



## E39 Forks

### Use & Maintenance Manual –



This manual contains all the information regarding the maintenance and service of the  
Forks: E39 E-Moto







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## Important Information & Maintenance Intervals :

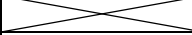

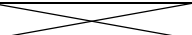

IMPORTANTE	
	Repeatedly using our products in extreme conditions requires more frequent servicing. Using unrecommended high-pressure washing methods, using unrecommended spare parts, solvents and lubricants not recommended by  Formula reduce the life span of our products.

IMPORTANTE	
	<ul style="list-style-type: none"><li> Formula recommends only ORIGINAL spare parts and lubricant products</li><li> Formula recommends consulting servicing technicians for these activities and finding eventual cracks, deformations, or evidence of damage due to fatigue or wear: if the inspection shows the presence of such problems, even if minor, immediately replace the component – with no attempts of repair.</li></ul>

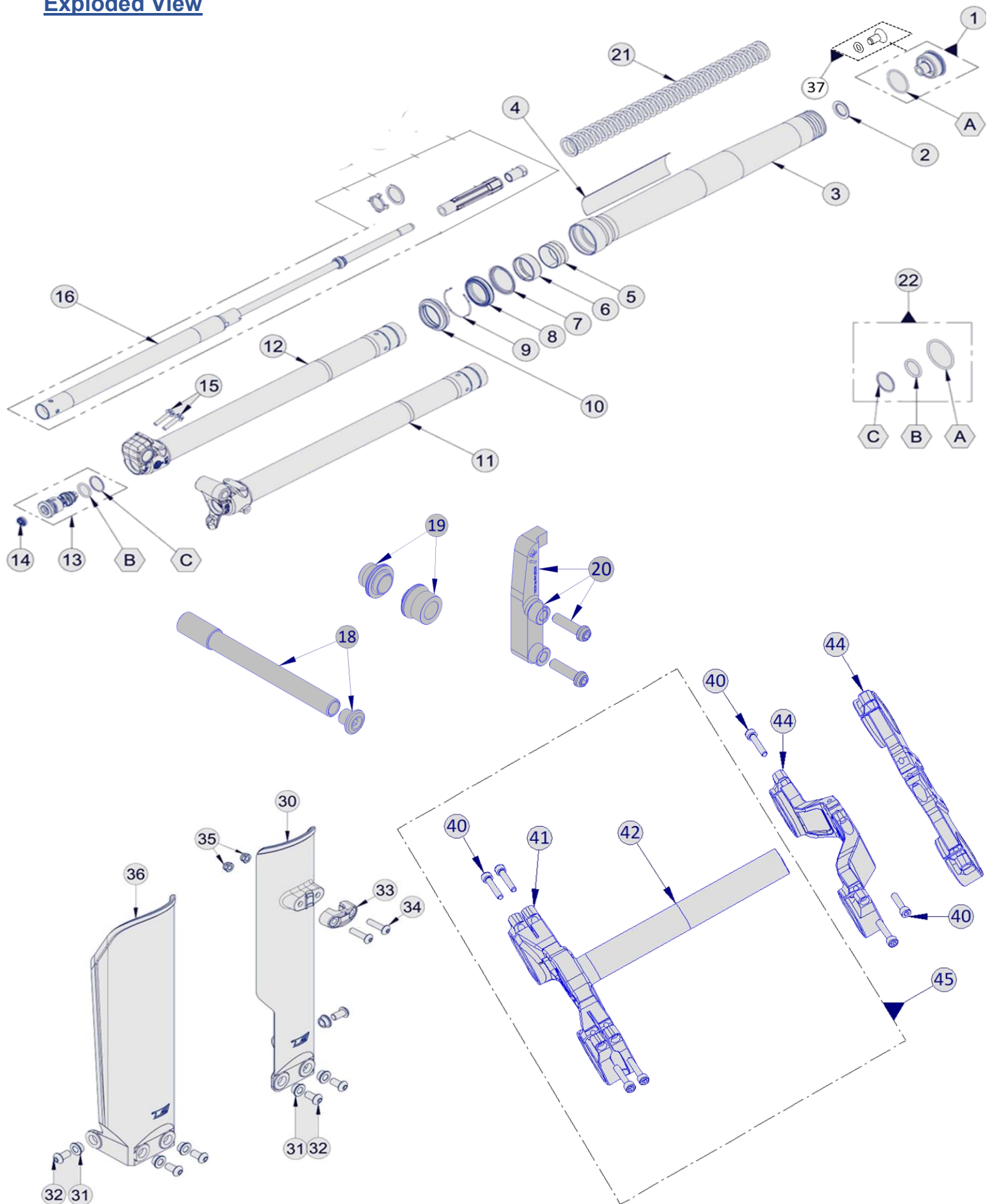
INFORMAZIONI DI SICUREZZA	
	Always wear nitrile gloves and safety glasses when working on the fork. Ensure correct disposal of waste materials and liquids.

## Maintenance Intervals

To keep the fork efficient during normal usage and ensure proper maintenance, follow the maintenance intervals chosen by  Formula:

Procedure	Before and After any use	Every 8 Hours 1 Month	Every 35 Hours 3 Month	Every 100 Hours 1 Year
Washing with water and mild soap. Visual inspection.				
Cleaning dust seals (if dust or mud is present)				
Oil change				
Full inspection				

## Exploded View



## Spare parts

Position	Customer	Fork Code	Description	Part number
1	Talaria	112239321	KIT TOP CAP REBOUND WITHOUT SPRING PRELOAD	F11000010
1	Talaria	112239321	KIT TOP CAP REBOUND WITH SPRING PRELOAD	F110025
1	AM	112239902	KIT TOP CAP REBOUND WITHOUT SPRING PRELOAD	F11000010
1	AM	112239902	KIT TOP CAP REBOUND WITH SPRING PRELOAD	F110025
1	AM	112239903	KIT TOP CAP REBOUND WITHOUT SPRING PRELOAD	F11000010
1	AM	112239903	KIT TOP CAP REBOUND WITH SPRING PRELOAD	F110025
1	AM	112239905	KIT TOP CAP REBOUND WITH SPRING PRELOAD	F110025
1	AM	112239906	KIT TOP CAP REBOUND WITH SPRING PRELOAD	F110025
2	Talaria	112239321	Spring Spacer H3 (for cap without preload)	042003000
2	Talaria	112239321	Spring Spacer H10 (for cap without preload)	042038000
2	Talaria	112239321	Spring Spacer H6,5 (for cap with preload)	042039000
2	AM	112239902	Spring Spacer H3 (for cap without preload)	042003000
2	AM	112239902	Spring Spacer H10 (for cap without preload)	042038000
2	AM	112239902	Spring Spacer H6,5 (for cap with preload)	042039000
2	AM	112239903	Spring Spacer H3 (for cap without preload)	042003000
2	AM	112239903	Spring Spacer H10 (for cap without preload)	042038000
2	AM	112239903	Spring Spacer H6,5 (for cap with preload)	042039000
2	AM	112239905	Spring Spacer H6,5 (for cap with preload)	042039000
2	AM	112239906	Spring Spacer H6,5 (for cap with preload)	042039000
3	Talaria	112239321	OUTER TUBE USD Ø39 46-48	008004214
3	AM	112239902	OUTER TUBE USD Ø39 46-50	008009202
3	AM	112239903	OUTER TUBE USD Ø39 46-50	008009202
3	AM	112239905	OUTER TUBE USD Ø39 46-50 Kashima	008011883
3	AM	112239906	OUTER TUBE USD Ø39 46-50 Kashima	008011883
4	Talaria	112239321	Tech Suspension Sticker White	071016000
4	AM	112239902	Tech Suspension Sticker White	071016000
4	AM	112239903	Tech Suspension Sticker White	071016000
4	AM	112239905	Tech Suspension Sticker Black	071015000
4	AM	112239906	Tech Suspension Sticker Black	071015000
5	Talaria	112239321	BUSHING FOR OUTER TUBE DU Ø38xØ40x20	046003000
5	AM	112239902	BUSHING FOR OUTER TUBE DU Ø38xØ40x20	046003000
5	AM	112239903	BUSHING FOR OUTER TUBE DU Ø38xØ40x20	046003000
5	AM	112239905	BUSHING FOR OUTER TUBE DU Ø38xØ40x20	046003000
5	AM	112239906	BUSHING FOR OUTER TUBE DU Ø38xØ40x20	046003000
6	Talaria	112239321	BUSHING FOR TUBE DU Ø38xØ40x20	046004000
6	AM	112239902	BUSHING FOR TUBE DU Ø38xØ40x20	046004000
6	AM	112239903	BUSHING FOR TUBE DU Ø38xØ40x20	046004000
6	AM	112239905	BUSHING FOR TUBE DU Ø38xØ40x20	046004000
6	AM	112239906	BUSHING FOR TUBE DU Ø38xØ40x20	046004000
7	Talaria	112239321	WASHER FOR STOP OIL SEAL	047001300
7	AM	112239902	WASHER FOR STOP OIL SEAL	047001300
7	AM	112239903	WASHER FOR STOP OIL SEAL	047001300
7	AM	112239905	WASHER FOR STOP OIL SEAL	047001300
7	AM	112239906	WASHER FOR STOP OIL SEAL	047001300
8	Talaria	112239321	OIL SEAL	483951101

