

# EPS STEERING KIT



**P/N 2879970**

## APPLICATION

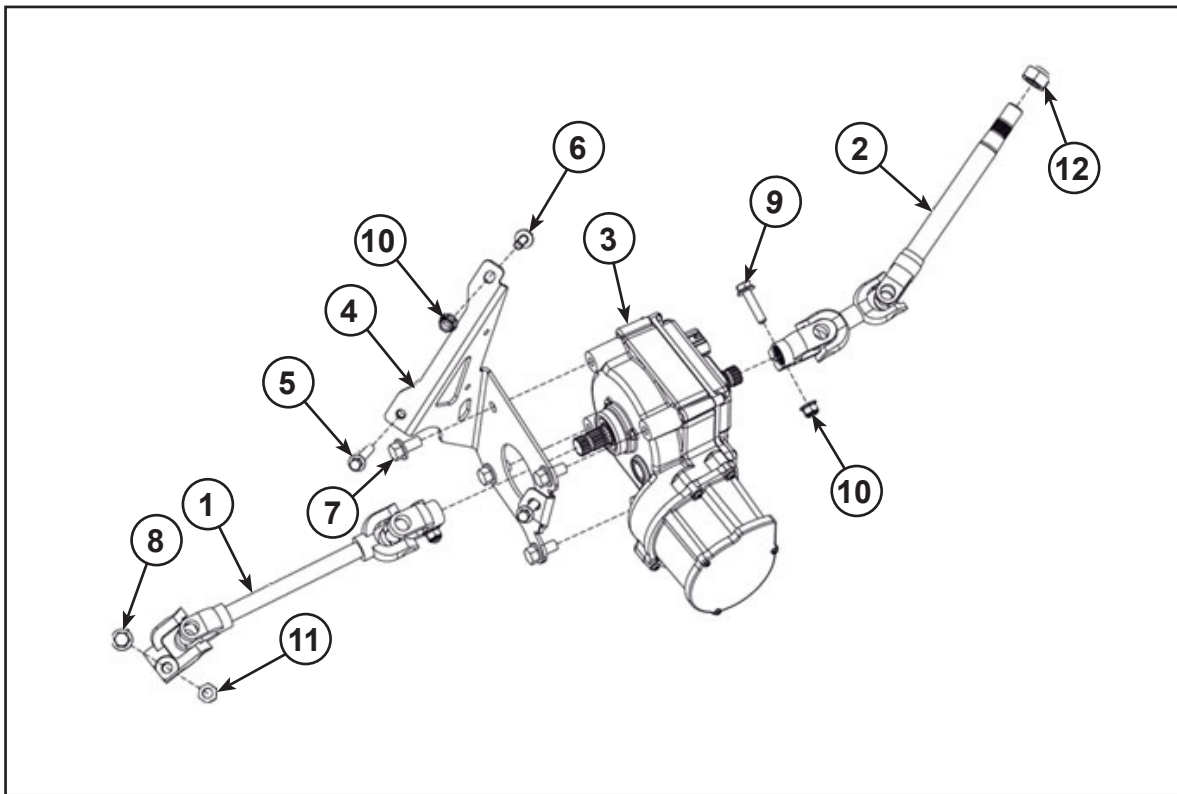
RANGER 570 AND RANGER ETX

## IMPORTANT

It is strongly recommended that this kit be installed by an authorized Polaris dealer.

## BEFORE YOU BEGIN

Read these instructions thoroughly and check to be sure all parts and tools are accounted for. It is also critical that you determine the model and year of your vehicle to ensure you have the correct kit for your given application. This power steering system provides reduced steering effort at low speeds as well as improved steering wheel isolation from sharp bumps and ruts. This steering assistance is based on vehicle speed, with greatest assistance being provided at low speeds and tapering off as speed increases. Please read your Owner's Manual to familiarize yourself with and understand the operation of this system.



