PORSCHE

# 914

SERVICE and TRAINING

# INFORMATION

# MODEL 73

PORSCHE + AUDI
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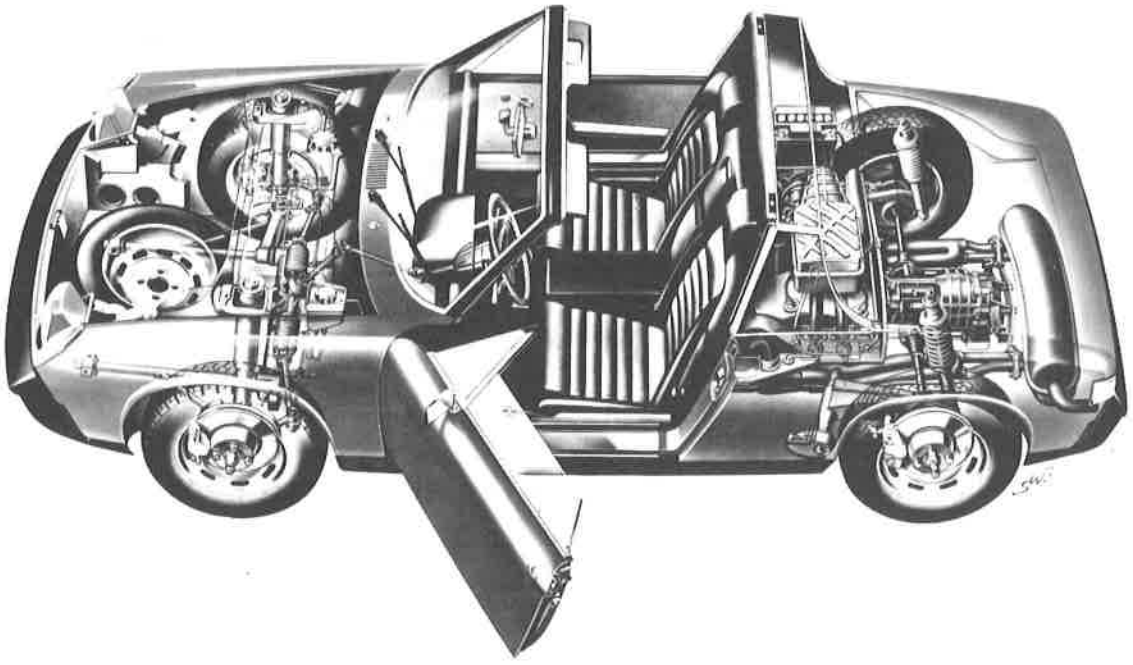
# 914 1.7/2.0

# MODEL '73

Beginning with model year 1973 the Porsche 914 will be offered with a number of technical modifications and improvements.
In addition to the well-known 1.7 liter version, an engine with a displacement of 2.0 liters and an output of 95 HP (DIN) is available.
All modifications as well as technical data and the important repair instructions are given in this brochure.



**Engine Index** (Digit 5)

| Index | Displacement (Liter) | Output (DIN HP) | |
|---|---|---|---|
| 3 = | 1.7 | 80 | USA, excluding California |
| 4 = | 2.0 | 95 | USA, excluding California |
| 5 = | 1.7 | 72 | California only |
| 6 = | 2.0 | 95 | California only |

**Transmission Index** (Digit 6)

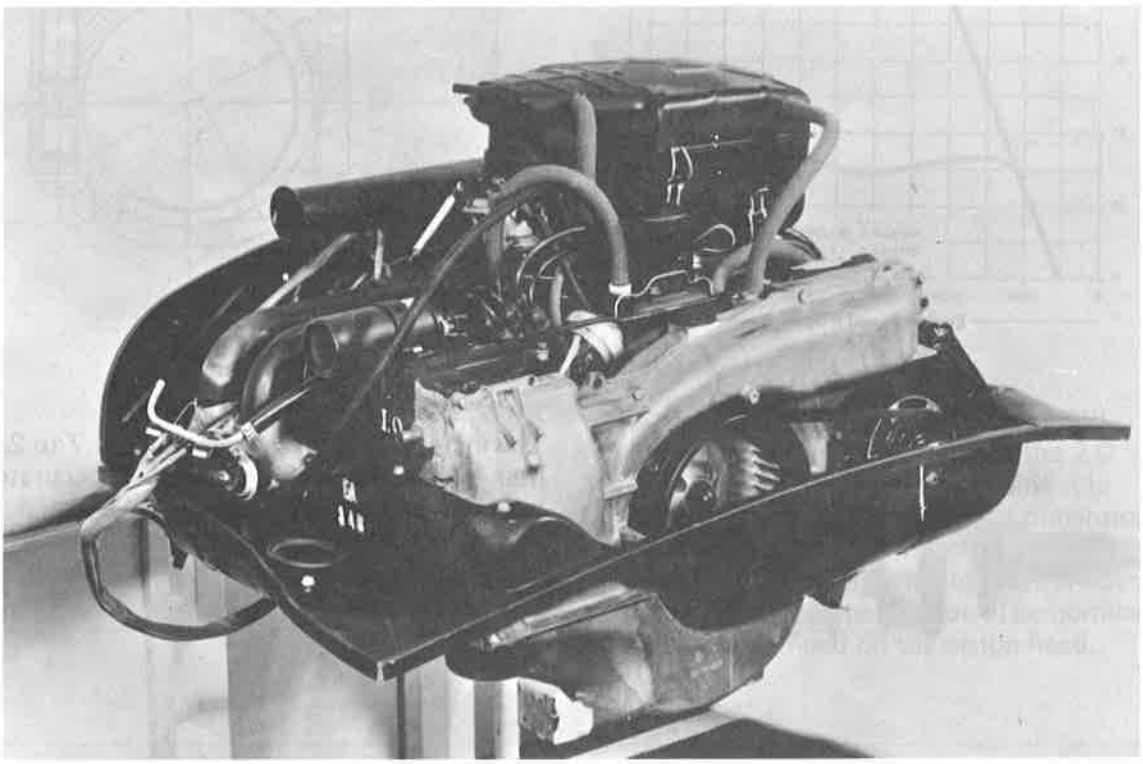
| Index | |
|---|---|
| 4 = | 5-speed transmission |

