

# REPAIR MANUAL 2014







|        |                                                       |    |        |                                                                          |    |
|--------|-------------------------------------------------------|----|--------|--------------------------------------------------------------------------|----|
| 1      | MEANS OF REPRESENTATION .....                         | 6  | 6.2.6  | Positioning the fork protection .....                                    | 34 |
| 1.1    | Symbols used .....                                    | 6  | 6.2.7  | Removing the fork legs .....                                             | 34 |
| 1.2    | Formats used.....                                     | 6  | 6.2.8  | Installing the fork legs.....                                            | 34 |
| 2      | SAFETY ADVICE.....                                    | 7  | 6.2.9  | Removing the fork protector .....                                        | 35 |
| 2.1    | Repair Manual .....                                   | 7  | 6.2.10 | Installing the fork protector.....                                       | 35 |
| 2.2    | Safety advice.....                                    | 7  | 6.2.11 | Performing a fork service .....                                          | 35 |
| 2.3    | Degrees of risk and symbols .....                     | 7  | 6.2.12 | Disassembling the fork legs .....                                        | 36 |
| 2.4    | Work rules.....                                       | 7  | 6.2.13 | Removing the spring .....                                                | 38 |
| 3      | IMPORTANT NOTES.....                                  | 8  | 6.2.14 | Disassembling the cartridge .....                                        | 39 |
| 3.1    | Guarantee, warranty .....                             | 8  | 6.2.15 | Disassembling the piston rod .....                                       | 40 |
| 3.2    | Operating and auxiliary substances .....              | 8  | 6.2.16 | Disassembling the hydrostop unit .....                                   | 41 |
| 3.3    | Spare parts, accessories .....                        | 8  | 6.2.17 | Disassembling the seal ring retainer.....                                | 41 |
| 3.4    | Figures .....                                         | 8  | 6.2.18 | Checking the fork legs.....                                              | 42 |
| 4      | SERIAL NUMBERS .....                                  | 9  | 6.2.19 | Assembling the seal ring retainer.....                                   | 43 |
| 4.1    | Chassis number .....                                  | 9  | 6.2.20 | Assembling the hydrostop unit .....                                      | 43 |
| 4.2    | Type label .....                                      | 9  | 6.2.21 | Assembling the piston rod .....                                          | 44 |
| 4.3    | Engine number .....                                   | 9  | 6.2.22 | Assembling the cartridge .....                                           | 45 |
| 4.4    | Fork part number .....                                | 9  | 6.2.23 | Assembling the fork legs.....                                            | 46 |
| 4.5    | Shock absorber article number .....                   | 9  | 6.2.24 | Greasing the steering head bearing.....                                  | 50 |
| 5      | MOTORCYCLE .....                                      | 10 | 6.2.25 | Removing the lower triple clamp .....                                    | 50 |
| 5.1    | Raising the motorcycle with the lift stand .....      | 10 | 6.2.26 | Installing the lower triple clamp .....                                  | 51 |
| 5.2    | Removing the motorcycle from the lift stand.....      | 10 | 6.2.27 | Checking the play of the steering head bearing .....                     | 52 |
| 5.3    | Starting.....                                         | 10 | 6.2.28 | Adjusting the play of the steering head bearing .....                    | 53 |
| 5.4    | Starting the motorcycle for checking.....             | 11 | 7      | HANDLEBAR, CONTROLS.....                                                 | 54 |
| 6      | FORK, TRIPLE CLAMP .....                              | 12 | 7.1    | Handlebar position.....                                                  | 54 |
| 6.1    | EXC, XC-W .....                                       | 12 | 7.2    | Adjusting the handlebar position .....                                   | 54 |
| 6.1.1  | Adjusting the compression damping of the fork .....   | 12 | 7.3    | Adjusting the basic position of the clutch lever .....                   | 54 |
| 6.1.2  | Adjusting the rebound damping of the fork ....        | 12 | 7.4    | Checking the routing of the throttle cable.....                          | 55 |
| 6.1.3  | Adjusting the spring preload of the fork.....         | 12 | 7.5    | Checking the play in the throttle cable .....                            | 55 |
| 6.1.4  | Bleeding the fork legs .....                          | 13 | 7.6    | Adjusting the play in the throttle cable.....                            | 56 |
| 6.1.5  | Cleaning the dust boots of the fork legs.....         | 13 | 8      | FRAME .....                                                              | 57 |
| 6.1.6  | Loosening the fork protection .....                   | 14 | 8.1    | Removing the engine guard (125 EXC SIX DAYS EU).....                     | 57 |
| 6.1.7  | Positioning the fork protection .....                 | 14 | 8.2    | Installing the engine guard (125 EXC SIX DAYS EU).....                   | 57 |
| 6.1.8  | Removing the fork legs .....                          | 14 | 9      | SHOCK ABSORBER, SWINGARM .....                                           | 58 |
| 6.1.9  | Installing the fork legs.....                         | 14 | 9.1    | Adjusting the high-speed compression damping of the shock absorber ..... | 58 |
| 6.1.10 | Removing the fork protector.....                      | 15 | 9.2    | Adjusting the low-speed compression damping of the shock absorber .....  | 58 |
| 6.1.11 | Installing the fork protector.....                    | 15 | 9.3    | Adjusting the rebound damping of the shock absorber.....                 | 59 |
| 6.1.12 | Performing a fork service .....                       | 16 | 9.4    | Measuring the sag of the unloaded rear wheel....                         | 59 |
| 6.1.13 | Disassembling the fork legs .....                     | 16 | 9.5    | Checking the static sag of the shock absorber....                        | 59 |
| 6.1.14 | Cartridge disassembly .....                           | 19 | 9.6    | Checking the riding sag of the shock absorber....                        | 60 |
| 6.1.15 | Disassembling the compression damping fitting .....   | 21 | 9.7    | Adjusting the spring preload of the shock absorber.....                  | 60 |
| 6.1.16 | Checking the fork legs.....                           | 21 | 9.8    | Adjusting the riding sag .....                                           | 61 |
| 6.1.17 | Assembling the compression damping fitting .....      | 22 | 9.9    | Removing the shock absorber .....                                        | 61 |
| 6.1.18 | Assembling the cartridge .....                        | 23 | 9.10   | Installing the shock absorber.....                                       | 61 |
| 6.1.19 | Assembling the fork legs.....                         | 24 | 9.11   | Servicing the shock absorber .....                                       | 62 |
| 6.1.20 | Greasing the steering head bearing .....              | 28 | 9.12   | Removing the spring.....                                                 | 62 |
| 6.1.21 | Removing the lower triple clamp .....                 | 29 | 9.13   | Disassembling the damper .....                                           | 63 |
| 6.1.22 | Installing the lower triple clamp .....               | 29 | 9.14   | Disassembling the piston rod .....                                       | 64 |
| 6.1.23 | Checking the play of the steering head bearing .....  | 31 | 9.15   | Disassembling the seal ring retainer.....                                | 65 |
| 6.1.24 | Adjusting the play of the steering head bearing ..... | 31 | 9.16   | Replacing the pilot bushing .....                                        | 66 |
| 6.2    | 125 EXC SIX DAYS EU.....                              | 32 | 9.17   | Checking the damper .....                                                | 67 |
| 6.2.1  | Adjusting the compression damping of the fork .....   | 32 | 9.18   | Disassembling the rebound adjuster.....                                  | 67 |
| 6.2.2  | Adjusting the rebound damping of the fork ....        | 32 | 9.19   | Removing the heim joint.....                                             | 68 |
| 6.2.3  | Bleeding the fork legs .....                          | 32 | 9.20   | Installing the heim joint.....                                           | 69 |
| 6.2.4  | Cleaning the dust boots of the fork legs.....         | 33 |        |                                                                          |    |
| 6.2.5  | Loosening the fork protection .....                   | 33 |        |                                                                          |    |

