



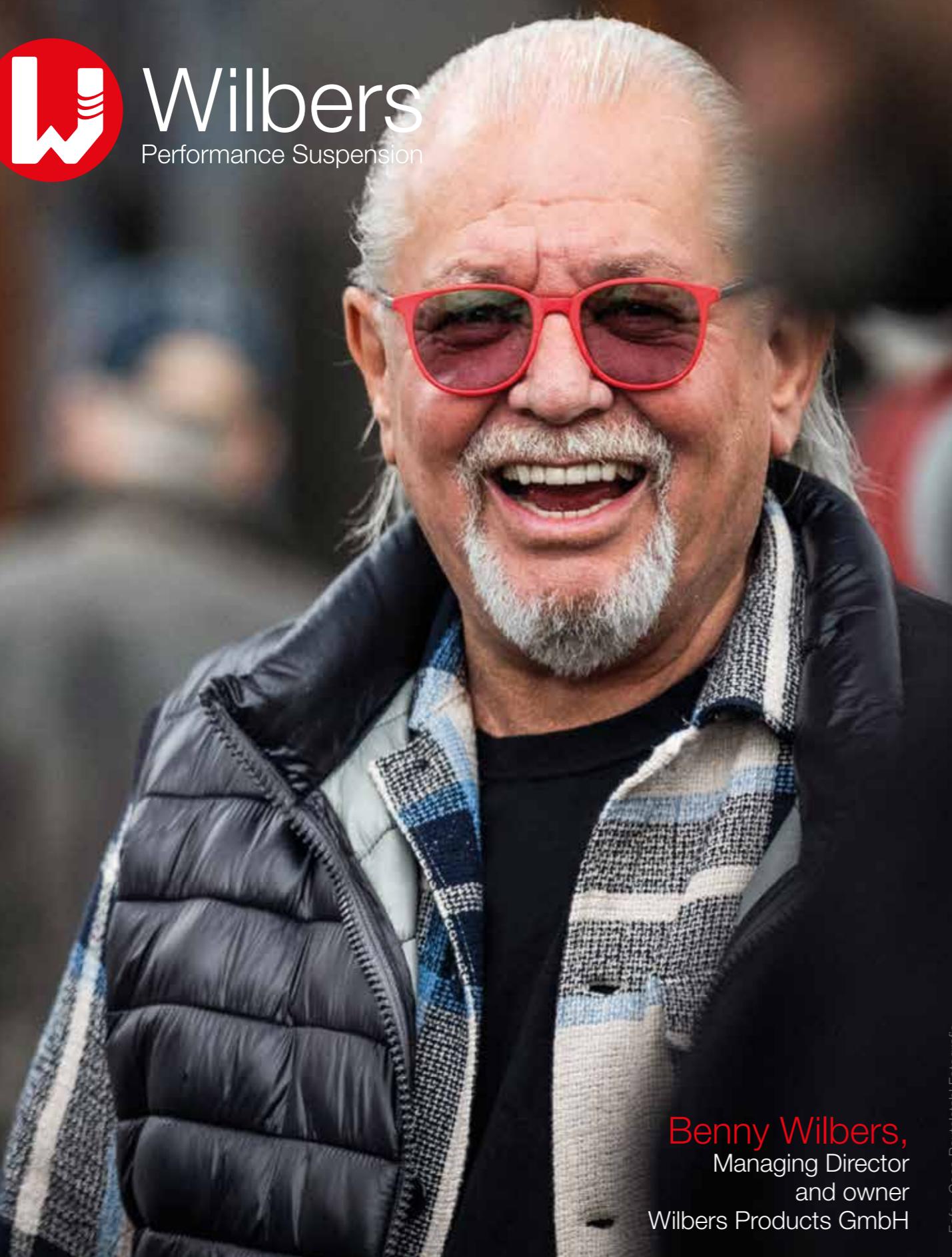
Wilbers
Performance Suspension

UPGRADE YOUR BIKE



NIVOMAT

powered by 



Benny Wilbers,
Managing Director
and owner
Wilbers Products GmbH

Foto: Coco Beutelstahl Fotografie

What customers say about the Nivomat system



„The suspension
is **the best**
I have ever ridden
in over 40 years.“

„It's just **AWESOME!**
There are no more bad
roads anymore!“

„Great **comfort**, nevertheless full road holding and in driving
operation and significantly more ground clearance;
in addition there is also a gain in maneuverability.“

„Hereby I would like to thank you
for the fine suspension
that you have developed, you have given me
quality of life.“

„The suspension is totally convincing,
it is now finally a **pleasure**
to ride my Harley.“

„I could clearly perceive the difference
and enjoy the comfort,
no matter what kind of road, very
confident and **safe!**“

„I am **convinced**
of the Nivomat system.
It is the best
for the heavy
touring machines.“

„The suspension
is **always perfectly**
adjusted
- whether solo, with pillion
or luggage!“

Wilbers Nivomat powered by ZF

For those who want to know exactly:

for Harley Davidson touring models

Wilbers Nivomat Twin Shock → Harley Davidson

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Voices

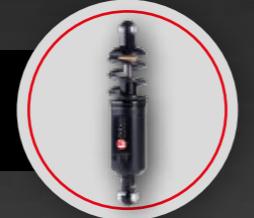
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for Harley Davidson Softail models

Wilbers Nivomat Softail → Harley Davidson

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The Wilbers Nivomat in detail

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for Harley Davidson Sportster 1250 S

Wilbers Nivomat Sportster → Harley Davidson

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How does the Nivomat work?

