

ROYAL NAVY SEA HARRIER FRS.1



1/48 SCALE AIRCRAFT SERIES



The Hawker Siddeley Harrier astounded the world with its unique ability to take-off and land vertically utilizing vectored thrust from its powerful 8000kg thrust engine. First tested in concept in 1960, the aircraft went through many periods of testing and modification prior to acceptance by the Royal Air Force and other nations in 1974. The production Harriers utilized either a Pegasus 6 or 11 engine of 8000 or 9750kg thrust and it was only natural that the Royal Navy should find application for this type of aircraft with their fleet air arm. Various political and financial considerations delayed the order for the "Navalized" Harrier until May 1975, when the Admiralty ordered an initial 24 aircraft plus one T.Mk.4 trainer, followed in June by a further ten Harriers, and three additional T.Mk.4's in 1980. The FRS.1 is easily distinguished from its land-based counterparts by a modified nose section incorporating a raised pilots seat and Ferranti Blue Fox radar, plus principal armament of Sea Eagle anti-ship missiles and AIM-9L Sidewinder air-to-air missiles. Martel or Harpoon ASMs may be carried as alternatives to Sea Eagle until the latter become operational. The first FRS.1 to fly was actually the initial production Sea Harrier, on 20 August 1978, and the prototype model later in December 1978. The home of the Sea Harriers was designated Yeovilton Navy Base, and they received the first aircraft in June 1979, where intensive flight trials began with '100/VL' squadron four days later. This IFTU unit was designated 700A squadron in September 1979 and was redesignated 899 Squadron in March of 1980. Three "Through - Deck" cruisers had been ordered for Sea Harrier operations, Invincible; Illustrious and Ark

Royal, the first of which was commissioned in July 1980. All three vessels are to be fitted with a "Ski-jump" to assist take-off with full load, and this installation was also added to the commando carrier HMS Hermes when it was allotted a Sea Harrier squadron. A small export order for Sea Harriers was placed by India in November 1979 for six FRS.51's and two T.60 trainers. The Sea Harrier, along with the GR3 Harriers from the RAF, were put to actual combat tests during the recent Falkland Islands crisis. The British South Atlantic force was built up with the addition of GR3 and FRS.1 Harriers bringing the total jump jet strength to around 40 aircraft to be deployed on the aircraft carriers Hermes and Invincible. The Sea Harrier (FRS.1) has about 30% more re-action control for easier landings, and better 'over the nose' visibility; however, the GR3's from the RAF worked well in the overall operations during the conflict and both aircraft distinguished themselves to the utmost. The Royal Navy Harriers, during the conflict, were painted in the new "toned down" finish of matt sea blue overall, while the RAF aircraft were in the extra dark sea grey scheme. With a cruise speed of mach .9 and a top speed of mach 1.25, and landing speed of 0, this is truly a versatile combat aircraft and one that will be in weapons inventories for many years to come.

* * *

Als 1960 der erste Test mit dem Hawker Siddeley Harrier erfolgte, staunte die ganze Welt, dass dieses Flugzeug mit den kräftigen 8000 Kilo Triebwerken, senkrecht in die Luft steigen konnte. Viele Testflüge und auch andere Luftwaffen dieses einmalige Flugzeug 1974

akzeptierten.

Der Produktions-Harrier hatte entweder ein Pegasus 6 oder 11 Triebwerk mit 8000 bzw. 9750 Schubkraft und es war verständlich, dass die Royal Navy diesen Type für die Flugzeugträger einsetzen wollte. Politische und finanzielle Gründe verzögerten die notwendigen Umbauten für den Trägerbetrieb bis Mai 1975. Die Admirailität gab den Auftrag für 24 Flugzeuge und T.Mk.4 Trainer, bereits im Juni wurden noch 10 Harrier und 3 T.Mk.4 Trainer bestellt.

Der FRS.1 unterscheidet sich durch den verbesserten Bugteil durch erhöhten Pilotensitz und das Ferranti Blue Fox Radarsystem, sowie die Sea Eagle Anti-Ship Raketen und AIM-9L Sidewinder Luft/Luft Raketen. Es wurden auch Martel oder Harpoon ASM's verwendet, bis die Sea Eagle's eingesetzt wurden.

Der erste Sea Harrier flog am 20. August 1978. Im Juni 1979 begannen intensive Flugübungen in der Yeovilton Navy Base. Drei Flugzeugträgerschiffe wurden für Harrier Operationen bestellt: Invincible, Ark Royal und Illustrious, das erste im July 1980 ausgeliefert. Alle drei Träger bekamen noch einen "Sky Jump", auch die HMS Hermes, um den Start mit voller Ladung, schneller zu ermöglichen. Ein kleiner Export Auftrag kam aus Indien im November 1979 für 6 FRS.51 und zwei T.60 Trainer.

Die Sea Harrier, zusammen mit GR3 Harrier von der RAF wurden auch vor kurzem auf den Falkland Inseln eingesetzt.

