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No. EL/2.2.13

Date: 08.03.2021

Amendment-1

Special Maintenance Instruction No. RDSO/2013 /EL /SMI/0278 (Rev '0') dt. 24.12.2013

Sub.: Amendment in SMI 0278 Rev-0 dated 24.12.2013 for fitment of Traction motor Drive End Bearing NU2236 in 3 phase traction motors type 6FRA6068

Ref.: Special Maintenance Instruction No. RDSO/2013 /EL /SMI/0278 (Rev '0') dated 24.12.2013

1. Special Maintenance Instruction No. RDSO/2013 /EL /SMI/0278 (Rev '0') dated 24.12.2013 for fitment of Traction motor Drive End Bearing NU2236 in 3 phase traction motors type 6FRA6068 has been issued vide letter no. EL/2.2.13 dated 24.12.2013.
2. Following changes have been made in Special Maintenance Instruction No. RDSO/2013 /EL /SMI/0278 (Rev '0') dated 24.12.2013 :

a) **Clause No. 4.3.2 & 4.3.3:**

RDSO's Drawing No. SKEL-4991 of Ring Gauge of Pinion is superseded by Drawing No. SKEL-5043 Alt. '0'. Hence Drawing No. SKEL-4991 to be read as SKEL-5043 Alt. '0' in clauses nos. 4.3.2 & 4.3.3. Other content will remain unaltered.

b) **Clause No. 4.7:**

Measurement of Axial Play: Limits of axial play has been revised and existing table-A to be read as under:

Table A						
TM Serial no.	Rotor serial no.	No. of teeth of pinion	Pinion Insertion (a-b)	Measured value of Radial Play	Radial clearance (RC): measured value x 0.86	Axial Play (As per SMI 0323)
			12±0.1 mm	Range: 130 to 220 µ	Range: 110 to 190µ	Range: 200 to 400 µ

c) **New Clause : (May be read as 4.9)**

Tapper Plug Gauge for checking tapperness & correctness of TM Shaft for TM type 6FRA-6068 as per RDSO's drawing No. SKEL-5032 Alt. '0'.

Production Units/POH Workshops/Electric Loco Sheds are advised to get the Tapper Plug gauge as per RDSO drawing No. SKEL-5032 (Alt '0') and follow the following procedure for checking tapperness & correctness of TM Shaft type 6FRA6068:

Checking of Shaft Taperness:

- (i) Clean the hollow shaft area with cloth, paper and thinner and compressed air. Shaft must be free from any grease/rust.
- (ii) Place the Shaft in Horizontal position on a flat horizontal leveled surface. Slide Tapper Plug Gauge in Shaft as per RDSO's drawing No. SKEL 5032 Alt. '0'.
- (iii) Measure the distance between gauge face & shaft outer face. It should be 1 ± 0.3 mm.

Enclo:

- 1. Drawing No. SKEL-5043 Alt. '0'
- 2. Drawing No. SKEL-5032 Alt. '0'


