



SKODA

CONVERSIONS

*More
surprises
from Skoda*

• If you thought Skoda just produced practical, economical cars for the family motorist, think again.

Just take a look at the two Skoda models shown here - an attractive and inexpensive cabriolet and a fast and furious sports model.

Both the 130 Cabriolet Lux and the 130 Sport are based on the Skoda 130 Rapid Coupe and are available from dealers after registration of new Skodas.

Here we take a look at the work that goes into creating these two exciting and affordable models - work that is carried out here in Britain.

These two new additions - both of which will be at Motorfair - continue side by side in the Skoda range alongside the established standard 130 Cabriolet and 130 Sport saloon.





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The Sporting Touch

SUSPENSION

• The original 130 Sport model introduced last year was based on the 130L saloon whereas this new Sport model is based on the attractive 130 Rapid Coupe model.

Most of the work described on the Rapid applies also to the saloon, apart from a newly-designed bodystyling kit for the new model.

The work, which is carried out in the UK by S.K. Distributors, of Brackley in Northants, begins with the suspension.

The original shock absorbers and coil springs are removed from both front and rear ends. The original shock absorbers are replaced by Spax gas-filled adjustable shock absorbers and the coil springs are shortened to reduce the ride height of the car.

This has the double effect of improving the looks of the car while bringing handling improvements at the same time.

The gas-filled Spax shock absorbers can be adjusted to any one of 15 settings - from a soft to a very hard ride - at the turn of a screw. S.K. choose a setting slightly stiffer than standard and then let the customers decide their ideal setting from there.

The amount by which the springs are reduced is a closely guarded secret to prevent imitators taking advantage of S.K.'s research and development work on the Skoda's suspension, but it isn't a great deal of metal.

The removal and refitment of these items is surprisingly simple and straightforward yet the improvements it brings, in handling terms, are considerable.

Speedo drive

While the car is 'up in the air' on the ramps, the opportunity is taken to change the speedometer drive unit. This has to be done because of the increased rolling radius of the 13 inch wheels and low profile tyres. This would affect the speedo reading if the conversion was not completed. It's a difficult and time consuming job for something apparently so simple but to the S.K. mechanics who carry out these conversions all the time, it represents no problem. That's the underside work completed, now for the engine . . .



This is the car that the new 130 Sport is based on - the 90 mph 1300cc Skoda 130 Rapid Coupe.



With the car in the air, the work begins beneath the car with the removal of the original shock absorbers.



The springs and shock absorbers from all four corners of the car have to be removed. A simple job thanks to conventional design.



The coil springs are shortened by a certain amount and heated up so that the coil sits correctly.



Once cooled down, the coil springs are refitted at all four corners. Ride height has now been reduced.



Gas-filled adjustable shock absorbers are fitted - there is a choice of 15 different settings from soft to very hard.

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ENGINE

• With the car back on the ground, the engine is treated to a whole series of modifications to raise the power output from around 57 bhp to a healthy 75 bhp.

Access to the engine is unobstructed on the car, as shown in the photographs, because the rear panel can be simply removed.

The original air filter assembly, inlet manifold, carburettor, cylinder head, exhaust system and camshaft are all removed from the engine.

A sports camshaft and followers, which give the car its exciting high-revs performance, are fitted first of all. Cam lube is used liberally to protect the lobes of the camshaft during the initial start-up period.

Attractive head

A gas-flowed cylinder head, attractively finished in red, goes into place next. Porting and flowing of the head improves the engine's ability to 'breathe' and so returns quicker performance.

To this, the three-branch tubular exhaust manifold is fitted followed by a tubular inlet manifold. A Weber 40 DCOE carburettor and K & N performance air filter - good for at least 100,000 miles - are then fitted to the inlet manifold.

To complete the 'breathing' mods, a sports exhaust system and straight-through sports absorption silencer, which gives out a real roty sound, is put into place.

Finally, a replacement electric fuel pump is added, which is able to cope with the tougher fuel demands of the modified engine.

On the original 130 Sport, research found that the modified car responded much better to quick throttle changes when this electric fuel pump was fitted, and so the modification was made part of the 130 Sport conversion too.

Take a look at the photograph of the finished job and you can see how business-like and attractive the engine new looks.

And that's the mechanical modifications completed. Attention now turns to the looks of the car...



The dismantling begins. Air filter carb, cam, cylinder head and exhaust system are all taken off.



It looks painful! But its actually cam lube for protecting the sports camshaft during initial start-up period.



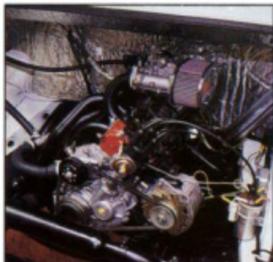
The gas-flowed cylinder head, finished in an attractive red, helps the engine to breathe better.



To cope with the altered fuel demands of the modified engine, an electric fuel pump is needed.



A three-branch tubular exhaust manifold and system, and an inlet manifold are fitted to engine next.



The finished job. This unobstructed view of the engine bay shows the neatness of the modified engine.



