

BONAIRE AVIATION COMPANY

INSTRUCTIONS

**PROPELLER INSTALLATION
IN CESSNA 180 SERIES AIRCRAFT
(CONTINENTAL O-470-A, J,
K, L, R, S, U POWERED)
STC NUMBER #SA00852AT**

**DOCUMENT #BOAC 1016
REV.-(ORIG.), DATED 1-30-95
REV. A, DATED 8/1/98
REV. B, DATED 1/23/08
REV. C, DATED 4/9/08**

BONAIRE AVIATION COMPANY
P.O. Box 1158 TCAS
Blountville, TN 37617
LOG OF REVISIONS

Rev. No.	Pages	Description	Date
A	All	Revised PHC-(C, G)-1RF/F8468A-6R propeller applicability	8/1/98
	Dwg 1-4	Deleted	8/1/98
	1016-1	Revised installation instructions	8/1/98
B	All	Renumbered pages	1/23/08
	3, 6, 7	Revised PHC-(C, G)-1RF/F8468A-6R propeller applicability	1/23/08
	3, 6, 7	Revised PHC-(C, G)-1RF/F7691 propeller applicability	1/23/08
	4	Added note to clarify propeller installation eligibility	1/23/08
	5	Added "governor" to clarify	1/23/08
C	5	Revised prop weights	4/9/08
		FAA APPROVED Date: _____ Initials: _____	

NOTE: Revisions are indicated by a black vertical line in the left margin.

**BONAIRE AVIATION COMPANY
P.O. Box 1158 TCAS
Blountville, TN 37617**

**PROPELLER INSTALLATION
IN CESSNA 180 SERIES AIRCRAFT
(CONTINENTAL O-470-A, J, K, L, R, S, AND U POWERED)
MASTER DOCUMENT LIST (MDL)
NO. BOAC 1016P, REV.-(ORIG.), DATED 1-30-95
REV. B DATED 1-23-08
REV. C DATED 4-9-08**

PAGE NO.	DATE	REVISION	DESCRIPTION
INSTALLATION			
BOAC 1016-1, 1A	8/1/98		Installation Instructions
BOAC 1016-2	8/1/98		Applicable Models
6	1/23/08		Instrument Markings
7	1/23/08		Kits Parts List
DRAWINGS - DELETED 1-4	8/1/98		Deleted

Propeller Applicability

Spinner

PHC-C3YF-1RF/F8468A ()-6R

C3535-1P or A2295-1P

PHC-C3YF-1RF/F7691()

C3535-1P or A2295-1P

PHC-G3YF-1RF/F8468A()-6R

D5732-P

PHC-G3YF-1RF/F7691()

D5732-P

BONAIRE AVIATION COMPANY
P.O. Box 1158 TCAS
Blountville, TN 37617

IMPORTANT NOTE

TO AIRCRAFT OWNER:

This conversion should only be performed by a Qualified Airframe and Powerplant Mechanic and inspected by an Aircraft Inspector who has significant experience with this aircraft.

TO AIRCRAFT OWNER, MECHANIC AND INSPECTOR:

These instructions are generic to the aircraft as originally manufactured by Cessna. The aircraft covered by this STC at the time of conversion have been in service many hours over many years and exhibit varying degrees of wear over all aircraft assemblies. It is the mechanic and inspectors responsibility to exercise the utmost care and judgment in making this conversion in accordance with the STC and in the exercise of good judgment in determining the compatibility of this STC, in all regards, with all systems on the particular aircraft being converted.

PROPELLER INSTALLATION
IN CESSNA 180 SERIES AIRCRAFT
(CONTINENTAL O-470-A, J, K, L, R, S, and U POWERED)

NOTE: Installation eligibility of a specific aircraft, engine and propeller model combination is described on pages 6 and 7. Installation of the PHC-C3YF-1RF/F7691 and PHC-G3YF-1RF/F7691 propellers is limited to landplanes only.

INSTALLATION INSTRUCTIONS

1. Remove existing prop and spinner from aircraft.
2. If removing Hartzell 2 blade propeller, the propeller governor must be replaced with a compatible governor reset to the appropriate RPM for your engine. Retain removed prop governor for exchange, rebuild or resale. Confirm replacement governor is set for the proper RPM of your engine. Refer to Approved Instrument Markings of this document for settings.

