



Ø39 Trial Fork

User Manual –


This user manual contains all the relevant information regarding the correct use and maintenance of the Forks: Trial Racing Steel, Trial Ø39 4Ride, Trial Racing Aluminium, Trial Racing Pro Steel, Trial Racing Pro Aluminium, Trial Racing Pro Kashima





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Important Information and Maintenance Intervals:

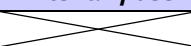
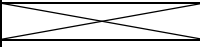
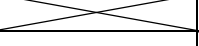
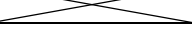
IMPORTANT	
	Repeatedly using our products in extreme conditions requires more frequent servicing. Using unrecommended high-pressure washing methods, using unrecommended spare parts, solvents and lubricants not recommended by 🌿 Formula reduce the life span of our products.

IMPORTANT	
	🌿 Formula recommends only ORIGINAL spare parts and lubricant products. Do not attempt assembly and disassembly operations on this product. 🌿 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.

SAFETY INFORMATION	
	<p>Always wear nitrile gloves and safety glasses when working on the fork. Ensure correct disposal of waste materials and liquids.</p>

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				

Oil Level Sheet

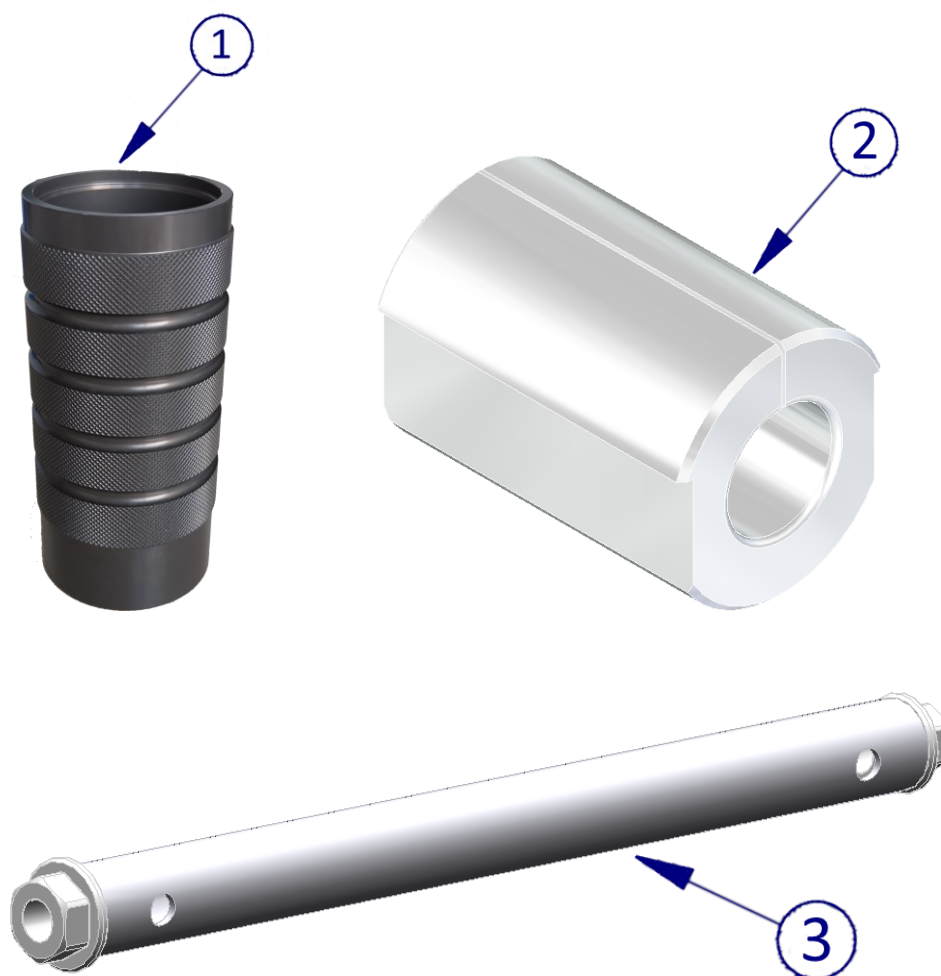
Fork Code 151239XXX	SX/Left (mm)	DX/Right (mm)	MY	Customer
000	118,0	118,0	2019 - 2022	Ø39 Standard
031	110,0	55,0	2011 - 2014	Beta
051	110,0	55,0	2011 - 2017	Sherco
054	130,0	75,0	2014	Sherco
055	130,0	75,0	2016	Sherco
056	130,0	75,0	2016	Sherco
057	130,0	75,0	2018	Sherco
058	130,0	75,0	2020	Sherco
059	140,0	85,0	2022	Sherco
101	110,0	55,0	2012	Jotagas
111	110,0	55,0	2012	Gas Gas
113	130,0	75,0	2014 - 2015	Jotagas
113	130,0	75,0	2013 - 2015	Gas Gas
113	130,0	75,0	2014 - 2015	Ossa
116	130,0	75,0	2016	Gas Gas
116	130,0	75,0	2017	Sherco
116	130,0	75,0	2017	Scorpa
119	130,0	75,0	2016	Gas Gas
121	100,0	50,0	2014	Honda
122	125,0	70,0	2014	Honda
123	100,0	50,0	2015	Honda
125	100,0	50,0	2016	Honda
127	125,0	60,0	2016	Honda
128	100,0	50,0	2017	Honda
129	130,0	70,0	2017	Honda
151	130,0	75,0	2015	Vertigo
152	130,0	75,0	2015	Vertigo
153	130,0	75,0	2016	Vertigo
154	130,0	75,0	2019	Vertigo
155	130,0	75,0	2019	Vertigo
156	130,0	75,0	2020	Vertigo
157	130,0	75,0	2020	Vertigo
158	130,0	75,0	2021	Vertigo
159	130,0	75,0	2021	Vertigo
171	130,0	75,0	2015	TRS
173	130,0	75,0	2017	TRS
174	130,0	75,0	2017	TRS
175	110,0	55,0	2018	TRS
176	110,0	55,0	2019	TRS
177	130,0	75,0	2020	TRS
178	110,0	55,0	2021	TRS
179	130,0	75,0	2021	TRS
185	130,0	75,0	2020	Electric Motion
186	130,0	75,0	2020	Electric Motion
187	118,0	118,0	2023	Electric Motion

Fork Code 151239XXX	SX/Left (mm)	DX/Right (mm)	MY	Customer
200	130,0	75,0	2017	Gas Gas
202	130,0	75,0	2020	Gas Gas
203	130,0	75,0	2020	Gas Gas
204	125,0	70,0	2022	Gas Gas
205	125,0	70,0	2022	Gas Gas
207	125,0	70,0	2022	Gas Gas
231	125,0	70,0	2018	Honda
232	100,0	50,0	2018	Honda
233	130,0	70,0	2020	Honda
234	125,0	60,0	2022	Honda
250			2020	TRS
260	130,0	75,0	2022	Arctic Leopard
261	130,0	75,0	2022	Arctic Leopard
262	130,0	75,0	2022	Arctic Leopard
992	130,0	75,0	2022	Aftermarket
993	130,0	75,0	2023	Aftermarket
994	130,0	75,0	2023	Aftermarket

Required Tools

Description	Position	Q.ty	Part number
Bushing and Oil Seal Tool	1	1	0800DU007
Stanchion Tube Tool	2	1	080004000
Cartridge Assembly Tool	3	1	080008000

- Bench vise;
- Wrench key - 14 mm, 17 mm;
- Hex key - 1,5 mm, 12 mm;
- Flathead screwdriver;
- Torque wrench;



Fork Settings

⚠ The forks have different settings to fine-tune their performance based on the rider's needs. Settings adjustments must be performed by an experienced technician. Setting a fork improperly could make the bike hard to ride and could cause severe or fatal injuries.

Extension setting

Tools:

Flathead screwdriver.

Procedure:

The extension setting is located on the cap of the right leg. Turning the regulator clockwise will lower the rebound speed; Turning the regulator anti-clockwise will increase the rebound speed. Usually, the regulation is done by starting in a fully clockwise position and then turning anti-clockwise the regulator between 16 and 22 clicks, depending on the temperature outside.