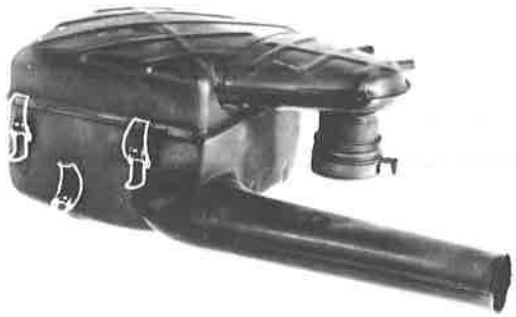
**Chassis number and component code**

| | | | |
|---|---|---|---|
| 1. Chassis Number | 47 | 32 | 900 001 |
| | Type series | Model year<br>02 = 1970<br>12 = 1971<br>22 = 1972<br>32 = 1973 | Consecutive number |
| 2. Engine Numbers | Engine type 022 — 1.7 liter | Code letter | EA 0057 001 = USA, excluding California<br>EB 0000 001 = California (72 DIN HP) |
| | Engine type 039 — 2.0 liter | Code letter | GA 0000 001 = USA (95 DIN HP) |
| 3. Transmission Numbers | Transmission type 914/12 | Code letter | HA 0051 316 = 5-speed manual transmission<br>HB . . . . . = 5-speed manual transmission with limited slip differential |

## ENGINE

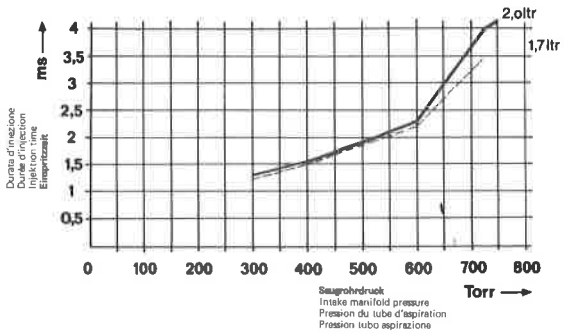
A new engine type – 914 S – with a displacement of 2.0 liters and a rated output of 95 HP (DIN) has been developed from the well-known 1.7 liter 4 cylinder engine of the 914/4 model.



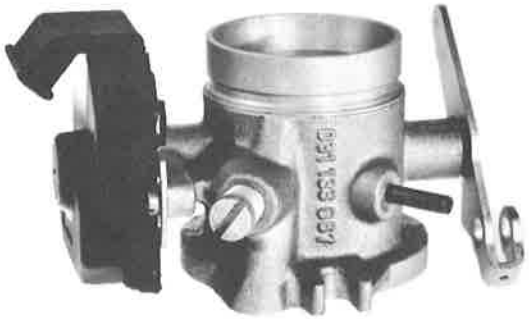


A dry air filter with Micronic element is installed on all engines. The filter elements must be changed every 12000 miles or at least every two years.

The control unit with adjusting potentiometer corresponds to that of the 1.7 liter engines.
On 2.0 liter engines the CO control value is max. 1.5% CO at idling speed 900 ± 50 rpm and an oil temperature of 50–70°C (122–158°F).



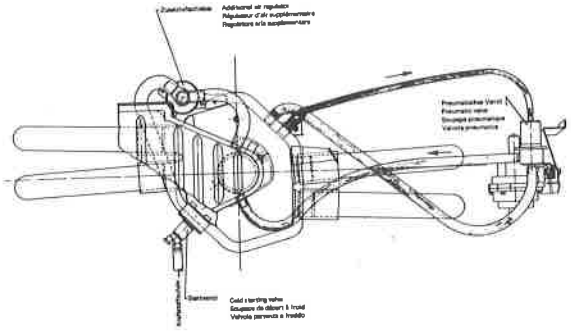

The pressure sensor curve was adaped to the vacuum ratios of the 2.0 liter engines, i.e. the injection times are slightly longer than on the 1.7 liter engine.



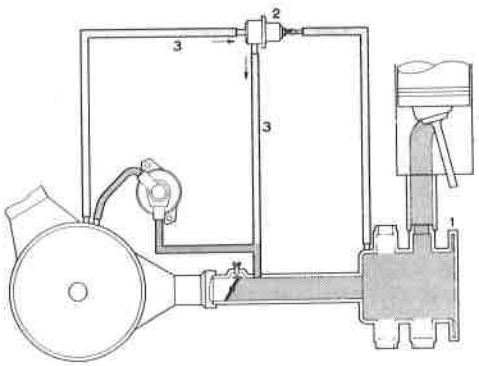
The throttle valve switch has also been redesigned. The new switch can be recognised by the angled plug connection.

