

Tiger Moth

Wingspan 1860 mm

Excerpt from Catalogue 7/2008

All prices in EURO, including 19% German VAT.
July 1st 2008

Toni Clark practical scale GmbH
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DH82A Tiger Moth

Scale: 1:4.8
Span: 1.86 m
Length: 1,53 m
Wing area: 1,05 m²
Weight: 4,5 - 6 kg
 depending on motor and
 finishing.
Wing loading:
 43-57 g/dm²



Georg Schmid built this fine Tiger Moth in 1974. With his „small“ Tiger he had the largest biplane in all Bavaria at this time...

For a detailed description please read the report reprinted from the "Model" magazine on page 10.

Just a short paragraph here concerning engine power. This Tiger was originally designed for a 10 cc two stroke. Although this Tiger is fairly large for a biplane, a 10 cc engine is more than enough power. The reason being the excellent aerodynamics and the low wing loading.

Today there is a range of four stroke engines from 10-20 cc that are suitable for this model. Due to their smoother running a 15 cc engine is a good choice.

**TIGER MOTH Scale 1:4.8.....#1000 € 419,—
Complete kit.**

Bubble aircushion sleeves.....#1490 € 34,—
For the wings and tailplane, not supplied with the kit.

The following parts are of course in the kit but can be purchased separately.

Epoxy/Glass Motor Cowl	#1110	€ 38,90
Vac formed windscreens, pair	#1120	€ 9,90
Vac formed instruments	#1130	€ 10,20
set of two		
Vac-formed parts.....	#1140	€ 8,90
Oil tank, step, seat, carburettor intake, wheel caps etc.		
Head guard cores pair.....	#1150	€ 12,90
PU-foam.		
Landing gear	#1160	€ 29,90
ready silver soldered, with radius rods.		
Epoxy/glass wing tank	#1210	€ 39,90
with moulded in ali-dowels for wing fixing.		
Wingribs	#1220	€ 65,90
all ribs and riblets for both wings.		
Fuselage formers, CNC-milled	#1280	€ 29,95
all plywood and Balsa formers.		
Strut fixing screws	#1230	€ 1,00

Further parts can be supplied, please telephone for these.

All prices are including **19% VAT.**

Revision July 1st 2008



Photo Sets DH82A Tiger Moth:

1 **G-ANFM**.....#1060 € 25,65
Fuselage yellow; wings, cowl and tailplane silver.
20 colour photographs 15x10 cm.

2 **G-ANOH**.#1050 € 25,65
Fuselage and tailplane red, wings white. 20 colour
photographs 15x10 cm.

3 **Camouflage**.....#1070 € 20,50
Camouflage. Green and dark earth topsides, trainer
yellow undersides, this aircraft has been restored
and is based in Denmark. 20 colour photographs
15x10 cm.

M.A.P. Three view scale drawing #2050 € 12,95

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The biplane with the swept back wings and attractive rounded structure, with balanced proportions and elegant shaped tailplane, that is the Tiger Moth, the most famous trainer and sport machine in the world,

50 year oldtimer with apparently unlimited life. Toni Clark in Luebbecke sells this fully tested scale model as mainly wood kit.

**Kurt Borm
and
Manfred Boog**

Tiger - MOTH

Scale Model from the practical scale Kit

Without a doubt the De Havilland Tiger Moth has to be one of the best known aircraft in the world. She is the best known trainer this century and probably the most attractive biplane of all.... Several more superlatives are relevant when one considers club flying and glider towing, the length of time the Tiger was in service, how popular she was with most pilots, as well with spectators at airshows, the many great names in flying that were connected with the Tiger.

The Tiger was designed by Sir Geoffrey de Havilland as the last in the

line of a number of very famous light planes beginning with the DH 53 Humming Bird. The DH 60 Moth was the first step towards the so successful DH 82 that made its maiden flight on the 26th October 1931.

The powerplant was the Gipsy III four cylinder inline air-cooled engine producing 120 hp, this engine was later up rated to 130 hp and known as the Gipsy Major. The Royal Air Force immediately ordered a large number of DH 82's for training purposes, this meant that most RAF pilots from the years 1939-45 began their training in the Tiger

Moth. Several European and South American airforces purchased the Tiger for training purposes. The military demand for the Tiger was such that the first Tiger that became available for civilian was in 1938. By 1945 7,000 Tiger were produced.

