

# OWNER'S MANUAL

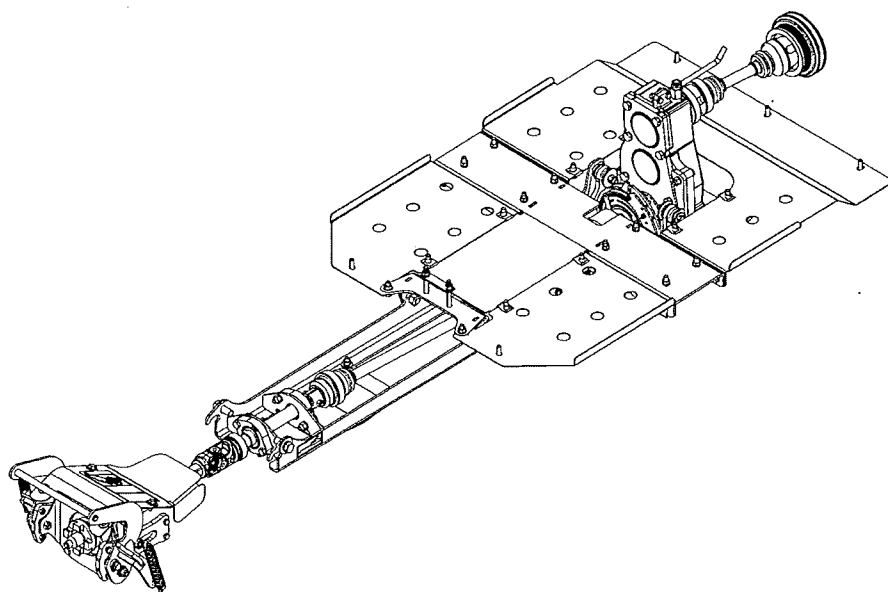
OM 0488DR-A / rev1 04-21

MANUAL PN 77700-11305

# Kubota®

## **V5299B – PTO DRIVE KIT with "K-CONNECT"**

*SERIAL NO. 22000001 AND UP*



***For RTV-X1100C & RTV-X1120D***

**CALIFORNIA PROPOSITION 65**

**⚠ WARNING:**

Cancer and reproductive harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**PLEASE READ THIS MANUAL CAREFULLY  
KEEP READY AT ALL TIMES**



# INTRODUCTION

## TO THE PURCHASER

All products are designed to give safe, dependable service if they are operated and maintained according to instructions. **Read and understand this manual before operation and keep it in your files for further reference.**

This manual has been prepared to assist the owner and operators in the safe operation and suitable maintenance of the equipment. The information is applicable to products at the time of manufacture and does not include modifications made afterwards.

Read and understand this operator's manual before attempting to put equipment into service. Familiarize yourself with the operating instructions **AND ALL THE SAFETY RECOMMENDATIONS** contained in this manual and those labeled on the equipment and on the machine. Follow the safety recommendations and make sure that those with whom you work follow them.

## TO THE DEALER

Give this manual to the owner upon delivery of the equipment.

## TO THE PURCHASER AND THE DEALER

### Illustrations

The illustrations may not necessarily reproduce the full detail and the exact shape of the parts or depict the actual models, but are for reference only.

### Direction Reference

All references to right and left, forward or rearward are from the operator seat.

*To assist your dealer in handling your needs, please record hereafter the model number and serial number of your equipment and machine. It is also advisable to supply them to your insurance company. It will be helpful in the event that equipment or machine is lost or stolen*

MODEL: \_\_\_\_\_

SERIAL NUMBER: \_\_\_\_\_

DATE OF PURCHASE: \_\_\_\_\_

DEALER NAME: \_\_\_\_\_

DEALER TELEPHONE NUMBER: \_\_\_\_\_

# INTRODUCTION

All products are designed to give safe, dependable service if they are operated and maintained according to instructions. **Read and understand this manual before operation.** It is the owner's responsibility to be certain anyone operating this product reads this manual, and all other applicable manuals, to become familiar with this equipment and all safety precautions. Failure to do so could result in serious personal injury or equipment damage. If you have any questions, consult your dealer.



## SAFETY FIRST

This symbol, the industry's "Safety Alert Symbol", is used throughout this manual and on labels on the machine itself to warn of the possibility of personal injury. Read these instructions carefully. It is essential that you read the instructions and safety regulations before you attempt to assemble or use this unit.



**DANGER :** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



**WARNING :** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



**CAUTION :** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

**IMPORTANT :** Indicates that equipment or property damage could result if instructions are not followed.

**NOTE :** Gives helpful information.

### Legal Disclaimer

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The Product(s) described in this Publication are designed and manufactured only for the country in which they are initially wholesaled by Kubota. Kubota does not provide parts, warranty or service for any Product which is re-sold or retailed in any country other than the country for which the Product(s) were designed or manufactured.



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# SAFETY INFORMATION

## **Children**

Tragic accidents can occur if the operator is not alert to the presence of children. Children are generally attracted to machines and the work being done. Never assume children will remain where you last saw them.

1. Keep children out of the operating area and under the watchful eye of another responsible adult.
2. Be alert and turn machine off if children enter the work area.
3. Before and when backing, look behind for small children.
4. Never carry children while operating the machine. They may fall off and be seriously injured or interfere with the safe operation of the machine.
5. Never allow children to play on the machine or equipment even when they are turned off.
6. Never allow children to operate the machine even under adult supervision.
7. Use extra care when approaching blind corners, shrubs, trees, or other obstructions that might hide children from sight.

## **Before Operation**

1. Read and understand both the machine AND implement operator's manual before using the implement. Know how to operate all controls and how to stop the unit and disengage the controls quickly. Lack of knowledge can lead to accidents.
2. Park the machine/implement on level ground, set the parking brake, lower the implement to the ground, place all control levers in neutral, shut off the engine and remove the ignition key and allow the rotating parts to stop BEFORE making any implement adjustments, repairs or inspections.
3. Keep clear of all rotating parts. Do not put hands or feet under, or into implement and subframe with engine running.
4. For your safety, do not work under any hydraulically supported machine elements, they may creep down, suddenly drop or be accidentally lowered. Do not use loader, quick hitch, or an implement as a jack for servicing.
5. Do not operate the machine/implement that is defective or has missing parts. Make sure that all recommended maintenance procedures are completed before operating the unit.
6. Keep the machine/implement clean. Snow, dirt or ice build-up can lead to malfunction or personal injury from thawing and refreezing in garage. Inspect and clean every rotating parts.
7. Do not modify or alter this implement or any of its components, or any implement function without first consulting your dealer. The manufacturer will not claim responsibility for fitment of unapproved parts and/or accessories and any damages as a result of their use.
8. Verify that all machine/implement safety protective devices are in place. Shields, guards and covers must be correctly installed at all times. When necessary to remove these for servicing, cleaning, or repair work, they must be reinstalled immediately.
9. Always make sure all implement components are properly installed and securely fastened.
10. Check that all machine/implement drivelines are in good working order.
11. Check for moving parts excessive wear regularly. ALWAYS USE GENUINE PARTS WHEN REPLACEMENT PARTS ARE REQUIRED.
12. Prior to operation, clear work area and mark all curbs, pipes, etc. that cannot be moved.
13. Inspect the machine/implement after striking any foreign object to assure that all machine/implement parts are safe and secure and not damaged.
14. Handle fuel with care, as it is highly flammable. Use approved fuel container.
15. Never add fuel to a running engine or a hot engine.
16. Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors. Replace fuel cap securely and wipe up spilled fuel. Always refuel using a properly grounded system.

# SAFETY INFORMATION

17. Check all machine controls regularly and adjust where necessary. Make sure that the brakes are evenly adjusted. Periodically check all nuts and bolts for tightness, especially wheel hub and rim nuts.
18. Make sure the machine is counterweighted and has tire chains for better traction and stability as recommended by your dealer. Weights provide the necessary balance to improve stability, traction and steering. Use only those recommended by your dealer.
19. Prolonged exposure to loud noise can cause impairment or loss of hearing. Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable noises.

## **During Operation**

1. Never allow anyone to operate the machine and implement until they have read the manuals completely and are thoroughly familiar with their basic operation. Lack of operating knowledge can lead to accidents.
2. Do not allow anyone to ride on the machine/implement at any time. The only one allowed is the operator that **MUST** sit in the driver seat.
3. Never allow anyone near the work area. The debris that can be thrown could cause serious personal injuries.
4. Never stand alongside of the implement while the engine is running.
5. Never operate the implement without safety protective devices in place. All machine/implement shields, guards and covers must be correctly installed at all times.
6. Keep clear of all rotating parts. Do not put hands or feet under, or into the implement with engine running.
7. If the implement starts to vibrate abnormally, disengage the PTO, stop the engine immediately and check for cause. Excessive vibration is generally a sign of trouble.
8. Park the machine/implement on level ground, place the transmission in neutral, set the parking brake, disengage the driving system, lower the equipment to the ground, place all levers including auxiliary control levers in neutral, shut off the engine and remove the ignition key **BEFORE LEAVING THE MACHINE**.
9. Always drive the machine at speeds compatible with safety, especially when operating over rough ground, crossing ditches, slippery surface or when turning.
10. Operate only with good visibility and during daylight hours, or when the area is well lit with bright artificial light.
11. Do not run the engine indoors except when starting engine and transporting attachment in or out of building. Carbon monoxide gas is colorless, odorless and deadly.
12. Exercise extreme caution when operating on or crossing a gravel drive, walks, or roads. Stay alert for hidden hazards or traffic.
13. Use extra caution when backing up.
14. Operate up and down (not across) intermediate slopes. Avoid sudden starts and stops. Drive machine backwards up steeper slopes with the implement off. Then operate as you travel down the slope.
15. Never park the machine on a steep slope. Do not attempt to operate on steep slopes. If operating on slopes is necessary, exercise extreme caution when changing direction.
16. Disengage power to implement when transporting or when not in use.
17. Do not drive the vehicle and do not maneuver with an accessory using a cell phone or any other electronic device or by sending a text message.

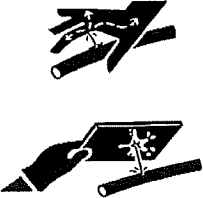
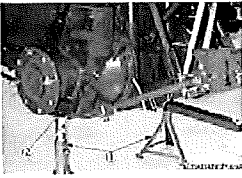
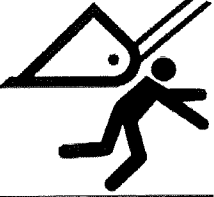


# GENERAL SAFETY INFORMATION

	<p><b>BEFORE YOU START SERVICE</b></p> <ul style="list-style-type: none"> <li>• Read all instructions and safety instructions in this manual and on your machine safety decals.</li> <li>• Clean the work area and machine.</li> <li>• Park the machine on a stable and level ground, and set the parking brake.</li> <li>• Lower the implement to the ground.</li> <li>• Stop the engine, then remove the key.</li> <li>• Disconnect the battery negative cable.</li> <li>• Hang a "DO NOT OPERATE" tag in the operator station.</li> </ul>		<p><b>No Smoking or Open Flames while Fueling</b></p> <ul style="list-style-type: none"> <li>• Fuel is extremely flammable and dangerous. Never smoke near fuel. If fuel is spilled on the machine, its engine, or electrical parts, it may cause a fire. If fuel is spilled, wipe it all up immediately.</li> <li>• Never smoke while filling the machine with fuel. And always tighten the fuel cap securely and wipe up any spilled fuel.</li> </ul>
	<ul style="list-style-type: none"> <li>• When performing maintenance on the equipment, hang the DO NOT OPERATE sign where it will be obvious from and around the driver's seat.</li> <li>• When performing maintenance or repairs, always lower attachments to the ground, stop the engine and secure the tracks with blocks.</li> <li>• When performing maintenance on the equipment, always disconnect the negative battery cable.</li> <li>• Before using tools, make sure you understand how to use them correctly and use tools in good condition and of the right size for the job.</li> </ul>		<ul style="list-style-type: none"> <li>• Before getting on/off of the machine, clean off around the steps so there is no mud on them. Always give yourself 3-point support when getting on/off the machine.</li> </ul> <p><b>CAUTION</b></p> <ul style="list-style-type: none"> <li>• 3-point support means using both legs and one hand or both hands and one leg as you climb up/down.</li> </ul>
	<p><b>START SAFELY</b></p> <ul style="list-style-type: none"> <li>• Do not do the procedures below when you start the engine.             <ul style="list-style-type: none"> <li>– short across starter terminals</li> <li>– bypass the safety start switch</li> </ul> </li> <li>• Do not alter or remove any part of machine safety system.</li> <li>• Before you start the engine, make sure that all shift levers are in neutral positions or in disengaged positions.</li> <li>• Do not start the engine when you stay on the ground. Start the engine only from operator's seat.</li> </ul>		<ul style="list-style-type: none"> <li>• Do not remove the radiator cap when the engine operates, or immediately after it stops. If not, hot water can spout out from the radiator. Only remove the radiator cap when it is at a sufficiently low temperature to touch with bare hands. Slowly loosen the cap to release the pressure before you remove it fully.</li> </ul>
	<p><b>Starting the Machine Safely</b></p> <ul style="list-style-type: none"> <li>• Before starting the engine, always sit in the driver's seat and make sure the area is safe and clear.</li> <li>• As it is dangerous, never start the engine from anywhere but the driver's seat.</li> <li>• Always check and make sure control lever(s) are not engaged before starting the engine.</li> <li>• Never start the engine by hot-wiring the starter circuit. This is not only dangerous, but may damage the machine.</li> </ul>		<ul style="list-style-type: none"> <li>• The engine, muffler, radiator, hydraulic line, etc., have parts that remain very hot even after the engine has been stopped. Be sure to avoid these parts, as touching them can result in burns. Radiator coolant, hydraulic fluid and oil also remain hot. Therefore, do not attempt to remove caps and plugs, etc., before these fluids have sufficiently cooled.</li> <li>• Make sure the coolant temperature has dropped sufficiently before opening the radiator cap. Also, since the inside of the radiator is pressurized, when removing the cap, first loosen it to release the pressure before removing the cap completely.</li> </ul>
	<ul style="list-style-type: none"> <li>• Wear clothes appropriate for working on equipment. Do not wear loose-fitting clothes as they may catch on the machine controls.</li> <li>• When working on the equipment, use all safety gear, such as a helmet, safety glasses and shoes, that are required by law or regulation.</li> <li>• Never perform maintenance while drowsy or under the influence of alcohol or drugs.</li> </ul>		<ul style="list-style-type: none"> <li>• Grease is under high pressure inside the hydraulic cylinder. It is very dangerous to loosen a grease nipple quickly as it may shoot off. Always loosen grease nipples slowly.</li> <li>• And never face a grease nipple while loosening it.</li> </ul>
	<p><b>Be Ready for an Emergency</b></p> <ul style="list-style-type: none"> <li>• Keep a first-aid kit and fire extinguisher close at hand so you can use it when needed.</li> <li>• Keep emergency contact information for doctors, hospitals and ERs handy.</li> </ul>		<p><b>PREVENT A FIRE</b></p> <ul style="list-style-type: none"> <li>• Fuel is very flammable and explosive under some conditions. Do not smoke or let flames or sparks in your work area.</li> <li>• To prevent sparks from an accidental short circuit, always disconnect the battery negative cable first and connect it last.</li> <li>• The battery gas can cause an explosion. Keep the sparks and open flame away from the top of battery, especially when you charge the battery.</li> <li>• Make sure that you do not spill fuel on the engine.</li> </ul>
	<p><b>KEEP A GOOD AIRFLOW IN THE WORK AREA</b></p> <ul style="list-style-type: none"> <li>• If the engine is in operation, make sure that the area has good airflow. Do not operate the engine in a closed area. The exhaust gas contains poisonous carbon monoxide.</li> </ul>		<p><b>Dispose of Waste Fluids Properly</b></p> <ul style="list-style-type: none"> <li>• Never dispose of waste fluids on the ground, in the gutter, a river, pond or lake. Always dispose of hazardous substances like waste oil, coolant and electrolytic fluid in accordance with the relevant environmental protection regulations.</li> <li>• Keep the safety plates clean so they can be read. If a safety plate is damaged and comes off or becomes illegible, put a plate with the same warnings back in its place.</li> </ul>