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for touring and sport touring motorcycles

Wilbers Nivomat Mono → BMW
YAMAHA
SUZUKI
HONDA

page 18



The Nivomat in section

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for BMW 1150 / 1200 / 1250 GS

Wilbers Nivomat big enduro

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Advantages of the Wilbers Nivomat

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NIVOMAT for many other models

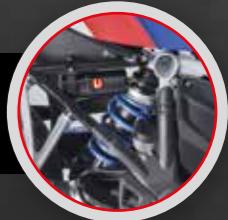
Maybe for yours too?

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Testcenter

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Scan the QR code and get
to the complete model
and price overview!



Nivomat.wilbers.de

10 years warranty

A 10-year warranty is a promise that we are happy to give and that we make worldwide with the help of our importers and authorized dealers. Due to the cooperation with ZF and the resulting experience from the OEM sector with the long-term warranty, we now also grant a 10-year warranty for our Wilbers Nivomat powered by ZF suspension systems since July 1st, 2023. The Nivomat system stands for quality, durability and best function - we are happy to emphasize this. If, contrary to expectations, there should be a problem, you can call on us worldwide! You will find the listed importers and distributors on our homepage. One is sure to be near you, we promise!



“

And Wilbers Nivomat suspension elements are **a stunner!**“

Thomas Schmieder / MOTORRAD Issue 2/2020



Nivomat.wilbers.de

Nivomat Twin Shock

for Harley Davidson touring models



The Wilbers Nivomat Twin Shock Kit is delivered in combination with a Wilbers Ecoline shock in the Nightline version as well as the necessary ZERO friction fork springs and ZERO friction fork oil. Depending on the vehicle there are different kit versions in the number of required fork springs and fork oil.

The kit was specially developed for Harley Davidson's touring models. Because here the Nivomat can exploit its full potential: some of these models are equipped as standard with just 53 mm of rear wheel travel.

The Wilbers Nivomat Twin Shock System, on the other hand, has 73 mm of suspension travel and thus, in conjunction with the automatic level control, always ensures the best possible comfort and maximum suspension travel.

Want a test drive?

Scan the QR code and arrange a test drive today at one of our one of our Nivomat test centers or with us!



FRONT*:

fork springs and fork oil

* depending on vehicle model



REAR:

Nivomat and Ecoline



Scan the QR code and get to the complete **model and price overview** Harley Davidson!



→ Harley Davidson



Depending on the vehicle model, the Twin Shock Kit is delivered with 1 or 2 fork springs or ZERO friction oil.

Nivomat Softail

for Harley Davidson softail models

→ Harley Davidson



With the 2017 model year, Harley Davidson has fundamentally revised its Softail model range. The concept of the rebound-loaded shock absorber has been completely rethought and the frame and swingarm have been redesigned. Now there is room for a conventional, compression-loaded shock absorber.

This was the starting point for us to develop a Nivomat suspension for this model series in close cooperation with ZF. The goal was clear: more ride comfort without sacrificing stability and an optimum level position that the system constantly regulates while driving. Here, too, we have achieved our goal.

Would you like a test drive?

Scan the QR code and arrange a test drive today at one of our one of our Nivomat test centers or with us!



FRONT:

Fork springs and fork oil



necessary

REAR:

Nivomat



necessary

Scan the QR code and get to the complete **model and price overview** Harley Davidson!



Miracles happen all the time.
No, there are not. But this time there is. For real!"

Patric Birnbreier, Garage Ink Issue 09, 10/2022

Nivomat Sportster 1250 S

→ Harley Davidson

for Harley Davidson Sportster 1250 S



After the presentation and initial test reports of the Harley Davidson Sportster 1250 S, it was clear to us that after the great success of the Nivomat system for the touring models, we now urgently needed to develop a Nivomat system for the Sportster 1250 S as well.

Because here, too, the standard conventional quickly reaches its limits. The sensational design and the belt drive of the Sportster 1250 S unfortunately do not allow much suspension travel due to the construction, which inevitably leads to a tight tuning with normal shocks.

The Wilbers Nivomat powered by ZF suspension provides the solution here as well: the spring travel increases to a whopping 80 mm and the spring rate could be significantly reduced due to the additional gas spring, which becomes harder depending on the load condition. It is important to mention that the seat height does not change significantly and thus the stocky appearance of the Sportster 1250 S is maintained.

The Wilbers Nivomat powered by ZF ensures maximum comfort and traction, which is very good for handling... Initial road tests gave rise to thoughts of the later LAP RECORD project, which was successfully implemented at Oschersleben.