08/03/2021

(Anurag Agarwal)
for Director General/Electrical

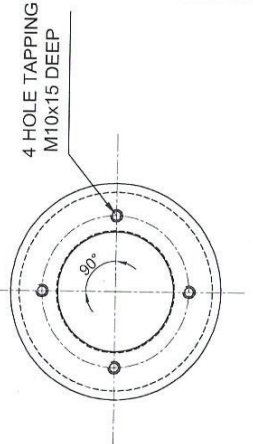
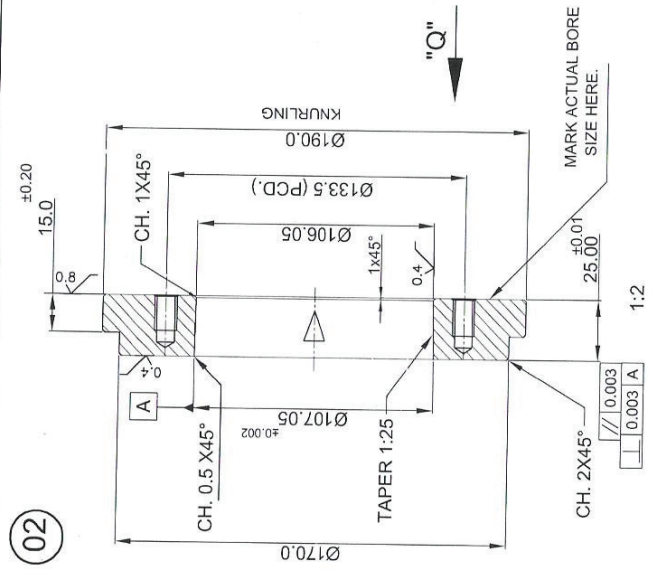
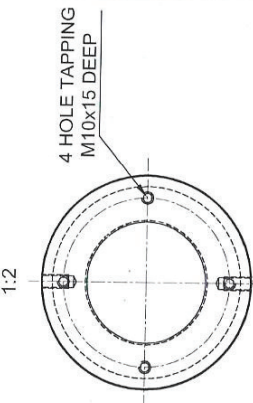
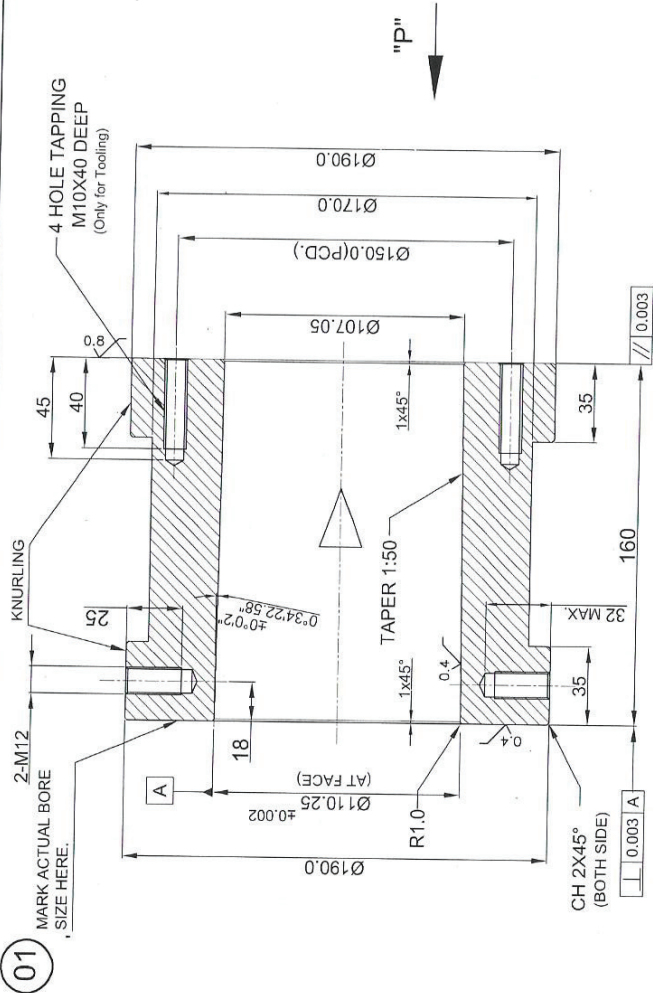
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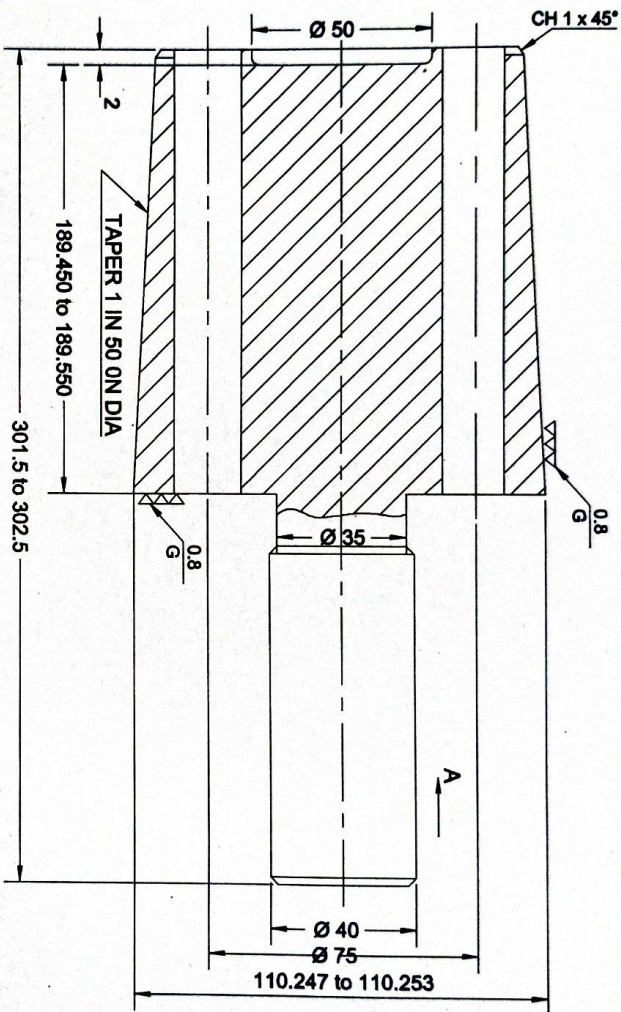
STATUS	REV/ALT	REF. NO.	DESCRIPTION	APPD. BY	DATE

