

## KALYANI STEELS LTD - HOSPET DIVISION

Hospet Road, Ginigera - 583228 Taluka & Dist : Koppal, Karnataka. Telphone: 08539 - 286603-08 (6lines) Telefax: 08539 -286611

TEST CERTIFICATE



		ZF 7B Issue 2021-07	SPECIFICATION NO	CUSTOMER		CUSTOMER : SANJEEV AUTO PARTS MANUFACTURERS	
		K195389		HEAT NO		MANUFACTURERS	
· CONTRACTOR OF THE PARTY OF TH		ZF7B		GRADE		Invoice No: 9700005720	
		₽ŀ		SECTION	300	005720	
	₩)	HALF(RED+YELLO	-	COLOR CODE	EOF-LRF-VD-C	PR(	
		AS ROLLED 4 TO 6 METERS AS PER IS	CONDITION (IN Mtrs.) (IN mm)	SUPPLY	EOF-LRF-VD-CCM(EMS + AMLC)-R MILL TRUCK NO: HR55AG9699	PROCESS ROUTE	
		4 TO 6 METERS	(IN Mtrs.)	LENGHT	C)-R MILL		
	3739	AS PER IS	(IN mm)	LENGHT OVALITY	TRUCK NO:	TC NO. K195389 DATE.13.09.2024	
		155	PIECES (MTS)	NO.OF QUANTITY	HR55AG969	389 DATE.13	
	_	_		_	9	~	1

	AC	REC		
	ACT 0.1700	2 0.140/0.1	%C	
	0.2750	90 0.300Max	%Si	
	1.2090	1.200/1.50	%Mn	
	0.0120	0.025Max	%P	
	0.0240	0.010/0.025	%S	
	0.1820	REQ 0.140/0.190 0.300Max 1.200/1.500 0.025Max 0.010/0.025 0.300Max 0.080Max 1.100/1.400 0.300Max 0.020/0.050 0.030Max	%Ni	
	0.0590	0.080Max	%Mo	
	1.2160	1.100/1.400	%Cr	
MECI	0.1030	0.300Max	%Cu	CHE
MECHANICAI PROPE	0.0330	0.020/0.050	IV%	CHEMICAL COMPOSI
Hanad	0.0010	0.030Max	%Sn	OMPOSI'
RTIES	0.0036		%V	TION
	116.000 9.000	90,0Min	N <sub>2</sub> ppm O <sub>2</sub> ppm H <sub>2</sub> ppm	
	9.000	90,0Min 25.0Max	O <sub>2</sub> ppm	
•			H <sub>2</sub> ppm	
	0.0020	0.005Max	%Ti	
	7.0000	30.000Max	%Ti CaPPM Bppm	
	14.0000	0.005Max 30.000Max 10.000/30.0	Bppm	
	0.0005		%As	
	0.0020	0.005Max	%Sb	
	0.0001		%Pb	

MECHANICAL PROPERTIES

ACT	REQ			
			YS	
a - 2 - 1			UTS	TENSILE
			%EL	TENSILE VALUES
			%RA	
		(IZOD/CHARPY)	STRENGTH	IMPACT
			(BHN)	HARDNESS
43.6	39/44		J5mm	
39.4	35/40		J5mm J10mm J25mm	
31.0	27/32		J25mm	
27.7	24Min		J50mm	
				ANIMOF
				JOMINY VALUES (HRC
				S (HRC)
			VALUE	D.I.

METALLURGICAL PROPERTIES

	SP	STEP DOWN TEST	RE	T	Н	Method 'A' Plate I(Worst Fields)  B C H T H T H T H T H T H T H T H T H T H	N RATIN d'A' Plate	LUSION RATING (ASTM - E - Method 'A' Plate I (Worst Fields)  B C T H T H T H O S O S	(-E-45) ields)	T D		(1)	SURFACE DEFECT LEVEL (mm)	SURFACE CORE UPSET DEFECT HARDNESS TEST LEVEL (mm) (OILQUENCH RESULTS (HRC)	UPSET TEST RESULTS	TOTAL DEPTH OF DECARBURIZATION IN mm
REQ	Q OK	NA	C2R2S2Max			2.0	1.0	0.5	0.5	1.0	1.0	5 and finer	OK	NA	NA	
ACT	Г ОК	NA	<c2 r2="" s2<="" td=""><td></td><td></td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.0</td><td>0.5</td><td>7.0</td><td>ОК</td><td>AN</td><td>NA</td><td></td></c2>			0.0	0.0	0.0	0.0	1.0	0.5	7.0	ОК	AN	NA	
RE	MARKS: 1.BLOO	M SIZE:200X	REMARKS: 1.BLOOM SIZE:200X200MM2.REDUCTION RATIO:1:12.05.	RATIO:1:12	.05.					INCLUSIO	)N RATINO	3 AS PER ISO 496	S.INCLUSION RATING AS PER ISO 4967, REQ DS: 2MX, ACT:0.5.	VCT:0.5.		

SOUND MALE POCTION KALLOTTIES

2.MPI TEST:100% DONE & FOUND OK.

3.GRAIN SIZE:PREPARATION ACCORDING TO ZF15-53:TESTING ACCORDING TO ZFN-5016. "MATERIAL IS FREE FROM RADIOACTIVE ELEMENTS".

100% 5& FINER FINER 4.ACT %NB: 0.0022.

5.JOMINY TEST: PERFORMED ACCORDING TO ZF 15-53: TESTING AS PER ISO 642 8

9. THE HEAT IS REALEASED BY ZF

6.ULTRASONIC TEST:100% CHECKED, OK AS PER ASTM A388 4MM FBH

8,"TEST CERTIFICATE: ACCORDINNG TO DIN EN 10204\_3.1"



PREPARED BY

QF.NO.HS / QA/ 10.01 DG.Rev.01 Dtd: 23.02.2015

K.POMESH(Sr.GM-QAD)