

12 Shock Absorber and Rear Fork

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12.1 Front Shock Absorbers

Pre-work

Remove front wheel (refer to chapter 11).

Removal

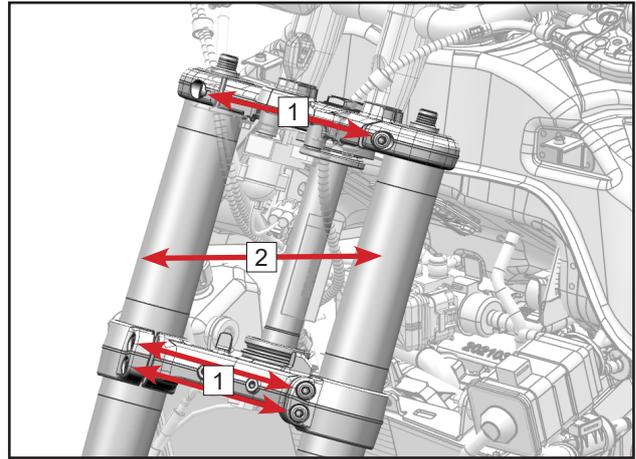
Remove inner hex bolts 1 of upper and lower triple clamps.

Remove front shock absorbers 2.

Bolt torque: 20 N•m~25 N•m

Installation

Reverse the removal procedures for installation.

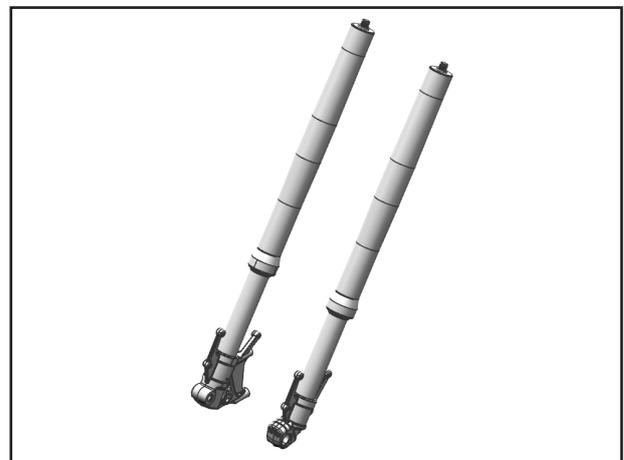


12.1.1 Front Shock Absorber Inspection

Inspect the appearance of front shock absorber for crack or other damage. Replace it if so.

Clean the dust and mud of front shock absorber.

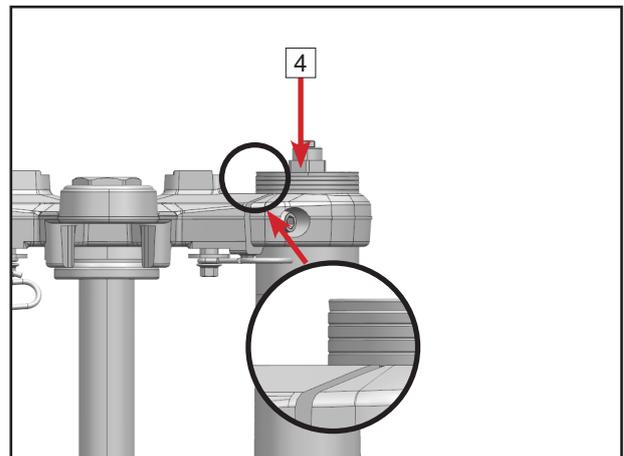
Hold the handlebar to press for several times. Inspect whether the compression rebound of front shock absorber is normal.



⚠ CAUTION: When installing front shock absorber, the inner hoses upper end faces 4 of the two front shock absorbers should be flush, and the upper end of front shock absorber is flush with the upper triple clamp.

Adjustment

The front shock absorber has been adjusted to the best state, which is suitable for most cases when the vehicle leaves the factory.



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12.1.2 Recovery Damping Adjustment

Engrave with the word TEN on the recovery damping end.

The recovery damping affects the reaction speed during the damping recovery. The higher the damping gear **1**, the slower the suspension rebound speed, and the lower the damping gear, the faster the suspension rebound speed.

Primary gear: 10 gear

Total gear: 20 gear \pm 2 gear

Use a flat-head screwdriver to rotate the gear counterclockwise (S direction) and record the times to reduce the recovery damping. Use a flat-head screwdriver to rotate the gear clockwise (H direction) and record the times to increase the recovery damping.

Reverse rotation according to the recorded number of rotations to restore factory settings. Or rotate counterclockwise (S direction) to the minimum, then rotate clockwise (H direction) to the shock absorber 10th gear.

Contact your dealer to adjust the damping. Do not adjust it yourself.

12.1.3 Compression Damping Adjustment

Engrave with the word COMP on the compression damping end.

The compression damping affects the reaction speed during the damping underdraught. The higher the damping gear **2**, the slower the suspension underdraught speed, and the lower the damping gear, the faster the suspension underdraught speed.

Primary gear: 10 gear

Total gear: 20 gear \pm 2 gear

Use a flat-head screwdriver to rotate the gear counterclockwise (S direction) and record the times to reduce the compression damping. Use a flat-head screwdriver to rotate the gear clockwise (H direction)



and record the times to increase the compression damping.

