



SPARROWS



TRAINING

HQ1 HYDRAULIC COMPETENCE ASSESSMENT

The HQ1 Hydraulics Programme has been developed by the British Fluid Power Association (BFPA) and CETOP in Europe to assess the competence of hydraulic technicians. This one-day course is designed to test the knowledge and practical skills that all hydraulic technicians should be able to perform as a minimum, so you can be assured your personnel can work safely and proficiently.

WHO IS THIS COURSE FOR?

- This course is intended for anyone with a technical background who works on machines incorporating hydraulic systems.
- This is the first level of competency assessment, allowing progression to more advanced levels of courses.

WHAT ARE THE PREREQUISITES TO ATTENDING?

Level 1 Hydraulics (or equivalent)

WHAT ARE THE AIMS OF THIS COURSE?

To assess the practical skills and theory knowledge of the attendee to HQ1 level, as determined by the specifications laid out by BFPA.

WHAT IS THE DURATION OF THIS COURSE?

One day, comprising theory content, four practical tasks (assessed on a 1:1 basis by the instructor) and a written exam.

WHAT CERTIFICATE DO ATTENDEES RECEIVE ON COMPLETION OF THIS COURSE?

Candidates who successfully pass both the practical and theory elements of the assessment will receive a BFPA HQ1 certificate.



During the day assessment, the following schedule will apply:

DAY 1

- **Introductions and welcome**
- **Explanation of the course and its objectives**
- **Assessed task 1: component recognition**
 - During this task, the attendee will have time to look over a hydraulic system and work out the location and function of eight different components. The assessor will then ask the attendee to point out each device, and to briefly state its function in the circuit.
- **Assessed task 2: use of pressure gauges**
 - During this task, the attendee will have time to look over a hydraulic system and work out the location of three pressure test points. Then, following a maintenance task sheet provided to the attendee, the attendee will use appropriate pressure gauges to safely and accurately measure several different pressures, in a timely manner.
- **Assessed task 3: filter element change**
 - During this task, the attendee will carry out the change of a filter element on a return filter. The task will be carried out in a safe and timely manner, with a focus on the use of the correct tools and keeping the working area clean and tidy.
- **Assessed task 4: accumulator precharging**
 - During this task, the attendee will be asked to check the gas pre-charge pressure on a bladder accumulator. Then, they will be asked to either increase or decrease (or both) the pre-charge, in a safe and timely manner.
- **Additional theory is provided to the attendee on the following points:**
 - Overview of construction of diaphragm, bladder and piston accumulators
 - Procedure for checking the pre-charge pressure of an accumulator
 - Procedure for increasing the pre-charge pressure of an accumulator
 - Procedure for reducing the pre-charge pressure of an accumulator
 - Function and construction of accumulator safety blocks
 - Certification requirements of accumulators (PED & PSSR)
 - Gas-side safety valves.
- **Exam practise**
 - The attendee will have the opportunity to carry out a number of practise sheets, in order to practise for the exam.
- **Theory exam**
 - The attendee will sit a formal two-hour theory exam, where their knowledge of the theory portion of the HQ1 syllabus is tested. This includes function and operation of common hydraulic components, symbol recognition and drawing, component port identification and basic fundamental principles. All topics on the exam paper are covered in the Altrad Sparrows 'Level 1 Hydraulics' course, which is strongly recommended as a prerequisite.

DELIVERY ASSURED

For more information please visit www.altradsparrows.com/training



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