



Installation instructions

Akrapovič Exhaust System:
Racing and **Evolution**
for the
BMW S1000R



504151

Congratulations on purchasing an Akrapovič exhaust system. Please read the entire installation manual prior to undertaking any activities related to installation of your new Akrapovič exhaust system. In case you do not fully understand the manual or any of its parts, please contact your authorized dealer!

This product should be installed by someone with sufficient knowledge of exhaust systems and their installation, and appropriate hand or power tools. If you are not qualified for this work, please utilize a certified mechanic for installation. By installing Your Akrapovič exhaust system, you indicate that you have read the installation manual in its entirety and you agree with the terms stated herein.

It is your responsibility to follow all installation instruction guidelines supplied with the Akrapovič exhaust system and undertake all necessary safety precautions. Akrapovič d.d. assumes no responsibility for damages occurring from misuse, abuse, improper installation, improper operation, lack of responsible care, or all previously stated reasons resulting from incompatibility with other manufacturer's products and/or systems.

IMPORTANT INFORMATION

Exclusion of Certain Liability

1. The manufacturer, importer or dealer shall not be liable for any incidental damage including personal injury or any other damages caused by improper installation or operation of the Akrapovič exhaust system. When installing the Akrapovič exhaust system be careful that the exhaust system does not touch other parts sensitive to high temperature.
2. Akrapovič makes no representation or warranties with regard to damage caused by the improper installation, use and maintenance of the Akrapovič exhaust system. The warranty is limited to defects recognized by our technical department and due to normal use, and excludes items subject to normal wear (gaskets and damping wool). The guarantee is void in case of accident, modification, improper or competition use.
3. Do not attempt to install the Akrapovič exhaust system on a vehicle model for which it was not made or tested by Akrapovič.
4. When the exhaust system gets very hot during operation, be careful not to burn yourself on the exhaust system or parts which are in direct contact with it, even when the engine is not running. Also protect other people, especially children, from the injuries mentioned above.
5. In some cases Akrapovič exhaust system kits contain chemical products (ceramic anti-seizing grease; bolt sealant). Handle with care, do not inhale or swallow. Avoid excessive contact with skin, eyes or mucous membranes. Keep out of reach of children.
6. Technical specifications of Akrapovič exhaust systems and related products are subject to change without notice.
7. Before removing the original exhaust system from your vehicle, please compare the parts you received with the list of materials provided in the installation manual in order to assure that you have all the parts necessary for the installation of your new Akrapovič exhaust system.
8. Although this manual consists of instructions for installation in written form, as well as photographs and pictures representing individual steps of the installation, please note that the photographs and pictures are symbolic and are intended for representation of general overview only. The photographs and pictures contained herein should serve as a guideline only and actual installation of the exhaust system may not correspond with the photographs and pictures entirely.
9. The process of uninstalling the original exhaust system may vary depending on the existing exhaust system. Please follow the original exhaust system manufacturer's instructions for uninstalling the original exhaust system.

Trademarks

The Akrapovič Exhaust System Technology logo is a registered trademark of Akrapovič d.d.

Akrapovič website

Information about Akrapovič exhaust systems and related products is available on the Akrapovič website at: <http://www.akrapovic.com/>

Copyright

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Symbols

The following symbols are used throughout these installation instructions:



TOOLS REQUIRED



TIGHTENING TORQUE



INSTALLATION TIP



CAUTION OR WARNING



USE BOLT SEALANT; Apply 3 to 4 small drops of bolt sealant onto the cleaned and degreased threads before tightening the bolts. **WARNING! Avoid contact with skin, eyes and mucous membranes. Do not inhale fumes. Keep out of reach of children.**



USE ANTI-SEIZE LEAD-FREE COPPER PASTE (black tube); Provides trouble-free and long-lasting protection against seizing, corrosion and rusting of bolts, threaded ends, nuts, joints, etc. Also protects against vibration, wear and impact. **WARNING! Avoid eye contact. Avoid excessive skin contact. Keep out of reach of children.**



USE ANTI-SEIZING GREASE (white tube); Prevents seizing, corrosion and excessive wear between the titanium components of your exhaust system. **WARNING! Avoid eye contact. Avoid excessive skin contact. Keep out of reach of children.**



Torx 20 wrench
Torx 25 wrench
Torx 27 wrench
Torx 30 wrench
Torx 45 wrench
T- handle swivelling Torx 30 wrench
T- handle swivelling Torx 27 wrench
Combination 10 mm wrench
Combination 17 mm wrench
Ratchet combination 10 mm bi-hex wrench
T-handle 12 mm wrench
Spring puller
Cutting nippers
Flat nose pliers
Flat screwdriver



BEFORE INSTALLING, CHECK THE PARTS LIST AND SCHEMATIC DRAWING OF THE EXHAUST SYSTEM! THE LATEST VERSION OF THE PARTS LIST AND SCHEMATIC DRAWINGS OF THE PRODUCTS ARE AVAILABLE ON OUR WEB PAGE.



IF ANY ITEMS IN THE AKRAPOVIČ EXHAUST SYSTEM PACKAGE ARE MISSING, PLEASE CONTACT YOUR AUTHORIZED DEALER. KEEP THE SCHEMATIC FOR FUTURE REFERENCE.



THESE INSTALLATION INSTRUCTIONS MUST BE READ CAREFULLY IN ORDER TO ENSURE PROPER INSTALLATION AND OPERATION OF THE AKRAPOVIČ EXHAUST SYSTEM.



THE EXHAUST SYSTEM CAN BE EXTREMELY HOT. ALLOW THE EXHAUST AND ENGINE TO COOL DOWN BEFORE BEGINNING INSTALLATION.



WE ADVISE YOU TO LEAVE INSTALLATION TO A QUALIFIED SERVICEMAN. IMPROPER INSTALLATION MAY RESULT IN A SHORTER LIFETIME OF THE EXHAUST SYSTEM AND/OR DAMAGE TO THE VEHICLE.



THIS MANUAL IS SPECIFIC TO THE BMW S1000R M.Y.2014. THERE MAY BE SOME DIFFERENCES IN INSTALLATION PROCEDURES FOR OTHER MODELS.



AKRAPOVIČ MAKES EVERY EFFORT TO PROVIDE IMPROVED CORNERING CLEARANCE FOR EXHAUST SYSTEMS. HOWEVER, DUE TO DESIGN AND SPACE LIMITATIONS ON SOME MOTORCYCLE MODELS, GROUND AND CORNERING CLEARANCE MAY NOT IMPROVE OR MAY EVEN BE REDUCED. FOR ADVANCED USERS, WE RECOMMEND INCREASING THE SPRING PRELOAD SETTINGS TO IMPROVE GROUND CLEARANCE.

REMOVAL OF STOCK EXHAUST SYSTEM:

1. Put the motorcycle on a side stand, we recommend a central racing stand. Make sure, that surface is solid and flat.
2. Loosen the marked clamp, unscrew the muffler's bracket bolt and remove the muffler with heat shield off the motorcycle (**Figure 1**).

! **CAUTION:** be careful not to damage any part of the motorcycle during this process!

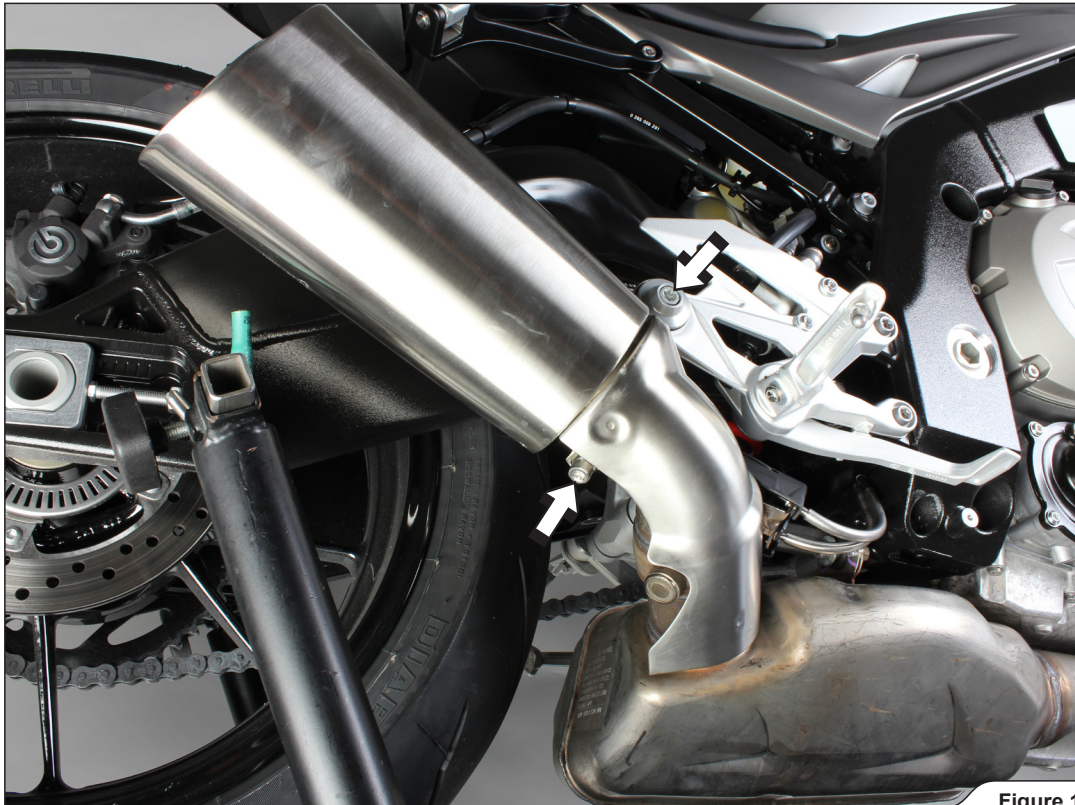


Figure 1

3. Unscrew the right foot peg and move it out of the way (**Figure 2**).

! **CAUTION:** be careful not to damage any part of the motorcycle during this process!