# GENERAL SAFETY INFORMATION

	<ul style="list-style-type: none"> <li>The pressure in the hydraulic circuit stays at pressure even after the engine stops. Before removing parts, such as hydraulic devices from the machine, first release the pressure. Please note that when releasing residual pressure, the machine itself and/or implements may move without warning, so be very careful when releasing the pressure.</li> <li>Oil gushing out under pressure is extremely dangerous as it may pierce your skin or your eyes. Similarly, oil leaking out of pinholes is not visible. So when checking for oil leaks, always wear safety glasses and gloves and use a piece of cardboard or a wood block to shield yourself from oil.</li> </ul>		<ul style="list-style-type: none"> <li>When you need to access the underside of the machine for maintenance purposes, but sure to support the machine with a safety stand. Getting under the machine while supporting the machine by machine's own hydraulic cylinder or using a hydraulic jack can be extremely dangerous in the event of a hydraulic fluid leakage or similar mishap.</li> </ul> <p>(1) Safety stand (2) Secure point for safety stand</p>
	<ul style="list-style-type: none"> <li>Do not open a fuel system under high pressure. The fluid under high pressure that stays in fuel lines can cause serious injury. Do not disconnect or repair the fuel lines, sensors, or any other components between the fuel pump and injectors on engines with a common rail fuel system under high pressure.</li> <li>Put on an applicable ear protective device (earmuffs or earplugs) to prevent injury against loud noises.</li> <li>Be careful about electric shock. The engine generates a high voltage of more than DC100 V in the ECU and is applied to the injector.</li> </ul>		<ul style="list-style-type: none"> <li>Whenever it is necessary to open the engine covers or hood in order to service the machine, always prop them open.</li> <li>If it is absolutely necessary to run the engine while working on the machine, make sure you are clear of all rotating or moving parts. Also take care not to leave anything, such as tools or rags, near any moving parts.</li> </ul>
	<ul style="list-style-type: none"> <li>Engage the loader control valve lock to prevent accidental activation when the implement is not in use or during transport. Do not utilize the valve lock for machine maintenance or repair.</li> <li>Do not perform machine maintenance with loader in the air. If possible, follow loader instructions to remove loader before performing maintenance.</li> <li>If the machine has a backhoe, engage swing and boom locks.</li> </ul>		

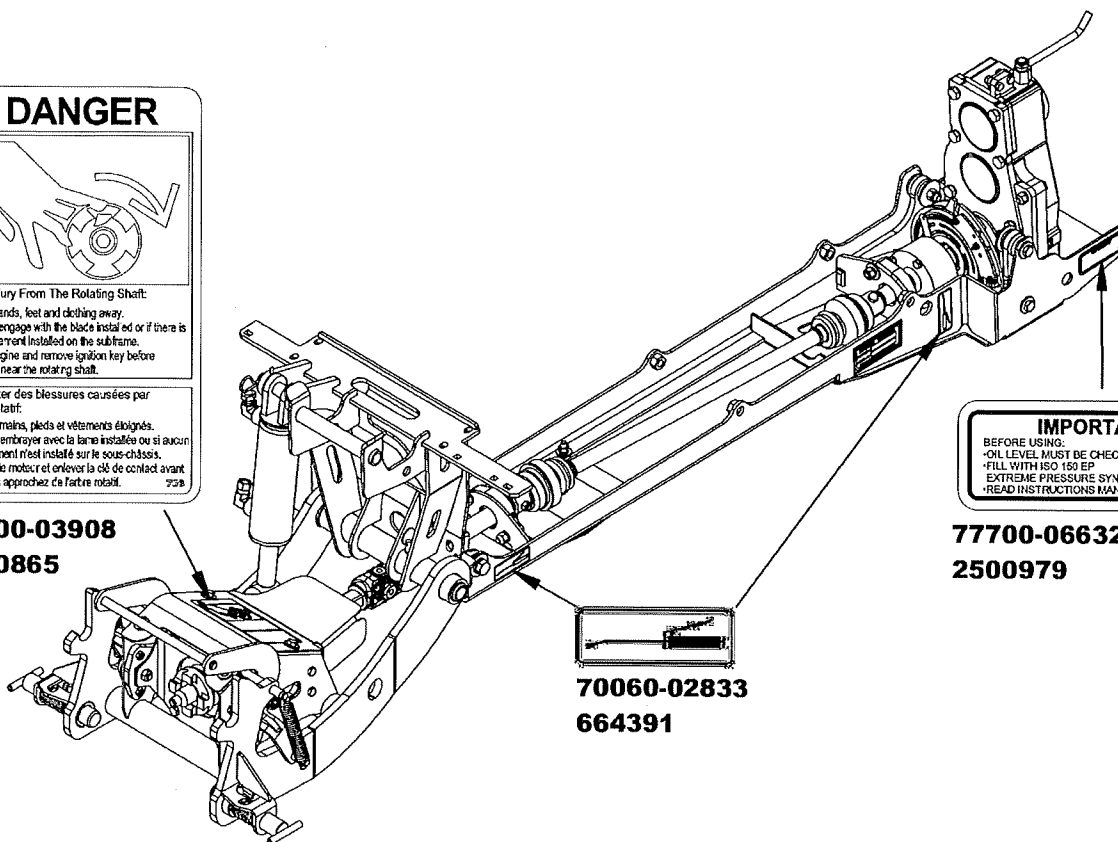
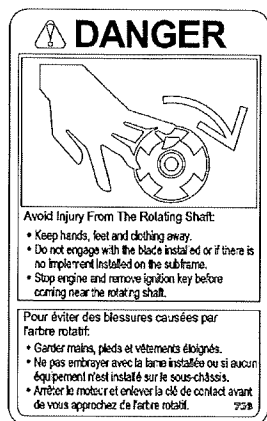
# SAFETY LABELS

**IMPORTANT:** Keep all decals clean and legible. Replace all missing, illegible, or damaged decals.

**IMPORTANT:** Decal placement locations shown are approximate; decals should not be placed in a location where the operator's field of view is impeded and should not cover any portion of other decals installed in the same vicinity.

## INSTALLING OR REPLACING DECALS:

Thoroughly clean the area where decal is to be placed using mild soap and water. Allow the surface to fully dry. Remove the backing from the decal, exposing the adhesive surface. Apply the decal to the recommended position shown in the diagram below and smooth out any bubbles.



# ESTIMATE ASSEMBLY TIME

Refer to the following table for the estimated assembly time to open the package and assemble the equipment.

	V5299B
Estimated initial installation time	5 hours

## **NOTE:**

The V5293 should be installed prior to the installation of the **V5299B**.

The assembly times of the table are only a reference under normal conditions according to the following assumptions:

1. The assembly is done by a competent person who is familiar with the equipment.
2. The following tools and materials are required:
  - Allen keys
  - Wrench set (flat wrenches)
  - Torque wrench
  - Ratchet & socket set
  - Cutting pliers
  - Work gloves and safety glasses

# ASSEMBLY

## DRIVE SYSTEM ASSEMBLY

The Drive System is partially assembled at the factory, however, parts contained in the bag and box must be installed. Use the present manual and lay out all parts for assembly. Separate bolts and nuts into various sizes. After assembly, torque all the bolts according to the ***Torque Specification Table*** enclosed at the end of the manual.

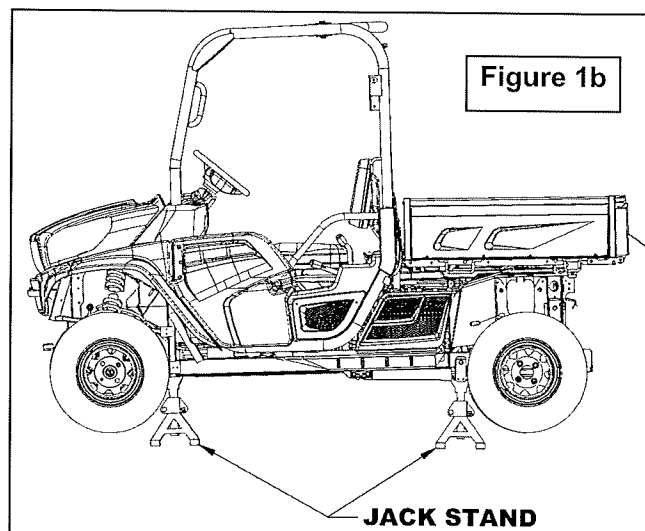
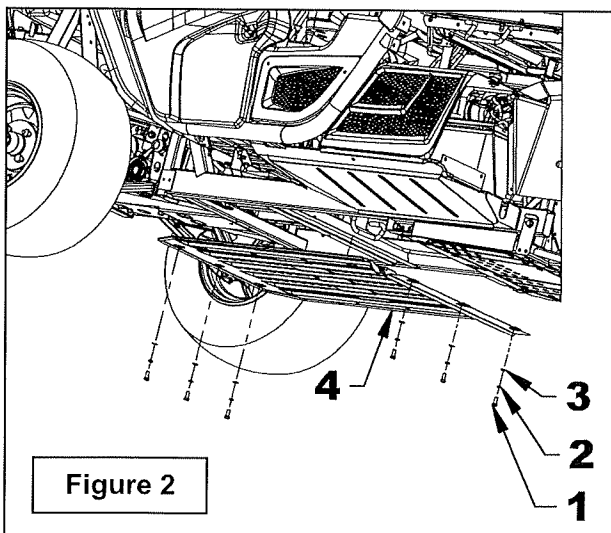
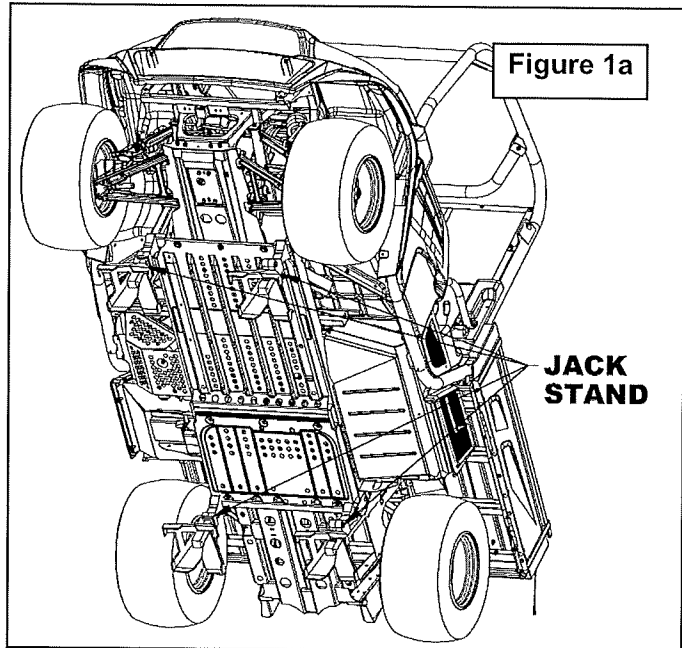
### Preparation of the Vehicle



**WARNING:** To avoid serious personal injury: Park the tractor on level ground, place the transmission in neutral, set the parking brake, disengage the PTO, place all control levers in neutral, shut off the engine, remove the ignition key and allow the rotating parts to stop **BEFORE** working on the vehicle.

1. **Figures 1a-1b:** Raise the vehicle with a jack and install jack stands as shown in figures to facilitate the installation.

