

August 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Cylinder design approvals withdrawn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there are health and safety risks arising from SCUBA and SCBA cylinders manufactured from aluminium alloy 6351, and has withdrawn approval for cylinder designs which used this alloy.

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WorkSafe has, under regulation 79 of the Hazardous Substances (Compressed Gases) Regulations 2004, withdrawn approval for SCUBA and SCBA cylinder designs which used aluminium alloy 6351.

This is effective from 31 October 2017 and is 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 these cylinder 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 cylinder design approvals

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

Any questions, contact hsinfo@worksafe.govt.nz or 0800 376 234.