

**Tools and Documents required:**

- 1) *Impact driver*
- 2) *Box wrenches, 8mm, 10mm, 13mm, 17mm (2x), 23mm*
- 3) *Allen wrench, 2mm, 3mm, 5mm, 6mm, 10mm*
- 4) *Socket wrench, 7mm, 13mm, 15mm, 27mm*
- 5) *T-40 Torx bit*
- 6) *Chain Breaker Tool*
- 7) *Loctite 271 and Loctite LB 8700 Moly-50 Grease*
- 8) *Propane torch*

Purpose: The purpose of this procedure is to provide a dealer or other technical resource with the instructions necessary to remove a belt and install a chain to an FX/FXS/DS/DSR model motorcycle.



Bill of Materials: 10-08140; FX CHAIN KIT—SPLINED SHAFT

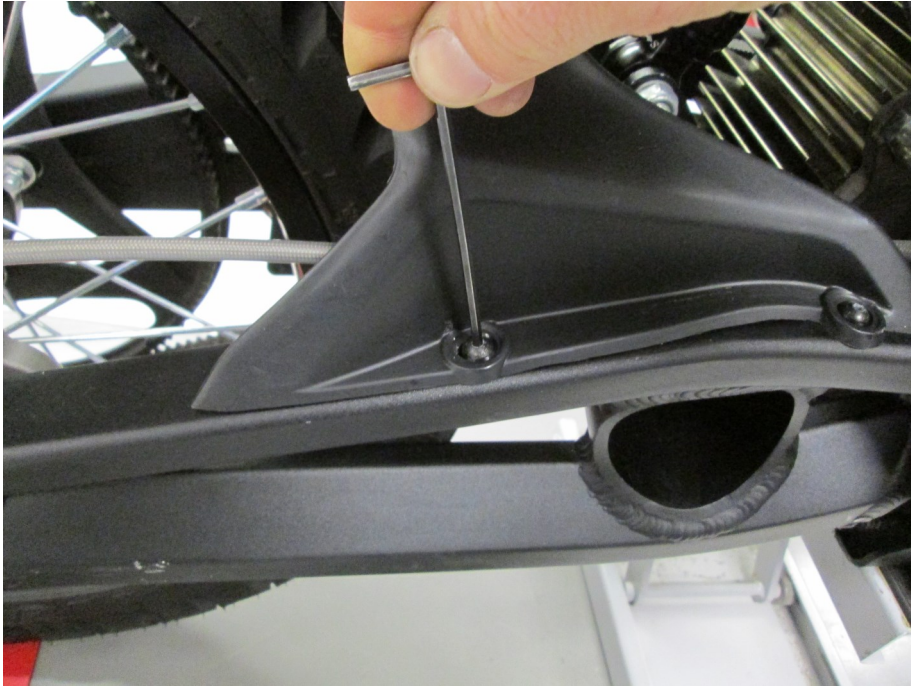
PN	Description	Qty/Kit
20-05400	CHAIN GUIDE RUBBER	1
20-05401	CHAIN GUIDE CAGE	1
30-04452	MX CHAIN BUFFER	1
30-08091	12T SPROCKET 520 CHAIN SPLINED SHAFT	1
30-08111	DID X-RING CHAIN 120 LINK	1
30-08092	SPLINE MOTOR SHAFT CHAIN SPROCKET SPACER	1
30-05090	65T 520 SPROCKET 132 MM BOLT CIR	1
30-08114	DID X-RING CHAIN RIVET MASTER LINK (OPTIONAL USE)	1
90-02054	PREVAILING TORQUE TYPE NUT DIN 985 M6-08 ZM-F-01 REV 02	4
90-02103	WASHER ISO 7089 6-200HV ZM-F-01 REV 02	8
90-02104	WASHER ISO 7089 -8-200HV ZM-F-01 REV 02	4
90-07435	HEXAGON SOCKET BUTTON HEAD CAP SCREW ISO 7380 M6X20-8.8	2
90-02127	HEXAGON SOCKET BUTTON HEAD CAP SCREW ISO 7380 M6X50-8.8 SM-F-01 REV 03	2
90-03236	PREVAILING TORQUE TYPE NUT DIN 958 M8-10 ZM-F-01 REV 02	4
90-08037	HEXALOBULAR (6 LOBE) SOCKET FLAT HEAD COUNTERSUNK SCREW ISO 14582 M8X30-10 ZM-F-01 REV 04	4