The second epoch for the Tiger came in 1950 as a large number of these machines were declared redundant and were sold off for civilian use. They were used as club machines and glider tugs, as maid of all work and earned a well deserved reputation as a really fine 'plane. Today a large number of Tigers are still flying in many parts of the world, many examples have passed their fiftieth birthday, something that in this modern world of aircraft will probably never happen again.

As a radio controlled scale model our first contact was in the 1976 German DMFV Semiscale nationals in Artland, a number of pilots from the Westfalian club Libelle Enger entered Tigers and achieved very high scores. The high point of these nationals was a formation fly around as the Enger crowd Reinhold Gerner, Frank Schulz, Heinz Ostermeier and Hans Friedenstab with their respective Tigers. Our clubkamerad Kurt Borm, as were the rest of the scale fans, was so enthused that for Kurt the decision to build one of these Tigers was a must.

Assembling the Tiger Moth. The lower wing is screwed into place, now the top two wing panels are plugged onto the wing tank, the wing struts are fixed to the wings with the attached wing bracing wires. A well thought out simple system that really function without trouble.

Several things that indicate the quality of the Toni Clark kit that say more than a long report, the rigging wires are permanently fixed at both ends so the struts and wires are permanently attached to the fuselage, with this method it does not take long to assemble the Tiger.



Scale details are well covered with a three view drawing of the full size with a sketch page of details, with this information an accurate scale model can be built. For those who wish for more can purchase from Toni Clark a detailed colour photo set of twenty pictures 15x10 of G-ANOH and G-ANFM showing every detail possible. Building the model is fairly straight forward and is not at all difficult, every construction stage is defined and is as simple as possible. The modeller is taken step by step by a very comprehensive set of instructions surely to the finished model.

This Tiger Moth is ideally suited for an average modeller who wishes for the first time to have a scale model. A big help are the finished parts supplied in the kit which ensure the model is correctly built.

It is clear that the designer has done everything possible to keep the weight within reasonable limits without affecting the scale outline or shape, but at the same time ensuring the strength of the model is fully adequate. The best example of this design concept is the fuselage. It is basically a Balsa and spruce strip open construction, the fuselage top decking is plywood which gives enormous strength to the fuselage, making it almost indestructible. The

Shortly before the winter pause Matze received the long awaited Tiger kit produced by the company Toni Clark practical scale GmbH, Zeiss Str. 10, 3231 Luebbecke, this kit has the scale size of 1:4.8 with 1.86 m span. This model is scale and can be used in competition. All measurements from the original have been reduced exactly and has many small scale details which sets it apart from an average semi-scale model.

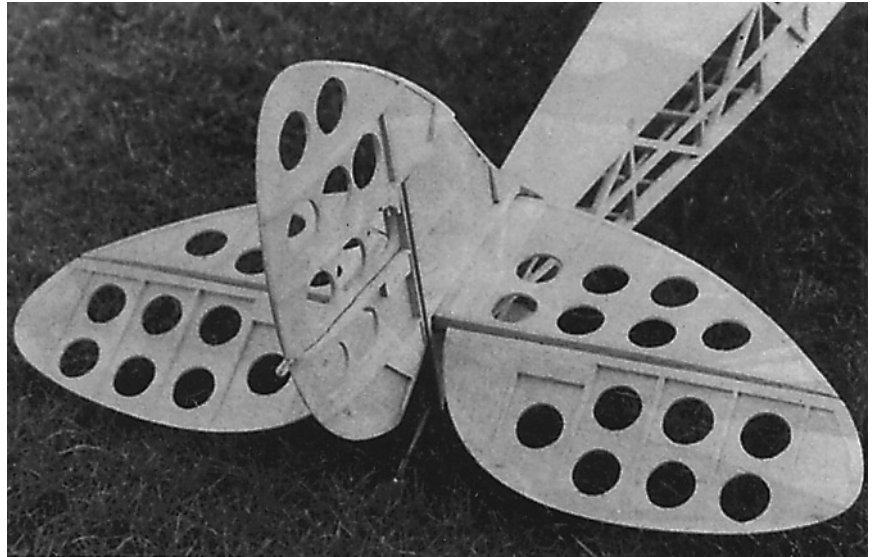
Even so the Tiger should not be considered solely as a competition model, for club exhibitions the scale details cause a great deal of interest, the unmistakable shape in the air and ease of flying also cause

considerable interest whenever the Tiger is flown.