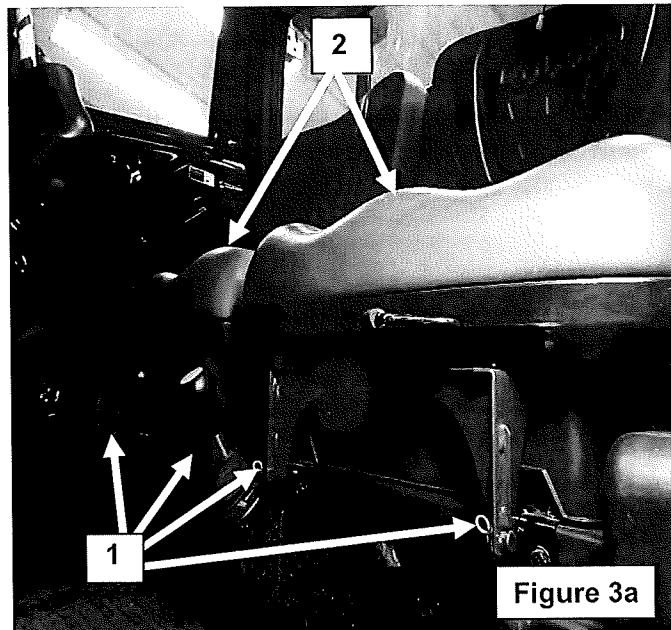
2. **Figure 2:** Remove the six M8 x 1.25mm bolts (item 1), the six flat washers (item 2) and the six lockwashers (item 3) and remove the front skid plate (item 4).



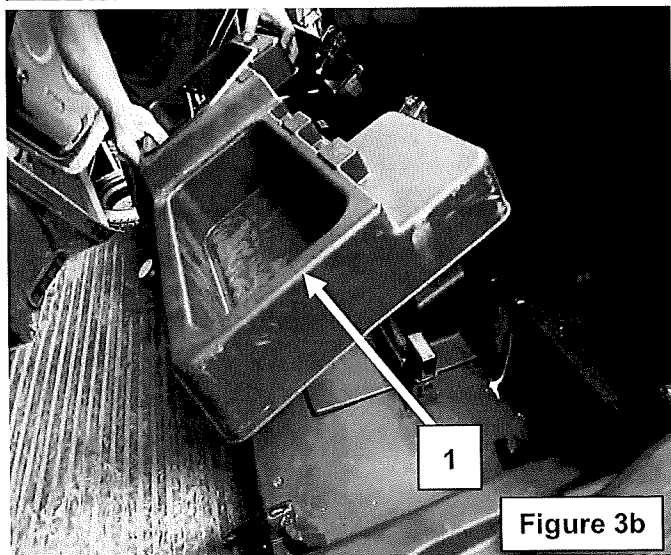


# ASSEMBLY

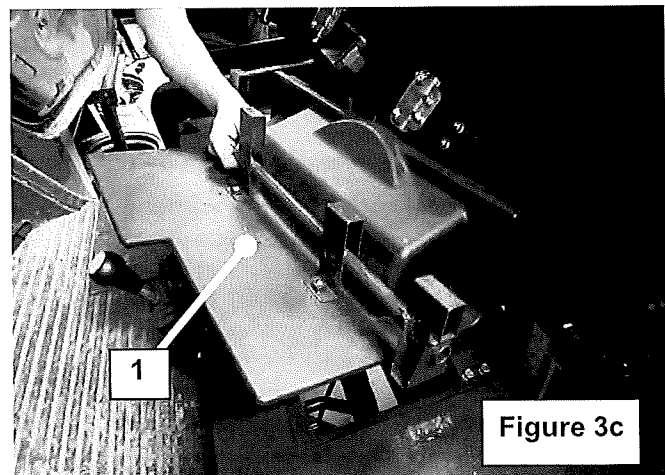
3. **Figure 3a:** Remove the four hairpins (item 1) and remove the two seats (item 2).



4. **Figure 3b:** Remove the plastic container (item 1).



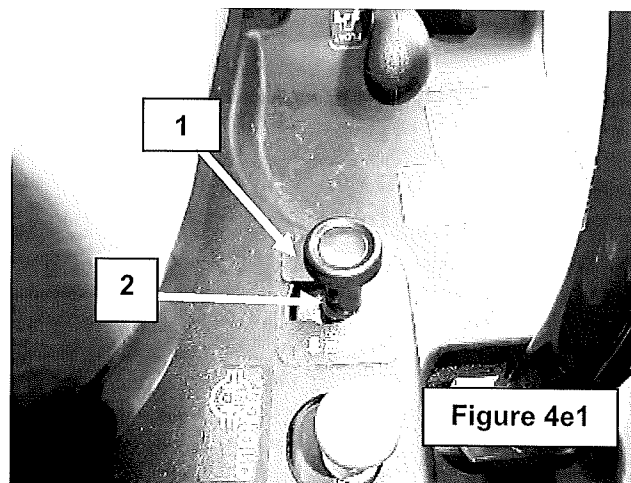
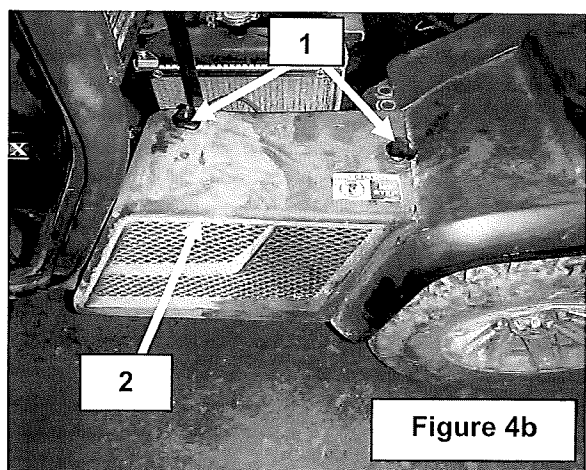
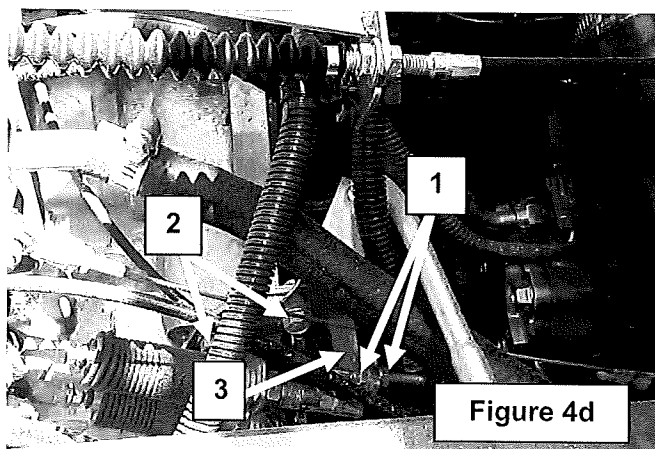
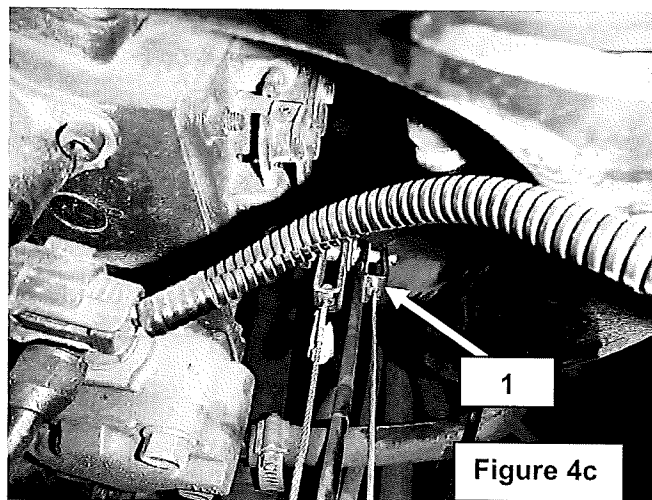
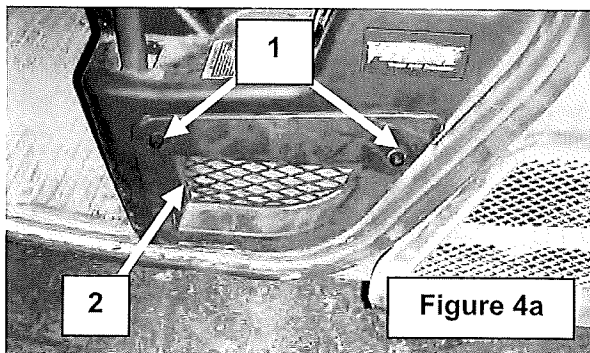
5. **Figure 3c:** Remove the plastic cover (item 1).



# ASSEMBLY

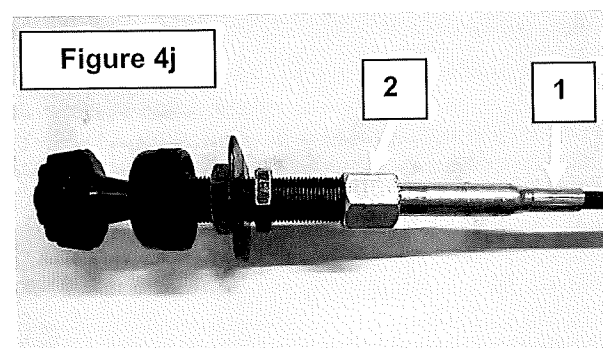
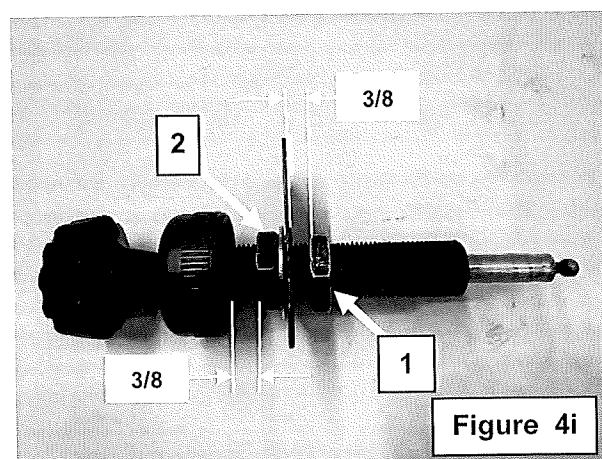
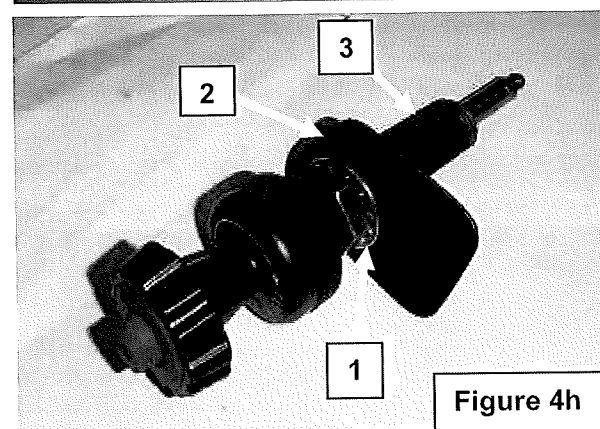
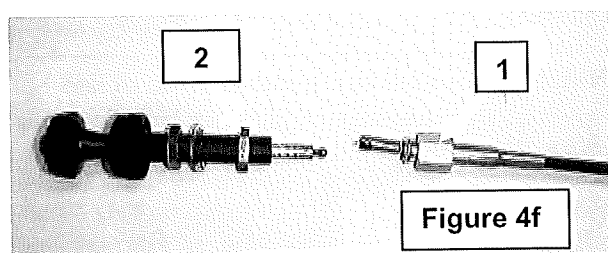
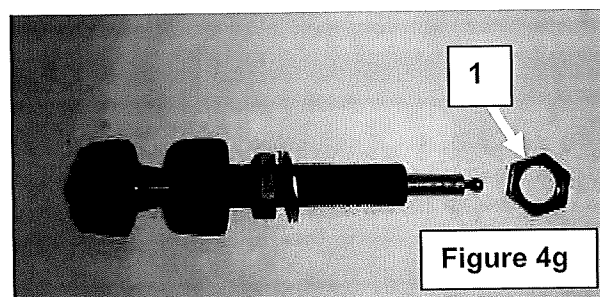
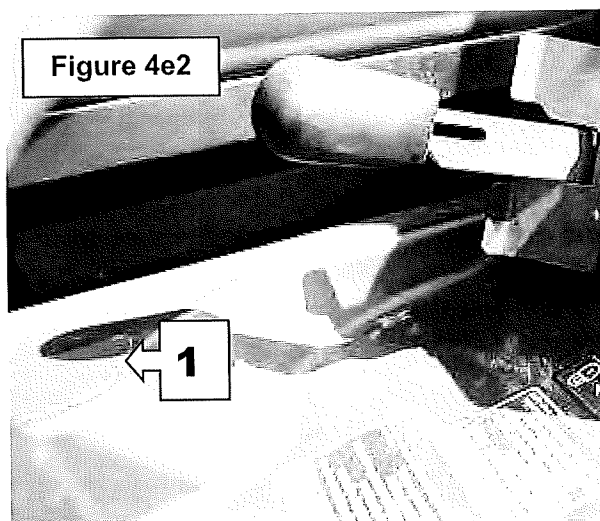
## Installation of the Hand Throttle

1. Lift the RTV's bed and secure it with the safety support.
2. **Figure 4a:** Unscrew the two plastic buttons (item 1) and remove the side pannel (item 2).
3. **Figure 4b:** Unscrew the two plastic buttons (item 1) and remove the plastic panel of the battery (item 2).
4. **FOR RTV-X1100C: Figure 4c:** Remove the cotter pin and flat washer and remove the U plate (item 1) of the original hand throttle cable.
5. **FOR RTV-X1100C: Figure 4d:** Unscrew the two jam nuts (item 1). Remove the cable. Remove the two bolts (item 2) and the bracket of the cable (item 3). Keep the two bolts (item 2).
6. **FOR RTV-X1100C: Figure 4e1:** Peel back the decal (item 1) and keep it. Unscrew the cable nut (item 2) and slide out of the slot and remove completely the cable.



