Government of India
Ministry of Railways
Research, Designs & Standards Organisation
Manak Nagar, Lucknow - 226 011

No. EL/2.2.2/J-6 Dated: 25.9.1987.

SPECIAL MAINTENANCE INSTRUCTION NO. RDSO/ELRS/SMI/132

Dismantling instructions of ball bearing (2058) from shaft (2056) of circuit breaker type DBTF 30i250 of M/s HBB.

1. OBJECT

Railways have reported a few cases of play between shaft (2055) and flange (2053) of circuit breaker type DBTF 30i250. Investigations have shown that this problem could be attributed to any one of the following reasons:

(i) Removal of flange from the shaft for changing the ball bearing which is incorrect procedure for replacing the bearing:

(ii) Improper damping.

(iii) Prolonged use in service.

2. INSTRUCTIONS

Following procedure is to be adopted to remove the ball bearing (2058) from the shaft (2056) when it becomes defective. Fixture may be made with the help of enclosed drawing No. SK EL 3919 and sheet 1 and 2.

- Remove bearing support assembly from the breaker after dismantling rod insulator (1145) lever complete (2119) and lever (2112). See Fig.1.
- Hold the bearing support assembly in the fixture as shown in Fig.2. Rotate the screw, which in turn pushes the flange and shaft assembly along with bearing (Fig.3A), out of bearing support 2064 (Fig.3b) .
- Pull bearing (2058) from its seating using fixture as shown in Fig, 4. Remove roll pin (2094) of cam (2095) Bearing (2058) along with cam comes out. Remove bearing (2065).
- Provide new bearing (2058) after applying loctite (601) on its seating area. Fix the cam (2095) with roll pin. Mount flange with shaft assembly (Fig 3A) in bearing support (Fig.3B) The assembly is now ready for mounting in circuit breaker.

For item (ii) and (iii) above, Special Maintenance Instructions No. RDSO/ELRS/SKEL/130 dated 1.1.86 Issued by RDSO may be followed to adjust the damping of isolator drive complete till the procurement of damping kit. Also replace the associated components of isolator drive as per SMI/130.

3. REFERENCE

HBB Instructions No. SWT 5112.

4. INSTRUCTION DRAWING

RDSO Drawing No. SK. EL. 3919 in 3 sheets.

5. APPLICATION

Electric locomotives and EMUs fitted with air blast circuit breaker type DBTF 30i250 of M/s HBB.

6. AGENCY FOR IMPLEMENTATION

All Electric Loco sheds and EMU car sheds and POH workshops.

7. PERIODICITY OF IMPLEMENTATION

Whenever the bearing (2058) is required to be changed.

8. Distribution

As per the list enclosed.

Encl: Drg. No. SK. EL. 3919

& mailing list

(S. S. KHURANA)
for Director General/Elect.

