The VW Program 1967
Description and Technical Data

The dominant theme of model year 1967 is once again the important further technical development of all Volkswagens. The alterations will, in particular, further promote interior and exterior safety and also improve the driving characteristics of Volkswagens. All passenger car models now have a dual circuit brake system. In the case of Type 1, the sensible and successful line of development "increased output from increased engine displacement" which was introduced with the VW 1300 has been passed on now to include the new **VW 1500.**

This model is equipped with the proven 91.10 cu.in (1.5 liter) 53 bhp engine. The Karmann Ghia models now have disc brakes in front. To improve driving comfort and road holding, all Type 1 and 3 models are equipped with an equalizer spring on the rear axle. Type 1 vehicles also have a wider rear track.

This brochure lists the details of the 1967 model year. It is for the information of the complete Service and Sales Department staff.

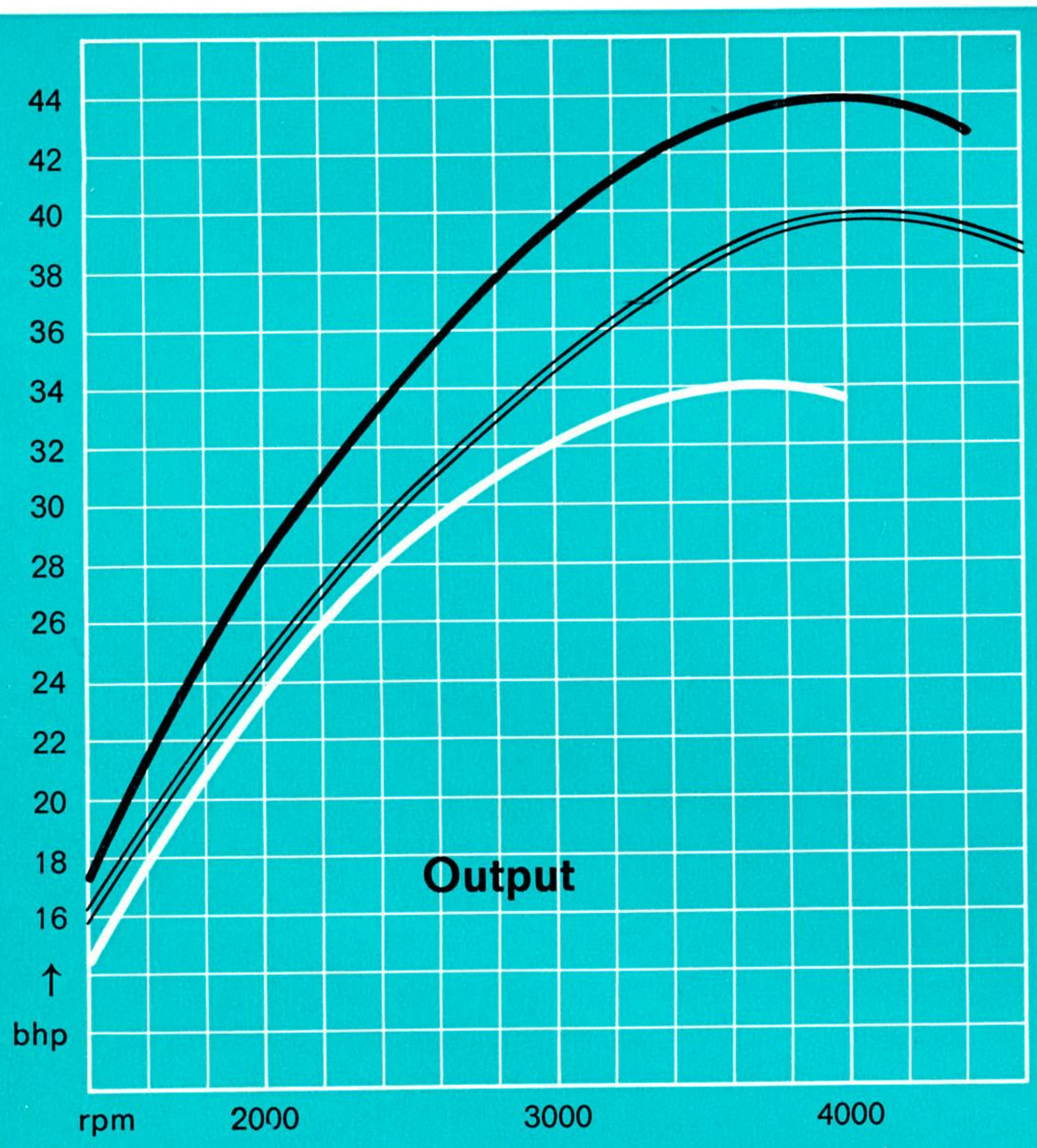
It is your task to read this brochure carefully. Only by doing so will you be able to advise your customers in a prompt and efficient manner.

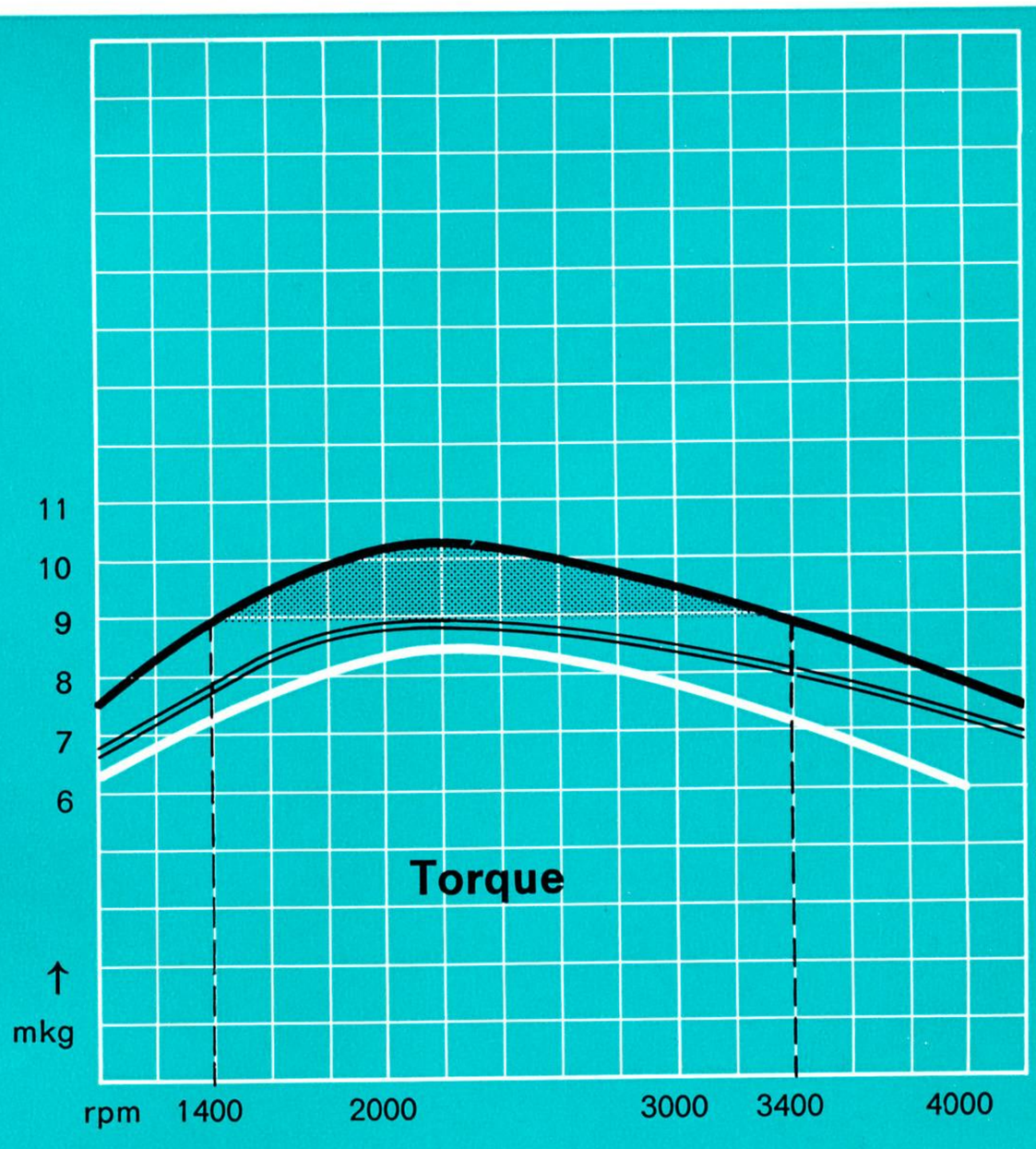
Type 1 VW 1500

1.5 liter Engine

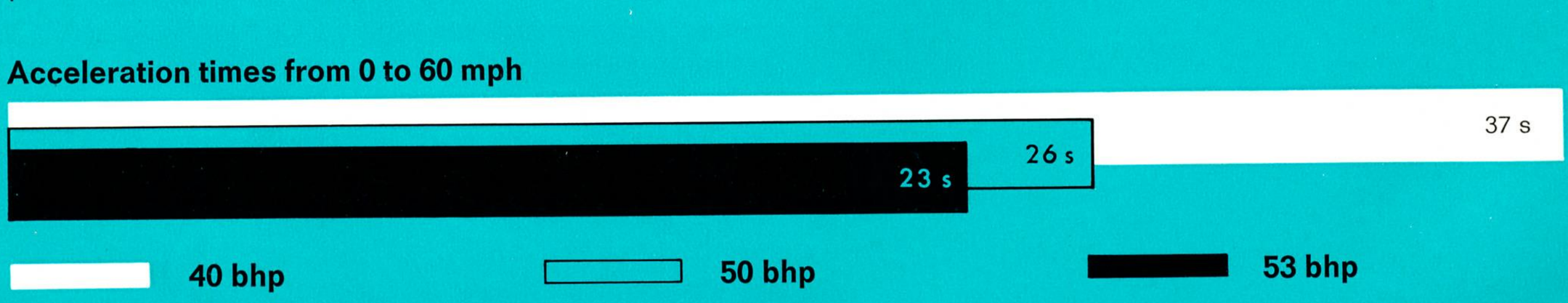
The new engine of the VW 1500 is particularly sturdy and reliable. It develops 53 bhp at 4200 rpm. The maximum torque of 74 ft.lbs (10.2 mkg) is achieved at 2000 rpm.

The maximum speed of the VW 1500 Sedan and 4 seater Convertible is 78 mph; the Karmann Ghia models reaching 82 mph. However the shorter acceleration times shown in this diagram are of far greater importance.





Acceleration times from 0 to 60 mph



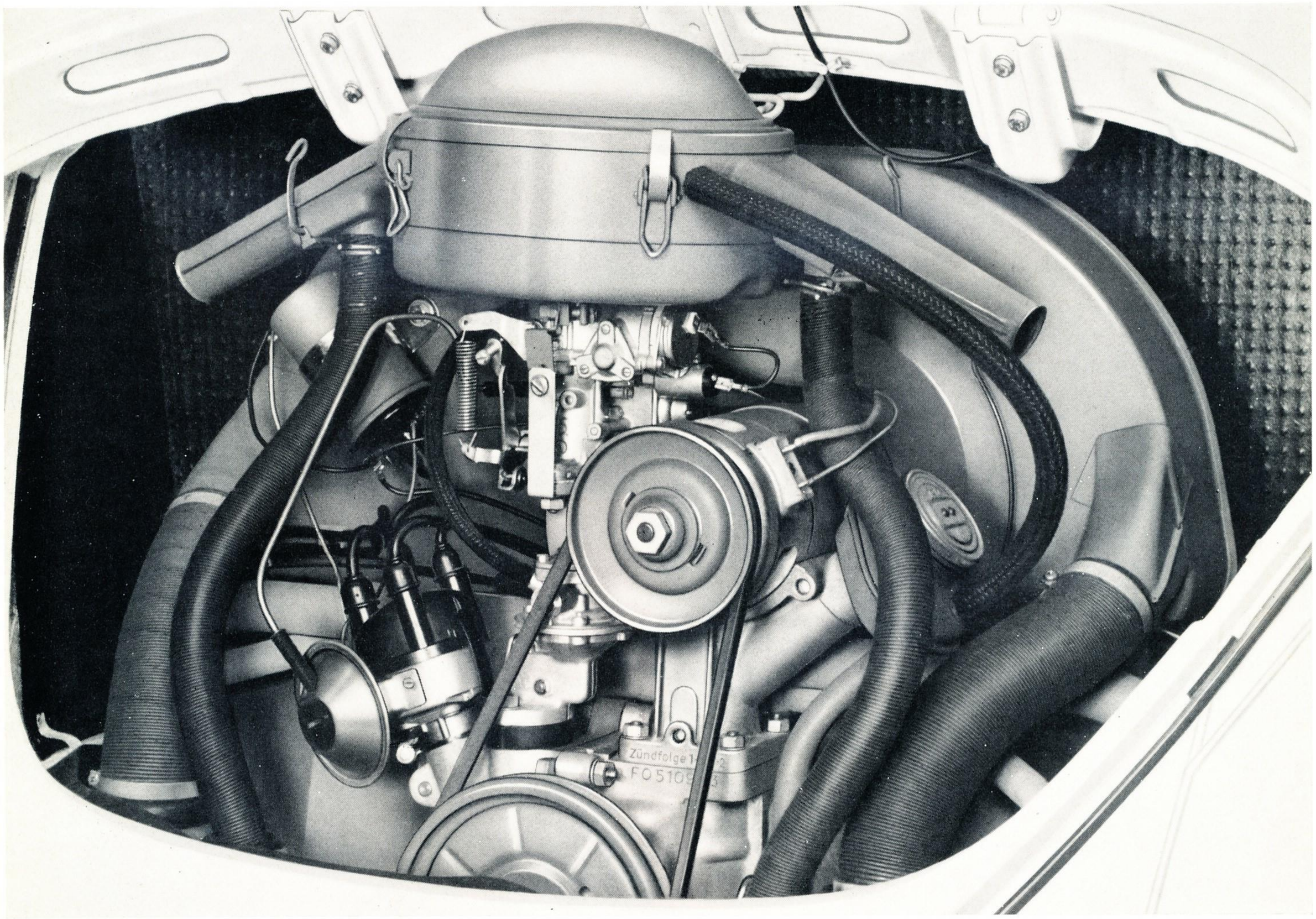
The figures given for output and torque are based on German Rating (DIN).

Further advantages of the larger engine are its greater flexibility and, consequently, its greater power even at low engine speeds. This fact is borne out by a torque of more than 65 ft.lbs (9 mkg) over a range from 1400 to 3400 rpm.

The 30 PICT-1 carburetor of the VW 1500 has a new jet arrangement and is fitted with a new oil bath air cleaner which has two intake pipes:

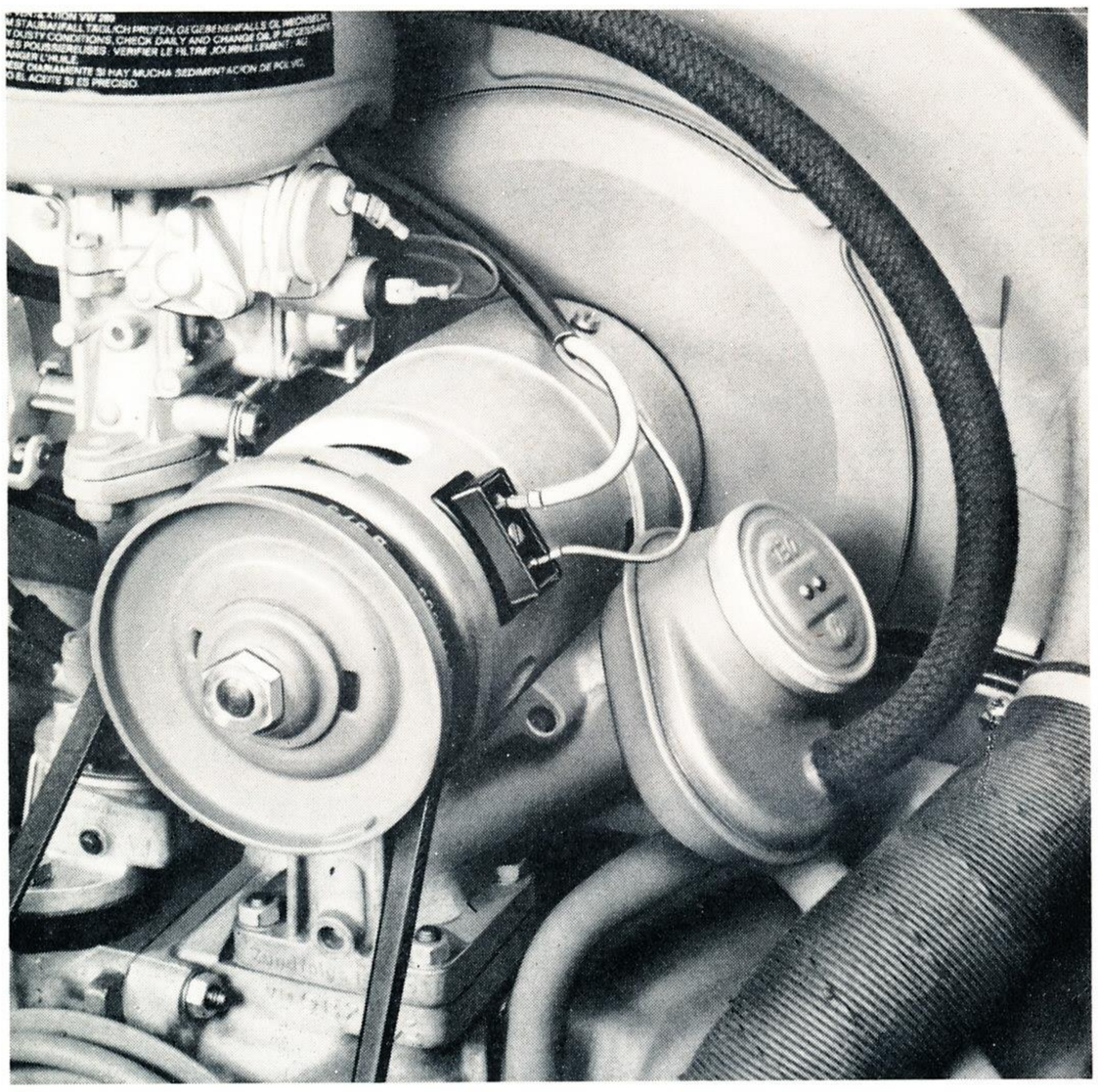
The intake air pre-heating arrangement is also new; warm air is drawn from both cylinder heads by means of two hoses and mixed with the intake air. Dependent on the engine speed, a weighted control flap in each intake pipe automatically regulates the flow of warm air to the carburetor.

