

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

Ref.:- EL/3.2.82/DB1

Dated 23.6.78

MODIFICATION SHEET NO. RDSO/WAM4/68

1. **TITLE**
Modification to bellows of Traction Motor type TAO 659.
2. **Application to class of locomotives**
WAM4, WCAM1 and WCG2 locomotives.
3. **Object of modification**
Existing bellows are 16 or 14 fold type which are prone to distortion/collapse. This modification is for reducing the number of folds so as minimise the collapse of the bellows.
4. **Modification drawing**
Drawing No. SKEL - 2873 and 2871
5. **Agency for modification**
 1. Railways - Sheds and shops - on locos in service.
 2. Chittaranjan Locomotive works on new locos.
6. (a) **Materials required and specification**
Seven fold bellows as per enclosed specifications No.SPEC/E-7/C5 and SPEC/E-7/06.
Quantity per loco : Six.

b) **Materials rendered surplus -**
Nil

7 Work to be carried out

- 7.1** Remove the existing bellows wherever they are badly distorted, collapsed, damaged or torn. Fit the new bellows of seven pleats of either rubber or leather.
- 7.2** The specification covers two types of bellows : Leather or rubber. Each Railway may obtain 5 loco sets of each type and put them into service. Relative performance and cost data may be furnished to RDSO in due course. When bellows procured to the enclosed specification become defective in service, typical samples should be sent to RDSO indicating name of supplier and total service period.
- 7.3** Proto-type samples received against trial order may be sent to RDSO for comments.

8. Reference –

Nil

- 9. Distribution (2 copies each)**
As per list enclosed.



(R.P.SRIVASTAVA)
for Director General/Elec.