WHY HONING IS CRITICAL FOR THE AEROSPACE INDUSTRY

Hydraulic systems are present on all types of aircraft, providing vital control to a range of systems and components, including landing gear, steering, thrust reversers, and cargo doors. Hydraulic failures are inconvenient and costly but, more importantly, may cause serious threats to flight safety such as a loss of control, the inability to extend or retract flaps, or problems raising or lowering landing gear.



Because hydraulic systems are more common in aircraft design than ever before, flight safety is dependent on their successful operation. Therefore, it's imperative that components are manufactured and honed to deliver optimum performance.

The Benefits Of Honing For Aeronautical Engineering

Honing is a crucial part of surface preparation for hydraulic components and, when completed precisely, offers important benefits for optimal efficiency, accuracy, and lifespan.

Efficient, Durable Pistons

Because pistons in hydraulic systems are exposed to constant strain, friction, and pressure, they may wear quickly. Surface honing can considerably improve the lifespan of the pistons, protect them from premature wear, and enhance tolerances to provide a precise fit during operation.

Lower Chance Of Component Failure

A component failure on-board an aircraft can be incredibly dangerous and life threatening. Superior quality honing will eliminate inconsistences in the size and finish on the surface of critical components, so that uneven wear is avoided. Pistons that have been honed will experience slower wear, as smoother movements within the cylinders will be achieved.

Improved Fluid Transmission

For effective system operation, hydraulic fluid must be efficiently transmitted between cylinders. Accurate honing ensures that inconsistencies are removed, resulting in a smooth machined surface that enables fluid to be transmitted in the system more efficiently and quickly. Honing also makes it easier to spot deficiencies, such as dents or scratches, that could make system failure more likely.

Hone-All: Your First Choice For Your Aerospace Honing

All hydraulic components on-board an aircraft must provide consistent and reliable performance, so it's vital that honing is completed to high standards. Choosing a honing partner who offers substandard services for a tempting price could result in product failures.

A specialist, such as Hone-All, who has extensive experience of the aerospace industry, will ensure that the work is completed accurately first time.

At Hone-All we provide:

- A tailored honing service to meet the unique needs of each project.
- A commitment to the highest standards, as evidenced by our AS 9100 & ISO 9001 accreditation.
- Decades of extensive experience of honing for the aerospace industry, so there's no job too large or complex for our team.
- A pledge to complete honing as quickly as possible without impacting on the quality of the work.

Contact Us To Find Out More

If you would like to find out about our honing services, or would like to know more about our service and costings, please call the team here at Hone-All on 01525 370666 or request a quote and we will be in touch.