Reverse rotation according to the recorded number of rotations to restore factory settings. Or rotate counterclockwise (S direction) to the minimum, then rotate clockwise (H direction) to the shock absorber 10th gear.

Contact your dealer to adjust the damping. Do not adjust it yourself.

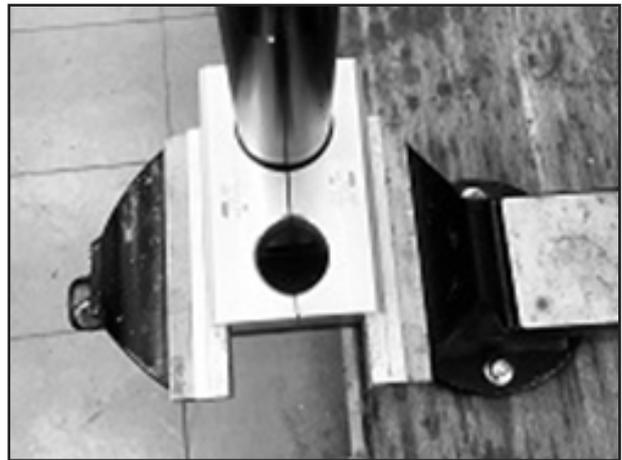
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12.2 Front Shock Absorber Disassembly

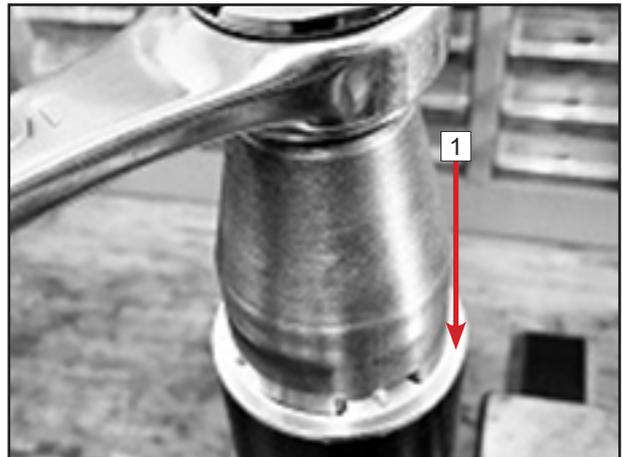
Use a bench vice to clamp the front fork pipe at the lower triple clamp position.

NOTE: The front fork pipe can be fixed to the triple clamp to remove the end cover **1**.

NOTE: Turn the damping section counterclockwise until stopped and record the gear position.



Use the appropriate tool to unscrew the end cover **1**.



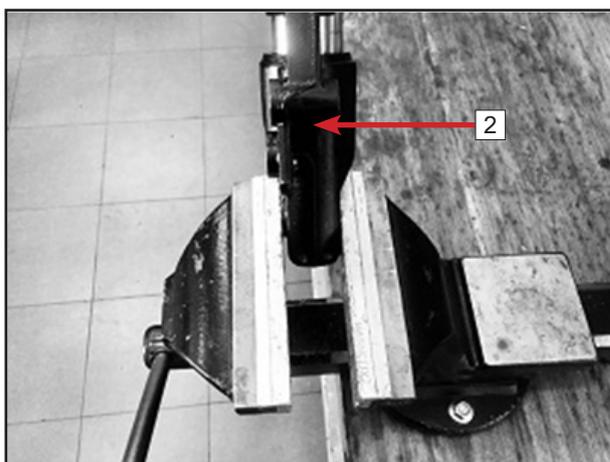
Drain the shock absorbing oil.



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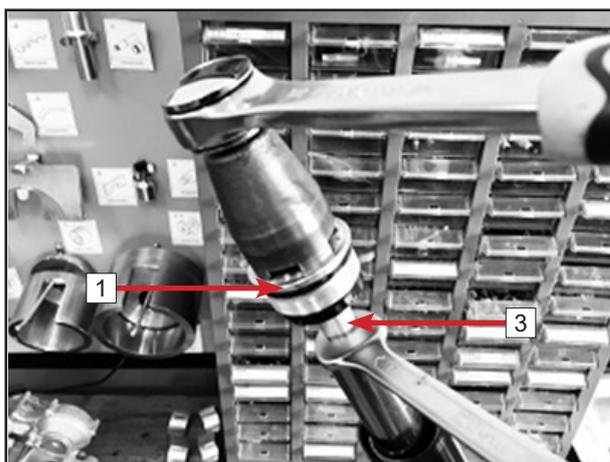
Secure the bottom cylinder **2** in a bench vise.

NOTE: Use soft jaws to protect bottom cylinder **2.**



Use an open-end wrench to secure the lock nut **3**.

Remove the end cap **1** by turning it counterclockwise using the front shock end cap socket.



Remove the dust cover and circlip **12** using a non-metal screwdriver.



Remove outer cylinder **4** to end cap side.

NOTE: The oil seal will come out when the outer cylinder is pulled out



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Installation

Clean and dry all parts.

Apply grease to the O-rings and install the housing on the inner tube.

Apply waterproof grease to dust cover and oil seal **1** before installation.

Slide the dust cover, circlip, oil seal and bushing onto the inner tube.

NOTE: The open side of the oil seal (with spring) must face forward on the fork oil side

Install the circlip **7** using the oil seal installation tool.

Install the oil seal **8**.

Install the dust cover and circlip **9**.

