

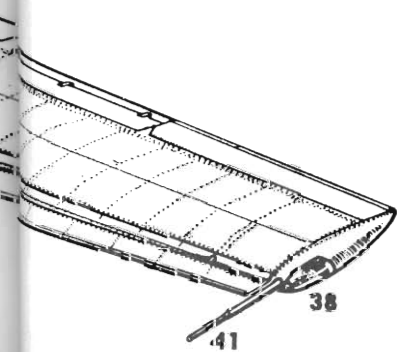
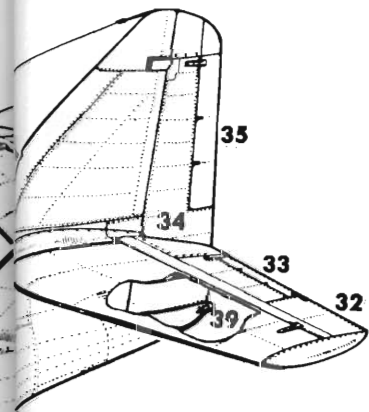


(Above and right) An Me 262A-2a Werk-Nr. 110 813 with two 551-lb. SC 250 bombs. This fighter-bomber variant, which first entered service with a detachment of KG 51 commanded by Major Wolfgang Schenck during the summer of 1944, differed from the standard fighter solely in having pylons and bomb-fusing equipment.



availability of the gyroscopic EZ 42 gun sight produced by the Askania-Werke enabled this to be installed in 150 Me 262A-1b fighters in place of the *Revi* 16B reflector sight. Unfortunately, the EZ 42 sight was neither easy to install nor adjust, and some units, such as the *Jagdverband* 44, locked the sight so that it functioned in a similar fash-

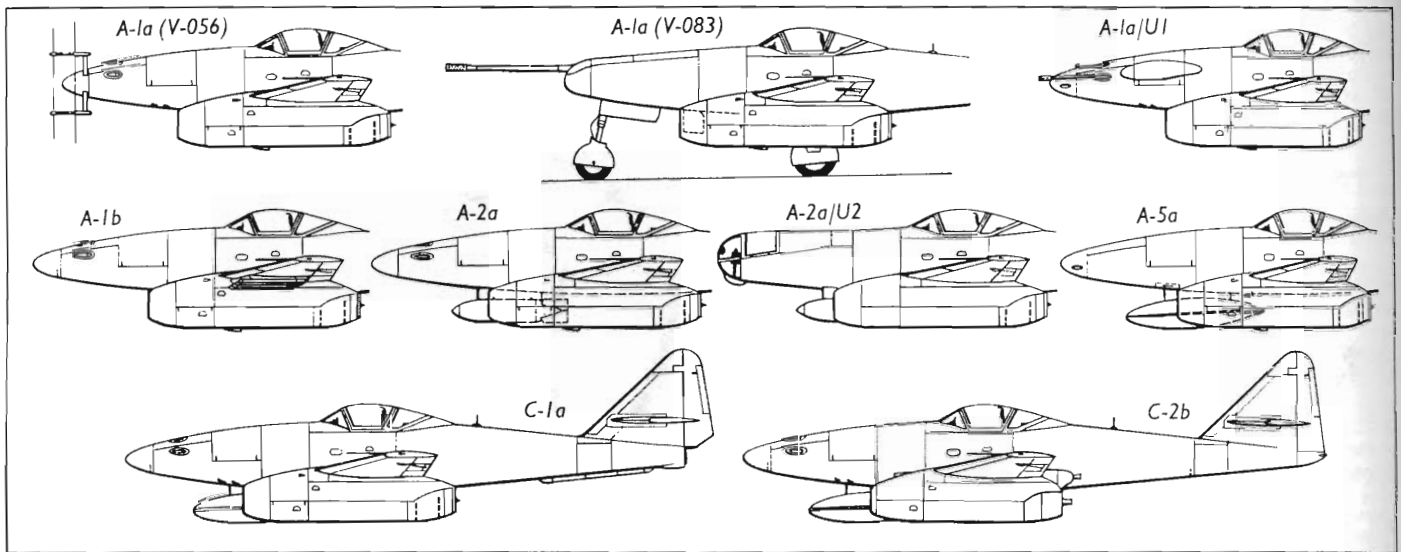
ion to the *Revi* 16B. Initially, avionics comprised Fu G16zy ultra-short-wave radio for plane-to-plane and plane-to-ground communication, and incorporating direction and range measuring facilities, and FuG 25a as recognition equipment for anti-aircraft batteries and as a direction indicator for the ground station. It was intended to supplant the FuG 16zy with FuG 15 from mid-1945, *Egon B* procedure being used for distance measurement in place of the *Y* procedure, but this equipment had not been made available for installation before hostilities terminated. For bad-weather operation, some aircraft were fitted with FuG 120K *Bernadine* which automatically recorded on a paper chart the direction to a ground station that



