

FAA APPROVED
PILOT'S OPERATING HANDBOOK AND
FAA APPROVED AIRPLANE FLIGHT MANUAL SUPPLEMENT
FOR

HAWKER BEECHCRAFT MODEL N35, P35
(s/n D-6562 through D-7309, except D-7140)

NORMAL CATEGORY
(Operation in excess of 3125 lb. Max. Gross Weight, or with Fuel in Tip Tanks)

UTILITY CATEGORY
(Operation at 3125 lb. Max. Gross Weight or Less – Tip Tanks Empty)

REG. NO. _____

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 SA02722CH. 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

Date: _____

LOG OF REVISIONS

Revision	Description	FAA Approved
IR	Original Issue	Mark Anderson May 26, 2009
A	Add STC SA153EA as an applicable STC Add Utility Category eligibility Add performance data	
B	Extend aft CG to that of the original certification of the aircraft at all weights below 3125 lbs; to 85.7 inches. Keep forward CG as certified on STC.	

SAMPLE

SECTION I GENERAL

This supplement contains revised information for the basic airplane when operated in accordance with STC(S) SA153EA or SA02722CH. The information contained herein supplements or supersedes the basic handbook only in those areas listed herein. Consult the Pilot's Operating Handbook and FAA Approved Flight Manual for limitations, procedures, and performance information not contained herein.

MAXIMUM CERTIFIED WEIGHT

Maximum Ramp Weight.....3335 lb.
Maximum Take-off Weight.....3325 lb.
Maximum Landing Weight3325 lb.

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 on operation of the airplane in the NORMAL category when operated in excess of 3125 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 STC(S) SA153EA or SA02722CH and this airplane flight manual supplement only when equipped with the following modifications:

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

AIRSPEED LIMITATIONS

Maneuvering Speed (VA)CAS 123 knots
CAS 142 mph

WEIGHT LIMITS

Maximum Ramp Weight.....3335 lb.
Maximum Take-off Weight.....3325 lb.
Maximum Landing Weight3325 lb.

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 3325 lbs.

AFT LIMITS

84.7 inches aft of datum at all weights.

MANEUVER LIMITS

This is a NORMAL CATEGORY airplane when operated in excess of 3125 lb. or with fuel in Tip Tanks. Spins and acrobatic maneuvers are prohibited. Normal category 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.

PLACARDS

In Full View of Pilot:

FUEL CONSUMPTION MAY EXCEED TIP TANK TRANSFER RATE. INITIATE TRANSFER WITH BOTH MAINS AT LEAST ½ FULL. MONITOR MAIN TANK GAUGES TO PREVENT OVERFLOW. TRANSFER TIP TANK FUEL IN LEVEL FLIGHT ONLY.

In Full View of Pilot (Airspeed values are CAS)

NORMAL CATEGORY AIRPLANE
(WHEN OPERATED IN EXCESS OF 3125 LB. MAX. GROSS WEIGHT, OR WITH FUEL IN TIP TANKS)

AIRSPEED LIMITATION (NORMAL CAT. OPERATIONS)

MAXIMUM DESIGN MANEUVERING SPEED 142 MPH (123 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.

SECTION IV NORMAL PROCEDURES

AIRSPEEDS FOR SAFE OPERATION

Maximum Turbulent Air Penetration..... CAS 123 KTS
 CAS 142 MPH

PREFLIGHT INSPECTION

Fuel drains are located on the lower surface of each tip tank. 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 VII, Systems for additional information.

SECTION V PERFORMANCE

The performance of this airplane operated according to STC(S) SA153EA 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/POH take-off and landing chart values and decrease rate-of-climb chart values as shown in the table below **when operating at the new maximum gross weight.**

Model	INCREASE take off distance	INCREASE landing distance	DECREASE rate of climb
N35, P35	15%	15%	6%

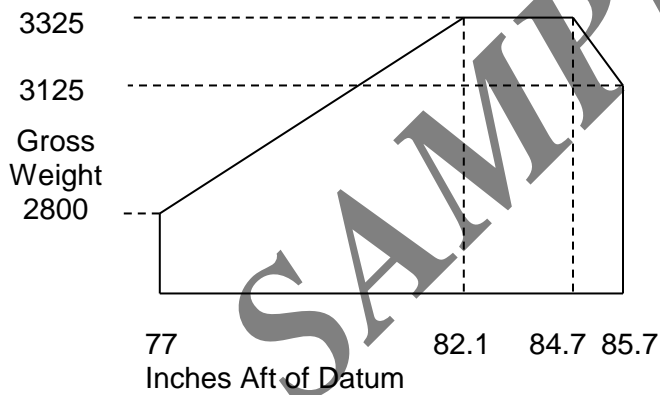
In addition, range and endurance information in the original Airplane Flight Manual (AFM) does not apply to this STC modification. When operating **at maximum gross weight with no tip tank fuel**, decrease AFM/POH range data and endurance information as shown in the table below. These percentages **do not** account for additional range and endurance allowed by tip tank fuel:

Model	DECREASE range data	DECREASE endurance information
N35, P35	6%	10%

SECTION VI WEIGHT AND BALANCE

Weight Condition	Forward CG Limit	Aft CG Limit
3325 lb.	82.1	84.7
3125 lb	Straight line variation	85.7
2800 lb. or less	77	85.7

CG Limitations (wheels down)



Note:
 CG of Tip Tank Fuel
 Is 87" Aft of Datum

Weight and Balance Loading Form

Model _____ Date: _____

Serial No: D- _____ Reg. No.: _____

Item	Weight	Mom./100
1. Basic Empty Weight		
2. Front Seat Occupants		
3. 3 rd and 4 th Seat Occupants		
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-off *		
12. Sub Total Take-off Condition		
13. Less Fuel to Destination		
14. Landing Condition		

* Fuel for start, taxi, and take-off is normally 10 lb.

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

Date: _____

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 solenoid 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 forward 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 full 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.