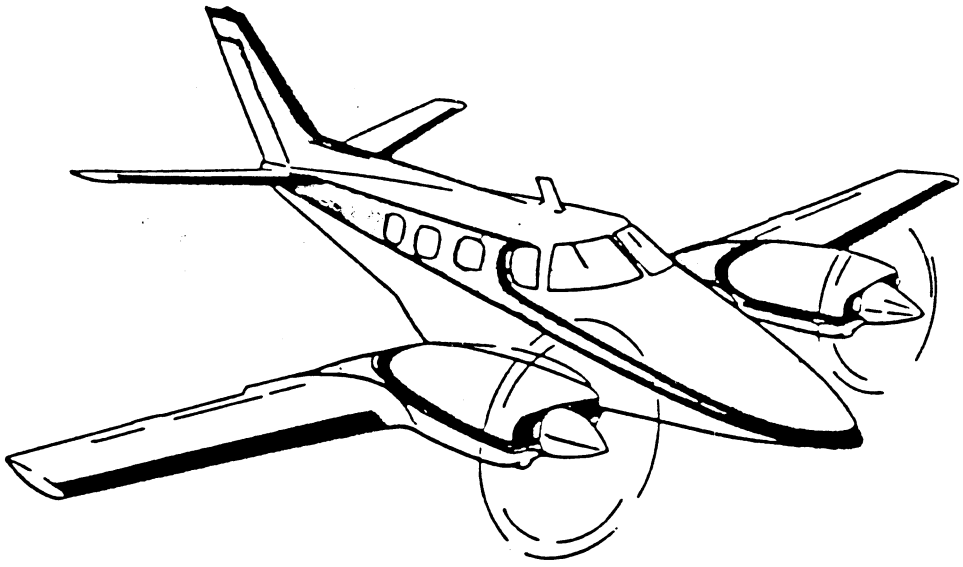
DUKE NEWS



No. 88-1

Duke Flyers Association
P.O. Box 2599
Mansfield, Ohio 44906

December 1988

As a result of our questionaire the name ***"Duke Flyers Association"*** was mentioned most often, so now we have a name.

Enclosed is a membership list as of November 15. Please double check your listing to make sure it is correct, if not, let us know. We do ask that the membership list not be used for commercial purposes.

Ellett Lawrence of Lawrence Printing Co. is having a line drawing of a Duke made to use on our newsletter, mast head.

* Intercoolers *

Intercoolers - many people like them, some don't. We really need more information - on rate-of-climb, cruise speeds, power settings, fuel flows, etc. Enclosed is a letter from Lycoming on the subject. We asked American Aviation for their comments but have not received any. More on intercoolers in future issues.

* Spark Plugs *

Recommended Spark Plugs by Lycoming for T10541 engine:
Champion RHB36W, RHB36P, RHB36S
SL Auburn 281, 291

Champion Designation:
R-Resistor, H¾-20 THD, B-Long Reach
36 - Heatrange W-Irridium, Double Wire
P-Platinum, S-Irridium Single Wire

SL Auburn Designation:
2-¾-20 THD, 8-Platinum, 9-Platinum
Center, Irridium Ground 1 - Heat Range- Hot

* Oil & Filter Changes *

Oil and Filter Changes - T10 541 Engine - Lycoming recommends the following:

(1) 50 hour interval, oil change and filter replacement
(2) Use only ashless dispersant oil (MIL-L-22851)
(3) 6 oz. Lycoming additive LW-16701 per engine
(4) A total of 4 month maximum between changes

* Generators *

Generators - Repair costs experienced by members

Gregg Buchai- $436.00 by Falcon Crest, Hobby Airport, Houston Texas

Alfred Konger- $460.00 for overhaul by Aircraft Systems
Greater Rockford Airport
Rockford, Illinois 61109
815/399-0225 Terry Norris

Arthur Lund- S & S Accessories, Oakland, Calif. They modified the end slots. Cost $1,000.00

Shaol Pozez- Recommends overhauling generators at 750 hours.

* Flap Actvator Motor *

Bud Walling- I had a flap actvator motor go out ($900-1200). I told the local electric shop it was a trim actvator from my boat. They fixed for $20.