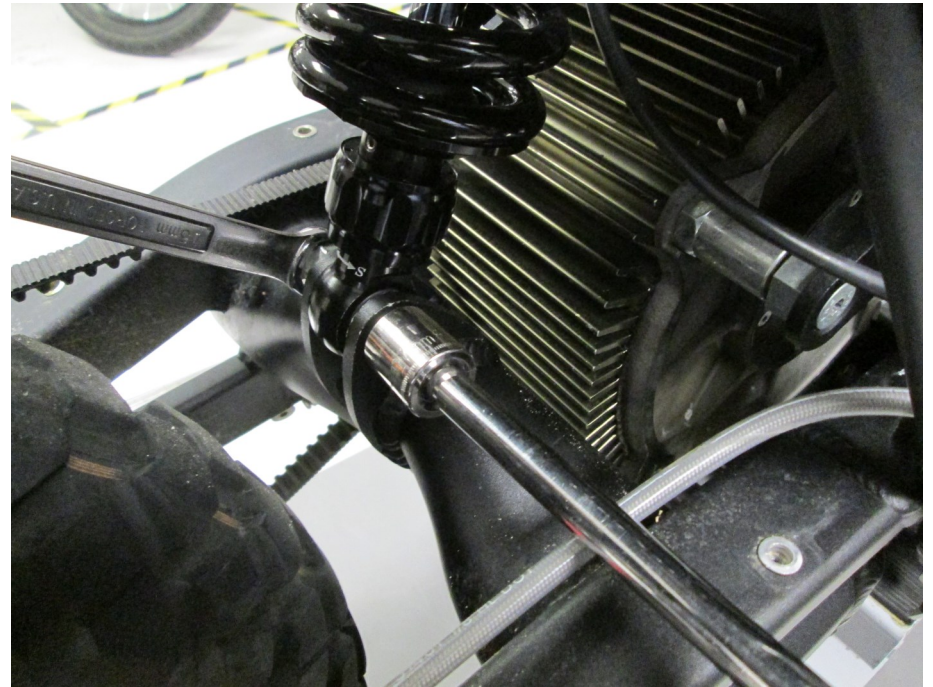
Bill of Materials: 10-08127; DS/DSR CHAIN KIT --SPLINED SHAFT

PN	Description	Qty/Kit
30-04452	MX CHAIN BUFFER	1
30-08091	12T SPROCKET 520 CHAIN SPLINED SHAFT	1
30-08111	DID X-RING CHAIN 120 LINK	1
30-08114	DID X-RING CHAIN RIVET MASTER LINK	1
30-08092	SPLINE MOTOR SHAFT CHAIN SPROCKET SPACER	1
30-05090	65T 520 SPROCKET 132 MM BOLT CIR	1
90-02054	PREVAILING TORQUE TYPE NUT DIN 985 M6-08 ZM-F-01 REV 02	2
90-02103	WASHER ISO 7089 6-200HV ZM-F-01 REV 02	4
90-07435	HEXAGON SOCKET BUTTON HEAD CAP SCREW ISO 7380 M6X20-8.8	2
90-08037	HEXALOBULAR (6 LOBE) SOCKET FLAT HEAD COUNTERSUNK SCREW ISO 14582 M8X30-10 ZM-F-01 REV 04	4





1) Remove rear inner fender using 3mm allen wrench.

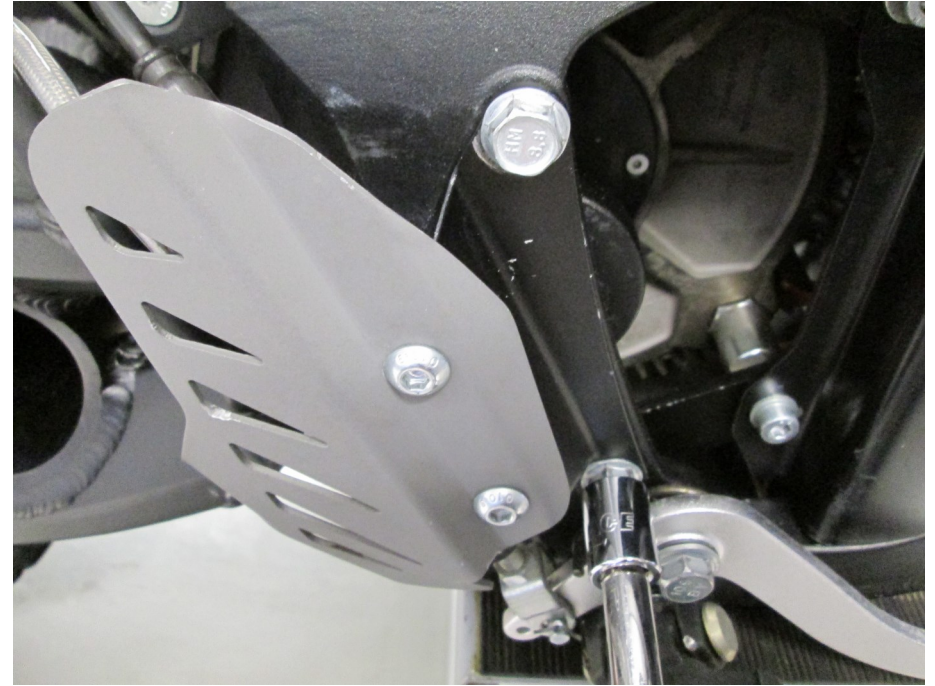


2) Remove rear shock with two 17mm wrenches.





