

# I/48 疾風 HAYATE (FRANK)



NAKAJIMA KI84 IA

TAMIYA



A plane which since July 1942 the Nakajima Aircraft Mfg. Company had designed and manufactured for trial under the name of KI-84 was officially adopted in April 1944 by the Army as the Fighter Type 4 "Hayate" and the mass production was started. The number of the Hayate produced by the end of World War II totalled about 3,500, which ranks next to that of the Zero and the Hayabusa but is the largest in the Japanese aircraft history in view of the number produced in about a year. The performance of the Hayate was equal to, or higher than that of the Allies' fighters of those days. This was the first fighter worthy of the name having excellent speed (climbing ability), firepower and maneuverability that became available to the Army. Those days when Japan feared she might lose the command of the air even over Japan proper, the Hayate called "the decisive fighter to turn the fate of the Greater East Asia" was accepted by fighter units with hopes as a new fighter to beat enemy combat planes. It made its first campaign over Central China as a member of the 22nd Air Flotilla. As the main-strength fighter of the Japanese Army, it later showed activity against overwhelming American planes in the Battle of Leyte in the Philippines and the Battle of Okinawa. Many were used as bomb-laden suicide attack planes to smash bodily into the enemy. The Hayate also bravely intercepted B29 bombers and ship-planes of US task forces invading Japan proper. The Allies' pilots had an extreme horror of the Japanese fighter and called it "Frank". The Hayate had a maximum speed of 624 km/h, which was higher than that of any other fighter of Japan. The high speed was much due to the excellent performance of the Nakajima's HA-45 en-

gine employed. The engine had take-off output of 2,000 hp and was 1,180 mm in maximum diameter, i.e. output per unit front area was 1.83 hp/sq cm, which was remarkable high for an air-cooled engine. Thus the engine was ideal for a fighter that was expected to fly faster. (A large number of the HA-45 engines were also mounted on the Navy's famous high-speed reconnaissance planes such as the Saiun and the Shidenkai under towards of Homare engine.) Many of the engines produced towards the end of the war, however, did not show such high performance as originally designed because of the shortage of materials and lowered working technique. Consequently, the Hayate's working ratio and flying performance were extremely lowered, and the fighter could not display its ability in full. The bad condition of the engines also resulted from the fact that the octane rating of fuel was lowered towards the end of the war. When the Hayate using fuel of 140 octane rating and high-quality ignition plugs was tested in the United States after the war, it made a record of a maximum speed of 689 km/h, and was praised as "the best one of all Japanese fighters appeared in the Pacific War".

(Photo by Koku Joho "AIREVIEW")

## (Essential Specifications)

Length of fuselage: 9.92 m Overall width: 11.238 m  
 Overall weight: 2,698 kg (tare); 3,890 kg (including regular equipment)  
 Engine: Air-cooled HA-45 engine of Hoshi type, 18-cylinder;  
 (Nominal output): 1,780 hp/6,200 rpm.  
 Maximum speed: 624 km/h (6,500 m)  
 Cruising range: 2,168 km/3,898 kg (a reserve fuel tank carried)  
 Armament: Two 12.7 mm HO-103 machine guns (fuselage).  
 Two 20 mm HO-5 machine guns (main wings).  
 Two 30-250 kg bombs.

## PAINTING AND APPLYING DECALS

### (Basic Painting)

Basic colours are: dark green (top and sides of the fuselage, upper surface of the main wings and horizontal stabilizer); light greyish blue (lower surface); and orange yellow-identification colour (half-nearer to the fuselage-of the main wing front edges). Towards the end of the war, some planes had dark green painting called "special attack painting" and some had no overall painting with silver duralumin exposed except on the top of the nose which was painted black for prevention of reflexion. (The black paint was also applied to the nose top of some planes with green painting.) It was a general rule that Japanese planes in overseas territories should have a narrow white line called the border breakthrough line or field identification mark. Planes belonging to interception forces in Japan proper had a national insignia on a white line or square so that ground units could distinguish them from enemy planes. The inside of the fuselage and the wheel cover wells were painted in transparent blue preservatives (some say these were dark opaque bluish grey) directly on duralumin material. See colour drawing.

### Basic Painting

Flat black for prevention of reflexion applied to silver planes with no overall painting.

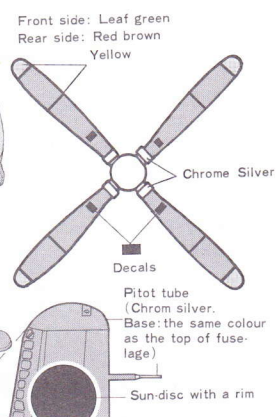
Sun-disc with a rim

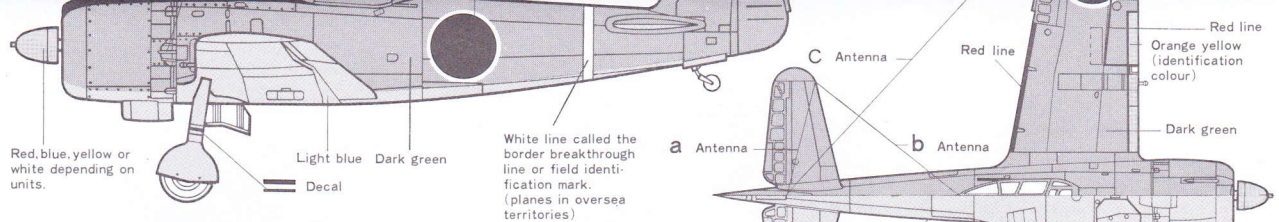
Exhaust pipe: Scorched-iron colour Antenna: Black