## KIT CONTENTS

Ref.	Qty	Part Description	Part Number
1	1	Lower Steering Shaft	1824149
2	1	Upper Steering Shaft	1824150
3	1	Power Steering Assembly	2412902
4	1	Power Steering Bracket	5258708
5	2	Screw-M8X1.25X55, HX/FL	7517281

Ref.	Qty	Part Description	Part Number
6	1	Bolt-M8X1.25X25, HXFLG, Olive D	7518514
7*	4	Bolt-M10X1.25X20, HXFLG, Olive D	7518558
8*	1	Screw-M10X1.50X35 HX/FL	7518644
9*	2	Screw-M8X1.25X35 HXFL ZOD	7519052
10*	5	Nut-M8X1.25, Flange, Nyloc - Olive D	7547332
11*	1	Nut-M10X1.5, Hex, Zinc YW, Nyloc	7547385
12*	1	Nut-M16X2, Hex, 8 ZC Nyloc	7547506
13*	1	Loctite-271, .02 OZ	8560067
	1	Instruction	9925524

ITEMS MARKED (\*) ARE INCLUDED IN HARDWARE KIT PN 2205322.

## TOOLS NEEDED

Standard and Metric Socket Set  
Standard and Metric Wrench Set

Standard and Metric Hex Key Set  
Torque Wrench

Torx Drivers  
Ratchet

## APPROXIMATE ASSEMBLY TIME

120 mins

## IMPORTANT

Your Polaris EPS STEERING KIT is exclusively designed for your vehicle. Please read the installation instructions thoroughly before beginning. Installation is easier if the vehicle is clean and free of debris. For your safety, and to ensure a satisfactory installation, perform all installation steps correctly in the sequence shown.

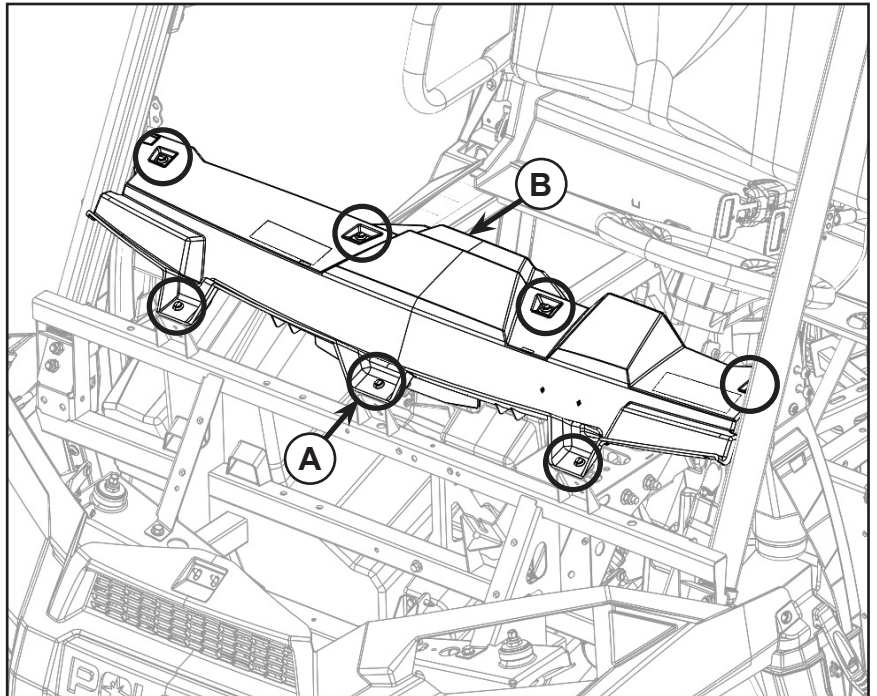
## CAUTION

Striking the steering wheel or steering shaft can permanently damage the EPS unit and cause a Power Steering Fault or Failure. Avoid striking the steering wheel, steering shafts and EPS unit during installation. Take care not to drop the EPS motor assembly and avoid any axial loading of the input or output shafts because this can also cause permanent damage. Avoid using impact tools when installing the shafts and steering wheel.