8	AM	112239902	OIL SEAL	483951101
8	AM	112239903	OIL SEAL	483951101
8	AM	112239905	OIL SEAL	483951101
8	AM	112239906	OIL SEAL	483951101
9	Talaria	112239321	SEGEER FOR STOP DUST SEAL	047002300
9	AM	112239902	SEGEER FOR STOP DUST SEAL	047002300
9	AM	112239903	SEGEER FOR STOP DUST SEAL	047002300
9	AM	112239905	SEGEER FOR STOP DUST SEAL	047002300
9	AM	112239906	SEGEER FOR STOP DUST SEAL	047002300
10	Talaria	112239321	DUST SEAL	493955141
10	AM	112239902	DUST SEAL	493955141
10	AM	112239903	DUST SEAL	493955141
10	AM	112239905	DUST SEAL	493955141
10	AM	112239906	DUST SEAL	493955141
11	Talaria	112239321	LEFT STANCHION TUBE + SILVER AXEL CLAMP	F100076
11	AM	112239902	LEFT STANCHION TUBE + BLACK AXEL CLAMP	F100088
11	AM	112239903	LEFT STANCHION TUBE + BLACK AXEL CLAMP	F100088
11	AM	112239905	LEFT STANCHION TUBE DLC + BLACK AXEL CLAMP	F100094
11	AM	112239906	LEFT STANCHION TUBE DLC + BLACK AXEL CLAMP	F100094
12	Talaria	112239321	RIGHT STANCHION TUBE + SILVER AXEL CLAMP	F100077
12	AM	112239902	RIGHT STANCHION TUBE + BLACK AXEL CLAMP	F100089
12	AM	112239903	RIGHT STANCHION TUBE + BLACK AXEL CLAMP	F100089
12	AM	112239905	RIGHT STANCHION TUBE DLC + BLACK AXEL CLAMP	F100095
12	AM	112239906	RIGHT STANCHION TUBE DLC + BLACK AXEL CLAMP	F100095
13	Talaria	112239321	COMPRESSION KIT	F09000010
13	AM	112239902	COMPRESSION KIT	F09000010
13	AM	112239903	COMPRESSION KIT	F09000010
13	AM	112239905	COMPRESSION KIT	F09000010
13	AM	112239906	COMPRESSION KIT	F09000010
14	Talaria	112239321	RUBBER CAP	027001000
14	AM	112239902	RUBBER CAP	027001000
14	AM	112239903	RUBBER CAP	027001000
14	AM	112239905	RUBBER CAP	027001000
14	AM	112239906	RUBBER CAP	027001000
15	Talaria	112239321	SCREW M6x30	402063031
15	AM	112239902	SCREW M6x30	402063031
15	AM	112239903	SCREW M6x30	402063031
15	AM	112239905	SCREW M6x30	402063031
15	AM	112239906	SCREW M6x30	402063031
16	Talaria	112239321	CARTRIDGE KIT	F080037
16	AM	112239902	CARTRIDGE KIT	F080037
16	AM	112239903	CARTRIDGE KIT	F080037
16	AM	112239905	CARTRIDGE KIT	F080037
16	AM	112239906	CARTRIDGE KIT	F080037
17	Talaria	112239321	PROTECTION RING	047002000
17	AM	112239902	PROTECTION RING	047002000
17	AM	112239903	PROTECTION RING	047002000
17	AM	112239905	PROTECTION RING	047002000
17	AM	112239906	PROTECTION RING	047002000

18	AM	112239902	AXLE KIT	F260158
18	AM	112239903	AXLE KIT	F260158
18	AM	112239905	AXLE KIT	F260158
18	AM	112239906	AXLE KIT	F260158
19	AM	112239902	WHEEL SPACERS	F260159
19	AM	112239903	WHEEL SPACERS	F260159
19	AM	112239905	WHEEL SPACERS	F260159
19	AM	112239906	WHEEL SPACERS	F260159
20	Talaria	112239321	BRAKE ADAPTER KIT	F260160
20	AM	112239902	BRAKE ADAPTER KIT	F260161
20	AM	112239903	BRAKE ADAPTER KIT	F260161
20	AM	112239905	BRAKE ADAPTER KIT	F260161
20	AM	112239906	BRAKE ADAPTER KIT	F260161
21	Talaria	112239321	MEDIUM SPRING L.397	090423972
21	Talaria	112239321	EXTRA SOFT SPRING L.387	090403870
21	Talaria	112239321	MEDIUM SPRING L.387	090423870
21	Talaria	112239321	EXTRA HARD SPRING L.387	090443870
21	Talaria	112239321	EXTRA SOFT SPRING L.387 + SPACER L.10 KIT	F260125
21	Talaria	112239321	MEDIUM SPRING L.387 + SPACER L.10 KIT	F260127
21	Talaria	112239321	EXTRA HARD SPRING L.387 + SPACER L.10 KIT	F260126
21	AM	112239902	MEDIUM SPRING L.397	090423972
21	AM	112239902	EXTRA SOFT SPRING L.387	090403870
21	AM	112239902	MEDIUM SPRING L.387	090423870
21	AM	112239902	EXTRA HARD SPRING L.387	090443870
21	AM	112239902	EXTRA SOFT SPRING L.387 + SPACER L.10 KIT	F260125
21	AM	112239902	MEDIUM SPRING L.387 + SPACER L.10 KIT	F260127
21	AM	112239902	EXTRA HARD SPRING L.387 + SPACER L.10 KIT	F260126
21	AM	112239903	MEDIUM SPRING L.397	090423972
21	AM	112239903	EXTRA SOFT SPRING L.387	090403870
21	AM	112239903	MEDIUM SPRING L.387	090423870
21	AM	112239903	EXTRA HARD SPRING L.387	090443870
21	AM	112239903	EXTRA SOFT SPRING L.387 + SPACER L.10 KIT	F260125
21	AM	112239903	MEDIUM SPRING L.387 + SPACER L.10 KIT	F260127
21	AM	112239903	EXTRA HARD SPRING L.387 + SPACER L.10 KIT	F260126
21	AM	112239905	EXTRA SOFT SPRING L.387	090403870
21	AM	112239905	MEDIUM SPRING L.387	090423870
21	AM	112239905	EXTRA HARD SPRING L.387	090443870
21	AM	112239906	EXTRA SOFT SPRING L.387	090403870
21	AM	112239906	MEDIUM SPRING L.387	090423870
21	AM	112239906	EXTRA HARD SPRING L.387	090443870
22	Talaria	112239321	O-RING AND COPPER WASHER KIT	F260007
22	AM	112239902	O-RING AND COPPER WASHER KIT	F260007
22	AM	112239903	O-RING AND COPPER WASHER KIT	F260007
22	AM	112239905	O-RING AND COPPER WASHER KIT	F260007
22	AM	112239906	O-RING AND COPPER WASHER KIT	F260007
31	Talaria	112239321	SPACERS FOR FORK GUARD	046002300
31	AM	112239902	SPACERS FOR FORK GUARD	046002300
31	AM	112239903	SPACERS FOR FORK GUARD	046002300
31	AM	112239905	SPACERS FOR FORK GUARD	046002300



