



Installation instructions

Akrapovič Exhaust Systems
Racing&Evolution
for the
BMW S1000RR



502408

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:



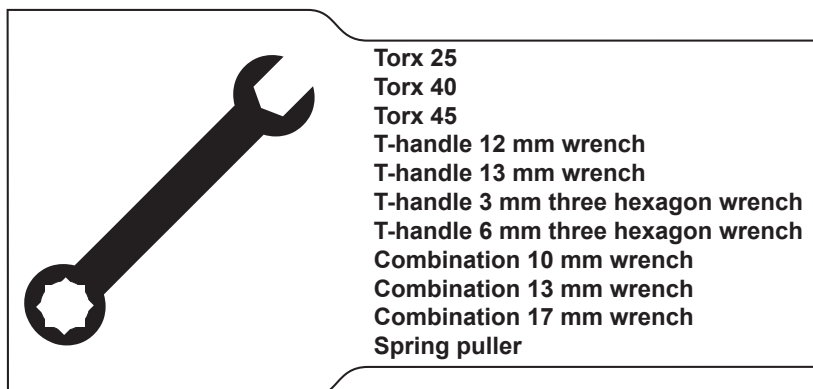
USE BOLT SEALANT; Apply 3 to 4 small drops of bolt sealant onto the cleaned and degreased threads before tightening the bolts. **WARNING! Avoid contact with skin, eyes and mucous membranes. Do not inhale fumes. Keep out of reach of children.**



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.**



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 S1000RR 2010. THERE MAY BE SOME DIFFERENCES IN INSTALLATION PROCEDURES FOR OTHER S1000RR 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 racing stand.
2. Unscrew the marked bolts from the muffler hanging bracket and the metal clamp at the muffler-collector connection (**Figure 1**). Remove the muffler together with heatshield.

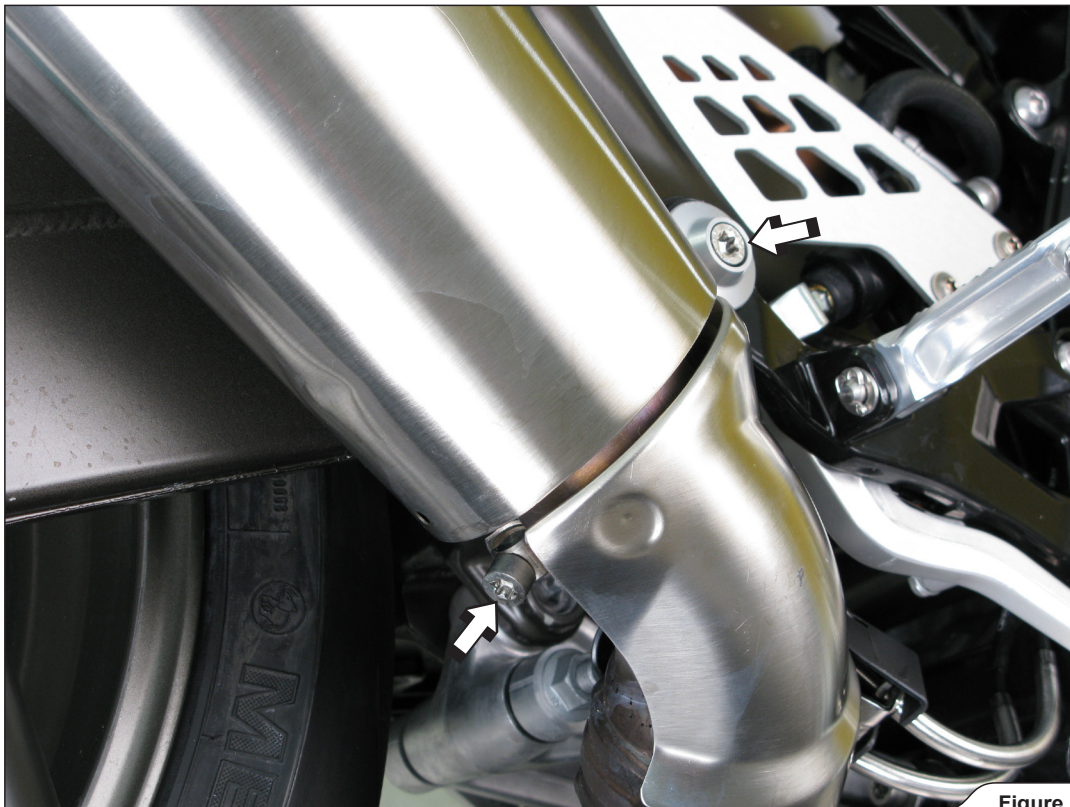


Figure 1

3. Remove the metal collar and rubber damper from the stock muffler hanging bracket (**Figure 2**).

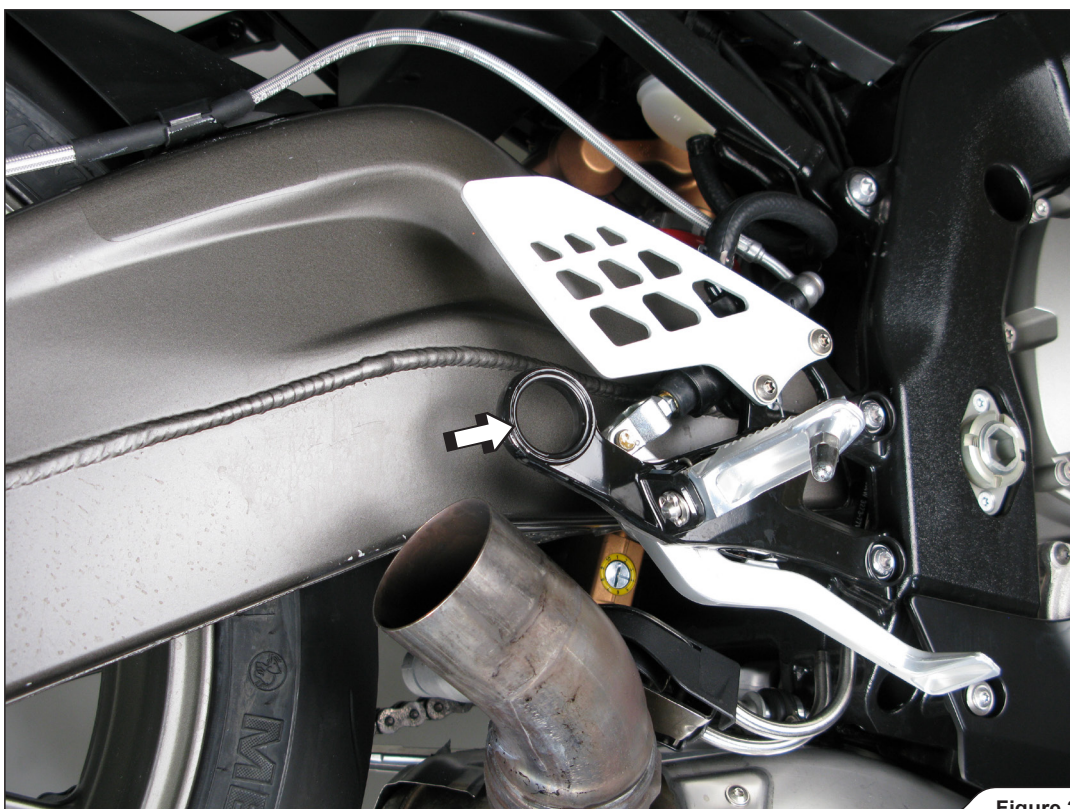


Figure 2

4. Unscrew both rider's seat screws and remove the seat (Figure 3).



Figure 3

5. Unscrew marked bolts and remove the fuel tank side covers on both sides of the motorcycle (Figure 4).



Figure 4

6. Remove the stock exhaust valve cables from servo motor (Figure 5).

! **WARNING:** do not turn the the servo motor wheel with force or the servo motor could be damaged!

! **WARNING:** do not disconnect the servo's electrical connector or remove the servo motor off the vehicle!

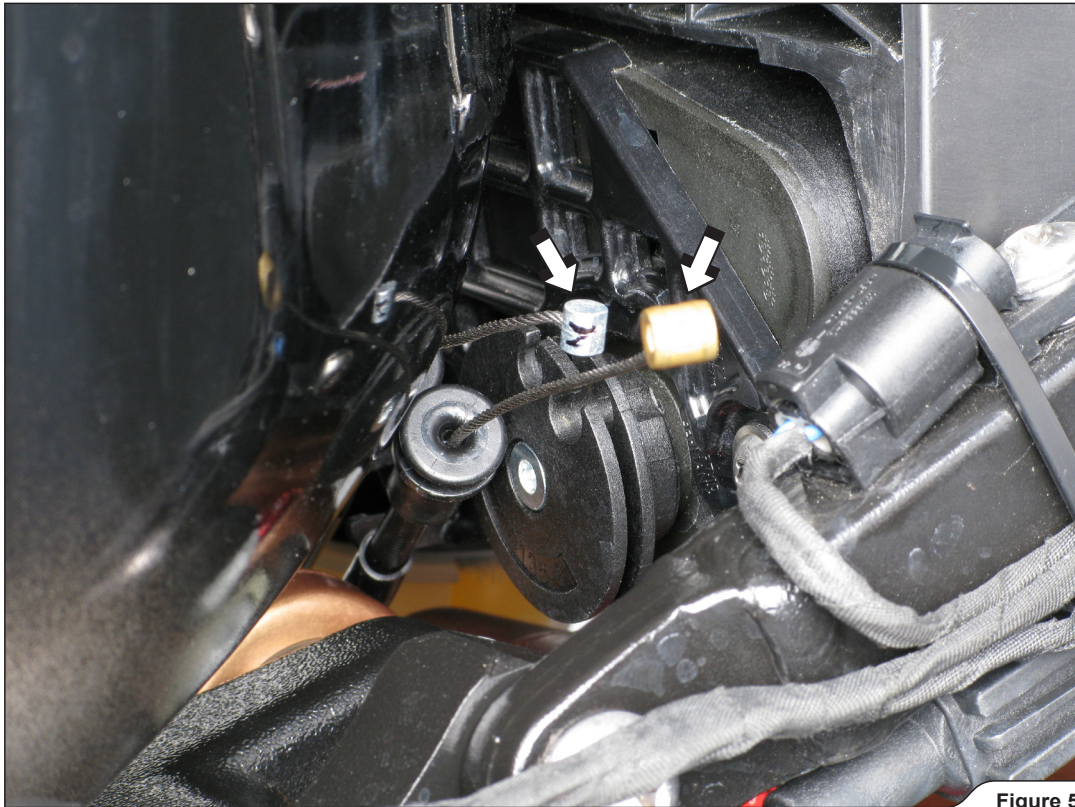


Figure 5

7. Free the cables from the motorcycle (Figure 6).

! **WARNING:** make sure not to scratch or damage any part of the motorcycle during removal of the cables!