## REMOVAL INSTRUCTIONS

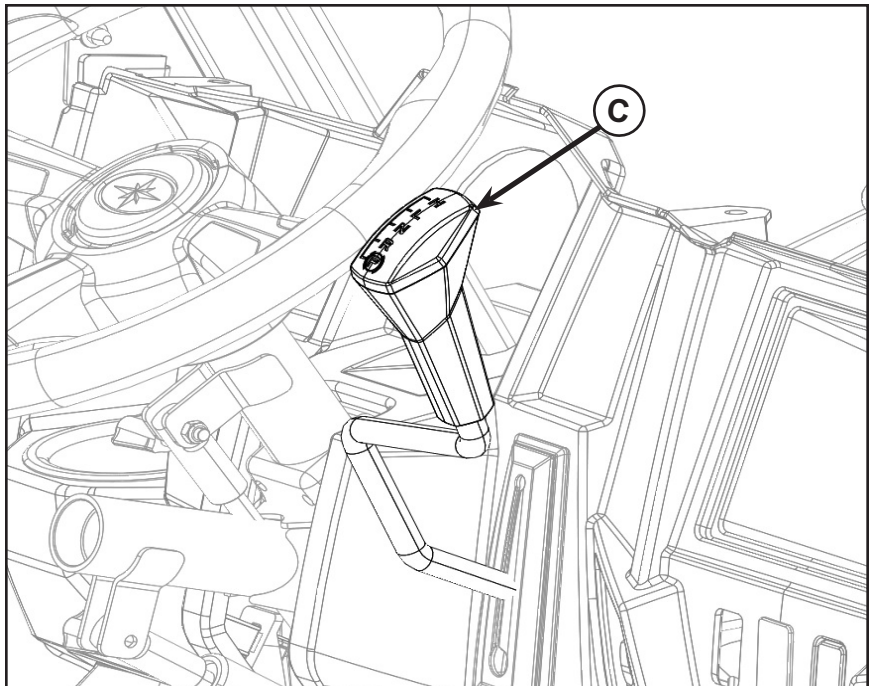
1. Place the vehicle in “**PARK**”. Turn the key to “**OFF**” position and remove from the vehicle.
2. Remove bottom seat and seat base. Remove storage tray. Disconnect black negative and red positive battery cable from battery.
3. Remove basic hood by pulling out the rubber retainer straps.

4. Use a flat screwdriver to remove the four plastic dart clips (A) securing the upper dash panel (B) and remove the panel by sliding it rearward to release the rear locking tabs as shown in figure.