FRONT:

Fork springs and fork oil



necessary

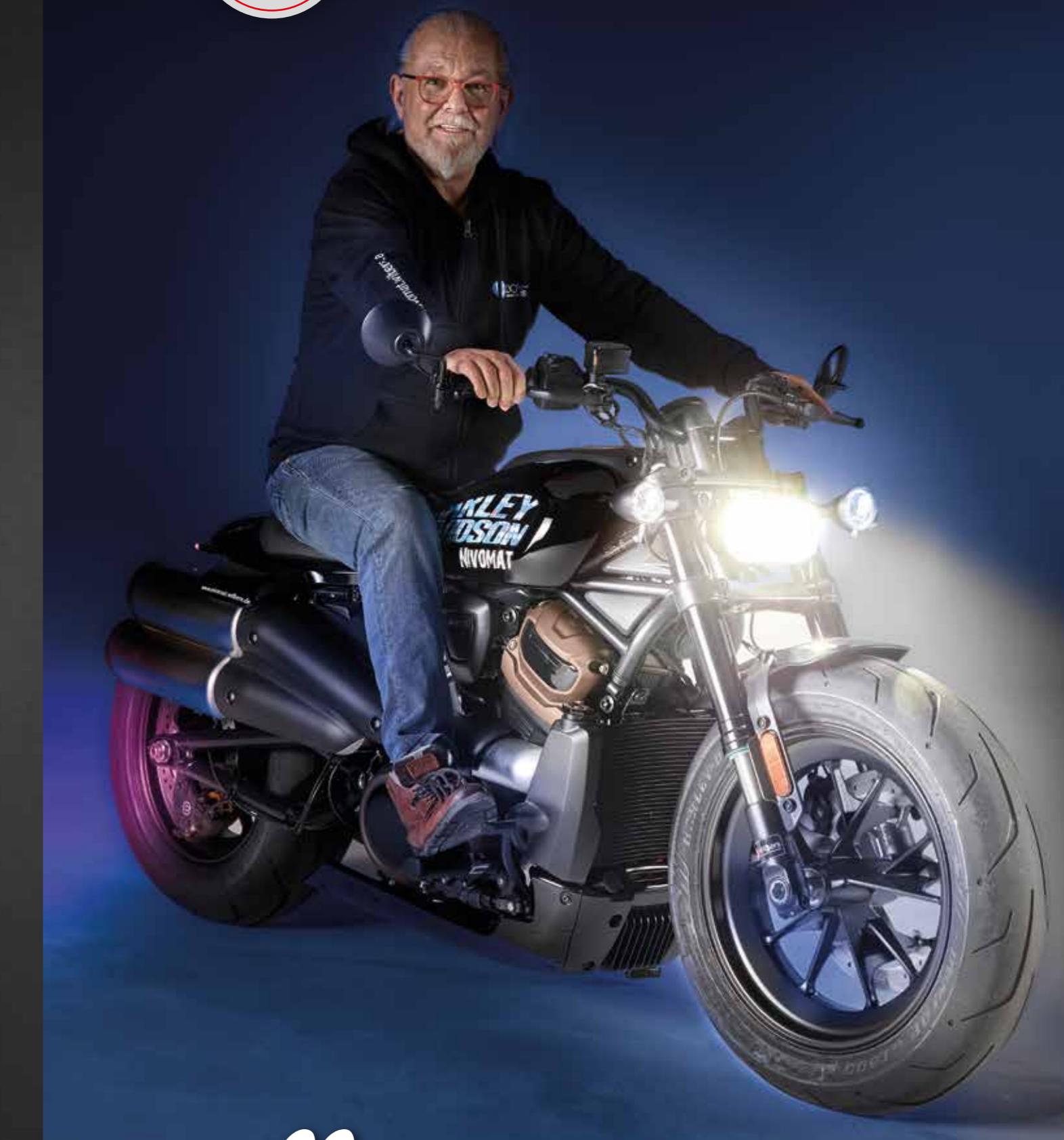
REAR:

Nivomat



necessary

Scanne den QR Code und gelange direkt zum Fahrwerksskit in unseren Onlineshop!



“

A truly striking difference and an **incredible improvement** of the entire motorcycle!“

Patric Birnbreier, Garage Ink Issue 09, 10/2022

Naturally, we also took a closer look at the fork of the Sportster 1250 S during the development of the Nivomat suspension. We have succeeded in significantly reducing.

We succeeded in significantly improving the friction and thus the response by using high-quality bushings and SKF fork seals. The slightly firmer ZERO friction fork springs in combination with the matching ZERO friction fork oil form the perfect symbiosis.

For the optimum riding experience, the Nivomat shock is therefore supplied together with the fork components as a suspension kit.

It consists of:

- Wilbers Nivomat Mono shock absorber
- 1 set of ZERO friction fork springs
- 1 liter ZERO friction fork oil
- 2 sets of ZERO friction sliding and guide bushings
- 2 sets of SKF oil seals & dust caps

Want a test drive?

Scan the QR code and arrange a test drive today at one of our one of our Nivomat test centers or with us!



“

Best investment in my motorcycle ever!"

Customer from 2022



The Sportster S is the fastest Harley-Davidson at Oschersleben

Harley-Davidson and racing? Of course! As early as the first decade of the last century, the U.S. brand competed in endurance contests to highlight the performance and reliability of its products. In the following years, motorcycles from Milwaukee began to dominate competitions such as Hillclimb, Board Track and Flat Track. Just how successful modern Harley-Davidson bikes can be in racing was proven by the event that took place on May 31 at Germany's northernmost racetrack, the Motorsport Arena in Oschersleben. The idea came from Wilbers Products, The Jekill and Hyde Company, Metzeler Motorcycle Tires, Don Performance, Harley-Davidson Germany and Austria, as well as some H-D dealers: „It would be a good idea to have an ultra-sporty Harley-Davidson on the racetrack. The right base has been in the H-D pits since 2022: the Sportster S with its liquid-cooled Revolution Max 1250T V-twin. Thilo Günther, who has already competed successfully in fishing port

