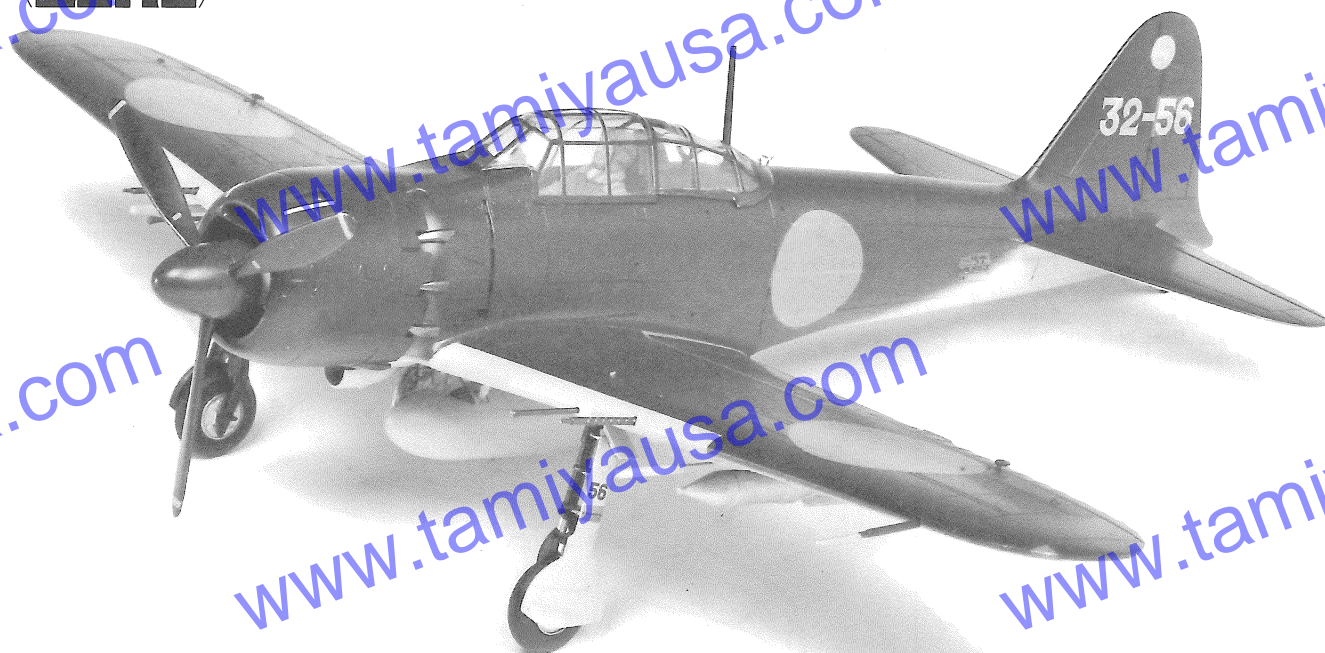


# MITSUBISHI A6M5c ZERO FIGHTER

## (ZEKE)



In April 1939, shortly after the first Japanese Zero began test trials, modification drawings were already taking place on the zero in The Mitsubishi design room, to keep pace with the anticipated long air war in the Pacific. After the initial superiority of the Zero over allied aircraft began to wane, due to new U.S. types being introduced, Mitsubishi was hard pressed to maintain a superiority. The introduction of the Grumman F6F and Chance Vought F4U, provided a need for more

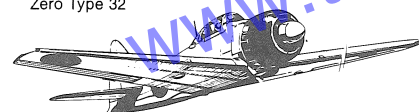
craft, and their self sealing fuel tanks. The 13mm weapon was greatly more effective; however, due to its increased weight, only one of them could be housed in the cowling and one in each wing. The 7.7 machine guns were removed from the cowling and one 13mm gun was mounted on the right hand side. This installation also made necessary the enlarging of the right hand projectile exit and cowling tube input, of the cowling, giving it an unbalanced look when viewed from the top. Code named "Zeke" by the Allies, the Type 52c was powered by a 14 cylinder twin row NK1F Sakae 21 engine of 1,130hp, of which later versions were alcohol injected. In addition to the machine guns and cannons, the 52c could also carry four air to air rockets or four 30kg air to air bombs or two 60kg air to ground conventional bombs. The air to air systems were initiated in an attempt to disrupt B-29 operations by firing the rockets or dropping the small bombs on the formations. The bombs were timed to airburst a certain number of seconds after release from the fighters.

Serie.

Gesamtproduktion der Type 52 waren 10.449 Flugzeuge, von denen 6570 die Firma Nakajima herstellten. Der erste Einsatz erfolgte im August 1943, zu einer Zeit, in der sich die Japaner von den Inseln im Süd-Pazifik bereits zurückzogen. Der Type 52c war die letzte Serie der A6M5 und sehr erfolgreich gegen die Alliierten durch die starke Bewaffnung: drei 13mm M.G.'s und zwei 20mm Kanonen. Von Mitsubishi wurden 93 Zeros Type 52c hergestellt, die Zahlen von Nakajima sind nicht bekannt. Viele der Type 52 und 52b Zero's wurden auf die neue Bewaffnung umgestellt. Das 7,7mm M.G. der frühen Zero's war durch die stärkere Panzerung der U.S. Flugzeuge nicht sehr wirkungsvoll, die 13mm Kanone jedoch sehr erfolgreich, eines war in der Propellerverkleidung und je eines in jedem Flügel untergebracht.

