_	Light Industrial ENGINEERING CORPORATION, Plot No 139-Car
procedure specification in the	1:	
Drawing No.	1:	
- Description		RDSO/B-17145 # Bottom Chord (L3-L4-L5) Flange Plate to Side Plate Section B-B
Welding Joint Description.	1:	Fillet
Weding John Base Metal. Base Metal.	1:	rijet
Base Metal. Welding Process Welding Process	1:	IS: 2062 – 2011 Gr. E250 BO
Weding Process Weding Position. Weding Consumable.	_	
Websig Consumable.	1:	Flat
Weding Position. Weding Consumable.  Bedrode/Wire	-	
Hectrood		
Class	1:	W1 of IRS M:39-2001
8.0		11/3 H:39-2001
Type	1:	Copper Cont. Laure of
76 m		Copper Coated Mild Steel Wire
Drying Method	1.	N.A.
40.7	+	N.A.
Aux		
1013		
Class	1:	F1 of IRS M:39 - 2001
3/8		1.35 - 2001
Туре	1:	Agglomerated
407	1.	ragionerated
Drying Method	1:	As
Shielding Gas	1:	As recommended by Manufacturer
Sheurig cos		N.A.
Base Metal Preparation	1:	Material to be cut straight & square by controlled gas cutting. Fusion
		faces and adjacent surfaces are cleaned and made free from Cracks
		Notches, Mill Scale, Grease Paint, Rust etc. which may affect Weld
		Quality.
Joint design Details	1:	Part sketch shown.
XXX DESIGNATION OF THE PROPERTY OF THE PROPERT	·	Tare sketter shown.
\$10 miles		the same of the sa
17		20
		A Section
		Flange Plate
9		
13	1 1	8
I 📆	1 1	150 Additional Plate
(Sketch showing arrangements of parts, weld	1 1	300
groove details, weld passes & their sequence	1 1	M/mmmmmmm
etc.)	1 1	16'
8	1 1	
2	1 1	25
	1 1	Side /
		Plate 400
<u> </u>		ARANT .
# C C C C C C C C C C C C C C C C C C C		Flange Plate Thk. 20 mm to Side Plate 25mm of Bottom Chord L3-L4-L5
	1	Trange Frate Line 20 than to Side Frate 25mm of Bottom Chord L3-L4-L5
bint preparation		TOC D4 2004 C1 47.2
me preparation		As Per IRS B1-2001, Cl. 17.3,
	:	
	:	IRS WBC-2001,
	;	
		IRS WBC-2001,
Weding Current	:	IRS WBC-2001, IS 10178 -1995 CL.9
Welding Current Type		IRS WBC-2001, IS 10178 -1995 CL.9
Webling Current Type	:	IRS WBC-2001, IS 10178 -1995 CL.9
Welding Current	: : :	IRS WBC-2001, IS 10178 -1995 CL.9

Welding Parame	Current			T		
Electrode/ wire dia. (mm)	(Amps)	Arc Voltage (Volt)	Wire Feed Speed	Travel Speed (m/min)	Electrode Stick out	Gas Flow (L/min.)
	450-500	25-29	(m/min) 1.0-1.2	0.45-0.50	(mm) 15-20	N.A.
yelding Sequence and to	chnique	:				
77.5	\$					

12 Welding Sequence an	d technique	
7	3	
826	4	Welding from Run – on – off tabs
	<del>5</del> 0.	· ·

Provision of run-on / run-off tabs	:	N.A.
Geaning of weld bead before laying next weld bead	:	N.A.
Root preparation before welding other side of groove weld	:	N.A.
Preheating and inter pass temperature	1:	N.A.
Peening	:	Not Required
Post Weld treatment	:	Not Required
Rectification of weld defect	:	By re-welding after complete removal of defect by grinding as per IS 9595-96 Cl. 32.2, using A2 Class of electrodes of Specn. IRS M.28-02, after conducting D.P. Test.
Inspection of Weld	:	Visual, D.P. Test & Macro Etching.
Any other relevant Details with acceptance level	1:	IRS-B1 , IRC-24,IS-7307,IS-7310,IS-9595,IS 816