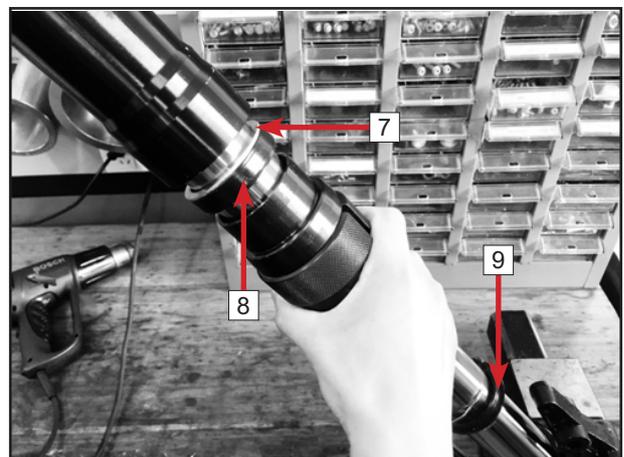
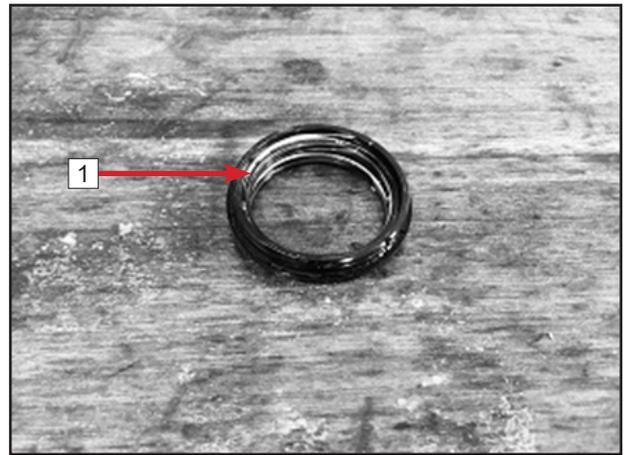
Add 365 mL \pm 2mL of shock absorbing oil to the fork tubes.

If need to change the shock absorbing oil, refer to the following performance table when purchasing:

		Performance
Density(g/cm ²)		0.8372
VI		135
KVIS mm2/s	0 °C	97.55
	20 °C	34.84
	40 °C	16.17
	100 °C	3.861

Push and pull the piston rod until no air bubbles appear.

NOTE: Press the damping adjuster while draining air. Otherwise, the shock absorbing oil will overflow from the piston rod.

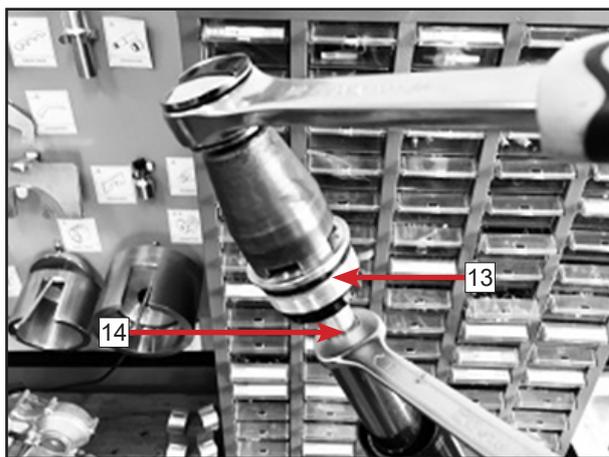


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Install the end cover **13** and then lock the nut **14**.

Use the front shock absorbing end cover sleeve to install the end cover **13** by turning it clockwise.

Lock nut torque: 15 N•m



Use a tool to lock the shock absorber end cover **15**.

Front fork tube cap torque: 20 N•m



Turn the gear adjustment cover clockwise to adjust to the recorded gear.

Inspection

After assembly, press down the shock absorber.

NOTE: During the repress process, a small amount of damping oil will leak out, which is normal.

If shock absorber oil still leaks out after pressing the shock absorber, disassemble the shock absorber as described above and check that the shock absorber oil seal and other parts are in place.

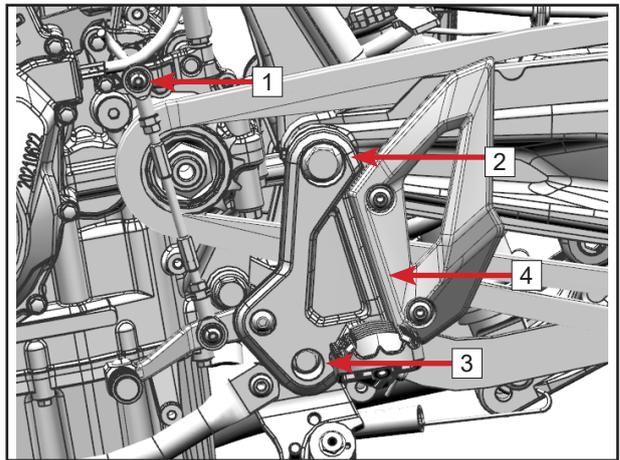
Press the shock absorber again after the installation is completed.



