

THE BENEFITS OF AN AIR START SYSTEM

Although petrol fuelled vehicles designed for domestic use have an electric start system, this is not the only way to start an engine – in fact it often isn't even the best! For industrial machinery, especially diesel engines, air starters are often used for reasons of practicality and safety. While many people understand the way in which an electric ignition works, very few truly understand the working of an air starter system.

Below, you will find a brief explanation of an air starter system and some of the benefits of using these in industrial machinery.

What Is An Air Starter?

As you may be well aware, a starter is what gets an engine going initially, before it continues under its own momentum. In cars and motorbikes, this is generally done with an electric starter. However, in larger industrial machines an air starter is used instead.

An air starter does exactly the same job, but in a different way. To start an engine with an air starter, compressed air is forced into a cylinder, forcing the piston downwards. As the piston is forced down, the air is able to flow into the other cylinders, pushing those pistons downwards as well, continuing the process of

starting the engine. As the pistons move, fuel is drawn into the cylinders and the engine begins running, just as it would if started with an electric system.

There are a number of benefits of using the air starter system, which will be outlined in detail below.

No More Electrics

The obvious benefit of air ignition is the elimination of electrics from the system.

Whilst electric starters do not pose an issue in vehicles designed for use by the general public, they can cause issues in an industrial environment. Often very volatile chemicals are in use and a rogue electrical signal can cause major problems. Eliminating this is one of the primary reasons for using an air starter instead of an electric starter.

High Power To Weight Ratio

Air starters have the added benefit of a very high power to weight ratio. This means that for the size of the system, they can exert a very large force on the engine pistons which is very useful in industrial machines. One of the most common uses of air starters is actually in turbofan jet engines, both military and commercial.

Sustained Power Without Overheating

In addition to a high power to weight ratio, air starters are also far less prone to overheating. They can exert force for as long as it takes to start an engine, without any undue pressure being exerted on the starter system itself. Electric starter motors can very quickly become overheated if it is taking a long time to start the piece of machinery they are fitted to, which is less than ideal.

For more information on electric starter motors, or to have them fitted and serviced, you should contact a qualified engineering company. As a very complex piece of machinery, they do require a skilled technician to maintain.

Hydraulic starters store energy in the form of hydraulic fluid under pressure inside an accumulator.

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