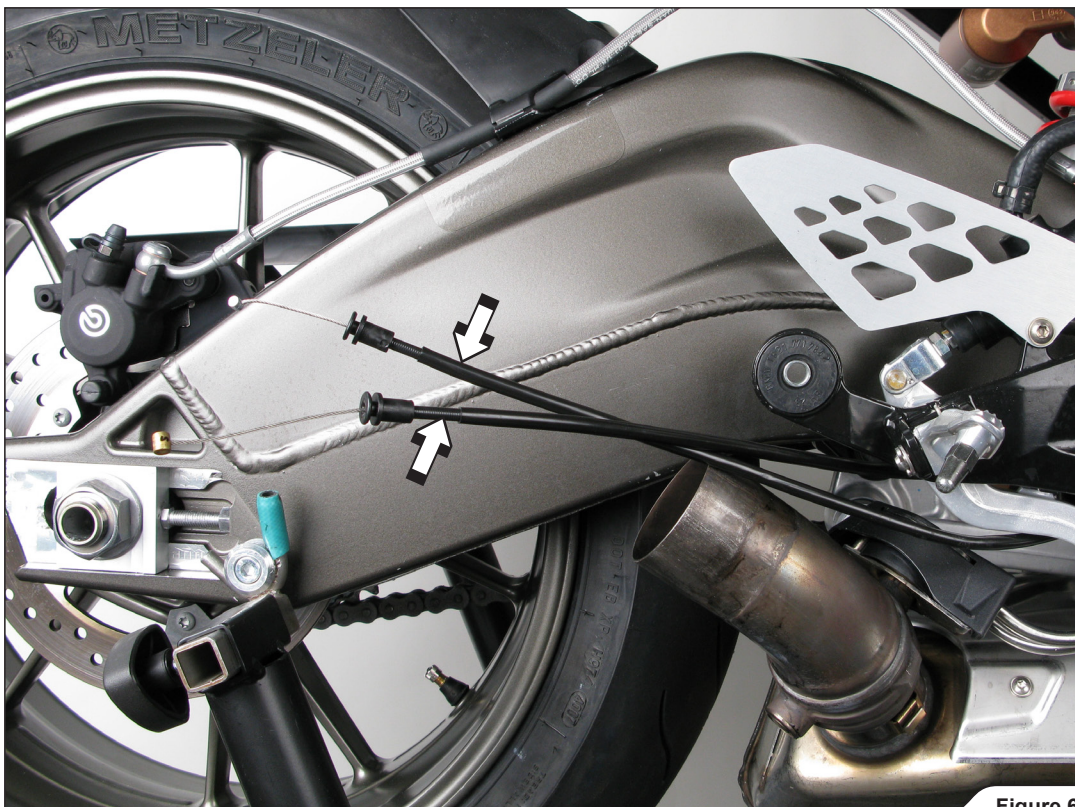


Figure 6

8. Unscrew the marked bolts on both sides of the motorcycle and remove the lower and middle parts of the cowling (Figure 7, 8, 9).



Figure 7



Figure 8

! **WARNING:** disconnect the turn signal electrical connectors during removal of the middle cowling (Figure 9)!



Figure 9

9. Pull the radiator's bracket off the radiators (Figure 10).

! **WARNING:** make sure not to damage the radiator's cooling fins!

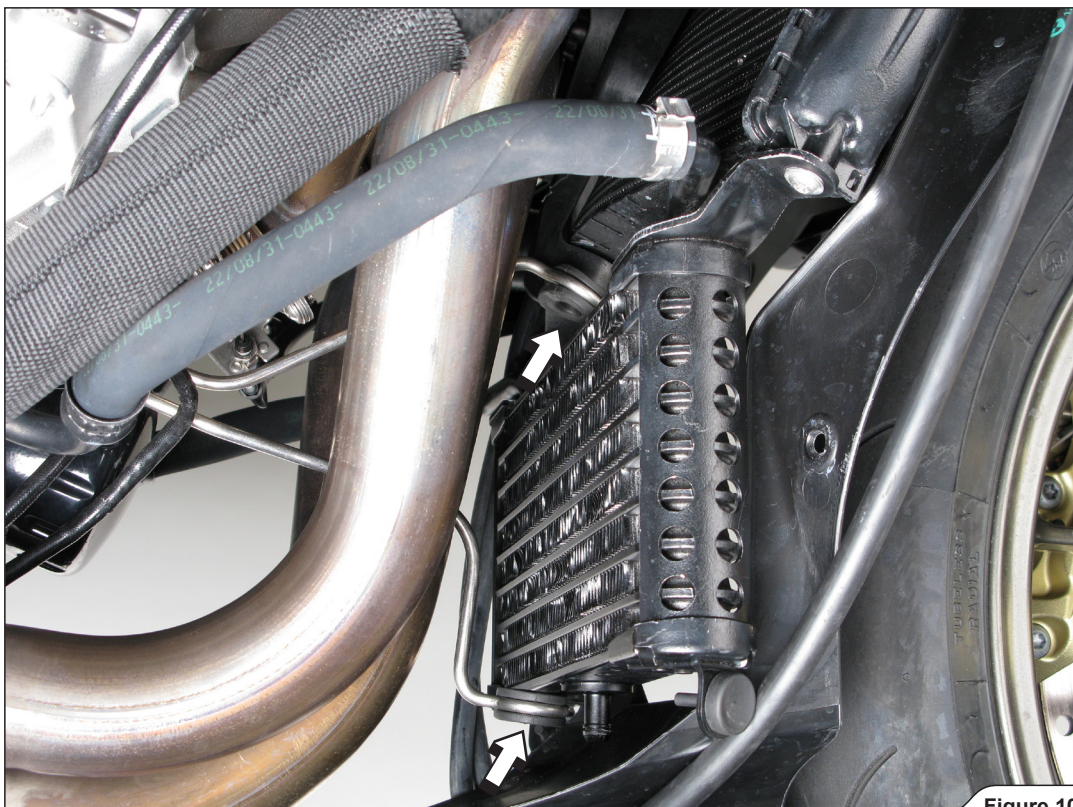


Figure 10

10. Unscrew the radiator's bracket off the engine block and both lambda sensors (Figure 11).

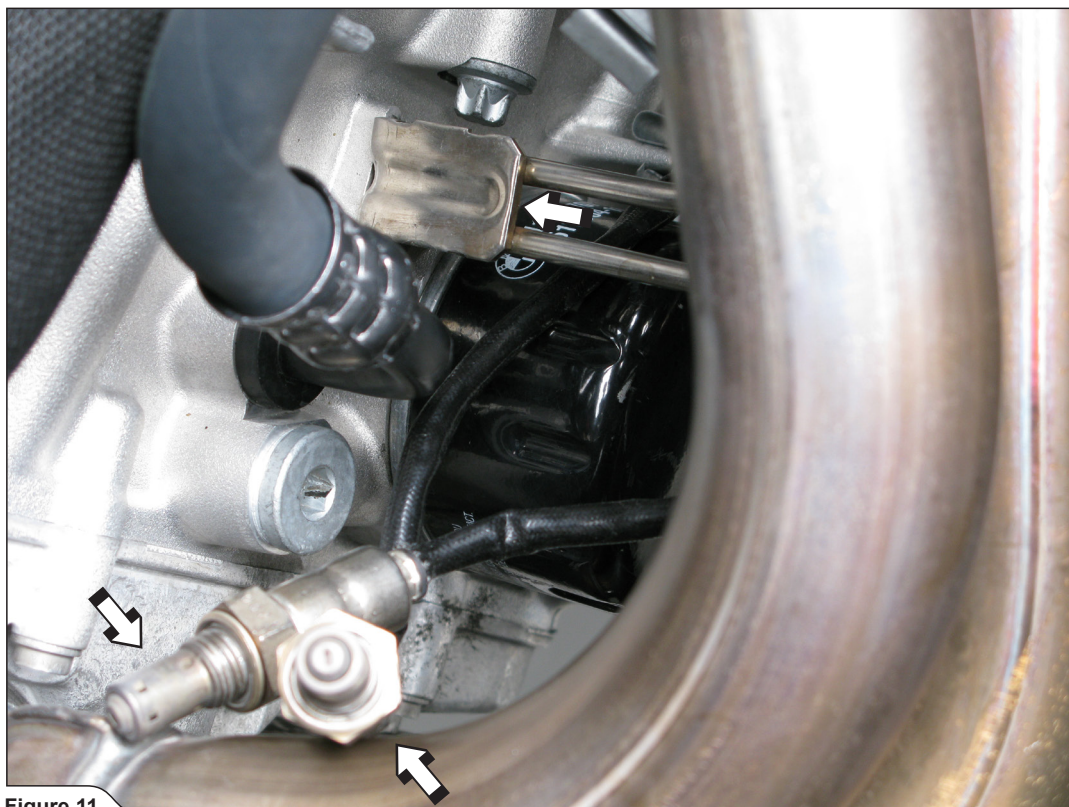


Figure 11

11. Remove the header tubes valve cable from servo motor (Figure 12).

- ! **WARNING:** do not turn the the servo motor wheel with force or the servo motor could be damaged!
- ! **WARNING:** do not disconnect the servo's electrical connector or remove the servo motor off the vehicle!

