

# Ferrari 312T

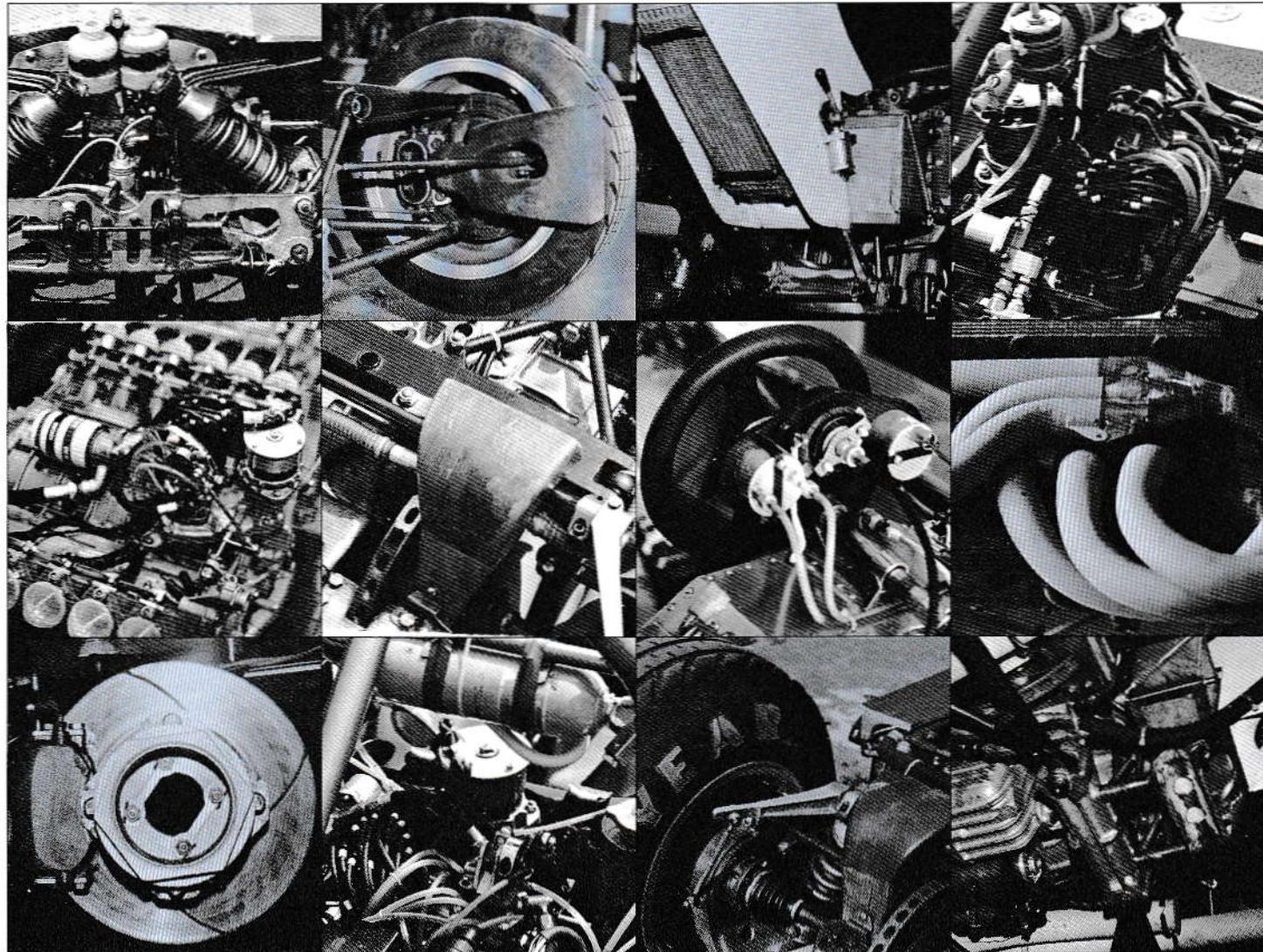
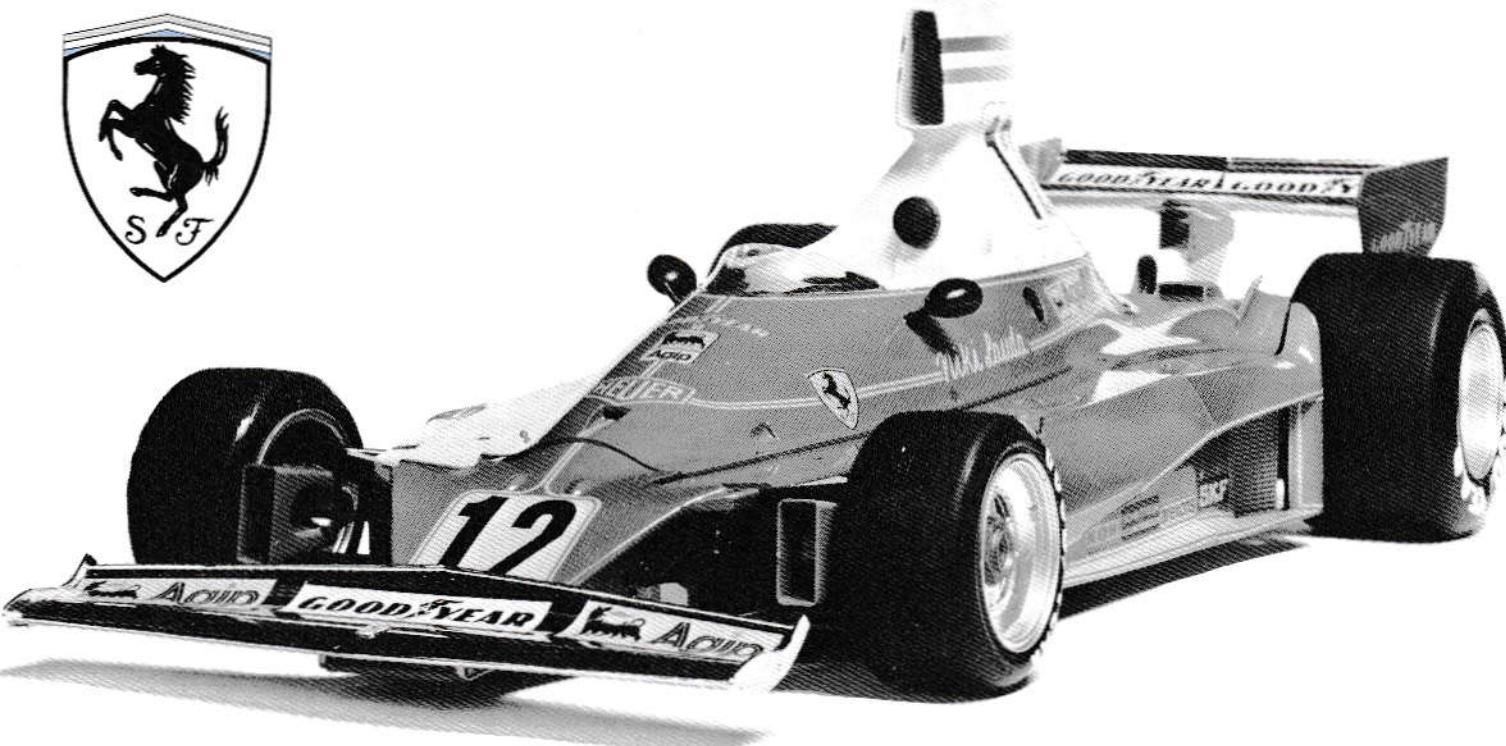
## 1:12 SCALE

Length 366mm  
 Width 168mm  
 Height 102mm

C SUPER DETAILED FLAT 12 BOXER ENGINE  
 C MOVABLE FRONT & REAR SUSPENSION  
 C SEMI PNEUMATIC RUBBER LIKE TYRES  
 C DETACHABLE COWLING

**BIG SCALE** 1/12 TAMIYA

TAMIYA, INC.  
 3-TONDAWARA, SHIZUOKA-CITY, JAPAN



# Ferrari 312T

• The reproduction of this model  
is authorized by Ferrari

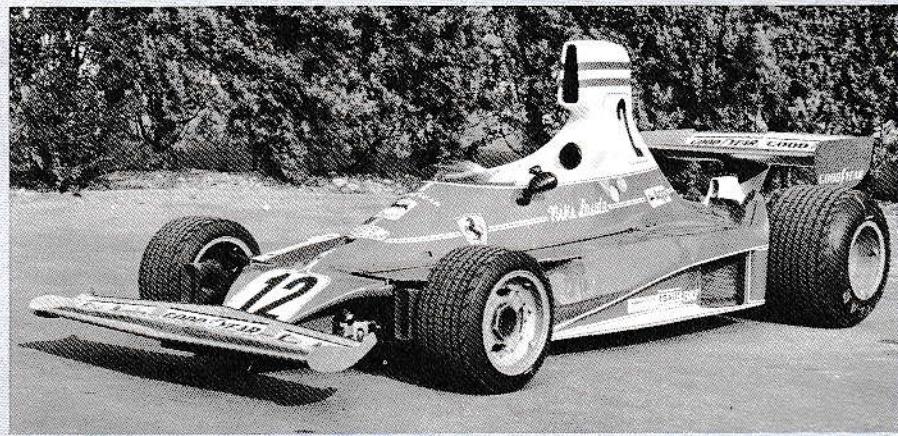


## FERRARI 312B3 (T)

The most glamorous name in the history of Grand Prix and sports cars since World War II is Ferrari. The Founder of this world famous company ENZO FERRARI started life as a racing driver way back in 1923, and it was in that year that he won a race at RAVENA in Italy. He received as a prize, a shield depicting a black prancing horse on a yellow background. From then onwards ENZO FERRARI adopted this motif as his insignia and it is now world famous. By 1929 FERRARI was in charge of all the motor racing activities of ALFA-ROMEO but in 1932 they withdrew their support from International Motor Racing, so ENZO FERRARI started his own team named SCUDERIA FERRARI and continued his activities in International racing, the cars he used were based on Alfa-Romeos. Before 1937 Ferrari was sufficiently far sighted to see that the development of other manufacturers would soon leave the Alfas behind, and he considered manufacturing his own cars. It was in 1939 that Ferrari finally broke with Alfa-Romeo and produced his first racing car. This was fitted with an improved version of the then popular Fiat push rod engine. The car was prepared and ready to enter the famous Mille Miglia of 1940, however, due to the advent of World War II the event never took place. The first Ferrari car did not, therefore, appear until 1945. Three variations of the same basic car were produced, each was fitted with the new Ferrari manufactured engine, which was a V-12 O.H.C. engine of 1498 cc. This engine, called the 125, was designed by Giocchini Colombo, an ex-Alfa man, who had been responsible for the Alfa Type 158. One of these cars was the Grand Prix version called the 125 GP. Another was the racing sports car named "COMPEZZIONE" and finally a sports car for the open market. Here, then, was the start of the Ferrari empire which we know so well today.

## FERRARI AND GRAND PRIX RACING

In 1948, the first year Ferrari really tried, he did not have any notable achievements, however in 1949 the Ferrari team won three Grand Prix with the 125 GP. In 1952 Alberto Ascari, Ferrari's leading driver won the Drivers World Championship, and he also won it in 1953. Other Ferrari winners of this Championship were Fangio in 1956 and an Englishman Mike Hawthorne in 1958. In 1961 the Award went to the American Phil Hill and in 1964 to John Surtees. But the most notable of these achievements was in 1952 when Ascari won all seven of the qualifying GP races for that year! When the Federation Internationale Automobiles decided in 1966 that the engine capacity for Formula 1 should be increased to 3 litres, the Ferrari results for that year were not successful. In 1967 Ferrari had more bad luck. Their No 1 driver Lorenzo Bandini was killed at the Monaco Grand Prix which left only Chris Amon, a New Zealander, to battle for Ferrari. Another lean year was 1968, when the only win was the French Grand Prix, scored by Jacky Ickx a new member of the team.. But worse was to come, in 1969 Ferrari did not win a single Grand Prix race. So after four years of racing to the 3 litre formula, Ferrari had mostly poor performances. The trouble seemed to be the V-12 engine, although beautifully made it did



not have enough power, and lacked the reliability of the comparatively simple 8 cylinder units of Repco and Ford Cosworth. So it was decided in 1968, that Mauro Forghieri should concentrate his efforts into the development of a completely new 3 litre engine. The result was a new simplified 12 cylinder horizontally opposed engine called the 312B. The "B" stands for "Boxer", an expression used on the Continent of Europe to denote this type of engine.

## THE FERRARI 312B

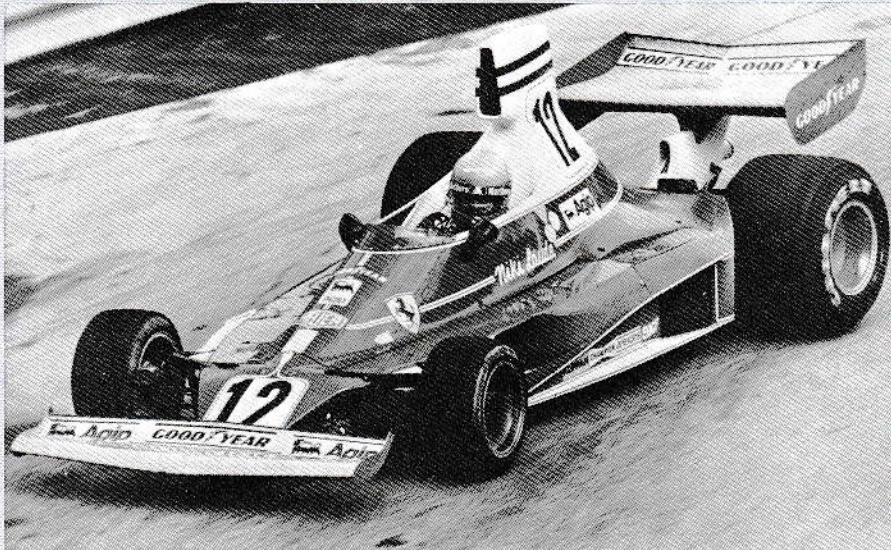
The Ferrari return to prominence in Grand Prix Racing became apparent in 1974 and reached new heights last year when Niki Lauda became the first Ferrari driver since John Surtees in 1964, to win the World Championship. Ferrari would have won the Championship in 1974 but for a series of minor mishaps. However, these failures made the Team all the more determined for 1975. Between them, Niki Lauda and his team-mate Clay Regazzoni won 6 Grand Prix. Lauda won five races, led eight and was fastest in practice no less than nine times. Ferrari won the Constructors' Championship by a large margin and to emphasize the superiority of the Team, the Ferrari was the only car to lead a race from start to finish in 1975. Lauda won in France and the USA, and Regazzoni in Italy without a challenge. The car which helped to win these successes was a completely new version of the 312B which was called the 312B3 (T). The 312B (T) for "transverse" because of the transverse gearbox, looks like its predecessor the 312B3, but in actual fact, only the combined cockpit cover-cold air box is the same on both cars. The "Transverse" is a new design, the fourth in the 312B series, powered by the same "Boxer" 12 cylinder engine which in its present form has been used in all the F1 Ferraris since 1970. The whole objective of the 312T design was to achieve a low movement of inertia, placing as much of the weight as possible well within the wheelbase of the car, and in this the designers have been very successful. No major components are mounted outside the axle lines. The transverse gearbox is mounted ahead of the final drive and has its own oil supply. The oil

radiator for the gearbox is mounted in the rear-wing support, ahead of the tail light. Although the car has the same general shape as the 312B the "Transverse's" monocoque body is of completely new design. The engine is mounted nearer to the centre of the car and there is no fuel between the engine and the driver. Instead, the 50 gallons or so of fuel, is contained in bag tanks in the monocoque's pontoons. In order to achieve better weight distribution, the radiators are placed behind the front suspension on either side of the chassis where it tapers towards the footwell. The front suspension is carried by an alloy casting bolted to the front bulkhead. The coil springs and "Koni" dampers are mounted inboard. Long fabricated steel rocker arms and lower wishbones complete the front suspension. The front disc brakes are in the Ferrari five spoke wheels and cooled by fibreglass ducts. The "Boxer" 12 cylinder engine which has powered Ferrari GP cars since 1970 is a development of the 1.5 litre flat twelve which first appeared in the last years of the 1961-5 Formula 1. The unit has a bore and stroke of  $80 \times 49.6$  mm giving a capacity of 2992 cc. There are two camshafts to each bank of cylinders and four valves per cylinder. The "Boxer" is undoubtedly the most powerful engine in GP racing, producing 475 B.H.P. at 11,500 R.P.M. and approximately 500 B.H.P. at 12,200 R.P.M. When one thinks of the V8 Repco motor which powered Jack Brabham in 1966, the first year of the present F1 regulations, and which produced just over 300 B.H.P., it is apparent what advances have been made in engine design in the last 10 years. However, this enormous power increase is not matched by a similar increase in reliability. The "Boxer" engine is so highly stressed that the engine which powers the Ferrari GP car in practice is replaced by a fresh unit for the Race itself. The "Boxer" has four exhaust pipes, two from each bank of cylinders and it is one of the few engines in GP racing to be so equipped. Although the lines are similar to the 1974 B3, the "Transverse" shape is very much improved. The nose section is narrower and the front aerofoil is mounted in such a way as to cause minimum turbulence.