31	AM	112239906	SPACERS FOR FORK GUARD	046002300
32	Talaria	112239321	SCREW M6x12 FOR FORK GUARD	407061241
32	AM	112239902	SCREW M6x12 FOR FORK GUARD	407061241
32	AM	112239903	SCREW M6x12 FOR FORK GUARD	407061241
32	AM	112239905	SCREW M6x12 FOR FORK GUARD	407061241
32	AM	112239906	SCREW M6x12 FOR FORK GUARD	407061241
33	Talaria	112239321	HOSE CLAMP	070002000
33	AM	112239902	HOSE CLAMP	070002000
33	AM	112239903	HOSE CLAMP	070002000
33	AM	112239905	HOSE CLAMP	070002000
33	AM	112239906	HOSE CLAMP	070002000
34	Talaria	112239321	SCREW M5x20 FOR HOSE CLAMP	407052041
34	AM	112239902	SCREW M5x20 FOR HOSE CLAMP	407052041
34	AM	112239903	SCREW M5x20 FOR HOSE CLAMP	407052041
34	AM	112239905	SCREW M5x20 FOR HOSE CLAMP	407052041
34	AM	112239906	SCREW M5x20 FOR HOSE CLAMP	407052041
35	Talaria	112239321	NUT LOCK M5	464050531
35	AM	112239902	NUT LOCK M5	464050531
35	AM	112239903	NUT LOCK M5	464050531
35	AM	112239905	NUT LOCK M5	464050531
35	AM	112239906	NUT LOCK M5	464050531
37	Talaria	112239321	AIR RELEASE SCREW	F230016
37	AM	112239902	AIR RELEASE SCREW	F230016
37	AM	112239903	AIR RELEASE SCREW	F230016
37	AM	112239905	AIR RELEASE SCREW	F230016
37	AM	112239906	AIR RELEASE SCREW	F230016
40	AM	112239902	CROWN SCREW KIT	F260146
40	AM	112239903	CROWN SCREW KIT	F260146
40	AM	112239905	CROWN SCREW KIT	F260146
40	AM	112239906	CROWN SCREW KIT	F260146
44	AM	112239902	FLAT UPPER CROWN WITH SCREW L.166 KIT	F260121
44	AM	112239902	DROPPED UPPER CROWN WITH SCREW L.166 KIT	F260143
44	AM	112239903	FLAT UPPER CROWN WITH SCREW L.166 KIT	F260121
44	AM	112239903	DROPPED UPPER CROWN WITH SCREW L.166 KIT	F260143
44	AM	112239905	FLAT UPPER CROWN WITH SCREW L.166 KIT	F260121
44	AM	112239905	DROPPED UPPER CROWN WITH SCREW L.166 KIT	F260143
44	AM	112239906	FLAT UPPER CROWN WITH SCREW L.166 KIT	F260121
44	AM	112239906	DROPPED UPPER CROWN WITH SCREW L.166 KIT	F260143
45	AM	112239902	LOWER CROWN L.166 KIT	F260124
45	AM	112239903	LOWER CROWN L.166 KIT	F260124
45	AM	112239905	LOWER CROWN L.166 KIT	F260124
45	AM	112239906	LOWER CROWN L.166 KIT	F260124
30 - 36	Talaria	112239321	FORK GUARD COMPLETE KIT	070008000
30 - 36	AM	112239902	FORK GUARD COMPLETE KIT	070008000
30 - 36	AM	112239903	FORK GUARD COMPLETE KIT	070008000
30 - 36	AM	112239905	FORK GUARD COMPLETE KIT	070008000
30 - 36	AM	112239906	FORK GUARD COMPLETE KIT	070008000



## Oil Level Chart

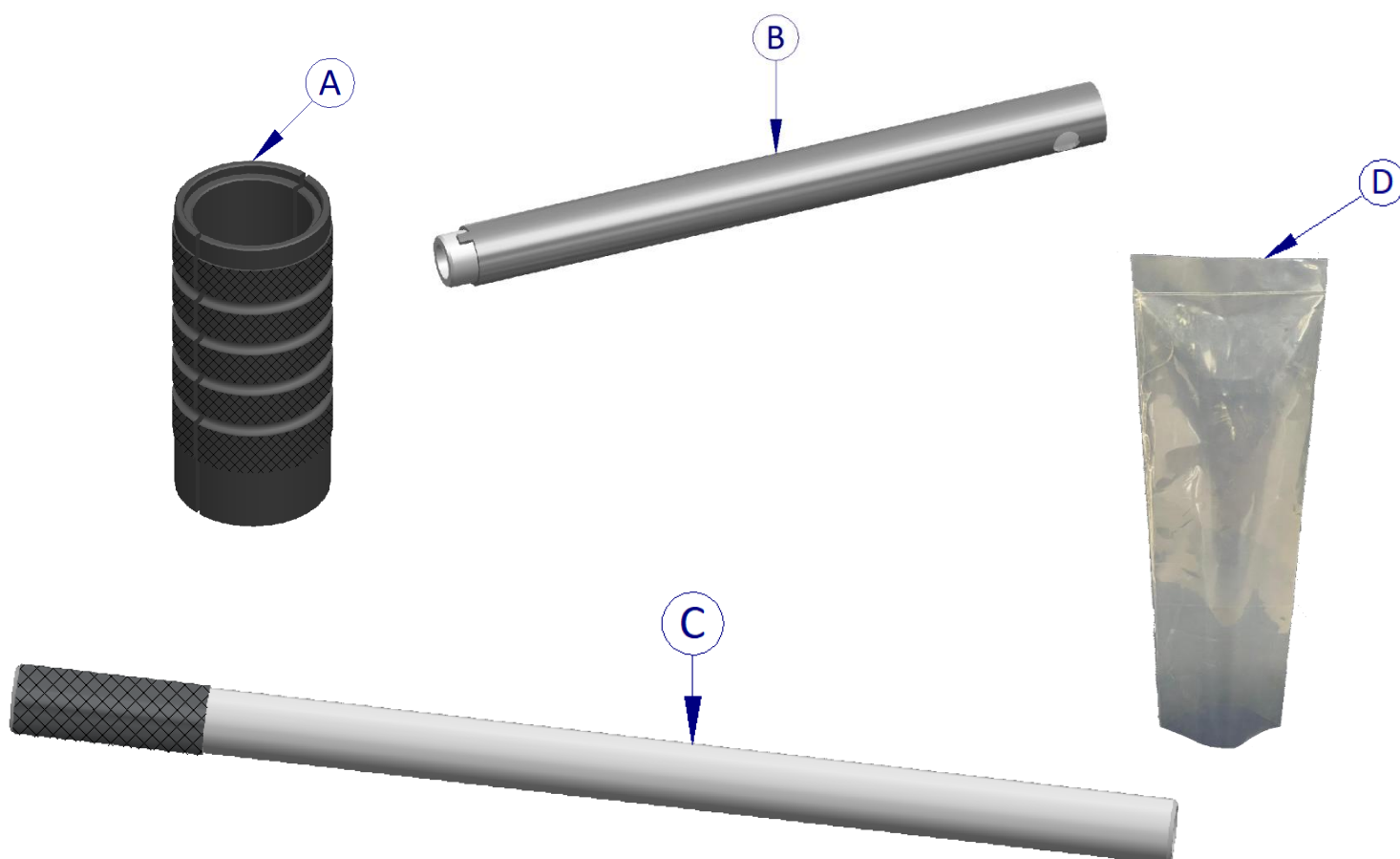
Fork code 112239XXX	Level (cc)	Qty (cc)	MY	Customer
321	100	295	24	Talaria
902	100	295	25	AM
903	100	295	25	AM
905	100	295	26	AM
906	100	295	26	AM

Oil type OJ01 (SAE 5)

## Required Tools

Description	Position	Q.ty	Part number
Bushing and Oil Seal Tool	A	1	0800DU012
Cartridge Assembly Tool	B	1	080072000
Rod holding tool	C	1	080073000
Oils Seal Installing Protection	D	1	VA-S214-00

- Bench vise
- Formula grease
- Wrench 10 mm, 13 mm, 16 mm x2, 17 mm
- Allen key 5 mm, 6 mm, 14 mm
- Torx key TX10
- Flathead screwdriver
- Torque wrench with 10 mm socket, 5 mm, 6 mm, and 14 mm Allen bits
- 42 mm hex key or Knipex pliers with smooth jaws
- Compass wrench with 4 mm tips
- Caliper or measuring tape
- Microfiber cloth



## Fork adjustments

The forks have different types of adjustments that allow you to adapt the product to your needs. Adjustments must be made by experienced personnel. An incorrect setting can make it dangerous to ride the motorcycle and can cause serious or fatal injuries.

### Rebound Adjustment

#### **Required Tools:**

Slotted screwdriver (version without spring preload);  
Manual knob (spring preload version).

#### **Procedure:**

On the top of both legs is the rebound brake adjuster. Turning the controller clockwise will result in a slower return speed; turning it counterclockwise will give you a higher speed. To start with a basic setting, set the controller halfway through the clicks.



### Compression adjustment

#### **Required Tools:**

Slotted screwdriver.

#### **Procedure:**

There is a compression adjuster at the bottom of both legs. Turning the adjuster clockwise will result in a slower compression speed; turning it counterclockwise will give you a higher speed. To start with a basic setting, set the controller halfway through the clicks.



### Spring Preload Adjustment (select models only)

#### **Required Tools:**

Pomello manuale o Chiave a compasso.

#### **Procedure:**

On the top of the legs is the spring preload adjuster. This adjustment allows you to vary the spring preload, using the manual throttle or the compass wrench with 4mm jaws. Each clockwise turn of the throttle or adjuster increases the spring preload by 1 mm.

Preload adjuster



### Spring load selection

The available spring loads are:

Setting	Spring Rate	Rider Weight
Extra Soft	3.2 Nm	-50 kg
Soft*	3.65 Nm	50-60 kg
Medium	4.1 Nm	60-80 kg
Hard**	4.6 Nm	80-90 kg
Extra Hard	5.1 Nm	90+ kg

\*The Soft setting is achieved by using a Medium spring in the left leg and an Extra Soft spring in the right leg.