* Possible Sources of Parts *

National Aircraft Parts	213/426-8309	*Model B60
Steves Air Parts	214/358-3528	Model 60
Graves Aircraft Inc.	405/262-2718	Landing Gears
Global Aircraft	405/495-8000	Windshield
Dodson International	913/242-4000	Model A-60
Aero Decals	813/644-2451	Decals
White Industries	800/821-7733	Models 60, A60, B60
SVA	916/279-2111	Many Parts
OK Aircraft Parts	408/848-3377	Model B60

HELP

Our association is only as good as our members input. Please send your comments, questions, experiences, etc., so they can be shared with the other members.

P-412 and P-596 on the ramp at OSHKOSH during the airshow.

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Some people have become authorities on Duke Serial Numbers. To correct the record listed are models and year produced.

When Marge and I picked up N410G, P-596, on April 10, 1983 there were still three or four unsold Duke's in storage at Salina. These airplanes were built on firm orders later cancelled. Also on hand were four fuselages and wing sets which were never assembled.

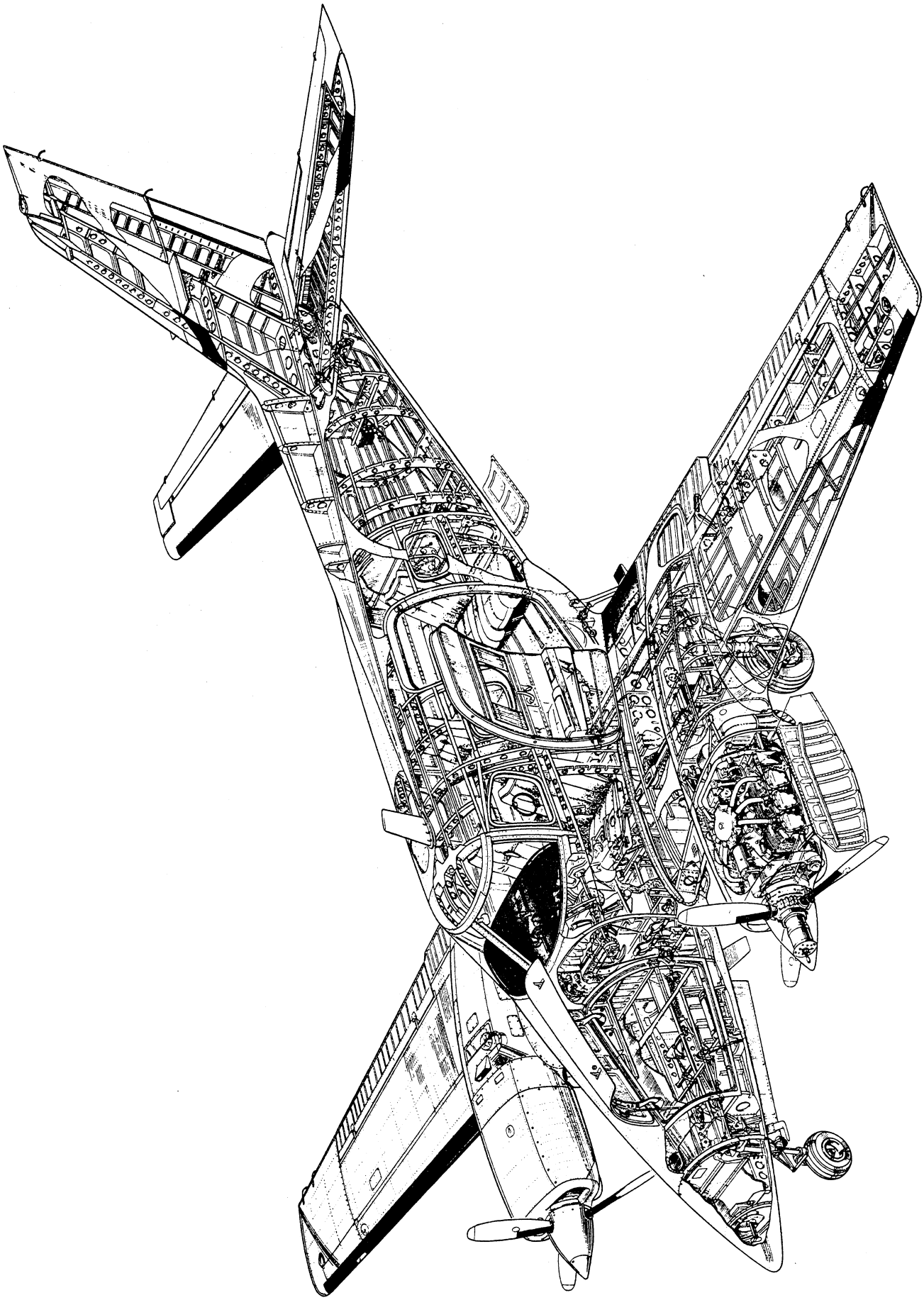
DUKE SERIAL NUMBER RANGE

YEAR	MODEL	SERIAL NUMBER	TOTAL
1968	60	P-4 - P-18	15
1969	60	P-19 - P109	91
1970	60	P110-P122, P124-P126	16
1970	A60	P123, P127-P139 P141-P146, P148, P149, P151	23
1971	A60	P140-P147, P150, P152-P162, P167-P175, P178-P180, P182	27
1972	A60	P163-P166, P176, P177, P181 P183-P202, P210	28
1973	A60	P203-P209, P211-P246	43
1974	B60	P247-P307	61
1975	B60	P308-P347, P349-P364	56
1976	B60	P348, P365-P401	38
1977	B60	P402-P445	44
1978	B60	P446-P485	40
1979	B60	P486-P510, P512-P519	33
1980	B60	P511, P520-P555	37
1981	B60	P556-P580	25
1982	B60	P581-P596	16*

* Last 4 or 5 were delivered in 1983

P-4 is still flying

A very informative book "Beechcraft Staggerwing to Starship" is available from Historic Aviation, 3850 Coronation Road, Eagon, MN 55122, 800/225-5575 for $14.95 plus postage. Gives complete history of every Beech model with serial number range.



TEXTRON Lycoming

Williamsport Plant
Textron Lycoming/
Subsidiary of Textron Inc.

652 Oliver Street
Williamsport, PA 17701
(717) 323-6181

September 26, 1988

Mr. James C. Gorman
PO Box 1217
305 Bowman Street
Mansfield, OH 44901

Dear Mr. Gorman:

Paul McBride recently sent me a note indicating that an association of Duke owners is being formed. He said that you do have a copy of recent issues of the Flyer.

Since Duke owners are being sold on the idea of intercoolers, I would strongly recommend the appropriate paragraphs of "Look What They Are Doing To Our Engines" and "Questions to Ask the Engine Modifier". Both articles appear in Flyer No. 45.

In addition, an individual Duke owner asked me about this modification about two years ago. Research of the subject at that time provided a response which is still applicable and is the basis for these comments.