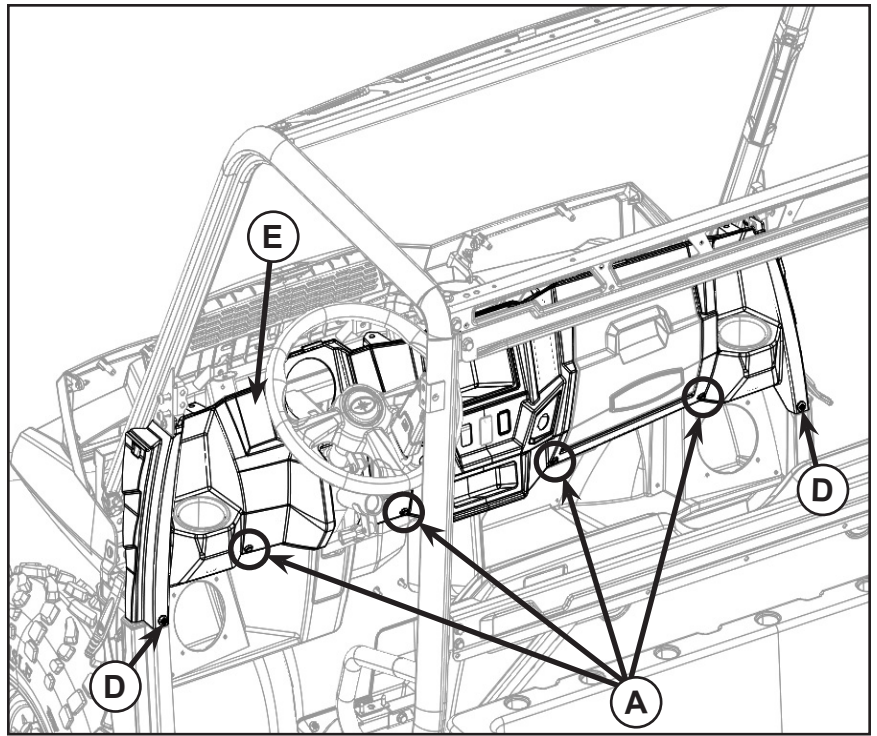


5. Carefully disconnect the connectors from the switches paying close attention to connector placement. The factory connectors for lights and the four wheel drive system should be labeled accordingly. Remove the center switch panel from the unit at this time.

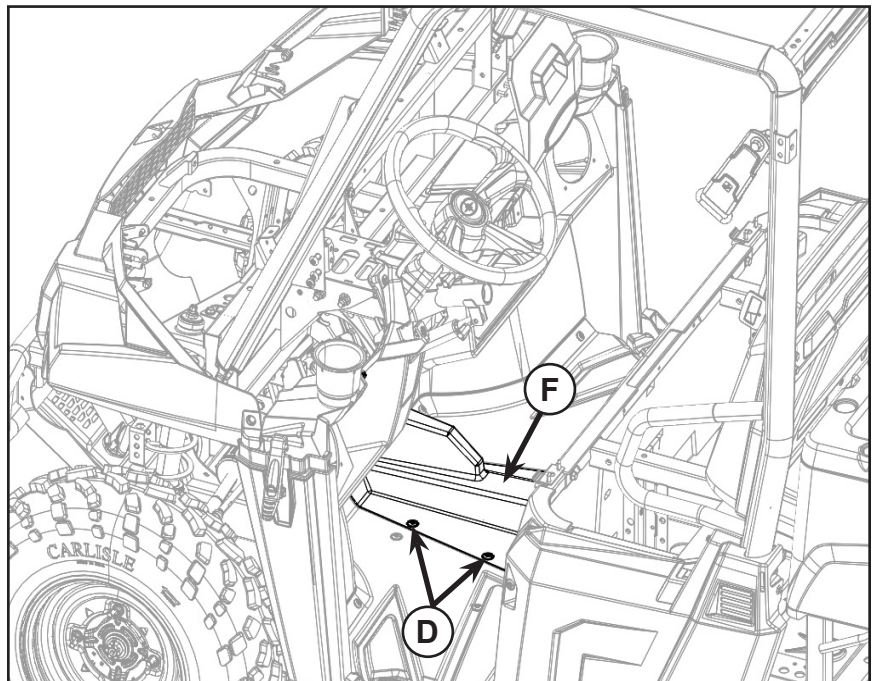
6. Use a flat screwdriver to remove the cap (C) of the shift lever and a T25 torx to remove the lever screw. Pull up to remove the handle as shown in figure.



7. Carefully disconnect the wire connectors from the rear of the 12 volt power plugs, speedometer and ignition.
8. Use a flat screwdriver to remove the four dart clips (A) securing the dash panel to the unit. Remove two M6 screws (D) using T30 Torx. The lower dash panel (E) can now be removed from the unit as shown in figure.