3) Remove brake pedal with 15mm socket.

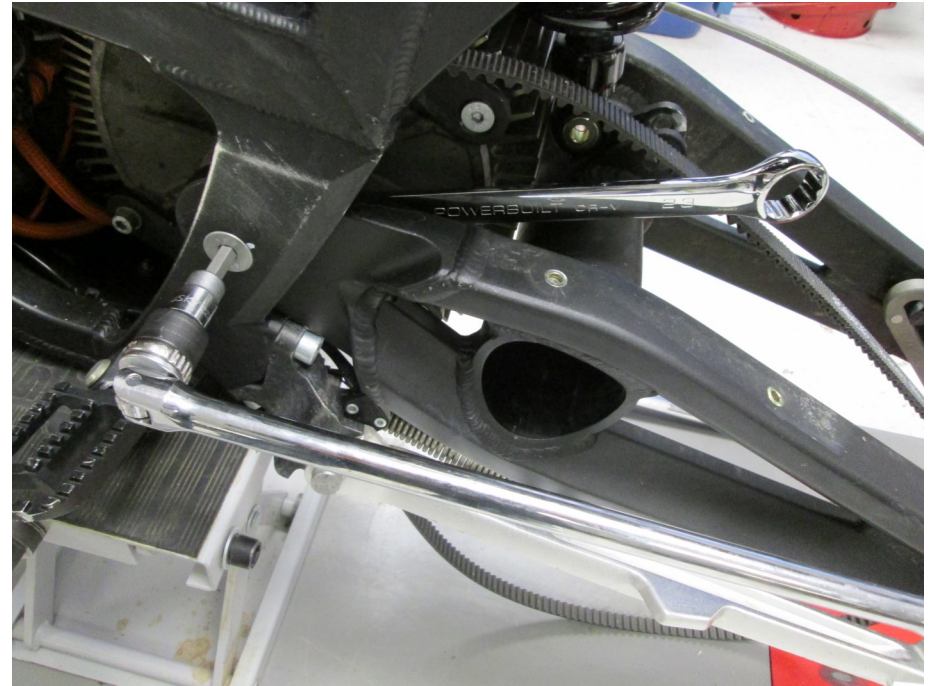


4) Remove both bolts holding the rear master cylinder bracket with 13mm socket.



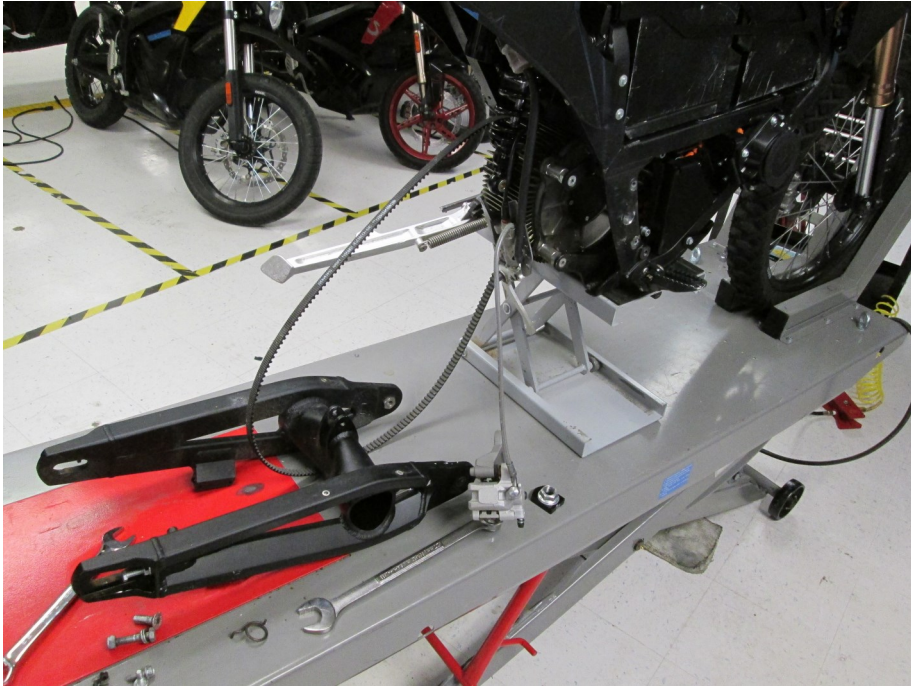


5) Remove 27mm axle nut and take out rear wheel, pull rear caliper off of swing arm and set aside the bike.

