



CUSTOMER	: DHAR AUTOMOTIVE (P) LTD. INDORE.	INVOICE NO	:	QA/RM/F10
SPECIFICATION	:	TRUCK NO	:	SAMPLE TC
REV No / REF NO	:	DATE	:	29/01/2018
HEAT NO	: N806166	NO OF PCS / BNDL	:	
GRADE	: EN353	QUANTITY (MT)	:	
SECTION(MM)	: 110 RCS	COLOUR CODE	:	RED+YELLOW
REDUCTION RATIO	: 11.2	SUPPLY CONDITION	:	AS ROLLED
INPUT SIZE (MM)	: 340 X 400	MULTIPLE LENGTH	:	5-6 MTR
PROCESS ROUTE	: BF/EOF/LRF/VD/CCM/SEN/M'EMS/AMLC			

## 1. CHEMICAL COMPOSITION % (Ladle/Product)

	%C	%Mn	%P	%S	%Si	%Cr	%Ni	%Mo	%Pb	%Cu	%Sn	%V	%Ti	%B	%Al	%Ca
CUST. MIN	--	0.500	--	--	--	0.750	1.000	0.080	--	--	--	--	--	--	0.020	--
SPEC. MAX	0.200	1.000	0.050	0.050	0.350	1.250	1.500	0.150	--	--	--	--	--	--	0.040	--
ACTUAL	0.180	0.930	0.014	0.025	0.190	1.160	1.050	0.125	--	0.009	0.005	0.006	0.0020	0.0004	0.026	0.0010

## 2. MECHANICAL PROPERTIES

## SPECIFIED

## ACTUAL

YS  
UTS  
ELONGATIONS(5.65S<sub>0.2</sub>rt.A) %  
REDUCTION AREA %  
IMPACT VALUE  
HARDNESS(BHN/HRB/HRC)

180/200 BHN

## 3. METALLURGICAL PROPERTIES

MICRO STRUCTURE  
GRAIN SIZE(ASM E112/IS:4748)  
TOTAL DECARB (MM) SAEJ419  
INCL RATINGS(ASM E-45/IS:4163)

P+F  
5/8  
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PEARLITE+FERRITE  
6.5/7.5

**SAMPLE TC**

## SPECIFIC REQUIREMENT

THIN : THICK : THIN : THICK : THIN : THICK : THIN : THICK :

A-2.0/- : B-2.0/- : C-2.0/- : D-2.0/-

## ACTUAL

1.5 : 0.0 : 0.5 : 0.0 : 0.0 : 0.0 : 1.5 : 0.0

MACRO ETCH TEST (ASTM E - 381)

C2R2S2 MAX.

BETTER THAN C2R2S2

4. D. I. VALUE (J406)

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JOMINY REQUIREMENT

6/16"=38/42

HARDENABILITY IS:3848/A255-02

DIST-INCH/MM:

6/16"

VALUES(HRC):

39.00

5. GAS LEVEL (PPM) SPECIFIED MAX

O2: 20.0

N2: 70-100

H2: 2.0

GAS LEVEL (PPM) ACHIEVED

O2: 15.9

N2: 75.0

H2: 1.6

6. REMARKS

100% SPARK/SPECTRAL/MOBILE SPECTRO TEST :OK  
STEP DOWN TEST :OK  
UPSET TEST :NA  
100% MPI & UT TEST OK

*Sham*  
AUTHORISED SIGNATORY