1,7ltr 2,0ltr

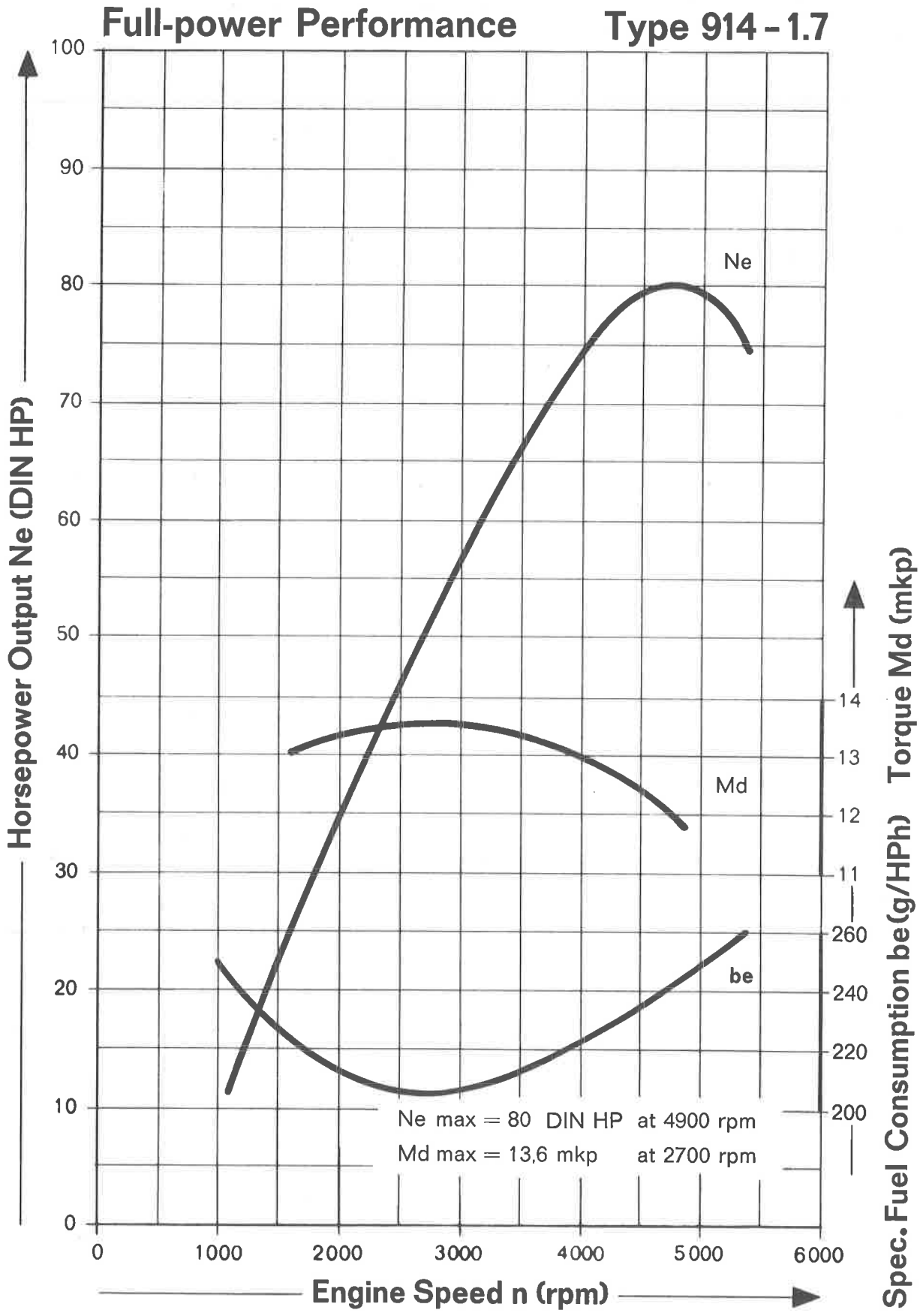
The injectors for the 2.0 liter engines have been given a larger opening gap. They are marked with a green plug socket.
The injectors of the 1.7 liter engines are yellow.



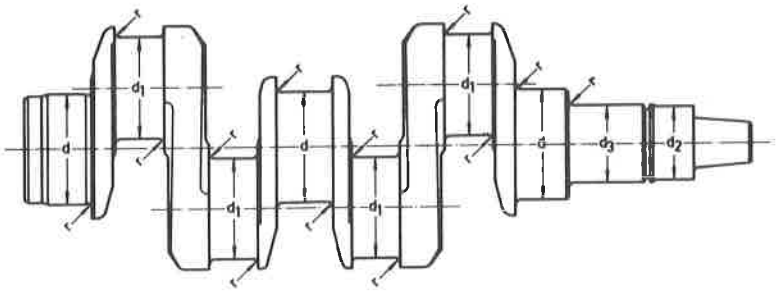
All 2.0 liter engines are equipped with the device for increasing air supply when decellerating. This device is the same as for '72 models. The purpose of this device is to convey air into the intake filter via an additional line during decelleration.




Function:
At high engine speeds with the throttle valve closed a high level of vacuum occurs in the intake air distributor. The vacuum acts on pneumatic valve 2. The valve opens so that additional air can pass through lines 3 from the air filter to the intake air distributor. The fuel/air mixture is leaned out in this way.


Full-power Performance
Type 914 - 1.7
Horsepower Output Ne (DIN HP)
Spec. Fuel Consumption be (g/HPh)
Torque Md (mkp)
Engine Speed n (rpm)
Ne
Md
be
Ne max = 80 DIN HP at 4900 rpm
Md max = 13,6 mkp at 2700 rpm
0
10
20
30
40
50
60
70
80
90
100
0
1000
2000
3000
4000
5000
6000
11
12
13
14
200
220
240
260

