

GENERAL DYNAMICS F-16A

1/32 SCALE



GENERAL DYNAMICS F-16A FIGHTER

The F-16 was developed by General Dynamics Corporation on the Light-weight Fighter program directed by the U.S. Air Force. Its prototype, designated YF-16 (serial No. 72-01567) made the first official flight on 2 February 1974 and recorded a speed of Mach 2 on 11 March 1974. The second YF-16 (72-01568) flew for the first time on 9 May 1974. After a long term of ACF (the Air Combat Fighter) evaluation on the F-16 and its competitor Northrop YF-17, the adoption of the F-16 was decided. In April 1975, a contract awarded to General Dynamics for eight engineering development aircraft, comprising six single-seat F-16As and two two-seat F-16Bs. These F16As/Bs were a little bit increased in the size and weight as compared with the YF-16; the wing area was enlarged from 26.01m² to 27.87m² and the wheel base prolonged from 3.73 m to 4.00 m to improve their operational serviceability. The first F-16A (75-745) made its maiden flight on 8 December 1976 and the F-16B, on 8 August 1977. After evaluation the decision was made by the U.S. Air Force to adopt 1,388 F-16As/Bs, following 583 airframes by the six nations of Belgium, Denmark, the Netherlands, Norway, Iran and Israel; in total, 1,971 aircraft production was determined as of February 1978.

Co-production arrangement has been made with more than thirty companies in the West European countries, including Fokker in the Netherlands and SABCA in Belgium, so that the F-16s are expected to be an international production type fighter plane to replace the F-104s in current service.

The F-16, often referred to as the Zero Fighter of today, is indeed an epochmaking fighter/bomber, though small in size and light in weight but highly efficient with the features as follows:

1. Newly designed for higher performance and productivity; it is much easier to manufacture, service and operate as compared with other Mach-2 class fighters.
2. The intersection of the body/wing is faired with no boundary line to form a configuration that will reduce parasite drag. This "blended wing/body", designed in anticipation of the future airplanes, is provided with strakes extending along the fuselage forebody and speed brakes at the rear ends of their extension, which greatly increase climb, dive and land/take off performance.
3. The seat is inclined 30° aft and the heel is raised to render the pilot to bear up against the fierce movement and to control the plane even in the heavily-loaded condition.
4. The control column is of right hand small toggle type, unlike the front-central stick type on the conventional fighter planes. It is the handle of fly-by-wire electronic control system, through which flight control is made by the precision self-controlled servo motor; the slats and the flaps are self-actuated in accordance with the rate of speed, and also danger is automatically detected and prevented. The bubble canopy provides all-round vision, especially developing in the forward.
5. Though it is a lightweight monoplane, it fulfills all-weather mission with the newly designed auto-pilot/attack system. It is also possible to mount anti-air/support system without difficulty.

6. The power plant is the F100 turbofan engine that is light in weight but generates a large thrust. It is more economical in the fuel consumption, more silent in the noise and produces less exhaust gas than other engines on current fighters.

7. The air intake of the engine protrudes to the fore of nosewheels and machine guns not to absorb sand and dust at taxiing, and exhaust gas at take off.

8. As for the armament, it is fitted with one M61A-1 20 mm multi-barrel cannon in the portside of the fuselage (500 rounds of ammunition, rapidity of fire: 6,000 rounds per minute), and has hard-points at wingtips, on underwings and underfuselage, making nine weapon stations in total, to carry sidewinder, sparrow and other types of air-to-air missiles, bombs and the various kinds of weapons, or otherwise, to mount additional fuel tanks for a long distance flight. Total possible weapon load, with reduced internal fuel, is 6,894 kg, and 4,763 kg, with full internal fuel, which can well stand comparison with the large twin-engined fighter such as the F-15.

9. The design load factor of the F-16 is 9G at take-off weight in air-combat mission. This value is high as compared with those of other current fighters and due enough to render the F-16 to execute any manoeuvre.

10. To cut production costs, the F-16 has a structure which requires no special materials nor extra manufacturing machines and tools. The fuselage structure consists of approx. 83% of aluminum alloy, 4.7% steel and approx. 4.2% composite materials. This keeps material cost to a minimum and facilitates co-production in foreign countries.

As mentioned above, so many characteristics as never seen on the conventional fighters are incorporated in the F-16 and blended into a splendid configuration and superb performance of its own.

The F-16B, the two-seat fighter/training airplane converted from the F-16A, has the same length of the F16A, but its engine output is decreased by approx. 17% and the internal fuel tankage reduced by 17%.

GENERAL DATA ON F-16A

Crew	: 1
Power Plant	: Pratt & Whitney F100PW-100 (3) turbofan engine with afterburner Thrust 8,165 kg
Fuel Capacity	: 4,010 lit. (inter tank) + 563 lit. (underfuselage tank) + 1,400 lit. (underwing tank) x 2
Dimensions	: Wing span 10.01 m (over missiles) Length overall 14.52 m Height overall 5.01 m
Weight & Loading	: Weight empty 6,607 kg Weight full-loaded 10,205 kg
Performance	: Max. speed Mach 1.95 (at 11,000 m altitude, side-winder x 2), Mach 1.2 (at sea level) Service ceiling more than 15,240 m Max. rate of climb 12,802 m/min. (low-level Mach 0.7 with Mk82 bombs) Radius of action 925 km (with no external armament), 547 km (with six Mk82 bombs) Cruising range 3,705 km (with fuel tank, in ferry condition) T-O run 533 m (with 1,814 kg external load) Landing run 808 m (with 1,814 kg external load)

Manufactured in Japan & Packed in England by A. A. Hales Ltd., Hinckley, Leics.

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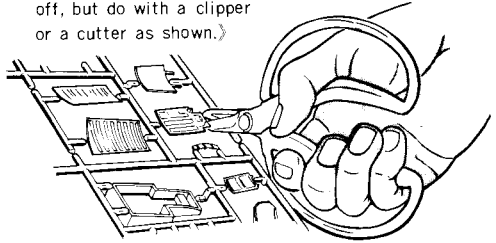
Manufactured in Japan & Packed in England by A. A. Hales Ltd., Hinckley, Leics.

READ BEFORE ASSEMBLING

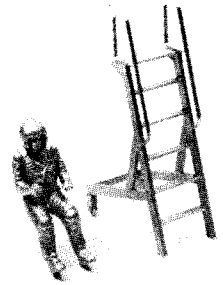
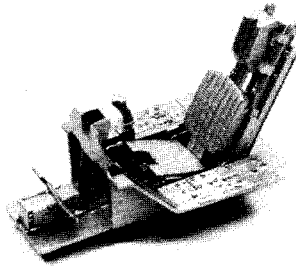
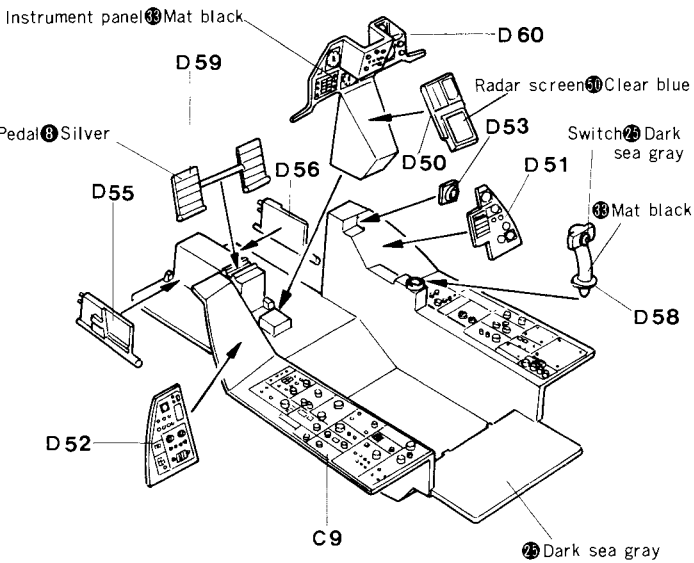
《BEFORE ASSEMBLING》

- Read these instructions carefully before assembling your model and follow them.
- Cut off the parts from the stem with a nipper or a cutter.
- When using adhesive, apply it to both parts to be cemented. Please take care not to apply too much adhesive.

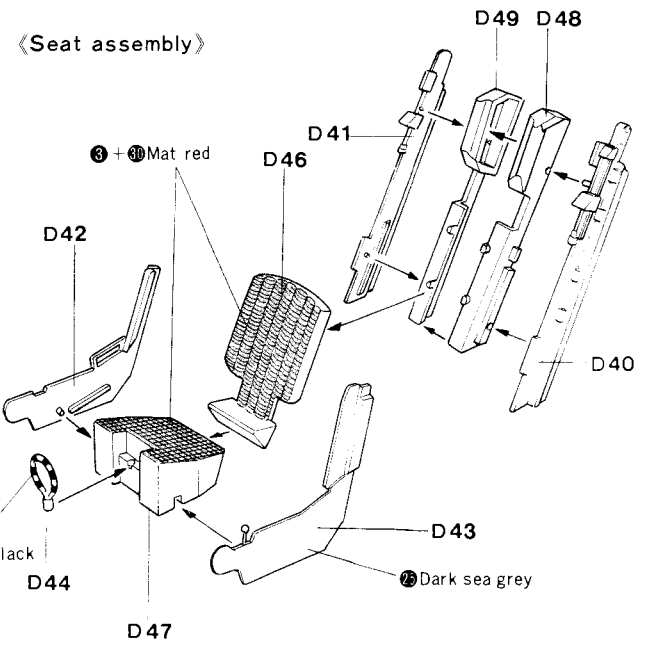
《To cut off parts from the runner, do not tear them off, but do with a clipper or a cutter as shown.》