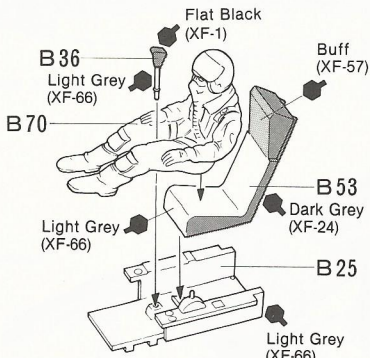
Auf den Falklands sah man den Sea Harrier ganz in matt sea blau, während der Land-Harrier der RAF in extra dark sea grau bemalt war. Normale Geschwindigkeit ist Mach .9, Top Speed liegt bei 1.25 Mach und die Landung kann mit Mach 0 erfolgen. Wahrhaftig ein einmaliges Flugzeug, von dem man noch lange sprechen wird.



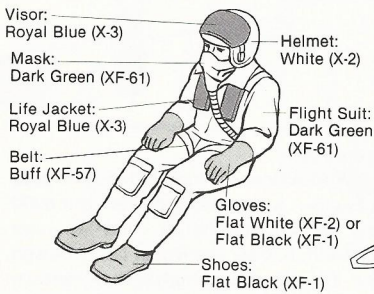
★ Study the instructions and photographs before commencing assembly.
 ★ You will need a sharp knife, a screwdriver, a file and a pair of pliers.
 ★ Use cement sparingly. Use only enough to make a good bond.
 ★ Apply cement to both parts to be joined.
 ● This mark denotes paint color. Color names and numbers are for Tamiya Acrylic Paints and Tamiya Paint Markers. Page 5/6 have detailed painting instructions, however, some parts should be painted before model's completion, and these are called out during assembly.

★ Vor Beginn die Bauanleitung studieren und den Nummern nach die Elemente zusammenbauen.
 ★ Bauteile nicht vom Spritzling abbrechen, vorsichtig abschneiden oder abwickeln. Teile vor Kleben zusammenhalten, auf genauen Sitz achten. Nicht zuviel Klebstoff verwenden. Kleine Teile hält man mit Pinzette fest.
 ★ Abziehbilder vorsichtig von der Unterlage im Wasser abschleifen, auf richtigen Sitz achten und gut trocknen lassen.
 ● Dieses Zeichen zeigt die Farbe und Farbnummer der Tamiya Acryl-Farben und Tamiya Paint Marker.

2 «Seat Assembly» «Schleudersitz»

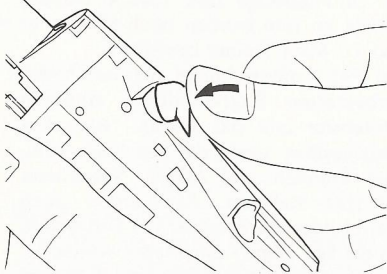


«Painting Pilot» «Bemalung der Figur»



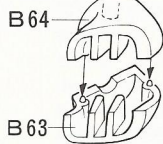
4 «Nozzle Attachment» «Einbau der Düsen»

Push in nozzle as shown.
Düse fest eindrücken.

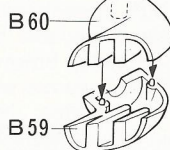


3 Nozzle Assembly Zusammenbau der Düsen

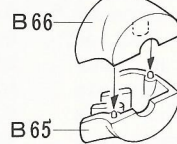
«Right Rear»
«Rechts Hinten»



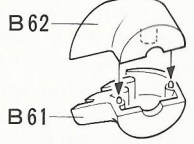
«Right Front»
«Rechts Vorne»



«Left Rear»
«Links Hinten»

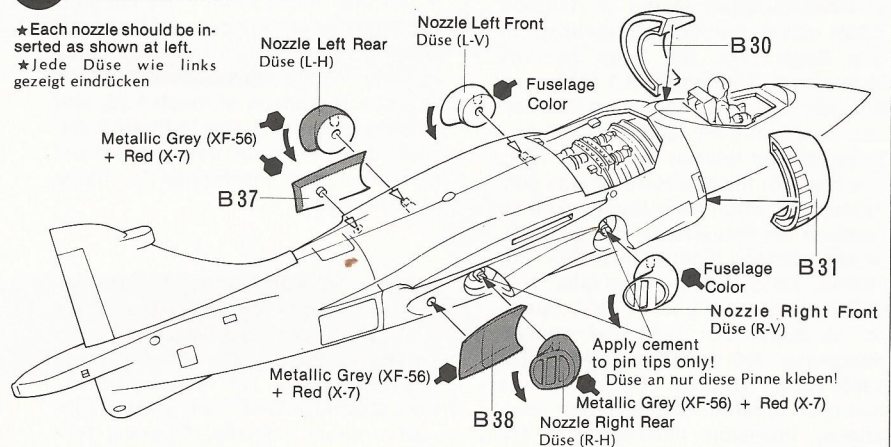


«Left Front»
«Links Vorne»



4 Nozzle Attachment Einbau der Düsen

★ Each nozzle should be inserted as shown at left.
★ Jede Düse wie links gezeigt eindrücken



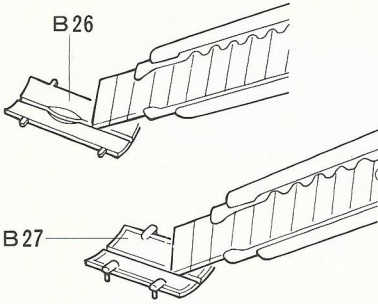
Tamiya Acrylic Paints
Need precise colour matching? Try the new Tamiya acrylic paints. Engineered by modelers for modelers' use. The final cover for the finest models. Insist on Tamiya for perfect results.

