

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

CONTROL PLAN

PREV. OPN. 100 - HEAT TREATMENT	NEXT. OPN. 120 - FINAL INSPECTION	SURFACE FINISH:	DOC. NO. : AP04 : 160 : 20 REV-01 (DATE : 05.10.17)
CORE TEAM :- ALM, SK, SRS, SNP, IDS, MM, RK, RSC, NKS, VS, RJ			REVISION
CLAMP — N →	SPL CHAR. (CRITICAL DIMN.)	◊ B EECD ◊	CUSTOMER.

CONTROL PLAN NO : 1029 / 110

KEY CONTACT PERSON :- ALM

EFF. DATE 21.01.12 EFF. DATE 20.12.12 EFF. DATE 10.03.13

LOCATION → REST →

PROTO-TYPE ☒ PRE-LAUNCH ☒ PRODUCTION ☒

MATERIAL - : 20 Mn Cr5
COMP. WT. = 0.323 KG.

O.E. ☒ EXPORT

PART NO. **ED 1029 (LVU23555)**

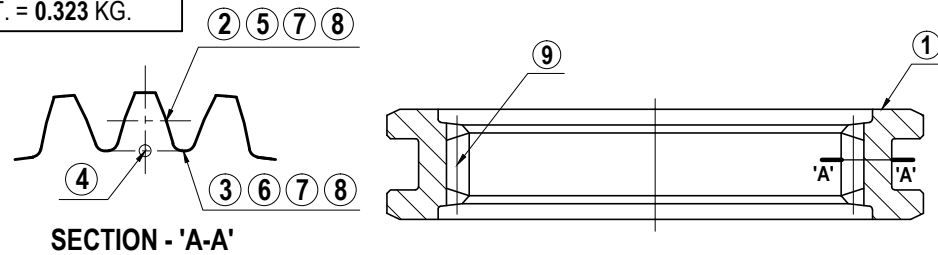
PART NAME **SHIFT COLLAR** OPN. NO. **110**

CUSTOMER **JOHN DEERE**

OPERATION **AFTER HEAT - TREATMENT INSPECTION**

CELL [OPTIONAL] M/C. INSP. DEPTT. M / C NO. [OPTIONAL]

FIXTURE	FIX. NO.	TOOL	NO.



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.

FOR REFERENCE ONLY

SR. NO.	CHARACTERISTIC		SPL CHAR CLASS	PRODUCT / PROCESS SPECIFICATIONS	EVALUATION 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.	CORE HARDNESS AT RCD			25 ~ 45 HRC.	ROCK WELL HARDNESS TESTER	---	1 PC.	PER CHARGE	~ INSP.	SELF INSPECTION	
5.	MICROSTRUCTURE AT CASE			TM WITH 25% RA Max. (FREE FROM CARBIDES)	MICROSCOPE AT 500X	---	1 PC.	PER CHARGE	~ INSP.	SELF INSPECTION	
6.	MICROSTRUCTURE AT CORE			LCM + BANITE	MICROSCOPE AT 500X	---	1 PC.	PER CHARGE	~ INSP.	SELF INSPECTION	
7.	IGO & NMTP (Max. IN MICRON)			< _ 25 MICRON	MICROSCOPE 100X	---	1 PC.	PER CHARGE	~ INSP.	SELF INSPECTION	
8.	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	
9.	SPLINE FITMENT			SLIDING FIT	SPLINE PLUG GAUGE	GO NO GO	SPG -119-1-1029 SPG-119 -2-1029	100 % CONT.	~ OPER.	SELF INSPECTION	

CONTROL PLAN UPDATED: AS PER DCR 1126 (DATE: 06.02.16) DGPAL
SPLINE FITMENT CHECKING ADDED AS PER QROC POINT. (02.07.13) AR

DRN BY M. PATEL CHKD BY R. PATHAK APRD BY B. LEVA

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