1 COCKPIT ASSEMBLY

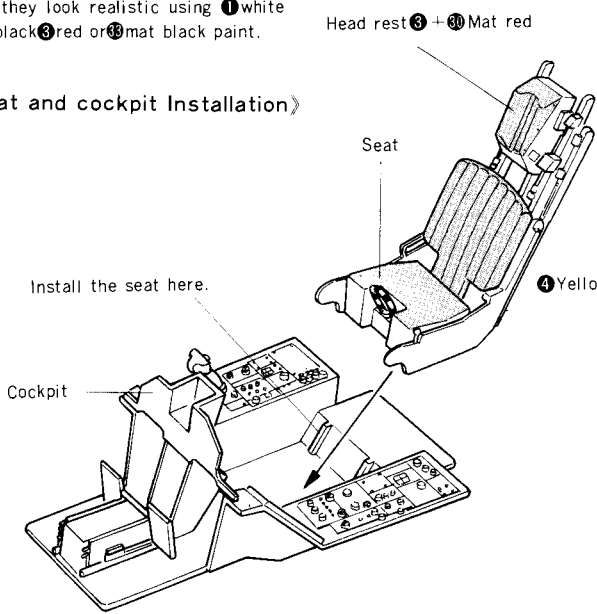


《Seat assembly》

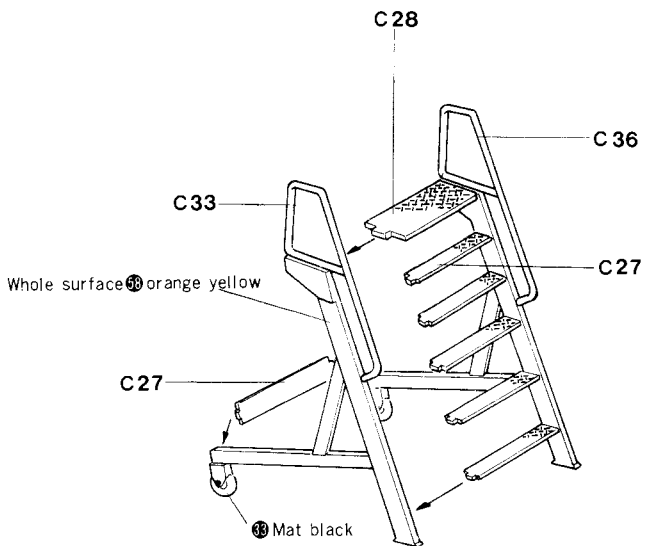
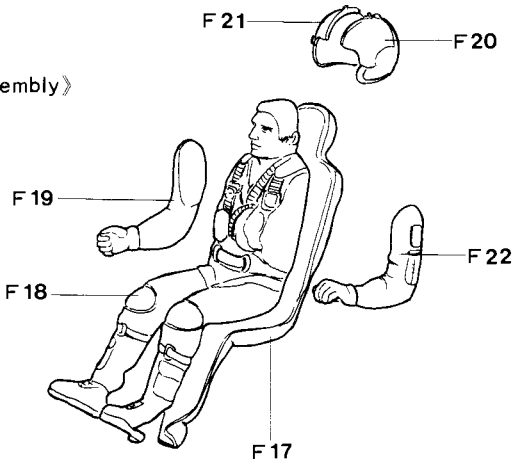


■ Paint the cockpit before putting the seat on it.

《Seat and cockpit Installation》



《Figure assembly》



■ Refer to the page 10.

— 2 —



F 17

■ Refer to the page 10.

④ Mat black

— 2 —



F 17

■ Refer to the page 10.

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— 2 —



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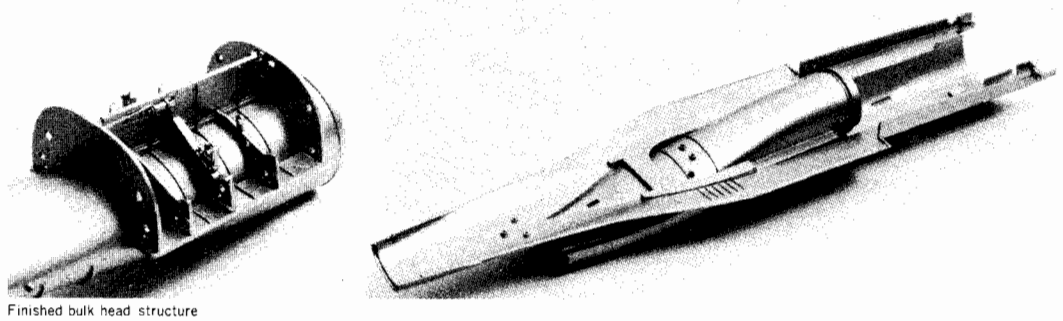
F 17

■ Refer to the page 10.

④ Mat black

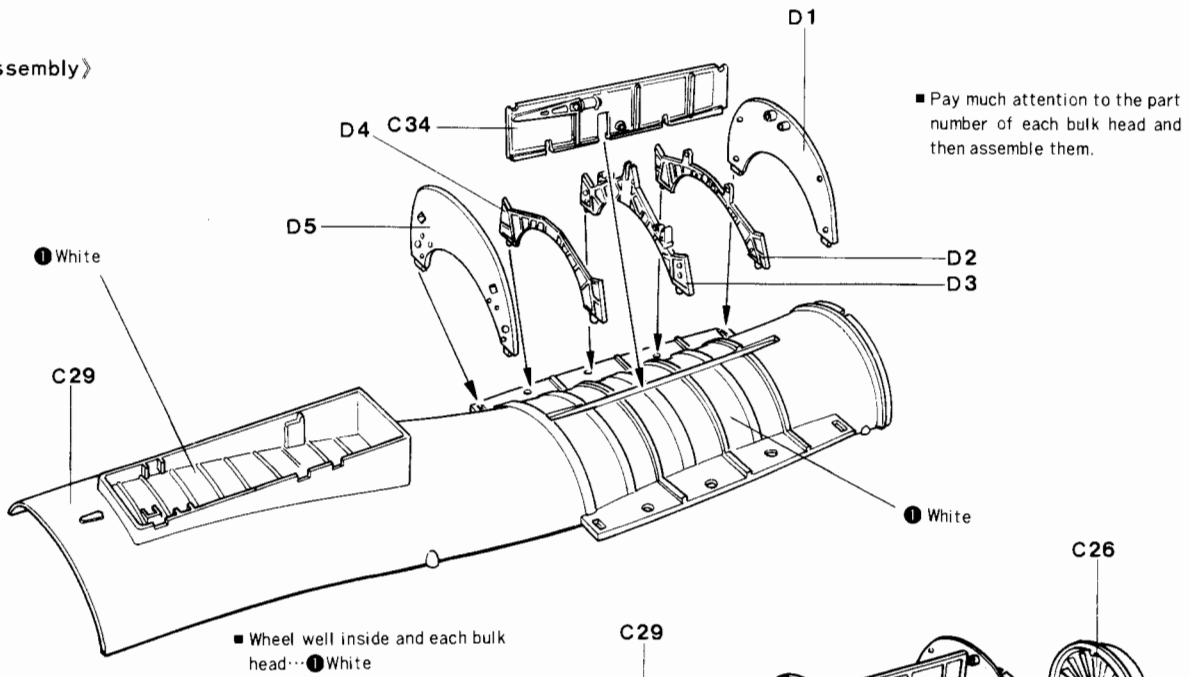
— 2 —

2 FUSELAGE INSIDE ASSEMBLY

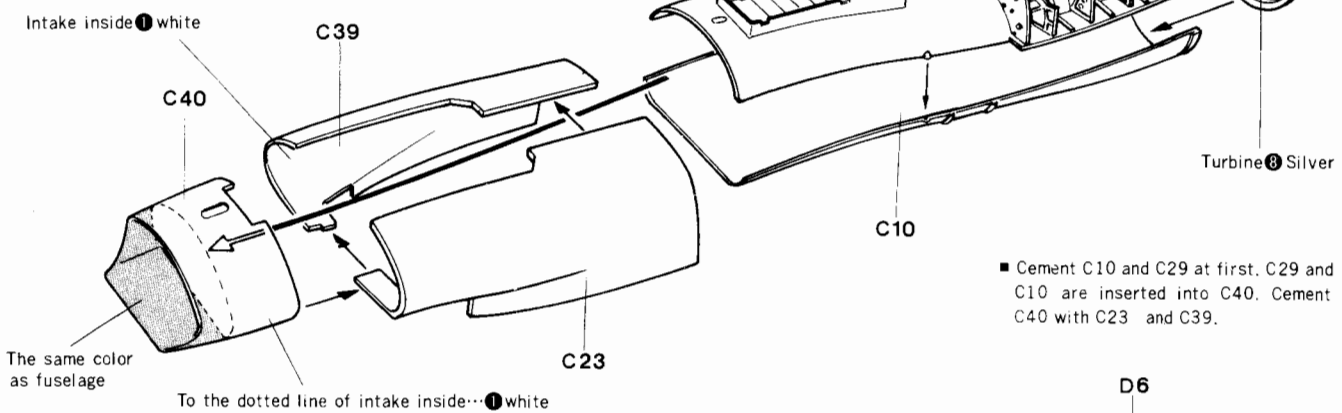


Finished bulk head structure

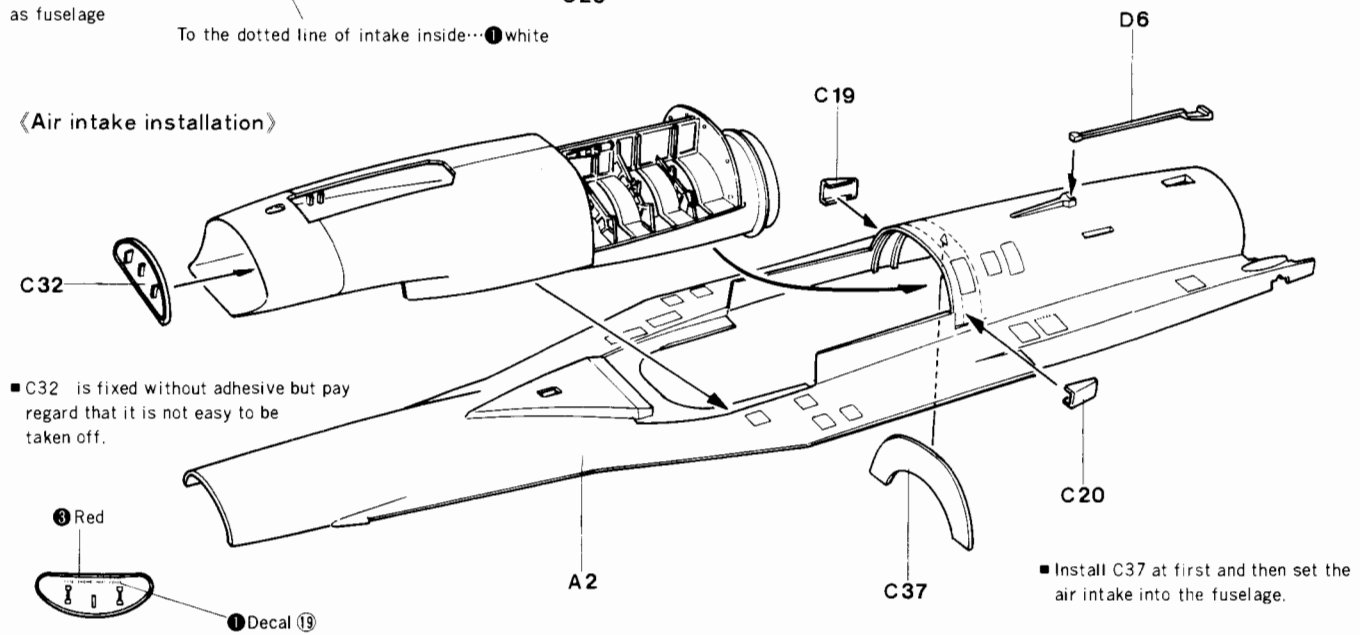
<Bulk head assembly>



<Air intake assembly>



<Air intake installation>



— 3 —



A2

C37

air intake into the fuselage.

— 3 —



A2

C37

air intake into the fuselage.

— 3 —



A2

C37

air intake into the fuselage.

— 3 —



A2

C37

air intake into the fuselage.