Bei den Alliierten war die Zero als Zeke bekannt, der Type 52c hatte einen 14 Zylinder-Zwei-Reihenmotor NK1F Sakae 21 mit 1.130 PS, spätere Motore hatten Alkoholeinspritzung. Zu den M.G.'s und

Zero Type 21

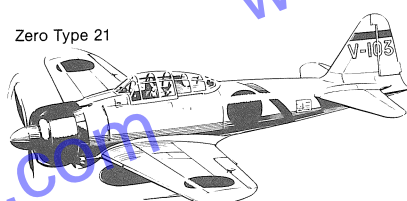


Kanonen konnte sie 4 Luft/Luft Raketen oder 4 Luft/Luft Bomben, oder auch zwei 60 Kilo Luft/Bodenbomben tragen. Das Luft/Luft System wurde als Versuch eingeführt, um die B-29 Bomber Einsätze zu stören. Die Luft/Luft Bomben hatten Zeitzündler, um wenige Sekunden nach Abwurf in der Luft zu explodieren.

### «Specifications of A6M5c»

Engine	: 14 cylinder twin row NK1F Sakae 21
Wing Span	: 11.00m
Length	: 9.060m
Height	: 3.509m
Maximum Speed	: 540km
Armament	: 20mm cannon x 2 & 13.2mm M.G. x 3

Zero Type 21



firepower, armor protection and capability led the combined companies of Nakajima and Mitsubishi to produce the A6M5 series of aircraft. Total production of the Type 52 series consisted of 10,449 aircraft of which Nakajima produced 6,570. It first entered combat in August 1943 at a time when the Japanese forces were withdrawing from previously held islands in the South Pacific. The type 52c was the last of the A6M5 series, and the most effective against Allied aircraft due to its armament configuration three of 13mm machine guns and two 20mm cannons. A total of 93 Type 52c zeros were produced by Mitsubishi, and an unknown number by Nakajima; however, many of the type 52 and 52b zeros were field modified to "c" weapons configuration. The 7.7mm machine guns, housed in the cowling of the Zero since its first introduction, proved to be less effective during the latter stages of the conflict, due to the heavier armor protection of allied air-

Kurz nach den Testversuchen mit der japanischen Zero im April 1939 wurden bereits Verbesserungspläne im Mitsubishi Werk an diesem Flugzeug begonnen, Hauptgrund war der vorausgesehene lange Luftkrieg im Pazifik. Nach der Überlegenheit der Zero über die alliierten Flugzeuge am Anfang des Krieges, kam es zu einem Matt, da die U.S. neue Flugzeugtypen einsetzen, Mitsubishi musste alles daran setzen, die Überlegenheit weiterhin auf japanischer Seite zu halten. Die Einführung der Grumman F6F und Vought F4U verlangte eine grössere Feuerkraft, stärkere Panzerung und eine grössere Reichweite eines Flugzeuges, dies führte zur Vereinigung von Nakajima und Mitsubishi und zur Herstellung der A6M5

# 1/48 ZERO FIGHTER

★ Study the instructions and photographs before commencing assembly.  
 ★ You will need a sharp knife, a screwdriver, a file and a pair of pliers.  
 ★ Do not break parts away from sprue, but cut off carefully with a pair of pliers.

This mark denotes paint color, and the color names and numbers are for Tamiya Acrylic Paints

★ Vor Beginn die Bauanleitung studieren und den Nummern nach die Elemente zusammenbauen.

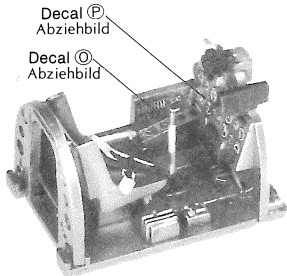
★ Bauteile nicht vom Spritzling abbrechen, vorsichtig abschneiden oder abwickeln.

Dieses Zeichen zeigt die Farbe und Farbnummer der Tamiya Acryl Farben.

## 1 <<Cockpit Detailing>>

Drill out seat back indentations with a 0.9mm drill. Seat belt and harness is painted masking tape.

Die Einkerbungen der Rückenlehne mit 0,9mm Bohrer einbohren. Sitzgurt wird aus bemaltem Abdeckband hergestellt.

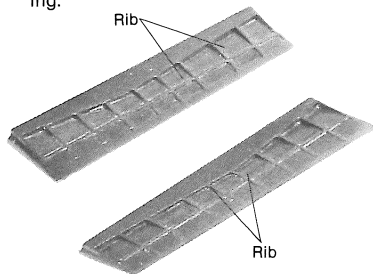


Decal (P) Abziehbild  
 Decal (O) Abziehbild

## 3 <<Flap Detailing>>

<<Klappe>>

Split flaps had sub ribs and to simulate this .03mm sheet plastic is first laid flat on the leading edge, then cut to outline. .03mm is then laid edgewise into grooves and glued into position. Inner surface is then sanded and filed from leading edge to trailing edge, as shown in photo, to the wedge shape required. Install at an angle of 0~60 degrees. 10 degrees for take off, and up to 60 degrees for landing.



Rib

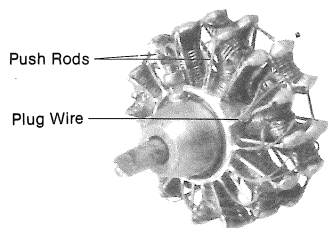
Rib

## 4 <<Engine Detailing>>

<<Sternmotor>>

Pushrods are stretched sprue 5.4mm long and 0.4 in dia. (28 req) Attach to, and below, projecting pins on front cylinder bank and to rocker boxes on rear bank. Fine copper wire is used for ignition and runs from 14 0.2 mm holes drilled in ignition ring, two wires per hole. Front bank wiring runs up front cylinders right pushrod and into .02mm holes drilled in each head, front and rear. Rear bank wires run up left pushrod. (total of 28 wires secured in place with cyanoacrylate)

Oil tubing runs between each cylinder rockerbox, on opposite side from pushrods. Use 0.4 mm stretched sprue.

