

Welder Performance Qualification Record

(IS : 7310)

Name and

: Hillways Construction Company Pvt. Ltd.,

Address of Fabricator

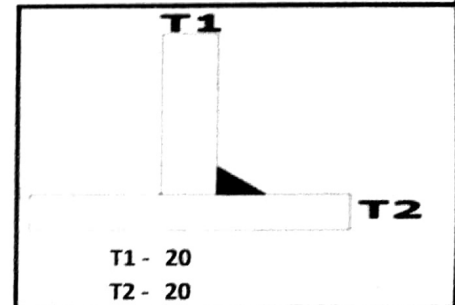
Rishikesh



Project

: CONSTRUCTION OF 72 MTR. SPAN STEEL TRUSS BRIDGE AT RANIPUR JHAL - HARIDWAR

- 1.0 Description of Weld : Fillet Weld (08 mm)
 2.0 Welding Procedure Specification No. : C-3/ID/HARIDWAR/FAB./CAMP/001
 3.0 Name of Welder : JAGLAL PRASAD
 4.0 Welder ID : HILLWAY/O-001
 5.0 Date of Preparation of Test Piece : 06-07-2020
 6.0 Dimensions of Test Piece : T1 - 20 x 150 x 350 # T2 - 20 x 150 x 350
 7.0 Range of Qualification : T1 - 15 - 30 mm # T2 - 15 - 30 mm
 8.0 Base Metal : IS 2062 E250 BR
 9.0 Welding Process : SAW
 10.0 Welding Position : 1F
 11.0 Welding Current & Polarity : DC & Reverse Polarity (DCEP)
 12.0 Weld Joint Design Details : Refer Sketch (Fillet Joint)
 13.0 Welding Consumables
 13.1 Electrode / Wire : AWS SFA 5.17 EH14
 : Dia. - 3.20 mm
 : Brand - ADOR WELDING LTD.
 13.2 Flux : AWS SFA 5.17 F7A4-EH14
 : Type - Agglomerated
 : Brand - ADOR WELDING LTD.
 13.3 Shielding Gas : NA
 14.0 Preheating & Interpass Temp. : In limits of WPS followed
 15.0 Results / Observations of Qualification Tests
 i) Visual Examination : Satisfactory (Report No. C-3/ID/HARIDWAR/FAB./CAMP/VT-DPT-001)
 ii) Dye Penetrant Testing : Satisfactory (Report No. C-3/ID/HARIDWAR/FAB./CAMP/VT-DPT-001)
 iii) Macro-Examination : Satisfactory (Report No. METCL/DDN/050820/03 Dated 10.08.2020)
 iv) Hardness Survey : Satisfactory (Report No. METCL/DDN/050820/03 Dated 10.08.2020)
 v) Fillet Weld Fracture Test : Satisfactory (Report No. METCL/DDN/050820/03 Dated 10.08.2020)



16.0 Welding Parameters

Weld Pass No.	Electrode/Wire Dia. (mm)	Current (Amps)	Arc Voltage (Volts)	Wire Feed Speed (Inch/Min.)	Travel Speed (mm/Min.)	Electrical Stick Out (mm)	Shielding Gas Flow Rate (lit/min.)
1	3.2	520 - 530	28.5	78	250	25	NA
Hillways Construction Company (FABRICATION AGENCY)				IRClass Systems and Solutions Pvt. Ltd. (TPIA)		Irrigation Division-Haridwar (CLIENT)	



For Hillways Construction Co. (P) Ltd.

