SCHAEFFLER

# Schaeffler Aerospace Repair Services

## Not just a Repair Station

Schaeffler Aerospace originally provided bearings for the Charles Lindbergh Wright J5 whirlwind engine. Since then materials advancements, design innovations and engine demands have changed considerably, but our leadership in this market has remained constant. Today, Schaeffler Aerospace is prime supplier to every major engine manufacturer in the aviation industry.

Schaeffler Aerospace bearings support engines both large and small, powering today's lightest and largest commercial aircraft. Technologies developed by Schaeffler Aerospace have been used aboard the "Orion" space transporter.

Years of concentrated research and development allowed Schaeffler Aerospace to be the first company to formally introduce the concept of infinite fatigue life to the industry in 1983.

Since then, it has been acknowledged that useful bearing service life is primarily limited by damage caused by environment factors (i.e. contamination, corrosion, overheating, etc.)

Understanding these factors is critical to designing robust systems and, through expert diagnosis and repair, prolonging service life of modern aerospace bearings.

## Schaeffler Aerospace repair facilities offer:

- Cost savings up to 70 % in comparison to aftermarket
- Engine Manufacturer approved repairs
- Inventory reduction and carrying costs
- Using OEM equipment for repair process
- Short turn around times
- High yield rates
- No schedule required
- Highest quality standards of OEM repairs

## Approved re-manufacturing levels can be described as follows:

**Level 1:** Cleaning, dimensional and visual inspection of bearing components

**Level 2:** Level 1 + refinishing of raceways, replacement of rolling elements and replating or replacement of cage

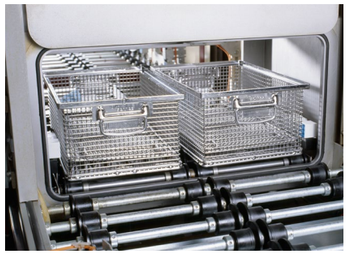
**Level 3:** Level 2 + grinding of one component

**Level 4:** Level 3 + replacement of one bearing race Level 4 can also include the update to the latest configuration with a new part number assigned.



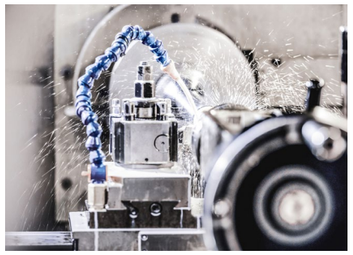
# Re-manufacturing levels

## Inspection room (Level 1)



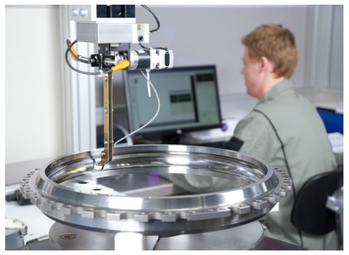

Thorough cleaning and inspection prior to the re-manufacturing. Definition of repair level by experts.

## Production Organization (Level 2, 3 and 4)



Re-manufacturing operations are done in-house. Our OEM approved Production Organization also supplies all spare parts.

## Maintenance Organization



Bearing inspection is carried out with sophisticated equipment developed and manufactured by Schaeffler Aerospace.

# Save cost without compromising system reliability

Schaeffler Aerospace provides re-manufacturing services that can help you to reliably lower your total maintenance cost through re-use of existing assets.

Bearings are restored back to their original „as new“ condition using the same engineering experience, production methods, production personnel and testing procedures.

Schaeffler Aerospace „standard“ refurbishment techniques always include refinishing of raceways, replating (or replacement) of cage and 100 % replacement of rolling elements.

All replacement components are manufactured to the original new design by our OEM approved processes. Swapping is not acceptable. Re-used and re-manufactured components are 100 % NDT inspected.

*Schaeffler Aerospace spares no expense in assuring complete reliability of repaired bearings!*

*Reconditioning of bearings lowers lifecycle costs and reduces $CO_2$ emissions.*



The life of a rolling bearing depends on many influences such as operating and enviromental conditions, ingress of solid contaminants, mechanical damage caused during assembly and many more.



All repaired components are subject to Magnetic Particle Inspection or Fluorescent Penetrant Inspection. Raceways of mainshaft bearings are Eddy Current Inspected after repair.

Modern aerospace applications demand high quality, reliable rolling element bearings – why trust any other source with less total experience than Schaeffler Aerospace? You can lower your bearing replacement costs by having your bearings reliably re-manufactured by an OEM approved manufacturer. The re-use of existing materials offers significant savings. Schaeffler Aerospace does much more than just inspect and clean your bearings, by utilizing the proprietary manufacturing specifications and know-how. Schaeffler Aerospace restores your bearings to their original, “as new” condition.

*From used to airworthy in less than 18 days!*

*Schaeffler Aerospace is a market leader offering original design expertise, R&D backing, and years of manufacturing experience.*

**Schaeffler Aerospace Germany GmbH & Co. KG**
Bearing Refurbishment
Georg-Schaefer-Str. 30
97421 Schweinfurt
GERMANY
Phone: +49 9721 91 3888
Fax: +49 9721 91 3645
aerospace.repair@schaeffler.com
www.schaeffler.de/aerospace

**Schaeffler Aerospace Canada Inc.**
Bearing Refurbishment
151 Wright Blvd.
PO Box 640
Stratford, Ontario, N4Z 1H3
CANADA
Phone: +1 519-271-3232 x226
Fax: +1 519-273-8514

**Schaeffler Aerospace USA Corporation**
Bearing Refurbishment
200 Park Ave
PO Box 2449
Danbury, Connecticut 06813
USA
Phone: +1 4203-744-211
Fax: +1 203-794-8355
www.schaeffler.us

**Schaeffler Aerospace (Singapore) Pte. Ltd.**
Techplace II, Block 5008, #01-03
Ang Mo Kio Avenue 5
Singapore 569874
SINGAPORE
Phone: +65 6540 8690 · Fax +65 6481 2441
www.schaeffler.de/en/aerospace
www.schaeffler.sg


Issued: 2019, September


PIA 1 / US-D /201909.5 / Printed in Germany