41/24 Page 15

		(Underslung) Open Web Girder
and address of Signature of PEC	1	M/a a
a Procedure Specification No.	1.	M/s. PRECISION ENGINEERING CORPORATION, Plot No 139-C&F,
dure specification No.	1:	Light Industrial Area, Bhilai – 490026 (C.G.)  PEC/RVNL-PUNF/JIS/20 E-340026 (C.G.)
pawing No. Dawing No. Daving Joint Description.	_	PEC/RVNL-PUNE/US(30.5)/WPSS/08 RDSO/B-17147 # Vorter Proceedings of the Picture Procedure Procedur
Drawling No. Drawling Joint Description. Welding Joint Description.	+:	RDSO/B-17147 # Verticals Flange Plate to Web Plate
Welding	1:	Fillet Fillet Verticals Flange Plate to Web Plate
Welding Welal. Base Metal.	1:	IS: 2062 – 2011 Gr. E250 BO
Base Metal. Welding Process Welding Process	1:	S.A.W
Welding Process Welding Position. Welding Consumable.	:	Flat
Welding Position. Welding Consumable. Welding Anylire		ridt
Welding Consenses  Electrode/Wire  Class	1	
Class	: :	Wr
	Ί.	W1 of IRS M:39-2001
Туре	1.	
Type	1:	Copper Coated Mild Steel Wire
Drying Method		
Drying Method	1:	N.A.
Flox	1	
Mux	$\top$	
. Class	1:	Et of IDC M 20 Deci
, Class	1.	F1 of IRS M:39 - 2001
# 100 m	1	74-5-37 2000
Туре	1:	Agglomerated
	1	Victor Control
Drying Method	:	As recommended by Manufacturer
Shielding Gas	1:	N.A.
Mediting Co.	-	
Rese Metal Preparation .	:	Material to be cut straight & square by controlled gas cutting. Fusion
12		
Ti and the second secon		Notches, Mill Scale, Grease Paint, Rust etc. which may affect Weld
		Quality.
ont design Details	1:	Part sketch shown.
ont design betans	H	
		190
		12 Flange plate
		40
		10
20 00 0240		8 Single
Sketch showing arrangements of parts, weld		276 Web 8 Pass
roove details, weld passes & their sequence	. /	plate
itove details, weld passes & die	- 1	
etc.)		
1		
	- 1	- vannanininininininininininininininininin
		12
	- 1	190
	- 1	Flange Plate Thk. 12 mm to Web Plate 10mm of Verticals
	$\perp$	As Per IRS B1-2001, Cl. 17.3,
preparation	:	As Per IKS 81-2001, Cl. 17-57
preparation		IRS WBC-2001,
1		IS 10178 -1995 Cl.9
	$\overline{}$	() 数据序: 12 · · · · · · · · · · · · · · · · · ·
ng Current	:	- 14800015T
Tuno	:	DC
-11	-+	and the second s
Polarity	:	Reverse 7307
a qualification	-	As per IS: 7310 (Part 1) 1974& IS 7307
	:	

1300	The state of the last of the l	tere and test					
-	Welding Parame	eters and technique arameters	:		-	-	
reld No.	Electrode/ wire dia. (mm)	Current (Amps)	Arc Voltag (Volt)	Speed	Travel Speed (m/mln)	Electrode Stick out	Gas Flow (L/mln.)
	4.00	450-500	25-29	(m/mln) 1.0-1.2	0.10.0.50	(mm) 15-20	N.A.
(8mm)_	Sequence and to	shalawa		1,0-1,2	0,45-0.50	15-20	
Jaloo	Sequence and to	chnique	- !				
	4	2		w	elding from Run	– on – off tab	os
124							
	n of run-on / run-		:	N.A.			
Cleaning	of weld bead be	fore laying next we	eld :	N.A.		ž.	
Cleaning	of weld bead be		eld :	20,700			
Cleaning bead Root pre groove v	of weld bead be	fore laying next we welding other side of	eld :	N.A.			
Cleaning bead Root pre groove v	of weld bead bei paration before w	fore laying next we welding other side of	eld :	N.A. N.A. Not Required			
Cleaning bead Root pre groove v	of weld bead bei paration before w	fore laying next we welding other side of	of :	N.A.  N.A.  Not Required  Not Required			
Cleaning bead Root pre groove v Preheating Post Wel	por weld bead being paration before weld and inter pass	fore laying next we velding other side of temperature	eld :	N.A.  N.A.  Not Required  Not Required  By re-welding aft 15 9595-96 Ct. 32 M.28-02, after co	er complete remova 2.2, using A2 Class on ducting D.P. Test.	I of defect by grif electrodes of S	Inding as per Specn. IRS
Root pre groove v Preheati Peening Post Wel	paration before weeld  and inter pass  d treatment	fore laying next we velding other side of temperature	eld :	N.A.  N.A.  Not Required  Not Required  By re-welding aft 15 9595-96 Cl. 32 M.28-02, after co	2.2, using A2 Class on anducting D.P. Test.	of electrodes of S	inding as per Specn. IRS