PAINT MARKER

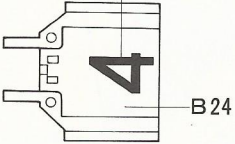
Hand held, Tamiya enamel paint markers. For the final detail touch, and professional results. 12 of the most popular colors used in modeling. See and test them at your local hobby supply house.

5 <<Gear Cover Trimming>>
<<Fahrgestellklappen>>

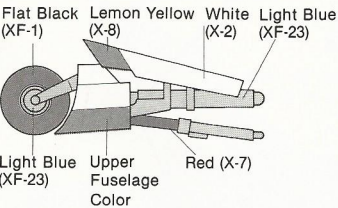
Halve B26 and B27 as shown.
B26 und B27 wie gezeigt trennen.



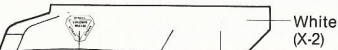
<<Marking of Air Brake B24>>
<<Markierung der Luftbremse B24>>
Marking Example ② — Apply decal ⑤② to inside of B24.
Bei Bemalung ② wird Abziehbild ⑤② angebracht.



7 <<Outrigger Gear B54>>
<<Stützfahrwerk B54>>

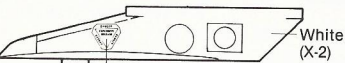


<<Marking of Pylon A5>>
<<Markierung Träger A5>>



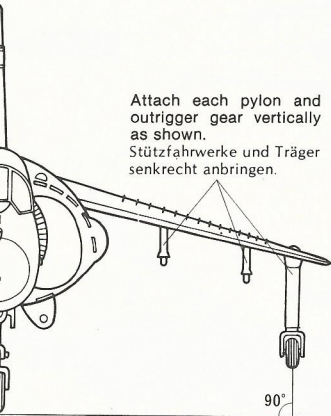
Apply decal ③ to both sides.
Abziehbild (auf beiden Seiten)

<<Marking of Pylons A19 & A20>>
<<Markierung Träger A19 und A20>>



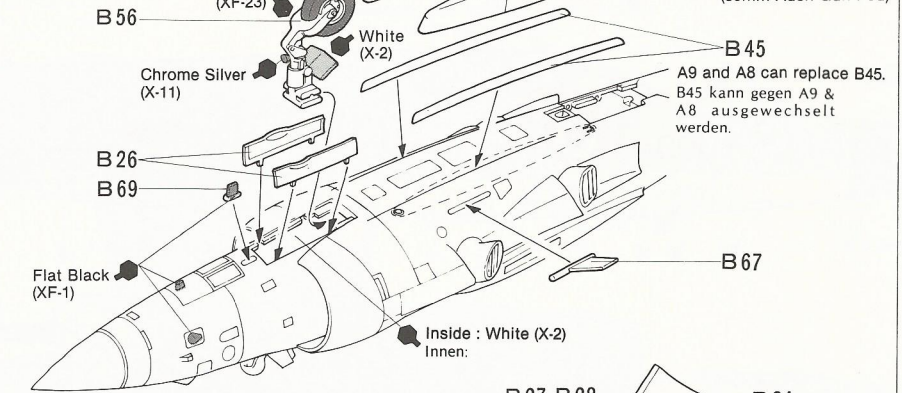
Apply decal ③ to both sides.
Abziehbild (auf beiden Seiten)

<<Attaching Pylons & Outrigger gear>>
<<Anbringung der Stützfahrwerke und Träger>>

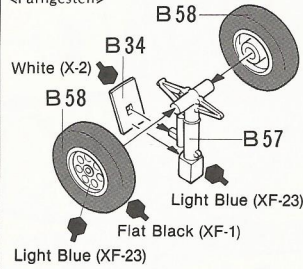


5 Attaching Gear
Fahrgestell

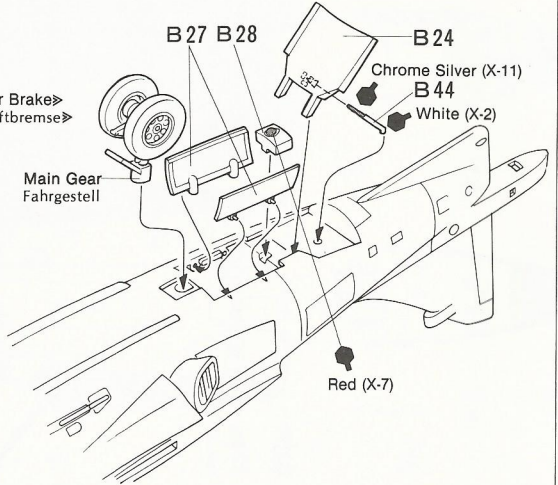
<<Attaching Nose Gear>>
<<Bug Fahrgestell>>



