

1/48 SCALE AIRCRAFT SERIES NO.90 ★FUSELAGE 230mm. WINGSPAN 259mm.

1/48 傑作機シリーズNO.90

リパブリック P-47D サンダーボルト “バブルトップ”



REPUBLIC P-47D THUNDERBOLT “BUBBLETOP”

In May 1941, while the war was raging in Europe, a single-engine fighter weighing over 4tons made its first flight. This revolutionary plane was the XP-47B, prototype of the Republic P-47 Thunderbolt, of which a total of 15,683 units would be built in all. This experimental aircraft was equipped with a 2000hp radial R-2800 engine. Even when equipped with eight 12.7mm machine-guns, this prototype was able to reach 633km/h. In January 1942, just after the US went to war, the production of the P-47B began. It was followed by the P-47C, which incorporated various improvements and from April 1943, by the P-47D. The P-47D was equipped with an R-2800-59 engine featuring a water injection system, and could generate up to 2300hp in an emergency combat scenario. Ducts on the sides and below the fuselage connected to the supercharger placed be-

Im Mai 1941, als in Europa der Krieg wütete, machte ein einmotoriges Jagdflugzeug von mehr als 4 Tonnen seinen ersten Flug. Dieses revolutionäre Flugzeug war die XP-47B, der Prototyp der P-47 Thunderbolt, von der schließlich insgesamt 15.683 Einheiten gebaut werden sollten. Dieses Versuchsflugzeug war mit einem 2000PS R-2800 Sternmotor ausgestattet. Selbst bei einer Ausrüstung mit acht 12,7mm Maschinengewehren war der Prototyp in der Lage 633km/h zu erreichen. Im Januar 1942, also kurz nachdem die USA in den Krieg eingetreten war, lief die Produktion der P-47B an. Sie wurde gefolgt von der P-47C, welche verschiedene Verbesserungen besaß und ab April von der P-47D. Die P-47D war mit einem R-2800-59 Motor ausgestattet, der eine Wassereinspritzung besaß und damit im Notfall beim Kampfeinsatz bis zu 2300PS leisten konnte. Führungsschächte seitlich und unterhalb im Rumpf zum

En mai 1941, alors que la guerre faisait rage en Europe, un chasseur monomoteur de plus de 4t faisait son premier vol. Il s'agissait du XP-47B, prototype du Republic P-47 Thunderbolt dont un total de 15683 unités seront construites. Grâce aux enseignements de la guerre, cet appareil fut équipé d'un moteur en étoile R-2800 de 2000cv, d'un compresseur de suralimentation et de 8 mitrailleuses de 12,7mm. Le XP-47B devait atteindre 633km/h et en janvier 1942, après l'entrée en guerre des USA, la production du P-47B débuta. Il fut suivi par le P-47C, résultant de l'amélioration de divers points et, à partir d'avril 1943, du P-47D, version la plus construite. Le P-47D était propulsé par un moteur R-2800-59 pouvant développer jusqu'à 2300cv. Les conduites passant sur les côtés

ヨーロッパ上空で英独両空軍が一進一退の空戦を続けていた1941年5月、アメリカでは自重4トン以上という巨大な単発機が初飛行に成功しました。後に15,683機という総生産数を記録し、アメリカ陸軍航空隊を代表する重量級戦闘機となったリパブリック P-47サンダーボルトの原型機、XP-47Bです。その設計思想は、2000馬力級のP&W R-2800星型空冷エンジンと排気タービン過給器を組み合わせて高速度と高々度性能を追求し、さらに12.7mm機銃8挺を備えるという革新的なものでした。XP-47Bは期待通り633km/hという高速度を発揮。1942年1月に完成した初の量産型P-47BやP-47Cを経て、主要量産型となったP-47Dの生産が1943年4月に開始されました。P-47Dは基本的にR-2800-59エンジンを搭載し、戦闘緊急出力は2300馬力。最大の特徴と言える排気タービン過給器は、中間冷却器やタービン、胴体下部や両側を走るダクト類で構成され、この巨大なシステムの搭載がP-47のマッシブなスタイルに結びついたのであります。英国に基地を置く第8空軍各部隊に

hind the pilot's seat and contributed to this plane's massive form. The P-47D, which equipped many units such as the 56th FG of the 8th Air Force, was used to escort B-17 and B-24 bombers. Many sub-types of the P-47D, designated D-1 to D-40 were produced. One sub-type that marked a major external change was the D-25, first deployed from June, 1944. The D-25 replaced that "Razorback" type, and offered increased visibility with its electric powered, workable "bubble" type canopy. The D-25 also featured increased fuel capacity with its widened rear fuselage. The bubble canopy was employed on each type produced after the D-25, and became a major characteristic feature of the latter production P-47's. The P-47D "Bubbletop" achieved remarkable balance as an efficient fighter/bomber, and earned the P-47D Thunderbolt even higher praise.

Anschluss des Turboladers, welcher hinter dem Pilotensitz eingebaut war, trugen zu dem wichtigen Aussehen des Flugzeugs bei. Es wurden viele Untertypen der P-47D hergestellt, welche die Bezeichnung D-1 bis D-40 erhielten. Ein Untertyp, der einen größeren Wechsel am Äußeren darstellte, war die D-25, welche ab Juni 1944 ausgeliefert wurde. Die D-25 ersetzte den "Razorback" (Rasierklingentrücken) Typ und bot mit ihrer elektrisch betätigten "Blasen"-Kanzel eine bessere Rundumsicht. Die D-25 wies auch bei einem verbreiterten Rumpfheck eine größere Tankkapazität auf. Die Blasenkanzel wurde dann bei allen der nach der D-25 hergestellten Typen eingesetzt, und war das Hauptkennungsmerkmal der P-47 aus späterer Produktion. Die P-47D "Bubbletop" brachte es zu einer bemerkenswerten Ausgewogenheit als Jäger/Bomber und trug der P-47D noch zusätzliche Lorbeeren ein.

et en dessous du cockpit pour rejoindre le compresseur de suralimentation placé derrière le siège du pilote, donnaient à cet avion son aspect massif. De nombreux modèles de P-47D, désignés D-1 à D-40, furent produits, mais les dernières versions étaient surnommées "Razorback" en raison de leur arête dorsale. La version D-25 qui fut introduite vers juin 1944, était équipée d'une verrière en goutte d'eau qui donnait une meilleure vision au pilote et de réservoirs de plus grande capacité. Cette décision entraîna un remodelage complet de la silhouette de l'avion. L'ensemble des versions suivantes reçurent également cette verrière qui devint une caractéristique majeure des P-47 tardifs. Le P-47 "Bubbletop" se démontra être un chasseur-bombardier performant et stable.

配備されたP-47Dは、ドイツ本土爆撃に向かう爆撃機の長距離護衛に出撃。そして1944年に入り、さらに優れた航続性能と運動性能を備える新鋭戦闘機P-51マスタングが登場すると、P-47Dは制空任務をP-51に譲り、頑丈な構造と被弾に強い空冷エンジン、そして1トン以上という搭載能力を活かして地上攻撃任務に活躍の場を移したのです。このP-47DはD-1から最終型のD-40まで、機体各部に改良を加えながら多くのサブタイプが生産されました。特に外観上で大きな変化を見せたのが、1944年6月頃から部隊配備されたD-25です。D-25はそれまでのレイザーバックタイプに代えて視界の広いバブルタイプの電動開閉式キャノピーを備え、燃料タンク容量も増加されるなど胴体後部に大幅な設計変更が加えられました。バブルキャノピーはD-25以降の各タイプに装備され、後期に生産されたP-47の大きな特徴となりました。P-47D "Bubbletop"は、バランスの取れた戦闘爆撃機として実力を示し、サンダーボルトの評価を決定づけたのです。

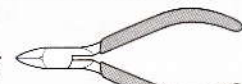
RECOMMENDED TOOLS

- 用意する工具
- Tools recommended
- Benötigtes Werkzeug
- Outilsage nécessaire

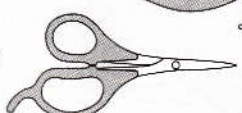
接着剤
(プラスチック用)
Cement
Kleber
Colle



ニッパー
Side cutters
Seitenschneider
Pince coupante



デカールバサミ
Scissors
Scheere
Ciseaux



ナイフ
Modeling knife
Modellermesser
Couteau de modéliste



ピンバイス (1mm, 1.5mm)
Pin vise
Schraubstock
Outil à percer



ピンセット
Tweezers
Pinzette
Pincettes





作る前には必ず
お読みください。
READ BEFORE ASSEMBLY.
ERST LESEN - DANN BAUEN.
A LIRE AVANT ASSEMBLAGE.

● 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. / Dieses Zeichen gibt die Tamiya-Farbnummern an. / Ce signe indique la référence de la peinture TAMIYA à utiliser.

- AS-6 ● オリーブドラブ (USAAF) / Olive Drab (USAAF) (XF-62) / Olivgelbgrau (USAAF) / Olive Drab (USAAF)
- AS-7 ● ニュートラルグレイ (USAAF) / Neutral Gray (USAAF) / Mittelgrau (USAAF) / Neutral Gray (USAAF)
- AS-12 ● シルバーメタル / Bare-Metal Silver / Blank-Metall Silber / Métal Nu
- TS-29 ● セミグロスブラック / Semi gloss black / (X-18) Seidenglanz Schwarz / Noir satiné

- このキットは組み立てモデルです。作る前に必ず説明書を最後までお読みください。また小学生などの低年齢の方が組み立てる時は、保護者の方もお読みください。
- 接着剤や塗料は、必ずプラスチック用をお使いください。(別売)
- Read carefully and fully understand the instructions before commencing assembly. A supervising adult should also read the instructions if a child assembles the model.

- Bevor Sie mit dem Zusammenbau beginnen, sollten Sie alle Anweisungen gelesen und verstanden haben. Fall sein Kind das Modell zusammenbaut, sollte ein beaufsichtigender Erwachsener die Bauanleitung ebenfalls gelesen haben.
- Bien lire et assimiler les instructions avant de commencer l'assemblage. La construction du modèle par un enfant doit s'effectuer sous la surveillance d'un adulte.

- X-5 ● グリーン / Green / Grün / Vert
- X-6 ● オレンジ / Orange / Orange / Orange
- X-7 ● レッド / Red / Rot / Rouge
- X-11 ● クロームシルバー / Chrome silver / Chrom-Silber / Aluminium chromé
- X-23 ● クリアブルー / Clear blue / Klar-Blau / Bleu translucide
- X-27 ● クリアレッド / Clear red / Klar-Rot / Rouge translucide
- X-31 ● チタンゴールド / Titanium gold / Titan-Gold / Or Titanium
- XF-1 ● フラットブラック / Flat black / Matt Schwarz / Noir mat
- XF-3 ● フラットイエロー / Flat yellow / Matt Gelb / Jaune mat

- XF-4 ● イエローグリーン / Yellow green / Grüngelb / Vert jaune
- XF-5 ● フラットグリーン / Flat green / Matt Grün / Vert 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-16 ● フラットアルミ / Flat aluminum / Matt Aluminium / Aluminium mat
- XF-49 ● カーキ / Khaki / Khaki / Kaki
- XF-56 ● メタリックグレイ / Metallic grey / Grau-Metallic / Gris métallisé
- XF-67 ● バフ / Buff / Lederfarben / Chamois
- XF-64 ● レッドブラウン / Red brown / Rotbraun / Rouge brun

注意

- 工具の使用には十分注意してください。特にナイフ、ニッパーなどの刃物によるケガや事故に注意してください。
- 接着剤や塗料は使用する前にそれぞれの注意書きをよく読み、指示に従って正しく使用し、使用する時は換気十分注意してください。
- 小さなお子様のいる所での工作はやめてください。小さな部品の飲み込みや、ビニール袋をかぶっての窒息などの危険な状況が考えられます。

CAUTION

- When assembling this kit, tools including knives are used. Extra care should be taken to avoid personal injury.

