

**Service Information Letter**

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**Installation of 8.5 to 1 Compression Pistons Not Approved**

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September 24, 2002

TO: Dealers, Owners, Operators or Overhaul Facilities  
of P. Ponk O-470-50 Engines.

Models Affected:

O-470-K, L, M, R, S or U converted to the O-470-50 under STC SE4985NM,  
and assembled with a wide-rod crankshaft (The “wide-rod” crankshaft may be identified as  
one with 530383 rod bearings installed.)

It has come to our attention that some of the models listed above have been assembled with  
the higher compression (8.5 to 1) pistons, instead of the lower compression 7.5 to 1 pistons  
called out in our STC instructions.

Examples of higher 8.5 to 1 compression piston Part Numbers:  
648013, 631475, 646072, 648045 etc.

Examples of lower 7.5 to 1 compression piston Part Numbers:  
646303, 648044 etc.

Use of the “wide-rod” crankshaft with any piston higher than 7.5 to 1 compression ratio and  
a maximum rpm above 2700 is not authorized by our STC and could result in engine failure.  
Our testing did not exceed the above parameters, and we do not condone or support instal-  
lation of the higher compression pistons.

Please check the engine records to determine if any overhaul, top overhaul or cylinder  
change has been performed in which higher compression pistons were installed. If higher  
compression pistons are found, we recommend immediate engine teardown and complete  
inspection of the crankshaft, including ultrasound and magnaflux inspections, for defects.

Reassemble the engine in accordance with our STC, installing 7.5 to 1 compression pistons.

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***P. Ponk Aviation***

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