TRX 2.5 Racing Engine Conversion Instructions

Part #4800 Nitro 4-Tec and Nitro 4-Tec Pro

The TRX 2.5 engine is not included with this kit. The TRX 2.5 engine model #5204 without pull starter or #5207 with pull starter is required to complete the conversion. Please note that the #5204 engine (without pull starter) will require a starter box for starting the engine.

1. **Remove Engine:** Disconnect all EZ-Start wires from the EZ-Start motor and the engine. If using a TRX 2.5 engine with pull start, remove the EZ-Start wiring harness completely from the chassis. Disconnect the fuel tubing from the carburetor and disconnect the pressure line from the exhaust pipe. Remove the throttle and brake linkage (*including the throttle servo horn and brake lever*) completely from the chassis by removing the 3x6RST screw from the throttle servo and loosening the 3x3GS at the top of the brake cam. Remove the engine from the chassis by removing the 3x20CST, 3x25CST and the four 3x10SS engine screws from the bottom of the chassis (*see diagram*).

2. **Transfer Components:** Remove the engine mount and the clutch assembly from the TRX Pro.15 engine and install them onto the TRX 2.5 engine (*see diagram for parts sequence and orientation*). **Note:** Use the flywheel nut (*included with the TRX 2.5 engine*) to secure the flywheel to crankshaft. The TRX Pro.15 clutch adapter nut will not be reused. Some material may need to be removed from the engine mount to fit onto the TRX 2.5 engine (*see photo #1*).

3. **Reposition Throttle Servo:** Remove the right rear tire from the axle to access the rear drive pulley. For access to the throttle servo and two speed hub, remove the middle drive belt by removing the 5.0mm E-clip and flange from the rear drive pulley (20 groove). **Caution:** When removing or installing e-clips, always wear eye protection to prevent injury. Disconnect the throttle servo from the chassis brace, rotate the servo 180 degrees, and reinstall it back in the chassis. **Note:** Some material may need to be removed for easier fit of the throttle servo (*see photo #2*). **Note:** If using the new EZ-Start 2 system (*optional*), the material indicated on the receiver mount may be removed to allow extra clearance for the EZ-Start 2 gear box (*see photo #3*).

4. **2-Speed Upgrade:** Remove the rear drive pulley, axle pin, and both of the 2-speed gear hubs from the rear pulley shaft to access the 2-speed drive hub (4992). Replace the two speed drive hub with the new 2-speed drive hub (*included*) by loosening the set screw that is threaded down the center of the hub. **Important:** Note the orientation of the old drive hub and install the new drive hub in the same direction. Secure the drive hub to the pulley shaft by tightening the set screw that is threaded down the center of the drive hub onto the flat surface of the pulley shaft (*see diagram*). Reinstall the gear hubs, axle pin and the rear drive pulley back onto the pulley shaft. Reinstall the middle drive belt and flange. Secure the assembly with the 5.0mm e-clip.

5. **Exhaust:** [If using the EZ-Start 2 starting system (*optional*), remove the pull starter from the engine and install the EZ-Start 2 system onto the engine before the installation of the exhaust system]. Join the exhaust pipe (*included*) to the header with the blue silicone pipe coupler and secure with two 120mm tie wraps. Make sure that there is (one) 12.2x1.0mm orange o-ring mounted onto the exhaust outlet of the TRX 2.5 engine case (*for engines without the o-ring, use the o-ring included in the package*). Install the header and exhaust pipe assembly onto the TRX 2.5 with the two 3x15CS header bolts (*see diagram*). Tighten the header bolts to 6.2 ft-lb of torque, being careful not to over tighten.

6. **Installation:** Install the engine (with the exhaust system and clutch assembly) onto the chassis leaving the engine mount screws just loose enough to adjust the gear mesh. Adjust the gear mesh by sliding the clutch bell gears all the way up to the spur gears and then back off just slightly until the gears spin freely together. Secure the assembly by tightening the 3x20CST, 3x25CST and the four 3x10SS engine screws. Reattach the fuel and pressure lines to the carburetor and exhaust pipe. **Note:** If using the EZ-Start 2 system (*optional*), connect the wiring harness to the appropriate contacts on the EZ-Start motor and engine. Replace the old pipe hanger with the new pipe hanger included in the package. Secure the exhaust pipe to the pipe hanger with the 3x10CS screw.

7. **Linkage:** Locate the TRX 2.5 throttle/brake linkage assembly with servo horn (*included*). Attach the ball cup of the carburetor link onto the throttle arm. Slide the brake lever into the brake cam, with the eyelet pointing up, and secure it by tightening the 3x3GS. **Important:** The throttle servo reversing switch (**CH2**) on the transmitter must be switched opposite of the stock position for proper rotation of the servo output shaft. Center the throttle trim by turning the radio system on and adjusting the throttle trim to center before attaching the servo horn. Mount the servo horn onto the servo so that when the throttle trigger is at neutral, the carburetor is closed.

8. **Air Filter:** Install the air filter onto the carburetor and secure with a zip-tie. Turn on the radio system and adjust the throttle trim and brake linkage for proper operation. Follow the proper break-in procedure per instructions for the new TRX 2.5 engine. **Note:** Follow the instructions in the manual for proper adjustment of the 2-speed. This completes the conversion.

