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ISO 9001

B89 - B90

Side mount control boxes single lever

MOUNTING INSTRUCTIONS

B89 IVORY COLOUR	**B90** BLACK COLOUR

*The single lever control box **B89/B90** may be mounted on left or right of the steering place and allows throttle control while gear is in neutral position and a lever lock which, when in neutral, prevents from accidental lever moves. **B89/B90** use **C2 - C7 - C8 - C14 Ultraflex** cables and **C5** by adding **K35** Kit.*

LOCKRING FIXING Fig. 1

*Insert the release ring **1** into the control cover correctly positioning the lever lock notch. Lever unlocking is effected by the neutral interlock trigger.*

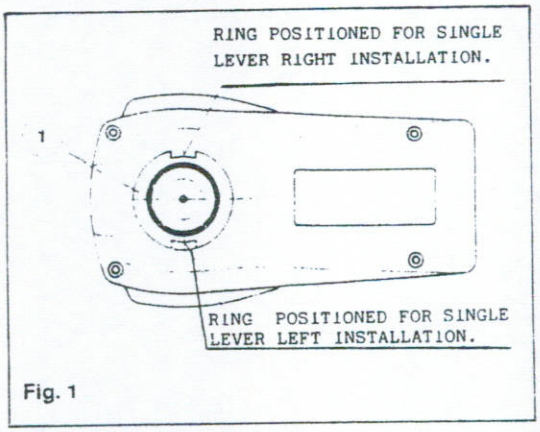

Fig. 1

CONTROL LEVER MOUNTING Fig. 2

*Before fixing lever be sure that gear is neutral and gear arm **1** as shown in fig. 3. Lever and shaft are provided with a claw clutch. The control lever, preassembled with the lock device, must be installed in the shaft **3** by the screw **4** positioning the key **C** in correspondence with ring notch **1**. Insert plug **5**.*

THROTTLE CONTROL REVERSING (Fig. 2)

*Be sure that gear is neutral (gear arm **22** as shown in fig. 3) Pull the lever hub **6** out according to pointed by arrow direction; necessary shifting is about 5 mm. Turn lever 180° clock wise or anticlock wise till inner return spring doesn't bring lever hub **6** to its initial position.*

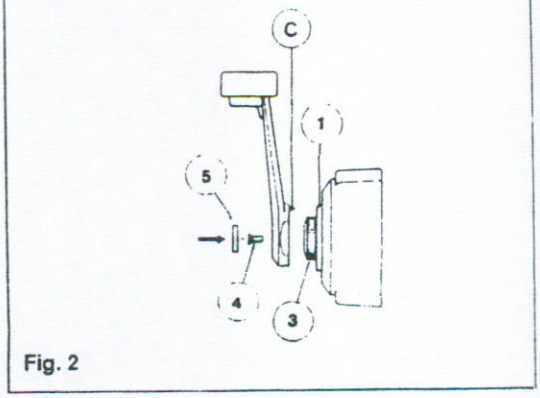

Fig. 2

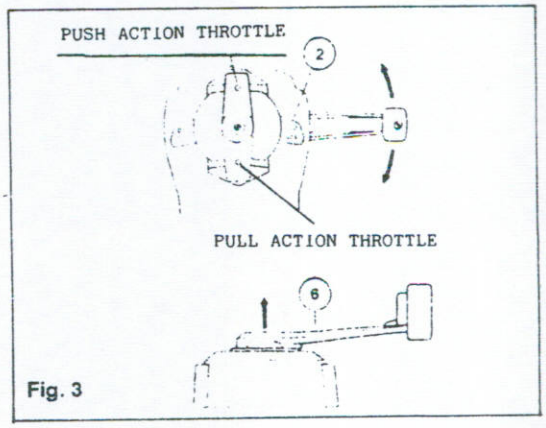

Fig. 3

WARM-UP IN NEUTRAL Fig. 3

*For starting up whem in neutral, operate as for throttle control reversing. Pull the lever hub **6** out according to pointed by arrow direction. Turn lever clock wise or anticlock wise till desired starting-up. Bring lever to neutral; the return spring will bring hub to its initial position.*

C2 - C7 - C8 CABLES INSTALLATION

SHIFT CABLE CONNECTION Fig. 4

*Remove rubber seals **C, D** and nut **B** from cable; insert the connector **7** (black in cable jacket end fixing it by the split pin **8** (**NOTE:** the split pin must be inserted and bended on connector so that it cannot disengage). Screw the cable end fitting **9** on the cable rod which must be connected to pivot with shim **10** by circlip **A**. Insert pivot with shim **10** in one of the holes of the gear arm **2** (inner hole: 67 mm., ext. hole 78 mm.) then, fix by the screw, **11**. The connector **7**, preassembled on cable, must be installed on **G** or **H** seat of the cover (fig. 6).*