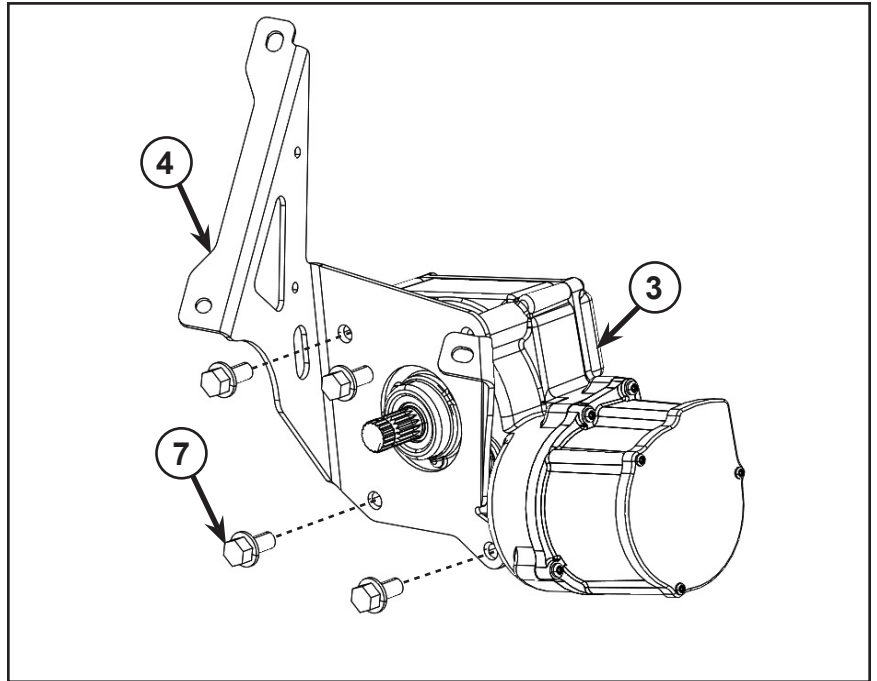
9. Remove the seven M6 screws (D) using T30 Torx and remove the drive shaft cover (F) as shown in figure.



10. Align the steering shaft joint so the bolt and nut can be accessed through the opening in the floor where the drive shaft cover was removed. Use a 15 mm and 17 mm wrench to remove the lower bolt from the steering shaft.
11. Use a flat screwdriver to remove the center cap from the steering wheel. Use a 24 mm socket and a 1/2" impact wrench to remove the steering wheel nut. The shaft will be pressed out of the tilt assembly in a later step, but nut removal is easier when the assembly is still in the unit.
12. Use a 10 mm wrench and 4 mm hex key to remove the lower bolt from the tilt wheel cylinder. Use a 17 mm wrench and a 6 mm hex key to remove the two side pivot bolts from the tilt wheel assembly and remove the tilt wheel and shaft assembly from the unit at this time.
13. Carefully press the steering shaft out of the tilt wheel assembly paying close attention to spacer placement and retain all hardware for reassembly.

