

**Installation
Operation
Service**

**propeller owner's
manual
& log book**

for PIPER AIRCRAFT

MANUAL 107-R - DOA - FAA APPROVED

This Manual Will Be Periodically Updated

June 1980

Hartzell

Aircraft Model	Engine	HP	RPM	Propeller	Blade	Blade Angle & Tolerances (°)			Wt.	Gov.	Spinner	Torque	Aircraft Spec. No./STC No./Approval Status
						Low	High	Feather					
Piper PA-28-236	Lyc. 0-540-J3A5D			HC-F2YR-1()F	F8468A-4R								Hartzell 8110-3 Vibration Approval, 2/17/78
Piper PA-28R-180 Cherokee Arrow	Lyc. IO-360-B1E	180	2700	HC-C2YK-1BF	F7666A to -1.5	13.0±.2	28-30		57	F-2-2(), F-2-7A	Piper	60-70	A.S. 2A13
Piper PA-28R-200 Cherokee Arrow	Lyc. IO-360-C1C	200	2700	HC-C2YK-1BF	F7666A-2 to -3.5	14.0±.2	27-31		55	F-2-7A	Piper	60-70	A.S. 2A13
Piper PA-28RT-200T	Cont. TSIO-360-F	210	2575	BHC-C2YF-1BF (Minimum Diameter 75")	F8459A-8R	12±.1	28-30			E-5	C-2298-2	60-70	Hartzell 8110-3 Vibration Approval, 3/30/76
Piper PA-28R-201	Lyc. IO-360-C1C			HC-C2YK-1()F (Minimum Diameter 72.5")	(F)7666A-2							60-70	A.S. 2A13
Piper PA-28R-201	Lyc. IO-360-C1C6			HC-C2YK-1()F (Minimum Diameter 72")	F7666A-2 -2P, -2R							60-70	A.S. 2A13
Piper PA-28R-201T	Cont. TSIO-360-F(B)	200	2575	BHC-C2YF-1BF (Minimum Diameter 75")	F8459A-8R	14.4±.2	28-30			E-5	C-3568	60-70	A.S. 2A13
Piper PA-28RT-201T	Cont. TSIO-360F or -FB	200	2575	PHC-C3YF-1RF	F7663-2R	13.2±0.2	33.0±1.0		74			60-70	A.S. 2A13
Piper PA-28-235 Cherokee	Lyc. 0-540-B4B5	235	2575	HC-C2YK-1BF (No Further Reduction)	F8468A -4	13.5±.2	25-29		54	F-4-3A F-4-13: ①	Piper	60-70	A.S. 2A13
Piper PA-30-160 Twin Comanche	Lyc. IO-320-B1A	160	2700	HC-E2YL-2BSF	F7663-4 to -6	12.0		78	50	F-6, F-6-3()		50	A.S. A1EA
Piper PA-30-160 C/R	Lyc. IO-320-B1A	160	2700	HC-E2YL-2BLSF	FJ7663-4	12		78	50	F-6-3AL		50	A.S. A1EA
	IO-320-B1A	160	2700	HC-E2YL-2BSF	F7663-4	12		78	50	F-6-3()		50	
Piper PA-31-300 Navajo	Lyc. IO-540-M1A5	300	2700	HC-E2YR-2B	C8475A-4 to -6	12.5	17-20	81±1	68	F-6-15A		60-70	A.S. A8EA
Piper PA-31 Navajo	Lyc. TIO-540-A2A -A2B, -A2C	310	2575	HC-E3YR-2F, -2AF (78" Minimum Diameter)	FC8468-6R	②	4-7" higher than low	81±1	89	F-6-11A	Piper	60-70	A.S. A8EA

① (With engine S/N suffix of "A")
 ② 13 for -A2A, -A2B; 13.5 for -A2C

PROPELLER MAINTENANCE RECORD

FRONT
LEFT ENGINE

Hub Model HC-F24R-1BF
Blade Design F8468A-4R
Diameter 80.0"
Hub Ser. No. CM691
Blade Ser. Nos.
No. 1 F04239
No. 2 E99596
No. 3