<<Main Gear Assembly>>
<<Fahrgestell>>

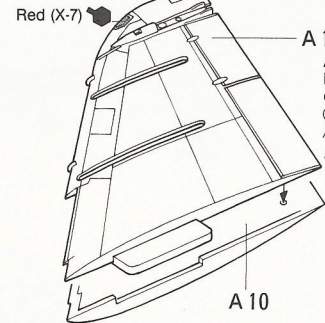


<<Main Gear & Air Brake>>
<<Fahrgestell & Luftbremse>>



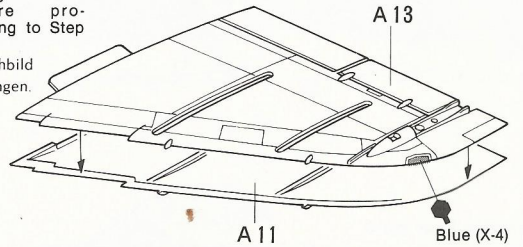
6 Wing Assembly
Tragfläche

<<Left>>
<<Links>>

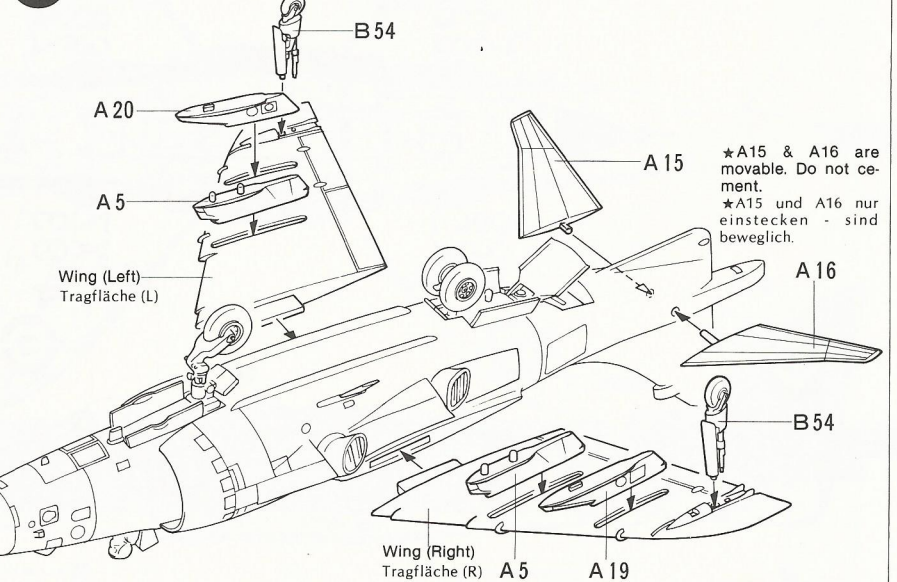


Apply decals before proceeding to Step ⑦.
Abziehbild anbringen.

<<Right>>
<<Rechts>>

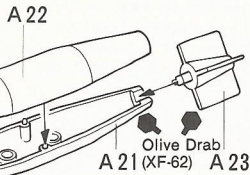


7 Attaching Wings
Einbau der Tragflächen

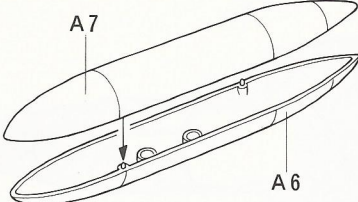


8 «Armament Assembly» «Ausrüstung»

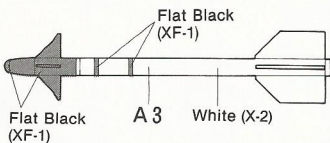
«1000 lb Bomb»
4 sets available.
«1000 lb Bombe»
4 Bomben können gemacht werden.



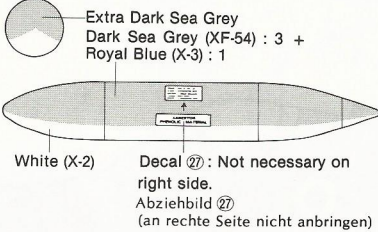
«100 gallon Drop Tank»
2 sets available.
«Abwurf Tank»
2 Tanks können gemacht werden.



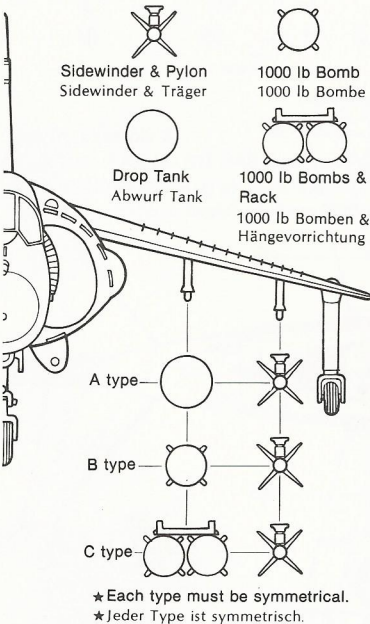
«Painting of Sidewinder Missiles»
«Bemalung der Sidewinder Rakette»



«Painting & Marking of Drop Tank»
«Bemalung und Markierung von Abwurf Tank»



«Example of Stores Attachment»
«Ausrüstungsbeispiel»

