

Hydraulic Accumulators – Rules and Regulations

Introduction

This document is a summary of OH&S requirements relating to hydraulic accumulators. Hydraulic accumulators are pressure vessels and as such require statutory regulation.

1. Design Registration

Pressure Equipment with Hazard Levels A, B, C and D shall be design registered with WorkSafe WA.

Design registration is a process of having the design verified by 3rd party and then registering this design with WorkSafe WA. Acceptable pressure vessel designs in WA are specified in AS1200. Designs accepted in AS1200 are: AS1210, ASME VIII and PD5500.

Imported equipment shall be design registered.

Older equipment should also be design registered.

2. Plant Registration

Hydraulic Accumulators with Hazard Levels A, B and C (as specified in AS4343) shall be registered as plant with WorkSafe WA. Person responsible for plant registration is the owner of the equipment.

Plant registration involves filling out the relevant application form, signing a compliance statement that the plant is safe to operate, and payment of registration fee (payable annually).

For further info please visit:
<http://www.worksafe.wa.gov.au>

3. In-Service Inspection

As a risk control measure employer must ensure that pressure equipment is inspected in accordance with AS3788-2001.

Each owner is responsible for ensuring that the extent and frequency of inspection is appropriate and adequate for the continued safe and economic operation of the pressure equipment. This may require seeking of expert outside advice.

All Pressure vessel inspections shall be carried out by a competent person, such as a Boiler inspector or Company that specializes in Pressure vessel inspections.

Nominal Inspection Periods (AS3788)

	Commissioning	1st Year	External	Nominal	Extended
P = design pressure					
V = vessel volume					
Oil Service					
$PV < 100 \text{ MPa}\cdot\text{L}$	N	N	-	-	-
$PV = 100\text{-}200 \text{ MPa}\cdot\text{L}$	Y	N	-	-	-
$PV > 200 \text{ MPa}\cdot\text{L}$	Y	Y	2	12	12
Chemical Service	Y	Y	2	4	12

Relating above table to Olaer standard oil service units rated to 345Bar.

- 1 & 2.5ltr units are not subject to inspections
- 4ltr units are subject to commissioning inspection.
- 10ltr and above are subject to internal and external inspection.

All accumulators used with chemicals that are corrosive or flammable are to be inspected on regular basis. The inspector can grant an extended period for internal inspections if he feels that there is no ground for expecting any corrosion problem after he has done the first internal inspection.

References

AS4343, AS3788, AS1200, OH&S Regulations 1996