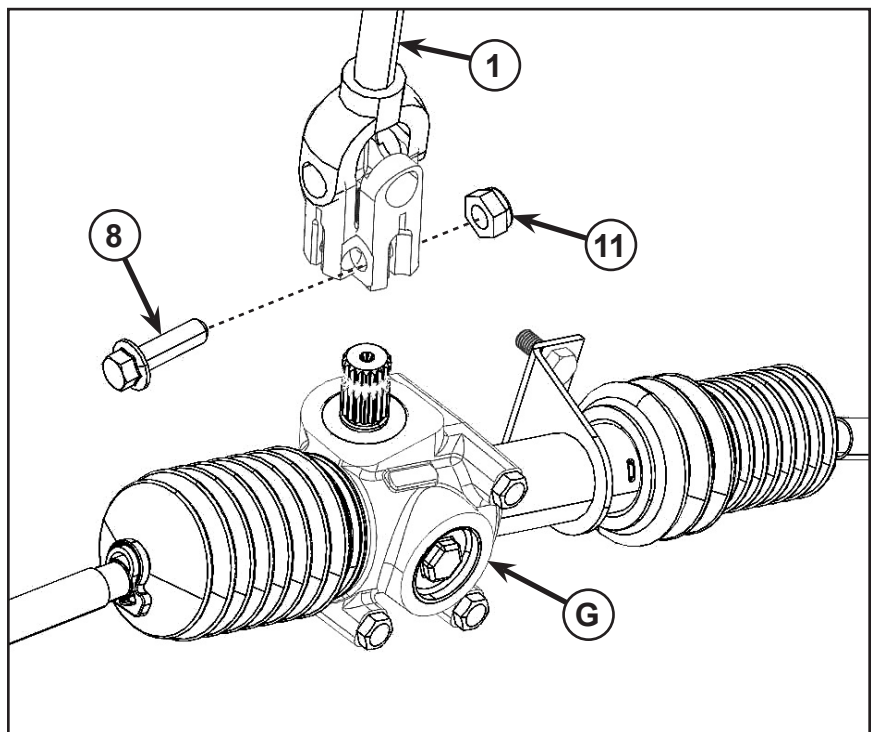
## INSTALLATION INSTRUCTIONS

1. Install power steering bracket (4) on the EPS motor (3) motor using the three M10x1.25x20 bolts (7) provided in the kit. Orient bracket as shown in figure and torque bolts to 24 ft. lbs. (32 Nm).



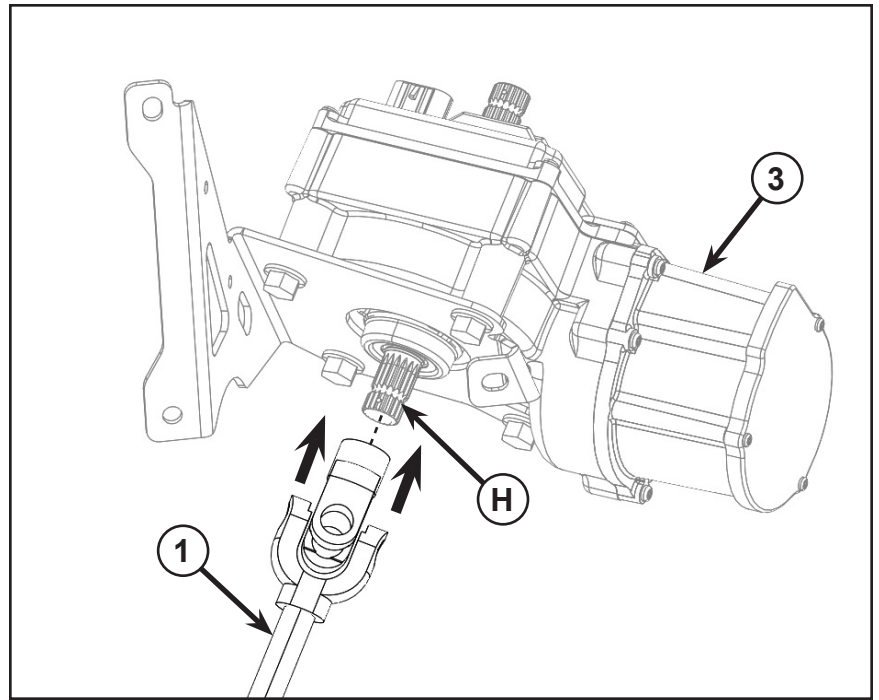
2. Install lower steering shaft (1) into the machine by carefully feeding the lower steering shaft through the floor and align the shaft splines with the lower steering rack splines. Install the new M10 bolt (8) and nut (11) to secure the lower joint of the steering shaft to the steering rack. Do not tighten bolt at this time.