Compression setting (only on some models)

Tools:

Hex key 2 mm.

Procedure:

The compression setting is located on the lower screw of the right leg. This setting controls progressively through the entirety of the compression stroke. Usually, starting with the regulator fully screwed you need to unscrew the regulator by 2-3 turns (1 turn equals 360°).



End stroke setting

Tools:

Hex key 2 mm.

Procedure:

The end stroke setting is located on the lower screw of the left leg. This setting only affects the last 45 mm of the stroke. Usually, the regulator is kept in a fully closed position. If the rider is light and unable to reach the end stroke, the regulator can be turned anti-clockwise.



Spring preload setting

Tools:

Flathead screwdriver.

Procedure:

The spring preload setting is located on the cap of the left leg. This setting allows to increase the preload up to 10 mm is a very personal setting. We suggest starting with the preload set halfway (fully screwed and then unscrewed by 5 turns) and then regulating it by one turn at a time to obtain the ideal setting.



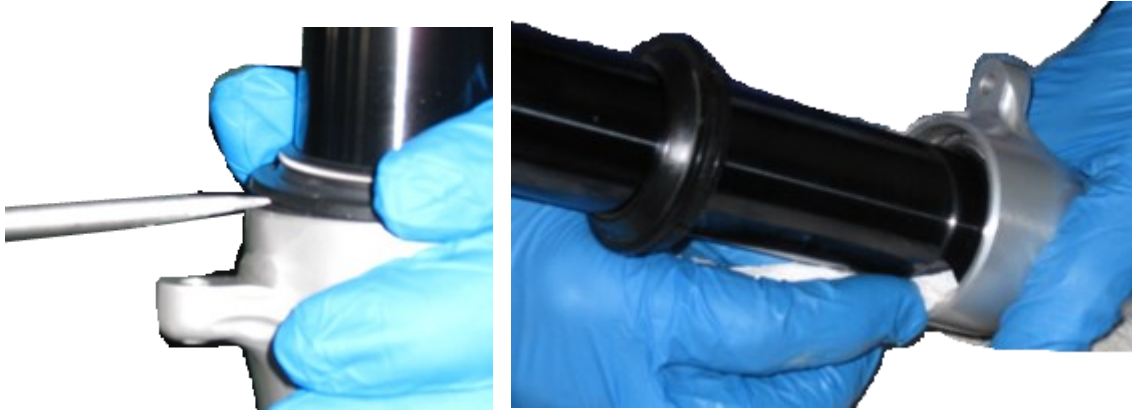
Cleaning the Dust Seals

Tools:

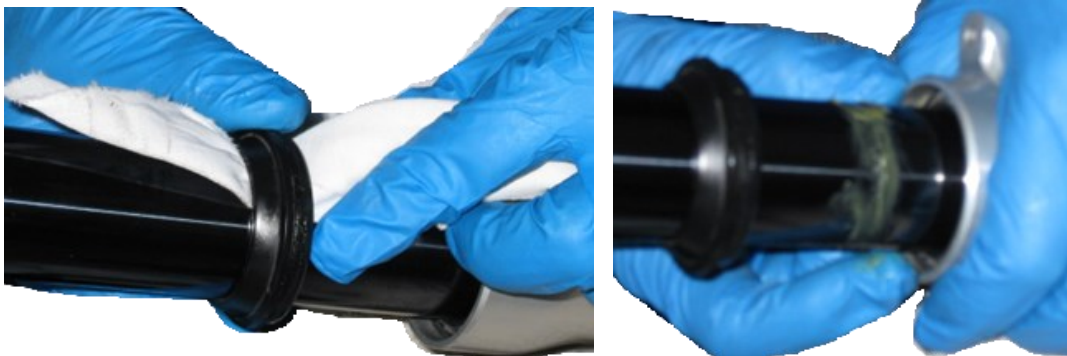
Flathead screwdriver, microfiber cloth.

Procedure:

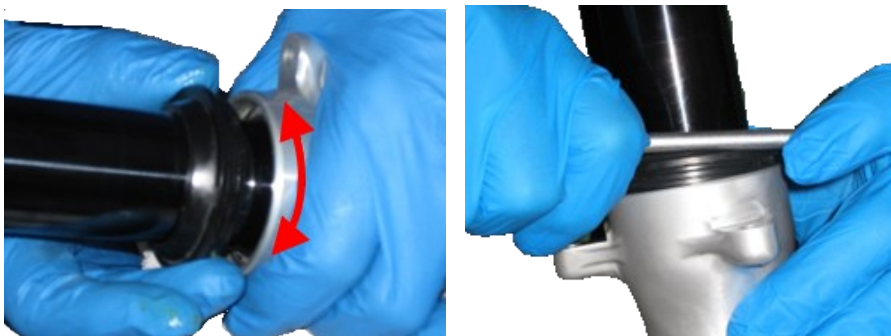
1. Before proceeding accurately clean the fork;
2. Remove the dust seal by leveraging on its side with a flat-head screwdriver. Remove any dirt residue from the dust seal and the oil seal with a microfiber cloth;



3. Insert a microfiber cloth inside the dust seal to remove dirt residue from the internal diameters, then apply grease on the tube;



4. Rotate the dust seal on the grease and insert the dust seal in its housing by pushing on its outer diameters with a screwdriver;



-End of Procedure-

Oil Change Left Leg

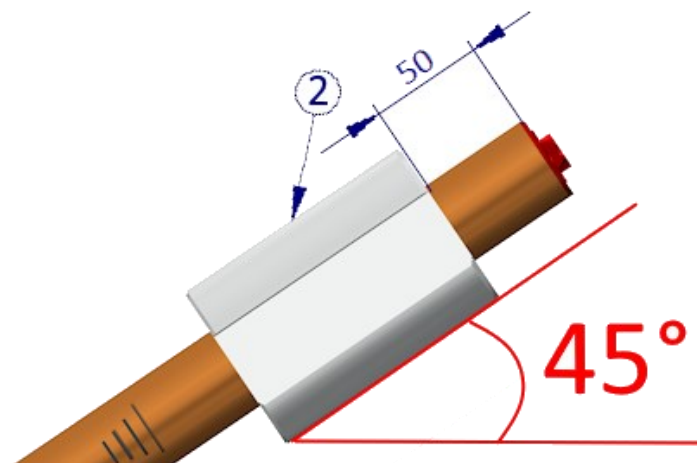
Tools:

Description	Position	Part number
Stanchion Tube Tool	2	080004000

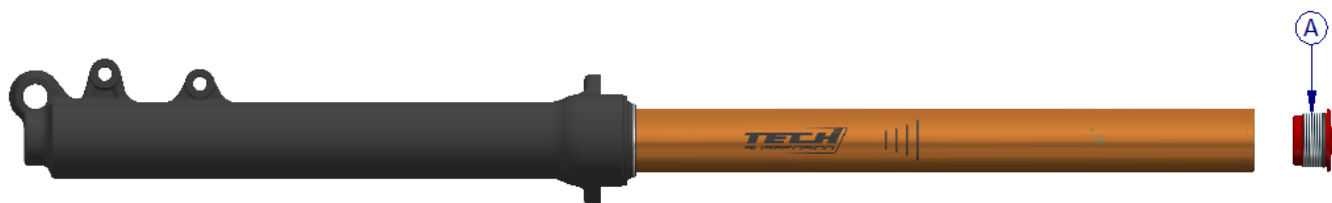
Combined wrench 17 mm, Hex key 12 mm

Procedure:

1. Before proceeding accurately clean the fork;
2. Tighten the tube on a bench vise with Tool 2 with an angle of 45°. Let the tube come out of the tool by 50 mm. Keep the fork in this position until step N°6;



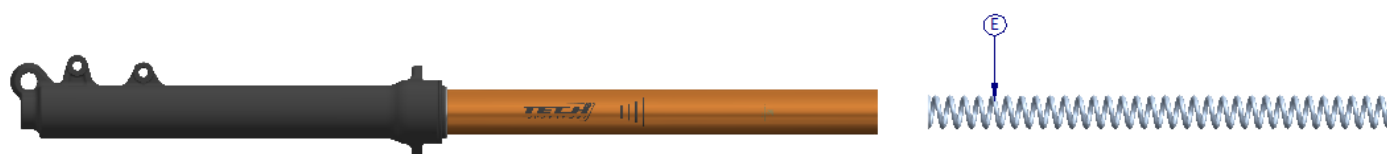
3. Unscrew the cap (A) with a 17 mm combined wrench and clean it;