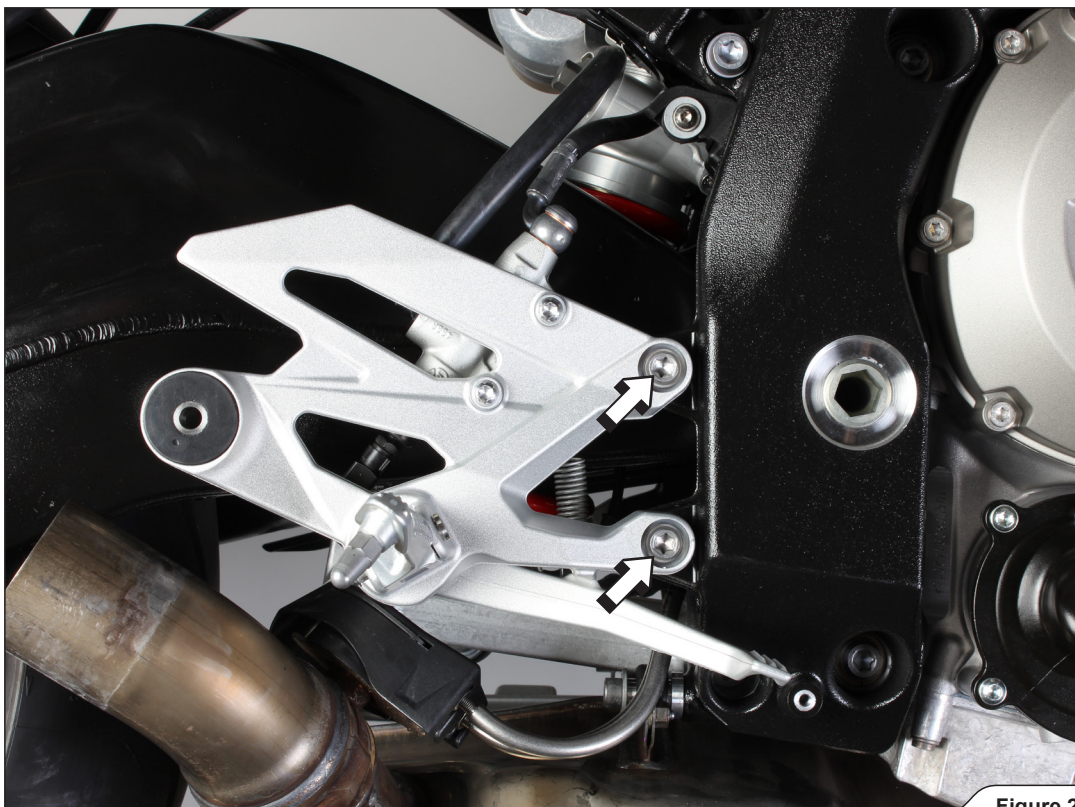


Figure 2

4. Unscrew the marked bolts on both sides of the motorcycle and carefully remove the lower and middle parts of the cowling off the motorcycle (Figure 3).

!

CAUTION: be careful not to damage any part of the motorcycle during this process!

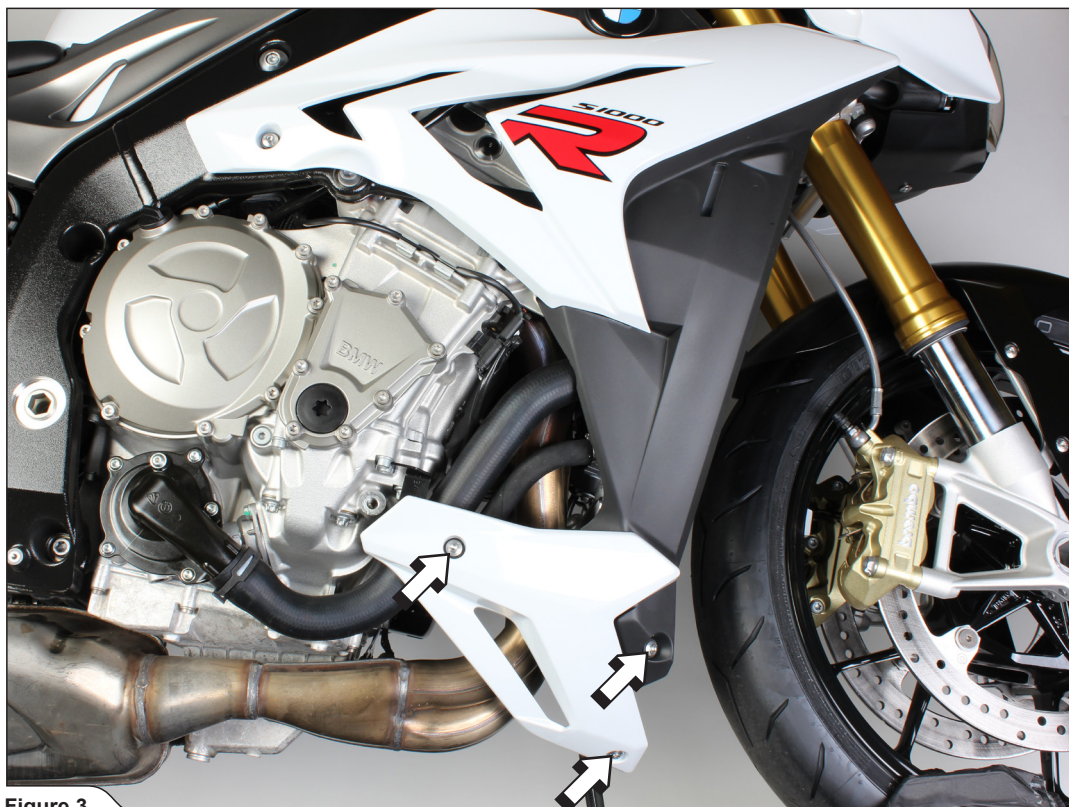


Figure 3

5. Undo the marked snap rings, unscrew the marked bolt and carefully remove the radiators' bracket off the motorcycle (Figure 4, 5).

!

CAUTION: be careful not to damage any part of the motorcycle during this process!

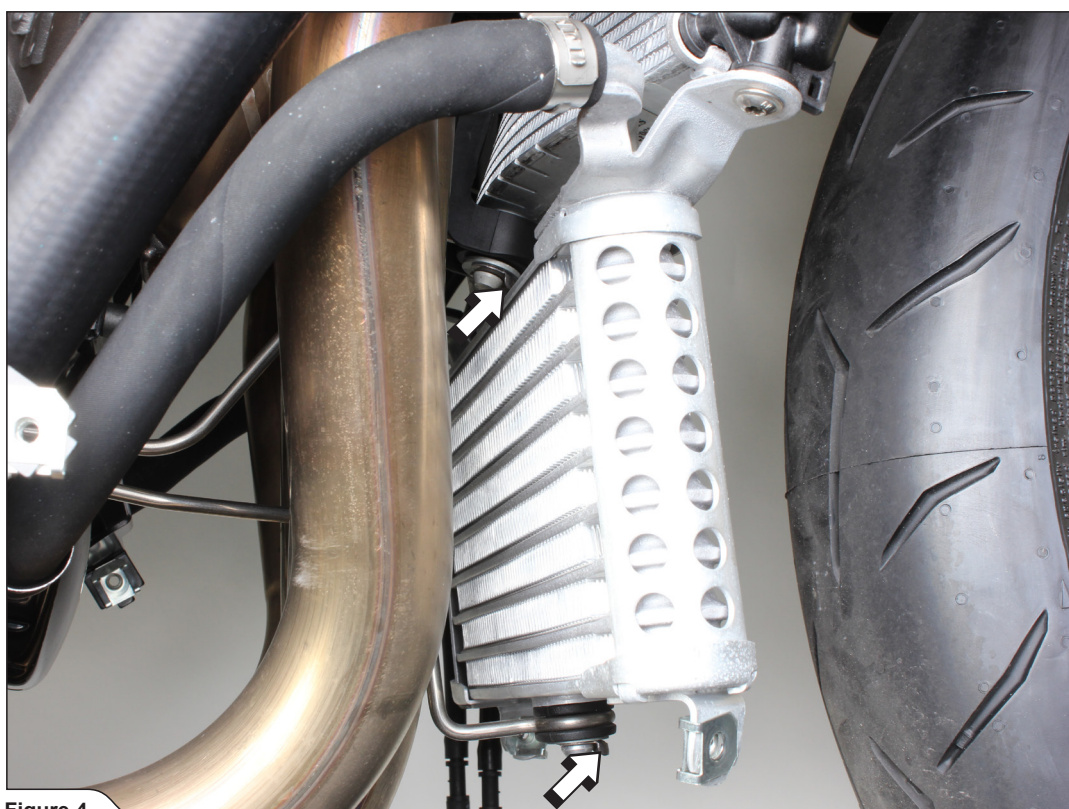


Figure 4



Figure 5

6. Unscrew the lambda sensors (Figure 6).

! **WARNING:** make sure not to damage the lambda sensors' electrical leads during this process!



Figure 6

7. Unscrew the marked bolt and carefully move the expansion tank out of the way (Figure 7).

! **WARNING:** make sure, not to damage or disconnect the cooling system tubes!

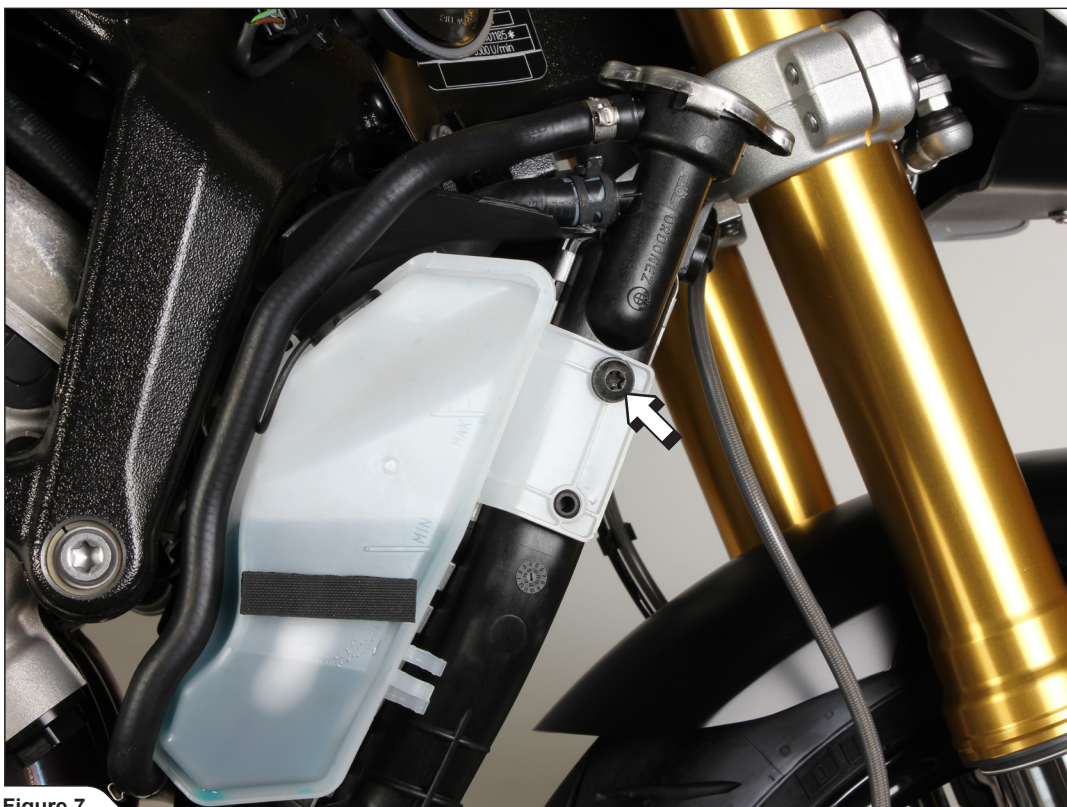


Figure 7

8. Unscrew all flange nuts (Figure 8).

! **WARNING:** be careful not to damage the radiator or any other part of the motorcycle during this process!