PITCH RANGE

High 32.0 Low 16.25
Feather Reverse
Governor Model

RIGHT ENGINE

Hub Model
Blade Design
Diameter
Hub Ser. No.
Blade Ser. Nos.
No. 1
No. 2
No. 3

PITCH RANGE

High Low
Feather Reverse
Governor Model

DESCRIPTION OF ALL OPERATIONS
PERTAINING TO AIRWORTHINESS DIRECTIVES,
SERVICE BULLETINS, SERVICE LETTERS,
& MINOR ADJUSTMENTS

DATE	TACH TIME	DESCRIPTION OF WORK	SIGNATURE
DATE <u>10-27-89</u>	TOTAL TIME <u>1045.6</u>		
I CERTIFY THAT THIS <u>PROP</u>	HAS BEEN		
INSPECTED IN ACCORDANCE WITH A <u>ANNUAL</u>			
INSPECTION AND WAS DETERMINED TO BE IN			
AIRWORTHY CONDITION. WO # <u>4055</u>			
SIGNED <u>[Signature]</u>	FOR		
CORPORATE AIR TECHNOLOGY			
FAA CRS 402-28			
DATE <u>11-9-90</u>	TOTAL TIME <u>1144</u>		
I CERTIFY THAT THIS <u>PROP</u>	HAS BEEN		
INSPECTED IN ACCORDANCE WITH A <u>ANNUAL</u>			
INSPECTION AND WAS DETERMINED TO BE IN			
AIRWORTHY CONDITION. WO # <u>5805</u>			
SIGNED <u>[Signature]</u>	FOR		
CORPORATE AIR TECHNOLOGY			
FAA CRS AU38384L			

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& MINOR ADJUSTMENTS**

DATE	TACH TIME	DESCRIPTION OF WORK	SIGNATURE
5-21-91	1168.8	Disassembled, cleaned and visually inspected all parts. Complied with A.D. 77-12-06; Compression Rolled all blades. Replaced all seals and assembled propeller. Functionally tested propeller. Profiled, detalled, balanced and safetied propeller. Service Bulletin #108-A, Tachometer Strobing NOT complied with.	
		NEXT COMPLIANCE DUE: 5 YEARS but not to exceed 2000 HOURS, WHICHEVER OCCURS FIRST. RECOMMENDED OVERHAUL PERIOD 5 YEARS or 2000 HOURS.	
		Complied with S.B. 118D, 136F, 142B, 151A, 155, 159A. ISO	
		WORK ORDER # 18083	
		AMERICAN PROPELLER SERVICE	
		Redding Municipal Airport	
		Redding, Calif. 96002	
		F.A.A. Repair Station No. NO3R717L / NO3D717L	<i>Th. L. O. B. L.</i>

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DATE	TACH TIME	DESCRIPTION OF WORK	SIGNATURE
		DATE <u>11-26-91</u> TOTAL TIME <u>1199.66</u>	DATE <u>1-5-94</u> TOTAL TIME <u>1329.47</u>
		I CERTIFY THAT THIS <u>PROP</u> HAS BEEN	I CERTIFY THAT THIS <u>PROP</u> HAS BEEN
		INSPECTED IN ACCORDANCE WITH A <u>ANNUAL</u>	INSPECTED IN ACCORDANCE WITH A <u>ANNUAL</u>
		INSPECTION AND WAS DETERMINED TO BE IN	INSPECTION AND WAS DETERMINED TO BE IN
		AIRWORTHY CONDITION. WO # <u>7142</u>	AIRWORTHY CONDITION. WO # <u>9996</u>
		SIGNED <u>James A. Case</u> FOR	SIGNED <u>James A. Case</u> FOR
		CORPORATE AIR TECHNOLOGY	CORPORATE AIR TECHNOLOGY
		FAA CRS AU3R384L	FAA CRS AU3R384L
		DATE <u>12-2-92</u> TOTAL TIME <u>1239.3</u>	DATE <u>2-7-95</u> TOTAL TIME <u>1464</u>
		I CERTIFY THAT THIS <u>PROP</u> HAS BEEN	I CERTIFY THAT THIS <u>PROP</u> HAS BEEN
		INSPECTED IN ACCORDANCE WITH A <u>ANNUAL</u>	INSPECTED IN ACCORDANCE WITH A <u>ANNUAL</u>
		INSPECTION AND WAS DETERMINED TO BE IN	INSPECTION AND WAS DETERMINED TO BE IN
		AIRWORTHY CONDITION. WO # <u>8535</u>	AIRWORTHY CONDITION. WO # <u>11315</u>
		SIGNED <u>James A. Case</u> FOR	SIGNED <u>James A. Case</u> FOR
		CORPORATE AIR TECHNOLOGY	CORPORATE AIR TECHNOLOGY
		FAA CRS AU3R384L	FAA CRS AU3R384L