4. Remove the conical spacer (B), the spacer (C) and the washer (D);



5. Slowly remove the spring (E) with a cloth. Clean properly the spring from oil residues;



6. Remove all oil from the fork and dispose of it according to local laws;



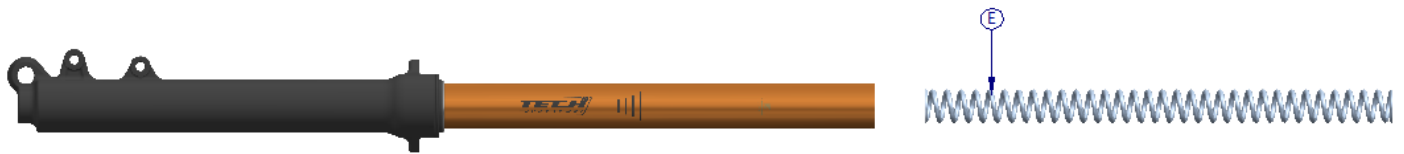
7. Put the fork in a vertical position and insert 250 mL of Oil OJ01 (SAE05). Move the tube up and down multiple times, then push it to the end of the stroke;



8. Measure the oil level from the edge of the tube and adjust the level according to the sheet on page 4/5;



9. Insert the spring (E) inside the fork;



10. Insert in the same order components D, C, B;



11. Manually screw cap (A) on the tube. Tighten the tube on a bench vise with Tool 2 with an angle of 45°. Let the tube come out of the tool by 50 mm and tighten the cap (A) with a 17 mm combined wrench and a tightening torque of 10/12 Nm;



-End of Procedure-

Oil Change Right Leg

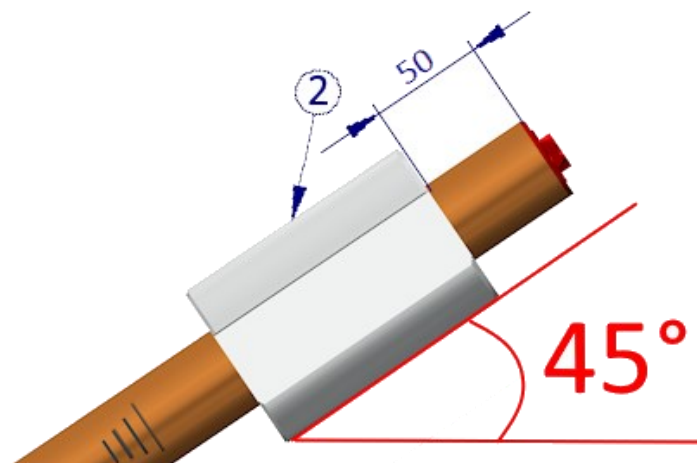
Tools:

Descrizione	Posizione	Part number
Stanchion Tube Tool	2	080004000

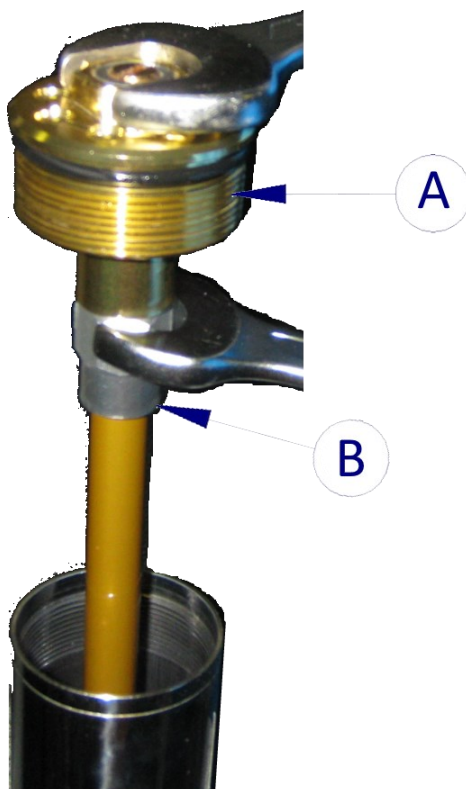
Combined wrench 14 mm, 17 mm, Hex key 1,5 mm, 12 mm

Procedure:

1. Before proceeding accurately clean the fork;
2. Tighten the tube on a bench vise with Tool 2 with an angle of 45°. Let the tube come out of the tool by 50 mm. Keep the fork in this position until step N°6;



3. Unscrew the cap (A) with a 17 mm combined wrench and remove it from the tube. Insert a 14 mm combined wrench on the locknut (B) and disassemble the two components. Remove the cap (A) and clean it;



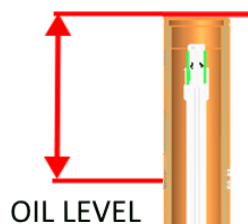
4. Keep the cap (C) inside the cartridge stem. Remove all the oil inside the cartridge by moving up and down the stem and dispose of it according to local laws;



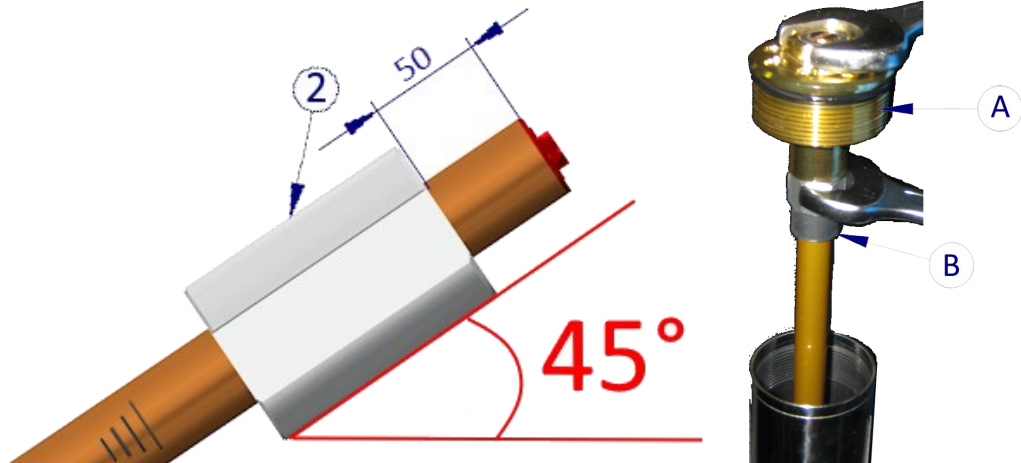
5. Put the fork in a vertical position and insert 250 mL of Oil OJ01 (SAE05). Move the cartridge stem up and down multiple times until the rebound has homogenous braking;



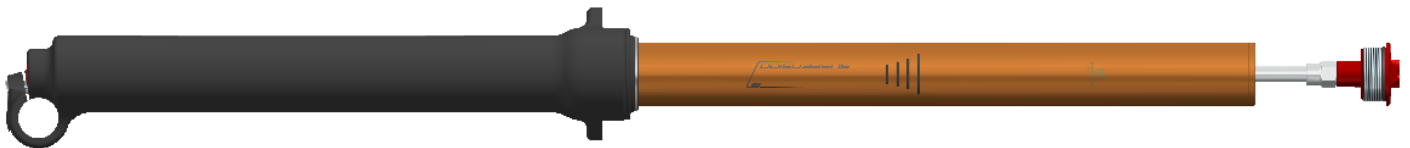
6. Measure the oil level from the edge of the tube and adjust the level according to the sheet on page 4/5;



7. Screw the locknut downwards (B). Manually screw the cap (A) on the stem;
8. Manually screw cap (A) on the tube. Tighten the tube on a bench vise with Tool 2 with an angle of 45° . Let the tube come out of the tool by 50 mm. Screw the locknut (B) on the cap (A). Hold the locknut with a 14 mm combined wrench and screw the cap (A) with a 17 mm combined wrench and a tightening torque of 10/12 Nm;