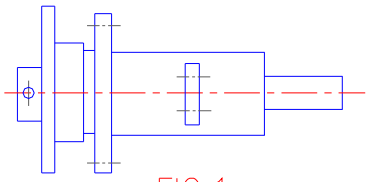

FIG.1

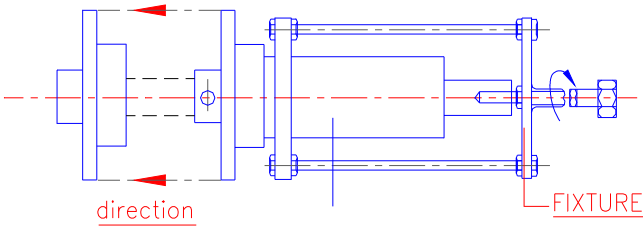

FIG.2

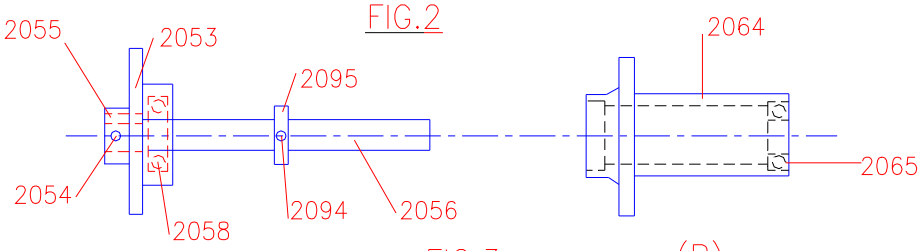

FIG.3

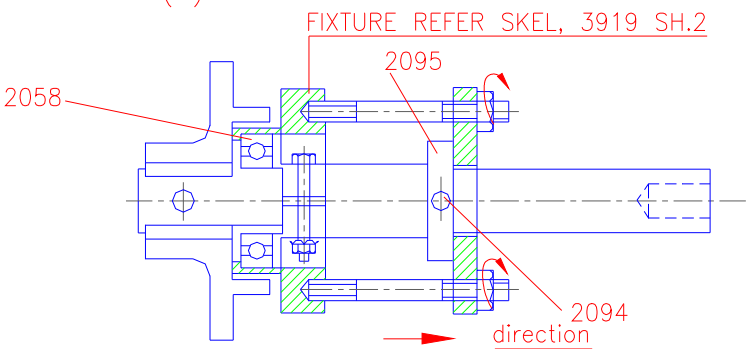

FIG.4

REF:– H.B.B. DRG.NO.SWT5112	SCALE:– NTS	APPROVED BY:–

USE OF FIXTURE TO DISMANTLE BALL BEARING (2058) FROM SHAFT(2056) OF DJ.

RDSO. ELEC. DTE.	SKEL 3919

SHEET NO.1/3

Dt.	
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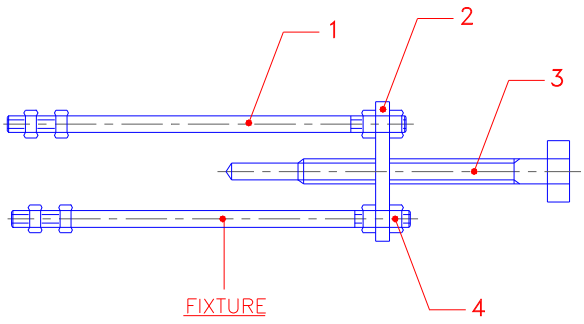
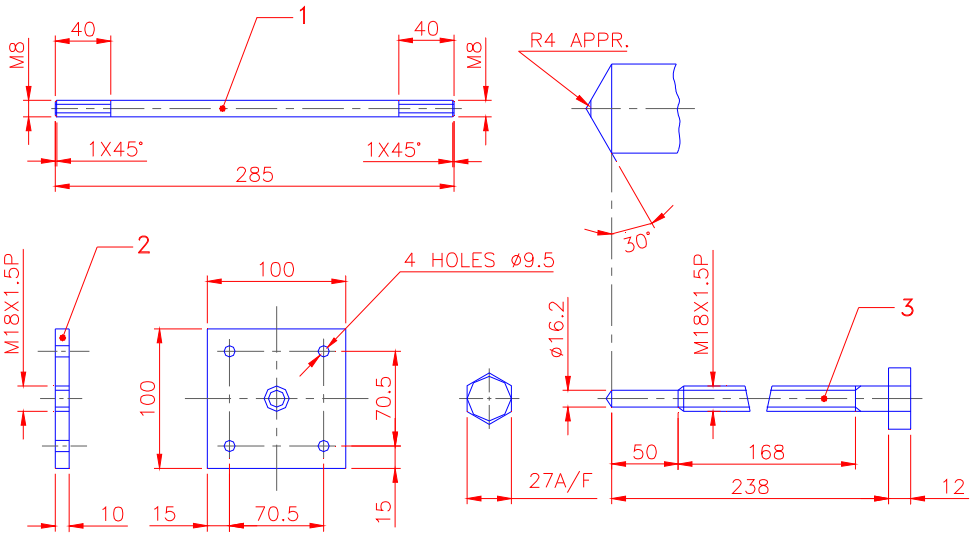




4	HEX NUT 0.8dxM8	16	
3	SPECIAL BOLT	1	BS:970-55
2	CLAMPING PLATE	1	IS:226-75
1	STUD	4	BS:970-55
PART No.	DESCRIPTION	QTY.	MTL./SPEC.

