

Messerschmitt Me 108 B-1 „Taifun“ Operations Manual



The Me 108 „Taifun“ is part of the historical fleet of the german Lufthansa. It was build in 1940 and is operated by the „Deutsche Lufthansa Berlin Stiftung“ (Foundation). It is named after a famous female german pilot, Elly Beinhorn and it's registration is D-EBEI. More information about the D-EBEI and the other aircraft of the historical fleet is available at <http://www.lufthansa-ju52.de>.

Aircraft and manual
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Only for use with Microsoft™ Flight Simulator 2004

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Panel overview



- | | | |
|---|------------------------------------|------------------------------|
| 1. Marker beacon indicator lights | 12. Turn coordinator | 27. DME indicator |
| 2. Manifold pressure indicator | 13. Air speed indicator | 28. CHT indicator |
| 3. Tachometer | 14. Attitude indicator | 29. Parking brake |
| 4. Fuel pressure indicator | 15. Altimeter | 30. Battery switch |
| 5. Suction indicator | 16. Vertical speed indicator | 31. Magnetos switch |
| 6. Clock | 17. ADF indicator | 32. Starter switch |
| 7. Outside air temperature indicator | 18. Audio control panel | 33. Avionics switch |
| 8. Oil temperature / pressure indicator | 19. Com / Nav radio | 34. Generator switch |
| 9. Fuel quantity indicator (left and right wing tank), 9a center tank | 20. ADF radio | 35. Pitot heat switch |
| 10. Electrical fuel pump switch | 21. Transponder | 36. Panel lights switch |
| 11. Volt- / Amperemeter | 22. Fuel valve switch | 37. Rotating beacons switch |
| | 23. Gear indicator lights | 38. Navigation lights switch |
| | 24. Propeller lever | 39. Landing lights switch |
| | 25. Horizontal situation indicator | 40. Throttle lever |
| | 26. Mixture lever | |

The 2D panel

The 2D Panel looks exactly the same except that there are some icons that open additional windows.

Right beside the starter switch you find icons for the radio stack, the control window (throttle, flaps, elevator trim), the GPS 295 window and the ATC, kneeboard and map window.

In the lower right of the panel there is an icon that opens the gear lever and fuel selector window.

In the virtual cockpit the fuel selector is located on the center console between the seats.

Additional functions

The slats are extracted automatically at speeds between 25 kts (45 km/h) and 90 kts (170 km/h). They can also be operated manually via the „spoilers“-key.

Checklist

Messerschmitt Me 108 B-1

To...	Press...
Display/hide radio	Shift+2
Display/hide GPS	Shift+3
Display/hide AC Controls	Shift+4
Display/hide gear lever, fuel selector	Shift+5

COCKPIT CHECK

<input type="checkbox"/> QNH	SET
<input type="checkbox"/> Clock	SET
<input type="checkbox"/> Flaps	0 degrees
<input type="checkbox"/> Elevator Trim	0 degrees
<input type="checkbox"/> Avionics Master Switch	OFF
<input type="checkbox"/> Generator	OFF
<input type="checkbox"/> Battery Switch	OFF
<input type="checkbox"/> Parking Brake	SET
<input type="checkbox"/> Propeller	Small Pitch (12:00)

BEFORE STARTING ENGINE

<input type="checkbox"/> Brakes	TEST AND SET (press CTRL+PERIOD key)
<input type="checkbox"/> Electrical Equipment	OFF
<input type="checkbox"/> Fuel Selector Valve	BOTH

ENGINE START

Press **CTRL+E** to initiate engine autostart sequence, or:

<input type="checkbox"/> Throttle	OPEN 1/4 INCH
<input type="checkbox"/> Mixture	RICH (press CTRL+SHIFT+F3 until fully in)
<input type="checkbox"/> Propeller Area	CLEAR
<input type="checkbox"/> Battery Switch	ON
<input type="checkbox"/> Fuel Quantity	CHECK
<input type="checkbox"/> Magnetos	BOTH
<input type="checkbox"/> Auxiliary Fuel Pump	ON
<input type="checkbox"/> Starter Switch	PRESS (release when engine starts)