**NOTE:** Ensure that the larger pinch bolt hole goes down on the steering rack (G).



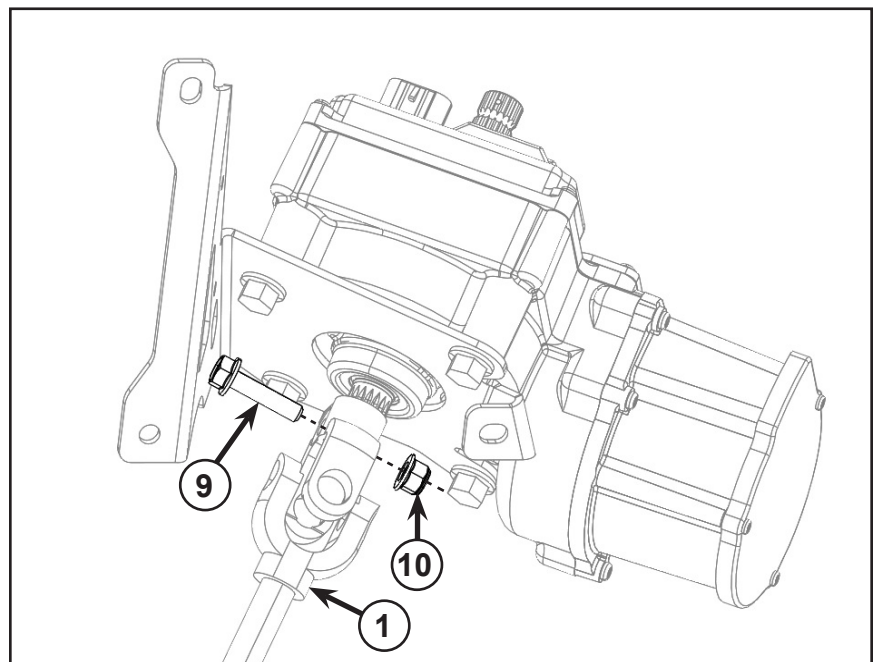
3. Install the lower steering shaft (1) onto the EPS unit as shown in figure. Take care to properly align the split in the steering shaft with the skip tooth (H) on the EPS unit shaft. The steering shaft should slide in place easily once it is properly aligned .

**NOTE:** Do not strike the shaft during installation because doing so can cause permanent damage to the EPS motor assembly.