# ASSEMBLY

7. **FOR RTV-X1120D: Figure 4e2:** Peel back the decal (item 1) to reveal the hole for the hand throttle.
8. **Figure 4f:** Unscrew the nut (item 1) of the handle throttle control (item 2) and detach the handle from the hand throttle control
9. **Figure 4g:** Unscrew the jam nut (item 1) of the hand throttle control
10. **Figure 4h:** Insert the teeth washer (item 1) and the plate (item 2) on the threaded part of the the hand throttle control (item 3) as shown in figure.
11. **Figure 4i:** Screw the jam nut previously removed (item 1). Adjust the jam nuts (items 1-2) to the measurements specified in the figure.
12. **Figure 4j:** Insert the cable (item 1) into the handle throttle control and tighten the nut (item 2). **Do not over tighten to avoid damaging the plastic threads.**



# ASSEMBLY

13. **Figures 4k1-k2:** Using a pneumatic grinder (item 1), enlarge the hole in the plastic as shown in figure.

14. **Figure 4l:** Insert the cable (item 1) in the enlarged hole (item 2) as shown in figure.

15. **Figure 4m:** Route the cable toward the battery.

16. **Figure 4n:** Temporarily put the cable on the motor as shown in figure. Place the cable in front of the cargo bed hydraulic cylinder (item 1).

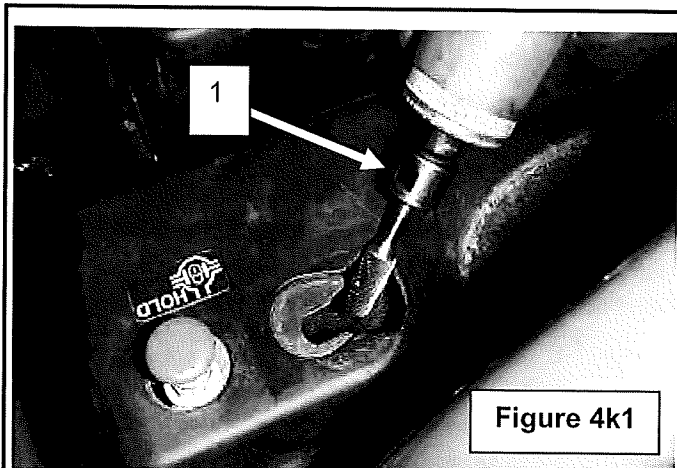


Figure 4k1

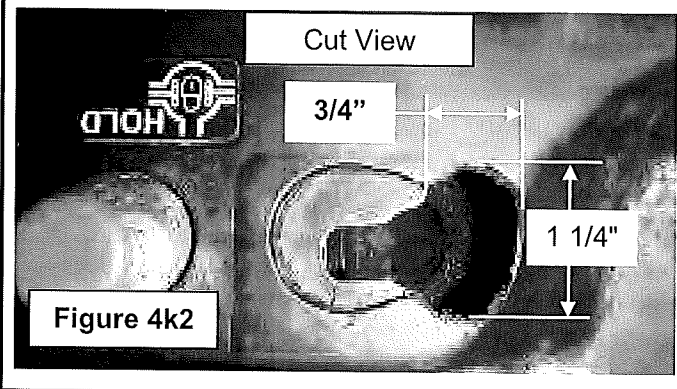


Figure 4k2

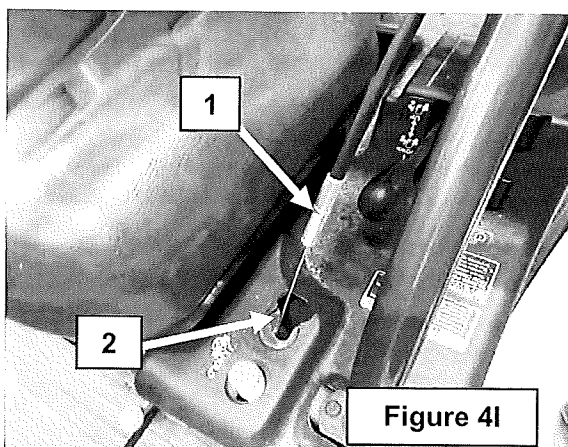


Figure 4l

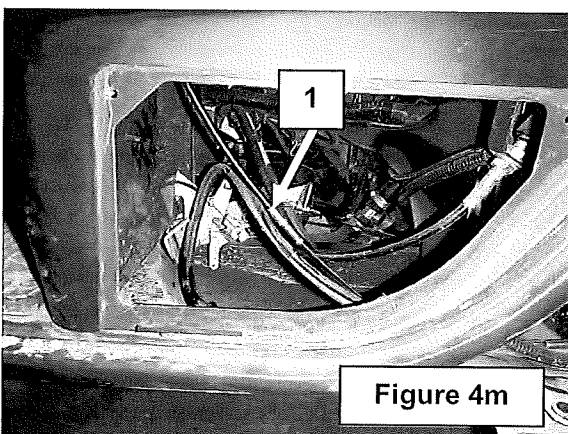


Figure 4m

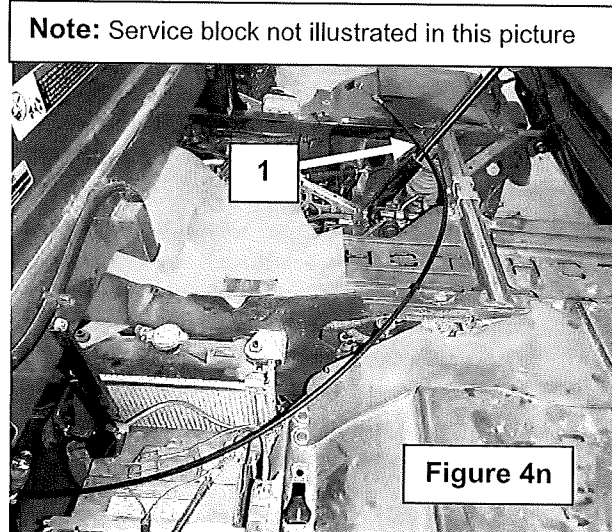


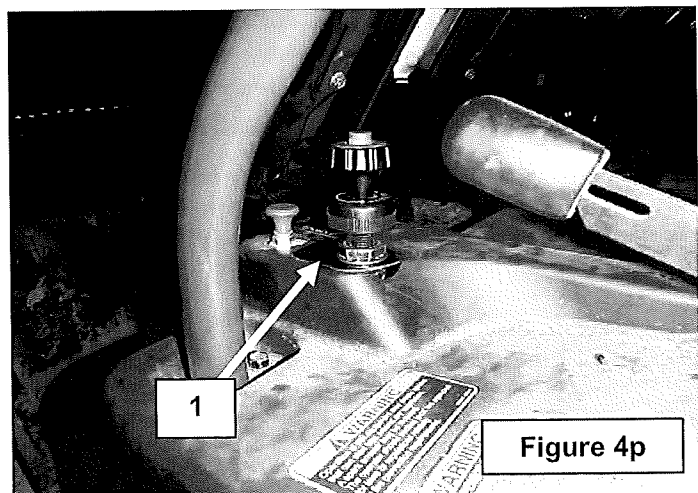
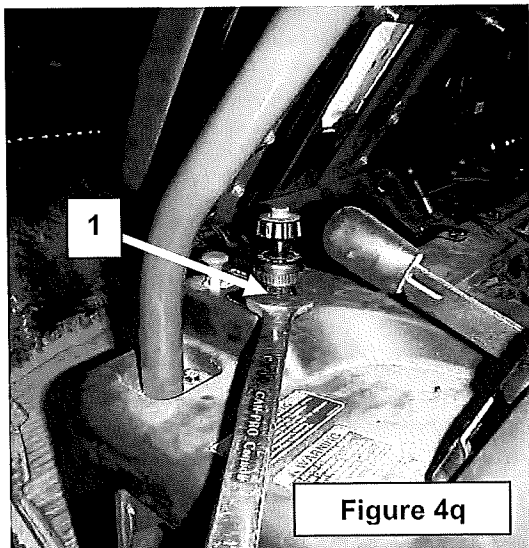
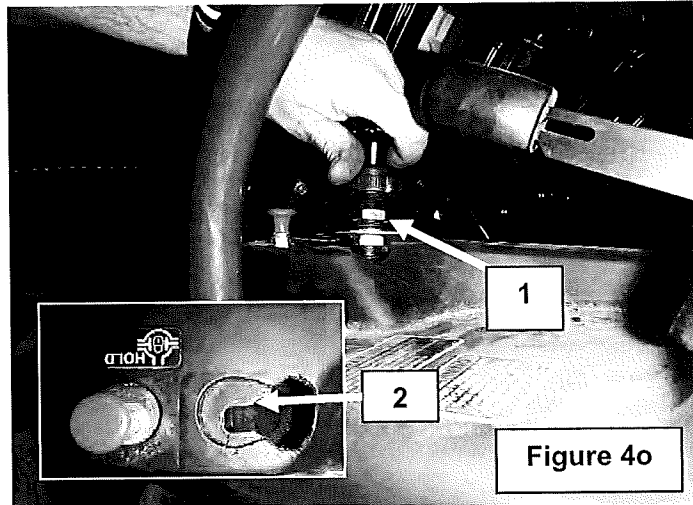
Figure 4n

# ASSEMBLY

17. **Figure 4o:** Insert the jam nut (item 1) in hole of the handle throttle control and slide the threaded part of the handle in the U opening (item 2) of the hole.

18. **Figure 4p:** Position the plate (item 1) as shown in figure.

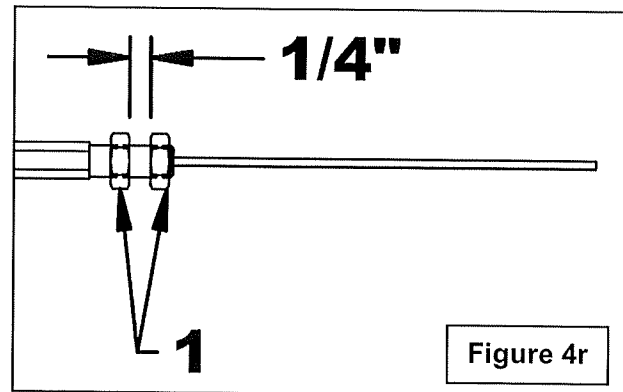
19. **Figure 4q:** Tighten the jam nut (item 1) using a 1" wrench. Reinstall the hand throttle decal previously removed, near the hand throttle (item 1). **Do not over tighten to avoid damaging the plastic threads of the handle.**



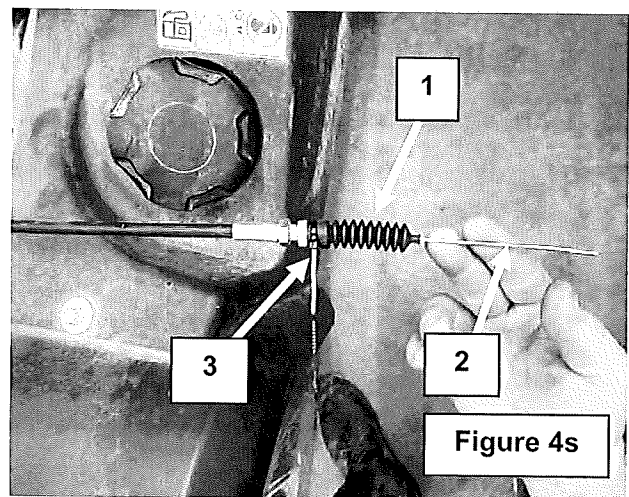


# ASSEMBLY

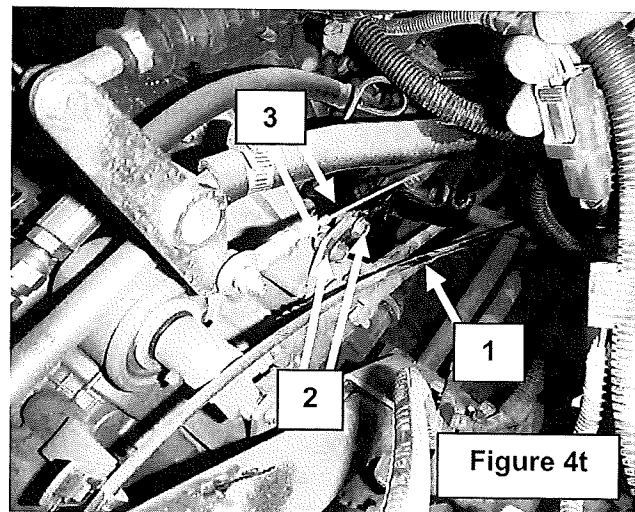
20. **Figure 4r:** Screw the two 3/8"NF jam nuts (item 1) on the threaded section of the cable. Leave a gap of 1/4" between them.



21. **Figure 4s:** Slide the boot (item 1) on the cable (item 2) and fix it with the 4" lg tie wrap (item 3).

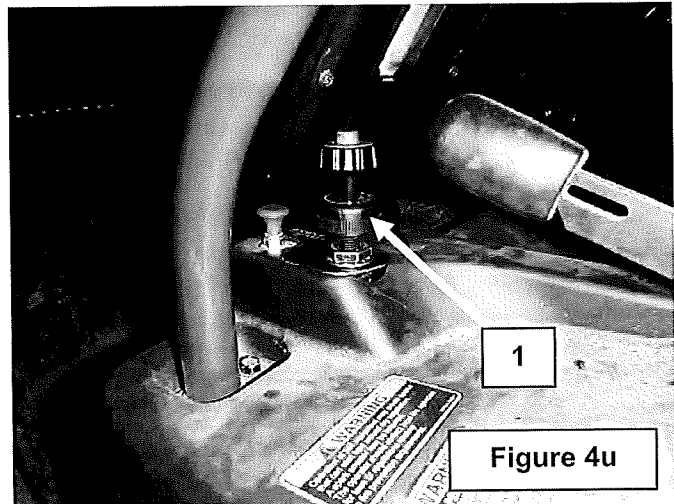


22. **Figure 4t:** Install the 90° bent cable support (item 1) where the original support was installed using two 5/16"NC x 3/4" hex bolts (item 2) and two 5/16" serrated flange nuts (item 3).