Then

<input type="checkbox"/> Oil Pressure	CHECK
<input type="checkbox"/> Generator Switch	ON
<input type="checkbox"/> Flashing Beacon and Nav Lights	ON as required
<input type="checkbox"/> Avionics Master Switch	ON
<input type="checkbox"/> Flaps	RETRACT (press F6 until Up)

BEFORE TAKEOFF

<input type="checkbox"/> Oil Temperature	CHECK 30°C min.
<input type="checkbox"/> Parking Brake	SET
<input type="checkbox"/> Flight Controls	FREE AND CORRECT
<input type="checkbox"/> Flight Instruments	CHECK AND SET
<input type="checkbox"/> Fuel Quantity	CHECK
<input type="checkbox"/> Mixture	RICH
<input type="checkbox"/> Fuel Selector Valve	RECHECK BOTH
<input type="checkbox"/> Elevator Trim	SET for takeoff (with Num Lock off, press Num Pad 1 or Num Pad 7 as necessary)
<input type="checkbox"/> Throttle	1500 RPM (press F3 or F2 as necessary)
<input type="checkbox"/> Magnetos	CHECK
<input type="checkbox"/> Suction Gauge	CHECK
<input type="checkbox"/> Engine Instruments and Ammeter	CHECK
<input type="checkbox"/> Throttle	1000 RPM or less (press F3 or F2 as necessary)
<input type="checkbox"/> Radios and Avionics	SET (press SHIFT+2 to display radio stack)
<input type="checkbox"/> Flaps	SET for takeoff (press F7 or F6 as necessary)
<input type="checkbox"/> Brakes	RELEASE (press PERIOD key)

TAKEOFF

<input type="checkbox"/> Flaps	20 degrees (press F7 or F6 as necessary)
<input type="checkbox"/> Throttle	FULL OPEN (press F3 until fully in)
<input type="checkbox"/> Mixture	RICH (press CTRL+SHIFT+F3 or CTRL+SHIFT+F2 as necessary)
<input type="checkbox"/> Elevator Control	TAKEOFF at 55 KIAS (100 km/h)
<input type="checkbox"/> Climb Speed	75-80 KIAS (140-150 km/h)

AFTER TAKEOFF

<input type="checkbox"/> Propeller	1900 RPM (2000 RPM max.)
<input type="checkbox"/> Flaps	> 65 KIAS (120 km/h) 0 degrees
<input type="checkbox"/> Landing Gear	RETRACT

EN ROUTE CLIMB

<input type="checkbox"/> Airspeed	90-95 KIAS (167-176 km/h)
<input type="checkbox"/> Throttle	FULL OPEN (press F3 as necessary)
<input type="checkbox"/> Mixture	RICH (press CTRL+SHIFT+F3 or CTRL+SHIFT+F2 as necessary)

CRUISE

<input type="checkbox"/> Auxiliary Fuel Pump	OFF
<input type="checkbox"/> Propeller	1800 RPM max.
<input type="checkbox"/> Elevator Trim	ADJUST (with Num Lock off, press Num Pad 1 or Num Pad 7 as necessary)
<input type="checkbox"/> Mixture	LEAN (press CTRL+SHIFT+F2 or CTRL+SHIFT+F3 as necessary)

DESCENT

<input type="checkbox"/> Power	AS DESIRED (press F2 or F3 as necessary)
<input type="checkbox"/> Mixture	ADJUST for smooth operation (Full Rich for idle power) (press CTRL+SHIFT+F3 as necessary)
<input type="checkbox"/> Fuel Selector Valve	BOTH

BEFORE LANDING

<input type="checkbox"/> QNH	SET
<input type="checkbox"/> Fuel Selector Valve	BOTH
<input type="checkbox"/> Auxiliary Fuel Pump	ON
<input type="checkbox"/> Mixture	RICH (press CTRL+SHIFT+F3 as necessary)
<input type="checkbox"/> Landing Light	ON
<input type="checkbox"/> Landing Gear	EXTEND <97 KIAS (180 km/h)
<input type="checkbox"/> Propeller	Small Pitch (12:00)

LANDING

<input type="checkbox"/> Flaps	AS DESIRED (press F7 or F6 as necessary)
<input type="checkbox"/> Airspeed	70-75 KIAS (130-140 km/h) (flaps DOWN)
<input type="checkbox"/> Touchdown	MAIN WHEELS FIRST
<input type="checkbox"/> Braking	MINIMUM REQUIRED (press PERIOD key)

