



Worksheet IH & Training Record Introduction to Hydraulics

Explore Hydraulics

Email:

Course:

Provider:

Expected Outcomes:

- To know examples of how where and why fluid power, hydraulic equipment is used.
- To understand the basic hydraulic components and how they are combined in circuits.

Previous Knowledge Required:

No previous knowledge is required. Students already familiar with hydraulic equipment including hydraulic pumps, actuators and control valves, can simply complete the worksheet results.

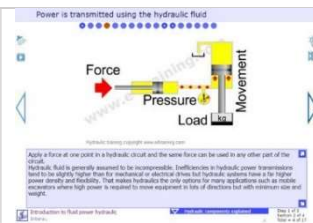
Background investigations



Think about as many different uses of hydraulics as you can and why other solutions, such as electric or pneumatic drives were not used. See also <https://www.e4training.com/hyd01/> & [/hyd02/](https://www.e4training.com/hyd02/)

List examples of hydraulic systems you've seen:

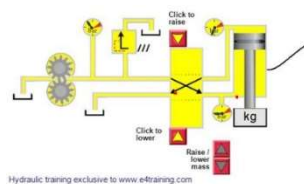
Self-driven micro-learning presentation (SDL)



Complete the 'Introduction to hydraulics' SDL app via https://www.e4training.com/hydraulic_courses/, phone app or CD/download

Date, score & time:

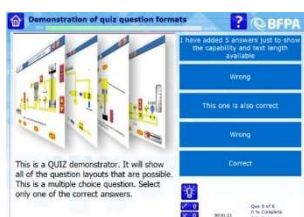
Interactive experiment and testing



Experiment with a simple circuit simulation of basic hydraulic components [hyd_newbie/basic_comp3.php](http://www.e4training.com/hyd_newbie/basic_comp3.php)

Operate the simulation to:

- Drive the cylinder up and down.
- Observe how the cylinder load affects the pressure.
- Work out when and why the safety valve opens



Complete the 'introduction to hydraulics' Quiz either online, phone app, CD or download.

Quiz date & score



Additional video and instructional resources



Visit https://www.e4training.com/hyd_newbie/ for additional videos, reading and simulation experiments

Further experiments

Learn about and experiment with more advanced circuit simulations [hyd_newbie/basic_circ3.php](https://www.e4training.com/hyd_newbie/basic_circ3.php)

Operate the simulation to:

- Observe how cylinder speeds are controlled.
- Observe how cylinder are protected from falling.

Dates & durations
(Optional):

Qualification pass requirements:

Students will need to complete and return all worksheets to their registered training provider. Methods of testing and qualification may vary by course provider.



For online certificates students must also post their results at the end of each training module by simply clicking the email button within the app.