

Works: CHHENDIPADA ROAD, SH-63, AT/PO-JINDAL NAGAR, DIST-ANGUL, ODISHA, 759111 INDIA Registered Office: POST BOX NO.6, OP JINDAL MARG, HISAR, HARYANA

W-iindalsteelpower.com

Corporate Office: JINDAL CENTER, 12 BHIKAJI CAMA PALACE, NEW DELHI- 110066 INDIA

PHONE: (06761) 264191-95, FAX:+916761 264341-51

# TEST CERTIFICATE TEST CERTIFICATE FOR CARBON STEEL CAST BILLETS

#### Test Certificate No. JSPL/ANGL/0000017332

To, M/s INDO INTERNATIONAL TRADING FZCO P.O BOX NO.18648, JEBELALI, DUBAI, PIN-000000.

Process of Manufacture: BF->BOF/NOF->LRF->CCM

It is certified that material described below confirms to the chemical composition, as tested in accordance with the Standard Testing and Inspection as per agreed norms of purchaser.

#### Ladle/Heat Chemistry

Material	Grade : SWR	Y11	Supply S	ize in n	nm : 165	mm X	165 mm	n														
Heat No.	Batch No.	Pcs.	Wt.Mt	%С	%Mn	%S	%P	%Si	%Al	%Cu	%Ni	%Cr	%Mo	%V	%Ti	%Nb	%Ca	%B	H2 (PPM)	N2 (PPM)	O2 (PPM)	CE
B00567	B00567C09B	123	242.123	0.072	0.42	0.005	0.014	0.015	0.004	0.004	0.006	0.014	0.0010	0.0010	0.0010	0.0010	0.0021	0.0003		53		0.1459
B00573	B00573C09B	127	249.997	0.056	0.43	0.003	0.014	0.019	0.003	0.004	0.007	0.011	0.0010	0.0010	0.0020	0.0010	0.0028			58		0.131
B00452	B00452C09B	101	198.817	0.068	0.44	0.005	0.012	0.023	0.007	0.004	0.009	0.009	0.0010	0.0020	0.0010	0.0010	0.0020	0.0004		55		0.1446
B00576	B00576C09B	99	194.879	0.070	0.44	0.008	0.009	0.021	0.008	0.003	0.006	0.010	0.0010	0.0010	0.0010	0.0010	0.0023	0.0004		56		0.1463
B00587	B00587C09B	48	94.487	0.063	0.41	0.007	0.013	0.022	0.007	0.004	0.006	0.010	0.0010	0.0010	0.0010	0.0010	0.0030	0.0003		56		0.1344
B00447	B00447C09B	117	230.312	0.070	0.43	0.004	0.014	0.026	0.007	0.006	0.009	0.012	0.0020	0.0010	0.0010	0.0010	0.0020	0.0003		55		0.1457
B00585	B00585C09B	91	179.132	0.062	0.40	0.006	0.010	0.025	0.013	0.003	0.006	0.010	0.0010	0.0010	0.0010	0.0010	0.0026	0.0003		53		0.1317

Purchase Order No: PROV/EXP/BLT/9013

Date : 06.12.2019

Despatch Advice No: 61929581 Truck/Wagon No: PT ISPAT RAKE-03 Prepared by: SONYSHARMA Preparation Date: 25.02.2020 21:19:28 Printing Date: 06.03.2020 & Time 15:04:06

> Authorized Signatory SMS ( Quality Control ) For JINDAL STEEL & POWER LTD.,

**Date: 25.02.2020**Page 1 of 8



Works: CHHENDIPADA ROAD, SH-63, AT/PO-JINDAL NAGAR, DIST-ANGUL, ODISHA, 759111 INDIA Registered Office: POST BOX NO.6, OP JINDAL MARG, HISAR, HARYANA

W-jindalsteelpower.com

Corporate Office: JINDAL CENTER, 12 BHIKAJI CAMA PALACE, NEW DELHI- 110066 INDIA

PHONE:(06761) 264191-95, FAX:+916761 264341-51

# TEST CERTIFICATE TEST CERTIFICATE FOR CARBON STEEL CAST BILLETS

Test Certificate No. JSPL/ANGL/0000017332

To, M/s INDO INTERNATIONAL TRADING FZCO P.O BOX NO.18648, JEBELALI, DUBAI, PIN-000000.

