



**ACS.WAHLP1  
SAFETY ASSESSMENT CRITERIA  
INITIAL.DOMESTIC.LPG  
BOAT/CARAVAN WARM AIR HEATERS**

**WAHL1****INITIAL****Introduction**

Tests gas safety competence in install, exchange, disconnect, service, repair, break down and commission LPG warm air heating systems in boats and LAVs.

DUE TO THE NATURE OF THE APPLIANCES COVERED BY THIS ASSESSMENT, IT IS NOT GUARANTEED TO MAINTAIN THIS ASSESSMENT IN ACCORDANCE WITH NORMATIVE STANDARDS. WHILE EVERY EFFORT IS MADE TO CATER FOR NEW APPLIANCES ON THE MARKET, THE ASSESSMENT MAY NOT CATER FOR ALL AVAILABLE MODELS. PARTICULAR ATTENTION HAS TO BE GIVEN TO MANUFACTURERS' INSTRUCTIONS.

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

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

**Range**

Boat and LAV warm air heating systems such as the Whispaire P4 Carver Marine Warm Air Heating System.

**Pre-requisites**

CCLP1 B or LAV, or CoNGLP1 B or LAV.

**Exclusions**

Construction work with timber or panelling; penetrating structures for flues and air intakes; installation of warm air ducts; electrical work.

**References and normative documents**

MIs.

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

- **HSL56**
- PD 54823
- BS EN ISO 10239
- BS EN 721
- BS EN 1949
- UKLPG COP 21
- **GIUSP.**

ACS.SMB.003.ACRND identifies documents that should be held by ACs.

**Abbreviations**

AC. Assessment Centre  
 CB. Certification Body  
 FSD. Flame supervision device  
 I. Initial  
 MIs. Manufacturer's/manufacturers' instructions  
 OP. Operating pressure  
 Ref. Reference.

<b>PERFORMANCE CRITERIA</b>		<b>REF</b>	
1.	check air intake through hull aperture is correctly cut and dimensions to MIs		✓
2.	check flue outlet through hull aperture is correctly cut and dimensions to MIs		✓
3.	check flue exhaust is complete throughout its length; avoids contact with fuel lines, plastic pipes or electrical cables and is terminated with a swan neck to MIs		✓
4.	check combustion air intake is complete throughout its length and is terminated with a swan neck to MIs		✓
5.	check flue and combustion air intakes are secured to "through the hull fittings" to MIs, with correct clips		✓
6.	check appliance siting, location and assembly is complete and fit for use and purpose		✓
7.	isolate gas supply and battery power supply prior to work		✓
8.	position heater and secure onto wall/floor, to MIs		✓
9.	connect heater to combustion air intake; seal with clamp provided, to MIs		✓
10.	connect heater to flue exhaust; secure using clamp provided, to MIs		✓
11.	connect heating air intake and outlet ducts; secure into place on heater, to MIs		✓
12.	connect gas supply using appropriate pipe, clips and fittings		✓
13.	re-establish gas supply		✓
14.	check work carried out is gas tight		✓
15.	install and connect electrical looms correctly		✓
16.	locate appliance correctly, level and make stable		✓
17.	dismantle and/or clean appliance operational gas safety components, using appropriate cleaning methods and agents, e.g. burners, injectors, primary air ports, combustion chambers, ignition devices, taps and FSDs		✓
18.	<b>commission appliance:</b>		
(i)	purge appliance of air		✓
(ii)	check OP at appliance with all other appliances on		✓
(iii)	turn on 12 V supply		✓
(iv)	press start button (I) 3 times to move green indicator lamp to large flame symbol		✓
(v)	check burner flame picture is stable and ignition is correct		✓
(vi)	check user controls are operating correctly		✓
(vii)	check safety control devices are operating correctly		✓
19.	identify defects on gas safety components		✓
20.	explain safe operation and use of appliance		✓
<b>KNOWLEDGE AND UNDERSTANDING</b>		<b>REF</b>	
1.	identifying unsafe conditions - understanding sequence of lights on control panel		✓
2.	diagnosis of gas safety faults		✓
3.	suitable and unsuitable appliance room/space locations		✓
4.	flue installation and testing procedures		✓
5.	operation of mechanical gas safety control devices		✓