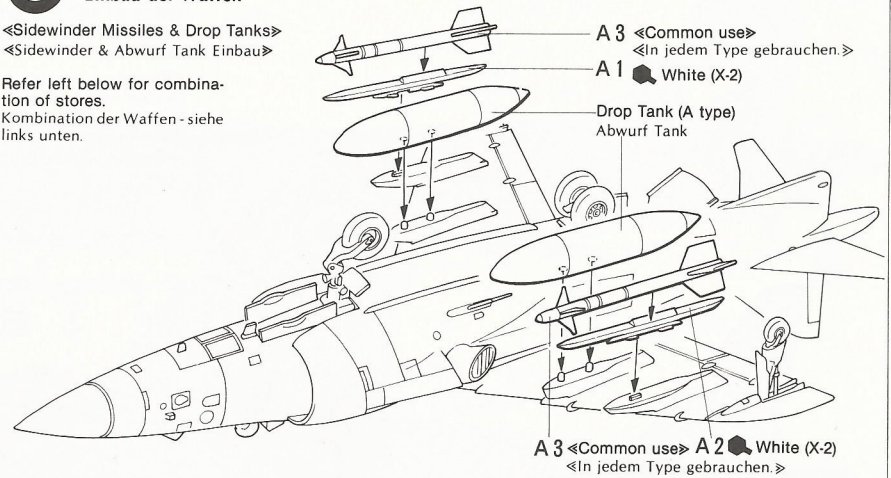


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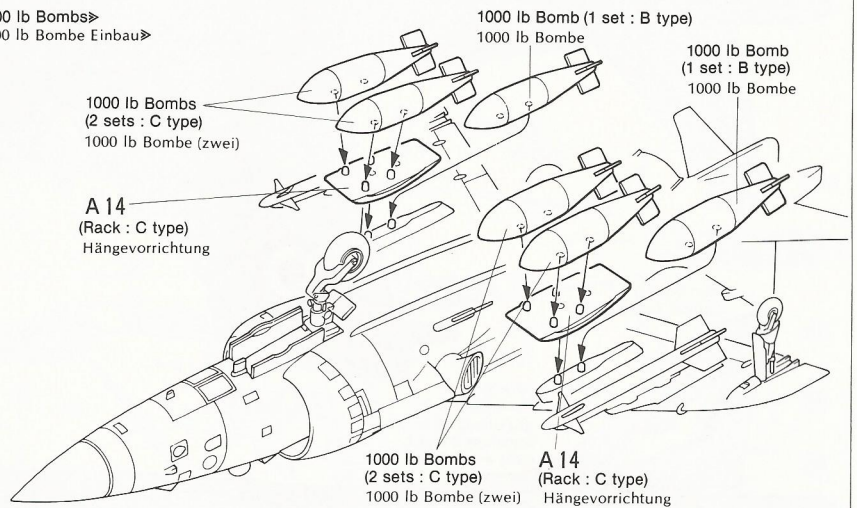
8 Attaching Equipment Einbau der Waffen

«Sidewinder Missiles & Drop Tanks»
«Sidewinder & Abwurf Tank Einbau»

Refer left below for combination of stores.
Kombination der Waffen - siehe links unten.

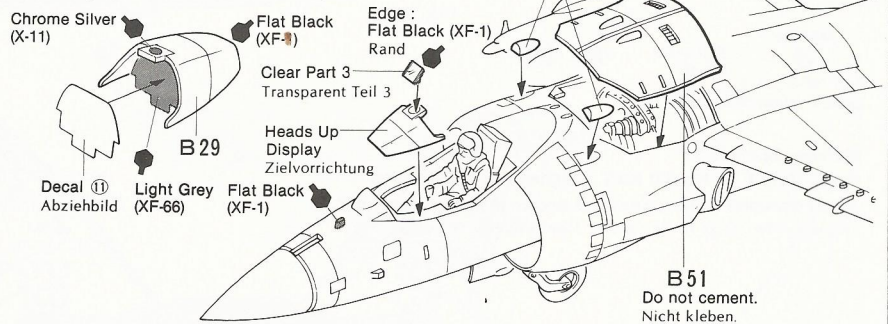


«1000 lb Bombs»
«1000 lb Bombe Einbau»



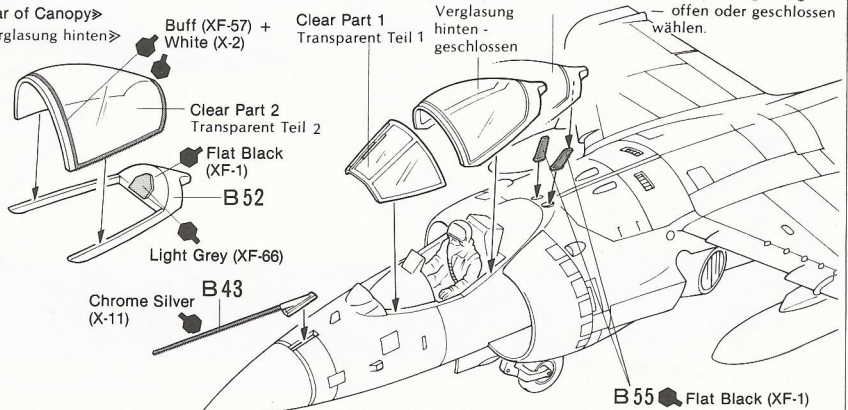
9 Attaching Heads Up Display Zielvorrichtung

«Marking»
«Markierung»



10 Canopy Attachment Cockpit Verglasung

«Rear of Canopy»
«Verglasung hinten»