Process of Manufacture: BF->BOF/NOF->LRF->CCM

It is certified that material described below confirms to the chemical composition, as tested in accordance with the Standard Testing and Inspection as per agreed norms of purchaser.

Material	Grade : SWR	Y11	Supply S	ize in n	nm : 165	mm X	165 mr	n														
Heat No.	Batch No.	Pcs.	Wt.Mt	%C	%Mn	%S	%P	%Si	%Al	%Cu	%Ni	%Cr	%Mo	%V	%Ti	%Nb	%Ca	%B	H2 (PPM)	N2 (PPM)	O2 (PPM)	CE
B00590	B00590C09B	14	27.558	0.070	0.40	0.008	0.015	0.018	0.009	0.004	0.006	0.011	0.0010	0.0010	0.0020	0.0010	0.0021	0.0003		55		0.1399
B00582	B00582C09B	17	33.464	0.065	0.40	0.006	0.015	0.022	0.014	0.003	0.006	0.011	0.0010	0.0010	0.0010	0.0010	0.0023	0.0004		55		0.1349
B00444	B00444C09B	105	206.690	0.063	0.48	0.005	0.010	0.023	0.008	0.004	0.009	0.009	0.0010	0.0010	0.0010	0.0010	0.0013	0.0003		55		0.1461
B00565	B00565C09B	99	194.876	0.065	0.40	0.004	0.011	0.021	0.005	0.005	0.007	0.014	0.0010	0.0010	0.0010	0.0010	0.0027	0.0003		55		0.1357
B00449	B00449C09B	112	220.469	0.067	0.43	0.003	0.013	0.022	0.006	0.006	0.009	0.008	0.0010	0.0010	0.0010	0.0010	0.0020	0.0004		54		0.1417

Purchase Order No: PROV/EXP/BLT/9013

Date : 06.12.2019

Despatch Advice No: 61929581 Truck/Wagon No: PT ISPAT RAKE-03 Prepared by: SONYSHARMA Preparation Date: 25.02.2020 21:19:28 Printing Date: 06.03.2020 & Time 15:04:06

Authorized Signatory SMS (Quality Control)
For JINDAL STEEL & POWER LTD.,

**Date : 25.02.2020**Page 2 of 8



Works: CHHENDIPADA ROAD, SH-63, AT/PO-JINDAL NAGAR, DIST-ANGUL, ODISHA, 759111 INDIA Registered Office: POST BOX NO.6, OP JINDAL MARG, HISAR, HARYANA

W-iindalsteelpower.com

Corporate Office: JINDAL CENTER, 12 BHIKAJI CAMA PALACE, NEW DELHI- 110066 INDIA

PHONE: (06761) 264191-95, FAX:+916761 264341-51

# TEST CERTIFICATE TEST CERTIFICATE FOR CARBON STEEL CAST BILLETS

#### Test Certificate No. JSPL/ANGL/0000017332

To, M/s INDO INTERNATIONAL TRADING FZCO P.O BOX NO.18648, JEBELALI,,DUBAI, PIN-000000,

Process of Manufacture: BF->BOF/NOF->LRF->CCM

It is certified that material described below confirms to the chemical composition, as tested in accordance with the Standard Testing and Inspection as per agreed norms of purchaser.

