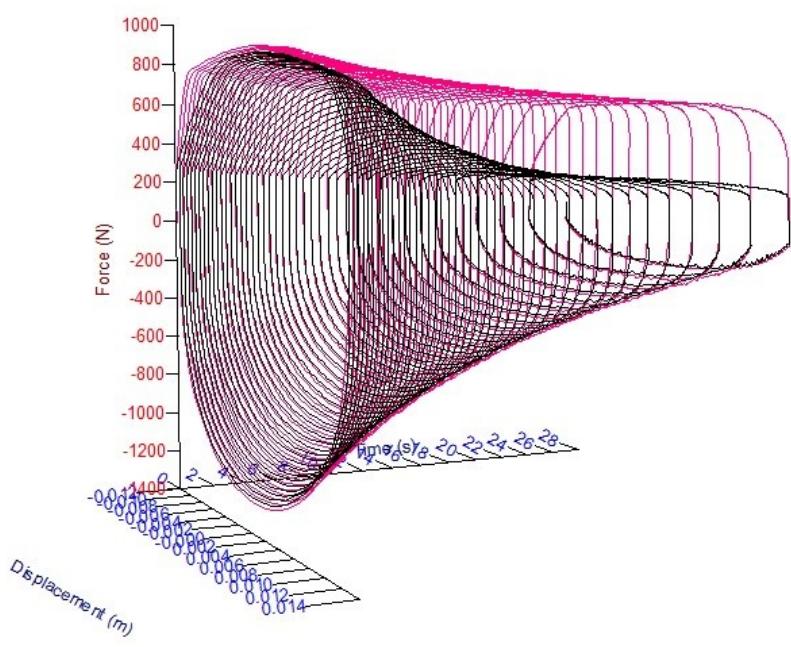
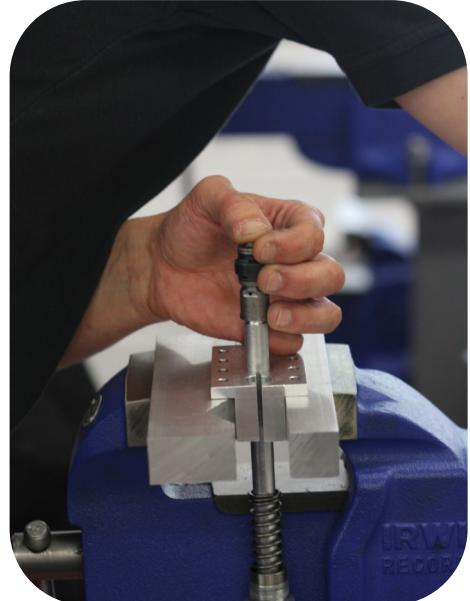


# PROSPECTUS AND COURSE GUIDE

## One day courses November 2023



# Motorcycle Suspension School

Motorcycle Suspension School is the UK's only suspension training facility, with a range of courses to suit beginners and professionals. The courses allow you to get hands on experience in a purpose built workshop, putting into practice the skills learned, under the guidance of a trained professional. To ensure you get

the most out of these courses, they have been designed to take a day to complete. Courses can be taken individually or over consecutive days. The courses suit a range of learning abilities and practical skill levels. Whilst formulas are used to prove theories, those put off by the thought of a day of maths need not be worried.

Motorcycle Suspension School has been passing its extensive knowledge to students since 2013. Gareth has experience in WSB, BSB, and provides consultancy work for tyre manufacturers, race teams, and multi-national component suppliers. This makes Motorcycle Suspension School the best place to develop and expand your practical skills and knowledge in suspension.

