

# P-39 Q Airacobra

#### Uwaga!

Przed rozpoczęciem pracy dokładnie przeczytaj instrukcję. Zachowaj zasady bezpieczeństwa przy pracy z łatwopalnym klejem i farbami! Trzymaj model z dala od małych dzieci. Nie pozwalaj im brać do ust/nosa części plastikowych lub naciągać na głowe torebek plastikowych!

Wsparcie klienta: W przypadku jakichkolwiek problemów z modelem bez wahania wypełnij formularz zgłoszenia na stronie:

http://www.armahobby.pl/webpage/wsparcie-fag.html

P-39 Airacobra to jeden z najciekawszych i najbardziej innowacyjnych myśliwców II wojny światowej - konstruktorzy z firmy Bell wyposażyli go w przednie kólko, silnik w środku ciężkości platowca i solidne działko 37 mm. Silnik w pierwotnym założeniu był wyposażony w turbosprężarkę, zapewniającą oblatanemu wiosną 1939 roku prototypowi znakomite osiągi na dużych wysokościach. Jednak urzednicy amerykańskiego lotnictwa woleli naped prostszy, dostosowany do operowania na mniejszym pulapie. Wdrażanie Airacobry do produkcji seryjnej i jednostek bojowych przypadło na szybko zmieniające się okoliczności związane z wybuchem wojny w Europie, a potem na froncie wschodnim i Pacvfiku. Pierwsze zamówienia dla Francji i Wielkiej Brytanii nie zostaty w pełni zrealizowane, część z nich przekierowano bezpośrednio do sił USA walczących na Pacyfiku i w Afryce. Po pojawieniu się doskonalszych typów samolotów, ponad potowe z 9558 wyprodukowanych Cobr wystano w ramach Lend-Lease do Związku Radzieckiego, gdzie samolot sprawdzał się doskonale: walki toczono tam na niewielkim pułapie, do jakiego Airacobra była najlepiej dostosowana. Spośród 10 czołowych sowieckich asów, połowa latala na Airacobrach. Najliczniej produkowaną, w prawie 5 tys. egzemplarzy, a jednocześnie ostatnią wersją Airacobry był P-39Q. Samolot napędzany był 1200-konnym silnikiem Allison, od wcześniejszych wersji wyróżniał się uzbrojeniem wzmocnionym o dwa podskrzydłowe zasobniki z nkm 12,7 mm. Większość maszyn tej wersji trafiła do ZSRR, gdzie wykorzystywali je m.in. najwybitniejsi piloci elitarnych jednostek gwardyjskich. Bojowo używało ich także lotnictwo USA oraz sprzymierzonych z Aliantami Włoch, wykonywały tam głównie zadania szturmowe. Cobry "Q" służyty w USA także do szkolenia i treningu, doskonaliło się na nich przed wyruszeniem na front wielu przysztych asów. W okresie powojennym jeden egzemplarz stużyt jako dyspozycyjna maszyna sowieckiego generała Fiodora Połynina dowodzącego polskim "ludowym" lotnictwem. Podziękowania: Jim Roeder, Jarosław Jaworski

#### Warning!

structions carefully. Working with flammable glue and/or paint: please follow the safety recommendation of the manufacturers. Keep out of reach of small children! Do not allow them to place plastic parts in their mouths or noses or to pull plastic bags over their heads.

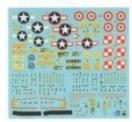
Customer care: In case of any problems with the model, please do not hesitate to contact us and fill the claim form on our website:

http://www.armahobby.com/webpage/wsparcie-faq.html

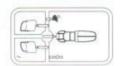
The P-39 Airacobra is one of the most interesting and innovative fighters of World War II - Bell designers equipped it with a front wheel, an engine in the centre of gravity of the airframe and a solid 37 mm cannon. The engine was originally equipped with a turbo-supercharger, which provided the prototype flown in the spring of 1939 with excellent performance at high altitudes. However, US aviation officials preferred less-complex propulsion, fit to operate at a lower altitude. The implementation of Airacobra into mass production and combat units coincided with the rapidly changing circumstances related to the outbreak of war in Europe, and then on the Eastern and Pacific fronts. The first orders for France and Great Britain were not fully delivered, some of them were transferred directly to the US forces fighting in the Pacific and North Africa. With the advent of more effective aircraft types, more than half of the 9,558 produced Cobras were sent under Lend-Lease to the Soviet Union, where the aircraft performed excellently: battles were fought at the low altitude for which the Airacobra was best suited. Of the top 10 Soviet aces, half flew Airacobras. The most widely produced, in almost 5 thousand copies, and at the same time, the ultimate version of the Airacobra was the P-39Q. The plane was powered by a 1,200 hp Allison engine and differed from the previous versions by armament reinforced with two 0.50-inch machine guns in the underwing fairings. Most of the aeroplanes of this version went to the USSR, where they were used by, among others, the most outstanding pilots of the elite guard units. They were also used in combat by the US and Italy Co-Belligerent Air Forces, mainly performing ground-assault tasks. The "Q" Cobras were also widely used in the US for training, and many future aces got their wings on them before going to the front. In the post--war period, one P-39Q Airacobra was the personal hack of the Soviet general Fyodor Polynin, commanding the Polish "people's" aviation.

Aknowlegements: Jim Roeder, Jarosław Jaworski

#### Kalkomanie/Decals



#### Części przeźroczyste/ Transparent parts



Ramka 7 /Frame

#### Maski/masks



obciażenie/weight



#### Części plastikowe/Plastic parts





Kolory farb/ Paint colours		Hataka	AK RC	HUMBROL	AMMO	Mr. Color	Vallejo	Tamiya	Kolory farb/ Paint colours		Hataka	AK RC	HUMBROL	AMMO	Mr. Color	Vallejo	Tamiya
0	Matt Black	HTK-A041/ C041	RC001	33	048	C33	71.057	XF-1	0	Bell Green	HTK-A056/ C056	RC260	149	238	C302*	71.124	XF-26
0	Aluminium	HTK-A078/ C078	RC020	11	194	C8	71.062	XF-16	0	Olive Drab	HTK-A018/ C018	RC259	155	240	C12	71.016	XF-62
0	Insignia Red	HTK-A219/ C219	RC006	153	049*	C327	71.102*	Х-7*	0	Neutral Grey	HTK-A033/ C033	RC261	176	239	C13	71.051	XF-53
0	Insignia White	HTK-A049/ C049	RC013	34	047	C1/GX1	71.001	XF-2	0	"Coral Sand"	HTK-A060/ C060*	RC228*	250*	029*	c44*	71.075*	XF-55
0	Insignia Yellow	HTK-A066/ C066	RC008	154	048	C4	71.002	XF-3	0	Sky Blue	HTK-A293/ C293*	240*	248*	249*	C117*	71.334*	XF-23
0	Gunmetal	HTK-A106	RC015	53	045	MC212	71.073	X-10	0	Zinc Chromate Yellow		RC263	81*	221	C352	71.107	XF-4