Recommended acceptable propeller governors for installation on the Cessna 180 are listed below (PMA equivalent part numbers are acceptable).

Woodward 210065, A210452 (**SET FOR YOUR RPM**)
McCauley C290D2{X}/T1 or McCauley C290D3{X}/T1 or McCauley C290D2{X}/T14

NOTE: Woodward p/n 210155, 210105, 210340, 210345 can possibly be modified into the appropriate p/n by a qualified repair station.

BOAC 1016, Rev.C
4/9/08

BONAIRE AVIATION COMPANY
P.O. Box 1158 TCAS
Blountville, TN 37617

3. Install new propeller and new attaching hardware. Install propeller and spinner per manufacturers manual, Cessna Service Manual Propeller and Governor Section..

NOTE: Accomplish steps 1 and 2 in accordance with Cessna Service Manual appropriate to aircraft being modified, removal and installation section.

4. Check all engine instruments for correct markings as per Bonaire Aviation Company approved Engine Instrument Marking Table, Page 6. Remove instruments as required. Have approved instrument shop install instrument markings, reinstall instruments.
5. Ground run engine (minimal time), check RPM, adjust propeller governor High-RPM stop and rig governor control if necessary.
6. Revise aircraft weight and balance to reflect removal of the previous propeller and installation of the new propeller with the appropriate weight provided in the following table. Use the moment arm for the propeller and spinner provided in the aircraft equipment list.

Propeller Model	Propeller & Spinner Weight (lbs)
PHC-G3YF-1RF/F8468A-6R	83.7
PHC-C3YF-1RF/F8468A-6R	82.5
PHC-G3YF-1RF/F7691	74.7
PHC-C3YF-1RF/F7691	73.5

7. Install FAA approved Flight Manual Supplement, appropriate to aircraft serial number being modified.
8. Make log entries and complete FAA form 337 for aircraft, engine and prop. Return aircraft to service.
9. Fly aircraft and check maximum RPM setting, readjust governor if necessary.
10. **Installation Review** - while the modification is still fresh in your mind, go back through the drawing and installation instructions and make notes about any difficulties you encountered. Communicate with us so that we can improve our package. Let us know good and bad points. Pictures are helpful.

BOAC 1016, Rev.C
4/9/08

**BONAIRE AVIATION COMPANY
P.O. Box 1158 TCAS
Blountville, TN 37617**

PROPELLER INSTALLATION
IN CESSNA 180 SERIES AIRCRAFT
(CONTINENTAL O-470-A, J, K,L, R, S, and U POWERED)

APPLICABLE MODELS

Cessna Models

MODEL NUMBER	SERIAL NUMBER
180	18030000 thru 18032661
180A	18032662 thru 18050355
180B	18050356 thru 18050661
180C	18050662 thru 18050911
180D	18050912 thru 18051063
180E	18051064 thru 18051183
180F	18051184 thru 18051312
180G	18051313 thru 18051445
180H	18051446 thru 18052286
180J	18052285 thru 18052770
180K	18052771 and Subsequent

APPROVED ENGINE INSTRUMENT MARKINGS

TACHOMETER (Hartzell Propeller - Land Plane Only) (O-470-A, K, L, R, S)
(PHC-C3YF-1RF/F7691()) or (PHC-G3YF-1RF/F7691())

Operating Range (Green ARC).....	2200 to 2450 RPM
Caution Range (Yellow ARC).....	2450 to 2600 RPM
Maximum (Red Radial)	2600 RPM

TACHOMETER (Hartzell Propeller – Landplane, Seaplane or Amphibian) (O-470-A¹, K, L, R, S)
(PHC-C3YF-1RF/F8468A () -6R) or (PHC-G3YF-1RF/F8468A () -6R)

Operating Range (Green ARC).....	2200 to 2600 RPM
Maximum (Red Radial)	2600 RPM

NOTE 1: O-470-A APPROVAL LIMITED TO ENGINE SERIAL NUMBER 41000 AND UP.