## Crankshaft Regrinding Specifications

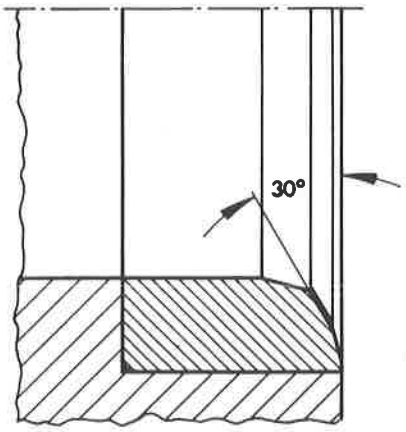



$d_3 = \frac{42.006}{41.995}$ mm $\phi$ r = $\frac{2.5}{2.0}$ mm

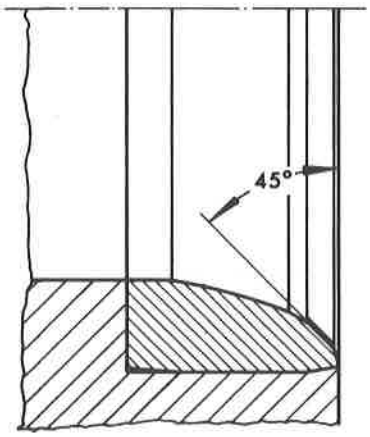
Careful grinding of the radii on the crankshaft and big-end journals is of great importance. A value of 2.5 mm should be maintained. The radii should be redressed.

| | Journals for crankshaft bearings 1, 2 and 3 (d) | | Journals for big-end bearings ($d_1$) | | Journals for crankshaft bearings 4 ($d_2$) | |
|---|---|---|---|---|---|---|
| | Nom. $\phi$ mm | Lapping $\phi$ mm | Nom. $\phi$ mm | Lapping $\phi$ mm | Nom. $\phi$ mm | Lapping $\phi$ mm |
| Normal | 60,00 | 59.990<br>59.971 | 50,00 | 49.996<br>49.983 | 40,00 | 40.000<br>39.984 |
| 1st Undersize | 59,75 | 59,740<br>59,721 | 49,75 | 49,746<br>49,733 | 39,75 | 39,750<br>39,734 |
| 2nd Undersize | 59,50 | 59,490<br>59,471 | 49,50 | 49,496<br>49,483 | 39,50 | 39,500<br>39,484 |
| 3rd Undersize | 59,25 | 59,240<br>59,221 | 49,25 | 49,246<br>49,233 | 39,25 | 39,250<br>39,234 |

