

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

## CONTROL PLAN

PREV. OPN. 120 - HEAT TREATMENT NEXT. OPN. 135 - TEETH CHAMFERING SURFACE FINISH: DOC. NO. : AP04 : 160 : 20  
REV-01 (DATE : 05.10.17)

CONTROL PLAN NO : 1007/130

KEY CONTACT PERSON :- ALM

CORE TEAM :- ALM, SK, SRS, SNP, IDS, MM, RK, RSC, NKS, VS, RJ

REVISION

EFF. DATE 11.11.10 EFF. DATE 26.4.11 EFF. DATE 06.05.11

LOCATION → REST →

CLAMP — N → SPL CHAR. (CRITICAL DIMN.) B EECDD CUSTOMER. A B C

PROTO-TYPE PRE-LAUNCH PRODUCTION

MATERIAL :- SAE 8620 HR  
COMP. WT. = 0.102 KG.

FOR REFERENCE ONLY

O.E. EXPORT

PART NO. ED 1007 (R 100858)

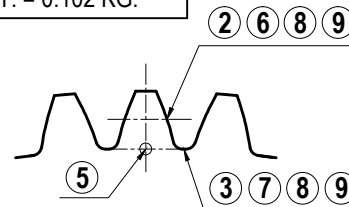
PART NAME GEAR, BALANCER LH OPN. NO. 130

CUSTOMER JOHN DEERE

OPERATION AFTER HEAT - TREATMENT INSPECTION

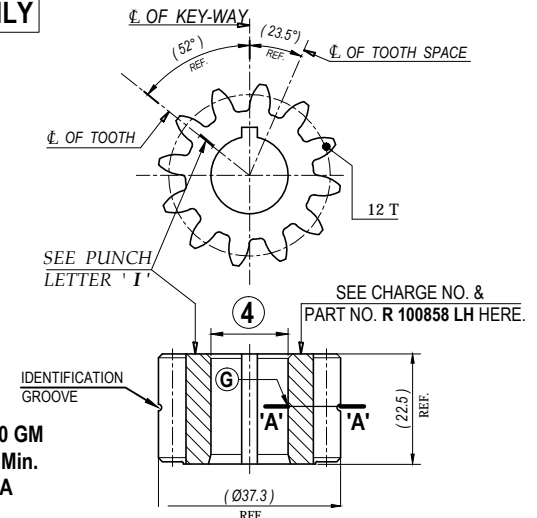
CELL [OPTIONAL] M/C. INSP. DEPTT. M/C NO. [OPTIONAL]

FIXTURE	FIX. NO.	TOOL	NO.



### NOTE :- SECTION - 'A-A'

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 79 HRA Min. ON FINISH MACHINED AREA MARKED AS "G"



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 - 62 HRC.	ROCK WELL HARDNESS TESTER	---	1 PC.	PER CHARGE	~ INSP.	SELF INSPECTION	SORT / REWORK ;
2.	CUT PART FOR CASE DEPTH ON PCD			0.59 ~ 0.79 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			0.35 Min.	AUTOMATIC VICKER HARDNESS TESTER	---	1 PC.	PER CHARGE	~ INSP.	SELF INSPECTION	
5.	CORE HARDNESS AT RCD			25 ~ 39 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

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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.