Material	Grade : SWR	Y11	Supply S	ize in n	nm : 165	5 mm X	165 mr	n														
Heat No.	Batch No.	Pcs.	Wt.Mt	%C	%Mn	%S	%P	%Si	%Al	%Cu	%Ni	%Cr	%Mo	%V	%Ti	%Nb	%Ca	%B	H2 (PPM)	N2 (PPM)	O2 (PPM)	CE
B00471	B00471C09B	16	31.496	0.067	0.43	0.004	0.015	0.026	0.007	0.004	0.010	0.016	0.0010	0.0010	0.0010	0.0010	0.0025	0.0003		57		0.1432
B00592	B00592C09B	61	120.078	0.070	0.40	0.006	0.011	0.018	0.005	0.006	0.007	0.012	0.0010	0.0010	0.0020	0.0010	0.0024	0.0004		58		0.1403
B00441	B00441C09B	59	116.140	0.065	0.45	0.004	0.015	0.024	0.006	0.005	0.010	0.010	0.0010	0.0010	0.0010	0.0010	0.0020	0.0004		58		0.1434
B00467	B00467C09B	24	47.243	0.069	0.42	0.007	0.011	0.020	0.004	0.003	0.009	0.009	0.0010	0.0010	0.0010	0.0010	0.0019	0.0003		56		0.142
B00475	B00475C09B	3	5.906	0.066	0.41	0.002	0.012	0.020	0.004	0.003	0.009	0.009	0.0010	0.0010	0.0010	0.0010	0.0015	0.0003		55		0.1373
B00551	B00551C09B	4	7.874	0.068	0.44	0.005	0.012	0.024	0.010	0.004	0.007	0.016	0.0010	0.0010	0.0010	0.0010	0.0018	0.0005		54		0.1457
B00563	B00563C09B	3	5.906	0.070	0.42	0.005	0.012	0.020	0.010	0.003	0.006	0.011	0.0010	0.0010	0.0010	0.0010	0.0020	0.0002		56		0.1432
B00556	B00556C09B	51	100.393	0.070	0.41	0.004	0.013	0.022	0.005	0.004	0.006	0.012	0.0010	0.0010	0.0010	0.0010	0.0013	0.0002	·	57		0.1418

Purchase Order No: PROV/EXP/BLT/9013

Date : 06.12.2019

Despatch Advice No: 61929581 Truck/Wagon No: PT ISPAT RAKE-03 Prepared by: SONYSHARMA Preparation Date: 25.02.2020 21:19:28 Printing Date: 06.03.2020 & Time 15:04:06

Authorized Signatory SMS ( Quality Control ) For JINDAL STEEL & POWER LTD.,

**Date : 25.02.2020**Page 3 of 8



Works: CHHENDIPADA ROAD, SH-63, AT/PO-JINDAL NAGAR, DIST-ANGUL, ODISHA, 759111 INDIA Registered Office: POST BOX NO.6, OP JINDAL MARG, HISAR, HARYANA

W-jindalsteelpower.com

Corporate Office: JINDAL CENTER, 12 BHIKAJI CAMA PALACE, NEW DELHI- 110066 INDIA

PHONE:(06761) 264191-95, FAX:+916761 264341-51

# TEST CERTIFICATE TEST CERTIFICATE FOR CARBON STEEL CAST BILLETS

Test Certificate No. JSPL/ANGL/0000017332

To, M/s INDO INTERNATIONAL TRADING FZCO P.O BOX NO.18648, JEBELALI, DUBAI, PIN-000000.

Process of Manufacture: BF->BOF/NOF->LRF->CCM

It is certified that material described below confirms to the chemical composition, as tested in accordance with the Standard Testing and Inspection as per agreed norms of purchaser.

Material	Grade : SWR	Y11	Supply S	ize in n	nm : 165	5 mm X	165 mr	n														
Heat No.	Batch No.	Pcs.	Wt.Mt	%C	%Mn	%S	%P	%Si	%Al	%Cu	%Ni	%Cr	%Mo	%V	%Ti	%Nb	%Ca	%B	H2 (PPM)	N2 (PPM)	O2 (PPM)	CE
B00513	B00513C09B	17	33.464	0.064	0.41	0.004	0.015	0.023	0.008	0.004	0.008	0.009	0.0010	0.0010	0.0010	0.0010	0.0019	0.0004		52		0.1353
B00511	B00511C09B	21	41.338	0.060	0.45	0.003	0.013	0.022	0.004	0.003	0.008	0.009	0.0010	0.0010	0.0010	0.0010	0.0017	0.0004		54		0.1379
B00459	B00459C09B	11	21.654	0.064	0.45	6.000	0.012	0.022	0.018	0.003	0.008	0.010	0.0010	0.0010	0.0010	0.0010	0.0021	0.0003		59		0.1421
B00520	B00520C09B	38	74.802	0.070	0.40	0.004	0.011	0.024	0.008	0.004	0.008	0.009	0.0020	0.0010	0.0010	0.0010	0.0020	0.0003		54		0.1399
B00559	B00559C09B	33	64.960	0.070	0.40	0.004	0.011	0.024	0.008	0.003	0.006	0.008	0.0010	0.0010	0.0010	0.0010	0.0018	0.0002		56		0.1393
B00501	B00501C09B	24	47.243	0.061	0.40	0.004	0.013	0.026	0.006	0.004	0.009	0.009	0.0010	0.0010	0.0010	0.0010	0.0022	0.0004		49		0.1307
B00454	B00454C09B	20	39.370	0.070	0.41	0.005	0.014	0.026	0.012	0.003	0.009	0.011	0.0010	0.0010	0.0010	0.0010	0.0021	0.0002		55		0.1417
B00453	B00453C09B	20	39.370	0.065	0.42	0.007	0.011	0.020	0.011	0.005	0.009	0.008	0.0010	0.0010	0.0010	0.0010	0.0025	0.0003		53		0.1379

