

1625 North 1100 West Springville, UT 84663 Peachtree City, GA 30269 801-489-2000 Peachtree City GA 30269

# **SERVICE INFORMATION LETTER**

SIL # 170515-389858WD

**SUBJECT:** It has been determined that some Wencor PMA PN 389858WD Cylinder Blocks do not meet design requirements with respect to the spline inner diameter.

#### **REVISION HISTORY TABLE**

Revision	Change Description	Release Date
А	Original Release	06/06/2017

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### 1. Planning

# a. Effectivity

Wencor P/N	NHA P/N	NHA Description	ATA	Engine or Aircraft Application
389858WD	971808 570347 861555 414470 861686 518150 693335 974540 518203 693830 520831 887031	Air Turbine Starter (ATS)	29-11-15 29-10-03 29-10-00 29-21-01 29-21-03 29-10-47 29-10-46	Boeing (717-200 series) McDonnell Douglas Corp. (DC-9-11, -12, -13, -14, - 15, -15F, -21, -31, -32, - 32F, -33F, -34, -34F, -41, -51, -81, -82, -83, -87, MD-88 series MD-90-30 series DC-10-10, -10F, - 15, -30, -30F, -40 & -40F series MD-10-10F & -30F series MD-11 & -11F series) Airbus (A300-100, -200 & - 600 series A310-200 & - 300 series A318-100 series A319-100 series A320-100 & -200 series A320-100 & -200 series A321-100 & -200 series A320-200 & -300 series A340-200, -300, -500, - 600 series) Bombardier (DeHavilland) (DHC-8-100, -200, -300 series) Embraer (EMB-135 series (ERJ-135 & ERJ-140) EMB-145 series (ERJ- 145)) BAE Systems (BAE 146- 100A, -200A & -300A series Avro 146-RJ70A, - RJ85A & -RJ100A series Fokker (F.28 Mark 0100, F.28 Mark 0070)

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#### b. Reason:

One customer has reported that a PMA PN 389858WD Cylinder Block does not meet a dimensional requirement specified in the ICAs. It was determined after investigation that the inner diameter of the Involute Spline is oversize. In particular, the measurement over pins is greater than the .5036 maximum limit specified in the ICAs. Reference Eaton CMM for motor driven pumps 570347 and 971808 ATA 29-11-15 fits and clearances Table, figure 801, sheet 2. The net effect of this defect is that the clearance between the spline teeth of the Cylinder Block and the mating shaft is greater than intended.

#### c. Background

The subject Cylinder Block mates to a drive shaft via spline teeth. Rotation of the Cylinder block in one direction in conjunction with oscillatory motion of a wobbler facilitates pumping action via 7 pistons.

The increased clearance between the cylinder block spline will not effect pump performance, however; it is possible that wear to the spline teeth of the cylinder block and the mating shaft may be accelerated.

Wencor has had no reports of reduced life or performance issues.

#### d. Safety

The effects of this problem were evaluated and it was concluded that this defect is not a safety of flight issue because:

- The subject part is installed in hydraulic systems with triple redundancy
- Each hydraulic system has multiple pumps

#### 2. Recommendations

Any Wencor Cylinder Blocks that are currently in service may remain in service at the discretion of the customer / operator.

Any Wencor Cylinder Blocks purchased prior to May 2017 that have not been placed into service should be returned for credit or replacement.

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#### 3. Compliance

Compliance to this SIL is at the discretion of the customer/owner/operator.

#### 4. Material

Form Rev D

Wencor PN 389858WD Cylinder Blocks that require replacement as a result of this Service Information Letter will be covered free of charge under the Wencor material warranty. If there are any questions regarding this Service Information Letter, please contact the applicable Wencor sales representative by calling 801-489-2000 or email: sales@wencor.com. For technical questions regarding this SIL please contact Steve Jones at sjones@wencor.com.

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