BONAIRE AVIATION COMPANY
P.O. Box 1158 TCAS
Blountville, TN 37617

APPROVED ENGINE INSTRUMENT MARKINGS (CONTINUED)

TACHOMETER (Hartzell Propeller - Land Plane Only) (O-470-J)
(PHC-C3YF-1RF/F7691() or (PHC-G3YF-1RF/F7691())

Operating Range (Green ARC).....	2100 to 2350 RPM
Caution Range (Yellow ARC).....	2350 to 2550 RPM
Maximum (Red Radial)	2550 RPM

TACHOMETER (Hartzell Propeller - Landplane, Seaplane or Amphibian) (O-470-J)
(PHC-C3YF-1RF/F8468A () -6R) or (PHC-G3YF-1RF/F8468A () -6R)

Operating Range (Green ARC).....	2100 to 2550 RPM
Maximum (Red Radial)	2550 RPM

TACHOMETER (Hartzell Propeller – Land Plane Only) (O-470-U)
(PHC-C3YF-1RF/F7691() or (PHC-G3YF-1RF/F7691())

Operating Range (Green ARC).....	2100 to 2400 RPM
Maximum (Red Radial)	2400 RPM

TACHOMETER (Hartzell Propeller - Landplane, Seaplane or Amphibian) (O-470-U)
(PHC-C3YF-1RF/F8468A () -6R) or (PHC-G3YF-1RF/F8468A () -6R)

Operating Range (Green ARC).....	2100 to 2400 RPM
Maximum (Red Radial)	2400 RPM

BOAC 1016, Rev.C
4/9/08

**BONAIRE AVIATION COMPANY
P.O. Box 1158 TCAS
Blountville, TN 37617**

KIT PARTS LIST 180 STC

1 ea. STC document set

1 ea. PHC-C3YF-1RF/F8468A ()-6R Propeller

or

1 ea. PHC-C3YF-1RF/F7691() Propeller

1 ea. C3535-1P or A2295-1P Spinner Assembly

1 ea. Mounting Kit (propeller and spinner)

or

1 ea. STC document set

1 ea. PHC-G3YF-1RF/F8468A()-6R Propeller

or

1 ea. PHC-G3YF-1RF/F7691() Propeller

1 ea. D5732-P Spinner Assembly

1 ea. Mounting Kit (propeller and spinner)

NOTE: THESE PART NUMBERS ARE CURRENT AS OF 1-23-08. THESE PART NUMBERS MAY BE SUPERCEDED OR OTHER MANUFACTURER EQUIVALENT PART NUMBERS USED.

BOAC 1016, Rev.C
4/9/08

DEPARTMENT OF TRANSPORTATION
 FEDERAL AVIATION ADMINISTRATION
STATEMENT OF COMPLIANCE WITH THE FEDERAL AVIATION REGULATIONS

DATE: 4/9/08

Page 1 of 1

AIRCRAFT OR AIRCRAFT COMPONENT IDENTIFICATIONS

MAKE	MODEL NO.	TYPE <small>(Airplane, Radio, Helicopter, etc.)</small>	NAME OF APPLICANT
Cessna	180, 180A, 180B, 180C, 180D 180E, 180F, 180G, 180H, 180J 180K	Airplane	Hartzell Propeller Inc.

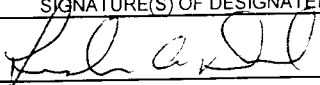
LIST OF DATA

IDENTIFICATION	TITLE
Document: BOAC 1016, Revision C Dated 4/9/08	INSTRUCTIONS, PROPELLER INSTALLATION IN CESSNA 180 SERIES AIRCRAFT (CONTINENTAL O-470-A, J, K, L, R, S, U POWERED), STC NUMBER #SA00852AT. END

PURPOSE OF DATA
 Revise Installation Instructions to update propeller weights for STC SA00852AT

APPLICABLE REQUIREMENTS (List specific sections)
 14 CFR 23.901

CERTIFICATION - Under authority vested by direction of the Administrator and in accordance with conditions and limitations of appointment under Part 183 of the Federal Aviation Regulations, data listed above and on attached sheets numbered XXX have been examined in accordance with established procedures and found to comply with applicable requirements of the Federal Aviation Regulations.
 I (XX) therefore Recommend approval of these data
 Approve these data

SIGNATURE(S) OF DESIGNATED ENGINEERING REPRESENTATIVE(S)	DESIGNATION NUMBER(S)	CLASSIFICATION(S)
 Leslie A. Doud	DERY-410155-CE	Chart B - A7, B7, A16, B16 Chart G - A5, A7, A8, A10