



**ACS.CoNGLP1 B
SAFETY ASSESSMENT CRITERIA
INITIAL & RE-ASSESSMENT
DOMESTIC
NATURAL GAS TO LPG
BOATS**

CoNGLP1 B**INITIAL & RE-ASSESSMENT****Introduction**

Comprises:

- 3(c). LPG cylinder location, safety and sizing
4. Ventilation (for appliances)
5. Installation of pipework and fittings
12. Chimney Standards
13. Chimney inspection and testing
15. Re-establish existing gas supply and relight appliances.

CoNGLP1 B can only be awarded when the Candidate holds CoNGLP1.

CBs and ACs may adopt Competence and Criteria numbering different to that used in this document.

CB and AC documentation may adopt wording for criteria different to that used in this document, provided the meaning is unaffected.

Range

All LPG fittings in boats.

Pre-requisites***Initial***

CoNGLP1.

Re-assessment

CoNGLP1 + CoNGLP1 B.

References and normative documents

MIs.

All relevant documents as listed in the Legislative, Normative & Informative Document List (LINDL), inc.:

- PD 5482 – 3: 2005
- BS EN ISO 10239: 2014
- HSL56
- GIUSP.

ACS.SMB.004.ACRND identifies Normative Documents that should be held by ACs.

Abbreviations

AC. Assessment Centre

CB. Certification Body

I. Initial

MIs. Manufacturer's/manufacturers' instructions

R. Re-assessment

Ref. Reference.

3(e b). Cylinder location and safety requirements

KNOWLEDGE AND UNDERSTANDING		REF	I	R
1.	location and safety:			
(i)	installation, location and protection		√	
(ii)	construction inc. ventilation, of compartments, lockers and internal housings		√	
(iii)	safety precautions for storage and use		√	
2	Requirements for installation of means to test the LPG system for leakage (e.g. bubble leak tester/pressure gauge)	BS EN ISO 10239 4.5	√	√

3(c). Supply pressures - operation and positioning of emergency isolation, flow control and valves for cylinders

KNOWLEDGE AND UNDERSTANDING		REF	I	R
1	Operation and positioning of pressure regulation devices for cylinders	BS EN ISO 10239 5.6	√	√
2	Over pressure protection	BS EN ISO 10239 5.2	√	√

4. Ventilation for appliances

KNOWLEDGE AND UNDERSTANDING		REF	I	R
1.	siting of ventilation (hull, windows, decks and ducted) direct to outside air, or via series air vents		√	
2	installation of ventilation grilles and vents		√	
3	types of grilles and vents		√	
4.	calculating ventilation for combustion air (PC for Re-assessment)		√	√
5.				
6.	calculating ventilation for enclosed spaces - cupboards, compartments for open, balanced and fan assisted appliances		√	√
7.	calculating ventilation for combustion for multi-appliance installations		√	√
8.	flueless appliances		√	
9.	positioning of trunked ventilation into a space containing a gas appliance(s)		√	
10.	location and ventilation of gas cylinder housings		√	√
11.	protection for low level appliances (gas detection and interlocks)		√	√

5. Installation of pipework and fittings. Range of pipe sizes: 4mm to 22mm ~~6 mm to 28 mm~~

PERFORMANCE CRITERIA		REF	I	R
1.	join soft copper pipe using appropriate compression fittings, methods and agents	BS EN ISO 10239 6.2.4	√	√
KNOWLEDGE AND UNDERSTANDING				
1.	copper pipe and fittings standards suitability and use - hard soldering		√	√
1a	Wall thickness requirements for solid drawn copper/stainless steel pipework	BS EN ISO 10239 6.2.1	√	√
2.	sleeving pipework through bulkheads		√	
3.	galvanised steel pipe pliable corrugated stainless steel tubing (PCT) and fittings, standards, suitability and use	BS EN ISO 10239 6.2.1	√	√
4.	jointing and cleaning agents for copper and stainless and galvanised steel pipework	BS EN ISO 10239 6.2.4	√	√
5.	installation of pipework passing through engine compartments		√	
6.	precautions and protection when installing pipework		√	
7	requirements for pipework when in direct contact with metallic parts of the craft structure	BS EN ISO 10239 6.5.1	√	√

12. Chimney Standards

KNOWLEDGE AND UNDERSTANDING		REF	I	R
1.	open gas flue systems: natural draught:			
(i)	flue requirements, termination positions for open flues BS 5482-3 and appropriate MIs pre Nov 2000		✓	
(ii)	flue requirements, termination positions for open flues (after Nov 00 BS-EN ISO 10239, IGE/UP/8 PD 5482-3 and MIs)		✓	✓
(iii)	flueing for appliances installed in boats after May 1999		✓	✓
(iv)	specific flue heights and termination positions for open and closed flues		✓	✓
(v)	risk assessments when replacing existing open flue water heaters		✓	✓
2.	room sealed:			
(ii)	restrictions for room sealed termination positions		✓	✓
(ii)	restrictions for room sealed termination positions (BS 5482-3 PD 5482-3 and BS EN ISO 10239)	BS EN ISO 10239 13.6	✓	✓

N.B. Additional gas flue requirements for appliances should be assessed in conjunction with the appropriate appliance MIs.

13. Flue testing

KNOWLEDGE AND UNDERSTANDING		REF	I	R
1.	open flue testing procedures for boats		✓	
2.	procedures if flues show signs of spillage		✓	

15. Re-establish existing supply and relight appliances

PERFORMANCE CRITERIA		REF	I	R
1.	appliances are designed for a marine environment, CE marked and of correct type		✓	✓
KNOWLEDGE AND UNDERSTANDING			I	R
1.	adjacent structures in contact with any gas appliance		✓	✓
2.	combustible materials adjacent to appliances that may be subject to a temperature rise of 50 °C		✓	✓
3.	minimum separation distances for cooking appliances from Class 1 combustible surfaces		✓	✓
4.	information for users		✓	✓
5.	cooking appliance restrictions when used with integral LPG cartridges	BS EN ISO 10239 Annex D	✓	✓