

Syllabus Number: 3.B.33 / BOD n. 185 (01-25-2014)
CMAS Technical Sidemount Diver Training Programme
Minimum Training Programme Content

1. Required theoretical knowledge

1.1 Subject Area 1: Introduction

- 1.1.1 The participant shall be provided with all such information, as provided for in Clause 4.2 of Chapter 1 in order to enable him to take an informed decision about his participation in the CMAS Technical Sidemount Diver Training Programme.
- 1.1.2 The participant shall be provided with the information about the CMAS as provided for in Clause 4.3 of Chapter 1.

1.2 Subject Area 2: Equipment

- 1.2.1 The participant shall have an appropriate knowledge concerning the physical characteristics operating principles, maintenance and use of the following items of specific diving equipment.
 - 1.2.1.1 Specific Equipment
 - 1.2.1.1.1 Two sidemount rigged tanks/cylinders with valve for installing DIN regulators.
 - 1.2.1.1.2 Two rigged stage/deco tanks with regulator and short hosed pressure gauge,
 - 1.2.1.1.3 Two sets of sidemount rigged regulators, one of the second-stage regulators must be on a 1.5 -2.1 meter hose and the other must be fitted with a necklace. Each first stage must supply a pressure gauge and provide inflation for an inflatable buoyancy device and a dry suit (where applicable).
 - 1.2.1.1.4 A sidemount Rig inflatable buoyancy device and harness.
 - 1.2.1.1.5 Two dive computers or time/depth measuring devices.
 - 1.2.1.1.6 Extra mask.
 - 1.2.1.1.7 Reel(s) and / or spool(s) – the length of the rope in function of the situation (depth).
 - 1.2.1.1.8 At least one yellow DSMB and one red DSMB.
 - 1.2.1.1.9 Two cutting devices.
 - 1.2.1.1.10 Underwater slate/wet notes.

Note: Prior to the commencement of class, students should consult with a CMAS representative to verify equipment requirements

1.3 Subject Area 3: Physics and theory of Sidemount diving

1.3.1 The participant shall have an appropriate knowledge concerning the physical principles and their application to technical sidemount equipment and hazards relating to:

1.3.1.1 Buoyancy and trim

1.3.1.2 Streamlining and equipment configuration

1.3.1.3 Propulsion techniques

1.3.1.4 Situational awareness

1.3.1.5 Communication

1.4 Subject Area 3: Land Drills and topics

1.4.1 Basic sidemount equipment configuration:

1.4.1.1 Cylinder rigging for sidemount:

1.4.1.1.1 Two cylinder sidemount rigging (Right cylinder/Left cylinder)

1.4.1.1.2 Stage/deco cylinder rigging for sidemount use

1.4.1.1.3 Stacking and tailing stage/deco cylinders

1.4.1.2 Regulators for sidemount:

1.4.1.2.1 Regulator choice and configuration

1.4.1.2.2 Low pressure hose length and rigging

1.4.1.2.3 SPG hose length and storage

1.4.1.2.4 Sidemount long hose configuration

1.4.1.3 Additional equipment placement (reels, SMB, lights etc.)

1.4.1.4 Gas Management:

1.4.1.4.1 SAC rates.

1.4.1.4.2 Rule of thirds.

1.4.1.4.3 Gas switching procedures (bottom gas and staged/deco gas).

1.4.1.5 Rescue techniques

1.4.1.5.1 Self rescue techniques.

1.4.1.5.2 Gas (Bottom and Staged/Deco) sharing protocol.

1.4.1.5.3 Dealing with unconscious diver in sidemount configuration

1.4.1.6 Diving with mixed teams (Sidemount, Backmount and rebreather).

1.4.1.7 Pre-dive drills

1.4.1.8 Water entry and exit in technical sidemount configuration

2 Required SCUBA skills

CMAS International Diver Training Standards and Procedures Manual

- 2.1 Demonstrate proficiency in technical sidemount equipment configuration (double tank and minimum two stage tanks) and setup.
- 2.2 Demonstrate proficiency in safe diving techniques in technical sidemount configuration; this would include pre-dive preparations, in water activity, and post-dive assessment.
- 2.3 Demonstrate awareness of team-member location and a concern for safety, responding quickly to visual cues and dive-partner needs.
- 2.4 Efficiently and comfortably demonstrate how to donate gas and/or stage cylinder to an out-of-gas diver while using technical sidemount configuration.
- 2.5 Demonstrate appropriate gas monitoring maintaining pressure difference within 40 bars between bottom gas cylinders.
- 2.6 Demonstrate a safe and responsible demeanour throughout all training.
- 2.7 Demonstrate technical sidemount equipment proficiency and an understanding of the CMAS Technical Sidemount equipment configuration.
- 2.8 Demonstrate good buoyancy and trim, especially during the open water skills/exercises.
- 2.9 Demonstrate safe ascent and descent procedures.
- 2.10 Demonstrate proficiency in executing a rescue skills in technical sidemount configuration