

Engine Alteration Instruction No. 6,  
dated 20<sup>th</sup> July 1948.  
Modification to front cylinder covers.  
Applicable to various classes of  
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 on Foolscap size paper, 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 a reasonably accurate reproduction of the original.

The source document had been over-written in red ink by hand with “Cancelled”.

Alan Bailey  
December 2010

ENGINE ALTERATION INSTRUCTION.

E.A.I. No.6  
dated  
20.7.48.

ADOPTION OF BREAKING GROOVES IN FRONT  
CYLINDER COVERS.

(5) Cylinder, pistons  
and motion.

1. REASON. Recently several cases of damaged cylinders have occurred due to broken piston rods. To prevent these damages it has been decided to provide a breaking groove which will allow the front cylinder cover to break when pressure on cover.
2. ALTERATION. Turn a circular groove 1/8" deep by 1/8" wide at the root of the flange.
3. ENGINES CONCERNED. - 9th 9A, 9B, 11th, 11A, 12th, 12A, 15th, 16th and 18th classes. 13th and classes dealt with under Alteration No. L-1917 of 6/1/48.
4. TO BE CARRIED OUT. - Bulawayo and Umtali Shops.
5. TO BE COMPLETED. - when engines come to Shops for wheel jobs and general repairs.
6. ABSTRACT

E.A.I. No.6. dated 26.7.48.	9th, 9B, 11, 11A, 12, 12A 15, 16 & 18th	Introduce breaking groove.	Drawings Nos. 5917 Alt. 1.4238. Alt. 1.4233 Alt. 1.89/40 Alt. 1.127/ L-817 ALT. 1.6004 Alt. 1. 74/133 Alt. 2.81/98 Alt. 1.4539 Alt. 1.79/138 Alt. 2.
-----------------------------------	---	----------------------------------	--

7. CHARGES. - General or wheel job repair work order concerned.
8. GENERAL. Breaking grooves to be provided on future orders for engines. D.O. To note.

(Sdg). F.E. HOUGH.

C.M.E.

COPIED TO. M.E. B., I.F.B., M.E.B., E.S.B., ME.U., L.F.U., M.S.U.,

- (a) The provision of Breaking Grooves has proved inefficient ~~in~~ ~~not~~ service, and the time taken to do the necessary machining is not warranted, therefore, E.A.I. 6/48 dated 26.7.48, is now cancelled.
- (b) Endorse E.A.I. 6/48 "Cancelled" in Red.
- (c) Copies of Drgs. Nos. 4589/1 Alt.2, 6004 Alt.4, 4233 Alt.2, 81/116 Alt.6, 5917 Alt.2, 4238 Alt.3, 89/40 Alt.3, 127/L-817 Alt.5 sent to the M.E.B.,P., and M.E.US. All previous issues of these Drgs. to be returned to D.O. for destruction together with Drg. No. 74/133 Alt.2.

CANCELLATION SLIP DATED 15.6.57 TO E.A.I. 6/48 DATED 26.7.48.