0

(

of Signature of 7 20	1:	et for 30.5 Mtr. (Underslung) Open Web Girder  M/s. PRECISION ENGINEERING CORPORATION, Plot No 139-C&F,
d address of the procedure specification No.	_	4 Signic Industrial Assessment and the second second
Jury Specific	1:	PEC/RVNL-PUNE/US30.5)/WPSS/09  RDSO/B-17169
rawing No.	:	
yelding Joint Description.	-	Plate on Section A-A
Jalding Joint Description	:	Trillet
velding 35: ase Metal.	1:	IS: 2062 – 2011 Gr. EZ50 BO
IAM IS	1:	S.A.W
yelding Process  yelding Position.  yelding Consumable.	:	Flat
yelding Position. yelding Consumable. yelding Applyire		
Gass	:	W1 of IRS M:39-2001
74		112 of XICS 141,59-2001
Туре	1:	Copper Coated Mild Steel Wire
Drying Method	1:	N.A.
[30		
Flux	-	
Class	١.	Fr Table
Class	1	F1 of IRS M:39 - 2001
Time	١.	
Туре	1:	Agglomerated
Drying Method	١.	
	+-	As recommended by Manufacturer
Shlelding Gas	:	N.A.
Base Metal Preparation	1:	Material to be cut straight & square by controlled gas cutting. Fusion
Base Meron		these and adjacent curfaces are closured and middle lies intolli
	1	Notches, Mill Scale, Grease Paint, Rust etc. which may affect Weld
		Quality.
bint design Details	1:	Part sketch shown.
Joint design Decard	+	
		Flange Plate 150x20
		20 15020
	1	Side Plate
	1	
L. E		88/
(Sketch showing arrangements of parts, weld	1	400
groove details, weld passes & their sequence		
etc.)		
•	0.00	
		Flange Plate
		150x20
		Flange Plate Thk. 20 mm to Side Plate 20 mm of End Raker
		Flange Plate 10k. 20 min to Side Plate 20 min of End Raker
int preparation	:	As Per IRS B1-2001, Cl. 17.3,
Picpulation	8	IRS WBC-2001,
		IS 10178 -1995 Cl.9
elding C.		100 March 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
elding Current	:	DC
. Туре	:	TRUE CO
Polarity	:	Reverse
elder qualification Polarity		As per IS: 7310 (Part 1) 1974& IS 7307

41/27243 Page 18

	Welding Parame	ters and technic	lue:				
	Welding F	arameters .					
No.	Electrode/ wire dla. (mm)	Current (Amps)	Arc Voltage (Volt)	Wire Feed Speed	Travel Speed (m/min)	Electrode Stick out (mm)	Gas Flow (L/min.)
	4.00	450-500	25-29	(m/min)		15-20	N.A.
nm)				1.0-1.2	0.45-0.50	15-20	
	Sequence and to	echnique	1:1				
	8 6	3		We	elding from Rur	n – on – off ta	abs
	on of run-on / rur		:	N.A.			
bead		efore laying nex		N.A.	= 1	4.	
Root pr groove	reparation before weld	welding other s	side of :	N.A.		<u> </u>	
Prehea	ting and inter pas	ss temperature		N.A.		A.	
Peening	g		:	Not Required		the/	
Post W	eld treatment		:	Not Required		100	
Rectific	ation of weld def	ect	:	IS 9595-96 Cl. 3 M.28-02, after c	ter complete remo 2.2, using A2 Clas onducting D.P. Te	st.	of Specn. IRS
			<del></del>	Mariel D.D. Toc	t & Macro Etching		