|        |                                                                         |     |        |                                                                           |     |
|--------|-------------------------------------------------------------------------|-----|--------|---------------------------------------------------------------------------|-----|
| 9.21   | Assembling the rebound adjuster.....                                    | 70  | 15.5   | Disconnecting the negative cable of the battery (All 200 models).....     | 102 |
| 9.22   | Assembling the seal ring retainer.....                                  | 70  | 15.6   | Connecting the negative cable of the battery (All 200 models).....        | 102 |
| 9.23   | Assembling the piston rod.....                                          | 71  | 15.7   | Removing the battery (All 200 models) .....                               | 103 |
| 9.24   | Assembling the damper .....                                             | 72  | 15.8   | Installing the battery (All 200 models).....                              | 103 |
| 9.25   | Bleeding and filling the damper .....                                   | 75  | 15.9   | Checking the charging voltage (All 200 models).....                       | 104 |
| 9.26   | Filling the damper with nitrogen.....                                   | 77  | 15.10  | Checking the closed current (All 200 models).....                         | 104 |
| 9.27   | Installing the spring .....                                             | 78  | 15.11  | Checking the starter relay (All 200 models) .....                         | 104 |
| 9.28   | Changing the heim joint.....                                            | 79  | 16     | BRAKE SYSTEM .....                                                        | 106 |
| 10     | EXHAUST .....                                                           | 81  | 16.1   | Checking the front brake linings .....                                    | 106 |
| 10.1   | Removing the main silencer .....                                        | 81  | 16.2   | Changing the front brake linings.....                                     | 106 |
| 10.2   | Installing the main silencer.....                                       | 81  | 16.3   | Checking the free travel of the hand brake lever .....                    | 108 |
| 10.3   | Changing the glass fiber yarn filling of the main silencer.....         | 81  | 16.4   | Adjusting free travel of hand brake lever (All 125/200 EXC models).....   | 108 |
| 11     | AIR FILTER .....                                                        | 83  | 16.5   | Adjusting the basic position of the hand brake lever (200 XC-W USA) ..... | 108 |
| 11.1   | Removing the air filter box lid .....                                   | 83  | 16.6   | Checking the front brake fluid level .....                                | 109 |
| 11.2   | Installing the air filter box lid .....                                 | 83  | 16.7   | Adding front brake fluid.....                                             | 109 |
| 11.3   | Removing the air filter.....                                            | 83  | 16.8   | Changing the front brake fluid.....                                       | 110 |
| 11.4   | Installing the air filter.....                                          | 83  | 16.9   | Checking the rear brake linings .....                                     | 111 |
| 11.5   | Cleaning the air filter and air filter box.....                         | 84  | 16.10  | Changing the brake linings of the rear brake ....                         | 112 |
| 11.6   | Sealing the air filter box .....                                        | 84  | 16.11  | Checking the free travel of foot brake lever .....                        | 113 |
| 12     | FUEL TANK, SEAT, TRIM .....                                             | 85  | 16.12  | Adjusting the basic position of the foot brake lever .....                | 113 |
| 12.1   | Opening the filler cap.....                                             | 85  | 16.13  | Checking the rear brake fluid level.....                                  | 114 |
| 12.2   | Closing the filler cap .....                                            | 85  | 16.14  | Adding brake fluid for the rear brake.....                                | 114 |
| 12.3   | Removing the seat .....                                                 | 85  | 16.15  | Changing the rear brake fluid .....                                       | 115 |
| 12.4   | Mounting the seat .....                                                 | 86  | 17     | LIGHTING SYSTEM, INSTRUMENTS .....                                        | 117 |
| 12.5   | Removing the fuel tank.....                                             | 86  | 17.1   | Checking the headlight setting .....                                      | 117 |
| 12.6   | Installing the fuel tank .....                                          | 87  | 17.2   | Adjusting the headlight range.....                                        | 117 |
| 12.7   | Fuel tap .....                                                          | 88  | 17.3   | EXC, XC-W .....                                                           | 117 |
| 13     | MASK, FENDER.....                                                       | 89  | 17.3.1 | Speedometer overview.....                                                 | 117 |
| 13.1   | Removing the front fender .....                                         | 89  | 17.3.2 | Activation and test.....                                                  | 118 |
| 13.2   | Installing the front fender .....                                       | 89  | 17.3.3 | Setting kilometers or miles .....                                         | 118 |
| 13.3   | Removing the headlight mask with the headlight.....                     | 89  | 17.3.4 | Adjusting the speedometer functions .....                                 | 118 |
| 13.4   | Installing the headlight mask with the headlight.....                   | 90  | 17.3.5 | Setting the clock .....                                                   | 119 |
| 14     | WHEELS .....                                                            | 91  | 17.3.6 | Setting the wheel circumference .....                                     | 119 |
| 14.1   | Checking the tire air pressure.....                                     | 91  | 17.3.7 | Querying lap time .....                                                   | 120 |
| 14.2   | Checking the tire condition .....                                       | 91  | 17.4   | 125 EXC SIX DAYS EU.....                                                  | 120 |
| 14.3   | Checking the brake discs .....                                          | 92  | 17.4.1 | Speedometer overview.....                                                 | 120 |
| 14.4   | Checking the spoke tension.....                                         | 92  | 17.4.2 | Activation and test.....                                                  | 121 |
| 14.5   | Front wheel .....                                                       | 93  | 17.4.3 | Setting kilometers or miles .....                                         | 121 |
| 14.5.1 | Removing the front wheel .....                                          | 93  | 17.4.4 | Setting the speedometer functions .....                                   | 121 |
| 14.5.2 | Installing the front wheel .....                                        | 93  | 17.4.5 | Setting the clock .....                                                   | 122 |
| 14.5.3 | Removing the brake disc of the front brake....                          | 94  | 17.4.6 | Activating the additional functions .....                                 | 122 |
| 14.5.4 | Installing the brake disc of the front brake ....                       | 94  | 17.4.7 | Setting the wheel circumference .....                                     | 123 |
| 14.6   | Rear wheel .....                                                        | 94  | 17.4.8 | Viewing the lap time .....                                                | 123 |
| 14.6.1 | Removing the rear wheel .....                                           | 94  | 18     | ENGINE .....                                                              | 125 |
| 14.6.2 | Installing the rear wheel .....                                         | 95  | 18.1   | Removing the engine (All 125 models).....                                 | 125 |
| 14.6.3 | Removing the brake disc of the rear brake ....                          | 96  | 18.2   | Installing the engine (All 125 models) .....                              | 128 |
| 14.6.4 | Installing the brake disc of the rear brake.....                        | 96  | 18.3   | Removing the engine (All 200 models).....                                 | 132 |
| 14.6.5 | Checking the chain for dirt .....                                       | 96  | 18.4   | Installing the engine (All 200 models) .....                              | 136 |
| 14.6.6 | Cleaning the chain .....                                                | 97  | 18.5   | Engine disassembly.....                                                   | 141 |
| 14.6.7 | Checking the chain tension.....                                         | 97  | 18.5.1 | Clamping the engine into the engine work stand.....                       | 141 |
| 14.6.8 | Checking the chain, rear sprocket, engine sprocket and chain guide..... | 98  | 18.5.2 | Draining the gear oil.....                                                | 141 |
| 14.6.9 | Adjusting the chain tension .....                                       | 100 | 18.5.3 | Removing the shift lever .....                                            | 141 |
| 15     | WIRING HARNESS, BATTERY.....                                            | 101 | 18.5.4 | Removing the engine sprocket.....                                         | 142 |
| 15.1   | Plug-in connection, ignition timing map.....                            | 101 | 18.5.5 | Removing the clutch push rod.....                                         | 142 |
| 15.2   | Checking the capacitor (All 125 models).....                            | 101 |        |                                                                           |     |
| 15.3   | Removing the main fuse (All 200 models).....                            | 101 |        |                                                                           |     |
| 15.4   | Installing the main fuse (All 200 models).....                          | 102 |        |                                                                           |     |

