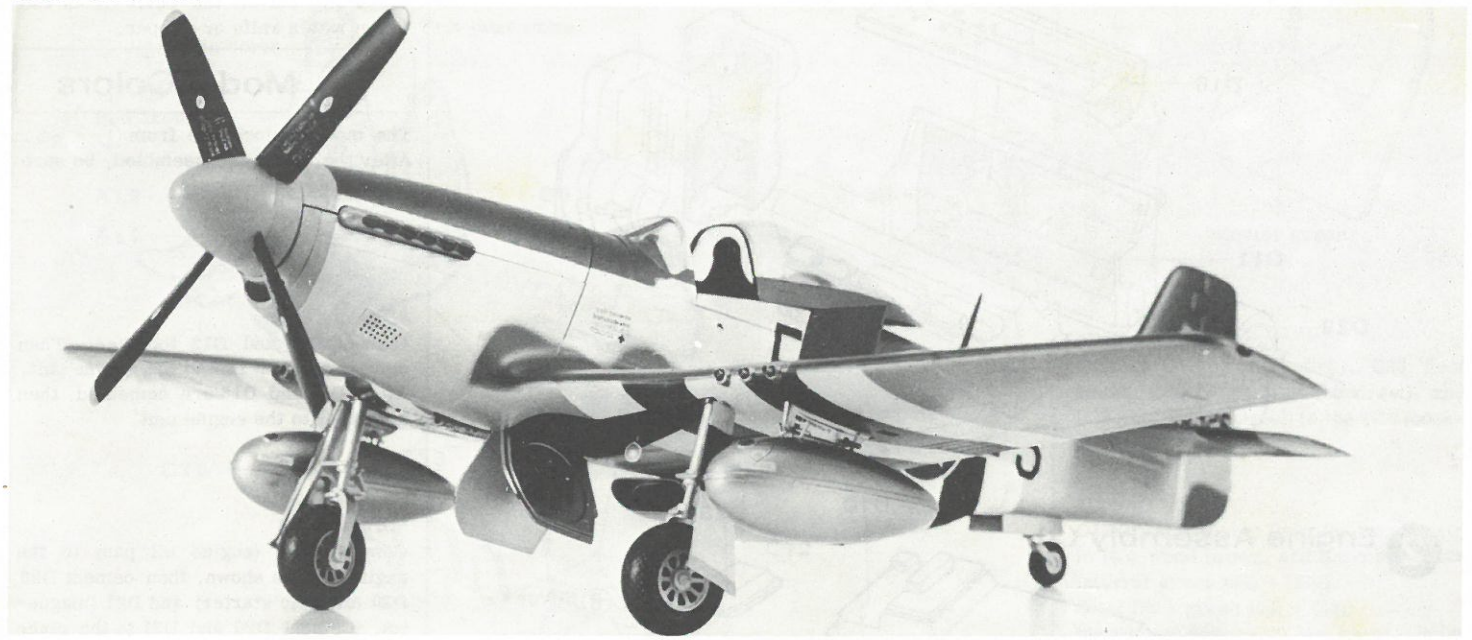
NORTH AMERICAN P-51D MUSTANG

1/32 SCALE



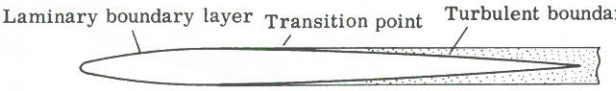
History & Development

North American P-51 Mustang was the famous fighter airplane during World War II. North American Aviation presented the prototype of a new fighter airplane with superior performance powered by V-1710-39, the same as of the H-87, and put it into production by the name of NA-73. The basic design was made by Raymond Rice and Edgar Schmued. The feature on this NA-73 is that it adopted the laminar flow airfoil, placed the coolant radiator into the underside of the back fuselage to minimize the airflow resistance. The original prototype, of this NA-73 was known as Mustang I and 620 planes were ordered by the Royal Air Force; the delivery started in August of 1940. Mustang I was equipped with bulletproof fuel tank, armour plate, 2 x 12.7 mm machine guns under the nose and 4 x 7.7 mm machine guns in the wing. The Mustang for the U.S.Army was the P-51. The great maneuverability at low ceiling and the high speed were the outstanding feature. The difference from Mustang I was that the wing armament had 4 x 20 mm cannons. On the improved type P-51A, 1470 hp. V-1710-81 engine was installed for instant and emergency take-off; the armour was replaced with 4 x 12.7 mm machine guns, and newly equipped with the auxiliary tanks or 225 kg. bombs to the underside of the wing. P-51B was the first full scale production model for the U.S. Army and 1988 planes were built at Inglewood Plant as well as 1750 planes of P-51C. P-51D made its first appearance in 1944, with sliding canopy hood. It was powered by the V-1650-7 engine and equipped with 6 x 12.7 mm machine guns and 2 x 450 kg. bombs. At the Inglewood Plant, 6502 planes were produced, and at the Dallas Plant 1454 planes. 281 planes and 136 scout planes were also produced for the Royal Air Force at Inglewood. The P-51D fell short in its performance compared to the P-51B and P-51C, but because of its well-balanced structure, it was the most popular type as a all-round fighter. This plane showed action in Europe and the Pacific War fronts. From 1944 and in February 1945 it escorted the B-29 in its bombing attack on mainland of Japan. The first appearance was made over Tokyo in April 17, 1945. For the latter airplane of this type, rocket bombs and 6 bazooka launchers were installed under its wing. P-51F was completed in June of 1944 armed with only 4 machine guns, made the landing wheels smaller, changed the propeller to 3 blade type and adopted plastic materials to lighten the entire weight. In 1944, XP-51G (2 planes produced) made its apperance, being much lighter than the P-51F, and equipped with Rolls Royce Merlin 145 Engine and with 5 blade propeller. The maximum speed was improved to 760 km/hr. P-51H, the last produced model, made its maden flight in February 3, 1945. It was heavier than the P-51F, but its maximum speed reached 784 km/hr. and the flight range became greater. However, due to the fact the war ended, only 555 planes were produced.

The fame on this plane was demonstrated in its air combat, but the secret of its superiority was in its design made with a step ahead theory compared to the planes of the same class, and its entire co-ordination of well-balanced. The wing, utilizing the laminar flow airfoil, was the result of the tunnel test and this was recognized as one of the major feature. All foils and fuselage were blended into one smooth shape and the coolant radiator was installed into the underside of the fuselage so that the plane was provided with the airframe of the least airflow resistance possible. As for the armament, both wings were armed with 3 x 12.7 mm Browning machine guns respectively and adopted bomb rack, capable of carrying 2 x 450 kg. bombs, 10 x 127 mm high speed rocket bombs or 6 x bazooka rocket launchers. P-51D, assigned by U.S.Army Air Force, served with the 20th and 7th Air Force in the Pacific Area, 5th Air Force in the Southeast Pacific, 10th Air Force in China and Burma, 8th and 9th Air Force in Europe, 15th Air Force in Italy, and the 3rd and 4th Air Force in mainland of U.S.A.

Laminar Flow Airfoil

In the laminar flow theory, the design on airfoil is relatively thin at the leading edge and progressively widened to a point of greatest thickness as far back as possible. This is to maintain the adhesion of the boundary layers of airflow which are present in flight as far back as possible. On normal airfoils the boundary layer would be interrupted at high speed and would cause a turbulent flow over the remainder of the foil.



Data on P-51D

Overall length: 9.85m / Overall width: 11.3m / Overall height: 4.2m
Wing area: 21.6m^2 / Aircraft weight: 3235kg / Engine: Packard Merlin V-1650-7 / Maximum speed: 704km/hr / Ceiling: 12,800m
Armament: 12.7mm Machine gun x 6 450kg Bomb x 2 / Gross weight: 4580-5260kg / Maximum cruising range: 3,700km / Landing speed: 160km/hr / Crew: 1