races, various motorcycle harbor race, various motocross and flat track races, Harley & Snow and the Pikes Peak International Hill Climb. Two Sportster S were prepared for the event. The first - destined for Thilo's arrival - remained largely original, but was fitted with the Nivomat system from Wilbers Products, an exhaust from The Jekill and Hyde Company, Cruisetec tires developed by Metzeler specifically for the Sportster, and mapping from Don Performance - products that will be available for the bike in the future. Products that will also be available as a kit for the bike in the future. On the second machine - intended for use on the track - in addition to the interventions of the three aforementioned manufacturers, you will find parts from Brembo, Magura and Spirit Leathers, among others. In addition, Thunderbike Harley-Davidson belonged to the round of sponsors. The Hamminkel-based company contributed the milled triple clamp and

the relocated footrest system for the now chain-driven machine, which weighs 209 kg with a full tank. Its race suspension rolls on Metzeler Racetec RR slicks. Damen Leathers and X-Lite, as sponsors, provided the appropriate rider equipment. The result is the world's sportiest Sportster S. And its performance is impressive: Just 1:42.2 min. was the fastest lap that Thilo Günther burned onto the Oschersleben asphalt with the Harley - this corresponds to the top training times in the current Twin Cup, which is held as part of the IDM, and is the best time ever achieved by a Harley at Oschersleben. Who knows, maybe this project will become the start of a new era in Harley-Davidson's racing history, alongside the King of the Baggars Races.

The race icons VR 1000, with which Harley-Davidson stirred up the U.S. Superbike championship in the 1990s, and XR 750, known since the 1970s as the queen of the flat track,



were also in the mix. H-D Braunschweig brought the legendary racing machines to Oschersleben, where they formed the stylish backdrop for a very special Day at the Races.



Nivomat Mono

for touring and touring motorcycles

→ BMW
YAMAHA
SUZUKI
HONDA



The Nivomat Mono is used on vehicles that are equipped with a central shock absorber as standard. As with all other shock absorbers from Wilbers, we placed great emphasis during the development phase on finding an optimal basic set-up for each individual motorcycle. Only after extensive test bench runs, installation trials and test rides the Nivomat Mono is approved for the respective motorcycle. In this way, we ensure that the Nivomat system adapts optimally to every load. For the best possible overall suspension tuning, we recommend replacing our ZERO friction fork springs together with ZERO friction fork oil. These are already included in our Nivomat Mono kits. Although the system adjusts to the load, we also ask for the rider's weight and payload. The background is that we want to provide them with an already optimal basic tuning, so that the system for the minimum requirement of payload does not already use up its reserves.

FRONT*:

Fork springs and fork oil

* depending on vehicle model



REAR:

Nivomat



Scan the QR code and get
to the complete **model and**
price overview Harley Davidson!



Would you like a test drive?

Scan the QR code and
arrange a test drive at one of our
Nivomat test centers or with us!



“ It sounds like the discovery of the philosopher's stone:
a chassis that adapts **intelligently to any situation!**”

Rolf Henniges, FUEL Two 2022

We recommend the
Mono Nivomat Kit,
so that you achieve
the best possible
driving behaviour.

Nivomat big enduro

for **BMW 1150 / 1200 / 1250 GS and more**



Travel and more... it was always our desire for big enduros, such as a BMW GS, to be able to offer a travel suspension that can be strained and loaded to the maximum, but at the same time the suspension is also suitable for a sunny excursion, without having to change springs or adjust the damping. It doesn't matter how loaded the bike is, whether alone, with pillion or empty or full panniers - your machine always rides at a pre-set height and immediately makes you forget about a payload, of course with maximum comfort and traction. With the Wilbers Nivomat powered by ZF big enduro, the damping and spring rate adjust automatically, as with all other Nivomat systems, entirely without buttons or electronics. This hydropneumatic function is a development cooperation between ZF and Wilbers Products, which has not yet existed in this form. All functions in one system and guaranteed high durability.

With an order we need your driver, pillion and luggage weight - after all, we produce an individual solution for each customer.

FRONT*:

Adjustline 632 or 630

* depending on vehicle model



REAR:

Nivomat



“Drives like hell!”

Customer from 2021



Mike on The Bike as our test rider got the unusual order to start the attempt to „destroy“ the Wilbers Nivomat powered by ZF component. Thus, he set off for Scandinavia, rode over bad roads in the far north of Norway to reach the North Cape as a goal! Despite all his attempts, he did not manage to destroy the Nivomat and decided to continue his project in Italy. On a „brutal“ tank route, he tried to provoke the final demise of the component. Here, too, he failed. The subsequent test in a ZF laboratory showed no changes whatsoever in the Nivomat - the meanwhile 70,000 test kilometers could not harm the component. Quality that speaks for itself.

Naturally, we developed an Eliminator Box together with the specialists from 2D. The „Eliminator Kit“ ensures that the on-board electronics do not issue an error message due to the missing Dynamic ESA strut in the dashboard. The kit consists of the „ESA Eliminator Box“ and a „coil“.



Scan the QR code and get to the complete **model and price overview** Harley Davidson!



Nivomat

for many other models - maybe for yours too!