— 3 —



A2

C37

air intake into the fuselage.

— 3 —



A2

C37

air intake into the fuselage.

— 3 —



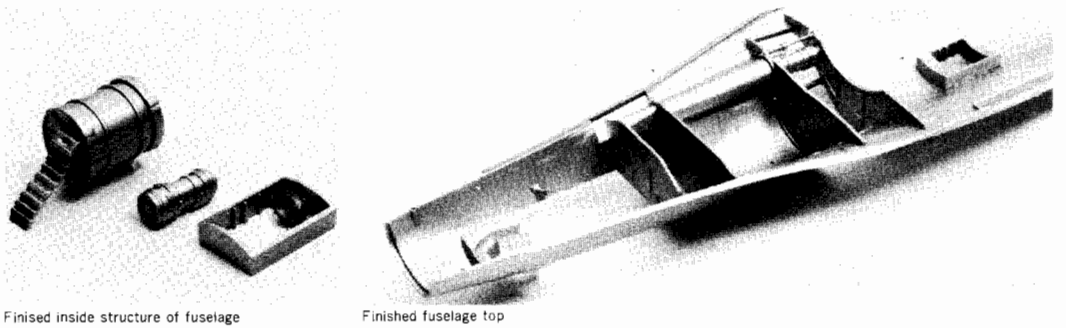
A2

C37

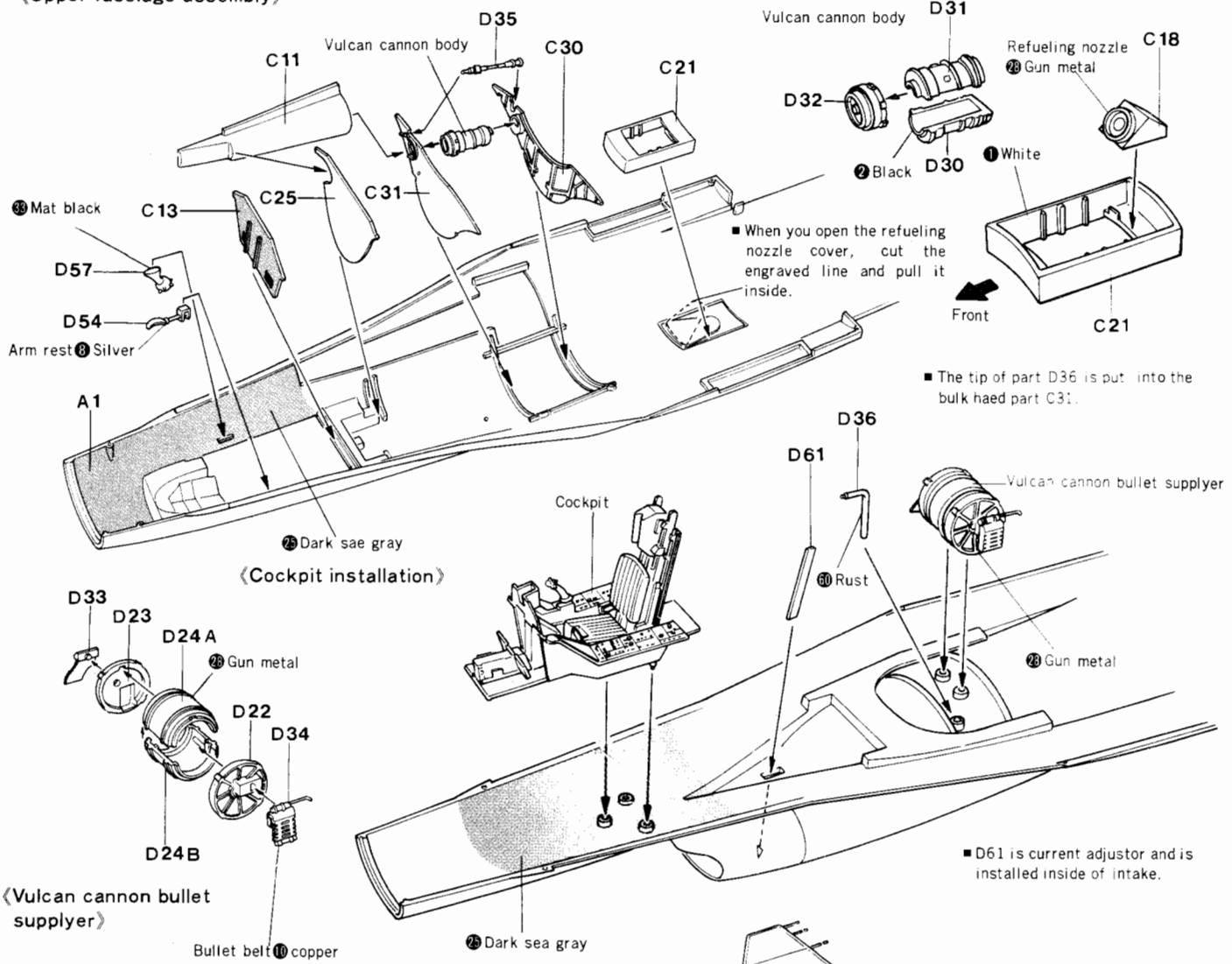
air intake into the fuselage.

— 3 —

3 FUSELAGE ASSEMBLY

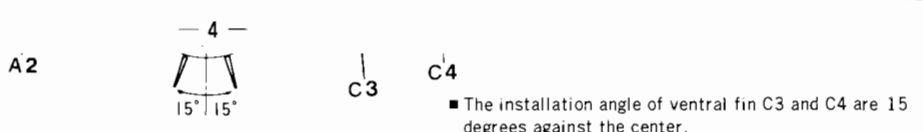
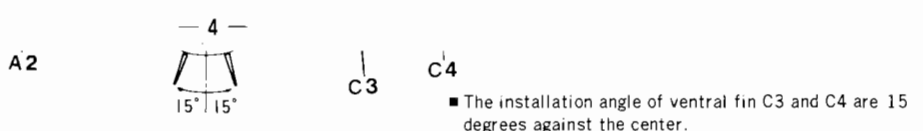
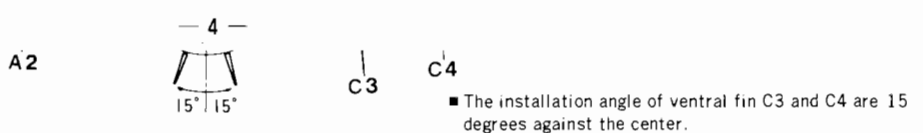
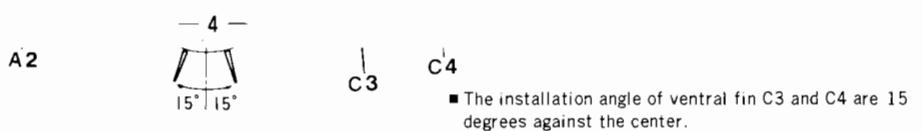
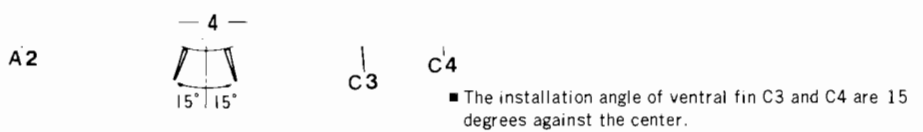
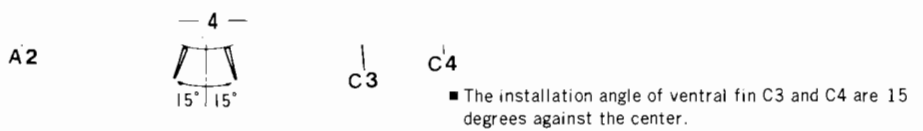
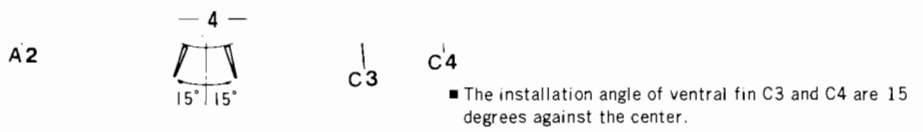
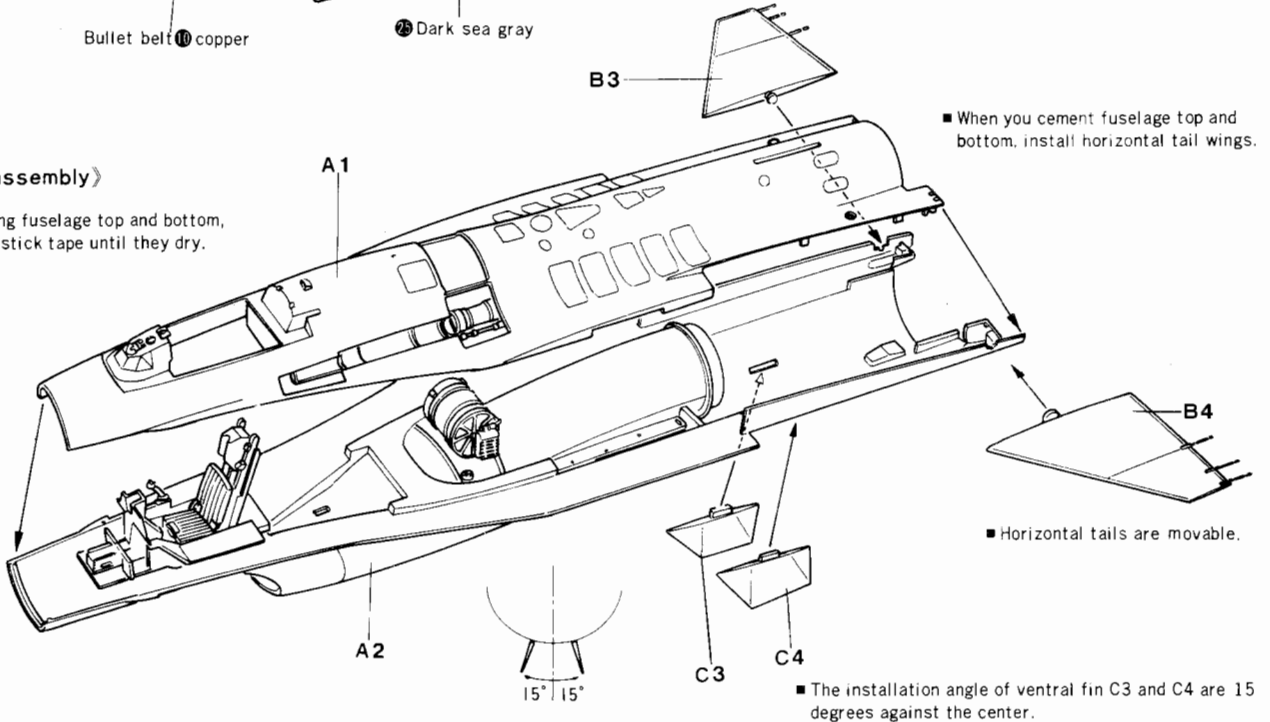


<Upper fuselage assembly>

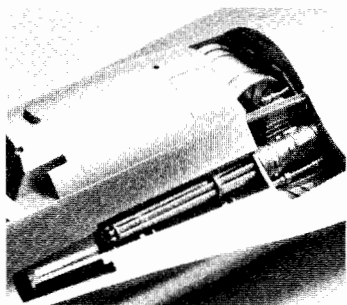


<Fuselage assembly>

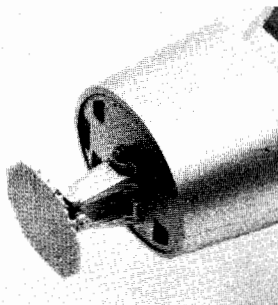
■ After cementing fuselage top and bottom, fix them with stick tape until they dry.