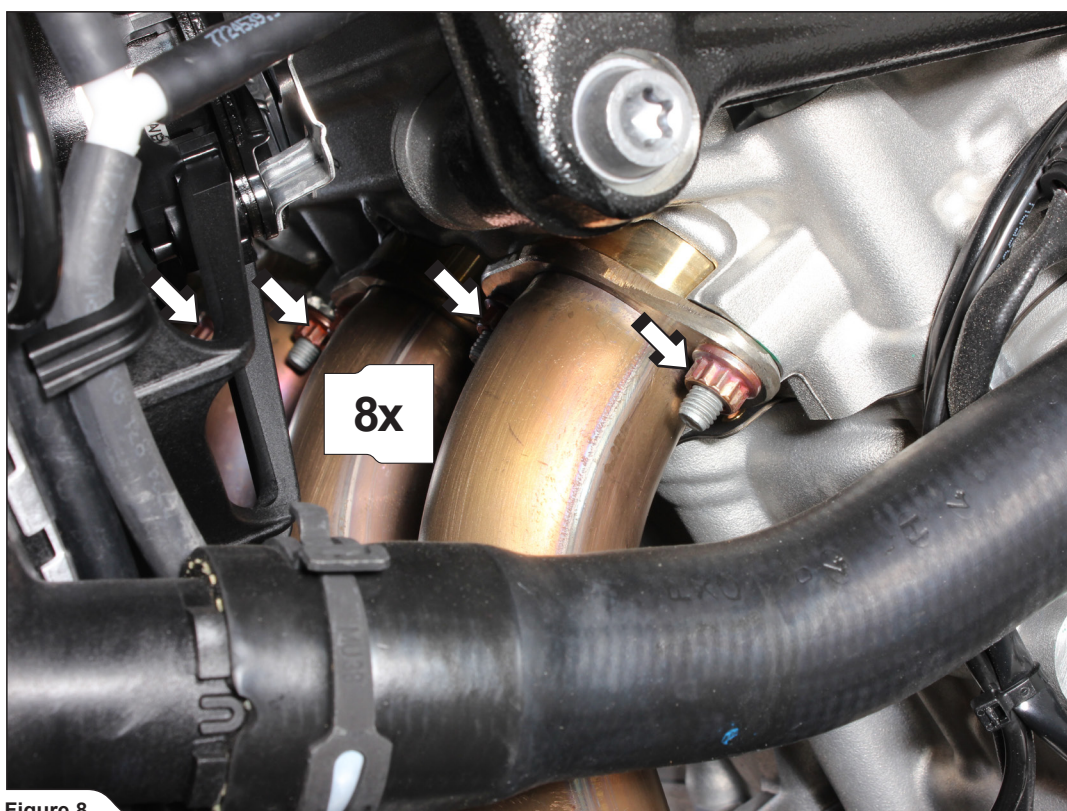


Figure 8

9. Undo the spring clip, remove the exhaust valve's cover, unscrew the marked cables' nuts and remove the cables off the valve (Figure 9, 10).

! **CAUTION:** be careful not to damage any part of the motorcycle during this process!

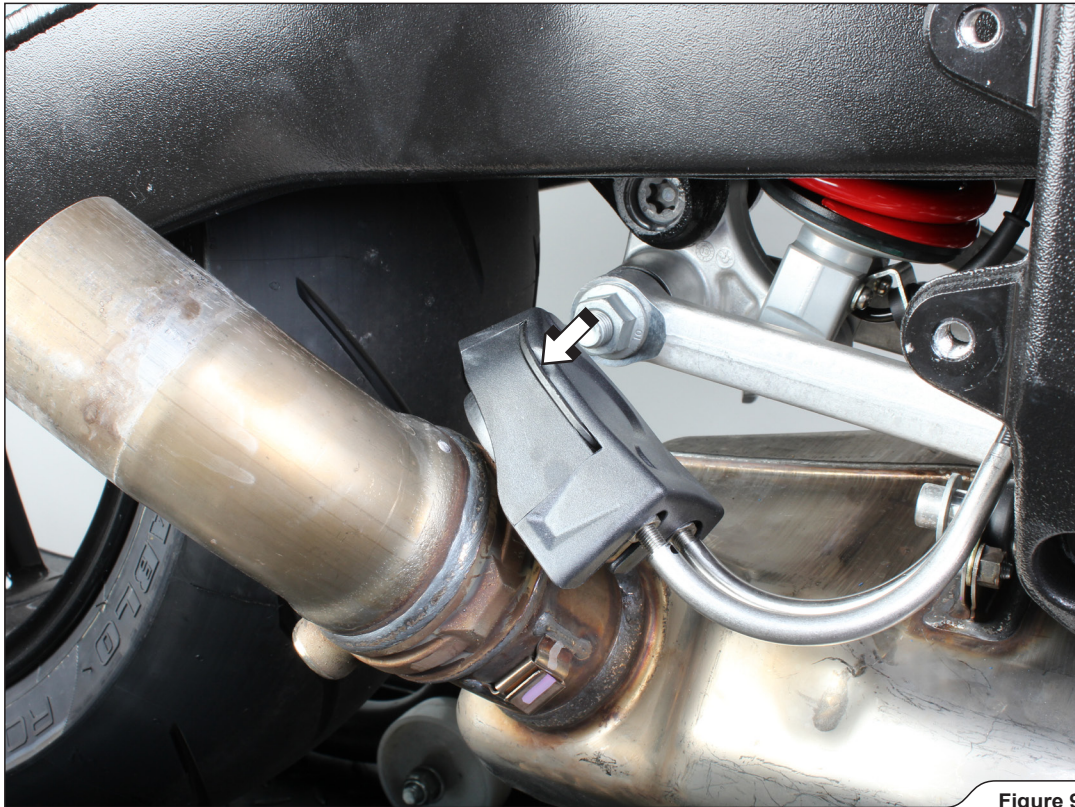


Figure 9

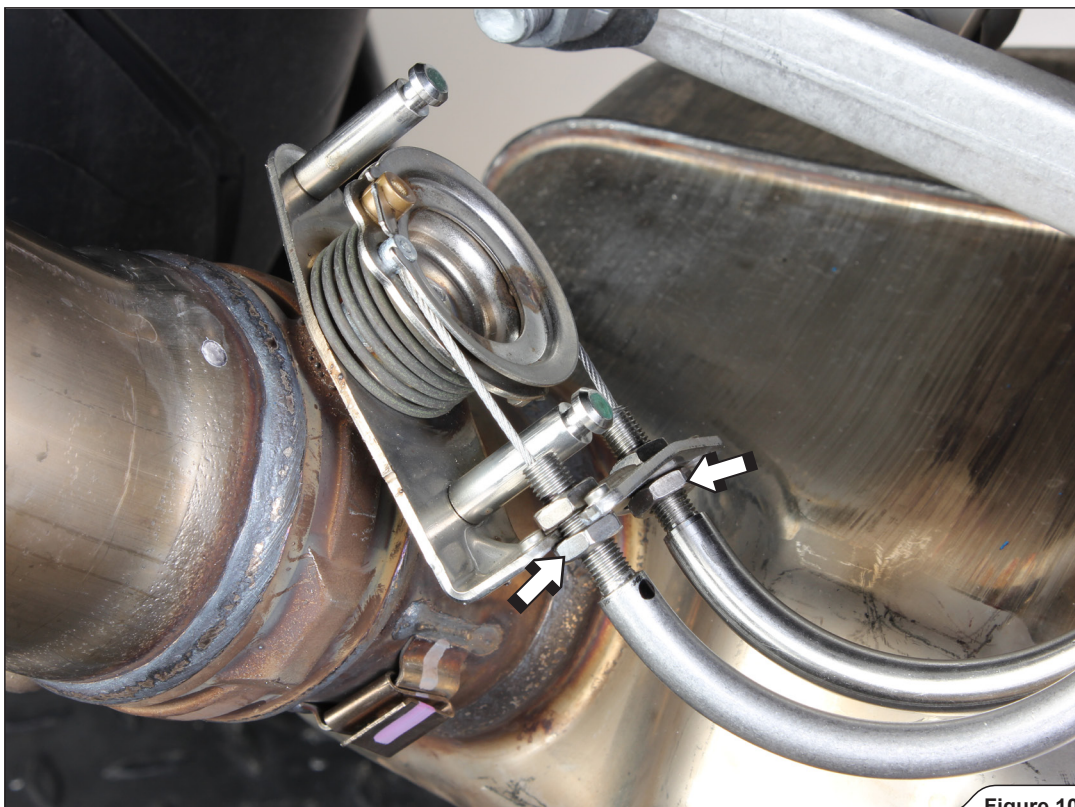


Figure 10

10. Unscrew the market bolts and carefully remove the stock exhaust off the motorcycle (Figure 11, 12).
! **WARNING:** support the stock exhaust during this procedure or it may fall off and damage you or the motorcycle!



Figure 11

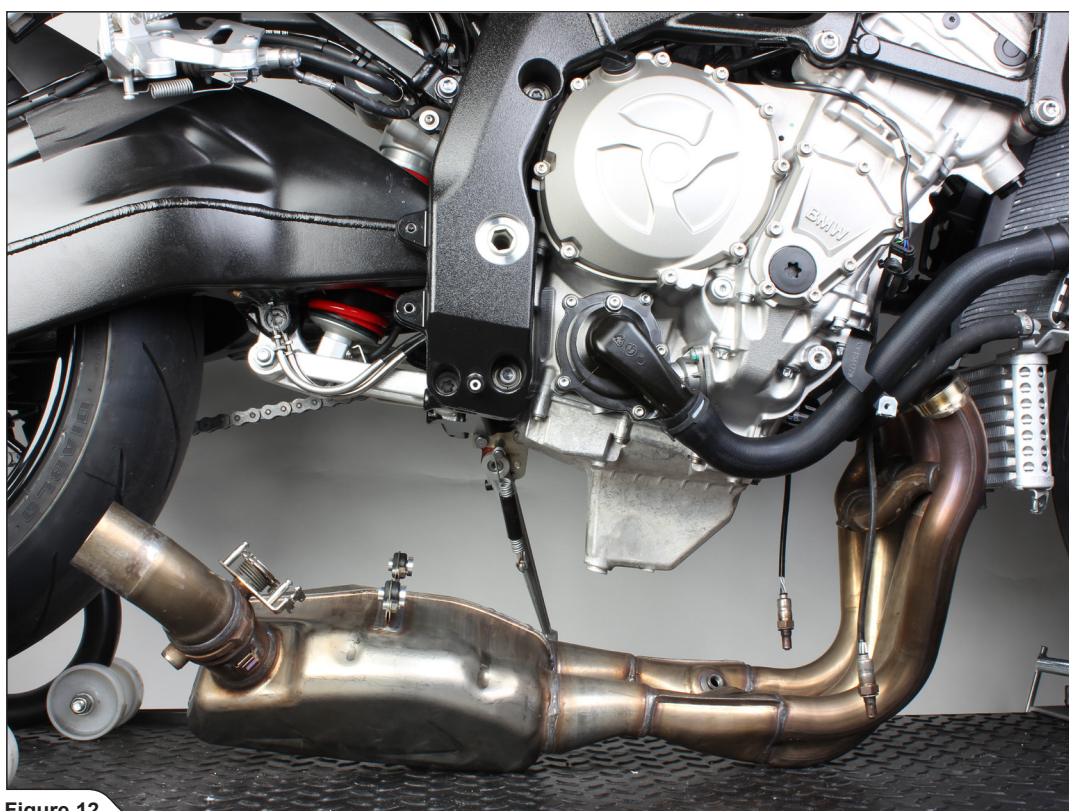


Figure 12

11. Unscrew the rear brake reservoir's bracket (Figure 13).

! CAUTION: be careful not to damage any part of the motorcycle during this process!