Time and again, we receive inquiries from customers asking whether the Nivomat system is also available for their motorcycle. Here, too, our proven modular system helps us to adapt the Nivomat system to the conditions of the motorcycle. So we are able to develop a solution for your motorcycle, even if it is a bit older. We can already offer the Nivomat system for a Suzuki Bandit or a BMW R 1150 RT, for example. If you can't find your model in the current overview, please contact us. We are constantly expanding our range of models and, of course, do not exclude older motorcycles.

You don't want to wait?

Then make your motorcycle available to us for installation trials and test drives and benefit from attractive price advantages at the same time.

Tell us which motorcycle you would like a Nivomat system for. We will check whether we would like to expand our portfolio to include this model and, if necessary, arrange an appointment with you. We cannot guarantee success from a distance, but we can clarify in advance whether the Nivomat system is feasible for your motorcycle.

Scan the QR code and get to the complete **model and price overview** Harley Davidson!



“

What can I say? I am completely thrilled!!!

... It doesn't get any better than this for me!“

Customer from 2022



Voices

Voices

Benny Wilbers, Managing Director Wilbers Products GmbH



At an event in the fall of 2015 in Valencia, Spain, where we were implementing a development order from ZF, we met Thomas Meyer from ZF Nivomat Development.

We took this opportunity to find out more about the Nivomat itself.

„Why is the Nivomat interesting for you?“ asked Thomas Meyer. I replied that it could be used to create comfort useful suspension travel on Harley touring models. That should be feasible, I thought, but not without ZF’s help. We were able to convince ZF of our intentions and together we began to work on a patented, slimmer solution so that it would finally fit as a stereo set in the envisaged Harley.

On the left side there is now a slim version of the typical passenger car solution and on the right side a Wilbers shock of type 530 in the Nightline version.

After years of hard testing, we knew in 2018 that we would achieve our goal. Our test vehicle, the Street Glide, suddenly worked with comfort and manners, as well as traction and sensitivity, like a miracle... In the meantime, we offer the stereo solution for many Harley vehicles - riders and

passengers are happy and appreciate the benefits.

The world’s best-selling enduro, the BMW R1150, 1200 and 1250 GS, should now get a „rally suspension“ that delivers maximum suspension travel and high load capacity to allow high payloads with plenty of comfort and traction. The big test ride of „Mike on the Bike“ is now complete after nearly 20,000 kilometers of Norway, North Cape, Italian tank route and Eifel.

„The system is the best ever!“ claims „Mike on the Bike“ and has enjoyed every test kilometer. After the many Nivomat test kilometers, our suspicions were confirmed: whether for the Harley Touring or the BMW GS models, among others, we have made a big hit and are already available for over 75 models, with more to come!

ZF-Friedrichshafen AG and Wilbers Products GmbH in Nordhorn played a key role in the development of the „Wilbers Nivomat powered by ZF“ technology.



I was involved in the development of the Nivomat system from the very beginning. When Thomas Meyer (ZF) explained the functional principle and the technology behind it to me for the first time, my head was already spinning by the end. However, it made me realize what kind of engineering art is involved in this system and how ZF had managed to continuously improve this system to perfection over the last few years. I immediately shared the vision of Benny Wilbers, who was convinced of the potential of this suspension system in a motorcycle: a level control without the rider having to adjust anything himself, and the resulting synergistic effect of a spring rate adapted to the load of the motorcycle. To me, it sounded like the „egg-laying pillow“ in terms of motorcycle suspension technology. **The system would solve many of the problems of conventional suspensions - and without any electronics at all.**

It took quite a bit of development time to modify the system, which was originally developed for the automotive market, to suit the conditions and requirements of a motorcycle. But when, after about two years, the first prototype was made available to us for driving tests, I could hardly believe it: I got on the motorcycle with a pillion passenger and took off.

Of course, the suspension sagged much further than was known from a conventional system, but after a few hundred meters of riding, the ride height was adjusted to the defined level. At the same time, the **WOW effect** followed - the motorcycle could be ridden so agilely thanks to the optimum level position and the resulting optimized caster as well as the spring rate reduced to the bare minimum, as if I were sitting alone on the bike - I no longer noticed my passenger. The vision

became reality and even the engineers at ZF could hardly believe what we had created in meticulous collaboration. Together, they considered where this ingenious system could demonstrate its full potential. We quickly came to the decision to concentrate on the Harley Davidson touring models - the success proves us right, so today this variant is the best-selling Wilbers Nivomat system. Today, we are very proud to have co-developed and established a suspension system on the market that solves customers' problems regarding the complex adjustment and tuning possibilities of a motorcycle suspension without the rider's knowledge or intervention.



When we started test rides in 2016 with the first prototypes of the new Nivomat in a Suzuki Bandit 1250, we were all very surprised that it was possible to cover a wide range of applications with just one „damper“. After many test kilometers, with the most varied basic settings in the Nivomat damper, we had achieved a very good result. The Nivomat damper with the appropriate tuning transformed the Suzuki Bandit into a sportsman

and tourer in equal measure, whether in solo or pillion mode.

And all this without having to make a single adjustment or the need for sensor-controlled electronics. We have expanded the system so that it is now available in a modified version for Harley touring models and also for large enduros.



Scan the QR code and get to the complete **model and price overview** Harley Davidson!



Mike on the Bike, Brand ambassador & test driver



As a test rider and Wilbers brand ambassador, I can proudly say that I feel very honored to have been given the task of putting the Nivomat system through its paces on my adventures! It's even more fun to work with Benny Wilbers and the features of the Nivomat to make the final adjustments. A few years ago Benny told me about the Nivomat, the shock absorber that independently maintains its level - completely without electronics. As a motorcyclist who is always on the cutting edge of technology, I was surprised that there are no electronics for this application either!