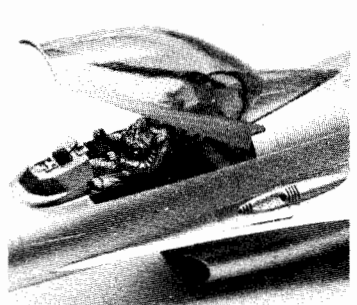
4 NOSE ASSEMBLY



Finished vulcan cannon

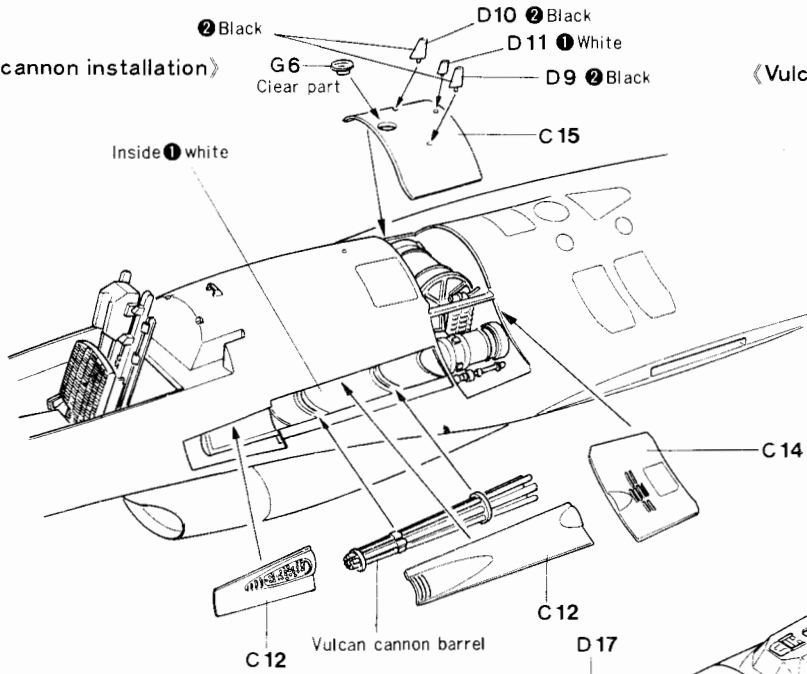


Finished nose radar

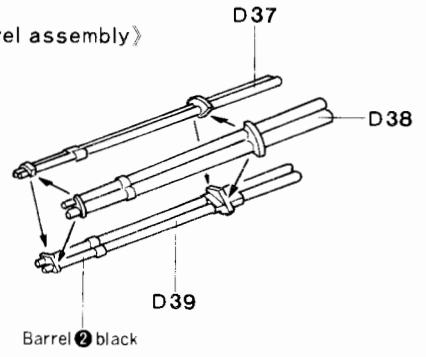


Finished canopy

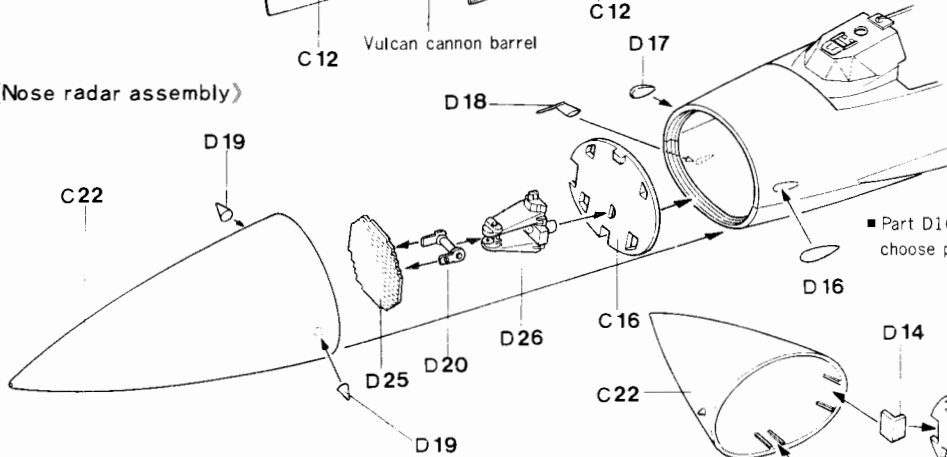
<Vulcan cannon installation>



<Vulcan barrel assembly>

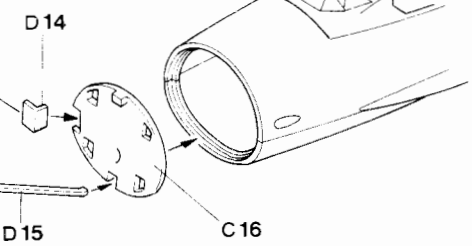


<Nose radar assembly>



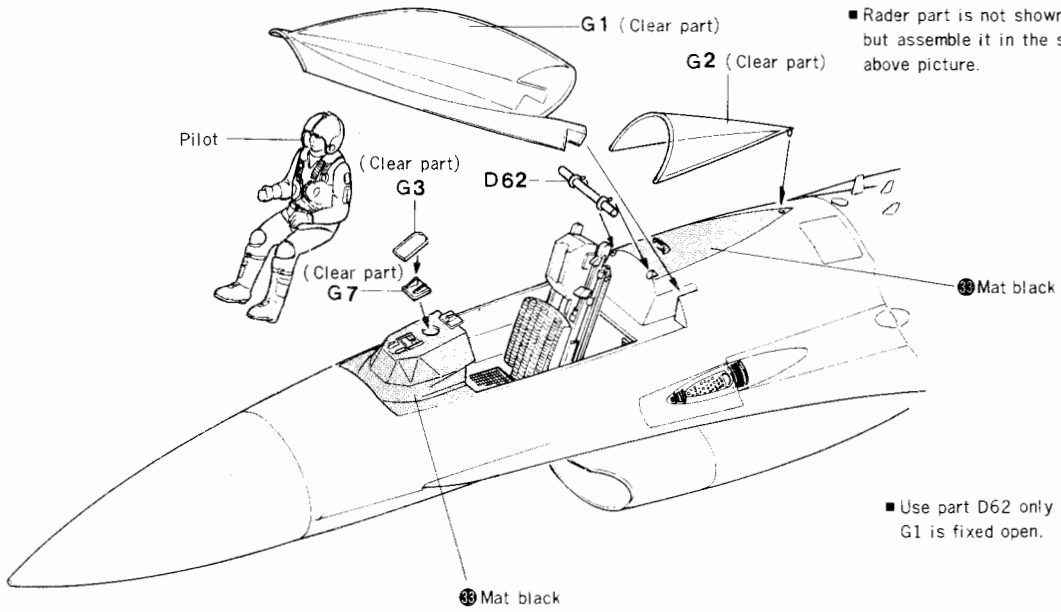
<Assembly with nose corn open>

Part D16,17 are installed when you choose painting scheme 2 or 3.



Rader part is not shown on this picture but assemble it in the same way of the above picture.

<Canopy Installation>



— 5 —

Mat black

— 5 —

Mat black

— 5 —

Mat black

— 5 —

Mat black

— 5 —

Mat black

— 5 —

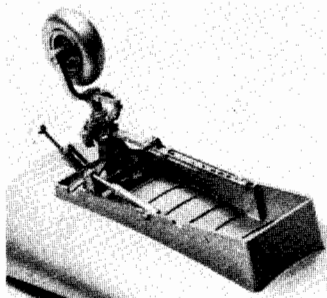
Mat black

— 5 —

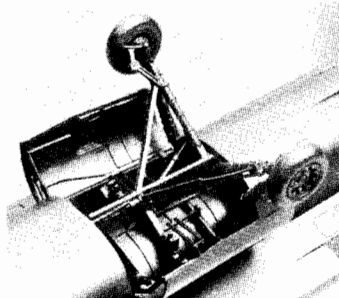
Mat black

— 5 —

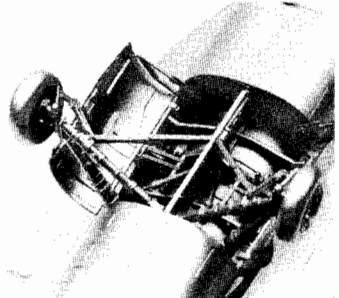
5 LANDING GEAR ASSEMBLY



Finished front landing gear.



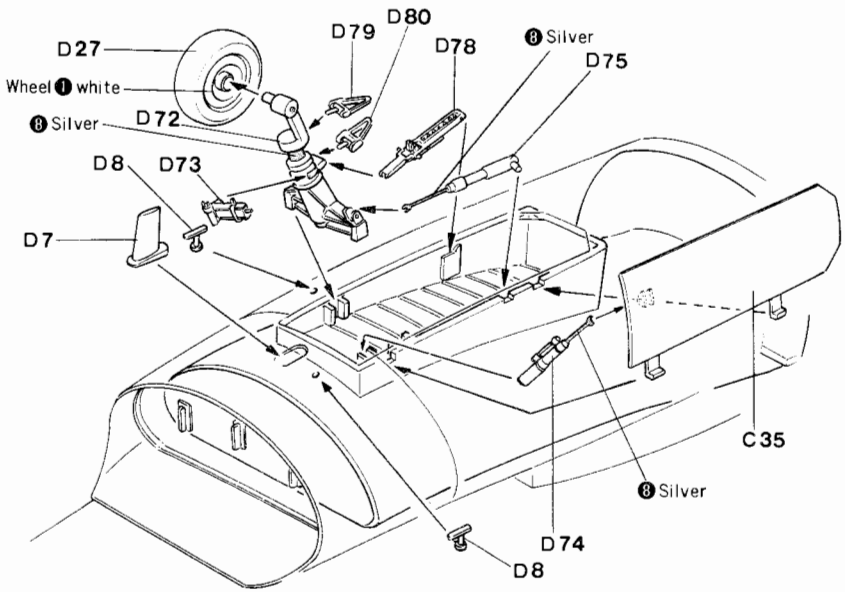
Finished main landing gear 1.



Finished main landing gear 2.