As long as ENZO FERRARI is alive, his cars will always be red, Italy's national racing colour, and he will not allow any advertising on the car that is not either used on the car or by the Team.

## Ferrari 312B3 (T)

Der Name Enzo Ferrari dürfte wohl in der Geschichte des Rennsports der bekannteste sein, einmal als Rennfahrer und dann als Hersteller der berühmten "roten" Ferrari's. Im Jahre 1923 begann Ferrari als Rennfahrer und gewann sofort das erste Rennen in Ravenna/Italien. Es gab zwar keinen Pokal, sondern ein Schild mit einem schwarzen Pferd auf gelbem Grund. Dieses Zeichen übernahm Enzo Ferari als Wappen und ist nun mehr auf der ganzen Welt bekannt. 1929 fuhr Ferrari für Alfa-Romeo, als sich diese Firma jedoch 1932 vom Internationalen Rennsport zurückzog, gründete Ferrari seinen eigenen Rennstall, genannt "Scuderia Ferrari", seine Wagen basierten auf Alfa-Romeo. 1937 sah Ferrari vorraus, dass andere Hersteller von Rennwagen bald die Alfa's hinter sich zurücklassen würden und so beschlosser, seinen eigenen, ersten Wagen zu bauen. 1939 erfolgte der endgültige Bruch mit Alfa-Romeo. Der erste Ferrari war auf der verbesserten Version des Fiat gebaut und stand für die berühmte "Mille Miglia" 1940 bereit. Infolge des Kriegsausbruches wurde dieses Rennen jedoch nicht gestartet. Erst 1945 konnten die



**Main Specification**

**Chassis** ..... Duralumin full monocoque  
**Body** ..... FRP  
**Suspension** ..... Front Double wishbone  
                   Rear 4 links  
**Tyre** ..... Good Year

**Engine** ..... Ferrari horizontally  
                   opposed 12 cylinder 4  
                   valve Type 312B  
**Capacity** ..... 2991 cc  
**Maximum Power** ..500 HP/12200 rpm

**Maximum Torque** ..32.6 kgm/9700 rpm  
**Gear box** ..... Ferrari 5-speed  
**Wheelbase** ..... 1510 mm  
**Tread width** ..... Front 1480 mm  
                   Rear 1530 mm

ersten 3 Wagen auftreten, gebaut auf dem gleichen Chassis, jedoch mit dem neuen Ferrari Motor, ein V-12 O.H.C. mit 1498 cc. Dieser Motor, genannt 125'er wurde von Giocchini Colombo entworfen, der früher für Alfa den Type 158 konstruiert hatte.

Die Grand Prix Version hatte die Bezeichnung: 125 GP. Der Rennwagen wurde "Compezione" genannt und der Sportwagen für Privatfahrer war der Start zur Weltmarke.

**Ferrari und das Grand Prix Rennen.**

1948 hatte Ferrari keine nennenswerte Erfolge, 1949 gewann das Team 3 Grand Prix mit den 125 GP.

1952 gewann Alberto Ascari, Spitzfahrer Ferrari's, die Weltmeisterschaft der Fahrer, 1953 der gleiche Erfolg mit Ascari,

1956 wiederum Sieg mit Juan Fango,

1958 fuhr der Engländer Mike Hawthorne den Sieg nach Hause,

1961 wieder ein Jahr mit Ferrari durch den Ami Phil Hill,

1964 war dann John Surtees erfolgreich.

Die größten Erfolge jedoch hatte Ferrari 1952 mit Ascari, der alle 7 Grand Prix Rennen gewann. Als 1966 die FIA beschloss, den Hubraum auf 3 Liter zu erhöhen, waren die Erfolge an Ferrari vorbeigelaufen. 1967 folgte noch mehr Pech als Ferrari's Fahrer No. 1 Lorenzo Bandini in Monaco beim Grand Prix tödlich verunglückte, nur der Neuseeländer Chris Amon konnte mitkämpfen. 1968 war ein weiteres mageres Jahr, jedoch konnte der Fahrer Jacky Ickx den Grand Prix von Frankreich gewinnen. 1969 kein einziger Sieg auf der ganzen Linie. So waren 4 Jahre mit dem 3 Liter zwar Rennen gefahren, keine nennenswerten Erfolge jedoch zu verzeichnen. Die Schwierigkeiten lagen wahrscheinlich nur an dem V-12 Motor. Obwohl wunderbar konstruiert, hatte dieser Motor einfach nicht die Kraft gegen Repco und Ford Cosworth durchzuhalten.

1968 wurde Mauro Forghieri beauftragt, seine Anstrengungen voll und ganz auf die Entwicklung eines komplett neuen 3 Liter Motor zu konzentrieren. Das Resultat war ein ver-

einfachter, horizontal 12 Zylinder Motor, genannt 312B (B = Boxer)

**Der Ferrari 312B**

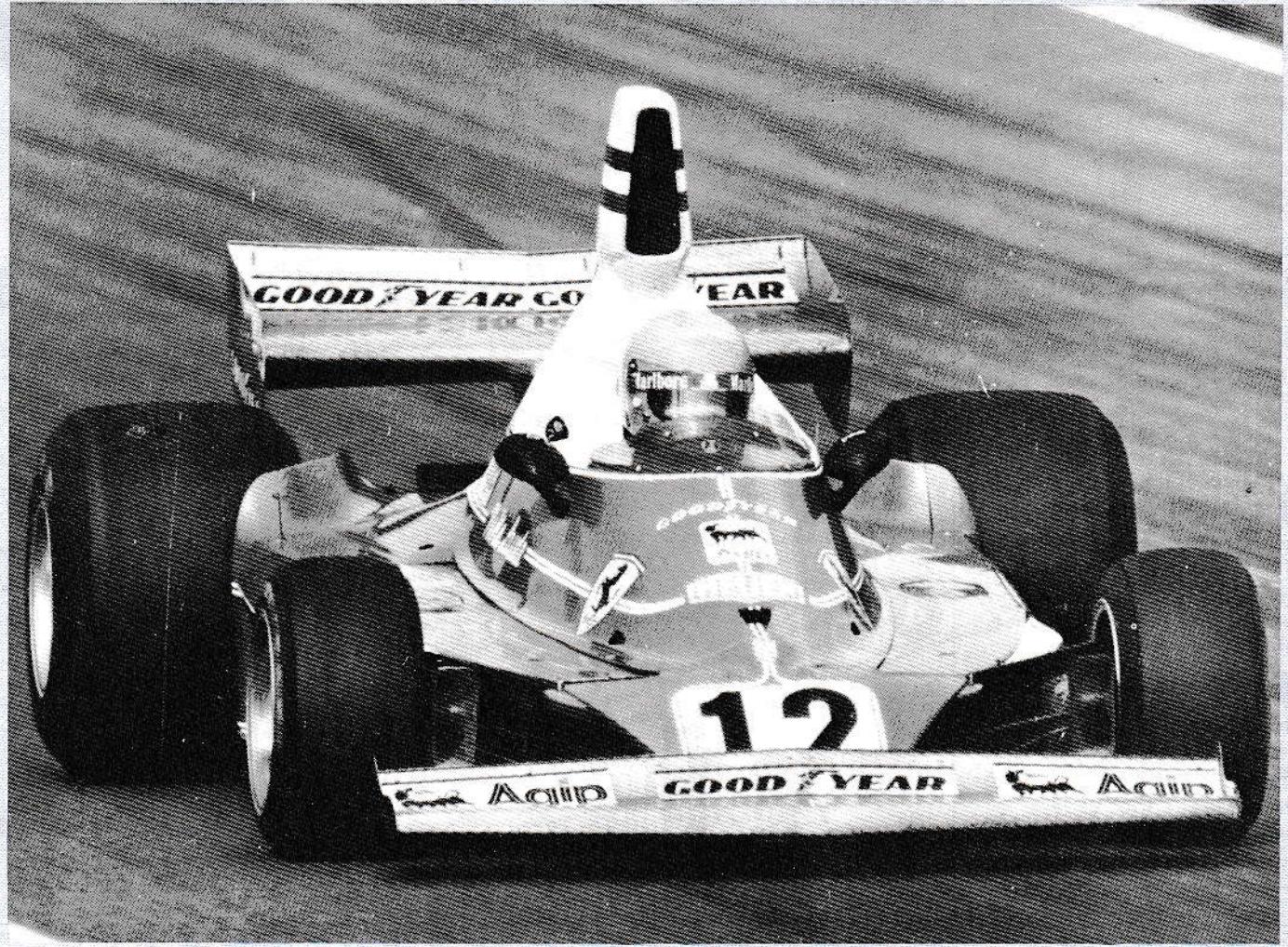
1974 kamen die neuen Ferrari bereit zu hervorragenden Erfolgen und erreichten den Höhepunkt, als Niki Lauda als erster nach John Surtees 1964 Weltmeister 1975 wurde. Bereits 1974 hätten die Ferraris den Sieg machen können, jedoch in Folge kleiner Fehler war da nichts zu machen. Diese Fehler jedoch führten zu sorgfältigen Verbesserungen, Niki Lauda und sein Stallgefährte Clay Regazzoni konnten 6 Grand Prix Rennen für Ferrari nach Hause fahren. Lauda gewann allein 5 Rennen, führte 8 Rennen und fuhr in 9 Rainings die schnellste Zeit. Ferrari gewann die Meisterschaft der Hersteller und der rote Rennwagen war der Einzige, der vom Start zum Ziel das Rennen führte im Jahre 1975. Niki Lauda gewann in Frankreich und Amerika, Regazzoni in Italien - immer ohne Schwierigkeiten. Der Wagen, der zu diesen Erfolgen führte war ein komplett neuer Nachfolger des 312B mit der Bezeichnung 312B3 (T). T meint das transversal liegende Getriebegehäuse. Dieser neue Wagen hat jedoch mit dem 312B nur die Cockpit Verkleidung gemeinsam, trotz des gelichen Aussehen. Die Transversale ist ein neuer Entwurf, der Vierte in der 312B Serie, angetrieben mit dem gleichen Boxer 12 Zylinder, der in seiner gegenwärtigen Form in allen Ferrari's seit 1970 verwendet wird.

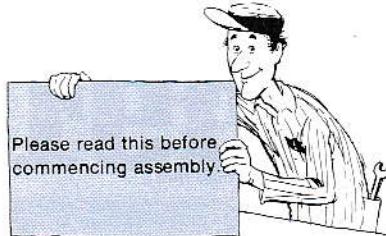
Wichtig war, beim 312 T ein niedrigeres Trägheitsmoment zu erreichen. Dies erfolgte durch Plazierung so viel wie möglich Gewicht zwischen den Achsen. Keine wichtigen Komponenten liegen außerhalb der Achse, das schrägliegende Getriebegehäuse ist in der Hinterradaufhängung montiert. Auch die zwar gleich aussehende Verkleidung ist ein vollkommen neuer Entwurf, der Motor ist näher in die Mitte gerückt, zwischen Motor und Fahrer ist der Tank verschwunden und in den Seitenverkleidungen untergebracht worden, ca 220 Liter. Die Kühler liegen hinter der Hinterradauf-

hängung auf beiden Seiten des Chassis, die Spiralfedern und "Koni" Dämpfer sind inliegend montiert. Langgezogene Schwingarme und niedrige Querlenker vervollständigen die Hinterradaufhängung. Getriebe hat eigene Ölversorgung, die vorderen Scheibenbremsen sind in den Fünfspeichen Rädern durch Fiberglas-Lüftungskanäle gekühlt. Der Boxermotor hat 12 Zylinder und ist das Triebwerk der Ferrari GP's seit 1970, eine Weiterentwicklung des flachen 1,5 Liter Motors aus den Jahren 1961 - 1965, Böhrung und Hub 80 x 49,6 mm geben eine Leistung von 2992 cc. Zwei Nockenwellen für jede Zylinderreihe und 4 Ventile pro Zylinder. Dieser Ferrari Boxer ist unzweifelhaft die stärkste Maschine für Grand Prix Wagen: 475 PS bei 11.000 Upm und ca 500 PS bei 12.200 Upm.

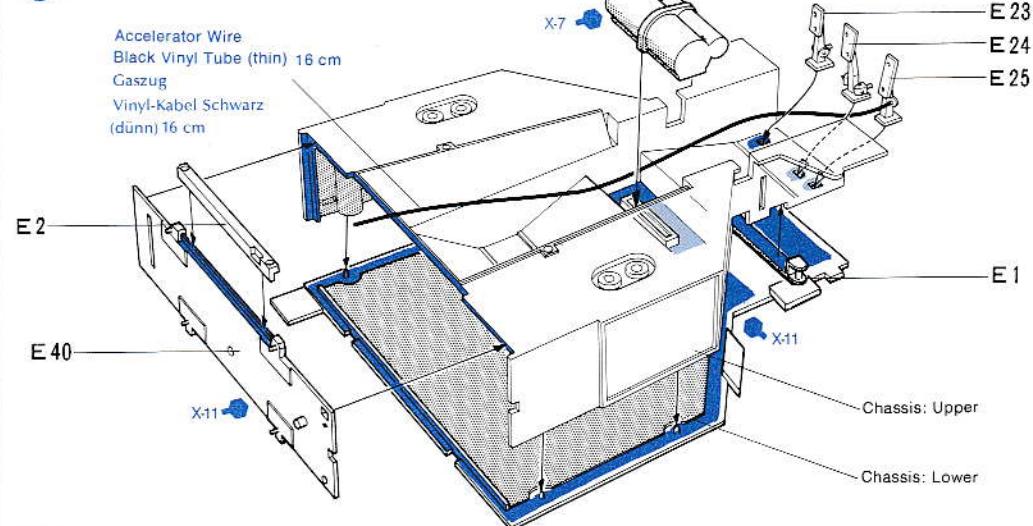
Wenn man an die Repco's V8 Motore von Jack Brabham 1966 denkt, im Jahre der neuen FIA Bestimmungen, die hatten nur 300 PS da wird es sehr deutlich, welche Fortschritte in den letzten zehn Jahren geleistet wurden.

Der Boxer Motor von Ferrari ist derart hochzüchtet, dass der beim Training verwendete Motor beim Rennen durch einen neuen Motor ausgetauscht wird. Der Motor hat 4 Auspuffe, 2 von jedem Zylinderkopf und ist dies bei nur ganz wenigen Maschinen im GP vorhanden. Die gesamte Linie ist, wie bereits erwähnt, ähnlich dem B3 von 1974, jedoch der "Transversale" ist wesentlich verbessert, der Bug ist schmäler und auch die Front-Leitflügel sind so angebracht, dass wenig Luftwiderstand auftritt. Solange Enzo Ferrari Rennwagen produziert, werden seine "Ferrari's" die rote, italienische National Rennfarbe tragen und es wird keine Werbung für fremde Firmen auf den Rennern geben, die nicht mit Ferrari in Verbindung stehen.





## 1 Chassis Construction Chassis Bau



\* Study the instructions and photographs before commencing assembly.  
★ You will need a sharp knife, a screwdriver, a pair of pliers.

\* Do not break parts away from sprue, but cut off carefully with a pair of pliers.

\* Before finally cementing each part together, be sure that parts fit correctly together. And that you are of the next sequence to be followed.

\* Use glue sparingly. Use only enough to make a good bond. Apply cement to both parts to be joined. Only blue shaded parts should be glued.

This mark denotes numbers for Tamiya Paint colors.

\* Vor Beginn des Zusammenbaus wollen Sie bitte die Bilder der Anleitung studieren und Schritt für Schritt, den Nummern nach, die einzelnen Teile zusammenbauen.

\* Die Bauteile nicht vom Spritzling abbrechen, sondern vorsichtig abschneiden oder abwickeln. Teile vor dem Kleben zusammenhalten und auf genauen Sitz achten.

\* Nicht zuviel Klebstoff verwenden, Klebestellen sind in der Anleitung blau gedruckt. Arbeiten Sie gerne mit flüssigem Klebstoff.

\* Wichtig ist, dass bei allen Chromteilen die Chrom oder Aluschicht an den Klebestellen abgeschabt wird, da sonst der Klebstoff nicht bindet.

