

SEAT SLIDERS

(Inner & Outer)

A collaborative exercise between Lucas and Rockwell was completed to produce strength properties by the Nitrotec process required in seat slider mechanisms fitted to an executive Renault car. These components are normally manufactured from a low carbon steel and painted. During final assembly, a quantity of grease is applied to the channel creating problems if contacted by driver or passenger.

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SEAT SLIDERS (cont)

The hardened steel ball running between the inner and outer slide during transverse could cause indentation in the track. Normally, this was an executive car with electrically operated seats, any indentations in the track effected the smooth running of the seat adjustment. Also, in this application, the seat slider was used as an anchorage point for the safety belt.

The dimensional control of the profile of the slide was critical to ensure the smooth running of the roller track.

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SEAT SLIDERS (cont)

Several surface hardening techniques had been tried, but, produced unacceptable levels of distortion and still required a finishing operation. The Nitrotec process parameters were developed to produce a specific hardness profile in the substrate layer, together with the required wear resistance, with an aesthetic black finish. In addition the increased yield strength ensured that the belt anchorage requirements were also achieved.