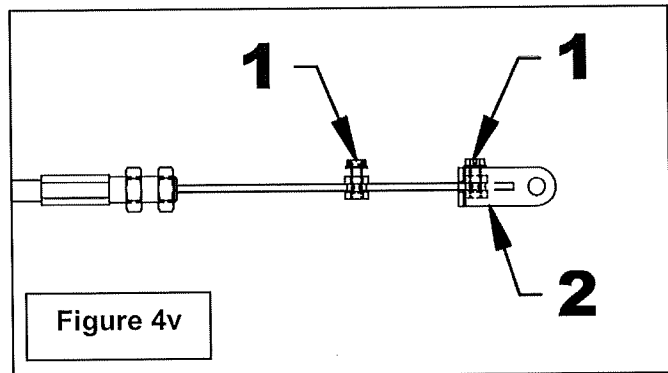


# ASSEMBLY

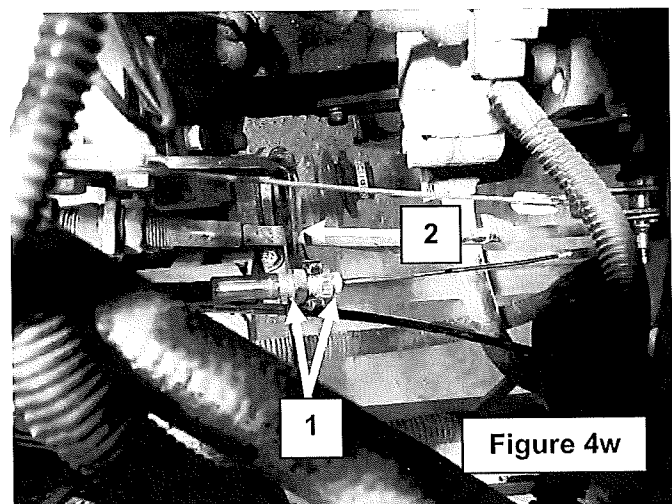
23. **Figure 4u:** Make sure the handle (item 1) is fully pushed down to maximum at its place, as shown in the figure.



24. **Figure 4v:** Slide the two wire locks (items 1) and the "U" plate (item 2) on the cable in the order shown in the figure.



25. **Figure 4w:** Slide the wire section between the two jam nuts (item 1) in the support (item 2) and tighten the two jam nuts.

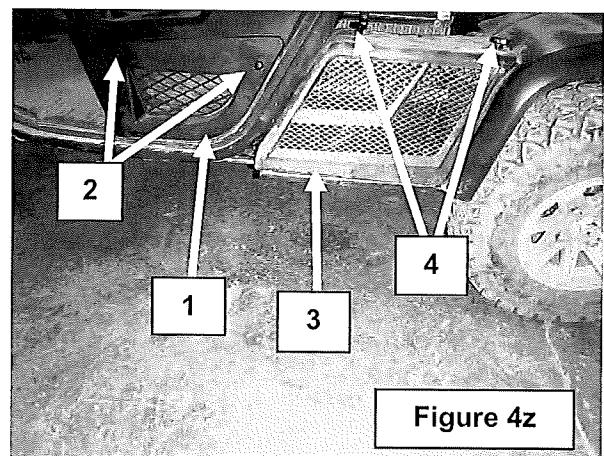
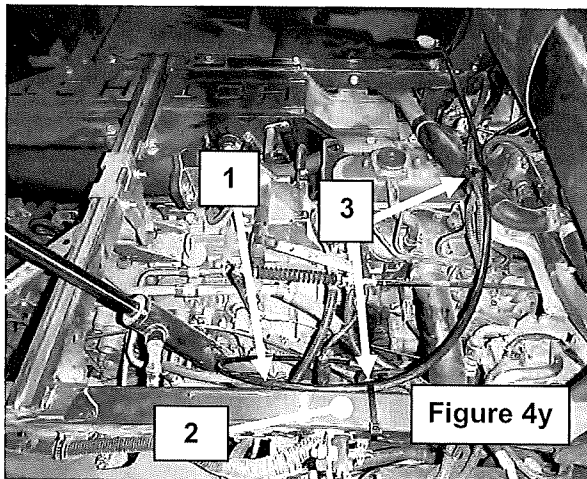
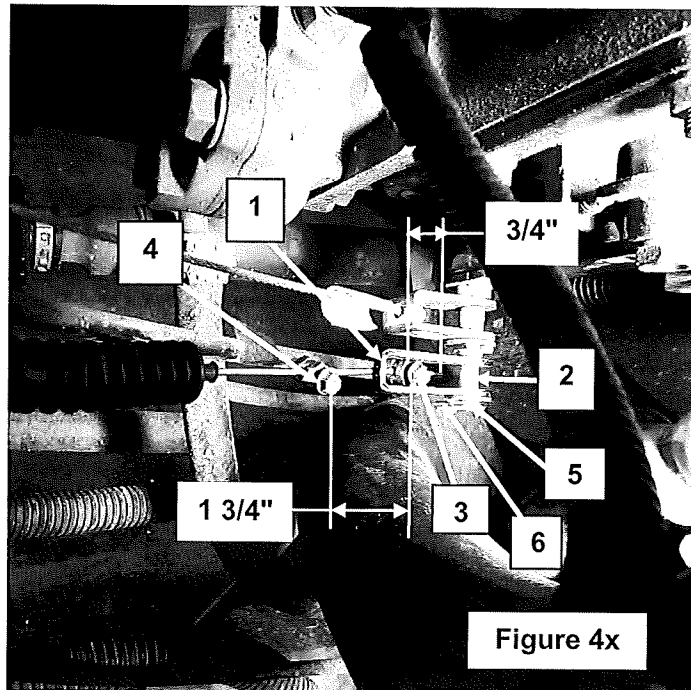


# ASSEMBLY

26. **Figure 4x:** Install the "U" plate (item 1) on the RTV rod (item 2) that controls the RPM, making sure it is in neutral position. Cut the excess wire leaving  $\frac{3}{4}$ " of length as shown in the figure. Screw the wire lock (item 3). Screw the other wire lock (item 4) at the length of  $1\frac{3}{4}$ " as shown in the figure. Lock the "U" plate with a  $\frac{1}{4}$ " flat washer (item 5) and a cotter pin (item 6).

27. **Figure 4y:** Attach the cable (item 1) to the frame tube (item 2) with two tie wraps (item 3).

28. **Figure 4z:** Reinstall the side pannel (item 1) with the two plastic buttons (item 2). Reinstall the pannel of the battery with the two plastic buttons (item 4).

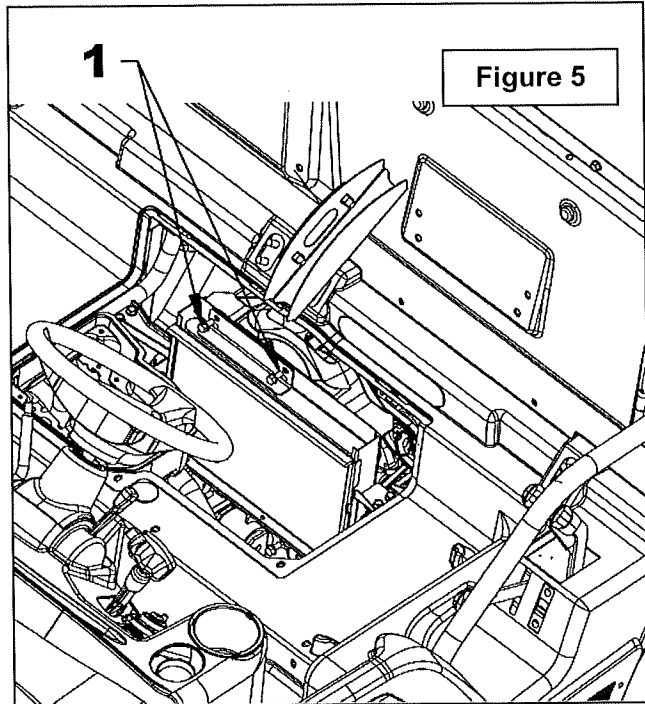




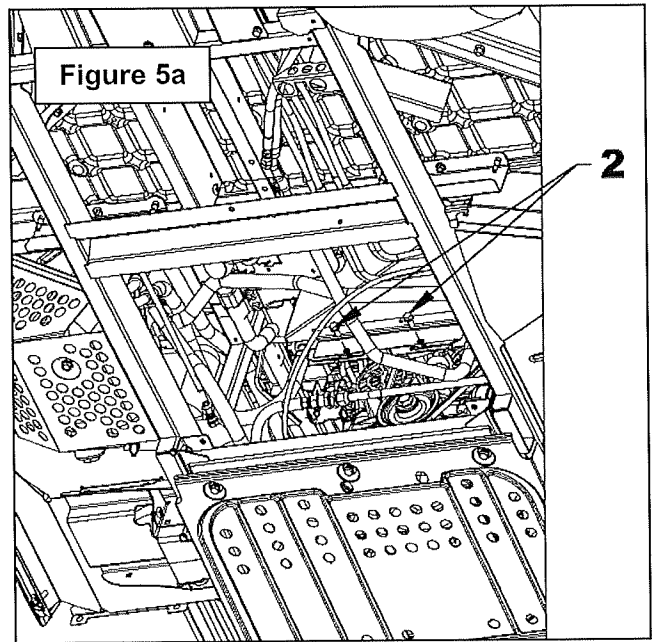
# ASSEMBLY

## Installation of the Supports

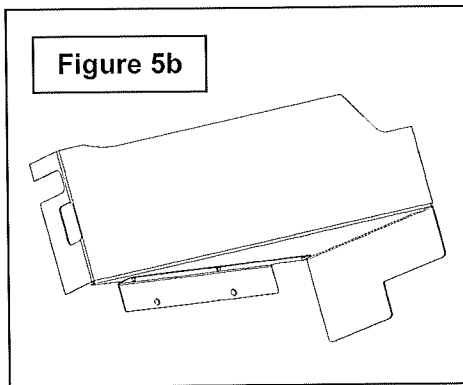
1. **Figure 5:** Remove the two M8 bolts above the oil cooler (item 1).



2. **Figure 5a:** Go under the vehicle and remove the two other M8 bolts under the oil cooler (item 2).

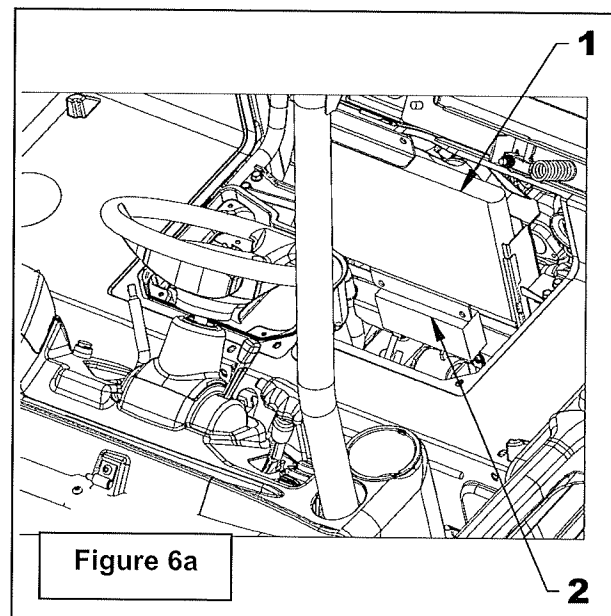
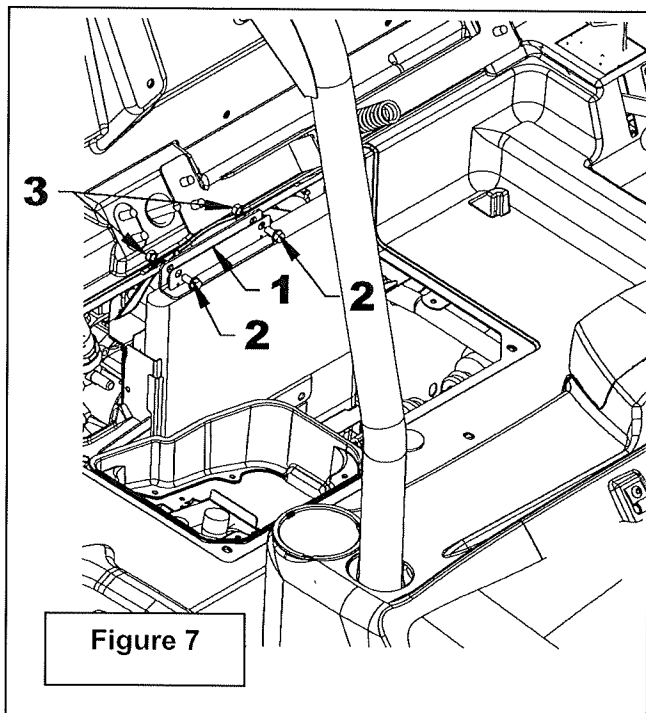
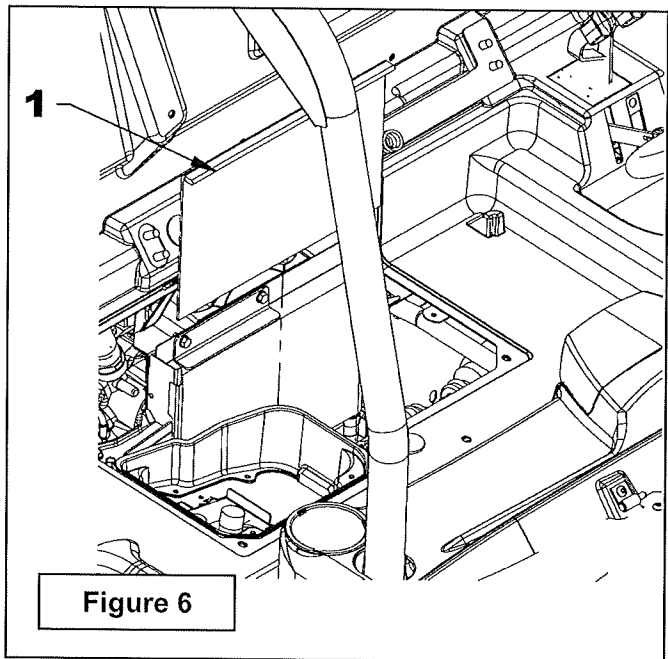


3. **Figure 5b:** Remove the bracket and the rubber part as shown in figure.