|         |                                                                       |     |         |                                                                      |     |
|---------|-----------------------------------------------------------------------|-----|---------|----------------------------------------------------------------------|-----|
| 18.5.6  | Removing the spacer .....                                             | 143 | 18.6.27 | Disassembling the countershaft.....                                  | 179 |
| 18.5.7  | Removing the alternator cover .....                                   | 143 | 18.6.28 | Checking the transmission .....                                      | 179 |
| 18.5.8  | Removing the kick starter .....                                       | 145 | 18.6.29 | Assembling the main shaft.....                                       | 181 |
| 18.5.9  | Removing the cylinder head .....                                      | 146 | 18.6.30 | Assembling the countershaft .....                                    | 181 |
| 18.5.10 | Removing the cylinder .....                                           | 147 | 18.6.31 | Checking the electric starter drive<br>(All 200 models) .....        | 183 |
| 18.5.11 | Removing the piston .....                                             | 148 | 18.6.32 | Checking the kick starter .....                                      | 184 |
| 18.5.12 | Removing the water pump cover .....                                   | 148 | 18.6.33 | Preamsembling the kick starter shaft .....                           | 185 |
| 18.5.13 | Removing the clutch cover.....                                        | 148 | 18.7    | Engine assembly .....                                                | 186 |
| 18.5.14 | Removing the clutch discs .....                                       | 149 | 18.7.1  | Installing the crankshaft .....                                      | 186 |
| 18.5.15 | Removing the outer clutch hub .....                                   | 149 | 18.7.2  | Installing the transmission shafts .....                             | 186 |
| 18.5.16 | Removing the primary gear .....                                       | 150 | 18.7.3  | Installing the shift forks.....                                      | 186 |
| 18.5.17 | Removing the kick starter shaft .....                                 | 151 | 18.7.4  | Installing the shift drum .....                                      | 187 |
| 18.5.18 | Removing the shift shaft.....                                         | 151 | 18.7.5  | Installing the shift rails .....                                     | 187 |
| 18.5.19 | Removing the shift drum locating unit .....                           | 151 | 18.7.6  | Installing the left engine case section .....                        | 187 |
| 18.5.20 | Removing the rotor.....                                               | 152 | 18.7.7  | Installing the reed valve housing .....                              | 188 |
| 18.5.21 | Removing the stator .....                                             | 153 | 18.7.8  | Installing the stator.....                                           | 188 |
| 18.5.22 | Removing the reed valve housing.....                                  | 153 | 18.7.9  | Adjusting the ignition .....                                         | 189 |
| 18.5.23 | Removing the left engine case section .....                           | 154 | 18.7.10 | Installing the rotor .....                                           | 189 |
| 18.5.24 | Removing the shift rails.....                                         | 154 | 18.7.11 | Installing the shift drum locating unit .....                        | 190 |
| 18.5.25 | Removing the shift drum .....                                         | 154 | 18.7.12 | Installing the shift shaft .....                                     | 191 |
| 18.5.26 | Removing the shift forks.....                                         | 154 | 18.7.13 | Installing the kick starter shaft.....                               | 191 |
| 18.5.27 | Removing the transmission shafts.....                                 | 155 | 18.7.14 | Installing the primary gear .....                                    | 191 |
| 18.5.28 | Removing the crankshaft .....                                         | 155 | 18.7.15 | Installing the clutch basket.....                                    | 192 |
| 18.6    | work on individual parts.....                                         | 155 | 18.7.16 | Installing the clutch discs.....                                     | 193 |
| 18.6.1  | Work on the right section of the engine<br>case .....                 | 155 | 18.7.17 | Installing the clutch cover .....                                    | 193 |
| 18.6.2  | Work on the left section of the engine<br>case .....                  | 156 | 18.7.18 | Installing the water pump cover.....                                 | 194 |
| 18.6.3  | Removing the crankshaft bearing inner<br>race.....                    | 157 | 18.7.19 | Installing the piston .....                                          | 194 |
| 18.6.4  | Installing the crankshaft bearing inner<br>race.....                  | 157 | 18.7.20 | Installing the cylinder.....                                         | 195 |
| 18.6.5  | Changing the connecting rod, conrod<br>bearing, and crank pin .....   | 157 | 18.7.21 | Checking the X-distance .....                                        | 196 |
| 18.6.6  | Checking the crankshaft run-out at the<br>bearing pin.....            | 159 | 18.7.22 | Adjusting the X-distance.....                                        | 196 |
| 18.6.7  | Checking/measuring the cylinder .....                                 | 159 | 18.7.23 | Adjusting the Z-distance.....                                        | 197 |
| 18.6.8  | Removing the exhaust control .....                                    | 159 | 18.7.24 | Installing the cylinder head.....                                    | 198 |
| 18.6.9  | Checking the exhaust control in the<br>cylinder .....                 | 161 | 18.7.25 | Installing the kick starter .....                                    | 199 |
| 18.6.10 | Installing the exhaust control .....                                  | 162 | 18.7.26 | Installing the alternator cover.....                                 | 200 |
| 18.6.11 | Cylinder - Nikasil® coating .....                                     | 164 | 18.7.27 | Installing the spacer.....                                           | 201 |
| 18.6.12 | Checking/measuring the piston.....                                    | 164 | 18.7.28 | Installing the clutch push rod .....                                 | 202 |
| 18.6.13 | Checking the piston ring end gap .....                                | 165 | 18.7.29 | Installing the engine sprocket .....                                 | 202 |
| 18.6.14 | Piston/cylinder - measuring the mounting<br>clearance .....           | 165 | 18.7.30 | Installing the shift lever.....                                      | 202 |
| 18.6.15 | Disassembling the reed valve housing .....                            | 166 | 18.7.31 | Installing the gear oil drain plug.....                              | 203 |
| 18.6.16 | Checking the reed valve housing, reed<br>valve and intake flange..... | 167 | 18.7.32 | Removing the engine from the engine work<br>stand .....              | 203 |
| 18.6.17 | Assembling the reed valve housing .....                               | 167 | 19      | CARBURETOR .....                                                     | 204 |
| 18.6.18 | Changing the water pump bearing .....                                 | 169 | 19.1    | Choke .....                                                          | 204 |
| 18.6.19 | Removing the exhaust control in the clutch<br>cover .....             | 171 | 19.2    | Carburetor - adjusting the idle speed .....                          | 204 |
| 18.6.20 | Checking the exhaust control in the clutch<br>cover .....             | 173 | 19.3    | Emptying the carburetor float chamber .....                          | 205 |
| 18.6.21 | Installing the exhaust control in the clutch<br>cover .....           | 173 | 19.4    | Removing the carburetor (All 125 models) .....                       | 205 |
| 18.6.22 | Checking the clutch .....                                             | 175 | 19.5    | Removing the carburetor (All 200 models) .....                       | 206 |
| 18.6.23 | Changing the absorbing element of the<br>clutch.....                  | 176 | 19.6    | Installing the carburetor (All 125 models) .....                     | 207 |
| 18.6.24 | Preamsembling the shift shaft.....                                    | 176 | 19.7    | Installing the carburetor (All 200 models) .....                     | 208 |
| 18.6.25 | Checking the shift mechanism .....                                    | 177 | 19.8    | Checking/adjusting the carburetor<br>components.....                 | 209 |
| 18.6.26 | Disassembling the main shaft .....                                    | 178 | 19.9    | Disassembling the carburetor .....                                   | 210 |
|         |                                                                       |     | 19.10   | Checking the choke slide .....                                       | 211 |
|         |                                                                       |     | 19.11   | Checking the jet needle .....                                        | 211 |
|         |                                                                       |     | 19.12   | Checking the throttle slide .....                                    | 211 |
|         |                                                                       |     | 19.13   | Checking the float needle valve .....                                | 212 |
|         |                                                                       |     | 19.14   | Assembling the carburetor .....                                      | 212 |
|         |                                                                       |     | 19.15   | Checking/adjusting the float level .....                             | 213 |
|         |                                                                       |     | 20      | CLUTCH .....                                                         | 214 |
|         |                                                                       |     | 20.1    | Checking/correcting the fluid level of the<br>hydraulic clutch ..... | 214 |