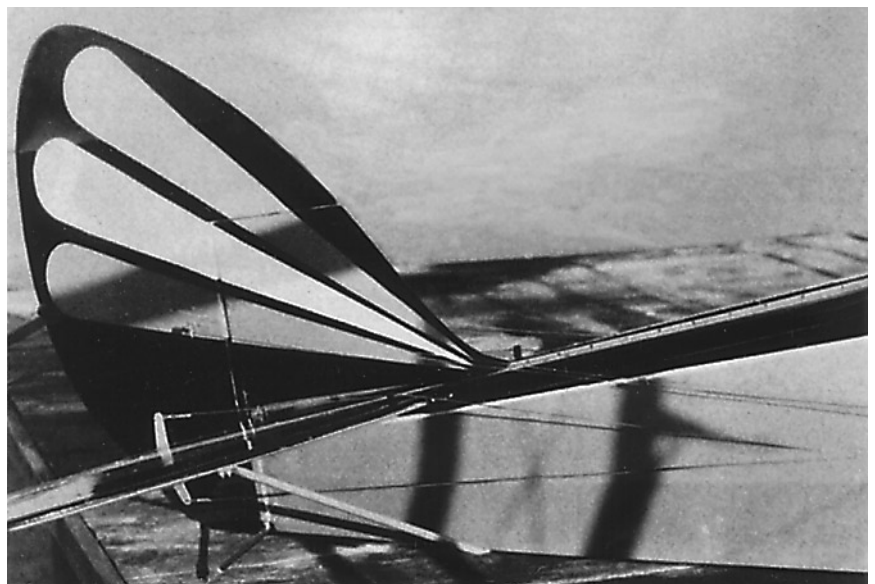
The kit is unusually complete, there are two sheets of plans, the Balsawood and plywood is carefully selected, the engine cowl and imitation wing tank is epoxy/glass fibre, aluminium wing dowels are glassed into the wing tank ensuring accurate dihedral and sweep back and accurate wing incidence, wire cabane struts is preformed, undercarriage part silver soldered together, a special scale silencer made from aluminium, rigging wires, turnbuckles, instruments, oil tank, hub covers, windscreens, building instructions and parts list for the 557 separate pieces.

As light as possible but with the necessary stability clearly demonstrated here. The lightweight longerons, vertical and diagonal braces is with the plywood fuselage decking is absolutely free from twisting and able to be fairly heavily loaded.

Lightening holes in the tailplane to reduce as much as possible the need for lead in the nose. Small reinforcing pieces, tips and ribs give the necessary strength. After covering, the surface is just like any aircraft from the thirties.



Scale rudder, closed loop controls with wire and guides that must cause any serious scale modelers heart beat to quicken.



rudder and elevators have lightening holes cut in them to keep the tail as light as possible. Stripwood ribs are glued to the both sides of the tailplane to make these parts stiff and when covered simulate the typical open construction of aircraft built in the 1930's with ribs leading and trailing edges showing under the covering.

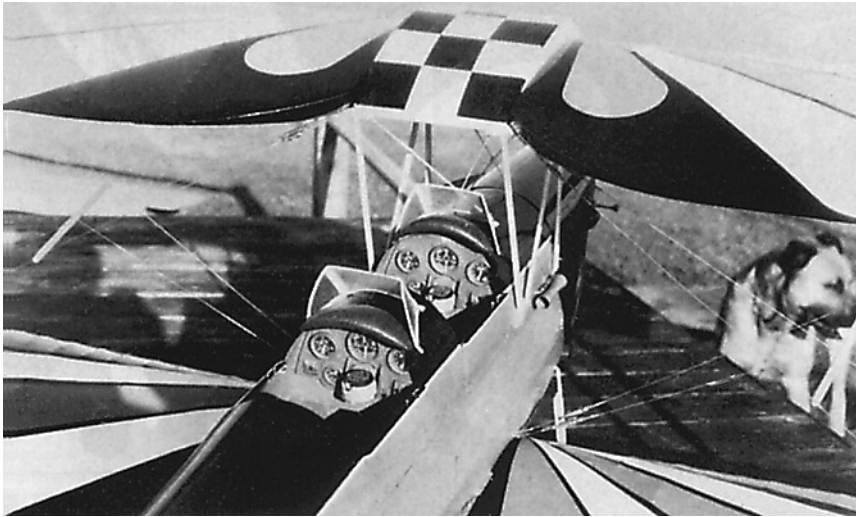
The wing section is fairly close to scale, this means the wing are rather thin and therefore are not self supporting, so the rigging wire is supplied not only for the scale effect. The rudder and elevators are hooked up with lighter wire, the closed loop system duplicating exactly the full size machine. When building the

wings one thing we found was not correct and this was the length of the rear wing struts, other builders of this model had also found this mistake, this means the rear struts must be 15 mm longer than the front ones, this of course is due to the wing section being thinner the farther back one goes towards the trailing edge. It must be mentioned that this test model was not fitted with wing slats as is so with the full-size Tiger Moth.