- TO 1.2	-	
Notes of Signature of PEC	1:	M/s. PRECISION ENGINEERING CORPORATION, Plot No 139-C&F,
15th 0 22	-	The state of the s
Act sportcation No.	1:	PEC/RVNIPUNE/US(30.5)/WPSS/10  RDSO/R-12/40
ALT: STE	1:	RDSO/B-17149 # Diagonal (U2-L3 & U8-L7 ) Channel to Side Plate on Soction B.B.
NO NO	1	Section B-B Diagonal (U2-L3 & U8-L7 ) Character to Section B-B
at Dirt Description.	1:	Filet
bit Decigion	1	IC. 2000
22	_	IS: 2062 - 2011 Gr. E250 BO
8 10 0-CCS	1:	J. J.
Marion.	1:	Flat
min post compable.		
Refer Character (Class	:	W1 of IRS M:39-2001
Туре	:	Copper Coated Mild Steel Wire
Dedea Maria	1	
Drying Method	1:	NA.
	1	
PAY .		
Class	١.	
CGSS	1:	F1 of IRS M:39 - 2001
Туре	:	Agglomerated
A	1	The state of the s
Drying Method	1:	As recommended by Manufacturer
CV	1:	N.A.
Nations Gas	-	We have a security of the second seco
be Netal Preparation	:	Material to be cut straight & square by controlled gas cutting. Fusion faces and adjacent surfaces are cleaned and made free from Cracks Notches, Mill Scale, Grease Paint, Rust etc. which may affect Weld Quality.
nit design Details	1:	Part sketch shown.
Sech showing arrangements of parts, weld passes & their sequence etc.)		Side Channel (C400 x 100)  2 Side Side Side Side Plate 32 mm of Diagonal
riparation .	-	As Per IRS 81-2001, Cl. 17.3,
r-vacui		NO FEE TO 01-2001, Ct. 17-3,
19		IRS WBC-2001,
4	1	IS 10178 -1995 Cl.9
		and the second s
the Current		
dry Current	:	× 34244
Type	:	DC Attitude
Type Polarity	_	DC Reverse
	:	

41/23 Page 20

	- Caramo	ters and technique	101				729 Page 2
-	Welding Paralle	eters and technique	ie;				
ce No.	Electrode/ Current (Amps) (mm)		Arc Voltag (Volt)	Speed	Travel Speed (m/min)	Electrode Stick out	Gas Flow (L/min.)
	4.00	450-500	25-29	(m/min) 1.0-1,2		(mm) 15-20	N.A.
Bmm)	Sequence and te	abalana		1.0-1.2	0.45-0.50	15-20	1
West				W	elding from Ru	n – on – off ta	ibs
Provision Ocaning bead	of run-on / run-of weld bead bel	off tabs	weld :	N.A.			
Rock prep groove wi	eia	velding other sid	e of :	N.A.			
Preheatin	g and inter pass	temperature	:	N.A.			
Peening			:	Not Required	per per		
Post Weld	treatment		:	Not Required			i dian as par
Pectification	on of weld defec	t	:	IS 9595-96 Cl. 3 M.28-02, after c	fter complete remo 32.2, using A2 Clas conducting D.P. Te	st.	of Specn. IRS
nspection	of Weld		:	Visual, D.P. Test	t & Macro Etching	•	. 19

IDC-24 IS-7307.IS-7310.IS-9595,IS 816

procedure specification Shoot	i
Melding	<u>for 30.5 Mtr. (Underslung) Open Web Girder</u>
West of PEC	Onderslung) Open web ones
- Auto of Def	

