GUIDE SEPTEMBER 1961 - 35 CENTS FEATURING VOLKSWAGEN WHAT IS THIS "BUY AMERICAN" • LATEST IN TIPS FOR TINKERERS • ROAD TESTS: GORDINI & PORSCHE PORSCHE SECTION • THE EDITOR GOES TO WOLFSBURG

VW CHASSIS SWAP By George N. Freund/Kenneth Swan

FCG EXCLUSIVE:

OUR AUGUST COVER GETS AN UPDATED CHASSIS

If someone mentioned to you that he would like to exchange the body or the chassis of his VW for another, you would probably think that he was crazy. After all, why in the world would anyone do a silly thing like that? Let's think about it for a minute.

Suppose you had a 1949 VW roadster with a rare two-seater, Hebmueller body. The sturdy VW body was in perfect condition, but the mechanical brakes gave you heart failure every time you had to make a panic stop. Your wife flatly refused to drive with that crash box; and besides, years of usage had made the transmission bearings grow like an old trolley car. Rusty '49 torsion bars and worn shocks combine to give a choppy ride, the 25 HP engine runs well, but how long can it last? It would seem a shame to sell a car for mechanical reasons, if the body-particularly a special one—is still perfect. However, the cost of rebuilding the faulty components could be prohibitive. Also, at best they would still only be up to 1949 standards which are somewhat

beneath those of later models. Get the picture?

We were faced with this dilemma and after weighing all the factors, we felt that the most logical solution was to find a later model chassis with a shabby body, and to swap the respective bodies and chassis. We found a 1955 sun-roof in good running order, but with a very untidy external appearance. This car was selected to mate to our '49 Roadster. In addition to complementing the old body with mechanical components in proper running order, the swap also completely modernized the functioning aspects of the car without changing the appearance one iota.

You may be faced with a similar problem, if you have an older Beetle sedan with a good body. A junkyard chassis of recent vintage should cost nearly the same as a rebuilt engine, and you gain the advantages of newer running gear.

The design of the Volkswagen lends itself commendably to easy body or chassis swapping. This is why the Beetle chassis has become a popular

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If your Beetle is pretty but tired, why not swap your old chassis for a newer one?



Left: Removing fuel-tank hold-down bolts.



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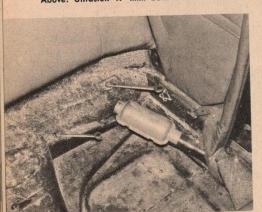
Left: Fuel selector valve and flexible hose are located beneath tank. Disconnect the steering column from gear box (above) at the flexible coupling.



Above: Remove 17 mm. bolt by shock mount.



Above: Unfasten 17 mm. bolts under toeboard.



Left Above: The wrenches show the location of the bolts beneath the rear seat. The 17 mm. bolts are on the outside while the 14 mm. bolts are near the center. Right Above: Nine 14 mm. bolts are located along each side of the floor pan.

VW CHASSIS SWAP

cap. Then extract the cotter pin from the end of the speedometer cable and remove the wheel bearing cap. Finally, pull the cable from the spindle as shown in the photograph. It is not necessary to jack the car from the ground to gain access to the cable but jacking will simplify the operation.

5. DISCONNECT STARTER WIRES.

At the solenoid, disconnect the smaller wire which leads to the ignition switch. Also, disconnect the heavy battery cable from the starter motor.

6. DISCONNECT HEATER FLEX-PIPES.

After removing the clamps from either end of the heater flex-pipes, pull off the pipes.

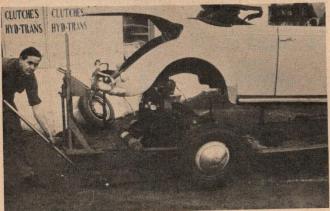
7. DISCONNECT ENGINE WIRING HARNESS.

Uncouple both generator regulator wires, the coil primary wire, and the oil pressure light wire. Now tape or tie these to the body so that they will not be caught by the engine when the body is removed.

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Left: One way of swapping is to use three stout men at each end and lift. Below: With body firmly supported, the chassis may be removed by using a roller jack or dolly. Bottom: A hydraulic lift may be used and then roll out happily.





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Remove the speedometer cable from the spindle.





Loosen the heater pipe clamps as shown.



Place the engine wiring harness clear of engine.





Unscrew the 17 mm. body bolts near the brake fluid reservoir.

starting point for the construction of many specials. Nearly all of the controls run through the center tube, making the adaption fairly simple. Also, the similarity of early models and their younger kinfolk eliminates the necessity of making modifications to affect the swap.

