

CRITERIA FOR SEA BASED DIVE OPERATORS

PART 1. A

SEA BASED DIVE OPERATORS MUST OPERATE ON A LIVE ABOARD

This Part applies to sea based dive operators operating in Seychelles of which they shall:-

- (a) Have a canopy.
- (b) Have the name of the boat and its hire craft number on each side of its hull:-
 - The HC number could also be on each side of the console.
 - The HC number must not be less than 100 mm high and 25mm thick.
- (c) Have the word "**LIFE JACKETS**" to indicate the stowage position of **LIFE JACKETS**.
- (d) Have the name of the boat written on all the Life Jackets.
- (e) Have the following written on a conspicuous place onboard the vessel :
LICENSED TO CARRY PERSONS WITHIN LIMITS OF..... MILES FROM INHABITED SHORES.
- (f) Be physically attractive and well maintained.
- (g) Be fitted with -
 - i. 2 engines in working order
 - (or)**
 - ii. 1 engine in working order and sailing equipment
- (h) Cushions must be placed on all seats
 - I. have a certified coxswain relevant to the range of operation of the boat
 - II. have onboard a first aid kit
 - III. Have at least 1 litre of drinking water for each person onboard.
 - IV. suitable life jackets for each person on board plus 10% (name of vessel should be written on same)
 - V. life-buoy with self igniting light plus 20 metres of light rope
 - VI. One waterproof signalling torch with a full set of spare batteries and a spare bulb.
 - VII. One signalling mirror.
 - VIII. One highly visible orange flag, 1 meter height, 2 metres long.
 - IX. echo sounder or lead line
 - X. manually operated bilge pump / suitable bailer
 - XI. suitable steel anchor and chain with at least 200 metres of synthetic rope of adequate strength
 - XII. spare anchor with chain and rope of adequate size and strength
 - XIII. appropriate navigation lights

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- XIV. garbage book
- XV. tidal information

- (i) Staffing: adequate staffed trained in line with services offered. First Aid and Fire Safety must be physically and mentally fit.

PART I.B

SEA BASED DIVE OPERATORS MUST HAVE LIVE ABOARD FACILITIES

All the facilities and equipment must be clean, well maintained and in working condition.

- should have the capacity to be self sufficient for at least seven days at sea
- must have an appropriate relaxing area (lounge) where by a client can read, write and gather together; this area should be shaded from the natural elements (sun, sea spray and wind)
- bathing facilities
- toilet facilities
- bedding
- bed sheets and towels
- cooker and cooking utensils, cutlery and crockery
- all vessels must have a holding tank

PART 2

In addition to Part I, hire crafts operating up to 60 miles from inhabited shores must have:-

- four hand-held red distress flares
- four red rocket parachute flares
- two buoyant orange smoke markers
- V.H.F Radio Telephone (approved)
- suitable magnetic compass with table of deviation
- hand bearing or spare compass
- navigation charts appropriate to the voyage or operation
- Log Book
- 2 Fire Extinguishers of at least 1.5kg which has been serviced and is up to date.
- Toilet facilities.

PART 3

In addition to Part I and Part 2, hire crafts operating over 60miles must have:-

- MF Radio Telephone (approved for GMDSS type for area 2) or Inmarsat communication system
- inflatable life-rafts to accommodate all persons onboard
- Live aboard facilities.
- Navigation equipments, publications and appropriate tables for celestial navigation.

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THE OPERATION: -

- The licence of the operation must be made available at all times for inspection by the relevant authorities.
- the operation must be clean, well maintained and equipment stored in an orderly manner
- all equipment for the operation must be clean, well maintained and in working conditions
- all staff of the operation must be fully aware of the emergency procedures and contact numbers of the relevant authorities in the case of an emergency
- all documents such as log books, inspection certificates of cylinder etc. must be available on board and must be made available upon request by the relevant authorities
- All diving cylinders that the inspection due date have expired, must **NOT** be used or stored in the same place as the ones with the inspection due date still valid.

LICENSING REQUIREMENTS

1. Diving Operators License and supporting documents :-

- a. current Dive Leader Certification
- b. current Liability Insurance cover for each staff member identified above
- c. current First Aid and C.P.R certifications of above
- d. Professional & First Aid certifications of other staff.