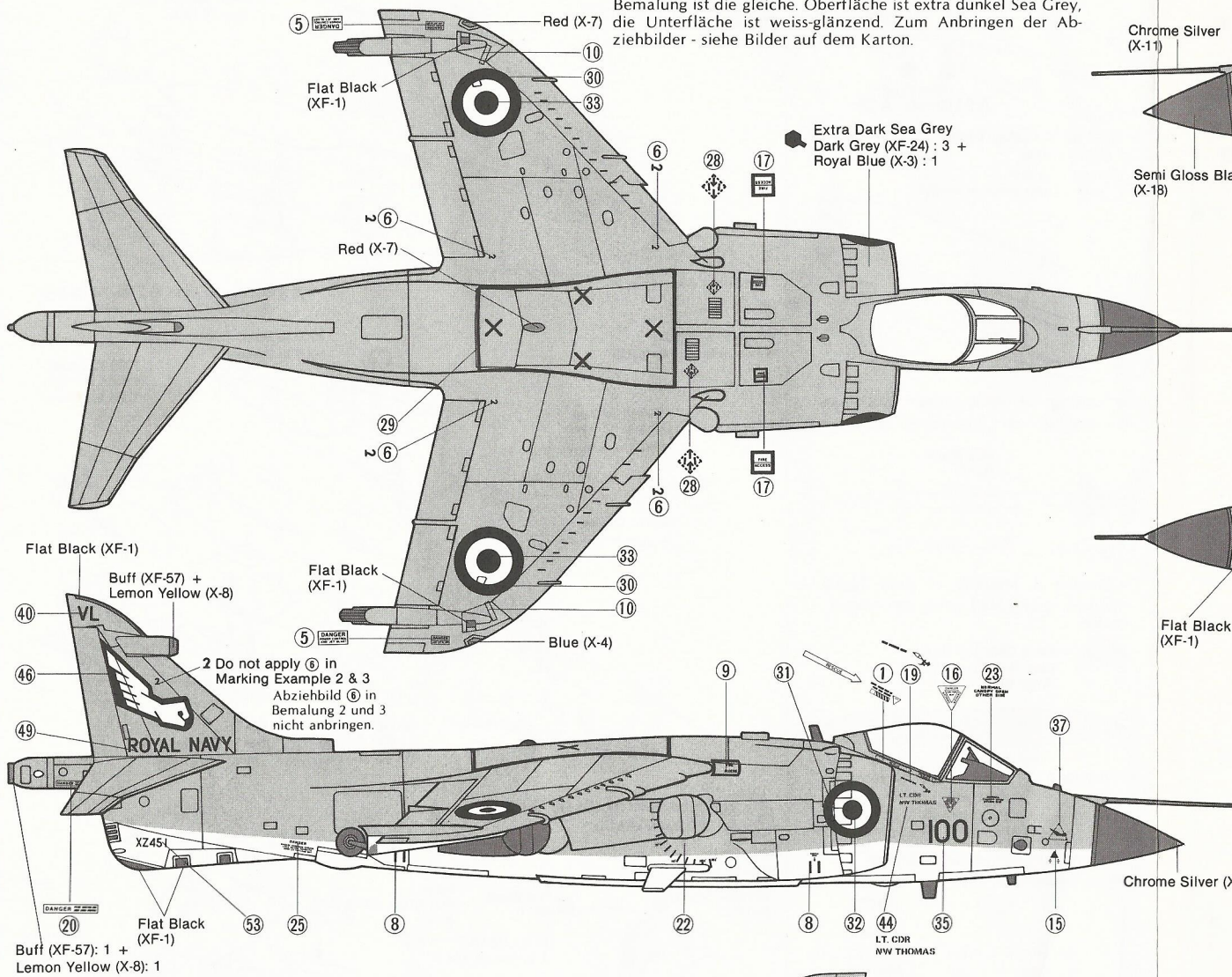
Marking Example 1
Royal Navy FAA No.899 NAS based at RNAS Yeovilton

«Painting and Marking of Sea Harrier FRS.1»

