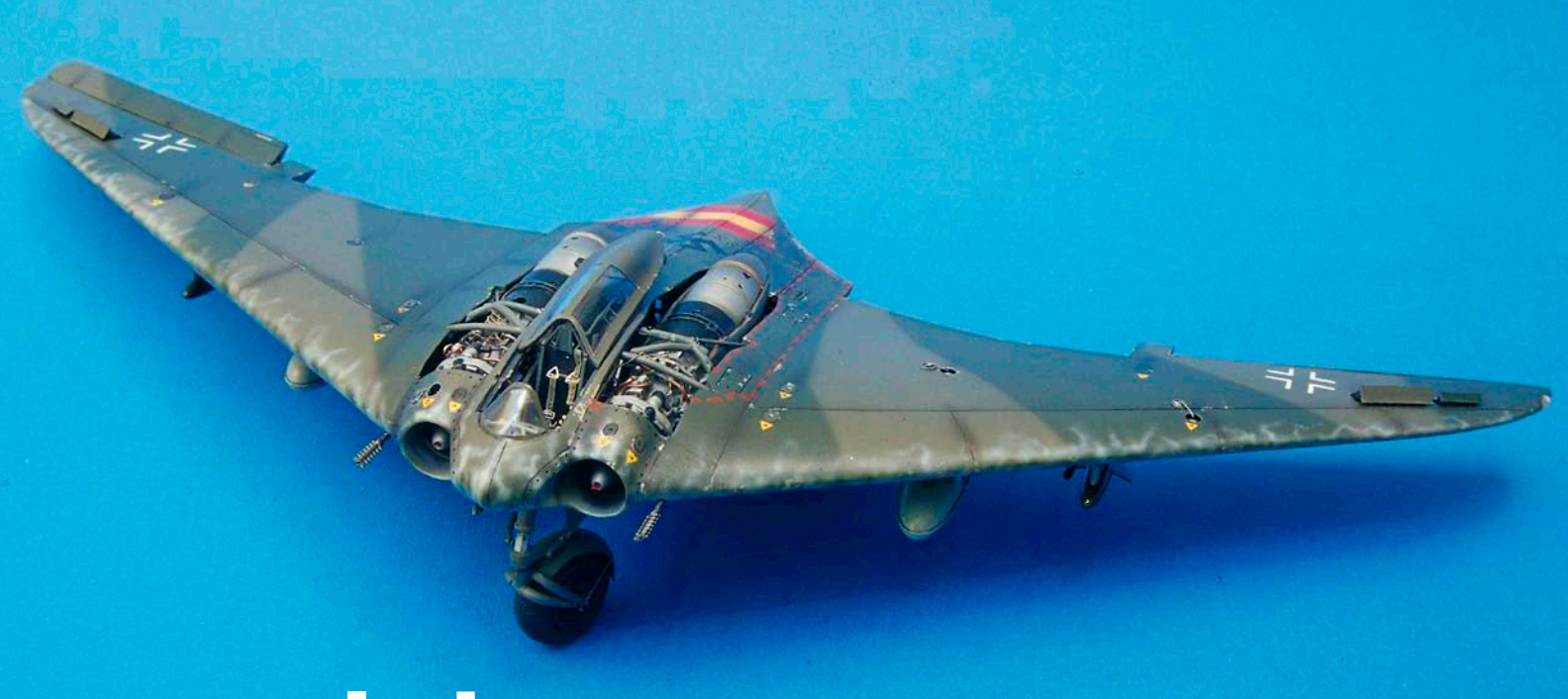


Build Dragon's Ho-229A-1

Take on a Horten improvement project

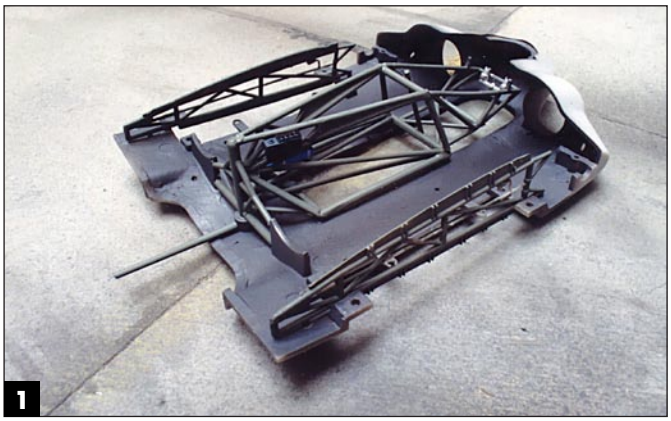
Modeling by Ricardo Dacoba

For Ricardo, Dragon's 1/48 scale Ho 229A-1 was only the beginning of a fascinating story. He built details he thought should be present and added what he thought could have been.