# TABLE OF CONTENTS

|         |                                                               |     |             |                                        |     |
|---------|---------------------------------------------------------------|-----|-------------|----------------------------------------|-----|
| 20.2    | Changing the hydraulic clutch fluid .....                     | 214 | 28.2        | Page 2 of 5 (125 EXC EU).....          | 244 |
| 21      | WATER PUMP, COOLING SYSTEM .....                              | 215 | 28.3        | Page 3 of 5 (125 EXC EU).....          | 246 |
| 21.1    | Cooling system .....                                          | 215 | 28.4        | Page 4 of 5 (125 EXC EU).....          | 248 |
| 21.2    | Checking the antifreeze and coolant level .....               | 215 | 28.5        | Page 5 of 5 (125 EXC EU).....          | 250 |
| 21.3    | Checking the coolant level .....                              | 215 | 28.6        | Page 1 of 5 (125 EXC SIX DAYS EU)..... | 252 |
| 21.4    | Draining the coolant .....                                    | 216 | 28.7        | Page 2 of 5 (125 EXC SIX DAYS EU)..... | 254 |
| 21.5    | Refilling with coolant .....                                  | 216 | 28.8        | Page 3 of 5 (125 EXC SIX DAYS EU)..... | 256 |
| 22      | LUBRICATION SYSTEM.....                                       | 218 | 28.9        | Page 4 of 5 (125 EXC SIX DAYS EU)..... | 258 |
| 22.1    | Changing the gear oil.....                                    | 218 | 28.10       | Page 5 of 5 (125 EXC SIX DAYS EU)..... | 260 |
| 22.2    | Draining the gear oil.....                                    | 218 | 28.11       | Page 1 of 5 (200 EXC EU).....          | 262 |
| 22.3    | Refilling with gear oil .....                                 | 219 | 28.12       | Page 2 of 5 (200 EXC EU).....          | 264 |
| 22.4    | Checking the gear oil level .....                             | 219 | 28.13       | Page 3 of 5 (200 EXC EU).....          | 266 |
| 22.5    | Adding gear oil .....                                         | 219 | 28.14       | Page 4 of 5 (200 EXC EU).....          | 268 |
| 23      | IGNITION SYSTEM.....                                          | 221 | 28.15       | Page 5 of 5 (200 EXC EU).....          | 270 |
| 23.1    | Checking the ignition system.....                             | 221 | 28.16       | Page 1 of 5 (200 EXC AUS).....         | 272 |
| 23.2    | Ignition coil - checking the primary winding.....             | 222 | 28.17       | Page 2 of 5 (200 EXC AUS).....         | 274 |
| 23.3    | Ignition coil - checking the secondary winding.....           | 222 | 28.18       | Page 3 of 5 (200 EXC AUS).....         | 276 |
| 23.4    | Checking the spark plug connector .....                       | 223 | 28.19       | Page 4 of 5 (200 EXC AUS).....         | 278 |
| 23.5    | Alternator - checking the charging coil of the ignition ..... | 223 | 28.20       | Page 5 of 5 (200 EXC AUS).....         | 280 |
| 23.6    | Alternator - checking the light winding.....                  | 223 | 28.21       | Page 1 of 3 (200 XC-W USA) .....       | 282 |
| 23.7    | Checking the ignition pulse generator .....                   | 224 | 28.22       | Page 2 of 3 (200 XC-W USA) .....       | 284 |
| 24      | TECHNICAL DATA.....                                           | 225 | 28.23       | Page 3 of 3 (200 XC-W USA) .....       | 286 |
| 24.1    | Engine .....                                                  | 225 | 29          | SUBSTANCES .....                       | 288 |
| 24.1.1  | All 125 models.....                                           | 225 | 30          | AUXILIARY SUBSTANCES .....             | 290 |
| 24.1.2  | All 200 models.....                                           | 225 | 31          | SPECIAL TOOLS .....                    | 292 |
| 24.2    | Engine tolerance, wear limits .....                           | 226 | 32          | STANDARDS .....                        | 303 |
| 24.3    | engine tightening torques .....                               | 226 | 33          | LIST OF ABBREVIATIONS.....             | 304 |
| 24.4    | capacities .....                                              | 227 | INDEX ..... |                                        | 305 |
| 24.4.1  | Gear oil.....                                                 | 227 |             |                                        |     |
| 24.4.2  | Coolant .....                                                 | 227 |             |                                        |     |
| 24.4.3  | Fuel .....                                                    | 228 |             |                                        |     |
| 24.5    | Chassis .....                                                 | 228 |             |                                        |     |
| 24.6    | electrical system.....                                        | 229 |             |                                        |     |
| 24.7    | Tires .....                                                   | 229 |             |                                        |     |
| 24.8    | Fork.....                                                     | 229 |             |                                        |     |
| 24.8.1  | EXC, XC-W .....                                               | 229 |             |                                        |     |
| 24.8.2  | 125 EXC SIX DAYS EU.....                                      | 230 |             |                                        |     |
| 24.9    | shock absorber .....                                          | 230 |             |                                        |     |
| 24.10   | chassis tightening torques.....                               | 231 |             |                                        |     |
| 24.11   | carburetor .....                                              | 232 |             |                                        |     |
| 24.11.1 | All 125 models.....                                           | 232 |             |                                        |     |
| 24.11.2 | 200 EXC EU .....                                              | 232 |             |                                        |     |
| 24.11.3 | 200 EXC AUS .....                                             | 232 |             |                                        |     |
| 24.11.4 | 200 XC-W USA.....                                             | 232 |             |                                        |     |
| 24.12   | carburetor tuning .....                                       | 234 |             |                                        |     |
| 24.12.1 | Carburetor tuning (All 125 models) .....                      | 234 |             |                                        |     |
| 24.12.2 | Carburetor tuning (All 200 models) .....                      | 235 |             |                                        |     |
| 24.12.3 | General carburetor tuning .....                               | 236 |             |                                        |     |
| 25      | CLEANING, CARE .....                                          | 237 |             |                                        |     |
| 25.1    | Cleaning the motorcycle .....                                 | 237 |             |                                        |     |
| 25.2    | Checks and maintenance steps for winter operation.....        | 238 |             |                                        |     |
| 26      | STORAGE .....                                                 | 239 |             |                                        |     |
| 26.1    | Storage .....                                                 | 239 |             |                                        |     |
| 26.2    | Preparing for use after storage.....                          | 239 |             |                                        |     |
| 27      | SERVICE SCHEDULE .....                                        | 240 |             |                                        |     |
| 27.1    | Service schedule.....                                         | 240 |             |                                        |     |
| 27.2    | Service work (as additional order) .....                      | 241 |             |                                        |     |
| 28      | WIRING DIAGRAM .....                                          | 242 |             |                                        |     |
| 28.1    | Page 1 of 5 (125 EXC EU).....                                 | 242 |             |                                        |     |

## 1.1 Symbols used

The meaning of specific symbols is described below.



Indicates an expected reaction (e.g. of a work step or a function).



Indicates an unexpected reaction (e.g. of a work step or a function).



Indicates a page reference (more information is provided on the specified page).



Indicates information with more details or tips.



Indicates the result of a testing step.



Denotes a voltage measurement.



Denotes a current measurement.



Denotes a resistance measurement.

## 1.2 Formats used

The typographical formats used in this document are explained below.

|                                |                                                                                                             |
|--------------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>Proprietary name</b>        | Identifies a proprietary name.                                                                              |
| <b>Name®</b>                   | Identifies a protected name.                                                                                |
| <b>Brand™</b>                  | Identifies a trademark.                                                                                     |
| <b><u>Underlined terms</u></b> | Refer to technical details of the vehicle or indicate technical terms, which are explained in the glossary. |

### 2.1 Repair Manual

Read this Repair Manual carefully and thoroughly before beginning work. It contains useful information and tips that will help you repair and maintain your vehicle.

This manual assumes that the necessary special KTM tools and KTM workplace and workshop equipment are available.

### 2.2 Safety advice

A number of safety instructions need to be followed to operate the vehicle safely. Therefore, read this manual carefully. The safety instructions are highlighted in the text and are referred to at the relevant passages.

---

 **Info**  
The vehicle has various information and warning labels at prominent locations. Do not remove information/warning labels. If they are missing, you or others may not recognize dangers and may therefore be injured.

---

### 2.3 Degrees of risk and symbols

 **Danger**  
Indicates a danger that will immediately and invariably lead to fatal or serious permanent injury if the appropriate measures are not taken.