THROTTLE CABLE CONNECTION Fig. 5

*Remove rubber seals **C, D** and nut **B** from the cable; then insert connector **12** (red) on cable jacket end, fixing it by the split pin **8** (**NOTE:** the split pin must be inserted and bended on connector so that it cannot disengage). Screw the cable end fitting **9** on the cable rod which mut be connected to lever pin **13** by circlip **A**. The connector **12**, preassembled on cable, must be installed on **I** seat of the cover (fig. 6).*

*The jacket fasteners **14** fixed by the screws **15**, prevents cables disconnecting from control box (fig. 6).*

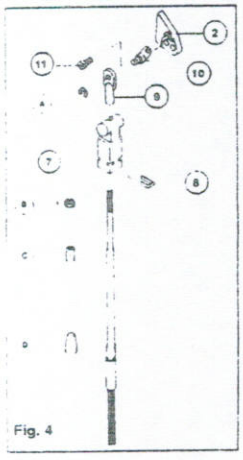

Fig. 4

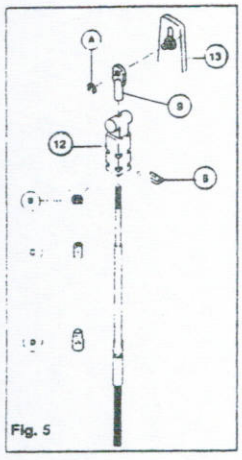

Fig. 5

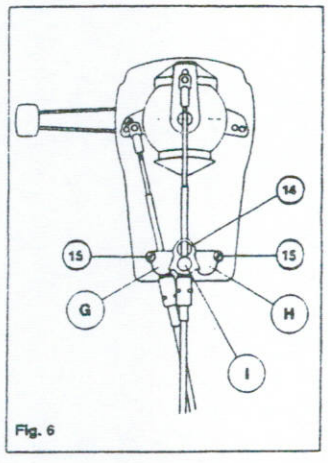

Fig. 6

C14 CABLES INSTALLATION

SHIFT CABLE CONNECTION Fig. 7

*Connect the terminal eye of cable to pivot with shim **10**, fixing it by circlip **A**. Insert pivot with shim **10** in inner hole of gear arm **2** (inner hole travel 67 mm) then fix it by screw **11**. Insert cylinder of jacket end fittings in **L** or **M** seat of cover. **NOTE:** The connector **7** (black) and the split pin **8** aren't used.*

THROTTLE CABLE CONNECTION Fig. 8

*Connect the terminal eye of cable to lever pins **13** fixing it by circlip **A**. With push cable, insert cylinder of jacket end fitting in **N** seat (see fig. 9). With pull cable, insert cylinder or jacket end fitting in **O** seat (see fig. 10). **NOTE:** The connector **12** (red) and the split pin **8** aren't used.*

*The jacket fastener **14** fixed by screw **12** prevents cables disconnecting from control box (fig. 10).*

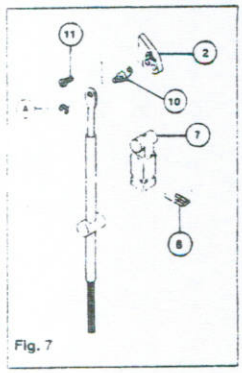

Fig. 7

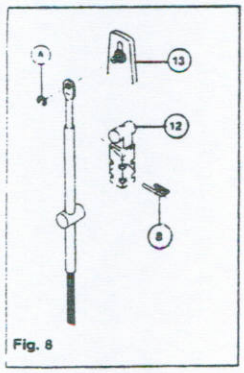

Fig. 8

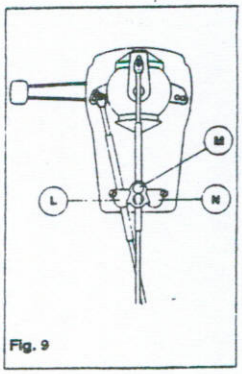

Fig. 9

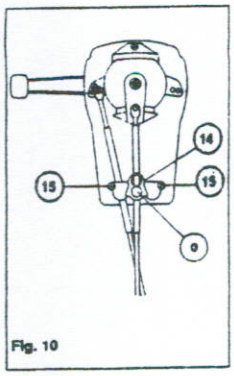

Fig. 10

IMPORTANT

1 - *Correct control operating depends on exact adjustment of gear shift travel. In no case should the single lever control travel (inner hole of gear arm **22** mm. 67, ext. holes mm. 78) be higher than that measured on engine lever; in fact, this could damage either cable and control box itself.*