D'Shannon Products, LTD 1309 County Road 134 Buffalo, MN 55313 Document No: FMS-DP-S35 TT Hawker Beegin raft S35

FAA APPROVED

PILOT'S OPERATING HANDBOOK AND

FAA APPROVED AIRPLANE FLIGHT MANUAL SUPPLEMENT

FOR

HAWKER BEECHCRAFT MODEL 385 (s/n D-7140, D7310 through D-7976 except D 7859)

NORMAL CATEGORY

(Operation in excess of 3300 lb. Max. Gross Weight, or with Feel in Tip Tanks)

UTILITY OATEGORY

(Operation at 3300 lb. Max. Gross Weight or Less / Tip Tanks Experts)

REG. WO

SER. NO

This supplement must be attached to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual when two 20 gallon auxiliary wing tip fuel tanks are installed in accordance with STC(s) SA153EA or SA02728CH. The information contained herein supplements or supersedes the basic handbook only in those areas listed herein. For limitations, procedures, and performance information not contained in this supplement, consult the basic Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

FAA APPROVED:

Charles L. Smalley, Manager Chicago Aircraft Certification Office Federal Aviation Administration Department of Transportation Federal Aviation Administration Des Plaines, IL 60018

Document No: FMS-DP-S35 TT Hawker Beegn raft S35 Revision A

SECTION I GENERAL

This supplement contains revised information for the basic airplane when modified by the addition of two auxiliary wing tip fuel tanks and is to be operated in accordance with ST SA153EA or SA02722CH. The information contained herein supplements or supersede basic handbook only in those areas listed herein. Consult the Pilot's Operating Handbook FAA Approved Flight Manual for limitations, procedures, and performance information of contained herein.

Added tip tank fuel	capacity
Tatal same site.	

Total capacity......

Total usable

MAXIMUM CERTIFIED WEIGHT

3612 lb. Maximum Ramp Weight..... Maximum Take-off Weight3600 lb. Maximum Landing Weight3600 lb. Maximum Zero Fuel Weight..... No Strugtural Limitation

SECTION II LIMITATIONS

GENERAL

The Airplane Flight Manual for this airplane lists information for operation in the UTILITY category. Since the tip tank installation is approved contingent or operation of the airplane in the NORMAL category when operated in excess of 3300 lb. or with fuel in Tip Tanks, the following Limitations supersede those of the basic Airplane Flight Manual.

This airplane is eligible for operation in accordance with \$7C(S) SA153EA or SA02722CH and this airplane flight magnetic supplement only when equipped with the following modifications:

a) Wing Tip Fuel Tanks (STC(S) SA153EA or SA02722CH)

AIRSPEED LIMITATIONS

Maneuvering Speed (VA) CAS 128 KCAS IAS 130 KIAS CAS 148 MCAS

WEIGHT LIMITS

Maximum Ramp Weigh3612 lb. Maximum Take-off Weight......3600 lb. Smum Landing Weight3600 lb.

IAS 149 MIAS

CENTER OF GRAVITY LIMITS (Landing Gear Extended)

FORWARD LIMITS

77.0 inches aft of datum to 2800 lbs. with straight line variation to 82.1 inches at 3300 lbs. with straight line variation to 82.1 at 3600 pounds.

AFT LIMITS

85.7 inches aft datum to 3000 lbs., with straight line variation to 84.7 inches at 3300 lbs., with straight line variation to 84.7 inches at 3600 lbs.

MANEUVER LIMITS

This is a NORMAL CATEGORY airplane when operated in excess of 3300 lb. or with fuel in Tip Tanks. Spins and acrobatic maneuvers are prohibited. Normal calegory airplanes are limited to Non-acrobatic operation.

Non-acrobatic operation includes:

- 1. Any maneuver incident to normal flying.
- 2. Stalls (except whip stalls)
- 3. Lazy eights, chandelles, and steep turns, in which the angle of bank is not more than 60°.

Spins are prohibited.

No inverted maneuvers are approved.

FLIGHT LOAD FACTORS

Positive Maneuvering Load Factors		
Flaps Up		3.8G
Flaps Down	, ,	2.0G

FUEL

In addition to the basic airplane fuel system, two auxiliary wing tip fuel transfer tanks are installed with a capacity of 20 gallons each, all of which is usable.

Take-offs are prohibited with more than 1/4 difference in tip tank fuel quantity. During flight if tip tank fuel quantity gauges indicate more than 1/2 tank difference the landing should be made with flaps up.

Date:

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PLACARDS

In Full View of Pilot:

FUEL CONSUMPTION MAY EXCEED TIP TANK TRANSFER RATE. INTIATE TRANSFER WITH BOTH MAINS AT LEAST ½ FULL. MONITOR MAIN TANK GAUGES TO PREVENT OVERFLOW.

On Left Side Panel (Airspeed values are CAS)

NORMAL CATEGORY AIRPLANE

(WHEN OPERATED IN EXCESS OF 3300 LB. MAX. GROSS WEIGHT, OR WITH FUEL IN TIP TANKS)

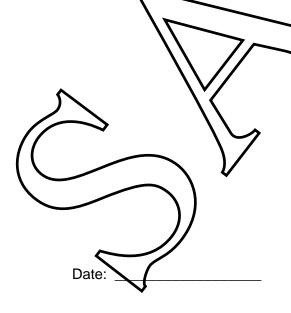
AIRSPEED LIMITATION (NORMAL OAT. OPERATIONS)

MAXIMUM DESIGN MANEUVERING SPEED 148 MPH (128 KNOTS)

OPERATE IN ACCORDANCE WITH FAA APPROVED FLIGHT MANUAL / PILOT'S OPERATING HANDBOOK. INTENTIONAL SPINS ARE PROHIBITED. NO ACROBATIC MANEUVERS APPROVED.

