



Worksheet HM00 & Training Record Hydraulic Maintenance Considerations

Hydraulic Maintenance

Email:

Course:

Provider:

Expected Outcomes: (90-180mins)

1. Appreciate that hydraulic equipment is designed to meet different duties and length of service life.
2. Understand the key areas that require maintenance and why they are important.
3. Review different power unit designs to recognise which features are used to extend the service life.
4. Learn about the different maintenance tasks, procedures, and documentation.

Previous Knowledge Required:

You should have already completed all of the basic hydraulic modules including HF, HP, HD, HV, HA, and HE worksheets before starting any physical maintenance work. You must complete and understand the importance of all HS Safety worksheets along with HP04 'hydraulic contamination' and HE05 'Pipework and fittings'. Good working knowledge of hydraulic equipment is required even if your maintenance work is to be closely supervised.

Terminology:

Planned, periodic, scheduled maintenance, service life, duty cycle, troubleshooting, diagnostics.

Record of Achievement:



Click the email button (that will appear within each app) to post your results, once training is complete. Enter your training provider or your email address. Also record progress, times, scores, etc. on this training record sheet and keep together with any additional written work to include in the assessment process.

Interactive tutorial



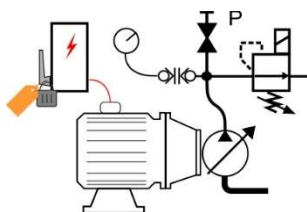
Complete the 'Hydraulic maintenance considerations' at www.e4training.com/hydraulic_courses/microtutor1.php?wtmaintain

Complete quick quiz at end and post results.

Date, score & time:

Tick when posted

Coursework investigations and instructional video



Study the detailed information and instructional videos at www.e4training.com/hyd_maint/maintdesign1.php & 2.php

Learn the key 'Maintenance Design Facilities'.

Complete



Mini Hydraulic Power Unit
DC, Intermittent operation



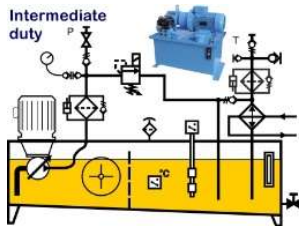
Study the detailed information

www.e4training.com/hyd_maint/maintexample1.php

Review different 'Power Unit Maintenance Examples'.

Complete

Intermediate duty



Study the detailed information

www.e4training.com/hyd_maint/mainttask1.php

Learn about 'Planned and Preventative Maintenance Procedures'.

Complete

Virtual test rig experiments



Experiment with the 'virtual industrial hydraulic power unit' at

www.e4training.com/hyd_maint/maintdesign3.php

- Follow the suggested exercises and observations list below the simulation.
- Run the experiments, answer the questions, and click the buttons to see the answers.

Includes a range of identification, testing, maintenance, and repair diagnostic exercises.

Date, score & time:

Tick when posted



Experiment with the 'virtual hydrostatic drive circuit' at

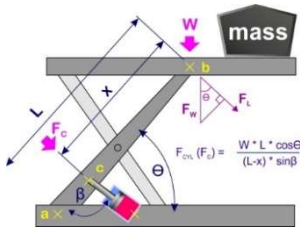
www.e4training.com/hyd_maint/mainttask3.php

- Follow the suggested exercises and observations list below the simulation.
- Run the experiments, answer the questions, and click the buttons to see the answers.

Includes a range of identification, testing, maintenance, and repair diagnostic exercises.

Date, score & time:

Tick when posted



Follow the practical discussions and exercises at

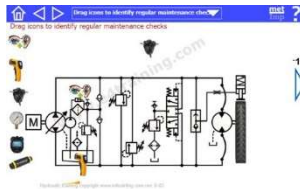
www.e4training.com/hyd_maint/maintexample3.php

- Review potential issues affecting the expected service life of different designs.
- Submit a maintenance plan for the scissor lift, or alternative equipment, showing which components you will monitor, including how and why you will maintain them.

Submitted written work

Complete

Virtual test rig experiments



Experiment with the 'virtual hydrostatic drive' system at

www.e4training.com/hyd_maint/maintdesign3.php

- Follow the suggested exercises and observations list below the simulation.
- Run the experiments, answer the questions, and click the buttons to see the answers.

Includes a range of identification, testing, maintenance, and repair diagnostic exercises.

Date, score & time:

Tick when complete



Experiment with the 'virtual industrial hydraulic power unit' at

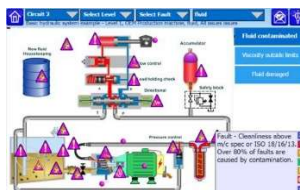
www.e4training.com/hyd_maint/maintexample3.php

- Follow the suggested exercises and observations list below the simulation.
- Run the experiments, answer the questions, and click the buttons to see the answers.

Includes a range of identification, testing, maintenance, and repair diagnostic exercises.

Date, score & time:

Tick when complete



Experiment with the 'hydraulic troubleshooting tool' at

www.e4training.com/hyd_maint/troubleshooting3.php

- Follow the operating instructions below the application.
- Explore each system to learn about the typical failure points and how to identify and repair them.

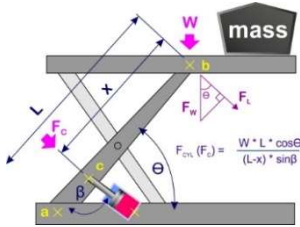
Includes a searchable database covering a range of fault, cause, test, and repair information.

Date, score & time:

Tick when complete



Practical & Coursework exercises



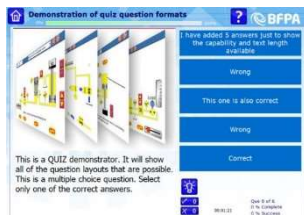
Follow the practical discussions and exercises at www.e4training.com/hyd_maint/maintexample3.php

- Review potential issues affecting the expected service life of different designs.
- Submit a maintenance plan for the scissor lift, or alternative equipment, showing which components you will monitor, including how and why you will maintain them.

Submitted written work

Complete

Interactive quiz



Complete the 'Operation and Maintenance' questions at www.e4training.com/hydraulic_test2.php? Quiz - Hydraulics part 2

Post result when complete.

Quiz name, date, score

Tick when posted

Key questions / Plenary

Can you describe the two main features that will enable a power unit with them to have a longer service life than one that doesn't?

Do you know how to test for contamination levels and fluid temperature?

Can you explain what different instrumentation might be used for testing?

Did you diagnose the built-in power unit and hydrostatic drive circuit faults?

Record answers:

Tick when complete

And Finally:

Complete this worksheet and keep for your certification records. Submit any written coursework etc. to your training course provider.

Follow-on Course Worksheets:

Potential follow-on worksheets include: HV02 – Advanced valve tips and specification.

Or refer to your individual lesson plan or search the worksheet lists at www.e4training.com/hydraulic_courses/worksheets1.php or [courses1.php](http://www.e4training.com/hydraulic_courses/courses1.php)

Notes