

New Product Update

Replacement Ford Short Motor (3 Cylinder)

Bulletin	UK	Export	Issued
1361	Yes	Yes	01/03/2017

Vapormatic is pleased to announce the expansion of its engine portfolio with the introduction of a **replacement Ford 3 Cylinder Short Motor programme (BSD333 – Normally Aspirated)**.



This 3 cylinder Short Motor has been developed as a result of the successful Ford 4 cylinder introduction and represents a unique opportunity for Vapormatic customers. The all new block is manufactured exclusively for Vapormatic, using the very latest “lost-foam” casting technique. 21st century foundry processes and the metallurgical specification deliver a high degree of accuracy and an excellent surface finish, both internally and externally.

The latest CNC machining and coordinate inspection has enabled ISO9000 repeatable dimensional, geometric and positional control.

The Short Motors are assembled in Exeter, U.K. by our engineers who ensure all critical measurements are checked at every stage of the build process. Vapormatic Short Motors only use new parts and are fully supported by our 12 months parts and labour warranty.

Product Evaluation & Testing

Prior to product launch a rigorous test programme was undertaken involving trial fitment builds, dynamometer testing and an ongoing long term test in a Ford 4600 tractor. The test successfully completed in December 2016, including, daily yard work and straw chopping on a dairy farm. This investment in testing allowed the complete assembly to be fully evaluated in “on farm” conditions and underlines our commitment to quality.



Parts you can Trust

All components used are new Vapormatic Parts and are not remanufactured. The Vapormatic Short Motor will reduce your downtime, avoid the expense of remanufacturing and will increase the value of your tractor. With our warranty protection you can buy with confidence.

Recommendations & Re-Build Notes

In any rebuild it is important to ensure that all engine auxiliary parts are in good working condition. It is recommended that water pumps, thermostats, clutches, silencers, injector nozzles, fan belts, filters and radiator hoses are all examined for wear and replaced as necessary. Worn parts will affect long term performance. Visit www.vapormatic.com for further information.

Note

Care must be taken with the “running in” process, please refer to the **Engine Running-in Guidance – 6 Steps to a successful engine rebuild** bulletin number 1351 on the Vapormatic website, for more details.

All short motors come complete with new **oil pump VPD1100**, oil pump drive gear and cylinder head alignment dowels.

Earlier specification engines with ½” UNC thread cylinder head bolts will also require **VPA3913** cylinder head bolt kit, **VPA5083** timing cover kit bolt kit, **VPA5080** timing hub bolt, **VPA5081** timing hub and **VPC5440** rear main seal housing to complete installation of the New Short Motor.

Build Checks



Each short motor goes through rigorous checks at both the manufacturing and assembly phases, ensuring that each component fits to the cylinder block in line with the original engine tolerances.

Checks are carried out on:

- Piston skirt clearances
- Piston rings gaps
- Crankshaft end float
- Crankshaft free rotation
- Camshaft free rotation
- Piston protrusion
- Torque setting of connecting rod blots and main bearing caps

Cylinder blocks are specially honed to ensure a quick and efficient running in process, reducing oil consumption and aiding fast starting. These checks are in place to provide a smooth engine replacement and reduce downtime.

Engine Specifications

Normally Aspirated – [VPB8024](#)

Engine Type	
Bore	111.778mm
Stroke	111.778mm
Cylinders	3
Type	Non turbo
Cylinder head bolt size	9/16" UNC
Fully assembled motor includes:	
Cylinder block	Latest spec, cross hatch design
Pistons	4 ring type VPB2540
Rings	4 ring type VPB4540
Connecting rods	Parallel top VPB6003
Crankshaft & bearings	VPC1042
Camshaft	VPA2501
Camshaft followers	VPA2600
Oil pump	VPD1100
Oil pump drive	VPD1503
Oil pump driveshaft	VPD1502
Typical applications	Direct replacement, BSD333: 4000, 4600, 4610, 4630 Also suitable for, 2000, 3000, 2600, 3600, 3055, 3900, 4100, 2310, 2610, 2810, 2910, 3610, 3910, 4110,



Necessary build components (sold separately):

Cylinder head gasket: [VPA4301](#)
Cylinder head gasket set: [VPA4101](#)

Bottom gasket set: [VPC6105](#)



All Vapormatic quality replacement parts carry an industry leading **12 month parts and labour warranty**. For further information on specific items please visit:

www.vapormatic.com