

United States of America
 Department of Transportation -- Federal Aviation Administration
Supplemental Type Certificate

Number SA703GL

This certificate issued to Penn Yan Aero
 2499 Bath Road
 Penn Yan, NY 14527

FOR ONE TIME APPROVAL
 MODEL **THIS IS A**
certifies that the change in the type design for the following product with the limitations and conditions
therefor as specified herein meets the airworthiness requirements of Part 21 of the Civil Air Regulations.

Original Product -- Type Certificate Number 3E7
 172N *Make:* Cessna Aircraft Company

DO NOT DUPLICATE REG NO. 17268074
THIS DOCUMENT IS A COPY OF
AND VOID ARE ILLEGAL

Description of Type Design Change:

Installation of Lycoming O-360-A4A, A4M, or A4N series engine and Sensenich 76EM8SPY propeller in accordance with Penn Yan Aero Service, Inc. Installation Instructions Revision 1, dated June 1, 1999 or later FAA approved instructions. Increase the gross weight of Cessna models 172 I, K, and L to 2500 pounds to increase the gross weight of Cessna 172 M, N, or P to 2550 pounds.

Limitations and Conditions:

- Installation Specifications:
 - Engine: Lycoming O-360-A4A, A4M, A4N
 - Fuel: 100LL 100 minimum grade aviation gasoline
 - Engine Limits: For all operations, 2700 R.P.M. (180 HP)
 - Propeller and Propeller Limits: Sensenich 76EM8SPY
 - Station: P.M. at maximum permissible Throttle setting
 - Not over 2275
 - No additional tolerances permitted.
 - Diameter: Not over or under 76" (See Continuation Sheet 2)

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the

Date of application : February 11, 1983

Date reissued : September 29, 1983, April 6, 1990
 November 1, 2005

Date of issuance : August 24, 1983

Date amended : May 25, 1984, June 4, 1985, June 27, 1985, September 11, 1989, October 10, 1990, April 20, 1994, June 1, 1999

Federal Aviation Administration.



By direction of the Administrator

Anthony Socias
 (Signature)

Anthony Socias
 Manager
 New York Aircraft Certification Office

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

Supplemental Type Certificate
(Continuation Sheet)

Number SA703GL

Date of Reissuance: November 1, 2005

Limitations and Conditions: (Continued)

Installation Specifications: (Continued)

Maximum Weight 172 I, K, L: 2500 LBS. (Normal Category)
172 M, N, P: 2550 LBS. (Normal Category)

C.G. Range 172 I, K, L: (+40.5) to (+47.3) at 2500 LBS.
(+35.0) to (+47.3) at 1950 LBS.

or less

Straight line variations between points given

172 M, N, P: (+41.0) to (47.3) at 2550 LBS.
(-35.0) to (47.3) at 1950 LBS.

or less

Straight line variations between points given

2. Utility category maximum weight and C.G. range for all models remains as specified in type certificate data sheet 3A12.
3. The maximum flap deflection angle for all aircraft is 30 degrees.
4. Penn Yan Flight Manual Supplement, FAA Approved July 11, 1990 is required for aircraft models 172I, K, and L serial numbered 17256513 through 17260758.
5. Penn Yan Flight Manual Supplement, FAA Approved July 11, 1990 is required for aircraft model 172M serial numbered 17260759 through 17267584.
6. Penn Yan Supplemental Airplane Flight Manual, FAA Approved June 11, 1985 is required for the 172N serial numbered 17267585 through 17271034.
7. Penn Yan Airplane Flight Manual Supplement, FAA Approved June 11, 1985 is required for aircraft serial numbered 17271035 and up.
8. Placards pertaining to normal and normal/utility category operations are appropriate with this modification and must be properly displayed per the original aircraft data certification.
9. A copy of this STC shall be included in the permanent records of each aircraft modified according to these instructions.
10. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.
11. Compatibility of this design change with previously approved modifications must be determined by the installer.

.....END.....

