Filter Comparison Kit

Original Equipment Motorcraft Maintenance Parts

There’s No Replacement for the Original
The OEM Motorcraft 6.0L Oil Filter

- Meets OE specifications
- Engineered to fit properly
- Backed by the Ford and Motorcraft names
- Filters all particles over 20 microns
The Motorcraft 6.0L Oil Filter

• In the 6.0L Power Stroke® engine, the oil filter performs additional duties besides filtration:
  – Engages and closes oil drain valve to ensure all oil enters into filtration path
  – Engages bypass valve on top of oil filter housing stand pipe

Note: The patented Original Equipment Manufacturer (OEM) design allows for a precision fit that results in an optimal oil flow
Alternative Oil Filters

- Some non-OEM/competitive oil filters on the market have inadequate designs such as:
  - Shorter element heights that do not meet OEM specifications
  - Removable locking lid on the top of the element that is both unnecessary and unsafe
  - Shorter locking end-caps that restrict flow from the bypass valve and may cause engine damage
Consequences

• Using a non-OEM oil filter may lead to:
  – Decreased oil life
  – Inaccurate injection actuation, possibly leading to injector failure
  – Excessive engine wear due to inadequate filtration of debris and particles
  – Trouble diagnosing a no-start/hard-start condition
  – Catastrophic engine failure

Note: A removable lid from a competitive filter may be left in the housing, allowing the engine to run with no filter
MESSAGE TITLE: 2003-2007 MULTIPLE VEHICLES 6.0L DIESEL - NO START CONDITION WITH LOW INJECTION CONTROL PRESSURE (ICP) - SERVICE TIP

APPLICABLE VEHICLES:
2003 - 2007 TRUCK: 00028 F-SERIES
2004 - 2006 TRUCK: 00016 E-SERIES
2003 - 2005 TRUCK: 00126 EXCURSION

OASIS MESSAGE:
SOME AFTERMARKET OIL FILTERS ARE OF THE INCORRECT SIZE AND FIT FOR 6.0L DIESEL EQUIPPED VEHICLES. THIS MAY CAUSE OIL FLOW RESTRICTIONS OR DRAIN BACK, AND MAY RESULT IN A CRANK NO START/HARD START CONDITION WITH LOW OR SLOW TO BUILD INJECTION CONTROL PRESSURE (ICP). WHEN PERFORMING NORMAL DIAGNOSTICS, INSPECT THE OIL FILTER FOR CORRECT FIT AND APPLICATION. INSPECT FOR DAMAGE TO THE OIL FILTER STAND PIPE, CHECK VALVE, AND OIL FILTER HOUSING LID. INSTALL A FILTER THAT FITS PROPERLY, SUCH AS A MOTORCRAFT FL-2016.
6.0L Oil Filters

Competitor “A”  Competitor “B”
Motorcraft vs. Competitor “A”

Figure 1
Motorcraft end cap engineered to fit properly in oil filter cap to allow oil flow to bypass valve for engine protection

Figure 2
Competitor “A” design restricts oil flow to the bypass valve potentially resulting in engine damage

Figure 3
Motorcraft precision fit cap lock and proper spacing between oil filter cap and element end cap

Figure 4
Competitor “A” element has a loose fit and a large space between oil filter cap and end element cap. Element will lift during operation and allow drain valve to open, bypassing oil from the engine and potentially cause engine damage
Motorcraft vs. Competitor “A”

Figure 5
Competitor “A” element body is .250” shorter than the Motorcraft element allowing element to float in housing

Figure 6
Chemical stability of the adhesive bonding between gasket and end disk is doubtful

Figure 7
Pleats are inconsistent and poorly bonded

Motorcraft pleats are evenly spaced and securely bonded

Figure 8
Glued element boom seal may come unglued when removing the filter for service, leaving the seal in the housing
Motorcraft vs. Competitor “A”

Figure 9
Poor bypass sealing surface allows migration of dirty oil into the engine

Figure 10
Motorcraft element does not use a center tube, which allows for less restriction and more media area

Center tube design reduces filter element media area, higher restriction

Precise bypass valve seat allows for zero leakage with seated valve

Figure 11, 12
Element identification
Motorcraft vs. Competitor “B”

Competitor “B”

Removable Lid

Element Height
6.46”

Element Height
6.5”

Significant Height Differences
Upon removal, the lid remains in the oil filter cap and may break off, possibly resulting in plastic pieces entering the engine crankcase.

Possible consequences with removable lid
6.0L Fuel Filters

Competitor “A”

Ford Motorcraft

GENUINE POWER. GENUINE PERFORMANCE. GENUINE PARTS.
The critical features on the OEM Motorcraft fuel filter that make it more effective than the competitors’ filters:

- Air bleed orifice is engineered to utilize the full potential of the filter pleats
- Outer wrap found on the OEM filter keeps moisture from settling in the pleats and water from passing through to the fuel system
Motorcraft vs. Competitor “A”

**Missing Critical Features**

**AIR BLEED ORIFICE**

Air Bleed Orifice works in conjunction with the orientation tab to allow air to be purged from the top half of the module.

Orientation Tab is present on Competitor “A” filter, but Air Bleed Orifice is missing. Filter housing will only fill halfway utilizing half of the filter media, reducing life and efficiency.

**WATER BARRIER OUTERWRAP**

The outer wrap on the Motorcraft OEM filter pre-separates out water droplets before reaching the pleated media to prevent the water droplets from settling in the pleats on the upper half of the element. As droplets build up in the valleys of the pleats, the filter media will become saturated and begin passing through into the fuel system.
Motorcraft Parts for Your Diesel!

Maintenance Parts

- Air Filters
- Fuel Filters
- Oil Filters
- Glow Plugs
- Glow Plug Relays
- Heater, Air Intake
- Thermostats
- Fuel Additives

Use Original Equipment Motorcraft Maintenance Parts
Motorcraft parts are the preferred choice of Ford Motor Company. They are designed specifically for your Ford Power Stroke Diesel vehicle and have undergone extensive laboratory and on-the-road testing to ensure maximum performance and efficiency.