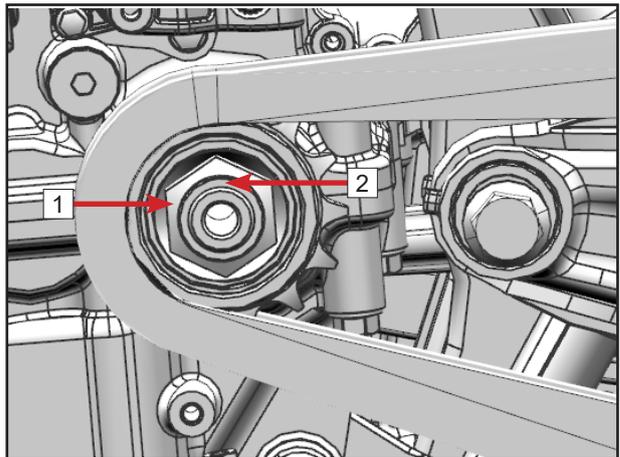
12.3 Chain

Pre-work

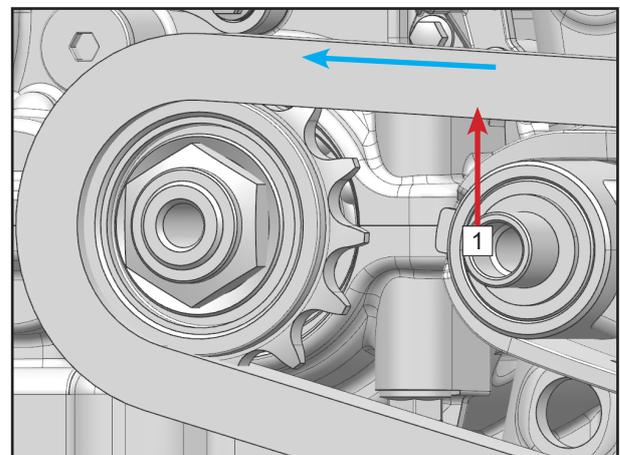
- Remove rear wheel (refer to chapter 11).
- Remove gearshift rod and connecting rod bolt **1**.
- Remove LH side rear fork bolt **2**.
- Remove LH side bolt **3**.
- Remove LH foot pedal **4**.
- Reinsert the bolt **2**.



- Turn up lock washer **2**.
- Remove nut **1**.
- Remove lock washer **2**.

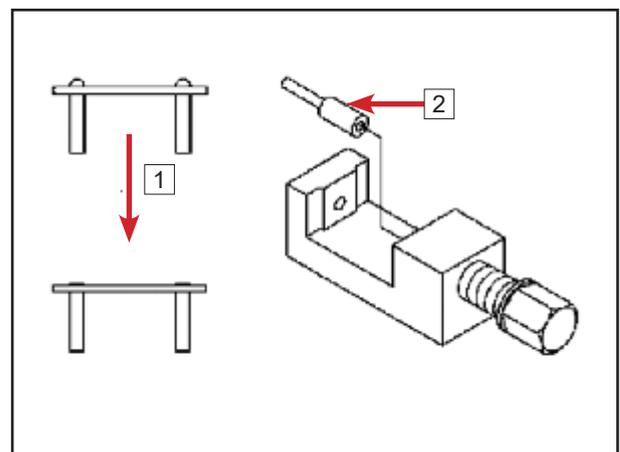


- Push the chain **1** forward.
- Remove the chain **1**.
- To prevent the chain from falling on the ground or contacting with other dirt, such as chain dirt, use professional chain cleaning agent and chain oil to clean and lubricate the chain when reinstalling.**



12.3.1 Drive Chain Maintenance

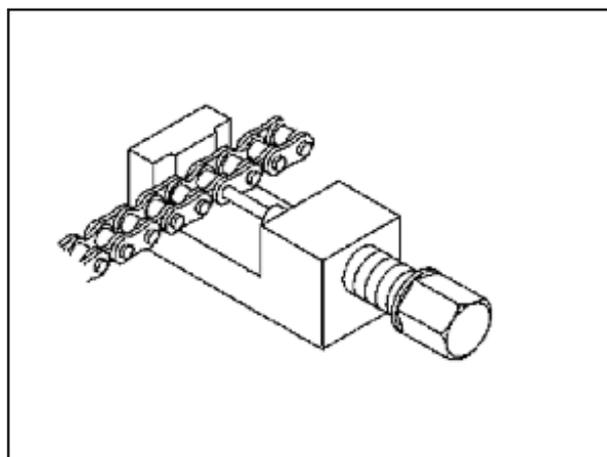
- Press hard **1** to make two pin heads parallel.
- Set the cutting and riveting pin **2** as picture shows.



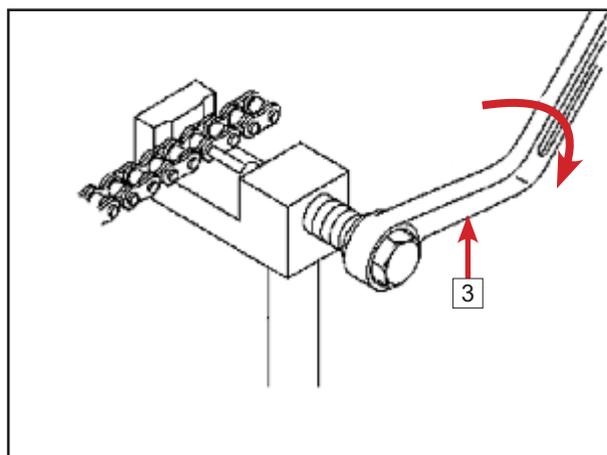
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Tighten the bolt to narrow the pin seat until it touches chain pin.