Figure 13

12. Unscrew the rear brake's reservoir and carefully move the reservoir and bracket out of the way (Figure 14).

! CAUTION: be careful not to damage any part of the motorcycle during this process!

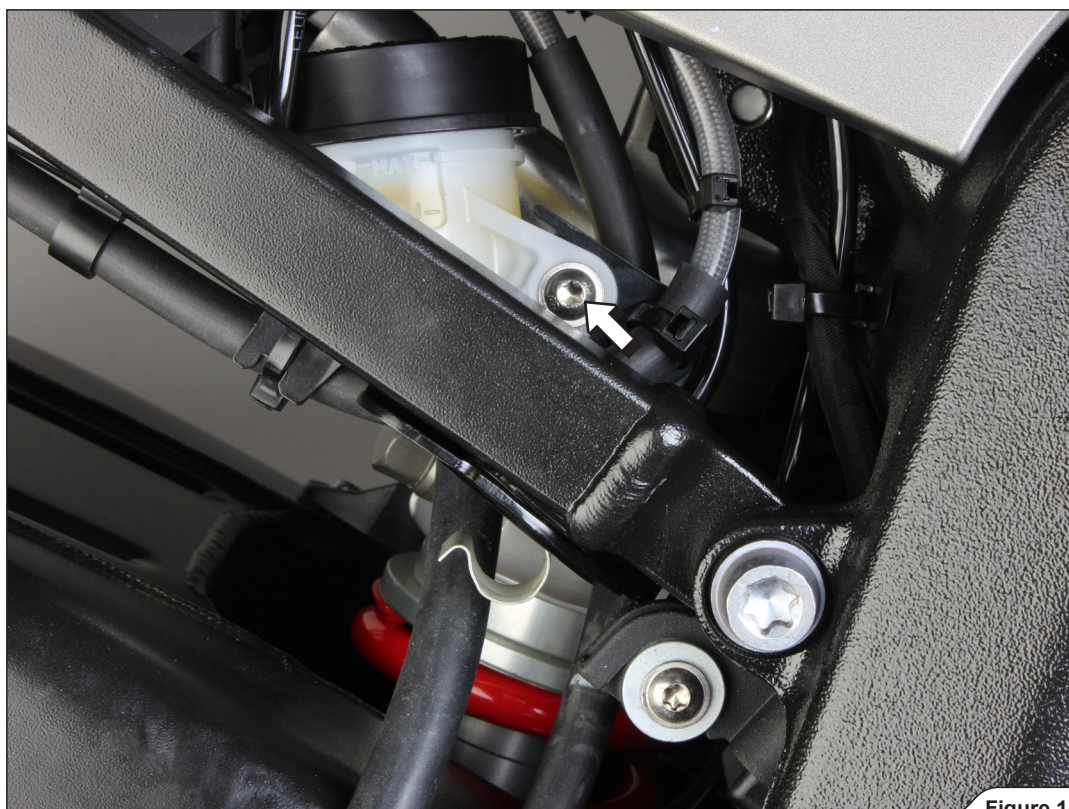


Figure 14

13. Unscrew the exhaust valve's servo motor, undo the electrical connector and carefully remove the servo motor with cables off the motorcycle (Figure 15, 16).

! **CAUTION:** be careful not to damage any part of the motorcycle during this process!

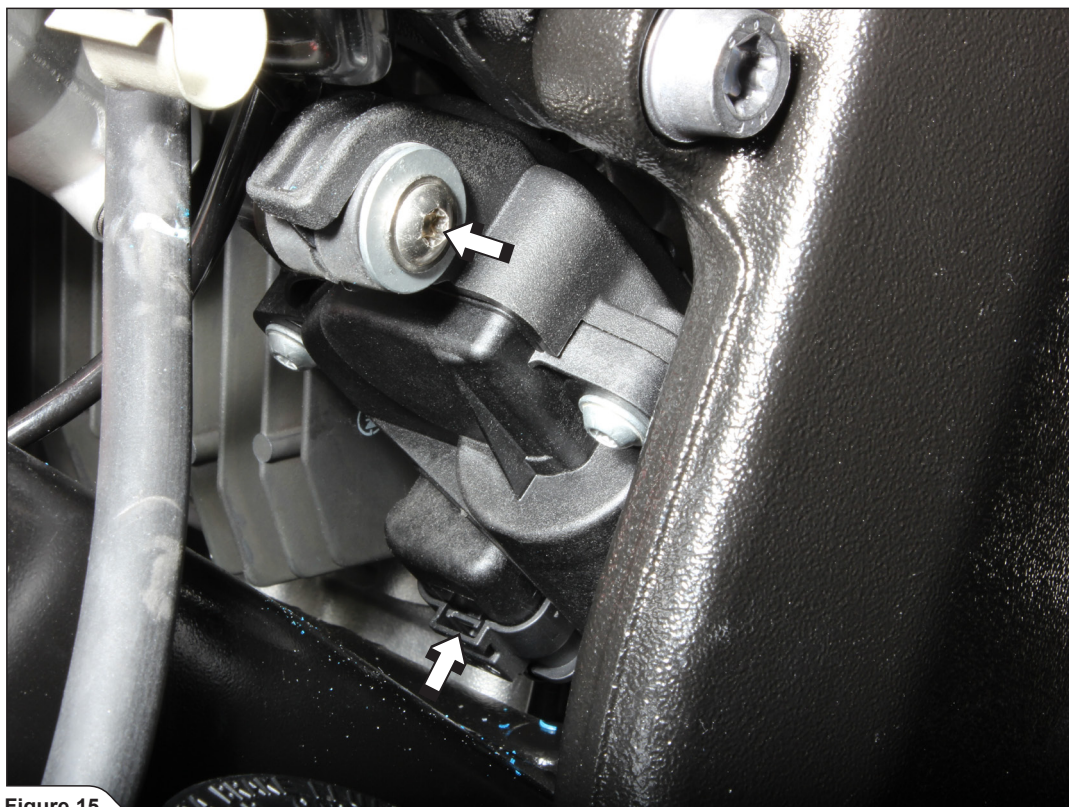


Figure 15

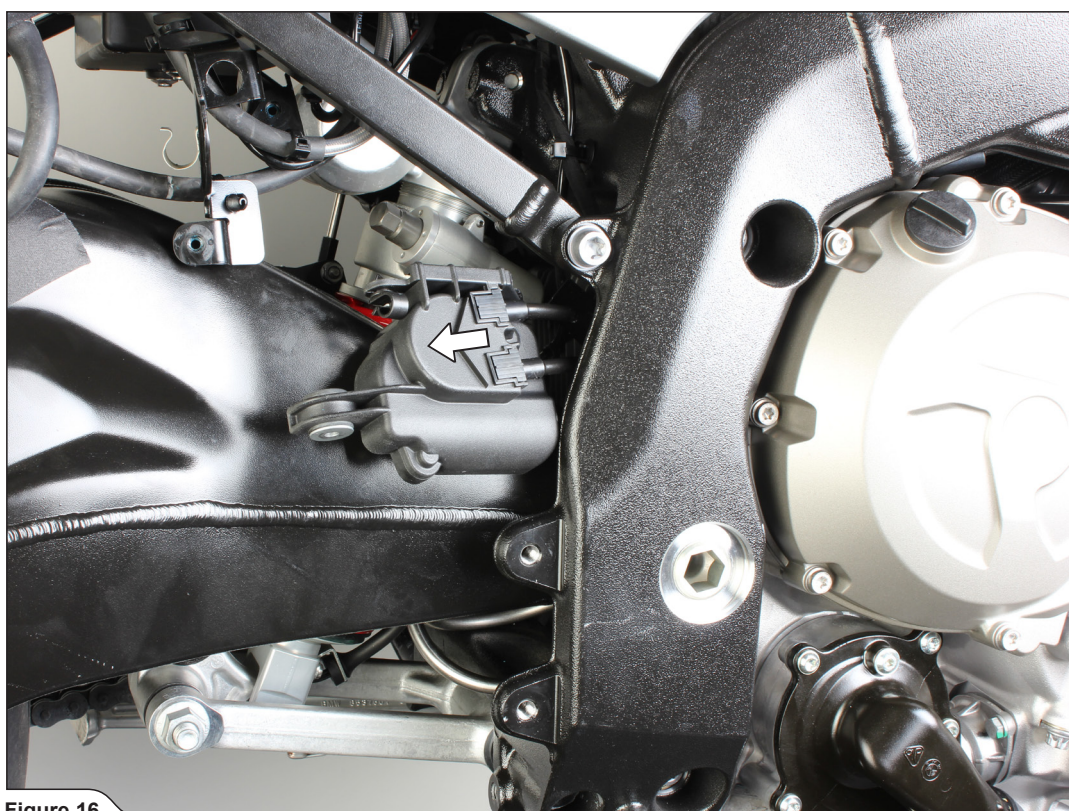


Figure 16

14. Unscrew the servo motor's cover, remove the cables and reinstall the cover (Figure 17, 18, 19).

! **CAUTION:** be careful not to damage the servo motor during this process!