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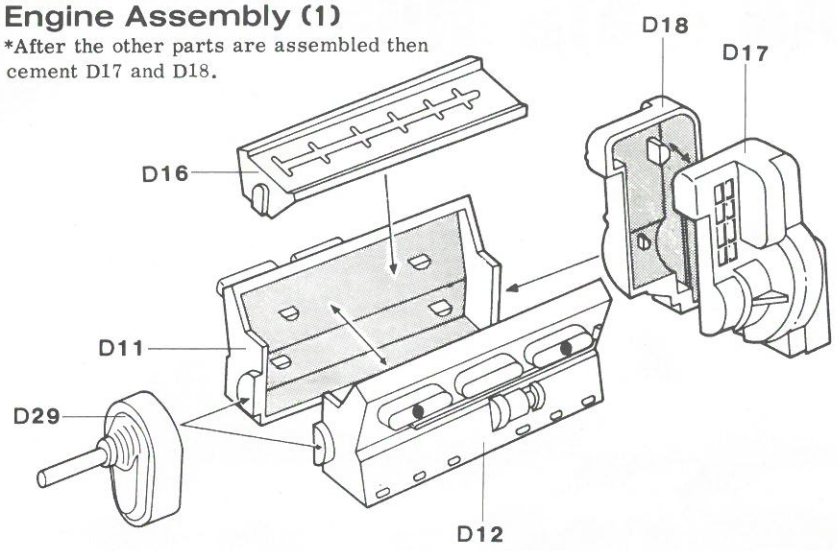
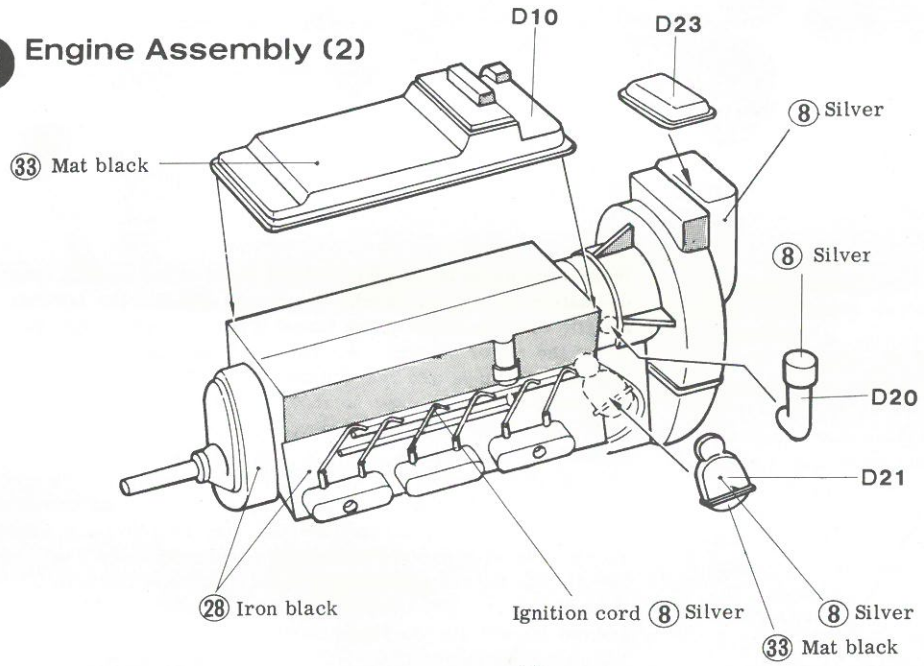
1 Engine Assembly (1)

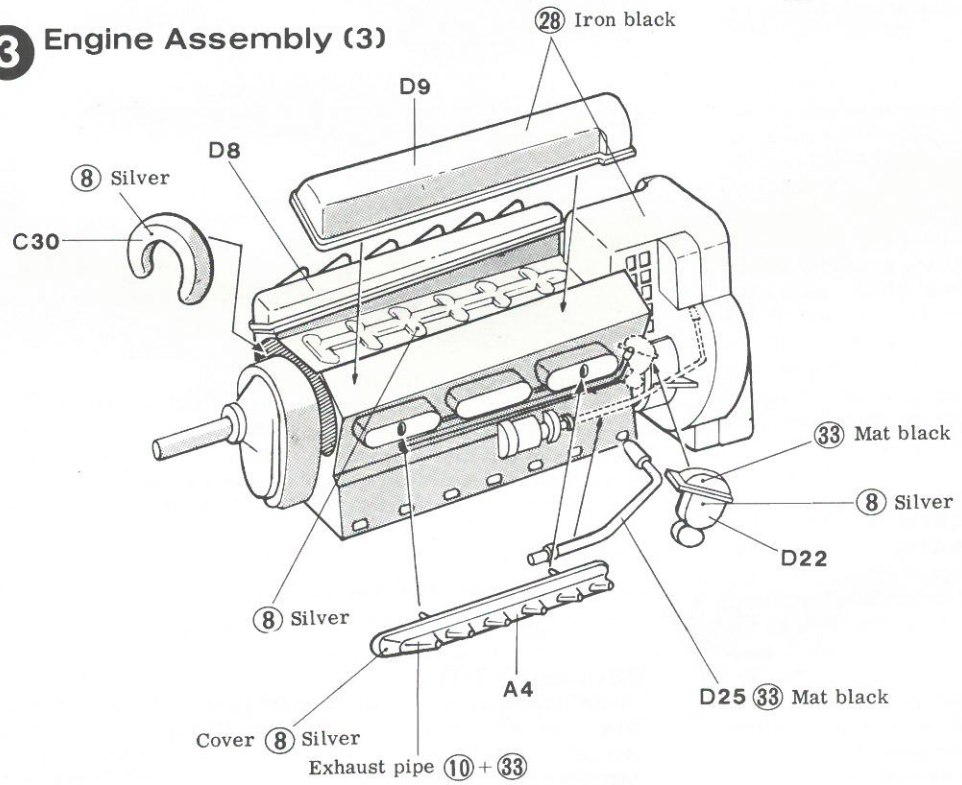
*After the other parts are assembled then cement D17 and D18.



2 Engine Assembly (2)



3 Engine Assembly (3)



■ Before Assembling

*Carefully read the instructions before assembling your model and follow them.

*Carefully cut off the parts from the stem with a knife or clipper.

Model Colors

The model colors are from ① - ⑥⓪. After the model is assembled, be sure to paint it.

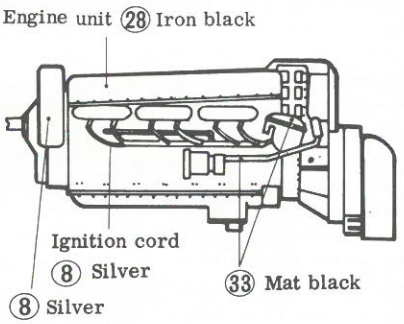
*Drawing - 1

Cement D11 and D12 together. Then cement D16 and D29 to the engine unit. After D17 and D18 are cemented, then cement it to the engine unit.

*Drawing - 2

Cement D10 (engine oil pan) to the engine unit as shown, then cement D23, D20 (electric starter) and D21 (magneto). Cement D20 and D21 to the place indicated by the dotted line.

*Engine Reference Drawing

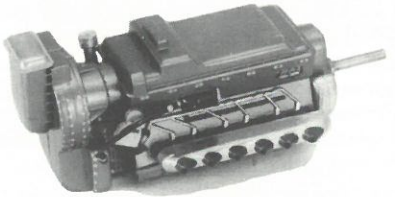


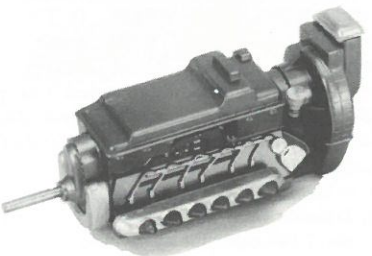
*Drawing - 3

Cement to the engine D8 and D9 (cam shaft cover), C30, A4 (exhaust pipe), D22 (B magneto) and D25 (pipe).

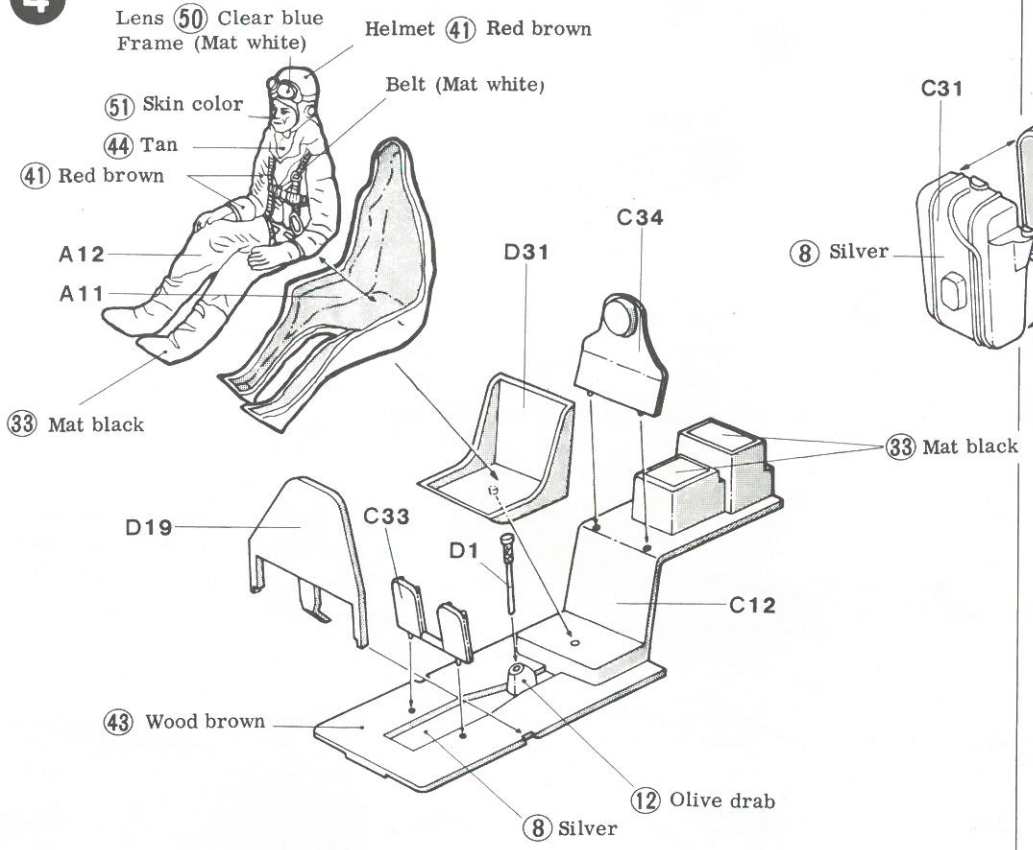
Cement the D22 and D25 to the place indicated by the dotted line.