Then comes the moment when the Nivomat is installed.

The machine lowers a little, but after a few hundred meters it reaches the optimum height again. When I returned from my first test drive, the Wilbers team was ready with 60 kg bags. With these the weight was increased again clearly. After a few hundred meters, the suspension reached exactly the same height as a few minutes before, when it was still loaded without the 60 kg bags. And the best part? The shock absorber adjusted its damping independently. A driving experience as if I had no luggage with me. That's bizarre, no matter how much you weigh or what you're carrying, the shock absorber adjusts to it! And that means that, in terms of handling, you actually always have the same bike under your butt! I was surprised and delighted all in one.

The test.

First I drove for a week in the Eifel. Everyone knows the Eifel, it has fast curves, hairpin turns, big differences in altitude and not always the best asphalt. In short, in the Eifel you meet everything and so I could fine-tune the shock

absorber together with Benny Wilbers and make it fit for the big trip!

The journey through Scandinavia to the North Cape.

The trip through Norway was already a great pleasure for me with the previously installed Wilbers WESA, but with a Nivomat on board, the trip could only get better. My bike has never ridden so well and comfortably, and to think that before you always had to adjust the preload in the right position or choose the right position like on the BMW GS. The Nivomat does everything for you, the right level and the right damping and the smile under my helmet made me realise that Wilbers and ZF have something great to offer the motorbike industry! This is the best shock absorber I have ever ridden! Even at 180 km/h fully loaded with luggage on the German Motorway, the system worked as it should.

The cross-country test in France and Italy.

When I came back from the trip to the North Cape, I went to the South of France after a short break with studded tyres. Here I did some crazy things at high altitude to damage the shock absorber at Benny's behest. With the words „Destroy it, boy, we can only learn from it!“, he sent me on my way. The off-road trip through the Alps of France, Austria and Italy was a real strain in stages, the square studs no longer looked square after a week because I often went over over large, sharp stones and through deep holes to get up the mountain.

They were old military roads that are only really passable on a few days a year. They literally destroy wheels and tyres... but not the Wilbers shock absorber! I set the WESA, which is mounted on the front wheel, a little softer in feedback



and the Nivomat feels this very well, as if by itself, and adapts. On the trip to the North Cape, I had everything set up so that the suspension offered a lot of comfort. Here in the Alpine off-road, however, I seemed to have found a real off-road setting, soft with plenty of suspension travel... Just by setting the front shock absorber softer! This is brilliant, because the Nivomat rides so well off-road and doesn't sag.

This test was the most important for me! Why? Because it made me realise that this system belongs in every world traveller's motorbike. No matter what situation you are in, the shock absorber always provides the right setting and damping, you can just ride on without stopping.

Not only motorbike travellers, but also motorcyclists in general find the Nivomat ingenious. No other shock absorber for me.

Wilbers takes motorcycling to the next level!

Wolfgang Prinz, Predevelopment motorcycle ZF Friedrichshafen AG



The fun of motorcycles was already present in me at a young age. In 1979 I bought my first motorcycle, a Harley Davidson FXE Superglide built in 1977. I rode this machine for 34 years until 2013. In total, I drove about 350,000 kilometers during this period.

Since 2013, I now drive a Harley Davidson Softail

Deluxe. Here then recently already the 60,000 km inspection was carried out. This motorcycle was also not spared from modifications: a high handlebar was installed, air filter and exhaust were changed and a single seat was needed to reduce the already low seating position by another 5 cm.

Scan the QR code and get to the complete **model and price overview** Harley Davidson!



 Nivomat.wilbers.de

Vacation trips are usually in conjunction with visits to motorcycle events within Europe. I have been working at ZF Friedrichshafen AG since 1990 in the development department of the hydropneumatic suspension elements product group as a test engineer. Until 1995, I was in charge of spring cylinder projects, then I moved to the Nivomat Group, where I am still responsible for all Nivomat testing issues. In addition to the use of the Nivomat in the passenger car sector, the Nivomat is now also increasingly being used in the motorcycle product segment.

My first motorcycle Nivomat project was developed in cooperation with the Wilbers company. A Nivomat was to be built for the Harley Davidson Touring series, with an HD Street Glide serving as the base model. From my many years of experience with Harley Davidson motorcycles and their mostly unsatisfactory suspensions to this day, the Nivomat and the associated Wilbers components upgraded the handling many times over. In the main, this optimization is due to the Nivomat with its level regulation. This function

makes the required spring deflection available again in the loaded state and thus significantly optimizes comfort and, above all, driving safety. This was followed by another Nivomat project in collaboration with Wilbers. Motorcycles in the large enduro category were to be equipped. Here, a BMW GS served as the base model. The special feature of this development was that, from the point of view of the available installation space on the machine, it was necessary to deviate from the standard design of the Nivomat. The necessary equipment volume was provided by an external container connected to a hose line. In widely conducted test runs, the Nivomat was also credited with a significant improvement in driving behavior.

Thomas Meyer, Predevelopment motorcycle ZF Friedrichshafen AG

I am Thomas Meyer, 56 years old, and have been working for ZF Friedrichshafen AG in pre-development for 21 years. For the last 10 years, I have been working almost exclusively on motorcycle suspensions, the 11 preceding years on the hydropneumatic „Nivomat“ level control system.