*"At this unique institute, students learn skills that would normally be held back for business purposes. We believe that the more people educated in the discipline, the better! The courses have helped people to establish businesses in the suspension industry. University students have found that the skills learned have helped increase their employability.*

*Racers who have undertaken the set-up course have drastically improved their lap times. Furthermore, home mechanics who have taken the servicing courses can now perform safe maintenance on their own machines."*

Gareth Evans



# Fork service course



## Course content

- The theory behind fork technology, springs, damping, oil and how dampers work.
- A full analysis of individual fork components and function.
- How to strip and service cartridge and damper rod forks.
- Why stock forks perform badly, the need for modifications.
- Modifications for damper rod forks.
- Piston kit installation on cartridge forks.
- Fork adjusters and set-up.

## Who is the course for?

- Those who want an advanced knowledge of servicing and modifying forks.
- Home mechanics who want to maintain their own forks, racers who want to modify their forks.
- Race team technicians.
- Dealers that wish to offer an advanced suspension service to their customers.



## Course Timetable

- 09:00 Fork design and function
- 10:00 Component function and maintenance
- 11:00 Break
- 11:15 Maintenance tasks, stripping and measurement
- 12:00 Practical work on stripping and rebuilding cartridges
- 13:00 Lunch
- 13:30 Workshop Practice
- 15:00 Break
- 15:15 Workshop Practice
- 17:00 Finish

Course timetables are for reference only. The courses progress at the same pace as the students learning. Therefore, students shouldn't worry about asking too many questions, as your understanding is more important.

## Course cost

- £250 including VAT

## Course dates

- Monday 20<sup>th</sup> November 2023

# Shock service course



## Course Content

- The theory behind shock technology, springs, damping, oil and how dampers work.
- A full analysis of individual shock components and function.
- How to strip and service different types of shock, twin tube, PDS, stock and aftermarket.
- Why stock shocks perform badly, the need for modifications.
- Modifications for stock shocks
- Shock adjusters and set-up.

## Who is the Course for?

- Those who want an advanced knowledge of servicing and modifying shocks.
- Home mechanics who want to maintain their own shocks, racers who want to modify their shocks.



- Race team technicians.
- Dealers that wish to offer an advanced suspension service to their customers.

## Course Timetable

- 09:00 Shock design and function
- 10:00 Component function and maintenance
- 11:00 Break
- 11:15 Maintenance tasks stripping and measurement
- 12:00 Workshop practice
- 13:00 Lunch
- 13:30 Workshop practice
- 15:00 Break
- 15:15 Workshop practice
- 17:00 Finish

Course timetables are for reference only. The courses progress at the same pace as the students learning. Therefore, students shouldn't worry about asking too many questions, as your understanding is more important.

## Course Cost:

- £250 including VAT

## Course Dates:

- Tuesday 21<sup>st</sup> November 2023

# Bike set-up

## Course Content

- Adjuster function and operation
- Sag: the purpose of sag, how to measure it and set it for rider weight.
- Stiction: how to measure for stiction, the implications of too much stiction.
- Geometry: how geometry effects the handling of the motorcycle, how to adjust it.
- Linkage design: how linkages effect chassis dynamics.
- Chassis dynamics: how to adjust the suspension and geometry to do what you want.
- Tyres: how tyres generate grip, how to get the most from the tyre, tyre problems.

## Who is the course for?

- Road riders
- Racers and track day riders
- Businesses wanting to offer a set-up service