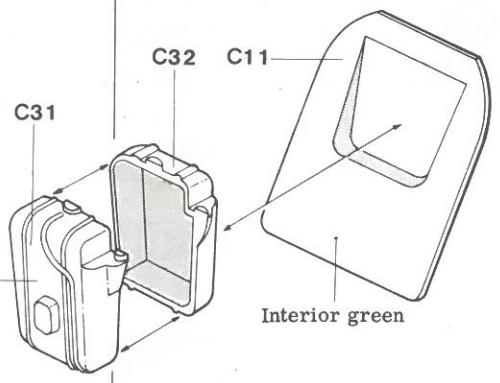
Picture of Completed Engine





4 Cockpit Assembly

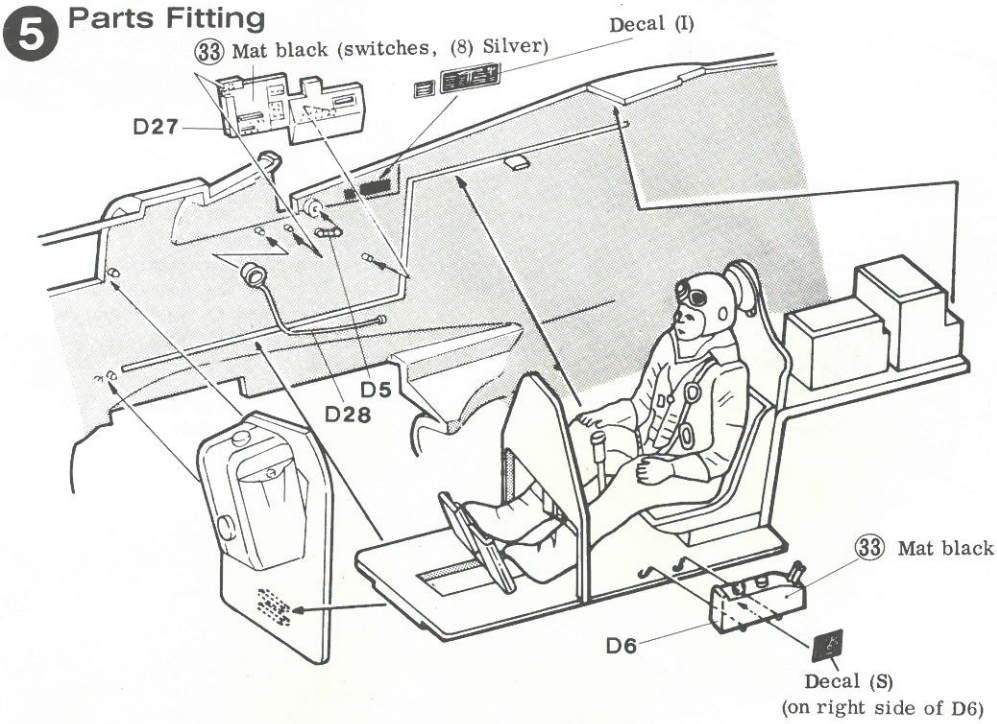


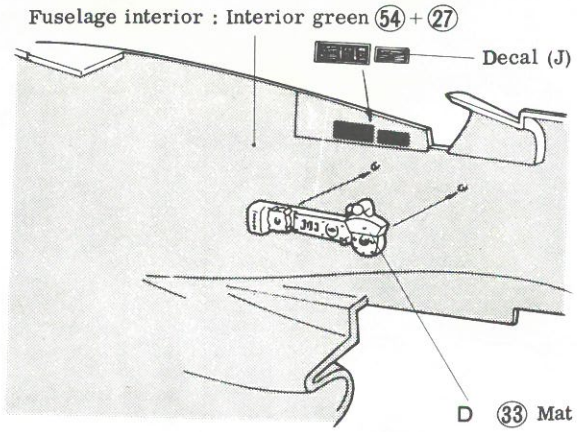


*Drawing - 4
Cement D1 (control stick), C33 (foot pedal), D31 (seat), C34 (headrest), and D19 (instrument panel) to the C12 (cockpit floor).

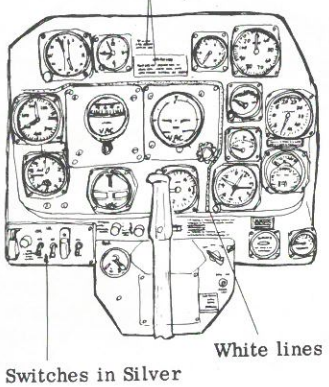
*Color Guide
C12 (cockpit floor): Paint the wood grain in (43) Wood brown, and the other parts Interior green (54) + (27).
Seat: Dark green (54) + (33)
Instrument panel: (33) Mat black. Paint the meter needle graduation White.
Use Orange and Red for accent.

5 Parts Fitting



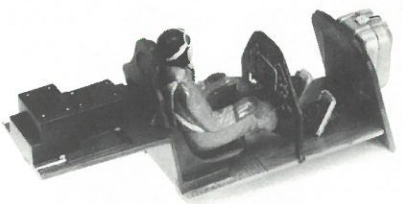


White words on the black background



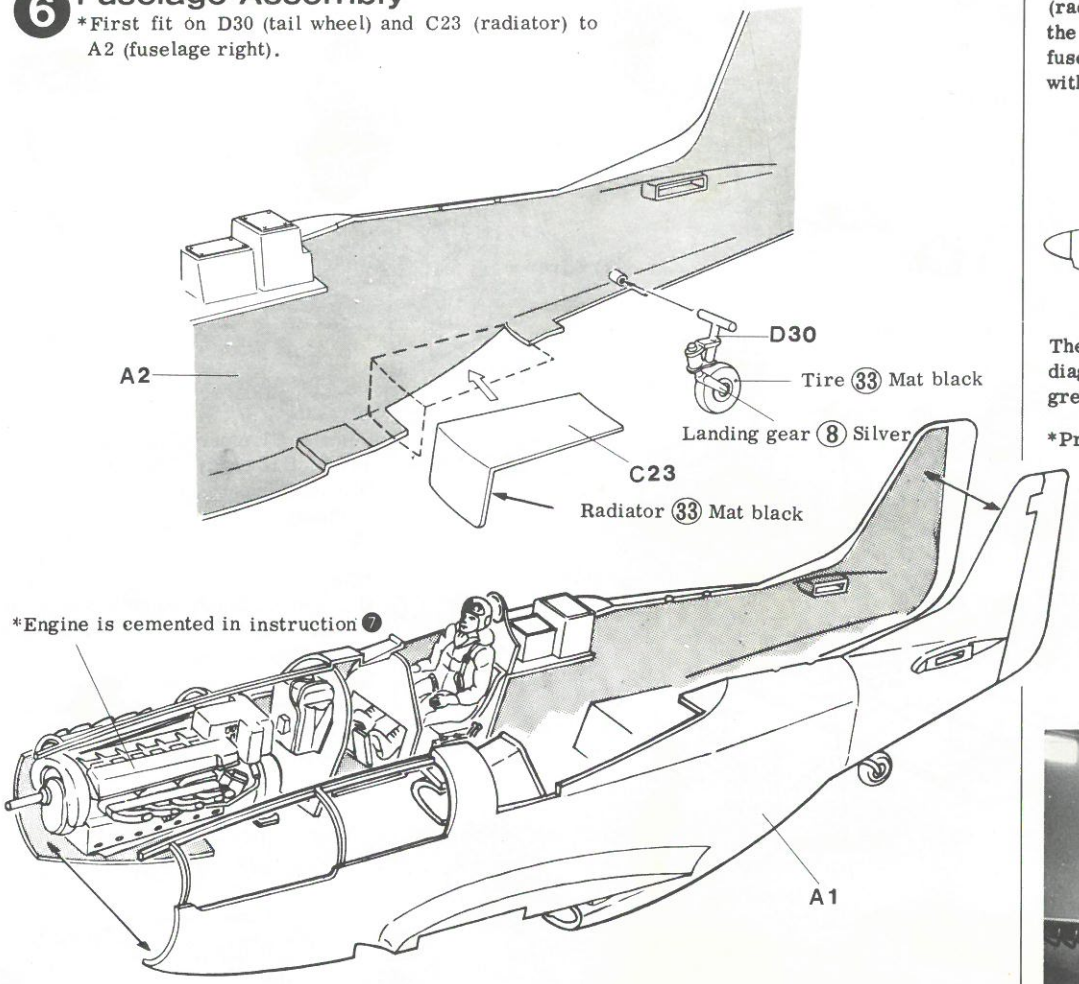
*Drawing - 5
Cement D5 (canopy hand crank), D27 (side panel) and D28 (oxygen hose) to A2 (fuselage, right). Paint D5, D28 (33) Mat black.
Cement the assembled cockpit to the fuselage right as shown. Cement D6 (control box) to the cockpit floor, and D7 (side panel) to A1 (fuselage left).

