



AUSTRALIAN RAIL TRACK CORPORATION LTD

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Engineering Practices Manual Civil Engineering

Maintenance of Mechanical Joints & Examination of Rail Ends in Welded Track

RTS 3655

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1 Purpose

This document provides guidance on the examination and repair of mechanical joints and rail ends.

2 Reason and nature of change

Document reissued as ARTC Engineering Practice Manual.

3 Examination of Joints and Remedial Action

Examination of all mechanical joints in welded track by the removal of fishplates should be made as specified in the TES Instructions.

The surfaces of the rail-ends are to be steel-wire brushed and examination made for bolt-hole cracks. If cracks are found, a suitable closure is to be welded in after removal of the defective portion.

Fishplates are to be greased with Rail Curve Grease before replacing.

Where there is evidence of undue stress of the fishbolts such as marked bending, a complete set of six new fishbolts are to be installed. If the fishplates are four-hole type they should be replaced with six-hole plates.

Tight joints due to rail creep caused by traction forces must be brought under notice, and arrangements made for the necessary adjustment.

When welded rail joints are examined, any battered rail ends are to be noted and where necessary, building up is to be arranged. Any end flow on rails is to be

removed (See ARTC Standard TMP 13).

Any defective rail end found is to be reported and appropriate action taken to weld in a new rail. If possible the whole joint is to be removed and the rail continuously welded. Details of the failure are to be reported as a rail defect.

4 Maintenance of Adjacent Track

Joint sleepers are to be straightened and packed.

On dogspiked track, anchoring in the vicinity of the joints must be effective and adequate and if any anchors are not bearing against the sleepers they must be knocked off, and replaced correctly.

5 Use of Rail Inserts

Rail Inserts are not to be used each winter "as a regular maintenance practice".

Refer to ARTC Standard TMP 16 for approved uses of Rail Inserts.

Corrective action is to be arranged to replace defective components, to maintain the profile of the rail ends and to replace or add anchors as required.