Make sure the centers of cutting and riveting pin and chain pin are aligned.



Rotate the pin seat with wrench **3** clockwise to remove the chain pin.



Drive Chain Installation

Install new chain knots on chain to replace the old ones.

Remove the chain boards of new drive chain.

Apply grease on chain pin **2** and seal rings **1**.

Engage the chain and rear chain sprocket.

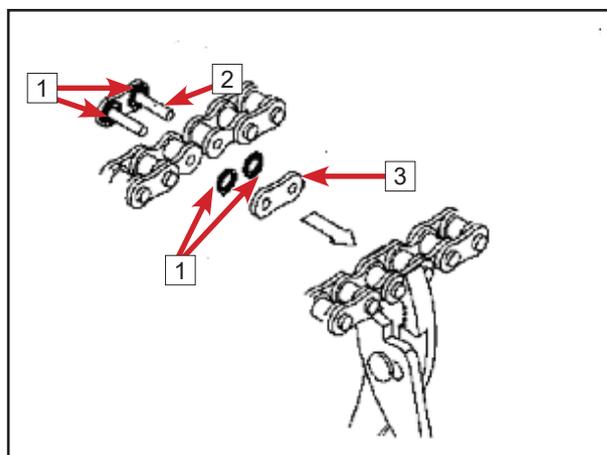
Insert chain pins into chain knots.

Install seal rings **1**.

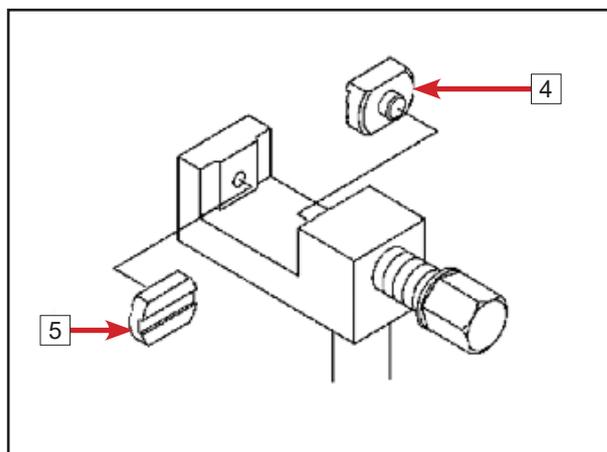
Install chain boards and make the mark **3** face outside.

Fix the chain board with hand or plier.

Make sure the seal ring is installed correctly in case of the chain grease leaking.

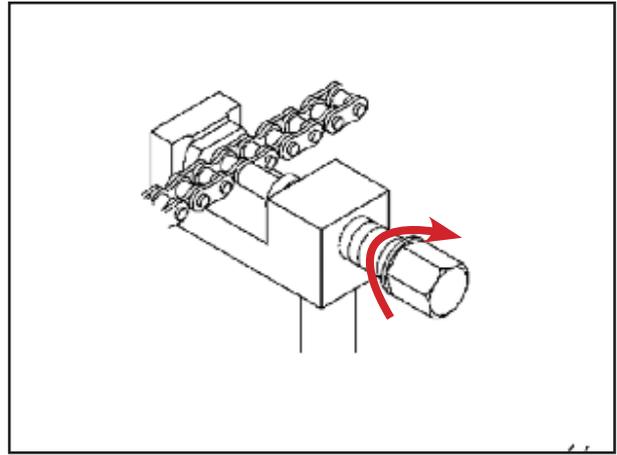


Set the holder **4** and **5** on the pin seat.

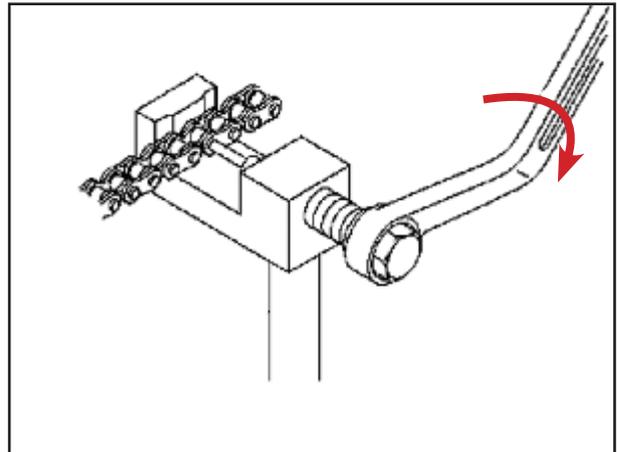


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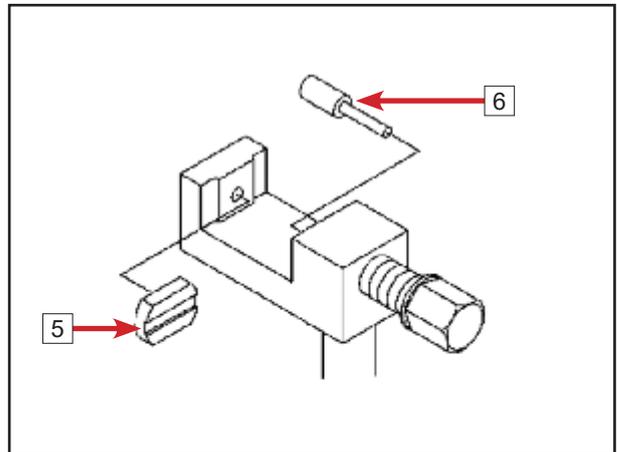
Install the holder on the chain board.
Rotate the pin seat until it touches the chain board.