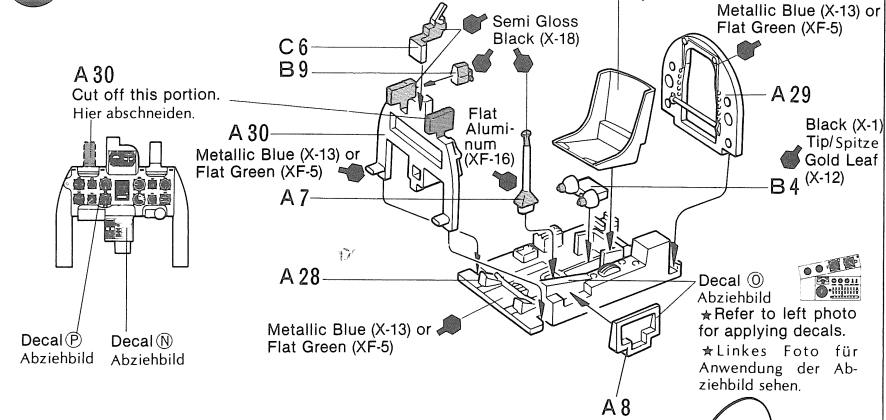


Push Rods

Plug Wire

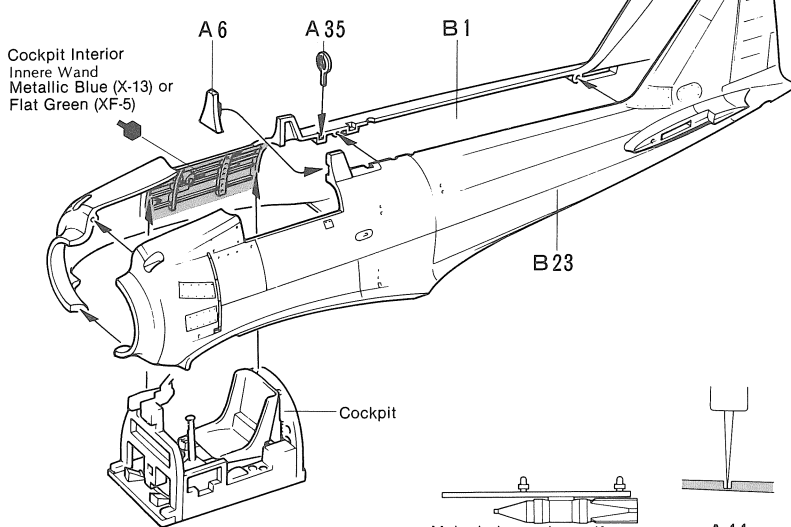
## 1 Cockpit Assembly

Zusammenbau der Cockpit



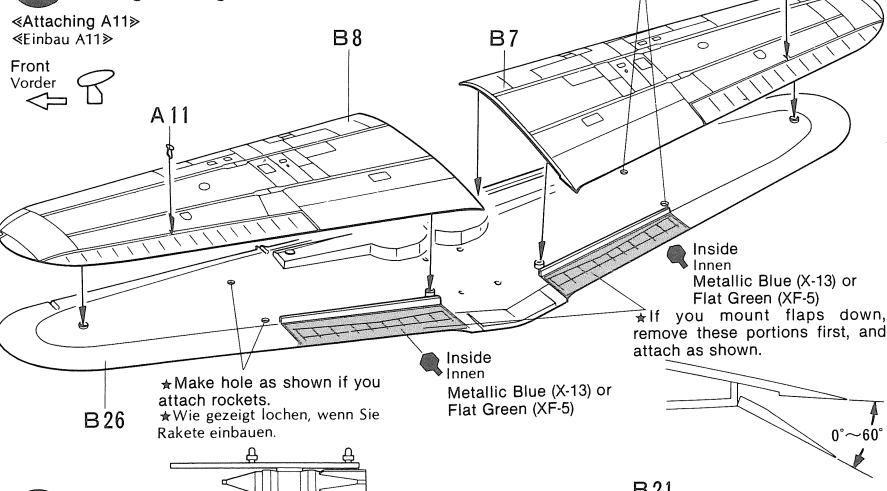
## 2 Fuselage Assembly

Montage der Rumpfhälfte



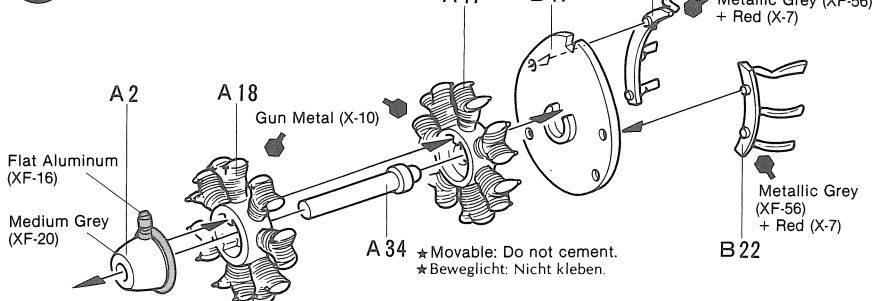
## 3 Main Wing Assembly

Montage der Tragflächen



## 4 Engine Assembly

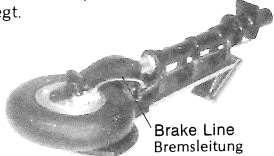
Motorenbau



### 6 «Landing Gear Detailing» «Fahrwerk»

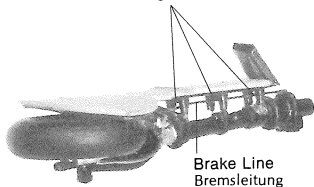
Drill out and shape oleo strut scissors (top) and cut away center portion of main gear door attachment bars. Run copper wire (brake tubing) from wheel well, down between center of gear door and strut, thru top scissors and fasten at moulded fitting on wheel.

Zwischen Fahrwerkstrebe und Verkleidung wird ein Kupferdraht als Bremsleitung gelegt.