Picture of Completed Cockpit



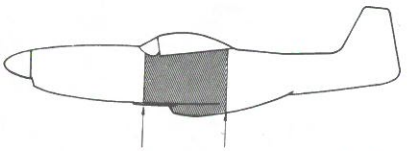
6 Fuselage Assembly

*First fit on D30 (tail wheel) and C23 (radiator) to A2 (fuselage right).



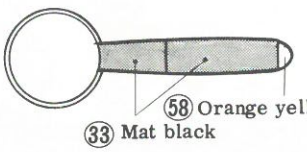
*Drawing - 6

First fit on D30 (tail wheel) and C23 (radiator) to A2 (fuselage right). After the engine and cockpit is fitted on the fuselage right, then cement it together with A1 (fuselage left).

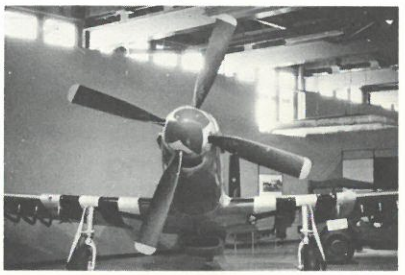


The fuselage interior, indicated by the diagonal lines, is painted Interior green (54) + (27).

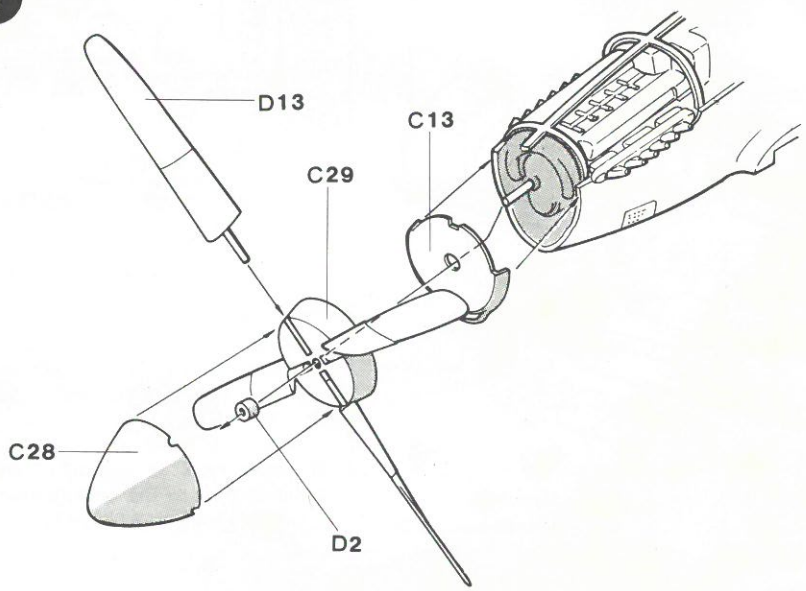
*Propeller Reference Drawing



Propeller Manufactured by Aero Products



7 Propeller Assembly



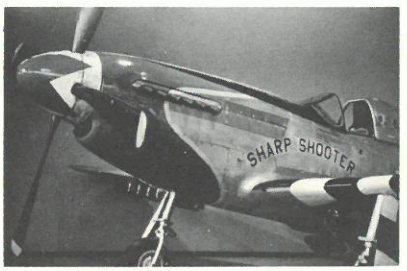
*Drawing - 7

Cement D13 (propeller blade) to C29 (back of spinner).

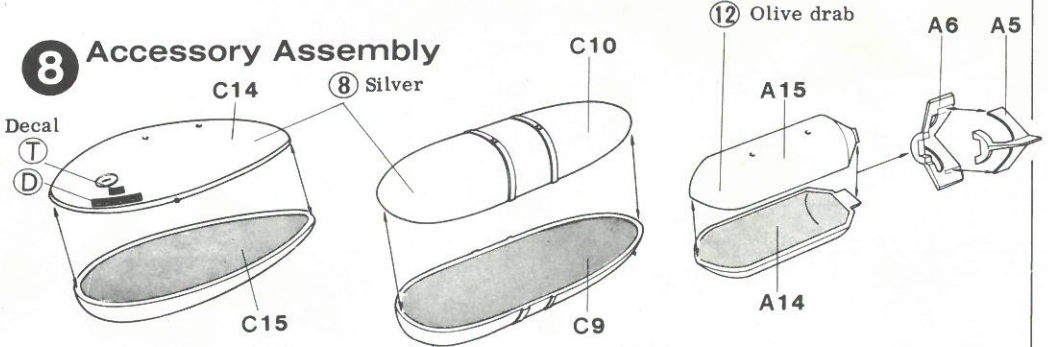
Cement C13 (nose part) to the fuselage.

Fit C29 on the engine shaft (Do not cement), and fit on D2 (propeller retainer). Cement C28 (front spinner) to C29.

*Cement the 4 propeller blades in the same angle so that the pitch becomes 23° - 65° in all.

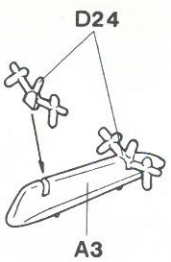


8 Accessory Assembly



75 gal. auxiliary tank (2 set) 110 gal. auxiliary tank (2 set) 1000 lb. bomb (2 set)

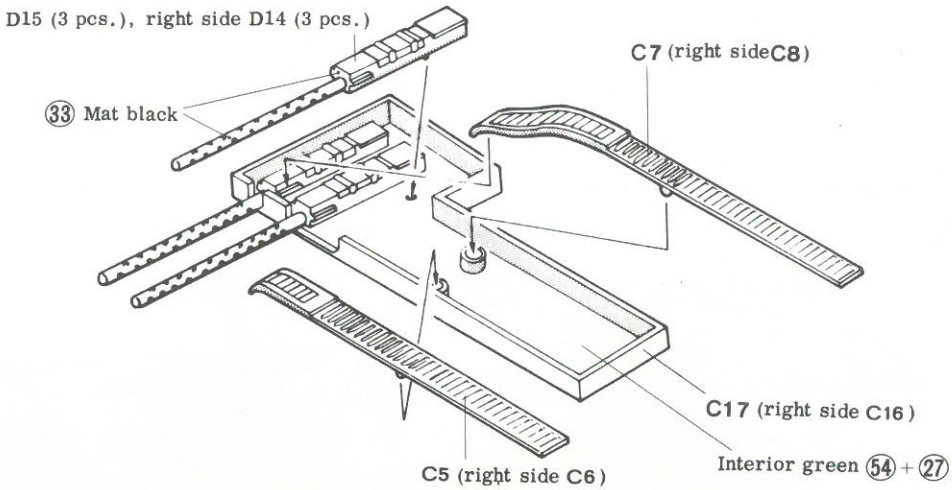
*Pylon Assembly



Select from the 3 types and fit it on the pylon.

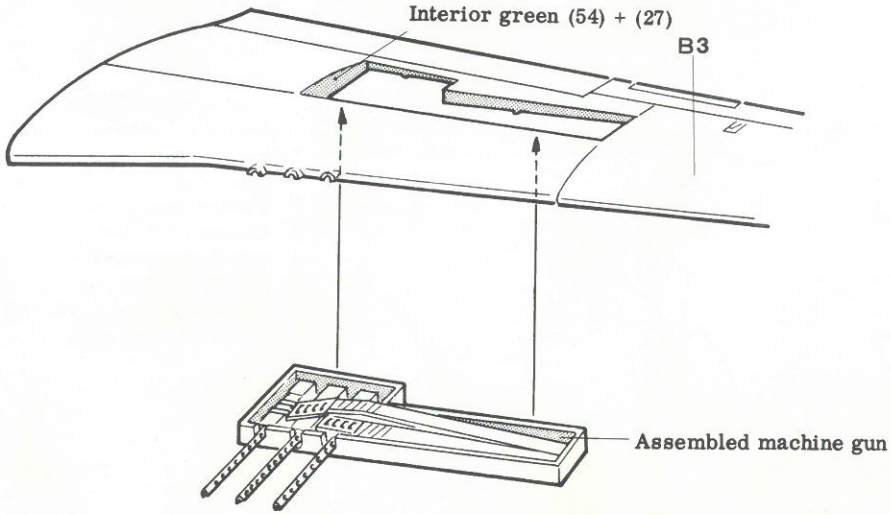
9 Machine Gun Assembly (Left Side)

(For the right side, assemble the same way.)