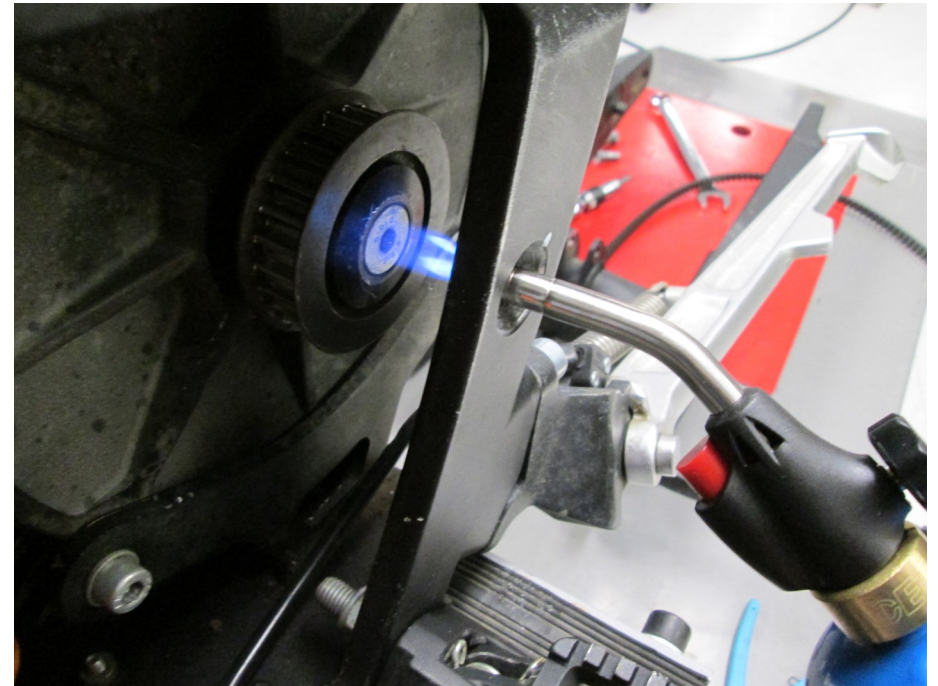


6) Using an 10mm allen wrench remove both swingarm pivot bolts and pull swingarm off the bike.



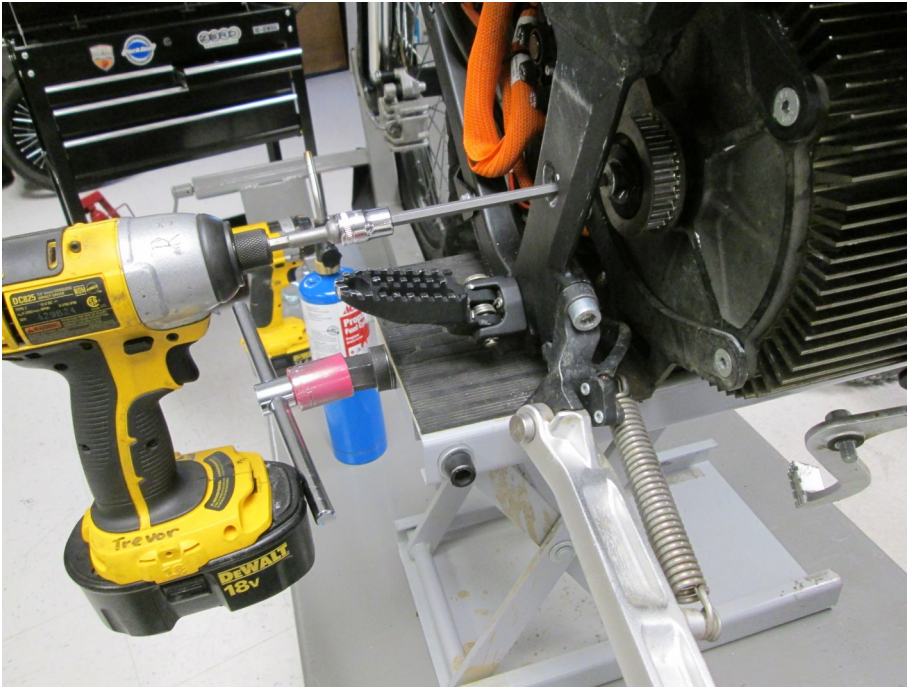


7) At this stage the bike should be disassembled like this.



8) Heat motor pulley bolt (approximately 1 min).





9) Using impact driver and 6mm allen wrench, remove motor shaft pulley bolt and pulley. **Careful, it is hot!!**



10) Motor shaft should look like this at this point. Clean off old moly grease and apply an even thin layer of new moly grease to the splines. Ensure full coverage.