Weight and Balance Revision

Make: Cessna
Model: 172N
Serial #: 17268076
Reg: N75972

Previous Useful load: 862.01

Items:

Previous Totals:

Weight:

1437.99

Arm:

39.5

Moment:

56798.55

Equipment Added:

Aircraft Engine: O-360-A4M

16

30.53

488.48

S/N RL-29855-36A

1453.99

39.39

57287.03

New Totals:

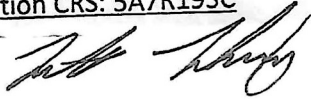
New useful load: 1096.01

New Empty Weight: 1453.99

New CG/Arm: 39.39

New Moment: 57287.03

Signature: Aitkin Aviation CRS: 5A7R193C



Date: 6/29/2023

Weight / Balance & Equipment List Revision

Affordable Avionics Inc.
7000 Merrill Ave # 18, A 335
Chino, CA 91710 Tel: 909-606-9876

A/C Tail #: N75972
Register Name : Skynick Enterprises Inc DBA
Name 2 : California Air Center
Address 1 : 411 E Lambert Rd
Address 2 :
City, State, PC : La Habra, CA 90631

A/C Make : CESSNA
A/C Model : 172N
A/C Serial # : 17268076
WO Ref # : 4858
WB Date : Dec-04-2019
WB ID # : 836

Previous data taken from document dated May-18-2011 Previous useful load = 851.50

Model # Serial #	Description Part #	(LB / IN) Weight	CG/Arm	Moment
	Previous data ->	1448.50	39.37	57024.50
REMOVED ITEMS -----				
430-0035-0	LORAN ANTENNA	-0.50	59.00	-29.50
ARC AUDIO PANEL	AUDIO PANEL	-1.00	14.50	-14.50
AT150 37514	TRANSPONDER 1	-2.30	13.80	-31.74
ID825 13631	GLIDESLOPE INDICATOR	-1.00	16.00	-16.00
IN346A 10298	ADF INDICATOR 40980-1001	-1.00	16.00	-16.00
IN514B 2000	VOR INDICATOR 45010-1000	-1.00	16.00	-16.00
L-346A 35633	LOOP ANTENNA, ADF 41000-7500	-1.60	39.30	-62.88
LORAN 602 38213	NAV RECEIVER	-3.68	20.70	-76.18
MK12D 12477	NAV/COM TRANSCEIVER 03118301	-5.10	12.00	-61.20
MK12D 51834	NAV/COM TRANSCEIVER 083118301	-5.10	12.00	-61.20
R-546E 12372	ADF RECEIVER 41240-0101	-3.50	13.00	-45.50
REMOVED SUB TOTAL	11 Items @	-25.78	16.71	-430.70
INSTALLED ITEMS -----				
AV-801	ANTENNA, GPS/WAAS	0.31	40.00	12.40
K1204-02 50199	IND VOR/LOC/GS 066-3034-02	1.70	14.00	23.80
KX 155 3088	NAV/COM 069-1024-31	5.37	12.00	64.44
KY 197 71049	VHF COM TRANSCEIVER 064-1021-00	3.20	12.00	38.40
PMA8000BT HBT5241	AUDIO PANEL 050-890-0702	1.40	14.50	20.30
Stratus ESG 074983	Stratus ESG Transponder 153010-000017	3.29	13.80	45.40
INSTALLED SUB TOTAL	6 Items @	15.27	13.41	204.74
NEW DATA >>	NEW USEFUL LOAD = 862.01	1437.99	39.50	56798.55

The Power of Experience



Penn Yan Aero
2499 Bath Road
Penn Yan, New York 14527

800-727-7230 / 315-596-2333
Fax: 315-536-2335
www.PennYanAero.com

• FAA Approved Repair Station Number Y23RF336Y • Authorized Textron Licensing:
Teledyne Continental, & ECI Distributor • Superior Millennium Engine Facility

FAA APPROVED
SUPPLEMENTAL AIRPLANE FLIGHT MANUAL


FOR

CESSNA 172N

REG. NO. N75972

SER. NO. 17268016

This Supplement must be carried in the aircraft when it is modified by the installation of a 180 HP engine and the gross weight is increased in accordance with STC SA703GL. The information contained herein supplements or supersedes the basic placards and markings only in those areas listed.