\*Kolor zbliżony/similar colour



symetrycznie/ symmetricaly



kalkomania/ decals



zegnij/ bend



usuń/ remove

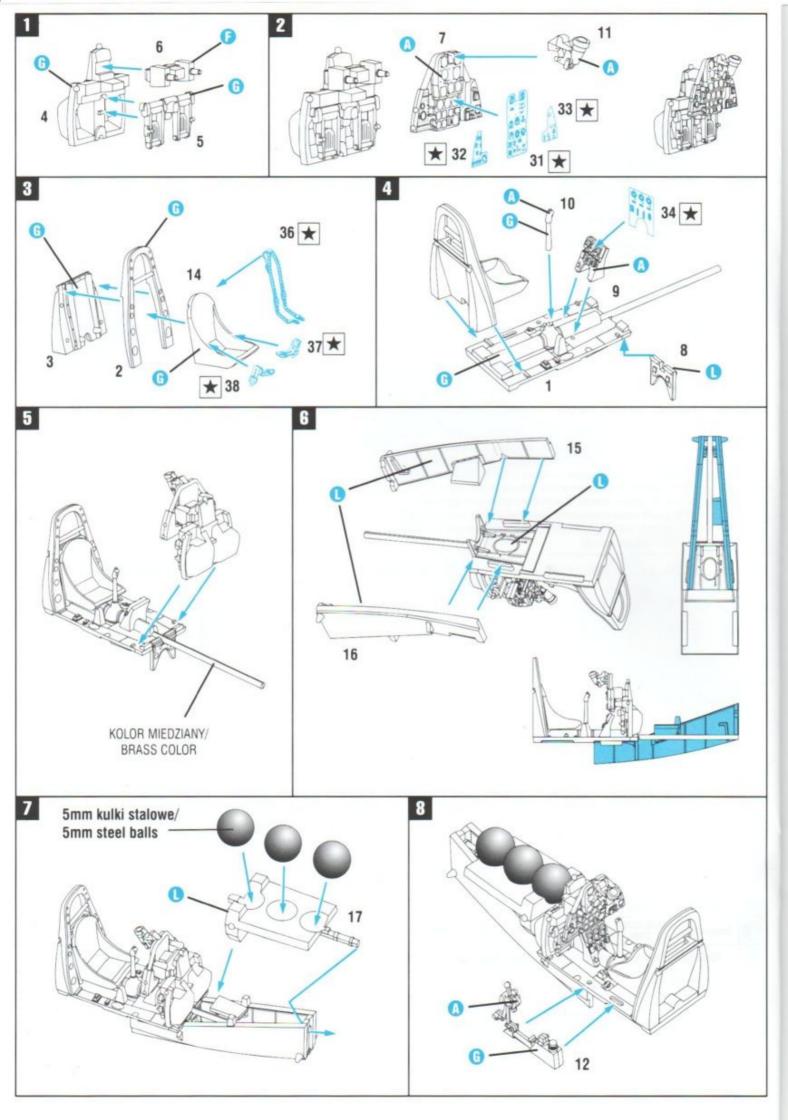


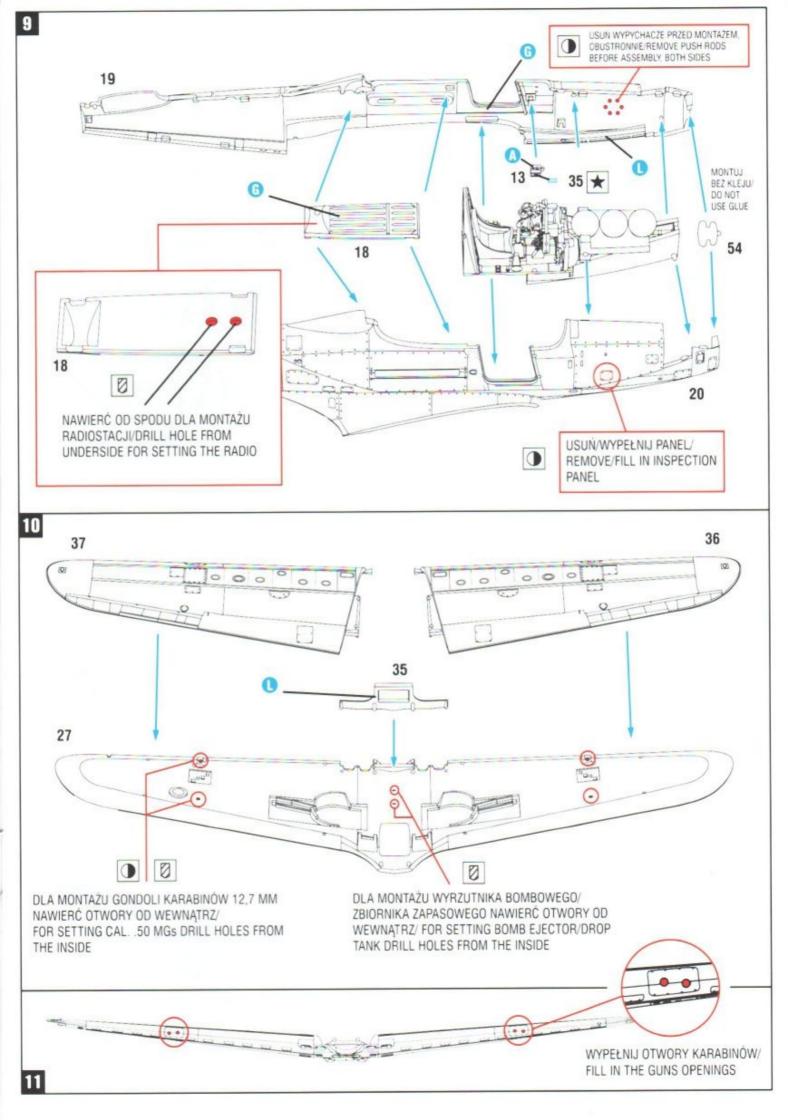
