



AVIATION TECHNICAL BULLETIN

Champion Spark Plug Company

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HARD STARTING

This time of year, starting difficulties are pretty commonplace. This is to be expected as damp and chilled fuel and air is difficult to vaporize and ignite. At the same time, chilly conditions may reduce battery efficiency and thicken lube oil, further complicating the start procedure by lowering the cranking RPM which can affect magneto output and induction system velocity. Under these conditions, spark plug ignition system components become critical, and their condition is often the difference between start and no-start.

The ignition harness must be leakage-free; the harness terminals (cigarettes), must be clean and dry; the magneto block must be defect free, clean, and dry; and the spark plugs must be clean, dry, and properly gapped.

Deposit-laden spark plugs drain magneto energy to ground, resulting in a weak ineffective spark or sometimes no spark at all. Wide electrode gaps can demand more voltage than the ignition system is capable of providing. Or by simply raising the voltage requirement, as wide plug gaps do, electrical stresses in the ignition system come higher than usual, hence failure of components at weak spots. For best possible starts, the spark plugs must be properly gapped, and above all, clean and dry.