RING GAUGE FOR PINION OF WAG9 / WAP 7 LOCOS				RDSO ELECT. DTE		SKEL- 5043 Alt. "0"	
FIRST ISSUED				SUPERSEDED		SUPERSEDED BY	
SKEL-4991(ALT.-1)							

REF. NO.	PART NO.	DESCRIPTION	DETAIL DRG. NO.	NO. OF PART	MATL. / SPEC	APPD. BY	(FOR DG)
02		RING GAUGE FOR TAPER 1:25		1	BS970 - EN-31		
01		RING GAUGE FOR TAPER 1:50		1	BS970 - EN-31		
REF : SMI No. RDSO/2013/EL/SMI/0278				SCALE - NTS			

- NOTE :-
1. THE DIMENSIONS AND TOLERANCE ARE WORKED OUT ON THE BASIS OF MEASUREMENTS TAKEN ON SOME OF THE ORIGINAL PINION SHAFTS USED IN T.M. OF WAG9 / WAP7 LOCOMOTIVES.
 2. RING GAUGE TO BE FINISHED BY COLOR MATCHING WITH THE EXISTING ONE OR MORE PINION SAMPLES MAY BE USED FOR THIS PURPOSE.
 3. RING GAUGE TO BE FINISHED WITH BEDDING OVER NOT LESS THEN 95-98% OF THE FITTING SURFACE OF THE SAMPLE PINION SHAFT FACE OF THE PINION SHAFT SHALL LIE WITHIN THE DIMENSIONS SPECIFIED.
 4. WHERE NO TOLERANCES ARE SPECIFIED FOLLOW DEVIATION MEDIUM IS 2102.
 5. CARBON TOOL STEEL HAVING CARBON PERCENTAGE FROM 0.90 TO 1.20 SHALL BE USED. THIS SHALL BE SUITABLY HARDENED (60-63RC) & TEMPERED.
 6. MACHINE ALL OVER IF NOT OTHERWISE SHOWN.
 7. ALL SHARP EDGES TO BE ROUNDED OFF.
 8. SUITABLE WOODEN CASE TO BE USED FOR KEEPING RING GAUGE TO AVOID ANY DAMAGE TO BORE TAPER.





NOTE :-

1. UN TOLERANCE DIMENSIONS AS PER IS : 2102 (M)
2. THE DIMENSIONS AND TOLERANCE ARE WORKED OUT ON THE BASIS OF MEASUREMENT TAKEN ON SOME OF THE ORIGINAL SHAFT USED IN TRACTION MOTOR OF WAGHAWAT LOCOMOTIVES.
3. PLUG GAUGE TO BE FINISHED BY COLOR MATCHING WITH THE EXISTING ONE OR MORE SAMPLES MAY BE USED FOR THIS PURPOSE.
4. PLUG GAUGE TO BE FINISHED WITH BEDDING OVER NOT LESS THAN 95-98% OF THE FITTING SURFACE OF THE SHAFT BORE. SHAFT SHALL LIE WITHIN THE DIMENSIONS SPECIFIED.
5. CARBON TOOL STEEL, HAVING CARBON % FROM 0.90 TO 1.20 SHALL BE USED. THIS SHALL BE SUITABLY HARDENED (80-83RC) TEMPERED.
6. ALL SHARP EDGES TO BE ROUNDED OFF.
7. SUITABLE WOODEN CASE TO BE USED FOR KEEPING PLUG GAUGE TO AVOID ANY DAMAGE TO TAPER.
8. KNURLING TO BE MADE ON LIFTING HANDLE OF 40MM DIA PORTION.

ALL DIMENSIONS ARE IN MM

REF.	PART NO.	DESCRIPTION	DETAIL DRG. NO./LOCO	MAT	SPEC.
REF :-					
			SCALE	APPD. BY :-	(FOR DG)

**TAPER PLUG GAUGE FOR
6 FRA - 6068 TRACTION MOTOR**

FIRST ISSUED

SUPERSEDES

SUPERSEDED BY

RDSO. ELECT. DTE.

SKEL - 5032
(ALT. '0')

Dt.	01.03.21
D	MAZEEM
C	
EL	3.2.182

STATUS	ALT.	REF.NO.	DESCRIPTION	APPD. BY	DATE