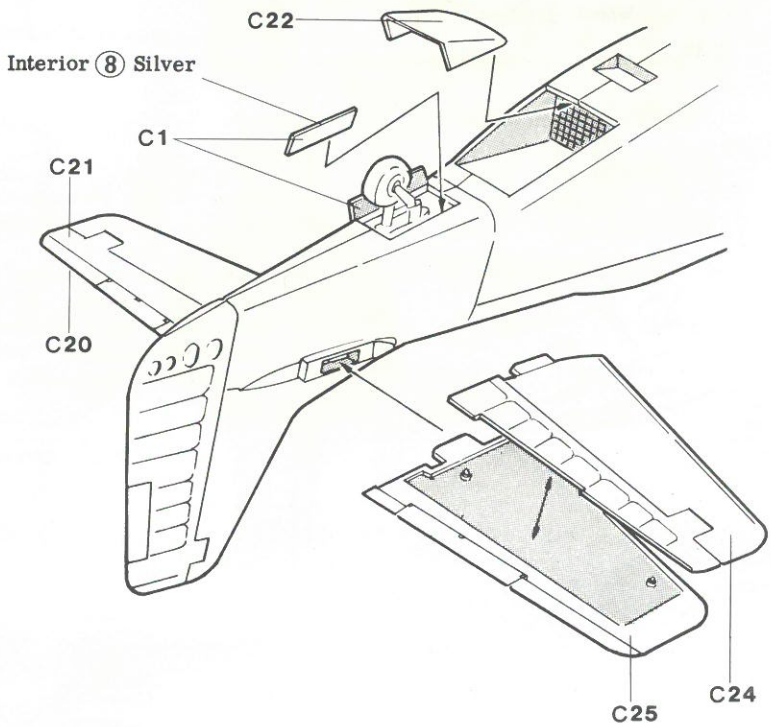


10 Machine Gun Fitting (Left Side)

(For the right side, assemble the same way)



11 Tail Wing Fitting

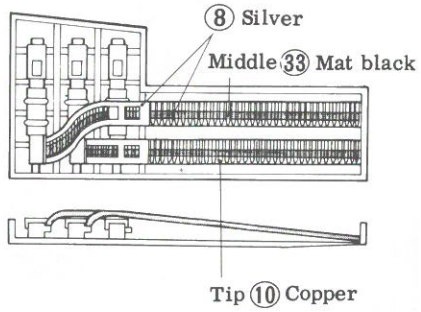


*Drawing - 9

Fit on to the C17 3 pieces of D15 (machine gun).

Cement C5 (cartridge belt) and C7 (cartridge belt) to the designated place.

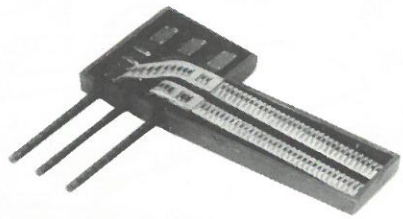
*Machine Gun Fitting Reference Drawing



*Drawing - 10

Cement the assembled machine gun to the back side of the main wing. (The right side is assembled the same way).

Picture of Completed Machine Gun



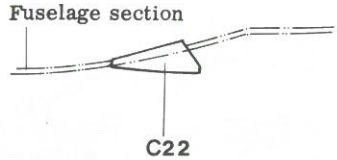
*Drawing - 11

To the assembled fuselage, cement C22 (radiator flap) and C1(tail wheel cover).

Cement C24 to C25, and C20 to C21 and then fit it on the fuselage.

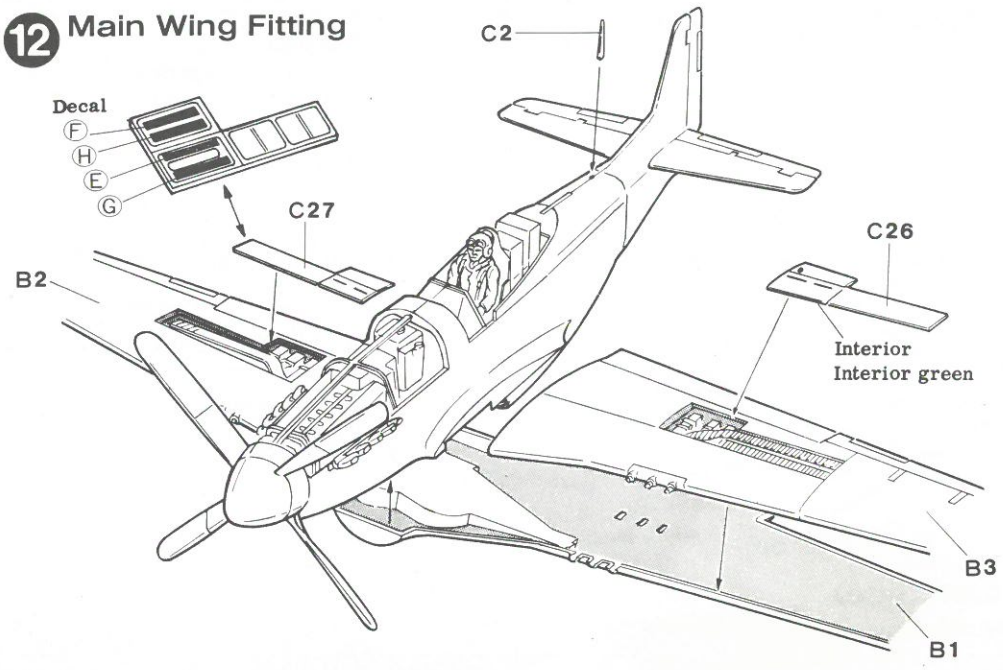
Fit on C22 at any desired angle.

Fuselage section



Picture of Actual Plane

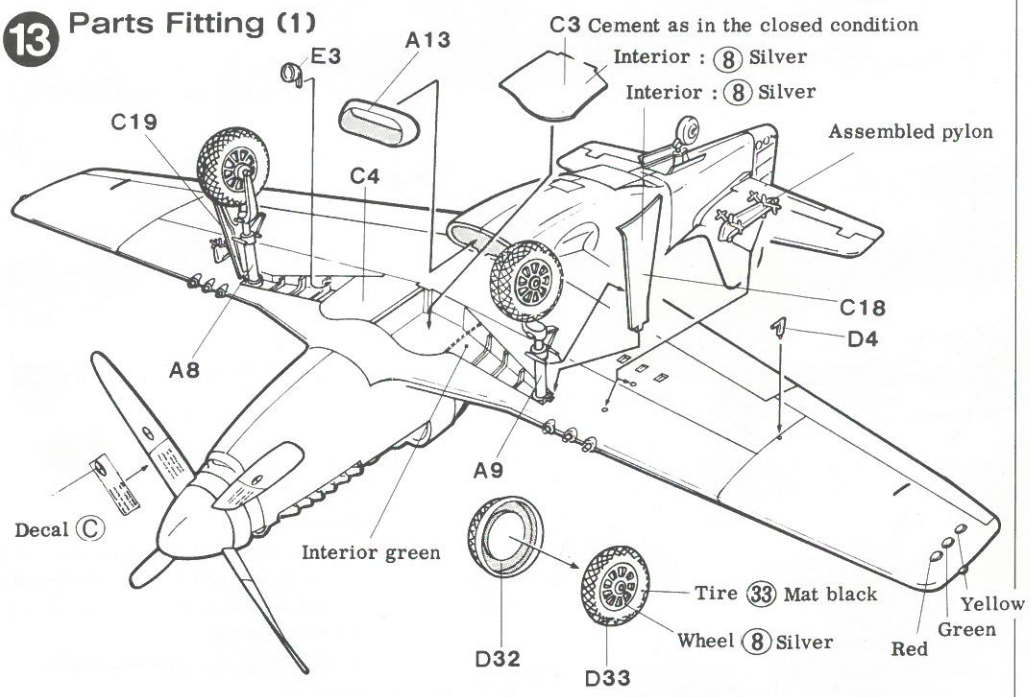
12 Main Wing Fitting



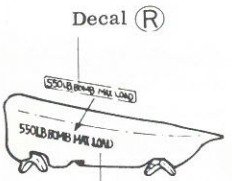
*Drawing - 12
Cement -B1 (main wing bottom) to the fuselage.
Cement B2 and B3 (main wing top) to the main wing bottom. Do not cement C26 and C27 (machine gun cover).
Cement C2 to the fuselage.