Venturi	24 mm dia.
Main jet	0 120
Air correction jet	125 z
Pilot jet with automatic cut-off valve	55
Pilot jet air bleed	150
Accelerator pump injector tube	50
Float needle valve	1.5 mm dia.
Float weight	5.7 g
Accelerator pump injection quantity	1.3 to 1.6 cc/stroke
Power fuel jet	50



The 91.10 cu.in engine in the Karmann Ghia models retains the previous type oil bath air cleaner and still extracts warm air from the right-hand heat exchanger.

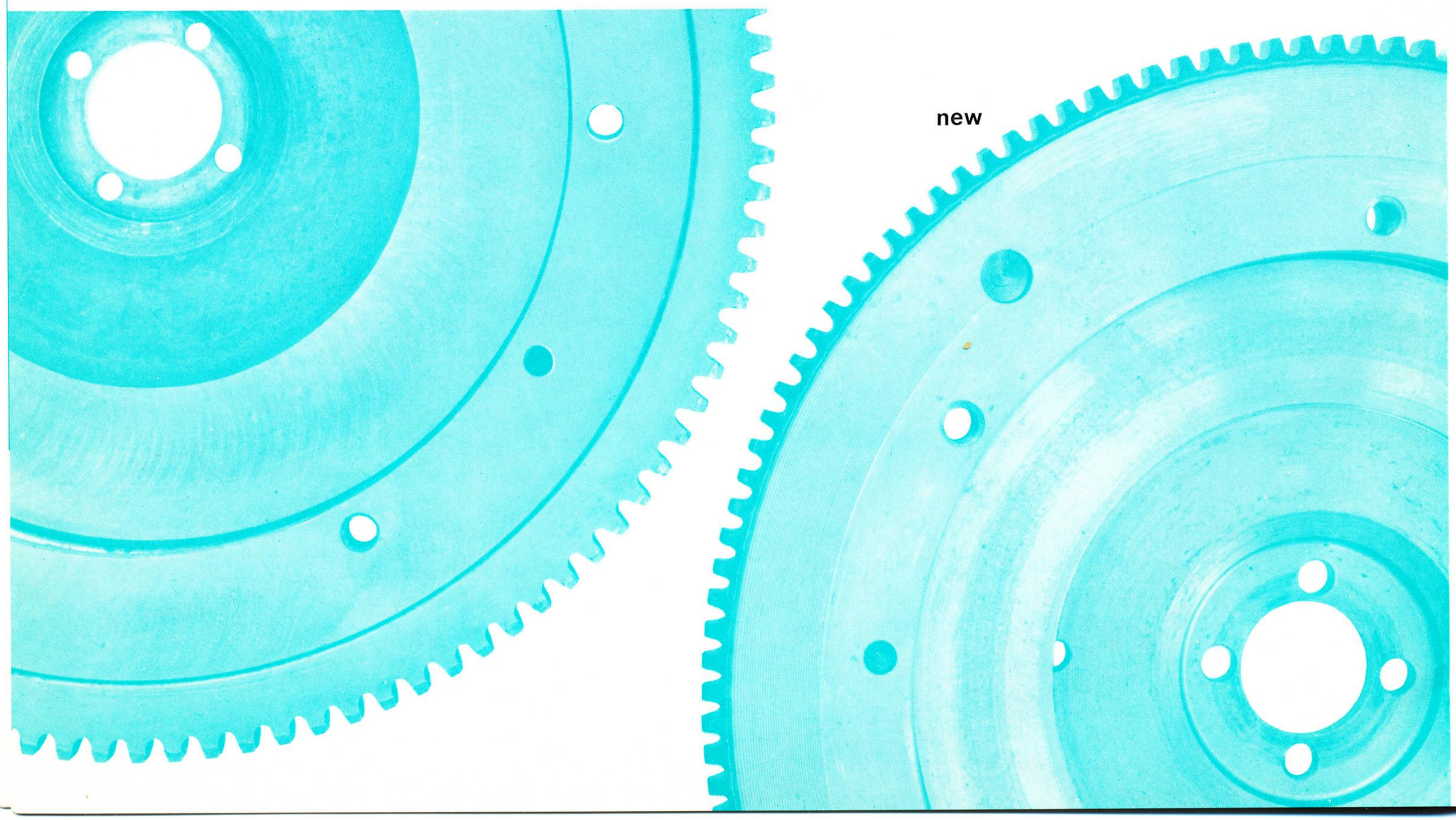
The crankshaft pulley of the 91.10 cu.in VW 1500 engine has been enlarged by .28″ (7 mm) to adapt the cooling fan capacity to the increased performance.

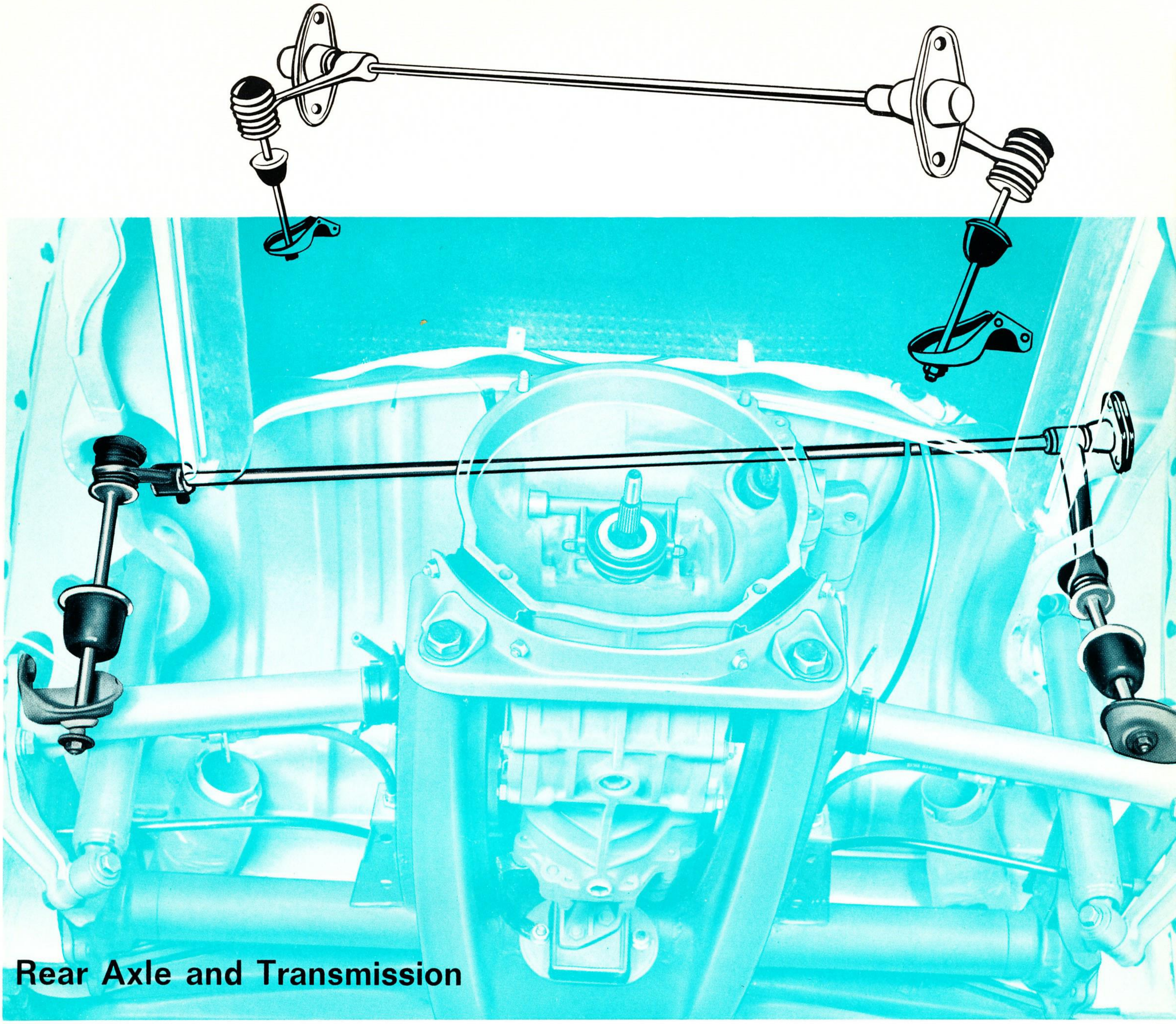


The oil breather on the Type 1 engines has been increased in size to ensure improved breathing even under extreme operating conditions.

As in the case of the previous 78.41 cu.in (1.3 liter) two-seater models, the 91.10 cu.in (1.5 liter) engine has been equipped with a new flywheel which is .16″ (4 mm) larger and has 130 teeth as opposed to 109. At the same time starter motors with modified pinions are being installed. This will ensure improved starting.

The 53 bhp engine of the VW 1500 is being equipped with the earlier pressure spring clutch which was fitted to VW Station Wagons and Trucks. This clutch has modified springs. The clutch disc has one lining spring only.





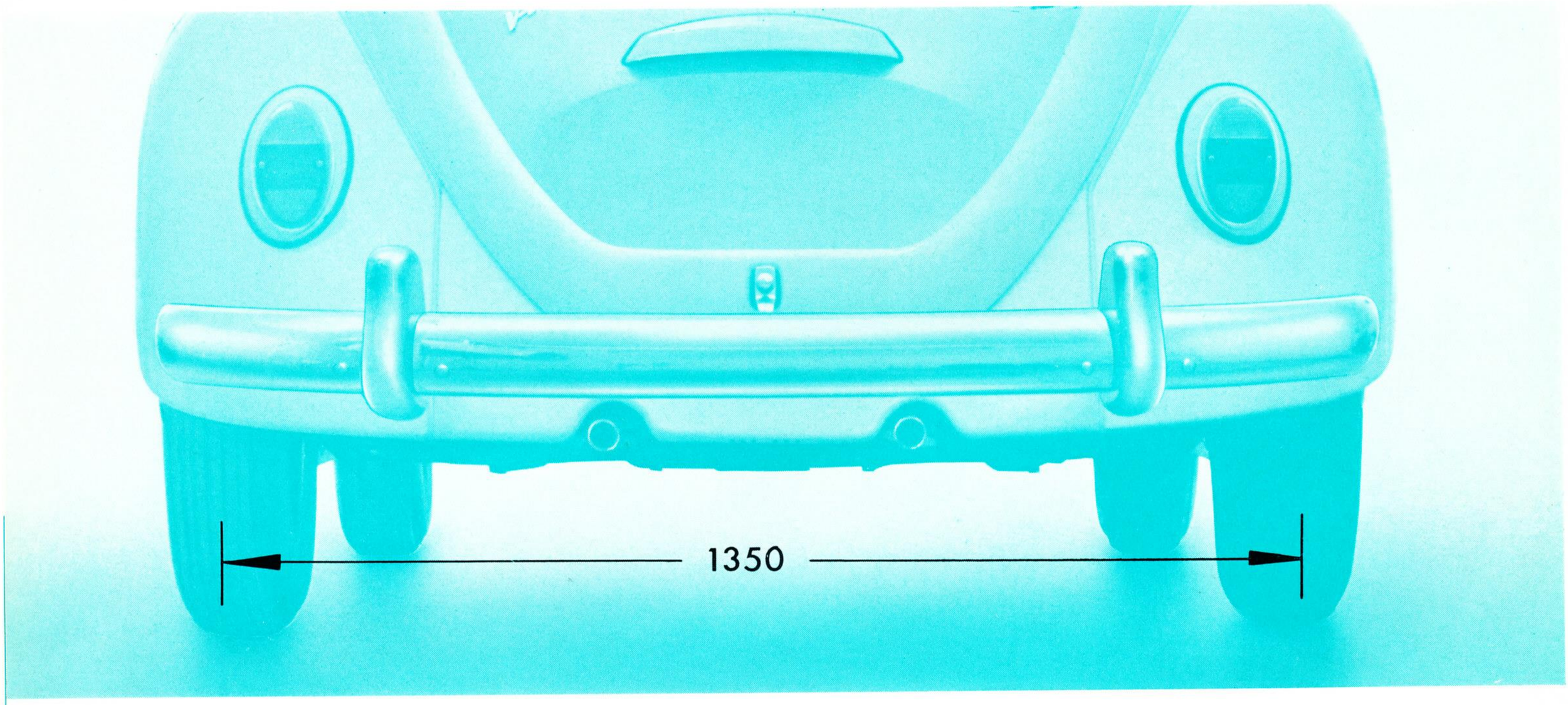
Rear Axle and Transmission

All Type 1 Vehicles

are equipped with an equalizer spring on the rear axle which is similar to the auxiliary spring used on the 1,025 lbs (465 kg) payload Squareback Sedan. Here too softer torsion bars are being used on the rear axle.

The advantages of the equalizer spring in conjunction with softer springing are as follows:

1. The equalizer spring assists the rear torsion bars under load. On the one hand this permits a softer arrangement of the "main springing" and on the other hand the "main spring" and equalizer spring combine to give a progressive action. Consequently it was possible to adapt the suspension more efficiently to the individual load conditions. The "softer" torsion bars give a more comfortable ride because the equalizer spring only becomes active after a certain load.
2. Softer springing with **one** wheel under load because the force of the equalizer spring is only partially effective.
3. Due to the centrifugal forces acting on the body when cornering fast, the inner wheel is unloaded and the outer wheel is loaded by the same amount. The equalizer spring does not become active at this stage. The tendency to more marked body roll which results from the "softer" torsion bars forces the front axle, which is equipped with a stabilizer, to absorb additional cornering forces. The wheel load and lateral forces of the outer front wheel become proportionately larger. The transfer of wheel loads to the front results in neutral properties when the vehicle is cornering.