## VALVE SEAT SPECIFICATIONS

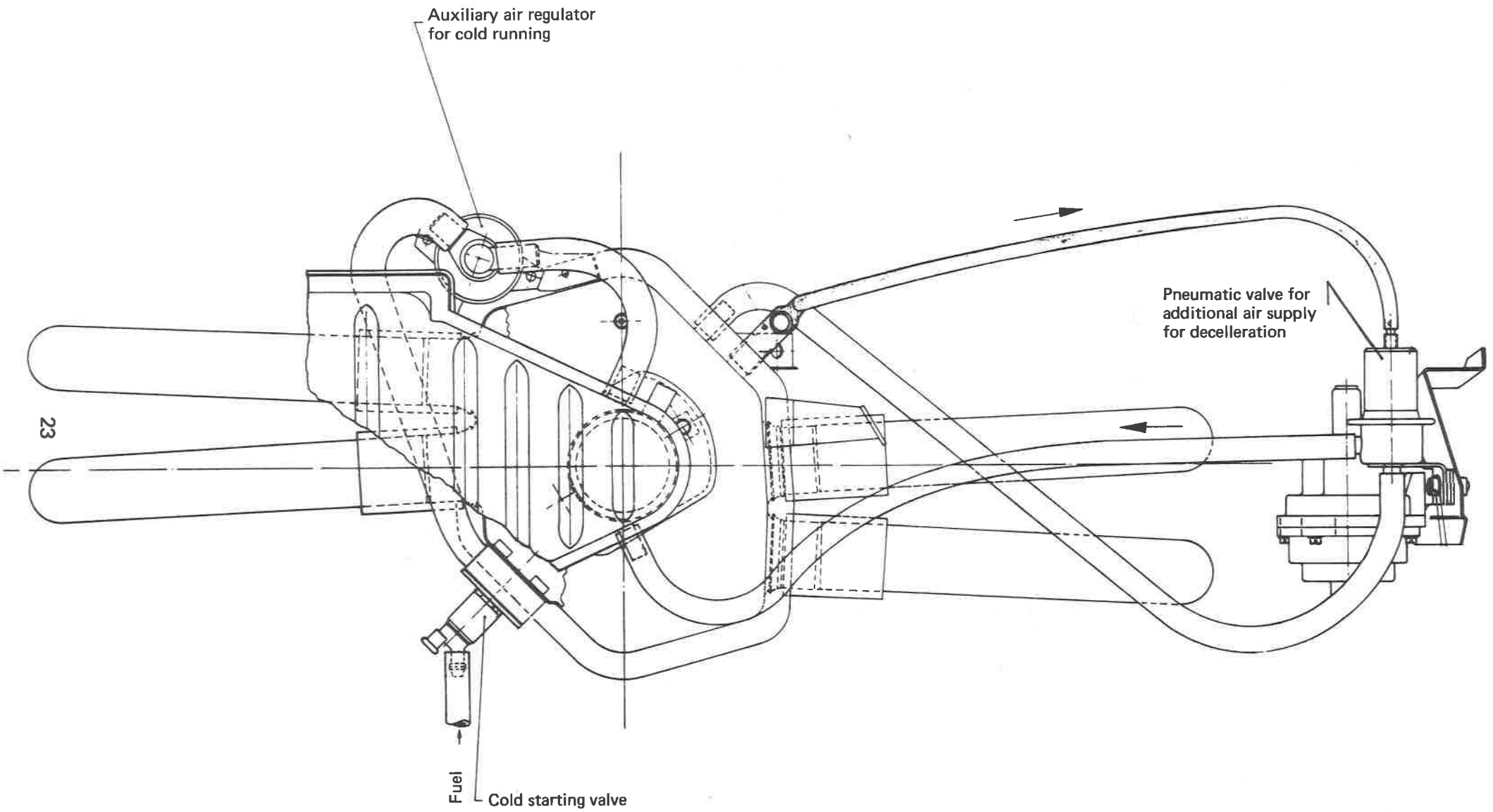


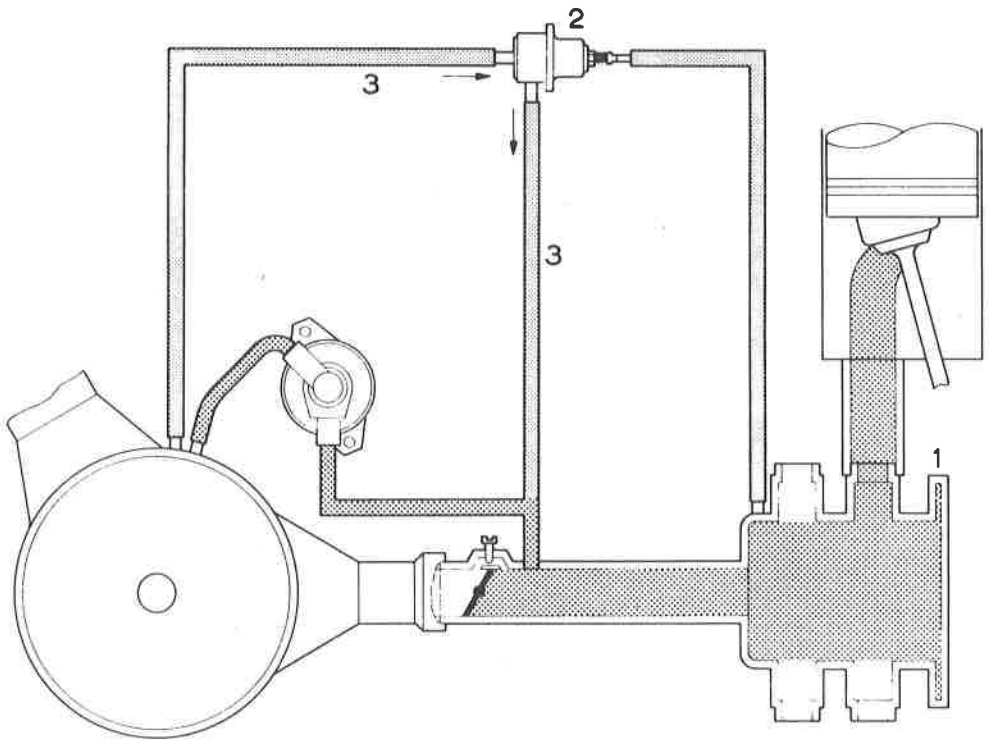

1.7 ltr. — Angle of intake seat ring



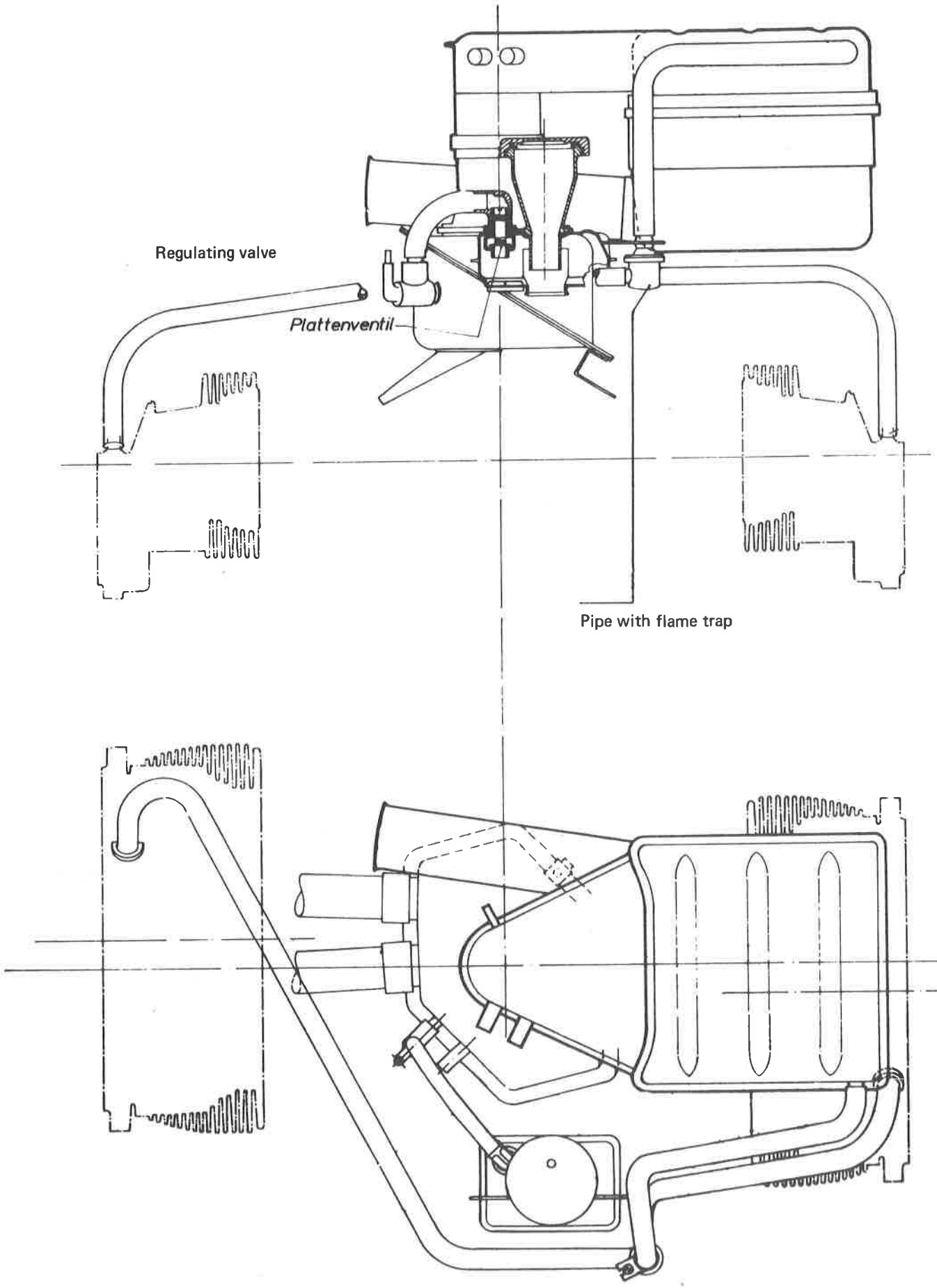

1.7 ltr. — Angle of exhaust seat ring

2.0 ltr. — Angle of intake and exhaust seat ring


Auxiliary air regulator
for cold running
Pneumatic valve for
additional air supply
for decelleration
Fuel
Cold starting valve

