16) Carburetor

The carburetor can be adjusted by jet replacement of various approved sizes, and by adjusting idle air/fuel mixture screw, carb piston stop adjustment, needle sizes, and needle position.

The air/fuel mixture at idle speed is adjusted by the air adjusting screw. The idle r.p.m. is adjusted by the carburetor piston adjustment screw.

◆ NOTE: These idle adjustments interact, so adjusting one may require minor adjustment of the other.

◆ NOTE: On single carb engines, the carburetor must be in an exact right angle position in relation to the crankshaft in both views from top and from the intake side to ensure an equal mixture distribution to both cylinders (see ill. below).

Replacement of parts should be done only after proper trouble shooting has been carried out and then, by an experienced two cycle mechanic.

Ensure that throttle cable and linkage do not stick and that carb piston valve can be fully opened and closed . Minor cable backlash can be adjusted at cable adjustment screw and lock nut.

Be certain that throttle linkage is not affected by engine or airframe movement. This will change throttle settings.

Air intake filtration and/or noise reduction devices must be in place for proper carburation. See section on special operating conditions.

Special operating conditions, such as severe climate or altitude change may require different jetting. Contact your dealer.

In no case should jet changes be made by unqualified persons or those who do not have ROTAX technical information to do so.

▲ WARNING: All parts liable to become loose have to be secured.

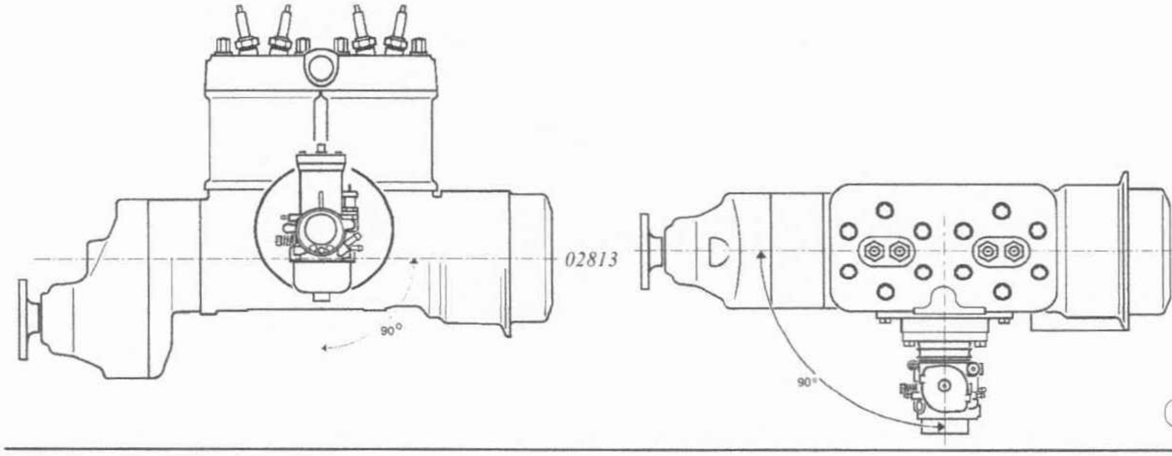

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fig. 30

16.1) Carburetor air intake

The carburetor air intake must be protected against the ingestion of water, dirt and foreign material. Use a Rotax approved air filter. Avoid paper, foam and synthetic material types that absorb water.

Equal air pressure conditions must prevail in the vicinity of the carburetor air intake and the carburetor float chamber vent pipes (i.e. the pressure must not be influenced by the propeller air stream).

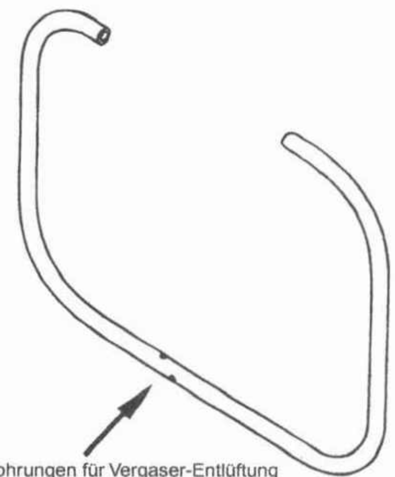

fig. 31

If necessary, the carburetor intake should be shielded against effects of the slipstream by a sheetmetal shield or air intake box, and the carburetor vent pipes should be routed to a calm air zone or connected to a vent chamber (see sketch below).

Engines supplied with an intake silencer must not be operated without it unless the carburetor calibration has been altered. Consult the engine supplier or manufacturer (in writing)for details.The correct carburetor calibration is also described in the parts list.

If the aircraft is to be operated in climatic conditions where carburetor icing is likely to occur, a heating system must be fitted.

No modifications should be made to the carburetor and air intake system without consulting the engine manufacturer (in writing).

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