\*\*The Hard setting is achieved by using an Extra Hard spring in the left leg and a Medium spring in the right leg.

### How to choose your own spring load?

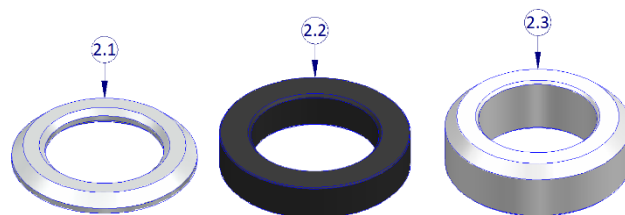
Choose the spring rate according to your weight and riding style. Riders who ride aggressively on rough terrain and/or with large jumps should consider increasing the spring stiffness. If in doubt, consult your local motorcycle shop or a tuning specialist for assistance in setting up the fork to your weight and riding style.

### How to distinguish springs?

The fork without spring preload originally comes with the long spring L.397 and a spacer of 3mm (2.1).

On the other hand, in forks with spring preload (even if added as an upgrade) long L.387 springs with a 6.5mm (2.2) spacer must be used which is supplied with the preload cap.

The 387mm springs can also be used on the fork without the spring preload, in this case you have to add to the 3mm spacer (2.1) already present on the fork the 10mm spacer (2.3) supplied with the spring.

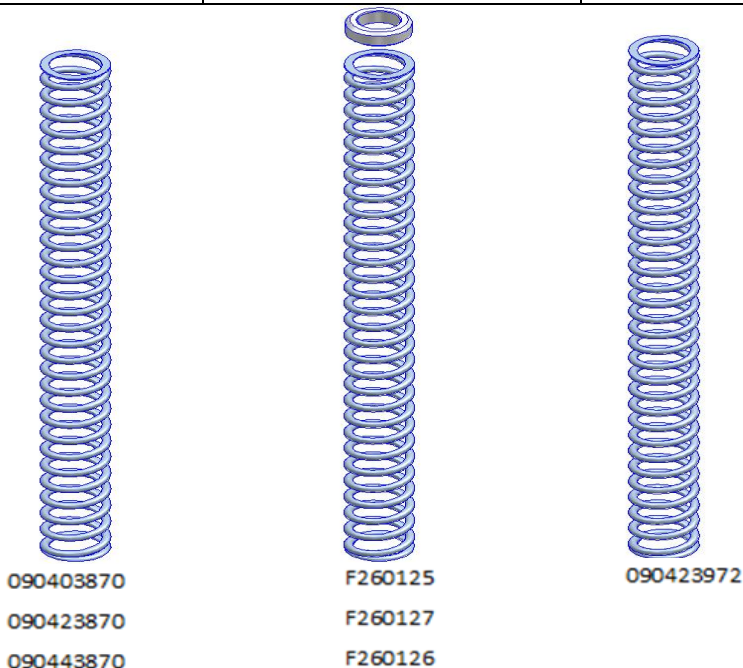


### In summary:

if you have a fork without the preload cap, the spring package (spring + spacer) must be 400mm whatever spring is used;

If the fork has a preload cap, the spring package must be 393.5mm whatever spring is used.

Setting	Wire Ø	SPRING L.387 code	KIT MOLLA L.387 + DISTANZIALE (10mm) code	SPRING L.397 code
Extra Soft	Ø 4 ±0,03	090403870	F260125	
Medium	Ø 4,2 ±0,035	090423870	F260127	090423972
Extra Hard	Ø 4,4 ±0,035	090443870	F260126	



-End of procedure-

## Spring Replacement

### Required tools:

Description	Position	Part number
Rod holding tool	C	080073000

Bench vise

17 mm wrench / 42 mm hex wrench or Knipex smooth-jaw pliers

2 × 16 mm wrenches

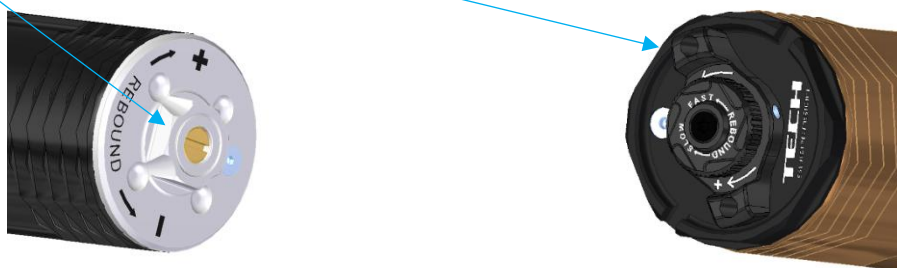
13 mm wrench

TX10 Torx key

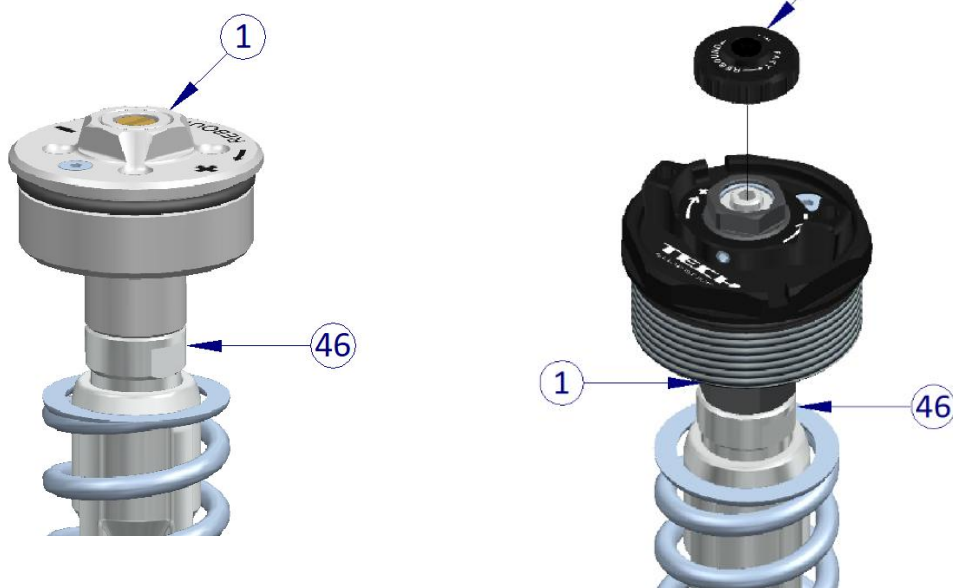
Torque wrench

### Procedure:

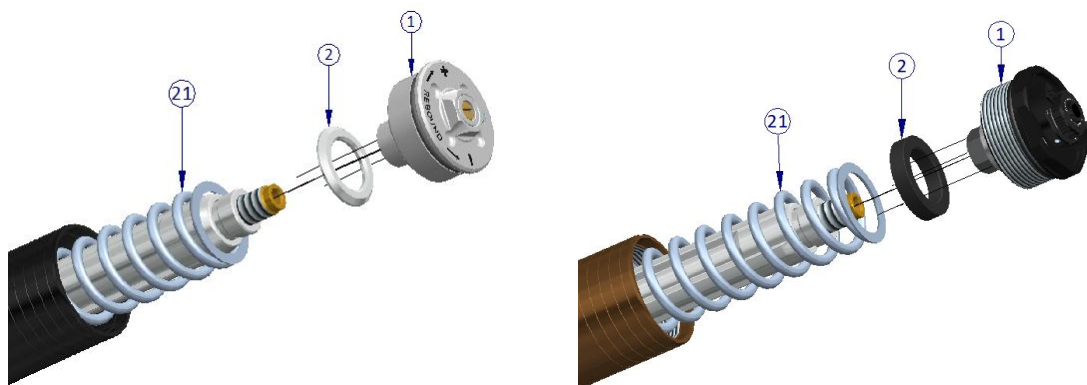
1. Before proceeding, perform a thorough cleaning of the fork;
2. If the fork has a preload cap, turn the preload to zero to facilitate disassembly;
3. Completely unscrew the cap from the fork leg using the necessary tool (17 mm wrench / 42 mm hex wrench or Knipex smooth-jaw pliers), depending on whether the fork has a spring preload cap or not;