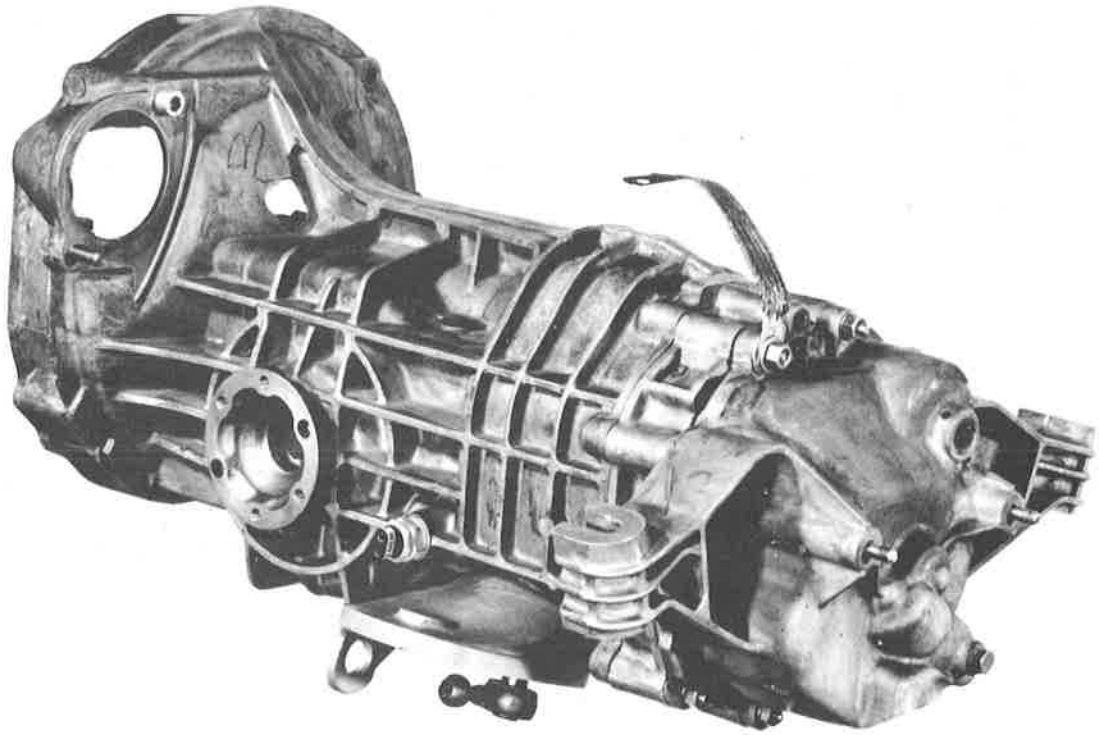


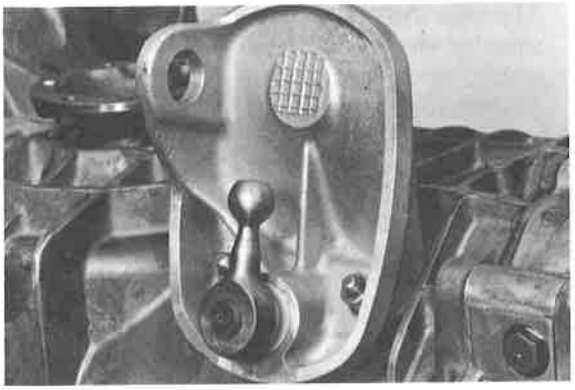

1 Intake air distributor
2 Pneumatic valve for decelleration
3 Bypass line


Regulating valve
Plattenventil
Pipe with flame trap

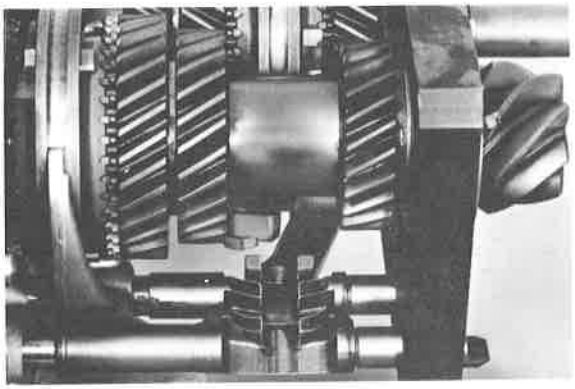
**Transmission, gear shift, clutch**

Beginning with model year 1973 the 914 vehicles are equipped with a modified transmission. This transmission – type designation 914/12 – is equipped with a side gear shift to improve the shift accuracy.