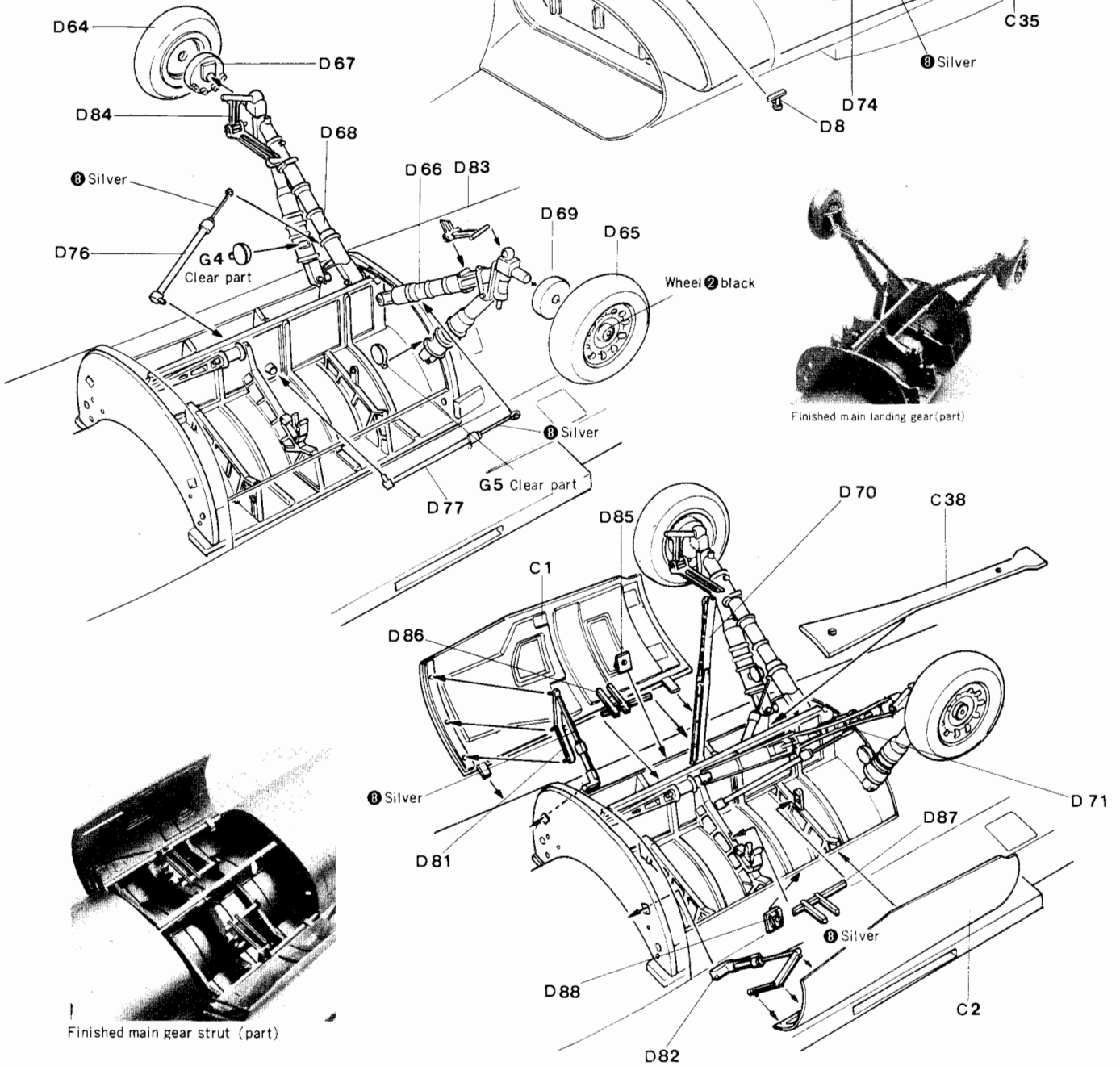
《Front landing gear asseby》

■ Paint the landing gear strut with white except the indicated parts.

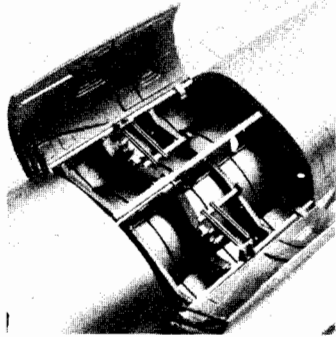


《Main landing gear assembly》

■ Paint the main landing gear strut with white except the indicated parts.



Finished main landing gear (part)



Finished main gear strut (part)

Finished main gear strut (part)

- 6 -

D82

Finished main gear strut (part)

- 6 -

D82

Finished main gear strut (part)

- 6 -

D82

Finished main gear strut (part)

- 6 -

D82

Finished main gear strut (part)

- 6 -

D82

Finished main gear strut (part)

- 6 -

D82

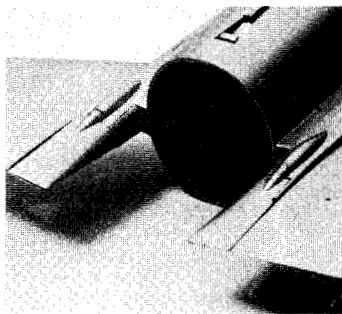
Finished main gear strut (part)

