RENK LABECO Test Systems Corporation, Mooresville, Indiana, supports AH-64D Apache Longbow Helicopter Block III Transmission Development

The Boeing Company has placed a new contract for a Main Transmission Test Stand, a Nose Gearbox Test Stand and a Main Transmission Slow Roll Test Stand with RENK LABECO Test Systems Corporation, Mooresville, Indiana, a wholly owned subsidiary of RENK Test System GmbH. These tests stands will be used for the development, and qualification testing of the AH-64D Apache Longbow Block III drive train gearboxes at the company's Rotorcraft Systems operation in Mesa, AZ. Upon completion of the qualification testing, the stands will be used for production acceptance testing. The value of the contract is $5,951,545 with delivery of the test stands in June of 2008.

The Main Transmission Test Stand, similar to the one shown at left, and the Nose Gearbox Test Stand will be designed, assembled and tested at RENK Test System in Augsburg, Germany. The Main Transmission Slow Roll Test Stand will be designed, assembled, and tested at RENK LABECO Test Systems in Mooresville, IN.

The Nose and Main Test Stands are mechanical closed loop design. The Main stand consists of three loops: right input, left input, and tail output.

The three mechanical closed loops are driven by AC-motors (prime movers) via the top gearbox and loaded by super position drives for each loop. This allows individual torque to be applied to each of the mechanical closed loops. A unique coupling system allows engagement and disengagement of the overrunning clutches in the main transmission under full load and speed. The Nose Gearbox Test Stand consists of one closed loop and is designed to test left and right hand nose gearboxes in a single station. The Slow Roll Test Stand will be used for gear pattern development.

The test stands are operated via PC’s using the RENK RDDS NT/XP operating software.

RENK LABECO Test Systems and its parent RENK Test System GmbH have extensive experience in system design, manufacturing, and the commissioning of complex state-of-the-art test rigs for the automotive and aerospace industries.

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