### Painting of Pilot

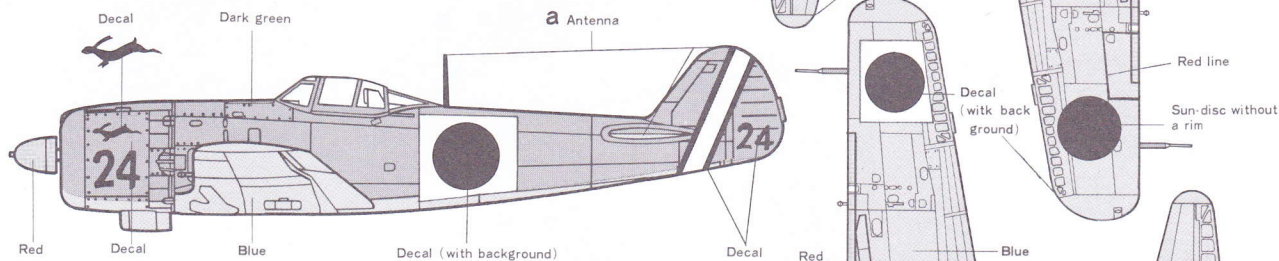


### Painting of Propeller

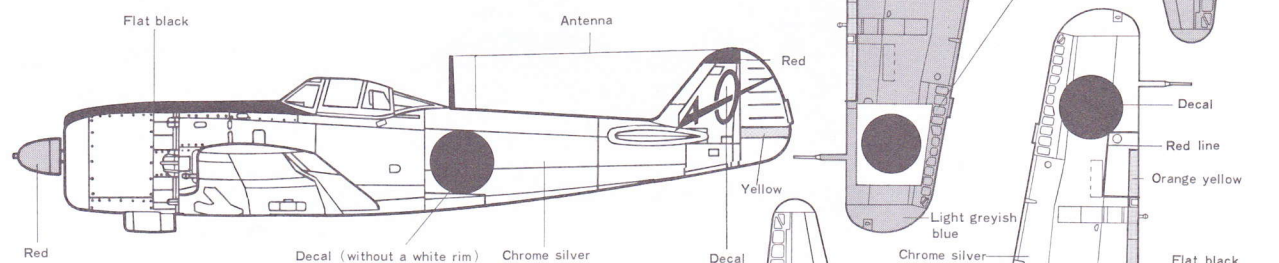




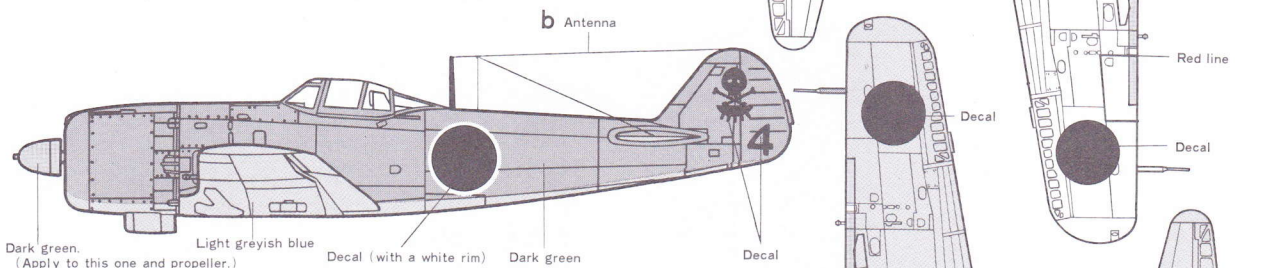
① Plane piloted by Staff Sergeant Joten Naito of the Kurai Unit of the 502nd Temporary Interception Corps (March - May, 1945. Nakatsu Airfield)



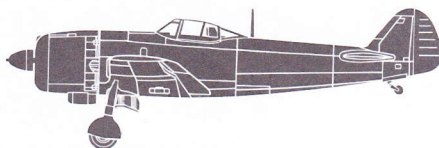
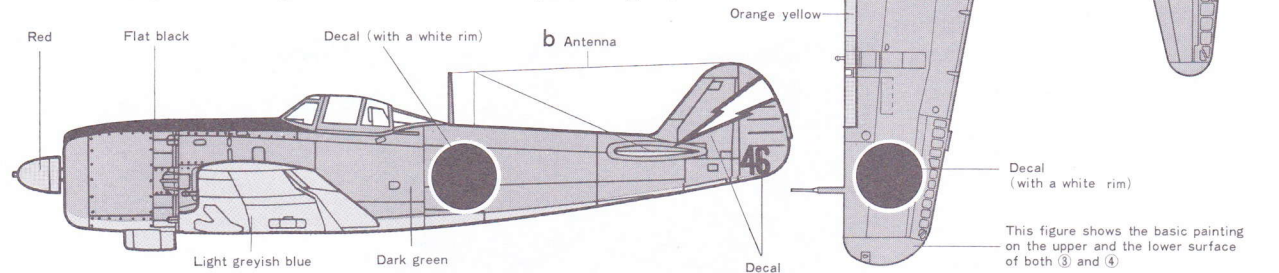
② Plane belonging to the 1st Unit of the 104th Air Group (1945. Anshan Airfield in South Manchuria)



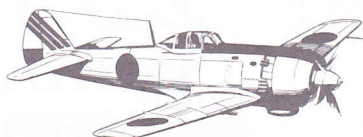
③ Plane belonging to the 58th Shimbu Unit of the Special Attack Corps (Miyakonojo Airfield in Miyazaki Prefecture. Okinawa)



④ Plane belonging to the 2nd Squadron of the 11th Air Fleet (1944. Philippine)



# KI84 IA HAYATE



## Read before Your Assembly Work

This kit can be constructed in a state of either staying on the land or flying in the air. Parts should be cut off the runner in the order of construction with a knife or a pair of nippers. Parts should be assembled for trial before the application of adhesive to make sure that they are assorted properly. Overall painting is illustrated overleaf. For painting of small parts, see instructions given in the construction figures.

Fig. 3

Apply Decal in place before gluing Fuselage Parts 3 and 29 together.

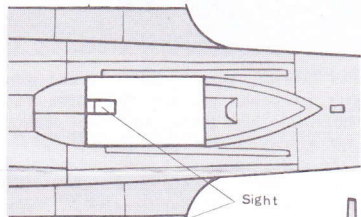


★Cut Decal on the center line in two together with pasteboard and glue them to Fuselage.

Fig. 4

Glue 38, and then 36 and 37 to Fuselage.