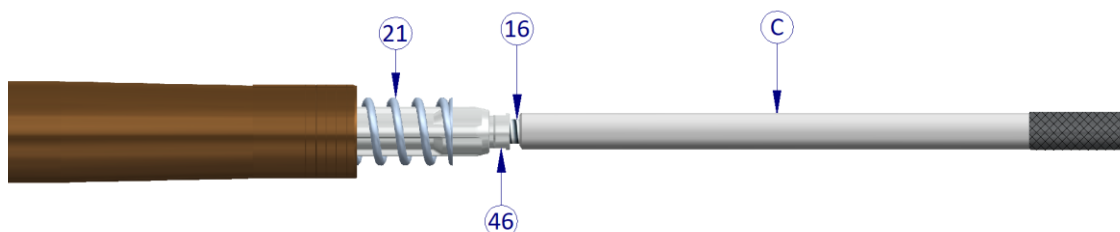
4. Pull out the cap (1) enough to access the locknut (46).  
Compress the spring firmly to insert a 16 mm wrench on the locknut (46) and a wrench between the 17 mm wrench on the cap / 16 mm wrench on the preload adjuster, depending on the model of the latter.  
If you don't have two 16 mm wrenches, you can use the 13 mm wrench under the rebound knob (48), which can be removed with a TX10 Torx key;



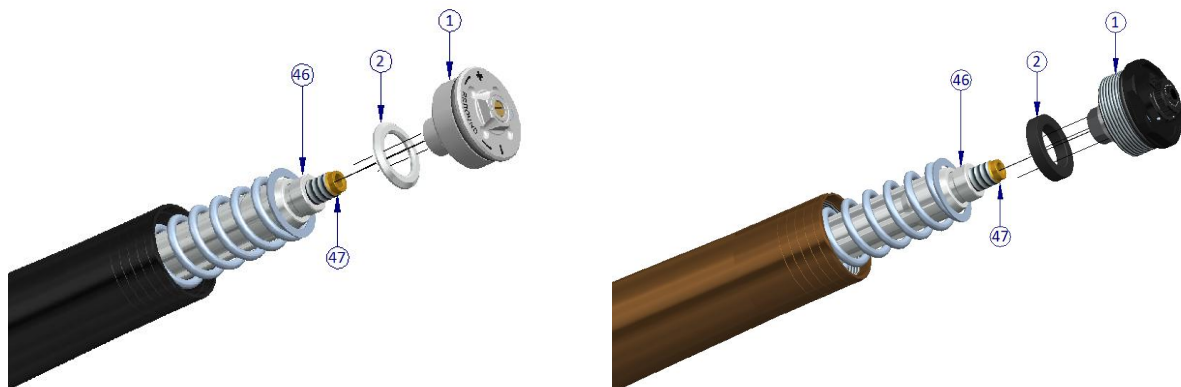
5. Remove the cap (1) and the washer (2);
6. Slowly extract the spring (21) and wipe off the oil with a cloth;



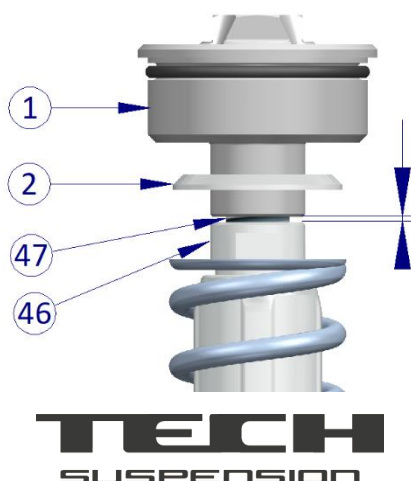
7. Screw tool "C" onto the cartridge rod (47). Insert the spring (21) into the fork leg. Extend the cartridge rod (47) fully into position;
8. Manually compress the spring and insert a 16 mm wrench onto the locknut (46);



9. Insert the washer (2), ensuring the chamfer faces upwards;
10. Fully screw in the cap by hand;



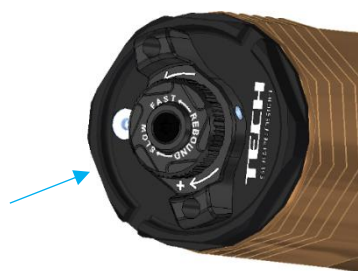
11. Ensure that the locknut (46) is screwed onto the rod (47) so that, when the cap (1) is fully tightened, there is space remaining between it and the locknut;



12. Tighten the locknut (46) onto the cap (1) with a torque of  $18.6 \div 20.6$  Nm. Remove the wrenches and ensure the washer is properly seated inside the cap (1).



13. Fully tighten the cap onto the fork leg using a 17 mm wrench / 42 mm hex wrench or Knipex smooth jaw pliers, with a torque of  $11.7 \div 13.7$  Nm.



-End of Procedure-



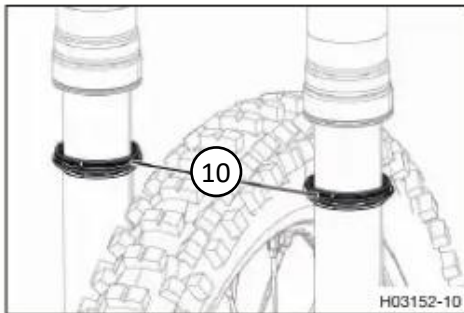
## Cleaning dust seals

### Tools Needed:

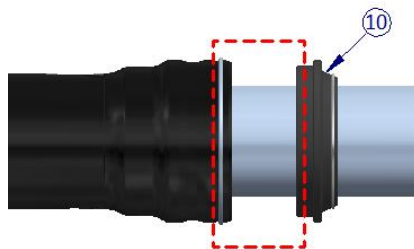
Flathead screwdriver  
Microfiber cloth.

### Procedure:

1. Before proceeding accurately clean the fork;
2. Remove the dust seal by leveraging on its side with a flat-head screwdriver. Remove any dirt residue from the dust seal and the oil seal with a microfiber cloth;



3. Apply grease to the highlighted area of the tube;



4. Insert the dust seal (10) into its seat, using a flat-head screwdriver to gently lever on the outer diameters;



-End of Procedure-

## Oil change

### Tools Needed:

Description	Position	Part number
Rod holding tool	C	080073000

Bench vise;

Wrench 17mm / Wrench for 42mm hexagon or knipex smooth beaks;

Wrench 16mm x2;

Wrench 13mm;

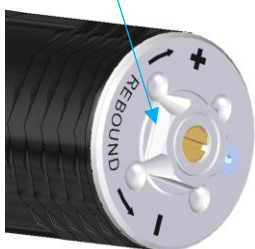
tx10 torx wrench;

Torque wrench;

Calibro / Metro

### Procedure:

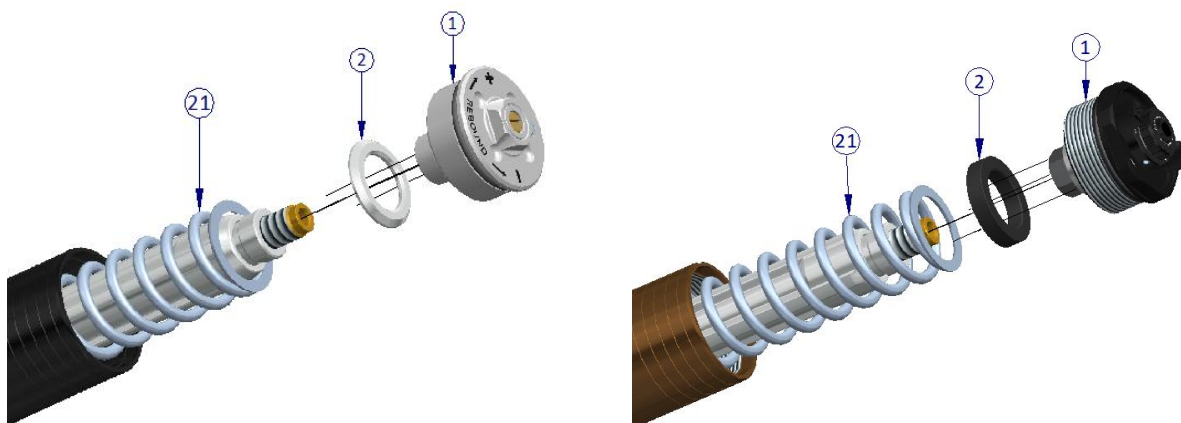
1. Before proceeding, perform a thorough cleaning of the fork;
2. If the cap has preload, set the preload to 0 to facilitate disassembly.
3. Fully unscrew the top cap from the stanchion using the appropriate tool:  
17 mm open-end wrench or 42 mm hex wrench / Knipex smooth jaw pliers, depending on whether the fork is equipped with a spring preload top cap or not.;



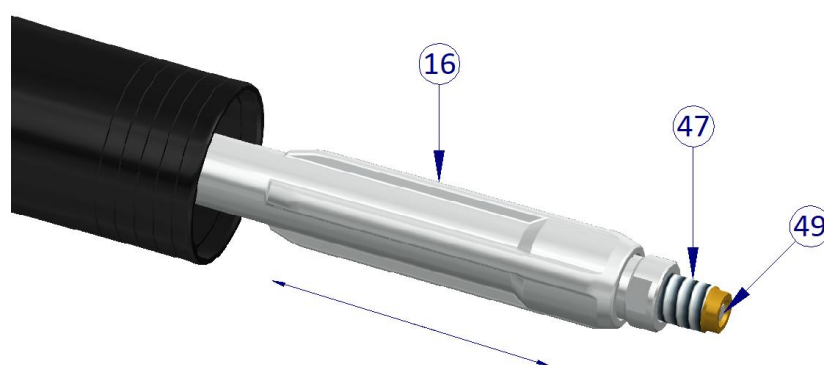
4. Extract the top cap (1) enough to access the locknut (46). Compress the spring firmly; insert a 16 mm open-end wrench on the locknut (46) and another wrench—either a 17 mm open-end wrench on the top cap or a 16 mm open-end wrench on the preload adjuster—depending on its model. If you don't have two 16 mm wrenches, you can use a 13 mm wrench under the rebound knob (48), which can be removed using a TX10 wrench.