- Read and follow the instructions supplied with paint and/or cement, if used (not included in kit). Use plastic cement and paints only.
- Keep out of reach of small children. Children must not be allowed to put any parts in their mouths, or pull vinyl bag over their heads.

VORSICHT

- Beim Zusammenbau dieses Bausatzes werden Werkzeuge einschließlich Messer verwendet. Zur Vermeidung von Verletzungen ist besondere Vorsicht angebracht.
- Wenn Sie Farben und/oder Kleber verwenden (nicht im Bausatz enthalten), beachten und befolgen Sie die dort beiliegenden Anweisungen. Nur Klebstoff und Farben für Plastik verwenden.
- Bausatz von kleinen Kindern fernhalten. Verhüten Sie, daß Kinder irgendwelche Bauteile in den Mund nehmen oder Plastiktüten über den Kopf ziehen.

ten Sie, daß Kinder irgendwelche Bauteile in den Mund nehmen oder Plastiktüten über den Kopf ziehen.

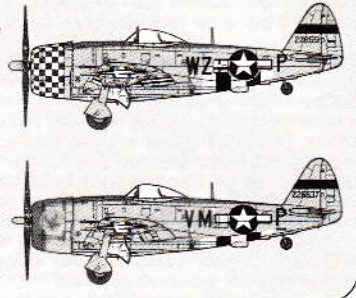
PRECAUTIONS

- L'assemblage de ce kit requiert de l'outillage, en particulier des couteaux de modélisme. Manier les outils avec précaution pour éviter toute blessure.
- Lire et suivre les instructions d'utilisation des peintures et ou de la colle, si utilisées (non incluses dans le kit). Utiliser uniquement une colle et des peintures spéciales pour le polystyrène.
- Garder hors de portée des enfants en bas âge. Ne pas laisser les enfants mettre en bouche ou sucer les pièces, ou passer un sachet vinyl sur la tête.

- 機体の仕様などが異なるため以下のマーキングから **A**、**B** どちらかを選んで組み立てに入ります。
- Select marking type **A** or **B** prior to assembly.
- Vor dem Zusammenbau den Markierungs-Typ **A** oder **B** wählen.
- Choisir entre les décorations **A** et **B** avant de débiter l'assemblage.

- A**
- 標準的なハミルトン製プロペラを装着したP-47D-25で、前部キャンピー上部にバックミラーを装備。
 - This aircraft was a P-47D-25 equipped with a Hamilton Standard propeller. A rearview mirror was attached to the top of the windshield.
 - Dieses Flugzeug war eine P-47D-25, ausgerüstet mit einem Hamilton Standard Propeller. Oben auf der Windschutzscheibe war ein Rückspiegel angebracht.
 - Cet avion était un P-47D-25 équipé d'une hélice Hamilton Standard. Un rétroviseur est monté au-dessus du pare-brise.

- B**
- P-47D-25にカーチス製プロペラを装着した機体で、軽量化のために機銃を6挺に減らし、パイロンは通常は取り付けられていません。
 - This aircraft was a P-47D-25 equipped with a Curtiss Electric propeller. Its armament was reduced to 6 machine guns and its underwing pylons were usually detached to save weight.
 - Dieses Flugzeug war eine P-47D-25, ausgerüstet mit einem Curtiss Electric Propeller. Die Bewaffnung war auf 6 Maschinengewehre reduziert und die Pylone an der Unterseite wurden normalerweise zur Gewichtseinsparung abmontiert.
 - Cet avion était un P-47D-25 équipé d'une hélice Curtiss Electric. Son armement était réduit à 6 mitrailleuses et les pylônes d'emport étaient démontés pour alléger l'appareil.



1

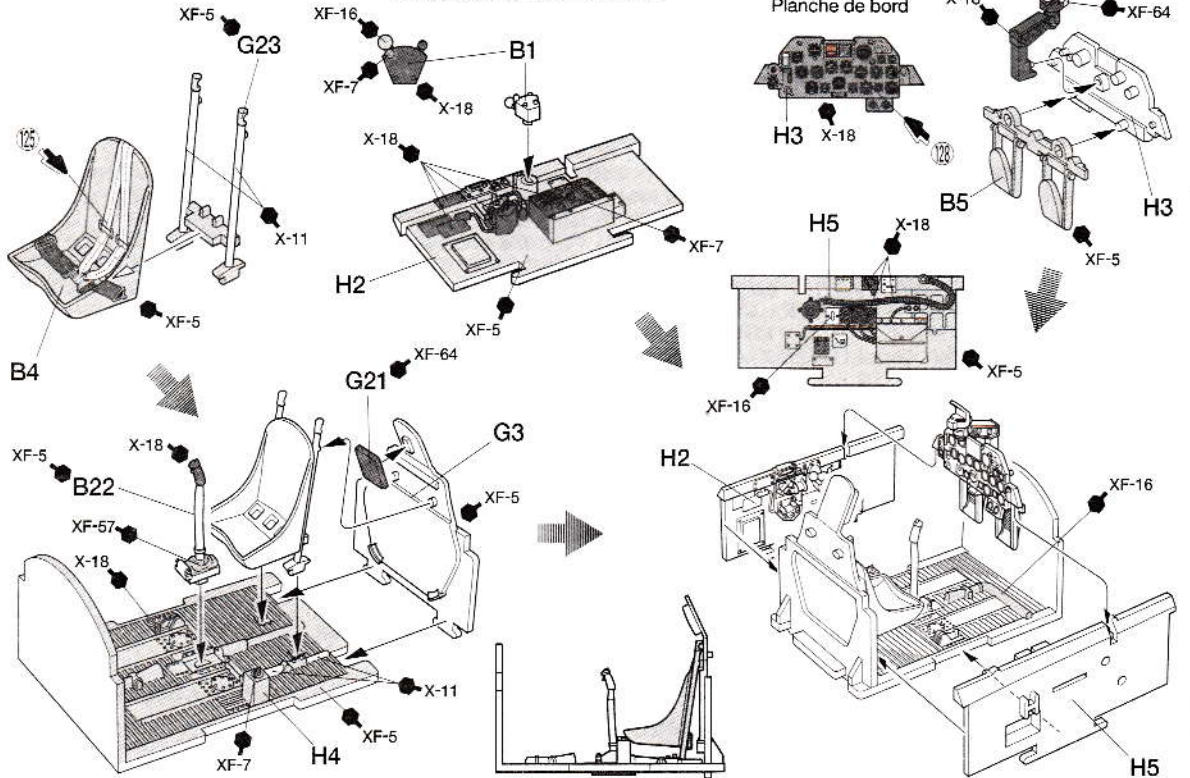
コックピットの組み立て

Cockpit

Kockpit

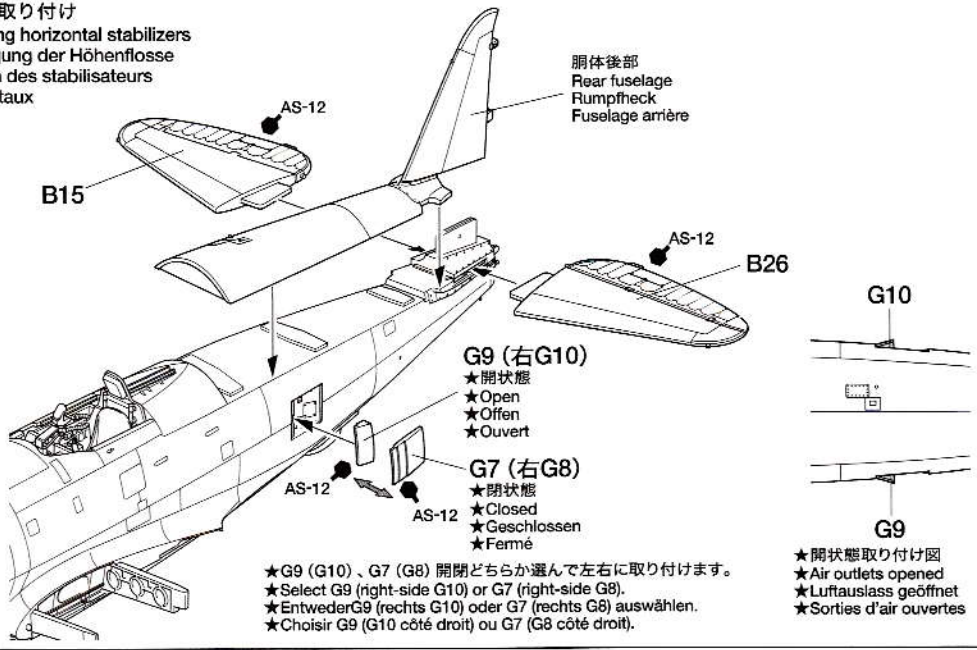
指示の番号のスライドマークをはります。
Number of decal to apply.
Nummer des Abziehbildes, das anzubringen ist.
Numéro de la décalcomanie à utiliser.

《メーターパネル》
Instrument panel
Instrumententafel
Planche de bord



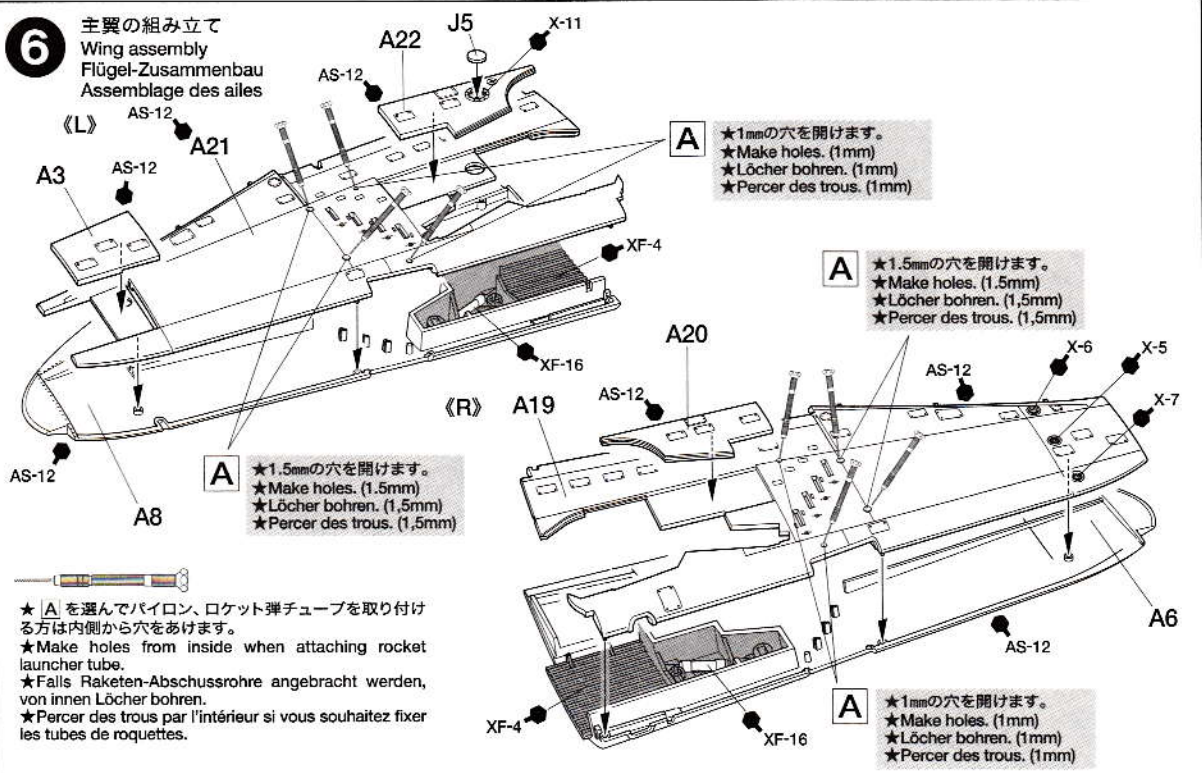
5

尾翼の取り付け
Attaching horizontal stabilizers
Anbringung der Höhenflosse
Fixation des stabilisateurs horizontaux