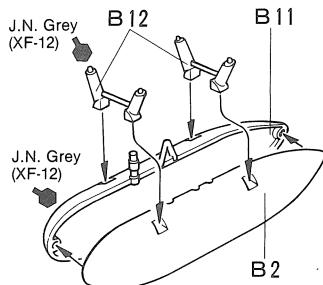
Brake Line  
Bremsleitung

Cut a groove to attach brake line.  
Einzubauen Bremsleitung nutzen.

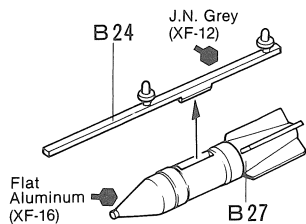


Brake Line  
Bremsleitung

### 7 «Drop Tank Assembly» «Abwurf Tank Einbau»



«Rocket Assembly»  
«Rakete»



«Rockets»

Air to air rockets were developed to combat the threat of B-29 bombers in late 1944, and were employed against them and other types until the end of the conflict. A mixed load of rockets and bombs were not known to have been carried by the same aircraft.

«Main Gear Positioning»

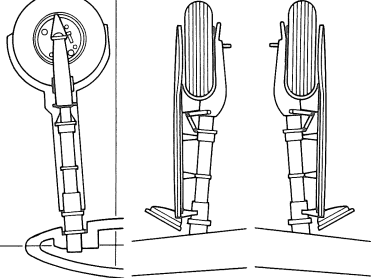
«Stellung der Fahrgestelle»

«Left Gear»

«Right Gear»

«Links»

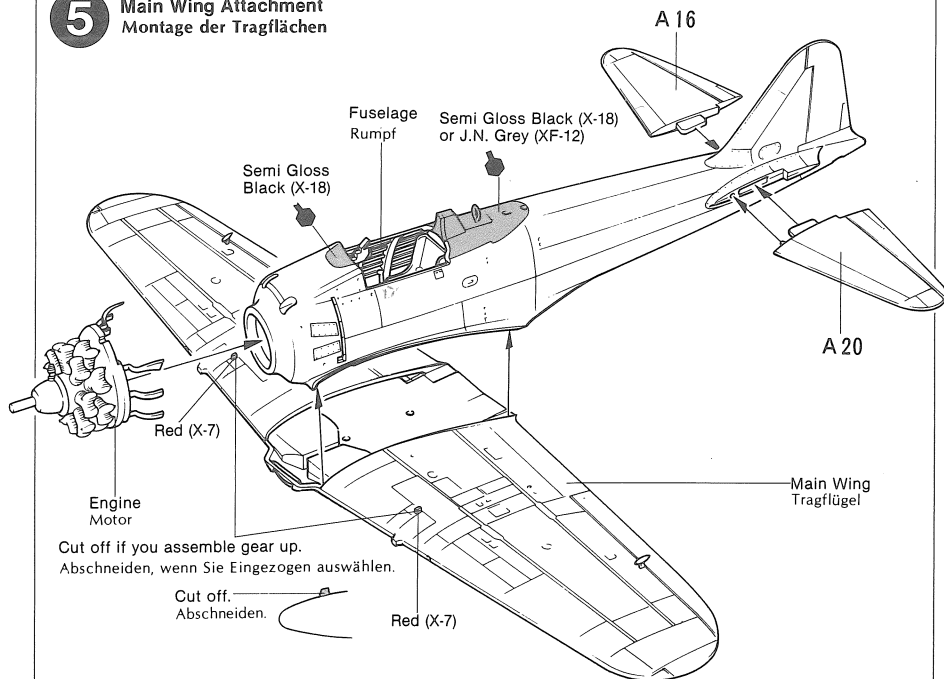
«Rechts»



★Gear struts angle inwards and forwards slightly.

★Fahrgestellstreben sind etwas nach innen und vorn geneigt.

### 5 Main Wing Attachment Montage der Tragflächen



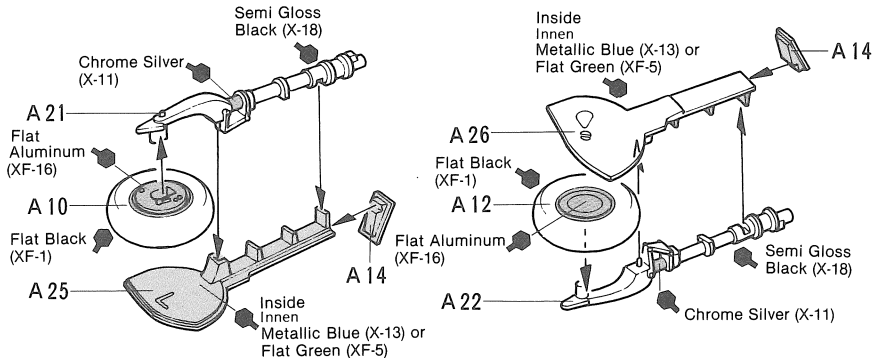
Cut off if you assemble gear up.  
Abschneiden, wenn Sie Eingezogen auswählen.

Cut off.  
Abschneiden.