Director



EXECUTIVE ENGINEER
IRRIGATION DIVISION
HARIDWAR

Welder Performance Qualification Record

(IS : 7310)

Name and

: Hillways Construction Company Pvt. Ltd.,

Address of Fabricator

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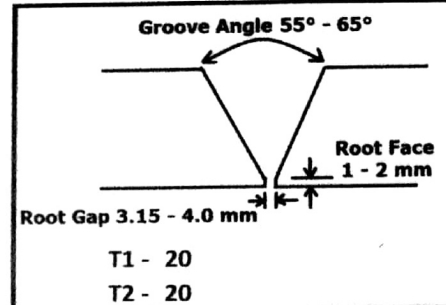


उत्तराखण्ड राज्य

Project

: CONSTRUCTION OF 72 MTR. SPAN STEEL TRUSS BRIDGE AT RANIPUR JHAL - HARIDWAR

- 1.0 Description of Weld : Single V Butt Joint
 2.0 Welding Procedure Specification No. : C-3/ID/HARIDWAR/FAB./CAMP/002
 3.0 Name of Welder : MANISH RAWAT
 4.0 Welder ID : HILLWAY/O-002
 5.0 Date of Preparation of Test Piece : 06-07-2020
 6.0 Dimensions of Test Piece : T1 - 20 x 150 x 350 # T2 - 20 x 150 x 350
 7.0 Range of Qualification : T1 - 15 - 30 mm # T2 - 15 - 30 mm
 8.0 Base Metal : IS 2062 E250 BR
 9.0 Welding Process : GMAW (ROOT/HOT) + SAW (FILLER/CAP)
 10.0 Welding Position : 1G
 11.0 Welding Current & Polarity : DC & Reverse Polarity (DCEP)
 12.0 Weld Joint Design Details : Refer Sketch (Single V Butt Joint)
 13.0 Welding Consumables
 13.1 Electrode / Wire : AWS SFA 5.17 EH14
 : Dia. - 3.20 mm
 : Brand - ADOR WELDING LTD.
 13.2 Flux : AWS SFA 5.17 F7A4-EH14
 : Type - Agglomerated
 : Brand - ADOR WELDING LTD.
 13.3 Shielding Gas : NA



14.0 Preheating & Interpass Temp. : In limits of WPS followed

15.0 Results / Observations of Qualification Tests

- i) Visual Examination : Satisfactory (Report No. C-3/ID/HARIDWAR/FAB./CAMP/VT-DPT-001)
 ii) Dye Penetrant Testing : Satisfactory (Report No. C-3/ID/HARIDWAR/FAB./CAMP/VT-DPT-001)
 iii) Bend Testing : Satisfactory (Report No. METCL/DDN/050820/05 Dated 10.08.2020)
 iv) Hardness Survey : Satisfactory (Report No. METCL/DDN/050820/05 Dated 10.08.2020)
 v) Ultrasonic Examination : Satisfactory (Report No. C-3/ID/HARIDWAR/FAB./CAMP/UT-001)

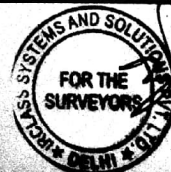
16.0 Welding Parameters

Weld Pass No.	Electrode/ Wire Dia. (mm)	Current (Amps)	Arc Voltage (Volts)	Wire Feed Speed (Inch/Min.)	Travel Speed (mm/Min.)	Electrical Stick Out (mm)	Shielding Gas Flow Rate (lit/min.)
ROOT (GMAW)	1.2	110-120	18.5	200	190	15	17
HOT (GMAW)	1.2	200-220	25	350	250	15	17
FILLER	3.2	350-425	29	50	310	25	NA
COVER	3.2	400-450	27.5	60	350	25	NA
Hillways Construction Company (FABRICATION AGENCY)				IRClass Systems and Solutions Pvt. Ltd. (TPIA)		Irrigation Division-Haridwar (CLIENT)	



For Hillways Construction Co. (P) Ltd.

Director



EXECUTIVE ENGINEER
IRRIGATION DIVISION
HARIDWAR

Welder Performance Qualification Record

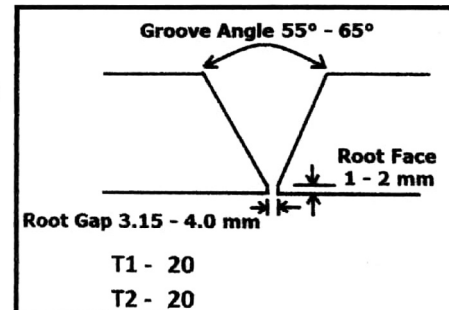
(IS : 7310)