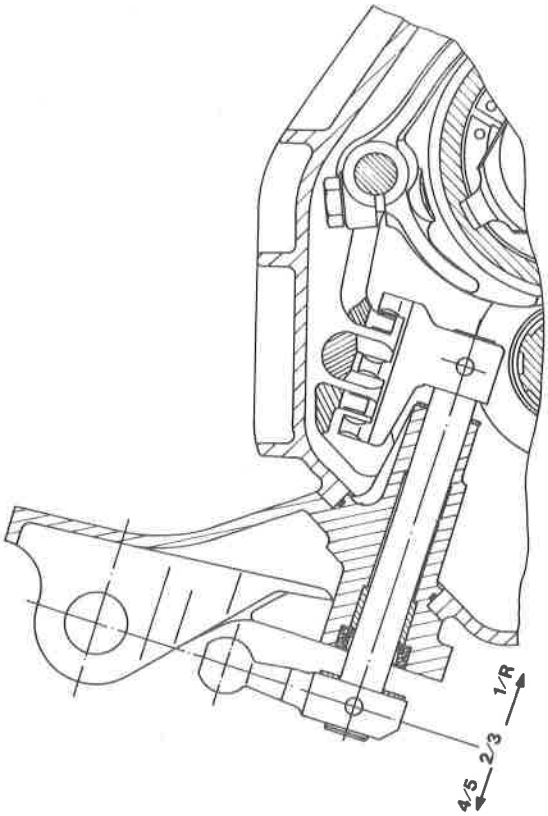




The basic construction of the Type 914/12 transmission corresponds to that of the previous transmission types. The laterally bolted-on shift housing is new.



The selector rails and the rear transmission cover were modified.
**The following parts are omitted:** The fork piece for the inner selector lever, the selector rails with inner selector lever and the selector shaft on the rear transmission cover.




Gear shifting is effected by a comb-type, three-claw selector finger which moves in a longitudinal direction and engages in the drivers of the selector rails. In the center position the gears 2 and 3 can be engaged; the first and reverse gears can be engaged when the finger is moved up and gears 4 and 5 when it is moved down.

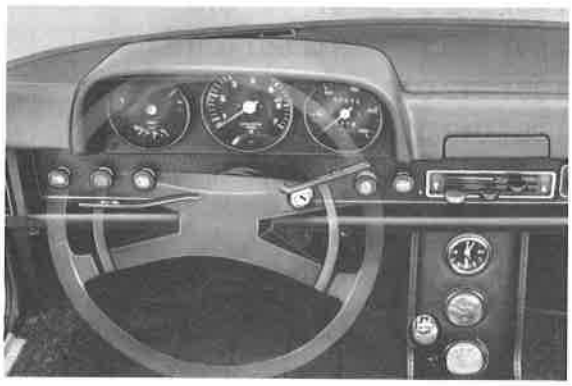
| **Chassis/wheel alignment** | | 72 HP (DIN) | 80 HP (DIN) | 95 HP (DIN) |
|---|---|---|---|---|
| Steering ratio | | 17.78 : 1 | 17.78 : 1 | 17;78 : 1 |
| Front axle: | Camber | 0°± 20′ | 0°± 20′ | 0°± 20′ |
| | Toe-in | + 20′ ± 10′ | + 20′ ± 10′ | + 20′ ± 10′ |
| | Caster | 6°± 30′ | 6°± 30′ | 6°± 30′ |
| Rear axle: | Camber | −30′ ± 20′ | −30′ ± 20′ | −30′ ± 20′ |
| | Toe-in | 0°± 15′ | 0°± 15′ | 0°± 15′ |
| **Wheels and tires** | | | | |
| Standard | | 4 1/2 x 15 steel<br>155 SR 15 | 4 1/2 x 15 steel<br>155 SR 15 | 5 1/2 x 15 LM forged<br>165 HR 15 |
| C-Pack | | 5 1/2 x 15 steel<br>165 SR 15 | 5 1/2 x 15 steel<br>165 SR 15 | |
| SW (special option) | | 4 1/2 x 15 steel<br>165 SR 15 | 5 1/2 x 15 steel<br>165 SR 15 | |
| | | 5 1/2 x 15 LM cast<br>165 SR 15 | 5 1/2 x 15 LM cast<br>165 SR 15 | |
| Winter tires | | 155 SR 15 MS(E) on 4 1/2 x 15<br>165 SR 15 MS(E) on 4 1/2 x 15 or 5 1/2 x 15 | | |
| Tire pressures, cold front/rear — | kg/cm² | 1.8/2.0 or 2.0/2.2 on winter tires | | |
| | psi | 26/29 or 29/32 on winter tires | | |

| Dimensions | | 72 HP (DIN) | 80 HP (DIN) | 95 HP (DIN) |
|---|---|---|---|---|
| Wheelbase | mm (in.) | 2450 (96.50) | 2450 (96.50) | 2450 (96.50) |
| Track | mm (in.) | | | |
| | front 4 1/2 x 15 | 1331 (52.402) | 1331 (52.402) | 1331 (52.402) |
| | 5 1/2 x 15 | 1343 (52.874) | 1343 (52.874) | 1343 (52.874) |
| | rear 4 1/2 x 15 | 1371 (53.976) | 1371 (53.976) | 1371 (53.976) |
| | 5 1/2 x 15 | 1383 (54.449) | 1383 (54.449) | 1383 (54.449) |
| Turning circle diameter | m (ft) | approx. 11.0 (36.0) | approx. 11.0 (36.0) | approx. 11.0 (36.0) |



| Road performance | | | | |
|---|---|---|---|---|
| Maximum speed (km/h (mph) | | 170 (106) | 175 (109) | 185 (115) |
| Acceleration 0—100 km/h (vehicle empty as per DIN + 1/2 payload) | sec. | 14.5 | 13.0 | 11.0 |
| Standing kilometer (vehicle empty as per DIN + 1/2 payload) | sec. | 36.0 | 34.5 | 32.5 |
| Power/weight ratio kg/HP (kg/kW) as per DIN 70020 (950 kg) | | | 11.85 (16.1) | |

To increase ground clearance and assist the guide plates to dissipate excess heat under the vehicle, the rear apron has been shortened.