April 1945: As Patton's Third Army rolls through Germany, XIII Corps captures the Gotha aircraft plant at Friedrichsroda – and with it, fragmentary prototypes of a mysterious aircraft.

It was the top-secret, highly experimental Horten project. Even if one of the planes had been fully assembled, it's doubtful many of the American soldiers who saw it would have known what to make of a plywood twin-engine jet with no tail, no fuselage, and no propellers. On a much smaller scale, the Horten 229 resembled the B-2 bomber first viewed by the public in 1988. But this was 1945 – imagine what Kilroy must have thought!

A half century later, the Ho 229 still captures the imagination of modelers. And in the case of Ricardo Dacoba, imagination and research led to details not found in Dragon's Ho 229 kit. No matter – armed with photos, drawings, and his own ideas of how things might have turned out if the aircraft had entered service, Ricardo just kept building. **FSM**



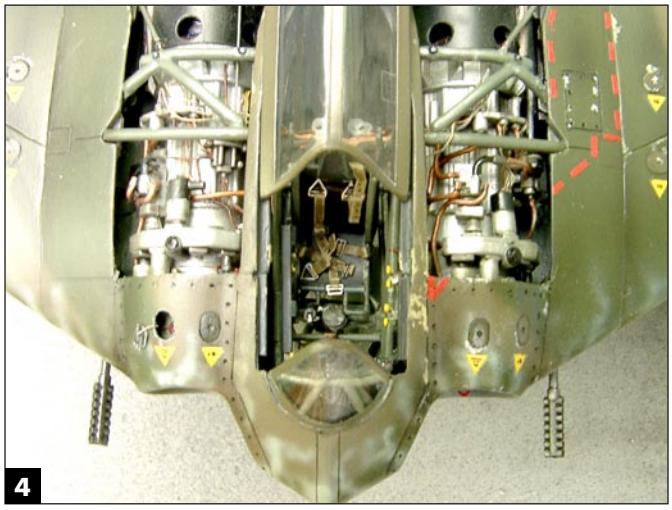
The Ho 229's central section was framed in metal tubing; Ricardo's "tubing" is stretched styrene rod. He cut out the molded wells for the landing gear and cockpit to accommodate this structure, stretching extra rod to be sure to have enough of the same stock to complete the cage. Ricardo super glued the framework, test fitting as he went, then painted the interior with Xtracolor enamels X201 *grau* (RLM 02) and X203 *schwartzgrau* (RLM 66).



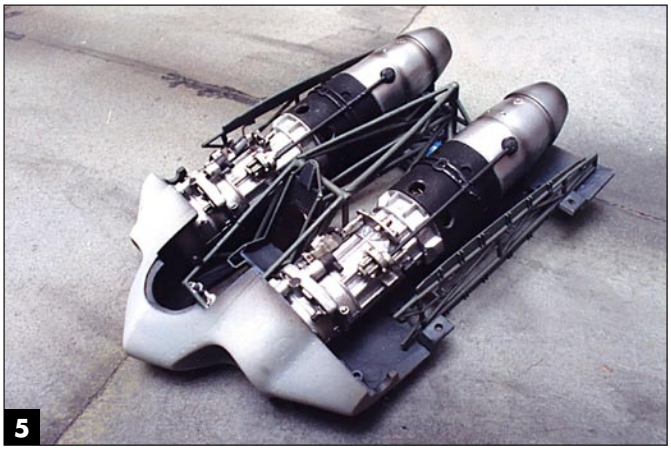
Ricardo wanted the open wheel wells to show as much detail as possible: pulley systems, cables, hydraulic struts, and sundry details not provided in the kit. He scratchbuilt those parts, forming epoxy putty for a hydraulic reservoir and making other details with copper wire, stretched sprue, and bits of sheet and rod styrene. "I got a lot of use out of my Unimat1," Ricardo says, referring to the multifunctional hobby-tool bed he used as a lathe to turn out pulleys and hydraulic struts.



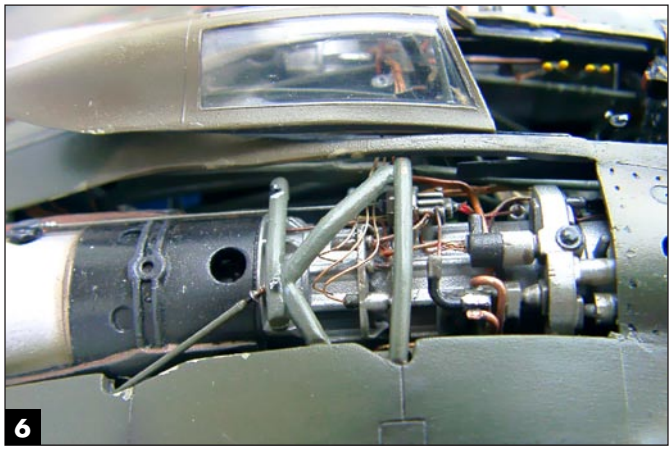
Noting that the Ho 229 had a primitive ejection system similar to that of the He 162 ("very different from what the kit supplies," he adds), Ricardo replaced the kit's pilot seat with a structure of styrene sheet and rod (right).