5. Remove the cap (1) and washer (2);
6. Slowly remove the spring (21) and wipe it from the oil with a cloth;



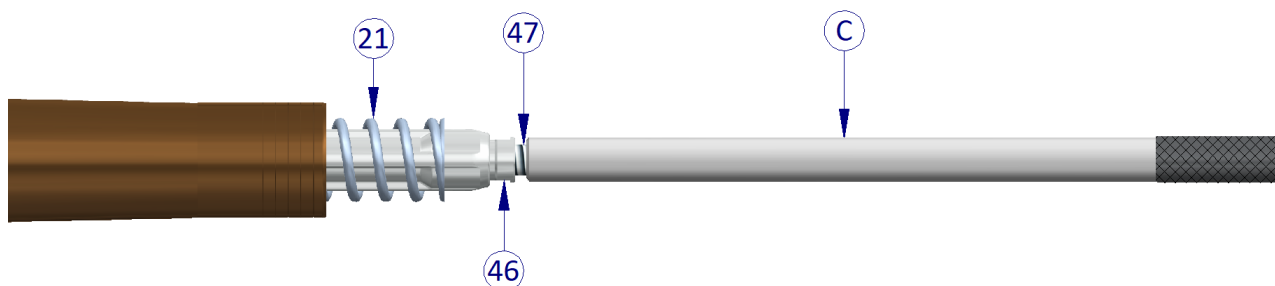
7. Cover the end of the rebound rod (47) with a finger to prevent the internal components—such as the needle (49)—from coming out. Pour the oil into a tray while simultaneously moving the cartridge (16) back and forth;



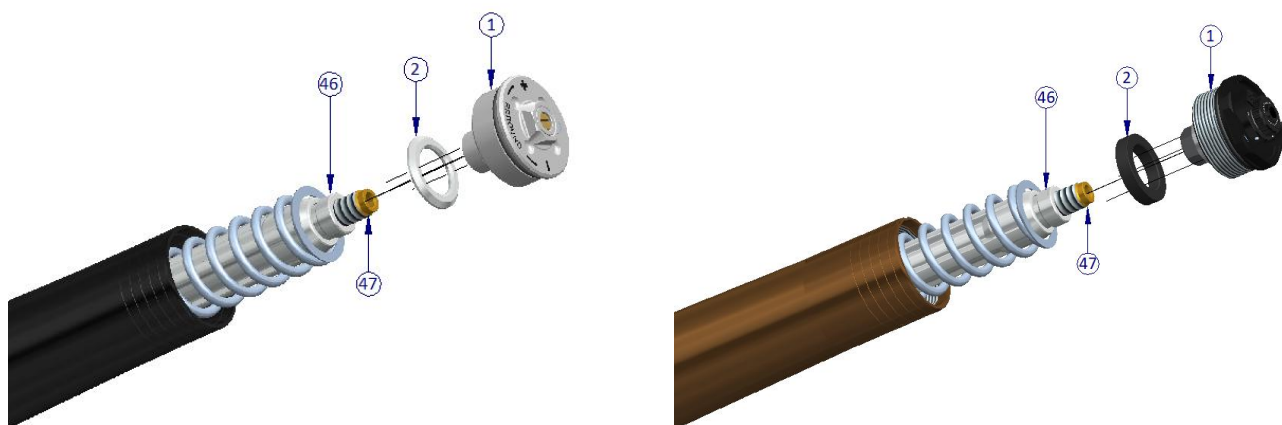
8. Position the leg vertically and slowly pour in the new oil, pumping the rod up and down until you feel a smooth damping action during the rebound stroke ;  
While holding the leg in a vertical position, compress the stanchion and the rod until reaching the end of the travel;  
Complete the oil top-up by bringing the level to X mm (check reference table on page 9) from the edge of the stanchion (keeping the rod and stanchion fully compressed);



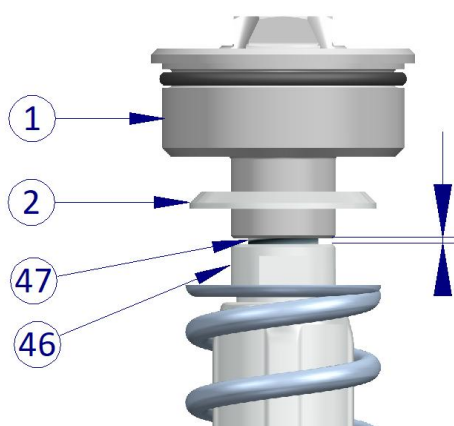
9. Screw tool "C" onto the cartridge rod (47). Insert the spring (21) into the leg. Extend the cartridge rod (47) fully into position;
10. Manually compress the spring and fit the 16 mm open-end wrench onto the locknut (46);



11. Insert the washer (2), ensuring that the chamfer is facing upwards;
12. Screw the cap fully by hand;



13. Ensure that the locknut (46) is screwed onto the rod (47) so that when the cap (1) is fully tightened, there remains an air gap between it and the locknut;



14. Tighten the locknut (46) onto the cap (1) with a torque of  $18.6 \div 20.6$  Nm. Remove the wrenches and ensure that the washer is seated properly inside the cap (1).
15. Fully screw the cap onto the lower leg using a 17 mm open-end wrench, a 42 mm hex wrench, or smooth-jaw Knipex pliers, with a torque of  $11.7 \div 13.7$  Nm.

-Fine Procedura-

## Replacement of seals and sliding bushings

### Required tools:

Description	Position	Part number
Bushing and Oil Seal Tool	A	0800DU012
Cartridge Assembly Tool	B	080072000
Rod holding tool	C	080073000
Oils Seal Installing Protection	D	VA-S214-00

Bench vise;

Formula grease;

17 mm open-end wrench / 42 mm hex wrench or Knipex smooth-jaw pliers;

Two 16 mm open-end wrenches;

13 mm open-end wrench;

10 mm open-end wrench;

14 mm Allen wrench;

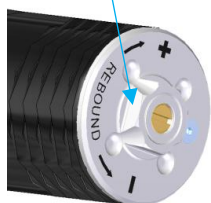
Torx TX10 wrench;

Flathead screwdriver;

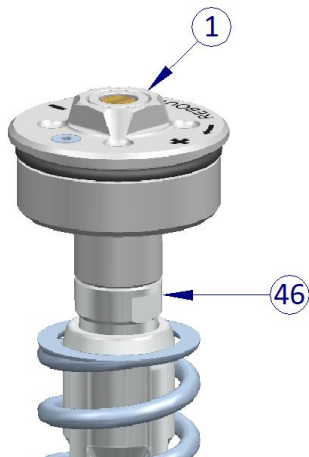
Torque wrench;

### Procedure:

1. Before proceeding, perform a thorough cleaning of the fork;
2. If you have a cap with preload, set the preload to zero to facilitate disassembly;
3. Completely unscrew the cap from the fork leg using the necessary tool (17 mm open-end wrench / 42 mm hex wrench or Knipex smooth-jaw pliers), depending on whether it has a spring preload cap or not;