P-82B (Twin Mustang)
Reference Picture

13 Parts Fitting (1)

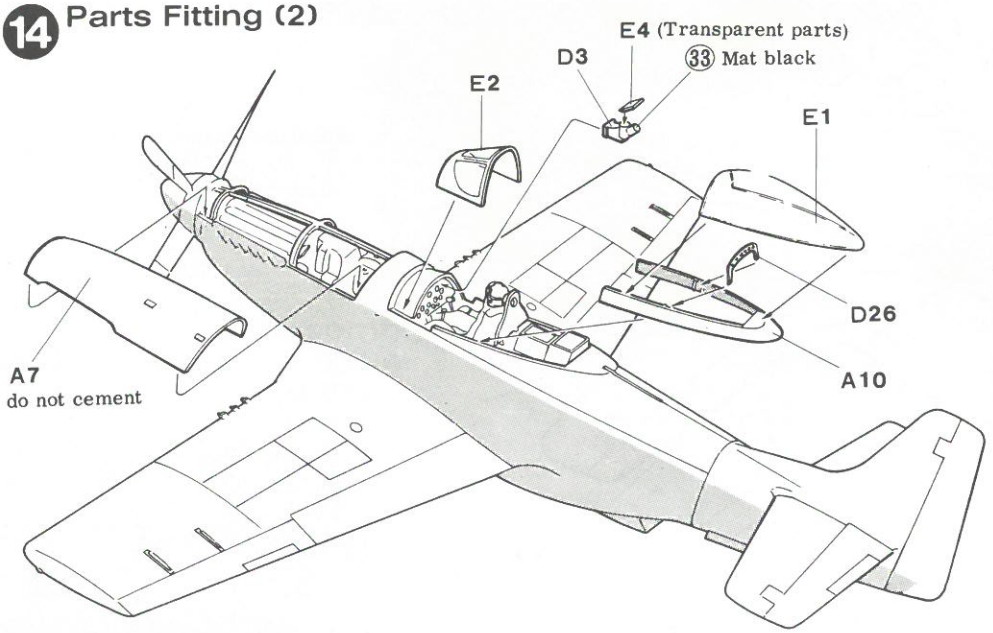


*Drawing - 13
Cement A13 (radiator intake) to the fuselage. Cement C3 and C4 (landing wheel cover) to the main wing bottom. Cement the wheel to the A8 and A9 (landing gear).
Cement C18 and C19 (landing gear cover) to the landing gear strut. After the E3 (landing light) is painted (paint it Silver, excluding the lens), cement it under the main wing.



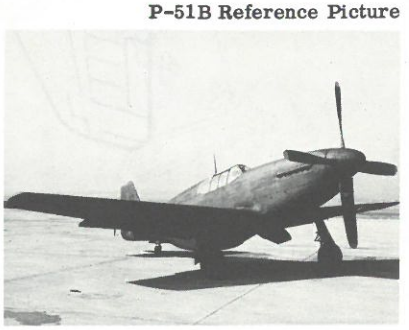
Stick on to the left side of the pylon.

14 Parts Fitting (2)



*Drawing - 14
Fit on E4 (sun filter) to D3 (gun sight) and then cement it to the instrument panel.
Fit on D26 (canopy frame) to A10 (canopy base) and after E1 (canopy) is cemented, cement it to the fuselage in the desired position. Cement E2 (canopy shield) to the fuselage.

