

GOVERNMENT OF INDIA MINISTRY OF RAILWAYS
RESEARCH DESIGNS AND STANDARDS ORGANISATION
MANAK NAGAR LUCKNOW -226 011

MODIFICATION SHEET No. RDSO/WAG7/2

MS/248

No.EL/3.2.13/6

DL. 13.1.98

1. TITLE OF MODIFICATION

Modification to gear case assembly of WAG7 locomotives

2. APPLICATION TO CLASS OF LOCOMOTIVE

WAG7 locomotives.

3. OBJECT OF MODIFICATION

- (i) WAG7 locos were manufactured by CLW in 1992 with 18:64 gear ratio.
- (ii) Single WAG7 loco is being used by most of the Railways for hauling 4700 tonne loads on 1 in 200 gradients. RDSO have measured traction motor current on such gradients and have recommended the use of 16:65 gear ratio as it reduces the loading on traction motor by 7%.
- (iii) CLW have already started using 16:65 gear ratio on WAG7 locos.
- (iv) The use of 16:65 gear ratio increases the main gear radius to 401.538 mm (65 teeth) from the present gear radius of 392.392 mm (64 teeth). With this increased radius the clearance between the gear case hollow plate and the gear wheel has been reduced and may cause problem in operation whenever some foreign material comes in between the gear and bottom plate of the gear case.

To maintain the existing clearance between the gear case bottom plate and the gear wheel, the gear case has to be modified by lowering the gear plate by 8mm i.e. from 406 ± 2 mm to 414 ± 2 mm as per CLW Drg. No. 05/1/ 13/169 Alt.6.

4. MATERIAL REQUIRED

- (i) Gear case as per CLW Drg. No.05/1/13/169 Alt.6
- (ii) Bull gear 65 teeth
- (iii) Traction Motor Pinion 16 teeth.

5. WORK TO BE CARRIED OUT

- 5.1 During wheel disc replacement or POH whichever is earlier replace the existing "Bull Gear" from 64 teeth to 65 teeth.
- 5.2 Replace Traction Motor pinion from 18 teeth to 16 teeth.
- 5.3 Use modified gear case as per CLW Drg. No.05/1/13/169 Alt.6.

6. MODIFICATION DRAWING

CLW Drg. No. 05/1/13/169 Alt.6

7. AGENCY FOR IMPLEMENTATION

All sheds, POH shops.

8. PERIODICITY OF MODIFICATION

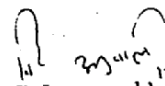
During POH or whenever wheel disc gets condemned which ever is earlier.

9. DISTRIBUTION

As per enclosed list.

Encl:Distribution List

WAG7/2


(V.K. Aggarwal) 13.1.58
for Director General/Elect.