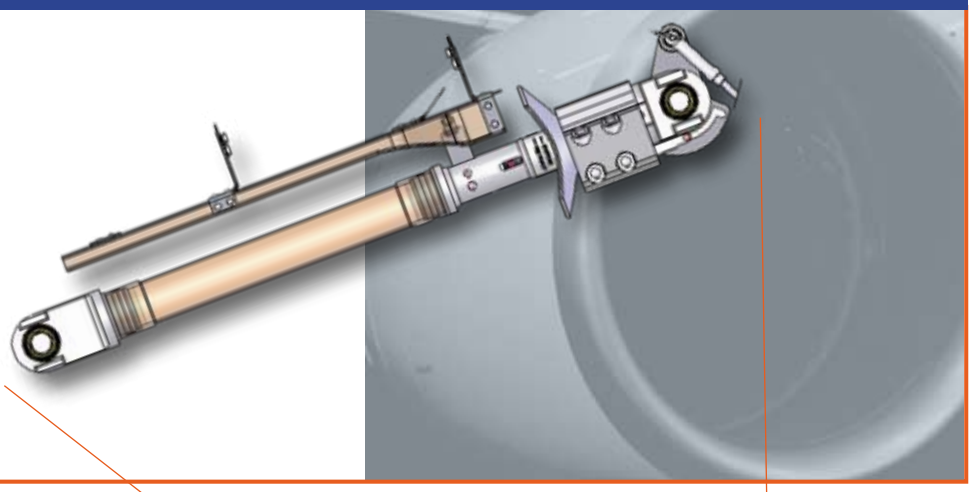
case study

remote engine nacelle latching system — B787



aircraft availability

B787

design applicability

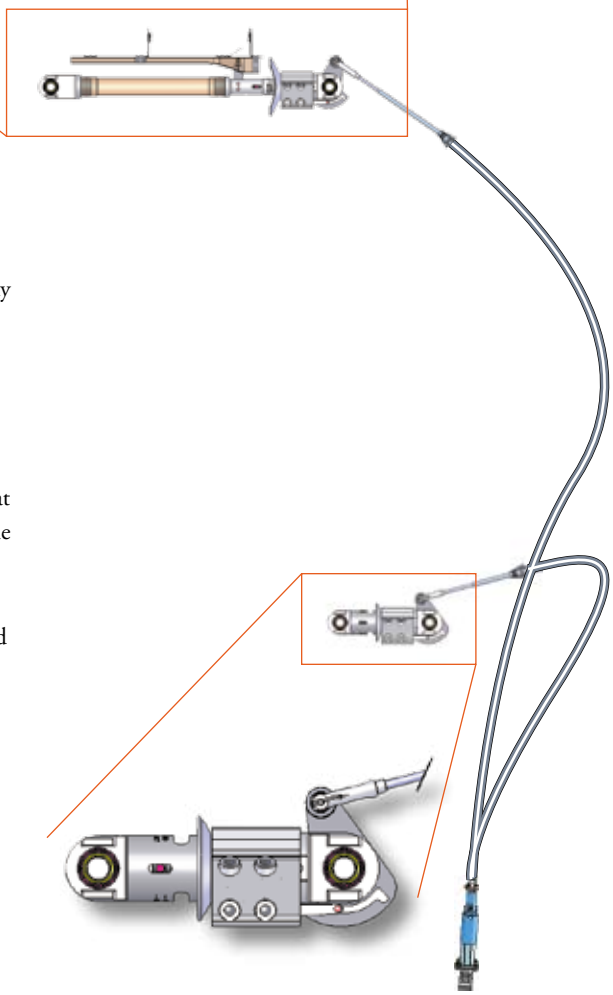
Medium to high thrust engine nacelles

part numbers

HA1380-1
HA1381-1

the challenge

The overall operational objective of the latch assembly is to provide a means of quickly securing and releasing the thrust reverser c-ducts on the nacelle of the Boeing 787. Latches are required 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/pawl latch system provides a way to quickly latch and unlatch the Boeing 787 thrust reverser c-ducts. The upper 12 o'clock latching system is supported by a mounting fitting and is guided by an optional rail depending on the engine configuration. This support/guide system guides the latch halves into the position required to re-latch the nacelle for flight. The system is operated from a single push–pull handle that also blocks closure of a lower access door if the handle is left in the open position. In addition to this safety feature, Hartwell has designed a latch "lock-out" feature that prevents the handle from being secured until the c-duct halves have been closed and latched along the 6 o'clock positions. These features combine to ensure the proper sequencing for the latching of the engine nacelle.

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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