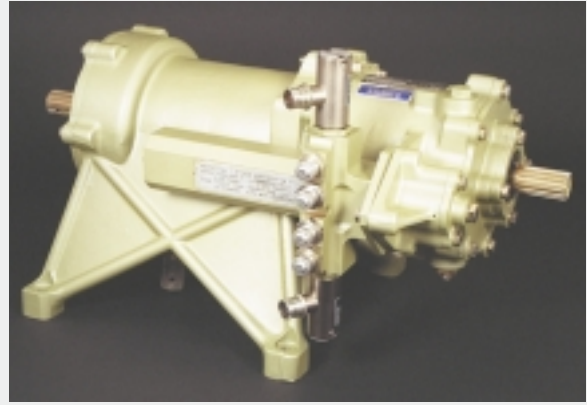




HYDRAULIC START MOTORS



CENTRAL GEAR BOXES

# THOMAS INSTRUMENT



POWER DRIVE UNIT



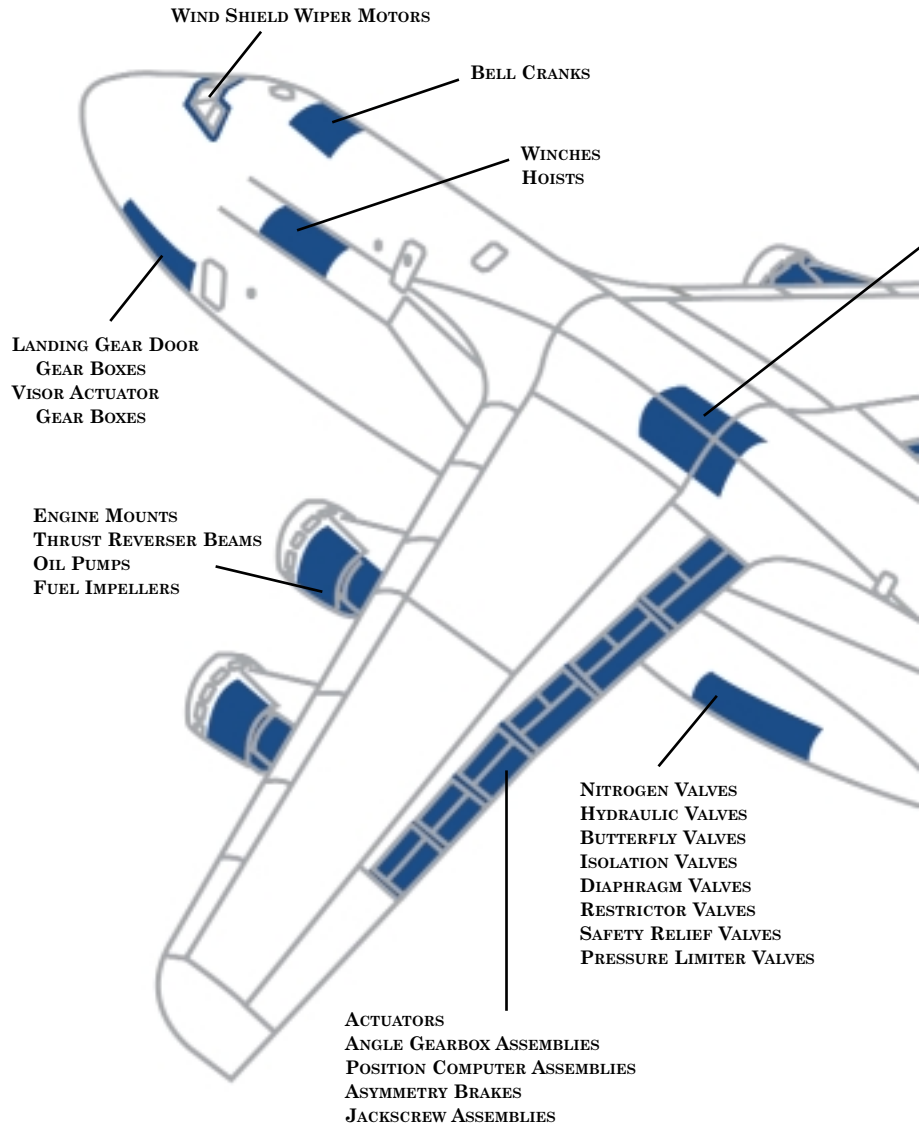
TEST LAB

**REPAIR & OVERHAUL**



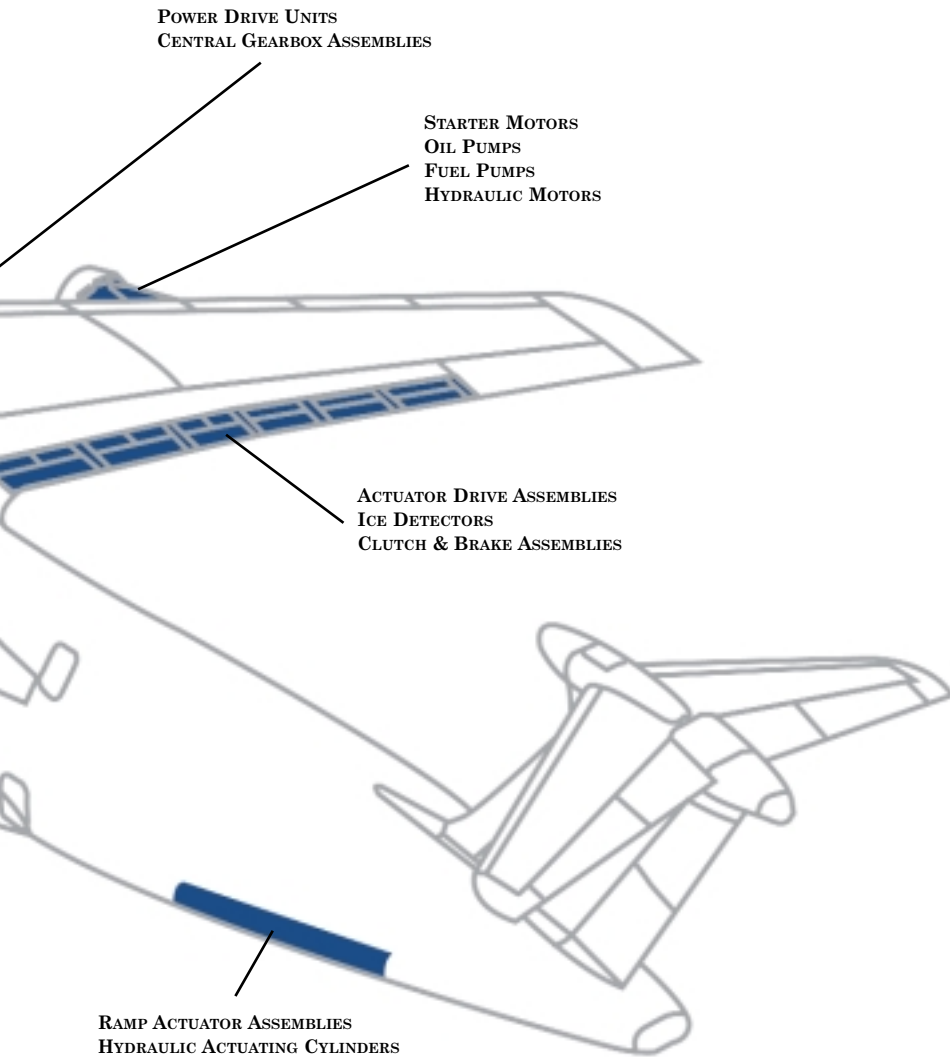
OIL PUMPS

Thomas Instrument specializes in the design, manufacture, and repair/overhaul of precision aircraft actuation systems for the military aircraft industry. These specialized products include complete gearbox assemblies, actuator assemblies, ballscrew assemblies, hydraulic and pneumatic motors, positioning computers, clutch & brake assemblies, winches, and hoists. Thomas Instrument provides innovative solutions to the most challenging requirements.



Understanding the requirements is critical to Thomas' success. Thomas Instrument's innovative design capability utilizes the most advanced technologies. Thomas engineers are specialists in design, reverse, and sustaining engineering programs. Special emphasis includes gear and gearbox design, lubrication/cooling design, heat rejection, and weight control. The use of 3-D modeling, state-of-the-art software and manufacturing processes, plus years of experience enable Thomas to overhaul the most sophisticated actuation system assemblies available today.





CENTRAL GEARBOX

Thomas Instrument has years of experience in finding sound, economical solutions to your requirements. To enhance our customer support capability, Thomas has developed special relationships with companies that are leaders in specific fields. Program Managers “partner” with customers to achieve shorter turn around time, engineering support, and cost effective solutions to Repair & Overhaul requirements.