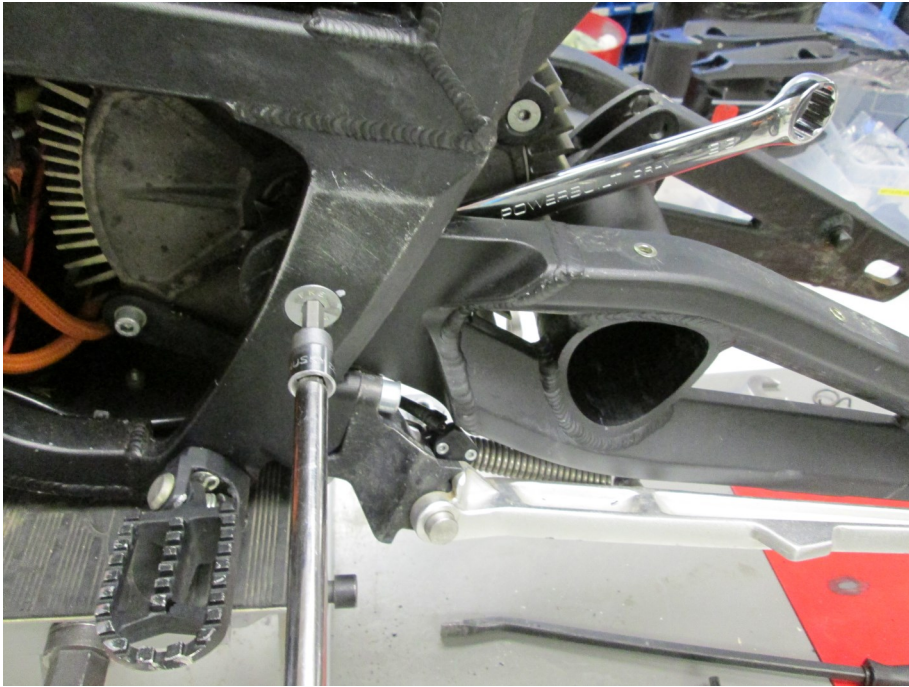


11) Install motor sprocket spacer and chain sprocket.
Wipe off any excess moly grease.

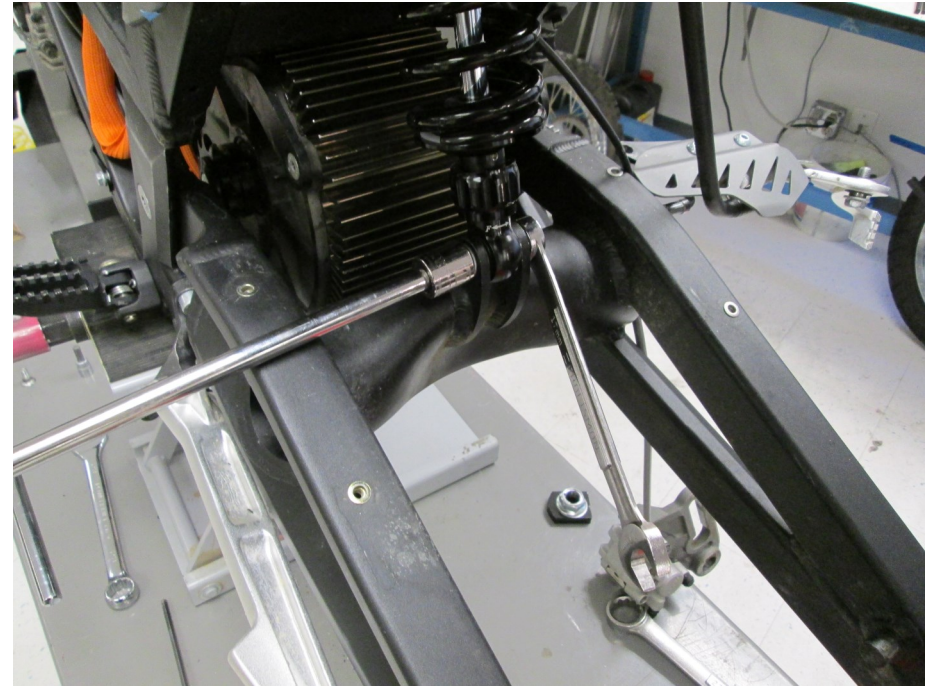


12) Apply Loctite 271 to the motor shaft bolt, install and
torque to 52 ft-lbs with 6mm allen.





13) Reinstall swingarm and tighten stub axles to 75 ft-lbs, using Loctite 271 on pivot bolts and an 10mm allen wrench.



14) Reinstall lower shock bolt and torque to 40 ft-lbs with two 17mm wrenches.





15)a. Remove rear wheel belt pulley using 13mm box wrench and 5mm allen wrench.