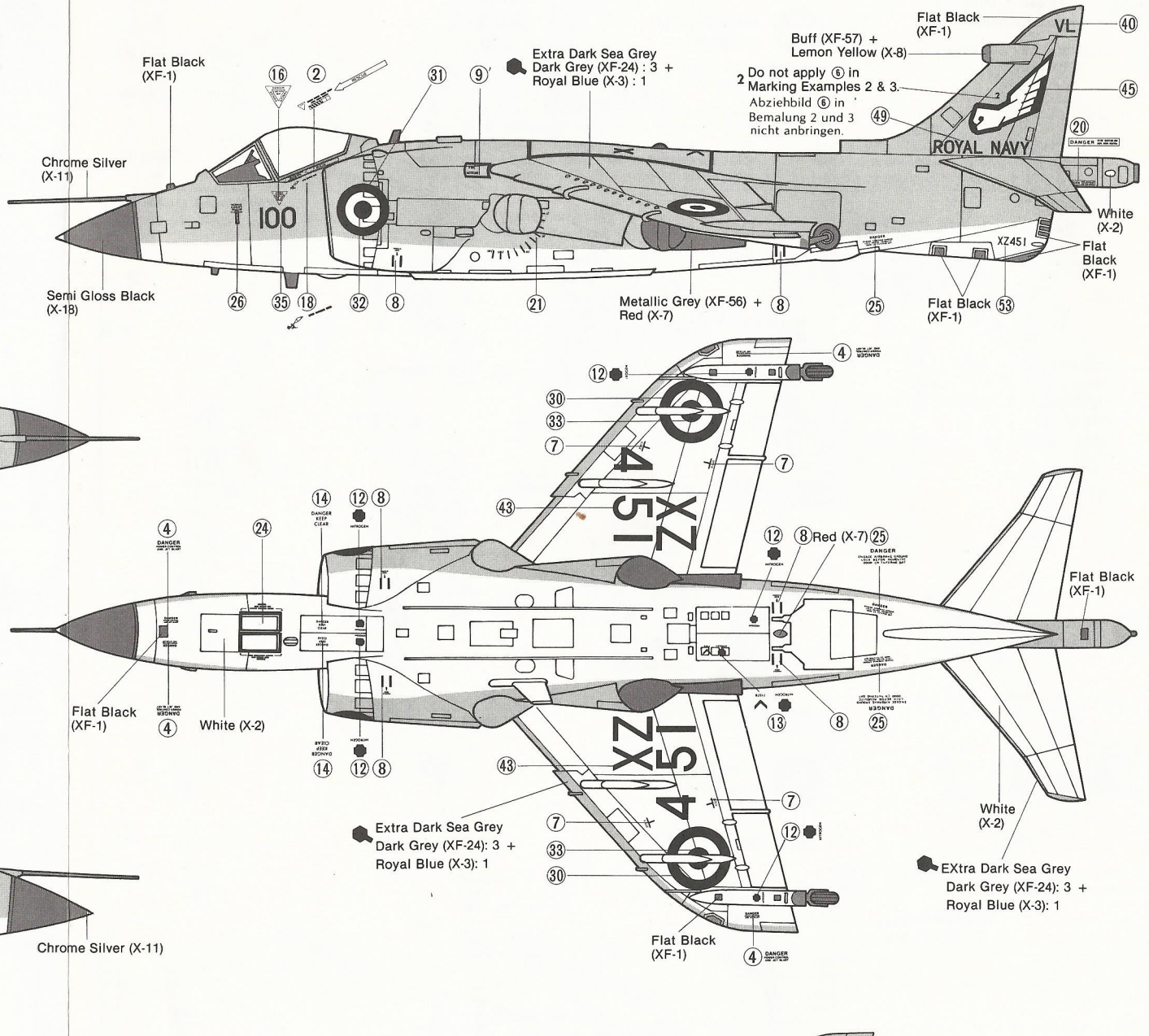
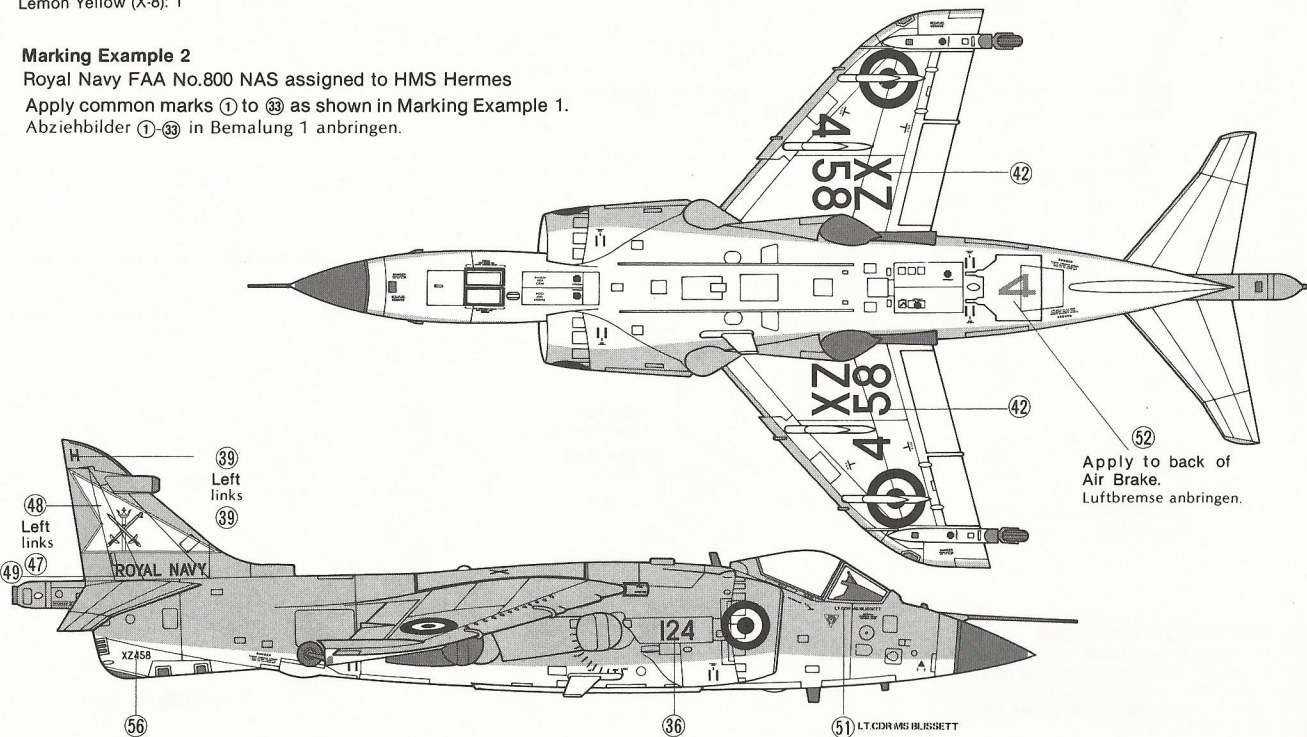
Kit includes decals for three different squadrons. Color schemes adopted are fundamentally same. Upper surface is Extra Dark Sea Grey and lower surface is Gloss White. Refer to drawings for correct decal placement.

