

July 2017

## Cylinder design approvals withdrawn

SCUBA and SCBA cylinders manufactured from aluminium alloy 6351.

### Summary

WorkSafe New Zealand considers that there are health and safety risks arising from SCUBA and SCBA cylinders manufactured from aluminium alloy 6351, and has withdrawn their design approvals.

Testing and filling stations should not test or fill any SCUBA or SCBA cylinder made from aluminium alloy 6351 listed in the table overleaf from 31 October 2017.

### Background

In 2016, there were two serious harm incidents (Sulawesi, Indonesia and Cronulla, Australia) following the catastrophic failure of SCUBA cylinders manufactured from the aluminium alloy 6351. For further information, view the [WorkSafe hazard alert](#) which was released after these incidents.

### Withdrawal of cylinder design approvals

WorkSafe has, under regulation 79 of the Hazardous Substances (Compressed Gases) Regulations 2004, withdrawn all design approvals for SCUBA and SCBA cylinders manufactured from aluminium alloy 6351, effective from 31 October 2017. This has been recorded on the Registers of Gas Cylinders.

In addition, there are cylinders made from aluminium alloy 6351 which have been issued with special LAB numbers - LABxxxxSP. Any aluminium cylinder with a LABxxxxSP stamp should be checked against the table overleaf.

The withdrawal of the design approvals is supported by the Cylinder Testing Laboratory Association (CTLA) and the New Zealand Underwater Association (NZUA).

### Duties of testing and filling stations

As a person conducting a business or undertaking (PCBU), you must ensure the health and safety of workers, and that others are not put at risk from your work. You must eliminate risks that arise from your work so far as is reasonably practicable.

**Testing and filling stations should not test or fill any SCUBA or SCBA cylinder made from aluminium alloy 6351 listed in the table overleaf from 31 October 2017.**

List of cylinders affected by the withdrawal of approval

| MANUFACTURER                      | DATE OF MANUFACTURE  | COUNTRY OF MANUFACTURE | DESIGN SPECIFICATION  | LAB NUMBERS  |
|-----------------------------------|----------------------|------------------------|---|--|
| All<br>(unless specified below)   | Jan 1972 - June 1988 | UK, US                 | DOT E 6498<br>DOT SP 6498<br><br>DOT E 7042<br>DOT SP 7042<br><br>DOT E 8107<br>DOT SP 8107<br><br>DOT E 8364<br>DOT SP 8364<br><br>DOT E 8422<br>DOT SP 8422 |  |
| Luxfer Gas Cylinders Ltd          |                      | US                     | DOT E 6498  | LAB 143a<br>LAB 148a<br>LAB 193a   |
| Luxfer Gas Cylinders Ltd          | Prior to Dec 1989    | US                     | DOT 3AL   | LAB 143b<br>LAB 148b<br>LAB 193b   |
| CIG<br>(Luxfer Gas Cylinders Ltd) | Jan 1975 - Dec 1990  | Australia              | AS 1777   | LAB 056<br>LAB 137 a/b<br>LAB 138 a/b<br>LAB 139 a/b/c<br>LAB 261 a/b/c<br>LAB 450<br>LAB 625<br>LAB 626<br>LAB 627<br>LAB 628 |
| Walter Kidde                      |                      | US                     | DOT E 7042<br>DOT SP 7042   |  |
| Walter Kidde                      | Prior to Feb 1990    | US                     | DOT 3AL   |  |
| Luxfer Gas Cylinders Ltd          |                      | UK                     | DOT E 8364<br>DOT SP 8364   |  |
| All                               | Prior to 1984        | US                     | DOT E 7235<br>DOT SP 7235<br><br>DOT E 8023<br>DOT SP 8023<br><br>DOT E 8115<br>DOT SP 8115   | These cylinders have a 15-year authorised service life.  |
| Luxfer Gas Cylinders Ltd          | Jan 1970 - Dec 1994  | UK                     | HOAL 2<br>Others  |  |

Any questions, contact [hsinfo@worksafe.govt.nz](mailto:hsinfo@worksafe.govt.nz) or 0800 376 234.