

<b>Title:</b>	<b>Compressed Air System Examination</b>
<b>Priority</b>	Amber – Audit Rating: Non-Conformance-Minor
<b>Legislation:</b>	HASWA, PUWER, RIDDOR, PSSR 2000 - <a href="https://www.hse.gov.uk/pubns/priced/l122.pdf">https://www.hse.gov.uk/pubns/priced/l122.pdf</a>
<b>Brief Description:</b>	Compressed air systems and their receivers are under the scope of the PSSR Regulations which include specific requirements regarding maintenance, repairs and examination
<b>Equipment Affected:</b>	Workshop Air Compressors / Mobile hire fleet compressors / Road-tow Compressors and any item of equipment where the pressure receiver is >250 bar/litres

Air systems and their receivers including mobile systems e.g. hire fleet compressors fall under the scope of the Pressure Systems Safety Regulations 2000 (PSSR) as they compress and store a 'relevant fluid' as air is a mixture of gases. For air compressors with receivers of a 'stored energy' volume - pressure multiplied by volume (P x V) is greater or equal to 250 bar litres (bl) then a Written Scheme of Examination and other specific information is also required.

Air Receiver >=250 bar litres (bl)		Air Receiver <250 bar litres (bl)	
Regulation	Requirement	Regulation	Requirement
7	Safe Operating Limits	7	Safe Operating Limits
8	Written Scheme of Examination	11	Safe Operation / Emergency Actions
9	Examination Completion	12	Maintenance
10	Imminent Danger Action / RIDDOR	15	Pressurisation Protection
11	Safe Operation / Emergency Actions		
12	Maintenance		
14	Record Keeping		
15	Pressurisation Protection		

### Written Scheme of Examination and completion of Examination

A competent person should draw up a written scheme of examination taking into account a number of factors including: system design, operating environment, application, frequency of use and frequency of maintenance. A number of industry suppliers and specialist companies offer a complete service for this.

### Periodicity – how often should equipment be subject to examination? What if it is repaired?

This is defined in the Written Scheme based on the factors above and may be as often as every 24 months and up to 72 months where the equipment is highly maintained, lightly used or deemed low risk for this and other factors. As per LOLER, the written scheme will also specify what repairs would trigger the need for an examination before any specified period has expired e.g. pressure control valve / system repair would require a re-examination by a competent person.

### Other Considerations – Maintenance and provision of information to end-users

For mobile systems hire companies should provide end-users with written statements detailing safe operation limits or ensure the equipment is clearly marked. For long hire periods, the machine should be marked and written information provided.

**RIDDOR** – If a machine is found to be in a dangerous condition with the 'potential to cause death' the Competent Person is obliged to submit a report within 14 days as a Dangerous Occurrence. Equipment for workshop use should be subject to a combined inspection and test at least every 12 months and every hire for hire fleet equipment therefore, the likelihood of our equipment being presented in a dangerous condition should be minimal.

Overleaf includes a range of workshop and hire fleet machines and their bar litre stored energy capacity

<b>Title:</b>	Compressed Air System Examination	<b>Bulletin Number:</b>	45-2021	<b>Creation Date:</b>	09/08/2021
<b>Authors:</b>	TfH Ltd	<b>Reviewed by:</b>	HAE HS&T	<b>Revision:</b>	V1

## Typical vessels / systems encountered in hire premises

<p><b>Bench Top Mini Compressor</b> 8 bar working pressure 6 litres 8 x 6 = 48 bar litres</p>	<p><b>Small Wheeled Compressor</b> 8 bar 24 litres 8 x 24 = 192 bar litres</p>	<p><b>Makita AC1300</b> 10 bar 20 litres 10 x 20 = 200 bar litres</p>
		
<p><b>Typical Workshop Compressor</b> 10 bar 200 litres 10 x 200 = 2000 bar litres</p>	<p><b>Site Compressor – Twin Tool</b> 7 bar 10 litres 7 x 10 = 70 bar litres</p>	<p><b>Toilet Pump Unit</b> Pressure is sub 0.5 bar so PSSR does not apply</p>
		
<p><b>Recommended Actions:</b></p>	<ul style="list-style-type: none"> <li>• Review existing equipment to identify whether it is in-scope to PSSR and identify its bar litre capacity</li> <li>• If over 250 bar litres, a competent person must draw up the written scheme and carry out examinations</li> <li>• Ensure combined inspection and test of work equipment is being completed and records maintained. Ensure work equipment and hire fleet include checks of pressure systems and safety systems including gauges and drain offs / relief valves</li> <li>• Consider workshop compressor specification, is one required that is 250 bar litres or greater?</li> </ul>	
<p><b>Circulation:</b></p>	<p>Workshops, mobile service and management team</p>	