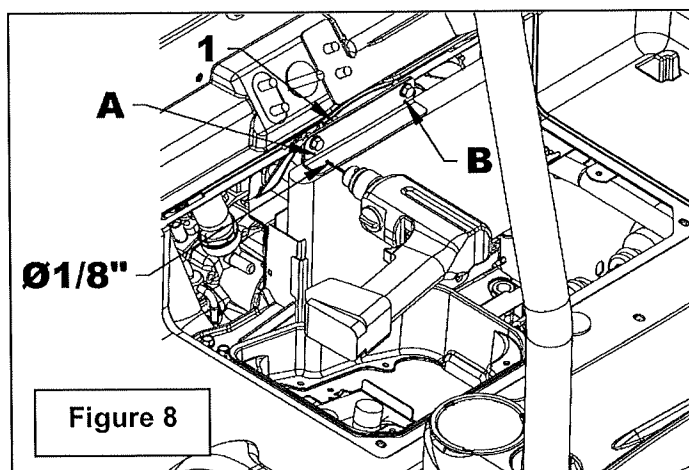
# ASSEMBLY

4. **Figure 6:** Remove the front grill (item 1) of the oil cooler.
5. **Figure 6a:** Pull up slightly the oil cooler (item 1) and add a wood piece of 2" x 3" x 6" (item 2) under the oil cooler. **CAUTION:** be careful to not lift or crush the fins of the cooler.
6. **Figure 7:** Attach the drilling template (item 1) to the oil cooler with the two previously removed M8 bolts (item 2) and the two M8 nuts supplied with the hardware (item 3).

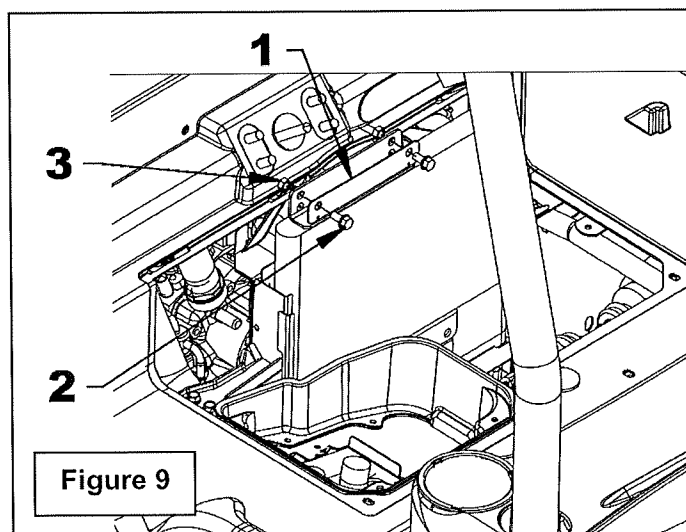


# ASSEMBLY

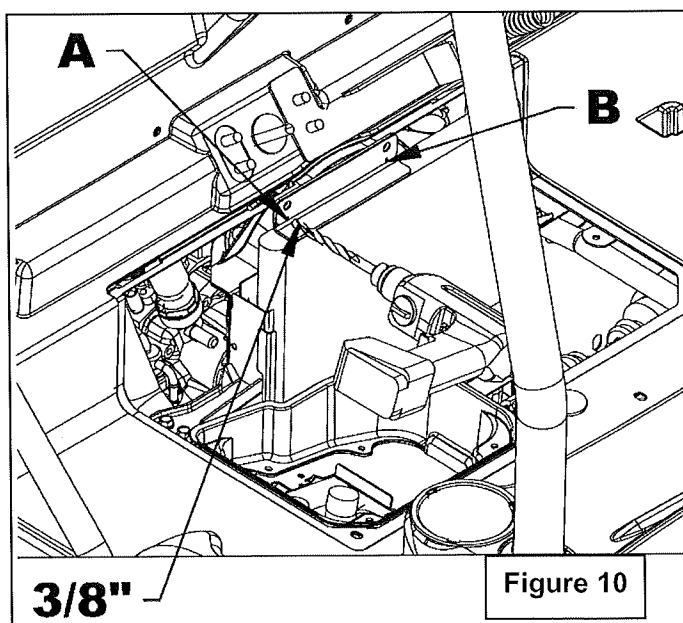
7. **Figure 8:** With a 1/8" drill bit drill the A & B holes in the L bracket of the oil cooler (item 1).



8. **Figure 9:** Remove the drilling template (item 1), the two M8 bolts (item 2) and the two M8 nuts (item 3).

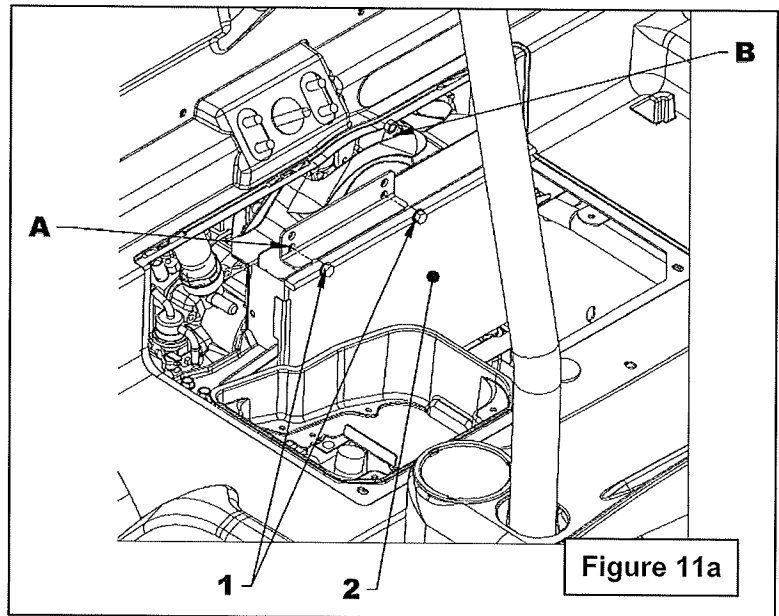
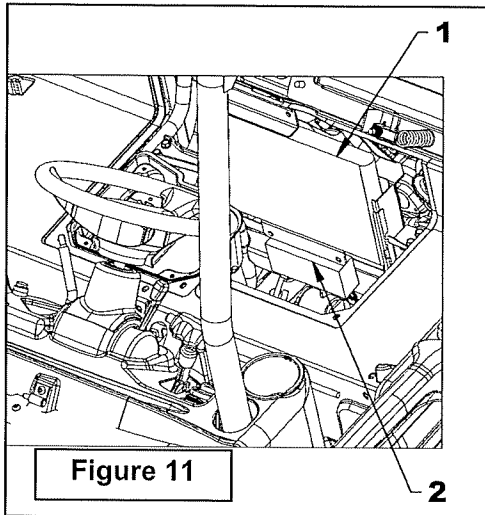


9. **Figure 10:** Drill again the two A & B holes with a 3/8" drill bit.

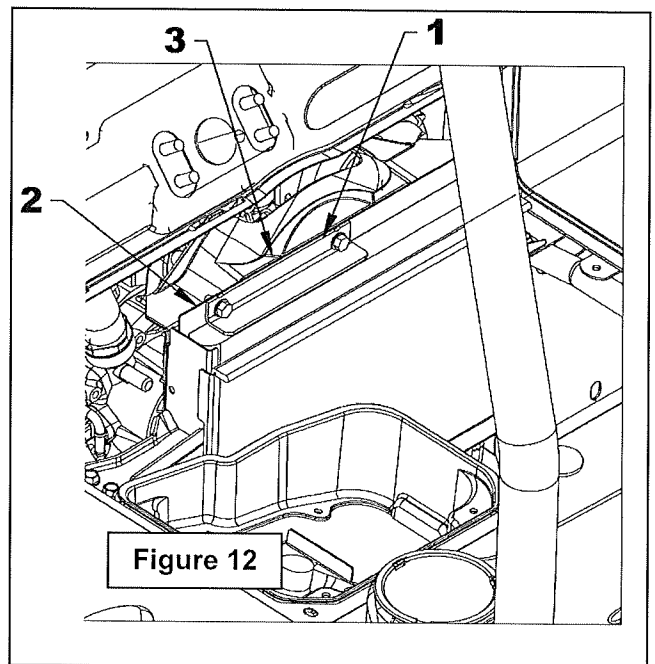
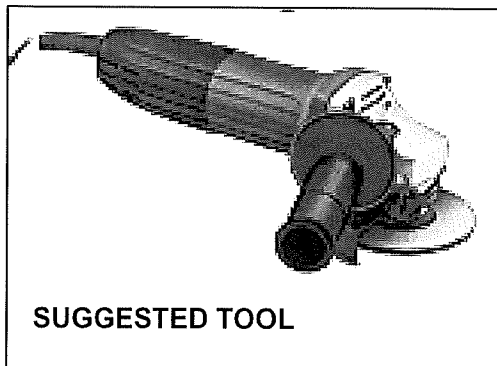


# ASSEMBLY

10. **Figure 11:** Remove the wood piece (item 2) and lower the oil cooler (item 1).
11. **Figure 11a:** Attach the oil cooler with the two M8 bolts (item 1) previously removed in the A & B holes. Reinstall the front grill (item 2).



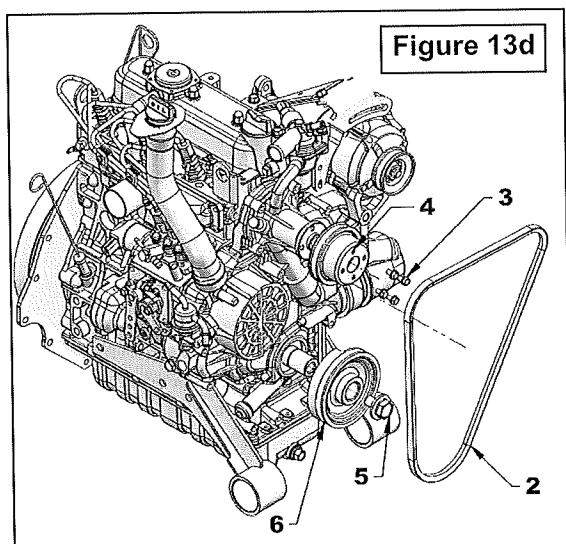
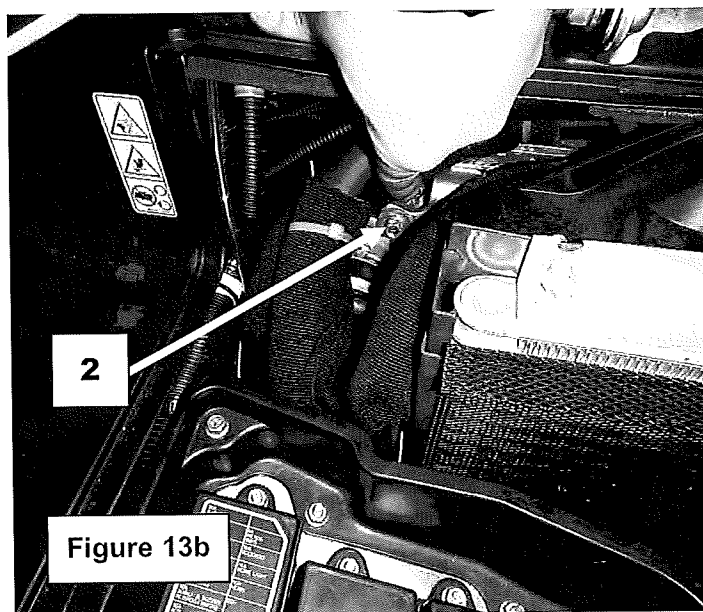
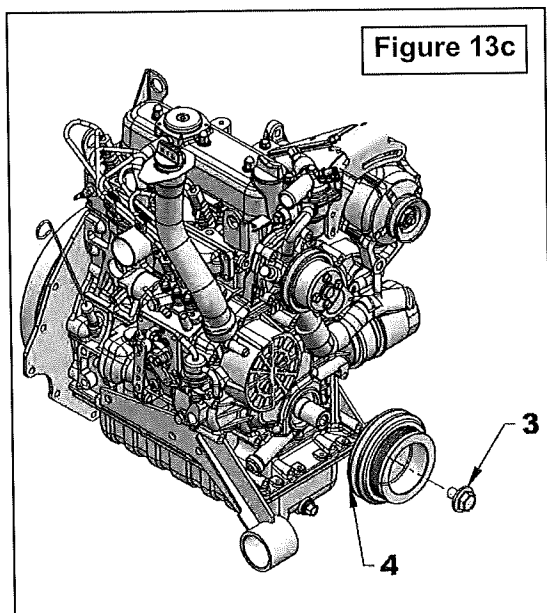
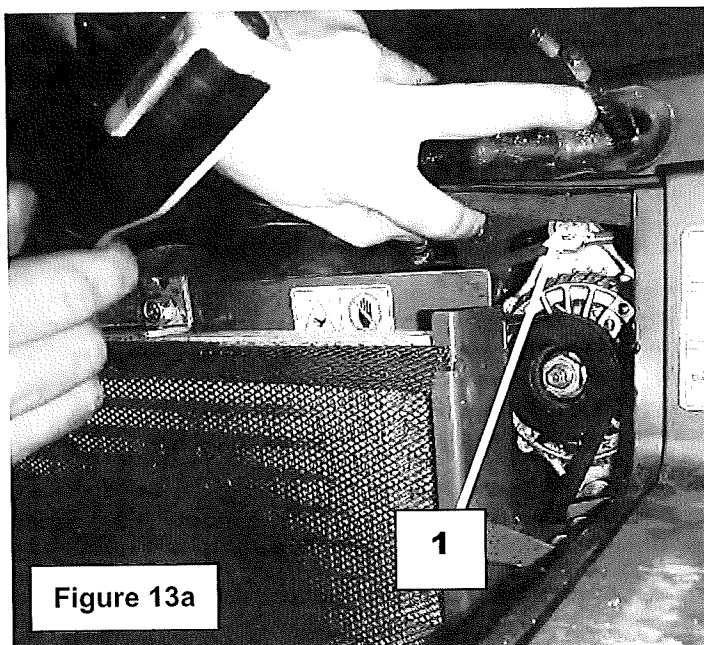
12. **Figure 12:** Cut off the excess of the condenser bracket (item 1) level with the top plastic guard (item 2). **CAUTION:** be careful to not cut the cover (item 3) behind the bracket when removing the excess material.