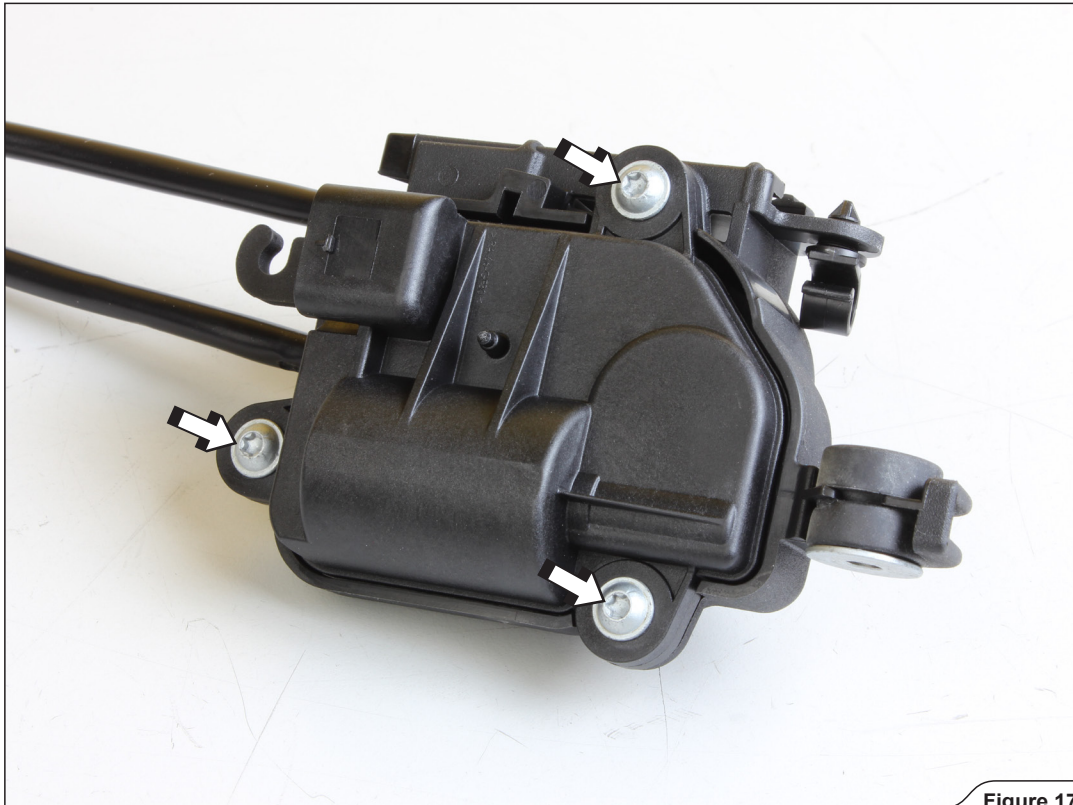


Figure 17

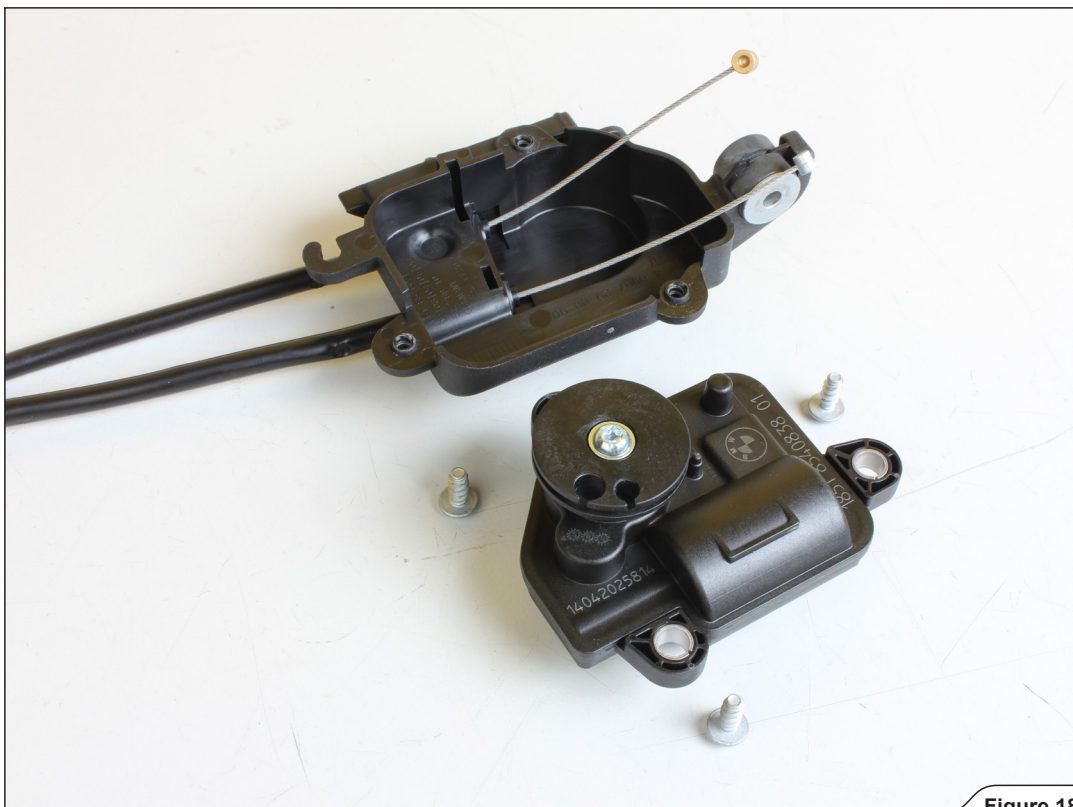


Figure 18

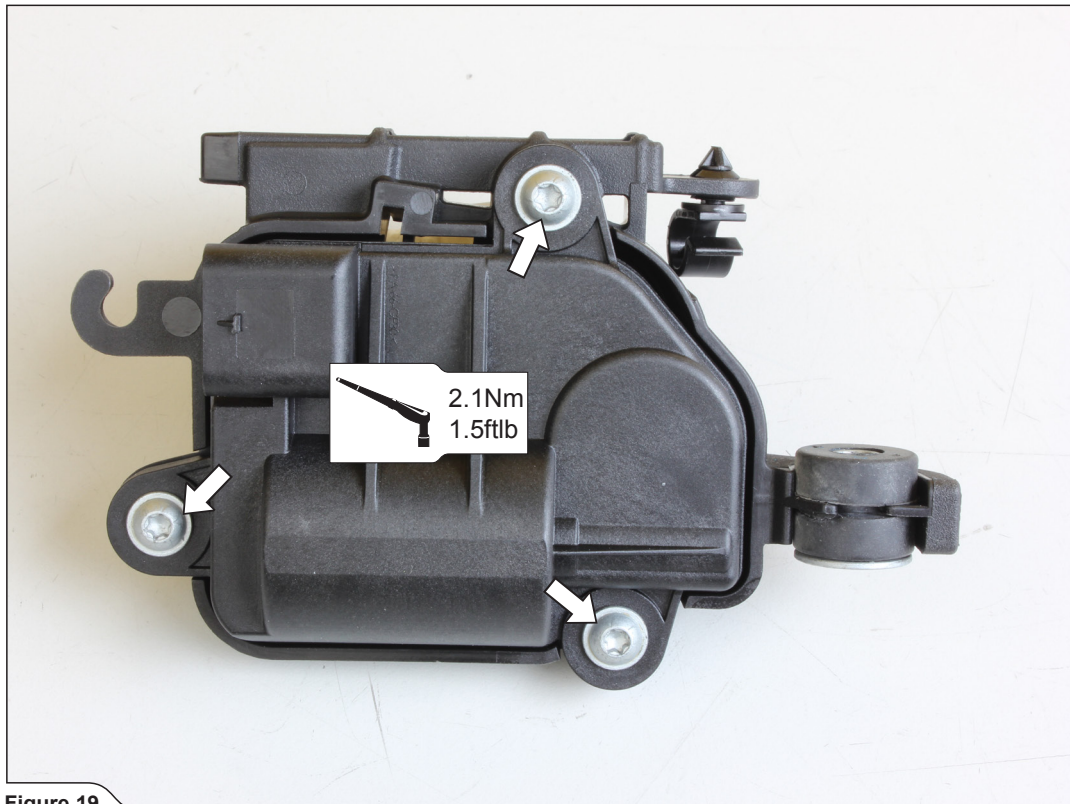


Figure 19

15. Reconnect and reinstall the servo motor (Figure 20). Assemble the rear brake reservoir's bracket and reservoir in the reverse order from the order in which they were removed; check vehicle manufacturer manual for tightening torques.

! CAUTION: be careful not to damage any part of the motorcycle during this process!

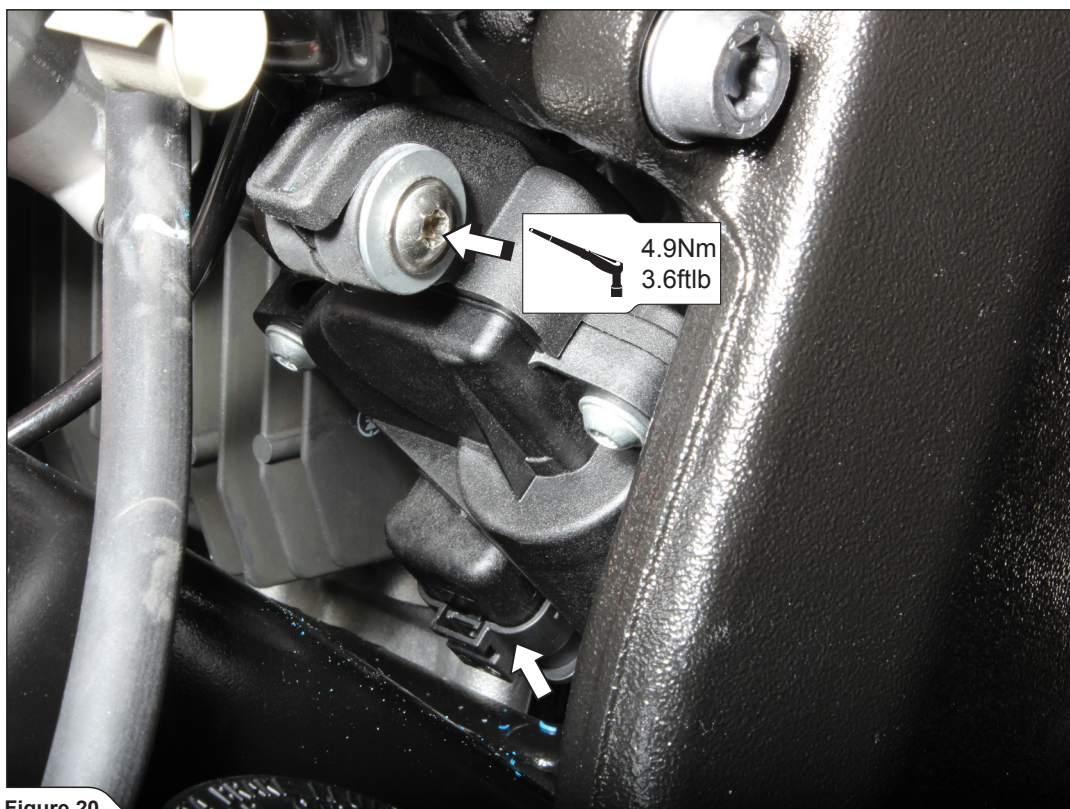


Figure 20

16. Reinstall the right foot peg (Figure 21).

! **CAUTION:** be careful not to damage any part of the motorcycle during this process!