9. Tighten the cap (A) on the tube with a 17 mm combined wrench and a tightening torque of 10/12 Nm.



-End of Procedure-

Seals Replacement Left Leg

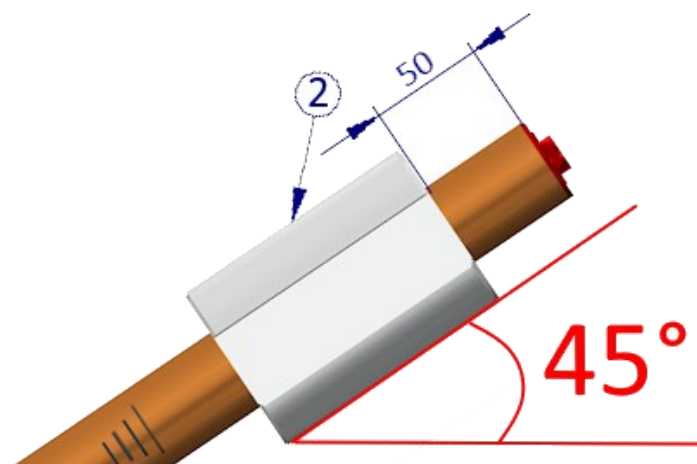
Tools:

Description	Position	Part number
Bushing and Oil Seal Tool	1	0800DU007
Stanchion Tube Tool	2	080004000
Cartridge Assembly Tool	3	080008000

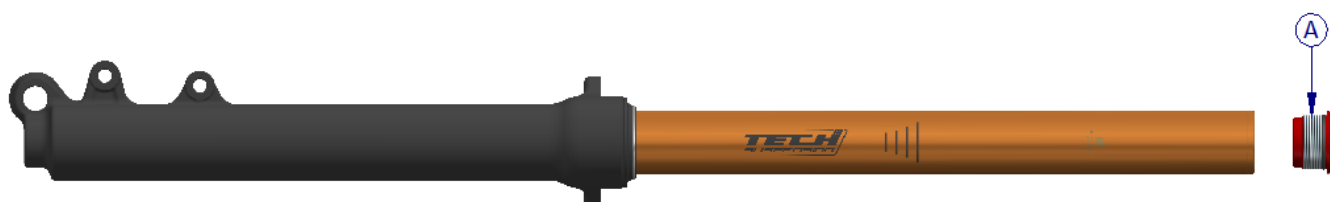
Combined wrench 17 mm, Hex key 12 mm

Procedure:

1. Before proceeding accurately clean the fork;
2. Tighten the tube on a bench vise with Tool 2 with an angle of 45°. Let the tube come out of the tool by 50 mm. Keep the fork in this position until step N°6;



3. Unscrew the cap (A) with a 17 mm combined wrench and clean it;



4. Remove the conical spacer (B), the spacer (C) and the washer (D);



5. Slowly remove the spring (E) with a cloth. Clean properly the spring from oil residues;



6. Remove all oil from the fork and dispose of it according to local laws;
7. Tighten the wheel's axle in a bench vise with aluminium plates and insert the leg on the axle;



8. Push the tube inside the leg (end stroke) and insert Tool 3 inside the tube to disassemble the pumping stem (G), then unscrew the regulator for the end stroke (F) with a 12 mm hexagonal key;



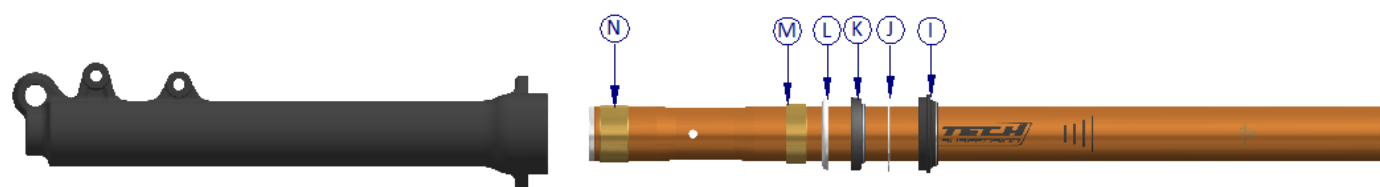
9. Extract the regulator and the copper washer (F). Remove the pumping stem (G);
10. Turn the fork upside down to remove the end stroke cone (H);



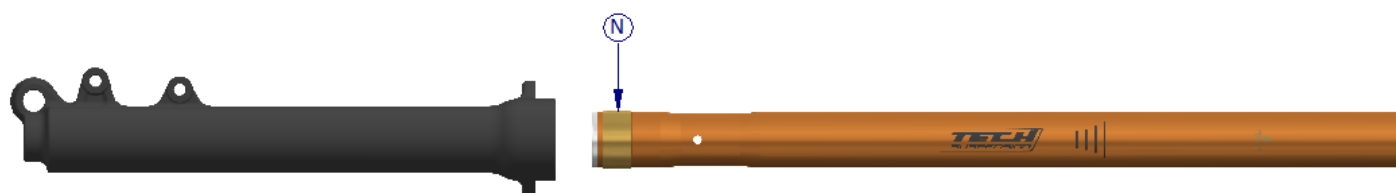
11. Remove the dust seal (I) by leveraging on its side with a flat-head screwdriver, then remove the seeger ring (J) from its housing;



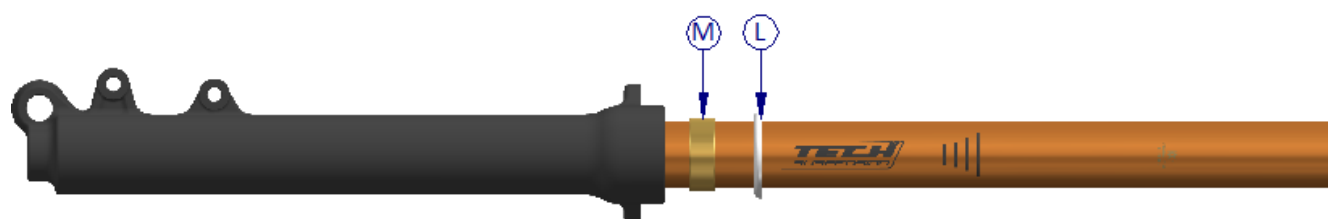
12. Tighten the wheel's axle in a bench vise with aluminium plates and insert the leg on the axle. Forcefully pull the tube out of the leg and remove all parts from the tube (I-N);



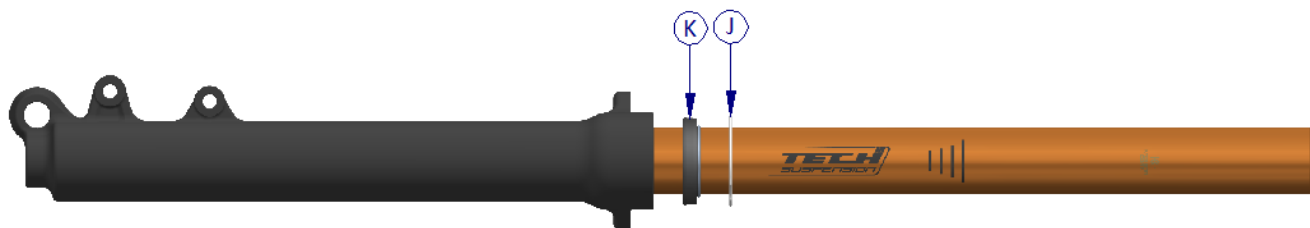
13. Replace the bushing (N) with a new one. Apply grease on the bushing and oil seal housing;
14. Insert the tube with the new bushing (N) inside the leg;