nawierć/ drill

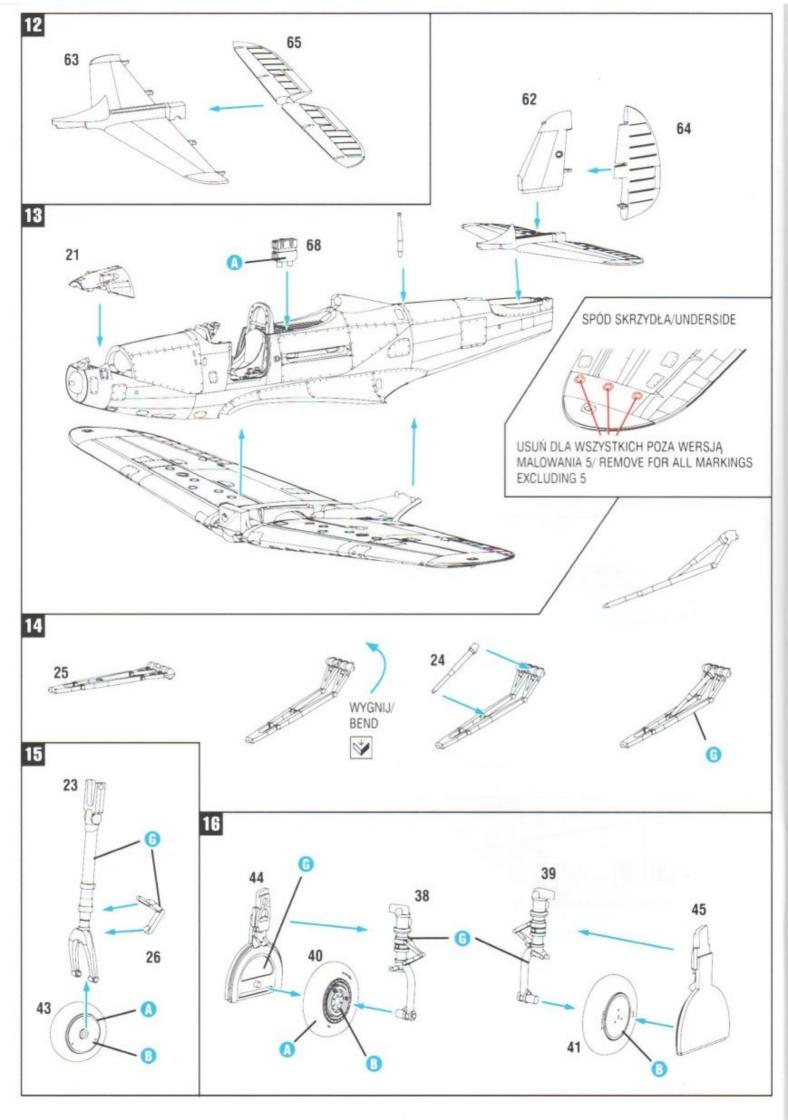


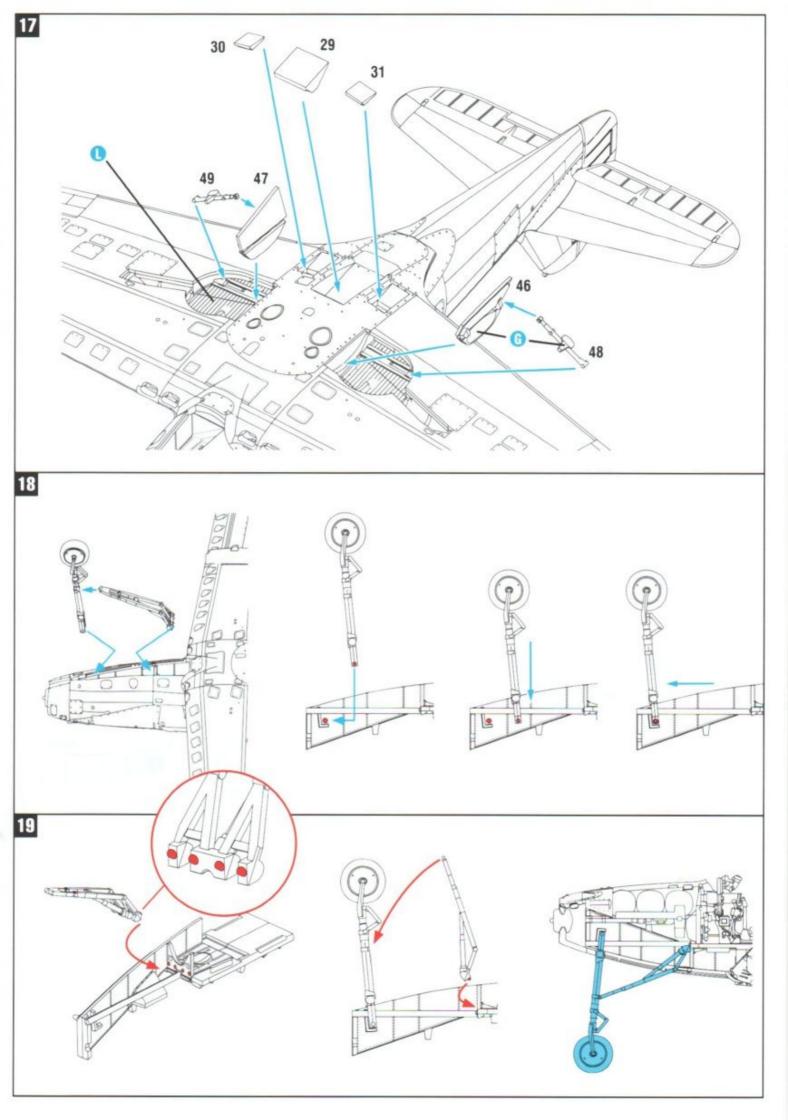
zwiń/ roll

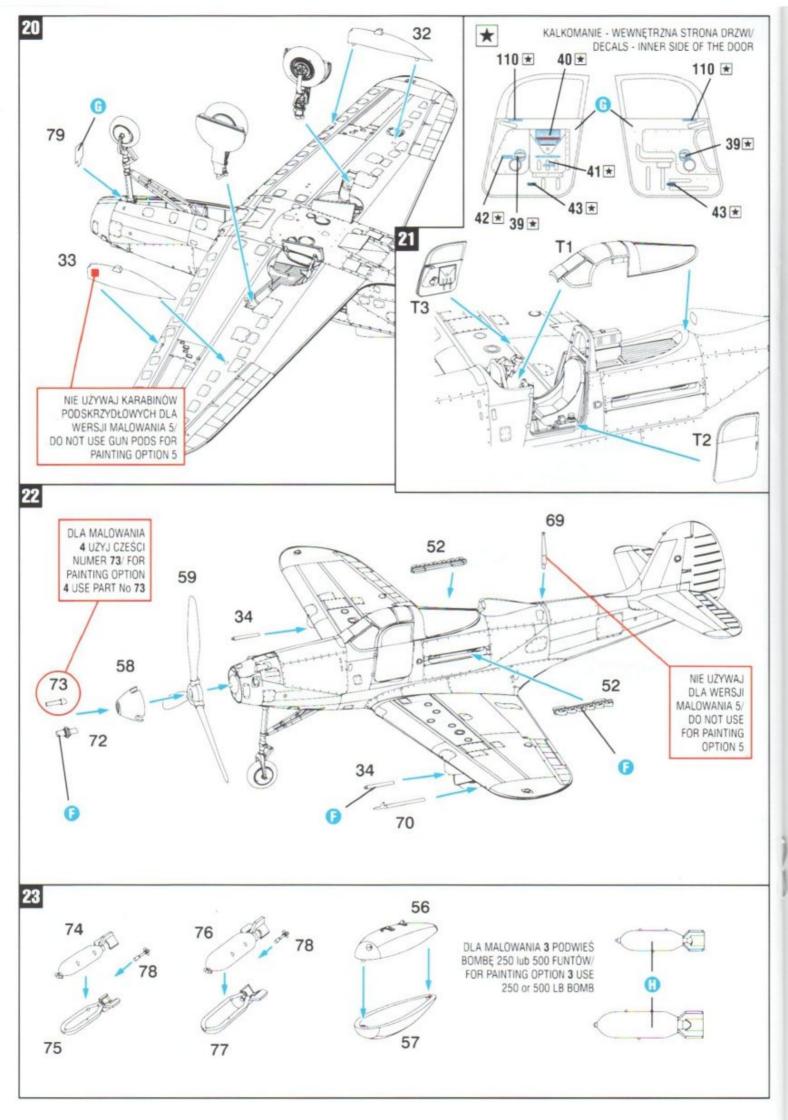
#### Manufacturer:

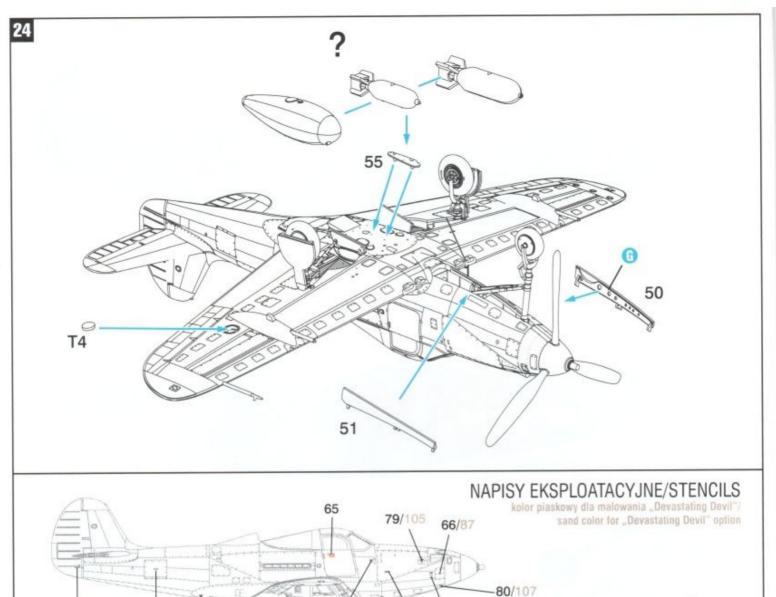


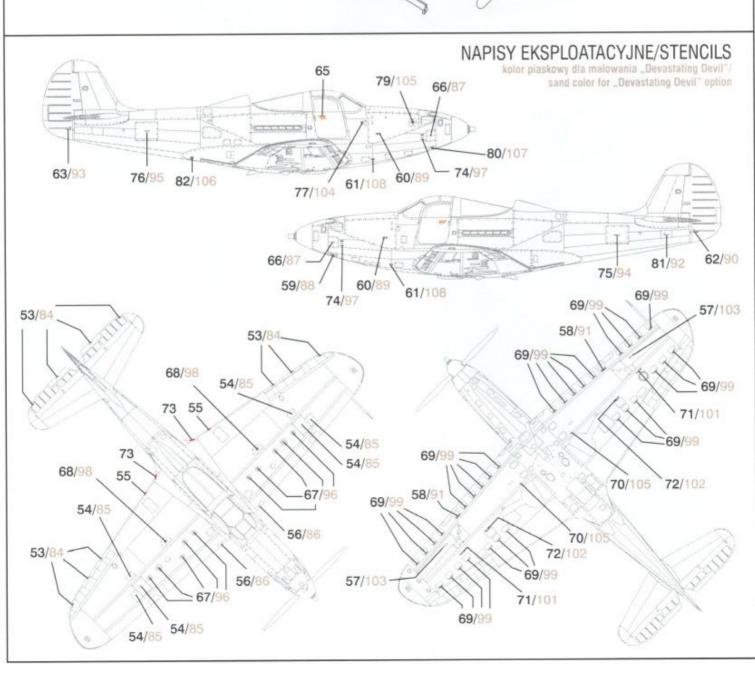


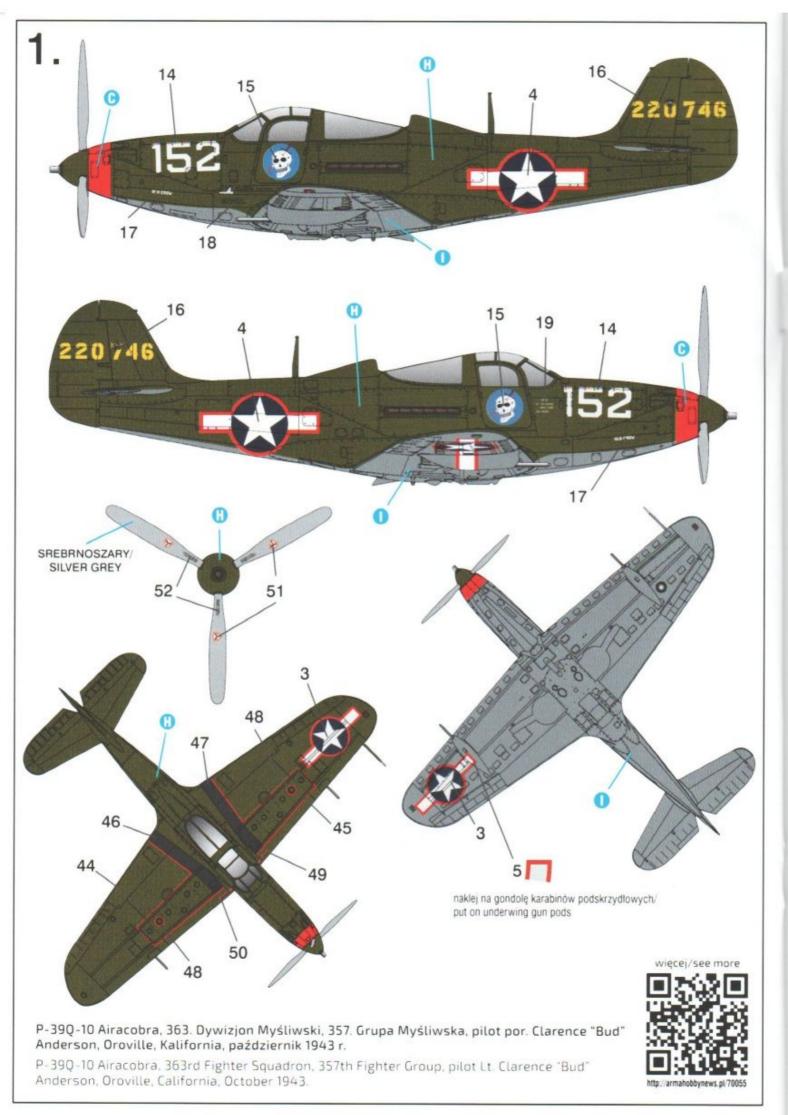


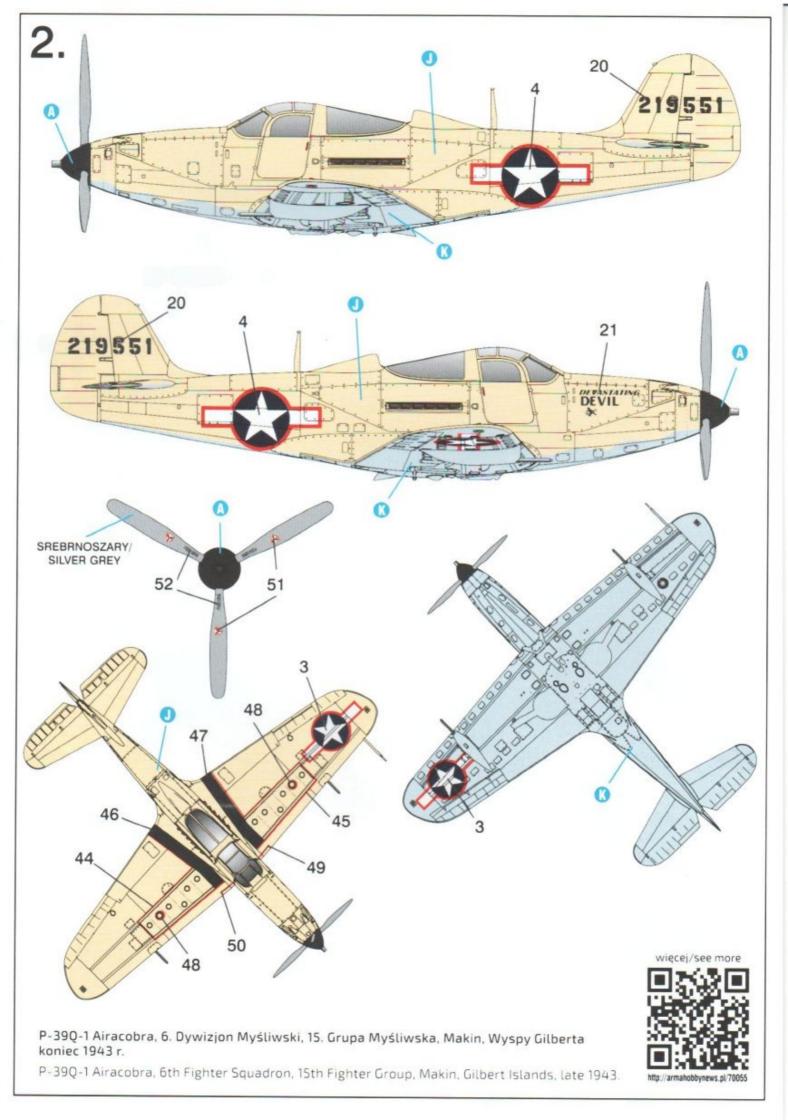


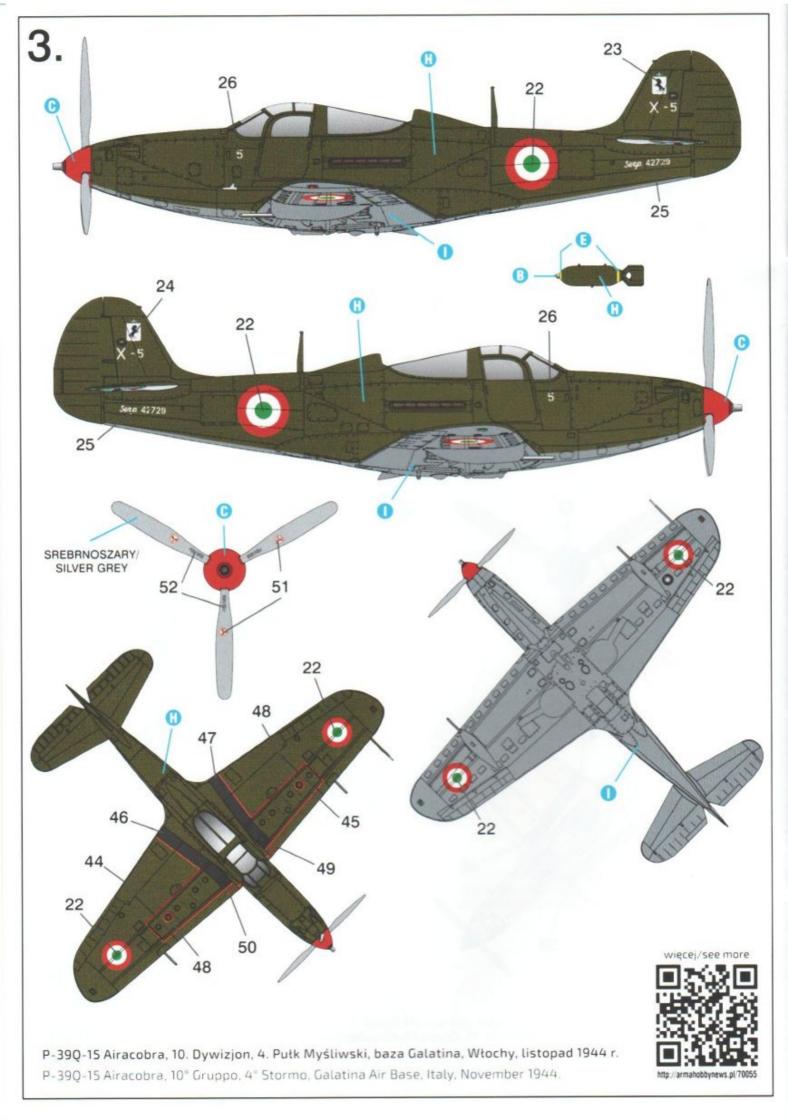


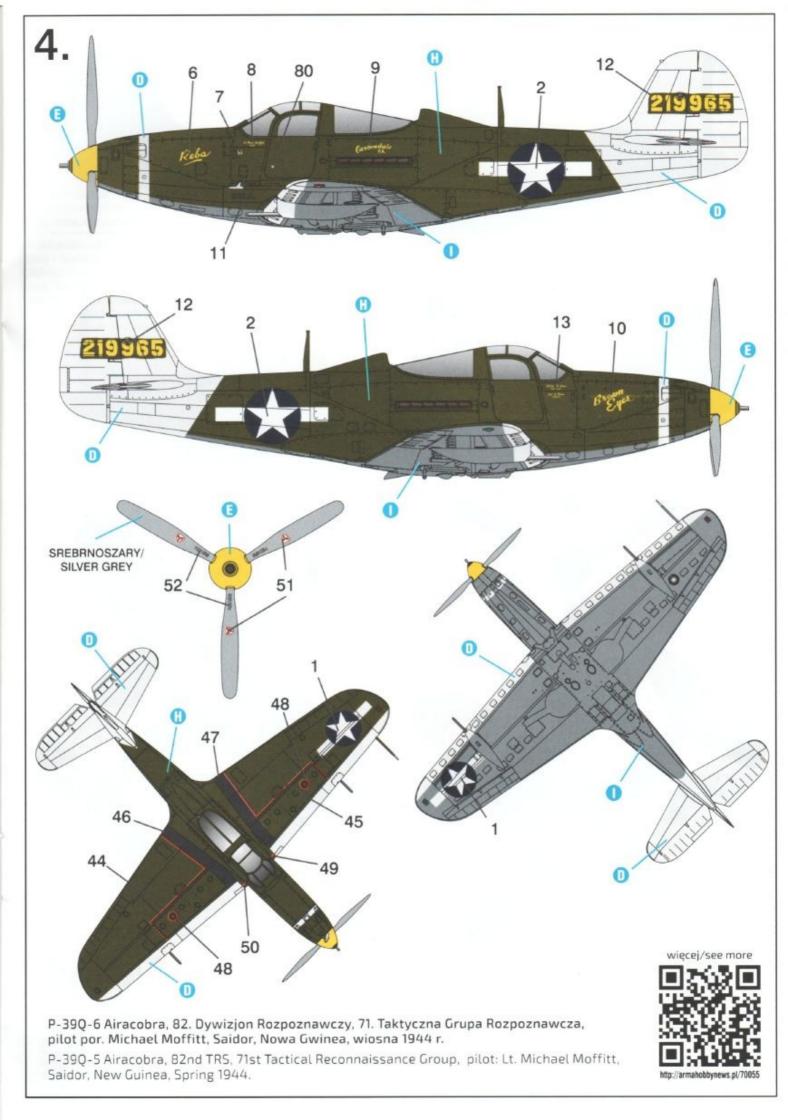


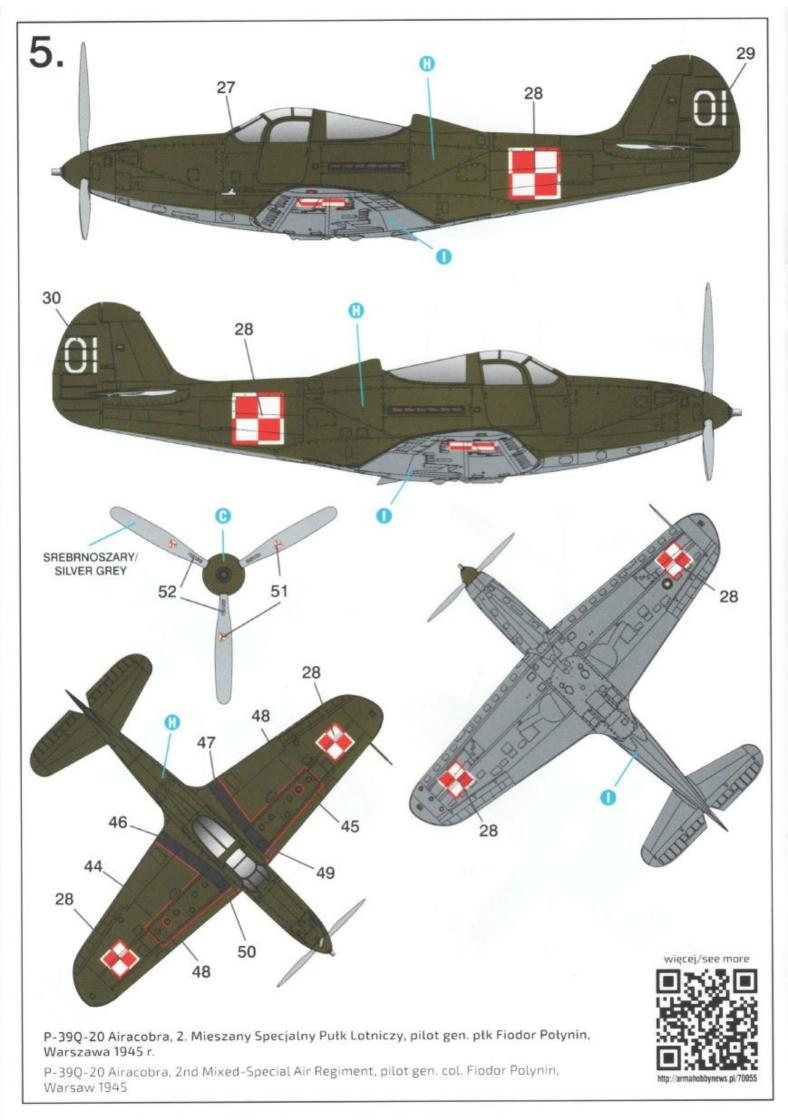














## Arma Hobby/Red Roo Models P-39 Airacobra in RAAF Service

#### Introduction

The Airacobra was a controversial aircraft, both in design and application. Led by the dynamic Larry Bell, the Bell Aircraft Corporation produced its first fighter design when it had built a total of 15 aircraft. Overcoming considerable misgivings within the ranks of military pilots, the company promoted its product as technologically advanced. Unfortunately, the design was hampered by inconsistent thinking and governmental vacillation and when the first big sale (to Britain) was achieved, the aircraft was found to be wanting in its performance.

Airacobras were introduced to Australia in 1942 when American aid was rushed to the South-West Pacific. The RAAF was struggling to raise new fighter squadrons because of a lack of aircraft and approached the US Army for the loan of a small number of aircraft to help equip these newly formed fighter squadrons. The US 5th Air Force made some 22 Bell Airacobras available and these aircraft were operated by the RAAF with varying success for a period of two years before those remaining were returned to the Americans.

The P-39 Airacobra in RAAF Service describes the fate of each aircraft, provides detailed notes and discussion about colour schemes and markings, covers squadron use and provides a short, comprehensive history of the type in RAAF service. Modelling hints are also included. A list of RAAF paints and matching FS and BS numbers is incorporated and four facsimile colour chips are also included in the book.

The Arma Hobby / Red Roo Models Kit and Decals