Traxxas
1100 Klein Road
Plano, Texas 75074
1-888-TRAXXAS
E-Mail: support@Traxxas.com

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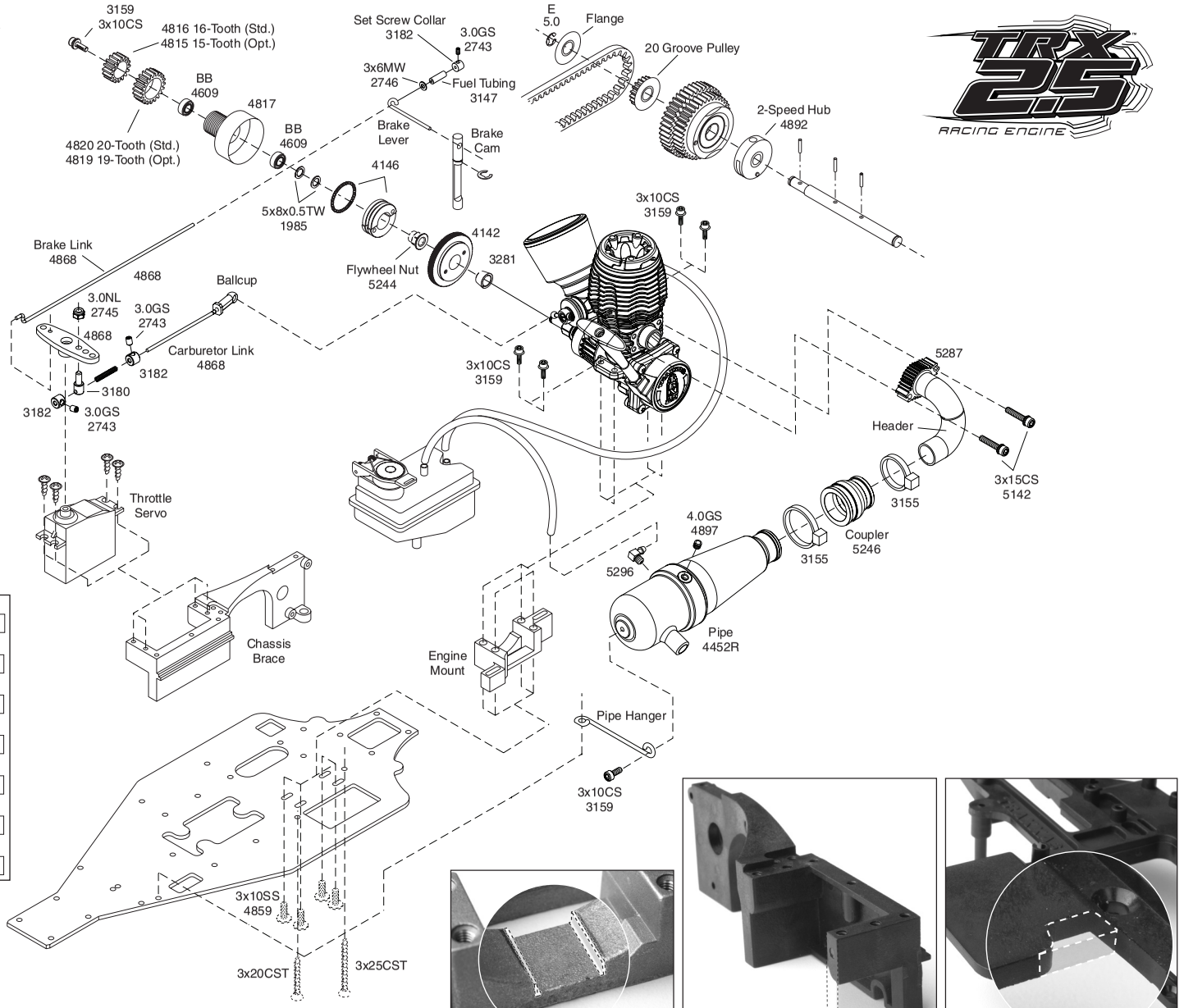
4-TEC Nitro Conversion Kit Assembly

TRX 2.5 Racing Engine



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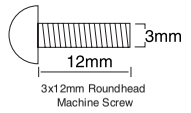
Screw Abbreviations



CS	Cap Screw	BCS	Buttonhead Cap Screw
CM	Countersunk Machine Screw	SS	Shoulder Screw
CCS	Countersunk Cap Screw	RM	Roundhead Machine Screw
WM	Washerhead Machine Screw	WST	Washerhead Self-tapping Screw
BB	Ball Bearing	CST	Countersunk Self-tapping Screw
OB	Oilite Bushing	NL	Nylon Locknut
PB	Plastic Bushing	RST	Roundhead Self-tapping Screw
E	E-Clip	GS	Set (Grub) Screw
		FN	Flange Nut
		AS	Aluminum Spacer
		PW	Plastic Washer
		MW	Metal Washer
		TW	Teflon Washer
		SW	Split Washer

Remove material in the shaded areas.