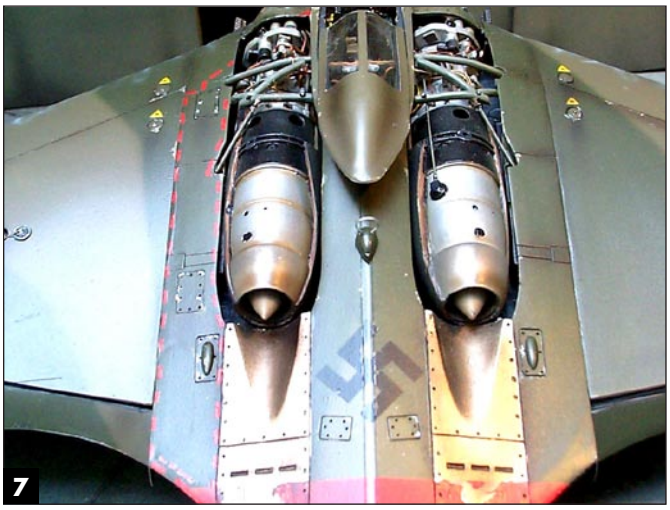
Except for the main instrument panel, Ricardo scratchbuilt details for the cockpit using sheet and rod styrene. Seatbelts are made from strips of tin foil with kit-supplied photoetched buckles.



Impressed by the look of the kit's Jumo 004 engines, Ricardo built and painted them according to the kit instructions.



However, the injection-molded parts lacked the extra dimension of stand-off pipes and electrical conduits. Ricardo modeled such details with copper wire, "bluing" it with a lighter to replicate the effects of intense heat.



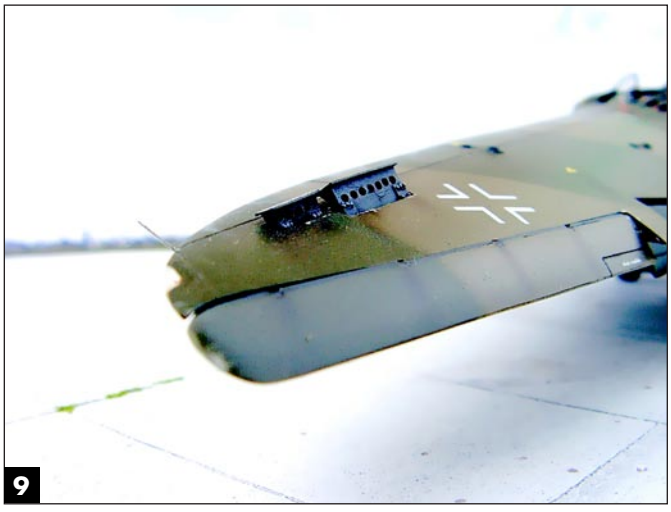
7

The real Ho 229 was mostly plywood, so thermal insulation around the engines seemed appropriate. Ricardo rolled out two 1mm-thick sheets of epoxy putty and shaped them to the contours of each engine.



8

Ricardo repositioned the control surfaces to pose them more realistically.



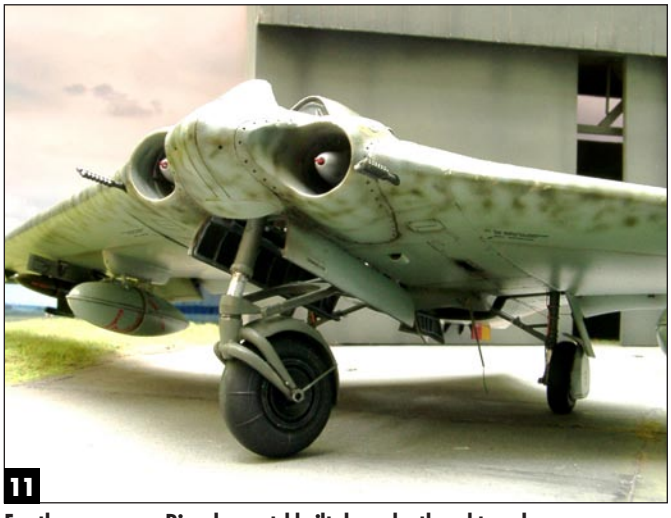
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Another refinement was the installation of sheet-styrene drag rudders.