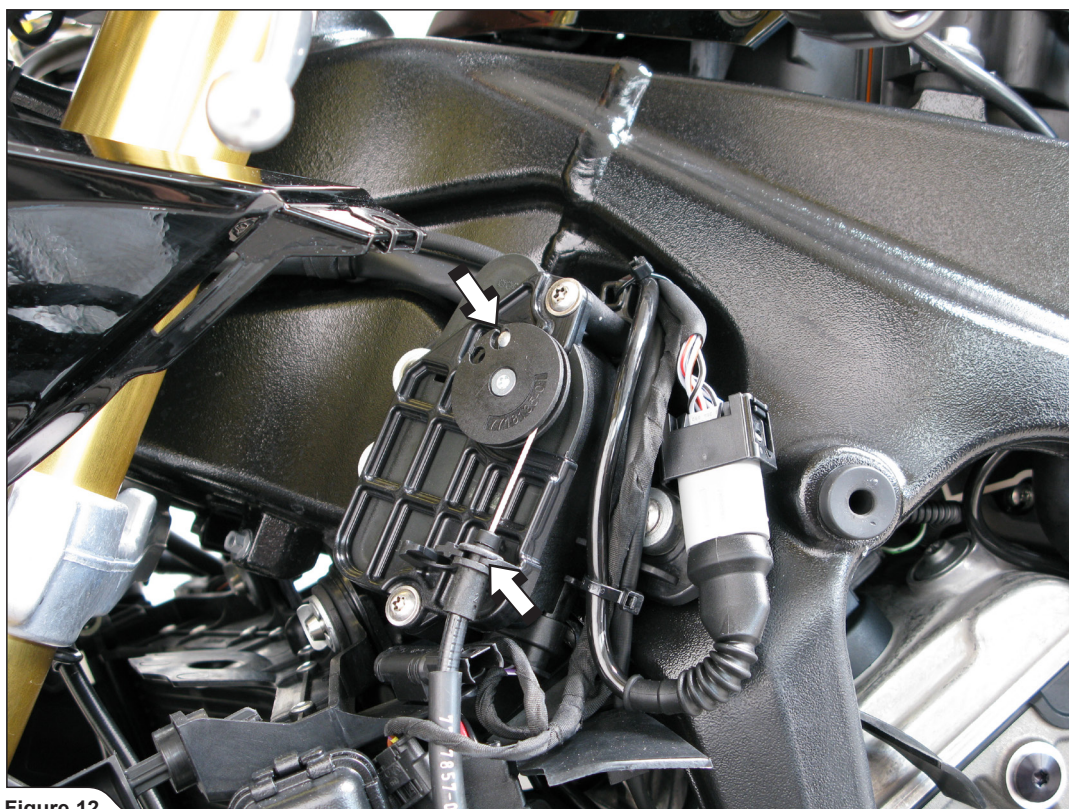


Figure 12

12. Unscrew all nuts from the front header tube flanges (Figure 13).

! **WARNING:** make sure not to damage the radiator's cooling fins!

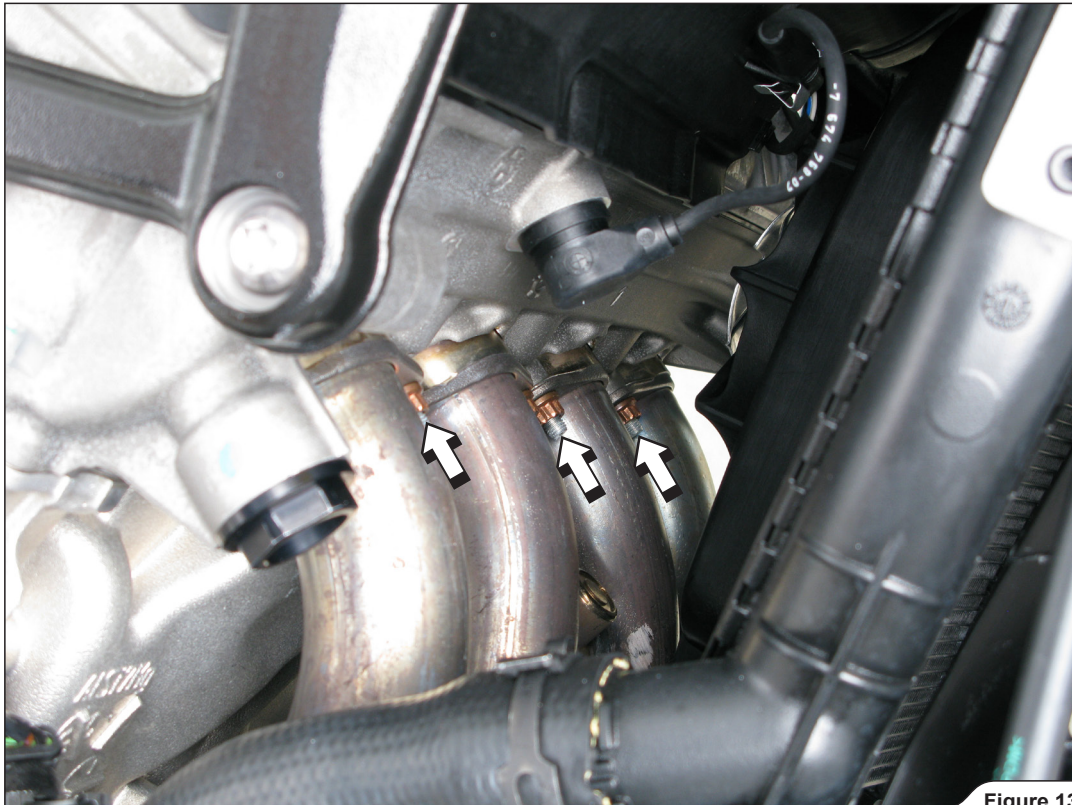


Figure 13

13. Unscrew the market bolt on both sides of the motorcycle and remove the stock exhaust off the motorcycle (Figure 14, 15).

! **WARNING:** support the stock exhaust during this procedure or it may fall of and damage you or the motorcycle!