The Arma Hobby P-39 kit is intended to provide parts to build many different versions. Determining which parts to use is not always easy as Airacobras had many small variations. This guide is to enable you to accurately build a model of an Airacobra used by the RAAF.

In service, the RAAF used two versions of the Airacobra, P-39D and P-39F. The factory documentation shows these versions are internally the same production model: The

P-39D was the Bell Model 15 and the P-39F was the Bell Model 15B.

Fortunately, they differ mainly only in the propeller and exhaust. For the Arma Hobby kit, use the following optional items:

Propeller

3-bladed Curtiss Electric of 10'5" (317cm) diameter in the P-39D - AH Part no.61 3-bladed Aeroproducts of 10'4" (315cm) diameter in the P-39F - AH Part no.60 A53-9 and A53-11 have propellers repainted in black colour with yellow tips but the manufacturer's logo and factory markings were left on the original background silvergrey colour, while others have reproduced lettering on the propeller (white colour) and the logo painted out.

#### Exhaust

6 stack exhaust for P-39D - AH Part no.52 12 stack exhaust for P-39F - AH Part no.53

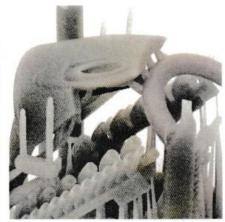
#### Cannon

Use Part 71 (20mm cannon) for A53-20 and Part 71 with the flame damper cut off for the rest.

Do not use Parts 72 and 73 as they are 37mm cannon with and without damper. Underwing gondola cannons are also not used.







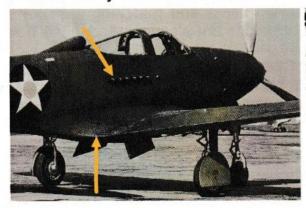
Nose upper decking

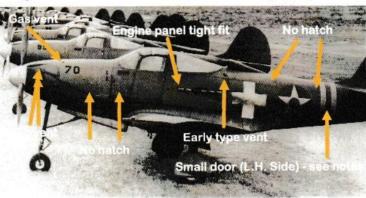
Use Part 22 but sand down the fairings so they are almost invisible and drill out the gunports. It should look like this 3D printed part from a later boxing.

#### **Extra Detail Notes**

#### Exhaust cut-out

The AH model has the engine cover of the later version, the exhaust slot is straight. On the early machines, as on the P-39C version, the exhaust pipes were tightly covered with covers and each pipe had an individual cut-out - see photo. It is not easy to improve this area. Individual exhaust pipes (12-stack) were preferred by crews because they were intended to have longer life and less burnout. A single pipe was