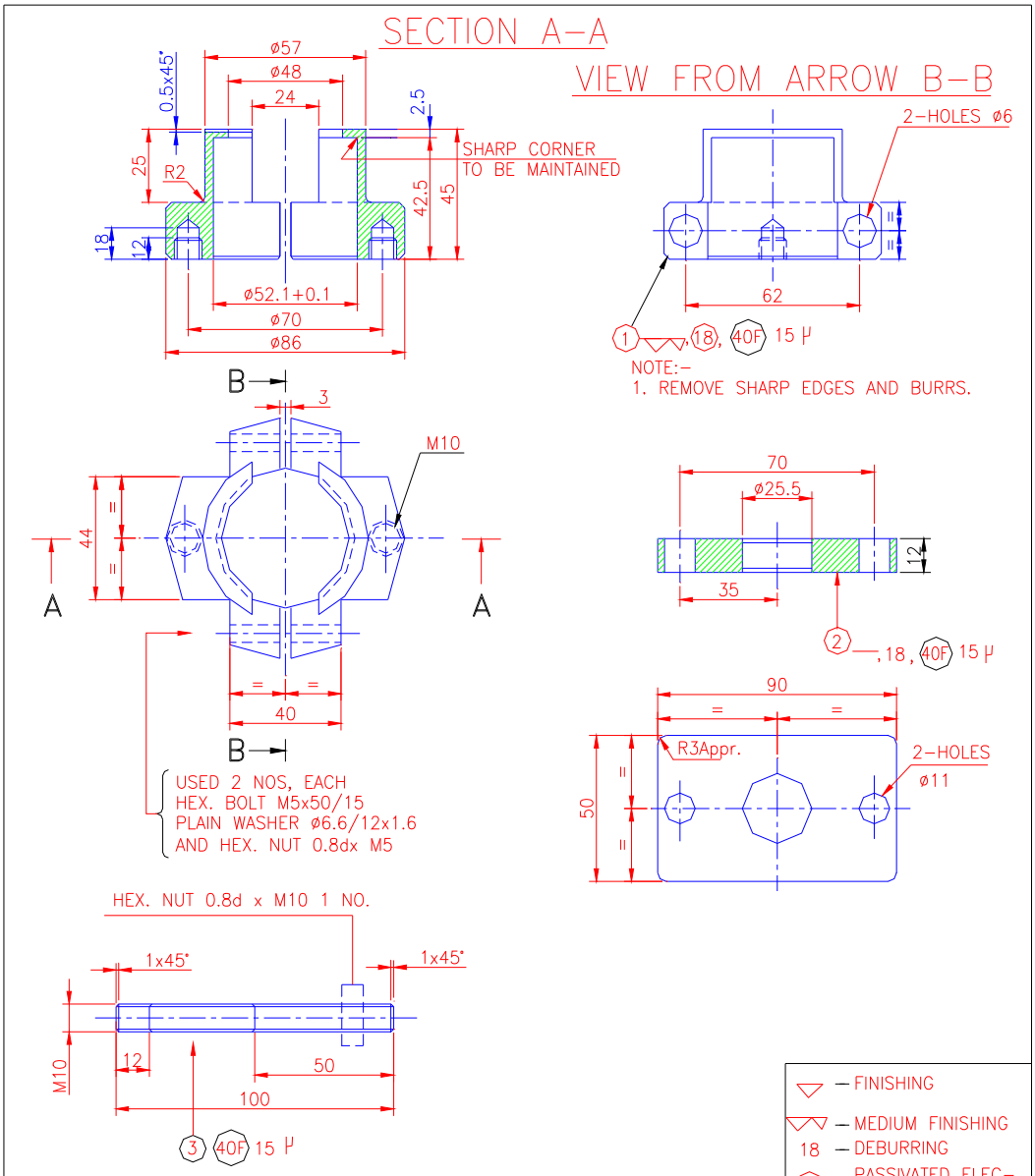
REF:- HBB DRG No.SWT 5112 | SCALE:- 1:4 | APPROVED BY- Sd FOR D.G.

FIXTURE FOR DISMANTLING OF BEARING (PART No. 2058) FROM SHAFT (PART No.2056) OF DBTF CIRCUIT BREAKER.

RDSO.ELEC. DTE. | SKEL-3919

SHEET 3/3

Dt	21.4.87
D	
T	
C	



3.	STUD ø10	2	BS : 970–55
2.	FLANGE ▭ 50x12	1	IS : 226–75
1.	HOUSING ø90	1	BS : 970–55
PART NO.	DESCRIPTION	QTY.	MTL./SPEC.
REF:– HBB. SwT 5112	SCALE:– 1 : 2	APPROVED BY:– FOR D.G.	

FIXTURE FOR DISMANTLING OF BEARING (PART NO. 2058) FROM SHAFT (PART NO. 2056) OF DBTF CIRCUIT BREAKER

RDSO.ELEC.DTE.

SKEL–3919

SHEET NO. 2 OF 3

Dt.	16.2.79
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T	
C	