

GOVERNMENT OF INDIA
(MINISTRY OF RAILWAYS)
RESEARCH DESIGNS & STANDARDS ORGANISATION
MANAK NAGAR, LUCKNOW-226 011

RESEARCH DESIGNS & STANDARDS ORGANISATION
LUCKNOW
MASTER COPY
SIGNATURE OF AHEAD DOC.

No. EL/3.2.30

Dated: 25.10.1999

MODIFICATION SHEET NO. ELRS/MS/0269

**MODIFICATION IN THE AIR SUPPLY LINE TO ENSURE EFFECTIVE
OPERATION OF THE OIL PUMP (PHGR) FITTED WITH THE OIL PUMP
DEVICE (OPD) IN THE ADTRANZ MAKE TAP CHANGER NO 32**

1.0 OBJECT

- 1.1 It has been reported that the oil pump (PHGR) even when fitted with the oil pump device (OPD) in the Adtranz make tap changer type NO 32 has not been working. The reasons for not working of the PHGR have been identified as under :-
- Air leakage from 'T' connection
 - Air leakage from Solenoid Valve
 - Choking of air pipe line
- 1.2 In order to ensure effective operation of the oil pump in the tap changer, it has been decided to
- (a) remove the 'T' connection from the air pipe line between EVPHGR and Inlet to PHGR.
 - (b) follow specific pre-commissioning maintenance instructions for EVPHGR, air pipe line, PHGR and oil pump device.
- 1.3 The modified air pipe line arrangement to be adopted is shown in RDSO Drg. No. SKEL-4539.
- 1.4 Follow specific pre-commissioning instructions for EVPHGR, air pipe line, PHGR and oil pump device as laid down in this modification sheet.
- 2.0 WORK TO BE CARRIED OUT**
- (a) **Removal of 'T' Joint**
- 2.1 Remove 'T' joint in the air pipe line between EVPHGR and inlet to PHGR.
- 2.2 Instead provide a straight through joint at the location where 'T' joint exists (Ref. Drg. No. SKEL-4539).

(b) Pre-commissioning Maintenance

- 2.3 Overhaul EVPHGR and ensure its proper operation. Any dummy washer, if provided on the inlet of EVPHGR/PHGR, should be removed.
- 2.4 Check the healthiness of the air pipe line of PHGR. Replace the pipe line if found cracked/choked. Replace all copper washers with new annealed copper washers.
- 2.5 Overhaul PHGR before fillment of OPD. Replace all 'O' rings, gaskets and micro filter element with new ones.
- 2.6 Dismantling and assembling of the oil pump device must be carried out with the help of special tools to avoid bending of the piston of OPD/Oil pump device.
- 2.7 Ensure that the working air pressure is set at 3.5 kg/cm sq. at the pressure reducer in the ZSM panel.

3.0 APPLICATION

All 25 KV AC electric locomotives fitted with Adtranz make tap changer NO 32.

4.0 MATERIAL REQUIRED

Straight through joint for replacement of the 'T' joint as per RDSO Drg. No. SKEL-4539.

5.0 MATERIAL RENDERED SURPLUS

One 'T' joint.


6.0 AGENCY FOR IMPLEMENTATION

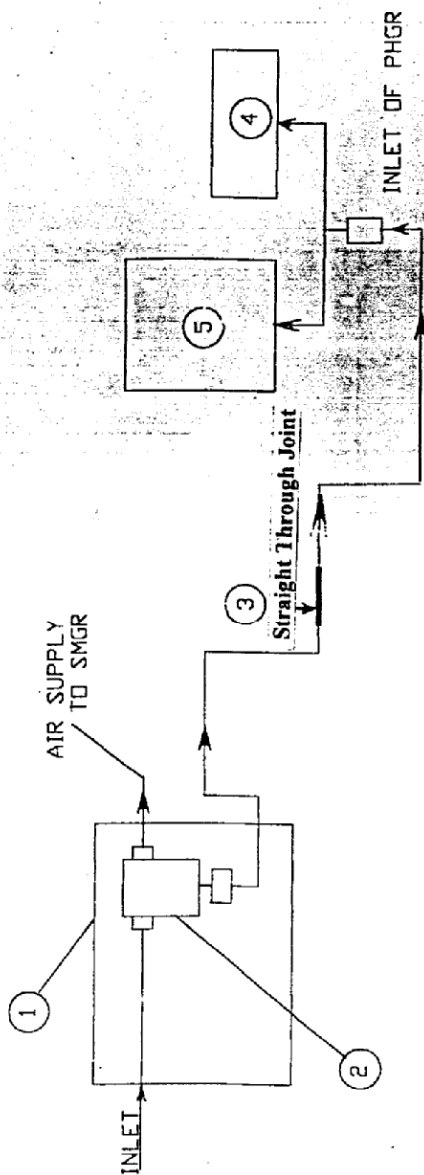
CLW for future built locomotives.
All AC electric loco sheds / shops.

7.0 DISTRIBUTION

As per enclosed list.

Encl: RDSO Drg. No. SKEL-4539.


(Arun Srivastava) 25.10.99
for Director General(Elect.)



ELECTRICAL AND PS & ENL
DIRECTORATE
MASTER COPY

SIGNATURE OF ADE/DOC

REF	NO.	DESCRIPTION	DETAIL	NO.	MATL	SPEC
5	5	OIL PUMP				
4	4	OIL PUMP DEVICE				
3	3	ST JOINT				
2	2	SOLENOID VALVE				
1	1	ZSM PANEL				

APPROVED BY: *[Signature]* D.G.

SCHEMATIC DIAGRAM OF
OIL PUMP & OIL PUMP DEVICE
IN ADTRANZ TAPCHANGER
NO. 32

RDSO ELEC DTE SKEL 4 539

SUPERSEDED BY

Dt 21.10.99	D	AJAI	T	C	<i>[Signature]</i>
-------------	---	------	---	---	--------------------