Thomas Instrument is certified to ISO 9001.

The Repair & Overhaul process ensures each assembly is carefully disassembled, analyzed, and evaluated. Standard replacement components are automatically replaced, and all other items are carefully analyzed using exacting standards. Trouble areas are identified and product enhancement solutions are provided. These improvements are usually achieved using a Class II Change. Complicated and close tolerance machining is routinely performed when required, and highly trained and skilled technicians provide careful assembly with strict adherence to all technical specifications for each product. Complete product testing is done in our in-house test facilities to assure that all performance requirements are met for each product.



CLUTCH & BRAKE

## **PRODUCTS ROUTINELY REPAIRED & OVERHAULED**

- ✈ Gearbox Assemblies
- ✈ Asymmetry Brakes
- ✈ Oil Pumps & Motors
- ✈ Hydraulic Pumps & Motors
- ✈ Bearing Hanger Assemblies
- ✈ Nitrogen Valves
- ✈ Angle Gearbox Assemblies
- ✈ Clutch & Brake Assemblies
- ✈ Position Computer Assemblies
- ✈ Winches
- ✈ Jackscrew Assemblies
- ✈ Hoists
- ✈ Bell Cranks

## **TESTING CAPABILITIES**

- ✈ Hydraulic Pressure Testing – to 20,000 PSI
- ✈ Liquid & Gaseous Nitrogen Testing – to 120 Lbs per Minute
- ✈ Thermal Testing – from -120 degrees (F) to +600 degrees (F)
- ✈ Altitude Chamber Testing – to 65,000 feet
- ✈ Ball Screw Testing – measuring load and efficiency
- ✈ Dynamometer Testing – measuring speed, load, and torque
- ✈ Cryogenic Testing
- ✈ Winch / Hoist Load Testing



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**Cage Code: 5H860**