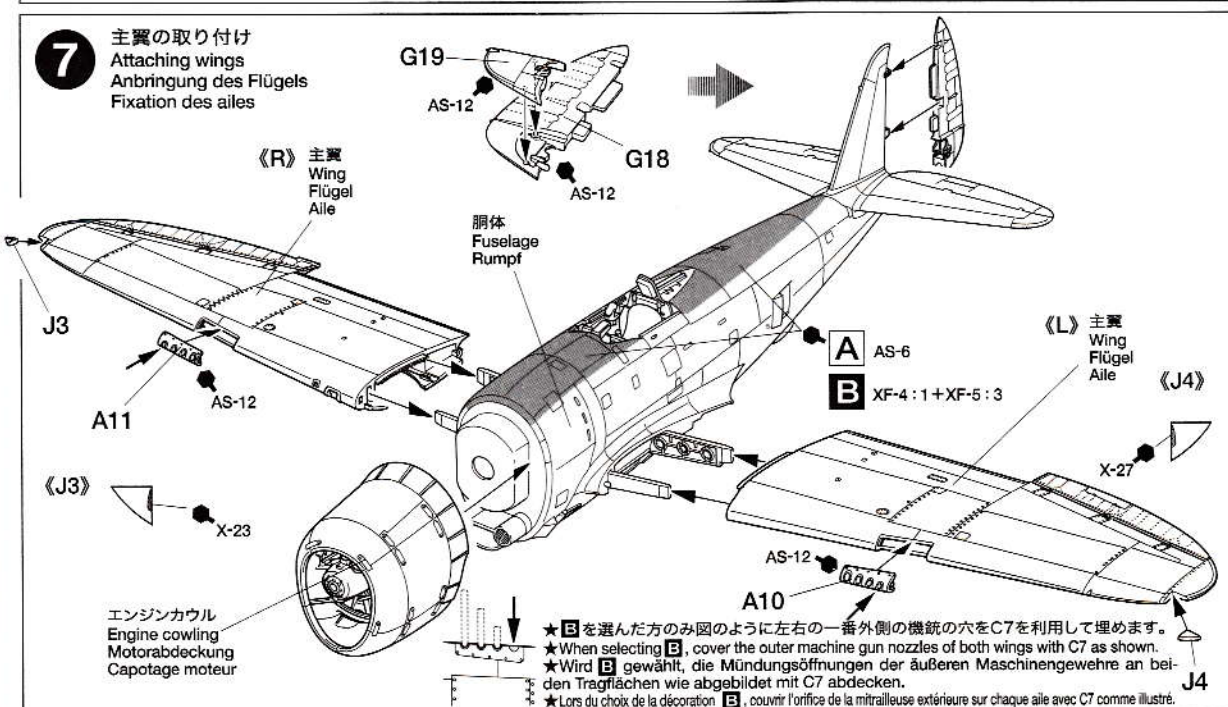
6

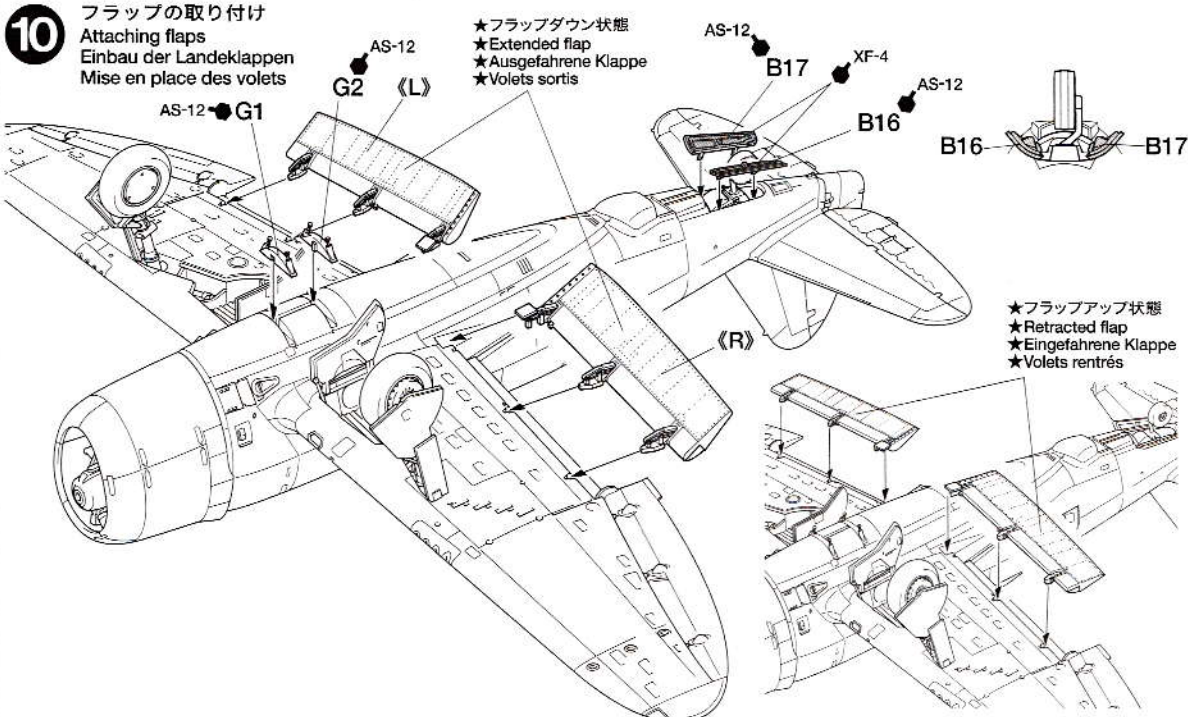
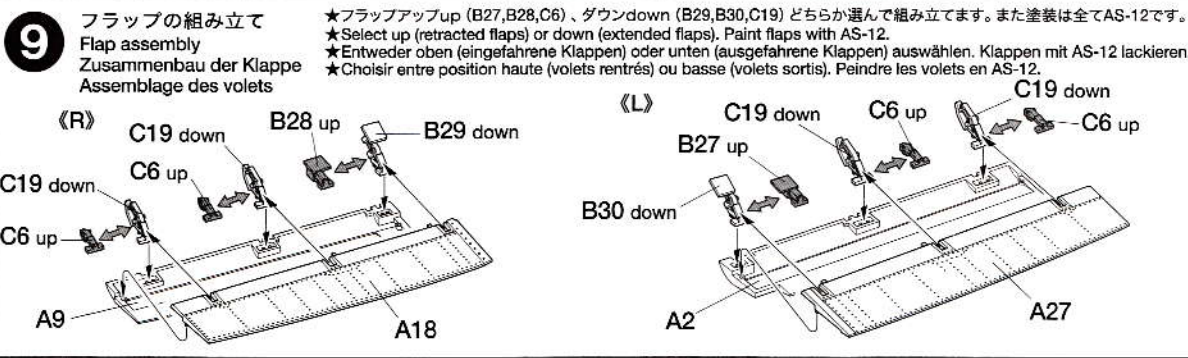
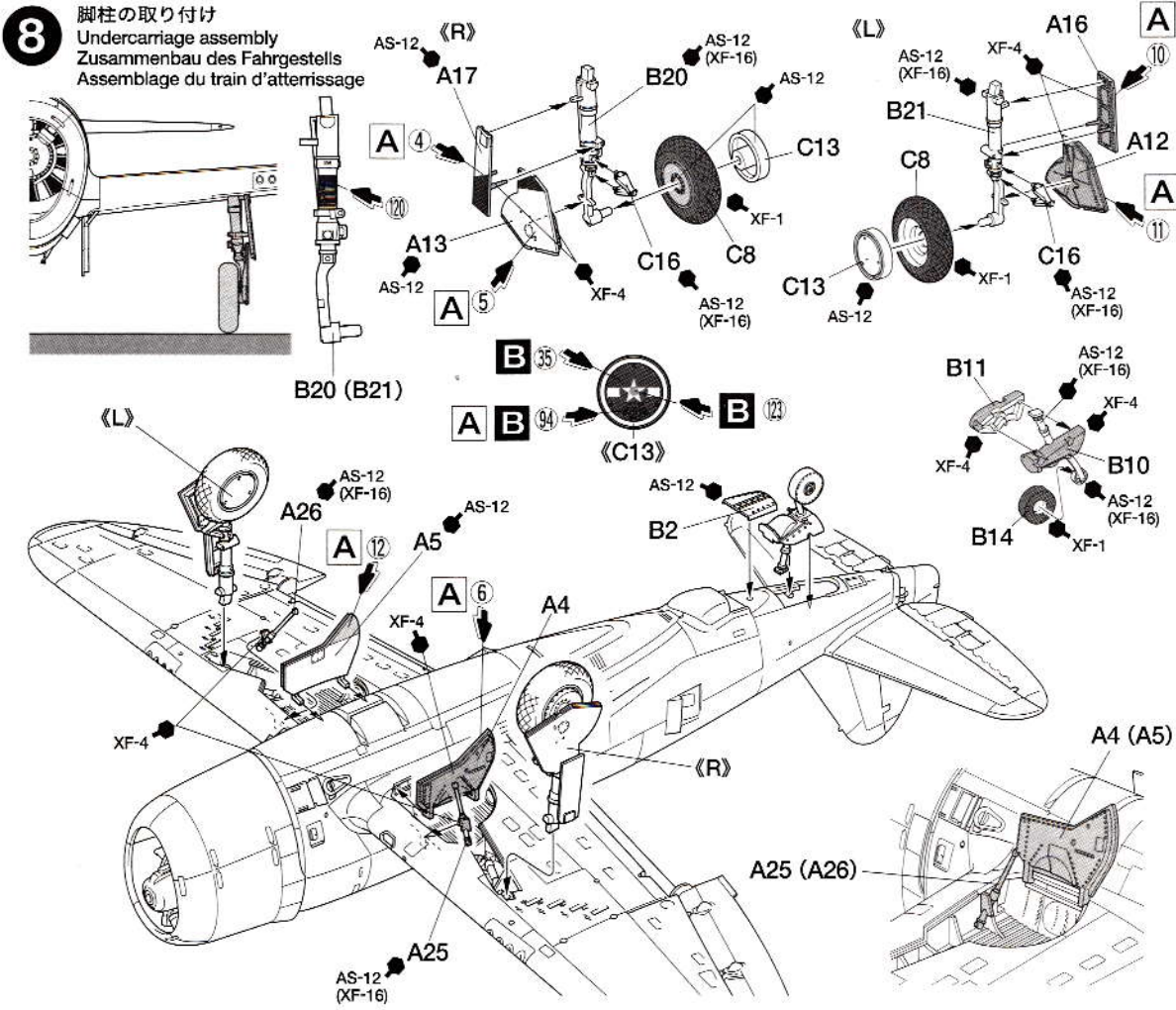
主翼の組み立て
Wing assembly
Flügel-Zusammenbau
Assemblage des ailes