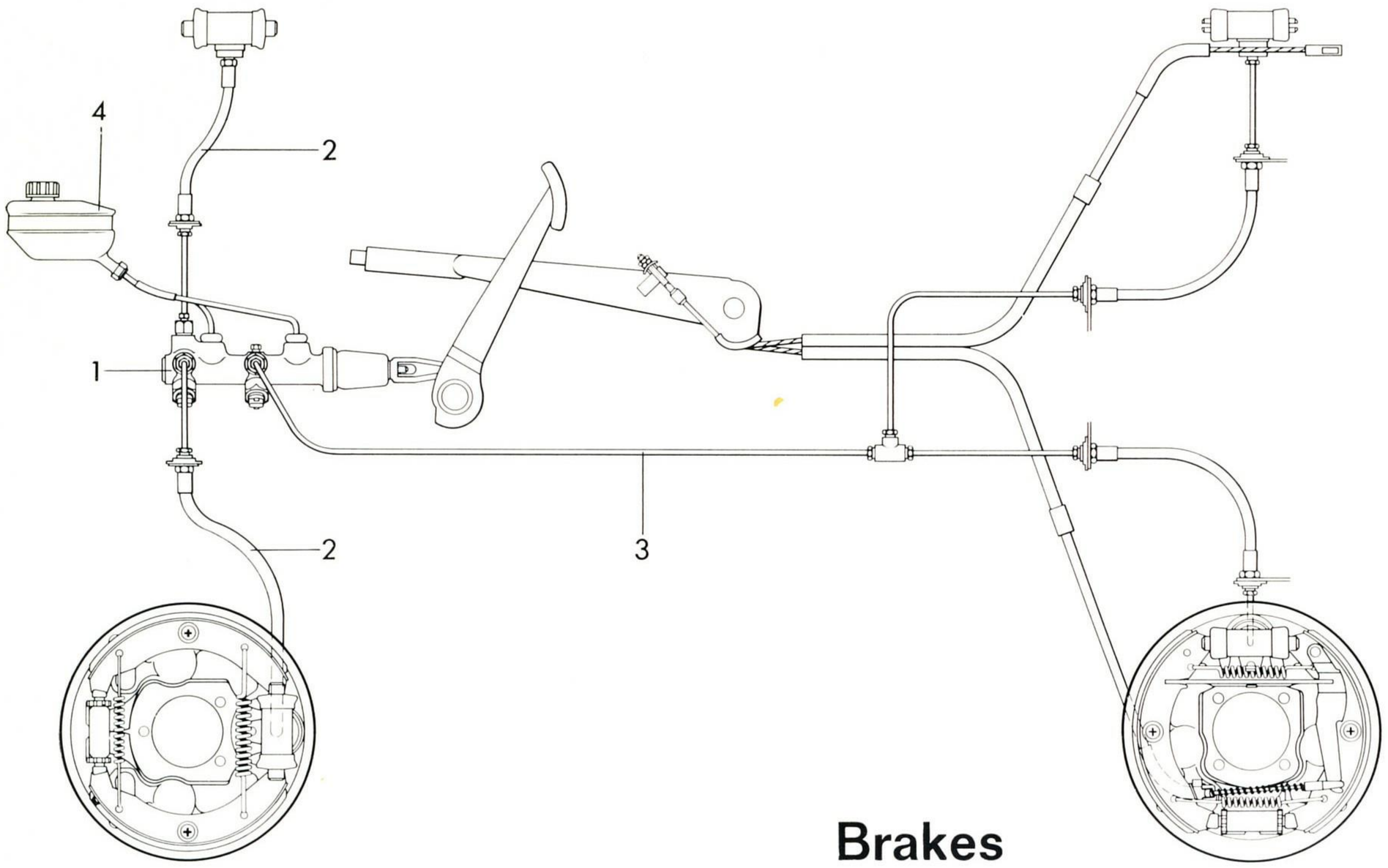


All Type 1 Vehicles

have a wider rear track. The Sedan's track is 53.5″ (1.358 mm) while that of the Karmann Ghia models is 2″ (50 mm) wider. In this case the track is 53.1″ (1.350 mm).

have a "higher" third gear. The third gear ratio was changed from 1.32 : 1 to 1.26 : 1. The maximum speed in 3rd gear at the same engine speed is approximately 3 mph higher. This results in a more favourable power transfer to the 4th gear which in turn is an advantage when overtaking.

now have the same final drive ratio as the Type 3 i.e., 4.125 : 1.



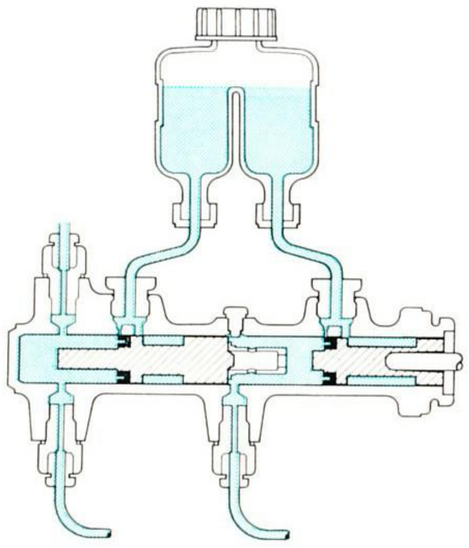
1 - Tandem master brake cylinder

2 - Front end brake circuit

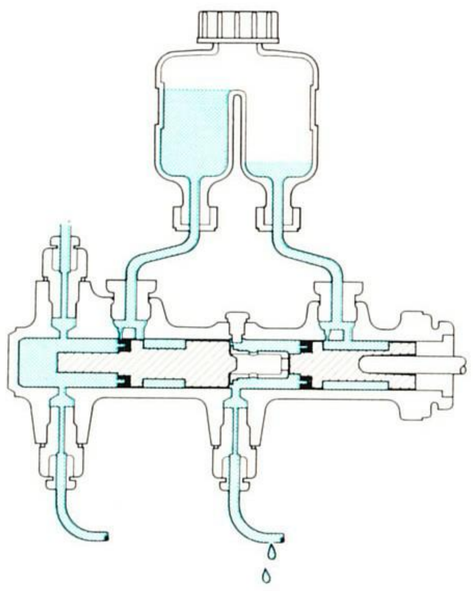
3 - Rear axle brake circuit

4 - Twin chamber reservoir

Brakes



1



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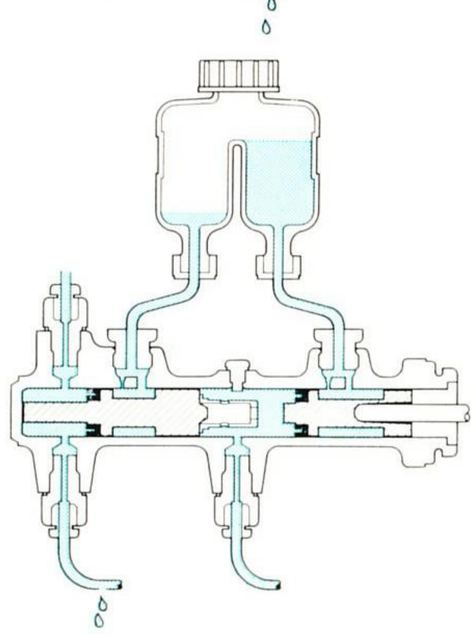


3

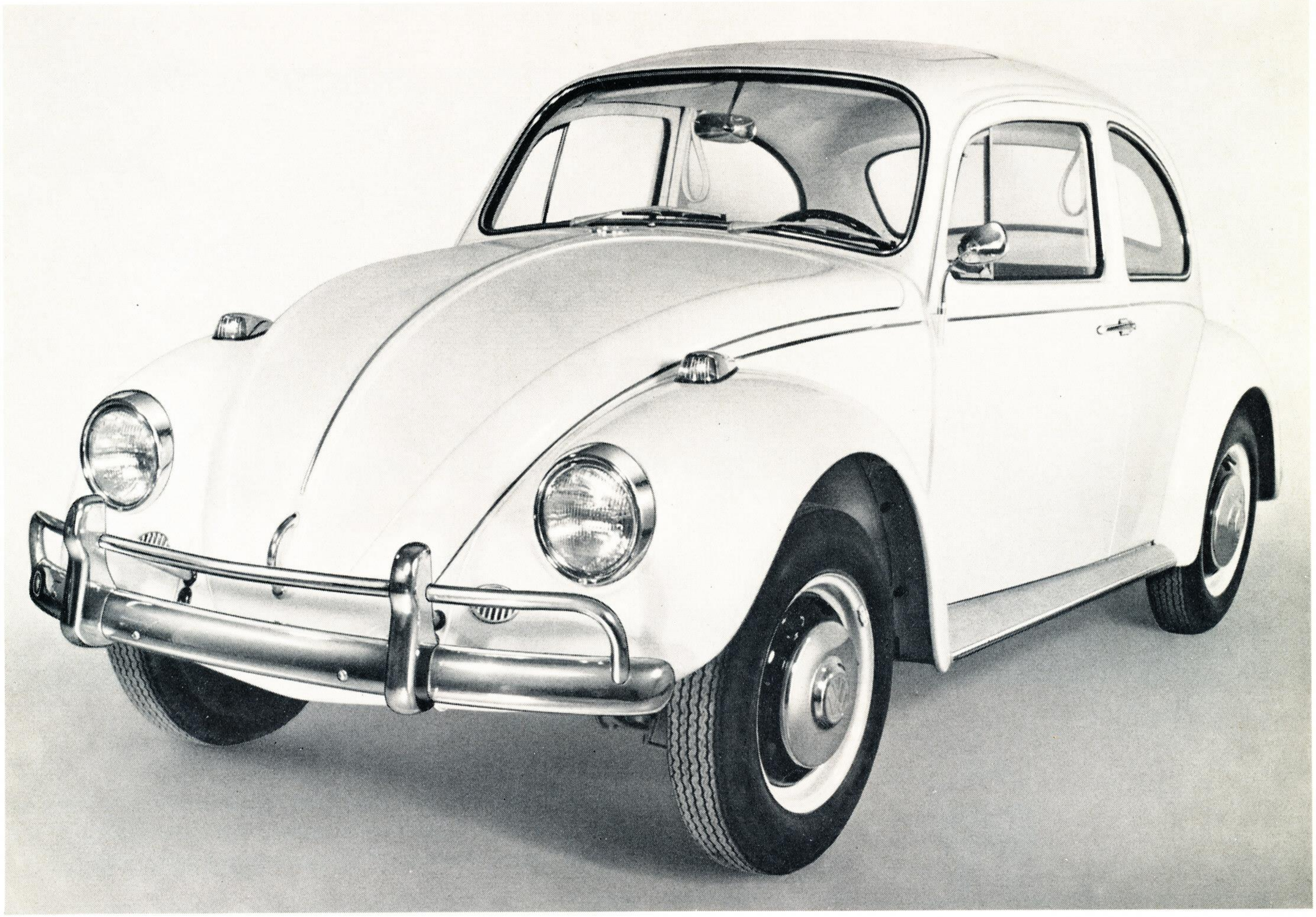
The VW factory has met the requirements in connection with maximum brake safety by introducing a dual circuit brake system on all passenger car models.

In the case of the dual circuit brake, there is a separate brake circuit for the front and rear axles. Both circuits are actuated simultaneously by a tandem master brake cylinder. However, they function independant of one another and each circuit is fully operative on its own. Should the hydraulic pressure in one of the two circuits fail for any reason, the remaining brake circuit will permit the vehicle to be brought to a standstill.

The hydraulic pressure for both brake circuits is built up in the new tandem master cylinder which, from a functional point of view, corresponds to two separate master cylinders. Two pistons divide the tandem master cylinder into two chambers. The rear axle is connected to the first chamber and the front end to the second chamber. The brake fluid reservoir is also divided so that each chamber has its own reservoir.

When the brakes are applied, the primary piston which is actuated directly by the brake pedal forms an equal hydraulic pressure in both chambers and consequantly also in both circuits. An "undamaged" dual circuit brake system functions in the same manner as a normal foot brake. (Illustration 1)

Should leaks occur in a circuit, the respective piston, on further depression of the brake pedal, makes contact thus ensuring that the remaining circuit is fully operative.



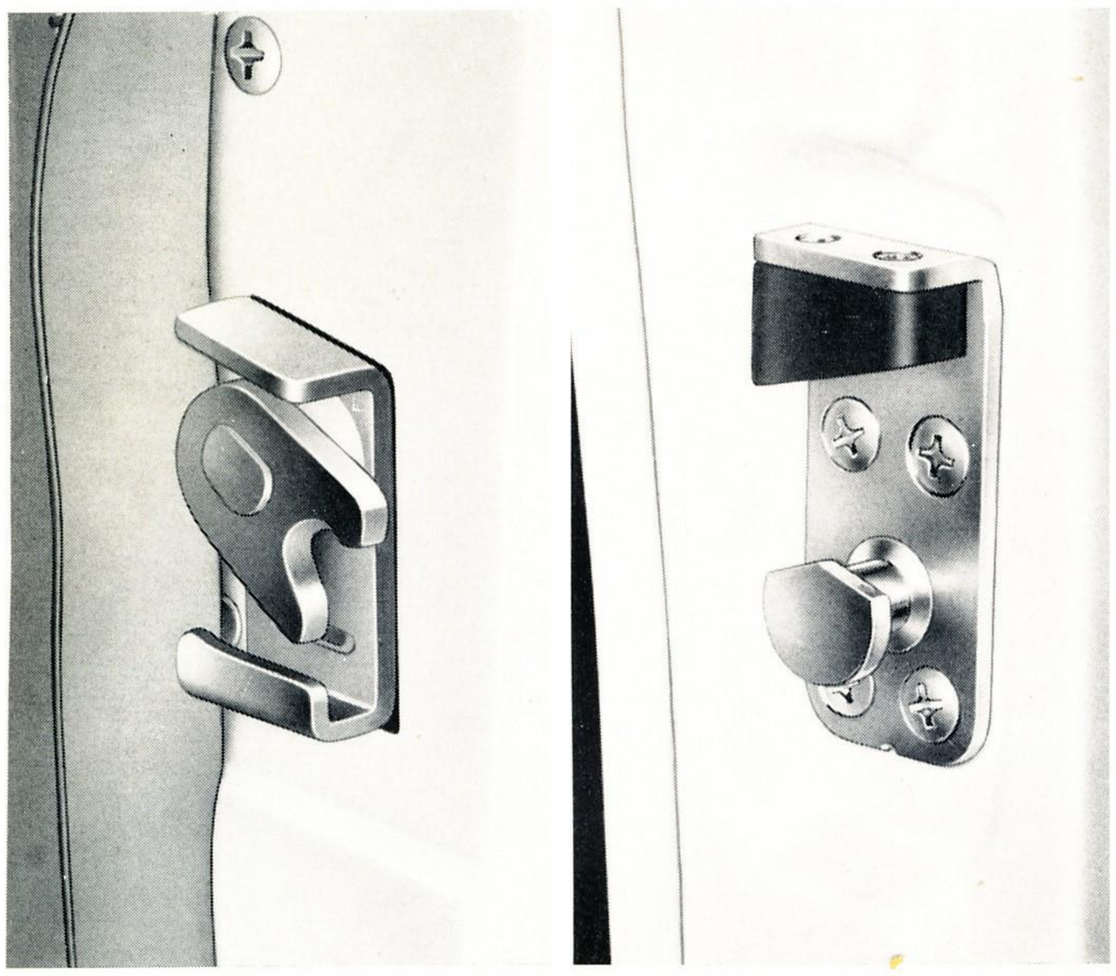
Body

The front region of the fenders has been altered and the sealed beam units have been repositioned fully forward. The clear outer headlight lens has been discontinued.

The lower region of the rear hood is shorter and the mounting surface for the license plate is now more vertical.

In connection with this alteration the engine compartment has been widened to the sides and to the rear to give improved accesibility when removing and installing the engine. Another advantage to be gained from the shorter rear hood is the fact that the hood can still be opened even after the rear bumper has been dented as a result of an accident. A wider weatherstrip compensates for the larger gap between the engine cover plates and the body.

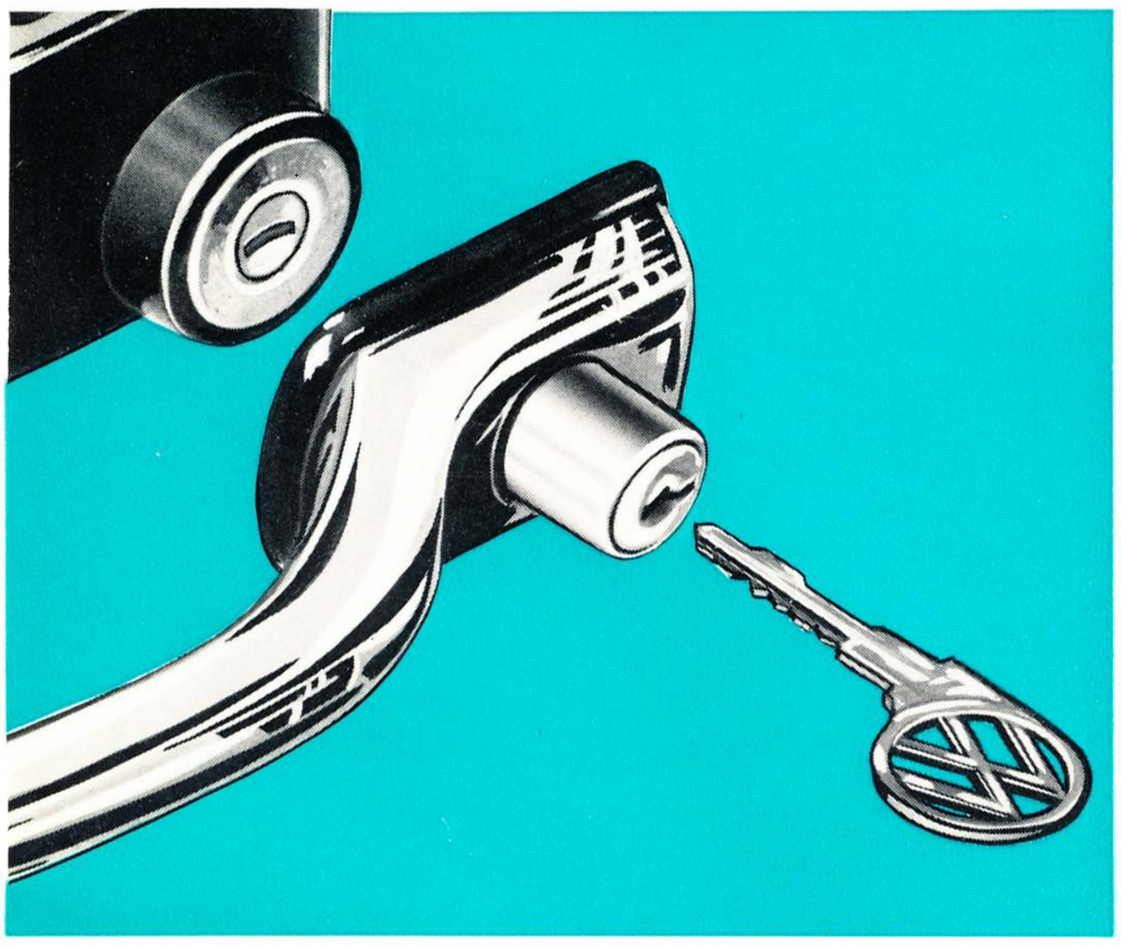
Thinner mouldings have a positive effect on the general lines of the body.