 **Warning**  
Indicates a danger that is likely to lead to fatal or serious injury if the appropriate measures are not taken.

 **Caution**  
Indicates a danger that may lead to minor injuries if the appropriate measures are not taken.

**Note**  
Indicates a danger that will lead to considerable machine and material damage if the appropriate measures are not taken.

 **Warning**  
Indicates a danger that will lead to environmental damage if the appropriate measures are not taken.

---

### 2.4 Work rules

Special tools are necessary for certain tasks. The tools are not contained in the vehicle but can be ordered under the number in parentheses. E.g.: bearing puller (15112017000)

During assembly, non-reusable parts (e.g. self-locking screws and nuts, seals and seal rings, O-rings, pins, lock washers) must be replaced by new parts.

In some instances, a thread locker (e.g. **Loctite®**) is required. The manufacturer instructions for use must be followed.

After disassembly, clean the parts that are to be reused and check them for damage and wear. Change damaged or worn parts.

After you complete the repair or service work, check the operating safety of the vehicle.

### 3.1 Guarantee, warranty

The work prescribed in the service schedule must be carried out by an authorized KTM workshop only and confirmed in the customer's Service & Warranty Booklet and in the **KTM Dealer.net**; otherwise, all warranty claims will be void. No warranty claims can be considered for damage resulting from manipulations and/or alterations to the vehicle.

Additional information on the guarantee or warranty and the procedures involved can be found in the Service & Warranty Booklet.

### 3.2 Operating and auxiliary substances



#### Warning

**Environmental hazard** Improper handling of fuel is a danger to the environment.

- Do not allow fuel to get into the ground water, the ground, or the sewage system.

Use operating and auxiliary substances (such as fuel and lubricants) as specified in the Owner's Manual.

### 3.3 Spare parts, accessories

Only use spare parts and accessories approved and/or recommended by KTM. KTM accepts no liability for other products and any resulting damage or loss.

The current **KTM PowerParts** for your vehicle can be found on the KTM website.

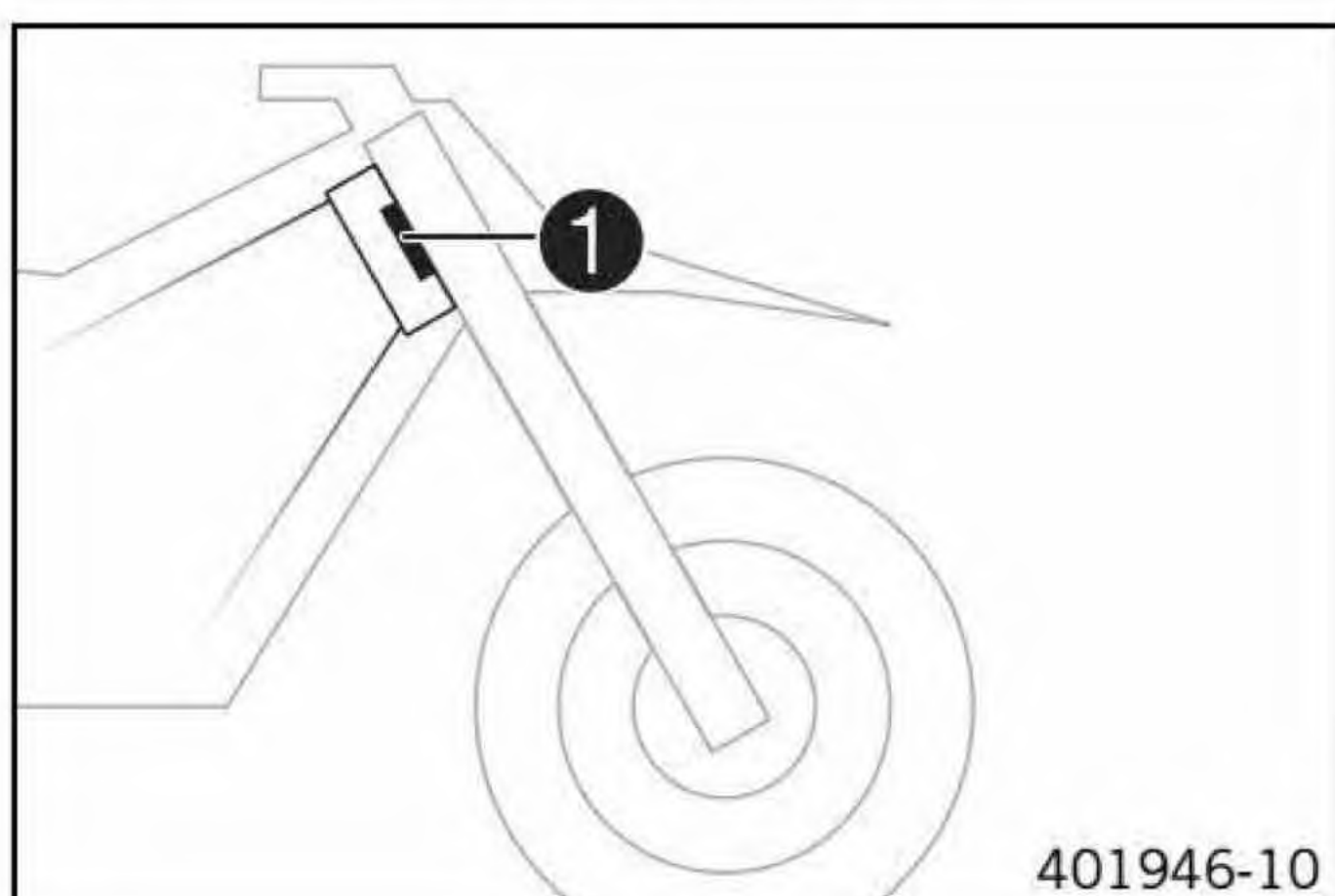
International KTM Website: <http://www.ktm.com>

### 3.4 Figures

The figures contained in the manual may depict special equipment.

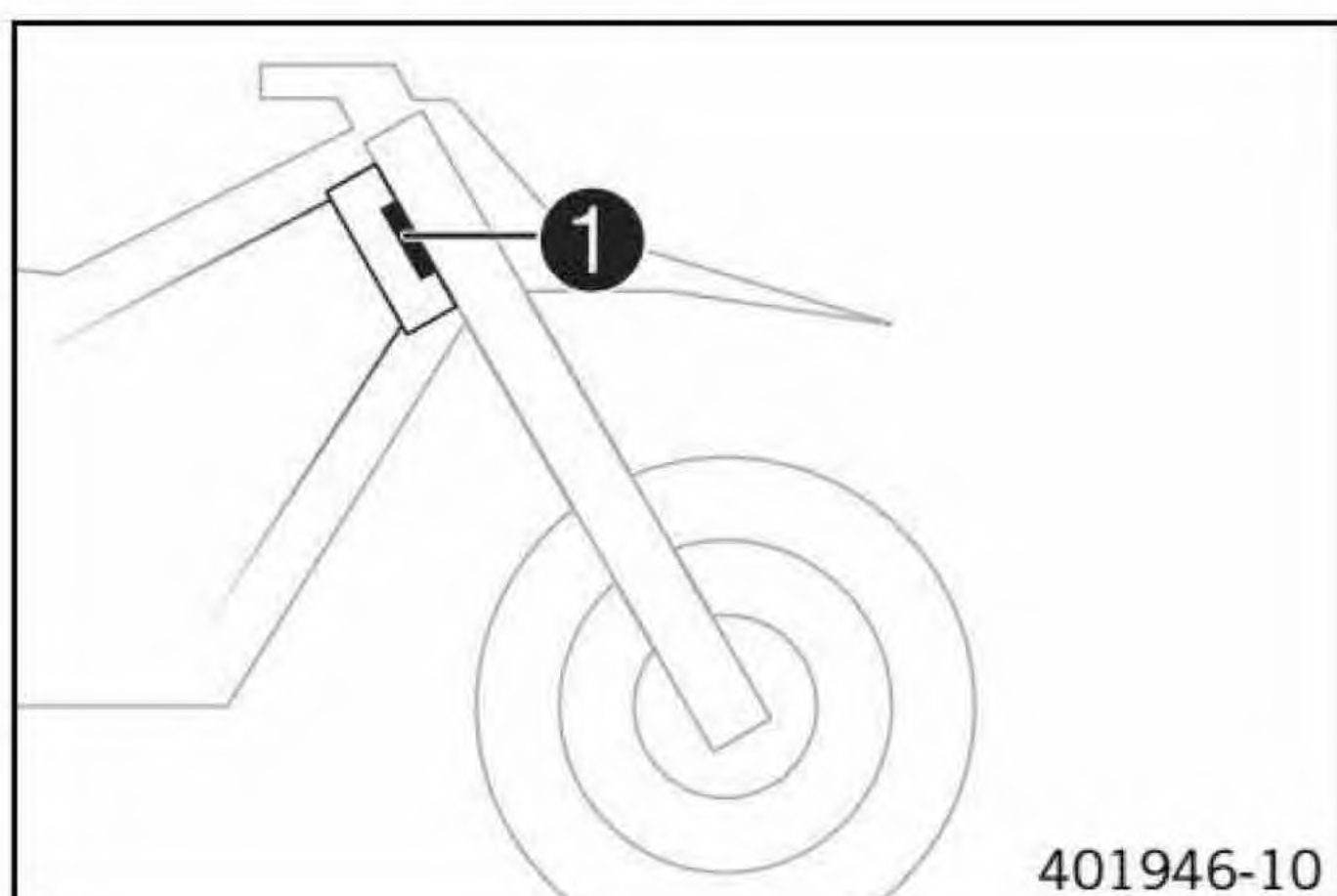
In the interest of clarity, some components may be shown disassembled or may not be shown at all. It is not always necessary to disassemble the component to perform the activity in question. Please follow the instructions in the text.