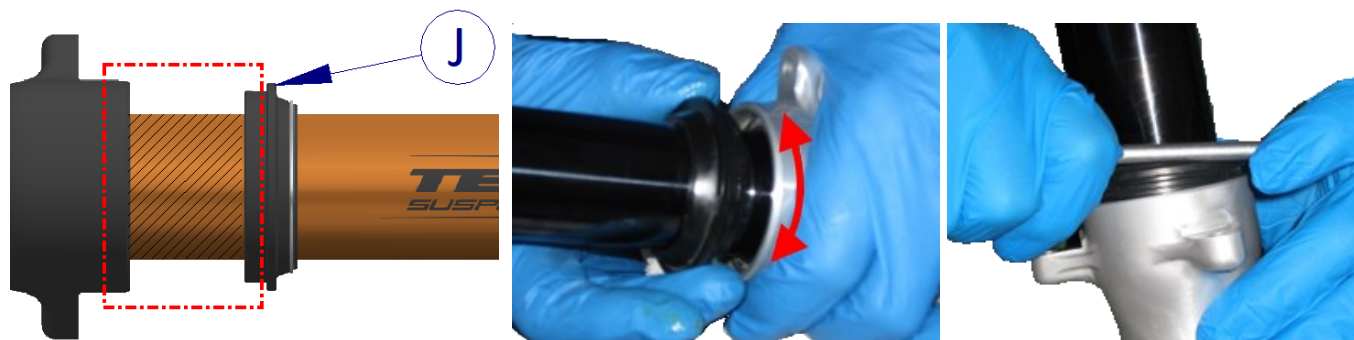
15. Insert the upper bushing (M) and the oil seal support washer (L) on the tube. Push the parts inside with Tool 1 from the side without knurling;



16. Insert the oil seal (K) with Tool 1 from the side with the knurling. Manually insert the seeger ring (J) in its housing making sure it's properly assembled;



17. Apply grease in the highlighted area. Rotate the dust seal (J) on the grease and insert the dust seal in its housing by pushing on its outer diameters with a screwdriver;



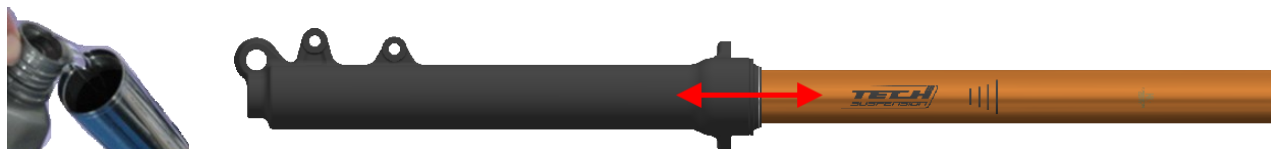
18. Insert the pumping stem (G) along with the end stroke cone (H) inside the tube;



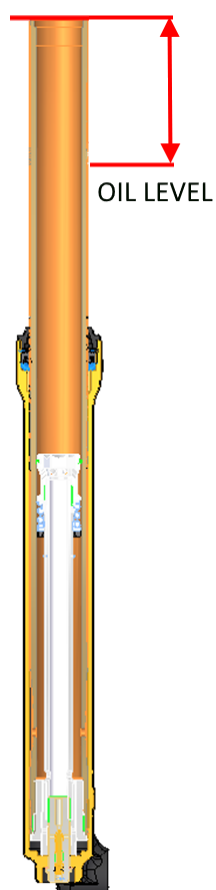
19. Push the tube inside the leg (end stroke) and insert Tool 3 inside the tube to assemble the pumping stem (G). Push Tool 3 against the pumping stem (G) and screw the regulator for the end stroke (F) with a 12 mm hexagonal key and a tightening torque of 23,5/25,5 Nm;



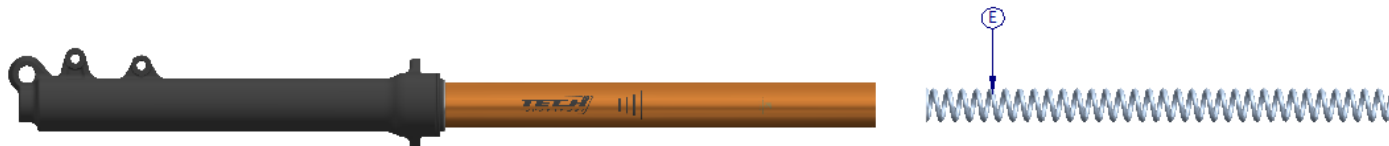
20. Put the fork in a vertical position and insert 250 mL of Oil OJ01 (SAE05). Move the tube up and down multiple times, then push it to the end of the stroke;



21. Measure the oil level from the edge of the tube and adjust the level according to the sheet on page 4/5;



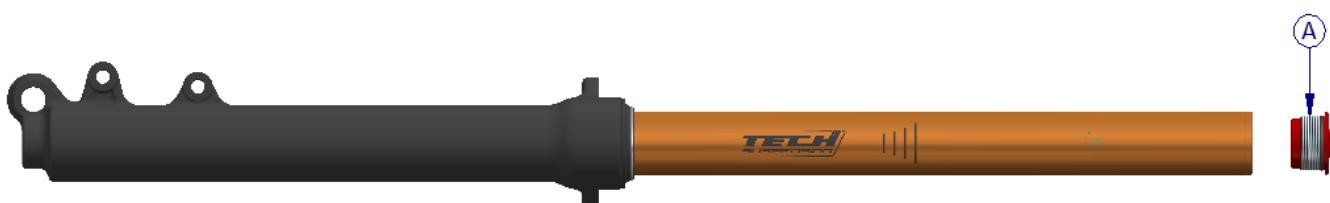
22. Insert the spring (E) inside the fork;



23. Insert in the same order components D, C, B;



24. Manually screw cap (A) on the tube. Tighten the tube on a bench vise with Tool 2 with an angle of 45°. Let the tube come out of the tool by 50 mm and tighten the cap (A) with a 17 mm combined wrench and a tightening torque of 10/12 Nm;



-End of Procedure-

Seals Replacement Right Leg

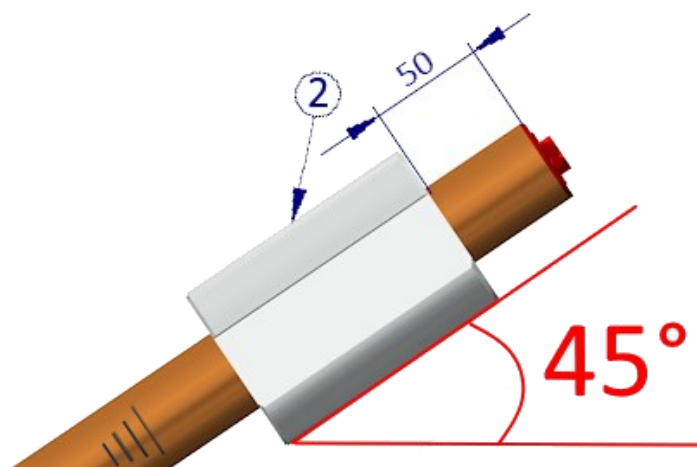
Tools:

Description	Position	Part number
Bushing and Oil Seal Tool	1	0800DU007
Stanchion Tube Tool	2	080004000
Cartridge Assembly Tool	3	080008000

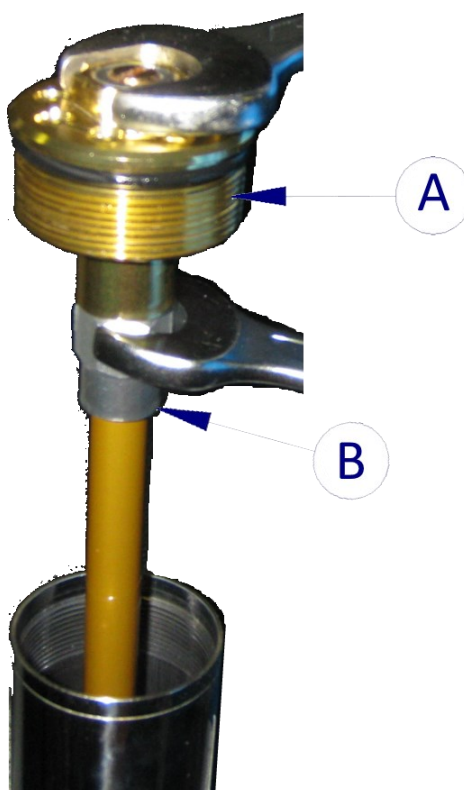
Combined wrench 14 mm, 17 mm, Hex key 1,5 mm, 12 mm