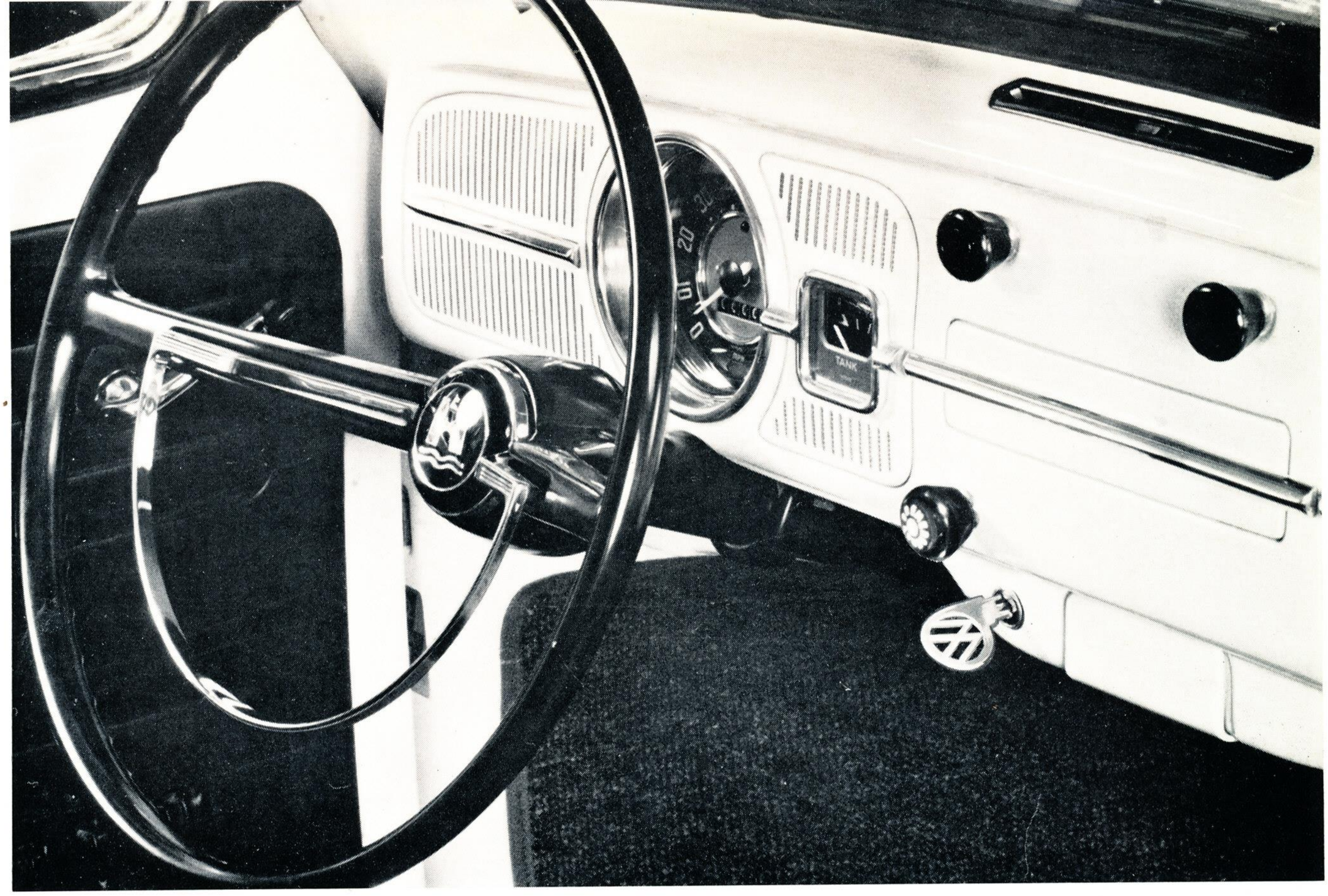
The new Type 1 door looks are similar to those on the Type 3. The locking pins of these rotary latch locks are provided with a shoulder. They offer additional safety in the event of the doors flying open in an accident.

The inner door handles on Types 1 and 3 are identical.

The door lock mechanism, however, is new. The lock is now operated by a knob situated on the window ledge. This offers additional safety against unintentional opening while driving. As in Type 3, the doors can be locked without the use of a key. The knob on the window ledge carries out the function of the locking lever previously used on Type 3.



Only one key is now required to operate the ignition lock and open or lock the door.



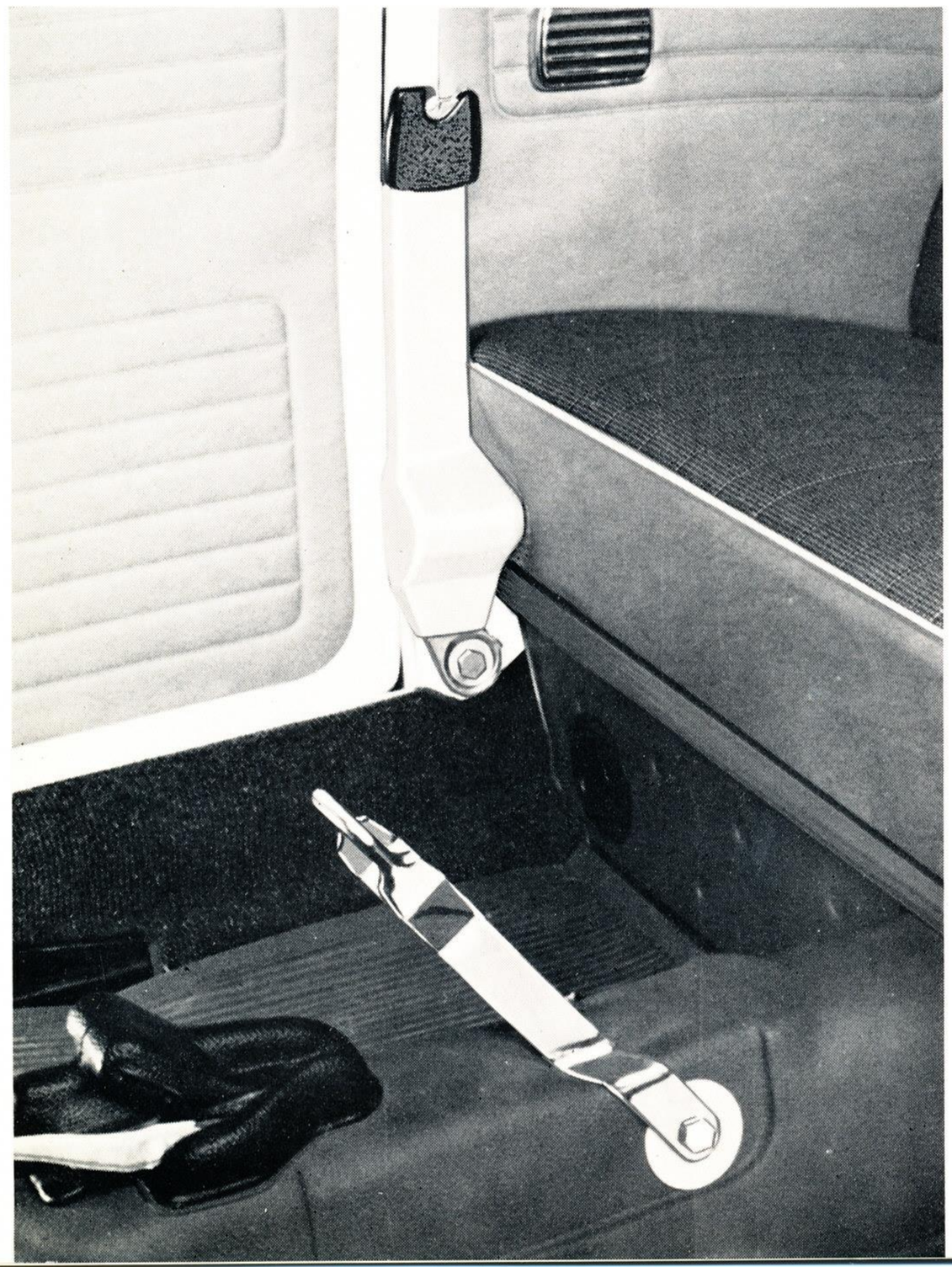
The Sedan and 4 seater Convertible now have an armrest on the driver's door. It is also used as a handle to close the door.

Window winders, windshield wiper and light switches now have new type knobs. For safety reasons they have generous dimensions and are manufactured from soft plastic material. The knobs are black to prevent reflections in the windshield.

For safety reasons, the knob on the ashtray has been replaced by a grip edge.

A further contribution to internal safety is the fact that lap safety belts are standard equipment in the VW 1500. And even still more practical, the belts are provided with an automatic reel fixture.

Additional mounting points on the body and frame make it possible to install lap safety belts for the rear seat passengers as well.

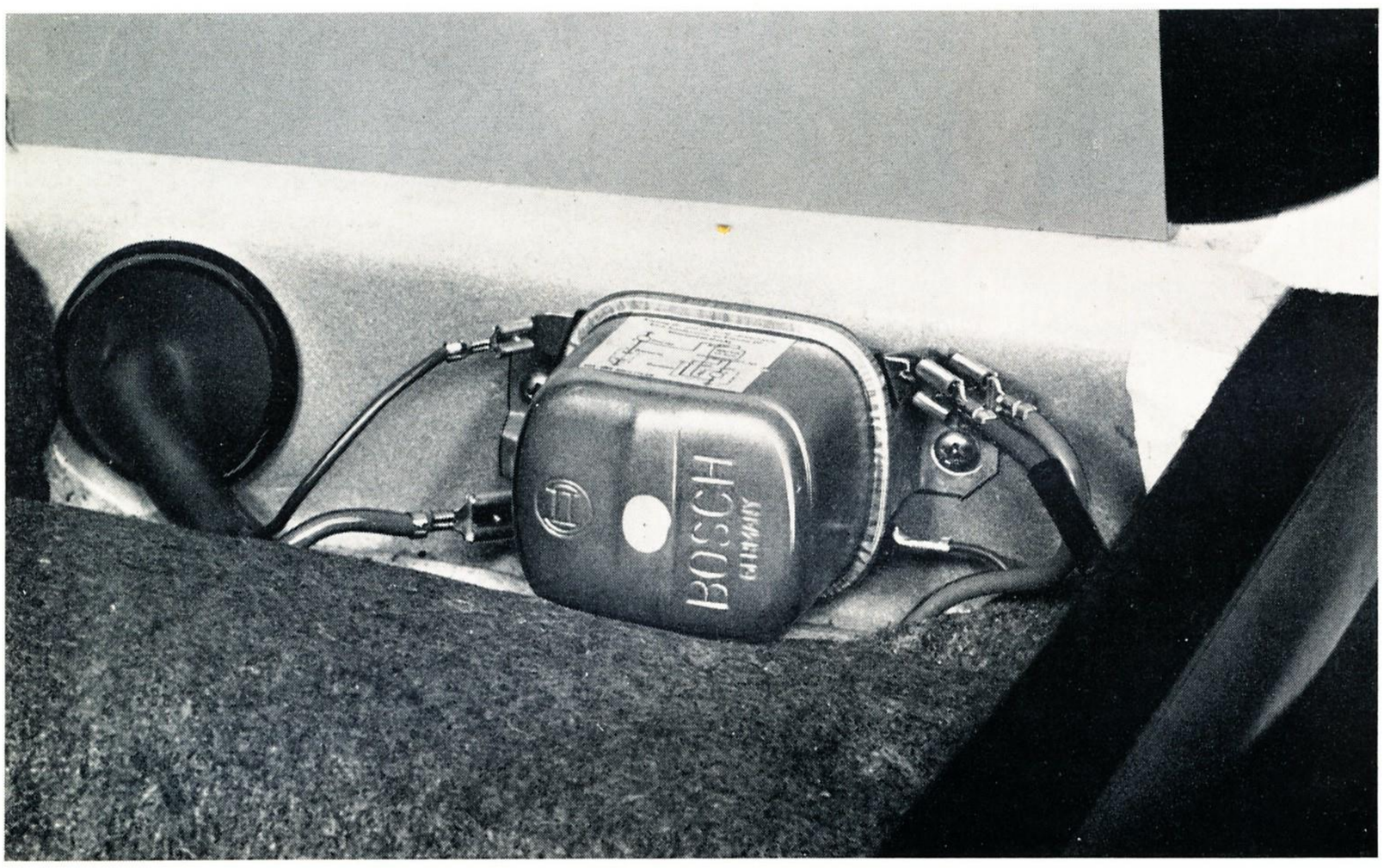


Colors and Interior Trim

The following new colors apply to the VW 1500: savanna beige, zenith blue, VW blue and lotus white. Sea sand, bahama blue, sea blue and pearl white have been discontinued.

New colors and patterns have also been introduced for the interior trim–four different trimmings in cloth: mosaic teak, water blue pattern, platinum pattern and gazelle pattern. Also four colors for the leatherette version: gazelle, black, Indian red and platinum. In the case of certain exterior colors there is a selection of two colors for the air-permeable leatherette.

The cloth pattern is more pronounced on the seating surface and front side of the backrests. In the case of cloth upholstery there is no longer a seam at the upper edge of the backrests. It now extends over the top of the backrest. With leatherette, the complete width of the seat and backrest is covered with air-permeable synthetic material.



Electrical System

The electrical system has been changed from 6 to 12 volts.

Fundamental Advantages of the 12 Volt System

Greater output in comparison to the outer dimensions of the generator. Relatively low voltage drop resulting from unavoidable resistance build-up at the cable connections.