7

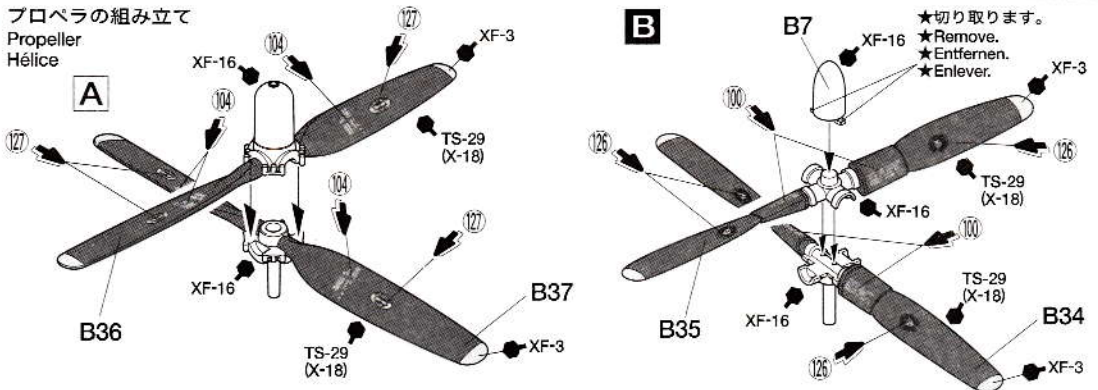
主翼の取り付け
Attaching wings
Anbringung des Flügels
Fixation des ailes





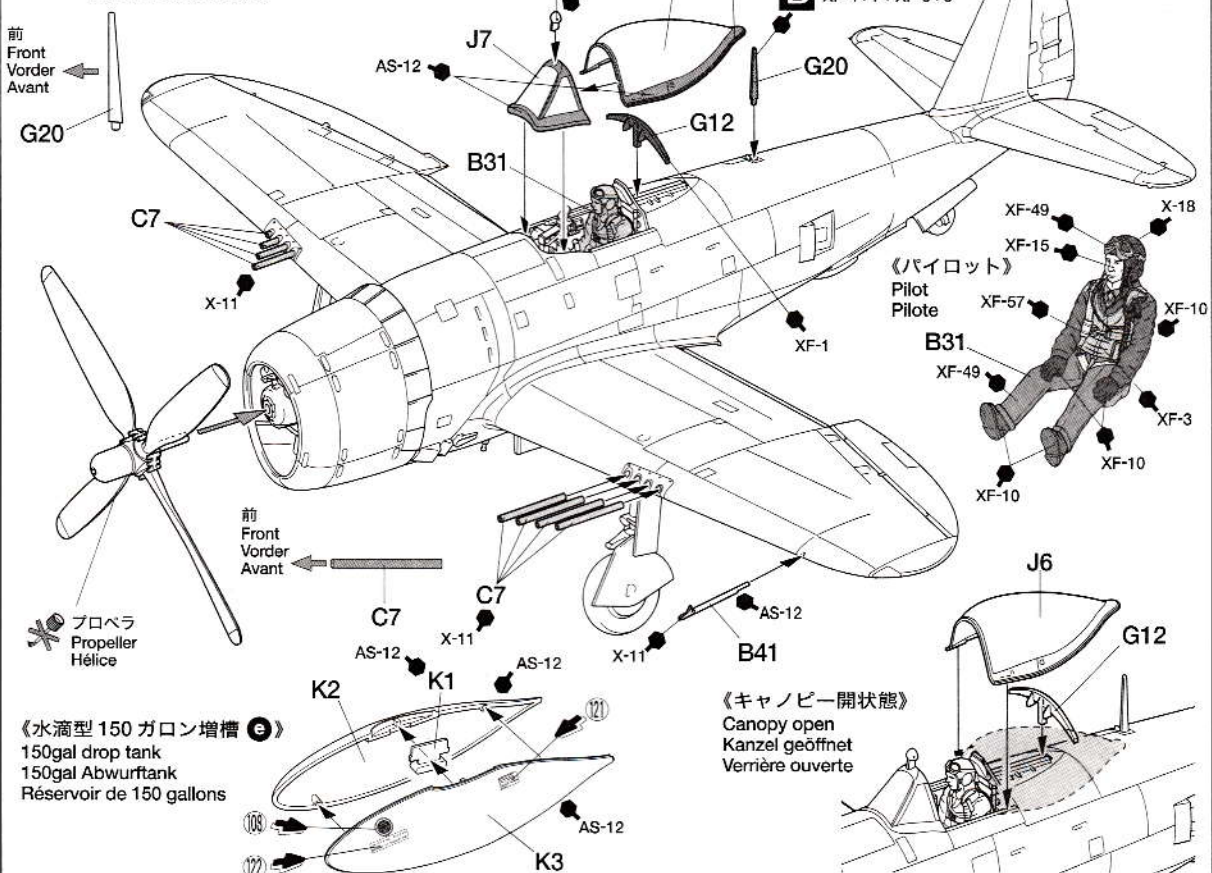
11

プロペラの組み立て
Propeller
Hélice



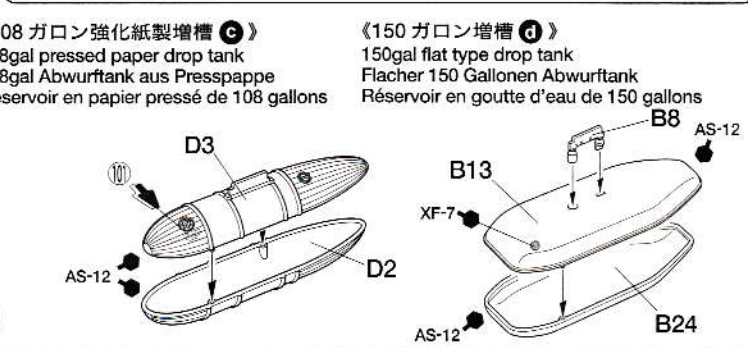
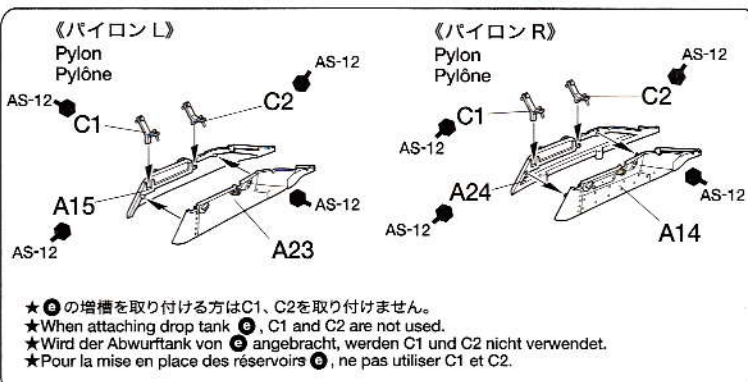
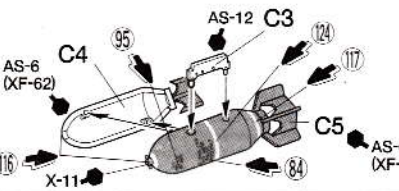
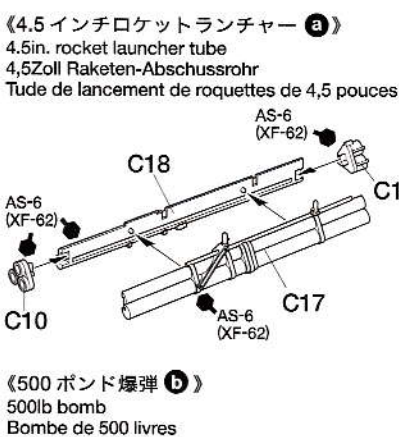
12

キャノピーの取り付け
Attaching canopy
Anbringung der Haube
Fixation de la verrière



13

兵装の組み立て
Armaments
Bewaffnung
Armement

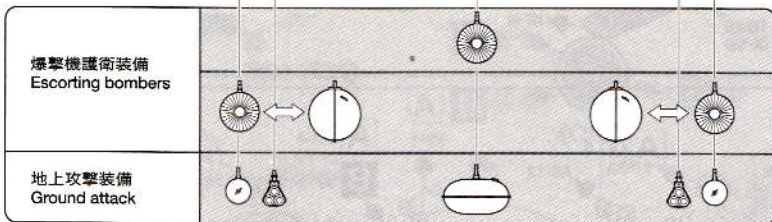
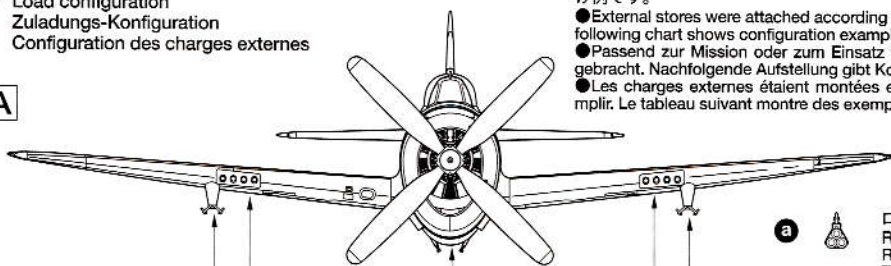


★ a の増槽を取り付ける方は C1, C2 を取り付けません。
★ When attaching drop tank (a), C1 and C2 are not used.
★ Wird der Abwurf-tank von (a) angebracht, werden C1 und C2 nicht verwendet.
★ Pour la mise en place des réservoirs (a), ne pas utiliser C1 et C2.

