

Workplace Health and Safety Queensland

Automotive service and repair industry

Compressed gases

The automotive service and repair industry uses compressed gases, including:

- oxygen
- acetylene
- argon
- Argo shield
- liquefied petroleum gas
- compressed air.

Apart from compressed air, the gases are normally supplied in cylinders of various sizes. Many of these cylinders look similar, but they are labelled, and are often different colours, to identify their contents. Any fixed gas pipelines in the workplace should be identified by a standard colour code (e.g. light blue for compressed air).

Check with your supplier and refer to the Material Safety Data Sheet (MSDS) for safety, handling and storage procedures for each type of gas. Workers should also:

- check that all cylinders are stored upright and restrained by a chain, rope or bracket, particularly if on a trolley
- keep oil and grease away from cylinders, regulators and valves. General purpose Teflon tape should NOT be used on cylinder/regulator fittings to stop leaks, as the general white Teflon tape contains petroleum products (oils and greases), which may potentially cause an explosion (e.g. with contact with compressed oxygen gas)
- report any leaking or damaged cylinders to your supplier
- not strike an arc on gas cylinders.

Compressors

Air compressors should be maintained in accordance with the manufacturer's instructions, and be regularly inspected by a competent person. An example of this may include a daily and weekly inspection as specified by the manufacturer. Records of these inspections should be kept. A good maintenance program would include, for example, checking the condition and operation of the:

- pump
- exhaust valve
- belt guard
- drive belt
- oil filter
- discharge pipe.

Air receivers (or air tanks as they are better known) may be required to be registered with Workplace Health and Safety Queensland (WHSQ). There are five categories of air receivers – A, B, C, D, and E. WHSQ registration is required if the tank has a hazard level rating of A, B or C under the Australian Standard 4343. This may be able to be determined from the markings, or the compliance plates on the tank, or from the documentation that came with the tank. Each tank needs to be individually assessed for registration requirements.

Although air tanks or receivers with a lower hazard rating are not required to be registered, all tanks should be regularly inspected and maintained.

As a minimum this should include:

- draining the water from the drain valve each day to prevent the tank from rusting and corroding, and checking the water which is drained from tank, as globule substances or discolouration may indicate oil rings are worn
- checking and maintaining all relief valves, drain valves and pressure gauges in accordance with the manufacturers instructions
- visually inspecting the metal tank for rust and pitting at least every two years
- doing internal inspections every four years for larger tanks (refer to Australian Standard 3788).

Compressed air lines

- Copper or steel are generally used for air lines. Where PVC is used, it must be

rated for compressed gas. If the lines are not suitably rated, they must be replaced.

- While leaks in the air line or tool fittings may not be a safety hazard in many cases, it is an efficiency issue which costs money.
- Compressed air should not be used for cooling, except in special cooled-air suits.

REMEMBER

Compressed air **MUST NOT** be used for cleaning yourself or your clothing. The pressure can cause air bubbles to be forced into the blood stream, which can be fatal.

For further information on health and safety issues, call 1300 369 915 or visit www.worksafe.qld.gov.au.

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