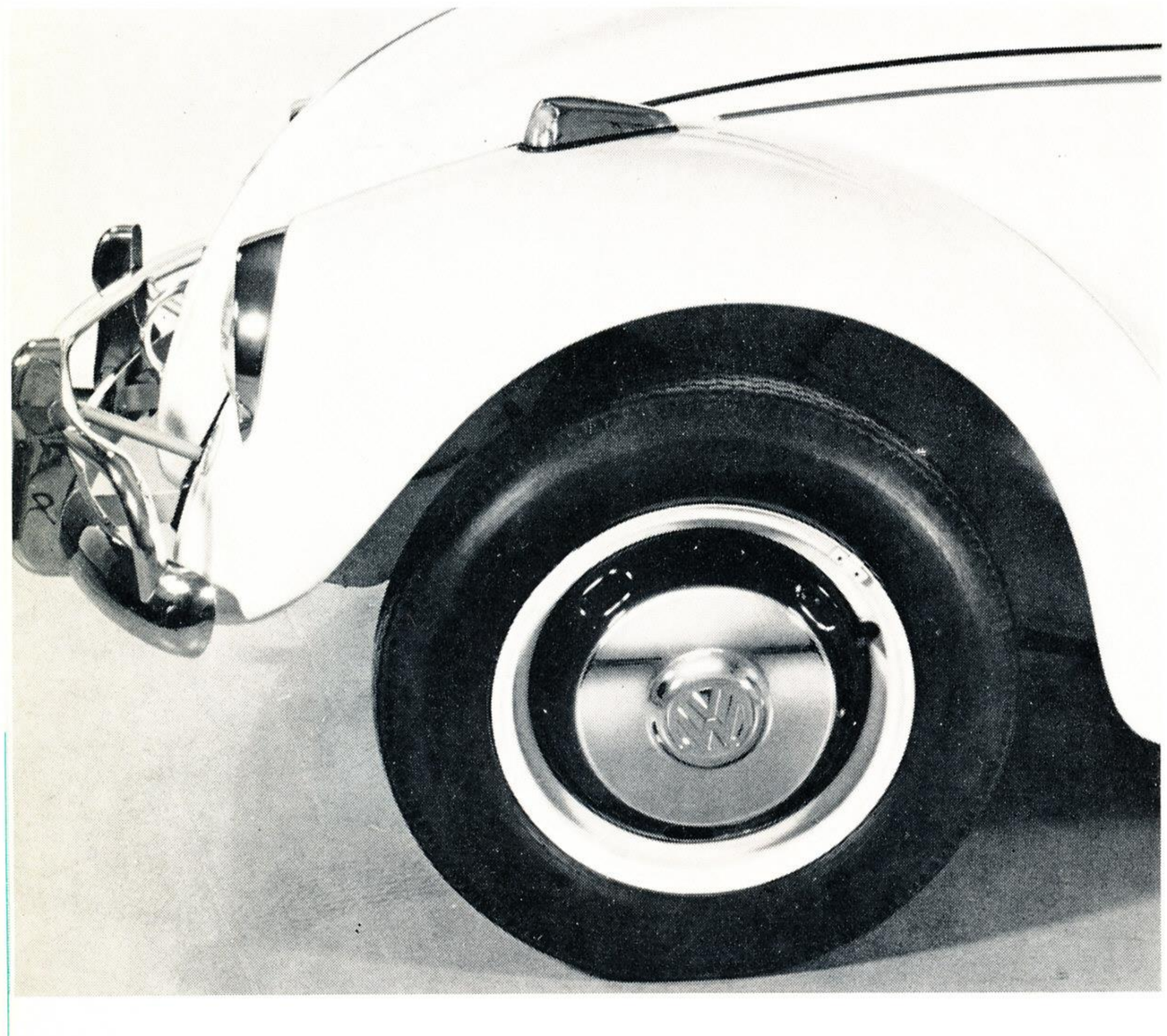
Particular Advantages of the 12 Volt System on Volkswagens

Additional heavy current consumers can be attached because Volkswagen continue to use the 6 volt wiring in the 12 volt system:

Even though it was definitely possible, the wiring cross sections were not reduced.

The new flat 36 amp battery has a shock-proof plastic casing.

All Type 1 models have the early cut-in type generator which was used in the Karmann Ghia 1300 and the Commercial. The regulator is located on the left side under the rear seat and not on the generator. This system–charging even during idling–ensures that the battery remains well charged even under unfavourable driving conditions. At a speed of 25 mph in 4th gear, the early cut-in type generator is giving its maximum current (30 amps).



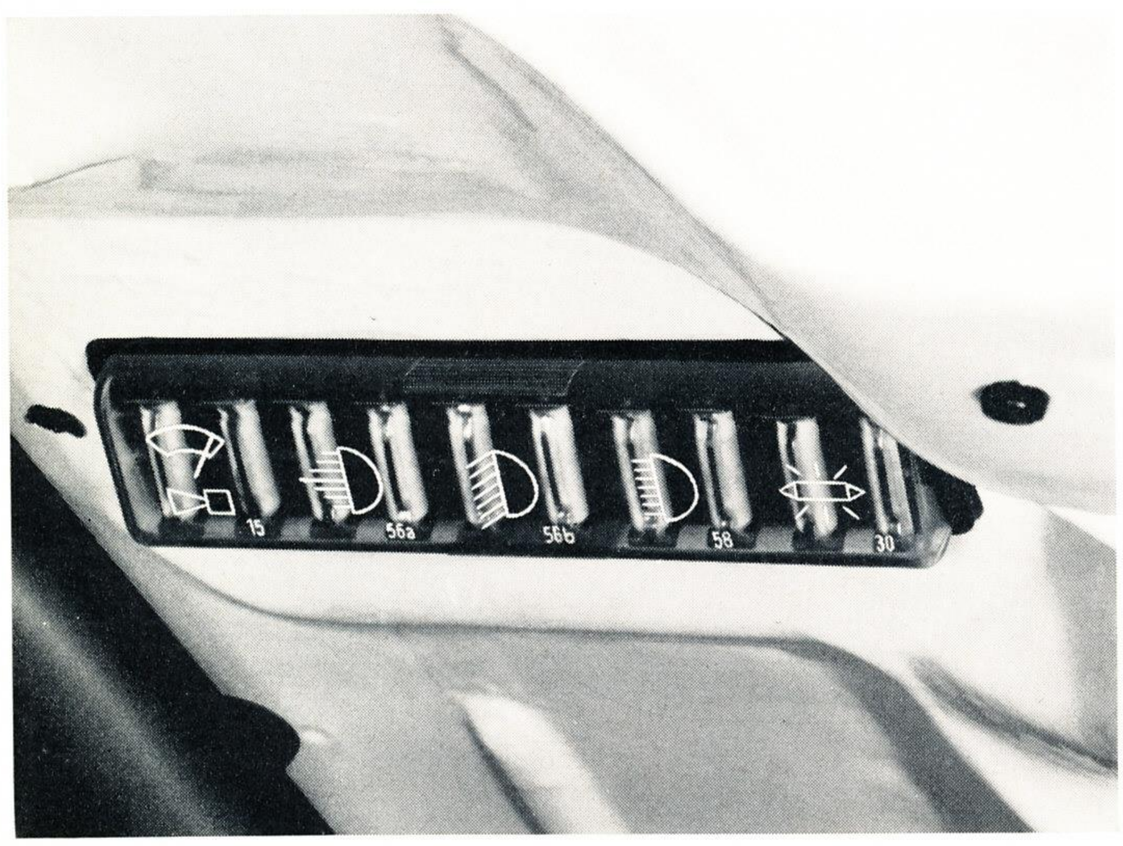
The arrangement of the sealed beam units in the fenders of the Sedan and 4 seater Convertible has brought their location into line with the official regulations in the United States and Canada.

The previous type angled lens in front of the headlights has been discontinued and the sealed beam units have been repositioned fully forward. By doing so it was possible to use the Type 3 sealed beam headlight and chrome trim ring in Type 1.

The parking lights are now incorporated in the front turn indicators. A twin-filament bulb serves as turn indicator and parking light.

All type 1 vehicles are equipped with chrome back-up lights on the rear bumper. The back-up lights are operated via a switch and selector shaft in the transmission and light up when reverse gear is engaged with the ignition on.

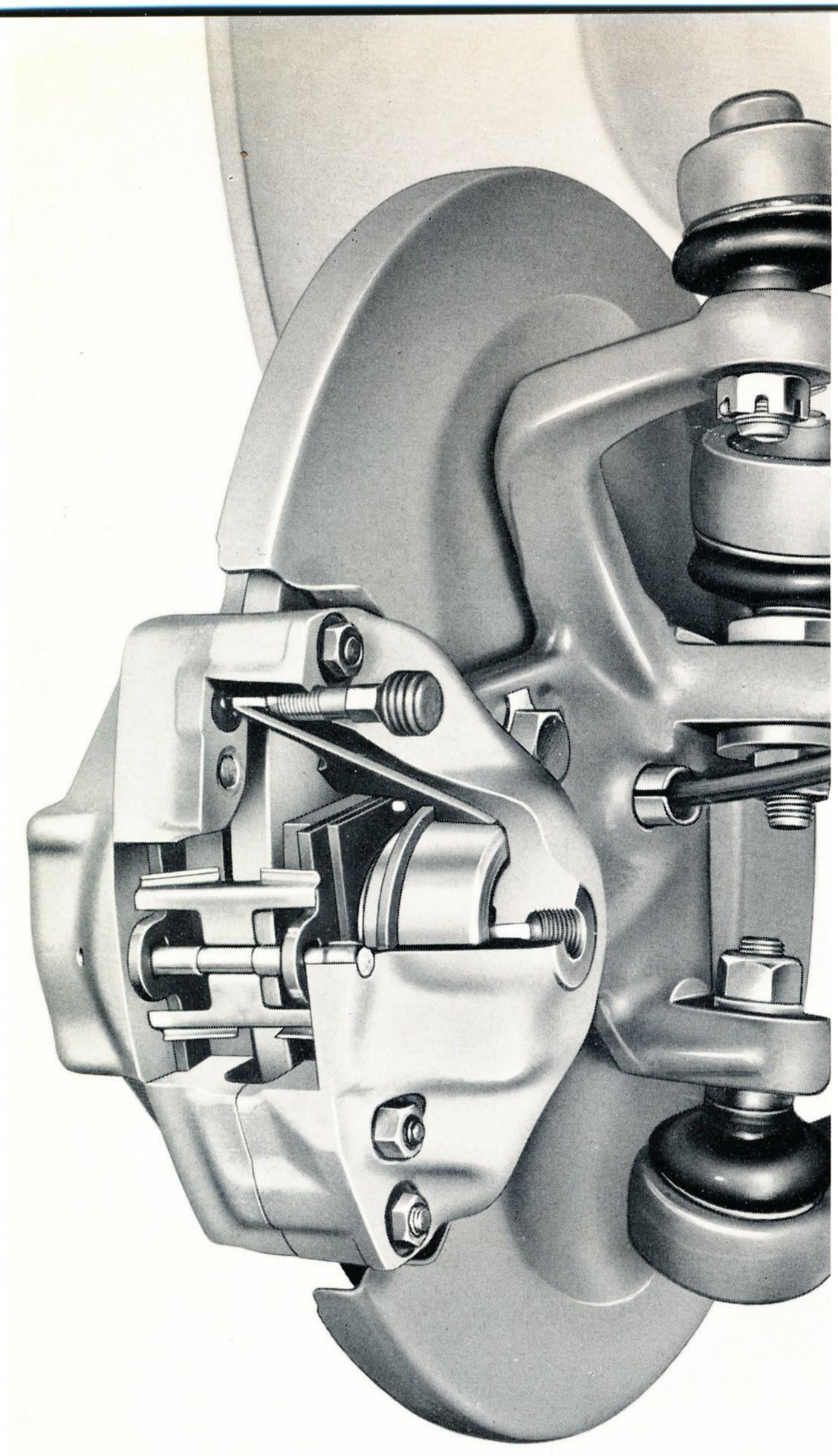
The push-pull wiper switch has been replaced by a rotary switch and two speed adjustment is now provided.



To facilitate starting, all models – with the exception of the Karmann Ghia two seaters which are already equipped with it – now have a new starter motor the pinion of which has been adapted to suit the modified flywheel.

There are now ten fuses in the fuse box as opposed to eight previously. The wiper motor is connected to one of the additional fuses and the second one can be used for electrical accessories. Symbols on the cover facilitate the identification of the fuses.

The wiring of Type 1 vehicles has been adapted to the alterations in the electrical system.



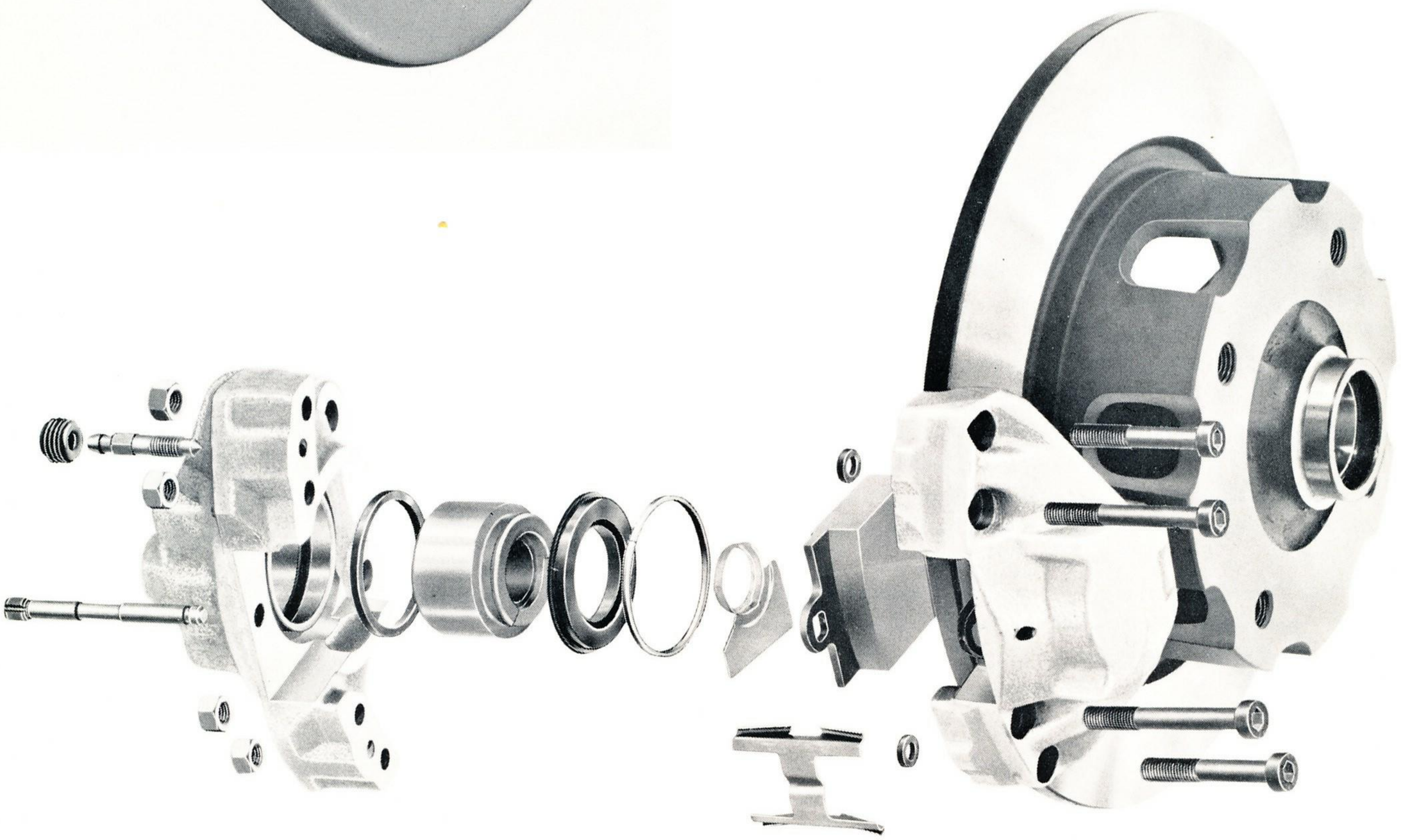
VW 1500 Karmann Ghia

Brakes

The Karmann Ghia models of the VW 1500 have disc brakes on the front axle. In design, they correspond in general to those on the Type 3. The advantages of disc brakes are well known: uniform braking with maximum efficiency even under extremely arduous conditions, little maintenance and easy to repair.

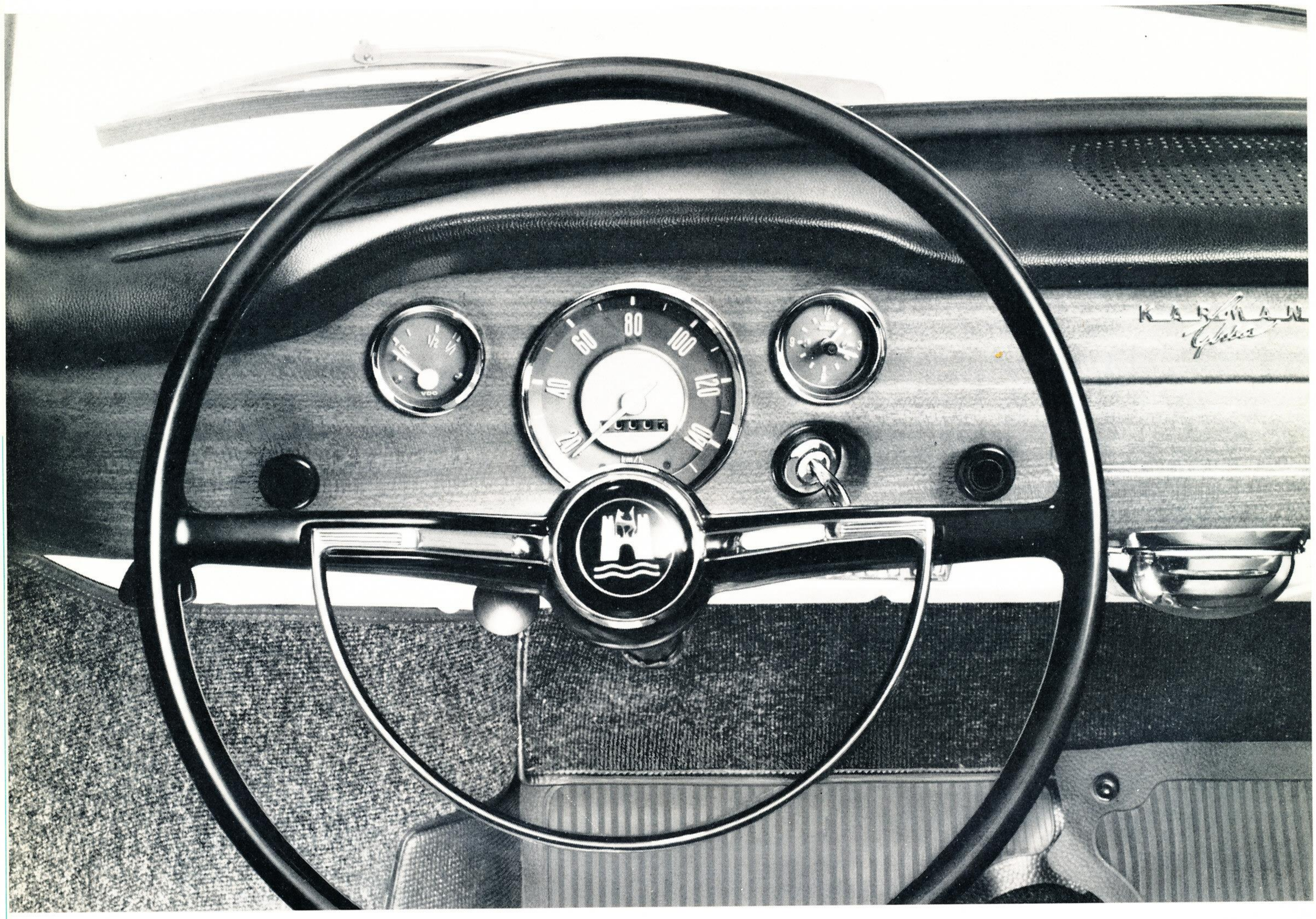
The caliper contains the brake cylinders, pistons and pads. The brake discs are of cast iron and there are eight apertures in the hub.