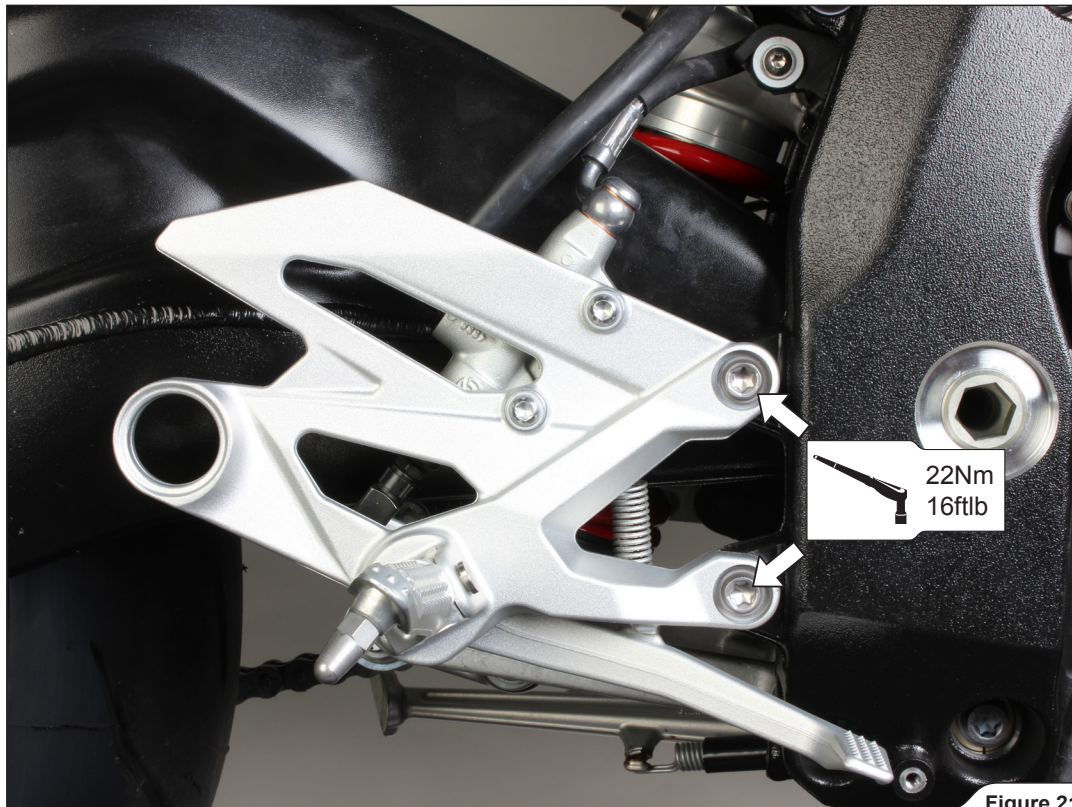


Figure 21

INSTALLATION OF THE AKRAPOVIČ EXHAUST SYSTEM:

1. Set up and hand tighten the flanges together with the springs and sleeves onto the cylinder head, using stock nuts; make sure you orient the flanges and springs as shown (Figure 22, 23).

! **WARNING:** do not fully tighten the flanges yet!

✂ **INSTALLATION TIP:** use new stock exhaust port gaskets.



Figure 22

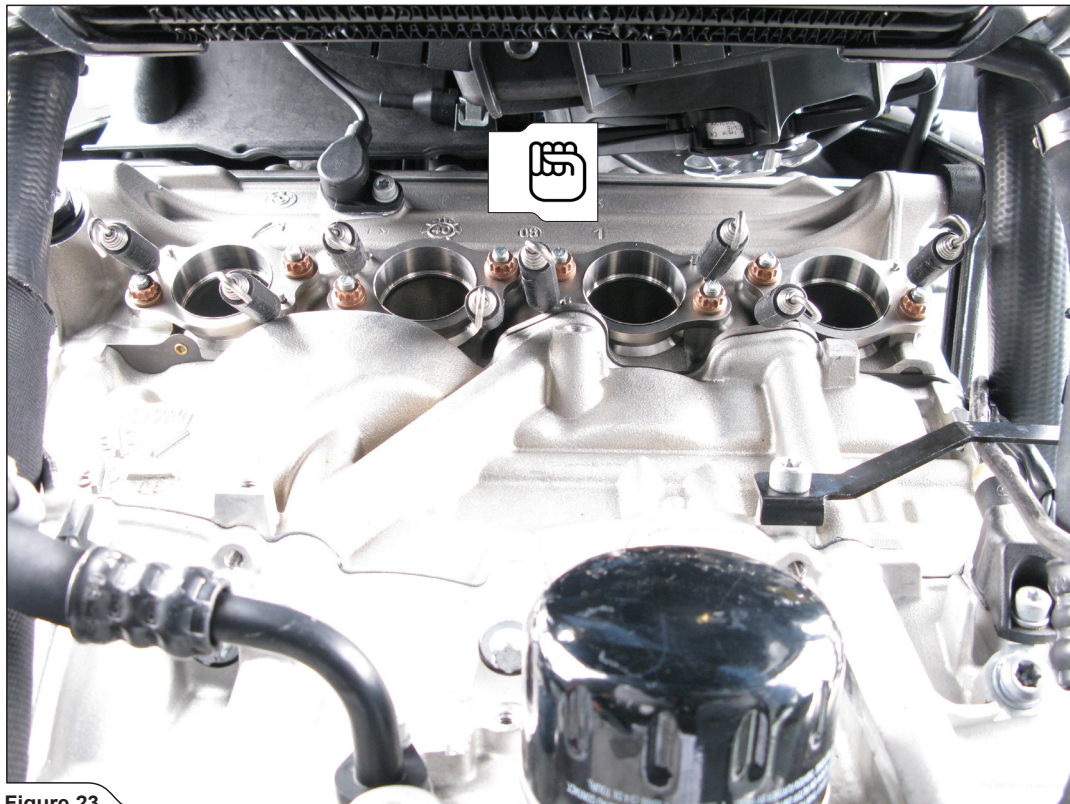


Figure 23

2. Insert the headers into the sleeves, attach the springs and tighten the flanges to specified torque (Figure 24).
! WARNING: before tightening the nuts, make sure, that springs pull the header tubes all the way into the sleeves – use rubber mallet if necessary to tap the connections into place!
! WARNING: be careful not to damage the radiator or any other part of the motorcycle during this process!

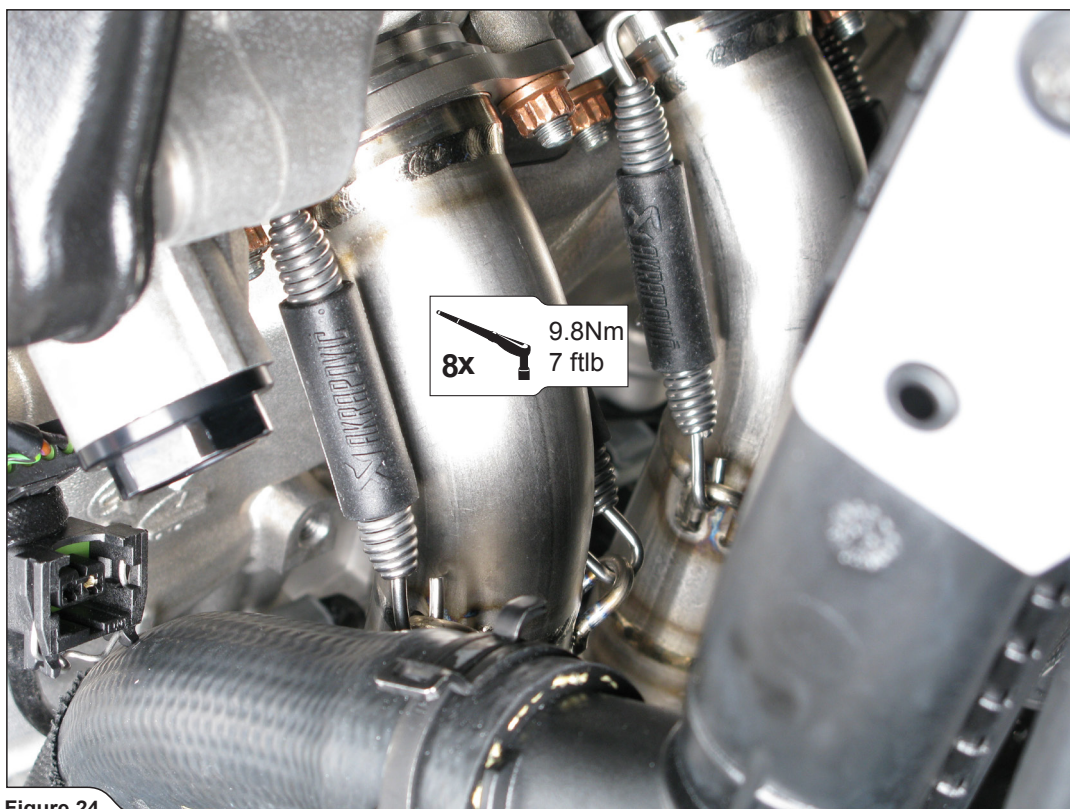


Figure 24

3. Slide the collectors onto the header tubes and attach the springs (Figure 25).

! **WARNING:** make sure, that springs pull the collectors all the way onto the headers – use rubber mallet if necessary to tap the connections into place!

✂ **INSTALLATION TIP** (for Evolution exhaust system only): coat the interior side of the inlet bushes of the titanium collectors with Akrapovič ceramic anti-seizing grease (white tube).

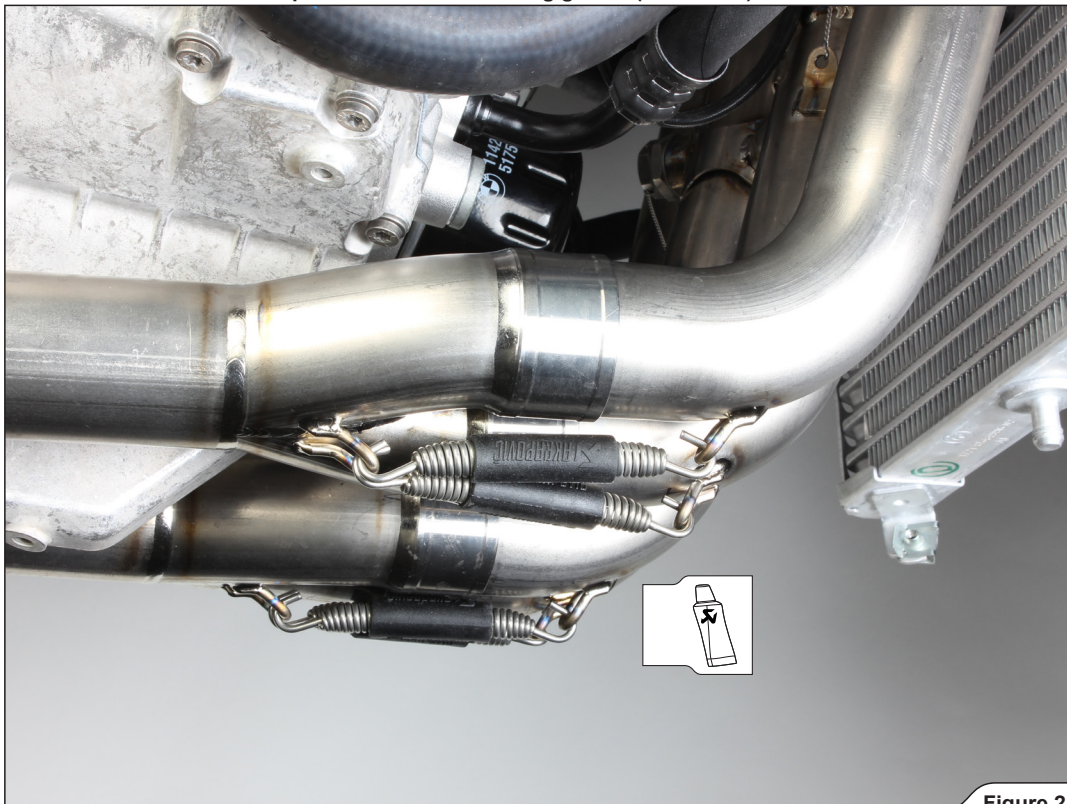


Figure 25

4. Slide the link pipe onto the collectors and attach the springs (Figure 26).

! **WARNING:** make sure, that springs pull the link pipe all the way onto the collectors – use rubber mallet if necessary to tap the connections into place!

