

# 12. Inspection and Maintenance

Crane runway girders, brackets, lateral restraints at columns and rails are subject to heavy wear and fatigue damage and for this reason there is a need for systematic periodical inspection of welds. Another problem is the slow creep out of alignment of the rails and the girders. The inspection programme should be graduated such that with increasing age of the runway the inspections should become more frequent. The main reason for weld inspection is to detect any cracks in the welded joints or in surrounding metal so that corrective actions can be taken early. In the first 5 or 6 years of the runway life there should normally be no problems until the fatigue propagation threshold is reached. From thereon the inspection is necessary at a frequency not exceeding 2 years and in later life of the heavy-duty cranes the frequency may need to be increased to every 12 months.

If repairs are required, it is important to obtain expert advice as to the method of repair and inspection method most suited to prevent renewed fatigue cracking and maintenance. It should be borne in mind that weld repairs carried out at the site, in the air are not easy to be carried out and inspection must be very good.



# Crane Runway Girders

## Limit States Design

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AUSTRALIAN STEEL INSTITUTE  
(ABN)/ACN (94) 000 973 839

Branko Gorenc

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