



# DH.89 DRAGON RAPIDE

For Microsoft Flight Simulator MSFS2020 and MSFS2024



To get full enjoyment of the aircraft in this package, please read this Manual thoroughly and carefully.

**The manual and models in this package must not be used for real flight training purposes.**

## HISTORY:

The de Havilland DH.89 Dragon Rapide first flew in April 1934 as an elegant twin-engine evolution of the earlier DH.84 Dragon. Designed for comfortable short-haul transport, it combined de Havilland's characteristic wooden construction with aerodynamic refinement, delivering reliability and style to airlines and private owners throughout the 1930s and 1940s.

The type quickly became popular with British and European operators for passenger and charter services, and during the Second World War it was produced in quantity for the Royal Air Force as the Dominie, used for navigation and radio training as well as communications duties. Post-war, hundreds continued in civilian service worldwide, and today many restored examples remain airworthy — a tribute to its graceful design and dependable performance.



# CONTROLS

The aircraft in this package essentially represent “restored” modern versions, and so they come equipped with electrics and avionics switches to use the modern radio, transponder and 2-axis autopilot (see relevant pages for explanation).



- |                                    |                              |
|------------------------------------|------------------------------|
| 1. Throttle/Mixture location       | 14. Cabin light rheostat     |
| 2. Elevator Trim                   | 15. Turn and slip indicator  |
| 3. Fuel quantity                   | 16. Pilot viz selector       |
| 4. Fuel quantity tank selector     | 17. Clock                    |
| 5. Fuel quantity needle activator  | 18. Panel light rheostat     |
| 6. Compass                         | 19. Autopilot                |
| 7. Altitude                        | 20. Radio + Transponder      |
| 8. Pitot heat switch               | 21. Oil Pressure             |
| 9. Suction                         | 22. RPM                      |
| 10. Vertical speed indicator (VSI) | 23. Magnetos                 |
| 11. Airspeed                       | 24. Starter buttons          |
| 12. Gyro compass                   | 25. Primer (not operational) |
| 13. Artificial horizon             |                              |



1. Elevator trim + position indicator
2. Parking brake
3. Rudder trim handle
4. Flaps



1. Fuel on/off left tank
2. Fuel on/off right tank



1. Amps
2. Volts
3. Battery
4. Avionics
5. Generator
6. Navigation lights
7. Landing light
8. Chocks
9. Passenger door and steps
10. Passengers on board (viz)
11. Cabin lights

# RADIOS

Radio and transponder are default MSFS.



1. Radio
2. Transponder

# Autopilot

The DH.85 models in MSFS come equipped with a simple 2-axis autopilot, as is available for most real-world modern aircraft.

When you are at your desired altitude and heading, simply press the “ALT HOLD” and “HDG HOLD” buttons. Keep the Moth steady, and don’t be surprised if the AP takes a few seconds to acquire the inputs. For example, it may climb gently before settling on the altitude.



1. Display: On startup, will read “PFT” as the unit warms up.
2. Once up, the display will read “ALT” ”OFF” ”HDG”.
3. “OFF” indicates that the AP is not feeding input into the controls. It will also read “OFF” when you turn off the AP manually via the “AP” button.
4. When “ALT” and “HDG” are selected via the “ALT HOLD” and “HDG HOLD” buttons, the display will indicate that these systems are now on and controlling these outputs to the aircraft.
5. Heading can be automatically adjusted and fine-tuned via the compass. See below.

## Compass and AP Heading Selector

To use the P8 compass as a normal compass, select your desired heading via the compass ring digits, lining the desired course up with the heading indicator marker. Then turn the aircraft until the section of the white cross that has the small additional part is lined up with North (“N”).

With the AP “HDG HOLD” on, turn the ring to your desired heading, and the aircraft will automatically turn to that heading.



1. Use what is normally the locking pin to drag the compass ring to the desired heading.
2. Heading indicator marker.

## FLYING THE DRAGON RAPIDE

The Dragon Rapide has minimal instrumentation and therefore requires a high level of "feel" and thorough knowledge of hands-on piloting.

There is no carburetor heat, as the design of the Gipsy Six engine did not normally require this (although beware in MSFS).

Special Note: **Flight Model in MSFS must be set to "Modern"**

### A. BEFORE STARTING ENGINES

1. Check fuel quantity.
2. Check flight and engine controls free.
3. Ensure doors closed and passengers secured.

### B. STARTING ENGINES

1. Set chocks.
2. Parking brake ON.
3. Throttles 1/8 open.
4. Fuel levers ON.
5. Magnetos ON.
6. Battery ON.
7. Generator ON.
8. Start engines in sequence.
9. Avionics ON.

### C. ENGINE WARM-UP

1. Warm up at 800 RPM for 4 minutes.
2. Oil pressure should register within 30 seconds (normal 40–45 PSI).
3. Run to full throttle briefly (max 10 seconds) to test.
4. Perform magneto check at 2100 RPM; maximum drop 75 RPM.

## **D. TAXIING**

1. Remove chocks.
2. Parking brake OFF.
3. Taxi slowly using rudder and brakes; no steerable tailwheel.
4. Use ailerons into wind when taxiing in gusty conditions.

## **E. TAKEOFF AND CLIMB**

1. Use 2400 RPM for takeoff, into wind.
2. Best climb speed 80 MPH (normal: 90 MPH).
3. Avoid takeoff power over 3 minutes.

## **F. CRUISE**

1. Typical cruise: 2000–2050 RPM, 130–135 MPH.
2. Maximum continuous 2300 RPM.
3. Monitor oil pressure and temperature closely.
4. If rough running occurs, check mixture and RPM balance.

## **G. DESCENT AND LANDING**

1. Clear engines during long glides to maintain temperature.
2. Use flaps below 90 MPH.
3. Approach at 70–75 MPH.
4. Expect a long float before touchdown.

## **H. SHUTDOWN**

1. Idle for cooling, especially in hot weather.
2. Mixture OFF.
3. Magnetos and fuel OFF.

4. Alternator, Avionics, and Battery OFF.
5. Chocks in place.

## **For Safe Flying:**

**DO NOT BECOME AIRBORNE WITHOUT CHECKING THE FUEL SUPPLY:** It only takes a few minutes to fuel up. It may save you a forced landing.

**DO NOT TAXI WITH CARELESSNESS:** Taxi slowly and make turns to clear the area in front of the nose. Know the proper use of the controls for taxiing in a strong wind.

**OBEY AIR TRAFFIC RULES:** Keep a constant lookout for other aircraft. Follow the rules so that pilots of other planes will know what you are going to do.

**DO NOT MAKE FLAT TURNS:** This is particularly important when making power-off turns. The Dragon Rapide will require rudder.

**MAINTAIN SPEED:** Don't be fooled by the increase in ground speed resulting from a down wind turn. Keep sufficient airspeed.

**DO NOT LET YOUR CONFIDENCE EXCEED YOUR ABILITY:** Don't attempt instrument flying in adverse weather conditions unless you have the proper training and the necessary instruments. Instrument flying is a highly developed science. Don't pioneer.

**DO NOT PERFORM AEROBATICS AT LOW ALTITUDES:** Aerobatics started near the ground may be completed six feet under the ground. There's safety in altitude.

**DO NOT ALLOW INDECISION IN YOUR JUDGMENT:** Be certain! You can't afford to make errors of judgment. "I think I can make it" is on the list of famous last words.

**THE GOOD PILOT IS THE SAFE PILOT:** It's better to be an old pilot than a bold pilot.

## Support:

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