FAA APPROVED: 
for W. F. Horn, Manager
Chicago Aircraft
Certification Office
FAA Central Region

DATE: June 11, 1985

Page 1 of 4

17267585 through 17271034

PENN YAN AERO SERVICE INC.
FAA APPROVED
SUPPLEMENTAL AIRPLANE FLIGHT MANUAL
FOR
CESSNA 172 SERIES AIRCRAFT

LOG OF REVISIONS

<u>Rev. No.</u>	<u>Page No.</u>	<u>Description</u>	<u>FAA Approved</u>	<u>Date</u>
A	4	Added performance information to section 5 for clarification		
		Renumbered pages	<i>A. Brumer</i> Irwin N Brumer Manager, NYACO	APR 13 1994

17257585 through 17271034

Penn Yan Aero Service, Inc.
2499 Bath Road, Airport
Penn Yan, NY 14527-9599

Supplemental Airplane
Flight Manual for
Cessna 172N

SECTION I - Limitations

- A. The following placard must be displayed in full view of the pilot:

THIS AIRCRAFT HAS BEEN MODIFIED BY THE INSTALLATION OF A 180 HP ENGINE PER STC SA703GL. IT MUST BE OPERATED AS A NORMAL CATEGORY AIRPLANE IN COMPLIANCE WITH THE OPERATING LIMITATIONS AS STATED IN THE FORM OF PLACARDS, MARKINGS AND MANUALS.

- B. For the N model aircraft the following placard must be displayed adjacent to the flap position selector switch:

MAXIMUM FLAP TRAVEL IS 30°

- C. The following limits apply to the normal category only.

Maximum Gross Weight - 2550 lbs.
C.G. Range - 41.0" to 47.3" at 2550 lbs.
35.0" to 47.3" at 1950 lbs. or less
Straight line variation between points given.

FAA APPROVED

DATED: JUN 11 1985

Page 3 of 4

17267585 through 17271034

Section 3 Emergency Procedures
NO CHANGE

Section 4 Normal Procedures
NO CHANGE

Section 5 Performance
Performance of the Cessna 172 series aircraft, when it is modified by the installation of a 180 HP engine and the gross weight is increased, in accordance with STC SA703GL, will be equal to or better than the basic airplane