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The Sporting Touch

BODY

- With such an increase in performance, the 130 Sport has to look right too and the changes in appearance are provided by a newly-designed body styling kit and by a set of stylish wheels and tyres.

The all-new body kit consists of two side skirts, a front apron, a rear spoiler and wrap-round side extensions for the front and rear.

There are two choices as to fitment that the customer can specify. One is to follow the usual course and have the body styling kit painted and fitted in place on the bodywork. But as an optional extra at additional cost, the customer can choose to have the new panels blended into the existing bodywork, so that it appears that the panels were part of the original bodywork.

On the 130 Sport saloon, the body kit consists of side skirts, front apron and a large, and very attractive, boot spoiler. Again, blending in is an optional extra.

Wheels and tyres

The sporting touch is completed with the addition of a set of alloy wheels and performance tyres.

The KN alloys are 13 inches in diameter and are finished in white. To go with the wheels, a set of H-rated Uniroyal 185/60 x 13 tyres are fitted. Inside, the car is treated to a sports steering wheel too.

On the Coupe shown here, the wiper arms, front grille, door mirrors and bumpers have been colour coded and a white sunroof and red pinstripe have also been fitted.

And that's it. The project is complete. As for cost, the standard conversion on a 130 Rapid Coupe comes to L1395 + VAT, while on the 130 saloon, it comes to L1495 + VAT - the extra cost here being due to the large rear boot spoiler. The car does have to be left with S.K. Distributors for around a fortnight, and this is something that the dealer will organise.

For those wishing to improve their Skodas even further, there are extras available, like the sunroof seen on the show car, and a full range of accessories in the Skoparts range too.



These are the constituent parts of the newly-designed body styling kit shown before fitting work begins.



The body styling panels are fitted to the body and then painted. Here, the rear apron is fixed into place.



As an optional extra, at additional cost, the panels can be blended in, they are spray painted in situ.



Once the panels have been blended in, they are spray painted in situ to match the existing paintwork.



The white KN alloy wheels and H-rated Uniroyal 185/60 x 13 tyres complete the sporting modifications.



The finished car looking resplendent in all white, completely colour-coded and ready for the road. What a difference!

CONVERSIONS

Lifting the Lid

You don't have to pay a fortune to enjoy open air motoring as the Skoda Rapid 130 Cabriolet proves here.

Lifting the lid off a car is not just a question of chopping off the roof. Take away the top, and a car loses a lot of its strength.

Take a shoebox, for example. While the lid is on, it is quite tough and you can stack things on top of it. Remove it and it will collapse under any strain.

So when turning a car into a convertible, additional strengthening has to be built in so that the car not only withstands the rigours of the road, but, more importantly, provides its occupants with protection in the event of an accident.

This is not a very cheap business and you only have to look at the difference in the price of most convertibles against the standard versions.

When Skoda looked at the idea of adding a convertible to its range a few years ago, cost played an important part. If the price was driven too high, traditional Skoda buyers would be put off.

The company turned to LDD Ltd., who came up with a simple and relatively inexpensive design for what has become a very attractive convertible.

From a converted oast house, deep in the Kent countryside, LDD has been converting Skoda 130 Rapid Coupes for some three years at the rate of three a week. The man behind LDD is former architect Roger Ludgate.

Challenge

He said: "I like to think I am a car designer, and coming up with a design for Skoda was a very challenging and rewarding task.

"Here we were dealing with an inexpensive car which is very good value, and we needed to keep within those margins. Skodas are very straightforward and honest, and for many it might be the first new car they buy. We did not want to destroy its attraction by making it too expensive."

With this in mind, Roger and his team kept things as simple as possible and the way it worked out the design must have



Ready for the off. The Skoda 130 Rapid Coupe is lined up and waiting for the roof to be raised.



All interior trim is removed before the first incision is made with air chisel. It looks to be raised.



A little like opening a can and just as effective's the roof is lifted away from the rest of car.



Next job is to remove the rear C posts. These are cut down and used again to form rear quarterlights.



Rear wheel is removed and the suspension dropped so that the strengthening bars can be inserted.



10 gauge 2x1 box sections are slid into the sills. These add strength and protection.



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Lifting the Lid

made one or two more expensive competitors envious.

For example, the tensioning of the hood on the new Cabriolet Lux was designed using geometry rather than frames and mechanisms which tend to be bulky. The result is that rear vision when the hood is down is better than both the VW Golf and Ford Escort.

First, though, strengthening has to be built in to compensate for the loss of rigidity provided by the roof. What is used is 10 gauge 2 x 1 box sections inserted inside the sills.

Tests have shown that these can take a load of three tons and still return to their original profile.

Protection

To provide overhead protection, a roll cage is also built in.

Roger said: 'The conversion is deliberately over-engineered because the lack of a roof is always the first thing to be blamed for any injury in an accident.'

'In fact there was one accident involving an early Skoda conversion in which the police report stated that the driver would have been killed had it not been for the built-in side protection.'

'Provided you are correctly strapped in, you could bounce a Skoda convertible end over end without injury.'