Purchase Order No: PROV/EXP/BLT/9013

Date : 06.12.2019

Despatch Advice No: 61929581 Truck/Wagon No: PT ISPAT RAKE-03 Prepared by: SONYSHARMA Preparation Date: 25.02.2020 21:19:28 Printing Date: 06.03.2020 & Time 15:04:06

Authorized Signatory SMS (Quality Control)
For JINDAL STEEL & POWER LTD.,

**Date : 25.02.2020**Page 4 of 8



Works: CHHENDIPADA ROAD, SH-63, AT/PO-JINDAL NAGAR, DIST-ANGUL, ODISHA, 759111 INDIA Registered Office: POST BOX NO.6, OP JINDAL MARG, HISAR, HARYANA

W-iindalsteelpower.com

Corporate Office: JINDAL CENTER, 12 BHIKAJI CAMA PALACE, NEW DELHI- 110066 INDIA

PHONE: (06761) 264191-95, FAX:+916761 264341-51

# TEST CERTIFICATE TEST CERTIFICATE FOR CARBON STEEL CAST BILLETS

#### Test Certificate No. JSPL/ANGL/0000017332

To, M/s INDO INTERNATIONAL TRADING FZCO P.O BOX NO.18648, JEBELALI, DUBAI, PIN-000000.

Process of Manufacture: BF->BOF/NOF->LRF->CCM

It is certified that material described below confirms to the chemical composition, as tested in accordance with the Standard Testing and Inspection as per agreed norms of purchaser.

Material	Grade : SWR	Y11	Supply S	ize in n	ım : 165	mm X	165 mr	n														
Heat No.	Batch No.	Pcs.	Wt.Mt	%C	%Mn	%S	%P	%Si	%Al	%Cu	%Ni	%Cr	%Mo	%V	%Ti	%Nb	%Ca	%B	H2 (PPM)	N2 (PPM)	O2 (PPM)	CE
B00516	B00516C09B	18	35.433	0.070	0.40	0.005	0.011	0.023	0.009	0.003	0.008	0.009	0.0010	0.0010	0.0010	0.0010	0.0021	0.0002		51		0.1396
B00518	B00518C09B	16	31.496	0.065	0.41	0.005	0.010	0.020	0.008	0.003	0.008	0.002	0.0070	0.0010	0.0010	0.0010	0.0016	0.0003		56		0.1361
B00499	B00499C09B	9	17.716	0.064	0.43	0.005	0.010	0.020	0.006	0.005	0.009	0.010	0.0010	0.0010	0.0010	0.0010	0.0029	0.0004		48		0.139
B00456	B00456C09B	17	33.464	0.066	0.46	0.006	0.012	0.019	0.011	0.004	0.009	0.010	0.0010	0.0010	0.0010	0.0010	0.0018	0.0003		55		0.1459
B00509	B00509C09B	17	33.464	0.070	0.46	0.004	0.013	0.023	0.006	0.004	0.009	0.009	0.0010	0.0010	0.0010	0.0010	0.0018	0.0004		56		0.1497
B00505	B00505C09B	14	27.558	0.061	0.40	0.004	0.013	0.023	0.008	0.005	0.009	0.008	0.0010	1.0000	1.0000	0.0010	0.0021	0.0003		52		0.3304
B00544	B00544C09B	14	27.549	0.050	0.41	0.002	0.010	0.024	0.004	0.003	0.006	0.011	0.0010	0.0010	0.0010	0.0010	0.0020	0.0004		56		0.1215
B00503	B00503C09B	11	21.654	0.070	0.44	0.006	0.010	0.017	0.003	0.003	0.009	0.009	0.0010	0.0010	0.0020	0.0010	0.0014	0.0003	·	49		0.1463

