

TECH TIP

Tech Tip: 03/07/17 Product: Air Filters Topic: What is the purpose of a Safety Air Filter

What is the purpose of a Safety Air Filter

Many of today's heavy equipment and trucks have a two stage air filter system. The two filters are called the Primary filter (Outer) and the Safety filter (Inner). The Primary filters are the larger of the two and removes the contaminants from the air coming from the intake system. The Safety filter fits inside the Primary filter and is there purely to protect the engine in case of a failure to the Primary filter.

Safety filters are generally fitted to vehicles that are exposed to very dusty conditions and the filter has two jobs to do: to act as a backup in case the primary air filter gets damaged or there has been an incorrect fitment. The Safety filter is also there to protect the engine when the Primary filter is removed during servicing as dirt and other particles could migrate to the clean side of the housing.

The Safety filter is normally made from a different media to what is used in the Primary filter and can either be pleated or rolled depending on the available space in the housing. The media is normally synthetic and has a more open construction so normal air flow is maintained but it will not offer the same efficiency as the primary filter. The Safety Element should never be used without the Primary filter being installed.

It is recommended that the Safety Element gets changed with the third Primary air filter change. If there has been a failure of the Primary filter or the equipment is operating in extremely dusty conditions, more frequent change is required.

When changing the Safety filter, after first removing the Primary filter, ensure that the housing is cleaned and any debris is removed.

Once the housing is clean, immediately replace the Safety filter to prevent ingress of dirt into the engine.

Most air filters are of a Radial Seal design with moulded rubber (polyurethane) ends. To aid in installation, if not pre lubricated, lightly grease the sealing area (inside of the outer air filter).

This assists in both the installation and later - the removal of the filters.



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