POWER TO SERVE Cullen DIESEL POWER

SPECIFYING A GEN V GAS ENGINE & DRIVE PACKAGE FOR REPOWER

Aim of this guide sheet is to assist the Dealer / Customer produce a specified engine & drive package that can either be placed as a factory order with Volvo Penta or purchased from existing stock at Cullen. It also contains references to documents that may need to be reviewed to ensure you provide your customer with the correctly specified engine and drive package for their boat.

The following basic specifications need to be provided with your request for quote or order to Cullen. The remainder of the contents of this guide will assist the person quoting this drive package to provide them;

ENGINE Cyl/Ltr/HP (ie V8, 5.3, 320)		**EVC or NON EVC**	
DRIVE LINE TYPE; SX / DPS / DPS Coastal Series		**ENGINE RISER HEIGHT; Standard or Tall**	
TSK Tilt Angle; 32 / 42 / 52 Degree Tilt		**ACPS Equipped TSK? Incl in Package Price for V8-350/380/430 Packages. Available as an option on smaller engines.**	

From factory Package Price List;
How to Read Model Name IE: V8 – 300 – C E = Eng Configuration – HP – C is Catalyst Exhaust System E is EVC. Where no 'C' IS Designated it is a Non-Catalyst Engine, where no 'E' is designated it is a Non-EVC Engine. ACPS stands for Active Corrosion Protection System.

FAQ's

What's included in the Package Price list from Volvo Penta? Engine, Drive, TSK and Prop-set are only are included, FH series props are used on DPS and DPS Coastal Series Drives.

Will the Gen V engine fit in the Existing Installation? Gen V engines are made to fit the preceding generation, MEFI (Marine Electronic Fuel Injection) engine envelope. MEFI engines were produced from 1992-2015. If your existing driveline contains is a Carburetor engine or is fitted with a 290 style drive-leg, consult Engine Drawings in the Sales Support Tool on Partner Network to ensure fit! Not sure what your current engine is or it's not a Volvo? Measure its dimensions and compare to these the Gen V drawings.

Existing MEFI Engine	V6 4.3ltr	V8 5.0-5.7ltr	V8 8.2ltr
GEN V Engine Fits	V6 4.3ltr	V8 5.3ltr	V8 6.2ltr

Note: This Document has been produced in good faith and as accurately as possible using existing documents from Volvo Penta Partner Network and is intended as a general guide, it does not replace measuring existing engines and using drawings for accuracy. Cullen Diesel is not responsible for any issues which may arise from its use.

Can I retain my current drive? Gen V engines have a significantly higher RPM than there predecessor MEFI engines which often translates into the existing drive ratio being unsuitable, refer to 'Gas Stern Drive RPM and Ratio Recommendations' document to see Volvo Penta's recommended Ratios by Engine Model and verify suitability of retaining the existing drive.

Can I keep my current gauges? For Non-EVC engines, where the existing driveline is from Volvo Penta the original gauges can be retained. Refer to Parts Bulletin P-37-1-1 for Adapter Harnesses. Upgrading to an EVC engine from a Non-EVC engine requires the gauge cluster to be replaced.
What are the options for Controls and Gauges/Diplays? Refer to the Sales Support Tool's Order Specifications and use these in conjunction with the Accessories Catalogue to show your customer what options look like. See PNL551.1 for a new Instrument Kit for NON-EVC engines.

ENGINE RISER HEIGHT DETERMINATION - **Refer to 'Installation Drawings' in the Sales Support Tool**
The Golden Rule of exhaust riser heights is 'The Taller the Better' fit the tallest riser you can into the existing engine space. Measure the existing Installation from the Stringer or engine footing to the top of the exhaust riser and record this measurement, also determine if a taller riser can be fitted by measuring the distance from the stringer or engine footing to underside of the top of the 'Dog Box' or engine hatch for overall height clearance.

GEN V ENGINE RISER CRITICAL MEASUREMENTS	TOTAL HEIGHT FROM 'STRINGER' TO TOP STANDARD MANIFOLD	TOTAL HEIGHT FROM 'STRINGER' TO TOP 'TALL' MANIFOLD	TOTAL HEIGHT FROM STRINGER TO REMOVE ENGINE COVER
V6 4.3ltr	26.1"	28.7"	28.9"
V8 5.3ltr	26.3"	28.9"	29.1"
V8 6.2ltr	26.2"	28.9"	29.1"

TSK TRIM ANGLE DETERMINATION - Refer to 'Installation Drawings' in the Sales Support Tool
The Crank Center height/location passes through the Trim Angle Sensor on the 'H' / steering bracket of an existing TSK (Not applicable to 290 style drive). Measure from the Trim angle sensor to the bottom of any part pf the boat which overhangs the drive on the Transom (ie Swim Platform, etc). This measurement is the maximum trim height, order the TSK Tilt Angle Accordingly.

TSK	TRIM SENDER/CRANK CENTRE TO CAV PLATE TIP AT MAX TILT
32DEG TILT	9.6"
42DEG TILT	11.7"
52DEG TILT	12.1"

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