Where to fix Sight



Fixing angle of Main Wing and Wheel Stud

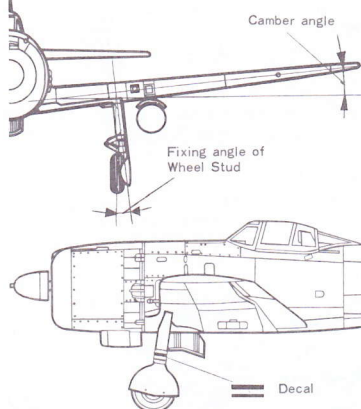
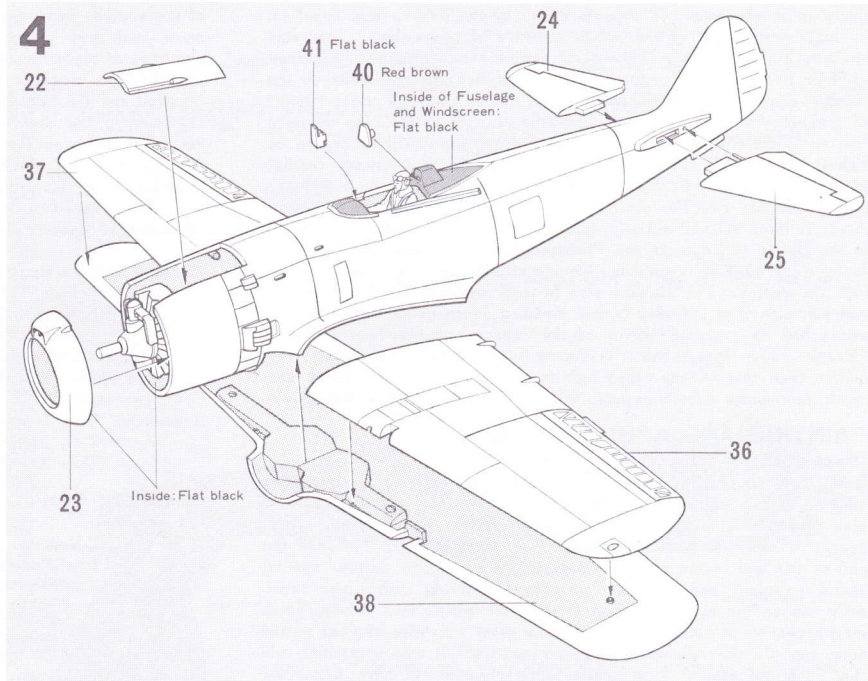
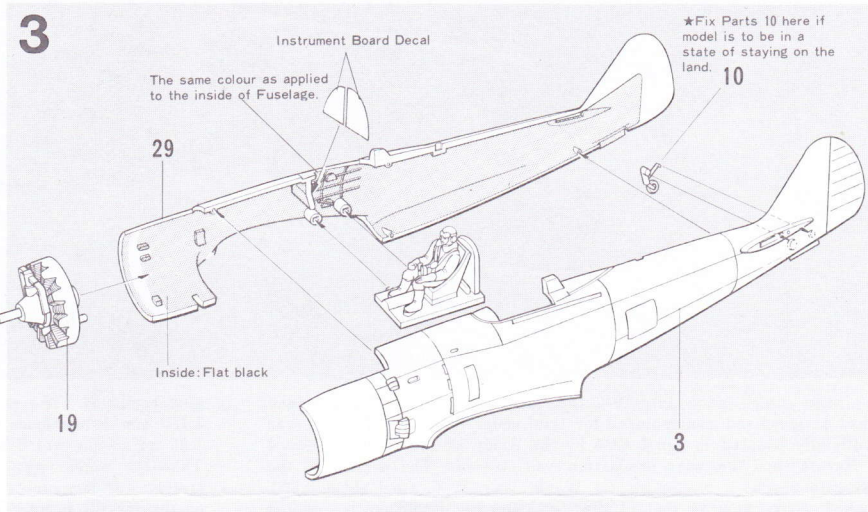
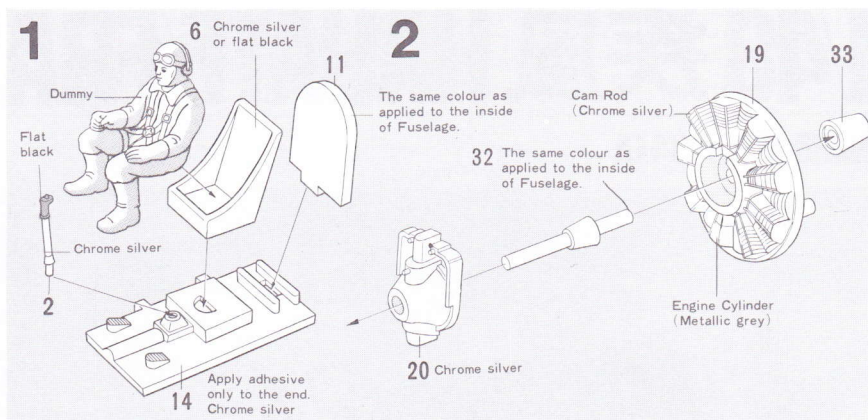


Fig. 5

Fit 4 to 12, and then fix 12 to Main Wing. It is easier to fix 27 and 28 in the order of 27, 28, 28 and 27 from the



the order of 27, 28, 28 and 27 from the front to the rear of Main Wing. If your model is to be in a state of flying in the air, remove Rear Wheel Cover from Fuselage.

How to remove Rear Wheel Cover

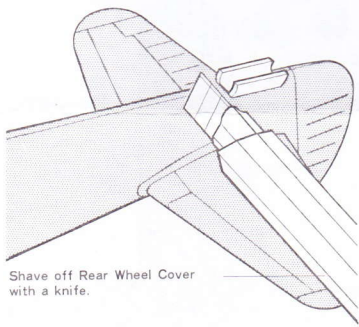
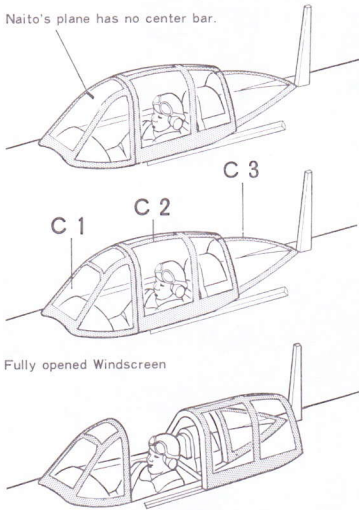
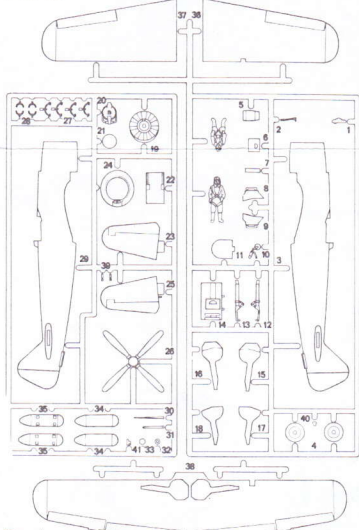


Fig. 6 After the model has been completely assembled, install Antenna.