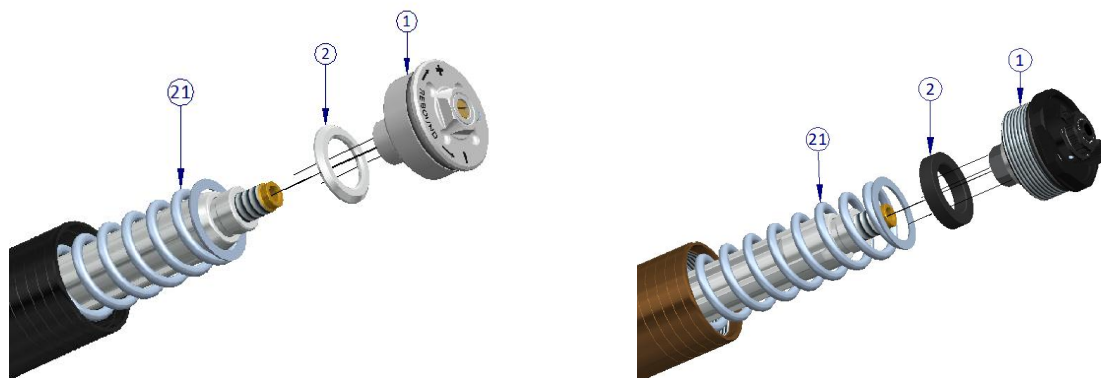


4. Pull the cap (1) out enough to access the locknut (46). Compress the spring firmly; insert a 16 mm open-end wrench on the locknut (46) and either a 17 mm open-end wrench on the cap or a 16 mm open-end wrench on the preload adjuster, depending on the model. If you don't have two 16 mm wrenches, you can use a 13 mm wrench under the rebound knob (48), which can be removed using a Torx TX10 wrench;

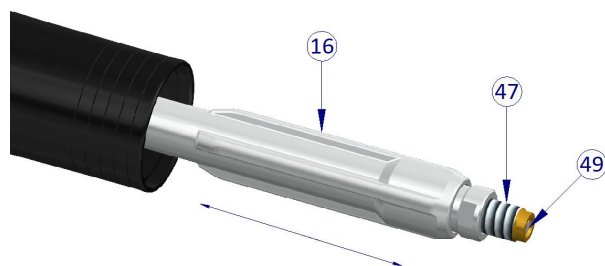


**TECH**  
SUSPENSION

5. Remove the cap (1) and washer (2);
6. Slowly remove the spring (21) and wipe it from the oil with a cloth;



7. Cover the end of the rebound rod (47) with a finger to prevent internal parts, including the needle (49), from coming out. Pour the oil into a tray while simultaneously moving the cartridge (16) back and forth;



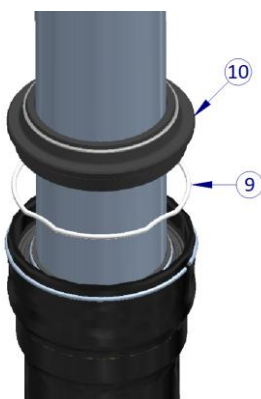
8. Once all the oil has been removed, clamp the wheel axle in the vise using aluminum plates and insert the foot into the axle;
9. Unscrew the compression assembly (13) with a 14 mm Allen wrench, holding the cartridge (16) steady using tool "B";



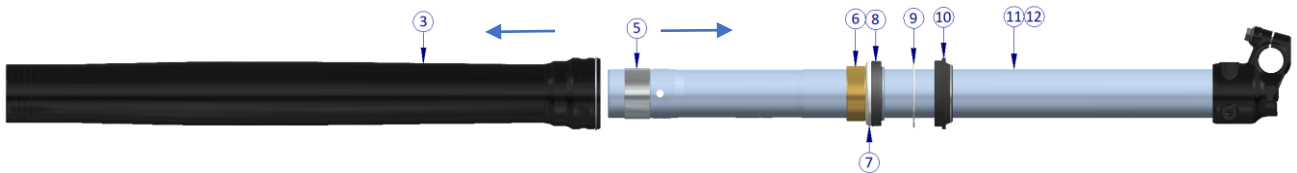
10. Remove the cartridge (16) and the compression assembly (13) and drain them completely, letting them drip dry;



11. Remove the dust seal (10) using a suitable tool or a flathead screwdriver, then remove the seeger ring (9) from its seat;



12. Firmly pull the outer tube (3) and stanchion tube (11/12) with taps until it slides off, then remove all components (5 to 10);

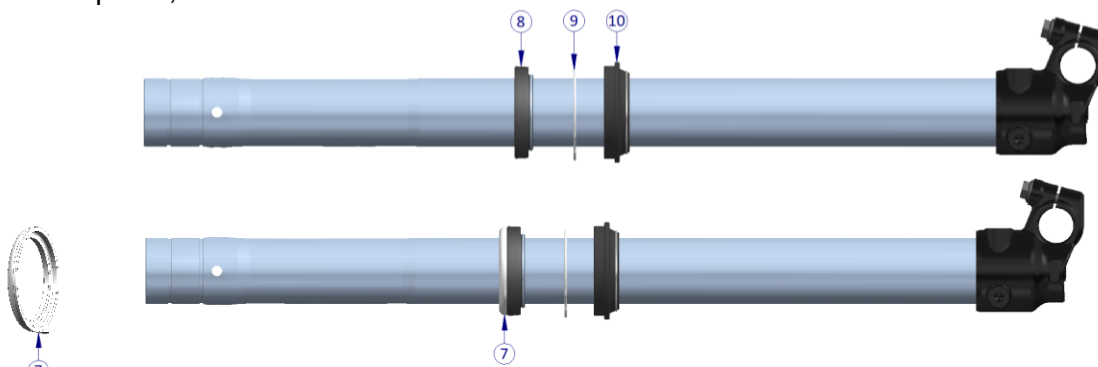


13. Position sleeve "D" on the tube (11/12). Grease the oil seal (8), the dust seal (10), and tool "D" with Formula grease;

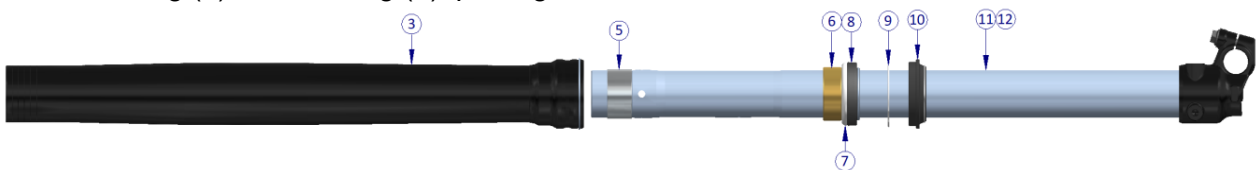


14. Insert components (10 – 9 – 8) onto the tube (11/12) in the described order;

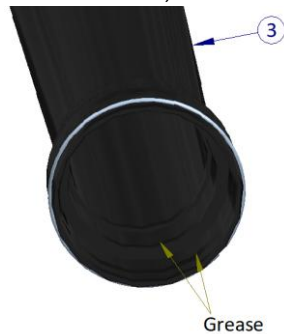
15. Remove the sleeve "D" and insert component (7) with the stepped side facing the dust seal, as shown in the photo;



16. Insert bushing (6) and bushing (5), placing it into its seat;



17. Grease the slider (3) on the bushing and oil seal seat, then insert it into the tube (11/12);



18. Using tool "A" on the side without the step, tap bushing (6) repeatedly into its seat until the sound of the hits changes, indicating the bushing is fully seated. Visually, it should not protrude from its seat;

19. Using tool "A" from the opposite side, insert the oil seal (8) into its seat using the same method;



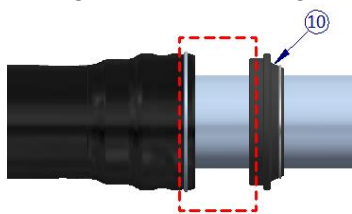




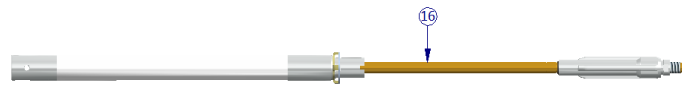
20. Insert the seeger ring (9) into its seat, making sure it is inserted correctly;



21. Apply grease to the highlighted area, then insert the dust seal (10) into its seat using a flat-head screwdriver, pressing on the outer edges;



22. Insert the cartridge (16) into the stanchion (3) until it is fully seated in its lower leg socket;

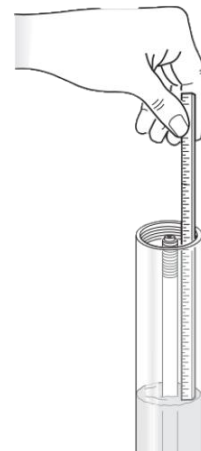


23. Place tool "B" on the cartridge and the compression assembly (13) on the lower leg, then tighten them with a 14 mm Allen torque wrench to a torque of xx Nm;