SECTION III EMERGENCY PROCEDURES

If for any reason it is necessary to land with more than 1/2 tank difference in tip tank quantities, the landing should be made with wing flaps in the "up" position.



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SECTION IV NORMAL PROCEDURES

AIRSPEEDS FOR SAFE OPERATION

Maximum Turbulent Air Penetration

CAS 128 KCAS IAS 130 KIAS

CAS 148 MCAS IAS 149 MIAS

PREFLIGHT INSPECTION

Fuel drains are located on the lower surface of each tip tack. Drain these points daily before the first flight to purge any water from the system.

Check security of flush mounted tip tank filler caps during preflight inspection.

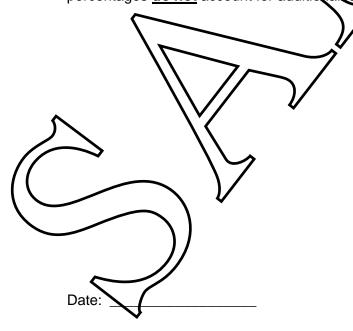
Before flight, check the tip tanks for unsymmetrical fuel loading. If fuel tank capacities differ more than 1/4 tank, relocate fuel prior to take off.

See Section 7, Systems for additional information.

SECTION V PERFORMANCE

The performance of this airplane operated according to STC(S) SA163EA or SA02722CH is equal to or better than the performance listed in the original Airplane Flight Manual (AFM) except that take-off and landing distance, and rate of-climb charts originally presented for this model do not apply to this STC modification, increase AFM/PCH take-off and landing chart values by 21%, and decrease rate-of-climb chart values by 8.5% when operating at the new maximum gross weight.

In addition, range and endurance information in the original Airplane Flight Manual (AFM) does not apply to this STC modification. When operating at maximum gross weight with no tip tank fuel, decrease AFM/POH range data by 9%, and endurance information by 14%. These percentages <u>do not</u> account for additional range and endurance allowed by tip tank fuel.

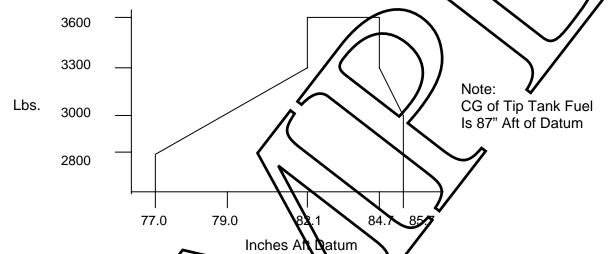


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SECTION VI WEIGHT AND BALANCE

Weight Condition	Forward CG Limit	Aft CG Limit
3600 lb. (Max. take-off)	82.1	84.7
3300 lb.	82.1	84.7
3000 lb.	79.0	85.7
2800 lb. or less	77.0	85.7

CG Limitations (wheels down)



Following is a table of moment limits versus weight for gloss weights between 3300 and 3600 lb.

Weight (lb.)	Minimum Moment/100	Maximum Moment/100
3310	27)7/	2803
4360	2550	2837
3400	2791	2879
3450	2832	2922
3500	2873	2964
3550	2914	3006
3600	2955	3049

Revision A

Weight and Balance Loading Form

Model Dat	e:
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Serial No: D- _____ Reg. No.: _____

Item	Weight	Mom./100
1. Basic Empty Weight		1
2. Front Seat Occupants		
3. 3 rd and 4 th Seat Occupants	1	
4. 5 th and 6 th Seat Occupants		
5. Baggage		
6. Cargo		
7. Sub Total Zero Fuel Condition		
8. Basic Fuel Loading		
9. Tip Tank Fuel Loading		
10. Sub Total Ramp Condition		/
11. Less Fuel for Start, Taxi, and Take-o		7
12. Sub Total Take-off Condition		
13. Less Fuel to Destination	7/ "	
14. Landing Condition	7	

^{*} Fuel for start, taxi, and take-off is normally 12 b. at an average Mom. /100 of 9.

Usable tip tank fuel is located at an average arm of 87 inches aft datum.

SECTION VII SYSTEMS DESCRIPTION

FUEL

In addition to the basic airplane fuel system, two auxiliary wing tip fuel transfer tanks are installed with a capacity of 20 gallons each, all of which is usable. Take-offs are prohibited with more than 1/4 difference in tip tank fuel quantity. During flight if tip tank fuel quantity gauges indicate more than 1/2 tank difference the landing should be made with flaps up.

Tip tank fuel is transferred into its respective main tank by an electric pump at a rate of approximately 15 gallons per hour. The transfer pump and a solehoid valve are mounted inside the wheel well of each wing on the rib at wing station 66. At higher power settings, fuel consumption may exceed the fuel transfer rate to the main tank selected.

Tip tank transfer pump switches are located either on the face of the instrument panel or between the front seats on the partition assembly to ward of the main spar truss. The pump and solenoid valve circuit breaker is installed adjacent to the pump switches.

A fuel drain is provided on the lower surface of each tip tank,

Fuel quantity is measured by observing the fuel level on a sight gauge located on the inboard side of each tip tank.

Normal tip tank fuel transfer should be accomplished simultaneously to maintain symmetrical wing tip tank fuel loading. Initiate transfer with the left main at 1/2 fall and feeding the engine. During the transfer, monitor fuel gauges for both main tanks and stop transfer if gauge indicates full to prevent overflow of fuel through the main tank vent tubes.

SECTION VIII HANDLING, SERVICING AND MAINTENANCE

No Change.

SECTION IX SUPPLEMENTS

No Change.

SECTION X SAFETY INFORMATION

No Change.