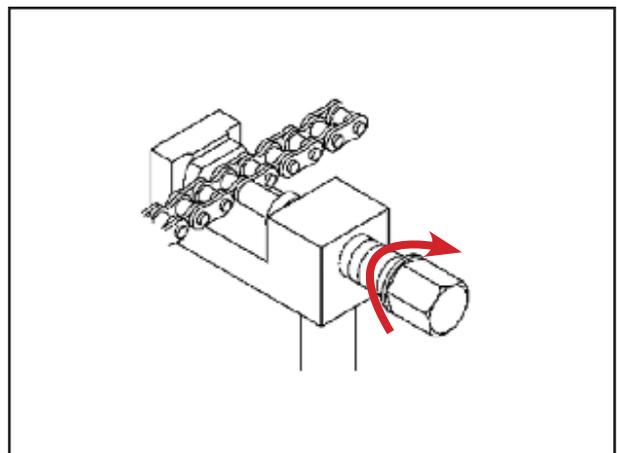
Rotate the pin seat with wrench clockwise until two pins get into the grooves of holder **4**.
Remove the holder **4**.



Set the holder **5** and cutting and riveting pin **6** as picture shows.



Rotate the pin seat until it touches chain pin.



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Rotate the wrench clockwise until cutting and riveting pin head touches chain pin to rivet.

Other chain pins installation follows the same procedures.

Inspection

After riveting, check the riveting knots of chain pin for cracks.

Measure the outer diameter 1 and width 2 of chain pin and chain board.

Chain pin outer diameter

Standard: 5.45 mm~5.55 mm

Chain board outer width

Standard: 17.25 mm~17.45 mm

Cut and re-rivet the chain knots if out of standard.

12.3.2 Chain Looseness Adjustment

Chain Looseness Inspection

Put it in neutral.

Support the vehicle with side brace.

In the natural state, the distance between the chain and the lowest point of swing arm does not exceed 30 mm.

Pull down the chain, the distance between the chain and the lowest point of swing arm does not exceed 40 mm.

If the tightness of chain does not conform to the regulation, adjust to the standard value.

NOTE: The wear degree of chain is not always uniform, rotate the rear wheel several times, and repeatedly measure the tightness at different positions.

Drive Chain Looseness Adjustment

Loosen rear wheel shaft nut 1.

Loosen the left and right lock nuts 3.

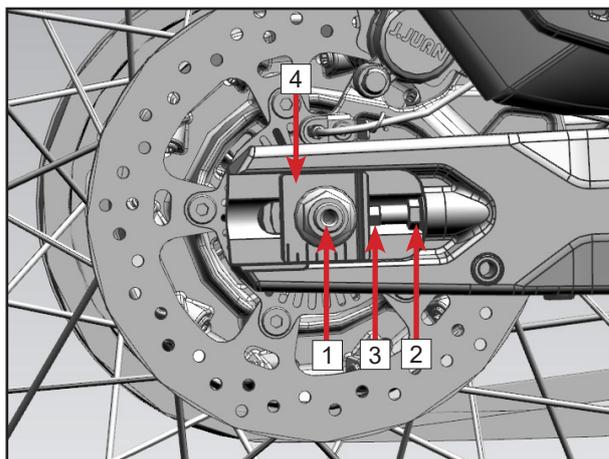
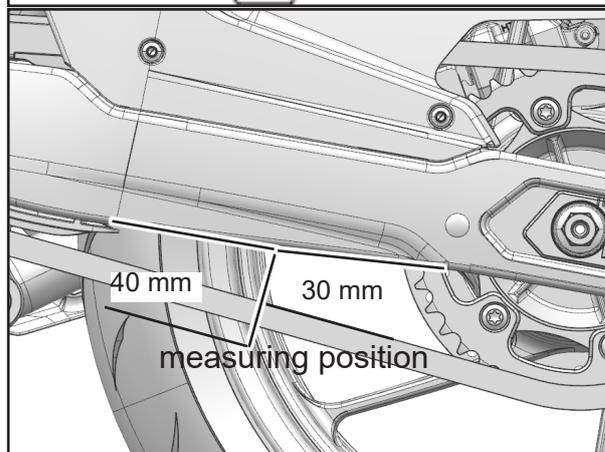
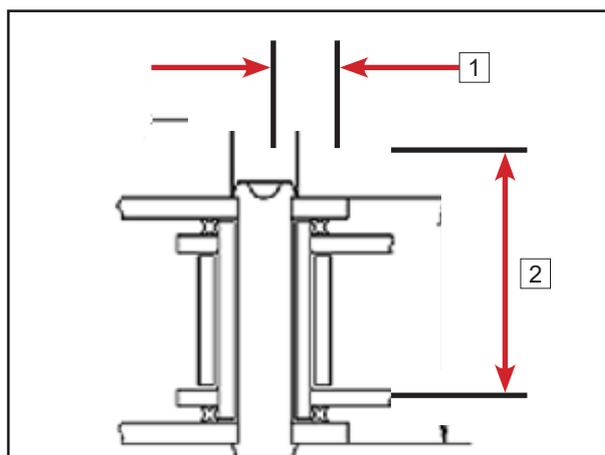
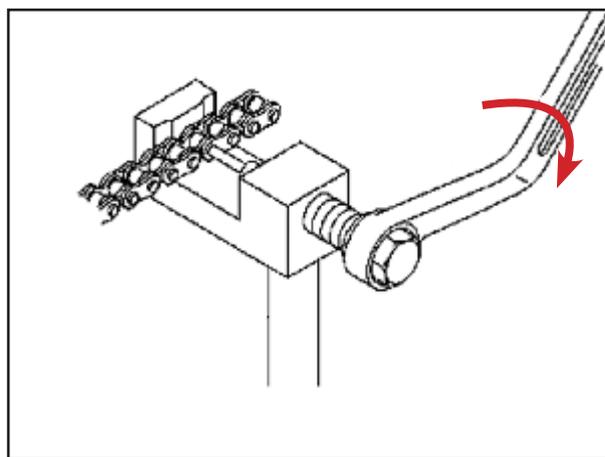
Rotate the left and right adjusting bolts 2 to adjust chain tightness.

