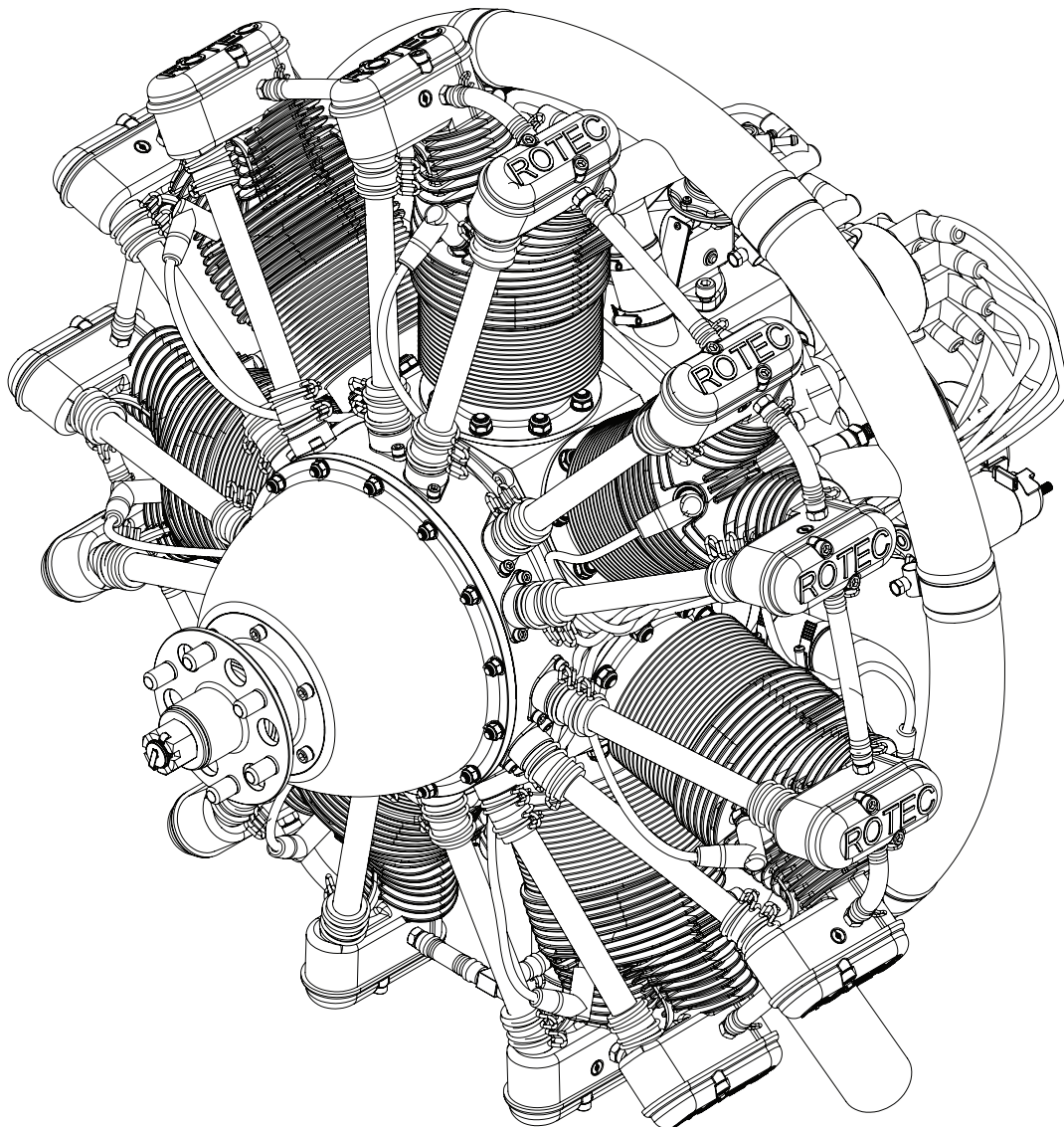


ROTEC

AEROSPORT

RADIAL ENGINE OPERATIONS MANUAL



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FUEL SYSTEM

GENERAL

The fuel system comprises of two fuel pumps one mechanical (supplied) and one electrical (not supplied). They are both plumbed in series and should supply fuel via a good quality in-line fuel filter, at a pressure not exceeding **4psi**.

FUEL METERING

Options available for fuel metering include:

- The Rotec TBI Fuel System, which is highly recommended as it offers superior performance, in flight mixture control, is fully aerobatic and is less suitable to carburettor ice compared to other carburettors.
- The Bing Carburettor is offered as standard. Carburettor heat is recommended on this device as it is more susceptible to carburettor icing than the Rotec TBI Fuel System.

We have not seen any attempts to convert the engine to electronic fuel injection at this time

ROTEC TBI-MK.II ADJUSTMENT

Open the mixture screw 1-2 turns, fine adjust for smooth idle. The determination of the main jet is factory set at full power, full load, with and EGT (Exhaust Gas Temperature) reading of 600 +/- 20 degrees C.

NOTE:

For detailed information regarding operation and adjustment of your Rotec TBI-Mk.II, please read the product manual that came with your purchase.

BING CARBURETTOR OPERATION

The carburettor is a 40mm type 94 Bing and features automatic pressure compensating mixture control. There is no manual mixture control. The carburettor is factory set on the test run by Rotec and should only require minor adjustments. The carburettor is supplied as standard from Bing with stock control levers. The levers and butterfly return spring may require modifications to suit. Thorough inspection for correct carburettor lever operation for both the choke and throttle butterfly should be employed before first flight.

An air filter and carburettor heat (both not supplied) should be incorporated in the air intake ducting.

The choke should only be employed for starting purposes only and must NOT be used as enrichment device during cruise operation.

As a part of the engine test run all carburettors are adjusted for best operation. However due to different propellers and applications minor adjustments may be needed to the idle dead stop which is a screw that controls the amount of "Butterfly Crack" required for a smooth Idle. Also the shrouded brass idle mixture screw situated vertical facing down. This screw controls idle mixture volume and should be adjusted in conjunction with the previously mentioned dead stop.

The main jets are factory set and control fuel mixture at higher power settings. They should not be tampered without first consultation a Rotec technician. A too lean mixture due to the installation of incorrect jet specifications can lead to high combustion temperatures resulting in possible engine damage.

For all servicing / repairs / Spare parts for the Bing Type 94 Carburettor please consult an authorised Bing service centre. Or alternatively a Rotec technician.

WARNING:

The factory supplied Bing carburettor cannot supply fuel when inverted or subjected to negative gravity. Engine failure due to fuel starvation may result.

IMPORTANT:

Check all carburettor couplings, both fluid and mechanical, are integral and secure. Throttle butterfly should spring return to FULL power or open and choke should spring return to OFF or lean.