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DATE	TACH TIME	DESCRIPTION OF WORK	SIGNATURE
DATE <u>3-14-96</u>	TOTAL TIME <u>1522.3</u>	DATE <u>4-8-97</u>	TOTAL TIME <u>1619.6</u>
I CERTIFY THAT THIS <u>PROP</u>	HAS BEEN	I CERTIFY THAT THIS <u>PROP</u>	HAS BEEN
INSPECTED IN ACCORDANCE WITH A <u>ANNUAL</u>		INSPECTED IN ACCORDANCE WITH A <u>ANNUAL</u>	
INSPECTION AND WAS DETERMINED TO BE IN		INSPECTION AND WAS DETERMINED TO BE IN	
AIRWORTHY CONDITION. WO # <u>12512</u>		AIRWORTHY CONDITION. WO # <u>13763</u>	
SIGNED <u>Jay A. Case</u>	FOR	SIGNED <u>Jay A. Case</u>	FOR
CORPORATE AIR TECHNOLOGY		CORPORATE AIR TECHNOLOGY	
FAA CRS AU3R384L		FAA CRS AU3R384L	
DATE <u>5-15-98</u>	TOTAL TIME <u>1642.5</u>	DATE <u>7-16-99</u>	TOTAL TIME <u>1662.09</u>
I CERTIFY THAT THIS <u>PROP</u>	HAS BEEN	I CERTIFY THAT THIS <u>PROP</u>	HAS BEEN
INSPECTED IN ACCORDANCE WITH A <u>ANNUAL</u>		INSPECTED IN ACCORDANCE WITH A <u>ANNUAL</u>	
INSPECTION AND WAS DETERMINED TO BE IN		INSPECTION AND WAS DETERMINED TO BE IN	
AIRWORTHY CONDITION. WO # <u>14995</u>		AIRWORTHY CONDITION. WO # <u>16298</u>	
SIGNED <u>Jay A. Case</u>	FOR	SIGNED <u>Jay A. Case</u>	FOR
CORPORATE AIR TECHNOLOGY		CORPORATE AIR TECHNOLOGY	
FAA CRS AU3R384L		FAA CRS AU3R384L	

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DATE	TACH TIME	DESCRIPTION OF WORK	SIGNATURE
DATE <u>8-16-00</u>	TOTAL TIME <u>1685.1</u>		
I CERTIFY THAT THIS <u>PROP</u> HAS BEEN		DATE <u>9-6-01</u>	TOTAL TIME <u>1704.9</u>
INSPECTED IN ACCORDANCE WITH A <u>ANNUAL</u>		I CERTIFY THAT THIS <u>PROP</u> HAS BEEN	
INSPECTION AND WAS DETERMINED TO BE IN		INSPECTED IN ACCORDANCE WITH A <u>ANNUAL</u>	
AIRWORTHY CONDITION. WO # <u>17599</u>		INSPECTION AND WAS DETERMINED TO BE IN	
SIGNED <u>James A. Calk</u> FOR		AIRWORTHY CONDITION. WO # <u>18837</u>	
CORPORATE AIR TECHNOLOGY		SIGNED <u>D. McCloud</u> FOR	
FAA CRS AU3R384L		CORPORATE AIR TECHNOLOGY	
		FAA CRS AU3R384L	

Corporate Air Technology

1250 Aviation Ave. suite 125, San Jose Ca 95110, CRS AU3R384L
10/1/2002 Tach: 1744.1 TT: 1744.1 WO# 20188

I certify that this propeller has been inspected in accordance with an annual inspection and was found to be in an airworthy condition.

James McCloud

James McCloud (Inspector)

CRS AU3R384L

11/18/2003 N8414Z Propeller Hobbs: 1776.7 TSN: 1776.7 WO# 21544

Dressed and painted propeller blades as necessary. I certify that this propeller has been inspected in accordance with an annual inspection and was found to be in an airworthy condition.

Signed



For Corporate Air Technology CRS AU3R384L Phone: 408-977-0990

1/1/2005 N 8414Z Propeller Tach: 1798.71 TSN: 1798.71 WO# 22817

Dressed and painted propeller blades as necessary. I certify that this propeller has been inspected in accordance with an annual inspection and was found to be in an airworthy condition.