## Cost

- £142 including VAT

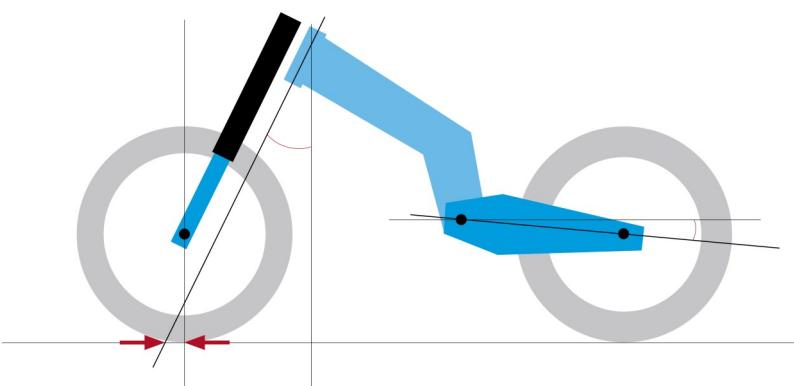
## Course Dates

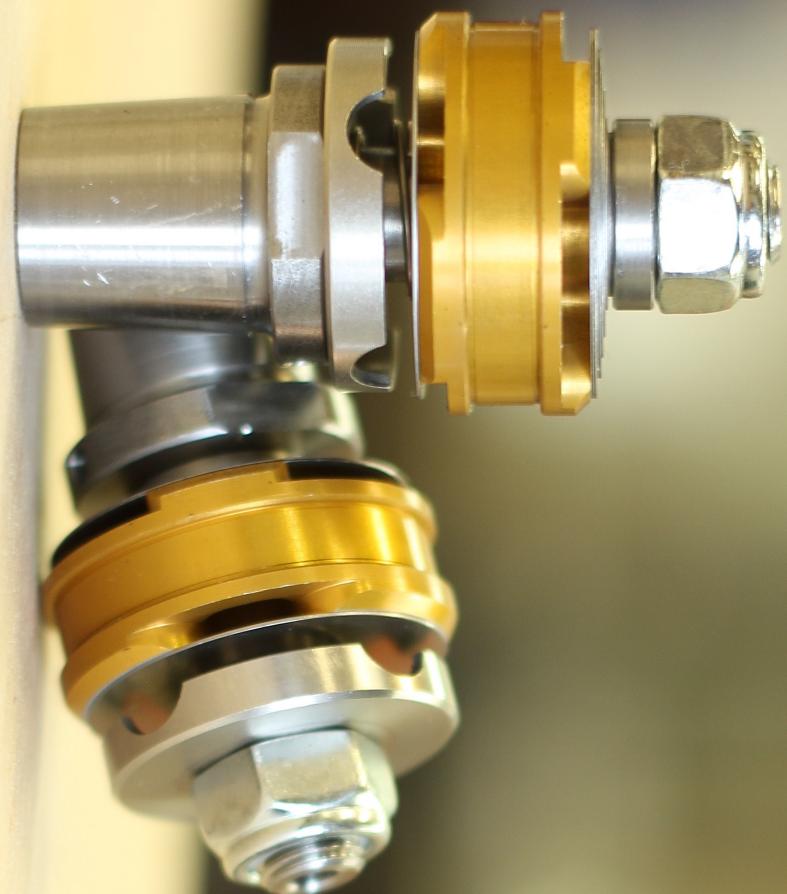
- Wednesday 22<sup>nd</sup> November 2023

## Course timetable

- 9:00 Adjusters
- 9:30 Measuring and adjusting sag, stiction effects
- 10:00 Geometry
- 11:00 Break
- 11:15 Linkages
- 11:45 Geometry and chassis tuning
- 12:00 Tyres
- 13:00 Lunch
- 13:30 Practical chassis and damping exercises.
- 15:00 Finish.

Course timetables are for reference only. The courses progress at the same pace as the students learning. Therefore, students shouldn't worry about asking too many questions, as your understanding is more important.





**“...If you want to get into suspension then this is the course to do, you won’t go far wrong by self investing in your own development and learning for yourself the truth about this subject...”**

# Facilities

## The Workshop

You will be learning in a purpose built workshop, fully equipped for fork and shock servicing. This is the perfect place to learn and develop your skills, with individual workstations and tool boxes.

Furthermore, you needn't worry about making the inevitable amount of mess, as the workshop was designed to withstand this. We also have a spacious lecture area, which is used for presentations and the theory side of the courses. There is also a comfortable relaxation room upstairs for tea, coffee, and lunch.



