General description

4. The superstructure is made of 1 in. armour plate and access to the interior of the BARV is by a single hatchway with armour doors which can be locked. The crew are thus afforded full armour protection on approach runs and until such time as the hatch has to be opened to facilitate local manoeuvring and to permit the diver to emerge. An approach involving water not deeper than some 5 ft may be made by direct vision through the diver's vision panel - the only means of seeing from the closed down vehicle. At greater depths the panel becomes submerged. The only choice then open to the commander is direct vision from the opened hatch.

Fig 4 Left rear view with water level at 9 ft 6 in.
Electrical system

STARTING CIRCUIT

97. The main engine starter switch is located on the main engine switchboard (Fig 43(12)).

98. Operation of this switch connects the booster coil into the ignition circuit to assist starting; it also energizes a starter solenoid to complete the circuit to the starter motor.

99. The starter solenoid is housed in a starter junction box (Fig 47(6)) located on the right-hand side of the rear bulkhead of the crew compartment.

100. An inter-vehicle starting socket (Fig 43(6)) is incorporated in the distribution panel in the driver's compartment and an inter-vehicle starting cable is stowed on the left side of the crew compartment. Full details of their use are included in the user handbook for the basic vehicle.

CHARGING SYSTEM

101. The vehicle batteries are charged by either the main engine driven generator or by a charging set.

102. The outputs of the generators are controlled by control boards operating under the current-voltage control system.

Fig 45 Right hull plate fittings at rear of driver's compartment
199. The stockinette combinations (Fig 49) are close fitting, cover also legs and feet and are closed by a brass Zip-fastener.

200. The rubber suit (Fig 50) cannot be donned by the diver unaided. The sequence of dressing operations is given in (Fig 49 to 64) which also show the method of fitting the head hood.

201. The universal breathing apparatus and the method of fitting it are illustrated in (Fig 59 to 63). It is a self-contained assembly using pure oxygen in cylinders. The only connection between diver and surface is the life line, which is also used for signalling both ways. The depth limit for the apparatus is 33 ft, beyond which depth it is necessary to breathe a mixture of nitrogen and oxygen—beyond the scope of the apparatus, without additional equipment. This is not a disadvantage in beach recovery where work is normally performed in depths of about 10 ft.

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Fig 58 Tightening the neck ring clamp

Fig 59 Donning the oxygen breathing apparatus

1 Tongue valve
2 Neck ring inside suit and helmet
3 Clamp ring tightens into neck ring groove
4 Diver lightening quick-release clamp
Communications between divers and attendants

355. Communications between the diver and attendant are maintained by a system of signals which makes use of the life line. The signals consist of pulls and bells.

356. Signals made by pulls are to be long steady and distinct in comparison with the short, sharp bell signals which are made with the same timings as striking a ship's bell. A reasonable time interval between any two pulls is $2\frac{1}{2}$ seconds. The interval between bells is one second. This may be shown graphically using the normal typewriter spacing of 12 letters to the linear inch to represent a scale in which one inch represents one second. Thus a signal made up of 4 pulls followed by 5 bells may be illustrated as follows, P representing one pull and B one bell:

```
P........................P........................P..............P.............P
..............................P............................BB........BB........B
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Signals for single lifeline

Attendant to diver

357. (1) General signals

(a) 1 pull To call attention. Are you alright?

Note: All the following signals from attendant to diver must be preceded by one pull to call attention.

(b) 2 pulls Am sending down a rope's end (or as previously arranged)

(c) 3 pulls You have come up too far. Go down slowly until we stop you.

(d) 4 pulls Come up.

(e) 4 pulls followed by 2 bells Come up, hurry up.

(f) 4 pulls followed by 5 bells Come up on your blob.

(2) Direction signals

(a) 1 pull Search where you are, (this should be preceded by the usual - Are you alright? signal of one pull).

(b) 2 bells Go to the end of distance line or jackstay.

(c) 3 bells Go right (facing shot).