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

CONTROL PLAN

PREV. OPN.	NEXT. OPN.	SURFACE FINISH :	DOC. NO. :
70 - PRE HT INSPECTION	85 - DEBURR TEETH		AP04 : 160 : 20

CONTROL PLAN NO : 24103 / 080

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

REVISION: A B C

EFF DATE	06.09.17	EFF DATE		EFF DATE	
PROTOTYPE	✓	PRELAUNCH		PRODN	
O.E.	✓	EXPORT			

PART NO.	***ED 24103 (1570291)***		
PART NAME	***GEAR - BALANCER DRIVE***	OPN. NO.	***080***
CUSTOMER	***ROYAL ENFIELD***		
OPERATION	**** HEAT - TREATMENT***		

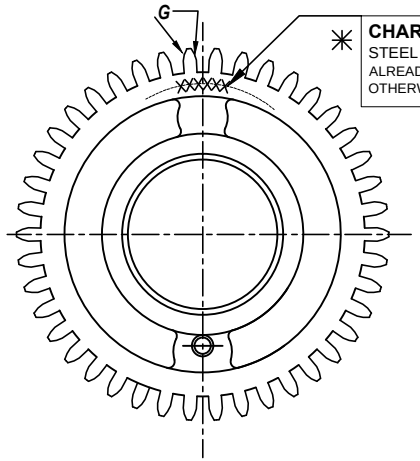
CELL [OPTIONAL]	M./C.	M / C NO. [OPTIONAL]
	S.Q.F.	

FIXTURE	FIX. NO.	TOOL	NO.
AVAILABLE AT H.T			

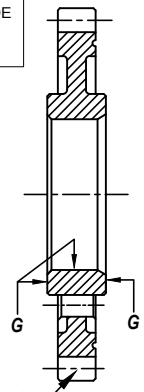
MATERIAL - : 16MnCr5
COMP. WT - : 0.26 Kg.

*** HEAT-TREATMENT- :**

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



✳ **CHARGE NO. MARKING HERE**
STEEL HEAT CODE & VENDOR CODE
ALREADY MARKED IN BLANK STAGE
OTHERWISE TO BE MARKED



NO OF TEETH :- 42
MODULE :- 2.0

GROUND SURFACE - BORE, BOTH OUTER FACES & GEAR TEETH, AS MENTIONED WITH 'G'.

SURFACE HARDNESS	CORE HARDNESS	EFFECTIVE CASE DEPTH *		MICROSTRUCTURE	
ALL AREA	AT RCD	UNGROUND AREA	AT PCD AFTER GEAR GRINDING	CASE	CORE
80 ~ 84 HRA	300 ~ 450 HV1	0.6 ~ 0.9 mm CUT OFF 513 HV1	0.5 ~ 0.8 mm CUT OFF 513 HV1	FINE TEMPERED MARTENSITE + RA <10% AND FREE FROM CARBIDES GBO<20 micron	LOW CARBON MARTENSITE + BAINITE

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

**** PLEASE NOTE, GEAR TEETH WOULD BE FURTHER GRIND.***

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*	---	*5 PC*	*PER CHARGE*		
3.	*CORE HARDNESS*					---	*1 PC*	*PER CHARGE*		
4.	*MICROSTRUCTURE*				*MICROSCOPE*	---	*1 PC*	*PER CHARGE*		
						---	*1 PC*	*PER CHARGE*		
5.	*SHOT BLAST*			*FREE FROM RUST & SCALE*	*VISUAL*	---	*100%*			

FOR REFERENCE ONLY

DRN BY	*VIJAY S GIRI*		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.*