theoretically less temperature stressed and was easier to replace - some aircraft had these exhausts converted to individual pipes during service. A good example is A53-9 (T-Z) which had a 6-stack from the factory. Later photo shows it with 12-stack tubes but engine covers for the 6-stack.

Starter crank storage compartment

Initially it was in the wing fillet as on the P-39C, later it was moved to the right wing. It is known and precisely defined when the change occurred, so it can be determined that two of the Australian machines had the door in the wing fillet. They are A53-8 BuNo. 403017and A53-9 BuNo. 403035. The others had a door of the new type - in the wing. The storage compartment of the old type was not subject to modification, so here there should be no doubt.

Radio compartment

Initially the door to the radio compartment near the tail of the machine was small, as in the P-39C - but during production a modification was made and it was enlarged. From P-39D BuNo. 416926 larger doors were installed on both sides until the end of production, as we have in the AH model. But, on earlier machines with small doors, the doors were retroactively modified to be larger on the right side, leaving smaller doors on the left. Here it is good to have photos, because there is no list of aircraft that actually underwent the modification. The modification kit (including the necessary

reinforcements and new compartment doors) was supplied from the factory but only when ordered.

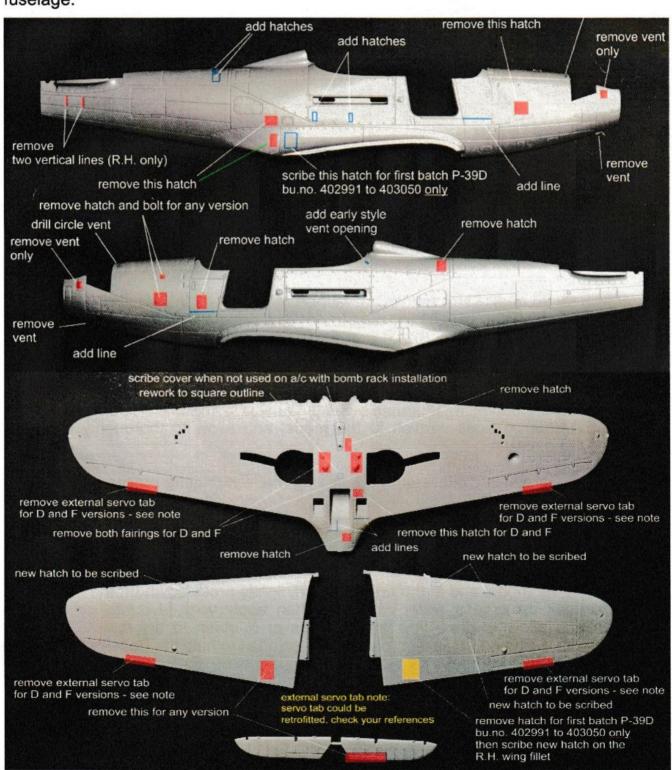
Aircraft on the decal sheets that could have a smaller radio door on the left and a larger one on the right are: A53-9, A53-11, A53-20. Without pictures it is hard to determine which were modified.