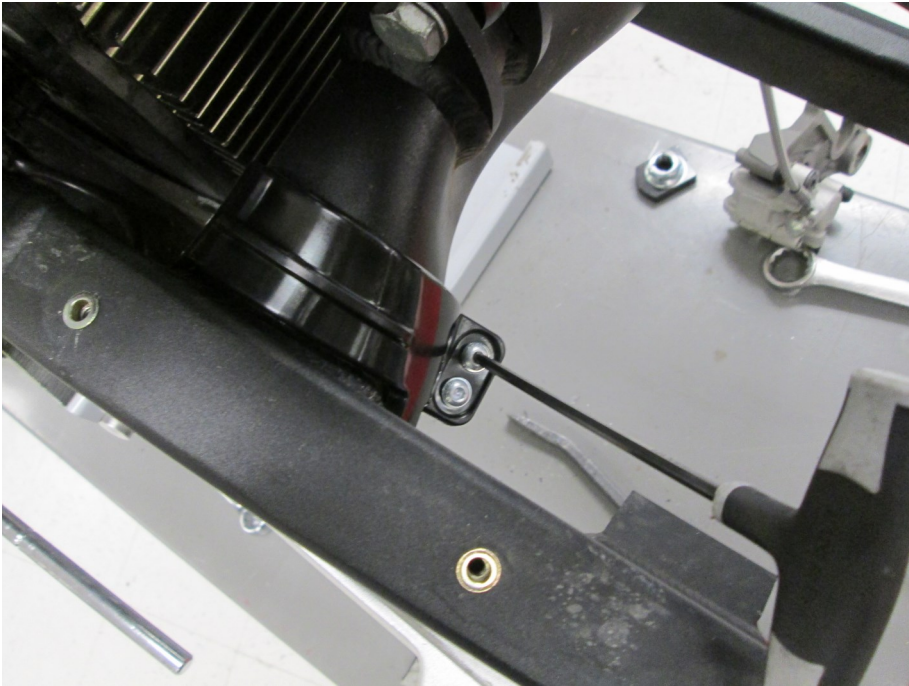
15)b. On a DS/DSR, the 13mm box wrench is not used since there are no M8 nuts on the back side of the wheel hub.



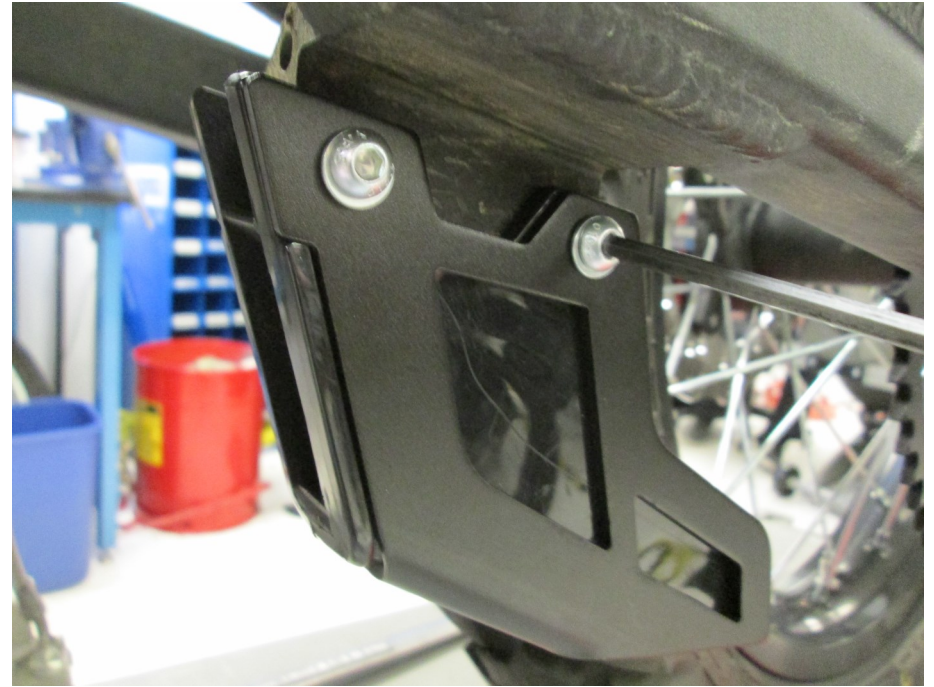
16)a. Install new rear wheel chain sprocket using supplied counter sunk M8 hexalobular bolts, nuts and washers. Washer are installed on the nut side. Tighten to 26 ft-lbs with T-40 torx wrench and 13mm box wrench.

16)b. On a DS/DSR, the 13mm box wrench is not used since there are no M8 nuts on the back side of the wheel hub.





