



CASE STUDY
**AEROSPACE
MANUFACTURING
AND SERVICING**

WORLD LEADER IN THE MANUFACTURE AND SERVICING OF AUXILIARY POWER UNITS, GAS TURBINE ENGINES AND OTHER ROTABLES FOR CIVIL AND MILITARY AIRCRAFT.

BUSINESS CHALLENGE

The client required the design and management of a rapid response, time definite logistics network for the collection of engines and associated rotables from airlines, delivery to service points and return to the carriers. In addition, the establishment of a tax and duty free warehouse for rapid response distribution of these products.

The design requirements included:

- ▶ Collection from airlines within a specified 30 minute window.
- ▶ Transportation to an intermediate service point in the UK for removal of QECs (Quick Exchange Components) and repacking of engines from cradles to specially designed transit containers.
- ▶ Transit to the client's European facilities together with new parts, for servicing operations.
- ▶ Return from European operations to the UK service point for attachment of QECs and repacking on to cradles.
- ▶ Delivery to airlines.
- ▶ Transportation door to door cycle times from original collection to delivery on both outbound and inbound movements including all intermediate steps not to exceed 22 hours.
- ▶ A unique tracking system to show engine and rotatable location and status within process.
The tracking system to take account of type number and identification changes with service rebuild upgrades and to include client, airline and SDV references to enable use by all three parties.
- ▶ Exception reporting against agreed time frames within process -including servicing.
Operation of a secure warehouse for engines and rotables for emergency supply to carriers within Europe with capability for AOG (Aircraft on Ground) response (2 hours from instruction to despatch.) Warehouse to be VAT and Duty exempt.
Full customs compliance for the movement of very high value VAT and Duty free engines and components.
Full compliance with FAA (Federal Aviation Administration) and CAA (Civil Aviation Authority) regulations

METHODOLOGY & SOLUTION

SDV conducted in-depth meetings with the client, the carriers whose engines and rotables were involved, both the FAA and CAA at their London offices and customs authorities to ensure that all requirements were totally understood, recorded and signed off. All steps in the process were then charted together with the timings of each step. Pick up and delivery times were then, in collaboration with all parties, integrated into a transportation matrix involving specialised vehicles with precisely defined schedules and tasks.

SDV wrote the software for the tracking system and trained SDV and client staff in its use, as well as creating access to tracking data by the client's own customers. This software is updated at each key movement stage and for each change in product description by SDV staff.

The warehouse was constructed within the SDV's Aviation Security Approved facility at London Heathrow and controlled in accordance with FAA/CAA regulations. A combination of dedicated SDV and third party transportation was selected for physical movements, ensuring that they met with equipment specification, timing and Aviation Security requirements. Compliance with customs regulations was made the responsibility of the SDV Customs Management Team. All processes were embodied in detailed operating procedures in which all parties were trained.

BENEFITS AND RESULTS

All design criteria were met at minimum cost.

Reliable rapid response system for storage and movement of engines and parts around Europe to time definite standards achieved. Inventory held in VAT and Duty free environment to FAA/CAA requirements.

Full compliance with European customs regulations.

Tracking of all items with exception reporting of KPIs including those outside agreed standards during client servicing operations.

Client positioned to meet customer requirements for rapid turnaround/delivery of high capital value items