

HIGH ROLLER – A COMPONENT JOURNEY

AEROSPACE BEARINGS

Ball and roller bearings are essential to high-precision rotary components in aircraft, and need to deliver exceptional durability and consistent performance despite changes in temperature and air pressure. Materials used are customised based on the end application, including high temperature, stainless steels and more exotic alloys, such as Inconel.

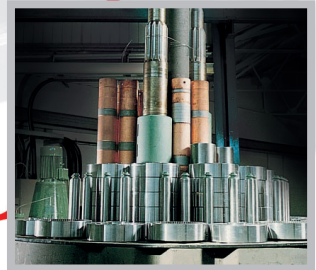


Bearings are shaped and machined from rods of metal plates and wires.

After heat treatment, the masking is removed and the surface cleaned before inspection to ensure the part meets strict aerospace quality specifications.



The surface is hardened via a specialised nitriding process during which nitrogen is diffused into the surface to increase resistance to in-service stress and fatigue.



The surface area to be heat treated is prepared – areas which are not to be heat treated are selectively masked with copper plating.



For the perfect shape and smooth finish, bearings are put through final lapping and polishing processes.



End applications include landing gear, engine, control surfaces, and other parts or components.

BODYCOTE COMPONENT JOURNEYS

This is just one example of how Bodycote brings together the huge wealth of knowledge and expertise from across the Group to provide the vital engineering services our customers need.

For more component journeys visit www.bodycote.com

Denotes the parts of the component journey undertaken by Bodycote