Procedure:

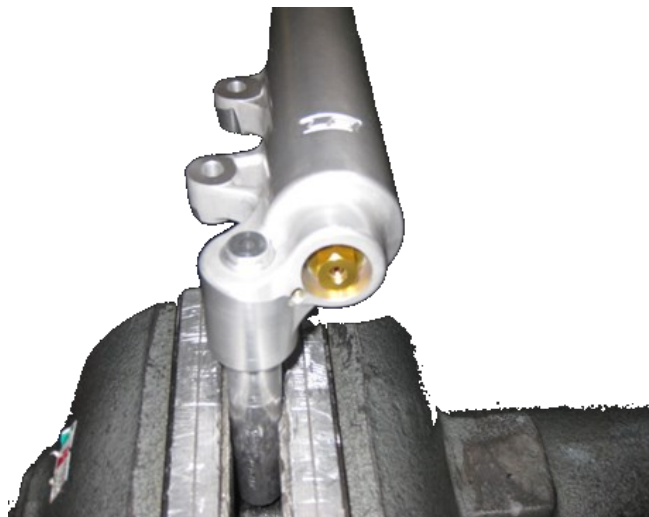
1. Before proceeding accurately clean the fork;
2. Tighten the tube on a bench vise with Tool 2 with an angle of 45°. Let the tube come out of the tool by 50 mm. Keep the fork in this position until step N°6;



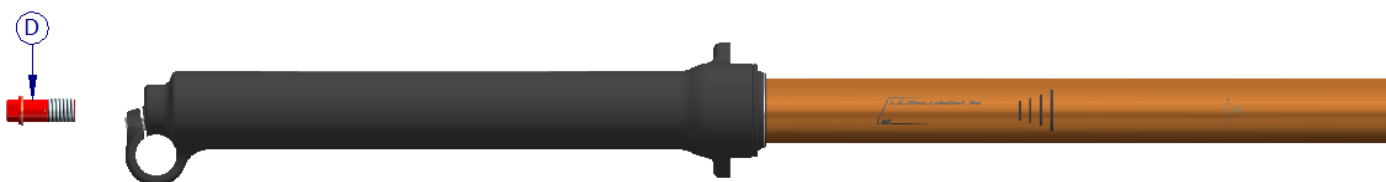
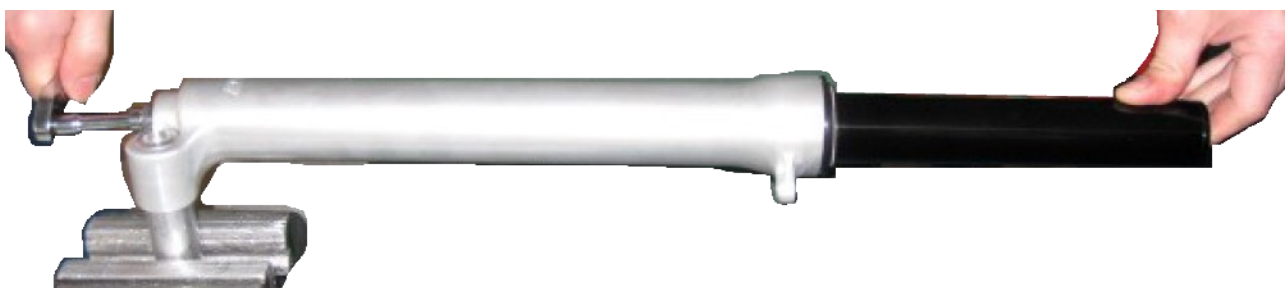
3. Unscrew the cap (A) with a 17 mm combined wrench and remove it from the tube. Insert a 14 mm combined wrench on the locknut (B) and disassemble the two components. Remove the cap (A) and clean it;



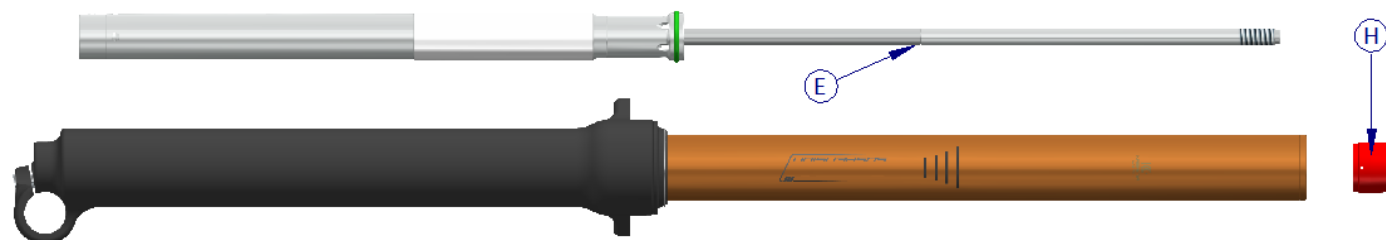
4. Keep the cap (C) inside the cartridge stem. Remove all the oil inside the cartridge by moving up and down the stem and dispose of it according to local laws. Tighten the wheel's axle in a bench vise with aluminium plates and insert the leg on the axle;



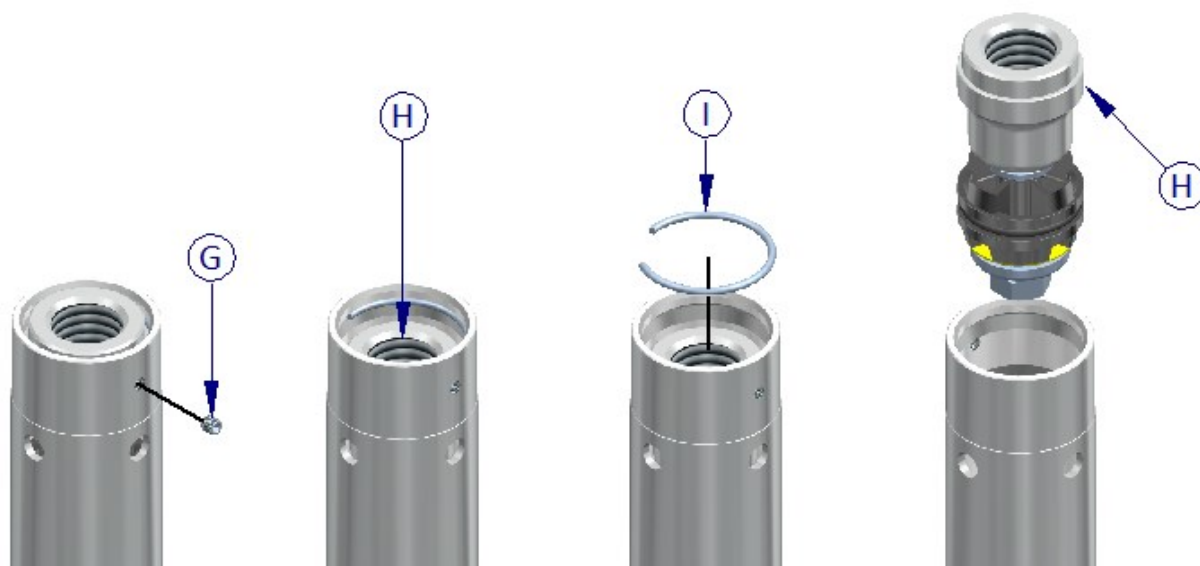
5. Remove the screw (D) with a 12 mm hexagonal key while pushing on the cartridge with the left hand to avoid the cartridge from rotating, then extract the screw (D);