Signature of PEC	1:	eet for 30.5 Mtr. (Underslung) Open Web Girder
Welding Address of Signature of PEC Address of Signature of PEC Procedure specification No.		M/s. PRECISION ENGINEERING CORPORATION, Plot No 139-C&F,
- co specific	:	Light Industrial Area, Bhilai – 490026 (C.G.)
Procedure State No.	1:	PEC/RVNL-PUNE/US(30.5)/WPSS/11  RDSO/B-1719/1 # Diagonal (U4-L3 & U6-L7) & (U4-L5 & U6-L5)  Changel to Size 1
rawing Tourney		
Joint Description.	:	Channel to Side Plate on Section C-C & D-D
Welding Julian Medal.	1:	
	1:	IS: 2062 – 2011 Gr. E250 BO S.A.W
Notal. Jase Metal. Notaing Process Notaing Position. Notaing Consumable.	1:	Flat
velo de la comable.	1	1,101
velding Position. Velding Consumable. Velding Consumable.		
Wolding Consumeration (Class Consumeration Class Consumeration C	1:	W1 of IRS M:39-2001
A CONTRACTOR OF THE CONTRACTOR	1	*** Of IKS M:39-2001
Type	1:	Copper Costed Wild Constitution
		Copper Coated Mild Steel Wire
Drying Method	1:	N.A.
	+	The state of the s
Aα	+-	
Class	1:	F1 of IRS M:39 - 2001
¥		
Туре	:	Agglomerated
Daving Mathed	١.	
Drying Method	1:	As recommended by Manufacturer
hielding Gas	1:	N.A. Fusion
ase Metal Preparation	:	Material to be cut straight & square by controlled gas cutting. Fusion
ase Metal 1707		Material to be cut straight & square by controlled gus and controlled gus faces and adjacent surfaces are cleaned and made free from Cracks faces and adjacent surfaces are cleaned and made free from Cracks faces and adjacent surfaces are cleaned and made free from Cracks faces and adjacent surfaces are cleaned and made free from Cracks faces and adjacent surfaces are cleaned and made free from Cracks faces and adjacent surfaces are cleaned and made free from Cracks faces and adjacent surfaces are cleaned and made free from Cracks faces and adjacent surfaces are cleaned and made free from Cracks faces and adjacent surfaces are cleaned and made free from Cracks faces and adjacent surfaces are cleaned and made free from Cracks faces and adjacent surfaces are cleaned and made free from Cracks faces and adjacent surfaces are cleaned and made free from Cracks faces and adjacent surfaces are cleaned and made free from Cracks faces and adjacent surfaces are cleaned and made free from Cracks faces and adjacent surfaces are cleaned and made free from Cracks faces and adjacent surfaces are cleaned and made free from Cracks faces are cleaned and made free from Cracks faces faces from the face faces faces from the faces faces faces from the faces faces faces from the faces faces from the faces faces from the faces faces faces from the faces faces faces from the faces faces from the faces faces faces from the faces from the faces faces from the faces faces from the faces faces from the faces from the faces faces from the faces from the faces faces from the fac
		faces and adjacent surfaces are cleaned and made need Notches, Mill Scale, Grease Paint, Rust etc. which may affect Weld
		Quality.
int design Details	:	Part sketch shown.
int design become		2 side charrel / Elico V Leek
		A K
		, Comi
		(i)
		المام
		Will A Will
		2 side piate ist
ketch showing arrangements of parts, weld	- 1	
rove details, weld passes & their sequence	- 1	- 2 × 163)
etc.)	- 1	עלבים ככבים
I	- 1	
	- 1	
	- 1	
*	- 1	1 (100 100) - to Cide Plate 25 mm of Diagonal
1	- 1	Side Channel (400x100) mm to Side Plate 25 mm of Diagonal
1	- 1	1,40,00
	-+	As Per IRS B1-2001, Cl. 17.3,
preparation	1	TRE WRC-2001.
increteuroscon(ENA):		IS 10178 -1995 CI.9
escent to the second se	$\overline{}$	IS TOTAL
ng Current ' ' '	:	ONE COLUMN TO THE COLUMN TO TH
Type	:	DC
177	_	Reverse
10.0	-	As per IS: 7310 (Part 1) 1974& IS 7307
qualification	:	Ac Der 15. /310 (1 01. 2)

1	Welding Parent	eters and technic	ue:					
75.0								
HEND NO.	Electrode/ wire dia. (mm)	Current (Amps)	Arc Volta (Volt)		Wire Feed Speed	Travel Speed (m/min)	Electrode Stick out (mm)	Gas Flow (L/min.)
10.00	4.00	450-500			(m/min)			
1[377]				-29	1.0-1.2	0.45-0.50	15-20	N.A.
1831	Sequence and te	chnique	_	1:1		0.45-0.30	15 20	
Descing o	of run-on / run-of weld bead befo	re laying next w	eld .		Weld	ling from Run -	- on – off tabs	
grove wel			of :	N.	A.			
Profesting and inter pass temperature			1:	N.A.				
Peering			1:	Not Required				
Rost Weld treatment		1:	Not Required					
Redification of weld defect			1:	By re-welding after complete removal of defect by grinding as per IS 9595-96 Cl. 32.2, using A2 Class of electrodes of Specn. IRS M.28-02, after conducting D.P. Test.				
			- 1					
rspection of	Weld		1:		al, D.P. Test & Macr 31 , IRC-24,IS-7307			