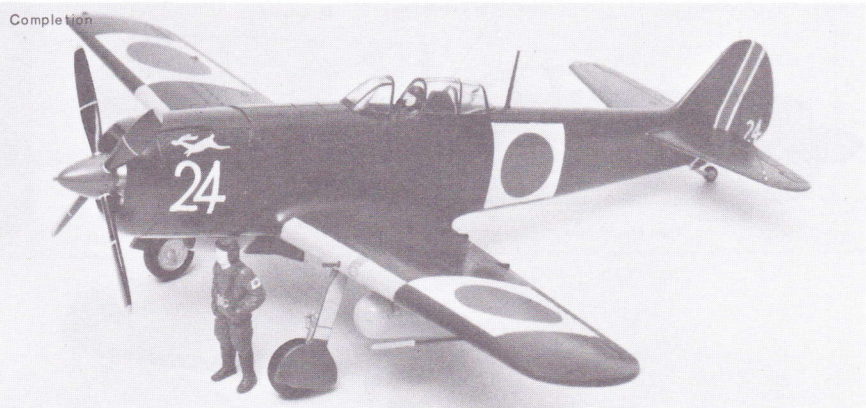
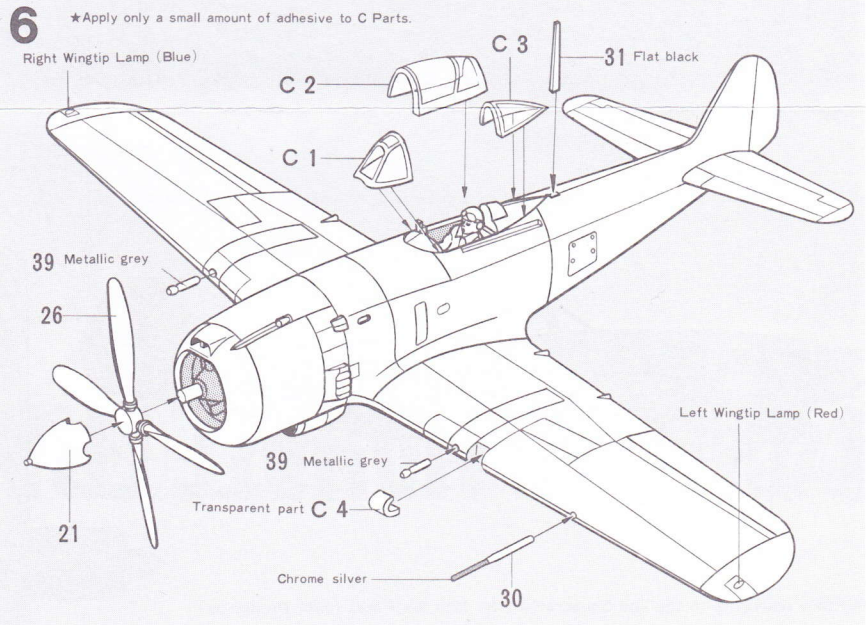
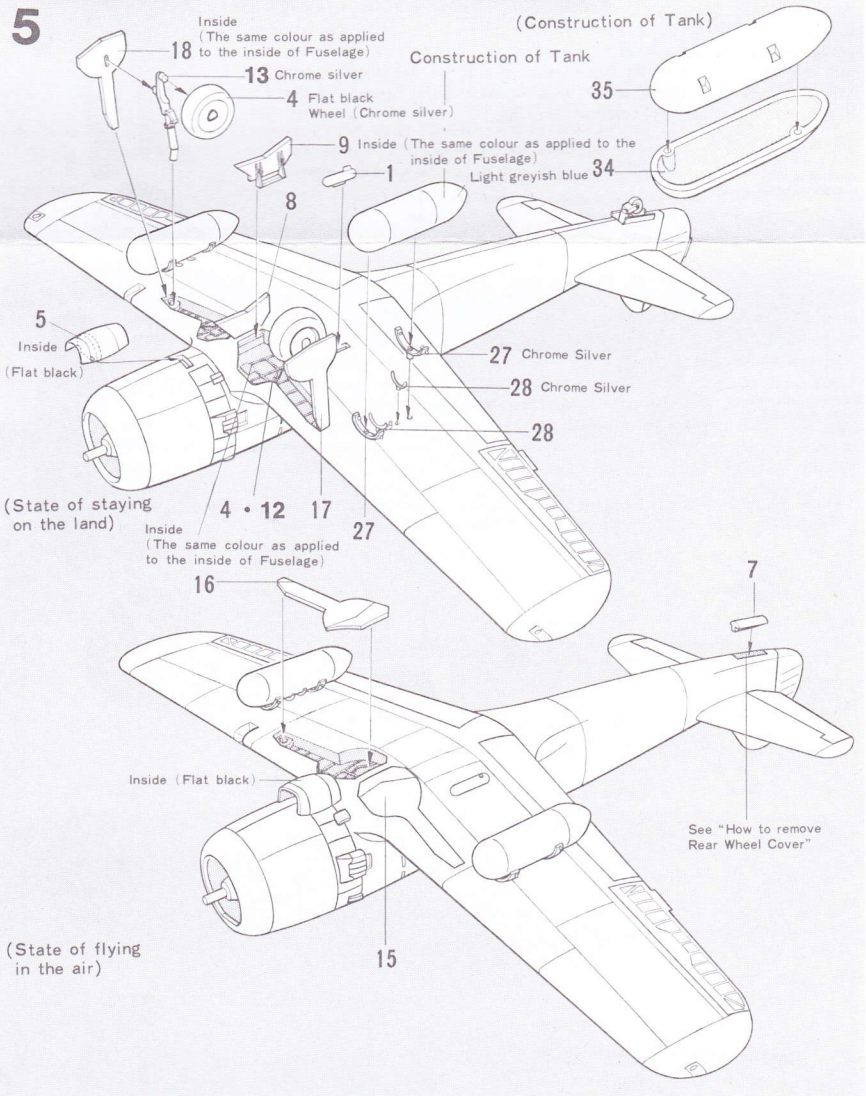
Parts



Parts

- |                                         |                                                |
|-----------------------------------------|------------------------------------------------|
| 1. Fuel Cooler                          | 21. Propeller Spinner                          |
| 2. Control Lever                        | 22. Outside Plate of Fuselage Machine Gun Hole |
| 3. Fuselage (Left)                      | 23. End of Cowling                             |
| 4. Main Wheel                           | 24. Horizontal Stabilizer (Left)               |
| 5. Oil Cooler                           | 25. Horizontal Stabilizer (Right)              |
| 6. Seat                                 | 26. Propeller                                  |
| 7. Rear Wheel Cover                     | 27. Reserve Fuel Tank Mount                    |
| 8. Wheel Cover (Left)                   | 28. Reserve Fuel Tank Mount                    |
| 9. Wheel Cover (Right)                  | 29. Fuselage (Right)                           |
| 10. Rear Wheel                          | 30. Pitot Tube                                 |
| 11. Bullet-Proof Plate of Seat          | 31. Antenna Support                            |
| 12. Main Wheel Stud (Left)              | 32. Propeller Shaft                            |
| 13. Main Wheel Stud (Right)             | 33. Propeller Shaft, Upper                     |
| 14. Cockpit Floor                       | 34. 200-litre Reserve Fuel Tank (Lower)        |
| 15. Main Wheel Cover, Closed (Right)    | 35. 200-litre Reserve Fuel Tank (Upper)        |
| 16. Main Wheel Cover, Closed (Left)     | 36. Left Main Wing (Lower)                     |
| 17. Main Wheel Stud Cover, Open (Left)  | 37. Right Main Wing (Lower)                    |
| 18. Main Wheel Stud Cover, Open (Right) | 38. Main Wing (Lower)                          |
| 19. Engine Plate                        | 39. Machine Gun                                |
| 20. Reduction Gear Case                 | 40. Head Pad                                   |
| C1. Windscreen (Front)                  | 41. Sight                                      |
| C2. Windscreen (Center)                 | C3. Windscreen (Rear)                          |
| C4. Landing Lamp Cover                  |                                                |