Despite the addition of the strengthening, there is very little difference in weight between the convertible and standard Skoda because of the loss of the roof and quite a bit of glass.

Sturdy

The cars are sturdily built with simple mechanics. Even the paint matches are simple with no fancy shades or colours.

There are over 200 Skoda convertibles on the road now and their popularity has encouraged Skoda to lift the lid from another Rapid coupe model for customers looking slightly higher up the market. This is the Cabriolet Lux.

The name might sound the same, but the conversion is quite different leaving the original door frame in place and realigning the rear quarterlights.

On the original convertibles, there are no quarterlights once the hood is folded back. But by retaining them on the Lux, wind buffeting in the rear seats is kept to a minimum.



Once the strengtheners and supports are in position, welds have to be put in to ensure they stay there...



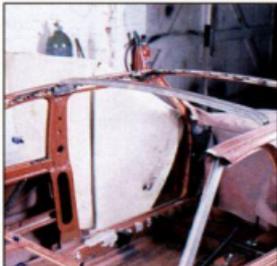
Here's one we started earlier! Now looking more like a convertible and ready to be refitted.



More strengthening. Bars are inserted inside side panels. The cars are deliberately over-engineered.



Steel strips are inserted inside the door frames and rear quarterlight to give additional support



Roll cage is built in to provide overhead protection. This also helps support the hood.



Old C post has been cut down and put into its new position. This has to be welded to form new quarterlight.

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The conversion involves stripping the car completely inside before marking it out. The roof is cut off and the rear C posts are removed but not discarded. These are modified to form the new quarterlight.

Steel strengthening tubes are inserted in the door frames and then the rear suspension is dropped to allow the strengthening bars to be slipped into the sills.

Struts are also welded inside the side panels for increased strength and a steel bar is mounted overhead between the door pillars.

Capped

The parts of the body at the sides and rear of the car from where the roof has been removed, are capped off with fibreglass mouldings.

Rear seat belt mountings have to be installed and the rear hood bar put into position. The hood itself sits in the original gutter on top of the door frames and is held by two clips mounted above the windscreen.

Putting the hood up or down is simplicity itself. You just unclip at the front and fold back. There are two more fasteners midway along the door frame and a Velcro flap round the rear hood support bar.

The hood is unlined but it is of good quality and this makes it relatively cheap to replace. The biggest danger in this area is from hooligans who might take a knife to it. But replacement only costs about £200 compared to around £600 for other convertibles on the market.

Tension of the hood is kept up by wire running from front to rear and the front is capped off again by a fibreglass panel, which not only smartens it up but prevents wind getting underneath the hood as well.

The end result is a solid and very attractive convertible at an additional cost of £1,869 including car tax and VAT which, when added to the basic Coupe price of £3,950, makes it extremely reasonable when put against anything else of comparable size.

The Cabriolet standard conversion is less expensive at £1,306 including car tax and VAT. All Coupes must be pre-registered before conversions can be carried out.



First piece of spraying is done to tidy things up. Skoda colours are very easy to match.



Fibreglass mould is added to front to tidy up hood join and to prevent air from getting underneath it.



Hood supports are put into place. Inserted into specially designed points welded into bodywork.



Finishing touches now as the hood is put into place. When down, there is a neat cover to keep it in place.



The hood is tensioned by wire running from front to back, a final push on front tightens it down.



All finished and ready for the road, the Skoda has been transformed into an attractive cabriolet.



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Skoparts

To further enhance the 130 Sport, the Convertible, or in fact any Skoda model, there's a full range of accessories available from your local Skoda dealer.

These quality accessories include sports steering wheels, front grilles, radio consoles... even roof racks, seat covers and a range of stylish leisurewear.



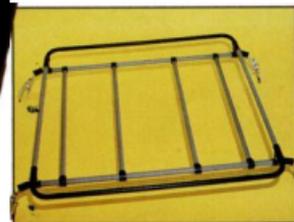
Shown here, three leather-bound steering wheel kits - red and white cost a little extra. Also, a radio console, car mats, door pockets, anti-glare strip and Skoda gearlever knob, key fob and cloth badge.



Once you've enhanced the look of your Skoda, how about improving your image with this range of leisurewear which includes travel bags, golf umbrellas, rackets, body warmers and sports shirts.



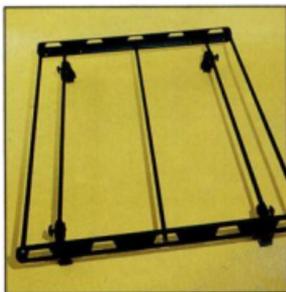
These stylish Skoda seat covers are reasonably simple to fit. They are available in a choice of designs and not only do they improve the look of the interior, they are also padded for extra comfort.



This is one of two roof racks that are available for all models from the Skoparts range. This tubular roof rack has load bars which lie along the length of the car from front to rear.



For the exterior, there's a choice of air vent covers. Also shown, a front grille with integral driving lights, a rear reflector panel with 'Skoda' logo and rear visor.



This second roof rack, in black, has load bars which are fitted from side to side. This allows correct opening of the glass panel on cars fitted with a sunroof.