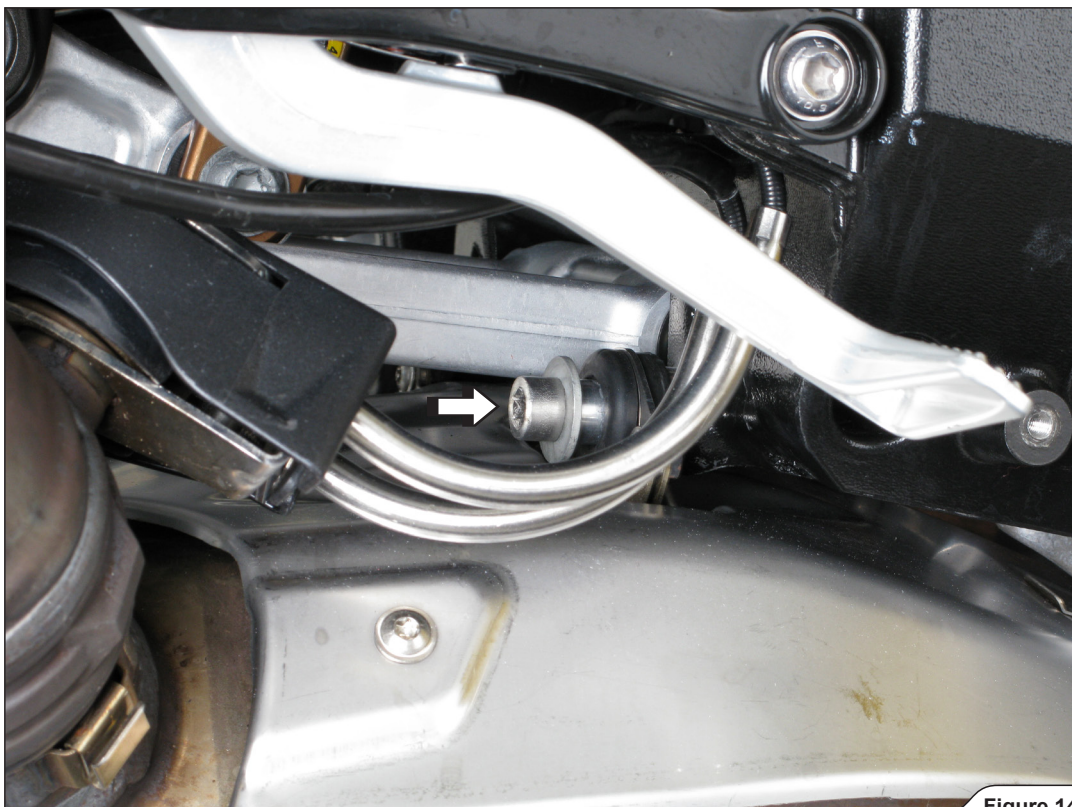


Figure 14

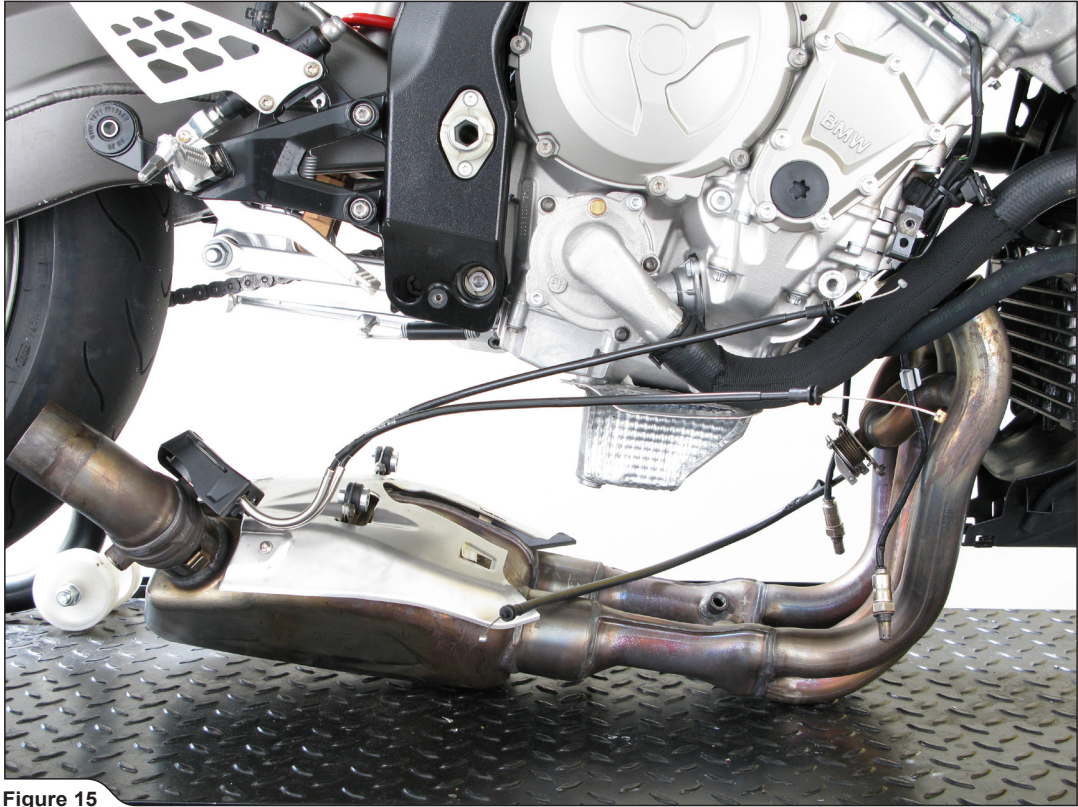


Figure 15

INSTALLATION OF THE AKRAPOVIČ RACING OR EVOLUTION EXHAUST SYSTEMS:

1. Set up and hand tighten the sleeves together with the flanges and springs onto the cylinder head; make sure they are correctly oriented (**Figure 16, 17**).

! WARNING: do not fully tighten the flanges yet!



Figure 16

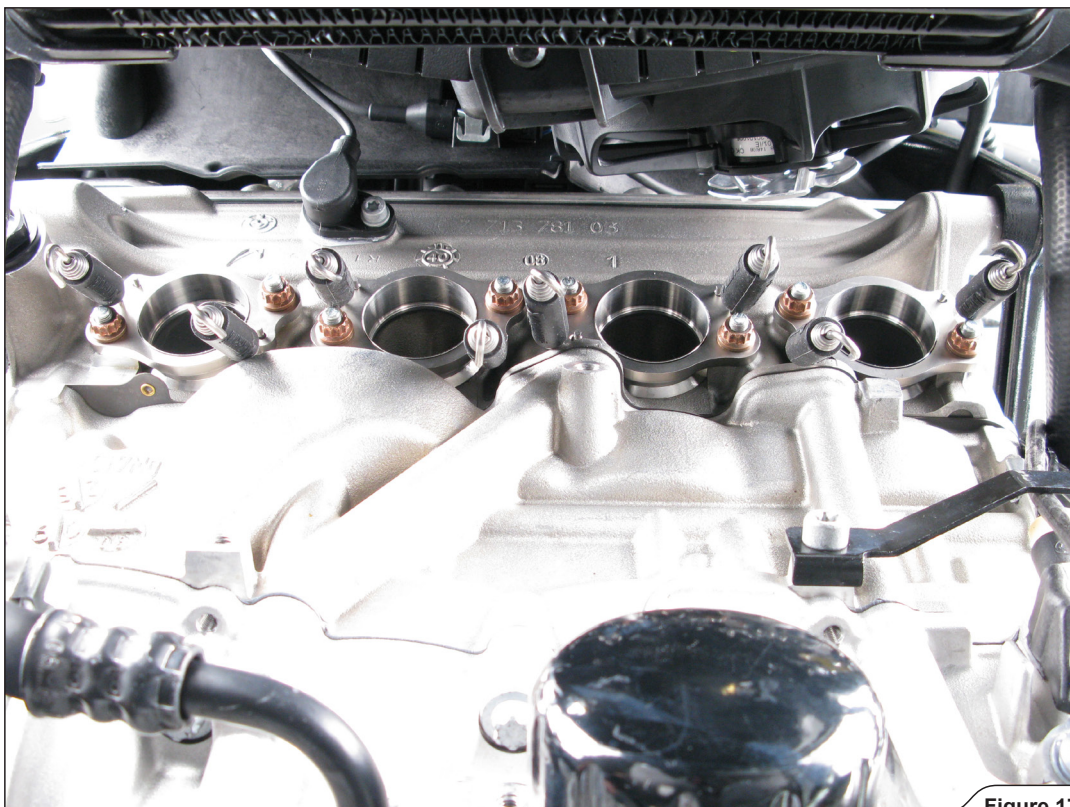


Figure 17

2. Insert the middle header tubes all the way into the sleeves together, attach the springs and tighten the middle flanges to a specified torque (**Figure 18**).

! **WARNING:** use anti-seize copper paste on all nut threads!

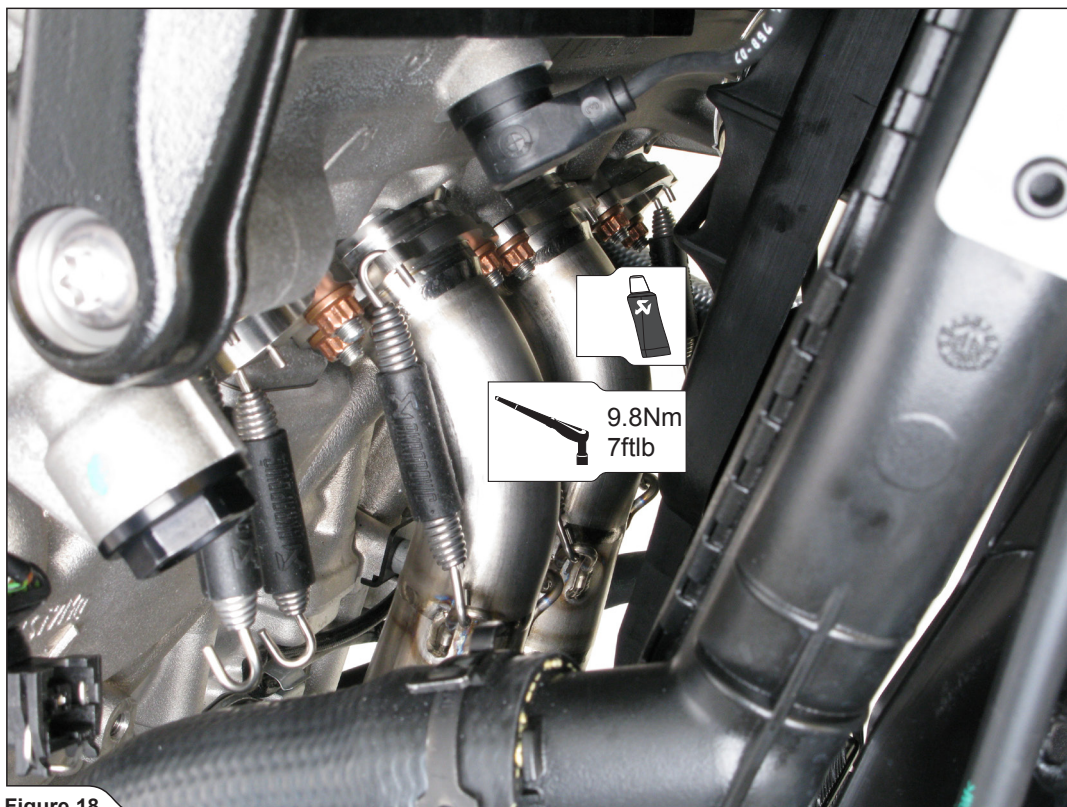


Figure 18

3. Tighten the lambda sensors into the middle header tubes and radiator bracket onto the cylinder block. Attach the sensor's electrical leads into the stock electrical lead brackets, as shown (**Figure 19**).

! **WARNING:** grease only the threads of the lambda sensor with Akrapovič anti-seize lead-free copper paste!