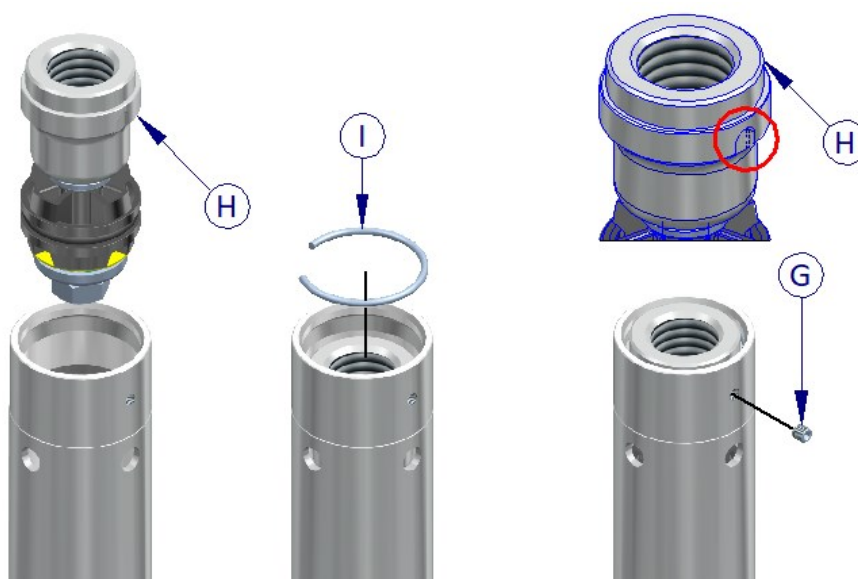
6. Remove the cartridge (E) from the tube. Turn the fork upside down to remove the end stroke cone (F);



7. Disassemble the cartridge (E) and remove the grub screw (G) with a 1,5 mm hex key. Push the compression group (H) inside the cartridge and remove the seeger ring (I). Then remove the compression group (H);



8. Put the cartridge (E) over a tank and pump the cartridge's stem back and forth to remove oil residue;
9. Insert the compression group (H) in the cartridge and bloc kit with the seeger ring (I). Ensure the housing of the grub screw (G) is properly aligned with the hole. Manually screw it until it stops, then unscrew it once by 360°;



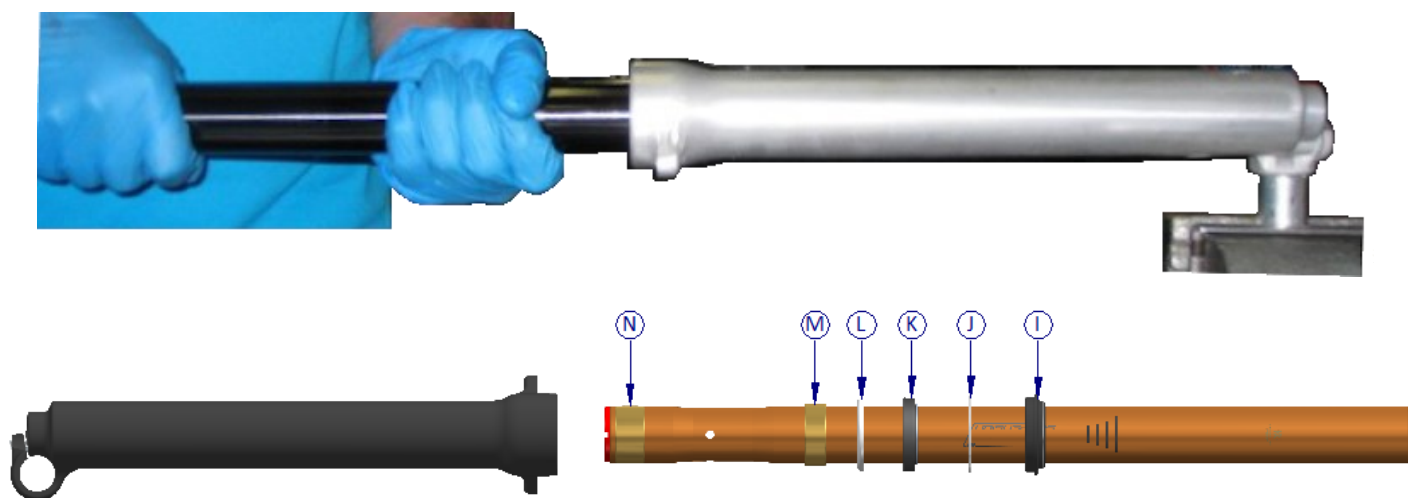
10. Insert the end stroke cone (F) on the cartridge;



11. Remove the dust seal (I) by leveraging on its side with a flat-head screwdriver, then remove the seeger ring (J) from its housing;

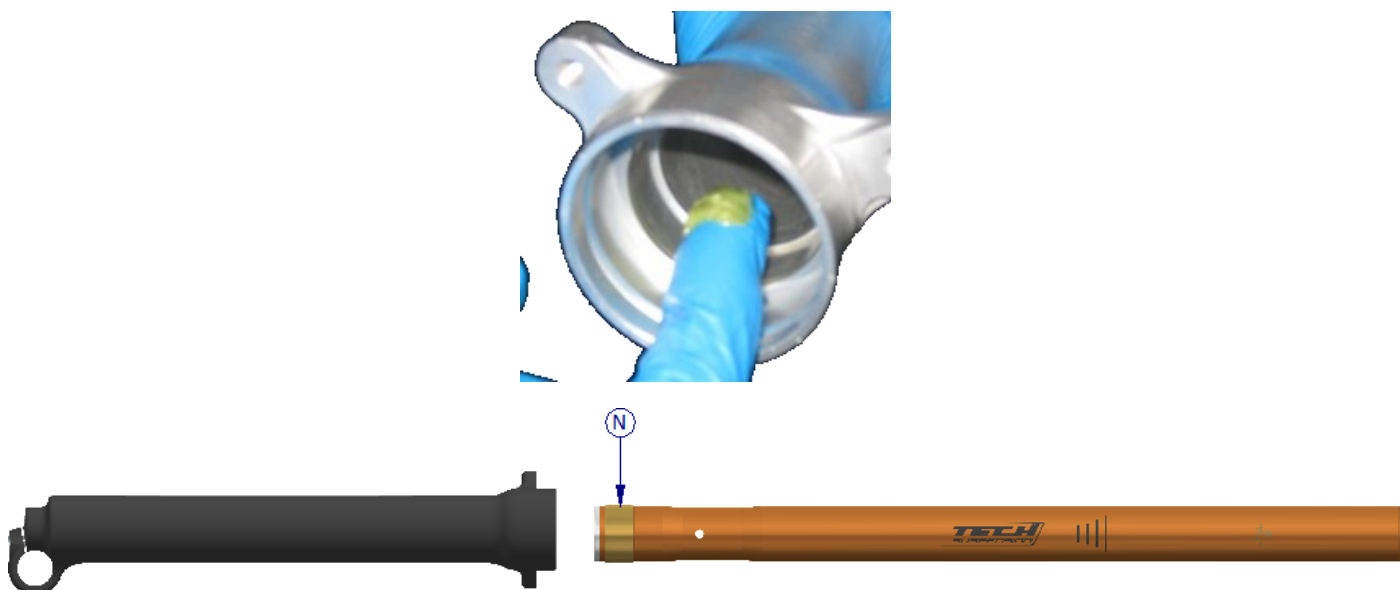


12. Tighten the wheel's axle in a bench vise with aluminium plates and insert the leg on the axle. Forcefully pull the tube out of the leg and remove all parts from the tube (I-N);