2. Other Licences required as applicable :-

- a. hire craft licenses
- b. skippers/coxswains licenses
- c. V.H.F Licenses
- d. retail license

PLANT AND MACHINERY

a. Compressor considerations:

- a. maintenance Log of servicing and hours run
- b. air filter replacement record
- c. air intake placement
- d. final pressure safety valve operation
- e. emergency cut-out system

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- b. Filling installations of a permanent nature and where possible on a mobile installations.
 - c. fill lines and fittings to appropriate pressure ratings
 - d. fill bin of reinforced nature
 - e. fill bin supplied with circulating water where using Air Banks
 - f. Air Bank: cylinder status, condition and function

3. Emergency Equipment:

- a. First Aid Kit
- b. oxygen supply and administration set

BOAT CONSIDERATIONS

- a. Appropriate dive operators license
- b. Additional safety equipment: Oxygen supply set
- c. Cylinder storage system
- d. Diving code flags
- e. Diver recall system

EQUIPMENT CONSIDERATIONS

1. SCUBA Cylinders: (a-e could be on a set form)

- a. total number of cylinders owned/used
- b. serial numbers of all of above
- c. date of Manufacture of above
- d. date of last Hydro and visual inspections
- e. inspection certificates/numbers for all cylinders
- f. service records for cylinders & valves

2. Breathing Air Regulators: (a-e could be on a set form)

- a. total numbers of units owned
- b. serial numbers and models of above
- c. service records and date of last service for above
- d. hose suitability and condition
- e. pressure gauge type and function

3. Buoyancy compensators: (a-h could be on a set form)

- a. total numbers of units owned
- b. serial numbers or models of above
- c. service records and last service date for above
- d. hose suitability and condition
- e. inflation mechanism function
- f. ability to remain inflated
- g. function of cylinder securing strap

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h. function of straps and fittings

AIR FILLING STATIONS

PLANT AND MACHINERY

1. Compressor Record Conditions:

a. Maintenance Log of Servicing and hours run:

This should indicate regularity of oil changes, type of oil used and any mechanical service or repairs. The type of oil affects the ability of the filters to remove oil mist and can create gas contamination of the compressed air. The frequency of oil change and the operating temperature of the final stage affect the breakdown of oil which releases Carbon Monoxide into the air supply.

As a general guide Bauer Compressors require oil changes as follows:

K15> normal oil	250hrs	synthetic oil	500 hrs
Capitano/Mariner	250		500
> Varius	125		250

b. Air Filter Replacement Record

This should indicate the frequency of breathing air filter replacement. Once filters have been used for prolonged periods they lose their ability to absorb moisture, oil mist and other contaminants and allow contaminated air to pass into the fill lines.

As a general guide Bauer Compressor cartridges and filters require changes as follows:

P21 (Triplex)	> 100Lt/min (4cfm)	35 hours
P21 (Triplex)	> 140Lt/min (5cfm)	25 hours
P21 (Triplex)	> 190Lt/min (7cfm)	20 hours
P41 (No. Co Filter)	> 440Lt/min (15cfm)	60 hours

Physical Considerations

a. Air Intake Placement

This should be in clean air away from sources of contamination, i.e. away from exhaust outlets etc.

b. Final Pressure Safety Valve Operation

This should be set so that it blows off at about 15 bar (200psi) over the pressure rating of the system.

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c. Safety Guards

These must be firmly fixed in position to protect the operator from injury from fan, flywheel and drive belt mechanisms.

d. Emergency Cut-Out System

There should be a cut-out switch available to immediately stop the compressor in case of emergency.

e. Compressor Lines and Fittings

These must be of the appropriate type, pressure rating and fitting for the installation; they should be undamaged and leak free.

f. Valves and Fittings

These must be of the appropriate type and pressure, rating for the installation; they should be smooth in operation and seat properly without undue force or leakage.

g. Fill Lines and Fittings

These must be of the appropriate pressure ratings and should be in good condition, i.e. leak free. The filling head clamp must be of the appropriate pressure rating with undamaged threads on yoke screw or DIN fitting. Bleeding devices for depressurising lines should operate properly.

h. Fill Bin

This should be of a reinforced nature where possible so that should a cylinder fail while being filled the force will be directed upwards. It should be supplied with circulating water to reduce cylinder heating and to absorb impact in the event of a failure.

i. Air Bank

Where an air bank is used the lines valves and fittings should be as in e, f, & g above. The storage cylinders should be of appropriate pressure ratings and have the necessary inspection certificates and stamps.

J. Prime Mover and Connections

The prime mover should be properly mounted within the compressor frame. The electrical wiring, in electrically driven units, should be sound with proper earthing and circuit breaker systems should be installed for overload protection. In gasoline or diesel driven units the fuel and exhaust lines should be adequately protected and isolated from the air intake and supply lines.

Personal considerations

1. Safety

All personnel using the compressor installation must be fully conversant with the operation and shut down procedures for that system.

2. Non-Authorised Access

The compressor installation should not be accessible to the general public or to any person not trained in the operation of the unit as in **(1)** above.

3. Filling Station Procedures

Personnel involved in the filling of cylinders must be aware of the current requirements for the periodic testing of cylinders. They must be able to identify the testing date, the pressure rating marks and other cylinder markings. The procedures for cylinder inspection prior to filling and the actual filling procedures should be displayed at the filling station.