



AVIATION TECHNICAL BULLETIN

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EGT AND SPARK PLUGS

Our field engineers are frequently asked whether an EGT (exhaust gas temperature) system will enhance spark plug cleanliness and/or how do we adjust the mixture by EGT monitor to keep the plugs clean.

1. From what many customers have told us and our own observations, there is little doubt that plug performance is improved when an EGT system is properly used to monitor mixture control adjustments.
2. No special plug cleaning procedure is suggested or required. Adjusting the mixture by EGT gauge as recommended by the engine manufacturer produces good results. Figures 1 and 2 help explain the recommendations and why they are to be followed.

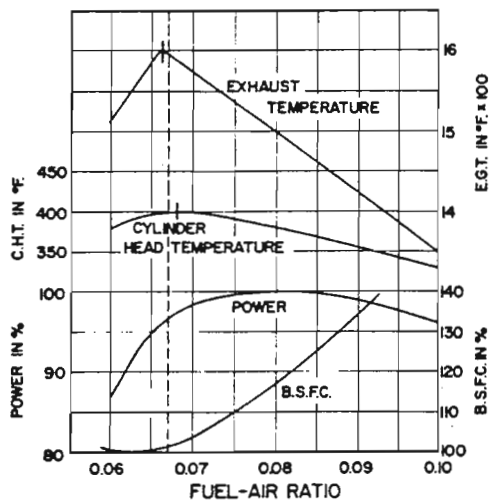


Fig. 1 - Effect of fuel-air ratio on engine variables

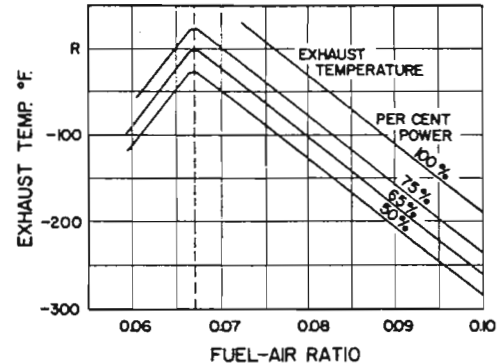


Fig. 2 - Effect of fuel-air ratio and power setting on EGT

More precise adjustment of fuel air ratios, particularly in cruising does improve general engine health. Keeping combustion chambers as clean as possible and keeping the engine at optimum (neither too hot nor too cold) operating temperatures are important factors in minimizing plug problems and in lengthening time between overhauls.

Make your mixture adjustments using the EGT indicating system just as the engine manufacturer recommends. For best power operation, use 75° less than peak EGT on the rich side; for cruising use 25° less than peak EGT on the rich side. Re-establish peak EGT and reset mixture whenever conditions lead you to suspect atmospheric changes have taken place, whenever altitude is changed and, of course, whenever engine power is changed.