14

兵装の搭載パターン
Load configuration
Zuladungs-Konfiguration
Configuration des charges externes

A



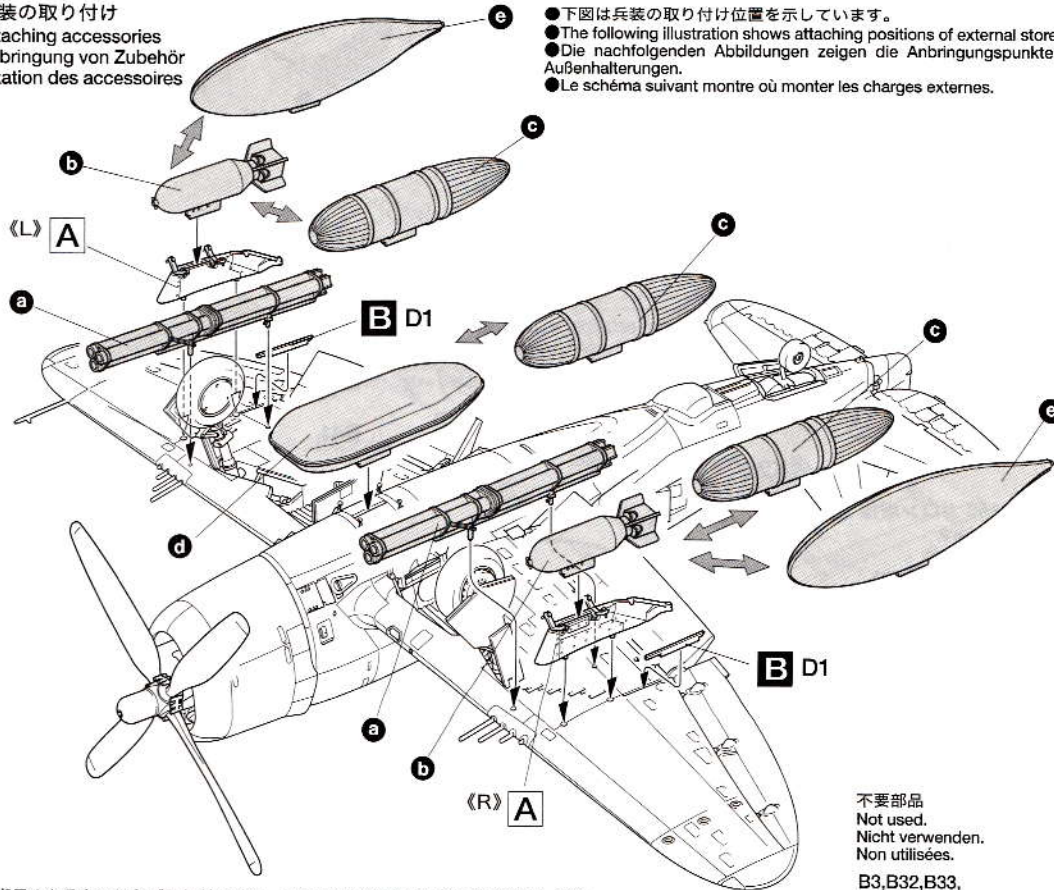
B ●Bの機体は司令機のため、必要時以外はほとんど取り付けられなかったと思われます。
●Plane B was the commander's aircraft. Pylons and external stores were not usually fitted.
●Flugzeug B war das Führungs-Flugzeug. Die Pylone und Außenhalterungen waren normalerweise nicht angebracht.
●La décoration B représente l'avion du commandant. Il semble que cet appareil n'ait pris part ni à des combats aériens, ni à des missions au-dessus du territoire ennemi.

●兵装の組み合わせは、任務や作戦によって異なります。以下は取り付け例です。
●External stores were attached according to missions or operations. The following chart shows configuration examples.
●Passend zur Mission oder zum Einsatz wurden Außenhalterungen angebracht. Nachfolgende Aufstellung gibt Konfigurations-Beispiele wieder.
●Les charges externes étaient montées en fonction des missions à remplir. Le tableau suivant montre des exemples de configuration.

- a ロケットランチャー
Rocket launcher
Raketen-Abschusseinrichtung
Tube de roquettes
- b 500ポンド爆弾
500lb bomb
Bombe de 500 livres
- c 108ガロン増槽
108gal drop tank
108gal Abwurfank
Réservoir de 108 gallons
- d 150ガロン増槽
150gal flat type drop tank
Flacher 150gal Abwurfank
Réservoir en goutte d'eau de 150 gallons.
- e 水滴型 150 ガロン増槽
150gal drop tank
150gal Abwurfank
Réservoir de 150 gallons

15

兵装の取り付け
Attaching accessories
Anbringung von Zubehör
Fixation des accessoires



●下図は兵装の取り付け位置を示しています。
●The following illustration shows attaching positions of external stores.
●Die nachfolgenden Abbildungen zeigen die Anbringungsstelle für Außenhalterungen.
●Le schéma suivant montre où monter les charges externes.

●AとBの指示のあるものは必ず取り付けます。それ以外の装備品は上記を参考にします。
●Attach external stores referring to the illustration and the chart above.
●Außenhalterungen entsprechend obenstehender Abbildungen und Aufstellung anbringen.
●Mettre en place les charges externes en se référant au schéma et au tableau ci-dessus.

不要部品
Not used.
Nicht verwenden.
Non utilisées.
B3,B32,B33,
C12×2,C14×2,C15×2,
G5,G6,G11,G13,G22,J2

PAINTING

《P-47Dバブルトップの塗装》

アメリカ陸軍機の基本塗装は、上面オリブドラブ、下面ニュートラルグレイでしたが、1943年12月以降の生産機は全面無塗装とされました。P-47D各タイプの中でも後期に生産されたバブルトップタイプの場合には全面無塗装が多く見られます。また1944年6月のノルマンディー上陸作戦時には、主翼上下面と胴体に白と黒のストライプが識別用として描かれていました。このストライプはノルマンディー上陸作戦以降も使用され、特に低空での危険な地上攻撃任務に飛んだP-47Dにとって重要な識別マークだったので。細部の塗装はタミヤカラーのカラーナンバーで説明書中に●のマークで示してあります。

Painting the P-47D Thunderbolt "Bubbletop"
The basic camouflage of the US Army Air Force was composed of Olive Drab for upper surfaces and Neutral Gray for lower surfaces. However, from December 1943, the newly produced aircraft were left bare metal. Many of the latter production sub-types of the P-47D were turned out from the factory unpainted. The P-47's deployed to the Battle of Normandy in June 1944 had the undersurfaces of their wings painted in black and white stripes as distinguishing marks. These marks, which were seen after Normandy, proved vital for the P-47D's, as they served as identifying marks during dangerous ground strike missions.

Lackierung der P-47D Thunderbolt "Bubbletop"
Der ursprüngliche Tarnanstrich der US Army Air Force setzte sich zusammen aus einem Olivton für die obliegenden Flächen und ein neutrales Grau für die Unterseiten. Ab Dezember 1943 wurden jedoch die neu produzierten Flugzeuge in blankem Metall belassen. Viele Untertypen der P-47D verließen die Fabrik unlackiert. Die P-47, welche für den Kampf in der Normandie im Juni

1944 ausgeliefert wurden, hatten die Unterseite der Tragflächen als Erkennungs-Merkmal mit schwarzen und weißen Streifen gestrichen. Diese Markierungen, welche auch nach der Normandie noch zu sehen waren, erwiesen sich für die P-47D als lebenswichtig, da sie bei Missionen mit gefährlichen Bodenangriffen zur Identifizierung dienten.

Peinture du Republic P-47D Thunderbolt "Bubbletop"
Le camouflage de base de l'US Air Force se composait d'Olive Drab pour les surfaces supérieures et de Neutral Gray pour les surfaces inférieures mais à partir de décembre 1943, les nouveaux appareils produits étaient laissés en métal nu. Dans le cas des P-47 "Bubbletop", le fini métallique était le plus répandu. De plus, lors du débarquement en Normandie en juin 1944, des bandes noires et blanches furent peintes sur les faces supérieures et inférieures des ailes ainsi qu' autour du fuselage. Ces marquages appelés "bandes d'invasion" avaient pour but d'éviter le feu des batteries antiaériennes amies lors des missions d'attaque au sol.

APPLYING DECALS

《スライドマークのはりかた》

- ① はりたいマークをハサミで切りぬぎます。
- ② マークをぬるま湯に10秒ほどひたしてからタオル等の布の上におきます。
- ③ 台紙のはしを手で持ち、貼るところにマークをスライドさせてモデルに移してください。
- ④ 指に少し水をつけてマークをぬらしながら、正しい位置にずらしします。
- ⑤ やわらかい布でマークの内側の気泡をおし出しながら、おしつけるようにして水分をとります。

DECAL APPLICATION

1. Cut off decal from sheet.

2. Dip the decal in tepid water for about 10 sec. and place on a clean cloth.

3. Hold the backing sheet edge and slide decal onto the model.

4. Move decal into position by wetting decal with finger.

5. Press decal gently down with a soft cloth until excess water and air bubbles are gone.

ANBRINGUNG DES ABZIEHBILDES

1. Abziehbild vom Blatt ausschneiden.

2. Das Abziehbild ungefähr 10 Sek. in lauwarmes Wasser tauchen, dann auf sauberen Stoff legen.

3. Die Kante der Unterlage halten und das Abziehbild auf das Modell schieben.

4. Das Abziehbild an die richtige Stelle schieben und dabei mit dem Finger das Abzie-

bild naßmachen.

5. Das abziehbild mit weichem Stoff ganz andrücken, bis kein überflüssiges Wasser und keine Luftblasen mehr vorhanden sind.