Signed



For Corporate Air Technology CRS AU3R384L Phone: 408-977-0990

2/6/06 N8414Z Propeller Hobbs: 1814.18 TSN: 1814.18 WO# 23953

Dressed and painted propeller blades as necessary. I certify that this propeller has been inspected in accordance with an annual inspection and was found to be in an airworthy condition.

Signed



For Corporate Air Technology CRS AU3R384L Phone: 408-977-0990

3/20/07 N8414Z Propeller Tach: 1834.31 TSN: 1834.31 WO# 25050

Dressed and painted propeller blades as necessary. I certify that this propeller has been inspected in accordance with a 100 hour/Annual inspection and was found to be in an airworthy condition.

Signed



For Corporate Air Technology CRS AU3R384L Phone: 408-977-0990

5/22/08 N8414Z Propeller Tach: 1850.32 TSN: 1850.32 WO# 26182

Dressed and painted propeller blades as necessary. I certify that this propeller has been inspected in accordance with a 100 hour/Annual inspection and was found to be in an airworthy condition.

Signed [Signature]
For Corporate Air Technology CRS AU3R384L Phone: 408-977-0990

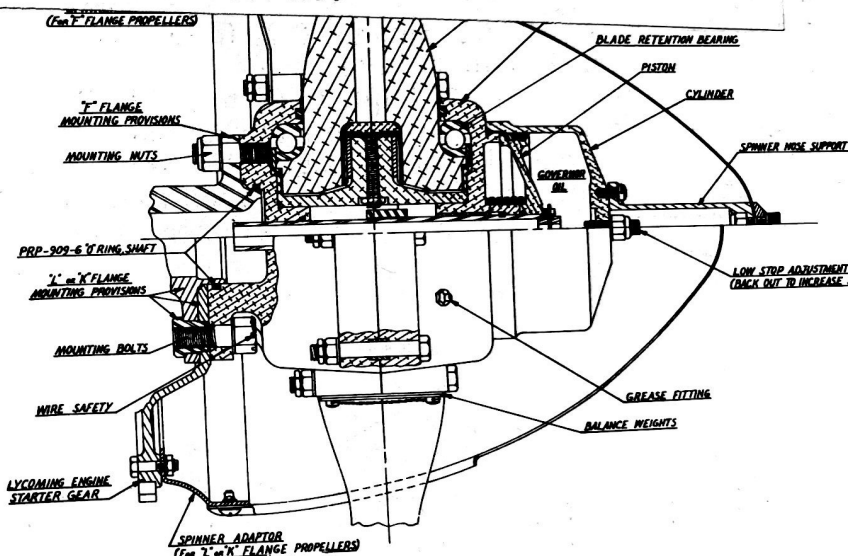
The "F" flange has six 1/2-inch studs on a 4-inch bolt circle, plus two 1/2-inch dowel pins. These dowel pins are located to provide a specific angular relationship of the propeller with respect to the crankshaft, made necessary by the vibrational characteristics of the combination. The particular dowel pin location is identified by the first letter in the hub model designation, such as BHC-C2YF.

The "L" flange is an SAE No. 2 flange with 7/16-inch studs; while the "K" flange is also SAE No. 2 flange with 1/2-inch studs. The "R" is same as "K" except it has 5 drive bushings, instead of 4.

Propeller models HC-F4Y(R, F, N)-2 are similar in construction and operation to models HC-F(2, 3)Y(R, F, N)-2()UF previously described in this manual.

Please note these propellers utilize an air charge and counterweights and a feather spring assist although the letter "U" is not incorporated in the model design. Refer to the section covering "Operating Advisory for Air-Charged Propellers" for control procedures.

The letter "F" which normally designates the pitch change knob design is approved for use. The "F" is still required on the blade design to distinguish between lower and upper blades. Only



A. Installation of "F" and "N" Flange Models—()HC-C()Y()-1, -2, -4 ()HC-J()YF-1()-2, -4 ()HC-L()YF-1()-2, -4 ()HC-H()Y()-1, -2, -4

1. Install the spinner bulkhead on the propeller hub, using the four long bolts which clamp the two halves together. In most cases, extra long bolts are furnished together with the proper spacers.