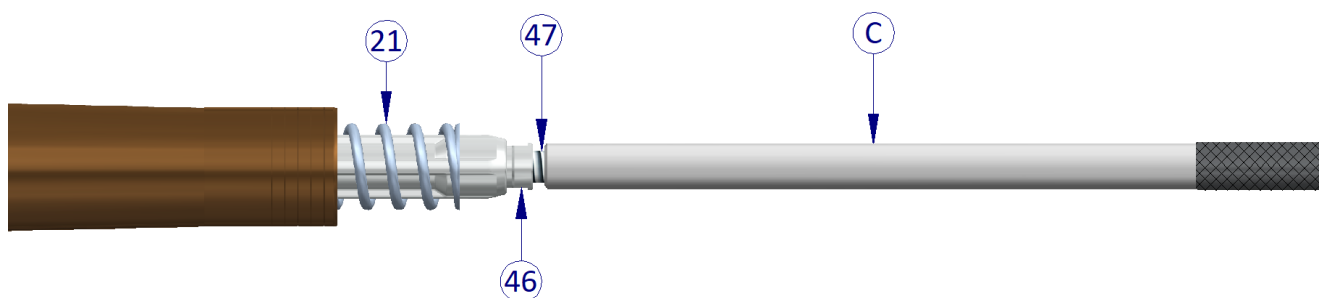


24. Position the leg vertically and slowly add the new oil, pumping the rod up and down until you feel a consistent damping during the rebound stroke;  
While keeping the leg vertical, fully compress the stanchion and the rod until they reach the end of their travel;

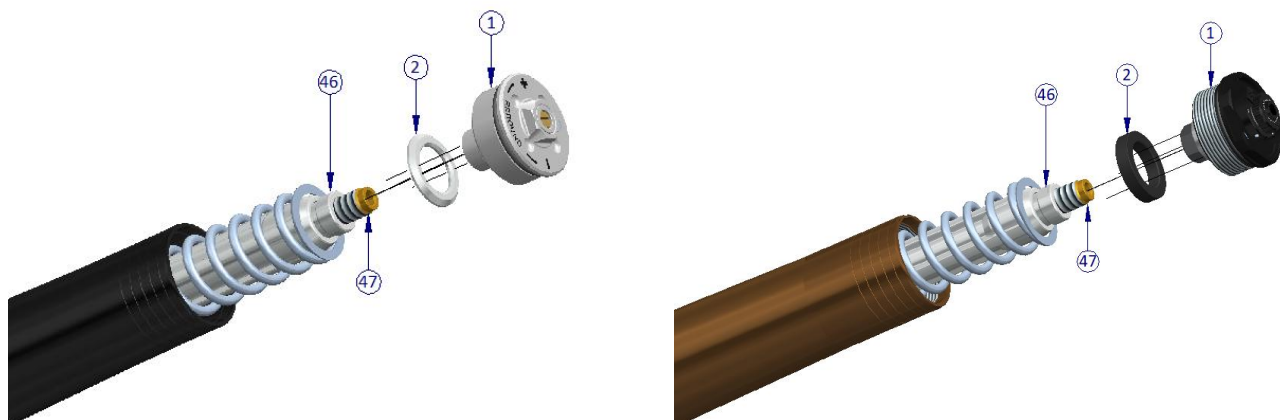
Complete the oil top-up by bringing the level to X mm (check reference table on page 9) from the edge of the stanchion, keeping the rod and stanchion fully compressed (at full travel);



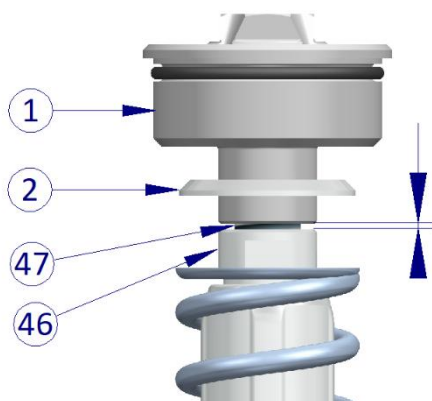
25. Screw tool "C" onto the rod (47) of the cartridge. Insert the spring (21) into the outer tube. Fully extend the rod (47) of the cartridge;
26. Manually compress the spring and place the 16 mm wrench on the locknut (46);



27. Insert the washer (2), making sure that the chamfer is facing upwards;
28. Fully screw the cap in by hand;



29. Ensure that the locknut (46) is screwed onto the rod (47) so that when the cap (1) is fully tightened, there is air remaining between the cap and the locknut;



16. Tighten the locknut (46) onto the cap (1) with a torque of  $18.6 \div 20.6$  Nm. Remove the wrenches and ensure that the washer is seated properly inside the cap (1).
17. Fully screw the cap onto the lower leg using a 17 mm open-end wrench, a 42 mm hex wrench, or smooth-jaw Knipex pliers, with a torque of  $11.7 \div 13.7$  Nm.

-Fine Procedura-

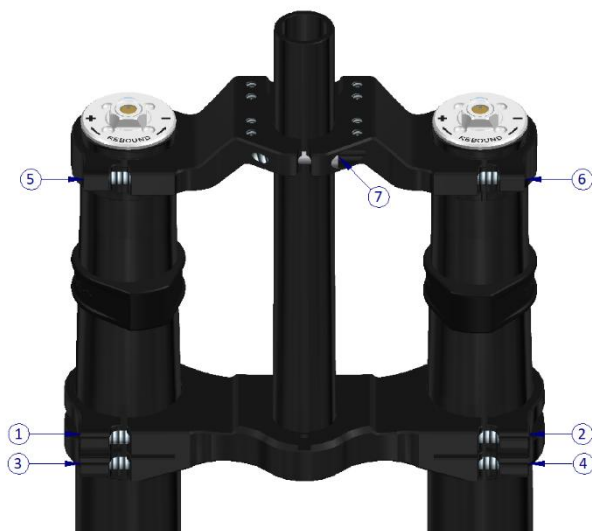
## Disassembly and assembly of the fork

### Required tools:

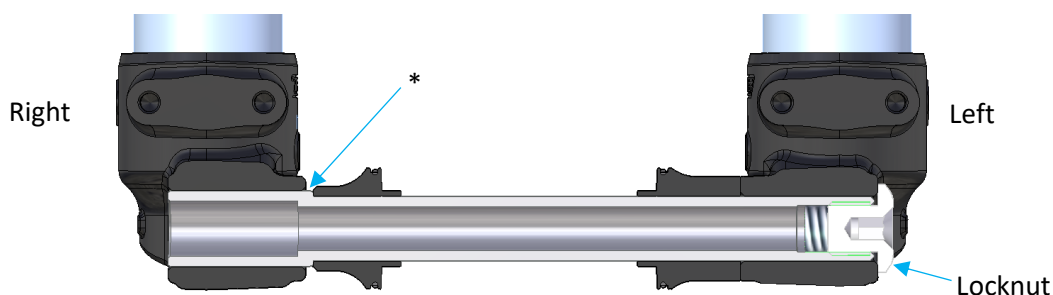
Formula grease;  
10 mm open-end wrench;  
5 mm Allen wrench;  
6 mm Allen wrench;  
Torque wrench;

### Procedure:

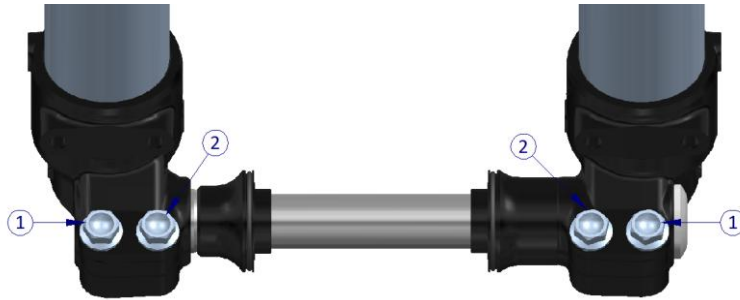
1. Before proceeding, thoroughly clean the fork;
2. Remove the brake and fork guards;
3. Loosen the left lower leg bolts with a 10 mm wrench and remove the axle locknut with a 6 mm Allen key;
4. Loosen the right lower leg bolts with a 10 mm wrench, then remove the axle and wheel;
5. Note the position of the lowers on the crowns;
6. Loosen the crown bolts (including the bolt that clamps the steerer) and remove the forks;
7. Assembly, insert the forks at the correct height;
8. Tighten the crown bolts with a 5 mm Allen torque wrench to  $8 \div 9$  Nm, applying grease on the threads and under the bolt heads, following the order shown in the photo.



9. Insert the wheel, ensuring the spacers remain in place;
10. Insert the axle, making sure the larger diameter protrudes from the lower leg (see arrow \*), and tighten the right lower leg bolts using a torque wrench with a 10 mm socket to  $9 \div 10$  Nm, applying grease to the threads and under the bolt heads;



11. Tighten the axle locknut with a 6 mm Allen torque wrench to  $16 \div 17$  Nm
12. Loosen the right lower leg bolts with a 10 mm wrench;
13. Pump the fork 2-3 times;
14. Tighten the lower leg bolts with a torque wrench and 10 mm socket to  $9 \div 10$  Nm, applying grease to the threads and under the bolt heads, following the tightening sequence 1-2, 1-2.



15. Reinstall the fork guards and brake.

-Fine Procedura-

<https://www.rideformula.com/it/>

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*Revisione 1 – Febbraio 2026*