



**JINDAL STEEL & POWER LIMITED**  
 Post Box No. 16, Kharsia Road, Raigarh (Chhattisgarh)-PIN 496001 INDIA  
 Registered Office : Post Box No. 6, O.P. Jindal Marg, Hisar (Haryana)  
 Corporate Office : Jindal Centre, 12 Bhikaji Cama Place, New Delhi- 110066 INDIA  
 Phone: (07762) 227001-227010; Fax : 07762-227021-227022; Gram : PIG IRON  
 Email : gcrubm@jsspl.com

**MILL TEST CERTIFICATE**

Test Certificate No. : 0000179324  
 Customer:

Date : 30.06.2014 Time : 00:17:40  
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**TEST RESULTS**

Test Method : Tensile ASTM A 370 ; Impact & Hardness : ASTM A 370 ; Chemical : ASTM E 415

Process of Manufacture : EAF-LRF-CCM-Hot Rolling PRIME QUALITY WIDE FLANGE BEAMS AS PER ASTM A6

Supply Condition : As Rolled  
 Deoxidation : Killed

Heat No.	Pcs/ Bndl	Weight in MT	Chemical Analysis																	Mechanical Properties				
			L	%C	%S	%P	%Si	%Mn	%AL	%Cu	%V	%Nb	%Ti	%Mo	%Ni	%B	%Cr	N2	CE	YS	UTS	%EL**	Bend Test	
			P																		MPa	MPa		Mand Dia (2T)
			Min																					
Max																								

2401350			P	0.16	0.004	0.012	0.20	1.30		0.005	0.032								412	554	28	Satisfactory(2.0T)	
2401351	76	93.594	L	0.18	0.011	0.013	0.21	1.27	0.035	0.007	0.032	0.007	0.005	0.008	0.011		0.008	74	0.40	411	549	27	Satisfactory(2.0T)
2401351			P	0.18	0.011	0.013	0.21	1.27			0.031									408	545	27	Satisfactory(2.0T)
3401339	4	4.929	L	0.19	0.009	0.018	0.19	1.33	0.030	0.006	0.030	0.007	0.006	0.009	0.008		0.011	67	0.42	414	544	27	Satisfactory(2.0T)
3401339			P	0.18	0.008	0.016	0.18	1.30		0.006										417	547	27	Satisfactory(2.0T)

Section Total : 134 165.032

Section & Grade W 21 X 8.25 X 73# & ASTM A992

2401349	29	38.544	L	0.17	0.009	0.016	0.19	1.30	0.032	0.006	0.034	0.007	0.005	0.008	0.014		0.012	68	0.39	417	530	26	Satisfactory(2.0T)
2401349			P	0.16	0.008	0.015	0.18	1.30		0.005	0.035	0.005	0.002	0.002	0.002		0.012			418	531	26	Satisfactory(2.0T)
3401337	62	82.410	L	0.17	0.010	0.022	0.19	1.32	0.032	0.005	0.039	0.003	0.002	0.002	0.007		0.011	70	0.40	420	545	26	Satisfactory(2.0T)
3401337			P	0.16	0.009	0.020	0.20	1.30		0.005	0.038									422	547	26	Satisfactory(2.0T)

Section Total : 91 120.954

Section & Grade W 21 X 8.25 X 83# & ASTM A992

2401347	24	35.998	L	0.18	0.010	0.013	0.23	1.30	0.030	0.007	0.034	0.007	0.006	0.009	0.009		0.010	65	0.40	397	538	28	Satisfactory(2.0T)
2401347			P	0.17	0.009	0.012	0.20	1.30		0.005	0.033									396	527	28	Satisfactory(2.0T)
2401352	12	17.999	L	0.17	0.011	0.018	0.26	1.31	0.040	0.005	0.035	0.003	0.002	0.002	0.007		0.009	76	0.40	409	539	25	Satisfactory(2.0T)
2401352			P	0.16	0.010	0.017	0.20	1.30		0.005	0.034									408	541	25	Satisfactory(2.0T)
2401356	9	13.503	L	0.18	0.008	0.018	0.20	1.31	0.028	0.007	0.037	0.008	0.004	0.008	0.009		0.008	78	0.41	387	501	26	Satisfactory(2.0T)

Certified that the material(s) mentioned above against the respective heat numbers(s) has / have satisfied the requirements of chemical composition and mechanical properties of grade  
 \*\* Gauge Length = 50/200 mm

Despatch Advice No : 92400066  
 Truck/Wagon No.: REFERENCE  
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*SK Ojha*  
 SK OJHA

*Rakesh Yadav*

FORMAT No. F-13(8.2.4-05)

(SK Ojha)  
 Authorised signatory (Mechanical Testing Lab)

(Rakesh Yadav)  
 Authorised signatory (Chemical Lab)