AN INNOVATIVE DESIGN OF AIR FILTER IN
DIESEL ENGINES OF THE TRACTORS

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ABSTRACT

The escape of small particles in the IC engine combustion chamber will cause wear of the cylinders and pistons and that led to reduce the engine performance and its lifetime service. In this study the air filter system was improved by the increase the length of air sleeve and add another paper filter at the top. The life service of the three types of air filtering systems was investigated by collecting a data air filter replacing after achieving a different of agricultural applications including (plowing, soil straightening, seeding, pesticides, herbicides and harvesting). The innovative design shown the best performance and long life service. Moreover, the air filtering system oil bath with centrifugal and paper filter provided long life service three times better than the single air filter.

KEYWORDS: Design, Air Filter, Agricultural Operations, Operation Distance & Filter Types

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