

# Train Maintenance

*NS leads the way in fleet strategy*

**NedRailways, as a 100% subsidiary of the major Dutch rail operator Nederlandse Spoorwegen (NS), is intent on ensuring best practice from the experience of delivering punctual and reliable services on high density urban networks. In the Netherlands, NS owns and operates depots and maintenance facilities and has an enviable track record in the successful operation and maintenance of its rolling stock.**

## **Optimising life cycle costs and RAMS**

NedRailways aims at minimising maintenance costs during the total life cycle of rolling stock whilst delivering maximum performance in terms of RAMS (Reliability, Availability, Maintainability and Safety). By our involvement from procurement and operational support to maintenance, refurbishment & overhaul we are able to minimise the life cycle costs at the required performance levels.

We have been optimising maintenance schedules of our diesel stock and its subsystems, built in the late seventies. As a result, MDBF has increased to 20,000 miles, whilst at the same time costs have been reduced significantly. This expertise and experience is of particular relevance to the British rail sector, where the diesel fleet carries the same subsystems (such as engine, gearbox, etc.) as the ones deployed by NS.

## **Maintenance research**

NedRailways considers maintenance as one of the core activities of a train operator. NS has a long history of maintenance research which has been built on the robust data it achieves from monitoring and documenting the outputs of its rolling stock and its subsystems. As a result of detailed analysis and innovation NedRailways continues to optimise its maintenance schedules and processes, resulting in reduced life cycle costs whilst achieving high levels of fleet availability and reliability.

## **Transfer of best practice**

We are already transferring our maintenance experience and process expertise to Great Britain through the deployment of experienced, professional staff from the Netherlands to the UK. On Merseyside Serco-NedRailways has been operating the Merseyrail concession since July 2003. The Merseyrail team has now been strengthened by the inclusion of an Engineering Director who is able to put the right emphasis back into train maintenance.

Our capabilities have been recognised by Angel Trains, the owner of the rolling stock we lease to operate the Merseyrail concession. Since being awarded the concession, we have been awarded the contract for undertaking the heavy maintenance tasks (which are the train owner's responsibility) and thus we secured all maintenance to be actively managed in-house. Merseyrail has started a project to integrate heavy and light maintenance, in close cooperation with Angel Trains.