✂ **INSTALLATION TIP** (for Evolution exhaust system only): coat the interior side of the input bushes of the titanium link pipe with Akrapovič ceramic anti-seizing grease (white tube).

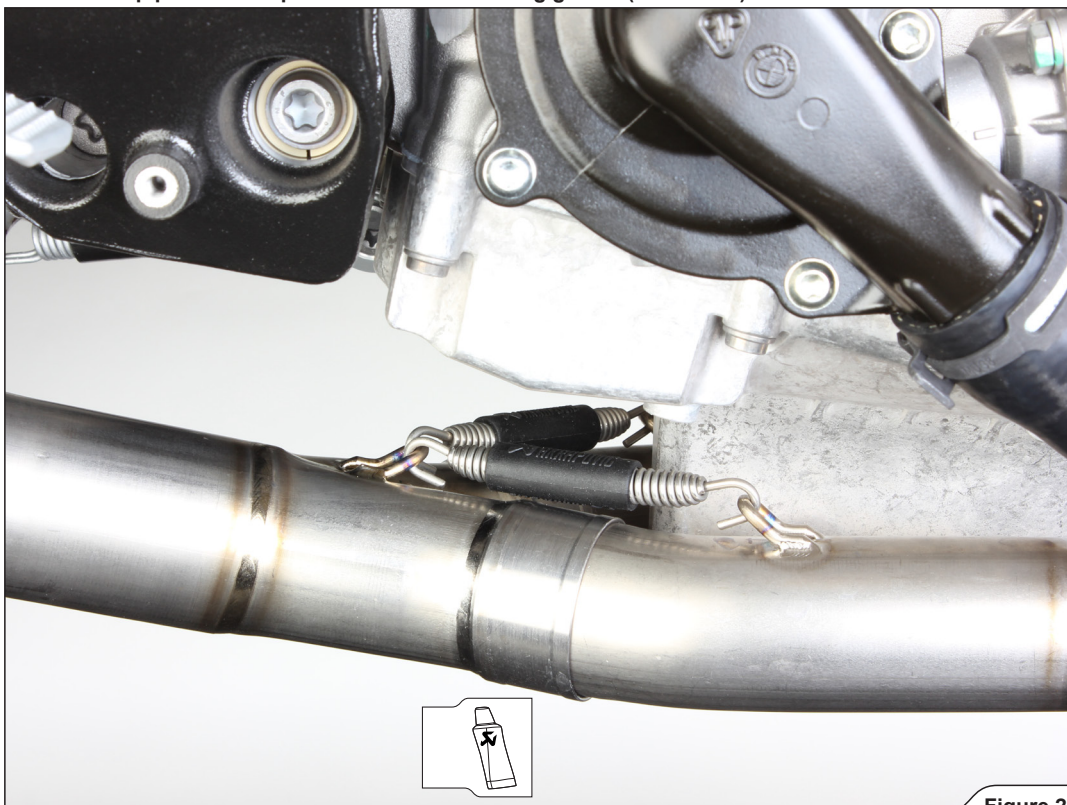


Figure 26

5. Tighten both lambda sensors into the collectors and reinstall radiator bracket in the reverse order from the order in which they were removed (**Figure 27**).

! **WARNING:** make sure not to damage the sensors' electrical leads during this procedure!

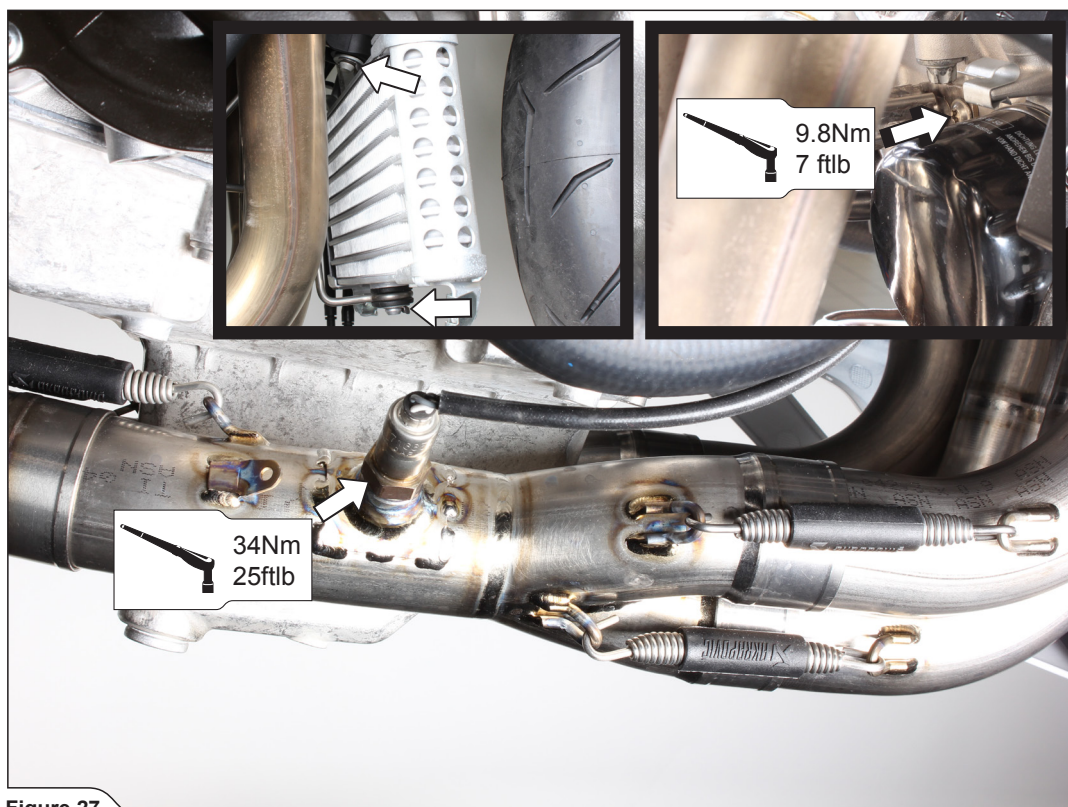


Figure 27

6. Unscrew the right passenger's foot rest off the sub frame and disassemble the foot rest (**Figure 28**).

! **CAUTION:** be careful not to damage any part during this process!



Figure 28

7. Attach the additional Akrapovič stainless steel bracket to the passengers foot rest, using Akrapovič nut, bolt and washer (Figure 29, 30).

! **CAUTION:** be careful not to damage any part during this process!



Figure 29



Figure 30

8. Reinstall the right passenger's foot rest onto the sub frame (Figure 31).
! **CAUTION:** be careful not to damage any part of the motorcycle during this process!



Figure 31

9. Correctly position the carbon-fiber clamp and slide it onto the muffler - bear in mind the **right offset** of the clamp; position the muffler correctly and slide it onto the outlet side of the link pipe, attach the springs and hand tighten clamp onto the muffler's bracket (Figure 32).

! **WARNING:** open the clamp slightly wider than the diameter of the outer sleeve of the muffler – do not scrape it along the muffler outer sleeve!

✂ **INSTALLATION TIP** (for Evolution exhaust system only): coat the interior side of the inlet bush of the muffler with Akrapovič ceramic anti-seizing grease (white tube).

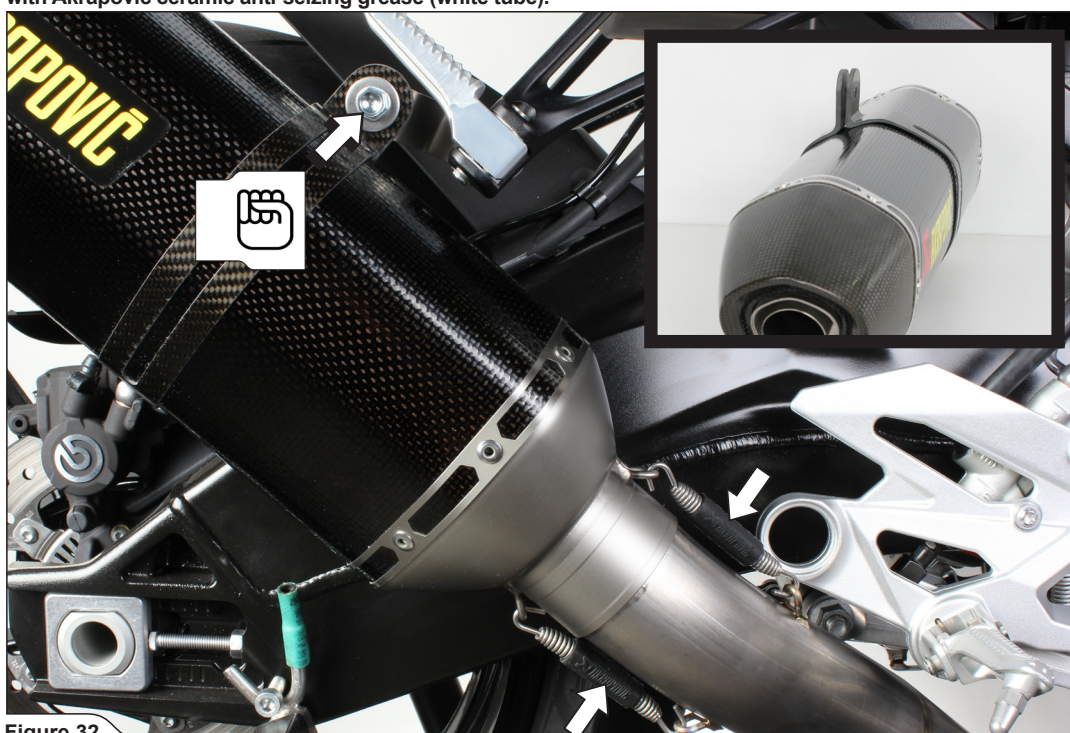


Figure 32

10. Align the muffler in respect to the motorcycle and tighten the clamp to the muffler bracket (Figure 33).

! **WARNING:** before tightening, make sure that springs pull the muffler all the way onto the link pipe – use rubber mallet if necessary to tap the connection into place!