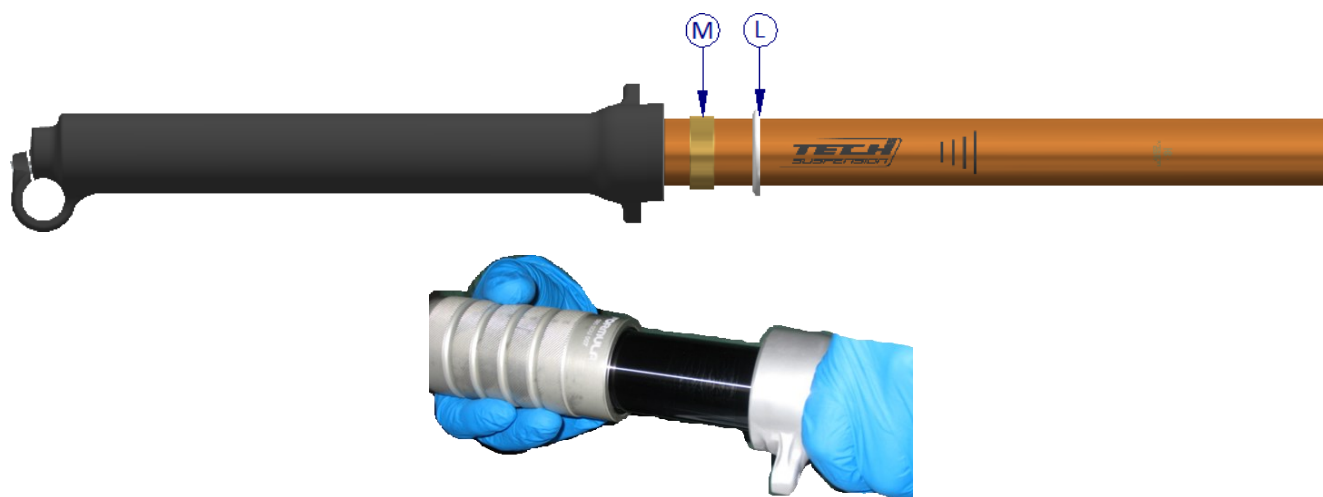


13. Replace the bushing (N) with a new one. Apply grease on the bushing and oil seal housing;

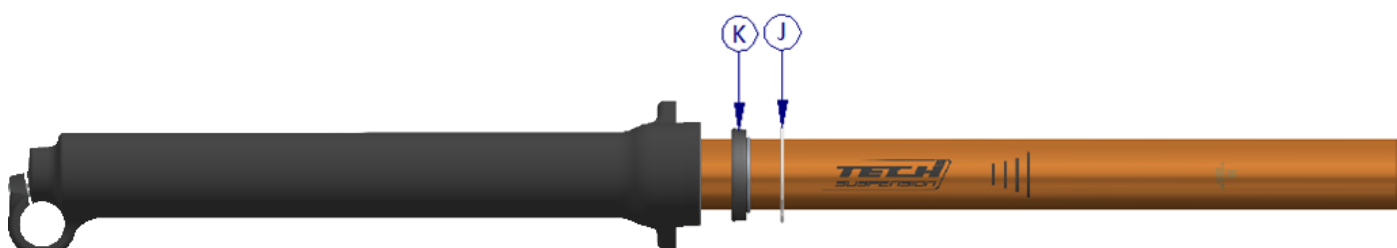
14. Insert the tube with the new bushing (N) inside the leg;



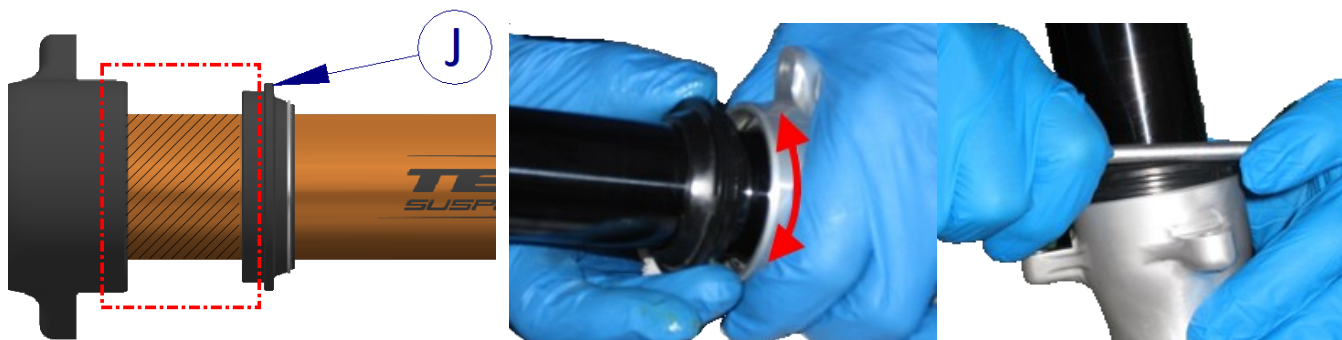
15. Insert the upper bushing (M) and the oil seal support washer (L) on the tube. Push the parts inside with Tool 1 from the side without knurling;



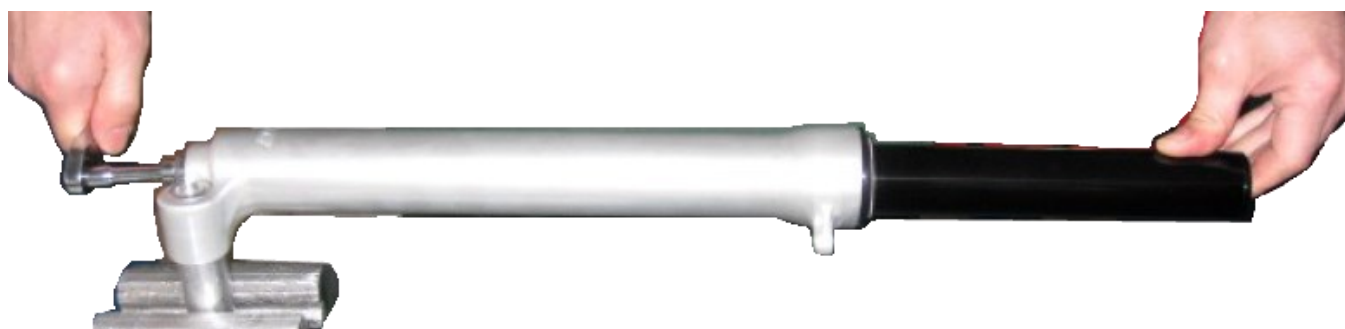
16. Insert the oil seal (K) with Tool 1 from the side with the knurling. Manually insert the seeger ring (J) in its housing making sure it's properly assembled;



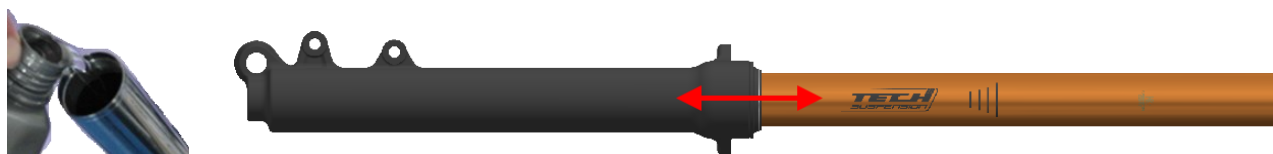
17. Apply grease in the highlighted area. Rotate the dust seal (J) on the grease and insert the dust seal in its housing by pushing on its outer diameters with a screwdriver;



18. Insert the cartridge (E) inside the tube until it is inside its housing inside the leg;
19. Push the tube inside the leg (end stroke) and push on the cartridge, insert the screw (F) with a 12 mm hex key and a tightening torque of 23,5/25,5 Nm;



20. Put the fork in a vertical position and insert 250 mL of Oil OJ01 (SAE05). Move the cartridge stem up and down multiple times until the rebound has homogenous braking;



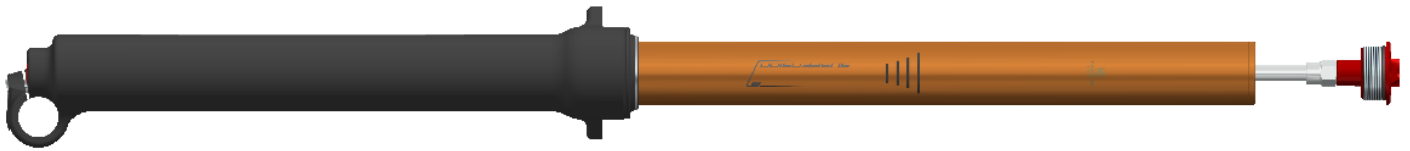
21. Measure the oil level from the edge of the tube and adjust the level according to the sheet on page 4/5;



22. Screw the locknut downwards (B). Manually screw the cap (A) on the stem;
23. Manually screw cap (A) on the tube. Tighten the tube on a bench vise with Tool 2 with an angle of 45° . Let the tube come out of the tool by 50 mm. Screw the locknut (B) on the cap (A). Hold the locknut with a 14 mm combined wrench and screw the cap (A) with a 17 mm combined wrench and a tightening torque of 10/12 Nm;



24. Tighten the cap (A) on the tube with a 17 mm combined wrench and a tightening torque of 10/12 Nm.



-End of Procedure-

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

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