Ensure that the relative position between the left and right chain tensioner 4 mark and the reference mark is the same.

Make sure the tensioner is tight against the adjusting bolt.

Tighten the left and right lock nuts 3.

Tighten rear wheel shaft nut (105 N•m~110 N•m).



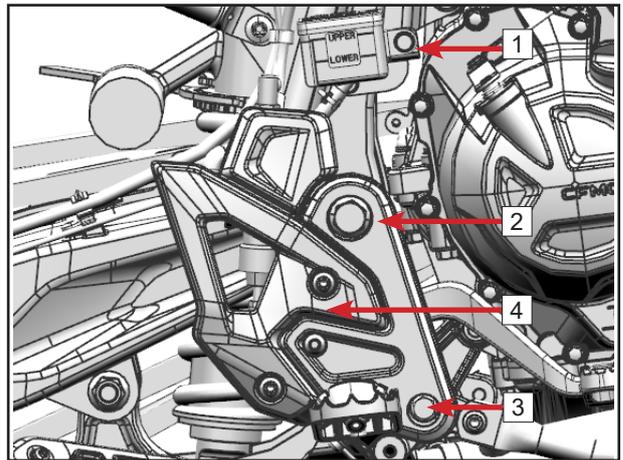
12.4 Rear Fork Assembly

Remove fuel reservoir bolt [1].

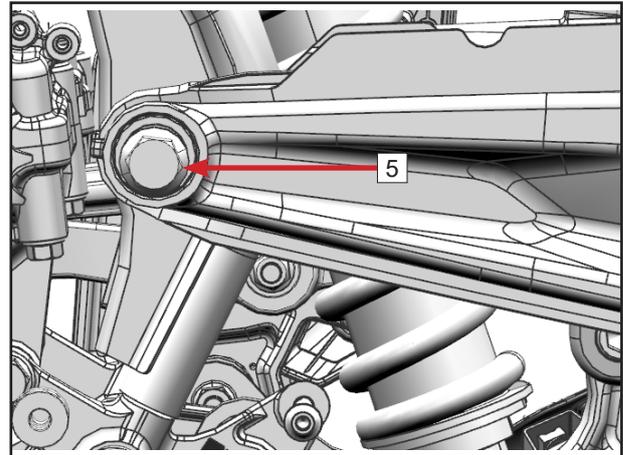
Remove RH side rear fork bolt [2].

Remove RH side bolt [3].

Remove RH footrest [4].



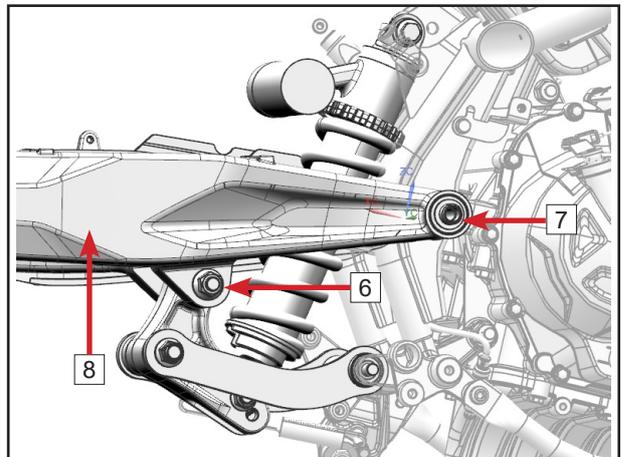
Remove LH side rear fork bolt [5].



Remove bolt and nut assembly [6].

Pull out rear fork shaft [7].

Remove rear fork assembly [8].



12.5 Rear Shock Absorbers

Removal

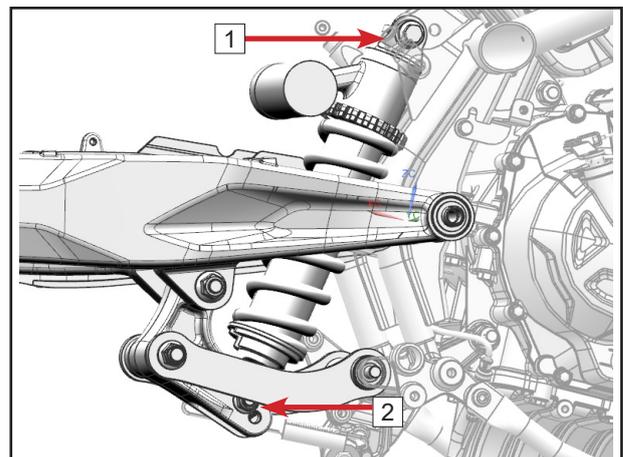
Remove bolt and nut assembly [1].