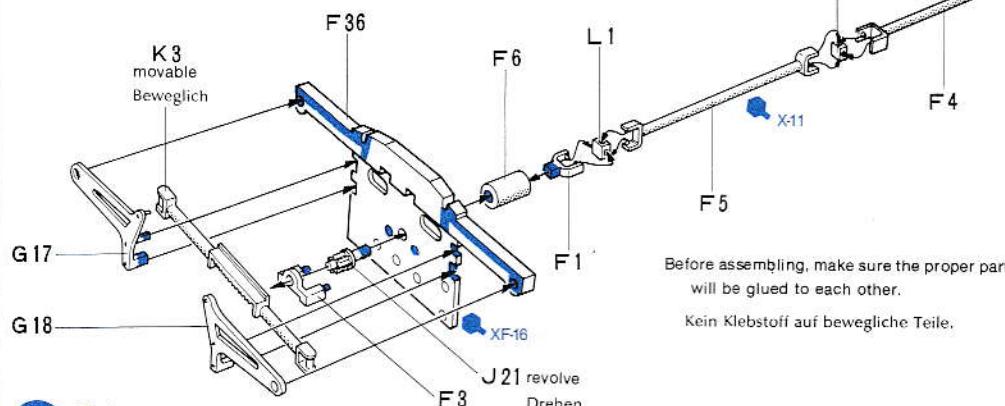
Kleine Teile hält man zum Kleben mit einer Pinzette fest.

\* Abziehbilder vorsichtig von der Unterlage im Wasser abschieben, auf richtigen Sitz achten und gut trocknen lassen.

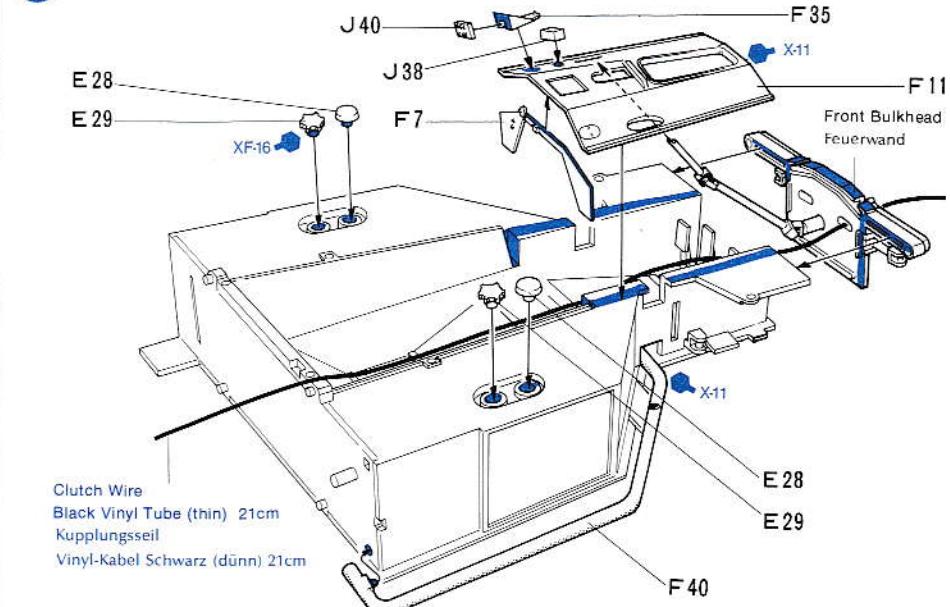
Dieses Zeichen gibt die Tamiya-Farbnummern an.

- X-1 ● Black/Schwarz
- X-2 ● White/Weiß
- X-7 ● Red/Rot
- X-8 ● Lemon yellow/Zitronengelb
- X-11 ● Chrome silver/Chrom-Silber
- XF-1 ● Flat black/Matt schwarz
- XF-2 ● Flat white/Matt weiß
- XF-16 ● Flat aluminum/Matt Aluminium
- XF-56 ● Metallic grey/Grau-metallisch

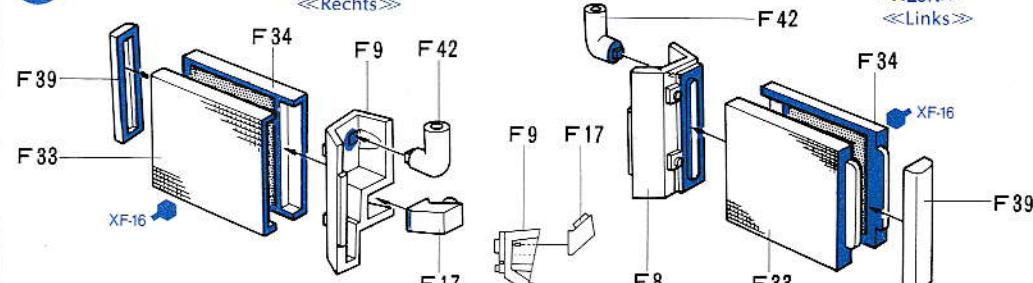
## 2 Front Bulkhead Construction Feuerwand



## 3 Fixing of Front Bulkhead Einbau der Feuerwand



## 4 Radiator Construction Kühler Bau



## 1 <<Chassis Construction>>

Glue upper chassis to lower after fixing part E 1

### <<Chassis Bau>>

Klebe Ober- und Unterteil nach Einbau der Teile E 1 zusammen.

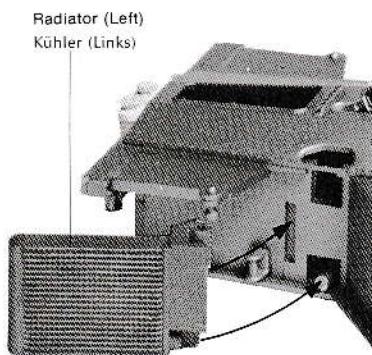
## 2 <<Front Bulkhead Construction>>

Parts K 3 and J 21 are movable. Make sure the proper parts are glued to each other, before assembly.

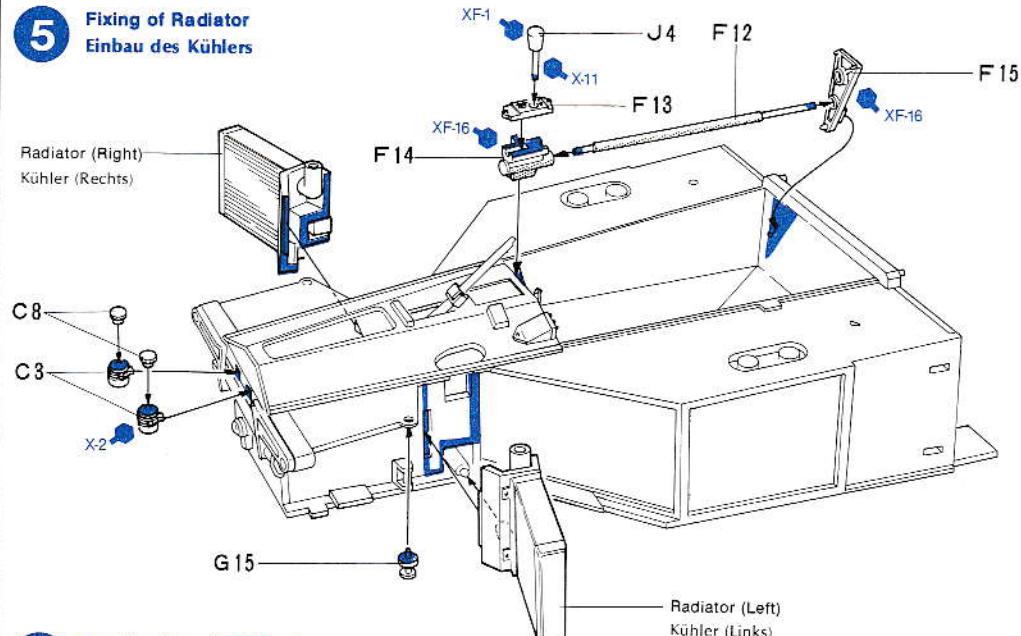
### <<Feuerwand>>

Teile K 3 und J 21 sind Beweglich.

**5** <<Fixing of Radiator>>  
<<Einbau des Kühlers>>



**5** Fixing of Radiator  
Einbau des Kühlers



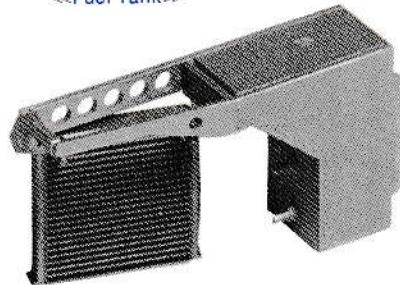
**6** <<Construction of Oil Coolers>>

Right and Left parts differ.

<<Oel-Kühlers>>

Rechte und Linke Teile sind verschieden.

<<Fuel Tank>>



<<Oil Tank>>

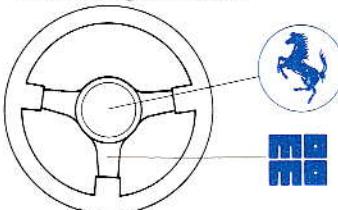


**7** <<Fixing of Oil Coolers>>

<<Einbau des Oel-Kühlers>>

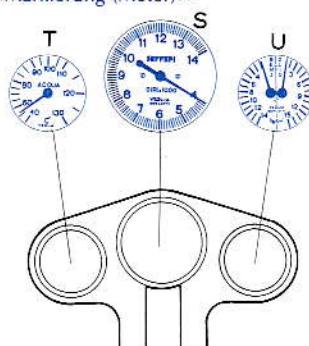
<<Marking (Steering Wheel)>>

<<Markierung (Lenkrad)>>

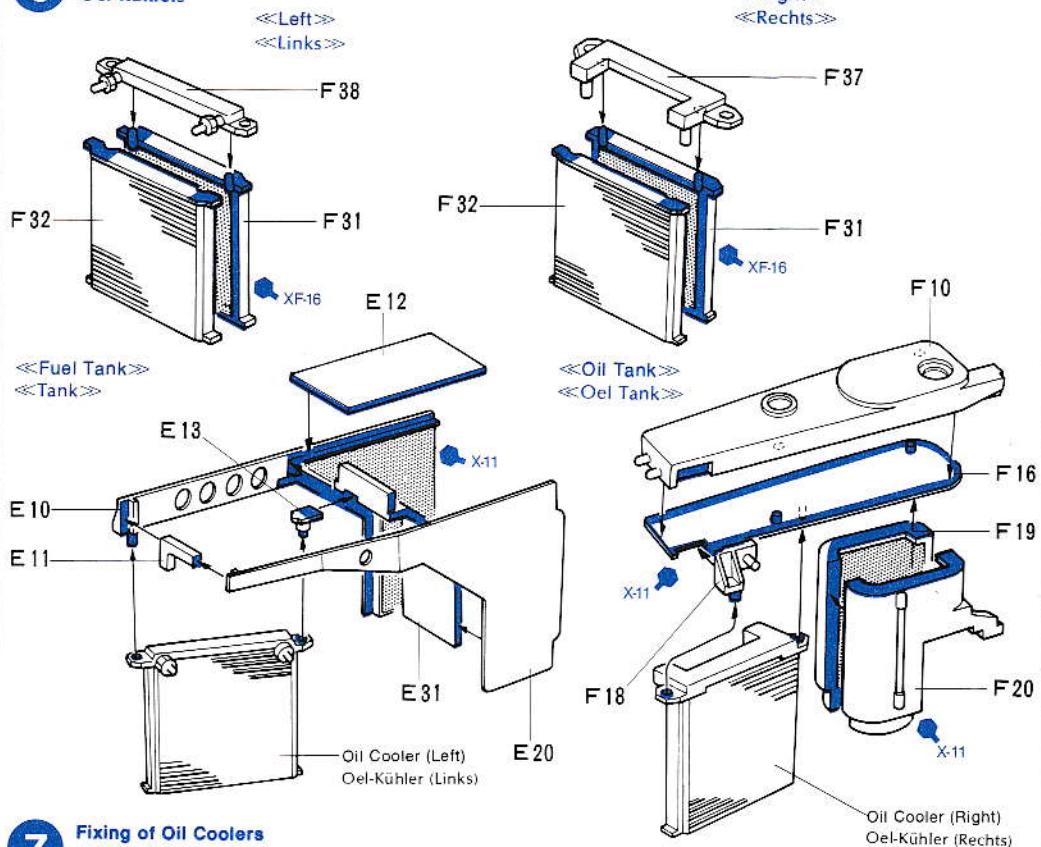


<<Marking (Meter)>>

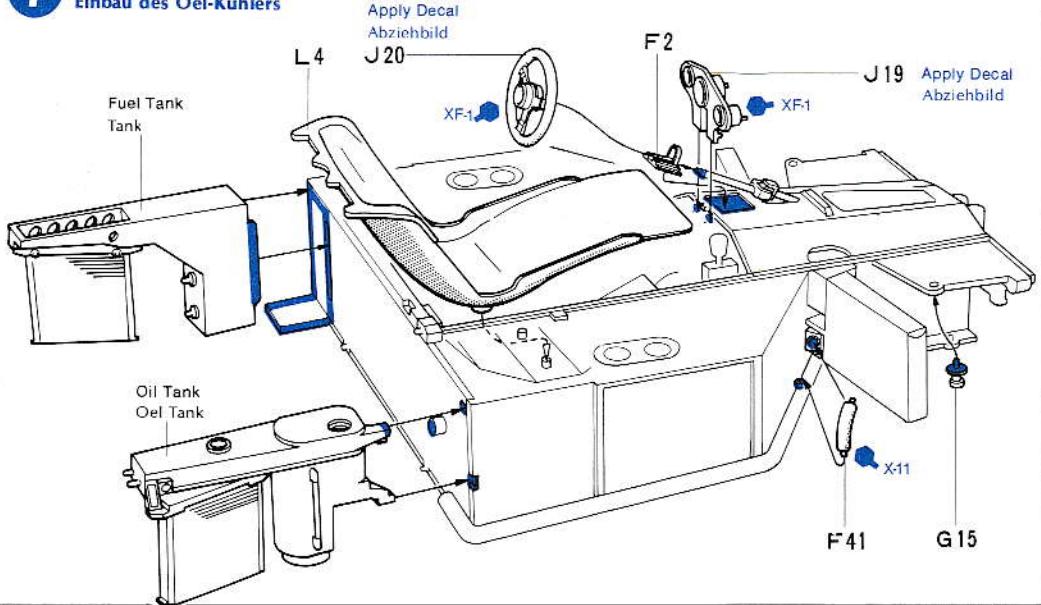
<<Markierung (Meter)>>



**6** Construction of Oil Coolers  
Oel-Kühlers



**7** Fixing of Oil Coolers  
Einbau des Oel-Kühlers

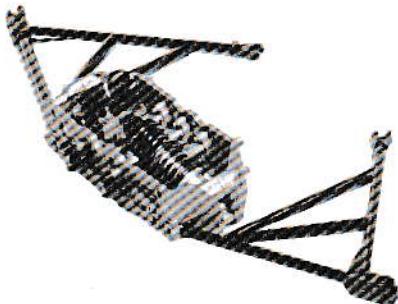


## 8 <<Construction of Front Suspension>>

Make sure the proper parts are glued to each, before assembly.

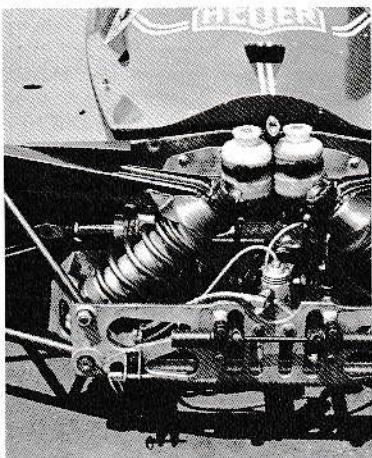
### <<Front Damper>>

Kein klebstoff auf bewegliche Teile.



## 9 <<Fixing of Front Suspension>>

### <<Einbau des Vordere Achsaufhängung>>

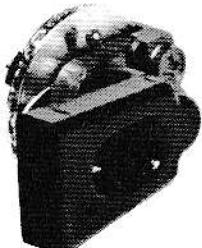


## 11 <<Construction of Front Uprights>>

G 4 is designed to revolve, so make sure that no glue is placed on the disc.

### <<Vordere Achs-Lager>>

G 4 drehbar, kein klebstoff auf Brems-Scheiben.