### 6 Landing Gear Assembly Fahrgestell

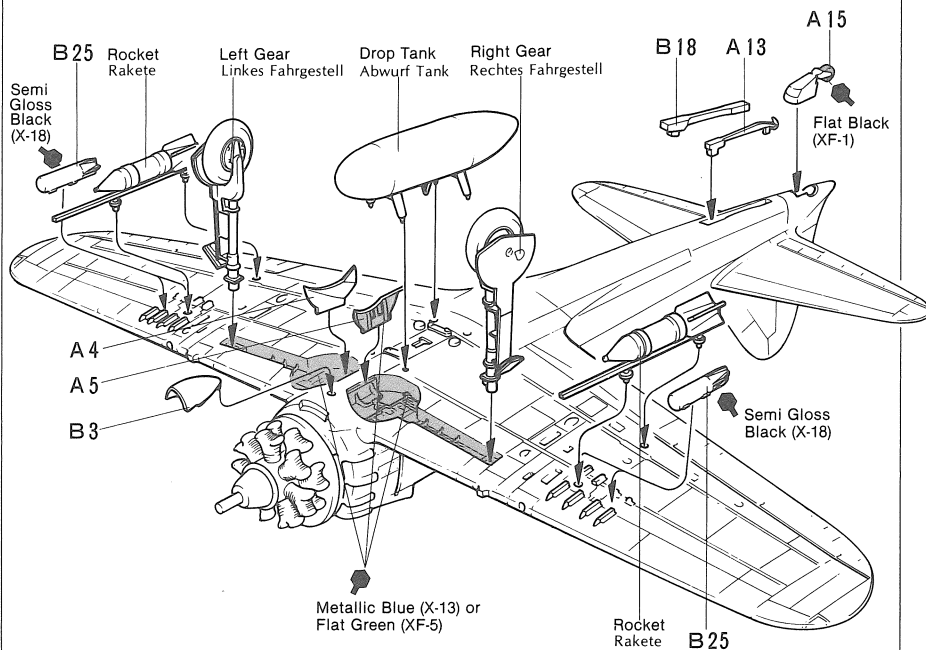
«Left Gear»  
«Links»

«Right Gear»  
«Rechts»



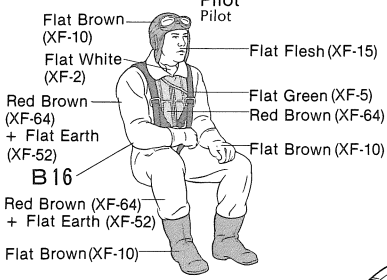
### 7 Under Surface Details: Gear Down Zusammenbau der Unterseite: Ausgefahren

★Select either A13 or B18.  
★A13 or B18 auswählen.

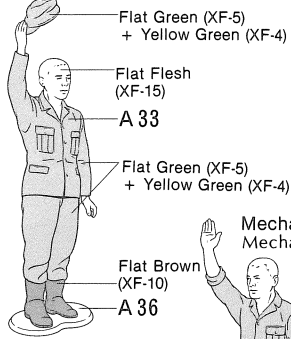


<<Figures>>

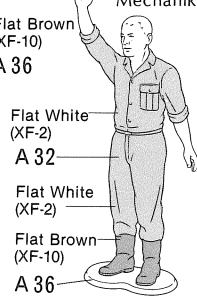
<<Figuren>>



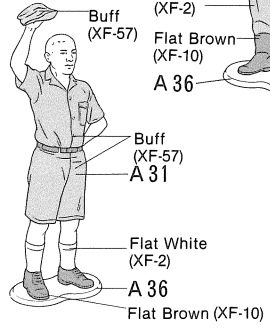
**Petty Officer**  
Maat



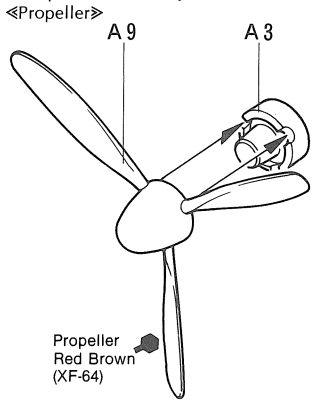
**Mechanic**  
Mechaniker



**Mechanic**  
Mechaniker



<<Propeller Assembly>>

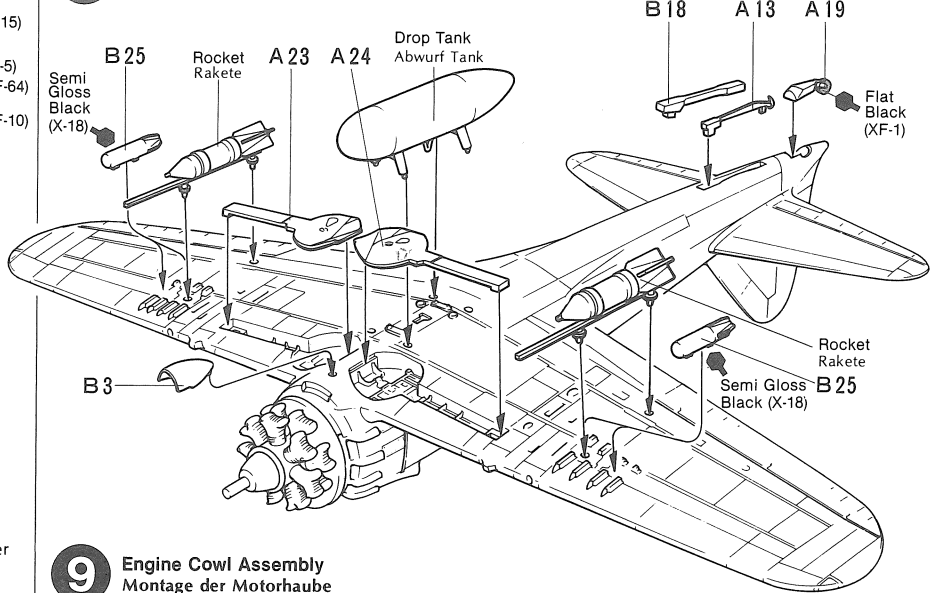


★ Engine Cowl & Propeller: Do not cement.  
★ Motorhaube und Propeller: Nicht kleben.

★ A27 & C5: Not used.  
/Nicht nützen.

**8 Under Surface Detail: Gear Up**  
Zusammenbau der Unterseite: Eingezogen

★ Select either A13 or B18.  
★ A13 oder B18 auswählen.