- 6 -

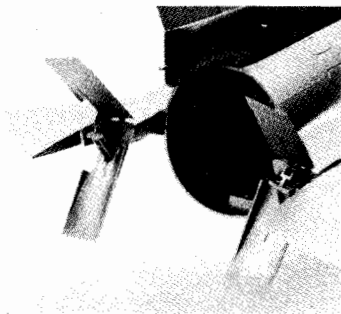
D82

- 6 -

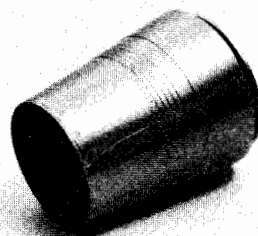
6 FUSELAGE REAR ASSEMBLY



Air brake closed

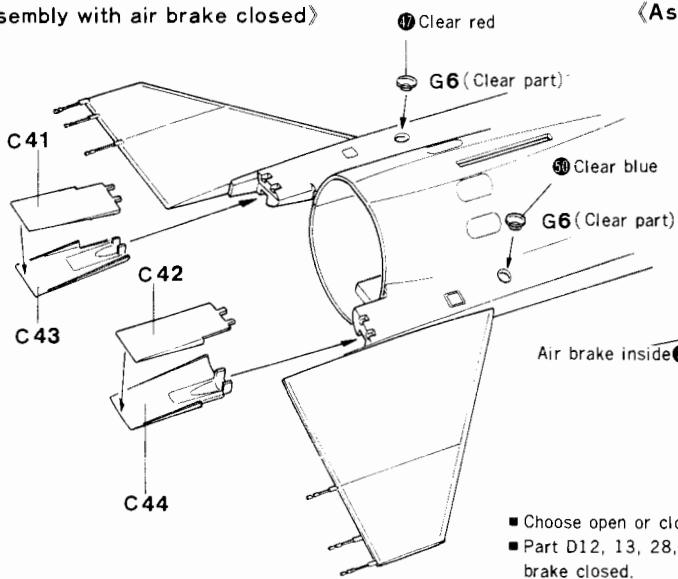


Air brake open

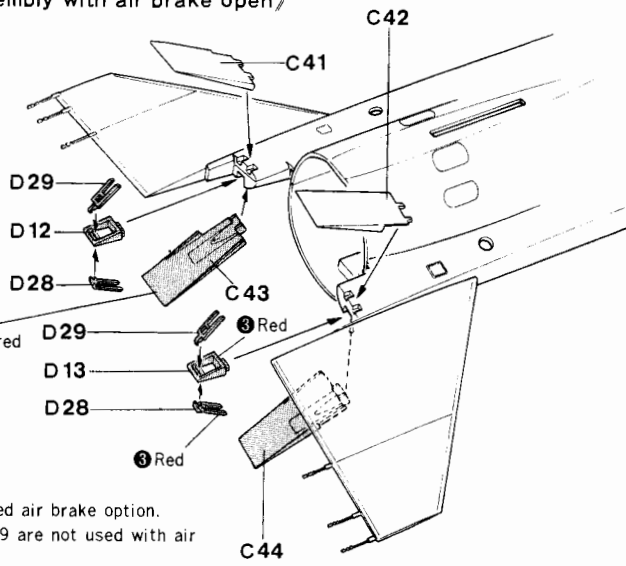


Finished after burner

<Assembly with air brake closed>

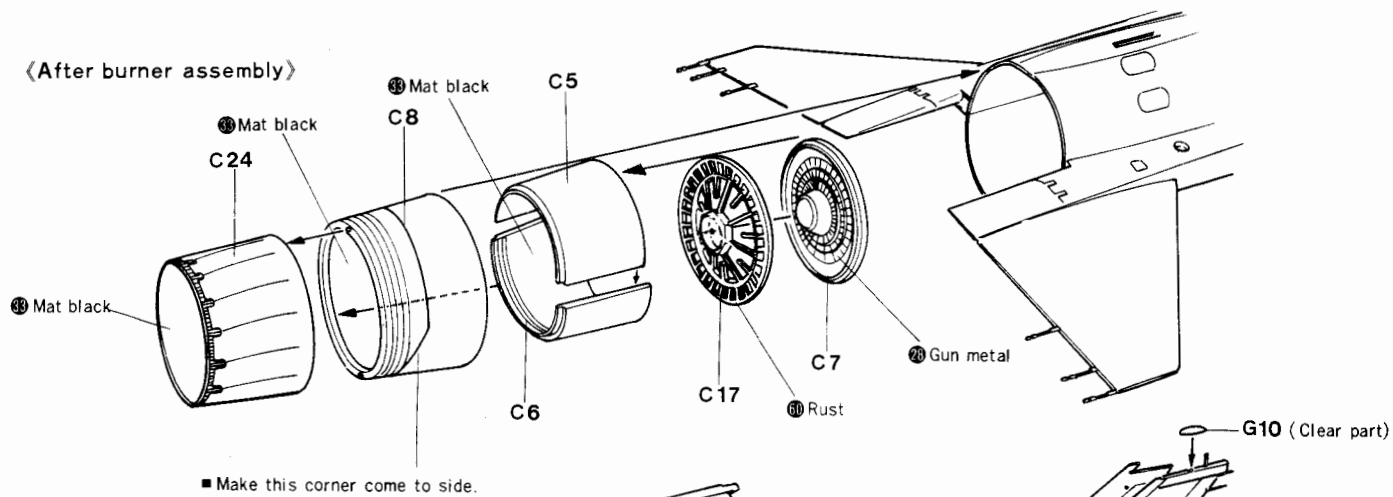


<Assembly with air brake open>

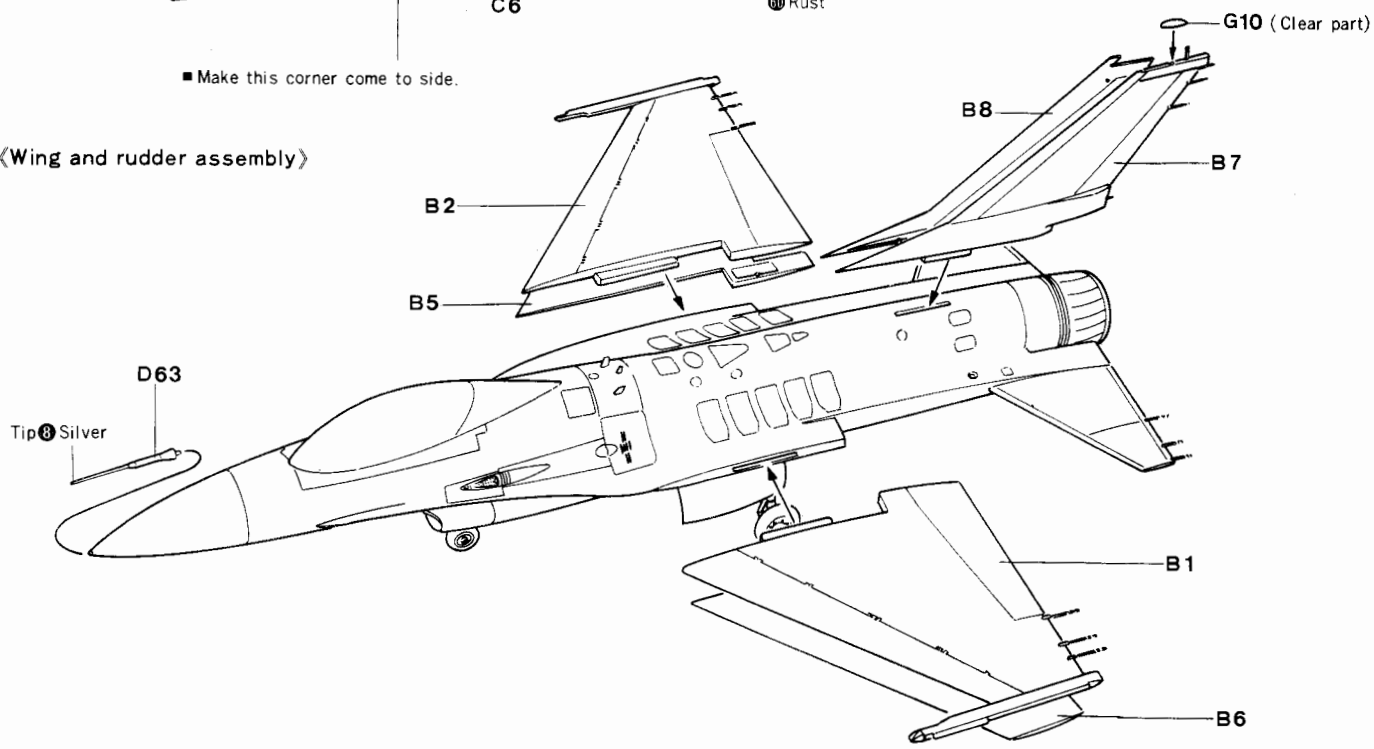


- Choose open or closed air brake option.
- Part D12, 13, 28, 39 are not used with air brake closed.

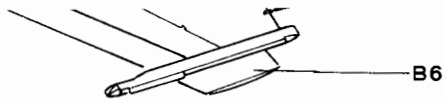
<After burner assembly>



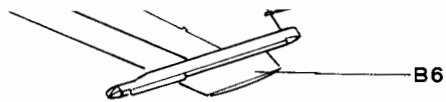
<Wing and rudder assembly>



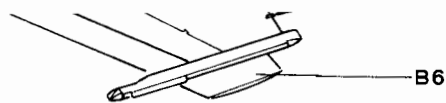
-- 7 --



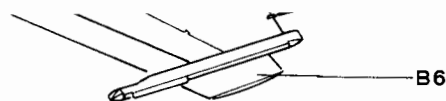
-- 7 --



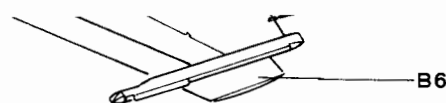
-- 7 --



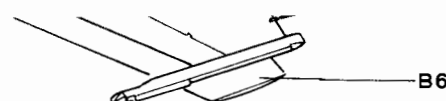
-- 7 --



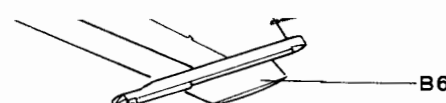
-- 7 --



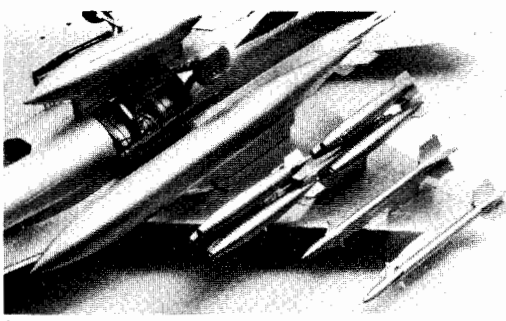
-- 7 --



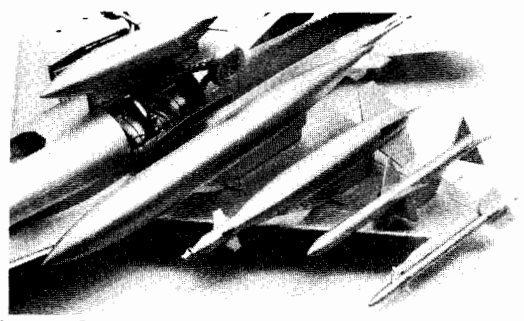
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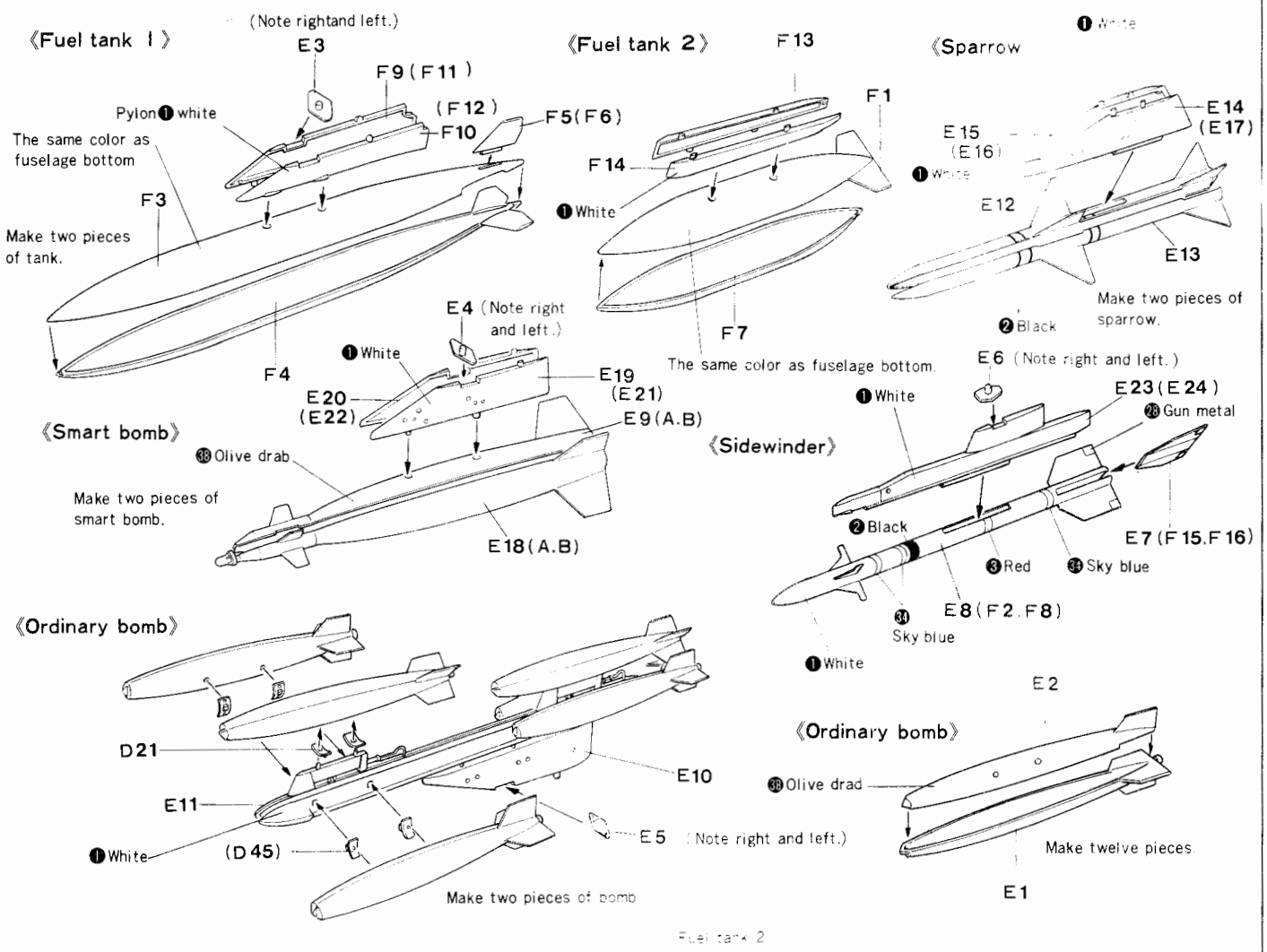
7 ARMAMENT ASSEMBLY



