VE COMMERCIAL VEHICLES LIMITED.
(UNIT:EICHER ENGINEERING COMPONENTS;DEWAS)UNIT:–II

CONTROL PLAN

PREV. OPN.	NEXT. OPN.	SURFACE FINISH :	DOC. NO. :
090 - PRE HT INSPECTION	110 - CENTER LAPPING		APO4 : 160 : 20

LOCATION → | REST →→ | CLAMP —N→ | SPL.CHAR. (CRITICAL DIMN.) | Ⓑ EECD | ◇ CUSTOMER. | REVISION

CONTROL PLAN NO : *2402 / 100*

EFF DATE	16.09.2014	EFF DATE	03.01.15	EFF DATE	08.01.16
PROTOTYPE	✓	PRELAUNCH	✓	PRODN	✓
O.E.	✓	EXPORT			

PART NO.	***ED 2402 (574242/c)***
PART NAME	***SHAFT, DRIVE*** — OPN. NO. ***100***
CUSTOMER	***ROYAL ENFIELD***
OPERATION	**** HEAT - TREATMENT***

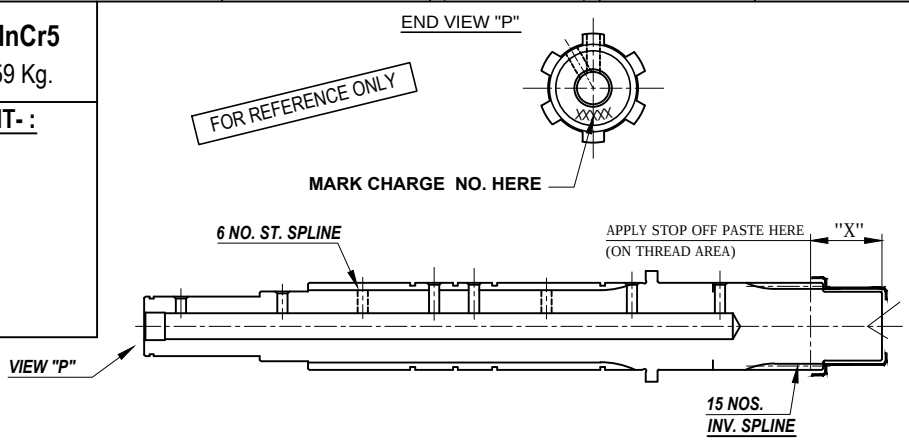
CELL [OPTIONAL]	M./C.	M / C NO. [OPTIONAL]
	S.Q.F.	

FIXTURE	FIX. NO.	TOOL	NO.

MATERIAL - : 16MnCr5
COMP. WT - : 0.59 Kg.

*** HEAT-TREATMENT- :**

MARKING ;
PRE-WASHING ;
PRE-HEATING ;
CARBURISING ;
HARDENING ;
POST-WASHING ;
TEMPERING ;
SHOT BLASTING ;



NOTE:
1. APPLY STOP OFF PASTE / ANTICARB PASTE IN THE AREA SHOWN " X " (19.5 ±1 mm)

SURFACE HARDNESS	CORE HARDNESS	EFFECTIVE CASE DEPTH	MICROSTRUCTURE		THREAD AREA HARDNESS
ALL AREA	***AT SPLINE RCD (SPLINE TOOTH CENTER)***	***AT SPLINE RCD (SPLINE TOOTH CENTER)***	***AT CASE***	***AT CORE***	***AT ROOT 0.2 mm DEPTH (THREAD ROOT DEPTH)***
80-83 HRA	***350-450 HV1***	***0.6-0.9 mm CUT OFF 513 HV1***	***FINE TEMPERED MARTENSITE + RA <10% AND FREE FROM CARBIDES GBO<20 micron***	***LOW CARBON MARTENSITE + BAINITE***	***300-450 HV1 (AFTER THREADING)***

NOTE:- 1) GROUND SURFACE :- HARDNESS AT 0.1MM SHALL BE 650 HV1 MIN.

SR. NO.	CHARACTERISTICS: PRODUCT	CHARACTERISTICS: PROCESS	SPL CHAR CLASS	PRODUCT SPECIFICATIONS	EVALUATION MEASUREMENT TECHNIQUE: INSTRUMENT	NO.	SAMPLING: SIZE	SAMPLING: FREQ	CONTROL METHOD	CORRECTIVE ACTION / REACTION PLAN
1.	***EFF. CASE DEPTH***		Ⓑ	***REFER ABOVE TABLE***	*MICRO-HARDNESS TESTER*	---	*1 PC*	*PER CHARGE*	*TESTING*	*CHECK FURNACE SETTING DATA & CONFIRM FOR CORRECTNESS*
2.	***SURFACE HARDNESS***				*HARDNESS TESTER*	---	*1 PC*	*PER CHARGE*		
3.	*CORE HARDNESS*					---	*1 PC*	*PER CHARGE*		
4.	*MICROSTRUCTURE*		Ⓑ		*MICROSCOPE*	---	*1 PC*	*PER CHARGE*		
5.	*HARDNESS ON THREAD AREA " X "*				*HARDNESS TESTER*	---	*1 PC*	*PER CHARGE*		
6.	*SHOT BLAST*			*FREE FROM RUST & SCALE*	*VISUAL*	---	*100%*			

A TEMPERING TEMPRATURE RELATED NOTE. REMOVED AS PER CUST'S LATEST PART DRG REV. (e). (MUKESH 21.12.15)

DRN BY	*MUKESH*	CHKD BY	*R.PATHAK*	APRD BY	*B.LEVA*	PAGE 01 / 02

UNSPECIFIED TOLERANCES AS PER IS : 2102 (PART-1) : 1993 MEDIUM CLASS. | *ALL DIMENSIONS ARE IN MILLIMETERS.* | *DO NOT SCALE, IF IN DOUBT, PLEASE ASK.* | *BREAK SHARP CORNERS.*