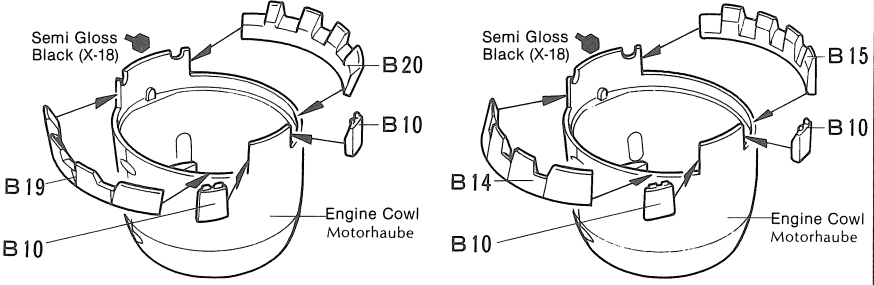


**9 Engine Cowl Assembly**  
Montage der Motorhaube

Cowl Flaps were open when engine was "run-up" on the ground; during taxiing, and during climb-out, to keep engine head temperatures in the green.

<<Flap-open>>  
<<Offen>>

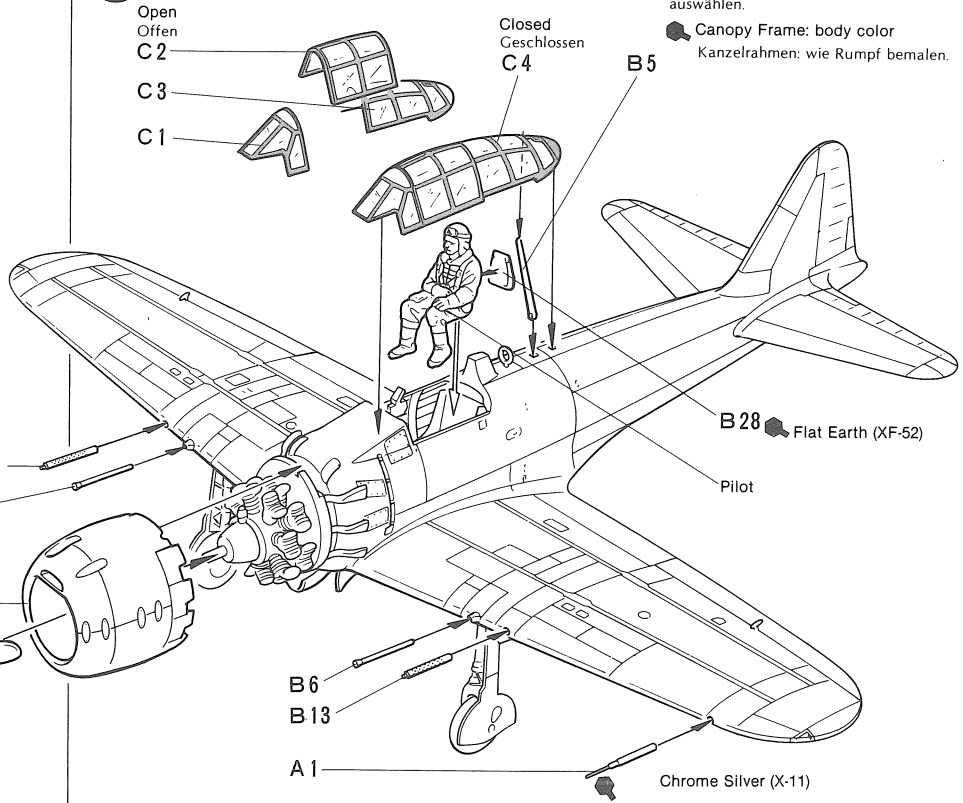
<<Flap-closed>>  
<<Geschlossen>>



**10 Attaching Canopy**  
Kanzel Einbau

★ Canopy: Select either open or closed.  
★ Kanzel: Geschlossen oder offen auswählen.

● Canopy Frame: body color  
Kanzelrahmen: wie Rumpf bemalen.



«Painting of the Type 52c»

As delivered from the factory, all type 52 zeros were painted JN green on the upper surfaces and JN matt light grey on the under surfaces. Cowling was a matt black. Spinner was normally white or natural aluminum. An orange yellow identification band was on the leading edge of each wing, from the root to approximately 1/2 way out to the wing tips. A white border was around the national insignia. The vast majority of Type 52c zeros saw extensive use throughout the South West Pacific and became aged quite quickly, the colors faded due to the extremes of the climate. Maintenance facilities were almost non-existent so that the exterior condition of the aircraft normally looked well used. Interior surfaces were either a pale light green or the standard metallic blue/green preservative.

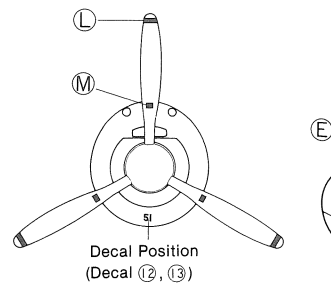
«Detail Painting»

Engine cylinders. Aluminum, finished with a thin wash of matt black to enhance the fins. Crankcase: light grey. Pushrods, wiring and oil lines: Gloss black. Ignition ring: Aluminum. Propeller: front was aluminum and rear was flat black or dark red brown.

«Bemalung der Type 52c»

