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

No. EL/3.2.1 Dt.31.03.2003

MODIFICATION SHEET NO.- ELRS / MS / 0324

TITLE: Provision of "Oil Trap Chamber" in Drain Pipe of Conservator Tank of Locomotive Transformer

1.0 OBJECT

1.1 Pressure relief device(PRD) is provided on top of the conservator tank of locomotive transformer. It operates due to built up of excessive gas pressure in transformer in event of fault in transformer winding.This is generally associated with dropping of QLM relay and also spillage of transformer oil through drain pipe of conservator tank.

1.2 Operation of QLM with spillage of transformer oil is a serious matter and in that eventuality, locomotive has to be disabled as any attempt to reset QLM to close DJ is fraught from dangers of fire or further damage. Infact, as per TSD, drivers after operation of QLM are required to go round HT compartment to look for any signs of oil spillage and reset QLM only if there is no sign of oil spillage. Presently, conservator drain pipe is directly taken out of locomotive through opening in underframe and therefore checking on part of driver for any spillage of oil requires him to stop the loco, get down, look / feel at drain pipe outlet for oil. This is cumbersome and result in delays on line.

1.3 In this regard, Western Railway has carried out modification to provide a 'Transparent Oil Trap Chamber' in the drain pipe of conservator tank in HT compartment. In case of spillage of transformer oil, some quantity of oil remains trapped which can easily be detected by driver while going round the HT compartment of locomotives.

1.4 Western Railway proposal is acceptable and is recommended for adoption by Sheds / Shops on all existing locomotives and CLW / Transformer suppliers on new supplies. Transformer supplier's were advised in this regard vide RDSO letter No. EL/3.2.1 dt. 10/11.12.2002 and 21.01.2003, CLW already agreed with modification vide CLW letter No. ELDD/3242/AKM dt. 02.01.2003.

2.0 WORK TO BE CARRIED OUT

2.1 .Fabricate Oil Trap Chamber as per RDSO Drawing No SKEL-4669.
2.2 Disconnect the flange holding the top and bottom portion of the drain pipe..
2.3 Assemble the fabricated oil trap chamber in between the lower and the upper portion of the existing flanges of the drain pipe as indicated in Drawingg.
2.4 Cut the extended portion of the drain pipe from the bottom.

3.0 APPLICATION TO CLASS OF LOCOMOTIVE

All AC Electric Locomotives.

4.0 MATERIAL REQUIRED

As per RDSO Drawing No **SKEL-4669** (enclosed)

5.0 MATERIAL RENDERED SURPLUS

Nil.

6.0 REFERENCE

Western Railway's letter No. EL91/8/1 dt. 11.09.2002.

7.0 MODIFICATION DRAWING

SKEL No. 4669 "Transparent Oil Trap Chamber".

8.0 SPECIAL MAINTENANCE INSTRUCTIONS

In the event of detection of oil in oil trap, locomotive to be taken to Shed and oil trap to be opened and cleaned of trapped oil before sending the locomotive on line.

