



# Tools

For some people, motorcycle maintenance is a natural and integral part of their hobby, for others something best left to the professionals. Yet you can do many simple bike maintenance tasks yourself and quickly install some accessories without expensive trips to a workshop, if you have three things: your bike's repair manual, some peace and quiet, and decent tools. Inexperienced DIY mechanics often do not have the latter (yet). A random collection of unprofessional screwdrivers, a much too soft, cheap slip-joint pliers, blunt nippers, and a few

poor-quality wrenches are not a great starting point. Nobody can do a good job with tools like that. Without a doubt, working with bad tools is a nightmare you don't want to experience. A few useful, high-quality tools, however, can make working on your bike a real pleasure, and can also save money.

1



Socket wrench set, 108-piece

2



Tool set, 122-piece

OR

3



Imperial tool set, 92-piece

OR

7



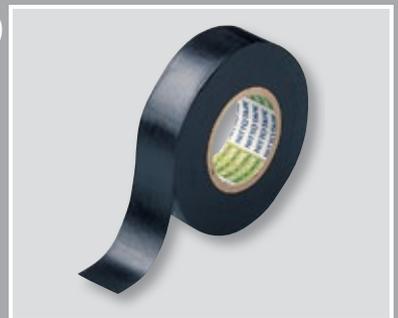
LED multifunctional tester

8



Japanese connector set

9



Self-amalgamating insulating tape

Costing little more than the hourly rate charged by a workshop, your first purchase should be a good-quality, reasonably extensive socket wrench set with a large (1/2 inch) and a small (1/4 inch) ratchet, lots of sockets, bits, bit holder, universal joints and extension bars. This will enable you to undo the vast majority of screw connections on your motorbike, including in hard-to-reach places. They don't have to be the most expensive professional tools, but definitely go for chrome-vanadium steel. Also useful are sockets with flank-drive, which will even undo many a damaged hexagon bolt. For example, the Rothwald socket wrench set **1** - or Rothwald complete set **2** - with combination wrenches, screwdrivers, pliers and additional 3/8-inch ratchet. If you own a Harley or a British classic, you will, of course, need imperial tools. Rothwald imperial tool set **3** - incl. combination wrenches and ball end Allen keys. You often need a second tool to hold nuts, so a large combination wrench set is also essential, unless included in the socket wrench set **4**. You should also have a pliers wrench set; e.g. from Knipex **5**, a medium hammer (300 g), a caliper gauge for measuring bolts etc. **6**, a voltage tester **7** - for tracking down electrical faults, a set of cable terminals with a suitable crimping tool **8**, a roll of self-amalgamating insulating tape **9** and a set of brushes for removing dirt and corrosion **10**. Now you have the basics covered! Although the bits in the socket wrench set will also work for slotted, cross-head and hexagon socket screws, sometimes you will probably prefer to use conventional screwdrivers because they are sturdier. So unless they are included in the socket wrench set, you will want a screwdriver set **11**. If there are lots of cross-head or slotted screws on your bike, an impact screw-

driver **12** is a great help, as they are often really tight and get damaged easily. The ideal tools for hard-to-reach hexagon socket screws are ball-end hex keys because they can be inserted at an angle. They have come right down in price nowadays, **13** - not needed if included in the socket wrench set. A tap with the Variohammer rubber or plastic hammer **14** can often help to loosen parts on your bike that are stuck fast. A standard steel hammer would often do more damage than good in such cases... At some point you will probably

have to remove a bike part that is fastened with a circlip or Seeger ring, for which you will need two special pliers, one for internal and one for external rings: Seeger ring pliers set **15**. Next you should purchase a battery charger suitable for your bike battery (see charger recommendation at [www.louis.eu](http://www.louis.eu)). If your motorbike doesn't have a centre stand, you should also get yourself a suitable paddock stand, for example, so that you can safely park your machine when working on it, or for the winter. A stand will also enable you to turn the rear wheel