ITEM 61013 1/48 陸軍四式戦闘機疾風 (英文)



# JAPANESE 4×4 LIGHT VEHICLE TYPE 95

# KUROGANE



## 95式小型乗用車(くろがね四起)

日本陸軍の要求仕様に基づいて日本内燃機が開発した世界初の実用四輪駆動車が95式小型乗用車です。メーカーのブランド名と四輪駆動を意味する“四起”から、一般に“くろがね四起”と呼ばれました。昭和10年の制式化後も様々な改良が重ねられ、昭和12年に生産が開始されたタイプは3人乗りの車体に33馬力のV型2気筒1400cc空冷エンジンを搭載。前輪独立、後輪リーフリジッド式のサスペンションや前進3段、後進1段の変速機、大径タイヤなどを備え、優れた路外走破性能を発揮しました。昭和10年から19年までに各タイプ合わせて約4,800台が生産され、昭和14年のノモンハン事件を皮切りに中国から東南アジア、太平洋戦域など幅広い戦線で偵察や連絡に走り続けました。また一部は海軍にも納入され、陸海軍航空隊の士官用スタッフカーとして使用されています。

Developed by Nihon Nainenki Ltd. to meet a Japanese Army requirement, the Type 95 Light Vehicle, nicknamed "Kurogane," was the world's first practical 4WD vehicle. Originally conceived in 1935, the design underwent several modifications before going into production in 1937. The production model featured an air-cooled, 1400cc 33hp V2 engine, transmission with 3 forward and 1 reverse gears, and could carry up to 3 passengers. Independent front and rigid leaf spring rear suspension system coupled with large diameter tires enabled superb cross-country performance. Approximately 4,800 examples were produced from 1935 to 1944, serving with both the Japanese Army and Navy throughout Asia and the Pacific as reconnaissance, liaison, and staff vehicles.

Von Nihon Nainenki Ltd. entsprechend den Anforderungen der Japanischen Armee entwickelt, war der Typ 95 Leichtes Fahrzeug mit dem Spitznamen "Kurogane" das erste wirkliche 4WD Fahrzeug. Nach einem ursprünglichen Konzept von 1935 durchlief die Konstruktion verschiedene Änderungen, bevor sie 1937 in Produktion ging. Das Serienmodell besaß einen luftgekühlten, 1400 cm<sup>3</sup> 33PS V2 Motor, eine Kraftübertragung mit 3 Vorwärtsgängen und 1 Rückwärtsgang und konnte bis zu 3 Fahrgäste aufnehmen. Ein Aufhängungssystem mit Einzelrad vorne und einer Blattfeder-Starrachse hinten sorgte in Verbindung mit großen Reifen für überragende Fahrleistung im Gelände. Etwa 4.800 Exemplare wurden zwischen 1935 und 1944 gebaut, die bei beiden, der Japanischen Armee und der Marine, überall in Asien und dem Pazifik als Aufklärungs-, Verbindungs- und Stabsfahrzeuge Dienst taten.

Développée par Nihon Nainenki Ltd. en réponse à une demande de l'armée japonaise, le véhicule léger Type 95 surnommé "Kurogane" fut le premier véhicule 4x4 opérationnel au monde. Le projet d'origine de 1935 connut plusieurs modifications avant la mise en production en 1937. Le modèle de série avait un moteur V2 de 1400cm<sup>3</sup> développant 33cv, une transmission à 3 rapports avant et 1 arrière et pouvait emporter 3 passagers. La suspension avant à roues indépendantes et arrière rigide à ressorts à lames ainsi que les pneus de grand diamètre offraient d'excellentes aptitudes tout terrain. Environ 4.800 exemplaires furent produits de 1935 à 1944. Ils servirent dans l'armée et la marine japonaise dans toute l'Asie et le Pacifique comme véhicules de reconnaissance, de liaison et d'état-major.

## PAINTS REQUIRED

塗装指示のマークです。タミヤカラーのカラーナンバーで指示しました。  
This mark denotes numbers for Tamiya Paint colors.

X-11 ●クロームシルバー / Chrome silver / Chrom-Silber / Aluminium chromé

X-18 ●セミグロスブラック / Semi gloss black / Seidenglanz Schwarz / Noir satiné

X-27 ●クリアーレッド / Clear red / Klar-Rot / Rouge translucide

XF-1 ●フラットブラック / Flat black / Matt Schwarz / Noir mat

XF-7 ●フラットレッド / Flat red / Matt Rot / Rouge mat

XF-10 ●フラットブラウン / Flat brown / Matt Braun / Brun mat

XF-15 ●フラットフレッシュ / Flat flesh / Fleischfarben / Matt / Chair mate

XF-49 ●カーキ / Khaki / Khaki / Kaki

XF-51 ●カーキドラブ / Khaki drab / Braun-Khaki / Vert kaki

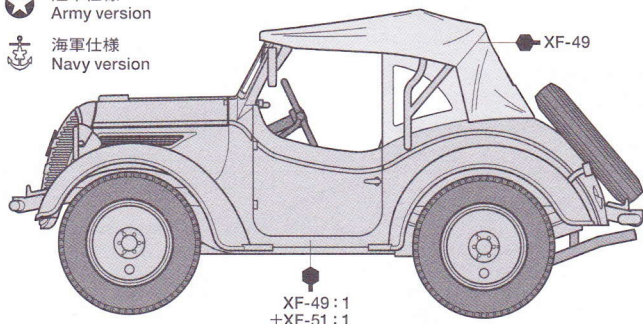
XF-56 ●メタリックグレイ / Metallic grey / Grau-Metallik / Gris métallisé

XF-57 ●バフ / Buff / Lederfarben / Chamois

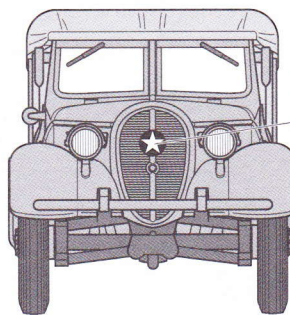
## MARKING & PAINTING

★ 陸軍仕様  
Army version

⚓ 海軍仕様  
Navy version

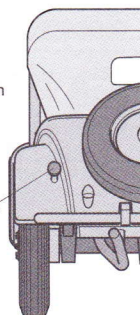


XF-49:1  
+XF-51:1



陸軍仕様  
Army version

X-27



## ASSEMBLY



●組立説明図の中で塗装指示のない部品は車体色で塗装します。

●When no color is specified, paint the item with body color.