## Health and Safety

Please note that the courses undertaken at Reactive Suspension are undertaken at your own risk. We have taken advice on the insurance necessary to run these courses and unfortunately taking out insurance to cover all eventualities would have at least tripled the course fees. Our public liability insurance covers you for anything that may happen that is our responsibility, but we trust our students to work sensibly with consideration for themselves and the others in the group. We have a full risk assessment document that we can send you a copy of should you wish to see it and you will be given training in the correct procedures to carry out the work safely. Safety glasses, goggles, gloves etc. will be provided for your use. We will gladly refund the course fees if you are not happy with this arrangement but we would much rather run the courses under this arrangement than not at all.

## Clothing

The fork and shock service courses are hands-on practical courses, it is impossible not to get oily during the procedures undertaken. There are oil resistant aprons for students to use, these often though don't give the full body protection that can sometimes be necessary. It is recommended that you wear old clothing, or bring a full boiler suit with you. We would also recommend you bring your own safety footwear, or old stout shoes, that you're quite happy to spill oil over.

## Lunch

A buffet **lunch will be provided**. Please contact us if you have any dietary requirements. Tea and coffee will be available all day.



# Alumni and reviews

*"Great fun and learned an enormous amount over four days. The more you bring to this course the more you'll get out. Gareth does an impressive job of catering to different interests and experience and effortlessly creates [no nonsense] environment very conducive to learning.*

*The course is very well structured for theory, technological history and practical application. That said the real value for money is when Gareth answers specific questions with examples from his own experience. All learners benefit from questions raised by each other. You simply cannot get that from anywhere else..."*

*You don't just learn rules of thumb, you come away understanding why what works, works. Facilities are excellent and the food was a treat. Would highly recommend it to seasoned race professionals and enthusiastic road amateurs alike. Also...the lemon drizzle cake was superb." Ben Rich*



***"the real value for money is when Gareth answers specific questions with examples from his own experience... you simply cannot get that from anywhere else..."***

*"Gareth's course is written from his experience as a Suspension Engineer/Technician working for Major teams in Superbikes, but in a way that is easy to digest without being overly heavy on any maths, in this world keeping things simple really matters. Gareth also has an engineering background and helps you to understand the engineering logic required to get along in this field.*

*There is no [nonsense] that you may get from other places, no selling of the topic as a dark art as some suspension tuners will blag, it is kept to the point and will arm you with the knowledge on which you must have to build your own experience and ethics which will allow you to work with Suspension in a Professional level.*

*If you want to get into suspension then this is the course to do, you won't go far wrong by self investing in your own development and learning for yourself the truth about this subject." Mark Standley.*

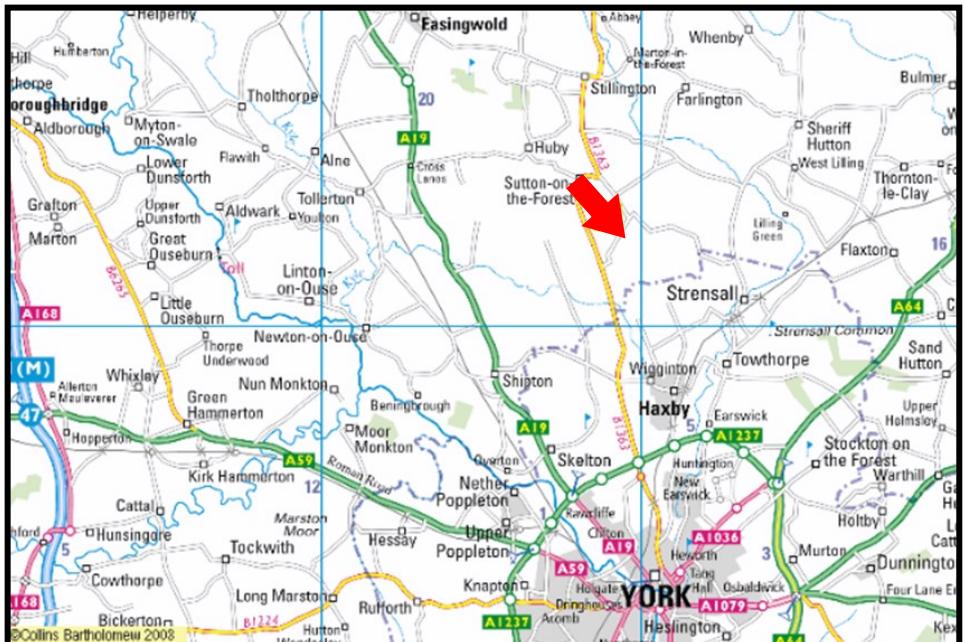
*"I really enjoyed my time and I learned a lot. [Gareth] explained the subject matter in a very practical and easily understandable way, which is a reflection of [his] deep knowledge of the subject, not just in theoretical terms but in every day application." Frank Nolan.*



