

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

No. EL/3.2.30

Dated : 4.6.1996

May 96

MODIFICATION SHEET NO. RDSO/WAM-4/192

**PERMANENT CONNECTION OF 16TH TAP IN
PLACE OF SPRING LOADED CONNECTION**

1. OBJECT

Railways were facing difficulties in removing the roll pin from the gear box housing for changing the potential contact assembly in case of open circuit at 16th tap due to jamming of its compression spring. Investigation has shown that the above problem is only on tap changers manufactured upto March 1994 due to non projection of roll pin from the gear box housing.

It has been decided to use permanent connection between the 16th tap and gear box housing with copper flexible wire covered by an insulating sleeve on tap changers manufactured upto March 1994.

In tap changers manufactured after March 1994, M/s ABB used projected roll pin for facilitating changing of the potential contact.

2. WORK TO BE CARRIED OUT

The permanent connection is to be fitted between the 16th tap and gear box housing cover as per the following procedure (refer SK EL - 4373) :

- Remove the old contact stud and replace it with the new contact stud having threads for fixing the connection.
- Connect one end of the connection having the lug suitable for M5 screw (lug of Dowells 7114) with the contact stud using the M5 screw. Use one number each plain washer and spring washer to prevent loosening due to vibrations.
- Remove one M8 hex. screw (S-1457) of gear box housing cover (M8 screw which is nearest to the 16th tap).
- Fix the other end of the flexible connection having lug suitable for M8 screw (lug of Dowells 7020) with the same M8 screw. Lock the screw by a locking sheet (S-1452)
- Check the electrical continuity between the 16th tap and gear box housing.

3. APPLICABLE

Locomotives fitted with tap changers (ABB make) manufactured upto March 1994

4. MATERIAL REQUIRED

- | | |
|-------------------------------------|-------|
| - Contact stud (inner) AG 416333 P3 | 1 No. |
| - Flexible connection SWT 435555 R1 | 1 No. |

- Spring washer B5 Mt 430197 P608 1 No.
- Punched washer dia 5.5/10x1 Mt 430827 P2010 1 No.
- Hex. screw M5x10 Mt 430106 P2406 1 No.

5. **MATERIAL SURPLUS**

Contact stud (inner) - 1 No.

6. **REFERENCE**

M/s. ABB Drawing No.TC - 155

7. **MODIFICATION DRAWING**

RDSO SK EL 4373


8. **AGENCY OF IMPLEMENTATION**

All electric Loco Sheds and POH shops

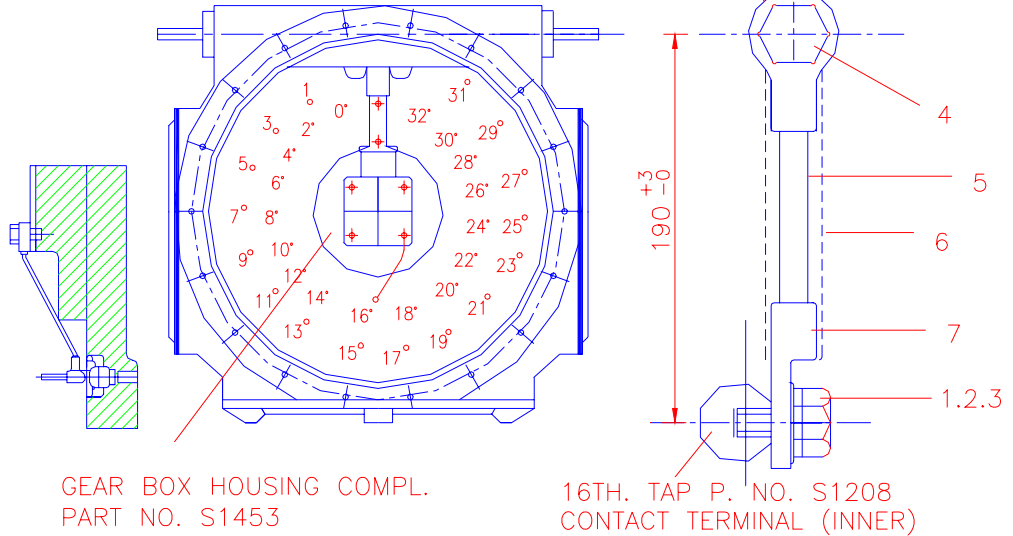
9. **DISTRIBUTION**

As per list attached.

Encl. SK EL - 4373
Mailing list.


(Arun Srivastava)
for Director General (Elect.)

SKEL-4373



8	CABLE LUG DOWELLS/ JENSION MAKE CAT NO. 7020/170209	1	
7	CABLE LUG DOWELLS/ JENSION MAKE CAT NO. 7114/171149	1	
6	VARNISHED FIBRE GLASS SLEEVE I.D.6 MM THK.	1	
5	FLEXIBLE CONNECTION, 4MM SQ. COPPER FLEXIBLE WIRE CRIMPED WITH COPPER LUGS (NO. OF STRANDS 7 WIRE DIA 0.85 MM)	1	
4	HEX SCREW M8X25 P.NO. S1451	1	
3	SPRING WASHER B5	1	
2	PUNCHED WASHER DIA.5,5/10X1	1	
1	HEX. SCREW M5X10	1	
PART NO.	DESCRIPTION	QTY.	MTL/ SPEC.

REF :- ABB DRG.NO TC-155

SCALE:-

APPROVED:-

PERMANENT CONNECTION FOR 16th
TAP OF TAP CHANGER NO. 33

RDSO. ELEC. DTE.

SKEL-4373

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