#### **Aerials**

A53-9 (TZ) has a visible antenna wiring installation. It is unknown whether a radio with such installation was also used on the other aircraft - theoretically such an antenna increased the radio range. A53-11 may be the same.

#### Vents, Hatches and Panels

There are a variety of optional improvements that can be made to exactly represent the P-39D and F models. These are best covered by diagrams of the wing and fuselage.



#### Wheels

For the P-39D and F the smaller nose wheel (Part 42) should be used.

#### **Stencils**

These were most likely not re-applied after RAAF repaints but are present on Olive Drab aircraft which were not repainted.

## Summary — Aircraft on the decal sheet

Model	Serial	Code	Hatch	Aerial	20mm	Prop	
P-39F	A53–6	FA-F			cut	60	
P-39D A53-9		T–Z	X	Х	cut	61–X	
P-39D	A53-11	T–X	х	(X)	cut	61-X	
P-39D	A53-12	GR-T			cut	61	
P-39D	A53-213	T-Y			cut	61	
P-39D	A53-20		Х		Х	61–X	

Hatches X = Could have a smaller radio door on left and a larger one on the right. Aerial X = Visible wiring to antenna lead—in and location anchors.

20mm X = Flame damper on cannon.

Prop X = Propeller repainted black.

## **Digital Decal Application**

When applying decals to the model be very gentle as the decal film is very thin and may tear if mistreated.

- 1. Apply a coat of gloss varnish to the model and allow to thoroughly dry before applying the decals.
- 2. This decal sheet is digitally printed, utilising modern printing processes. The decal sheet will require trimming of individual subjects. Soak the decal in warm water to which a drop or two of dishwashing liquid has been added. Allow the decal to rest on a smooth surface for a short period of time and then slide the decal off the backing paper onto model surface.
- 3. Once on the model and in the right position, lightly press down on the decal with a Q-tip to soak up excess water. You may then apply your favourite decal settling solution and allow to dry. Allow any creases or bubbles to dry thoroughly before piercing with a pin and applying more settling solution to help the decal conform to the surface. Repeat the process as required. Apply a coat of gloss varnish over the entire model once the decals are thoroughly dry. This ensures that the decals are sealed to the model's surface and carrier film is camouflaged when the final coat of matt varnish is applied.

## Profile Drawings of P-39 Airacobras in RAAF Service



Earth Brown FS 30099



Yellow FS 33538



Bell Interior Green Approx FS 34151



Neutral Gray 43 FS 36173



Matt Black FS 37038



Extra Dark Sea Grey Olive Drab 41 FS 36118



Approx FS 34087



**Dull Aluminium** 



Sky Blue FS 35550



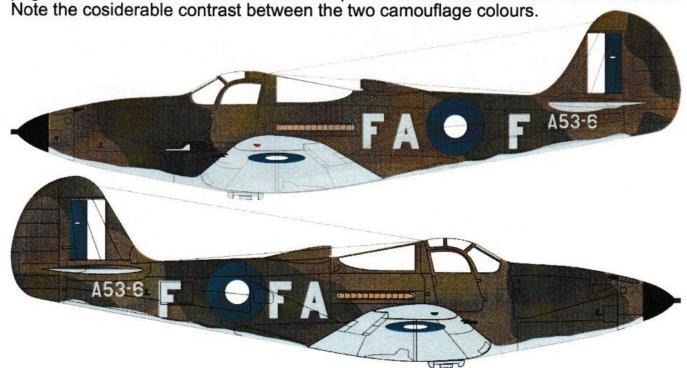
Foliage Green FS 34092

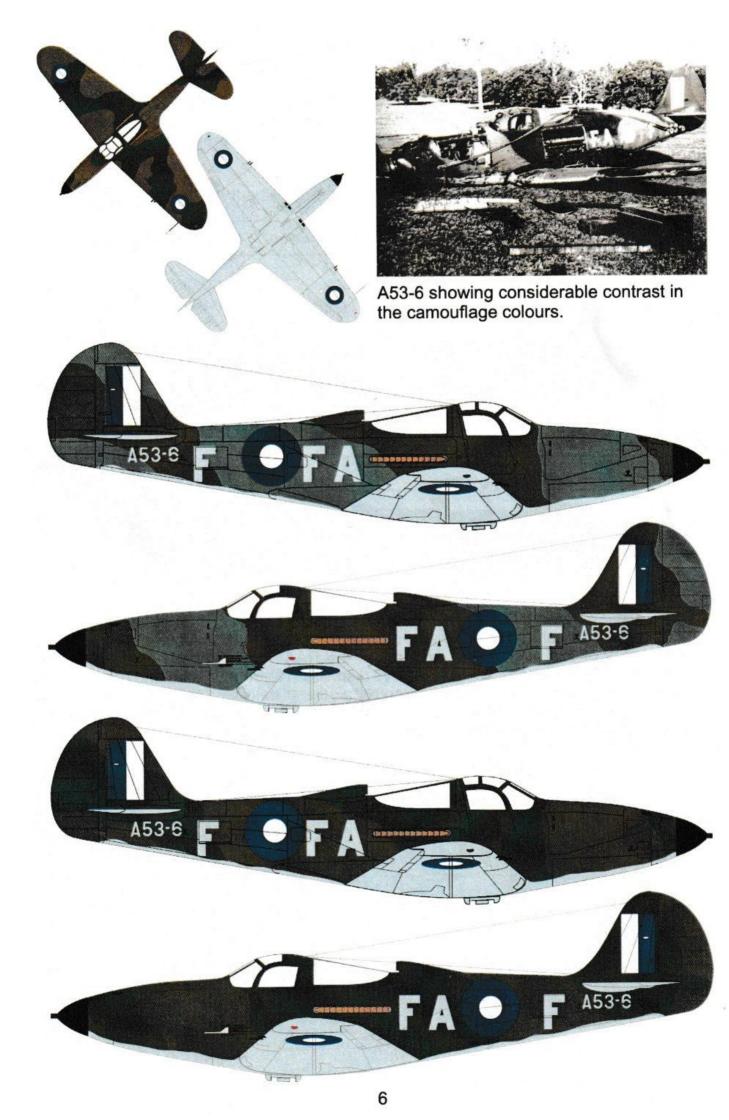


Dark Sea Grey FS 36173



A53-6 was operated by 24 Sqn from August to October 1942, then by 82 Sqn, forced landing at Liverpool (NSW) and was returned to the USAAF in November 1943. The only photos of this aircraft that exist are in the RAAF crash report. The camouflage scheme has been the subject of extensive discussion for many years and no definative answer can be found. We have presented all the possibilities here and on the next page, based on RAAF instructions of the period so the modeller can make a choice.







A53-9 was flown by 23 Sqn from August 1942 to Frebruary 1943 before being allocated to 83 Sqn until May 1943, when it was returned to the USAAF.



A53-11 was operated by 23 Sqn from August 1942 to January 1943. On 26 January 1943 the aircraft crash landed, sustaining damage to the wings, fuselage and engine. The aircraft was transferred to 3 Aircraft Depot for repair and was returned to the USAAF in October 1943.



