

NEW ZEALAND GOVERNMENT RAILWAYS	<b>POWER REVERSING GEAR</b>	<b>CODE No. 70</b>
<b>LOCOMOTIVE AND WORKSHOPS BRANCH</b>		Page No. 1 of 1 Issue No 2      Date Issued 30/12/36

**EXISTING LOCOMOTIVE CODES TO BE CANCELLED: NIL.**

**(1) EXAMINATION :** The power reversing-gear is to be dismantled, cleaned, and examined for defects when locomotives fitted with this equipment are shopped for Class A repairs.

Locomotive Foremen shall arrange frequent inspections of the power reversing-gear fitted to locomotives under their supervision to ensure that this equipment is maintained in good working-order.

**(2) REPAIRS :** Cylinders and valves must be examined and defective components repaired or replaced when locomotives are shopped for A repairs. Piston-rods must be reground or turned when worn more than 0.025 in. out of round and piston-packing examined and renewed when necessary. The "Johns-Manville" expander ring and packing cup on the piston-head must be cleaned, examined, and renewed as required, and the contour of the piston-head and follower plate trued up if necessary before the packing is reassembled. Piston bull rings should be renewed when worn  $\frac{1}{16}$  in. under size. Cylinders should be examined carefully for defects and rebored if worn  $\frac{1}{32}$  in. out of round.

Slide valves must be examined for defects, and valves and valve-seats refaced and resealed. Before final assembly the slide valves must be tested to full working-pressure, and if there is any leakage between the inlet and exhaust ports, the valves must be resealed. The valve must be set so as to have  $\frac{1}{125}$  in. negative outside lap,  $\frac{1}{16}$  in. inside lap, and 1 in. travel.

The cone ring on the rocker-shaft is to form an air-tight joint on the rocker-shaft and gland. The rocker-arm must be tight on the rocker-shaft, and there must be no lost motion between the trunnion blocks and the valve when repairs are completed.

Slackness in levers and rods must be taken up, and the, case-hardened bushes and pins renewed when worn in excess of the limits enumerated on B.P. W. 15050.

Drain-cook. must be dismantled, examined, and repaired when required.

**(3) LUBRICATION :** At the completion of repairs, cylinders and packing-cups must receive an application of approved grease before final assembly. Front-cylinder covers must be removed at least once each month, and if the cylinder-walls are dry an extra charge of grease is to be applied. All pins and connections are to be freely lubricated at frequent intervals to provide smooth operation.

**In Service.**—Drain-cocks should be opened and all moisture drained from the cylinders before the locomotives fitted with this equipment leave the depots.

In the event of piston sticking when at the extremity of the stroke, if the gland-nuts are slackened back and the gland tapped lightly, the piston will free itself.