**Key to Me 262A-2a drawing**

1. Camera gun
2. Portside pair of 30-mm. MK 108 cannon (100 r.p.g. for upper guns and 80 r.p.g. for lower guns)
3. Link and case ejector chutes.
4. Compressed air bottles (four per side).

5. Nosewheel unit.
6. Nosewheel jack.
7. Forward nosewheel well door.
8. Main nosewheel well door.
9. Port "Wikingerschiff" pylon.
10. SC 250 551-lb. bomb.
11. Forward main fuel tank (198 Imp. gal. capacity).
12. Filler cap.
13. Fuel tank (37.4 Imp. gal. capacity).
14. Port mainwheel well.
15. Rear main fuel tank (198 Imp. gal. capacity).
16. Fuel tank (132 Imp. gal. capacity).
17. Cockpit canopy hinged to starboard.
18. Armour back shield (15-mm.).
19. Armoured seat.
20. Windscreen (90-mm. armour glass).
21. Cockpit shell.
22. Automatic compass.
23. Rudder and elevator control rods.
24. I-section mainspar.
25. Flap and aileron control rods.
26. Flaps (maximum extension of 60 deg. and aft movement of 5 in.).
27. Frise-type ailerons.
28. Flettner-type geared tab.
29. Trim tab (adjustable on ground only).
30. Automatic leading-edge slot
31. Slot control rod.
32. Mass-balanced elevator.
33. Flettner-type servo tab.
34. Mass-balanced rudder.
35. Flettner-type geared tab.
36. Junkers Jumo 004B-2 axial-flow turbojet.
37. Riedel two-stroke starter motor housing.
38. Port navigation light.
39. Rear navigation light.
40. Loop antenna for FuG 25a I.F.F.
41. Pitot head.
42. Radio aerial.
43. FuG 16zy radio (later supplanted by FuG 15).
44. Fuselage break point.
45. Tailplane incidence actuator housing.



was tuned in manually, an FuG 125 *Hermine* blind-landing receiver which could be used with a rotating antenna ground station for navigation, and FuBL 3 which provided altitude information on approaching the airfield, and gave, with the FuG 125, a complete blind-landing system. Some command aircraft were provided with an FuG 29 warning network receiver, and it was planned to replace the Siemens K 22 autopilot with the improved K 23.

One of the major problems in training pilots to fly the Me 262 was provided by the sensitivity of the Jumo 004B to fuel flow. The throttles had to be advanced slowly up to 6,000 r.p.m. at which the B4 fuel was automatically cut off and the turbojets began to operate on J2 (Diesel), the rate of revolutions being steadily increased to 8,000 r.p.m. This was then reduced to 5,000 r.p.m. while the wheel chocks were removed, and then increased to 7,000 r.p.m. at which the aircraft began to move. During the take-off run revolutions were increased to 8,000 r.p.m. which was the minimum for actual flight. Any hasty movement of the throttle resulting in excessive fuel flow usually led to the turbine burning out. An interim regulator enabled the throttle to be pushed all the way forward at once above 6,000 r.p.m., controlling the rate of fuel flow irrespective of the position of the throttle, but eventually a new regulator was evolved controlling the fuel flow from nil revolutions to maximum, so that the throttle could be set at once at any point, the regulator ensuring a safe and gradual acceleration to the r.p.m. indicated by the throttle setting.

Despite the rapid deterioration of the war situation from the beginning of 1945, bottlenecks in the supply of undercarriages, fuel pumps, forged parts, instruments, and turbojets, and the priority allocated by the Allies to attacks on plants known to be manufacturing jigs, sub-assemblies and other items for the Me 262 programme, as well as the assembly centres themselves, such was the overriding importance attached to this aircraft that a further 865 Me 262s were completed during the first four months of 1945. Assembly of the Me 262 was undertaken at Leipheim, Lechfeld, Schwäbisch-Hall, Wenzendorf and Giebelstadt, and one of the most interesting features of the production programme was the use made of small plants hidden in forests which fed the main assembly centres with sub-assemblies. Constructed principally of wood and thus erected quickly and cheaply, these forest factories were soon found to be the most effective form of dispersal.