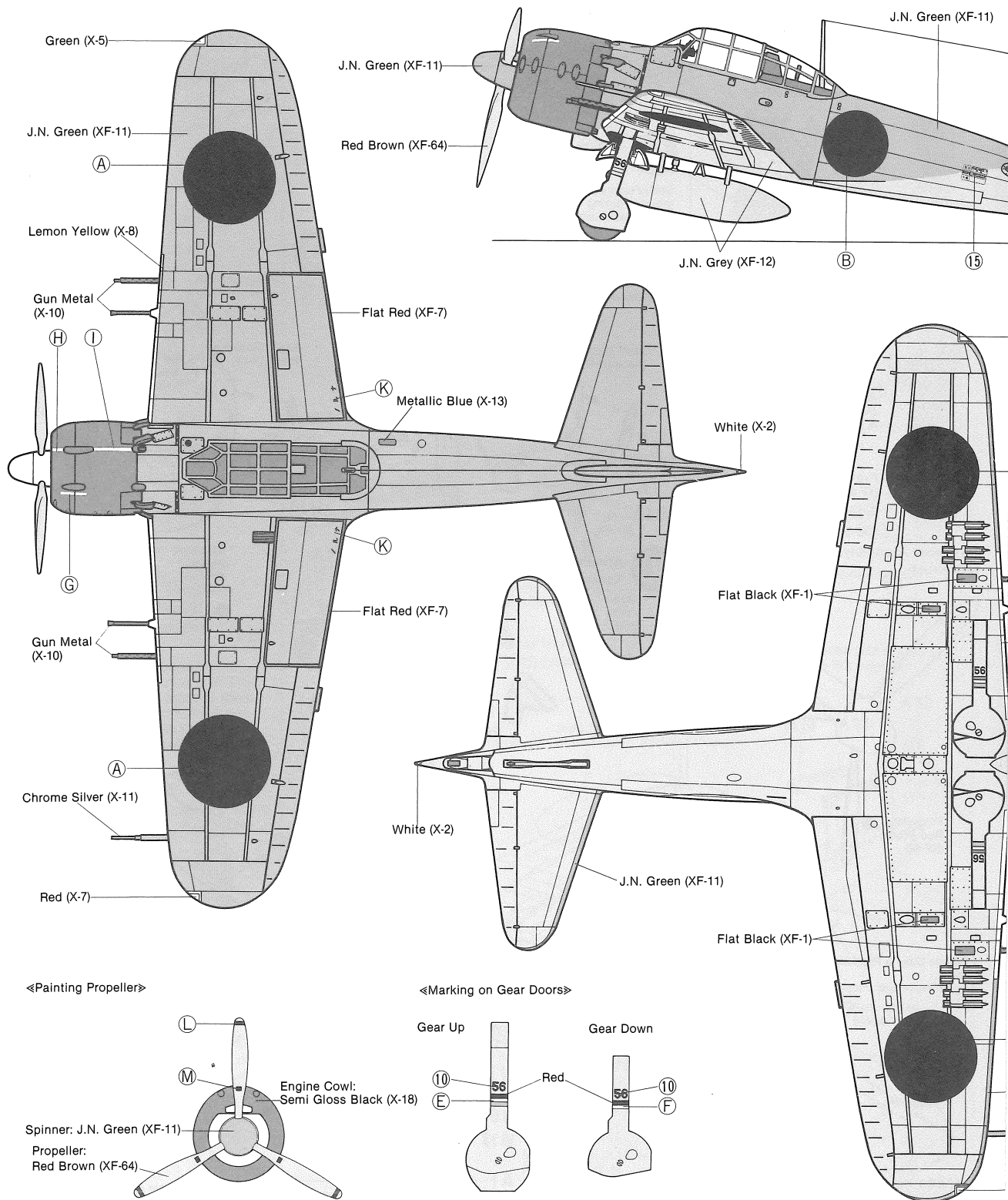
Von der Fabrik wurden die Type 52 Zeros mit JN green'er Oberfläche geliefert, die Unterflächen waren JN matt hellgrau. Cowling war matt-schwarz, der Spinner war normal weiss oder aluminium. Ein orange/gelbes Streifen war an der Kante der Flügel vom Rumpf bis ca. zur Hälfte der Flügelenden. Das Nationalitätszeichen war weiss umrandet.

«Marking on Propeller and Engine Cowl»

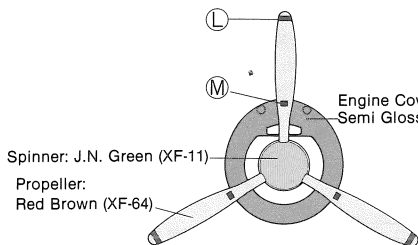


Painting Example

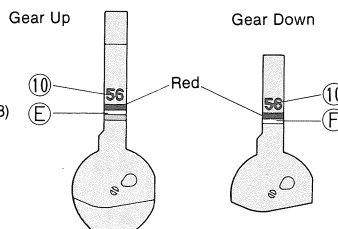
① 332 Flying Group, Iwakuni AB, Sep. 1944



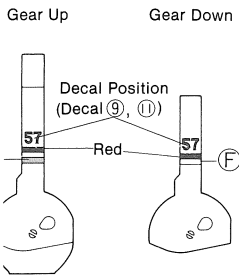
«Painting Propeller»



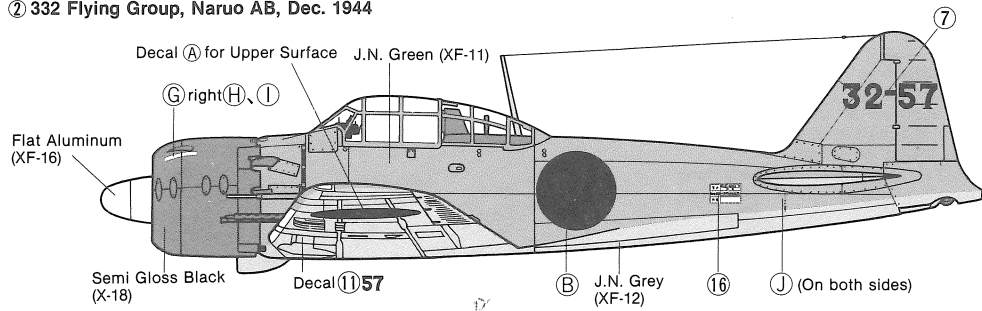
«Marking on Gear Doors»