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

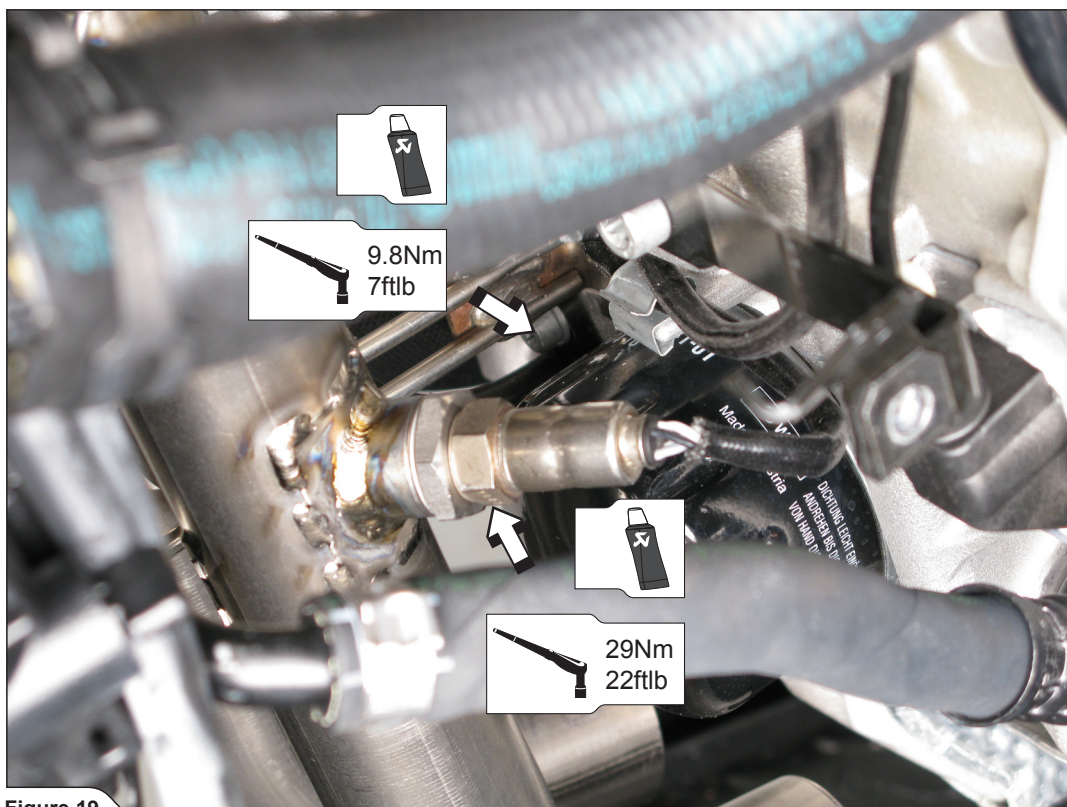


Figure 19

4. Attach the radiator bracket onto the radiators (Figure 20).

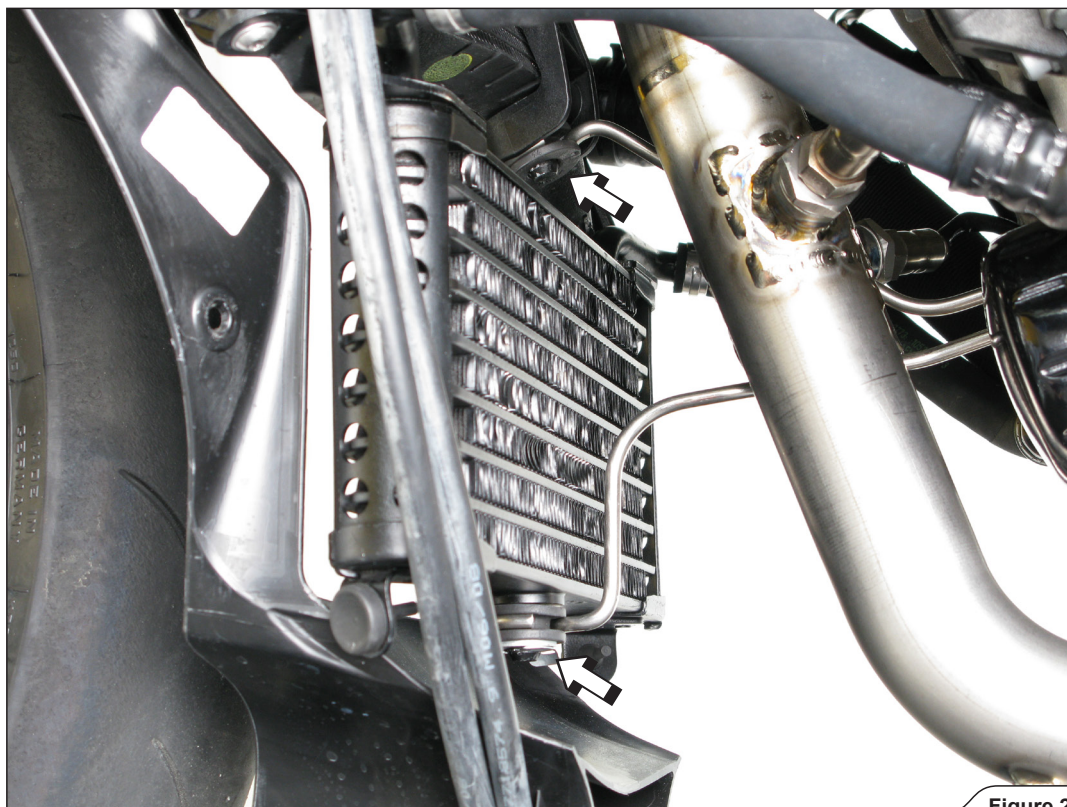


Figure 20

5. Insert the outer header tubes all the way into the sleeves, attach the springs and tighten the outer flanges to a specified torque (Figure 21).

! **WARNING:** use anti-seize copper paste on all nut threads!

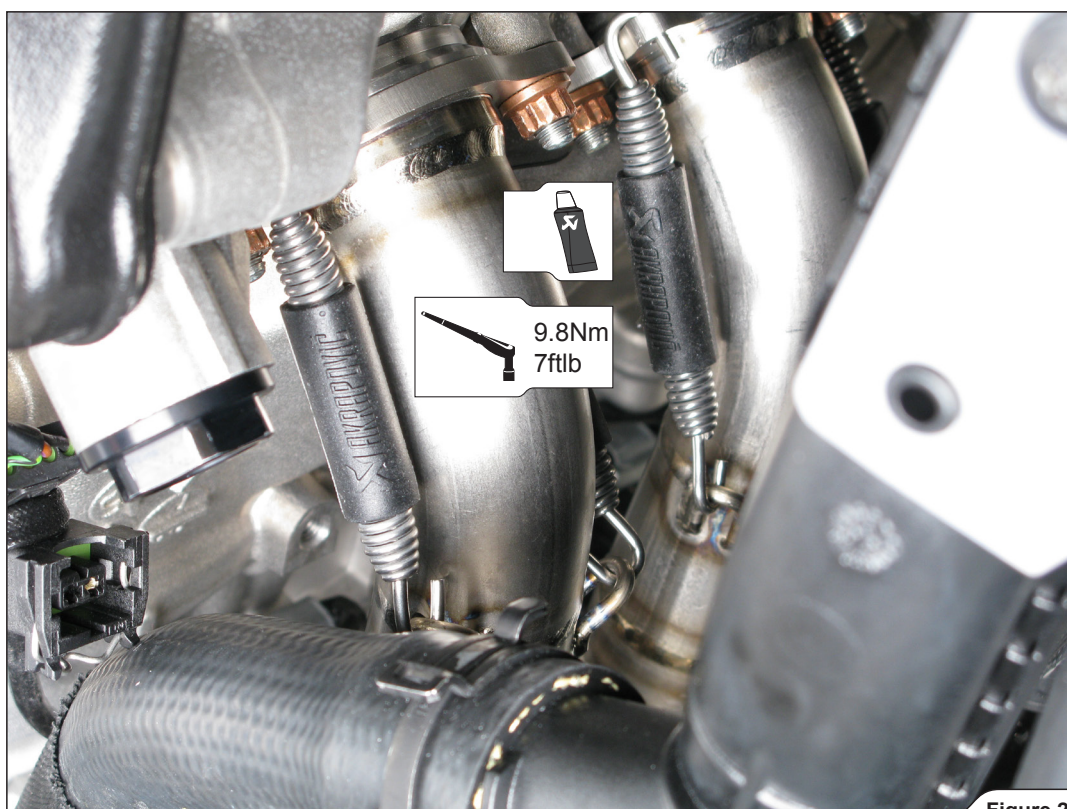


Figure 21

6. Assemble the collectors with link pipe as shown and attach the springs (Figure 22).
! **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 sistem, coat the interior side of the input bushes of the titanium collector with Akrapovič ceramic anti-seizing grease(white tube).

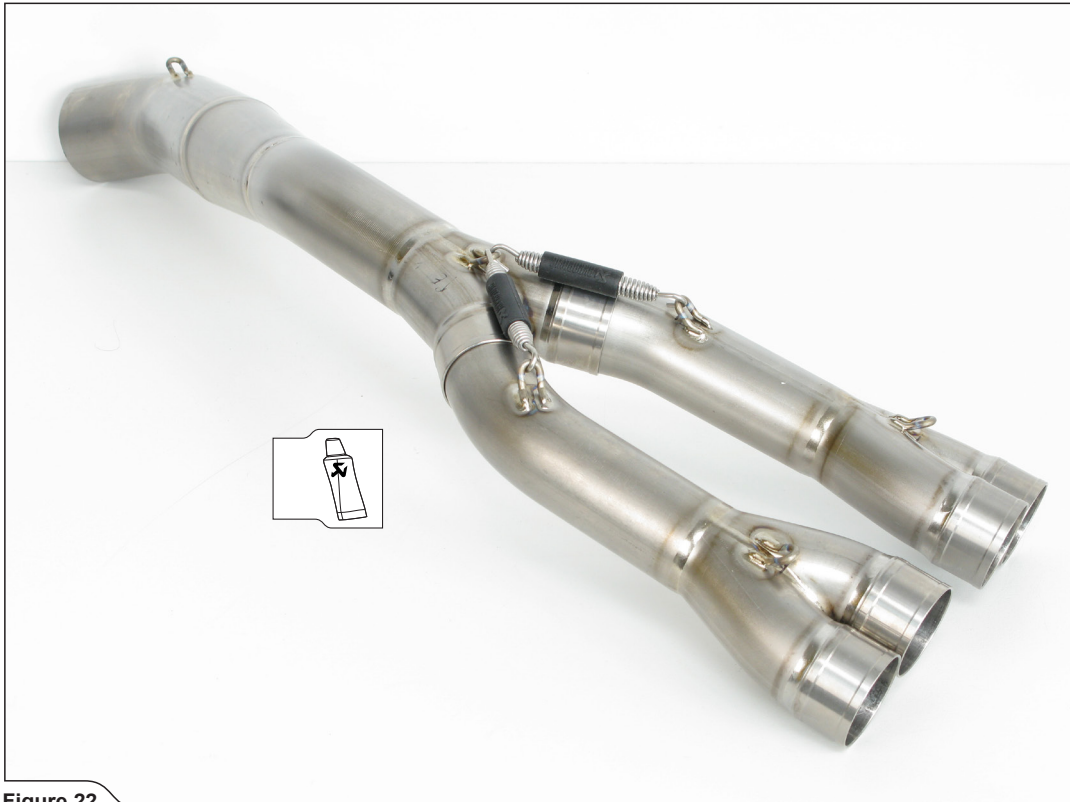


Figure 22

7. Slide the assembled link pipe and collectors onto the header tubes and attach the springs (Figure 23).
! **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 sistem, coat the interior side of the input bushes of the titanium collector with Akrapovič ceramic anti-seizing grease(white tube).