Purchase Order No: PROV/EXP/BLT/9013

: 06.12.2019

Despatch Advice No: 61929581 Truck/Wagon No: PT ISPAT RAKE-03

Prepared by : SONYSHARMA Preparation Date : 25.02.2020 21:19:28 Printing Date: 06.03.2020 & Time 15:04:06

Authorized Signatory SMS (Quality Control)
For JINDAL STEEL & POWER LTD.,

Date: 25.02.2020 Page 5 of 8



Works: CHHENDIPADA ROAD, SH-63, AT/PO-JINDAL NAGAR, DIST-ANGUL, ODISHA, 759111 INDIA Registered Office: POST BOX NO.6, OP JINDAL MARG, HISAR, HARYANA

W-jindalsteelpower.com

Corporate Office: JINDAL CENTER, 12 BHIKAJI CAMA PALACE, NEW DELHI- 110066 INDIA

PHONE: (06761) 264191-95, FAX:+916761 264341-51

# TEST CERTIFICATE TEST CERTIFICATE FOR CARBON STEEL CAST BILLETS

#### Test Certificate No. JSPL/ANGL/0000017332

To, M/s INDO INTERNATIONAL TRADING FZCO P.O BOX NO.18648, JEBELALI, DUBAI, PIN-000000.

Process of Manufacture: BF->BOF/NOF->LRF->CCM

It is certified that material described below confirms to the chemical composition, as tested in accordance with the Standard Testing and Inspection as per agreed norms of purchaser.

Material	Grade : SWR	Y11	Supply S	ize in m	ım : 165	5 mm X	165 mm	n														
Heat No.	Batch No.	Pcs.	Wt.Mt	%C	%Mn	%S	%P	%Si	%Al	%Cu	%Ni	%Cr	%Mo	%V	%Ti	%Nb	%Ca		H2 (PPM)	N2 (PPM)	O2 (PPM)	CE
B00522	B00522C09B	6	11.811	0.073	0.40	0.003	0.011	0.020	0.006	0.004	0.008	0.013	0.0010	0.0010	0.0010	0.0010	0.0018	0.0004		58		0.1435
	B00529C09B	4	7.874	0.070	0.40	0.003	0.014	0.020	0.005	0.004	0.007	0.010	0.0010	0.0010	0.0020	0.0010	0.0021	0.0003		58		0.1398
G'	Total	1584	3118.060					•									•	•	•		•	

CE\*=%C+%Mn/6+(%Cr+%Mo+%V)/5+(%Cu+%Ni)/15

Heat No.	Macro Etch Test(As Per E-381)
B00567	Satisfactory Better Than C2 R2 S2
B00573	Satisfactory Better Than C2 R2 S2
B00452	Satisfactory Better Than C2 R2 S2
B00576	Satisfactory Better Than C2 R2 S2
B00587	Satisfactory Better Than C2 R2 S2
B00447	Satisfactory Better Than C2 R2 S2
B00585	Satisfactory Better Than C2 R2 S2
B00590	Satisfactory Better Than C2 R2 S2
B00582	Satisfactory Better Than C2 R2 S2

Purchase Order No: PROV/EXP/BLT/9013

Date : 06.12.2019 Despatch Advice No : 61929581

Truck/Wagon No : PT ISPAT RAKE-03

Prepared by: SONYSHARMA Preparation Date: 25.02.2020 21:19:28 Printing Date: 06.03.2020 & Time 15:04:06

> Authorized Signatory SMS ( Quality Control ) For JINDAL STEEL & POWER LTD.,

**Date : 25.02.2020**Page 6 of 8



Works: CHHENDIPADA ROAD, SH-63, AT/PO-JINDAL NAGAR, DIST-ANGUL, ODISHA, 759111 INDIA Registered Office: POST BOX NO.6, OP JINDAL MARG, HISAR, HARYANA

W-jindalsteelpower.com

Corporate Office: JINDAL CENTER, 12 BHIKAJI CAMA PALACE, NEW DELHI- 110066 INDIA

PHONE:(06761) 264191-95, FAX:+916761 264341-51

# TEST CERTIFICATE TEST CERTIFICATE FOR CARBON STEEL CAST BILLETS

#### Test Certificate No. JSPL/ANGL/0000017332

To, M/s INDO INTERNATIONAL TRADING FZCO P.O BOX NO.18648, JEBELALI, DUBAI, PIN-000000.