Messerschmitt used the forest factory concept increasingly in the production of the Me 262 during the final months of W.W. II, more than a dozen such installations being built near Leipheim, Kuno, Horgau, Schwäbisch-Hall, Gauting and other locations, and eventually some complete manufacture of Me 262s was undertaken in these facilities. One such plant at Horgau, about seven miles west of Augsburg on the *Autobahn*, assembled wing panels, nose and tail sections for the Me 262 which were delivered to another forest factory nearby, this performing final assembly and the completed aircraft being flown from the *Autobahn*. The roofs of the factories were painted green, and as the tops of the

trees met overhead, these facilities were virtually undetectable from the air. Indeed, although the use of the *Autobahn* for flying Me 262s was detected by Allied photo interpreters, and a substantial number of aircraft half hidden along the highway were destroyed, the exact locations of the forest factories building the aircraft remained undiscovered until they were actually overrun by the Allies.

#### Me 262A-1a Specification

**Type:** Single-seat Interceptor Fighter. **Power Plants:** Two Junkers Jumo 004B-1, -2 or -3 axial-flow turbojets each rated at 1,980 lb.s.t. **Armament:** Four 30-mm. MK 108 cannon with 100 r.p.g. for upper pair and 80 r.p.g. for lower pair. **Performance:** Maximum speed (at 14,267 lb.), 514 m.p.h. at sea level, 530 m.p.h. at 9,840 ft., 540 m.p.h. at 19,685 ft., 532 m.p.h. at 26,250 ft., 510 m.p.h. at 32,800 ft.; range (with 396 Imp. gal.), 298 mls. at sea level, 526 mls. at 19,685 ft., 652 mls. at 29,560 ft.; initial climb rate, 3,937 ft./min., at 19,685 ft., 2,165 ft./min., at 29,560 ft., 1,082 ft./min.; time to 19,685 ft., 6.8 min., to 29,530 ft., 13.1 min., to 32,810 ft., 26 min. **Weights:** Empty, 8,378 lb.; empty equipped, 9,742 lb.; loaded (396 Imp. gal. fuel), 14,101 lb., (565 Imp. gal. fuel), 15,720 lb. **Dimensions:** Span, 40 ft. 11½ in.; length, 34 ft. 9½ in.; height, 12 ft. 7 in.; wing area, 234 sq. ft.

#### ME 262B SERIES

While the Me 262 was not a difficult aircraft to fly in so far as an experienced pilot was concerned, like all aircraft, it possessed its share of idiosyncrasies, and some problems arose in the conversion of inexperienced pilots who had just completed their fighter training on piston-engined types. The *Erprobungskommando* 262 was initially responsible for conversion training at Lechfeld. The syllabus laid down for pupil pilots comprised a pre-jet course of 20 hours' flying in the Bf 110 and Me 410 with the throttles fixed in one position to simulate a technical problem found in flying the Me 262 (the throttles of which were not supposed to be adjusted in flight at high altitudes). Flying experience on the Me 262 itself consisted of nine stages, as follows: (1) Half-hour of circuits; (2) ditto; (3) one hour aerobatics; (4) ditto; (5) one hour high-altitude flying to 30,000 ft.; (6) one hour cross-country flying at 12,000–15,000 ft.; (7) one hour flying in element of two; (8) ditto, and (9) gunnery practice with ground targets.

This training represented the absolute minima, was barely adequate to enable pilots to fly the Me 262 efficiently, and attrition was heavy. Surprisingly, however, less than one-fifth of all training accidents on the Me 262 were directly attributable to pilot error. Approximately two-thirds were equally divided between undercarriage and turbojet failures and the remainder being attributed to a variety of causes, including structural failures. Nevertheless, it was obvious that training would be simplified by the availability of a dual-control two-seater, and, accordingly, Messerschmitt evolved a suitable conversion trainer, the **Me 262B-1a**.

Delivered to III (Erg.)/JG 2 (*Ergänzung* or Replacement), formed in November 1944 at Lechfeld from personnel of the