Ga) GE	NUHU			PLA				ANTPUR. A.F	5: 515411	·	FIOA	viio o	5002	And the
-		<u> </u>	- St.			CERTIF	ICATE		Transaction and the	007	F/QA-TO			9000
TC No : 2017			The second second second second	No.: ST2	20170037	5/		Quantity S.O. No. /	The state of the s	687 t	Rolling In	Jul. Houx	IOU HIHI	
Customer :0					(CRAC LAB	AL CINN DIV		Size: 36 [301	Truck No	AP04T	M-2345	
PROCESS R	OUIE:- E	3F>>BOF	>>LKF>>	VD>>CCIV	(EIVISTAN	/ILC)>>KIVI		3126 . 30 1	.JIa		100 All (100	ah Bakin Akini	HALF GR	REE
Heat No:- 32					- med depart			Product :	Rolled Ba	r	Colour C	ode:		HITE
NO OF BARS: 3			Grade :-	- 16MNCF	R5H								A BORNING	
TAS No. : 27	47/2017		TDC No :- 25.08.200	VEPL_Steel	_16MnCr5H_	_Rev00 dated		Condition:	As Rolled		Reductio	n Ratio:	25.	15
CHEMICAL	COMPOS	SITION										Avade to	1	1
Element	%C	%Mn	%Si.	%P	%S	%Cr	%Ni	%Cu	%Mo	%A! :	%Pb	%V	%Ti	+
Min.	0.15	1.00			1-1	0.80	-			0.020			35 6 5 To 2 6 1	-
Max.	0.19	1.30	0.25	0.035	0.035.	1.10	0.20	0.25	0.15	0.040	-	1.10		
Actual	0.17	1.04	0.22	0.012	0.012	0.86	0.02	0.02	0.01	0.020			1 4 6 6 6 6 6	-
OTHER ELEMENTS											La.	0.000	GAS LE	-
Element	%B	%Nb	%As	%Sb	%Sn.	%W	%Bi			Y	A	O ₂ PPM		N
Min.			-		-	-	-				Min	-	-	+
Max.		: -	0.03		0.025	-	-				Max	30	2.5	
Actual	-	- 1	0.00	-	0.00	-	-	<u> </u>			Actual	16	0.8	
MECHANIC.	AL PROP	ERTIES										<i>9</i>		
	Hardness	Impact	Strength	Yield	UTS					JOMIN	IY HARDE	VABILITY	(HRC)	_
	(BHN)	(IZOD/C	CHARPY	Strength	(N/mm ²)	%Elong.	%RA		J3 mm			en in particular	-	
Requirement	(3/11.7)			(N/mm²)	1000	0.0	00			<u> </u>	1 1000	\$40 U.S.	7 (7 (4)	
Min.	-	-	-	350	510	20	60	Min.	38		-	-		
Max	220	1000			6-25-2	- 128 T 28 W		Max.	42		A STATE OF THE STATE OF			2 2
Actual	166			394	589	33	66	Actual	41.6				1	1
	************	IDOIOAI	DDODE	DTIC	-	7 1		INCLUS	ONBATH	IC AS PI	ER ASTM E	45 (MET	HOD A)	
	METALLU	IRGICAL	PROFE	1	T			A		3	T (D
Require- ment	Depth of Decarb (mm) (SAE J419 TYPE	Macro Et (ASTM E		Max. Depth of Surface Defect (mm)	Grain Size (ASTM E 112)		Т.	Н	Т	Н	Т	Н	T	
Min,	_	-	_	-	6	Min	-	-	-	-		-	-	200
Max.	1 % dia	C2R2S2	-	-	8	Max	2.0	0.5	2.0	0.5	1.0	0.5	2.0	
Actual	0.21	C1R1S1		- 1	6.5-7.	Actual	1.0		1.0	-	- I		1.0	
	h											4.00	e North	
Spark & Spec	tral Test:		100% OI	K		Other Tes	sts:	-						
	ace Inspection:		100% OI	<		1. MFL:		100% OK			Oil Quenched Core Hardness:			
Ultrasonic Tes			100% OI			2. Step Tu	ırn:	OK	(···					
MPI:						3. Blue Fr	acture:	-			Min. in HE	RC	ing - in	100
						4. Upset 7	est:			1	Actual in	HRC	-	
	Microstructu	re : Pearlite	+ Ferrite											
Remarks			WA/ 176	Ib at the engine	nto of this ro	nort are corre	ot & accura	ate & meet the	•		A			
	· 6000mm			that the conte	ints of this re	port are corre	CL & accur	ne deneral				· 10		
Remarks ≟ength of Bar	:- 6000mm		requiremen steel requir	ts of the purch ements & the free from radio	material cert	lification requi	ery condition rements".	Supplied		Techn	jean Service	13:1	.2017	

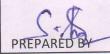


M/S. ANISH FORGE PVT. LTD.

Doc No: ML/JHT/01

		Jominy Hardn	ess Test R	eport				
CUSTON	18. E	M/S. VECVL LTD , DEWAS .						
Metallurgical Lab		Jominy Pin No. : 2			Rev No : 00 MnCr5 / Ø 36			
Material Grade & Section								
Heat No		32965			HEAT CODE AA2			
Distance (mm)	Side A Hardness (HRC)			Si	Side B Hardness (HRC)			
3		41			40			
6.35	,	32			31			
8		28	28			29		
10		27			27			
12		25			24			
14	25		23					
16	22		22					
18	21		21					

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APPROVED BY