



BILFINGER

Press Release

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Keeping pilots on course: Bilfinger helps ensure flight safety

The summer holiday season is underway in Germany. At Frankfurt am Main Airport, the planes take off in rapid succession with well-trained pilots at the controls. Many of them learned their flying skills in the flight simulators of the Lufthansa Aviation Training Center. Here, pilots from 160 different airlines undergo training to obtain their flying license. Specialists from the industrial service provider Bilfinger ensure that the simulators function smoothly and trouble-free. Bilfinger is responsible for the repairs and maintenance of the flight simulator's hydraulic systems. Over the past three years alone, the company has replaced some 1,200 hydraulic hoses for these machines.

Every minute expended for their installation work counts. Customarily, the flight simulators remain "grounded" (the usual jargon term) for no more than four hours a week. Bilfinger Project Manager Andreas Nitschke and his eight-person team are able to complete all the installation work for a given flight simulator in just a single workday.

"It is important for us to keep our simulators running in an absolutely trouble-free manner. Here in Frankfurt, after all, we're talking about 22 units that are in constant operation," points out Volker Jäger, Head of Services for Hydraulics at Lufthansa Aviation Training. "At the moment, we're hitting a reliability rate of 99.4 percent. To keep it there, a functioning hydraulic system is a key prerequisite. You absolutely need it in order to simulate the forces that arise in an aircraft. Only then is the perfect illusion of flying created."

Security comes first

Quality and safety are top priorities for Bilfinger. Accordingly, Nitschke and his team apply the dual-control principle when pursuing their quality-assurance activities. Once a technician has removed the old hydraulic hose and has installed and tested the new one, he will mark the connection with a color-coded dab as proof of his work. A colleague then performs a second test inspection and leaves behind his own color-coded mark as proof. This system means it is possible to trace often a given connection was checked and by whom.

Used hydraulic hoses are taken to a central workshop where they are cleaned and properly disposed of. The tight time window for the replacement workflow is tight, so detailed advance



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planning is of the essence. Newly produced hoses are carefully measured to ensure that they will fit properly and not leak oil while in use. “The hydraulic system of a flight simulator is extremely sensitive and works with a precision tolerance of half a millimeter,” explains Marco Schweitzer, Head of Installation at Bilfinger Maintenance. Each hose bears a numerical code which ensures that it can be accurately reproduced whenever replacement becomes necessary.

Bilfinger is a leading international industrial services provider. The Group enhances the efficiency of assets, ensures a high level of availability and reduces maintenance costs. The portfolio covers the entire value chain from consulting, engineering, manufacturing, assembly, maintenance, plant expansion as well as turnarounds and also includes environmental technologies and digital applications.

The company delivers its services in two business segments: Engineering and Technologies and Maintenance, Modifications & Operations. Bilfinger is primarily active in the regions Continental Europe, Northwest Europe, North America and the Middle East. Process industry customers come from sectors that include chemicals & petrochem, energy & utilities, oil & gas, pharma & biopharma, metallurgy and cement. With its 36,000 employees, Bilfinger upholds the highest standards of safety and quality and generated revenue of €4.044 billion in financial year 2017.

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