

Saab Fenix

Chassi Kit





Background

In 2011 Saab Automobile AB were in the final stages of testing the newly developed Fenix Platform. Several test vehicles were built featuring the body of the old Saab 9-3NG but hiding a completely new platform.

Automotive media published pictures of these chassis mules as they were evaluated in various parts of Europe such as northern Sweden and southern Europe.

In the end of 2011 when Saab went bankrupt, these vehicles were parked. During the past year, most of these vehicles have been dismantled and scrapped. We have however been able to save parts from a number of these vehicles and can now offer kits for those who are interested in building their very own Saab 9-3 based on the Fenix architecture.



Retrofit

The Fenix platform was supposed to form the base for all upcoming models from Saab. Featuring a design which could be expandable in both lateral and longitudinal direction it could be used for cars of various size classes, ranging from small sporty sedans up to large SUVs. The very first car to be based on the Fenix platform would have been the successor to the 9-3NG. Saab designed the platform so that it would be as cost effective as possible and that as many panels as possible of the existing vehicle bodies could be carried over to the new model. In fact, most floor panels were left intact or with modifications for reinforcement. This means that it is possible to retrofit the Fenix chassis onto an existing 9-3NG.

Front Suspension I

Saab continued the legacy of developing highly dynamic, driver-oriented chassis. With the Fenix platform, a lot of focus was put on increased stiffness and to reduce parasitic forces. When developing a chassis, it is important that the components move in the way they are supposed to and that the mounting points are rigid in order to maintain full control of the wheels movement. At the same time it is important to reduce counteracting forces in every joint in order to ensure a smooth wheel movement. The work and the effort Saab invested in the front suspension can be seen in many ways, one example is the front control arm bushing which is located inside the subframe beam instead of outside, ensuring maximum stiffness and control.



Front Suspension 2

The front suspension is a McPherson based design, consisting of a complete setup with subframe, all suspension parts and an electric power steering (EPS).

With the the Fenix platform, a new wheel bolt pattern was introduced. While the 9-3NG uses 5x110 and the 9-5NG uses 5x120, the Fenix platform uses 5x115.





Rear Suspension

The rear suspension consists of a completely new 5-link setup. Saab did not save any money in the development of the Fenix rear suspension. By using a 5-link setup, the wheel motion can be defined to a much higher level of freedom than with less complex setups. The handling, comfort and noise suppression of the rear suspension is outstanding compared to any other Saab. 5-link rear suspensions are only found on on high-end luxury vehicles.

Picture on top depicts the rear suspension.

Powertrain

The cars were supposed to get engines from BMW, either the N18 petrol or the N47 diesel engine. The kits we offer have the N18-engine coupled to an F32 manual gearbox or an AF33 automatic gearbox. The N18-engine is a light weight yet high power engine, giving superior handling due to the low weight. The new engine is a Euro6 engine, featuring Start/Stop functionality, Adaptive Cruise Control and Cylinder deactivation.

The picture to the right depicts the front part of the kit, i.e. the subframe with suspension and the complete powertrain.



List of modifications

The below list is the modifications which must be made in order to fit the Fenix-kit on a 9-3NG.

1. Rear subframe mounts needs to be modified and shifted 25mm to the rear.
2. Rear strut mounts must be shifted 25 mm to the rear and a new shock mount must be installed.
3. Front strut towers and wheel houses needs to be shifted foward and modified for the new upper strut mounts.
4. Fuel tank geometry must be changed.
5. Electrical integration of engine.
6. Modification of steering linkage rod and interface in fire wall to fit the Electrical Power Steering.
7. Exhaust system and spare wheel housing.

Engineering Assistance

We would be happy to assist you in building your car. Either by supporting with knowledge or possibly assist in the complete build. As a customer you can chose base model, such as a SportCombi, SportSedan or even a convertible. The kits are sold as a base and we gladly assist you in discussing your specific project. We have up til date finalized a couple of these vehicles, thus we have all knowledge to put your specific car on the road.

As for registration, the cars can be registered in Sweden as a modified vehicle which opens up for export to most European countries.

Contact us

In case you are interested in purchasing one kit, please contact us at info@globalxcm.com