

Engine Alteration Instruction No.1166/81  
dated 16th September 1981  
Modification to Cylinder Relief Valves  
Applicable to various Garratt locomotives  
operating on Rhodesia Railways

Notes to readers

The source document for this file was the Office Copy of the E.A.I. held in the National Railways of Zimbabwe Drawing Office in Bulawayo. It was discovered, in March 1998, while I was helping with searching for a complete set of drawings of the 15<sup>th</sup> Class locomotives after No. 398 had been purchased by a private group in New Zealand for eventual export to that country.

The original document was a duplicated copy hence the slightly indistinct type in some places. This was photocopied (with permission) on to A4 size paper while in the Drawing Office and the photocopies scanned when we were back in New Zealand.

The scanned file has been lightly “Photoshopped” to remove most of the artefacts resulting from the photocopying and scanning processes and to increase the contrast to make it more readable.

Any alterations, amendments or corrections done by hand have all been left in place and this file is an accurate reproduction of the original.

Alan Bailey  
December 2010

NATIONAL RAILWAYS OF ZIMBABWE

OFFICE OF THE  
CHIEF MECHANICAL ENGINEER,  
BULAWAYO.

REFERENCE : 31:0007:05  
DATE: 16TH SEPTEMBER, 1981.  
ISSUE : 1  
SECTION : M5/ A

ENGINE ALTERATION INSTRUCTION NO. 1166/81MODIFICATION TO VALVE, CYLINDER RELIEF.

N.R.Z. CODE NO. 10-88-8000

CLASSES OF LOCOMOTIVES : 14, 14A, 15 & 16A

1:00 REASON :

- 1.01 To prevent the adjustment of cylinder relief valves by unauthorised persons, it has been decided to modify the existing valves by doing away with the adjusting screw arrangement (Code No. 10-88-8005) and introducing a series of shims with which the adjustment of the modified valves can be effected.

2:00 ALTERATION :

- 2.01 The existing covers of relief valves on the locomotives are to be modified in accordance with N.R.Z. Sketch No. SLS-1007 and the valves are to be assembled in accordance with N.R.Z. Drg. No. L-6927 dated 9/81.
- 2.02 The relief valves held in stock under N.R.Z. Code No. 10-88-8000 are to be withdrawn, modified and returned to stock under the same Code No. M.E. Workshops, Bulawayo, to arrange.
- 2.03 All future relief valves are to be manufactured in accordance with N.R.Z. Drg. No. L-6927 dated 9/81.

3:00 APPLICABLE TO :

- 3.01 All 14, 14A, 15 and 16A Classes of Steam Locomotives.

4:00 TO BE COMPLETED :

4.01 As soon as possible.

5:00 TO BE CARRIED OUT :

5.01 Mechanical Workshops, Bulawayo.

5.02 Bulawayo Steam Sheds. (At discretion of M.E. (S) Bulawayo).

5.03 Gwelo Steam Sheds. (At discretion of M.O. (MID.) GO.).

6:00 CHARGE:

6.01 Cost Code 7348 : Expense Code 5597.

7:00 STORES :

7.01 Supplies Manager to arrange for the manufacture of -

880 of Shims 1,2mm Code No. 10-88-8035 Drg. No. L-6927/15

1760 of Shims 1mm " " 10-88-8040 " " "

880 of Shims 0,6mm " " 10-88-8045 " " "

S.F. 75 No. C.M.E. 8/82 refers.

7.02 Supplies Manager to ensure sufficient stocks of Spring Cap  
Cylinder Relief Valve, N.R.Z. Code No. 10-88-8025, Drg. No.  
L-6927/4 dated 9/81. 880 will be required to complete  
this E.A.I.

Abnormal Demand No, CME No. 7/82 refers.

8:00 DRAWINGS :

8.01 Drg. Nos. L-6927 dated 9/81

L-6927/4 dated 9/81

L-6927/15 " 9/81

Sketch No. SLS-1007

sent to M.E. Workshops, Bulawayo, M.E. (S), Bulawayo and  
Mechanical Officer, (Midlands), Gwelo, and RESCCO, Blr.

  
for CHIEF MECHANICAL ENGINEER

DISTRIBUTION : M.E. WORKSHOPS, BLR. - (8) : M.E. (S) BLR. - (8) :  
M.E. (E) SA. - (4) : C.S.K.B. & S.Y.S. - (5) : S.T.S. - (2) : S.M. - (2) :  
D.S.K. SA. - (1) : M.O. (MID.) GO. - (8) : RESCCO - (4).

FILES: 31:0007:05 31:0002:00

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