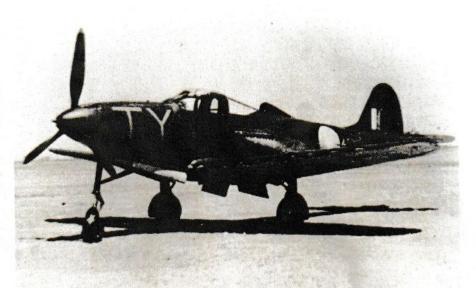


A53-12 was flown by 23 Sqn from August 1942 to Frebruary 1943. It was then operated by 83 Sqn, 24 Sqn and 82 Sqn for short periods, before being damaged beyond repair in a forced landing in July 1943. The remains were returned to the USAAF.





A53-13 was flown by 23 Sqn from August 1942 to February 1943, then 83 Sqn, before 82 Sqn used it for short periods, finally being returned to the USAAF in mid September 1943.



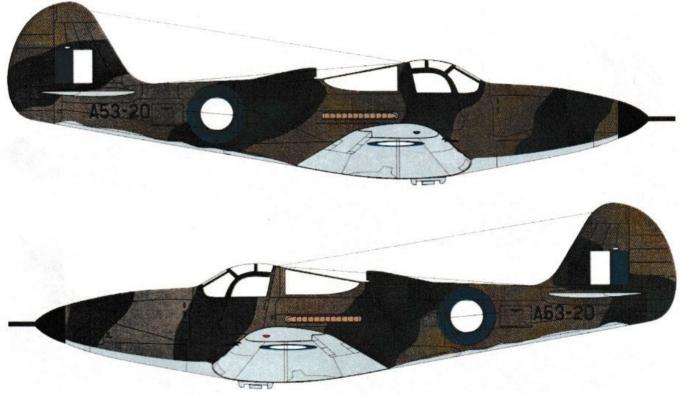






A53-20 was received by Number 3 Aircraft Depot in July 1943 and was allocated to 82 Sqn but this was cancelled and the aircraft was returned to the USAAF in September 1943. The camouflage pattern worn by this P-39 does not match any known RAAF drawing and may well be (despite the lack of a high quality photograph) an early attempt to apply a disruptive camoutlage scheme.



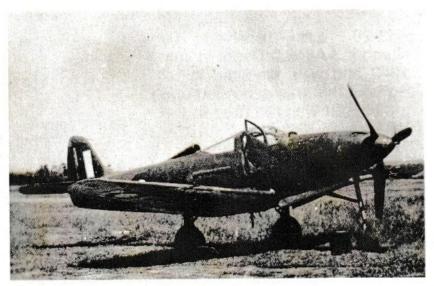


Note that this aircraft is fitted with a flash suppressor.





A53-unknown P-39 Number 1. This aircraft is noted to be A53-1 in a single photograph. If this is correct, it served with 24 Sqn from August 1942 to February 1943. It crashed in February 1943 and was written off.





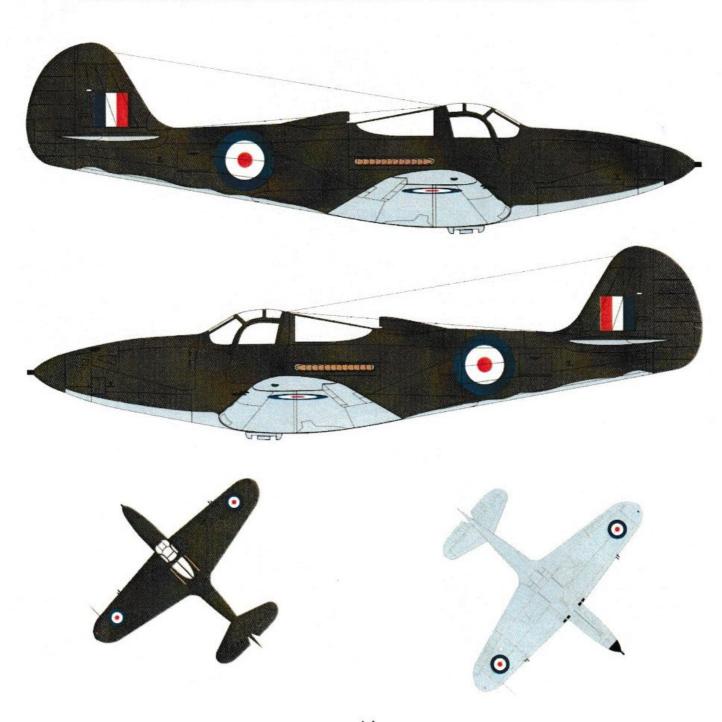


A53-unknown Number 2. This aircraft is fitted with an anodised aluminium propeller which appears to be devoid of the yellow painted tips. The spinner appears to be either a replacement that has yet to be painted or possibly may have been finished in RAAF Sky Blue.



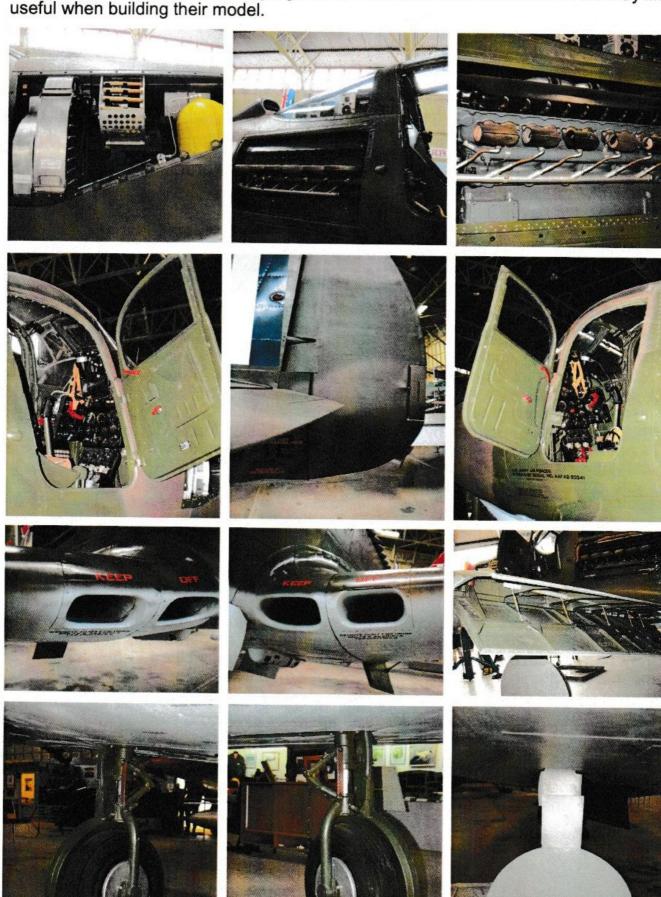


A53-unknown Number 3. The serial number of this aircraft is not known.



## Selected reference photographs

The photographs on this page highlight details of the Airacobra that modellers may find useful when building their model.





The drawings above depict the finish applied to Aircabra propellers. Aircraft initially left the Bell factory with anodised metal propellers. Later, the blades fitted were painted black. Replacement and ovehauled blades were either anodised metal or black. Consult your reference photos to confirm the finish of the proeller blades fitted to your chosen subject.

#### References

The Modeller's Guide to the Bell P-39 Airacobra in RAAF Service, Gary Byk, Red Roo Models, Melbourne 1997. ISBN 0 646 32869 7.

Cobra! Bell Aircraft Corporation 1934 - 1946, Birch Matthews, Schiffer Publishing Ltd, Atglen, USA. ISBN: 0-88740-911-3.

### Acknowledgement

This guide was prepared by Polish master modeller Marek Mozdzen. Mark (aka *Hobbykiller* on some web sites) is a subject matter expert on aircraft including the P-39 and is a consultant to several model companies.

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