## 8 Construction of Front Suspension Vordere Achsaufhängung

### <<Front Damper>>

### <<Vord. Stossdämpfer>>

Make 2 sets

2 Satz

G 5

X 11

G 6

M 1

Front coil spring  
Vordere Feder

G 9

X 1

J 9

X 1

K 8

G 16

XF 16

Front Damper  
Vord. Stossdämpfer

J 6

X 1

G 14

X 1

G 1

XF 16

J 8

X 1

J 2

X 1

K 7

G 3

X 1

G 20

X 1

J 7

X 1

G 13

X 1

J 8

X 1

J 9

X 1

Clutch Wire  
Kupplungsseil

K 9

X 1

Front Suspension  
Vord. Stossdämpfer

J 12

X 1

J 11

XF 16

K 9

X 1

J 9

X 1

J 12

X 1

J 11

XF 16

K 9

X 1

J 9

X 1

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J 11

XF 16

K 9

X 1

J 9

X 1

J 12

X 1

J 11

XF 16

K 9

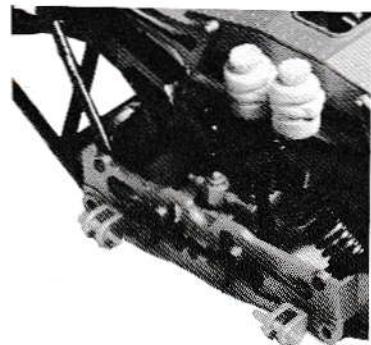
X 1

**12** <<Fixing of Upper Arm>>

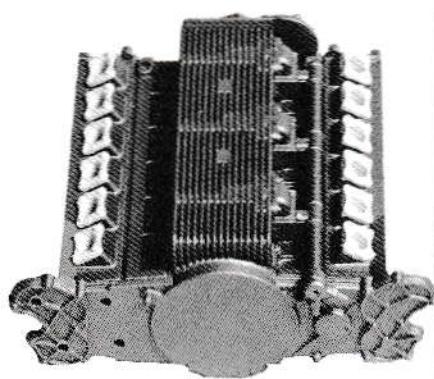
Uprights are designed to revolve. Firmly insert it into Lower and Upper Arm.

## &lt;&lt;Einbau des Achsarm&gt;&gt;

Achsarm: Drehen.

**13** <<Engine Construction>>

## &lt;&lt;Motoren-Bau&gt;&gt;

**15** <<Construction of Engine Parts>>

J 33 : Black Vinyl Tube.

Fuel Pump: Transparent Tube.

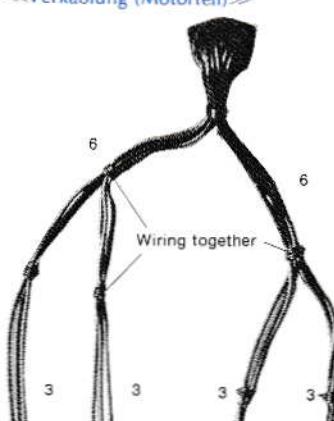
## &lt;&lt;Motor-Teile&gt;&gt;

J 33: Vinyl-Kabel Schwarz.

Benzinschlauch: Transparent.

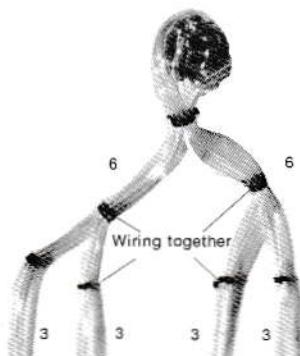
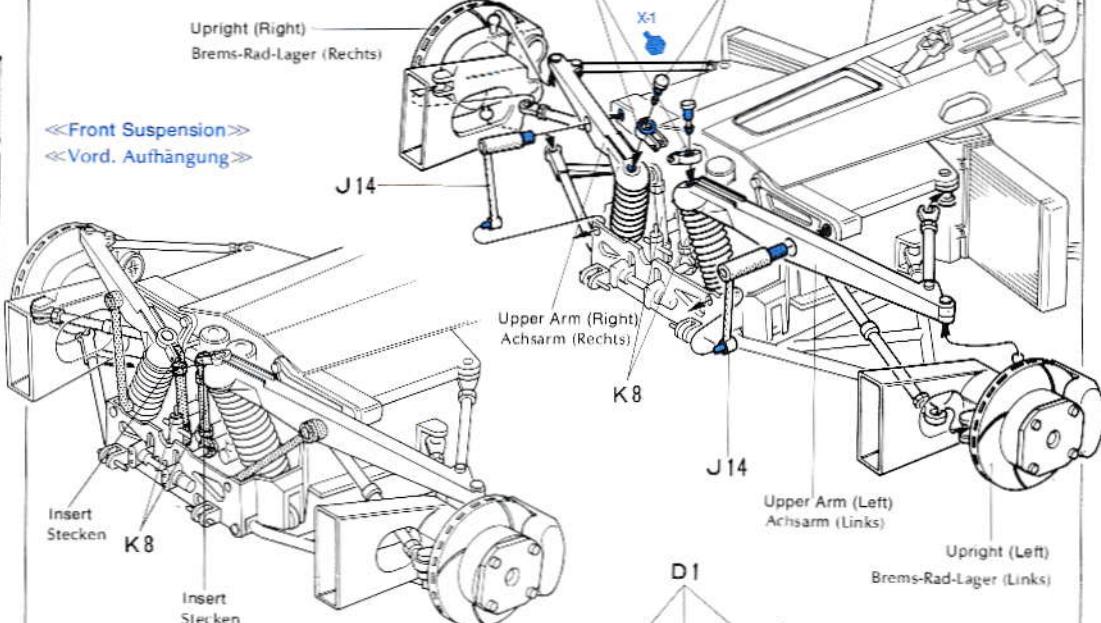
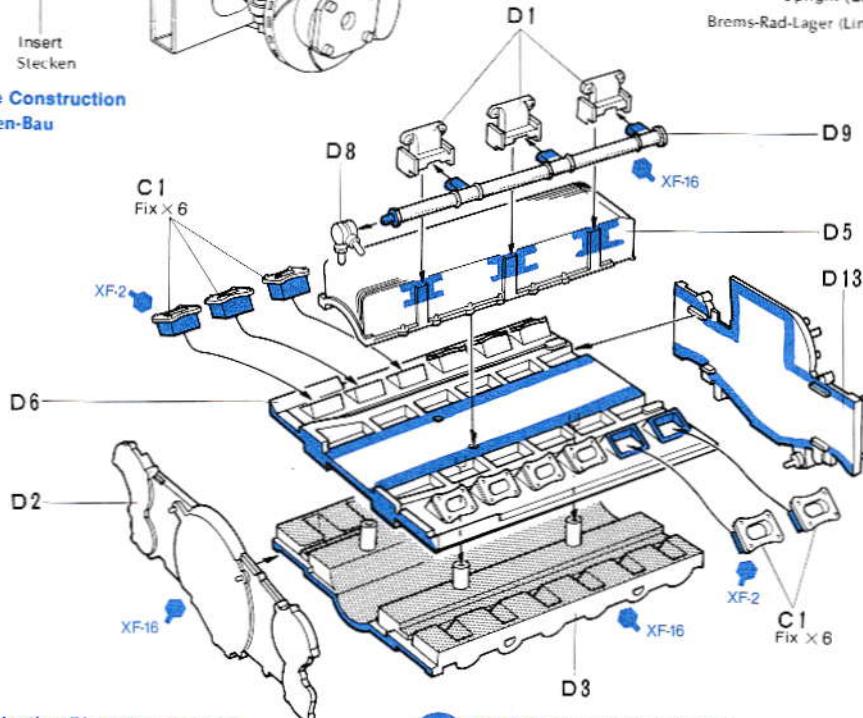
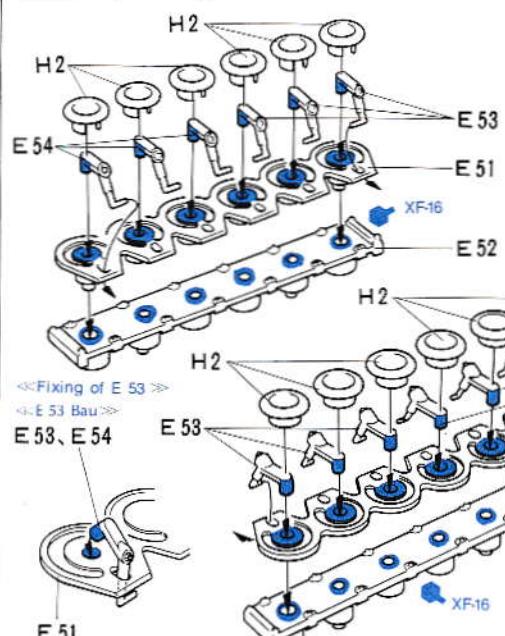
## &lt;&lt;Wiring (Engine Parts)&gt;&gt;

## &lt;&lt;Verkablung (Motorteil)&gt;&gt;

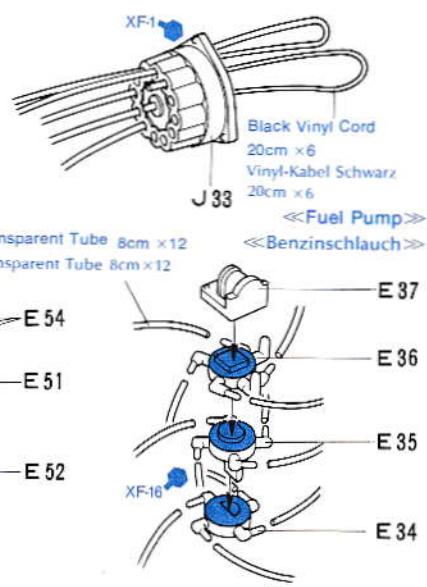


## &lt;&lt;Wiring (Fuel Pump)&gt;&gt;

## &lt;&lt;Verkablung (Benzinschlauch)&gt;&gt;

**12** Fixing of Upper Arm  
Einbau des Achsarm**13** Engine Construction  
Motoren-Bau**14** Fuel Injection Plate Construction  
Einspritz-Anlage**15** Construction of Engine Parts  
Motor-Teile

## &lt;&lt;Distributor&gt;&gt; &lt;&lt;Verteiler&gt;&gt;

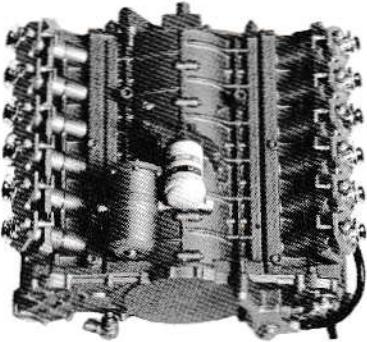


**16** <<Fixing of Fuel Injection Plates>>

Fix them as illustrated.

«Einbau der Einspritz-Anlage»

Einbau wie Gezeigt.

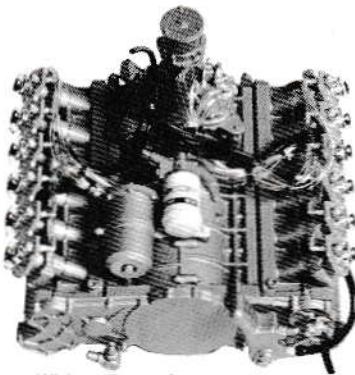


## **17** <<Fixing of Engine Parts>>

For wiring of cords and tubes use the figure.

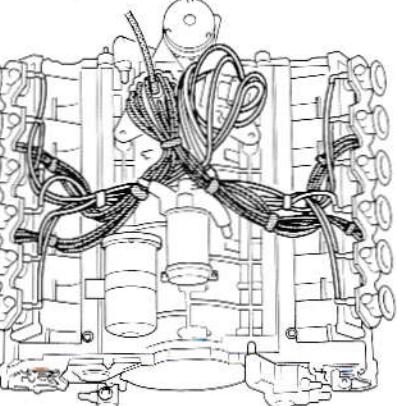
«Einbau der Motor-Teile»

Siehe Zeichnung.



## [Wiring \(Engine\)](#)

## <<Verkablung (Motor)>>

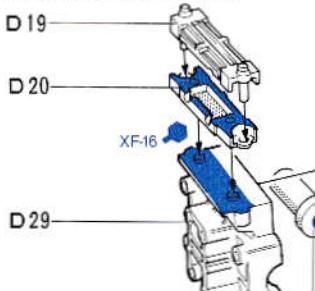


18 <<Gear Box Construction>>

Parts D 25 and D 26 should revolve, so construct accordingly.

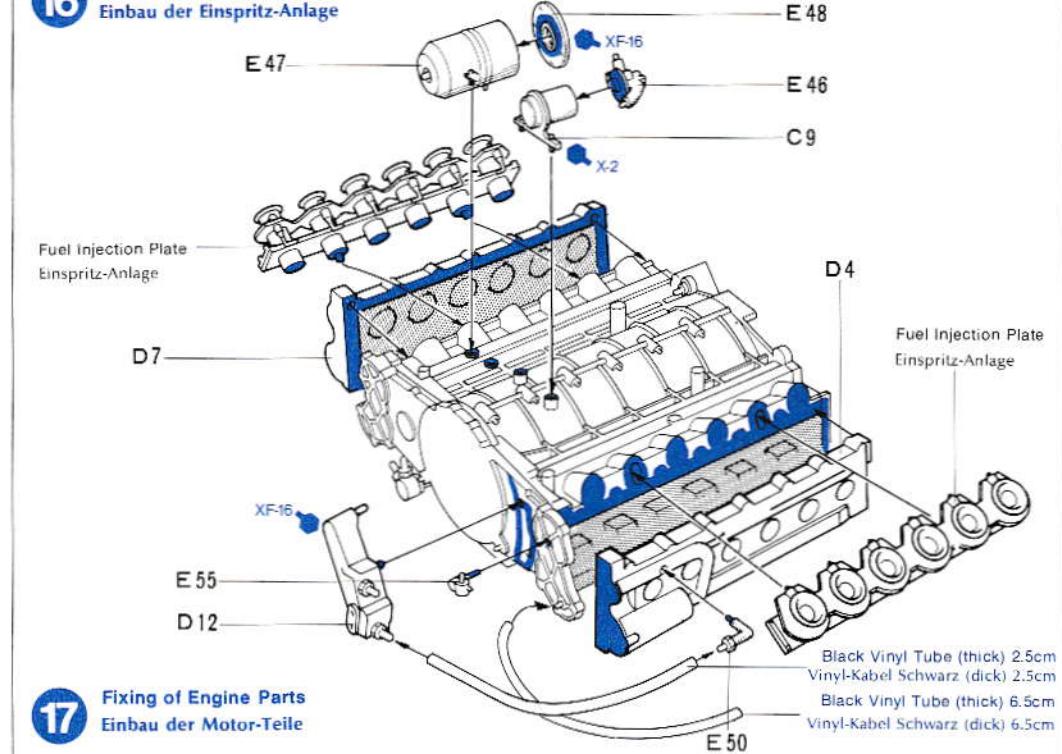
<<Getriebe-Gehäuse>>

Teile D 25 und D 26 sind drehbar—  
Keinen klebstoff verwenden.