# How to Find Us

Address: Unit 4, Green Park Business Centre, Sutton on the Forest, York, YO61 1ET.

07813 391563



## By car:

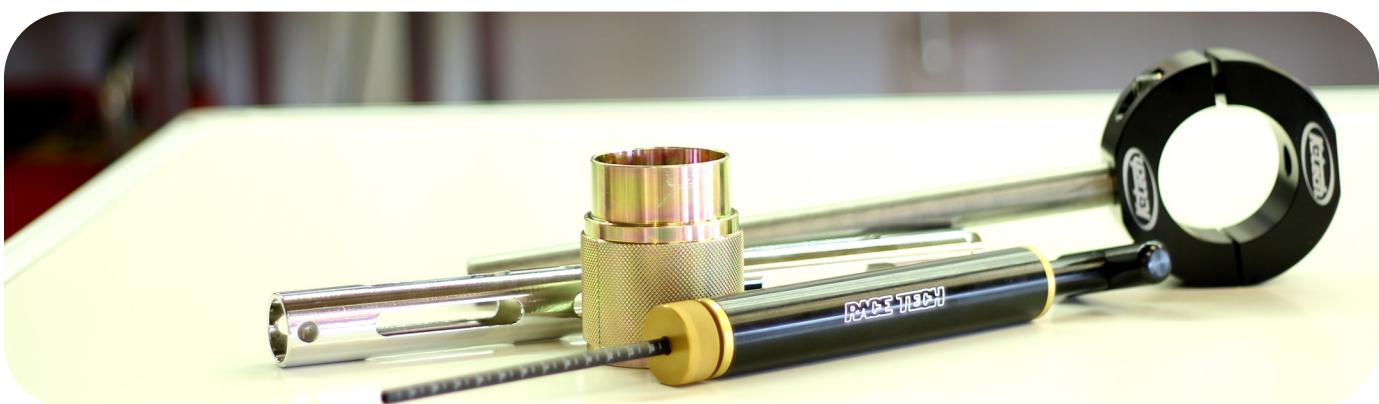
Leave the A1237 York ring road on the B1363 signposted for Wigginton / Helmsley. Travel approximately 3 miles to the traffic lights at Wigginton. Carry straight on and travel a further 3 miles to Goose Lane, this is the first road off to the right after the traffic lights. At the junction of Goose Lane is a sign post for Green Park Business Centre. Turn into Goose Lane and travel half a mile along the road. Green Park Business Centre is situated behind a green fence on the right hand side. Reactive Suspension is located in the second road on the left, the first and second units on the left hand side.

## By train/bus:

The number 40 Reliance Bus can be caught either from York Station Avenue, which is a short walk toward the city centre from the train station, or from Exhibition Square in the city centre. The bus stop for the workshop is called Eastmoor Business Centre, which is right outside the gates. There is a Taxi rank at the station for those wishing to travel by taxi, companies often charge a surcharge for traveling outside of the York ring road.

Reliance Bus Company: 01904 768262

York Station Taxis: 01904 623332.





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