9.0 AGENCY OF IMPLEMENTATION

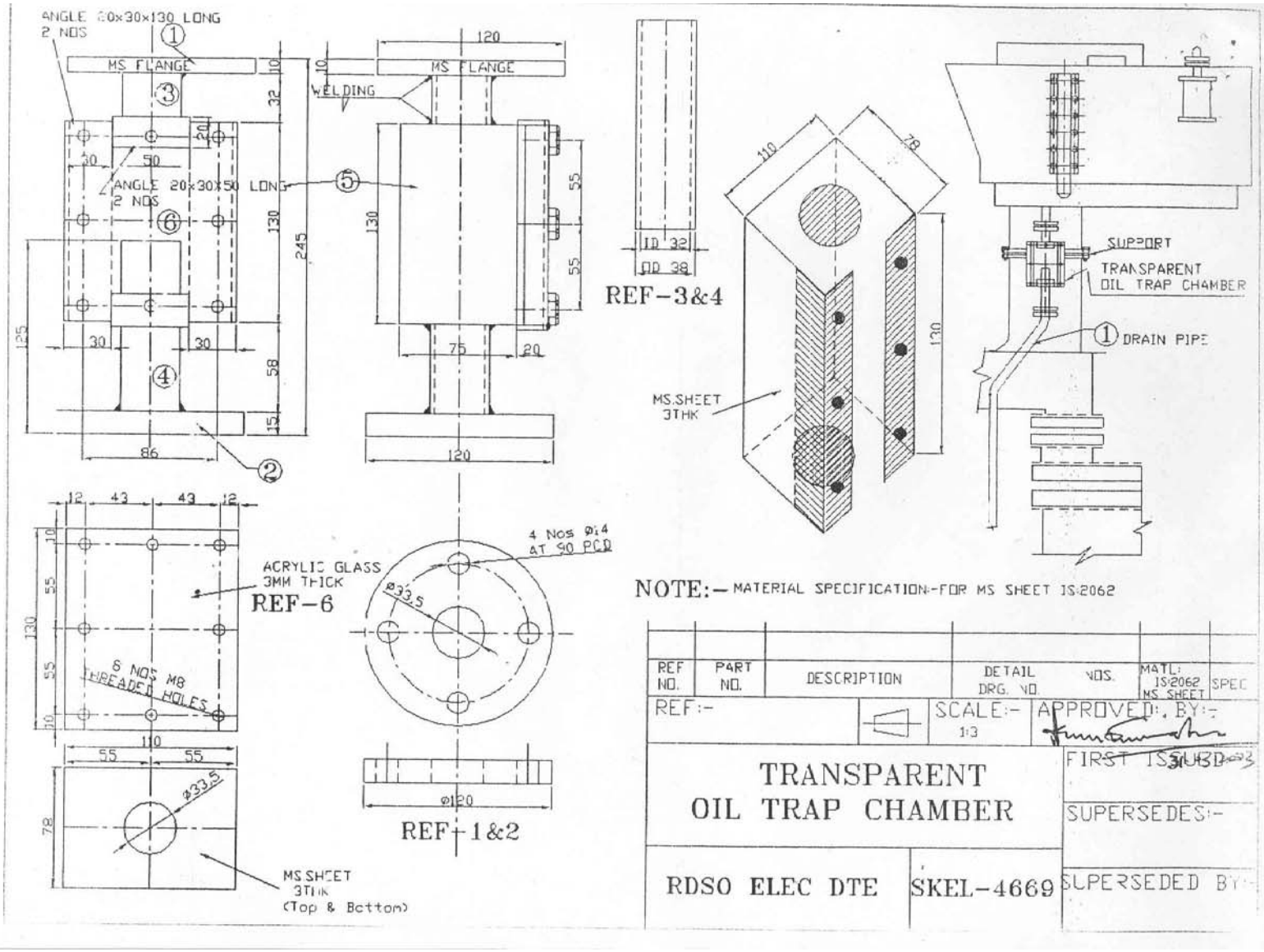
(i) All Electric Loco Sheds during AOH / IOH.
(ii) POH Shops during POH.

10.0 DISTRIBUTION

(i) As per Mailing List.
(ii) All Transformer Manufacturers.

(Arun Srivastava) 31.03.2003
for Director General (Electrical)

Encl: As above.



NOTE:- MATERIAL SPECIFICATION:-FOR MS SHEET IS:2062

REF NO.	PART NO.	DESCRIPTION	DETAIL DRG. NO.	NOS.	MATL: IS:2062 MS SHEET	SPEC
REF:-			SCALE:- 1:3		APPROVED BY:-	

TRANSPARENT OIL TRAP CHAMBER

FIRST ISSUED:-

SUPERSEDES:-

SUPERSEDED BY:-

RDSO ELEC DTE | SKEL-4669