●Wenn keine Farbe angegeben ist, Teile mit Karosserie-Farbe bemalen.

●Lorsqu'aucune teinte n'est spécifiée, peindre dans la couleur de la carrosserie.

■混合色について

(例) XF-10:1+XF-56:1

●左記の場合は、各色を1:1の比率で調色します。

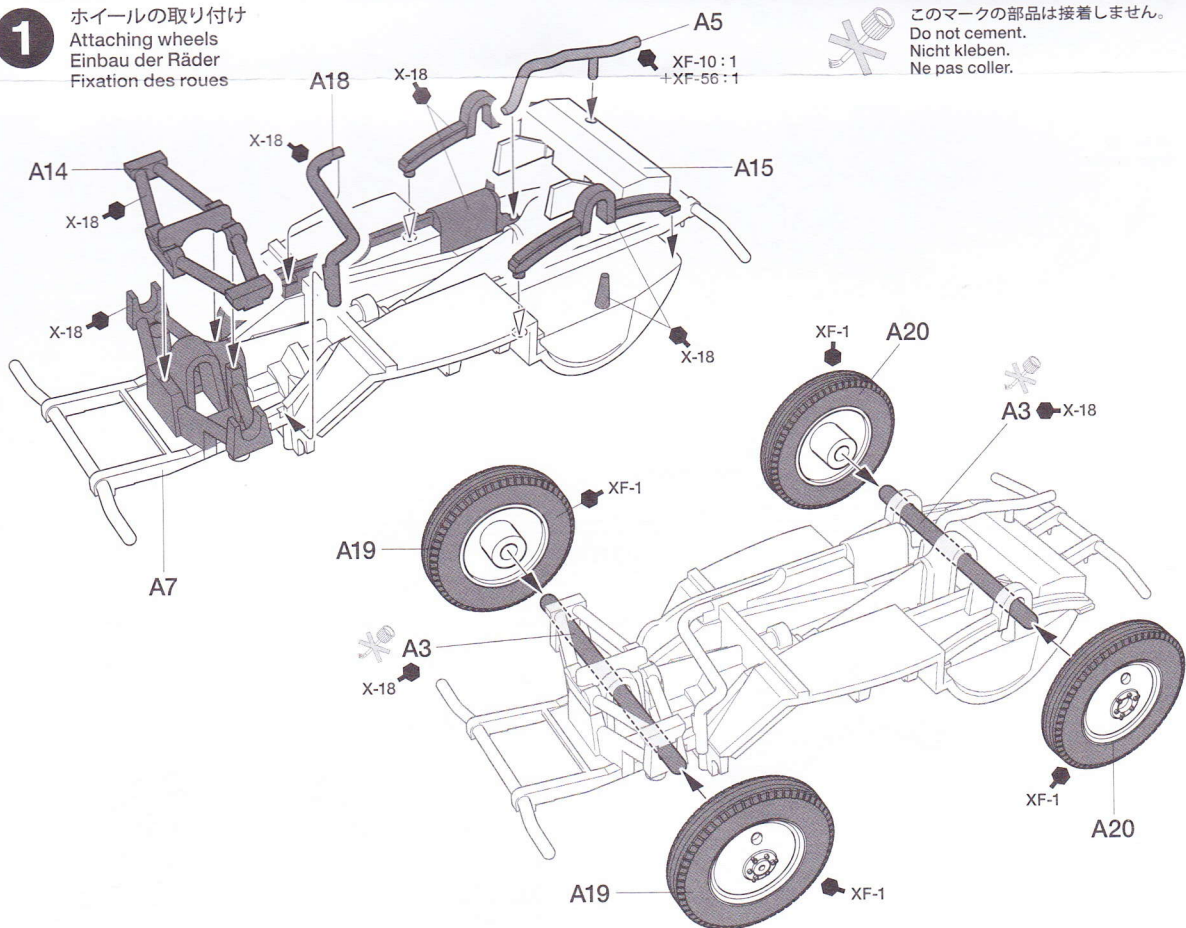
●Instruction shows paint mixing ratios.

●Die Anleitung zeigt das Mischungsverhältnis der Farben an.

●Les instructions indiquent les proportions des mélanges.