Name and Address of Fabricator : Hillways Construction Company Pvt. Ltd.,
Rishikesh

Project : CONSTRUCTION OF 72 MTR. SPAN STEEL TRUSS BRIDGE AT RANIPUR JHAL - HARIDWAR

1.0 Description of Weld : Single V Butt Joint
2.0 Welding Procedure Specification No. : C-3/ID/HARIDWAR/FAB./CAMP/003
3.0 Name of Welder : PARMOD BARI
4.0 Welder ID : HILLWAY/W-003
5.0 Date of Preparation of Test Piece : 06-07-2020
6.0 Dimensions of Test Piece : T1 - 20 x 150 x 350 # T2 - 20 x 150 x 350
7.0 Range of Qualification : T1 - 15 - 30 mm # T2 - 15 - 30 mm
8.0 Base Metal : IS 2062 E250 BR
9.0 Welding Process : GMAW
10.0 Welding Position : 3G (Vertical-Up)
11.0 Welding Current & Polarity : DC & Reverse Polarity (DCEP)
12.0 Weld Joint Design Details : Refer Sketch (Single V Butt Joint)
13.0 Welding Consumables
13.1 Electrode / Wire : AWS SFA 5.18 ER70S6
: Dia. - 1.20 mm
: Brand - MIGLANI INDUSTRIES
13.2 Flux : NA
: NA
: NA
13.3 Shielding Gas : CO2



14.0 Preheating & Interpass Temp. : In limits of WPS followed
15.0 Results / Observations of Qualification Tests
i) Visual Examination : Satisfactory (Report No. C-3/ID/HARIDWAR/FAB./CAMP/VT-DPT-001)
ii) Dye Penetrant Testing : Satisfactory (Report No. C-3/ID/HARIDWAR/FAB./CAMP/VT-DPT-001)
iii) Macro-Examination : Satisfactory (Report No. METCL/DDN/050820/04 Dated 10.08.2020)
iv) Hardness Survey : Satisfactory (Report No. METCL/DDN/050820/04 Dated 10.08.2020)
v) Fillet Weld Fracture Test : Satisfactory (Report No. C-3/ID/HARIDWAR/FAB./CAMP/UT-001)

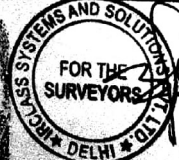
16.0 Welding Parameters

Weld Pass No.	Electrode/Wire Dia. (mm)	Current (Amps)	Arc Voltage (Volts)	Wire Feed Speed (Inch/Min.)	Travel Speed (mm/Min.)	Electrical Stick Out (mm)	Shielding Gas Flow Rate (lit/min.)
ROOT	1.2	112 - 136	18.5	150	110	15	17
HOT	1.2	120 - 140	20.5	200	128	15	17
FILLER	1.2	102 - 120	20.5	200	133	15	17
COVER	1.2	105 - 120	20.5	200	136	15	17
Hillways Construction Company (FABRICATION AGENCY)				IRClass Systems and Solutions Pvt. Ltd. (TPIA)		Irrigation Division-Haridwar (CLIENT)	



For Hillways Construction Co. (P) Ltd.

