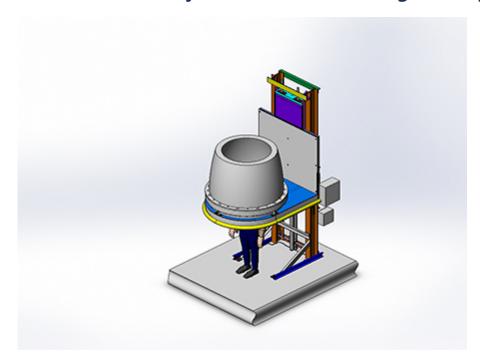


Innovative Lift System for Aircraft Engine Inspection



The Challenge

Our customer Pratt & Whitney, who is a leading manufacture and service provider of aircraft engines, contacted Autoquip about wanting improve their process for inspecting engine cowling. The customer typically uses equipment stands to support the part for inspection that has become increasingly unsafe, time-consuming, with a multi-step process that involves a manual inspection. The key challenge in the design process for Autoquip would be to identify a more efficient lifting solution that would allow parts inspection at all access points in and out of the engine cowling with built in safety features.

The Autoquip Solution

The solution was a custom designed single light-duty mast lift that is freestanding and self-supporting. This design offered the flexibility to address multiple issues needed to improve the inspection process. A customized round platform with an open center was designed to allow the worker to stand with the engine cowling in an overhead position for a full-access inspection. A donut-shaped powered turntable has been bolted on top of the platform and the engine cowling will be positioned on top allowing the inspector to rotate the turntable by wireless controls. Fixed stops have been installed so that the lift can only descend to a lowered height of 36". Padded bumpers are provided around the bottom outside perimeter of the lift platform and around the operator opening of the platform for added protection.

Specifications:



Product: Mast Lift

Model # 060ML005

Capacity: 500 lbs.

Platform: 45×58

Travel: 34"

Actuation: Electdraulic/Electric

The Solution Benefits

As a custom lifting equipment specialist, Autoquip was able to vision, and ultimately design a lift system specifically fitted to meet the critical need for complete engine cowling inspection. The inspector can now trust that the mast lift will be a safer and more reliable lift system than the former equipment stands. The mast lift supports a 500 lb. capacity, and the engine cowling are safely secured on the platform with protected safety stops. Utilizing the mast lift will make the engine cowling inspection a quicker, more efficient process allowing access to difficult areas.