Armament A

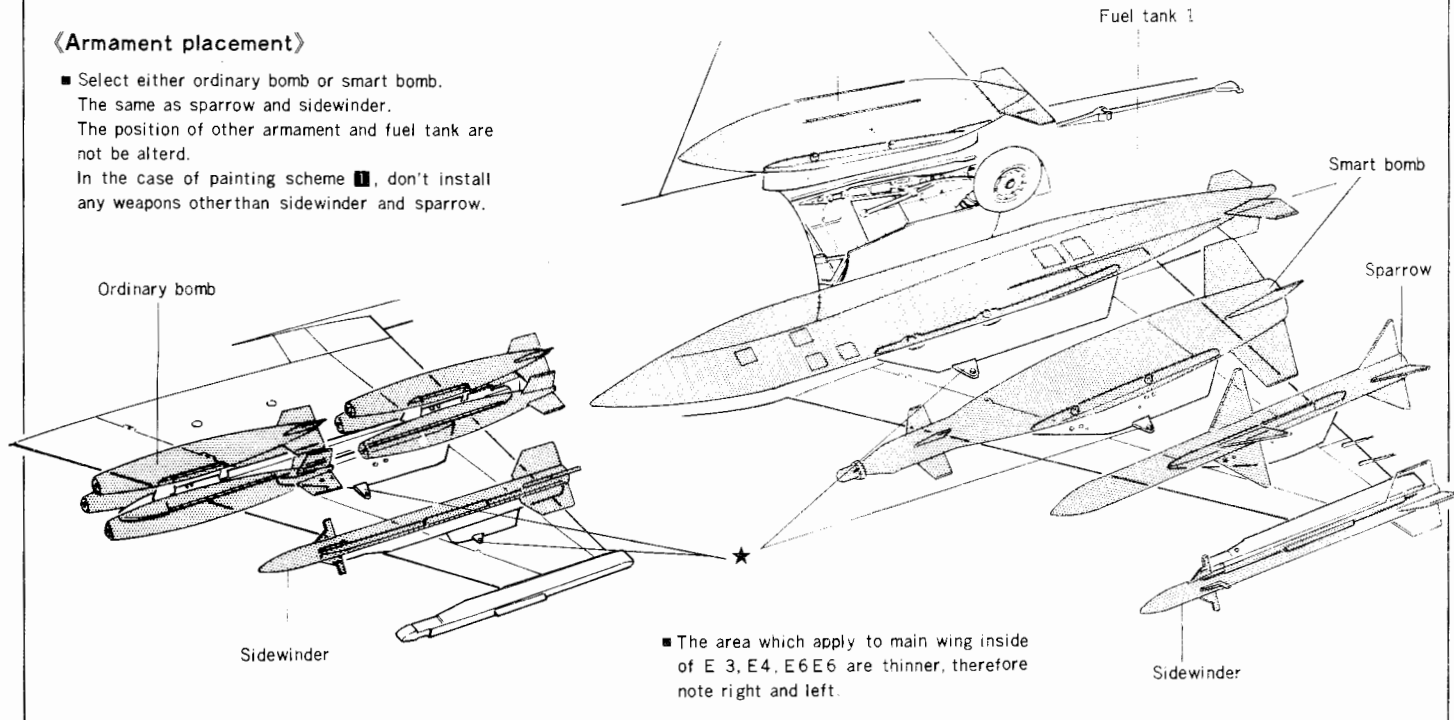


Armament B



«Armament placement»

- Select either ordinary bomb or smart bomb. The same as sparrow and sidewinder. The position of other armament and fuel tank are not be altered.
- In the case of painting scheme ①, don't install any weapons other than sidewinder and sparrow.



— 8 —

① E 3, E4, E6 E6 are thinner, therefore note right and left.

Sidewinder

— 8 —

① E 3, E4, E6 E6 are thinner, therefore note right and left.

Sidewinder

— 8 —

① E 3, E4, E6 E6 are thinner, therefore note right and left.

Sidewinder

— 8 —

① E 3, E4, E6 E6 are thinner, therefore note right and left.

Sidewinder

— 8 —

① E 3, E4, E6 E6 are thinner, therefore note right and left.

Sidewinder

— 8 —

① E 3, E4, E6 E6 are thinner, therefore note right and left.

Sidewinder

— 8 —

① E 3, E4, E6 E6 are thinner, therefore note right and left.

Sidewinder

— 8 —

PARTS NO. & NAME

A-parts

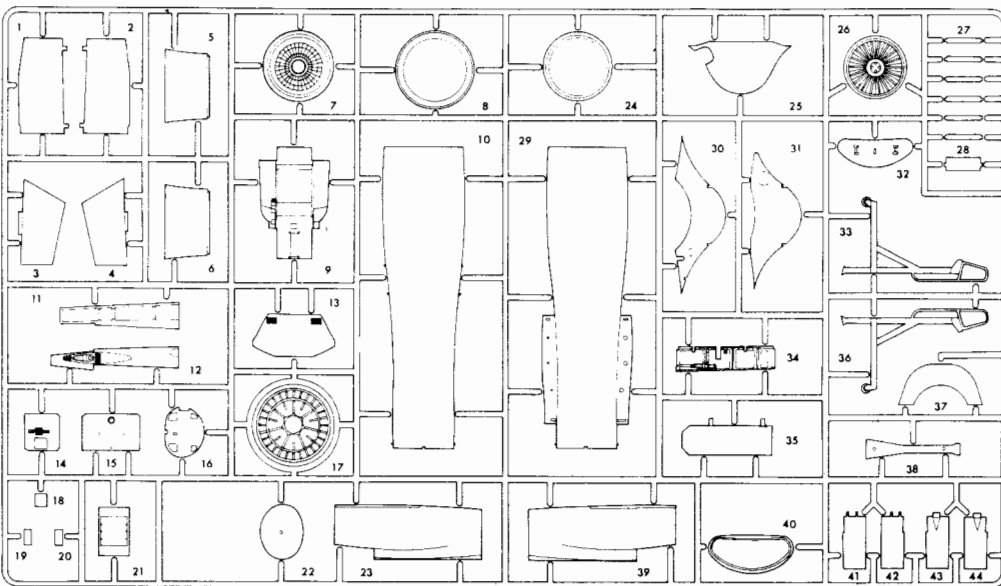
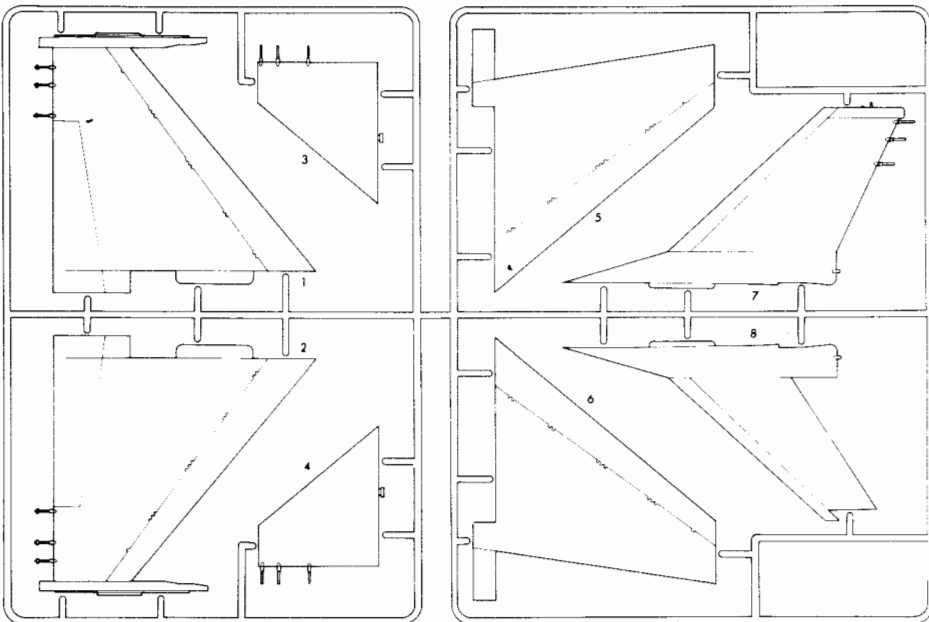
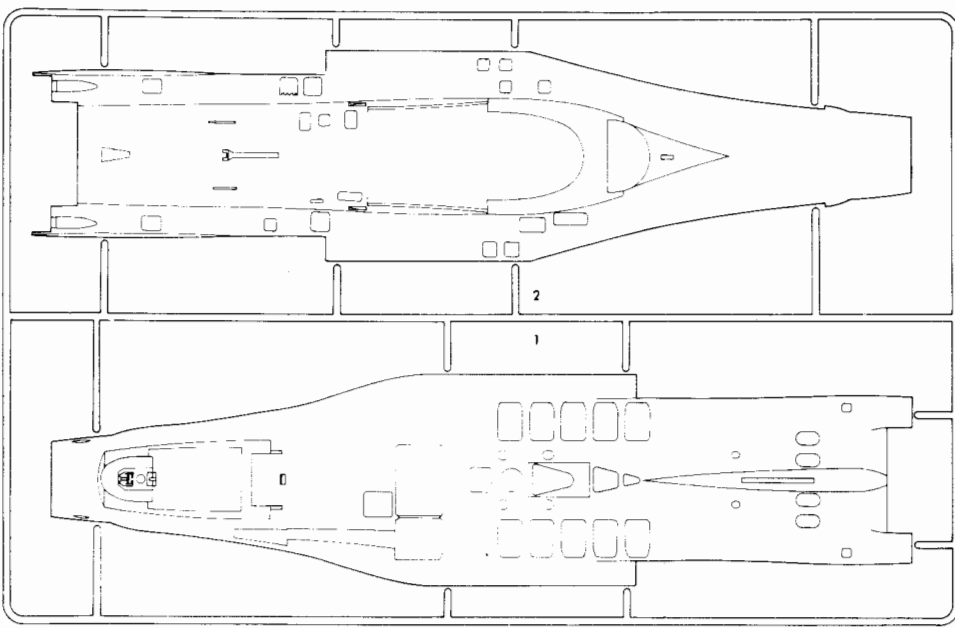
- 1. Fuselage top
- 2. Fuselage bottom

B-parts

- 1. Main wing top(L)
- 2. Main wing top(R)
- 3. Horizontal tail(R)
- 4. Horizontal tail(L)
- 5. Main wing bottom(R)
- 6. Main wing bottom(L)
- 7. Rudder(L)
- 8. Rudder(R)

C-parts

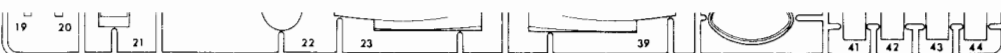
- 1. Main gear door(L)
- 2. Main gear door(R)
- 3. Ventral fin(R)
- 4. Ventral fin(L)
- 5. After burner
- 6. After burner
- 7. After burner part(B)
- 8. After burner cover
- 9. Cockpit floor
- 10. Air duct(top)
- 11. Vulcan cannon well
- 12. Vulcan cannon access panel
- 13. Cockpit bulk head
- 14. Vulcan cannon body access panel
- 15. Bullet supplier access panel
- 16. Radar base
- 17. After burner igniter
- 18. Refueling boom receiver
- 19. Supplementary air intake
- 20. Supplementary air intake
- 21. Refueling boom receiver box
- 22. Nose cone
- 23. Air intake section(R)
- 24. Exhaust pipe
- 25. Bulk head(A)
- 26. Engine turbine fan
- 27. Ladder part(A)
- 28. Ladder part(B)
- 29. Air duct(bottom)
- 30. Bulk head(C)
- 31. Bulk head(B)
- 32. Air intake cover
- 33. Ladder frame(L)
- 34. Main gear well frame
- 35. Nose gear door
- 36. Ladder frame(R)
- 37. Duct strut bulk head
- 38. Landing gear well cover
- 39. Air intake rear(L)
- 40. Air intake
- 41. Air brake top(L)
- 42. Air brake top(R)
- 43. Air brake bottom(L)
- 44. Air brake bottom(R)