All vehicles will be equipped with a speedometer reading up to 150 mph.

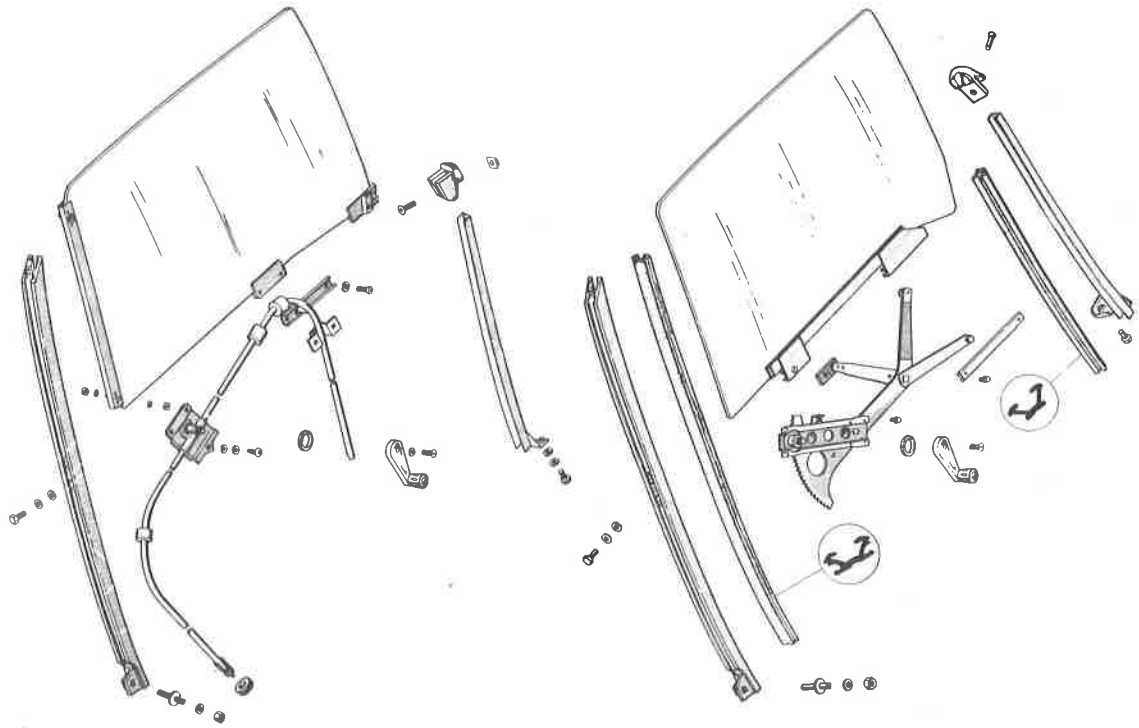

Basic equipment 2.0 liter vehicles are provided with a combined instrument containing an oil temperature gauge.

For the Porsche 914/2.0 liter a center console is offered. The console houses a clock, an oil temperature gauge and a voltmeter (battery).
The gear shift lever is provided with a leather boot.

The front bumpers are provided with overriders.
There is also additional lateral reinforcement for the front bulkhead.

A summary of all modifications is listed on page 48.

The door window operating mechanisms have been completely redesigned.
The crank handle now operates a gear segment, which raises the window by means of a lift rail with 2-point support.
The inner door panel has been reshaped to accommodate the new window lift mechanism.



**Summary of modifications to 914 vehicles – Model 73**

| | |
|---|---|
| Loudspeaker cover panel | – Cloth secured behind grille with adhesive (improved appearance) |
| Beige carpet now of a darker shade | – Less affected by dirt |
| Air outlet slot at windshield now framed | – Visual improvement |
| Wire mesh under air outlet slot in front of windshield | – Prevents blockages |
| Black door handles and window crank handles | – Visual improvement |
| Sloping footrest for passenger | – Improved comfort |
| 'Baryfoam' mat in rear luggage compartment | – Improved heat insulation |
| Sound-absorbing mat in engine compartment | – Improved noise barrier |
| Complete interior trim | – Change to flame resistant materials |

| Mass and force data | | 72 HP | 80 HP | 95 HP |
|---|---|---|---|---|
| Vehicle empty (to DIN standard) | kg (lbs) | 970 (2139) | 970 (2139) | 970 (2139) |
| Permitted total forces (static) | kp/N/lbs | 1220/11968/2690 | 1220/11968/2690 | 1220/11968/2690 |
| Permitted front axle force (static) | kp/N/lbs | 650/6377/1433 | 650/6377/1433 | 650/6377/1433 |
| Permitted rear axle force (static) | kp/N/lbs | 650/6377/1433 | 650/6377/1433 | 650/6377/1433 |

| Vehicle dimensions | | | | |
|---|---|---|---|---|
| Length incl. bumper overriders | mm (in.) | 4050 (159.4) | 4050 (159.4) | 4050 (159.4) |
| Width | mm (in.) | 1650 (65.0) | 1650 (65.0) | 1650 (65.0) |
| Height (unladen) | mm (in.) | 1230 (48.4) | 1230 (48.4) | 1230 (48.4) |
| Ground clearance at permitted gross weight with 155 x 15/4 1/2 x 15 tires | mm (in.) | 120 (4.724) | 120 (4.724) | 120 (4.724) |
| with 165 x 15/5 1/2 x 15 tires | | 130 (5.118) | 130 (5.118) | 130 (5.118) |

| Filling capacities | | |
|---|---|---|
| Fuel tank | liter (Imp. gal/US gal) | 62 (13.6/16.4) [6 (1.3/1.6) reserve] |
| Brake fluid | liter (Imp. pts/US qts) | approx. 0.35 (0.6/0.37) |
| Windshield washer | liter (Imp. pts/US qts) | approx. 2.5 (4.4/2.65) |