AVIATION TECHNICAL BULLETIN

Champion Spark Plug Company
P. O. BOX 910, TOLEDO, OHIO 43601

October 2, 1967 NO. 67-6

DUST FOULS ENGINES AND SPARK PLUGS

Aircraft engines and spark plugs can get into trouble fast when subjected to dust, grit, sand.

We all think because of operating altitudes that the thousands of cubic feet of air inhaled hourly by our aircraft engines is clean air, but U.S. government statistics tell us that airborne dust fall in some areas can be over 200 tons per square mile per month --- and approximately 9,000 gallons of air are inhaled by the aircraft engine for every 1 gallon of gasoline burned.

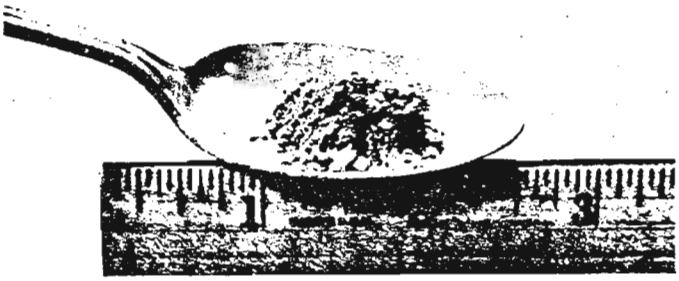

Photo credit Continental Motors.

According to Continental Motors, if just the amount of dust shown in the photo enters an engine hourly, by the end of an eight hour day the engine would be ruined.

With the engine using such vast quantities of possibly dust laden air, we must rely on the air filter to protect the rings and cylinders against wear from the abrasive dust and grit.

The filter by keeping dust out of the engine also significantly reduces spark plug fouling. Dust or silica acts chemically with the lead deposits normally found on aircraft spark plugs. Only very small amounts of silica are necessary to cause the formation of lead silicate which results in severe spark plug misfiring.

Reduce such hazards to a minimum - keep the filter and induction system clean and leakage free.

CHAMPION SPARK PLUG COMPANY

R. L. Anderson
Aviation Service Manager

RLA:rmn

First Choice for Dependable Engine Performance