The hydraulic system consists of two brake circuits for the front and rear axle, and the tandem master cylinder. As opposed to Type 3, the automatic self-adjustment of the disc brakes is achieved by the dual function of the rubber seal in the cylinders only. An automatic self-adjusting and run-out compensating device is not provided.



As with Type 3, vehicles with disc brakes now have only four wheel bolts per wheel. The diameter of the wheel bolts has been increased from .47″ (12 mm) to .55″ (14 mm).

The drum brakes on the rear axle are the same as in the Karmann Ghia 1300 but the brake drum and wheel disc have been modified in connection with the 4 wheel bolt arrangement.

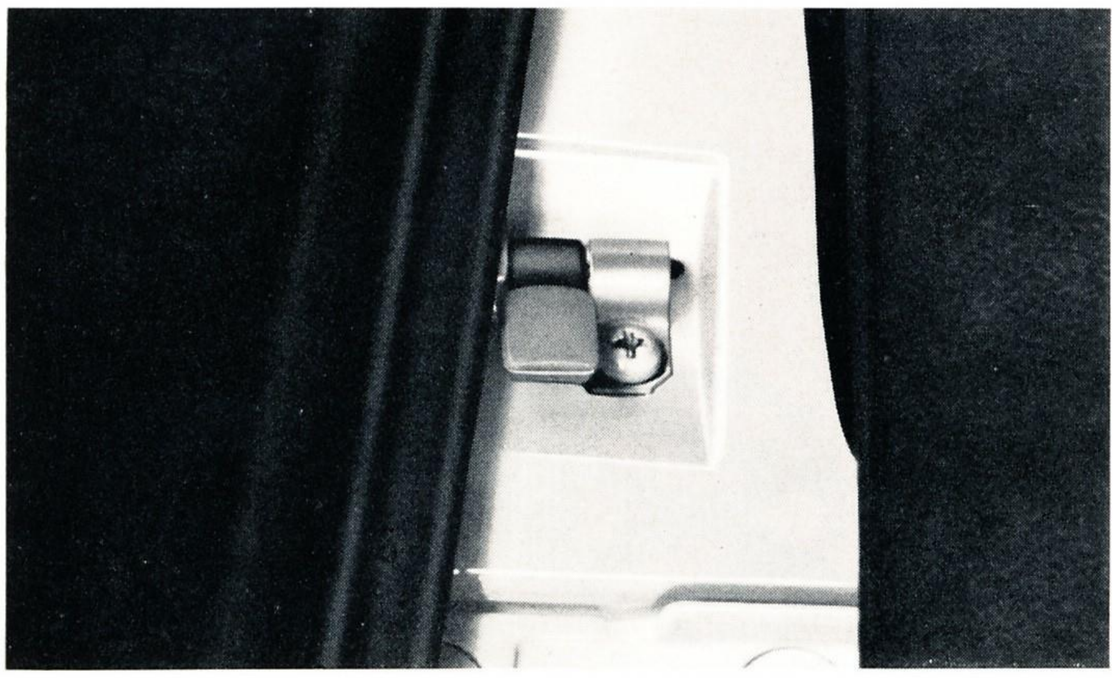


Body

The instrument panel of the two-seater models has been redesigned. The speedometer is now directly in front of the steering wheel. To the left is the fuel gauge which is now smaller, and to the right a clock of the same size. The ignition switch is now combined with the steering lock and is located on the instrument panel. It harmonizes with the other instruments and is easier to operate.

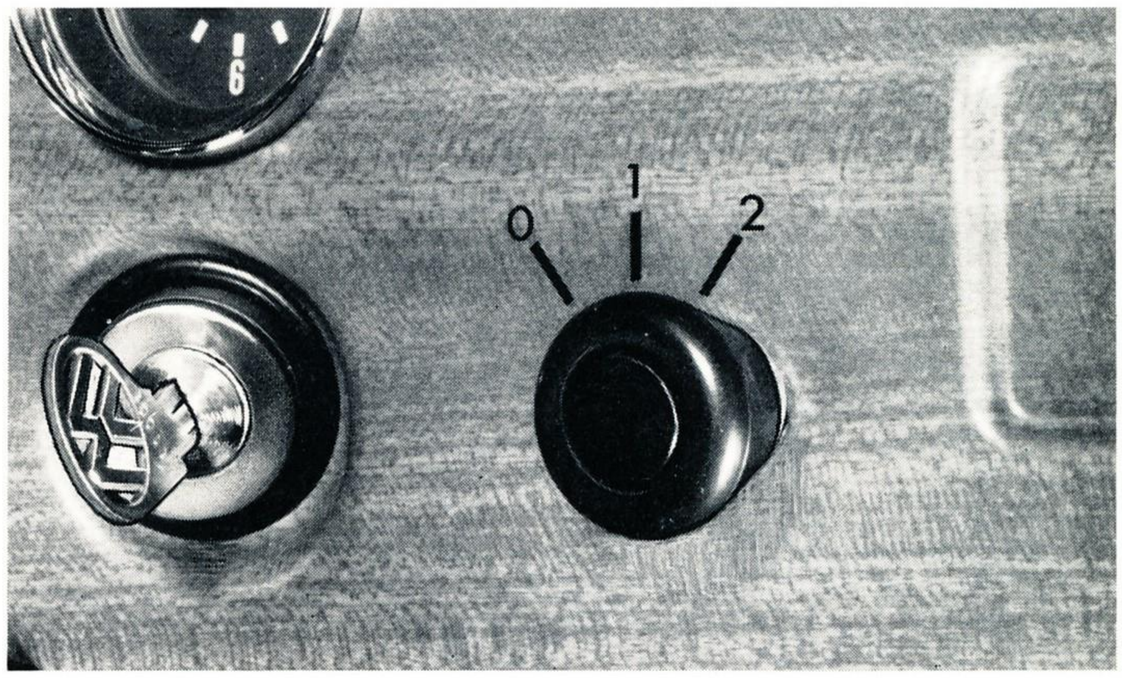
The individuality of the Karmann Ghia vehicles is borne out by the wood grain plastic covering (PVC) over the full instrument panel as well as the chromed lettering "Karmann Ghia".

The dark wood grain covering prevents reflection in the windshield and side windows during night driving. Furthermore the cover is scratch-proof, and easy to clean.



The backrests now have a sturdy lock mechanism. With the doors closed, hooks hold the backrests firmly. As in Type 3, the backrest lock is released by a remote control mechanism which is situated in the hinge pillar and operates via a Bowden cable.

Seats and backrests have deeper contours. This gives improved support and results in an improved feeling of safety when driving. The seating is, in general, more comfortable.



Electrical System

The push-pull operated wiper switch has been replaced by a rotary switch. Two speed adjustment is now provided.

The fuel gauge is now electrically operated.

Colors and Interior Trim

The exterior colors sea sand, black, manila yellow, sea blue and henna red have been replaced by savanna beige, vulcan grey, castilian yellow and neptune blue. Including lotus white, roulette green, cherry red and bermuda there is now a selection of eight colors.

With the coupé the following four roof colors can be combined: black, lotus white, texas brown and cobalt blue. The two-seater Convertible top colors are: black, texas brown and light sand 66.

Three different shades of cloth seat upholstery are available with these exterior paint finishes: dogtooth khaki 66, dogtooth platinum 66 and dogtooth blue 66; four shades with leatherette: black, indian red, light sand 66 and khaki brown.

Type 2

Engine

The engine of the Station Wagon and Truck is also fitted with the larger flywheel and the appropriate starter motor. Details of this alteration are given under Type 1.

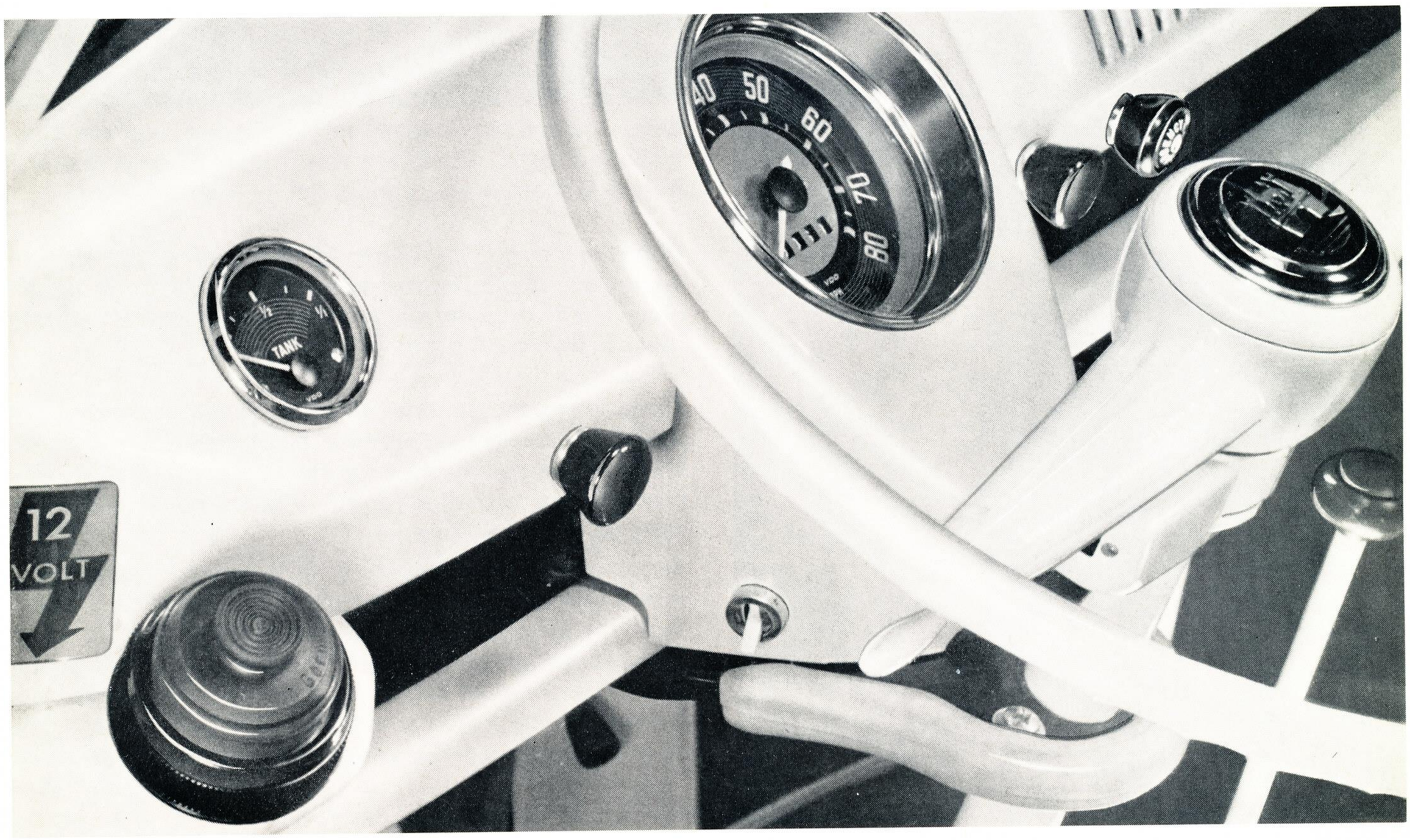
Transmission

The ratio of the 3rd gear was changed from 1.22:1 to 1.26:1. This will improve acceleration, pulling power and climbing ability.

Electrical System

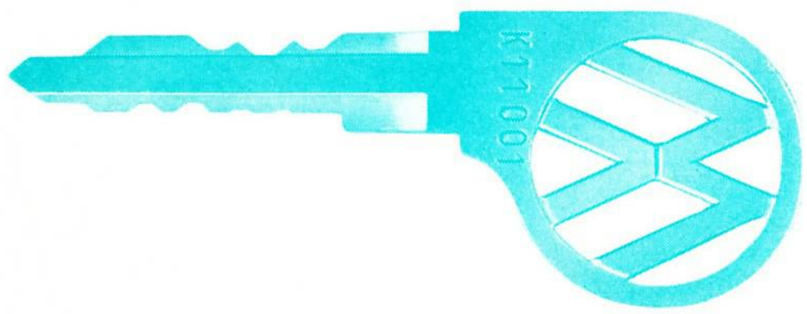
The electrical system has been changed from 6 to 12 Volt. A 45 amp. battery is fitted which, like the passenger car types, is attached to the floor plate by two clamps.

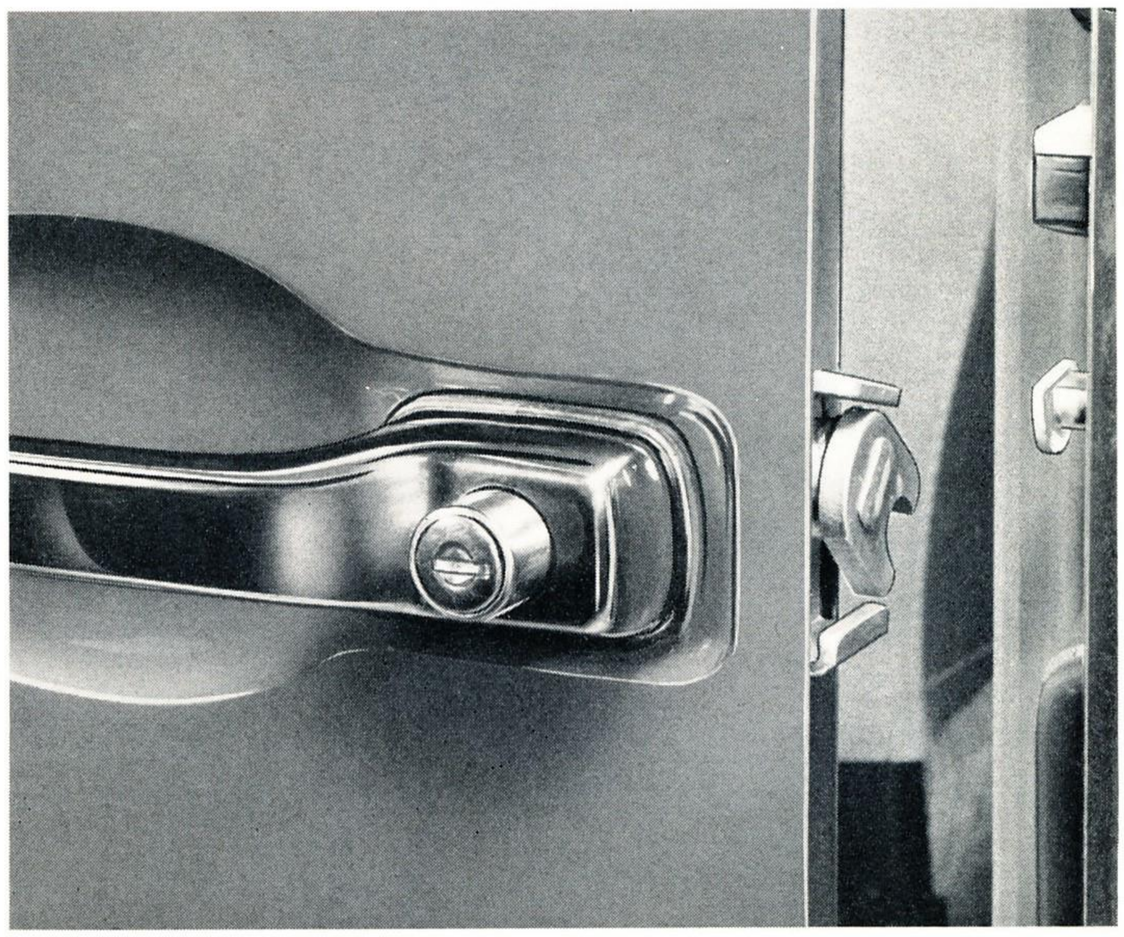
The switches for the lights and wipers have the same safety type knobs as in the passenger cars.