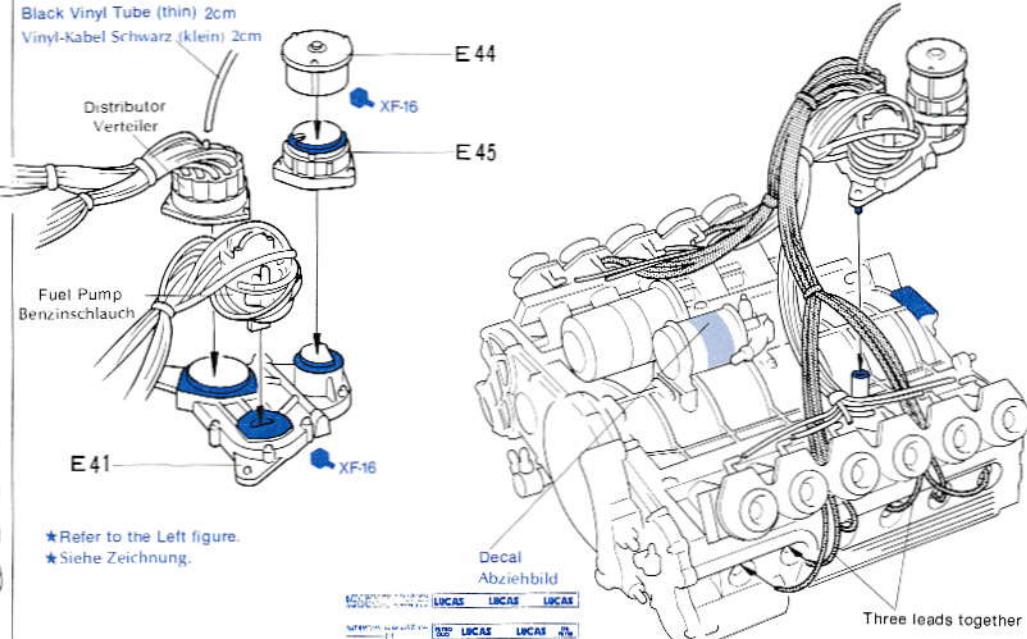


D25 D26  
Revolve

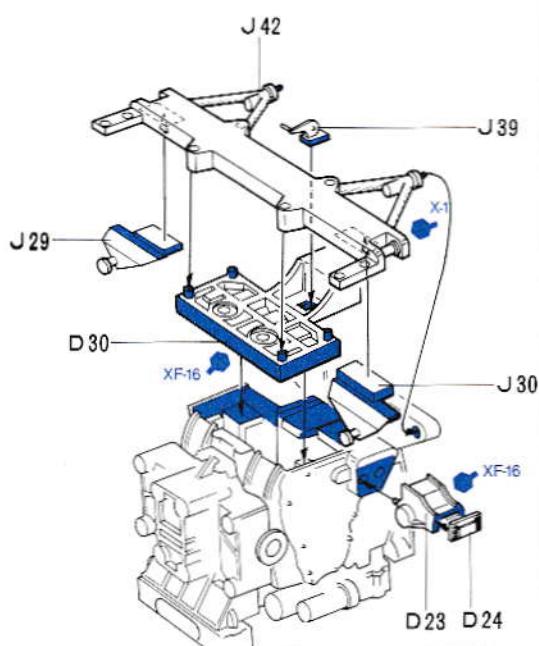
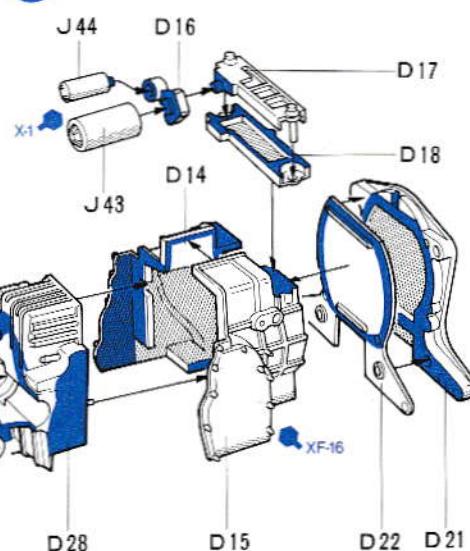
## **16** Fixing of Fuel Injection Plate Einbau der Einspritz-Anlage



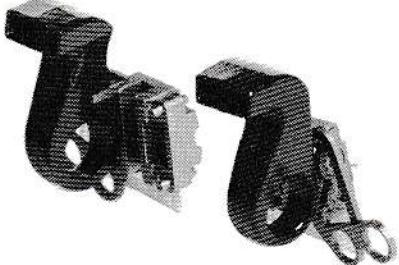
**17** Fixing of Engine Parts  
Einbau der Motor-Teile



## 18 Gear Box Construction Getriebe-Gehäuse



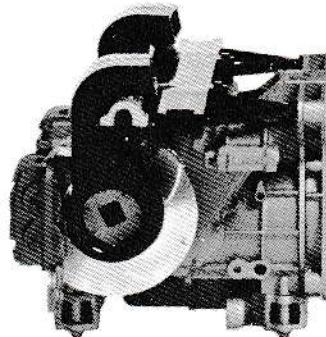
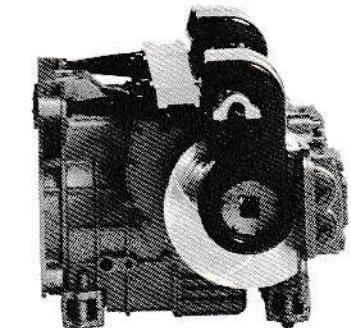
**19** <<Rear Brake Construction>>  
 <<Hintere Bremsanlage>>



**20** <<Fixing of Rear Discs>>

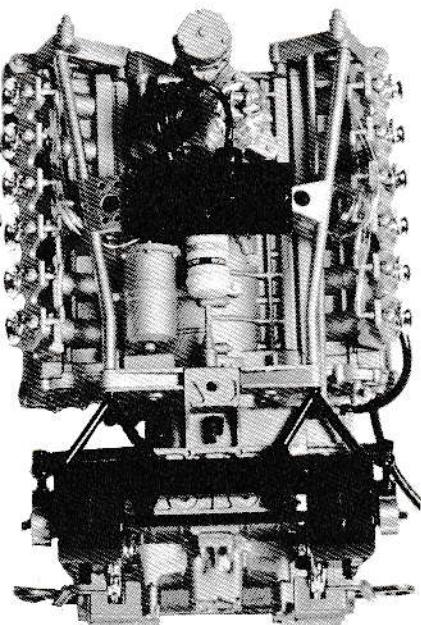
Make sure that no glue is placed on revolving parts.

<<Einbau der Hinteren Bremsscheiben>>  
 Kein Klebstoff auf drehbare Teile.



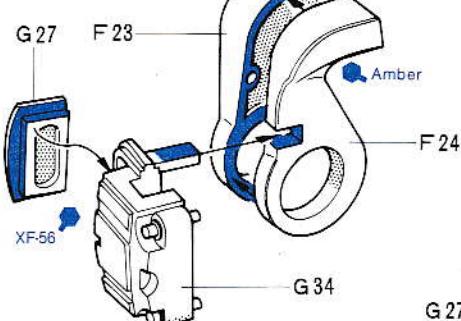
**21** <<Gluing the Gear Box on the Engine>>

<<Getriebe-Motor-Zusammenbau>>

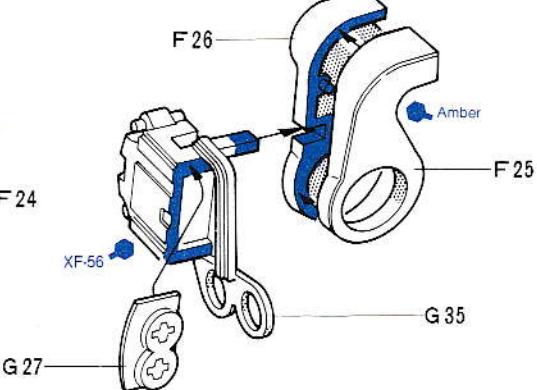


**19** Rear Brake Construction  
 Hintere Bremsanlage

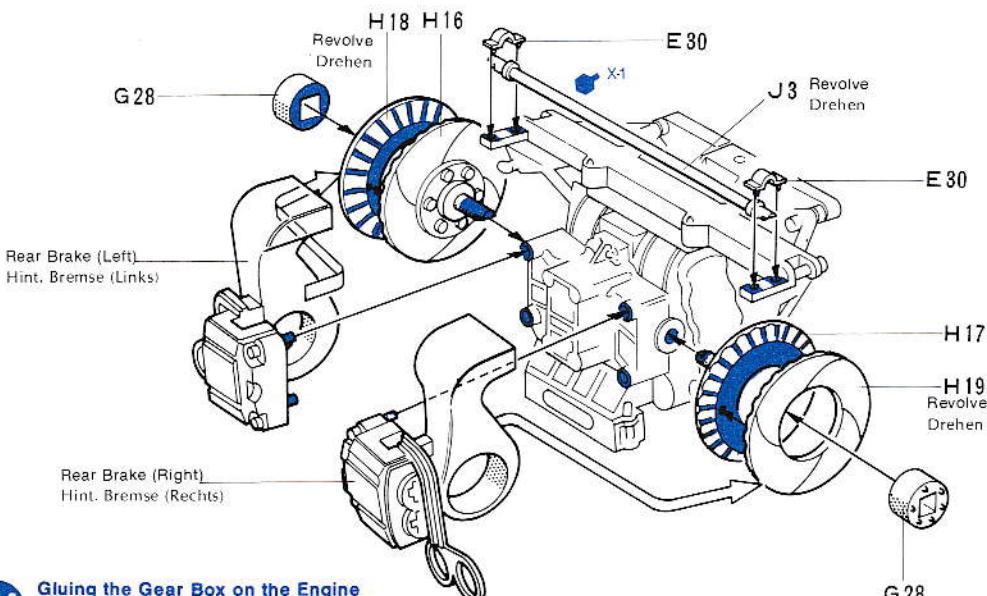
<<Left>>  
 <<Links>>



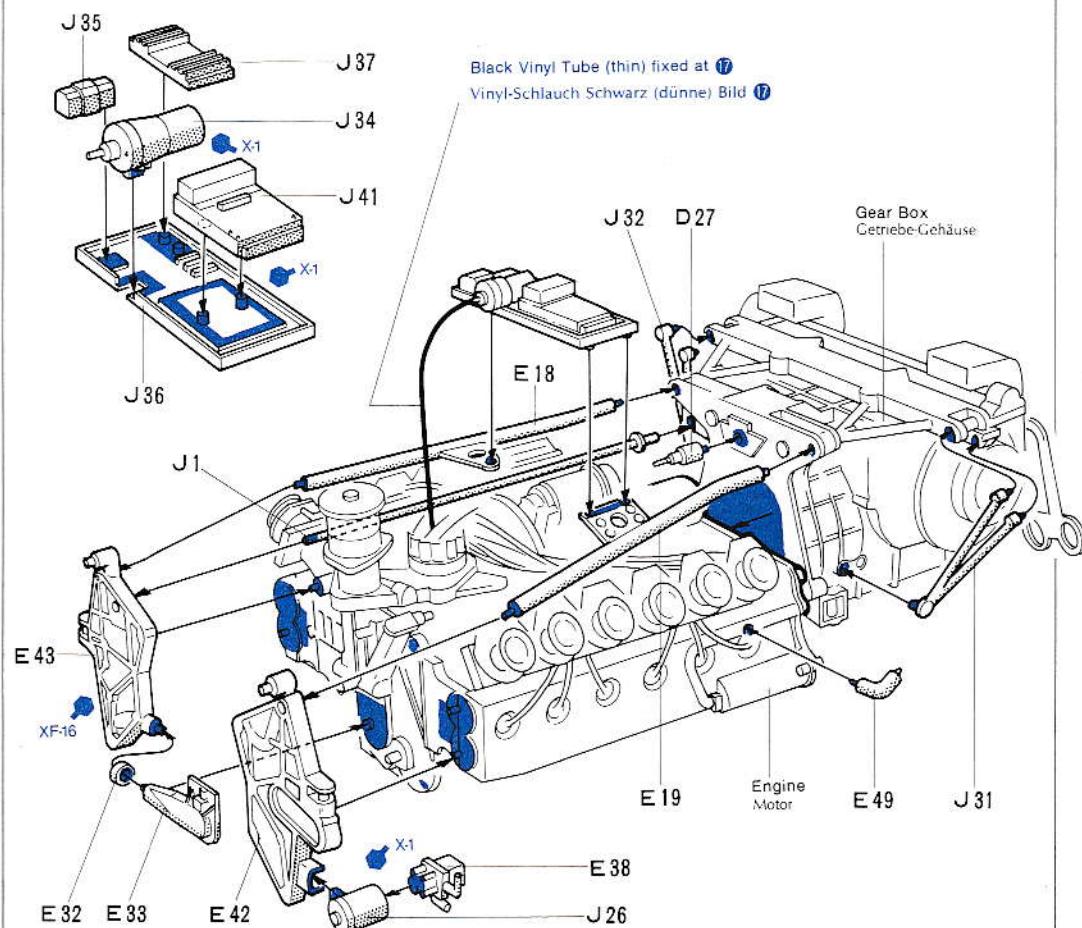
<<Right>>  
 <<Rechts>>



**20** Fixing of Rear Discs  
 Einbau der Hinteren Bremsscheiben



**21** Gluing the Gear Box on the Engine  
 Getriebe-Motor-Zusammenbau

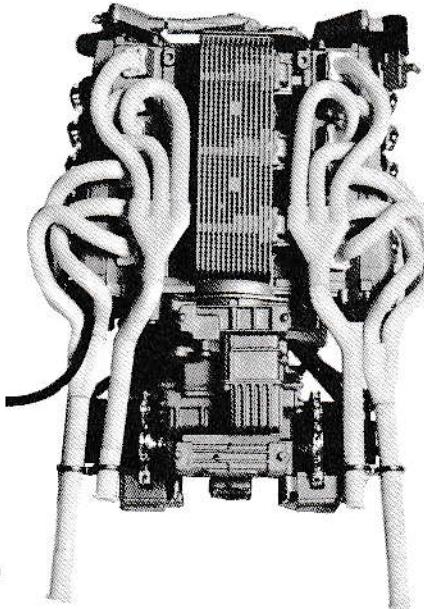


## 22 <<Fixing of Mufflers>>

All pipes are different. Start on one side and then continue to the next side.

### <<Einbau der Auspuff>>

Alle Teile verschieden, auf Nummern achten.



## 23 <<Construction of Rear Uprights>>

Make sure that no glue is placed on revolving parts.

### <<Hintere Achs-Lager>>

Kein Klebstoff auf drehbare Teile.

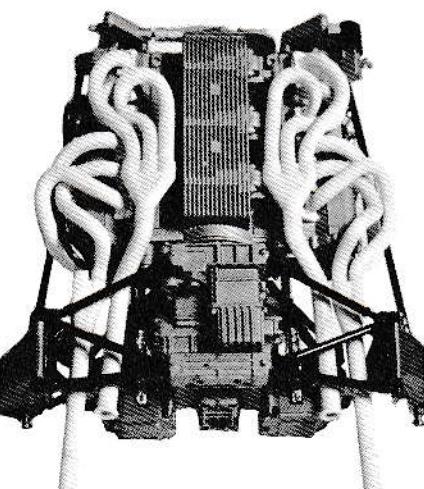


## 24 <<Fixing of Rear Uprights>>

All parts are inserted without glue.

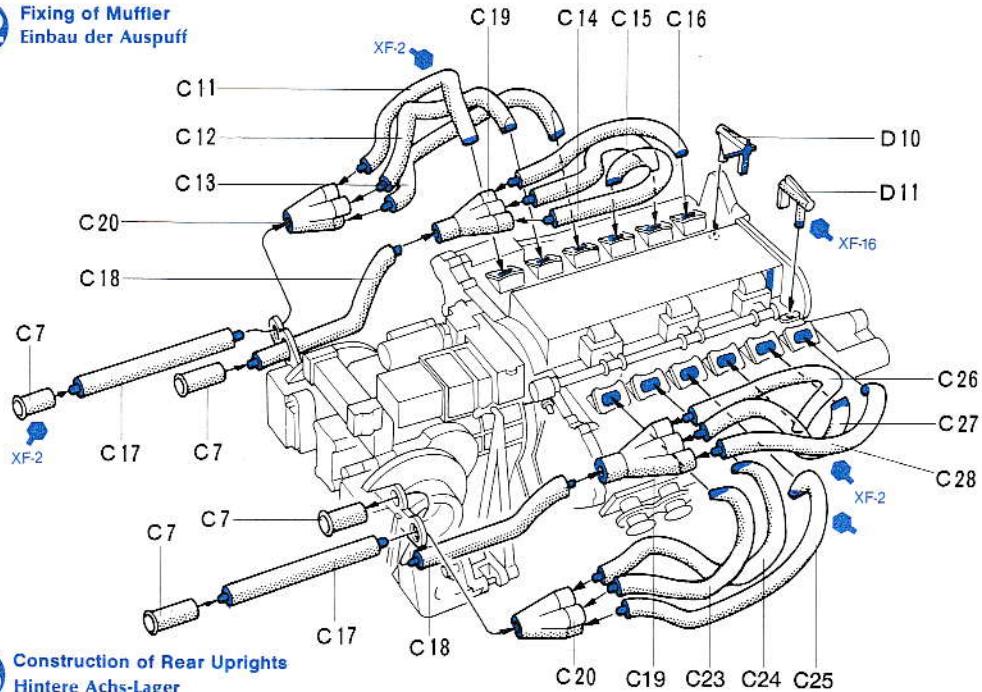
### <<Einbau der Hintere Achs-Lager>>

Nicht kleben-nur einstecken.



## 22

### Fixing of Muffler Einbau der Auspuff



## 23

### Construction of Rear Uprights Hintere Achs-Lager

#### <<Rear Damper>>

Make 2 sets  
2 Satz

#### <<Hint. Stossdämpfer>>

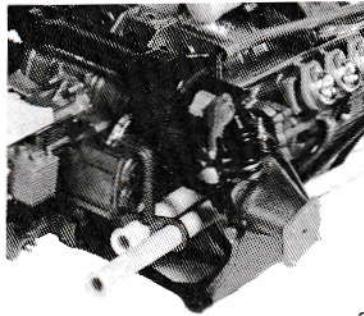
X-1

**25 <<Rear Wing Stay Construction>>**

Drive Shaft L3 and J28 are glued.