## 4.1 Chassis number



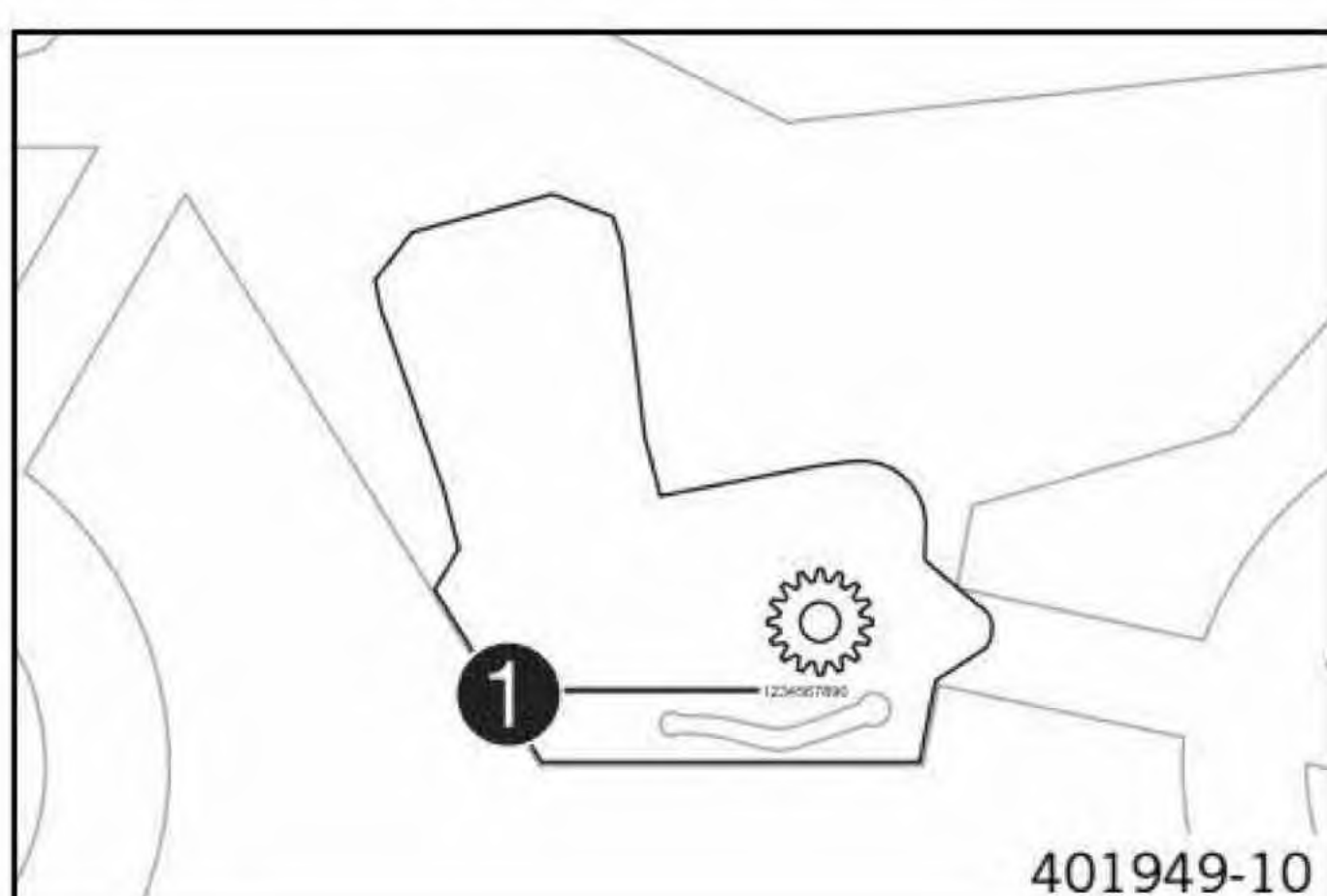
The chassis number **1** is stamped on the right side of the steering head.

## 4.2 Type label



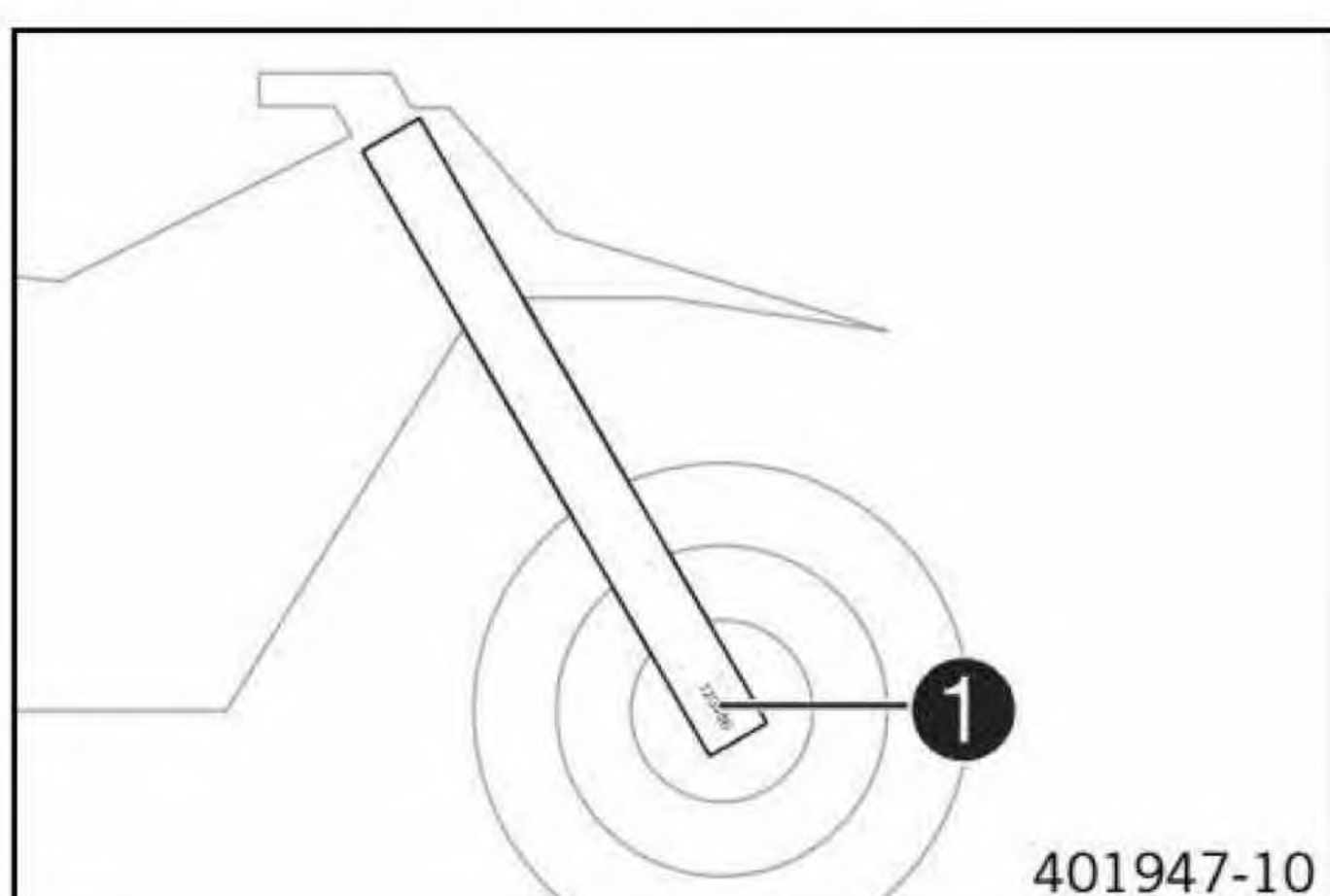
The type label **1** is fixed to the front of the steering head.