17) Install chain slider with supplied M6 allen bolts and nuts using 10mm box wrench and 4 mm allen wrench. Torque to 4 ft-lbs



18) Install chain guide with hardware as shown using 5mm allen wrench and 10mm box wrench. Torque to 8 ft-lbs. **For FX/FXS only. Skip this step for DS/DSR.**



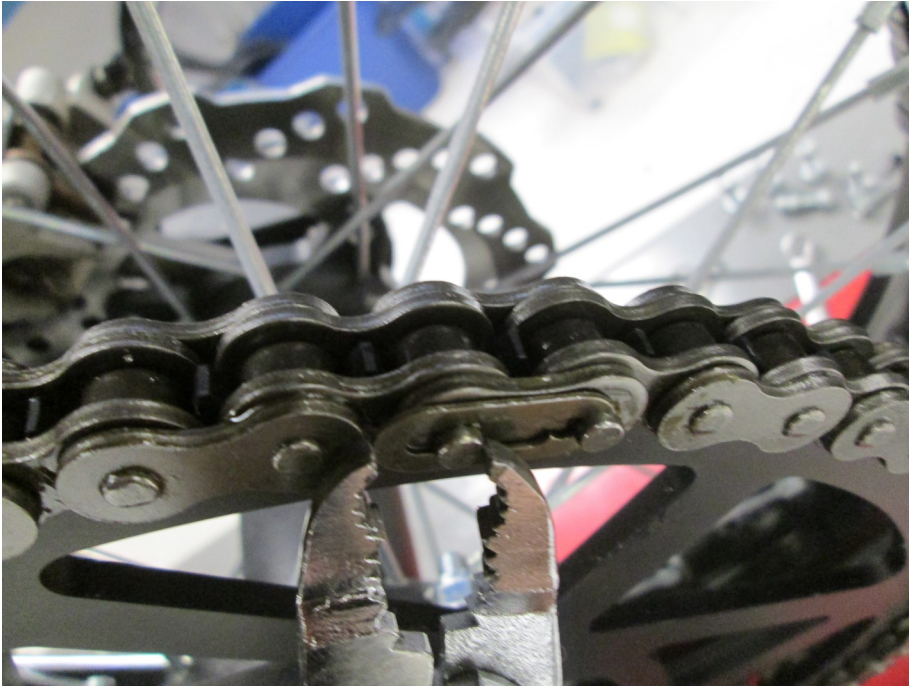


19) Reinstall rear wheel and axle but do not tighten axle bolt, loosen axle adjuster bolts to slide wheel forward in dropouts.

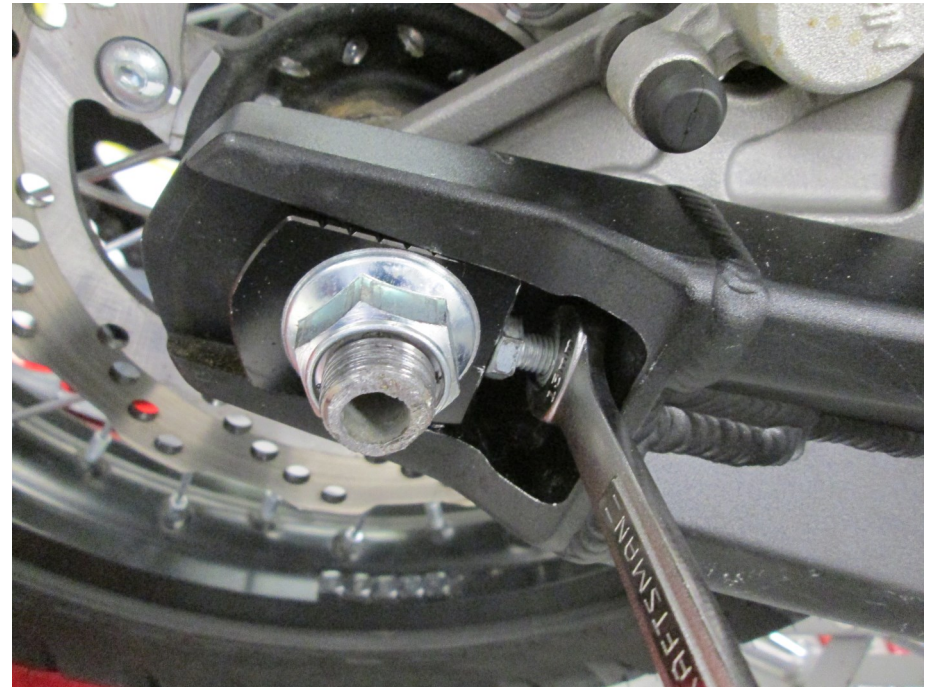


20) Chain supplied with the kit is 120 links long, but only 110 links are needed for this chain kit. Remove 10 links from the chain per DID Chain recommendation.