Process of Manufacture: BF->BOF/NOF->LRF->CCM

It is certified that material described below confirms to the chemical composition, as tested in accordance with the Standard Testing and Inspection as per agreed norms of purchaser.

B00444	Satisfactory Better Than C2 R2 S2
B00565	Satisfactory Better Than C2 R2 S2
B00449	Satisfactory Better Than C2 R2 S2
B00471	Satisfactory Better Than C2 R2 S2
B00592	Satisfactory Better Than C2 R2 S2
B00441	Satisfactory Better Than C2 R2 S2
B00467	Satisfactory Better Than C2 R2 S2
B00475	Satisfactory Better Than C2 R2 S2
B00551	Satisfactory Better Than C2 R2 S2
B00563	Satisfactory Better Than C2 R2 S2
B00556	Satisfactory Better Than C2 R2 S2
B00513	Satisfactory Better Than C2 R2 S2
B00511	Satisfactory Better Than C2 R2 S2
B00459	Satisfactory Better Than C2 R2 S2
B00520	Satisfactory Better Than C2 R2 S2
B00559	Satisfactory Better Than C2 R2 S2
B00501	Satisfactory Better Than C2 R2 S2
B00454	Satisfactory Better Than C2 R2 S2
B00453	Satisfactory Better Than C2 R2 S2

Purchase Order No: PROV/EXP/BLT/9013

Date : 06.12.2019

Despatch Advice No: 61929581 Truck/Wagon No: PT ISPAT RAKE-03 Prepared by: SONYSHARMA Preparation Date: 25.02.2020 21:19:28 Printing Date: 06.03.2020 & Time 15:04:06

Authorized Signatory SMS (Quality Control)
For JINDAL STEEL & POWER LTD.,

**Date : 25.02.2020**Page 7 of 8



Works: CHHENDIPADA ROAD, SH-63, AT/PO-JINDAL NAGAR, DIST-ANGUL, ODISHA, 759111 INDIA Registered Office: POST BOX NO.6, OP JINDAL MARG, HISAR, HARYANA

W-jindalsteelpower.com

Corporate Office: JINDAL CENTER, 12 BHIKAJI CAMA PALACE, NEW DELHI- 110066 INDIA

PHONE:(06761) 264191-95, FAX:+916761 264341-51

# TEST CERTIFICATE TEST CERTIFICATE FOR CARBON STEEL CAST BILLETS

Test Certificate No. JSPL/ANGL/0000017332

To, M/s INDO INTERNATIONAL TRADING FZCO P.O BOX NO.18648, JEBELALI, DUBAI, PIN-000000.

Process of Manufacture: BF->BOF/NOF->LRF->CCM

It is certified that material described below confirms to the chemical composition, as tested in accordance with the Standard Testing and Inspection as per agreed norms of purchaser.

B00516	Satisfactory Better Than C2 R2 S2
B00518	Satisfactory Better Than C2 R2 S2
B00499	Satisfactory Better Than C2 R2 S2
B00456	Satisfactory Better Than C2 R2 S2
B00509	Satisfactory Better Than C2 R2 S2
B00505	Satisfactory Better Than C2 R2 S2
B00544	Satisfactory Better Than C2 R2 S2
B00503	Satisfactory Better Than C2 R2 S2
B00522	Satisfactory Better Than C2 R2 S2
B00529	Satisfactory Better Than C2 R2 S2

Remarks: Test Certificate as per EN 10204, 2004 Type 3.1

Purchase Order No: PROV/EXP/BLT/9013

Date : 06.12.2019

Despatch Advice No: 61929581 Truck/Wagon No: PT ISPAT RAKE-03 Prepared by: SONYSHARMA Preparation Date: 25.02.2020 21:19:28 Printing Date: 06.03.2020 & Time 15:04:06

Authorized Signatory
SMS (Quality Control)
For JINDAL STEEL & POWER LTD.,

**Date : 25.02.2020**Page 8 of 8