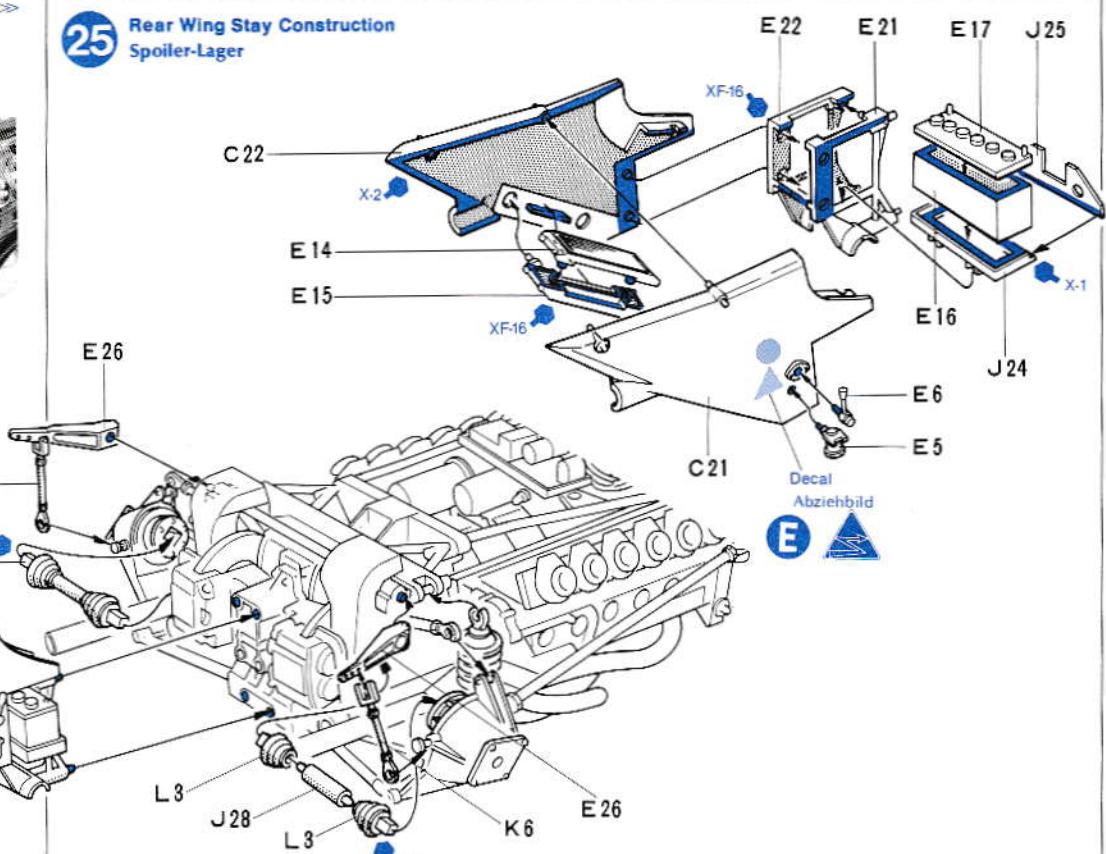
## &lt;&lt;Spoiler-Lager&gt;&gt;

Teile L 3 und J 28 werden geklebt.

**25 Rear Wing Stay Construction  
Spoiler-Lager**

K6  
L 3, J28, L 3

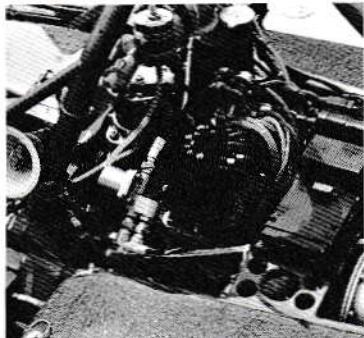
X-7  
H9  
Wing Stay  
Spoiler-Lager

**26 <<Fixing of Engine>>**

Glue engine onto Chassis. Use enough glue to make a strong bond.

## &lt;&lt;Motor-Einbau&gt;&gt;

Motor auf Chassis kleben, auf festen Halt achten.

**26 Fixing of Engine  
Motor-Einbau**

Accelerator Wire  
Gaszug

X-1

E4  
XF-16

X-1

J27

E3

Clutch Wire  
Kupplungsseil

Rubber Tube 1.2cm  
Gummi-Schlauch 1.2cm

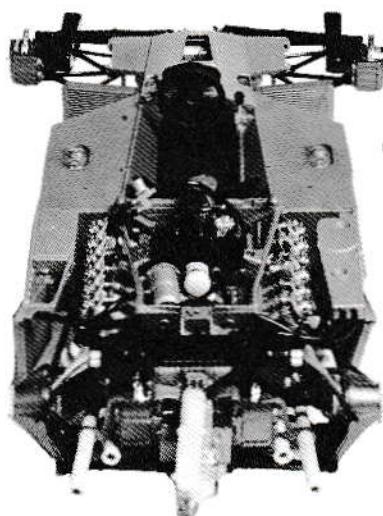
Black Vinyl Tube (thick) made at ⑯  
Vinyl-Schlauch Schwarz (dick) in Bild ⑯

**27 <<Wiring>>**

Each pipe has proper position. Refer to the figure on the right for this.

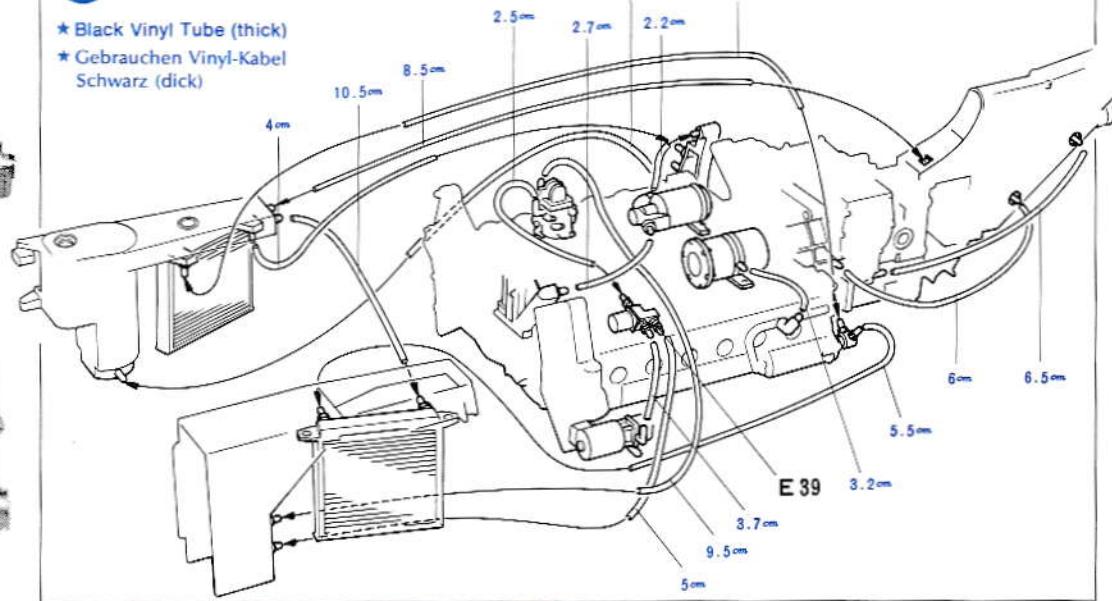
## &lt;&lt;Verkablung&gt;&gt;

Siehe Zeichnung.

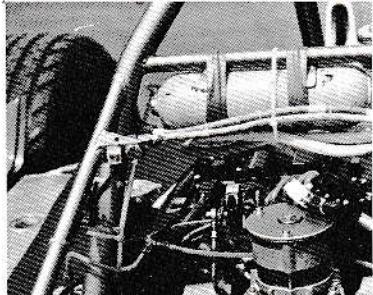
**27 Wiring  
Verkablung**

★ Black Vinyl Tube (thick)

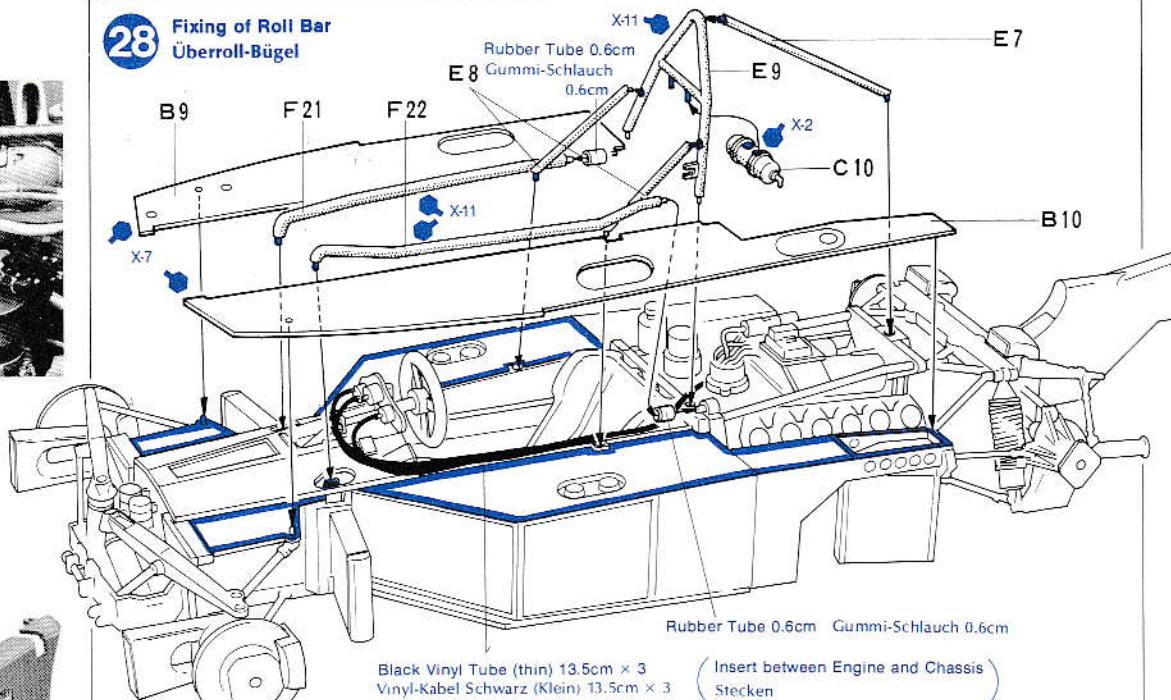
★ Gebrauchen Vinyl-Kabel  
Schwarz (dick)



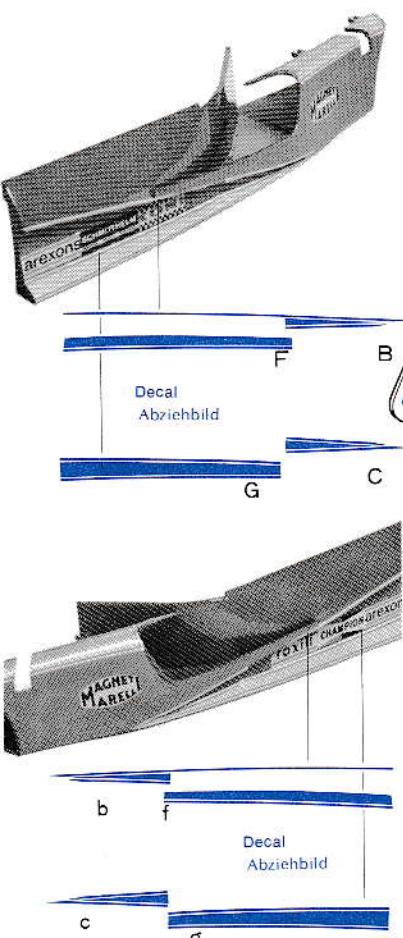
**28** <<Fixing of Roll Bar>>  
 <<Überroll-Bügel>>



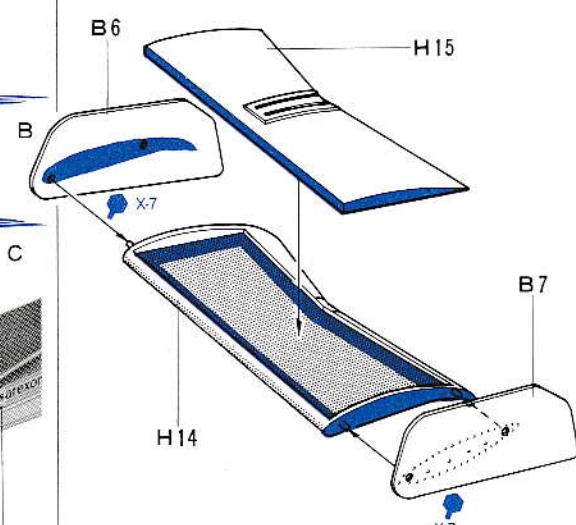
**28** Fixing of Roll Bar  
 Überroll-Bügel



**30** <<Body Construction>>  
 <<Aufbau>>

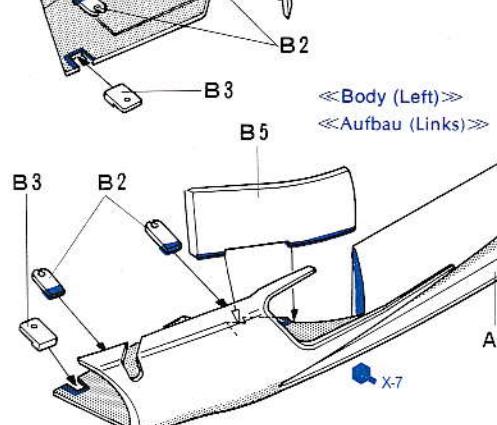


**29** Rear Wing Construction  
 Spoiler

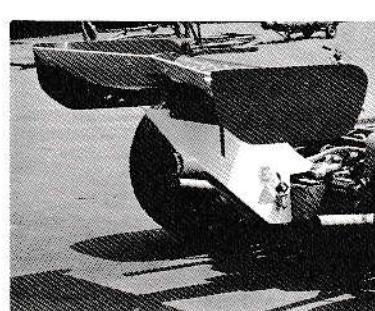
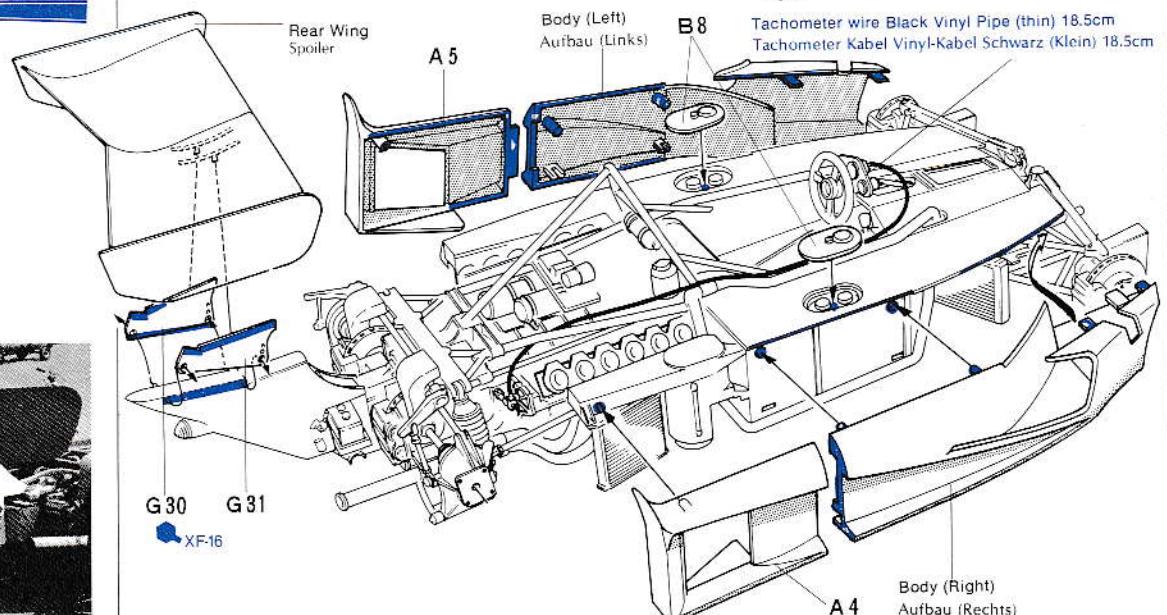


**30** Body Construction  
 Aufbau

<<Body (Right)>>  
 <<Aufbau (Rechts)>>



**31** Fixing of Body  
 Einbau des Aufbau



## 32 &lt;&lt;Wheel Construction&gt;&gt;

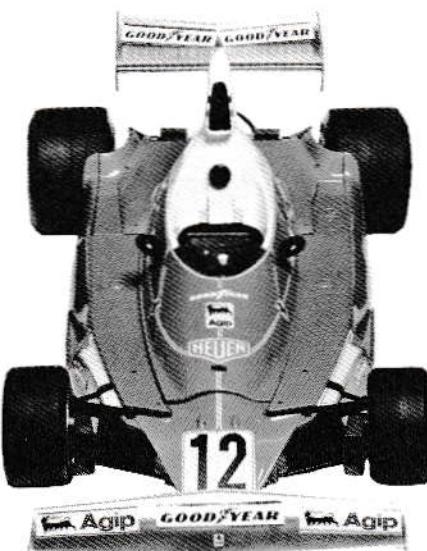
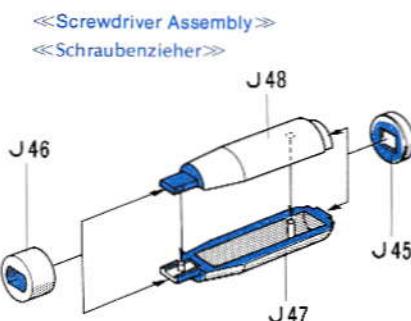


## 35 &lt;&lt;Fixing of Wheels&gt;&gt;

## &lt;&lt;Radeinbau&gt;&gt;

Each wheel is screwed in place. Build the driver according to the figure below.