21) Fasten master link face plate and clip for FX/FXS. For DS/DSR install the rivet master link. Rivet master link is required for the high motor torque of the DSR. **Note: The rivet master link can be used on all bikes if desired. Also note the direction of the master link clip. The closed section should face in the direction of rotation as shown above.**

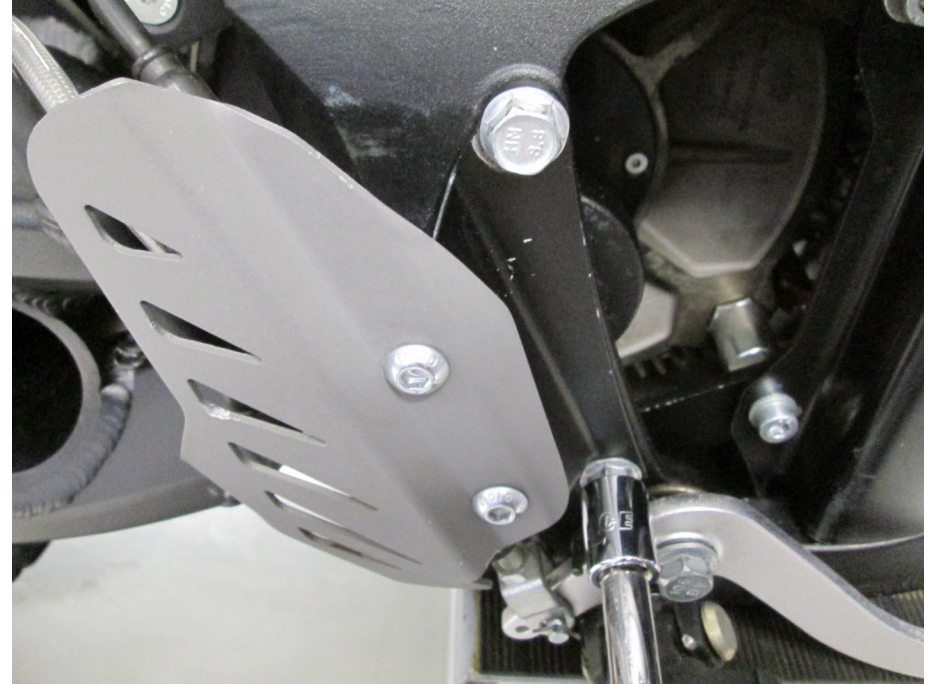


22) Tighten chain using axle adjuster bolts and axle nut. Chain should have approximately 1" of up and down free play. Ensure that tire is not adjusted so far forward that it rubs on the rear inner fender. Verify that chain alignment is correct and in line with the front sprocket. Proper chain alignment will improve sprocket and chain life and reduce noise. Torque adjuster bolts to 15 ft-lbs and torque axle nut to 75 ft-lbs.



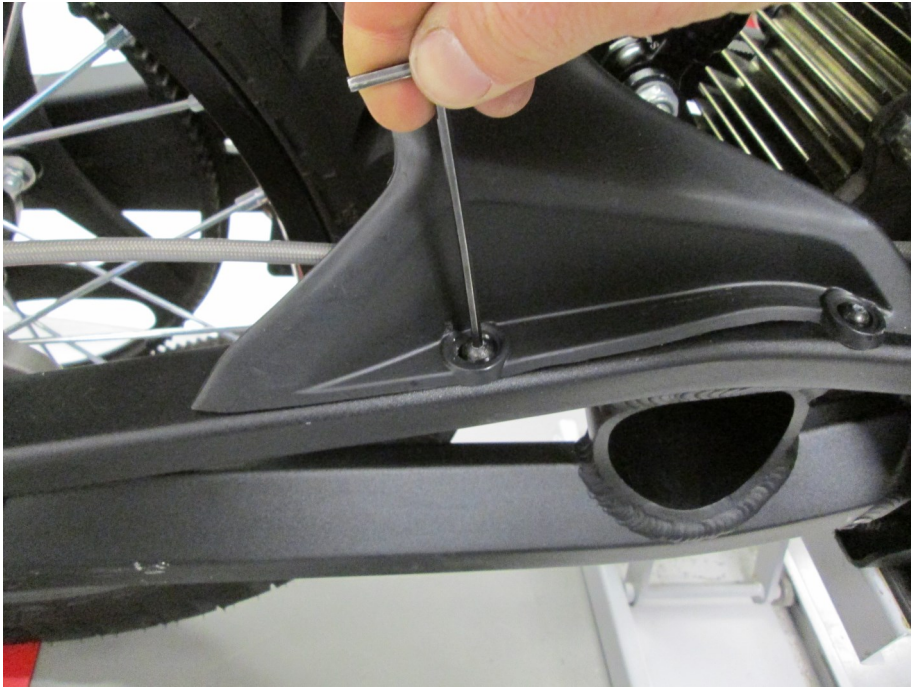


23) Reinstall rear brake pedal with 15mm socket. Apply Loctite 242 and torque to 35 ft-lbs.



24) Reinstall master cylinder bracket using 13mm socket. Apply Loctite 242 and torque to 20 ft-lbs.





25) Reinstall the Rear inner fender using a 3mm allen and torque to 1.5 ft-lbs

Please note that the master link will rub on the inside of the chain guide. This is normal, and with time, it will self clearance.





Completed chain assembly