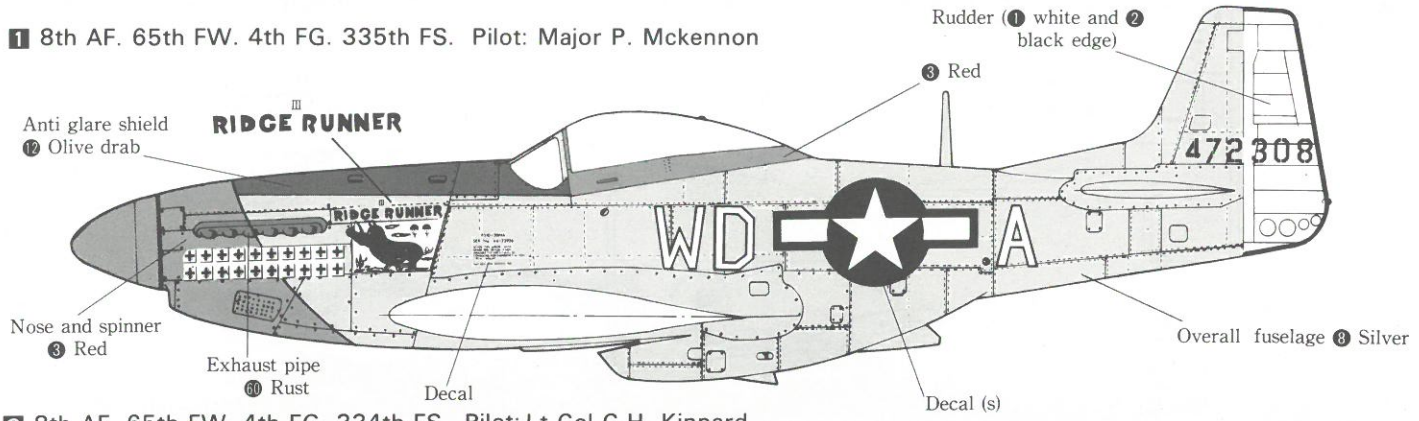
P-51B Reference Picture



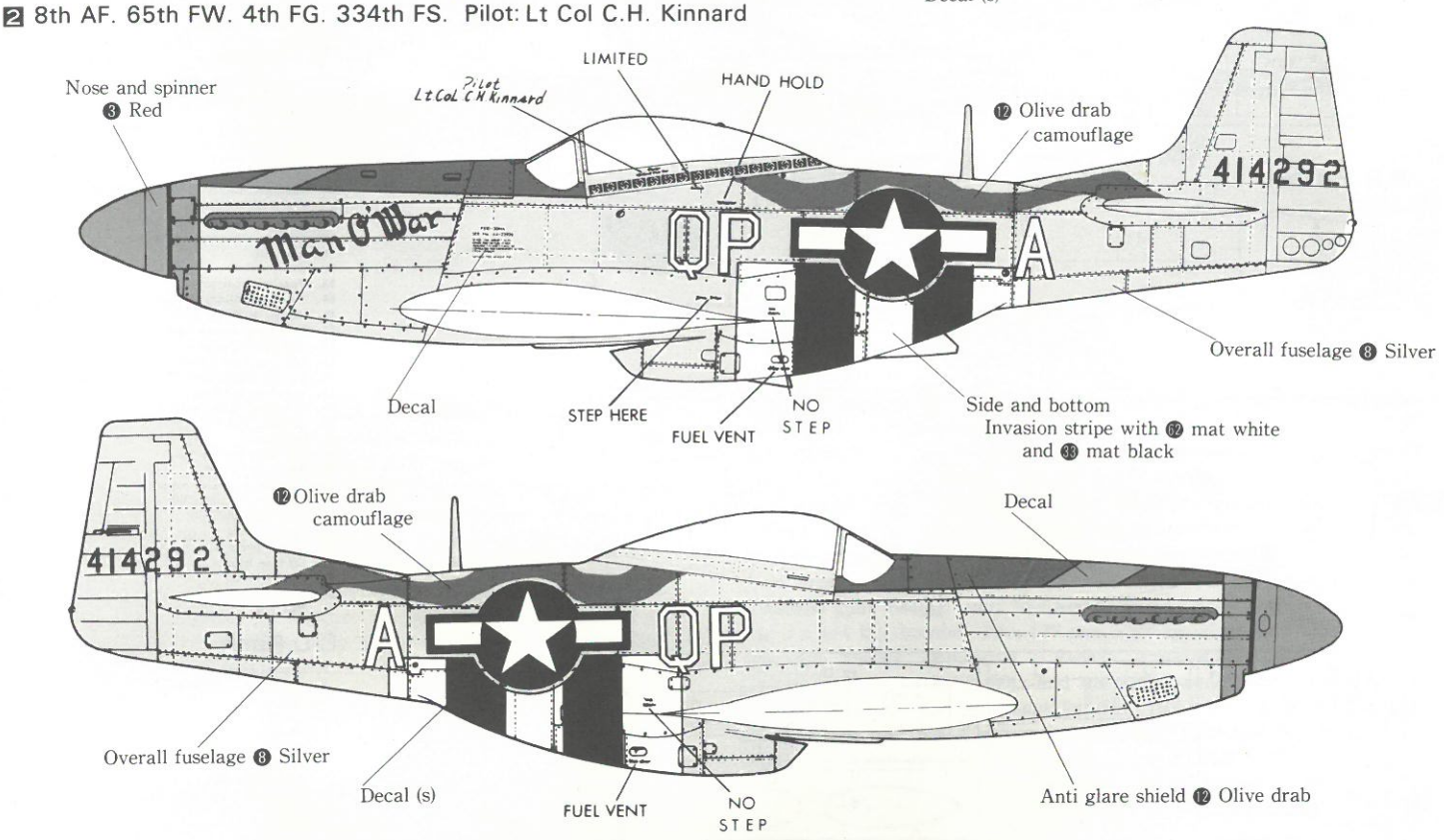
Marking & Color Painting Guide

★Detail markings are similar both on 1 and 2

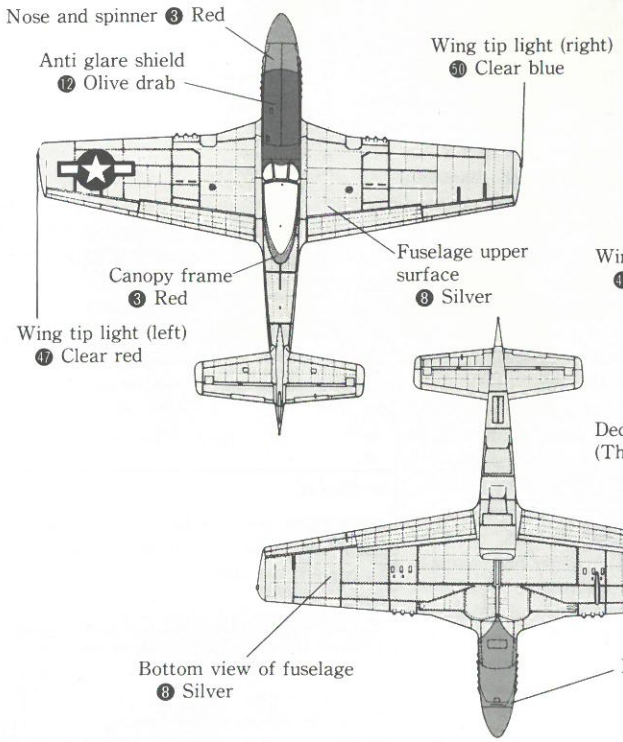
1 8th AF. 65th FW. 4th FG. 335th FS. Pilot: Major P. Mckennon



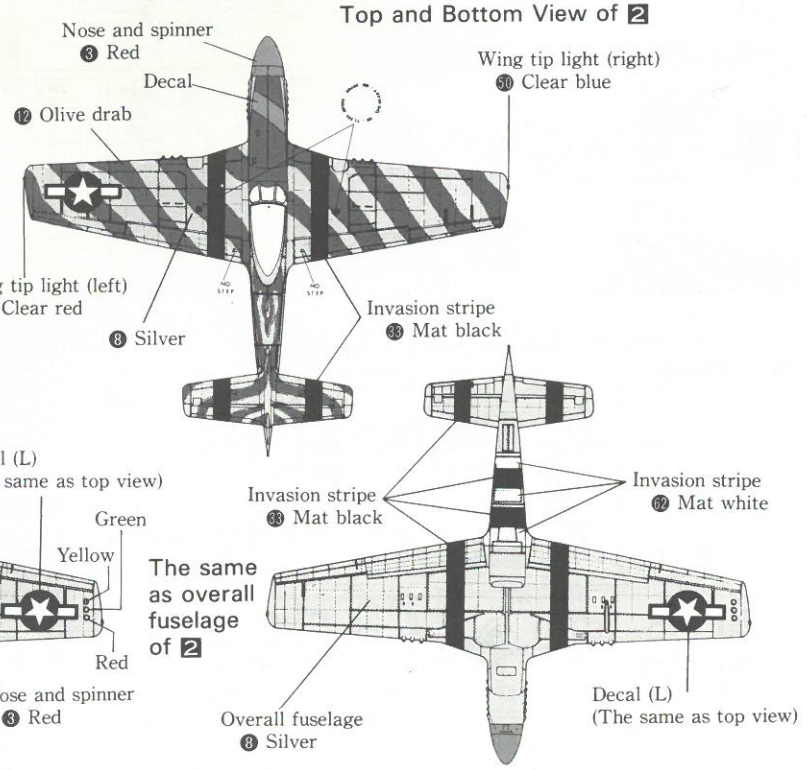
2 8th AF. 65th FW. 4th FG. 334th FS. Pilot: Lt Col C.H. Kinnard