Räder werden Eingeschraubt.



Nose Cowling  
Front-Haube



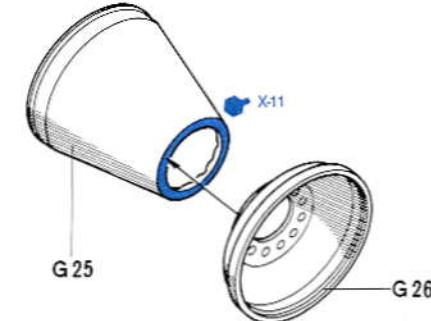
If you wish to display this complete model on a base, fix N1 parts to underside of Body and then secure to base.

32 Wheel Construction  
Bau der Räder

<<Front Wheels>> Make 2 sets  
<<Vorderrad>> 2 Sätze

<<Rear Wheels>> Make 2 sets  
<<Hinterrad>> 2 Sätze

G 12 G 11 X 11 X 12

34 Upper Cowling Construction  
Cockpit-Haube

H 8 XF-1 J 16 N 2

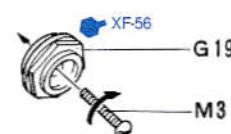
B 1 X 7 H 7 J 15

C 5 C 4 C 6 L 2

X 2

35 Fixing of Wheels  
Radeinbau

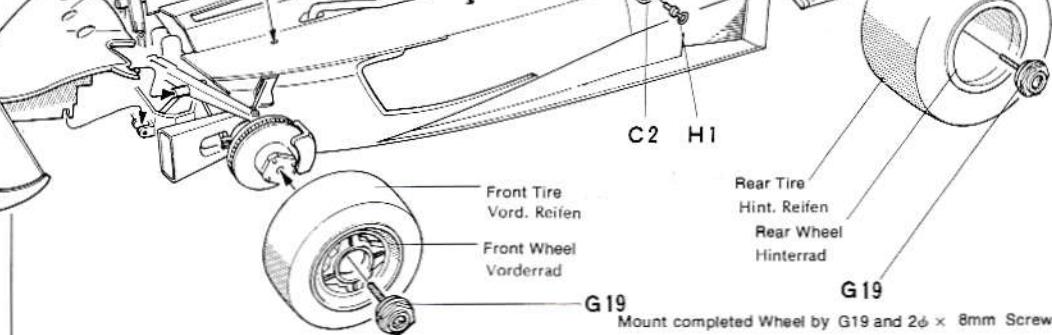
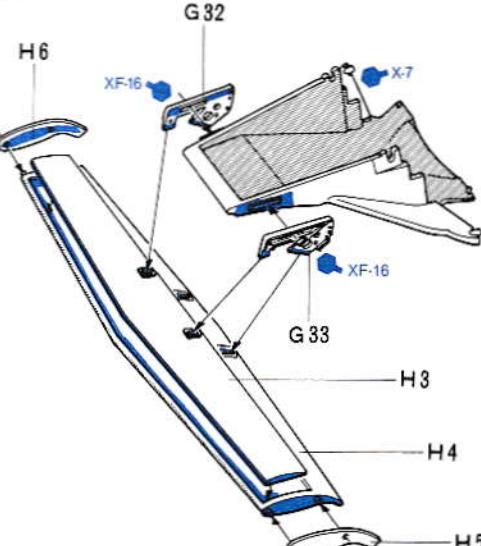
<<Nut>>  
<<Mutter>>



2φ×10mm Screw  
2φ×10mm Schraube

Upper Cowling  
Cockpit-Haube

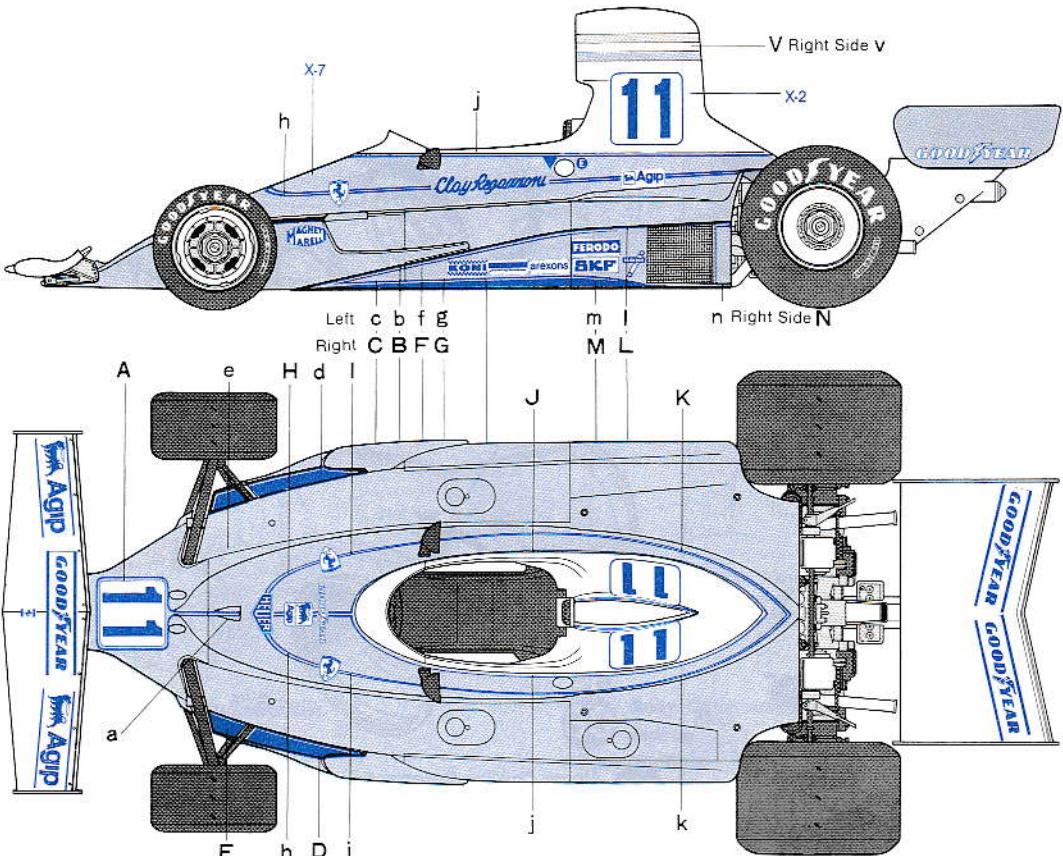
N 1

33 Construction of Nose Cowling  
Front-Haube

Mount completed Wheel by G19 and 2φ × 8mm Screw.

# PAINTING & APPLYING DECALS

75' Italian GP, First Place, Driven by Clay Regazzoni

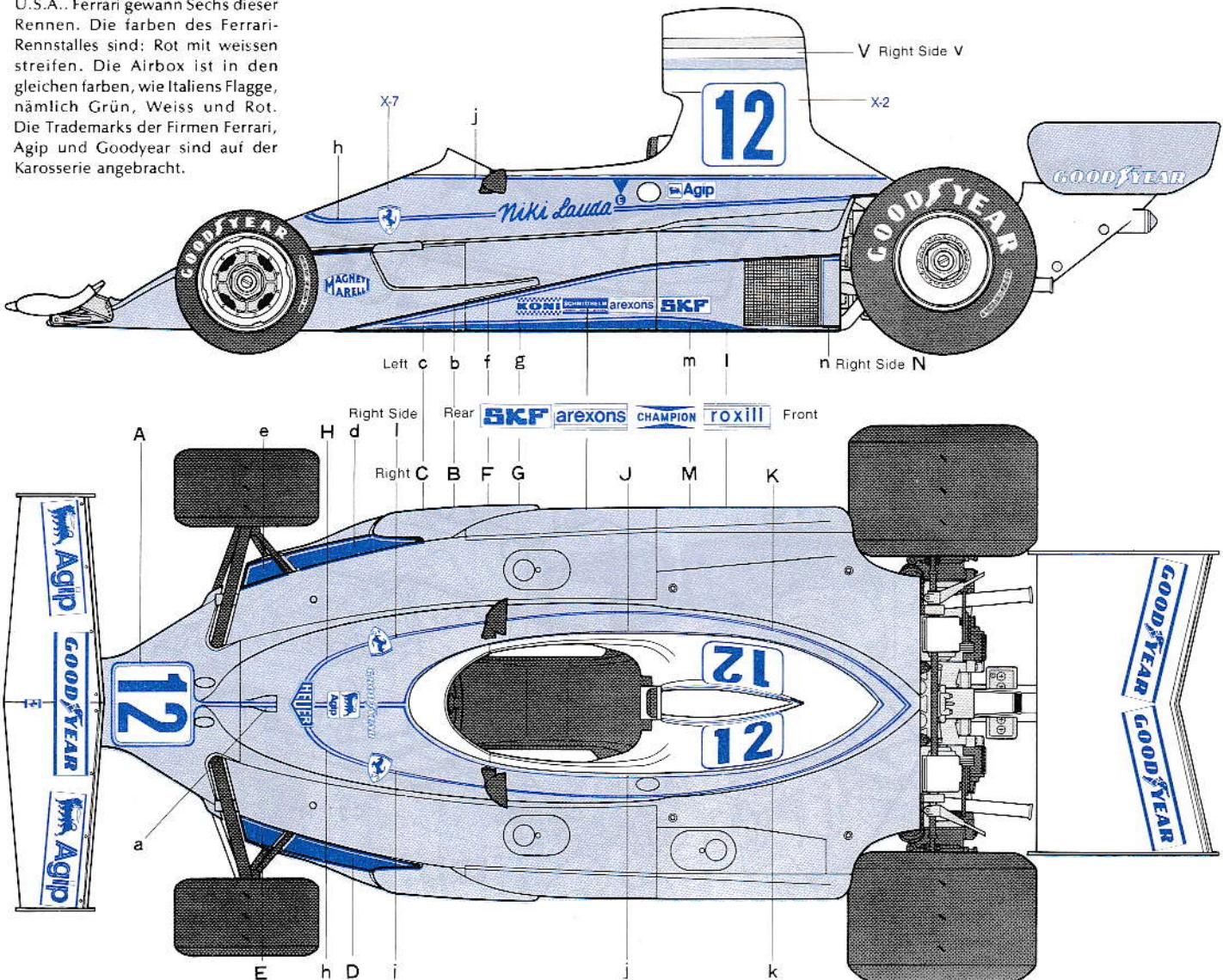


## Painting and Marking of Ferrari 312T

There were fourteen Grand Prix formula one races held in 1975. The first race was in Argentina and the last one was in the U.S. The Ferrari 312T won six of these races. The Ferrari bodies are always painted Italian racing red, with white body stripes. The air box is gloss white with three stripes of green, white and red; simulating the Italian flag. The Ferrari, Agip and Goodyear trademarks appear in several places on the body. Painting details are also shown in the figures and pictures. Apply decals according to the figure on the right.

Im Jahr 1975 fanden Vierzehn Formel 1-Rennen statt. Der erste Lauf Argentinien, der letzte in den U.S.A.. Ferrari gewann Sechs dieser Rennen. Die farben des Ferrari-Rennstalles sind: Rot mit weissen streifen. Die Airbox ist in den gleichen farben, wie Italiens Flagge, nämlich Grün, Weiss und Rot. Die Trademarks der Firmen Ferrari, Agip und Goodyear sind auf der Karosserie angebracht.

75' Monaco GP, First Place, Driven by Niki Lauda



# PARTS

## A PARTS

- 1 . Nose Cowling
- 2 . Body Side Panel A (L)
- 3 . Body Side Panel A (R)
- 4 . Body Side Panel C (R)
- 5 . Body Side Panel C (L)

## B PARTS

- 1 . Cockpit Cowling
- 2 . Body Side Panel Stopper Part A
- 3 . Body Side Panel Stopper Part B
- 4 . Side Panel B (R) 5 . Side Panel B (L)
- 6 . Wing C (L) 7 . Wing C (R)
- 8 . Fuel Cap C
- 9 . Body Upper Panel (R)
10. Body Upper Panel (L)

## C PARTS

- 1 . Exhaust Part 2 . E Switch A
- 3 . Brake Oil Tank 4 . Induction Box (L)
- 5 . Induction Box (R) 6 . Headrest Part
- 7 . Exhaust Pipe C 8 . Brake Oil Tank Cap
- 9 . Oil Cleaner A
10. Fire Extinguisher A
11. Exhaust Pipe (R) 6
12. Exhaust Pipe (R) 5
13. Exhaust Pipe (R) 4
14. Exhaust Pipe (R) 3
15. Exhaust Pipe (R) 2
16. Exhaust Pipe (R) 1
17. Exhaust Pipe A 18. Exhaust Pipe B
19. Exhaust Joint A 20. Exhaust Joint B
21. Wing Stay A (R) 22. Wing Stay A (L)
23. Exhaust Pipe (L) 6
24. Exhaust Pipe (L) 5
25. Exhaust Pipe (L) 4
26. Exhaust Pipe (L) 3
27. Exhaust Pipe (L) 2
28. Exhaust Pipe (L) 1

## D PARTS

- 1 . Oil Outlet A 2 . Engine Rear
- 3 . Engine Upper 4 . Cam Cover (R)
- 5 . Oilpan 6 . Engine Low
- 7 . Cam Cover (L) 8 . Oil Outlet C
- 9 . Oil Outlet B 10. Oilpan Part A
11. Oilpan Part B 12. Engine Rear Part
13. Engine Front 14. Gear Box (R)
15. Gear Box (L) 16. Starter Motor A
17. R. Lower Arm Part A
18. R. Lower Arm Part B
19. R. Lower Arm Part C
20. R. Lower Arm Part D
21. Clutch Housing A 22. Clutch Housing B
23. Shift Rod Holder A 24. Shift Rod Holder B
25. Gear Box Inner Part A
26. Gear Box Inner Part B
27. Clutch Part B 28. Gear Box Rear A
29. Gear Box Rear B 30. Gear Box Upper

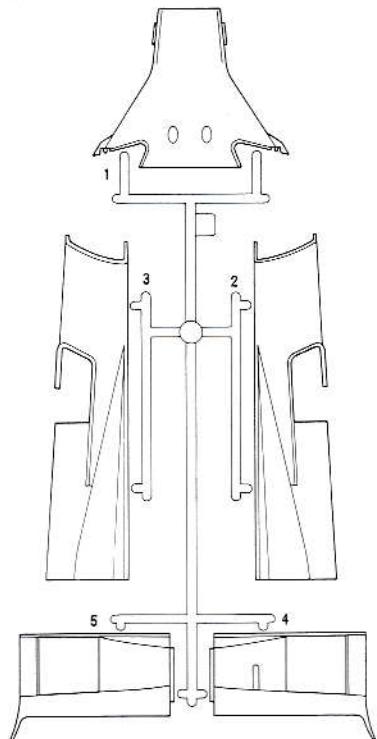
## E PARTS

- 1 . F Lower Arm Stopper A
- 2 . R Bulkhead B 3 . Reserver Tank Part
- 4 . Reserver Tank Cap 5 . Kill Switch B
- 6 . Kill Switch A 7 . Roll Bar B
- 8 . Roll Bar C 9 . Roll Bar A
10. Body Rear Monocoque A
11. Body Rear Monocoque D
12. Body Rear Monocoque E
13. E Oil Cooler Part (L)
14. Gear Box Oil Cooler A
15. Gear Box Oil Cooler B
16. Battery B 17. Battery A
18. Engine Sub Frame (R)
19. Engine Sub Frame (L)
20. Body Rear Monocoque C
21. Battery Mount Base (R)
22. Battery Mount Base (L)
23. Clutch Pedal 24. Barake Pedal
25. Accelerator Pedal 26. R Anti Roll Bar B
27. Fire Extinguisher B28. Fuel Cap A
29. Fuel Cap B
30. R Anti Roll Bar Stopper
31. Body Rear Monocoque B
32. Water Pump Part 33. Water Pump
34. Injection Pump A 35. Injection Pump B
36. Injection Pump C 37. Injection Pump D
38. Fuel Pump B 39. Fuel Filter
40. R Bulkhead A 41. Engine Upper Part
42. Engine Mount Bracket (L)
43. Engine Mount Bracket (R)
44. Dynamo A 45. Dynamo B
46. Oil Cleaner B 47. Oil Cleaner C
48. Oil Cleaner D 49. Oil Hose Joint A
50. Oil Hose Joint B
51. Injection Nozzle Part
52. Throttle Plate 53. Injection Nozzle (L)
54. Injection Nozzle (R) 55. Tachometer