Chassis swapping is not the mountainous task that most people would expect. Special equipment, such as hydraulic jacks, hoists, lifts, and stands are assets, of course, but they are not absolutely necessary. The body removal can be accomplished with the aid of 6 neighbors or club members, without the use of jacks. Let's follow the steps below, and see how the job is done:

1. REMOVE FUEL TANK.

First, the fuel reserve selector lever on the inside toe board must be turned off. Then, from underneath the car, withdraw the cotter pin which connects the lever to the fuel valve. Remove the selector lever by pulling it rearward. Now disconnect the flexible fuel line between the tank and the chassis fuel tube by pulling the flex line from the tube.

Unscrew the 14mm fuel tank hold-down bolts, and then lift out the fuel tank. Four of these bolts are used on the later models, and three of them on the older cars.

After the fuel tank has been removed, disconnect the flexible hose which connects the master cylinder to the brake fluid reservoir. The hose may be pulled from either end.

2. DISCONNECT STEERING COLUMN.

Unscrew the four 14mm bolts which couple the upper steering column to the steering gear box at the flexible coupling. This operation will also disconnect the horn ground strap.

3. REMOVE CHOKE CABLE.

The choke cable needs to be removed only on the later models which have the choke operated from the dashboard. Newer cars with automatic chokes, and older ones with the choke knob on the floor do not require this operation. First disconnect the wire and sheath from the carburetor, and snake it through the fan housing. Then extract it from the chassis by pulling it forward out of the tunnel.

4. REMOVE SPEEDOMETER CABLE.

First, remove the left, front hub

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well on a world-wide basis. during 1960, for example, Fiat sold \$872 million worth of products around the world, and enjoyed profits of \$37.8 million, a substantial increase over 1959. Since 1946. Fiat has invested some \$800 million in new production facilities. ... NSU of Germany says that its profits will be lower this year, despite continued high demand for its cars. The reason: incerased labor costs, higher material costs and the revaluation of the DM. .

EDITOR TO WOLFSBURG

(Continued from Page 23)

The distinctive appearance of the standard Volkswagen was one of the features that endeared it to us. This new body style admits to a conformance to current trends and we can't say, as we did about the '61 Volks,



German youth shooting pictures of the "American Tourists" shooting pictures of Germany.

that we must have one of these cars.

The rising standard of living in Germany, however, has created a need for a VW such as this and we see it as a "best seller" over there.



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8. REMOVE 17MM BODY BOLTS.

There are twelve 17mm body bolts to be removed. Two of these are near the brake fluid reservoir. Four others are accessible when the rear seat cushion is removed, as seen in the photo. Two more bolts connect the body to the rear shock absorber mounting brackets and are accessible from the rear wheel wells. The remaining bolts are located beneath the chassis near the toe board.

9. REMOVE 14MM BODY BOLTS.

Twenty-two of the 14mm bolts must be removed. Four of these are accessible from the rear floor, beneath the seat cushion. The remaining 18 bolts are located beneath the chassis, along the sides of the floor-pan.

10. REMOVE SEATS AND GEARSHIFT LEVER.

The front seats are removed by slid-

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ing them forward beyond the track. The gearshift lever is extracted after unscrewing the two 14mm bolts.

11. REMOVE BODY FROM CHASSIS.

Three are a multitude of methods for separating the body from the chassis. Probably the simplest procedure is to enlist the aid of five neighbors. This may be done at the cost of a few cans of beer. After you have prepared everything else for the swap, simply station three men at each of the body, as shown in the photo, and lift the body from the chassis. Then set it down on a flat surface.

Another method is by jacking the body from four corners. When the body is securely supported, the chassis may be withdrawn sideways from beneath, using a roller jack or dollies.

If a gas station lift is available, the entire car may be lifted to the desired height. With the body firmly supported, either from above with a hoist, or from below with scaffolding or the like, just roll the chassis out from the body after lowering the lift.

In every lifting operation, take extreme care to assure that the body is doubly supported.

12. INSTALLING NEW BODY OR CHASSIS.

The body may be installed in the new chassis by reversing the above procedure. If necessary, a master cylinder and reservoir must be mounted on the body. Since the vehicle serial number is located on the body, it will not be necessary to change the insurance policy or vehicle registration, unless the motor number is required.

There are probably some purists who will scream that ours has been an action of mongrelization—that we have defiled for all time a rare specimen of automobiliana. We contend that VWs were meant to be driven until they fade away. This swap will prolong the life and utility of a proud, unique vehicle. All we could add is that it couldn't have happened to a nicer car!

PORSCHE STORY

(Continued from Page 29)
was eventually introduced by Renault
as the 4CV.

Through the aid of two famous French racing drivers, Porsche was finally released from prison in 1947, his health practically broken. He no sooner got back to his family when he began talking about resuming a project which had lain dormant for eight years: Project 356.

For two years, Porsche worked on the 356, with his son Ferry constantly at his side. Then, in 1949, the car made its debut at the previously mentioned Geneva Show, and a new era in automobile history began.

Within a year, the Porsche sports