

SLR Metaliks Limited
Sy.No.632, Narayanadevarakere, H.B.Halli, Tq. Bellary District, 583 222



TEST CERTIFICATE

CUSTOMER NAME				PROCESS ROUTE				SUPPLY CONDITION				TC NO.		DATE																											
M/S SSB ENGINEERS PVT.LTD.LTD				MBF-EOP-LRF-VP-COMENS-AMLC-RMS				As Rolled				24081034		24.08.2024																											
CUSTOMER SPECIFICATION				HEAT NO.		GRADE		SIZE (mm)		REDUCTION RATIO		LENGTH (mm)		COLOUR CODE		INVOICE NO.		QTY (MT)/ BUNDLE		VEHICLE NO.																					
DANA Specifications QF1001, Rev No.02, Dtd: 12.05.2020				49983		20MnCr5		50 DIA		20.37:1		5770+40MM		Yellow + Brown		58247-06564		31.290 / 15		M0102919																					
I. CHEMICAL COMPOSITION																																									
%	C	Si	Mn	P	S	Cr	Mo	Ni	Al	Cu	Ca	N2 (ppm)	H2 (ppm)	O2 (ppm)	B (ppm)	AlN2R (ppm)																									
Min	0.150	0.150	1.000	-	0.015	1.000	-	-	0.020	-	-	60.0	-	-	-	2.1	-																								
Max	0.200	0.400	1.300	0.020	0.030	1.300	0.100	0.300	0.050	0.300	0.0010	120.0	2.50	20.0	0.0005	-	-																								
Actual	0.174	0.220	1.230	0.012	0.025	1.233	0.009	0.023	0.027	0.020	0.0004	74.7	1.17	15.3	0.0004	3.6	-																								
II. PHYSICAL PROPERTIES																																									
Tensile Properties (Quenched & Tempered) (IS 1608)										Impact Test (Charpy) (Quenched & Tempered)		Hardness																													
YS (MPa)										UTS (MPa)		% EL		% RA		null V-Notch (2mm)		As Rolled (BHN)																							
Min 930										1230		7		-		-		25		Min 41.0		J1.5 J5 J10 J15 J20 J25 J30 - - - - -																			
Max -										1570		-		-		-		Max 240		46.0		44.0 44.0 38.5 35.5 33.5 32.0 31.0 - - - - -																			
Actual 1030										1265		13.8		-		37.2		Actual 164-168		44.0		41.6 36.6 33.5 29.8 26.7 25.5 - - - - -																			
IV. METALLOGRAPHY																																									
Inclusion Rating (ASTM E45 Method A)										Inclusion Rating (As per DIN 50602)		Grain Size		Total Decarb (mm)		Macrostructure		Step Down		Upset		100% Bars Checked by Manual UT - Found OK																			
A										B		C		D		DS		S		O		S+O		(ASTM E112)		ASTM E-1077		(ASTM E-381)		(IS 4075)		100% Bars Checked by MPI - Found OK & Material is free from surface defects									
T										H		T		H		T		H		T		H		T		H		T		H		100% Bars checked for Mix-Up by PM & Spark - Found OK									
Spec 2.0										1.5		2.0		1.0		0.5		0.5		1.0		1.0		-		-		-		-		Material is free from Radioactive contamination									
Actual 1.5										0.5		0.5		0.0		0.0		0.0		1.0		0.0		-		-		-		-		7.5 0.20 Better Than CR252 OK - - - - -									
VI. REMARKS:																																									
1. Dimension tolerance: as per IS 3739 Grade - 1																																									
2. Microstructure: Ferrite + Pearlite.																																									
3. Bending OK As per UNI 8449																																									
4. The material is comply with ROHS (Pb, Cd, Hg, Cr+6) permissible limits.																																									
5. Material is conforming to the customer specification.																																									
6. Inspection Certificate as per EN10204:2004, Type 3.1																																									
Prepared By: Anil Kumar B V																																									
Reviewed & Issued By: Mruthyunjaya																																									
Authorized Signatory: Ravi Kumar B V																																									