<b>1</b>	Rothwald Socket Wrench Set, 108-piece	Order no. 10003240
<b>2</b>	Rothwald Tool Set, 122-piece	Order no. 10003275
<b>3</b>	Rothwald Imperial Tool Set, 92-piece	Order no. 10003570
<b>4</b>	Rothwald Combination Wrench Set, metric	Order no. 10002982
	Rothwald Combination Wrench Set, imperial	Order no. 10001338
<b>5</b>	Knipex Pliers Wrench Set	Order no. 10002885
<b>6</b>	Digital Caliper Gauge	Order no. 10003868
<b>7</b>	LED Multifunctional Tester	Order no. 10003030
<b>8</b>	Japanese Connector Set	Order no. 10032042
<b>9</b>	Self-amalgamating Insulating Tape	Order no. 10032002
<b>10</b>	Brush Set, 6-piece	Order no. 10001322
<b>11</b>	Rothwald Screwdriver Set, 10-piece	Order no. 10002944
<b>12</b>	Impact Driver, 5-piece	Order no. 10003903



4

Combination wrench set



5

Knipex pliers wrench set



6

Digital caliper gauge



10

Brush set, 6-piece



11

Screwdriver set, 10-piece



12

Impact driver set, 5-piece

to lubricate the chain. Experienced DIY mechanics who plan to do engine repairs, but also any biker who doesn't have a knack for tightening bolts correctly, depending on their purpose and size, should own a small **16** and a large **17** torque wrench. But don't forget, as solid as these wrenches look, they are only used for tightening, and not for loosening stubborn screws, as this may damage them internally.

With that lot, your DIY workshop would be pretty well kitted out. You only need further tools if you are doing special work. For regular brake servicing, tools like a disc brake piston spreader **18** and a brake bleeder **19** are very practical. To change oil filter cartridges, you use a suitable oil filter removal attachment for the 1/2 inch socket wrench. If you're going to synchronise a multi-carburettor system, you will need a syn-

chroniser; e.g. from Rothewald, 2 gauges **20**, or 4 gauges **21**. To track down faults in the ignition without risking damage to the electrical system, you use an ignition voltage tester (which does not cost much at all) **22**. Nor does a multimeter **23** cost a fortune. You use it to find electrical faults in general, and you can even download comprehensive instructions for how to use it on motorcycles at [www.louis.de](http://www.louis.de) (for further product information, go to the product in the Online Shop). If you own a vintage motorbike, or if you enjoy customising your bike, you will have to repair threads every now and again or cut a thread on parts you make yourself. Not a problem with a good thread cutter and tap set **24**. If the thread of a bolt is damaged, it can often be repaired with a thread file (metric) **25**. Unlike a thread cutter, it restores the existing metal rather than removing metal and further weakening the thread.

Working in comfort will increase your enjoyment of bike repair. A comfortable creeper seat **26** for working on your motorbike is a useful addition to your workshop. And is certainly no unnecessary luxury, as good posture at the motorbike is not only more comfortable, but also helps you to stay focused on the job you're doing.

13



Wrench sets

14



Variohammer

15



Seeger ring pliers set

16



Torque wrench (6–30 Nm)

17



Torque wrench (40–210 Nm)

21



4-gauge synchroniser

22



Ignition tester

23



Digital multimeter

13	Rothewald Hexagon Key Set metric	Order no. 10003257
	Rothewald Hexagon Key Set imperial	Order no. 10003258
	Rothewald Star Wrench Set	Order no. 10003259
14	Variohammer	Order no. 10003997
15	Seeger Ring Pliers Set	Order no. 10002882
16	Rothewald Torque Wrench 1/4" (6–30 Nm)	Order no. 10002597
17	Rothewald Torque Wrench 1/2" (40–210 Nm)	Order no. 10002599
18	Rothewald Professional Disc Brake Piston Separator	Order no. 10003009
19	Mityvac Brake Bleeder	Order no. 10003261
20	Rothewald 2-Gauge Synchroniser	Order no. 10034216
21	Rothewald 4-Gauge Synchroniser	Order no. 10034217
22	Ignition Tester	Order no. 10003256
23	Rothewald Digital Multimeter	Order no. 10002567
24	Craft-Meyer Hand Tap and Thread Cutting Set metric	Order no. 10002582
	Craft-Meyer Hand Tap and Thread Cutting Set imperial	Order No. 10002583
25	Thread File, metric	Order no. 10003044
26	Rothewald Workshop Creeper	Order no. 10003273



Disc brake piston spreader

18



Brake bleeder

19



2-gauge synchroniser

20



Hand tap and thread cutting sets

24



Thread file

25



Workshop creeper

26