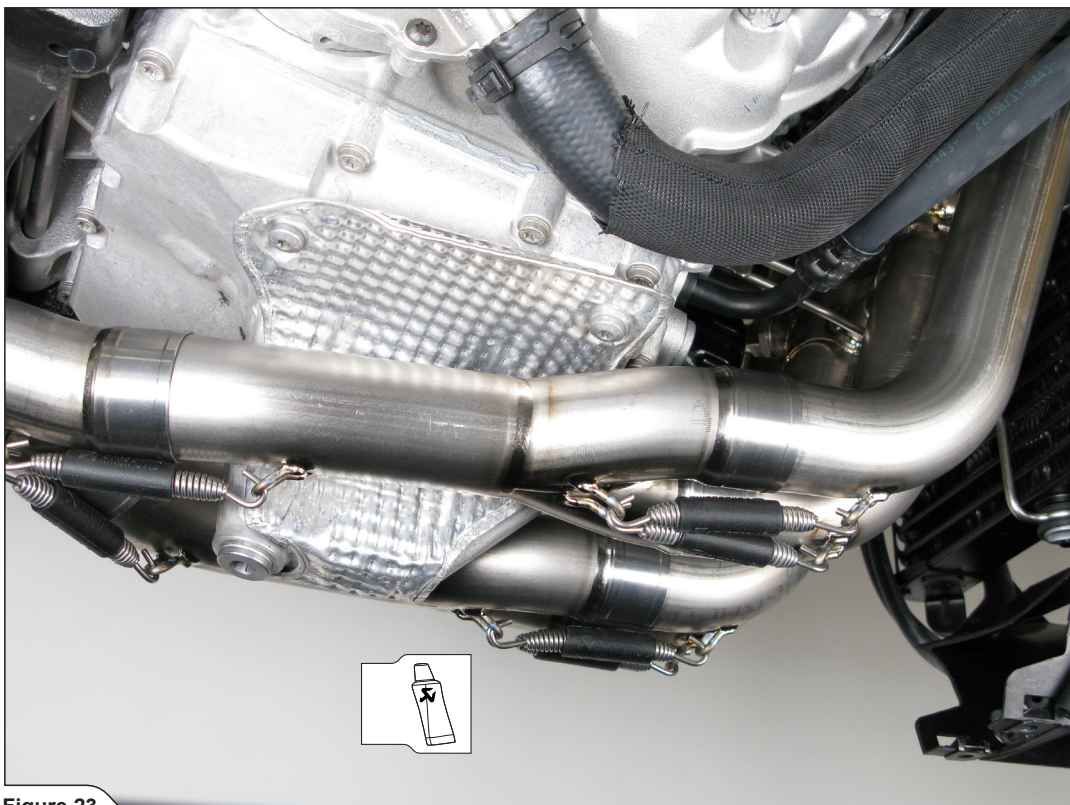


Figure 23

8. **For street legal Racing and Evolution only:** remove the stock exhaust cables off the stock exhaust valve and install them back onto the exhaust valve servo motor (**Figure 24**).

! **WARNING:** make sure, that you don't swap the two cables!

! **WARNING:** do not turn the the servo motor wheel with force or the servo motor could be damaged!



Figure 24

9. **For street legal Racing and Evolution only:** direct the exhaust valve cables to the Akrapovič exhaust valve (**Figure 25**).

! **WARNING:** make sure, that you don't swap the two cables!

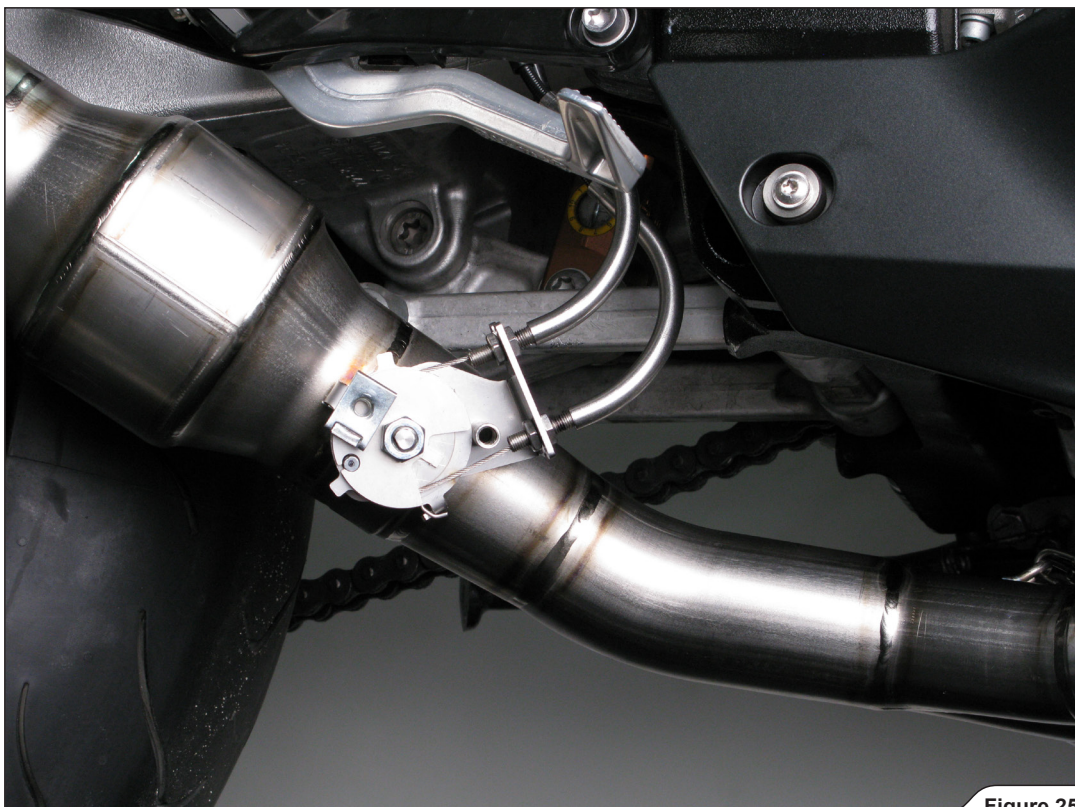


Figure 25

10. **For street legal Racing and Evolution only:** set the cable adjusters on the middle of the cable bracket, as shown. Tighten the cable adjusters nuts to a specified torque (**Figure 26**).

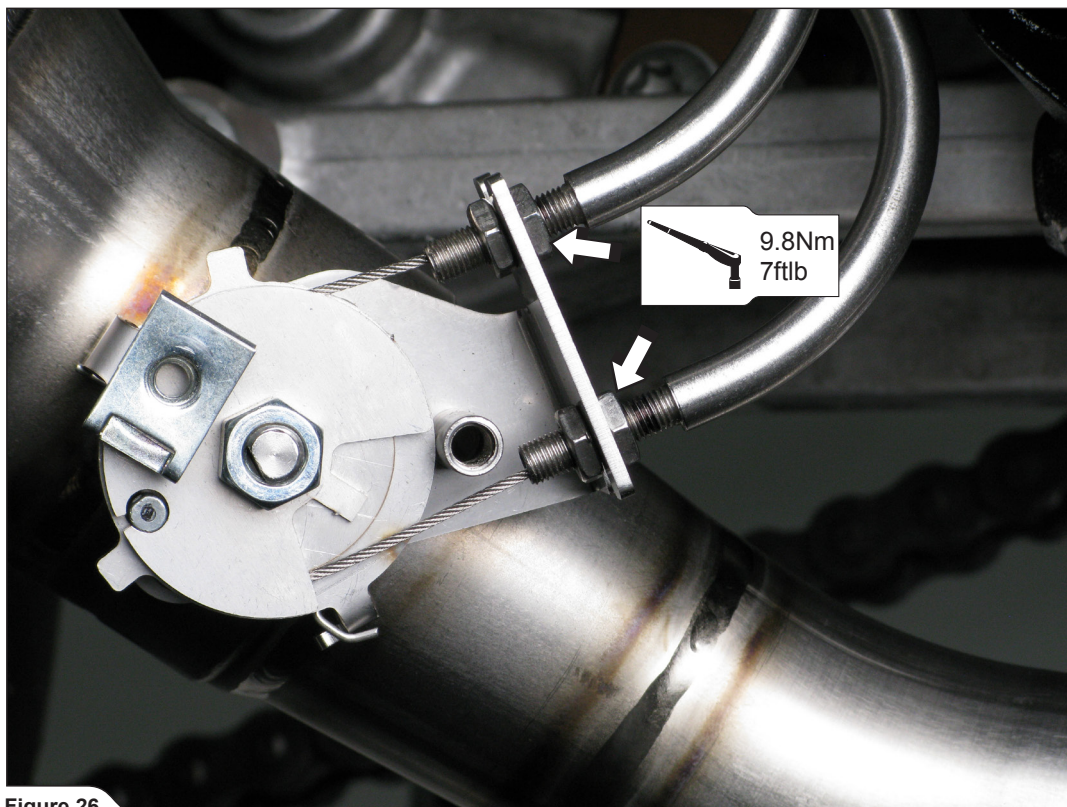


Figure 26

11. **For street legal Racing and Evolution only:** tighten the carbon-fiber heatshield onto the exhaust valve bracket, using Akrapovič bolts and heat resistant washers (**Figure 27**).

