

ABUS/Rolls-Royce Press Release

Text put together from ABUS provided data and site visit by David Keighley (WNII)

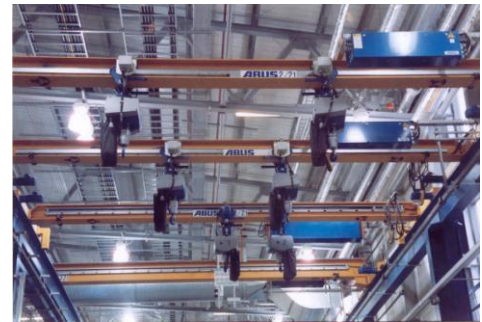
Altered & agreed by ABUS Crane Systems Ltd. & Rolls-Royce plc

Published WNII complete with front cover picture – September 2006 issue

Cranes ready for jet lift-off

A major installation of handling equipment by ABUS Crane Systems is playing a major role in the operation of a £32m showpiece engineering facility at Rolls-Royce, Derby. Able to handle around 250 large jet engines a year, the 220m by 105m AR&O (Aero Repair & Overhaul) facility brings under one roof the repair and overhaul capabilities previously shared between two older buildings.

The ABUS contract was awarded by Bowmer and Kirkland, main contractors for the design and build project. But a key aspect to the choice and installation of the cranes and associated equipment was the direct line of communication between Rolls-Royce personnel and ABUS that was maintained throughout the project. This not only allowed Rolls-Royce to make changes to equipment specification and configuration as work on the facility progressed, but also enabled ABUS to react very quickly to meet any such changes. In effect, everybody benefited and unnecessary hold-ups were avoided.



“It was important to have this flexibility on a job like this,” said ABUS Managing Director Klaus-Peter Kauferstein. “When Rolls-Royce got involved directly it made life much easier. We could even make alterations on-site at any stage of the project and at the end of the day; we are satisfied if the customer is satisfied. We really appreciated Rolls-Royce’s open approach.”

This supplier/customer collaboration really came into its own during the development of the complex system of gantry steelwork that had to provide maximum working flexibility for the cranes, yet create the minimum amount of obstruction to personnel and vehicles on the plant floor. Despite the tight deadlines, it underwent extensive reassessment and integration exercises during construction to ensure that the factory floor would be clear of unnecessary obstacles.

The range of ABUS equipment installed in the AR&O facility is as impressive as it is wide. There are no less than 57 single and twin-hoist overhead cranes, eight jib cranes and 29 monorail hoists. The overhead units provide spans of up to 19,400mm and safe working loads (SWL) up to 4000kg (the huge jet engines are broken into sections for overhaul and repair work to be carried out), while the jib cranes — both underbraced and overbraced floor-mounted types — offer SWL up to 1000kg and jib arm lengths up to 3500mm.



Some overhead cranes have been equipped with a pair of chain hoists: here, a Load Indication System allows aero components of the same weight as the crane SWL to be picked up by either of the hoists acting independently, or by both hoists acting in tandem. This arrangement makes life much easier for maintenance personnel during component turning manoeuvres and the lifting of larger objects without the need for any elaborate lifting attachments.

In addition, ABUS also provided straight and looped monorail systems with SWL up to 4000kg and either pendant or radio remote control.

ABUS currently produces about 5000 overhead cranes and more than 14,000 hoists every year, backed by a unique four-year standard warranty and ISO9001 quality assurance.