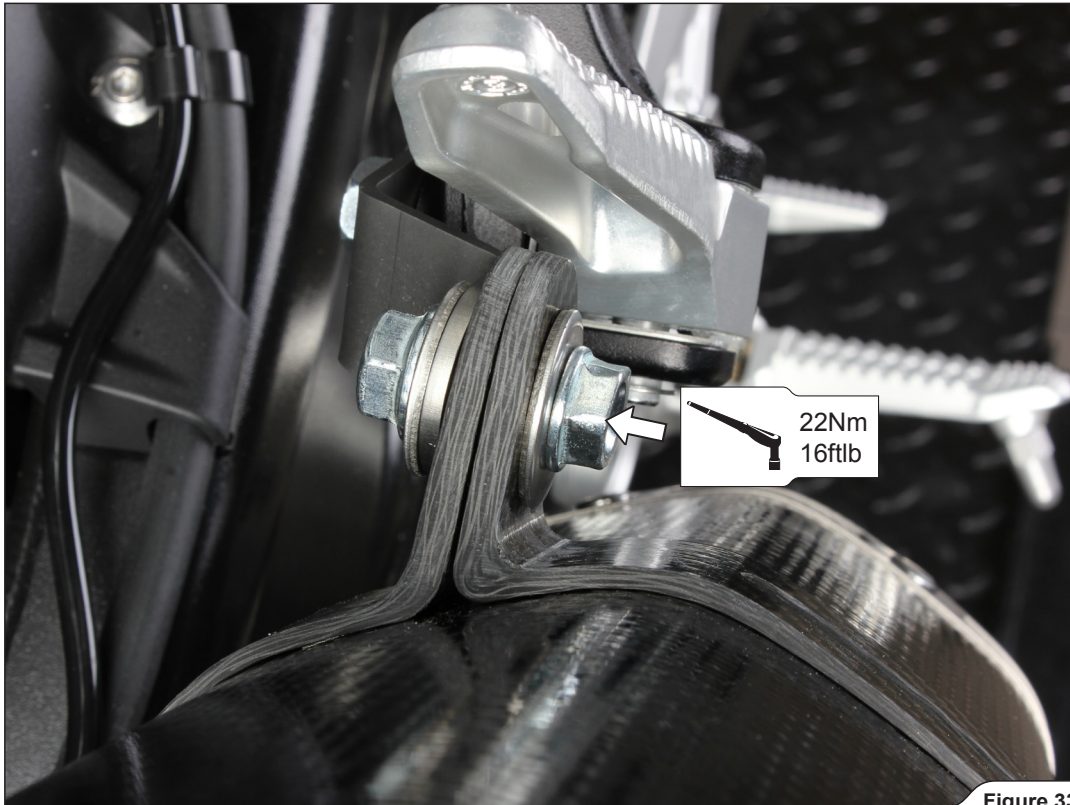


Figure 33

11. Assemble the cowlings in the reverse order from the order in which they were removed (Figure 34).

✂ **INSTALLATION TIP:** check vehicle manufacturer manual for tightening torques!

! **CAUTION:** be careful not to damage any part of the motorcycle during this process!



Figure 34

INSTALLATION OF THE AKRAPOVIČ OPTIONAL MUFFLER BRACKET:

1. Unscrew the passenger's foot rests on both sides of the motorcycle (Figure 35).

! WARNING: do not carry passengers in case of installation of carbon fiber bracket!



Figure 35

2. Install the Akrapovič carbon fiber muffler's bracket, using stock bolts (Figure 36).

! WARNING: do not carry passengers in case of installation of carbon fiber bracket!

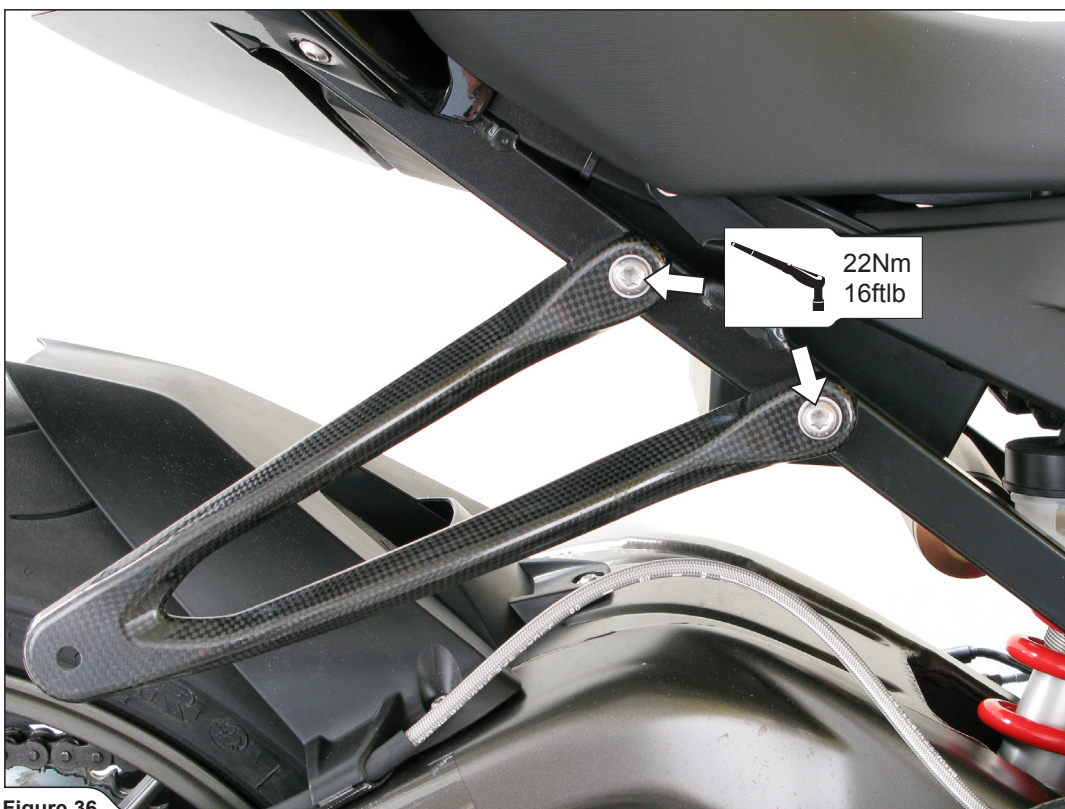


Figure 36

3. Attach the muffler's clamp onto the bracket as shown, using bolt, washers and nut from bracket's installation kit (Figure 37).

! WARNING: do not carry passengers in case of installation of carbon fiber bracket!

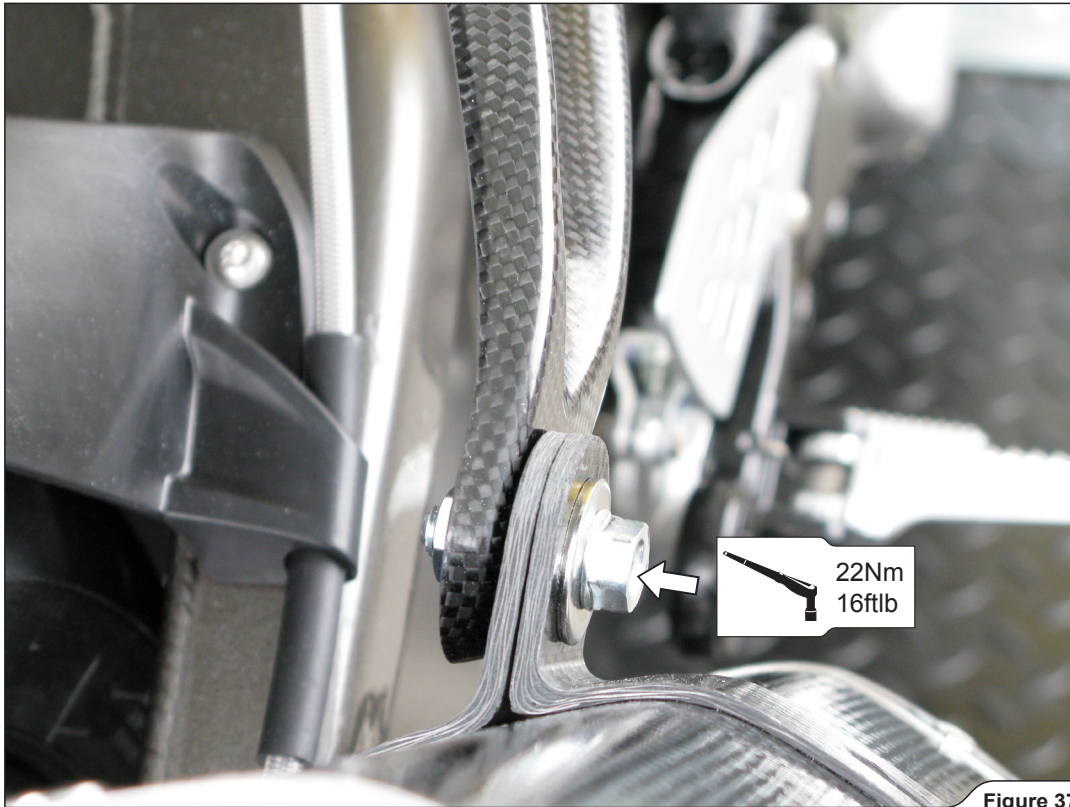


Figure 37

Final installation:

Clean grease spots:

- a. Muffler – titanium outer sleeve: use a soft cloth sprayed with a multi-purpose spray lubricant (WD-40 or equivalent).
- b. Muffler – carbon-fiber outer sleeve: use a soft dry cloth.
- c. Muffler – carbon-fiber outlet cap: use a soft dry cloth.
- d. Stainless steel pipes: use a soft cloth sprayed with a contact cleaner, then wipe with a soft dry cloth.
- e. Chrome plated parts: use a soft dry cloth.
- f. Titanium pipes: use a soft cloth sprayed with a multi-purpose spray lubricant (WD-40 or equivalent).

Cleaning will prevent spots from burning onto the surface. Do not use aggressive chemical cleaners, because they can damage the sticker.

! WARNING: make sure all the bolts are sufficiently tightened. In case the exhaust system touches the cowling or other parts repeat the adjustment of the exhaust system or contact your authorized dealer.

! WARNING: after running engine for 30 minutes, retighten the bolts of the Akrapovic carbon-fiber heat shield!

! IT IS NORMAL IF WHITE SMOKE COMES OUT OF THE MUFFLER ON FIRST OPERATION.

! DO NOT STAND BEHIND THE MUFFLER ON FIRST OPERATION.

! DO NOT USE AUTOMOTIVE WHEEL CLEANERS OR ANY CLEANING PRODUCTS WHICH CONTAIN ACIDIC ADDITIVES TO CLEAN AKRAPOVIČ EXHAUST SYSTEMS.

MAINTENANCE OF THE AKRAPOVIČ EXHAUST SYSTEM:

1. Clean the titanium exhaust components with a multi-purpose spray lubricant (WD-40 or equivalent), carbon fiber exhaust components with soft and dry cloth and stainless steel components with soft cloth sprayed with contact cleaner, then wipe with soft and dry cloth. A change in the color of the exhaust system is normal due to the high temperatures.
2. Periodically make sure all the bolts and springs are sufficiently tight.

IMPORTANT:

! WARNING: Akrapovič EVOLUTION or RACING exhaust system for BMW S1000R, is RECOMMENDED to be used in combination with ECU fuel mapping enrichment, otherwise you risk severe engine damage!

WARNING:

Please note that certain aftermarket exhaust systems may not comply with applicable California laws and regulations, and may therefore be prohibited for use on California highways or roads, or on roads or vehicles otherwise subject to emissions control requirements.

Akrapovič exhaust systems for automobiles and motorcycles mounted downstream of the catalytic converter (also known as “cat-back systems”) are considered “replacement parts” in California by the California Air Resources Board (CARB), and do not require an exemption or executive order from CARB to be sold in California. However, California prohibits the use of any aftermarket exhaust system that modifies, removes or replaces original equipment catalysts, unless CARB has issued an Executive Order as to such part or system.

Further, Akrapovič parts or exhaust systems used or intended for use on “racing vehicles” (i.e. a competition vehicle used exclusively for competition on closed-course circuits) do not require an exemption or Executive Order from CARB to be sold in California. However, such parts are prohibited from use on California public highways or roads, even if occasionally used “off-road.”