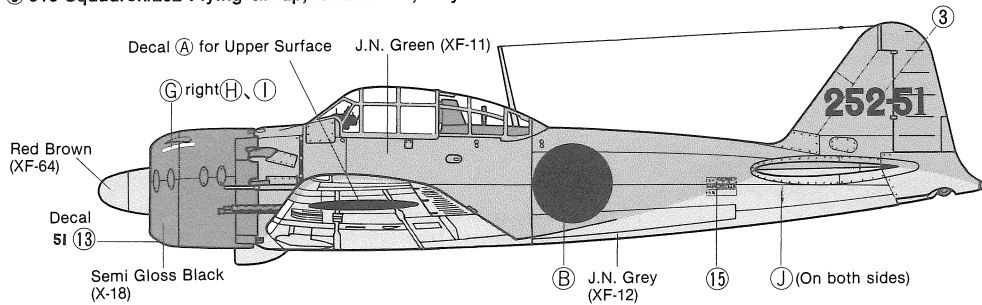
<Marking on Gear Doors>



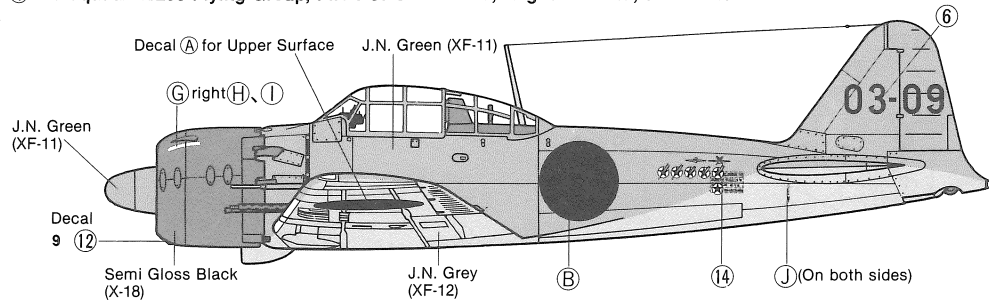
② 332 Flying Group, Naruo AB, Dec. 1944



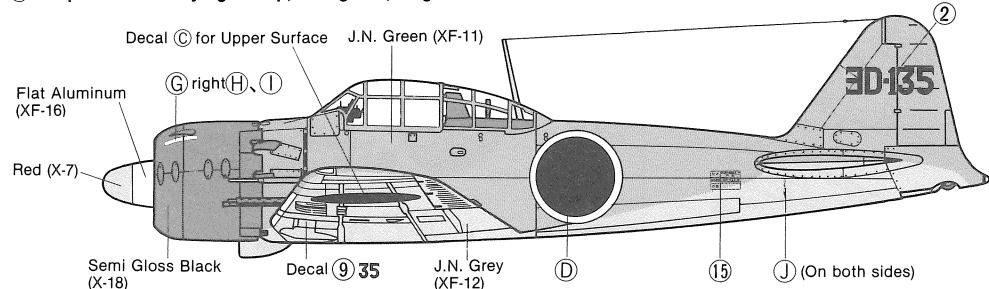
③ 316 Squadron/252 Flying Group, Kokubu AB, May 1945



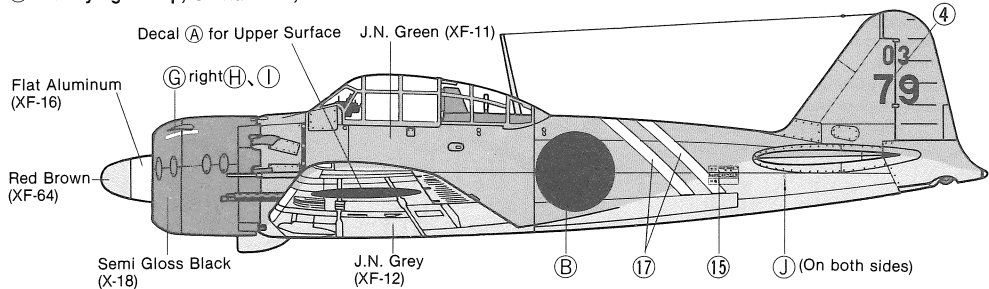
④ 303 Squadron/203 Flying Group, Pilot: CPO Tanimizu, Kagoshima AB, June 1945



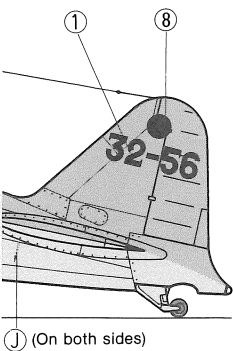
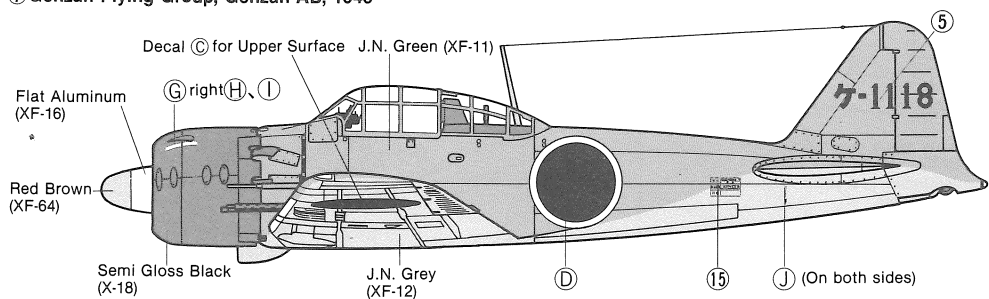
⑤ 1 Squadron/302 Flying Group, Atsugi AB, Aug. 1945



⑥ 203 Flying Group, Ohmura AB, 1945



⑦ Genzan Flying Group, Genzan AB, 1945

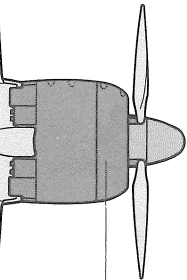


Green (X-5)

A



Lemon Yellow (X-8)



Semi Gloss Black (X-18)



A

J.N. Green (XF-11)



Red (X-7)