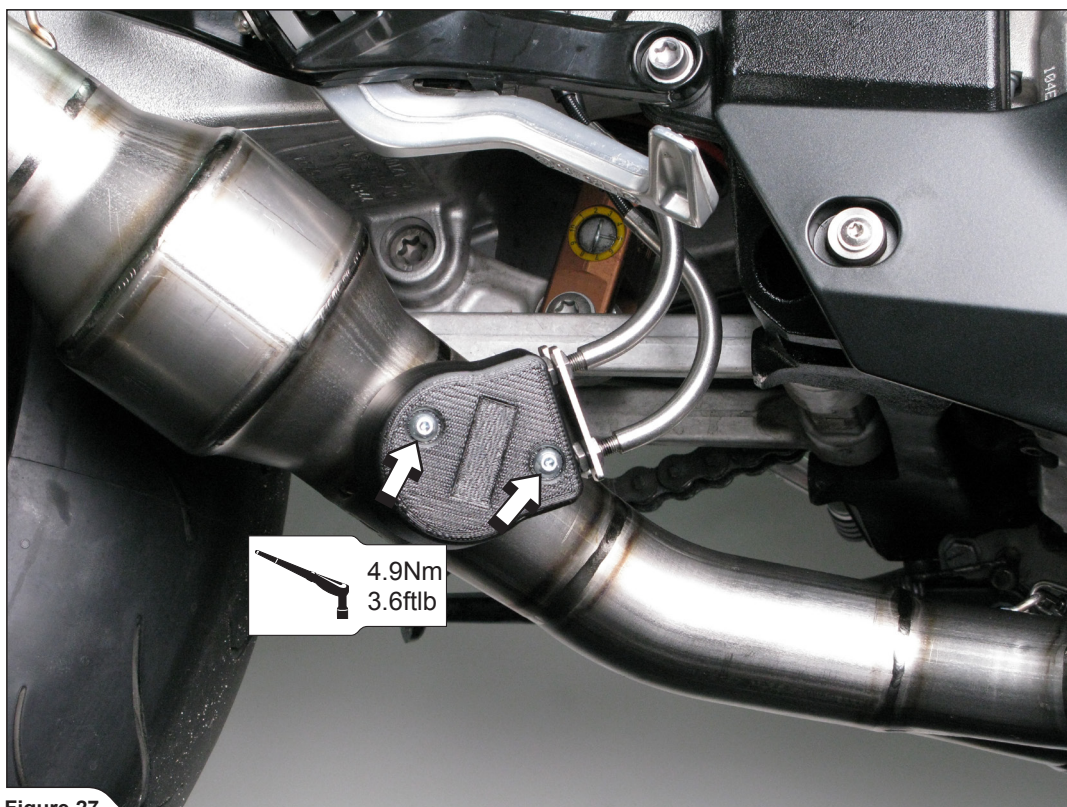


Figure 27

12. Attach the additional Akrapovič stainless steel bracket to the stock right passenger footrest bracket, using Akrapovič nut, bolt and washer (Figure 28, 29).



Figure 28

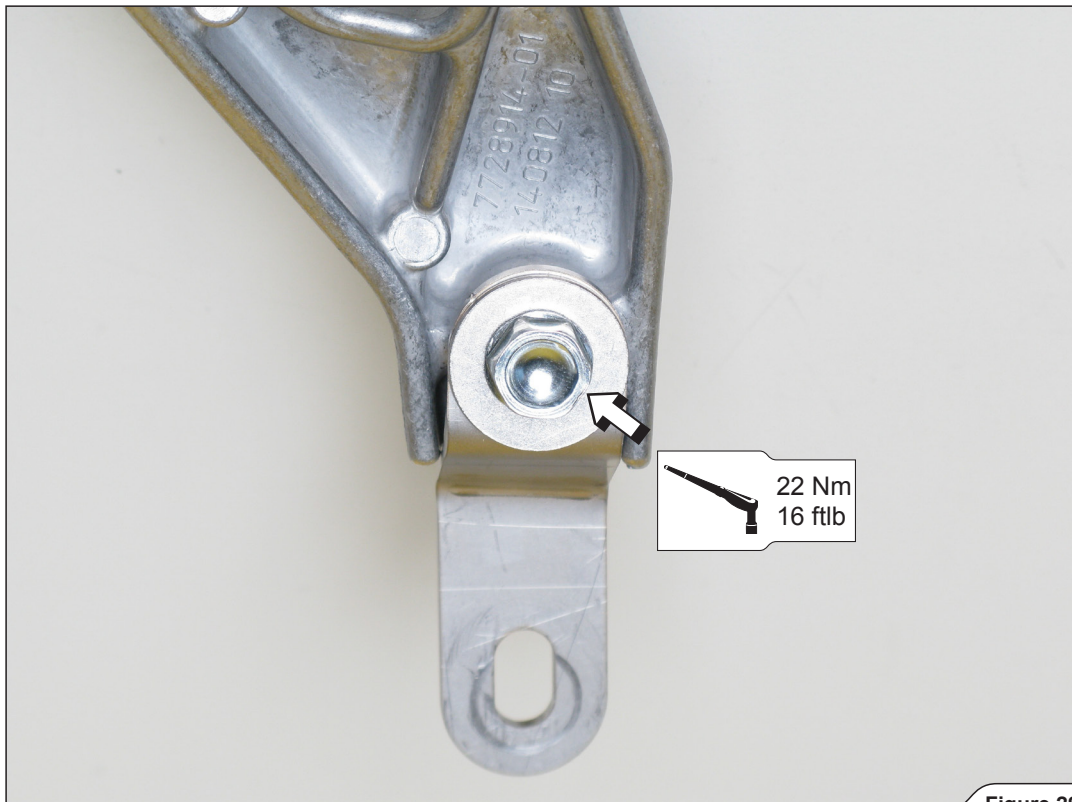


Figure 29

13. For optional carbon-fiber muffler bracket only: attach the optional Akrapovič carbon-fiber bracket as shown, using stock bolts (Figure 30).

! **WARNING:** use anti-seize copper paste on bolt threads!

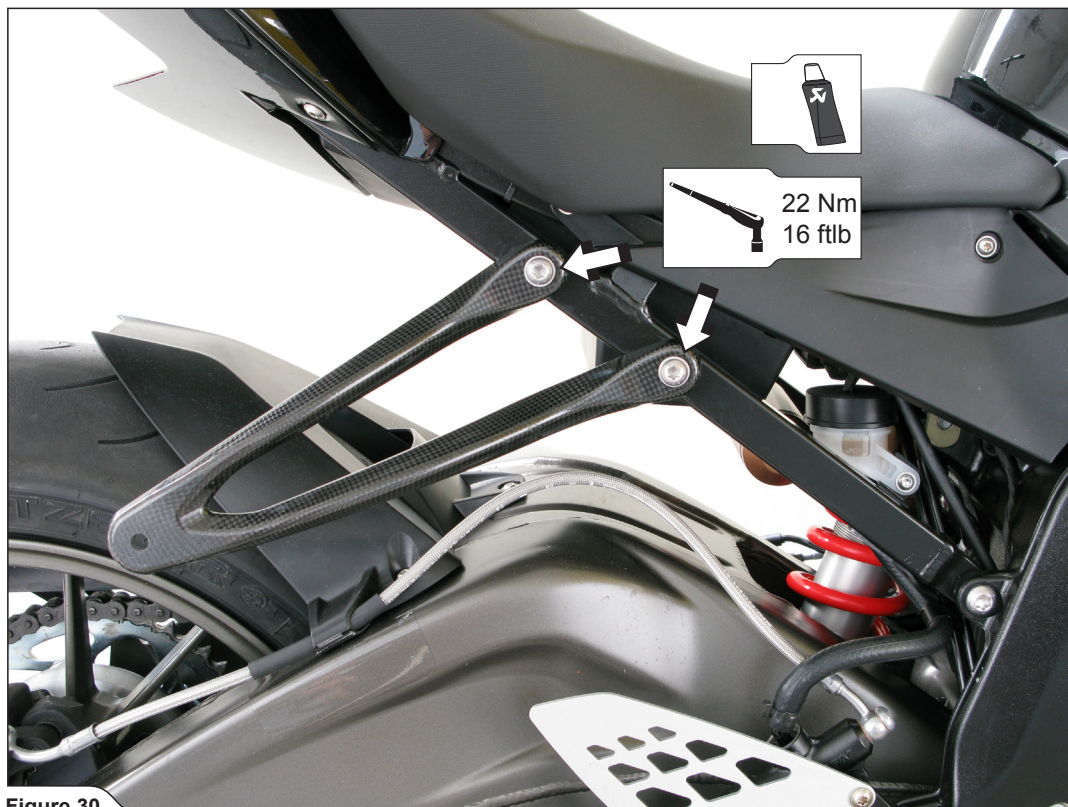


Figure 30

14. Correctly position the carbon-fiber clamp and slide it onto the muffler - bear in mind the **left offset** of the carbon fiber clamp viewed from the rear (Figure 31).