W	dress of Signature of	C DEC		_		50.5 Mtr. (	Underslung)	Open Web G	iluei.
21.57	- Signature	OI PEC		:	M	S. PRECISION EN	CINETANIA CON	PORTION Plot	No 139-C&F,
and ad	dress dress ton t	Vo.		-	_	girl industrial Area	DLII-1 400036 //	CRATION, FIOR	
and address of Signal			1:						
			1:				nts. Where requir	ed	
	- 101111			+:-	3	rim Tack Weld on a	Il fillet leinte		
Wolding 700 Base Metal.  Base Metal.  Wolding Process  Wolding Position.			1:	1 ***	. 4002 - 2011 Ce	E250 BO			
Base	an process			1:	IM	.M.A.W.			
Weld	ng Process ng Position. ng Consumable.			+:	14	orizontal - Vertical			
West	ng Consumation		Class	+-	-				
Weding Position.  Weding Consumable.  Weding Consumable.  Class  Type  Decision Medical			1:	A.	3 of IRS M:28-2008	with Amendment	1 of 2003		
Elect		Drying	Method	1:	K	utile Coating			
		2.7.1.9	iculou	+·	N.	Α.			
FIX			CI	+-					
III THE			Class			Α.			
透荷		Drying I	Type	100		Α.			
関語		Drying i	reunod	1:	N.	A.			
	ing Gas			1:	N.	A.			
Shek	ing out					2000			- Iting Fusion
	Metal Preparation			:	Ma	aterial to be cut st	raight & square b	y controlled gas	on from Crack
Base	ycus.				fac	eterial to be cut st ces and adjacent s	surfaces are clean	ed and made m	av affect Wel
				1 1	No	ces and adjacent s tches, Mill Scale,	Grease Paint, Ru	st etc. which m	ay affect the
					QL	ality.			
	D-taile.				N.	^			
Joint d	<sub>esign</sub> Details								
10000	reparation			1:		Per IRS B1-2001 C	1. 17.3,		
Joint P	ich			1 1	IRS WBC-2001,				
1		\$7.			IS	9595-1996 Cl.3			
Welding	Current			:					7.3
Welding	y contain		Type	1:1	DC				
1		P	olarity	:	Re	verse			
				1	Δc	per IS: 7310 (Part	1) 1974,		
Welder	qualification			.		5 7307			
1	T	tors and tochnic	me.		41	0.001			
1	Welding Parame	ters and technic	T.		_				
1	Welding Pa		Ame	Volta	ge Wire Feed		Travel Speed	Electrode	Gas Flow
equence	Electrodes	Current		Volta	ye	Speed (m/min)	(m/min)	Stick out (mm)	(L/min.)
a	wire dia.	(Amps)	1 6	voit)					
P. N.	(mm)		-	1.26		N.A.	N.A.	N.A.	N.A.
	3.15	140-180	2	4-26	T.	V.A.			dece
Provision	of run-on / run-o	ff tabs		1:	+	1.//.	100		9
Geaning	of weld bead before	re laying next w	reld	1:	1	V.A.			1.70
bead			1	+		11.10			
Root preparation before welding other side of			1 :	IN	N.A.			£	
groove weld Preheating and inter pass temperature Peening			1.			for all			
			1:	1	I.A.				
			1:	1	lot Required				
ost Weld treatment				1:	11	lot Required		-1 -6 -1-6	rinding as no
				+:	+=	the model of detect by dringing as per			
lectification of weld defect			1.	TO OFOS-96 CL 32.2. Using AZ Class of electrodes of Specif. IRS					
					N	1.28-02, after cond	ducting D.P. Test		
				+-	11	icual			
	spection of Weld				Visual. IRS-B1 , IRC-24,IS-7307,IS-7310,IS-9595,IS 816				
spection	of Weld	to the work and a second second	ny other relevant Details with acceptance level				-/30/12-/310:13	-2222112 010	^