Kurt fitted a Webra Speed 10 cc, with this engine fitted he had to put 200 grams of lead in the nose. There is room enough for the radio and servos and so on in the fuselage, the model was ready for the first test

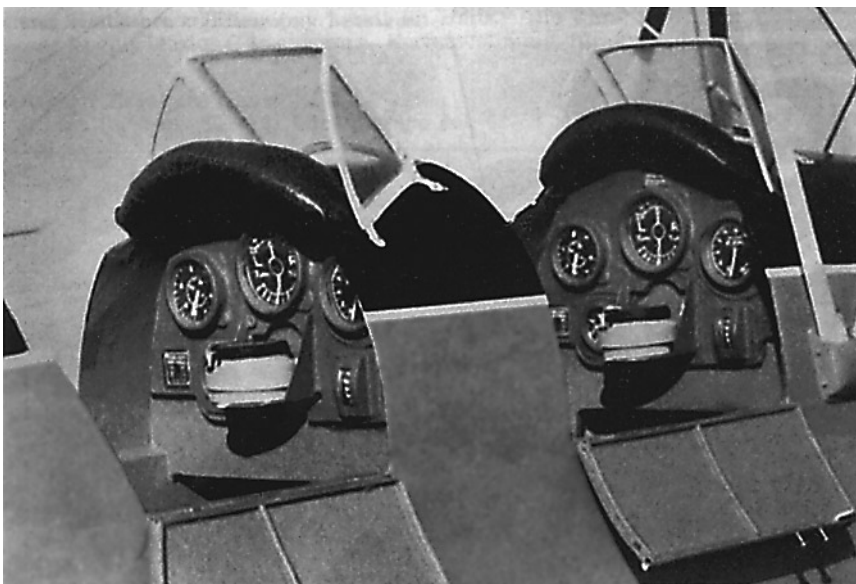
flight after six months work.

All the Tiger Moth kits are supplied with sufficient paint scheme details but most modellers do not seem so very interested, especially with the Tiger Moth there is almost an unlimited range of colour schemes to chose from. In this case Matze used a very unusual scheme. He watched a television series called "Die Erben Lilenthals", Our friend Kurt suffered something akin to a shock at the beginning of the first episode as he later said a Tiger Moth fluttered across his television screen with a very attractive red white and black scheme with the Danish registration lettering OY-DYJ. How Kurt came to obtain the name and address of



The Tiger Moth fuselage center section is neat and pleasing with the wing fixings. Struts, rigging wires and cabanes are very close to scale.

Toni Clark's prefabricated parts are a considerable help to the average modeler in achieving a successful scale model. The very important top wing center section is a ribbed section epoxy/glass forming with the aluminium dowels glassed in and with the cut out in the fuselage sides it is almost impossible therefore to have an incorrect wing fitting. Even the silencer is included in the kit.



The cockpit details, with the doors opened, are without doubt a modelmakers dream. All parts for the cockpit are supplied with the kit. For the trained eye it is difficult at first glance to differentiate full-size from the model. One can take a closer look, everything is there, from the top row (from left to right) airspeed indicator, turn and bank indicator, and rev counter. Bottom row clock, altimeter, compass, oil pressure gauge, instrument panel lighting switch (not visible) the working flap down doors and headguards. Visitors to model exhibitions find such a detailed model far more interesting than ten other "normal" models.

the owner and subsequent photographs is a story in itself. Matze's paint scheme is not only very striking it is the first model so.

Flying the model? This was a cakewalk. In the German semi scale nationals in 1977 there were nine (!) Tigers, and later Kurt Borms

model flew just as good as all these predecessors. The Tiger, due to the dihedral and sweep back of the wings makes for very stable flight and especially very slow flying.

Toni Clark's Tiger Moth can be recommended without fear of contradiction. For those who really

like building, the extra time spent on the Tiger will be rewarded with an unusually interesting model that has most of the details of the full size as well as a superlative flying characteristic. Matze wrote on finishing his Tiger he was proud to be a member of the Tiger Moth Club.



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