# ASSEMBLY

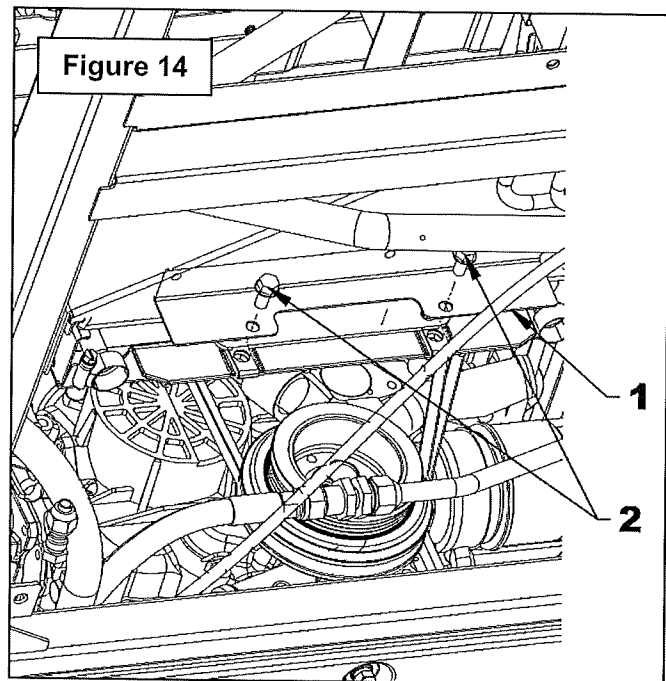
13. **FOR RTV-X1100C:** Figures 13a-13b-13c: Loosen the bolt of the alternator idler (item 1), the bolt of the air-conditioning idler (item 2) and remove the belts. Unscrew the retaining bolt (item 3) and slide off the shaft the original pulley (item 4).

14. **FOR RTV-X1120D:** Figures 13a-13d: Loosen the bolt of the alternator idler (item 1) and remove the belt (item 2). Unscrew the four bolts and remove the water pump pulley (item 4). Unscrew the retaining bolt (item 5) and slide off the shaft the original pulley (item 6).

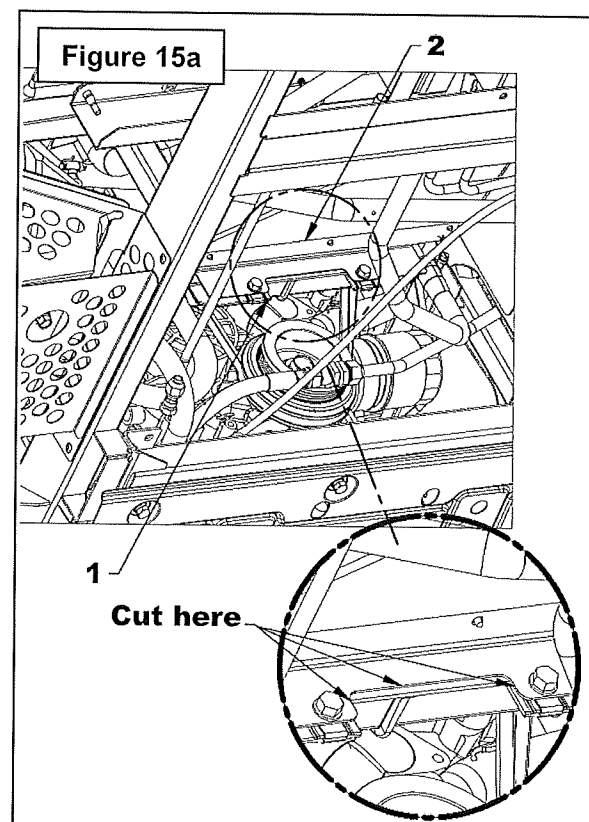
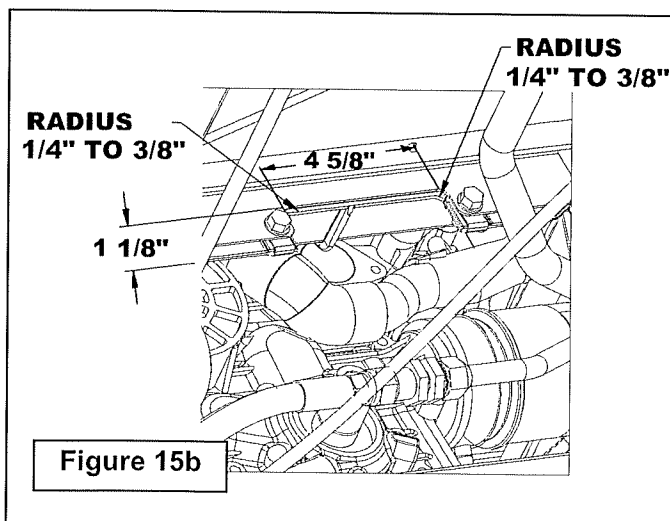
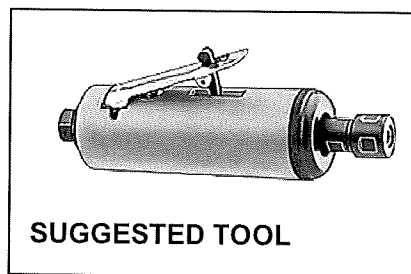


# ASSEMBLY

15. **Figure 14:** Attach the new oil cooler support (item 1), supplied with the hardware, with the two M8 bolts previously removed (item 2).



16. **Figures 15a-15b:** Use a pneumatic grinder with a grinding tip  $\varnothing 1/4"$  to  $\varnothing 3/8"$  and cut the oil cooler plastic guard (item 1). Follow the clearance of the oil cooler support (item 2). This clearance is required to disengage the constant velocity joint.

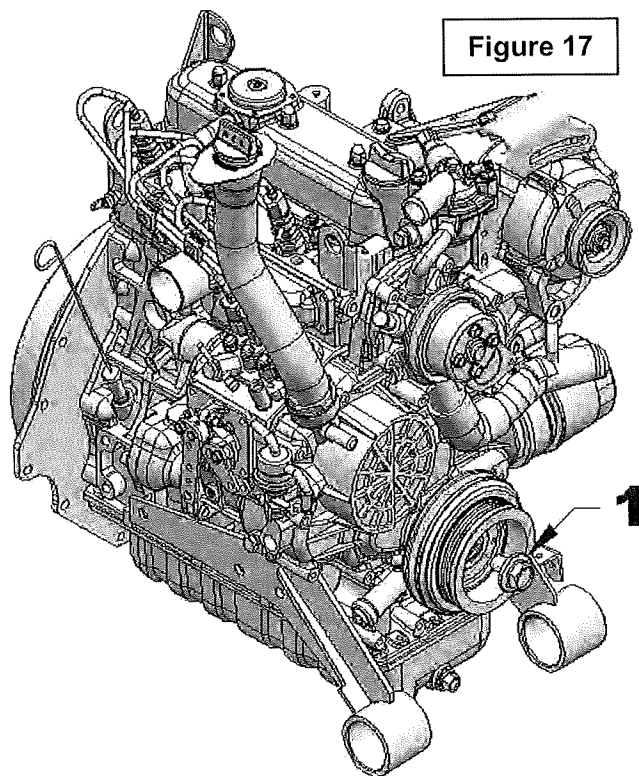
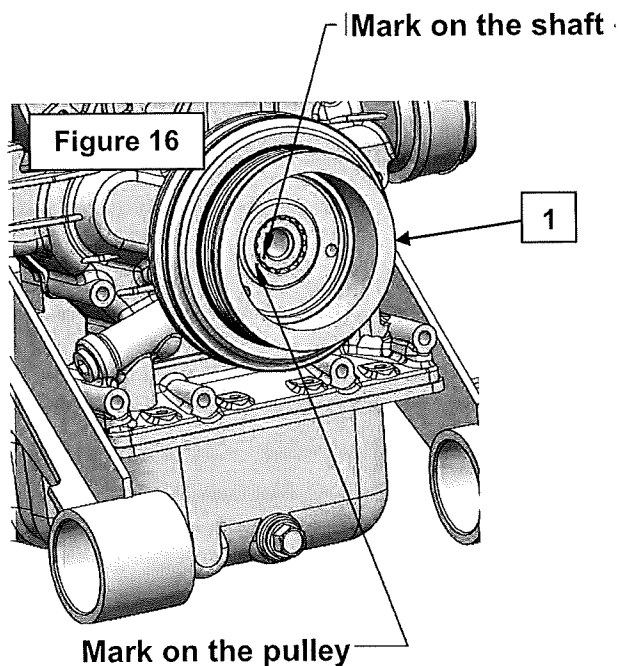


# ASSEMBLY

17. **Figure 16:** Install the new pulley (item 1) on the motor shaft

**IMPORTANT:** Align the alignment mark of the pulley with the point on the motor shaft to maintain the motor balance.

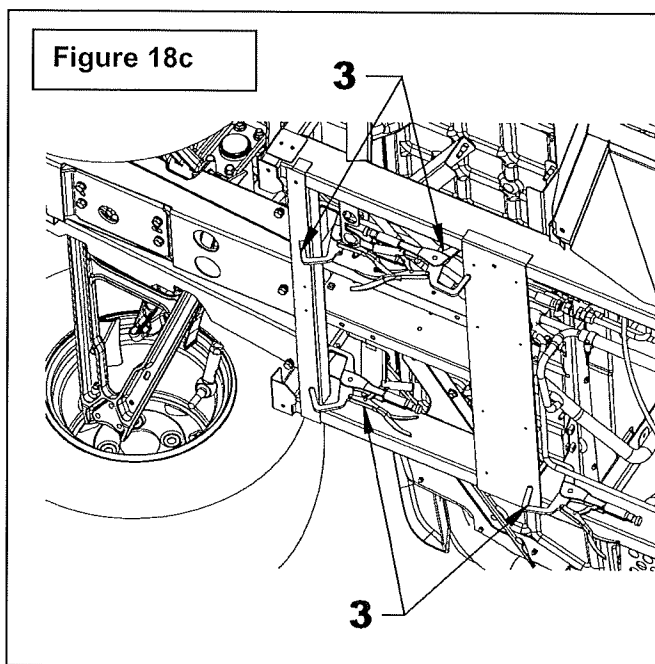
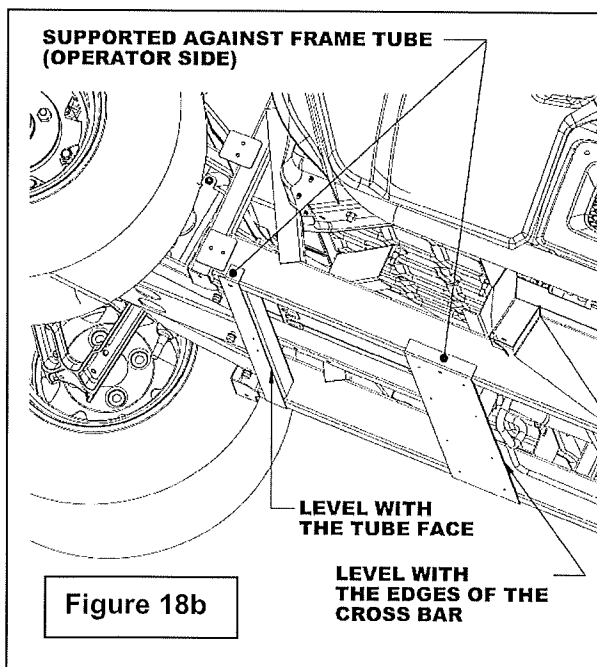
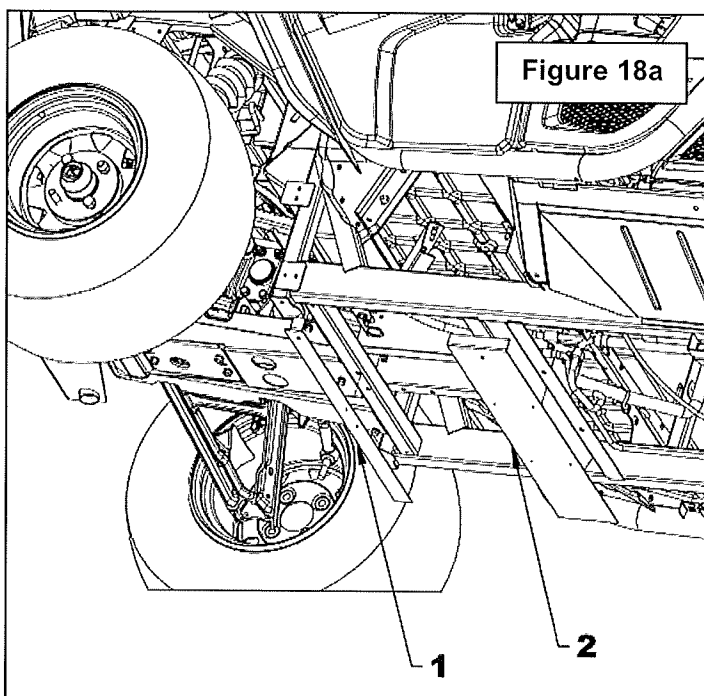
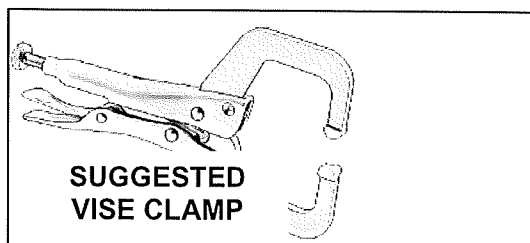
18. **Figure 17:** Secure the pulley with the original bolt (item 1). Torque at 174 lbs-ft to 180 lbs-ft.
19. **FOR RTV-X1100C:** Reinstall the alternator belt and the air conditioning belt. Readjust the tension in the belts following the WSM of power unit.
20. **FOR RTV-X1120D:** The water pump pulley must be replaced by the Kubota part #16241-74250 and the belt by Kubota part #1E270-97010. Install the new water pump pulley #16241-74250 and the new belt #1E270-97010. Readjust the tension of the belt following the WSM of power unit.