## 4.3 Engine number



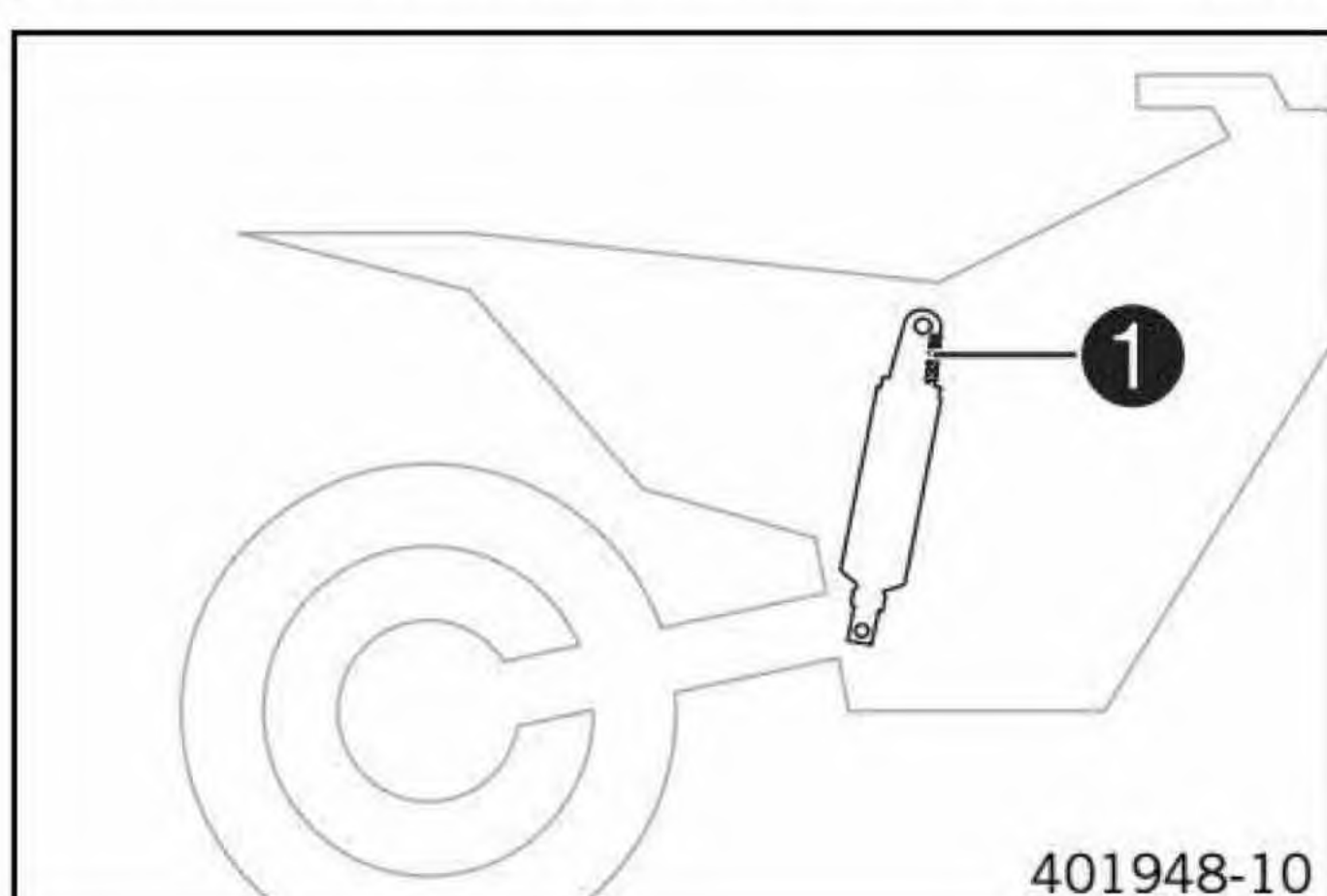
The engine number **1** is stamped on the left side of the engine under the engine sprocket.

## 4.4 Fork part number



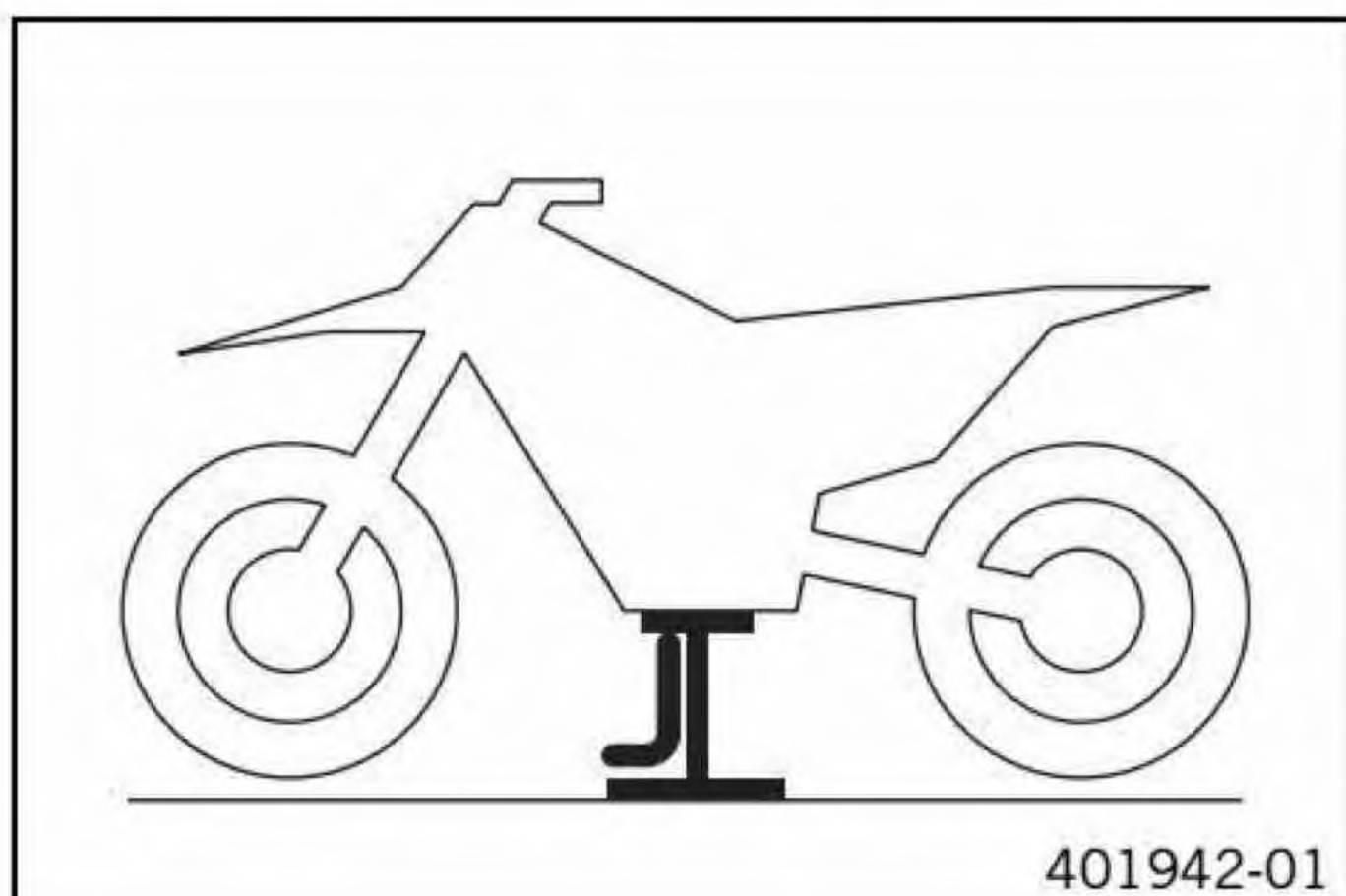
The fork part number **1** is stamped on the inner side of the fork stub.

