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Tech talk #10: deciphering the markings

With so much second hand gear on the market and the high demand for second hand cylinders, maybe it's time to look back at your basic diver training: cylinder markings. Understanding those will help you make up your mind when buying cylinders second hand by answering simple questions like: when was the cylinder manufactured, when was the last cylinder inspection (hydro), what material is the cylinder made of...

Even for those daily dealing with scuba cylinders this can be confusing. Pressure vessels have been around for a long time and each country (region) will have their own standards/rules with regards to manufacturing and stamping pressure vessels. Over time some of those standards became obsolete, were modified, new cylinder types – other than steel and aluminium - came on the market (composite), special permits and exceptions were granted... Today, still some of those older cylinders still kick around. I hear you: 'time for another long talk'. No. Even attempting to explain all possibilities would result in a more than epic essay. Let's stick to the basics and general principles for cylinders used as underwater breathing apparatus – note: exceptions might exist -.

Cylinder markings or permanent markings may only be stamped onto the shoulder and you should not find any markings stamped on the side of the cylinder. All legally required information specified by the cylinder manufacturing standard will be stamped onto the shoulder region. Although this might vary between standards, some markings are more or less universal and will be found back on any cylinder in some form. These are:

- The standard to which the cylinder was designed and manufactured
- The inspection authority/regulatory authority which certifies the cylinder
- The rated working or service pressure of the cylinder, this could be expressed in PSI or bar
- Date of manufacture – initial test date -
- Serial Number
- The manufacturer's name, trademark or manufacturers number
- Cylinder volume, water capacity

Optional markings could include – some examples -:

- Distributor or owner's name
- Mass, tare weight or empty weight
- Hydrostatic test stamps
- Country of origin
- Test pressure
- Identification of the cylinder thread
- Minimum guaranteed wall thickness

Knowing what can be found back, it's time to click on the pictures to see some examples of cylinder markings found on commonly used aluminium and steel cylinders in the Asia region.

If you might have specific questions or need help of some sort in identifying a specific code (SP, E, BS, EN... to name a few), feel free to comment or to send us a message.



1ST ROW	MARK	EXPLANATION
	TC	Transport Canada
	3ALM	Aluminum specification (Canada)
	207	Service Pressure (bar)

2ND ROW	MARK	EXPLANATION
	DOT	US Department of Transportation
	3AL	Aluminum Specification (USA)

3000	Service Pressure (psi)
P845927	Serial Number
LUXFER	Manufacturer
05	Month of manufacture
A	Mark of independent inspector
08	Year of manufacture
S080	Manufacturer part number



1ST ROW	MARK	EXPLANATION
	TC	Transport Canada
	3AAM	Chrome Molybedebum
	184	Service Pressure in (bar)
	DOT	US Department of Transportation
	3AA	Steel Alloy
	2400	Service Pressure in (psi)
	M8004	Manufacturer facility identifier
	REE 62	Rejection Elastic Expansion
2ND ROW	MARK	EXPLANATION
	LP85	Model / Size in cubic feet

409C710	Serial Number
01	Month of manufacture
A	Mark of independent inspector
09	Year of manufacture
+	10% Overfill
XS SCUBA	Distributor