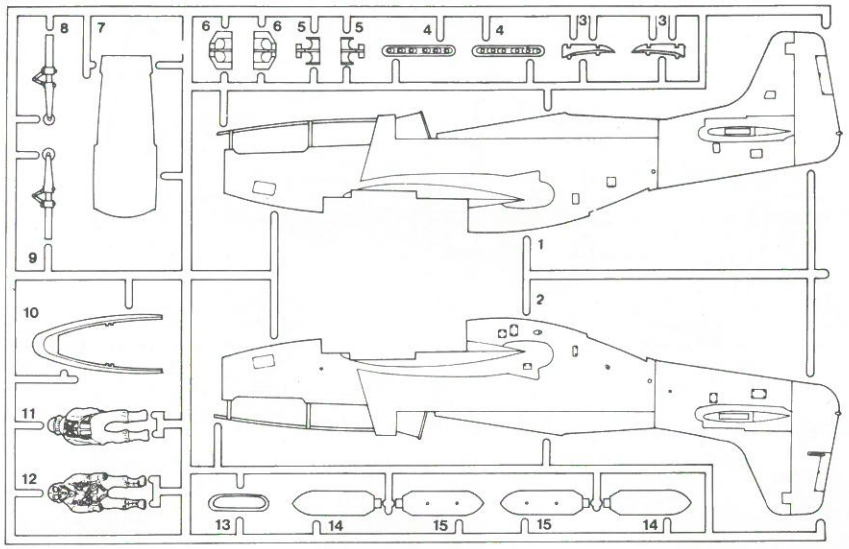
Top and Bottom View of 1



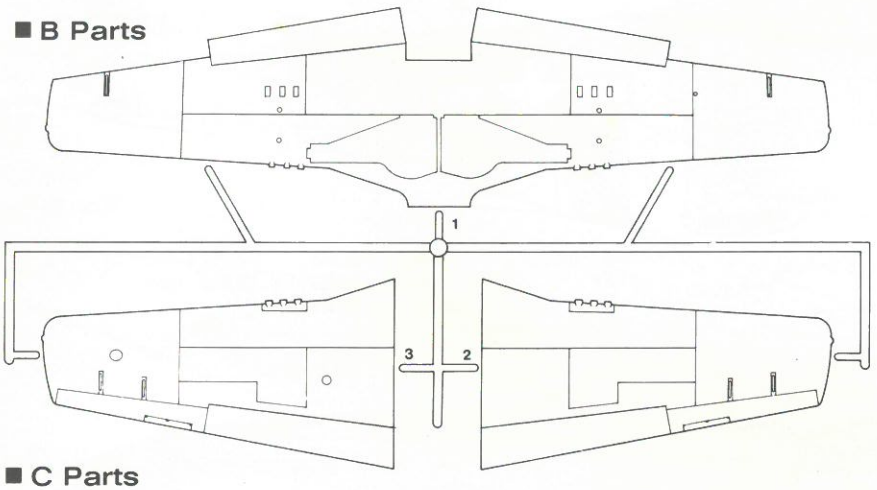
Top and Bottom View of 2



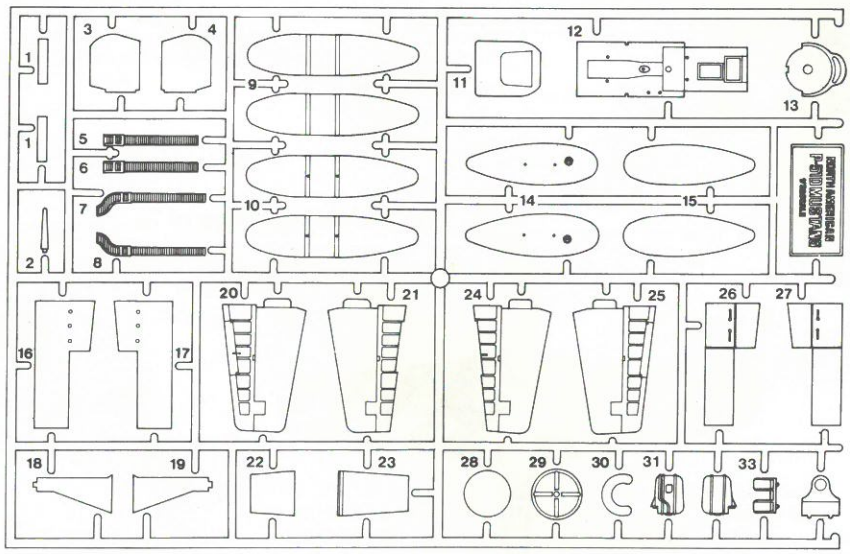
■ A Parts



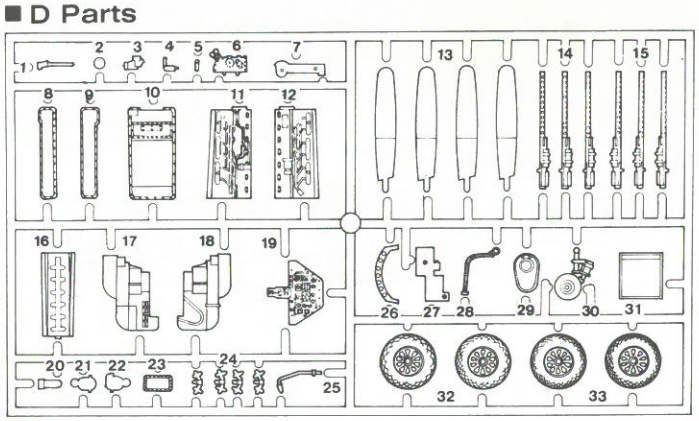
■ B Parts



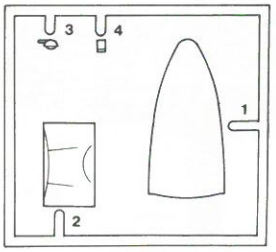
■ C Parts



■ D Parts



■ E Parts



■ Parts Number & Name

☐ A Parts

1. Fuselage left
2. Fuselage right
3. Pylon
3. Pylon
4. Exhaust pipe left
4. Exhaust pipe right
5. Bomb wing B
5. Bomb wing B
6. Bomb wing A
6. Bomb wing A
7. Engine cover
8. Landing gear strut left
9. Landing gear strut right
10. Canopy base
11. Pilot
12. Pilot
13. Radiator intake
14. 1000 lb. bomb
14. 1000 lb. bomb
15. 1000 lb. bomb
15. 1000 lb. bomb

☐ B Parts

1. Main wing bottom
2. Main wing top right
3. Main wing top left

☐ C Parts

1. Tail wheel cover left
1. Tail wheel cover right
2. Antenna
3. Main landing gear cover A left
4. Main landing gear cover A right
5. Cartridge belt B
6. Cartridge belt B
7. Cartridge belt A
8. Cartridge belt A
9. 110 gal. auxiliary fuel tank
10. 110 gal. auxiliary fuel tank
11. Bulkhead
12. Cockpit floor
13. Fuselage nose parts
14. 75 gal. auxiliary fuel tank
15. 75 gal. auxiliary fuel tank
16. Machine gun base right
17. Machine gun base left
18. Landing wheel cover B left
19. Landing wheel cover B right
20. Tail wing top right
21. Tail wing bottom right
22. Radiator flap
23. Radiator
24. Tail wing bottom left
25. Tail wing top left
26. Machine gun cover right
27. Machine gun cover left
28. Spinner front
29. Spinner back
30. Engine parts A
31. Oil tank front
32. Oil tank back
33. Foot pedal
34. Headrest

☐ D Parts

1. Control stick
2. Propeller retainer
3. Gun sight
4. Pitot tube
5. Canopy hand crank
6. Control box
7. Side panel parts A
8. Cam shaft cover right
9. Cam shaft cover left
10. Engine oil pan
11. Engine right
12. Engine left
13. Propeller
14. Machine gun left
15. Machine gun right
16. Engine top
17. Engine back left
18. Engine back right
19. Instrument panel
20. Electric starter
21. A magneto
22. B magneto
23. Engine parts
24. Pylon parts
25. Engine parts C
26. Canopy frame
27. Side panel parts C
28. Oxygen hose
29. Engine front
30. Tail wheel
31. Seat
32. Landing wheel inner side
33. Landing wheel outer side

☐ E Parts

1. Canopy
2. Canopy shield
3. Landing light
4. Gun sight parts

✦ Note:

After taking out the parts from the bag, cut it into pieces and throw it away ... to prevent the infant from covering its head.

✦ Precaution in Handling the Adhesive

1. Keep it away from infants and do not use it other than for cementing.
2. Keep it away from fire.
3. Do not deliberately inhale it.

Printed in Japan

NORTH AMERICAN P-51D MUSTANG

1/32 スケール　P-51D ムスタング
《ハセガワカラーガイド》

Hasegawa
ハセガワ

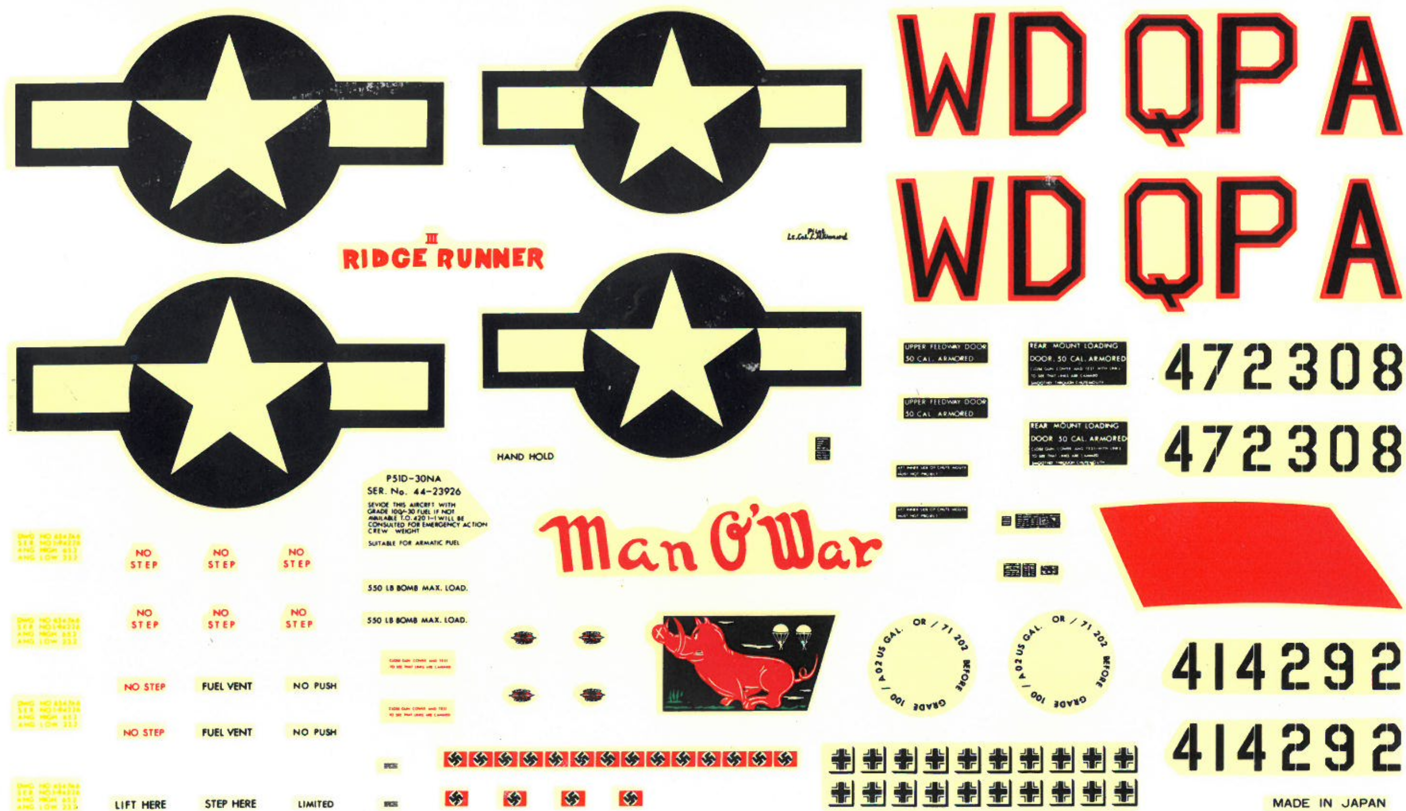
1 第8空軍、第65戦闘連隊、第4戦闘大隊、第334戦闘中隊
1944年9月、デブデン、C.H. キナード中佐機

2 第8空軍、第65戦闘連隊、第4戦闘大隊、第335戦闘中隊
P. マッケノン少佐機

詳しい塗装解説は組立説明図をごらんください。

株長谷川製作所　静岡県焼津市八楠1193の2　〒425

PRINTED IN JAPAN


WD QPA
WD QPA
III
RIDGE RUNNER
472308
472308
UPPER FEEDWAY DOOR
50 CAL. ARMORED
REAR MOUNT LOADING
DOOR, 50 CAL. ARMORED
HAND HOLD
P51D-30NA
SER. No. 44-23926
SEVICE THIS AIRCRFT WITH GRADE 100/-30 FUEL IF NOT AVAILABLE T.O. 420 1-1 WILL BE CONSULTED FOR EMERGENCY ACTION
CREW WEIGHT
SUITABLE FOR ARMATIC FUEL
Man O'War
NO STEP
550 LB BOMB MAX. LOAD.
GRADE 100 / A02 US GAL. OR / 71 202 BEFORE
414292
414292
FUEL VENT
NO PUSH
LIFT HERE
STEP HERE
LIMITED
MADE IN JAPAN