## 4.5 Shock absorber article number



The shock absorber part number **1** is stamped on the top of the shock absorber above the adjusting ring towards the engine side.

## 5.1 Raising the motorcycle with the lift stand



### Note

**Danger of damage** The parked vehicle may roll away or fall over.

- Always place the vehicle on a firm and even surface.
- Raise the motorcycle at the frame underneath the engine.

Lift stand (54829055000) (☞ p. 295)

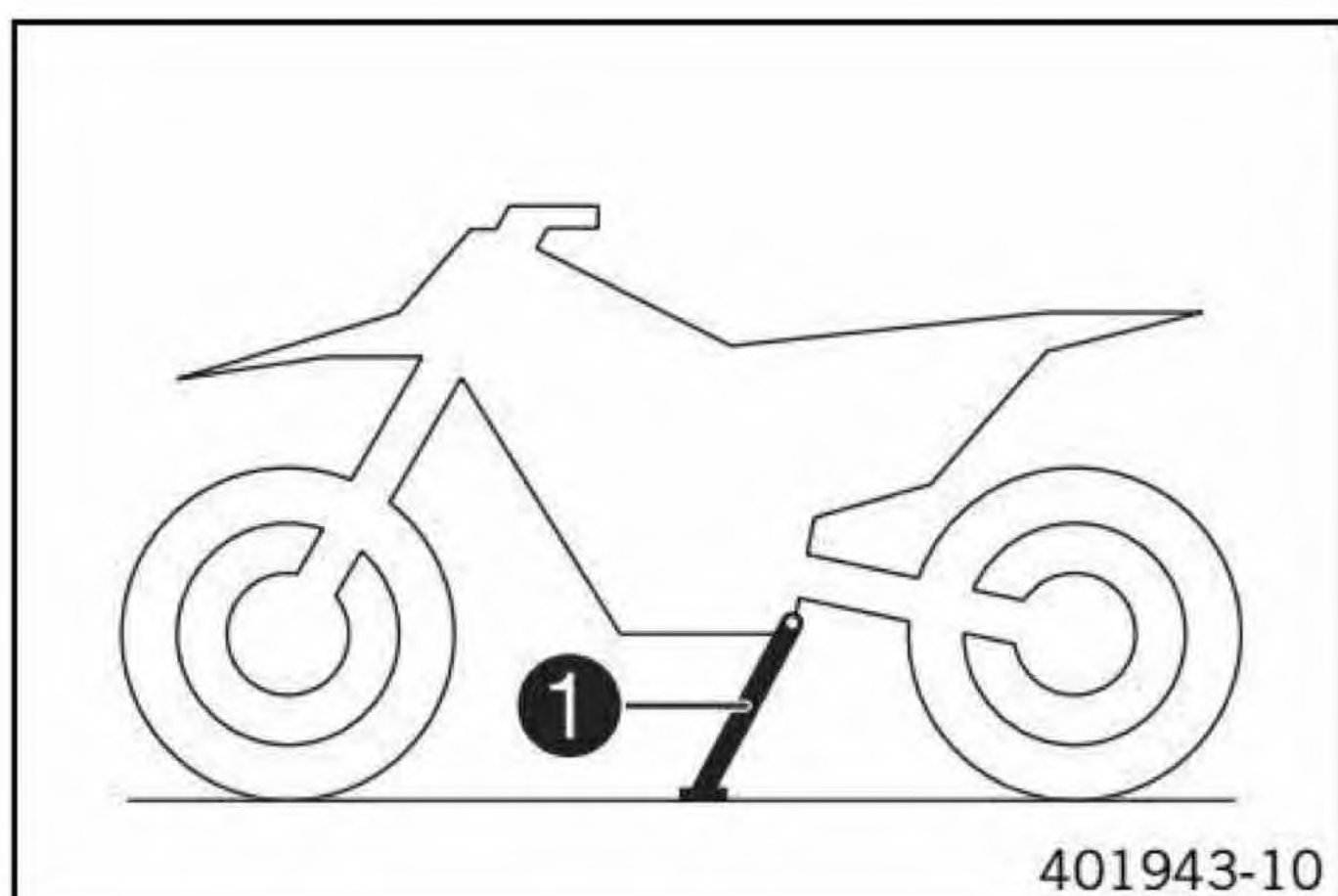
- ✓ Neither wheel is in contact with the ground.
- Secure the motorcycle against falling over.

## 5.2 Removing the motorcycle from the lift stand

### Note

**Danger of damage** The parked vehicle may roll away or fall over.

- Always place the vehicle on a firm and even surface.



- Remove the motorcycle from the lift stand.
- Remove the lift stand.
- To park the motorcycle, press side stand ❶ to the ground with your foot and lean the motorcycle on it.

### Info

When you are riding, the side stand must be folded up and secured with the rubber band.

## 5.3 Starting



### Danger

**Danger of poisoning** Exhaust gases are toxic and inhaling them may result in unconsciousness and/or death.

- When running the engine, always make sure there is sufficient ventilation, and do not start or run the engine in an enclosed space without an effective exhaust extraction system.

### Note

**Engine failure** High engine speeds in cold engines have a negative effect on the service life of the engine.

- Always warm up the engine at low engine speeds.



### Info

If the motorcycle does not start easily, there may be old fuel in the float chamber. The easily ignitable components of the fuel evaporate during lengthy periods of disuse.

When the float chamber is filled with fresh, ignitable fuel, the engine will start immediately.

### Condition

The motorcycle was stationary for more than 1 week.

- Empty the carburetor float chamber. (☞ p. 205)
- Turn handle ❶ of the fuel tap to the **ON** position. (Figure 602702-10 ☞ p. 88)
- ✓ Fuel can flow from the fuel tank to the carburetor.
- Take the motorcycle off of the stand.
- Shift gear to neutral.

### (200 EXC AUS)

- Turn the emergency OFF switch to the position ○.

### Condition

The engine is cold.

- Pull out the choke lever all the way.

**(All 200 models)**

- Press the electric starter button or press the kick starter robustly through its full range.

**Info**

Do not turn the throttle.

**(All 125 models)**

- Press the kick starter robustly through its full range.

**Info**

Do not turn the throttle.

## 5.4 Starting the motorcycle for checking

**Danger**

**Danger of poisoning** Exhaust gases are toxic and inhaling them may result in unconsciousness and/or death.

- When running the engine, always make sure there is sufficient ventilation, and do not start or run the engine in an enclosed space without an effective exhaust extraction system.

- Shift gear to neutral.

**(200 EXC AUS)**

- Turn the emergency OFF switch to the position

**(All 200 models)**

- Press the electric starter button or press the kick starter robustly through its full range.

**Info**

Do not open the throttle.

Press the starter for a maximum of 5 seconds. Wait for a least 5 seconds before trying again.

**(All 125 models)**

- Press the kick starter forcefully through its full range.

**Info**

Do not open the throttle.