As a pre-developer, it has long been a concern of mine to apply the „Nivomat“ to a motorcycle, since preloading a steel spring to achieve load compensation has always been a „half-assed affair“. A pure steel spring, due to the constant

spring rate, is always just a compromise, as it is usually too tight when solo and often too soft when loaded. For proper load compensation, not only the load-bearing capacity must be increased, but also the spring rate must be adjusted. The „Nivomat“ achieves both without external energy and is therefore predestined for such an application.

I developed a passion for motorcycles in my early youth and since then it has never left me. It was really pure coincidence that Benny Wilbers and I met at a motorcycle event in Valencia.



Scan the QR code and get to the complete **model and price overview** Harley Davidson!



After a short „Hello, who are you and what do you do?“ the idea was quickly born to set up a motorcycle with „Nivomat“. The choice fell on Suzuki Bandit 1250, and after a few tuning rides, the right riding position, a good spring rate adjustment and a respectable damping setting were quickly found. **The bike was just great to ride, regardless of the load.** When Wolfgang Prinz (Harley-mad and Nivomat veteran) came on board for the next project, the

Stefan Möller, Brand ambassador, Nivomat test center



I came from motorcycling to Harley riding only 15 years ago, I consciously make a difference. Harley riding is something unique, the possibility to make the Harley unique, the characteristics of the engine, the feeling and also the gift to overlook small mistakes. With the standard suspension, however, this „forgiveness“ found its limits with me. I wanted more comfort and precision without the Harley losing its character. After a few tries, I arrived at the Wilbers Nivomat with my current Road Glide. **It is the perfect all-around suspension, comfortable, precise and**

absolutely user-friendly. Once properly installed and adjusted, I don't have to worry about it again, no matter what road condition or load. Anecdote on the side: from my enthusiasm for the Wilbers Nivomat, I have since become a certified test center and Wilbers brand ambassador! A suspension must first create that.



The Wilbers Nivomat in detail

- The Wilbers Nivomat system powered by ZF is based on details from the well-known and patented passenger car Nivomat system and offers an unprecedented function. The system promises a fully automatic hydropneumatic leveling system with maximum system with maximum comfort.
- To activate and operate the system no intervention of the driver is necessary.
- The core advantage of the Wilbers Nivomat powered by ZF is the combination of level control and a suspension system and the progressive behavior of the spring rate and progressive behavior of spring rate and damping.



Scan the QR code and get to the complete **model and price overview** Harley Davidson!



The principle

1. The Nivomat system is preset so that it immediately sags to the intended (defined) level position for solo operation, namely approx. 1/3 of the total spring travel. In this state, the system offers a reduced spring rate and damping for solo operation compared to a conventional shock absorber, thus ensuring maximum comfort without oscillating.
2. A load of pillion passengers and/or luggage causes the vehicle to sink deeply and changes the vehicle geometry negatively. In this case, it would be necessary to preload the spring with a „normal“ shock absorber, but this only adjusts the level position. The actually necessary adjustment of the spring rate does not take place.
3. After a driving distance of approx. 300 meters under load, the suspension strut brought the vehicle back to the defined level position. The inner pump rod has pumped oil from the low-pressure chamber to the high-pressure chamber. The increased high pressure raised the vehicle to the defined level position and at the same time adjusted the spring rate and damping to the load.

The level, vehicle geometry, spring rate and damping are optimized throughout the entire journey, thus ensuring maximum comfort and driving safety.



Vehicle in defined level position after the driver has climbed on.

Vehicle outside the defined level position after mounting of a passenger and/or loading of luggage.

After approx. 300 meters of driving the vehicle is back in the defined in the defined level position.

How does the Nivomat work?

The basic design of the Nivomat system consists of two separate oil chambers, a monotube damping system, and a pump rod with control sleeves including valves.

The oil chambers are divided into a low-pressure chamber, which serves as an oil reservoir, and a high-pressure chamber with an integrated gas cushion.

If the suspension strut is now loaded and the vehicle sinks deeply, the pump rod automatically pumps oil from the low-pressure chamber into the high-pressure chamber due to the relative movement introduced into the Nivomat by the unevenness of the road.