APPLICATION DES DÉCALCOMANIES

1. Découpez la décalcomanie de sa feuille.

2. Plongez la décalcomanie dans de l'eau tiède pendant 10 secondes environ et poser sur un linge propre.

3. Retenez la feuille de protection par le côté et glissez la décalcomanie sur le modèle réduit.

4. Placez la décalcomanie à l'endroit voulu en la mouillant avec un de vos doigts.

5. Pressez doucement la décalcomanie avec un tissu doux jusqu'à ce que l'eau en excès et les bulles aient disparu.

《各機共通機体マーク》

Common markings

Allgemeine Beschriftung

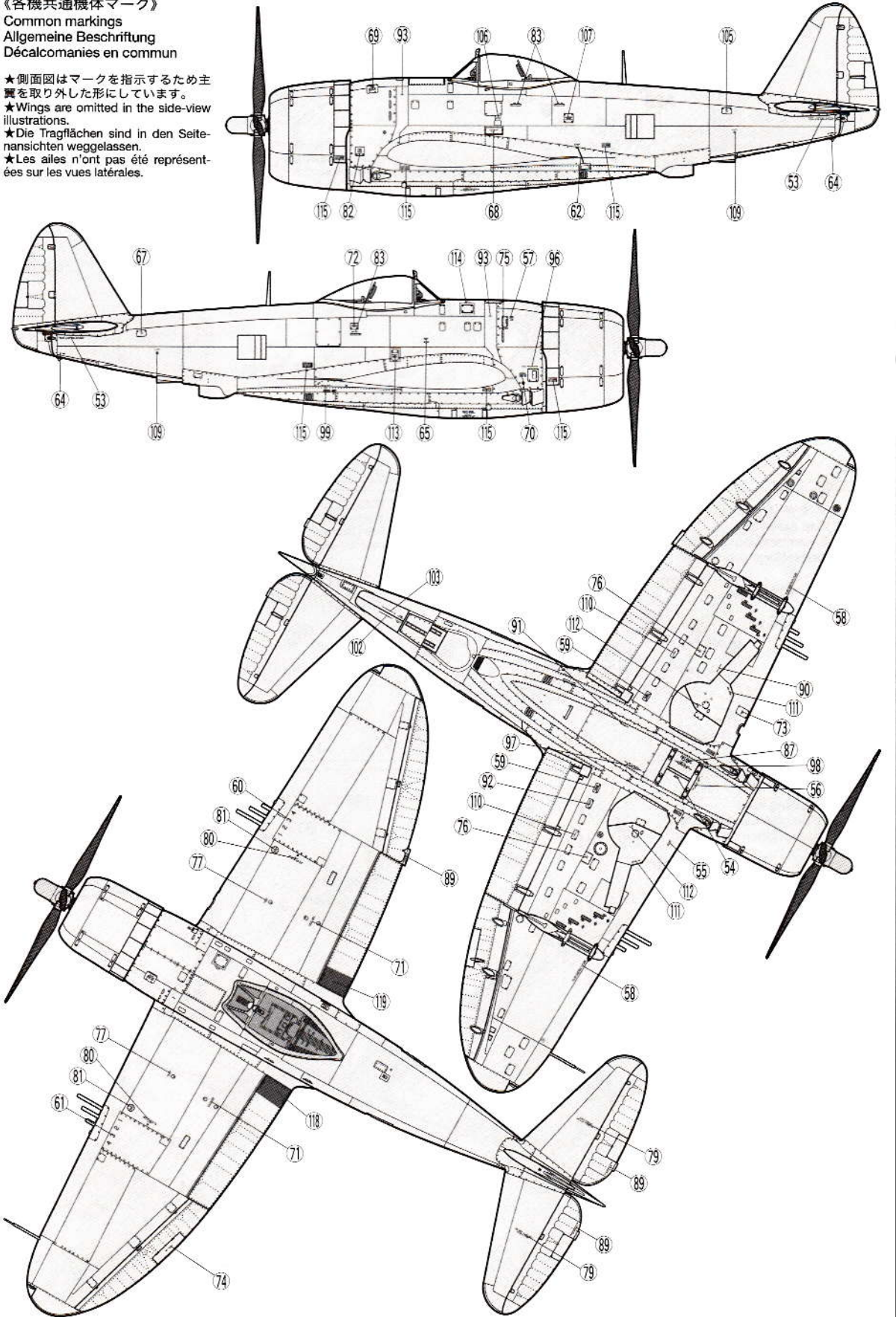
Décalcomanies en commun

★側面図はマークを指示するため主翼を取り外した形にしています。

★Wings are omitted in the side-view illustrations.

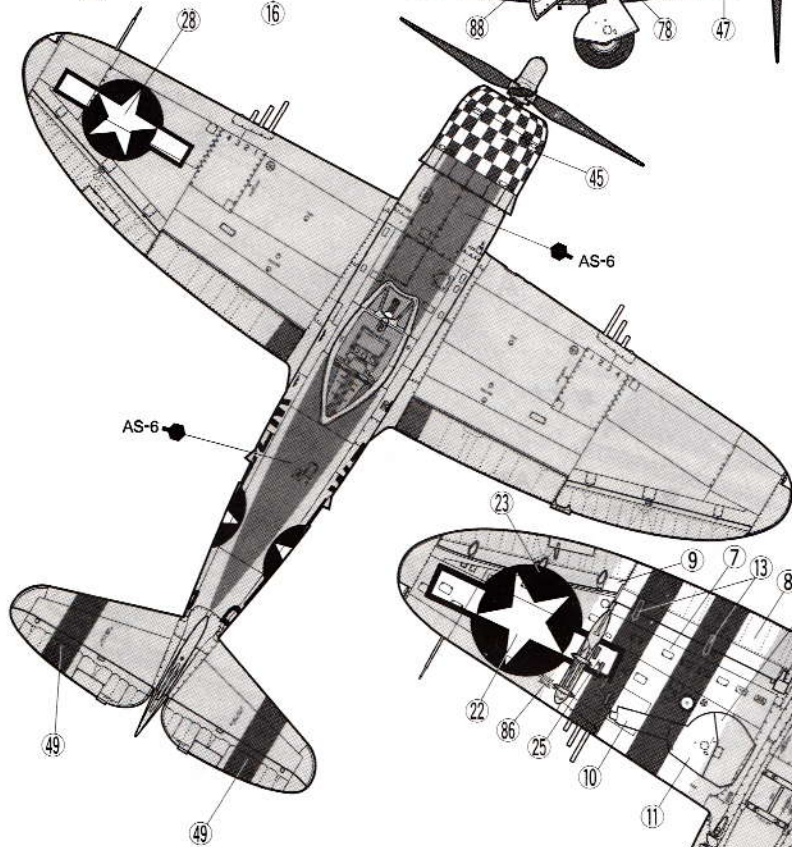
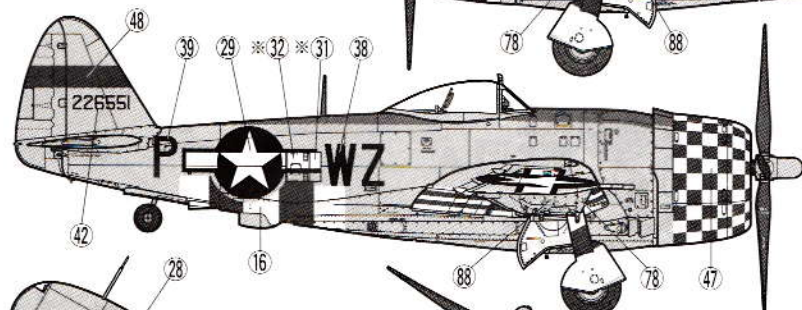
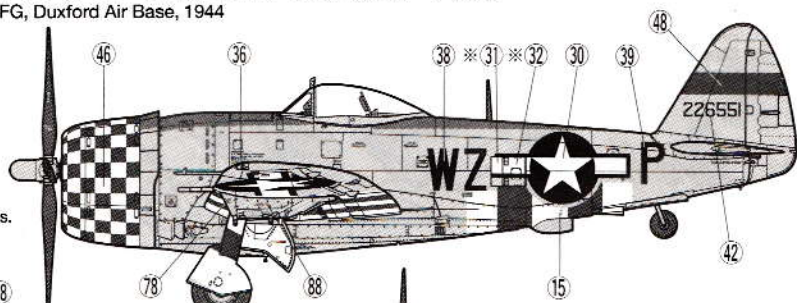
★Die Tragflächen sind in den Seitensichten weggelassen.

★Les ailes n'ont pas été représentées sur les vues latérales.



A 《第78戦闘航空群第84戦闘飛行隊長ベン・メイヨー少佐機 1944年 ダックスフォード基地》
Lt.Col. Benjamin Mayo, 84th FS, 78th FG, Duxford Air Base, 1944

- ★※ は両側に貼ります。
- ★Apply decal ※ on both sides.
- ★Aufkleber ※ an beiden Seiten anbringen.
- ★Apposer les décalcomanies ※ des deux côtés.

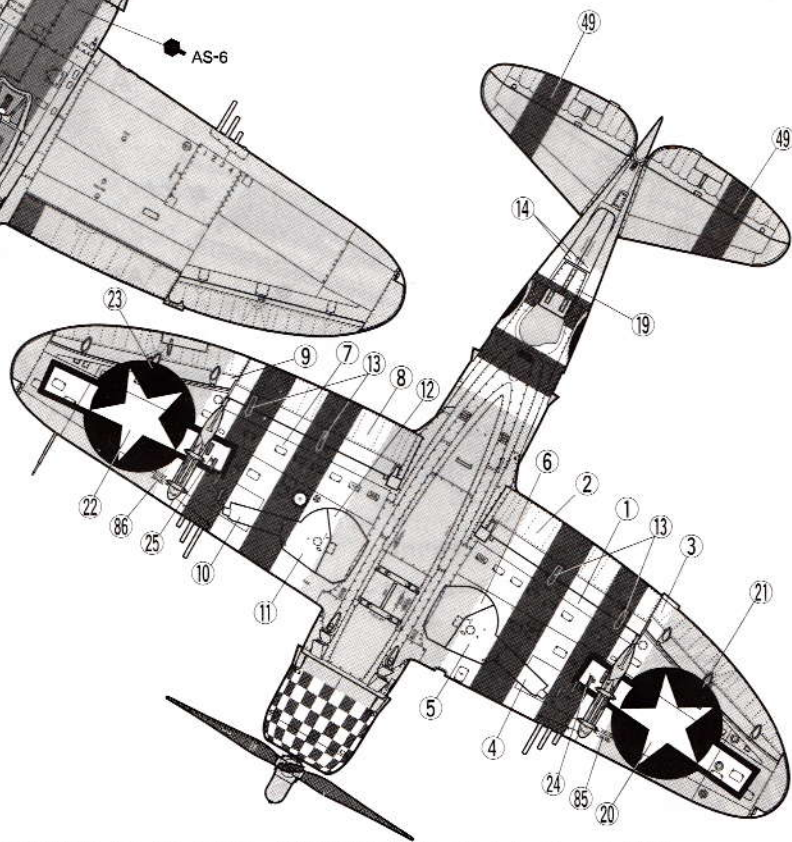


★※のマークはインタークーラー空気出口が開閉状態の場合で異なります。この機体は開状態を示しているので開状態を選択した方は **B** を参考にしてください。

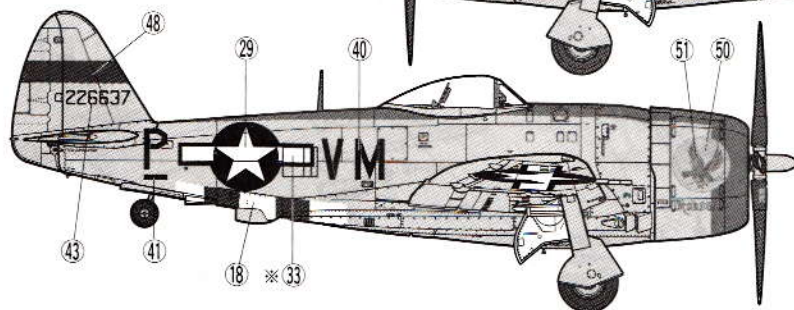
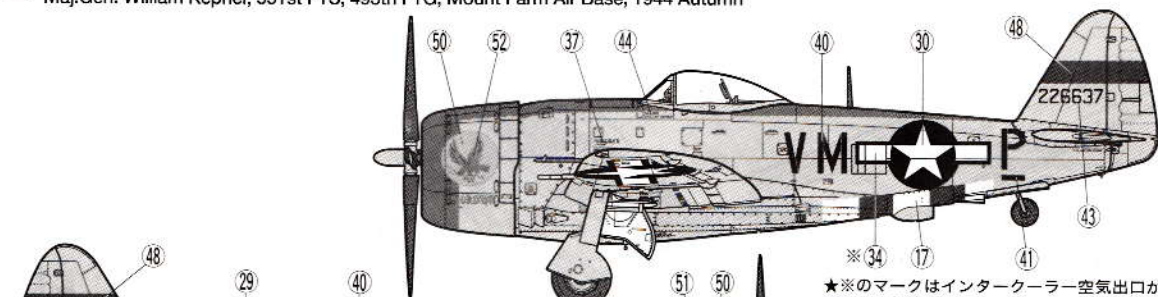
★Illustrations show a fuselage with air outlets opened. If assembling air outlets closed, refer to the illustration **B** when applying decal shown by ※.

★Die Abbildungen zeigen einen Rumpf mit geöffneten Luft-Auslässen. Werden die Luft-Auslässe geschlossen gebaut, so ist zum Anbringen der mit ※ angegebenen Aufkleber die Abbildung **B** zu beachten.

★Les illustrations montrent l'appareil avec les sorties d'air de fuselage ouvertes. Lors du choix de la position fermée, se reporter au dessin **B** pour l'application des décalcomanies désignées par ※.