Body

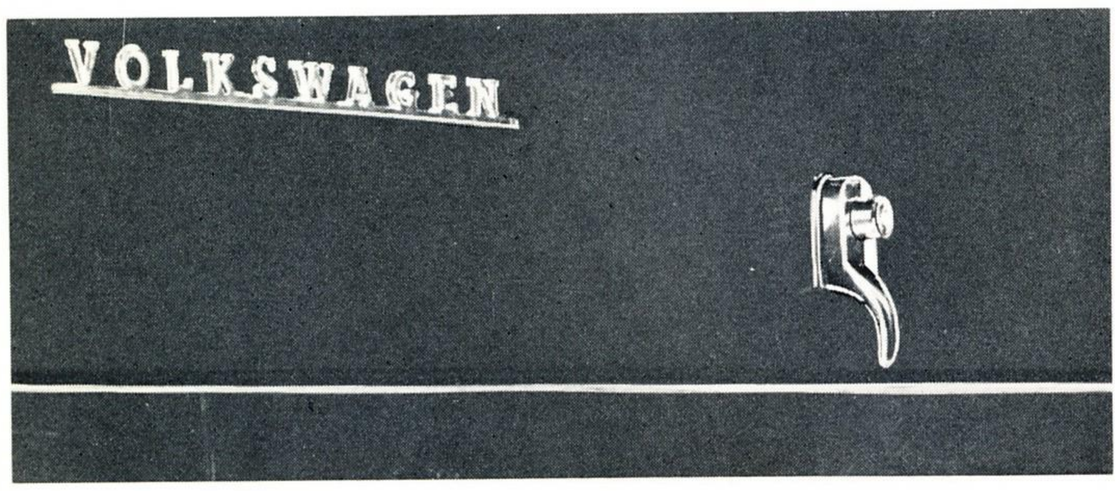
The one-key system has also been incorporated in Type 2 vehicles.





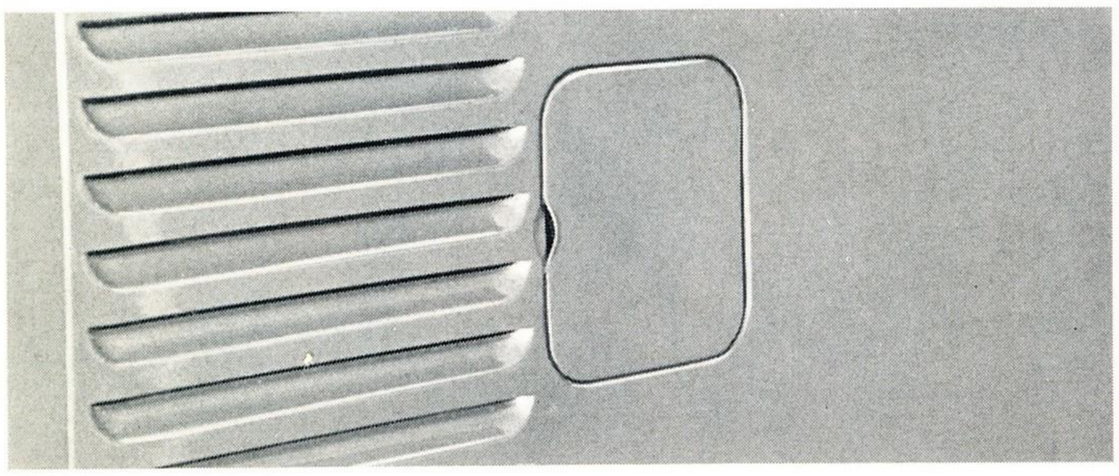
The rotary latch locks on the cab doors have been improved: an angled plate underneath the lock now engages behind a reinforced shoulder on the locking pin. These locks offer additional safety in the event of the doors flying open in an accident.

As a further contribution to internal safety, all Station Wagons and Trucks have lap belt mounting points for driver and front seat passenger as standard equipment. In addition to this, the passenger car models and the double cab Pick-Up have lap belt mounting points in the passenger compartment.



To facilitate vehicle operation

the press button lock on the rear panel now has a handle.



the lock in the tank filler neck flap has been replaced by a spring catch.

the locker lid in the Pickup has been provided with a rotary catch lock which is operated by the car key.

The previously square key is no longer required and has been discontinued.

The grease nipple on the upper guide roller of the sliding door has been discontinued. The bearing is now maintenance-free.

Type 3 VW 1600

Engine

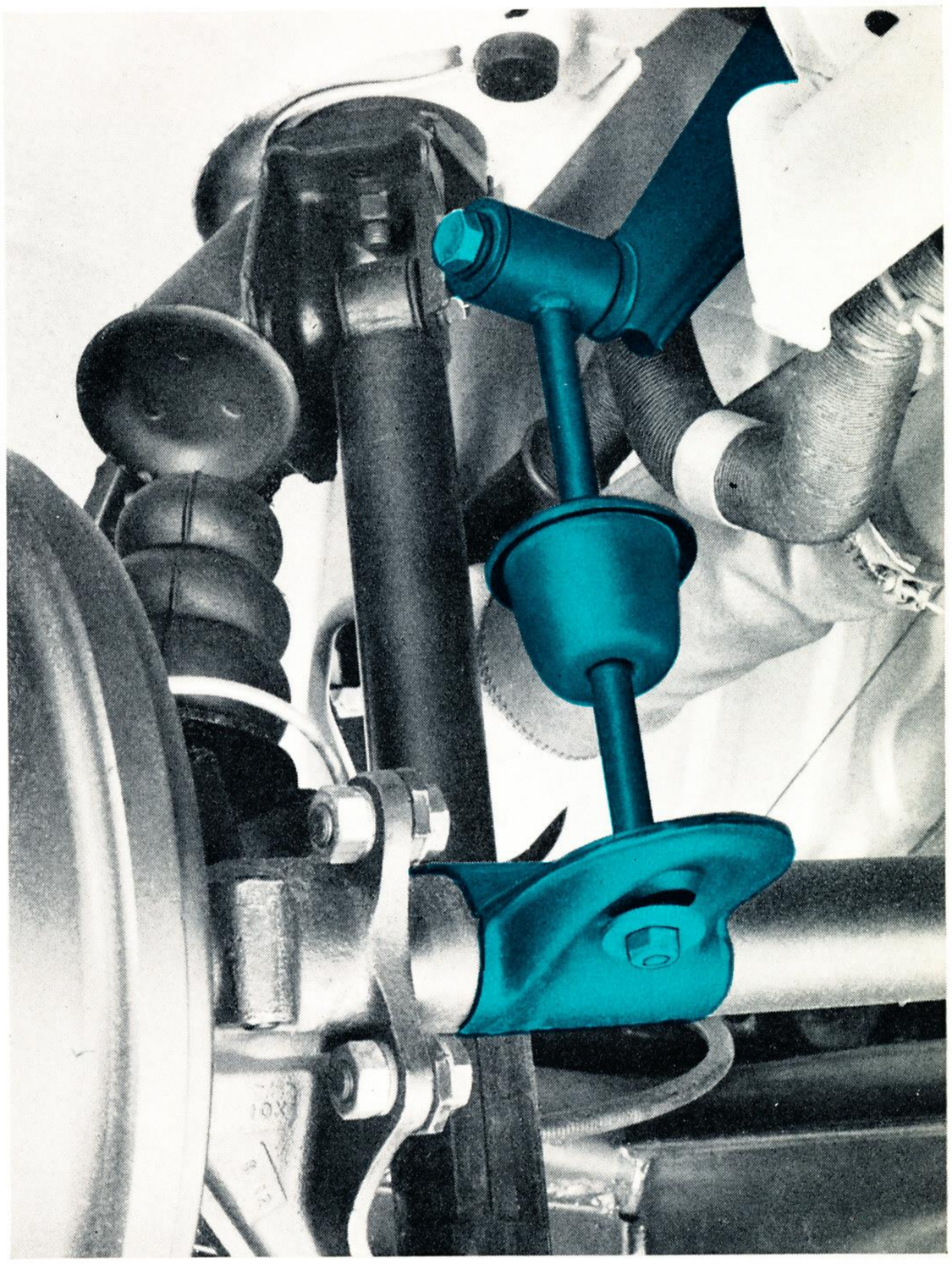
The 96.66 cu.in (1.6 liter) 65 bhp twin carburetor engine has been further developed in the same manner as the Type 1 and 2 engines. It are also being fitted with the new flywheel (130 teeth) and the appropriate starter motor.

The ratio between crankshaft pulley and generator pulley has been changed from 2.5:1 to 2.3:1. This was achieved by reducing the diameter of the crankshaft pulley and by slightly increasing the size of the generator pulley. This alteration was made possible by the use of the early cut-in type generator and has a favourable effect on the running noise of the engine.

Transmission and Rear Axle

The ratio of the 3rd gear on the Type 3 is also 1.26:1. In this way uniformity of transmissions and final drive has been maintained in the VW passenger cars. The corresponding gear trains are still replaceable.

As in the case of the Squareback Sedan (1,025 lbs/ 465 kg payload), all Type 3 vehicles are now equipped with an equalizer spring. The advantages are listed in detail under Type 1.



Brakes

The combined disc/drum brakes of Type 3 have been improved by the use of a tandem master brake cylinder which controls two separate braking circuits. The dual circuit system offers increased safety should the hydraulic pressure in one of the two circuits fail for any reason. The remaining brake circuit will permit the vehicle to be brought to a standstill.

Body

The one key system also applies to Type 3 vehicles.

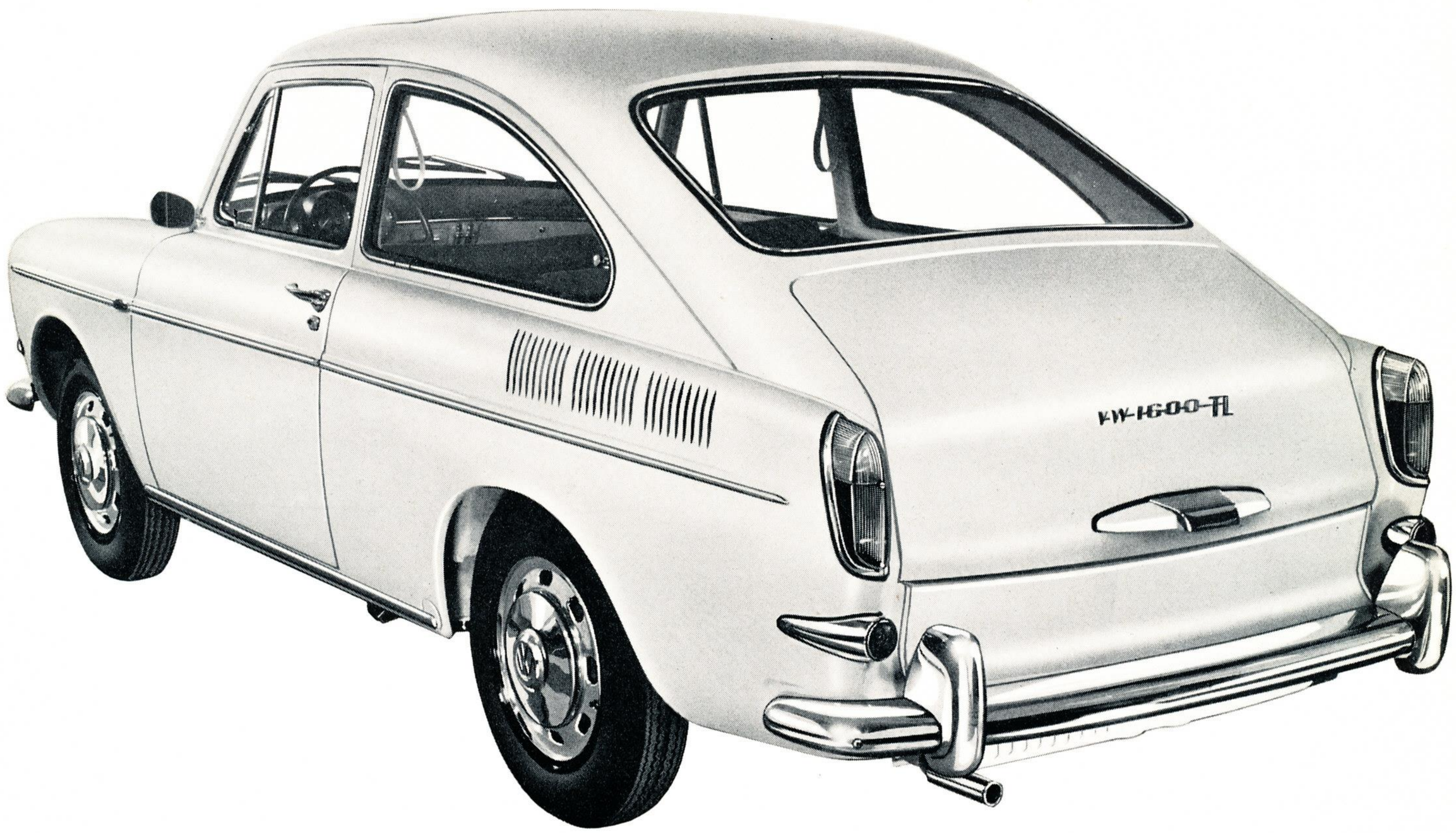
The door lock mechanism is identical with that on Type 1 and the locking knobs are located in the same position. The details are as given under Type 1. Consequently, there is now uniformity of locking systems for all VW passenger cars. Keyless locking is also possible.

Door locks fitted with reinforced locking pins ensure additional safety in accidents.

Window winders, windshield wiper and light switches now have the same safety knobs as are used on all the Volkswagen models.

For safety reasons, the protruding handle on the ashtray has been omitted. A ledge has been provided under the ashtray to facilitate its operation.

Since the Type 1 heater controls proved practical, they have now been incorporated in the Type 3.



Type 3 models also have narrower trim mouldings.

Currently fitted lap safety belts with automatic reel fixture for driver and front passenger give additional safety. Mounting points on the body and frame make it possible to service install lap belts for the rear seat passengers as well.

Interior Trim

Only slight alterations have been made to the trim. The door trim panel have been provided with narrow dark shaded plastic strips. The previous moulding has been discontinued.

With leatherette trim, the seats and backrests are covered completely with air-permeable synthetic material.

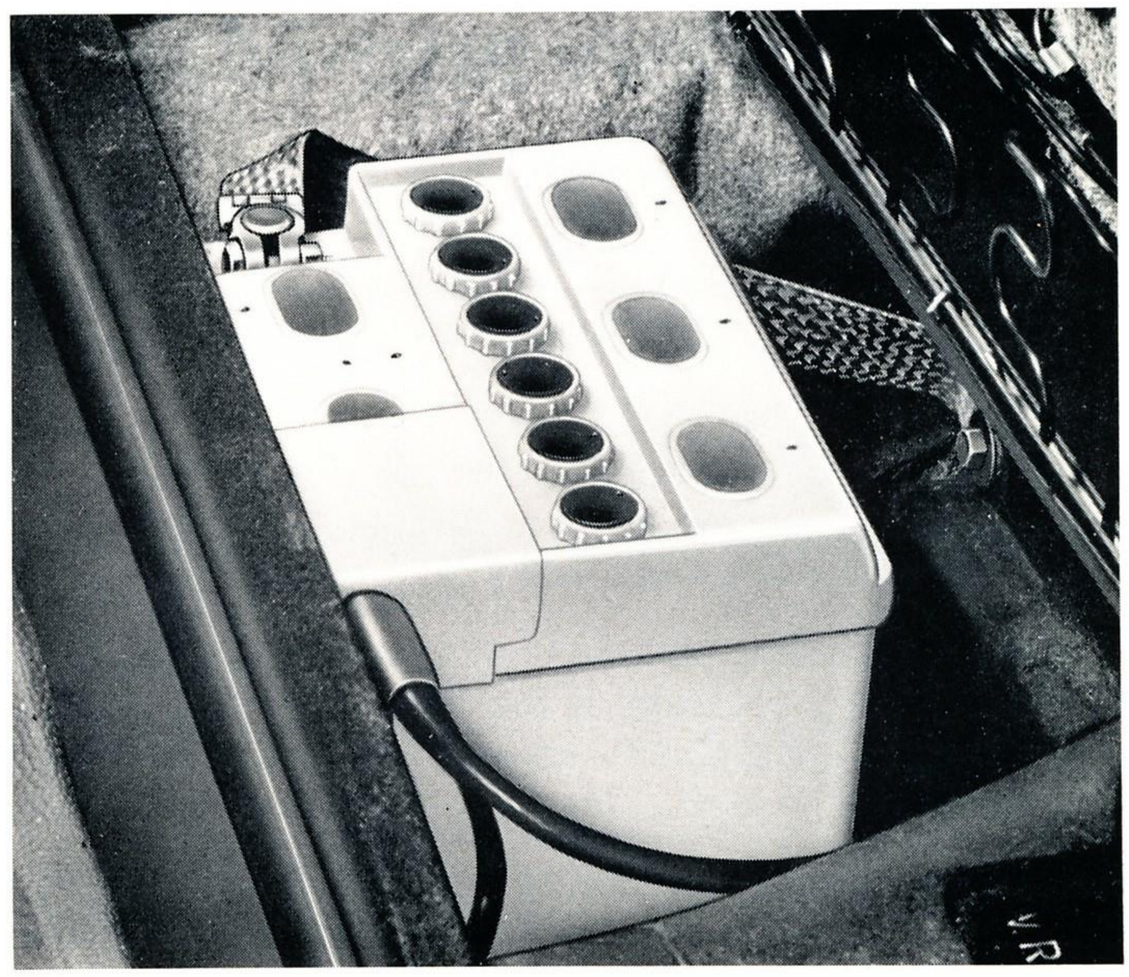
Electrical System

The Type 3 now has a 12 volt system.