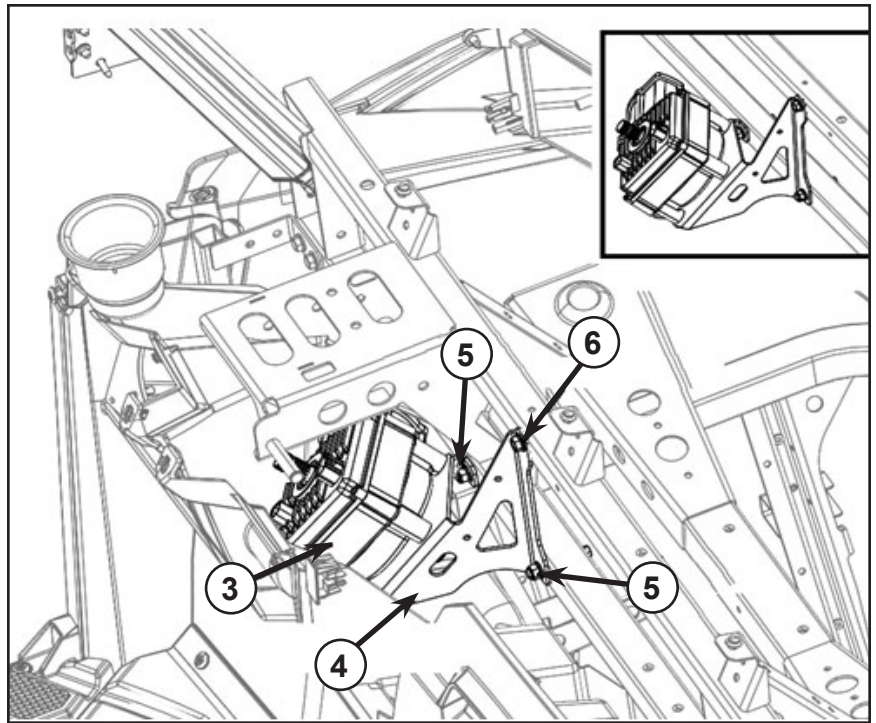


4. Install the M8x1.25x35 bolt (9) and M8 nut (10). Do not tighten the hardware at this time as shown in figure.

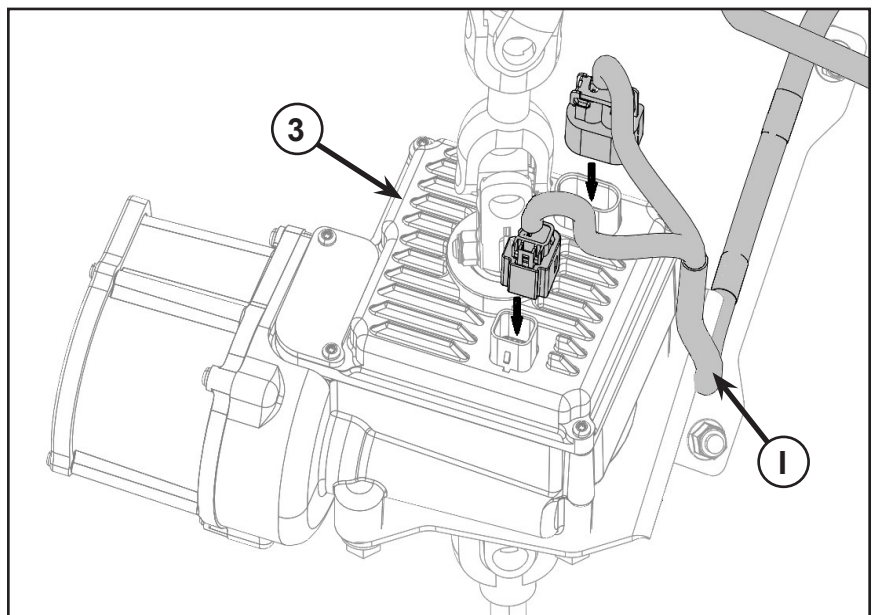
**IMPORTANT:** Position the shaft joint to be .44" from the EPS motor casting. The .44" dimension is critical for proper shaft operation so double check this dimension after tightening and adjust if necessary.



5. Position the EPS motor assembly (3) into the machine by carefully passing the lower joint shaft joint through the shaft passage in the floor to the steering rack. The steering rack splines are not keyed so take care to align the shaft joint so it can be tightened through the drive shaft cover and slide the joint onto the steering rack shaft. Align the EPS motor assembly on the cab support and install in place with the two M8x1.25x55 (5) and one M8x1.25x25 (6) bolts. Secure bolts by three M8 nyloc flange nuts (10) tightening them to 17 ft. lbs. (23 Nm) as shown in figure.



6. Torque the M10 lower joint hardware (lower steering shaft to steering rack) to 29 ft. lbs. (39 Nm).
7. Locate the alignment mark on the upper EPS shaft and assemble the upper steering shaft (2) to the EPS unit taking care to align the alignment mark with the slot on the steering shaft joint. Once properly aligned the shaft should easily slide into place. **Do not strike the shaft during installation because doing so can cause permanently damage the EPS motor assembly.** Secure the shaft in place using one M8 x 1.25 x 35 bolt (9) and M8 x 1.25 nyloc flange nut (10) leaving them finger tight at this time.
8. Reinstall the tilt assembly that was removed in Steps 11 and 12 of the removal Instructions taking care to properly locate all spacers during reassembly.
9. With the wheels in the straight position properly align the steering wheel and apply Red Loctite 271 to the threads of the steering shaft. Secure the steering wheel in place using the original nyloc nut and torque to 65 ft. lbs. (88 Nm). Tighten the lower clinch bolt of the upper steering shaft to 15 ft. lbs. (20 Nm) at this time.
10. Connect the main chassis harness (I) connectors to the EPS motor (3) as shown in figure.



## FINISHING

11. Verify that all bolts and connections are secure and reinstall the plastic at this time by performing Steps 2-9 from the removal Instructions in reverse order.
12. Reconnect the battery terminals and reinstall the storage tray.
13. With the vehicle on the ground, turn key to the "ON" position and check function of the power steering module. Verify the steering does not drift left or right and check to be certain the EPS fault light is not illuminated prior to driving the vehicle. Turn the machine from full lock left to full lock right checking for tightness in the steering.
14. Test drive the vehicle and check for proper operation or any abnormal behavior. Verify that the EPS fault light does not illuminate during operation and that vehicle does not pull to the left or right.
15. Connect vehicle to Digital Wrench to verify that no EPS fault codes were generated during the test drive. If a fault is detected it must be resolved prior to further operation.