- 11 -



- 11 -



- 11 -



- 11 -



- 11 -



- 11 -

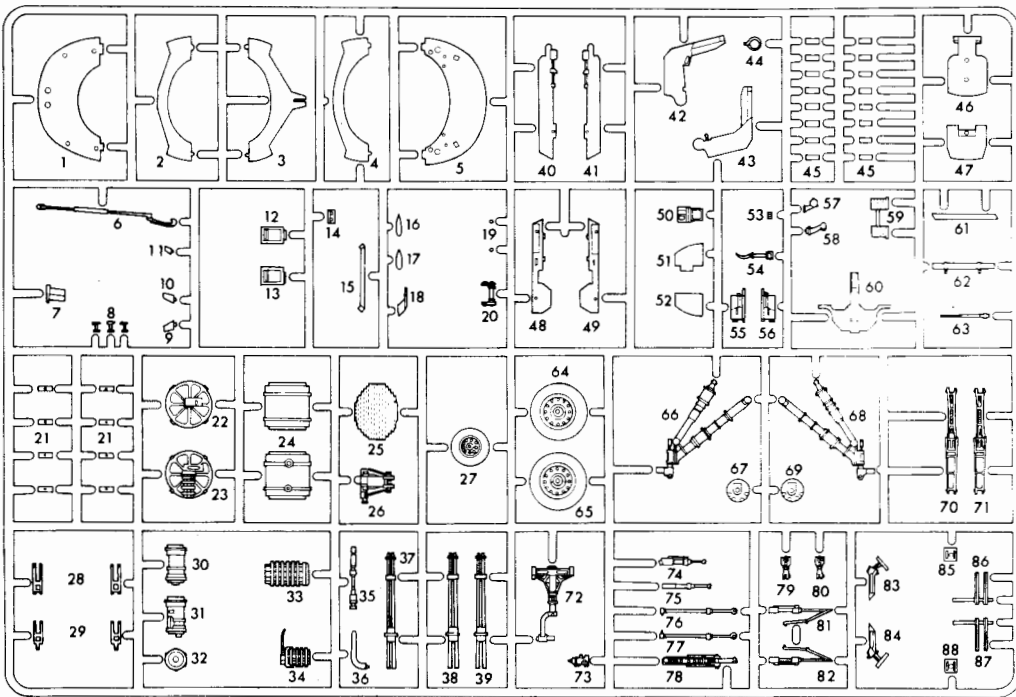


- 11 -



- 11 -

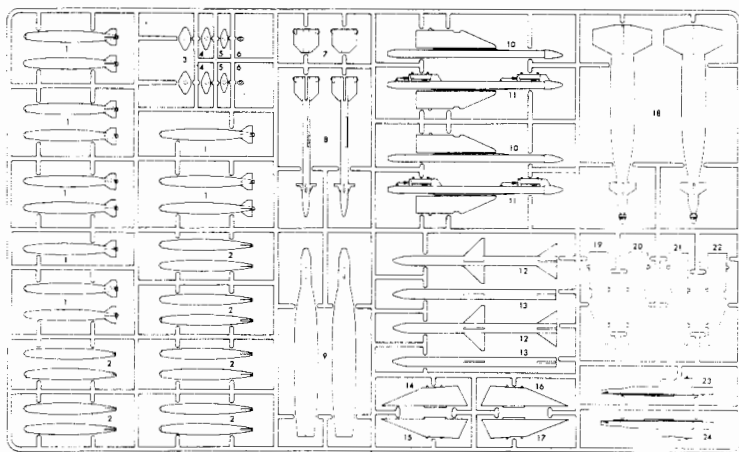
D PARTS



D PARTS

1. Main landing gear rear bulk head
2. Main landing gear front frame
3. Main landing gear center frame
4. Main landing gear rear frame
5. Main landing gear front bulk head
6. Arresting hook
7. UHF antenna A
8. Temperature sensor
9. UHF antenna (left)
10. UHF antenna (right)
11. VHF antenna
12. Air brake part
13. Air brake part
14. Nose cone hinge
15. Nose cone arm
16. ECM antenna
17. ECM antenna
18. Pitot tube (B)
19. A6FA transmitter
20. Radar arm
21. Bomb rack part (B)
22. Vulcan cannon bullet supplier (L)
23. Vulcan cannon bullet supplier (R)
24. Vulcan cannon bullet supplier bottom (A)
25. Vulcan cannon bullet supplier top (B)
26. Radar strut
27. Nose wheel
28. Air brake strut (top)
29. Air brake strut (bottom)
30. Vulcan cannon motor (bottom)
31. Vulcan cannon motor (top)
32. Vulcan cannon part (A)
33. Vulcan cannon bullet belt (R)
34. Vulcan cannon bullet belt (L)
35. Vulcan cannon part (A)
36. Vulcan cannon part (B)
37. Vulcan cannon barrel
38. Vulcan cannon barrel
39. Vulcan cannon barrel
40. Seat guide rail (left)
41. Seat guide rail (right)
42. Seat part (right)
43. Seat part (left)
44. Ejection ring
45. Bomb rack part (C)
46. Seat back rest
47. Seat
48. Head rest (left)
49. Head rest (right)
50. Central radar scope
51. Instrument panel (right)
52. Instrument panel (left)
53. Meter
54. Arm rest
55. Foot pedal part (left)
56. Foot pedal part (right)
57. Throttle stick
58. Control stick
59. Foot pedal
60. Instrument panel
61. Current adjuster
62. Canopy actuator
63. Pitot tube
64. Main wheel
65. Main wheel
66. Main gear strut (R)
67. Main wheel brake
68. Main gear strut (L)
69. Main wheel brake
70. Main gear arm
71. Main gear arm
72. Front gear strut
73. Front gear part
74. Front gear cover actuator
75. Front gear actuator
76. Main gear actuator (left)
77. Main gear actuator (right)
78. Front gear arm
79. Shock absorber part
80. Shock absorber part
81. Main gear cover actuator (L)
82. Main gear cover actuator (R)
83. Main gear part (right)
84. Main gear part (left)
85. Main gear well part (B)
86. Main gear well part A (right)
87. Main gear well part A (left)
88. Main gear well part B

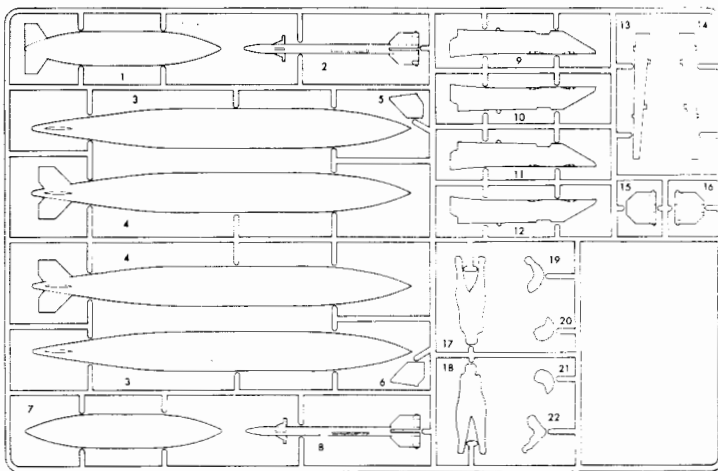
E PARTS



E PARTS

1. KM82LDGP bomb
2. KM82LDGP bomb
3. 370 gallon fuel tank pylon part
4. KMU-351 B bomb pylon part
5. Bomb rack part
6. Sidewinder pylon part
7. Sidewinder wing
8. Sidewinder
9. KMU-351 B bomb (top)
10. Bomb rack (right)
11. Bomb rack (left)
12. Sparrow (top)
13. Sparrow (bottom)
14. Sparrow pylon (left)
15. Sparrow pylon (right)
16. Sparrow pylon (right)
17. Sparrow pylon (left)
18. KMU-351 B bomb (bottom)
19. KMU-351 B bomb pylon (left)
20. KMU-351 B bomb pylon (right)
21. KMU-351 B bomb pylon (left)
22. KMU-351 B bomb pylon (right)

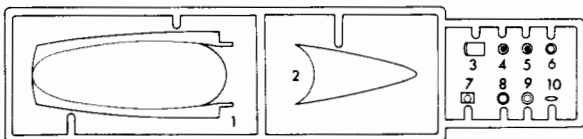
F PARTS



F PARTS

1. 150 gallon fuel tank (top)
2. Sidewinder
3. 370 gallon fuel tank (top)
4. 370 gallon fuel tank (bottom)
5. 370 gallon fuel tank wing
6. 370 gallon fuel tank wing
7. 150 gallon fuel tank (bottom)
8. Sidewinder
9. 370 gallon fuel tank pylon (right)
10. 370 gallon fuel tank pylon (left)
11. 370 gallon fuel tank pylon (right)
12. 370 gallon fuel tank pylon (left)
13. 150 gallon fuel tank pylon (right)
14. 150 gallon fuel tank pylon (left)
15. Sidewinder wing
16. Sidewinder wing
17. Pilot body (rear)
18. Pilot body (front)
19. Pilot right arm
20. Helmet (left)
21. Helmet (right)
22. Pilot left arm

G PARTS

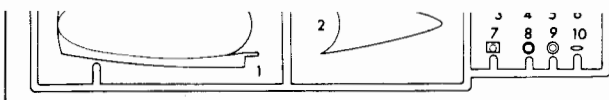


G PARTS

1. Canopy (front)
2. Canopy (rear)
3. Head-up display
4. Landing light
5. Landing light
6. Top distinction light (B)
7. HUD part
8. Top distinction light (A)
9. Top distinction light (A)
10. Anti-collision light

- 12 -

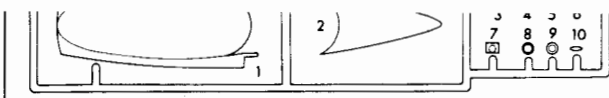
PRINTED IN ENGLAND



7. HUD part
8. Top distinction light (A)
9. Top distinction light (A)
10. Anti-collision light

- 12 -

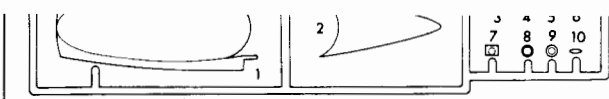
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7. HUD part
8. Top distinction light (A)
9. Top distinction light (A)
10. Anti-collision light

- 12 -

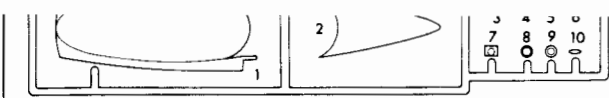
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7. HUD part
8. Top distinction light (A)
9. Top distinction light (A)
10. Anti-collision light

- 12 -

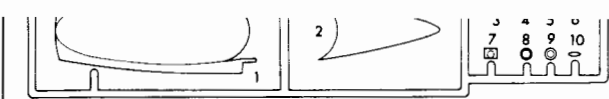
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7. HUD part
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9. Top distinction light (A)
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- 12 -

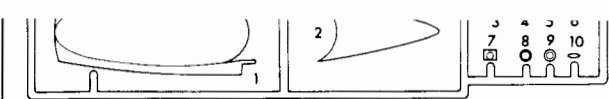
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- 12 -

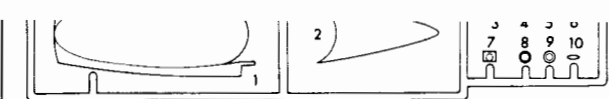
PRINTED IN ENGLAND



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- 12 -

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8. Top distinction light (A)
9. Top distinction light (A)
10. Anti-collision light