«Bemalung und Markierung des Sea Harrier FRS.1»

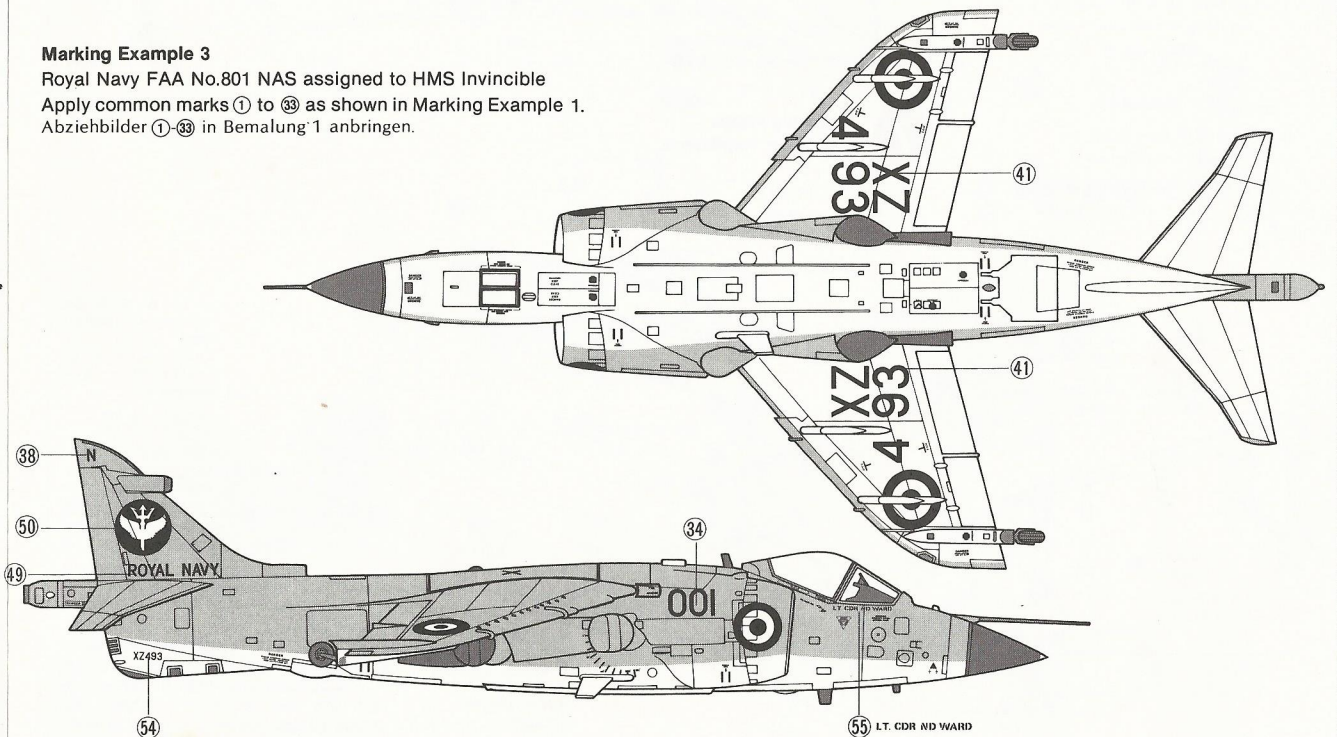
Der Kit enthält Abziehbilder für 3 verschiedene Squadrons. Die Bemalung ist die gleiche. Oberfläche ist extra dunkel Sea Grey, die Unterfläche ist weiss-glänzend. Zum Anbringen der Abziehbilder - siehe Bilder auf dem Karton.

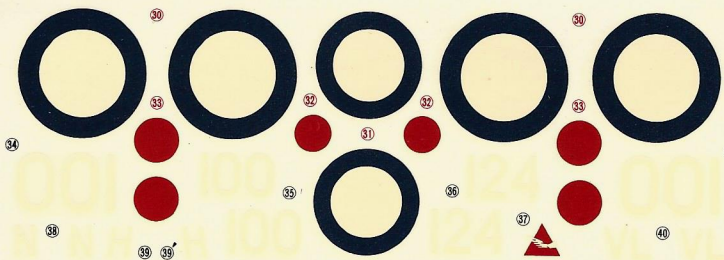


Marking Example 2
Royal Navy FAA No.800 NAS assigned to HMS Hermes
Apply common marks ① to ⑳ as shown in Marking Example 1.
Abziehbilder ①-⑳ in Bemalung 1 anbringen.



Marking Example 3
Royal Navy FAA No.801 NAS assigned to HMS Invincible
Apply common marks ① to ⑳ as shown in Marking Example 1.
Abziehbilder ①-⑳ in Bemalung 1 anbringen.





36 4 XZ 85 4 XZ
 41 Z 4 93 ZX 4 58
 42 Z 4 93 ZX 4 58



XZ451 XZ451 XZ493

XZ493 XZ458 XZ458