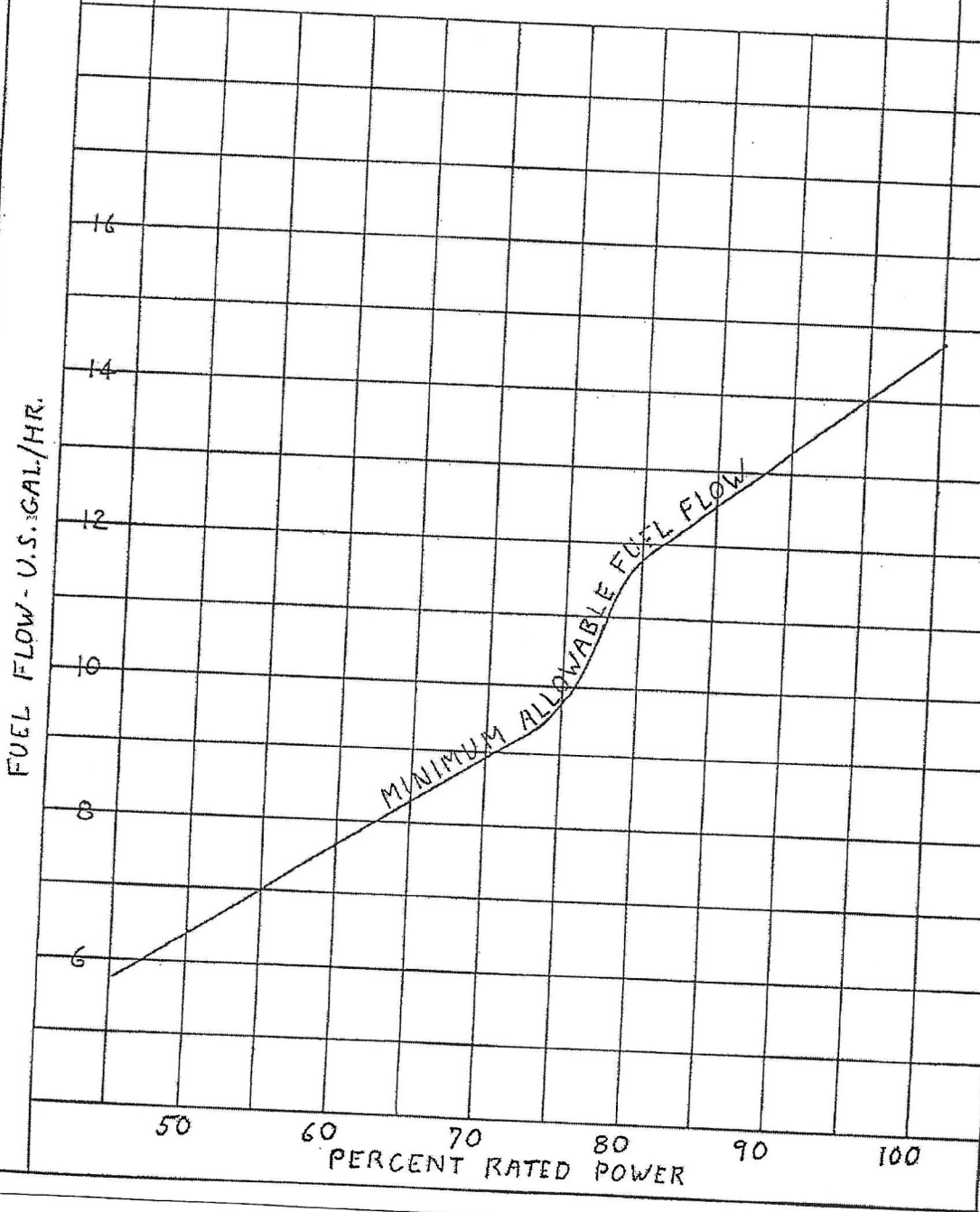
CAUTION: The fuel consumption and range/endurance information originally presented for this model do not apply to this STC modification; increased fuel consumption and reduced range/endurance can be expected with the 180 hp engine installed.

FAA APPROVED
DATE:
Revised: APR.13 1994

Page 4 Of 4

CURVE NO. 13357

FUEL FLOW vs. PERCENT RATED POWER
AVCO LYCOMING O-360, 180HP SERIES
COMPRESSION RATIO 8.50:1
SPARK ADVANCE 25° BTC



17267585 through 17271034



Power Chart

*180 H.P. Superhawk
by Penn Yan Aero*

Press. Alt.	Std. Alt. Temp. °F	108 HP 60% Power RPM	117 HP 65% Power RPM	126 HP 70% Power RPM	135 HP 75% Power RPM	Press. Alt.
SL 1,000 2,000 3,000	59 55 52 48	2290 2310 2330 2350	2370 2390 2410 2430	2440 2460 2480 2500	2500 2520 2540 2560	SL 1,000 2,000 3,000
4,000 5,000 6,000 7,000	45 41 38 34	2370 2390 2410 2430	2450 2470 2490 2510	2520 2540 2560 2580	2580 2600 2620 2640	4,000 5,000 6,000 7,000
8,000 9,000 10,000 11,000	31 27 23 19	2450 2470 2490 2510	2530 2550 2570 2590	2600 2620 — —	— — — —	8,000 9,000 10,000 11,000
12,000	16	2530	—	—	—	12,000