Director



EXECUTIVE ENGINEER
IRRIGATION DIVISION
HARIDWAR

Welder Performance Qualification Record

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Name and

: Hillways Construction Company Pvt. Ltd.,
Rishikesh

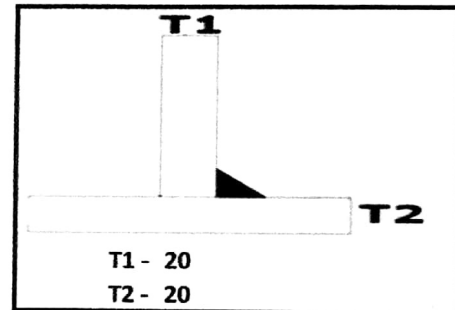
Address of Fabricator



Project

: CONSTRUCTION OF 72 MTR. SPAN STEEL TRUSS BRIDGE AT RANIPUR JHAL -
HARIDWAR

- 1.0 Description of Weld : Fillet Weld (08 mm)
2.0 Welding Procedure Specification No. : C-3/ID/HARIDWAR/FAB./CAMP/004
3.0 Name of Welder : RAJU PRASAD
4.0 Welder ID : HILLWAY/W-004
5.0 Date of Preparation of Test Piece : 06-07-2020
6.0 Dimensions of Test Piece : T1 - 20 x 150 x 350 # T2 - 20 x 150 x 350
7.0 Range of Qualification : T1 - 15 - 30 mm # T2 - 15 - 30 mm
8.0 Base Metal : IS 2062 E250 BR
9.0 Welding Process : GMAW
10.0 Welding Position : 2F
11.0 Welding Current & Polarity : DC & Reverse Polarity (DCEP)
12.0 Weld Joint Design Details : Refer Sketch (Fillet Joint)
13.0 Welding Consumables
13.1 Electrode / Wire : AWS SFA 5.18 ER70S6
: Dia. - 1.20 mm
: Brand - MIGLANI INDUSTRIES
13.2 Flux : NA
: NA
: NA
13.3 Shielding Gas : CO2



- 14.0 Preheating & Interpass Temp. : In limits of WPS followed
15.0 Results / Observations of Qualification Tests

- i) Visual Examination : Satisfactory (Report No. C-3/ID/HARIDWAR/FAB./CAMP/VT-DPT-001)
ii) Dye Penetrant Testing : Satisfactory (Report No. C-3/ID/HARIDWAR/FAB./CAMP/VT-DPT-001)
iii) Macro-Examination : Satisfactory (Report No. METCL/DDN/050820/02 Dated 10.08.2020)
iv) Hardness Survey : Satisfactory (Report No. METCL/DDN/050820/02 Dated 10.08.2020)
v) Fillet Weld Fracture Test : Satisfactory (Report No. METCL/DDN/050820/02 Dated 10.08.2020)

16.0 Welding Parameters

Weld Pass No.	Electrode/ Wire Dia. (mm)	Current (Amps)	Arc Voltage (Volts)	Wire Feed Speed (Inch/Min.)	Travel Speed (mm/Min.)	Electrical Stick Out (mm)	Shielding Gas Flow Rate (lit/min.)
1	1.2	230 - 240	28	350	275	14	16
Hillways Construction Company (FABRICATION AGENCY)				IRClass Systems and Solutions Pvt. Ltd. (TPIA)		Irrigation Division-Haridwar (CLIENT)	



For Hillways Construction Co. (P) Ltd.

Director



EXECUTIVE ENGINEER
IRRIGATION DIVISION
HARIDWAR



HILLWAYS CONSTRUCTION COMPANY PVT. LTD.

ULTRASONIC TESTING INSPECTION REPORT

Report No. : C-3/ID/HARIDWAR/FAB./CAMP/UT-001

CLIENT : Irrigation Division-Haridwar PROJECT NAME : CONSTRUCTION OF 72 MTR. SPAN STEEL TRUSS BRIDGE AT RANIPUR JHAL - HARIDWAR

Detail:

Job Description:- Butt joint Date Of Test:-
Material:- IS: 2062 E250 BR Calibration Block:- STANDARD BLOCK V2
Standard:- IS: 4260 Reference Block:- S.D.H DIA 2.4 MM & S.D.H DIA 3.2 MM
Surface Condition:- Smooth&Clean Calibration Range:- 100 MM
Equipment:- Digital Ultrasonic Flaw Detector Couplant Used:- Water
Gain:- 56dB + 6 dB Type:- A -SCAN
Technique:- Contact Method:- Pulse echo

Model:- EINSTEIN- II DGS/
Sr.No.E3314-0312

Search Unit:-

NORMAL:- ☐

Angle: 45° ☒

TR:- ☐

Angle: 60° ☒

Other Details:

N/A

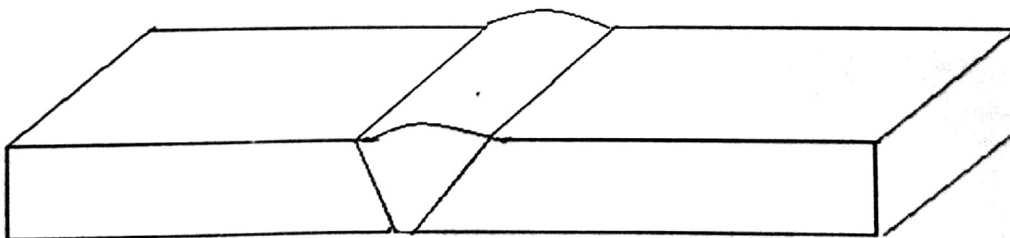
Size:-

8 X 9 MM

Frequency:-

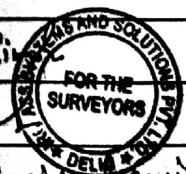
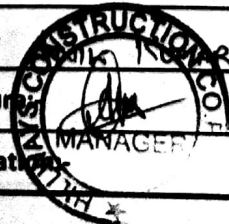
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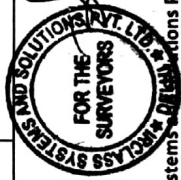
Sr.No.	Job Description	Thickness	QTY	Type of Discontinuity	Result
1	C-3/ID/HARIDWAR/FAB./CAMP/002	20 MM	1	No Significant Discontinuity	Satisfactory
2	C-3/ID/HARIDWAR/FAB./CAMP/003	20 MM	1	No Significant Discontinuity	Satisfactory



SKETCH OF TEST COUPON

EXAMINED BY:-	WITNESSED BY:-	WITNESSED BY:-
Name:- Rakesh Bilara	Name:-	Name:-
Signature:-	Signature:-	Signature:-
Level:- NDT level-2	Designation:-	Designation:-



HILLWAYS CONSTRUCTION COMPANY PVT. LTD.										
Weld Visual & Dye Penetrant Test Report										
CLIENT	IRRIGATION DIVISION-HARIDWAR	REPORT NO.	C-3/ID/HARIDWAR/FAB./CAMP/VT-DPT-001							
PROJECT NAME	CONSTRUCTION OF 72 MTR. SPAN STEEL TRUSS BRIDGE AT RANIPUR JHAL - HARIDWAR									
Penetrant system Penetrant: - Penetrant - PT-97 (Checkmate) Excess Penetrant Remover: Cleaner-CL-96 (Checkmate) Developer: Developer - DV-98 (Checkmate)										
Procedure Test temperature:.....20°C..... Drying time after precleaning: 10 min Drying time after excess penetrant removal: 5 min Visual aids used :-100 w Hand Lamp, Illuminator, Magnifying Glass & Lux Meter Illumination:-1150 lux..... Calibration Details:- All measuring & testing instruments/tools are calibrated.....										
Sr. No.	Sample Id	Joint Type	Material Thk. (mm)	Welding Process	Welding Position	Welder Name	Surface Condition/ Weld Visual	Post Cleaning	Evaluation	Test Result
1	C-3/ID/HARIDWAR/FAB./CAMP/001	T-Joint	20 mm	SAW	1F	JAGLAL PRASAD	Smooth/Satisfactory	Done	No Recordable Indication Found	Satisfactory
2	C-3/ID/HARIDWAR/FAB./CAMP/002	Single V Butt Joint	20 mm	SAW	1G	MANISH RAWAT	Smooth/Satisfactory	Done	No Recordable Indication Found	Satisfactory
3	C-3/ID/HARIDWAR/FAB./CAMP/003	Single V Butt Joint	20 mm	GMAW	3G	PARMOD BARI	Smooth/Satisfactory	Done	No Recordable Indication Found	Satisfactory
4	C-3/ID/HARIDWAR/FAB./CAMP/004	T-Joint	20 mm	GMAW	2F	RAJU PRASAD	Smooth/Satisfactory	Done	No Recordable Indication Found	Satisfactory
							 Inspector: <u>Inspector: Rakesh Bhatnagar</u> (CLIENT) DIVISION			
Hillways Construction Company (FABRICATION AGENCY)			IRClass Systems & Solutions Pvt. Ltd. (TPIA)				HARIDWAR			