

VE COMMERCIAL VEHICLES LIMITED. (UNIT : EICHER ENGINEERING COMPONENTS; DEWAS)					
CONTROL PLAN NO : 1017/130					
EFF. DATE	19.01.12	EFF. DATE	20.12.12	EFF. DATE	10.3.13
PROTO-TYPE	<input checked="" type="checkbox"/>	PRE-LAUNCH	<input checked="" type="checkbox"/>	PRODUCTION	<input checked="" type="checkbox"/>
O.E.	<input checked="" type="checkbox"/>	EXPORT			
PART NO. ED 1017 (LVU23548)					
PART NAME	GEAR, HIGH RANGE, HST			OPN. NO.	130
CUSTOMER	JOHN DEERE				
OPERATION	AFTER HEAT - TREATMENT INSPECTION				
CELL [OPTIONAL]	M/C.		M/C NO. [OPTIONAL]		
	INSP. DEPTT.				
FIXTURE	FIX. NO.	TOOL	NO.		

CONTROL PLAN		PREV. OPN.	NEXT. OPN.	SURFACE FINISH:	DOC. NO. :
		120 - HEAT TREATMENT	132 - TEETH CHAMFERING		AP04 : 160 : 20
KEY CONTACT PERSON :- ALM		CORE TEAM :- ALM, SK, SRS, SNP, IDS, MM, RK, RSC, NKS, VS, RJ			REVISION
LOCATION →	REST →→→	CLAMP — N →	SPL.CHAR. (CRITICAL DIMN.)	<input checked="" type="checkbox"/> EECD	<input checked="" type="checkbox"/> CUSTOMER.
MATERIAL :- 20 Mn Cr5					
COMP. WT. = 0.6 KG.					

SECTION - 'A-A'

IDENTIFICATION GROOVE

NOTE :-

1. IF CASE DEPTH FOUND LOWER OR HIGHER LIMIT OF SPECIFICATION TWO PART CHECK.
2. SAMPLE SHOULD BE CHECK BEST & WORST LOCATION FOR CASE DEPTH & MICROSTRUCTURE.
3. IN CASE RA IS MORE THAN 25% CHECK HARDNESS (WITH 100 GM LOAD VICKER HARDNESS) AT 0.1mm. IN SHOULD BE 58 HRC. Min.
4. SURFACE HARDNESS 80 HRA Min. ON FINISH MACHINED AREA MARKED AS "G"

FOR REFERENCE ONLY

NOTE :- सुनिश्चित करे कि पार्ट पर प्रोटेक्शन कैप लगा हो और बिना प्रोटेक्शन कैप लगे पार्ट को आगे ना बढ़ाएँ !

SR. NO.	CHARACTERISTIC		SPL CHAR CLASS	PRODUCT / PROCESS SPECIFICATIONS	MEASUREMENT TECHNIQUE		SAMPLING		RESP.	CONTROL METHOD	CORRECTIVE ACTION / REACTION PLAN	
	PRODUCT	PROCESS			INSTRUMENT	NO.	SIZE	FREQ.				
1.	SURFACE HARDNESS			58 - 64 HRC.	ROCK WELL HARDNESS TESTER	---	1 PC.	PER CHARGE	~ INSP.	SELF INSPECTION	SORT / REWORK ;	
2.	CUT PART FOR CASE DEPTH ON PCD			0.9 ~ 1.1 mm. (AT515Hv)	AUTOMATIC VICKER HARDNESS TESTER	---	1 PC.	PER CHARGE	~ INSP.	SELF INSPECTION		
3.	CUT PART FOR CASE DEPTH ON RCD			0.4 mm. Min (AT515Hv)	AUTOMATIC VICKER HARDNESS TESTER	---	1 PC.	PER CHARGE	~ INSP.	SELF INSPECTION		
4.	AFTER GRINDING BORE CASE DEPTH			0.6 Min.	AUTOMATIC VICKER HARDNESS TESTER	---	1 PC.	PER CHARGE	~ INSP.	SELF INSPECTION		
5.	CORE HARDNESS AT RCD			25 ~ 45 HRC.	ROCK WELL HARDNESS TESTER	---	1 PC.	PER CHARGE		SELF INSPECTION		
6.	MICROSTRUCTURE AT CASE			TM WITH 25% RA Max. (FREE FROM CARBIDES)	MICROSCOPE AT 500X	---	1 PC.	PER CHARGE	~ INSP.	SELF INSPECTION		
7.	MICROSTRUCTURE AT CORE			LCM + BANITE	MICROSCOPE AT 500X	---	1 PC.	PER CHARGE	~ INSP.	SELF INSPECTION		
8.	IGO & NMTP (Max. IN MICRON)			<_ 25 MICRON	MICROSCOPE 100X	---	1 PC.	PER CHARGE	~ INSP.	SELF INSPECTION		
9.	ITP (Max. IN MICRON)			0% AT SURFACE 5% Max. AT ECD/2 AT PCD 5% Max. AT ECD/4 AT RCD	MICROSCOPE 100X	---	1 PC.	PER CHARGE	~ INSP.	SELF INSPECTION		
DRN BY		M. PATEL		CHKD BY		R. PATHAK		APRD BY		B. LEVA		PAGE 01 / 01