AFTER LANDING

<input type="checkbox"/> Auxiliary Fuel Pump	OFF
<input type="checkbox"/> Flaps	UP (press F6 as necessary)
<input type="checkbox"/> Elevator Trim	0 degrees
<input type="checkbox"/> Pitot Heat	OFF
<input type="checkbox"/> Landing Light	OFF

SECURING AIRPLANE

<input type="checkbox"/> Parking Brake	SET (press CTRL+PERIOD)
<input type="checkbox"/> Throttle	IDLE, approx. 3 minutes
<input type="checkbox"/> Avionics Master Switch	OFF
<input type="checkbox"/> Electrical Equipment	OFF
<input type="checkbox"/> Mixture	IDLE CUT OFF (press CTRL+SHIFT+F2 until fully out)
<input type="checkbox"/> Battery Switch	OFF
<input type="checkbox"/> Generator Switch	OFF
<input type="checkbox"/> Fuel Selector Valve	LEFT or RIGHT to prevent crossfeeding or OFF

NOTE: This aircraft's checklist is for use in Flight Simulator only.

Reference information

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For standard procedures, see the Checklists tab.

Empty Weight	1,940 lbs (880 kg)
Max. gross weight	3,036 lbs (1,378 kg)

NOTE: To adjust fuel load, on the **Aircraft** menu, click **Fuel and Load**.

V _A - Design Maneuvering Speed	132 KIAS (250 km/h)
V _{FE} - Maximum Flap Extended Speed	103 KIAS (190 km/h)
V _{LE} - Maximum Landing Gear Ext. Speed	97 KIAS (180 km/h)
V _{NO} - Max Structural Cruising Speed	143 KIAS (265 km/h)
V _{NE} - Never Exceed Speed	173 KIAS (320 km/h)
V _S - Stalling Speed (max weight, flaps up)	54 KIAS (100 km/h)
V _{SO} - Stalling Speed in Landing Configuration	49 KIAS (90 km/h)
V _R - Rotation Speed	54 KIAS (100 km/h)
V _Y - Best Rate-of-Climb Speed (sea level)	92 KIAS (170 km/h)
Best Glide Speed	70 KIAS (130 km/h)

Maximum Flap Placard Speeds

Flaps degrees	KIAS
20	103 KIAS (190 km/h)
20-50	81 KIAS (150 km/h)

Range (Fully Loaded)	540 nm (1,000 km)
Service Ceiling	16,400 ft (5,000 m)

NOTE: For explanations of speeds used on this tab, see "V-speeds" in the **Learning Center Glossary**.

About the development of the D-EBEI

I decided to build the D-EBEI after a visit to the Mainz-Finthen airshow in 2001. Unfortunately I did not take detail photos of the aircraft.

I tried to collect information on the internet but I did not find very much. Especially I did not find photos from the interior.

But I created a first model anyway.

Because I was not satisfied with it I dropped it for a long time and made other aircraft models like a Cirrus SR20 and various helicopters (EC135, EC145, BO105).

During a search on the internet I found a polish site especially for builders of models (<http://www.modelbooks.pl>).

There I found a booklet with lots of detail photos of the D-EBEI and I decided to start the project all over in summer 2003.

In the meantime I had contacted Flight Captain Bonsmann, the pilot who flies the D-EBEI on airshows. He gave me a lot of information about the aircraft itself and the functionality of special components.



The D-EBEI in Mainz-Finthen EDFZ (left with cap FC Bonsmann)

A first test version was finished in May 2004 and the final version was released in July 2004.

Credits

I want to thank Flight Captain Bonsmann for his support and Aaron R. Swindle of Skysong Soundworks for the permission to use his sounds.

Especially I want to thank Thomas Röhl who did a complete rework of the textures, Gert Salewsky who supported me in making graphics for the gauges and last but not least Wolfram Beckert who reworked the flight dynamics.

I want to thank Franz Haider for his quick responses to my XML questions.

Also I want to thank the beta testers who gave me a lot of suggestions that were realized during the beta test.

Mainz, Germany

July 2004

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