! **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!



Figure 31

15. Position the muffler correctly and slide it onto the outlet side of the link pipe. Attach the springs (Figure 32).
! **WARNING:** 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!
✂ **INSTALLATION TIP:** for Evolution exhaust system, coat the interior side of the input bushe of the muffler with Akrapovič ceramic anti-seizing grease (white tube).

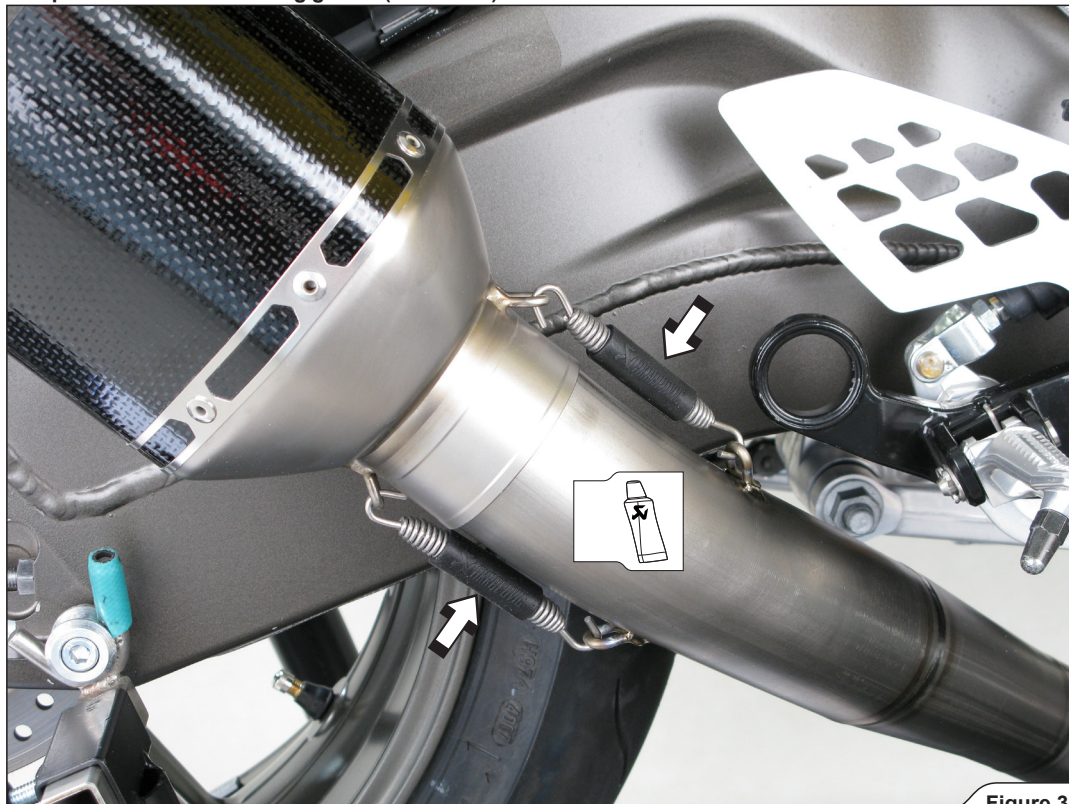


Figure 32

16. Align the muffler in respect to the motorcycle and tighten the muffler clamp to the bracket, using Akrapovič bolt, washers, and nut as shown (Figure 33).

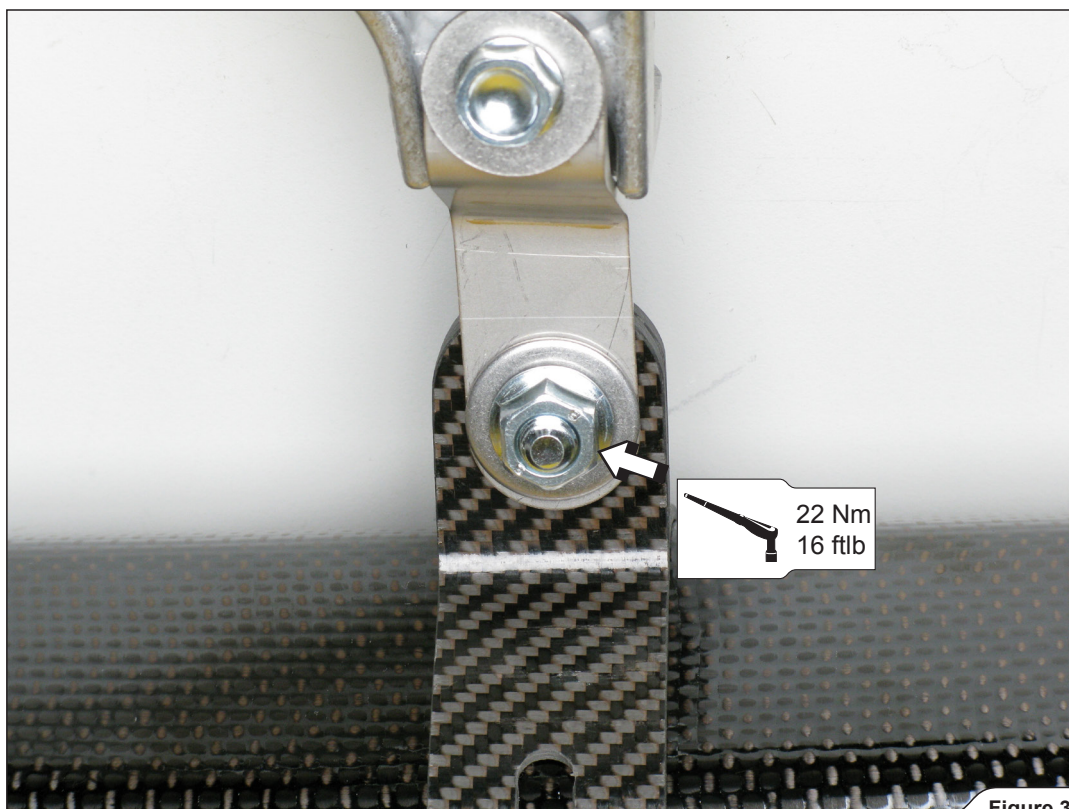


Figure 33

17. For optional carbon-fiber muffler bracket only: align the muffler in respect to the motorcycle and tighten the muffler clamp using Akrapovič bolt, washers and nut as shown (Figure 34).

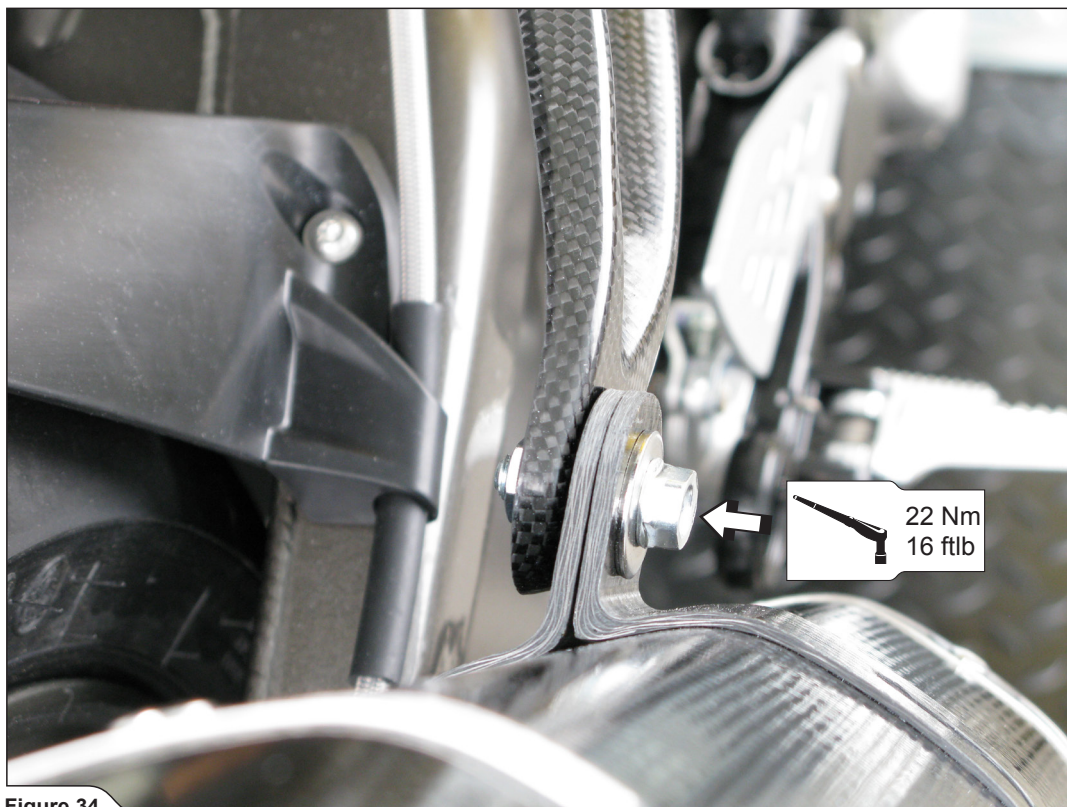


Figure 34

18. Assemble the cowlings in the reverse order from the order in which they were removed (Figure 35).
! WARNING: tighten all cowling bolts to a recommended torque or check vehicle manufacturer manual!



Figure 35

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 outlet cap: use a soft dry cloth.
- c. Stainless steel pipes: use a soft cloth sprayed with a contact cleaner, then wipe with a soft dry cloth.
- d. 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 cowl or other parts repeat the adjustment of the exhaust system or contact your authorized dealer.

! WARNING: after running engine for 30 minutes, tighten 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.

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 catalysis, 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.”

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