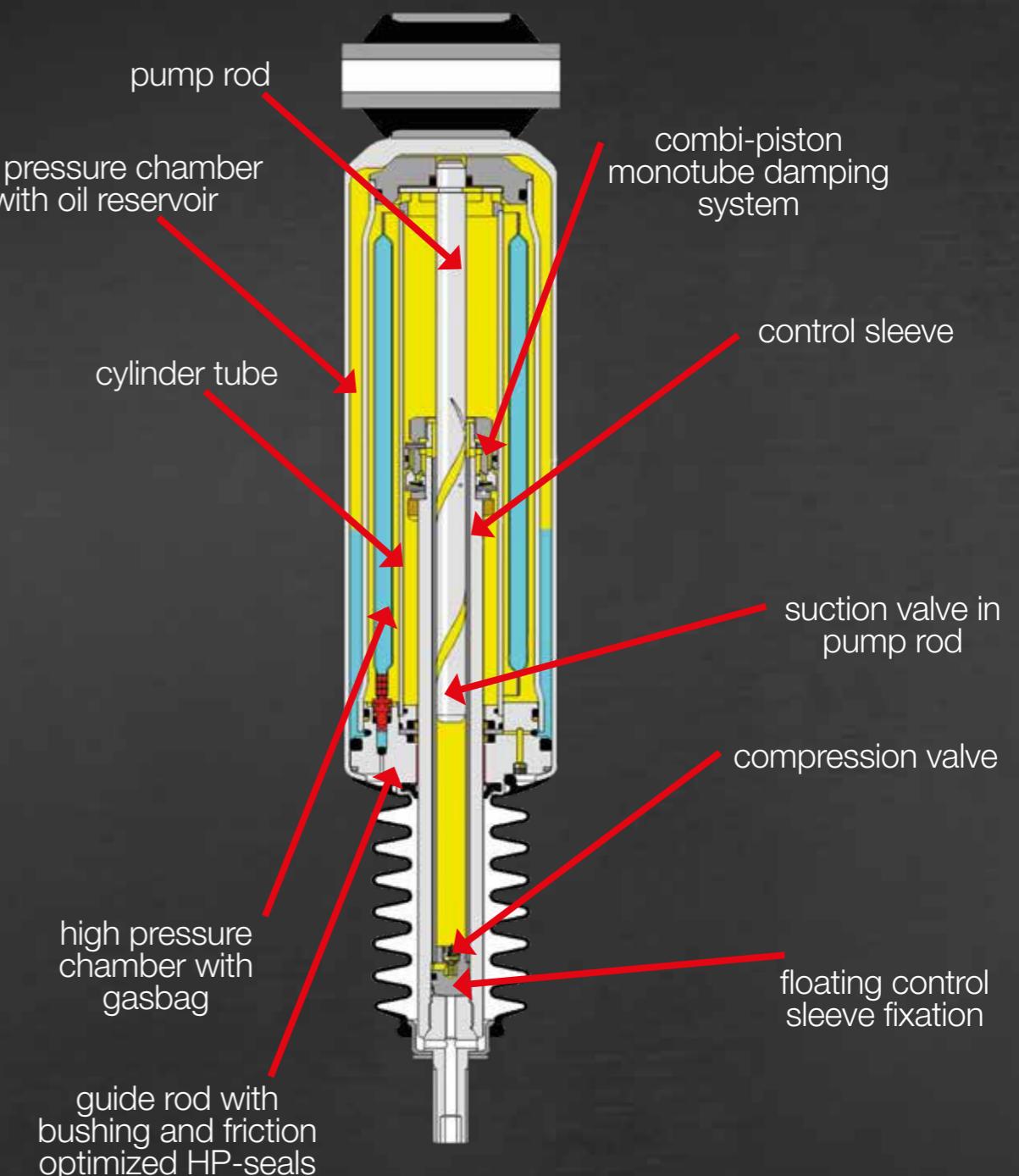
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The Nivomat in section

The resulting increase in pressure acts on the piston rod, which then extends out of the damper again. This pumping process continues until the motorcycle is back at the predefined level - so the Nivomat automatically adjusts the ride height after about 300 meters of riding.

To illustrate this process, we have recorded a video that you can watch by scanning the QR code:



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price overview Harley Davidson!



Advantages of the Wilbers Nivomat

Conventional strut

Seat height changes depending on payload and luggage.

Reduced total suspension travel depending on load and luggage.

Different geometry depending on load and luggage.

Loss of ground clearance depending on load and luggage.

Suspension spring with linear or progressive characteristic curve. Can only ever be optimally designed for one loading condition.

If the load condition changes frequently between solo and pillion operation and/or luggage, the level position can only be achieved by adjusting the spring preload.

The actually necessary adjustment of the spring rate is not possible.

Wilbers Nivomat

Consistent seat height, no matter what the load.

Full availability of total suspension travel when loaded.

Consistent geometry, regardless of the load.

The Wilbers always returns to the defined level position and thus ensures optimum ground and lean angle clearance.

Additional gas spring with progressive characteristic curve, which adjusts the spring rate to the rate, depending on the load condition, to the necessary. The result: even in solo a significant gain in comfort even in solo operation.

We are looking for you! Nivomat Test Center

We would like to invite dealers and specialist workshops to help us further establish the Wilbers Nivomat system in the market and thus make end customers aware of the advantages.

To ensure that customers can be competently assisted with any questions in this regard, we would like to familiarize dealers and specialist workshops with the Nivomat system in detail in a training course. After completing the training, the dealer must equip a demonstration motorcycle with the system so that customers do a test drive.

The trained company will be listed on our website under the heading „Dealers“ as a certified Wilbers Nivomat Test Center. Thus, customers have the possibility to find the nearest test center by searching the area.

If you have any questions regarding training contents and dates, please do not hesitate to contact Mr. Stember. Please send an inquiry to stember@wilbers.de.



Advantages:

- Constant subjective driving experience, regardless of whether solo, with pillion and/or luggage.
- Automatic adjustment of spring and damping rate to the load condition.
- No adjustment or setting is necessary in the event of adjustment or adjustment is necessary.
- Incorrect operation is therefore impossible, as there are no adjustment options.
- Since the necessary spring and damping rates are called up, the system offers maximum comfort.
- The maximum spring travel is always available at all times, thus also the maximum freedom of lean angle with any load.



Want a test drive?

Scan the QR code and arrange a test drive today
a test drive at one of our Nivomat test centers
or with us!



Wilbers
Performance Suspension



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