Remove bolt and nut assembly [2].

Bolt torque: 20 N•m~25 N•m

Installation

Reverse the removal procedures for installation.



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12.5.1 Rear Shock Absorber Inspection

Inspection

Check the appearance of rear shock absorber for damage or crack. Replace if it does.

Clean the dust and mud of rear shock absorber.

Press down on the seat several times to check whether the compression rebound of rear shock absorber is normal.

Adjustment

The rear shock absorber spring preload can be adjusted to suit the rider's weight and riding conditions.

Adjust Spring Preload by following these steps

Use a special tool **1** to turn counterclockwise in the direction **a** to reduce the spring preload.

Use a special tool **1** to turn clockwise in the direction **b** to increase the spring preload.

NOTE: The rear shock absorber has been adjusted to the best state, which is suitable for most cases when the vehicle leaves the factory.

⚠ DANGER: This part contains high-pressure nitrogen. Improper operation may result in explosion. Read the relevant instructions and do not put it in the fire, open holes or open it.

Recovery Damping Adjustment

The recovery damping affects the reaction speed during the damping recovery. The higher the damping gear **1**, the slower the suspension rebound speed, and the lower the damping gear, the faster the suspension rebound speed.

Primary gear: 10 gear

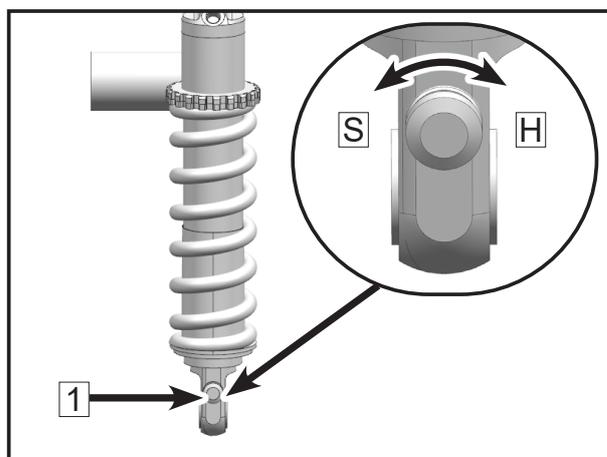
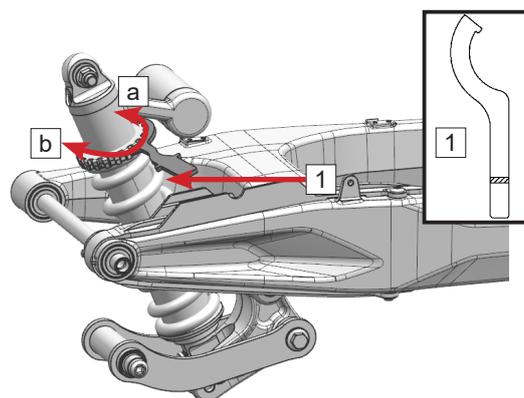
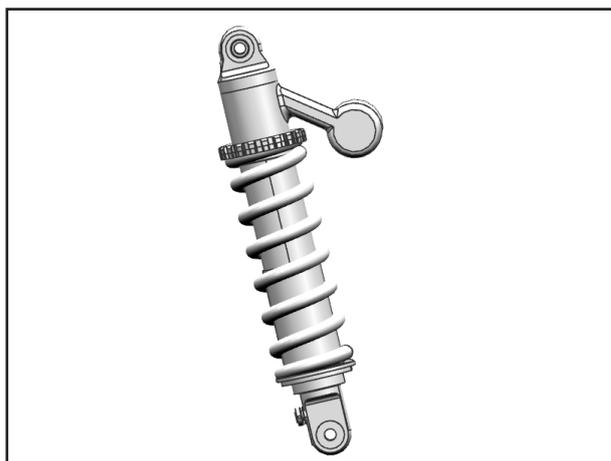
Total gear: 20 gear \pm 2 gear

Adjust the Angle as shown on the right

Turn the adjusting knob clockwise (H direction), rotate the gear and record the times to increase the recovery damping.

Turn the adjusting knob counterclockwise (S direction), rotate the gear and record the times to reduce the recovery damping.

Reverse rotation according to the recorded number of rotations to restore factory settings. Or rotate counterclockwise (S



direction) to the minimum, then rotate clockwise (H direction) to the shock absorber 10th gear.

Contact your dealer to adjust the damping. Do not adjust it yourself.

⚠ DANGER
This part contains high-pressure nitrogen. Improper operation may result in explosion. Read the relevant instructions and do not put it in the fire, open holes or open it.

Seat Height Adjustment

Remove rear shock absorber lower bolt and nut assembly **1**.

Move the rear shock absorber **2** from the high seat mounting point of triangle swing arm **A** to the low seat mounting point of triangle swing arm **B**, and the seat cushion height is reduced by 15 mm to 20 mm.

Install rear shock absorber lower bolt and nut assembly **1**.

Rear shock absorber torque: 45 N•m~50 N•m