Lycoming was well aware of intercooler capabilities when the Duke was certified. Why did Beech choose not to install intercoolers? There could be a variety of reasons such as added cost and added weight without a significant increase in performance.

My understanding is that there is a weight penalty of 55 to 60 pounds in the Duke intercooler installation. We must also remember that an intercooler creates additional DRAG. This is a point intercooler advocates fail to mention or consider. As a result, benefits are likely to be offset by this penalty. One Duke owner who had intercoolers installed over two years ago confided to Lycoming representatives at the annual NBAA convention that the only benefit he could see for a $16,000 expenditure was a slight increase in climb capability.

Although the intercooling installation in the Duke has not been tested by Textron Lycoming, there is a strong tendency to be pessimistic about the benefits used to sell owners on the

installation. A significant increase in cruise speed, for example, can only be achieved by reducing drag or increasing power. Since the intercooler increases drag, a large increase in power would be needed to make a noticeable increase in cruise speed. While it is true that the 380 rated horsepower of the engine may not be exceeded in cruise, it does seem likely that the recommended cruise power to be taken from the engine will be exceeded if speed gains are to be achieved. Further, it is very unlikely that single-engine climb can be increased without exceeding the rated power of the engine.

Another item to consider is engine warranty. Lycoming engines are warranted against defects in material and workmanship. Addition of an in-the-field modification such as an intercooler does not automatically void this warranty, but if engine damage is incurred, and the modification appears to have been the cause, then warranty consideration would be disallowed. Beyond this, Service Letter No. 201B states that reliability and average service life (TBO) cannot be predicted for an engine which has been modified.

Aircraft owners should be aware that gains in aircraft performance almost always involve a cost of some kind in addition to the initial cost for the installation or modification. This cost should be well understood before any aircraft modification is made.

I do hope these comments will be helpful to members of the Duke owners association. Because of the limited time available to prepare them, articles for the newsletter should not be expected, but any item from the Flyer or Key Reprints may be used if you simply give credit for its origin.

Sincerely,

K. W. Johnson

K. W. Johnson
Manager - Advertising and Promotion

KWJ:kw

Enclosures:

Flyer #45 & 46 - Key Reprints

cc: Paul McBride