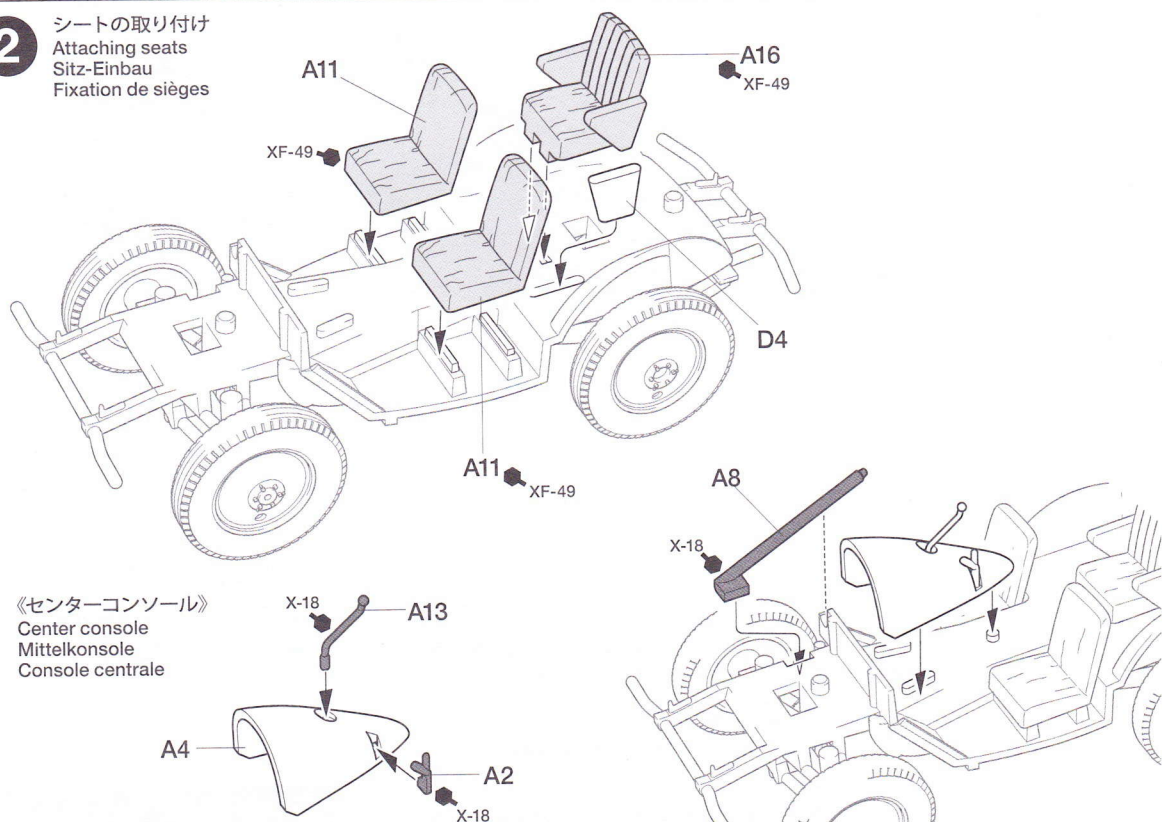
1

ホイールの取り付け  
Attaching wheels  
Einbau der Räder  
Fixation des roues



2

シートの取り付け  
Attaching seats  
Sitz-Einbau  
Fixation de sièges

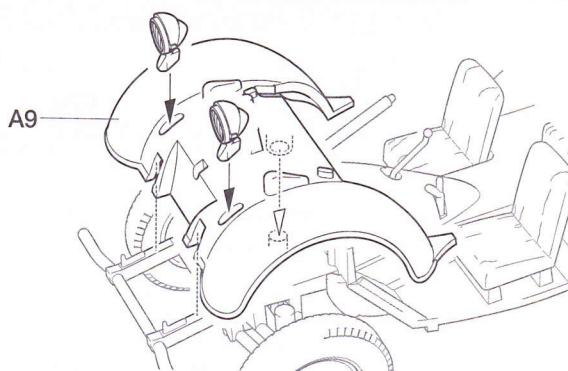
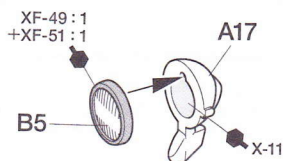


3

フェンダーの取り付け  
Attaching fenders  
Kotflügel-Einbau  
Fixation des passages  
de roue

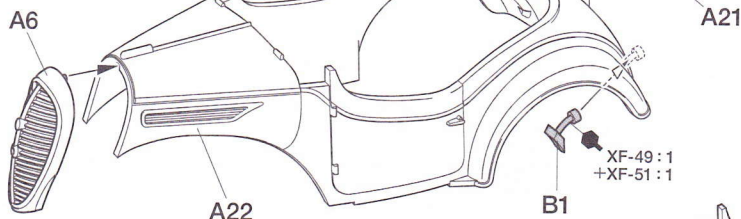
《ヘッドライト》  
Headlight  
Scheinwerfer  
Phare

- ★2個作ります。
- ★Make 2.
- ★2 Satz anfertigen.
- ★Faire 2 jeux.



4

車体の取り付け  
Attaching body  
Karosserie aufsetzen  
Fixation de la carrosserie



指示のインレットマークをはります。  
Apply metal transfer.  
Metall-Sticker anbringen.  
Apposer le transfert métal.

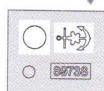
指示の番号のスライドマークをはります。  
Number of decal to apply.  
Nummer des Abziehbildes, das  
anzubringen ist.  
Numéro de la décalcomanie à utiliser.

★インレットマークは表面の透明なフィルムを  
めくり、ナイフなどではがして使います。

★Peel off the transparent film and handle  
metal transfers using a knife.

★Den transparenten Film  
abziehen und Metall-Sticker  
mit einem Messer übertragen.

★Retirer le film transparent et  
manipuler les transferts en  
métal à l'aide d'un couteau de  
modéliste.

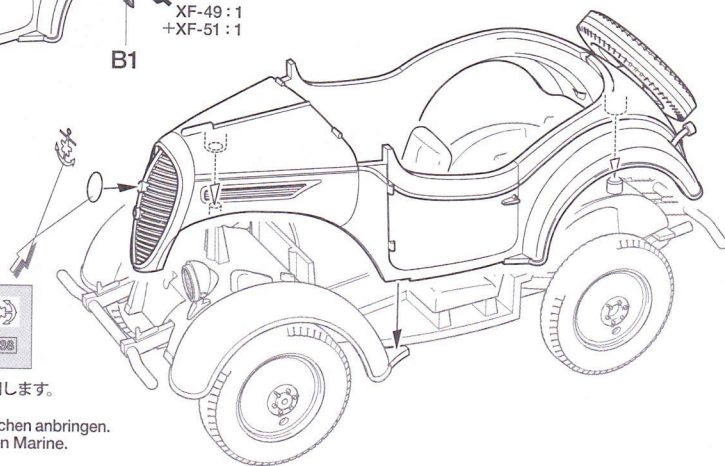


★海軍所属車輛の場合はイカリマークを使用します。

★Apply anchor marking for Navy version.

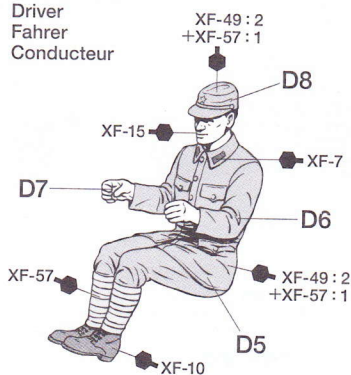
★Für die Version der Marine das Anker-Abzeichen anbringen.

★Apposer l'insigne de l'ancre pour la version Marine.