## A PARTS

PARTS

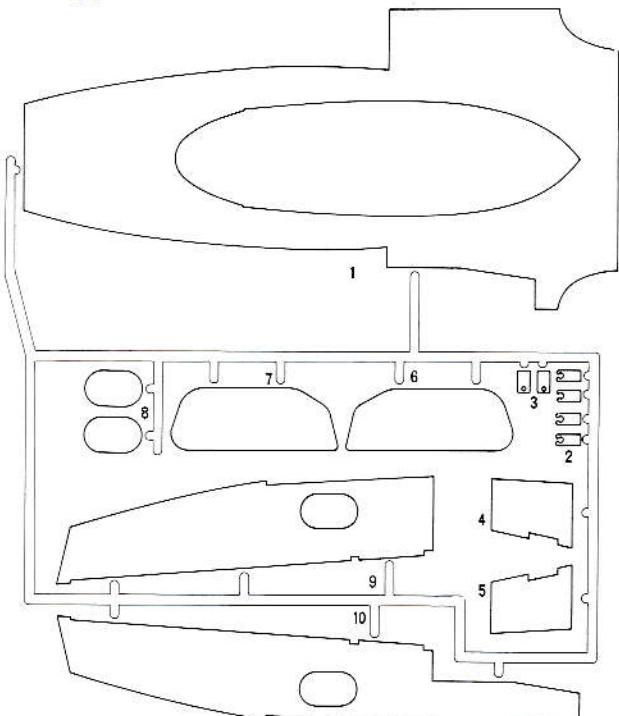
X-7



## B PARTS

PARTS

X-7

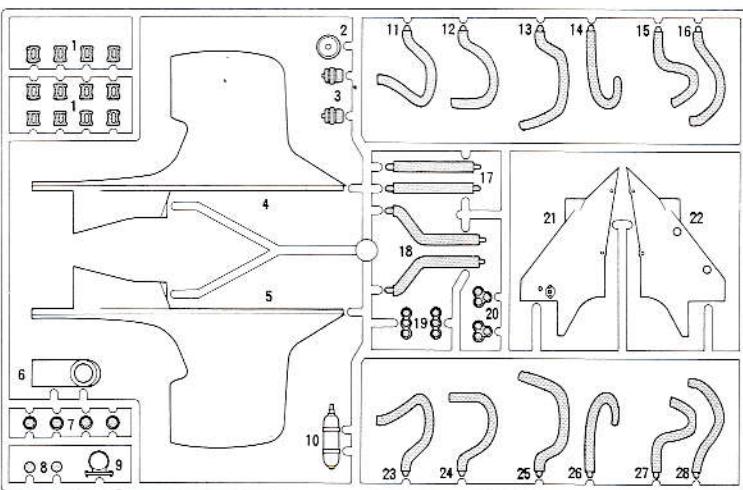


## C PARTS

PARTS

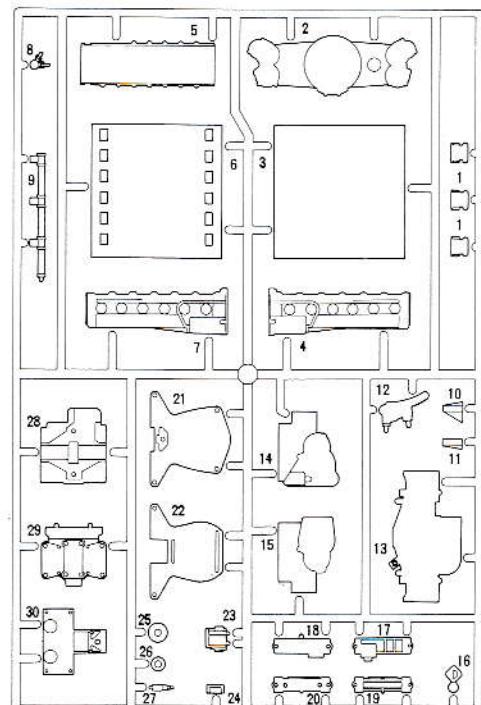
X-2

XF-2



## D PARTS

PARTS X-16



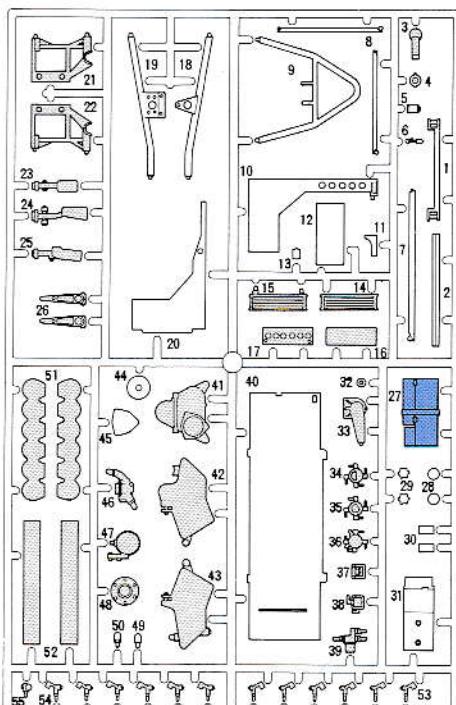
## E PARTS

PARTS

X-11

XF-16

X-7



# PARTS

## F PARTS

- 1 . Steering Shaft Joint B
- 2 . Steering Shaft Part
- 3 . Steering Gear Case
- 4 . Steering Shaft B
- 5 . Steering Shaft A
- 6 . Steering Shaft Joint C
- 7 . Cockpit Part A
- 8 . Radiator Part (L)
- 9 . Radiator Part (R)
- 10 . Oil Tank A
- 11 . Cockpit Part B
- 12 . Shift Rod
- 13 . Shift Lever Part B
- 14 . Shift Lever Part A
- 15 . Shift Rod Joint
- 16 . Oil Tank B
- 17 . Radiator Part
- 18 . E Oil Cooler Part (R)
- 19 . Oil Tank C
- 20 . Oil Tank D
- 21 . Water Hose A (R)
- 22 . Water Hose A (L)
- 23 . R Air Duct A (L)
- 24 . R Air Duct B (L)
- 25 . R Air Duct A (R)
- 26 . R Air Duct B (R)
- 27 . F Air Duct A
- 28 . F Air Duct B
- 29 . F Air Duct A
- 30 . F Air Duct B
- 31 . E Oil Cooler A
- 32 . E Oil Cooler B
- 33 . Radiator C
- 34 . Radiator B
- 35 . Fuse Box B
- 36 . F Bulkhead
- 37 . E Oil Cooler D
- 38 . E Oil Cooler
- 39 . Radiator A
- 40 . Water Hose C
- 41 . Water Hose B
- 42 . Water Hose Joint

## G PARTS

- 1 . F Suspension Member A
- 2 . F Caliper A
- 3 . F Suspension Member B
- 4 . F Upright Part A
- 5 . F Damper B
- 6 . F Damper A
- 7 . F Front Upright Part B
- 8 . F Damper Piston B
- 9 . F Damper Piston A
- 10 . F Caliper B
- 11 . Front Wheel A
- 12 . Front Wheel B
- 13 . F Lower Arm Stopper B (L)
- 14 . F Lower Arm Stopper B (R)
- 15 . F Upper Arm Part 16 . Master Cylinder
- 17 . Rack Support (R)
- 18 . Rack Support (L)
- 19 . Center Lock Nut
- 20 . F Brake Part
- 21 . R Damper A
- 22 . R Damper B
- 23 . R Upright Part B
- 24 . R Upright Part A
- 25 . Rear Wheel A
- 26 . Rear Wheel B
- 27 . R Caliper B
- 28 . R Disc Part
- 29 . R Wheel Stopper A
- 30 . Wing Stay (L)
- 31 . Wing Stay (R)
- 32 . Front Wing Stay (L)
- 33 . Front Wing Stay (R)
- 34 . R Caliper A (L)
- 35 . R Caliper A (R)
- 36 . R Upright B (R)
- 37 . R Upright B (L)
- 38 . R Upright A (R)
- 39 . R Upright A (L)

## H PARTS

- 1 . E Switch B
- 2 . Ram Pipe
- 3 . Front Wing B
- 4 . Front Wing A
- 5 . F Wing Stabilizer (R)
- 6 . F Wing Stabilizer (L)
- 7 . Rear View Mirror B (L)
- 8 . Rear View Mirror B (R)
- 9 . Tail Lamp
- 10 . F Disc A (L)
- 11 . F Disc A (R)
- 12 . F Disc B (L)
- 13 . F Disc B (R)
- 14 . Rear Wing A
- 15 . Rear Wing B
- 16 . R Disc A (L)
- 17 . R Disc A (R)
- 18 . R Disc B (L)
- 19 . R Disc B (R)

## J PARTS

- 1 . Shift Rod
- 2 . F Anti Roll Bar Part
- 3 . R Anti Roll Bar A
- 4 . Shift Nob
- 5 . F Upper Arm Ball Sheet
- 6 . F Lower Arm (L)
- 7 . F Lower Arm (R)
- 8 . F Lower Arm Ball Sheet (R)
- 9 . F Lower Arm Ball Sheet (L)
- 10 . F Upper Arm Part
- 11 . Cowling Stopper (L)
- 12 . Cowling Stopper (R)
- 13 . F Damper Stopper Pin
- 14 . F Sub Frame
- 15 . Rear View Mirror (L)
- 16 . Rear View Mirror (R)
- 17 . F Upright (L)
- 18 . F Upright (R)
- 19 . Meter Panel
- 20 . Steering Wheel
- 21 . Pinion Gear
- 22 . F Upper Arm (R)
- 23 . F Upper Arm (L)
- 24 . Battery Holder Case A
- 25 . Battery Holder Case B
- 26 . Fuel Pump A
- 27 . Reserver Tank
- 28 . Drive Shaft
- 29 . R Sub Frame B (L)
- 30 . R Sub Frame B (R)
- 31 . R Sub Frame C (L)
- 32 . R Sub Frame C (R)
- 33 . Distributor
- 34 . Ignition Coil
- 35 . Transistor Box C
- 36 . Ignition Part Mount
- 37 . Transistor Box B
- 38 . Relay Box
- 39 . Clutch Part A
- 40 . Fuse Box A
- 41 . Transistor Box A
- 42 . R Sub Frame A
- 43 . Starter Motor B
- 44 . Starter Motor C
- 45 . Center Lock Wrench
- 46 . Driver A
- 47 . Driver B
- 48 . Driver C

## K PARTS

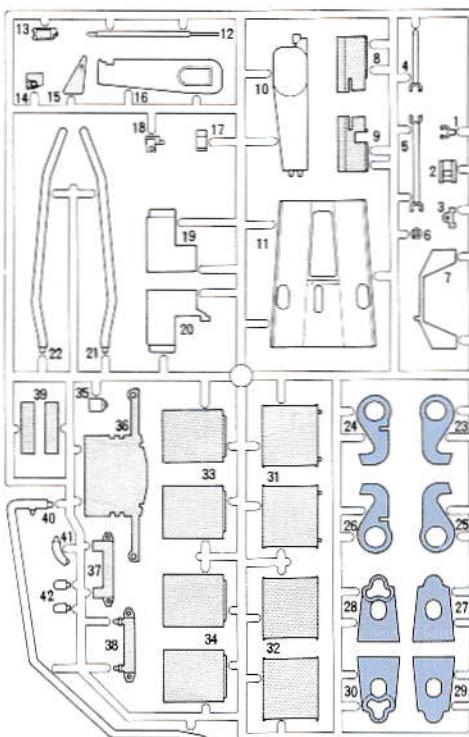
- 1 . Arm
- 2 . R Lower Arm (L)
- 3 . Rack
- 4 . R Lower Arm (R)
- 5 . R Damper Piston
- 6 . R Anti Roll Bar Rod
- 7 . F Anti Roll Bar
- 8 . F Anti Roll Bar Rod
- 9 . Lead Arm
- 10 . Radius Arm

## L PARTS

- 1 . Body Support
- 2 . Windshield

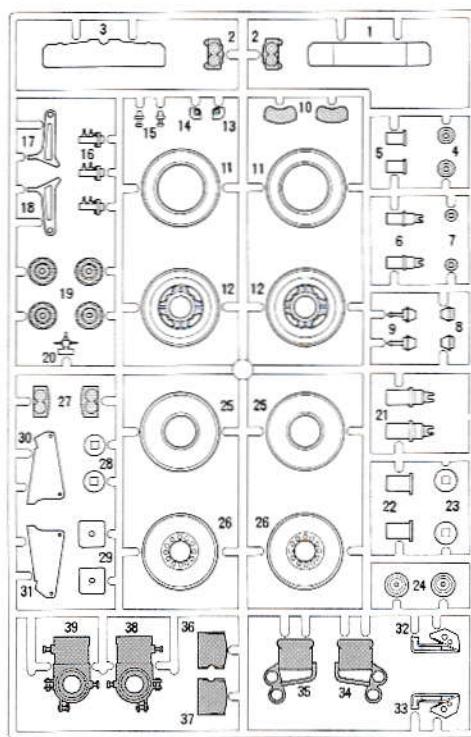
## F PARTS

X-11 XF-16 Amber



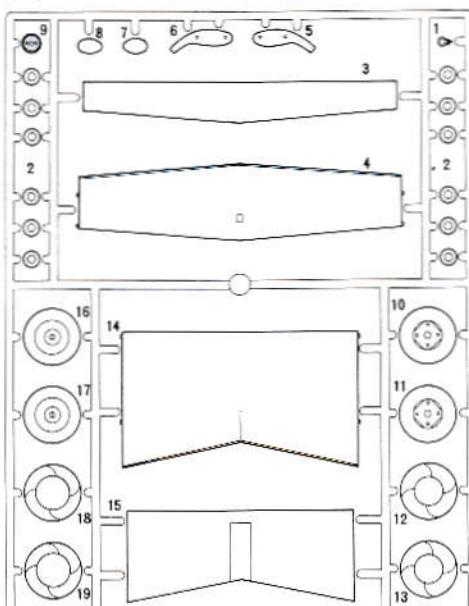
## G PARTS

X-11 XF-56 X-12



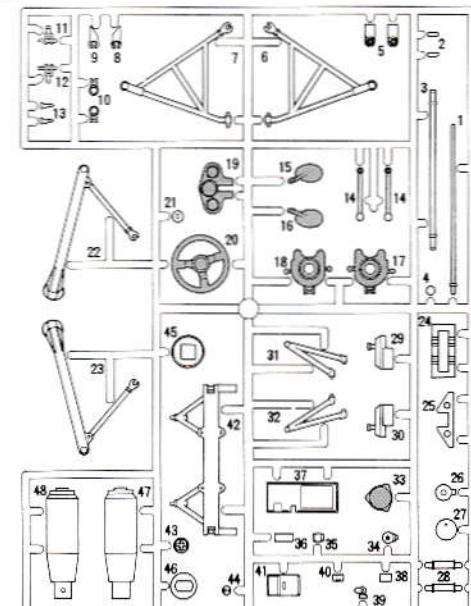
## H PARTS

X-7



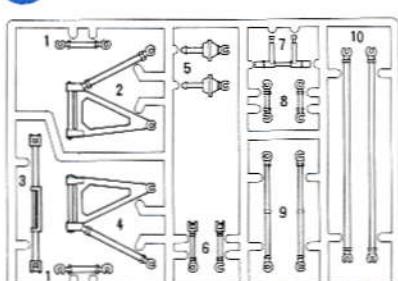
## J PARTS

X-1 XF-1



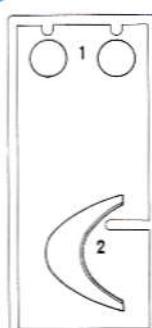
## K PARTS

X-1



## N PARTS

M1 M2 M3 M4



## L PARTS