B 《第495戦闘訓練航空群第551戦闘訓練飛行隊ウィリアム・ケプナー少将機 1944年 秋 マウント・ファーム基地》
Maj.Gen. William Kepner, 551st FTS, 495th FTG, Mount Farm Air Base, 1944 Autumn

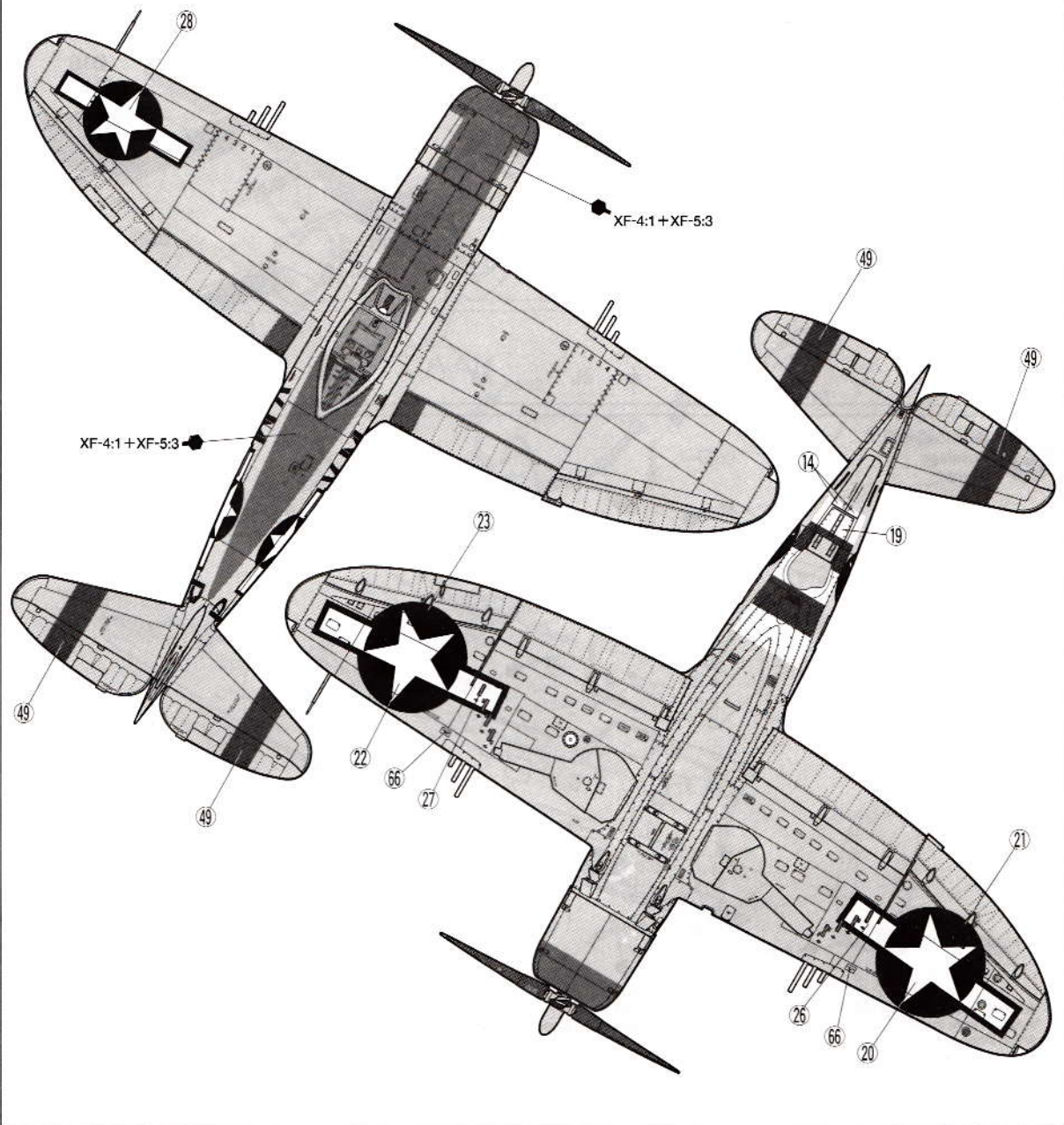


★※のマークはインタークーラー空気出口が開閉状態の場合で異なります。この機体は閉状態を示しているので閉状態を選択した方は **A** を参考にしてください。

★Illustrations show a fuselage with air outlets closed. If assembling air outlets opened, refer to the illustration **A** when applying decal shown by ※.

★Die Abbildungen zeigen einen Rumpf mit geschlossenen Luft-Auslässen. Werden die Luft-Auslässe geöffnet gebaut, so ist zum Anbringen der mit ※ angegebenen Aufkleber die Abbildung **A** zu beachten.

★Les illustrations montrent l'appareil avec les sorties d'air de fuselage fermées. Lors du choix de la position ouverte, se reporter au dessin **A** pour l'application des décalcomanies désignées par ※.



部品請求について

★部品をなくしたり、こわした方は、このステッカーが貼られたカスタマーサービス取次店でご注文いただけます。また、当社カスタマーサービスに直接ご注文する場合は、右記の方法でご注文することができます。詳しくは当社カスタマーサービスまでお問い合わせください。

タミヤカスタマーサービス取次店

パーツのお取り寄せに大変便利なお店です。

TAMIYA
02-262-09111 (東京) 02-262-09112 (大阪) 02-262-09113 (名古屋) 02-262-09114 (福岡) 02-262-09115 (札幌) 02-262-09116 (仙台) 02-262-09117 (新潟) 02-262-09118 (金沢) 02-262-09119 (富山) 02-262-09120 (石川) 02-262-09121 (福井) 02-262-09122 (岐阜) 02-262-09123 (愛知) 02-262-09124 (三重) 02-262-09125 (滋賀) 02-262-09126 (京都) 02-262-09127 (和歌山) 02-262-09128 (奈良) 02-262-09129 (大阪府) 02-262-09130 (兵庫県) 02-262-09131 (徳島県) 02-262-09132 (香川県) 02-262-09133 (愛媛県) 02-262-09134 (高知県) 02-262-09135 (福岡県) 02-262-09136 (佐賀県) 02-262-09137 (長門県) 02-262-09138 (熊本県) 02-262-09139 (大分県) 02-262-09140 (宮崎県) 02-262-09141 (鹿児島県) 02-262-09142 (沖縄県)

- ①《現金書留のご利用法》
下のカードにあなたの氏名、住所、郵便番号、電話番号をしっかりと記入してください。必要部品を○でかこみ、代金を現金書留または、定額小為替(100円以下は切手可)と一緒に申し込みください。
- ②《郵便振替のご利用法》
郵便局の払込用紙の通信欄に下のカードを参考にITEM番号、スケール、製品名、部品名、数量を必ずご記入ください。振込人住所欄には電話番号もお書きいただき、口座番号・00810-9-1118、加入者名・田宮模型でお振込ください。
- ③《電話でのご注文もご利用いただけます》
パーツ代金に加えて代引き手数料(315円)

をご負担いただければ、代金着払いにより電話でのご注文も承ります。

《タミヤカード》タミヤカードを利用されま
すと部品の入手が早く簡単です。詳しくは、
カスタマーサービスまでお問い合わせください。

《お問い合わせ番号》

静岡 **054-283-0003**
東京 **03-3899-3765** (静岡へ自動転送)
営業時間/平日(月～金曜日)▶8:00-20:00
土、日、祝日▶8:00-17:00

●タミヤのホームページには豊富な情報が満載です。ぜひご覧ください。

www.tamiya.com

AFTER MARKET SERVICE CARD

When purchasing Tamiya replacement parts, please take or send this form to your local Tamiya dealer so that the parts required can be correctly identified and supplied. Please note that specifications, availability and price are subject to change without notice.

Parts code	ITEM 61090
9006371	A Parts
0006370	B Parts
0006384	C, D & K Parts (1 pc.)
0006385	G & H Parts
9116013	J Parts
9406058	2x3mm Poly Cap (2 pcs.)
9496042	Decal
1056294	Instructions

REPUBLIC P-47D THUNDERBOLT

“BUBBLE TOP”

1/48 リパブリック P-47D
サンダーボルト“バブルトップ”

A/パーツ	910円	9006371
B/パーツ	870円	0006370
C・D・Kパーツ(1枚)	460円	0006384
G・Hパーツ	970円	0006385
Jパーツ	360円	9116013
2×3mmポリキャップ(2個)	100円	9406058
マーク	450円	9496042
説明図	320円	1056294

For Japanese use only!

ITEM 61090

住所

電話 () -

氏名

0603

TAMIYA
株式会社タミヤ
静岡市恩田原3-7 〒422-8610

REPUBLIC P-47 THUNDERBOLT



that equipped the P-47D and featured a water injection combat emergency system, had an output of up to 2,300 hp and the R-2800-57 that equipped the P-47N had an output of up to 2,600hp. Moreover, air-cooled engines have the advantage of better reliability, as they don't suffer malfunction related to complex cooling systems. This masterpiece of an engine was also used to power Navy fighters such as the F6F Hellcat, the F7F Tigercat, the F8F Bearcat and the F4U Corsair, and a total of over 100,000 units were produced.

«Thunderbolt's birth»

In June 1940, during the beginning of WWII, the Luftwaffe was overwhelming the French Armée de l'air and the Royal Air Force during the Battle of France. When France surrendered after about 40 days of fighting, danger had come to Great Britain's door. Unfortunately for the US, the Seversky P-35 and Curtiss P-36 that were in service with US Army Air Force, as well as the Bell P-39 and the Curtiss P-40 that were about to be delivered, were inferior in many aspects to the Messerschmitt Me109 and the Spitfire that were fighting over the European skies. Moreover, when relations with Japan took a downturn in the Pacific, the US Army Air Force realized that the development of new high performance fighters were of top priority.

Republic's (created from Seversky) chief engineer Alexander Kartveli responded to this requirement by developing a plane equipped with a Pratt & Whitney R-2800 engine, that was to become one of the most powerful fighter-bombers in WWII, the P-47 Thunderbolt.

Starting in 1939, Republic was developing the light fighter AP-10, which was intended to be equipped with a 1150hp Allison liquid-cooled inline engine and two 12.7mm machineguns. In June 1940, after studying the dog-fighting situation in Europe, the design underwent a complete revolutionary change with the adoption of a 2000hp R-2800 air-cooled radial engine connected to a supercharger and eight 12.7 machineguns. The design was proposed to the US Army Air Force and in September a contract was awarded for the production of a prototype designated XP-47B. Only a few months later, in May 1941, the XP-47B made its maiden flight and reached a top speed of 633km/h. In December that same year, the first production P-47B was completed and in March 1942, deliveries began. Unfortunately, many accidents occurred because of the fabric skinned rudder and it was decided to replace this with a metal skinned one to cure the problem. In September 1942, the overall length increased 20cm, giving birth to the P-47C. Whereas the P-47B was only used for training, the P-47C started to be delivered by the end of 1942 to the 8th Air Force based in England and to see combat use. Then, in April 1943, cowling flaps, armor and supercharger were improved resulting in the well-known design of the P-47D. The D version included sub-types designated D-1 to D-40 and were produced in the Farmingdale (RA) and the Evansville (RE) factories. Until P-47D-22-RE and D-23-RA, the aircraft featured fastback canopies and for this reason were called "Razorback" whereas subsequent versions were equipped with bubble canopies for improved visibility.