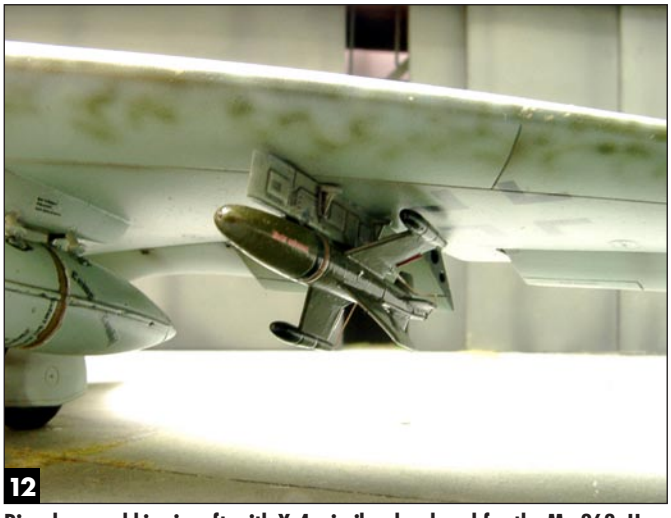
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Ricardo got extra modeling mileage with the addition of drop tanks scrounged from a Dragon Me 262.



11

For the nose gear, Ricardo scratchbuilt doors he thought made more sense than the three-part affair supplied in the kit. He used one of the kit's doors to make an RTV mold, poured a couple resin copies, and added them to the original doors to match the length of the well.



12

Ricardo armed his aircraft with X-4 missiles developed for the Me 262. He carved the missile bodies from balsa and cut the fins from sheet styrene; they're painted RLM 02 *grau* and finished with clear gloss.



13

One can only guess how the Ho 229 might have been painted for combat. Ricardo patterned the camouflage after the Me 262, airbrushing Xtracolor X210 *braunviolett* (RLM 81) and X211 *dunkelgrün* (RLM 82) on the upper surfaces, and X208 *lichtblau* (RLM 76) underneath.



14

Panel lines are accented with dark-brown pencil. Ricardo held paper masks in place as he gently applied a weathering of windswept grime, airbrushing a thin wisp of Tamiya smoke at low pressure.

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SOURCES

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The Horten Brothers' Nürflugels

Growing up together in Bonn, Germany, Walter and Reimar Horten were fascinated with flight from boyhood on. Flying clubs and glider competitions were highly popular in the 1930s, and the teenage Hortens became perennial champions, with Reimar's *nurflügel* (only-wing) sailplane designs attracting attention from some of Germany's top aviators. The Horten 1, a wooden, single-seat glider piloted by Reimar, won a 600 Reichsmarks prize for original design in the summer of 1934. The Ho 2-B featured a single 80-horsepower, pusher-type propeller, and several variants of the Ho V were twin-propeller craft. All were nurflügels.

The logic behind all-wing designs was simple – minimize aerodynamic drag while maximizing lift. The Hortens had been inspired by the tailless, delta-wing designs of fellow German Alexander Lippisch. In the United States, Northrop's XB-35 "flying wing" was awarded a $2.9 million contract in 1941.

The Horten brothers had no such largesse – but perhaps more ingenuity. As a combat pilot in the Battle of Britain, Walter had seen for himself that Germany had no match for the British Spitfire. He was sure he and his brother could build a superior fighter. He took a senior position in the *Jagdfluginspektion* (inspection of fighters) to curry favor in Berlin for a new Horten prototype. Eventually – without authorization – Walter fabricated a top-secret command, using his security status and forged documents to order materials and have Reimar transferred to his "unit."

The Horten designs showed promise. And there was an additional benefit: The contoured plywood aircraft was difficult to track on radar.

Construction of the Ho 9, a twin-engine jet, was well underway in mid-1943 when Reichsmarshall Hermann Göring called for a new fighter with a 1,000km range that could achieve 1,000km/h and carry a 1,000kg bomb load. The Hortens were granted an interview with Göring, who ordered a prototype to be delivered in six months. The deadline was tight but not impossible – until the Hortens learned the BMW engines they had chosen were unavailable. Jumo 004 engines were substituted, but they were larger, and the airframe had to be rebuilt. The newly designated Ho 229 didn't fly until December 1944.

Meanwhile, another complication arose. Without revealing Germany's atom-bomb program, Göring requested an aircraft with an 11,000km minimum range to drop a 4,000kg bomb on North America. No other manufacturer would attempt such an aircraft – but the Hortens produced a design for a four-engine, all-wing "Amerika Bomber," the Horten 18.

It was not to be. In April 1945, the brothers were captured by American troops. War-crime investigations followed, but the Hortens' long-standing deceptions served them well. Despite evidence of jet prototypes and high-level associations, by many accounts the Hortens had been nothing more than famous makers of sailplanes.

– *Mark Hembree*