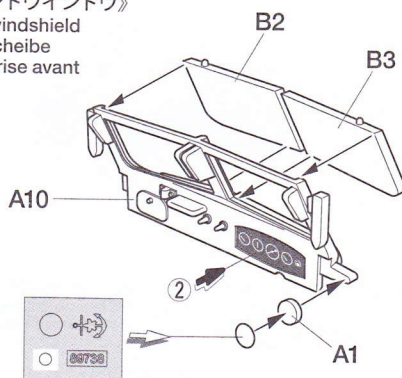


5

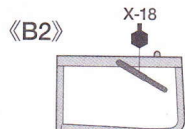
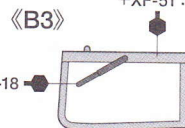
《ドライバー》  
Driver  
Fahrer  
Conducteur



《フロントウインドウ》  
Front windshield  
Frontscheibe  
Pare-brise avant

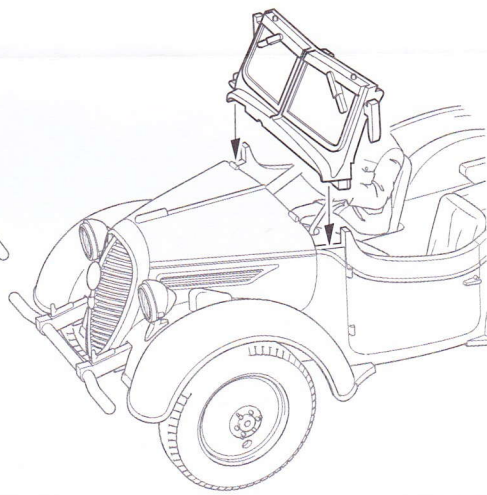
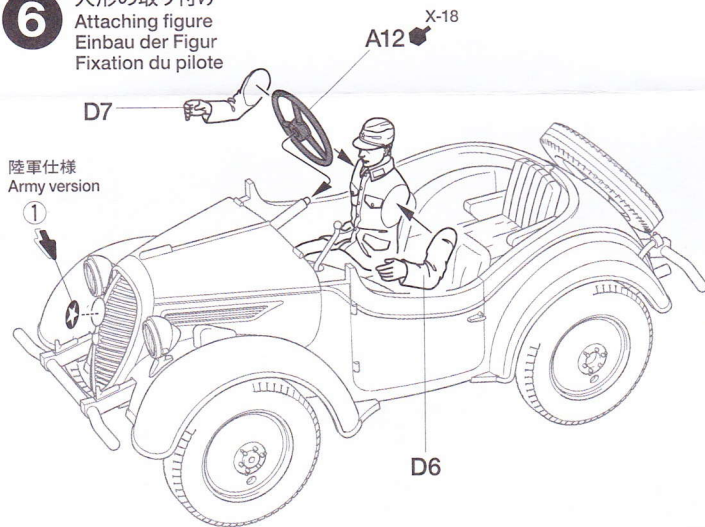


XF-49:1  
+XF-51:1



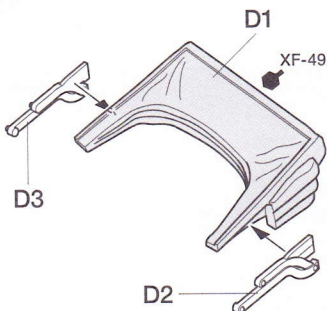
XF-49:1  
+XF-51:1

## 6 人形の取り付け Attaching figure Einbau der Figur Fixation du pilote

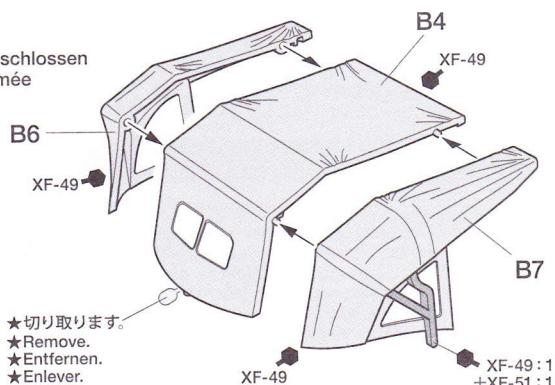


## 7 幌の組み立て Hood Verdeck Capote

《収納時》  
Opened top  
Verdeck  
abgenommen  
Capote baissée

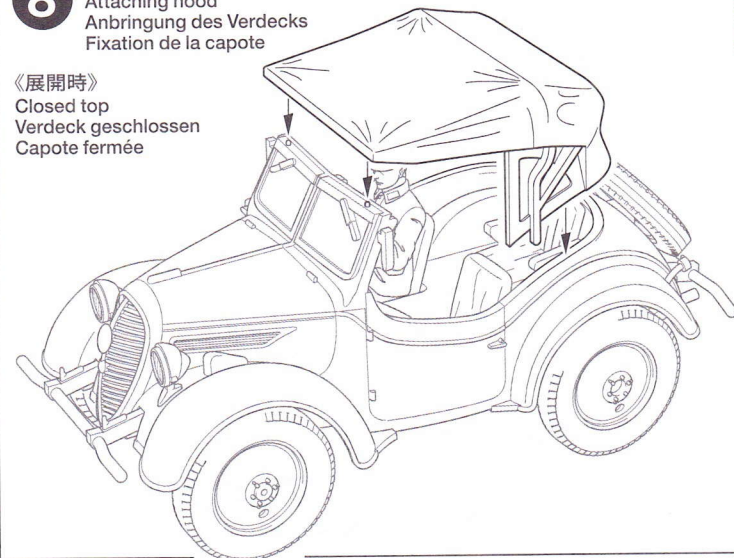


《展開時》  
Closed top  
Verdeck geschlossen  
Capote fermée

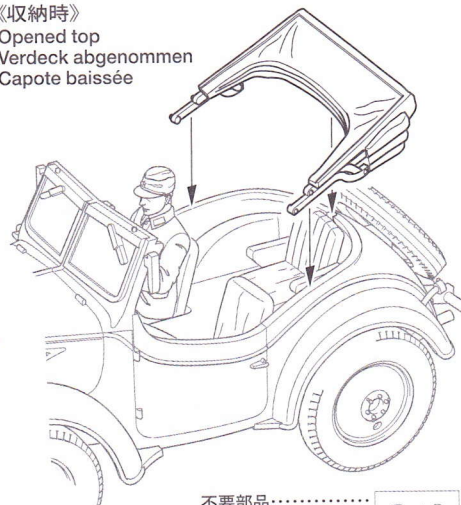


## 8 幌の取り付け Attaching hood Anbringung des Verdecks Fixation de la capote

《展開時》  
Closed top  
Verdeck geschlossen  
Capote fermée



《収納時》  
Opened top  
Verdeck abgenommen  
Capote baissée



不要部品.....  
Not used.  
Nicht verwenden.  
Non utilisées.



●万一不良、不足部品などありました場合は、当社カスタマーサービスまでご連絡ください。  
●In case of defects, missing parts, or other customer service concerns, please contact your local official Tamiya dealer.

《お問い合わせ番号》 静岡 054-283-0003  
東京 03-3899-3765 (静岡に自動転送)  
※電話番号をお確かめの上、おかけ間違いのないようお願いいたします。  
《カスタマーサービスアドレス》  
[http://tamiya.com/japan/customer/cs\\_top.htm](http://tamiya.com/japan/customer/cs_top.htm)



★★ TAMIYA