The P-47D had a top speed of 690km/h at 9,150m and 560km/h at sea level, a maximum ceiling of 12,800m, a range of 950km (standard), 1,650km (maximum), and was able to reach 6,000m in 9 minutes. This high performance fighter was a great asset to the US Army Air Force units in the second half of WWII.

«The heart of the Thunderbolt»

The heart of the Thunderbolt was the Pratt & Whitney R-2800 "Double Wasp". This air-cooled 18-cylinder radial engine had a diameter of about 1.3m and a dry weight of over 1ton, and was very powerful. The R-2800-59



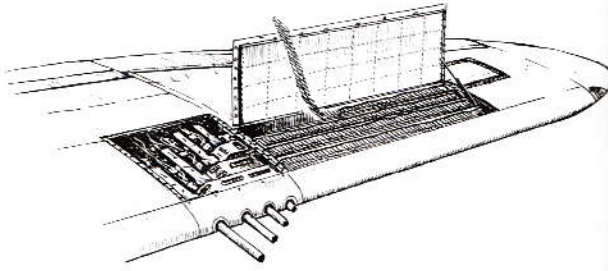
◆ Grumman F6F Hellcat

To use as effectively as possible the power of the R-2800, the P-47 mounted Curtiss C642S-A6 (3.71m diameter) or paddle blade C542S-A114 (3.96m diameter) or a Hamilton Standard 24E50-65 (4.01m diameter) 4-blade propellers.

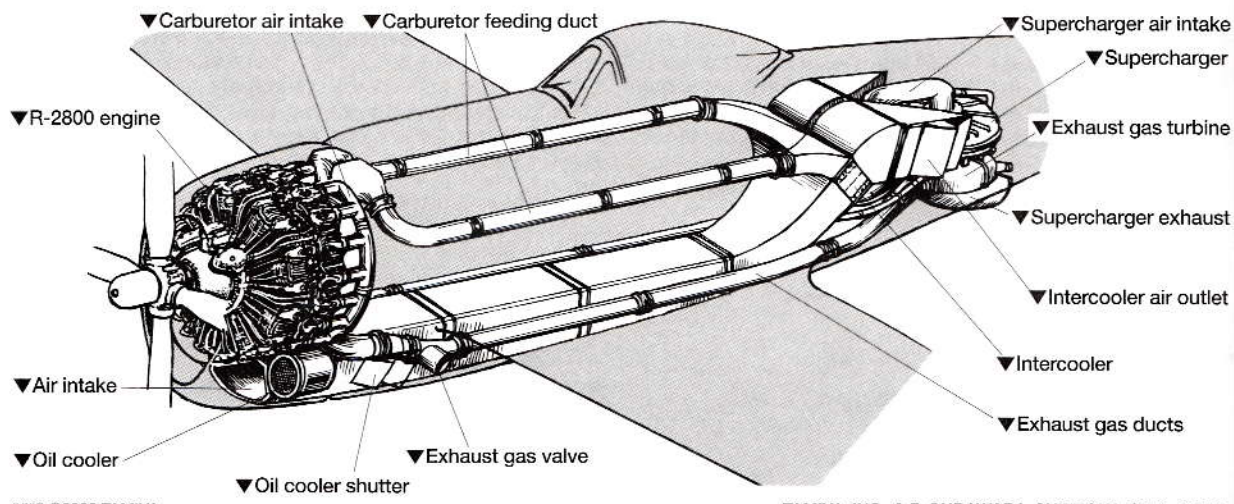
In order to keep these performances even at high altitude, the P-47D was the first single engine fighter to be equipped with a supercharger. The air entering the cowl air intake was brought to the supercharger turbine placed behind the cockpit via an air duct passing through the plane's belly where it was compressed. The turbine used engine exhaust gas to run. The compressed air, which was brought to a high temperature passed then through the intercooler to be cooled down prior entering engine carburetor via air ducts placed on each side of the cockpit. This device allowed the P-47 to retain its great performances when escorting B-17 bombers cruising at very high altitude.

«P-47 armament»

In each wing the P-47 was armed with four 12.7mm Colt-Browning machineguns, the US military aircraft standard weapon, each one loaded with 267 to 425 rounds. Because of this 8-machinegun armament which was an unique feature for a fighter at this time, the P-47 was considered as one of the most powerful planes of WWII. Besides its fixed armament, the Thunderbolt could carry over 1 ton payload of bombs and rockets thanks to its underwing pylons and belly attachment points. The P-47 was also able to carry drop tanks, but its load varied depending on the type of mission and many configurations were used as shown below.



◆ P-47 wing-mounted machineguns and ammunitions



- One 75gal. Drop tank + Two 500lb bombs
- One 250lb bomb + 24 × 30lb cluster bombs
- 40 × 30lb cluster bombs
- Two 4.5in rocket launchers + One 150gal drop tank or Two 500lb bombs
- Two 1000lb bombs + One 500lb bomb or One 108gal drop tank
- 10 × 5in rockets (P-47N)

This massive 1ton capacity was also a unique feature for a fighter in the WWII era.

■ Specifications of main fighters in the late period of WWII

Specification Aircraft	Max power (hp)	Armament	Payload (kg)	Max speed (km/h)	Range (km)
Spitfire Mk. IX	1565hp	7.7mm×4, 20mm×2	227kg	674km/h	698km
Me109 G	1475hp	13mm×2, 20mm×1	250kg	640km/h	650km
Fw190 A-8	1700hp	7.92mm×2, 20mm×4	700kg	640km/h	1450km
A6M5 Zeke	1130hp	7.7mm×2, 20mm×2	120kg	565km/h	1920km
P-51D Mustang	1450hp	12.7mm×6	900kg	703km/h	3703km
P-47D Thunderbolt	2000hp	12.7mm×8	1134kg	690km/h	1650km

※ Figures in "Armament" cells indicate diameter of rounds and number of guns. Figures in "Range" cells show the maximum range of each aircraft with drop tanks.

《About P-47 name》

Although the P-47 was officially called "Thunderbolt," pilots didn't use this name much. Instead they nicknamed the versions featuring fastback canopies "Razorback" and those with bubble canopies "Jug".

The nickname "Jug" was given because the P-47's bulky form made it look like a milk jug. Later, all versions of the thunderbolt were commonly called "Jug".

《Thunderbolt on the European Front》

The P-47 was used both on the European front and in the Asian Theater in the Pacific. In Europe the Thunderbolt was employed for two types of missions.

1) Escorting bombers

From 1943, the US Army Air Force and the Royal Air Force started to launch bombing raids on German occupied territories and the German homeland. But, the Spitfire, which represented the main Allied fighter on that front at this time, even if being easy to handle, didn't have enough range to escort the bombers that were by themselves in German sky. The twin-engine fighter P-38 had enough range but it was first introduced on the Pacific Theater and the P-47 had to take over the B-17 and B-24 bombers escorting mission. The Thunderbolt was not as easy to handle as the Spitfire but was able to fly at the same high altitude as bombers which was a great advantage for such duty. Because of the trust they put in the P-47, the bomber's crews nicknamed the Thunderbolt "Little Friend". However, even when using drop tanks, the P-47D could only escort bombers until the cities in the western part of Germany such as Bremen and Frankfurt. When the P-51 was first deployed, the bombers were escorted everywhere they went over Germany.

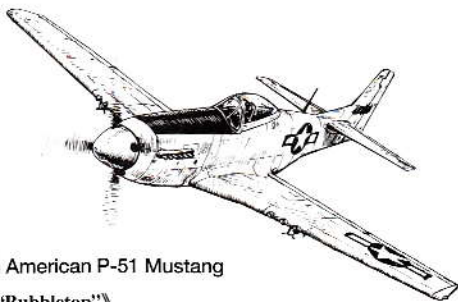
During the introduction of the Thunderbolt, the fourth Fighting Groups that transitioned from Spitfires had many difficulties to handling the heavy P-47 but as they slowly got used to it, they started to shoot down German planes en masse. As a result of this, many pilots became aces like the 28-victory ace F. Gabresky, the 27-victory ace R. Johnson and, the 22.5 victory ace D. Schilling. Although the P-47 was inferior to its rivals, the Bf109 and the Fw190 with regards to handling, its high speed and heavy armament made this fighter a serious threat when using the shoot and run tactic.

2) Ground attack role

The second task that was assigned to the P-47 was the ground attack role where it could use all its firepower. When the P-51 which, had greater range and maneuverability, made its appearance, the Thunderbolt was relegated to ground attack missions. When attacking the German Army with 8 machineguns, bombs and rockets, the P-47 lived up to the name of 'thunderbolt' as it rained down thunderous mayhem on the German ground forces that opposed it. The armor that effectively protected the pilot and the internal fuel tank from ground fire, fire extinguisher and the air-cooled R-2800 engine that was able to take a lot of damage without breaking down, allowed many pilots to come back safely to the base. The roaring sound of the P-47 inspired fear in German forces as it began relentless assault on airbases, ground troops, railways, locomotives, factories, and all ships within its reach.

《Thunderbolt on the Pacific Front》

Starting in the middle of 1943, the P-47 made its appearance in Asia on the Pacific front with the 5th and the 10th Air Force. The Thunderbolt was used in New Guinea, the Philippines, Burma and then in Okinawa. With the meager resources the Japanese Navy and the Japanese Army had after the loss of their best pilots, the heavily armed high speed P-47 was one of their most feared opponents. However, as long range was necessary on the Pacific Theater, the role of the Thunderbolt was quite limited in favor of the P-38 and the P-51.



◆North American P-51 Mustang

《P47D "Bubbletop"》

Despite the reliability of the P-47D "Razorback", there did exist a few minor problems, one of which was insufficient visibility to the rear of the cockpit. Type D-25-RE addressed this problem by incorporating a major change in design in which a bubble canopy was employed for increased visibility. This bubble canopy was electrically workable and connected to a bulletproof windshield mounted in the front. The fuselage internal fuel tank was enlarged from 305 gallons to 370 gallons. From the D-25 and on further improvements were made, such as the increased engine power of type D-27, and the airbrakes of type D-30. The final model, type D-40, employed a dorsal fin to correct lateral imbalance caused by loss of the razorback fuselage structure which had created air resistance to steady the plane. This dorsal fin was retrofitted on previous types of P-47D Thunderbolts such as the D-30.

《P47M/N》

The next major type following the development of the P-47D was the P-47M. The most characteristic feature of the P-47M was its 2800hp output P&W R-2800-57 Engine employing a CH-5 exhaust turbine. With this power source, the P-47M was able to reach speeds of 766km/h to become the fastest plane of the P-47 series. The P-47M was first deployed to the 56th Fighter Group in January 1945. The 56th Fighter Group was the only fighter group still employing P-47 Thunderbolts by the end of WWII. In the beginning the 56th Fighter Group was plagued with problems revolving around the new engine. However, in due time the P-47M was demonstrating both its high speed and high performance by even obtaining victories on German Me262 Jet Fighters. Up till the P-47N, which was known for its superior range, a total of 15,683 P-47 Thunderbolts were produced in all. The tough construct and heavy payload concept of the P-47 would become a Republic company tradition for future aircraft such as the F-84 Thunder Jet, and A-10 Thunderbolt II.



◆Boeing B-17 Flying Fortress

