case study

remote engine nacelle latching system — A380

aircraft availability

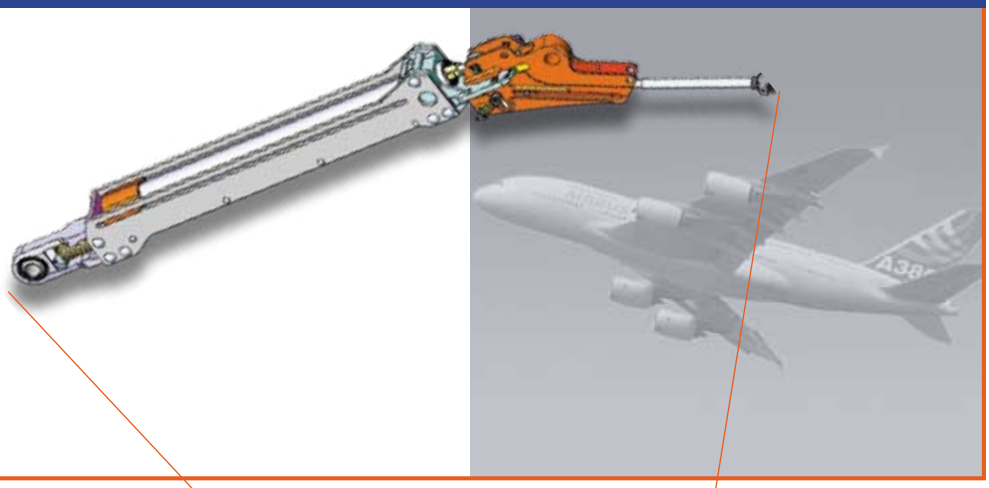
A380

design applicability

Nacelles that accommodate long range, large thrust engines

part number

HA1391-1



the challenge

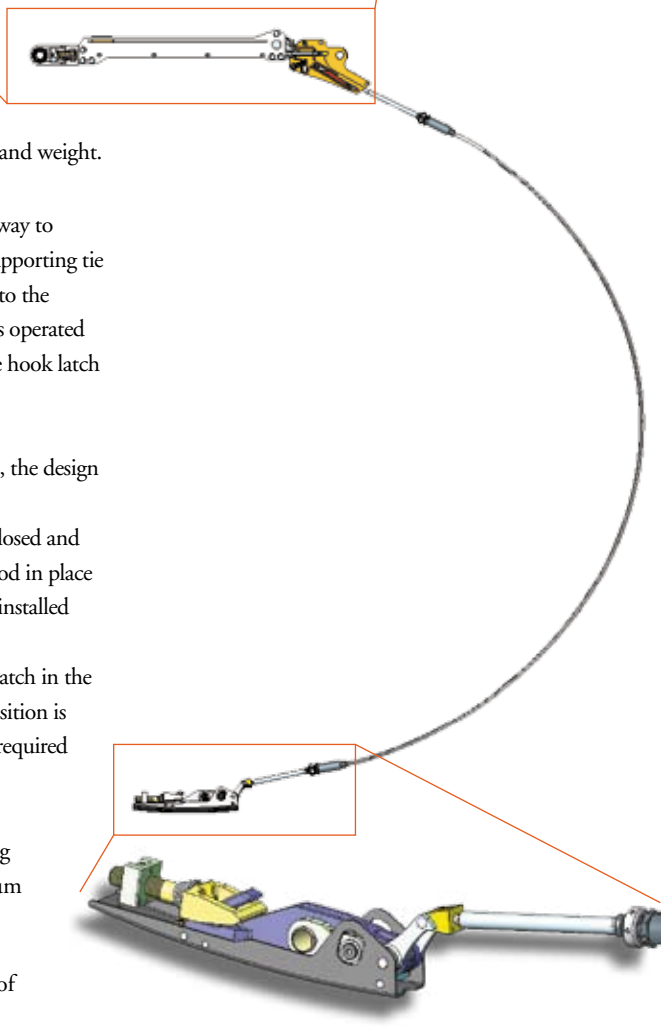
To develop a self supporting remotely operated latching system that is designed to secure the Airbus A380 Aft Core Cowl at both the 6 o'clock and 12 o'clock positions. The latching system must be designed for long life, high reliability and a minimum cost and weight.

the solution

Hartwell's remotely operated pin/hook latch system provides a way to quickly latch and unlatch the A380 Aft Core Cowl. The self supporting tie rod/pin latch assembly ensures that the latch will always return to the position required to re-latch the nacelle for flight. The system is operated from a single handle that also acts as a standard ultra low profile hook latch at the 6 o'clock position.

In addition to the convenience of operating the latching system, the design is incorporated with unique safety features:

- The system prevents the handle assembly from being closed and locked unless the nacelle is first secured and with the tie rod in place and the keeper for the latch in the "6 o'clock" position is installed properly.
- During flight the nacelle is held closed by the system's latch in the "6 o'clock" position while the latch in the "12 o'clock" position is designed to carry either compression or tension loads, as required during normal flight or critical engine conditions.



additional benefits

In addition to solving all of the customer's complex latching and safety requirements Hartwell's design uses the minimum possible number of moving components.

for more information

For more information on this product and other examples of Solutioneering at work, contact Hartwell Corporation at 1.714.993.4200.

Solutioneering at work

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