The 36 amp flat battery has a shock-proof plastic casing. Clamps are also used to attach it to the floor plate. All VW 1600 models have a 12 point fuse box. The wiper motor is connected to one of the additional fuses and the second one can be used for electrical accessories.

The wipers are operated by a rotary switch and two speed adjustment is a standard fitting on all VW 1600 vehicles.

Type 3 vehicles also have two chrome back up lights. They come on automatically when reverse gear is engaged. Additional details are given under Type 1.



Lubrication and Maintenance Service

As from August 1966 the Service Booklet is being discontinued and is being replaced by a Maintenance Card. On handing over the vehicle to the customer, the dealer in question is obliged to stick this card into the Instruction and Maintenance Manual (grummed area provided) which has also been redesigned. Since the size of the new Maintenance Card and Instruction and Maintenance Manual is identical, the pocket in the sun vizor of Type 3 vehicles has been omitted.

After 30,000 miles, a continuation card is available for all Volkswagens with a 6,000 mile servicing interval i.e., vehicles manufactured as from August 1 st, 1965. This card can also be stuck into the Instruction and Maintenance Manual. Service Booklet 2 will still be printed for vehicles with a 3,000 mile servicing interval.

The lubrication and maintenance specifications as from August 1966 have been adapted to the technical standard of the vehicles. The text of the operations has been worded in such a manner that the extent of the individual operations is quite clear. The new lubrication and maintenance charts apply to all vehicles as from August 1965 i.e., Volkswagens with a servicing interval of 6,000 miles.

Details of the new lubrication and maintenance charts and explanations about the use of the new Maintenance Card will be given in special circulars issued by the Service Department.

Type 1 and 2

A. The free maintenance service at 300 miles – W 1 – consists of the following:

Oil Change

1. Engine: Change oil, clean oil strainer. Check for leaks.
2. Transmission: Change oil, clean magnetic drain plugs. Check for leaks.
3. Windshield washer: Fill.

Station Wagons and Trucks

4. Reduction gears: Change oil.
5. Front end: Lubricate.

Maintenance Service

The Mechanic:

1. Check security of rear axle shaft nuts, tighten if necessary.
2. Check V belt, tighten or replace if necessary.
3. Clean fuel pump filter.
4. Check contact points, lubricate distributor, adjust breaker gap and ignition timing.
5. Adjust valve clearance and fit new cylinder head cover gaskets.
6. Adjust clutch pedal free-play.
7. Check dust seals on ball joints and tie rod ends. Check security of tie rods, tighten if necessary.
8. Check front wheel camber and toe-in.
9. Correct tire pressures. Check tightness of wheel bolts, tighten if necessary.
10. Check brake system for damage and leaks, check brake fluid level, add if necessary. Adjust foot and hand brakes.
11. Check operation of electrical system, aim headlights.

The Service Adviser (Quality Control)

During roadtest:

Check efficiency of braking, steering, heating and ventilation systems. Check overall performance.

After roadtest:

Check cylinder head covers for leaks. Check and adjust idling.

B. An oil change service every 3,000 miles – W 55 – consists of:

1. Engine: Change oil, clean oil strainer. Check for leaks.
2. Door and hood locks, door hinges: Lubricate.
3. Carburetor linkage: Lubricate.
4. Battery: Check voltage and acid level, add distilled water if necessary. Clean and grease terminals.
5. Windshield washer: Fill.

Station Wagons and Trucks

6. Sliding door mounting points: Lubricate.
7. Front end: Lubricate.
8. Steering gear: Check for leaks.

C. A lubrication and maintenance service every 6,000 miles – W 10 – consists of:

Lubrication Service

1. Engine: Change oil, clean oil strainer. Check for leaks.
2. Transmission: Check oil level, add if necessary. Check for leaks.
3. Front end: Lubricate.
4. Door and hood locks, door hinges: Lubricate.
5. Carburetor linkage: Lubricate.
6. Air cleaner: Check, clean lower part if necessary and put in fresh oil.
7. Battery: Check voltage and acid level, add distilled water if necessary. Clean and grease terminals.
8. Windshield washer: Fill.

Station Wagons and Trucks

9. Sliding door mounting points: Lubricate.
10. Steering gear: Check for leaks.

Maintenance Service

The Mechanic:

1. Check V belt, tighten or replace if necessary.
2. Clean fuel pump filter.
3. Check contact points, replace if necessary: lubricate distributor, adjust breaker gap and ignition timing.

4. Adjust valve clearance and fit new cylinder head cover gaskets.
5. Clean spark plugs, check and adjust plug gap. Check compression.
6. Check control flap for careburetor pre-heating.
7. Check rubber valve for crankcase ventilation, replace if necessary. Check exhaust system for damage.
8. Adjust clutch pedal free-play.
9. Check dust seals on ball joints and tie rod ends. Check security of tie rods, tighten if necessary.
10. Check front wheel camber and toe-in.
11. Steering gear: Check and adjust play between roller or peg and worm.
12. Check tires for wear and damage, correct tire pressures.
13. Check brake system for damage and leaks, check brake fluid level, add if necessary. Adjust foot and hand brakes.
14. Check thickness of brake linings.
15. Check operation of electrical system, aim headlights.

Station Wagons and Trucks

16. Adjust torsion arm link pins.

The Service Adviser (Quality Control)

During roadtest:
Check efficiency of braking, steering, heating and ventilation systems. Check overall performance.

After roadtest:
Check cylinder head covers for leaks. Check and adjust idling.

D. In addition, every 30,000 miles, the transmission oil is changed – W 10 – and the front wheel bearings repacked – W 50

Type 3

A. The free maintenance service at 300 miles – W 1 – consists of the following:

Oil change

1. Engine: Change oil, clean oil strainer. Check for leaks.
2. Transmission: Change oil, clean magnetic drain plugs. Check for leaks.
3. Windshield washer: Fill.

Maintenance Service

The Mechanic:

1. Check security of rear axle shaft nuts, tighten if necessary.
2. Check V belt, tighten or replace if necessary.
3. Clean fuel pump filter.
4. Check contact points, lubricate distributor, adjust breaker gap and ignition timing.
5. Adjust valve clearance and fit new cylinder head cover gaskets.
6. Check water drain flaps and air intake housing bellows.
7. Adjust clutch pedal free-play.
8. Check dust seals on ball joints and tie rod ends. Check security of tie rods, tighten if necessary.
9. Check front wheel camber and toe-in.
10. Correct tire pressures. Check tightness of wheel bolts, tighten if necessary.
11. Check brake system for damage and leaks, check brake fluid level, add if necessary. Adjust foot and hand brakes.
12. Check operation of electrical system, aim headlights.

The Service Adviser (Quality Control)

During roadtest:
Check efficiency of braking, steering, heating and ventilation systems. Check overall performance.

After roadtest:
Check cylinder head covers for leaks. Check and adjust idling.

B. An oil change service every 3,000 miles – W 55 – consists of:

1. Engine: Change oil, clean oil strainer. Check for leaks.
2. Door and hood locks, door hinges: Lubricate.
3. Carburetor linkage: Lubricate.
4. Battery: Check voltage and acid level, add distilled water if necessary. Clean and grease terminals.
5. Windshield washer: Fill.

C. A lubrication and maintenance service every 6,000 miles – W 10 – consists of:

Lubrication Service

1. Engine: Change oil, clean oil strainer. Check for leaks.
2. Transmission: Check oil level, add if necessary. Check for leaks.
3. Front end: Lubricate.
4. Door and hood locks, door hinges: Lubricate.
5. Carburetor linkage: Lubricate.
6. Air cleaner: Check, clean lower part if necessary and put in fresh oil.
7. Battery: Check voltage and acid level, add distilled water if necessary. Clean and grease terminals.
8. Windshield washer: Fill.

Maintenance Service

The Mechanic:

1. Check V belt, tighten or replace if necessary.
2. Clean fuel pump filter.
3. Check contact points, replace if necessary: lubricate distributor, adjust breaker gap and ignition timing.
4. Adjust valve clearance and fit new cylinder head cover gaskets.
5. Clean spark plugs, check and adjust plug gap. Check compression.
6. Check control flap for carburetor pre-heating.
7. Replace filter of oil breather.
8. Check rubber valve for crankcase ventilation, replace if necessary. Check exhaust system for damage.
9. Check water drain flaps and air intake housing bellows.
10. Adjust clutch pedal free-play.
11. Check dust seals on ball joints and tie rod ends. Check security of tie rods, tighten if necessary.
12. Check end play of upper torsion arms.
13. Check front wheel camber and toe-in.
14. Steering gear: Check and adjust play between roller and worm.
15. Check tires for wear and damage, correct tire pressures.
16. Check brake system for damage and leaks, check brake fluid level, add if necessary. Adjust foot and hand brakes.
17. Check thickness of brake linings.
18. Check operation of electrical system, aim headlights.

The Service Adviser (Quality Control)

During roadtest:
Check efficiency of braking, steering, heating and ventilation systems. Check overall performance.

After roadtest:
Check cylinder head covers for leaks. Check and adjust idling.

D. In addition, every 30,000 miles, the transmission oil is changed – W 10 – and the front wheel bearings repacked – W 50

Technical Data - Alterations from August 1966

Type 1

Engine 91.10 cu.in (1,5 liter)

Bore and stroke ins (mm)	3.27 x 2.72 (83 x 69)
Capacity	91.10 (1493 cc)
Compression ratio	7.5 : 1
Maximum output SAE	53 at 4200 rpm
Maximum torque SAE ft.lbs (mkg)	78 (10.8) at 2600 rpm
Weight lbs (kg)	251 (114)
Cooling	
ratio	1.9 : 1
capacity cu.ft (liters)	20.3 (575) at 4000 rpm
Clutch	
design	Spring type (200 mm/7.8″ dia., 9 springs)
lining area (sq.cm)	56.3 sq.in (363)
Air cleaner	Oil bath, both intake pipes with warm air connection
Fuel gauge (model 14 only)	Electrical

Transmission and Rear Axle

Transmission	
3rd gear ratio	1.26 : 1
final drive ratio (VW 1500 only)	4.125 : 1

Chassis

Suspension, rear	Torsion bars with equalizer spring
Rear torsion bar setting	20° 30′ + 50′
Brakes (model 14 only)	
foot brake	Hydraulic disc/drum brakes
lining area of disc brakes (sq.cm)	11.2 sq.in (72)
effective lining area of drum brakes	40.3 sq.in (260 sq.cm)

Electrical System

Voltage	12
Battery	36 A/h
Ratio crankshaft to generator (VW 1500 only)	1.9 : 1
Bosch generator, early cut-in-type, 30 amp, 12 V	131 903 021
Regulator, located under rear seat (Sedan and Convertible)	131 903 801
Cut-in speed, generator rpm	1000—1050
Cut-in speed, engine rpm	lower than 750 (idling speed)
Starter motor (except model 14)	111 911 021 G

Weight in lbs

	Sedan	VW 1500 Convertible	VW 1500 Karmann Ghia
Unladen	1764	1852	1852
Permissible total	2601	2646	2579
Payload	838	794	728

Performance

	VW 1500 Sedan VW 1500 Convertible	VW 1500 Karmann Ghia
Maximum speed kph (mph)	78	82
at rpm	3950	4150

Climbing ability	VW 1500 Sedan	VW 1500 Convertible VW 1500 Karmann Ghia
1st gear	46 %	45 %
2nd gear	24 %	23 %
3rd gear	13 %	13 %
4th gear	8 %	8 %
Acceleration		
from 0 to 50 mph seconds approx.	13	
from 0 to 60 mph seconds approx.	23	

Fuel Consumption

	VW 1500 Sedan VW 1500 Convertible	VW 1500 Karmann Ghia
Fuel consumption	27 mpg	28 mpg

Type 2

Transmission

3rd gear ratio	1.26 : 1

Electrical System

Voltage	12
Battery	45 amp
Bosch generator (early cut-in type, max. 360 W, 12 V)	211 903 031
Bosch regulator, located on side of engine compartment	211 903 803
Cut-in speed rpm generator	1450
Cut-in speed rpm engine	lower than 750 (idling speed)
Bosch starter motor, 12 V, 0.7 hp	211 911 023

Type 3

Transmission

3rd gear ratio	1.26 : 1

Chassis

Suspension	
rear	Torsion bars with equalizer spring
rear torsion bar setting (unloaded)	VW 1600 Fastback Sedan 22° 30′ + 50′ VW Squareback Sedan 826 lbs VW Squareback Sedan 1025 lbs 21° 30′ + 50′

Electrical System

Ratio crankshaft to generator	2.3 : 1
Voltage	12
Battery	36 amp
Bosch generator, early cut-in type, (max. 360 W, 12 V)	311 903 031 E
Bosch regulator, located under rear seat	211 903 803
Cut-in speed, generator rpm	1450
Cut-in speed, engine rpm	lower than 750 (idling speed)
Bosch starter motor	

The VW Program 1967
Description and Technical Data

August 1966 Edition

CLARIFICATION OF "THE VW PROGRAM 1967 - DESCRIPTION AND TECHNICAL DATA"

The following information will further clarify and up-date the information contained in the attached brochure.

Page 2: The output and torque graphs are shown in DIN ratings. The U. S. horsepower, torque and output ratings are as follows:

SAE Horsepower	- 53 @ 4200 rpm	Bore x Stroke, ins.	- 3.27 x 2.72
SAE Torque, ft.-lbs.	- 78 @ 2600 rpm	Compression Ratio	- 7.5:1
Displacement, Cu. Ins. (cc)	- 91.10 (1493)	Top Speed	- 78

Displacement has been increased by 16%, torque by 14%, horsepower only 6% and top speed nominal. Of prime importance, therefore, is the torque increase. Torque is a twisting force while horsepower is the time rate of doing work. Improved torque, therefore, results in better acceleration, especially in lower gears and city traffic, and better hill climbing and passing. Less gear shifting should also result and the engine will definitely be more flexible.

Page 5: Squareback Sedans, Fastback Sedans and Type 1 vehicles will all have the softer rear torque bars and the auxiliary rear spring.

Page 6: The picture of the rear view of the Type 1 Sedan does not show the bumper over riders nor the back-up lights which are now standard equipment for the United States. Note: The speedometer shown is in Km instead of mph.

The Type 1 Sedan's track has been widened by 2.3 inches to 53.5 inches. The Karmann Ghia models have been widened 2 inches to 53.1 inches.

Page 11: Color Indian Red should read India Red. Leatherette will only be supplied in one color depending on the exterior car color.

Page 14: The Ghia for the U. S. will not be equipped with the steering lock.

Page 15: For accurate information on all color and trim selection, refer to the 1967 Volkswagen Color and Interior Trim Information furnished your dealership by your distributor.

Page 17: The last paragraph is not applicable since we do not import the sliding door for the U. S. market.

Page 20: The picture of the Squareback Sedan does not show the U.S. standard back-up lights and the VW 1600 TL on the rear lid will be replaced with the nameplate "Volkswagen". The parking lights shown on the side of the vehicle are not U.S. equipment.

Page 21: For the U.S. market, the Type 3 will be equipped with a 45 amp/h. battery.

Page - Lubrication and Maintenance Service: The service booklet will be combined with the instruction manual and pages for dealers' stamps will replace the coupons. This will take the car up to 100,000 miles -- not just to 30,000 miles.

Page - Technical Data: The electrical parts numbers referred to are incorrect. Refer to appropriate parts list. All models will be equipped with a 280 watt, 12V low cut-in generator.