



# SERVICE BULLETIN

**MANDATORY**

ISSUED:	March 10 <sup>th</sup> 2020	M.S.B.	20-03/01
REV:	Original	PAGE:	1 of 1

**1.) PURPOSE.** To announce possible incorrect assembly of piston rings.

**2.) BACKGROUND.** ACE supplied distributors or customers with kits or fully assembled engines consisting of AX40 or AX50 air cooled cylinder kits, w/ includes cylinder unit, connecting rod, piston, piston pin and piston rings consisting of top ring, second ring and three piece oil control ring. Recently on tear down of several engines, the piston ring pack were assembled incorrectly, with either the top ring being installed upside down or the second ring being upside down.

**3.) TIME OF COMPLIANCE.** If any engine is fitted with either AX40 or AX50 cylinders, all serial numbers and therefore is identified with this Mandatory Service Bulletin, before next flight:

3.1 A compression check must be carried out (not a leak down test), minimum expected pressure is 155psi. There should be no more than 5% variance between the cylinders. If more than 5%, remove cylinders, examine and replace rings.

3.2 Complete a leak down test, an expected pressure of 65psi is required with no more than 5% variation. If more than 5% remove cylinders, examine and replace rings.

3.3 If more than 4" of pressure is observed from the crankcase breather, remove cylinders, examine and replace rings.

**4.) MODELS AFFECTED.** All AX40 and AX50 cylinders. Note\* These products are no longer in production.

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2039 Broad Street  
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Abingdon OX13 5DB  
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# SERVICE BULLETIN

**MANDATORY**

ISSUED:	March 14 <sup>th</sup> 2020	M.S.B.	20-03/02
REV:	Original	PAGE:	1 of 1

**1.) PURPOSE.** To announce possible incorrect high temperature operation.

**2.) BACKGROUND.** ACE supplied distributors or customers with kits or fully assembled engines consisting of AX40 or AX50 air cooled cylinder kits, w/ includes cylinder unit, connecting rod, piston, piston pin and piston rings consisting of top ring, second ring and three piece oil control ring. The absolute maximum operating temperature of these cylinders is 430 deg F. The standard operating temperature range is 370~390 deg F.

**3.) TIME OF COMPLIANCE.** If any engine is fitted with either AX40 or AX50 cylinders, all serial numbers and therefore is identified with this Mandatory Service Bulletin, before next flight:

3.1 If the engine has been run at 430 deg F for less than 15 minutes of operation. Then a visual check for cracks between cylinder fins 11 through to 13 must be conducted. Any cracks, no matter how small will require the cylinder to be removed from service.

3.2 If the cylinders have been run at temperatures past 430 deg F for an accumulative time of 30 mins or more, then the cylinder MUST be removed from service.

**4.) MODELS AFFECTED.** All AX40 and AX50 cylinders. Note\* These products are no longer in production.

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