# ASSEMBLY

21. **Figures 18a-18b-18c:** Attach the drilling templates (items 1-2) to the vehicle frame. Make sure the templates are well supported against the frame tube on the operator side and levelled with the edges of the cross frame and the face of the cross tube, as pointed by the arrows in figure 18b.

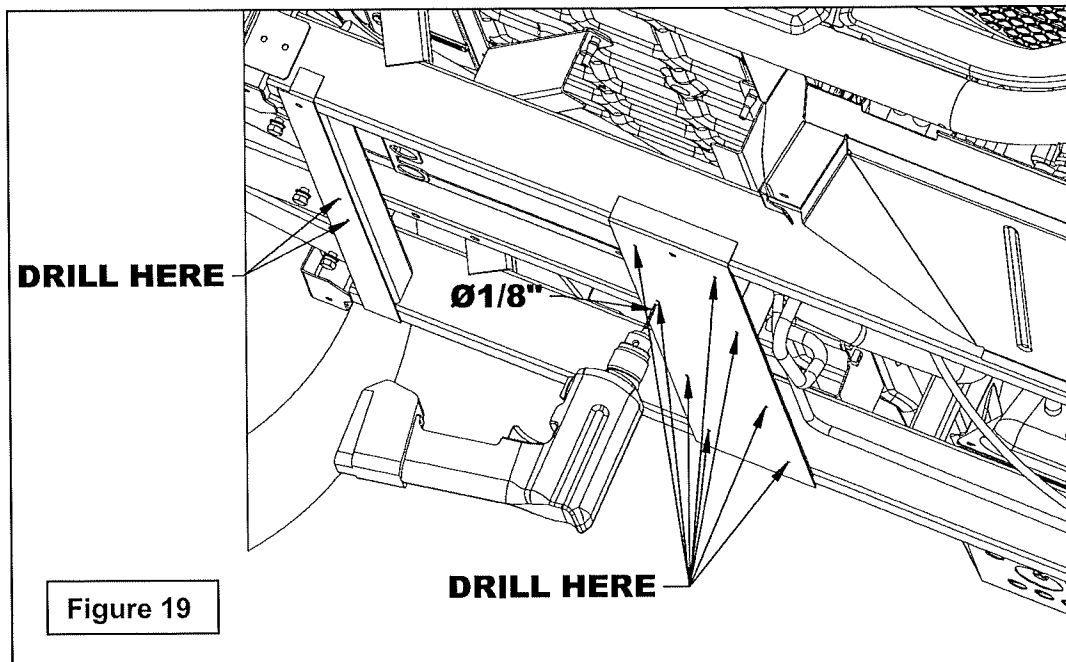
**NOTE:** Install the vise clamps (item 3) on the lip of the channel and not on the channel to prevent damage to the frame.



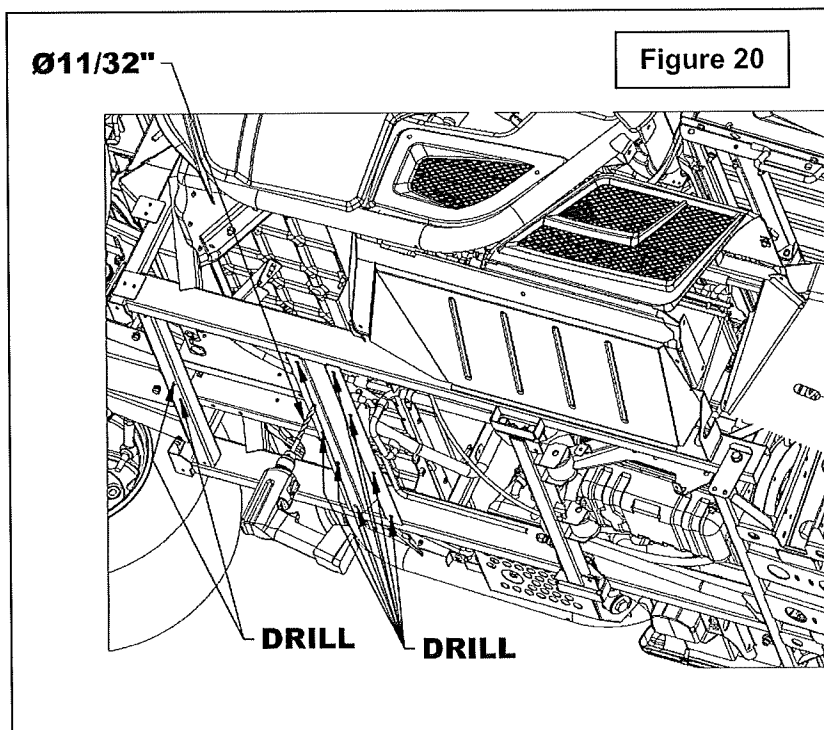


# ASSEMBLY

22. **Figure 19:** Pre-drill the ten  $\text{Ø}1/8"$  holes in the cross member using the drilling templates.

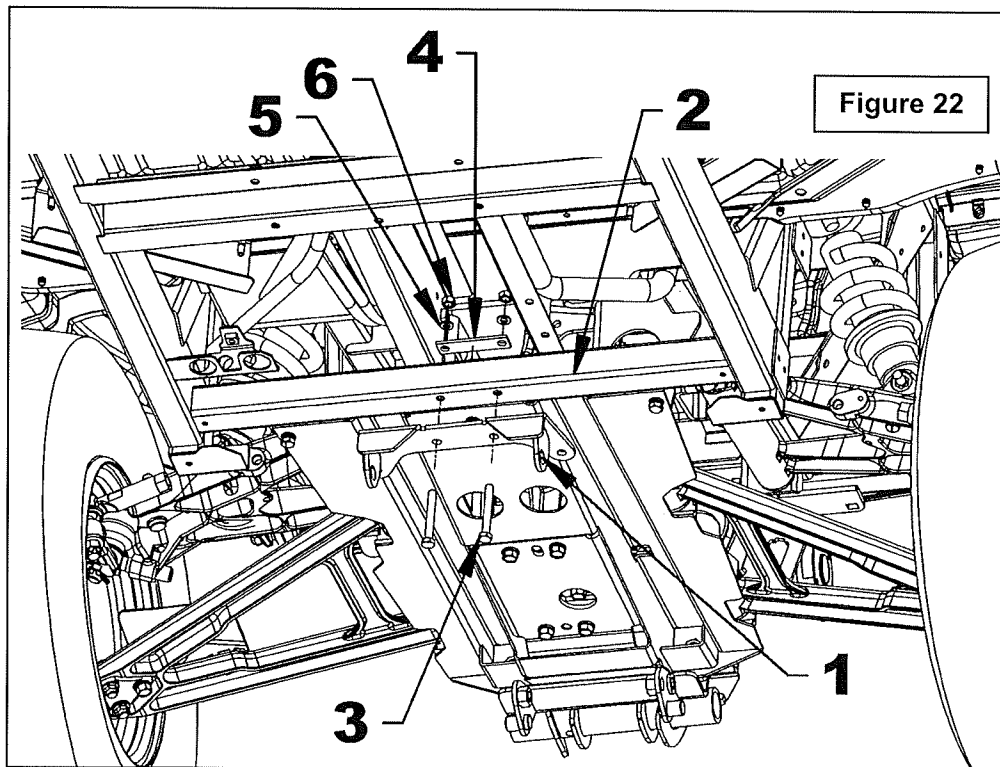
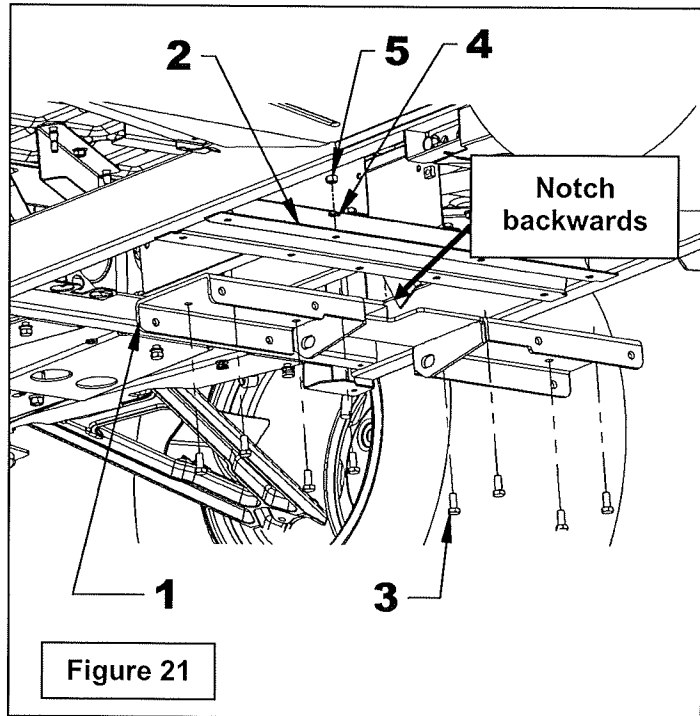


23. **Figure 20:** Remove the drilling templates and drill ten  $\text{Ø}11/32"$  holes.



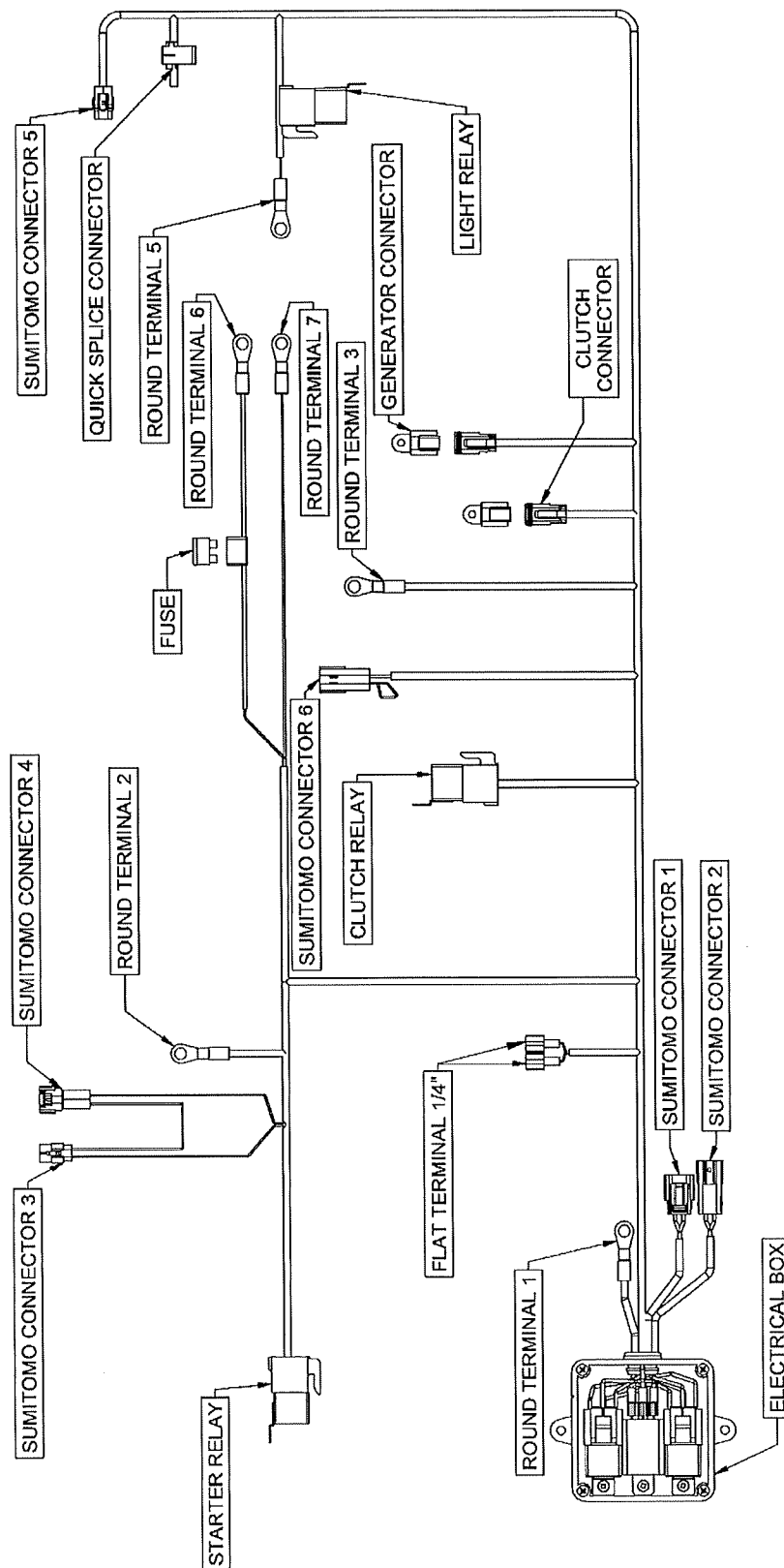
# ASSEMBLY

24. **Figure 21:** Attach the rear support (item 1) to the frame tube (item 2) with eight M8 x 1.25 x 25mm bolts (item 3), 5/16" lockwashers (item 4) and M8 x 1.25 nuts (item 5). Torque to 19 lbs-ft (26 N-m)
25. **Figure 22:** Attach the front support (item 1) to the frame tube (item 2) with two M8 x 1.25 x 65mm bolts (item 3), the reinforcement plate (item 4), two 5/16" lockwashers (item 5) and two M8 x 1.25 nuts (item 6). Torque to 19 lbs-ft (26 N-m)



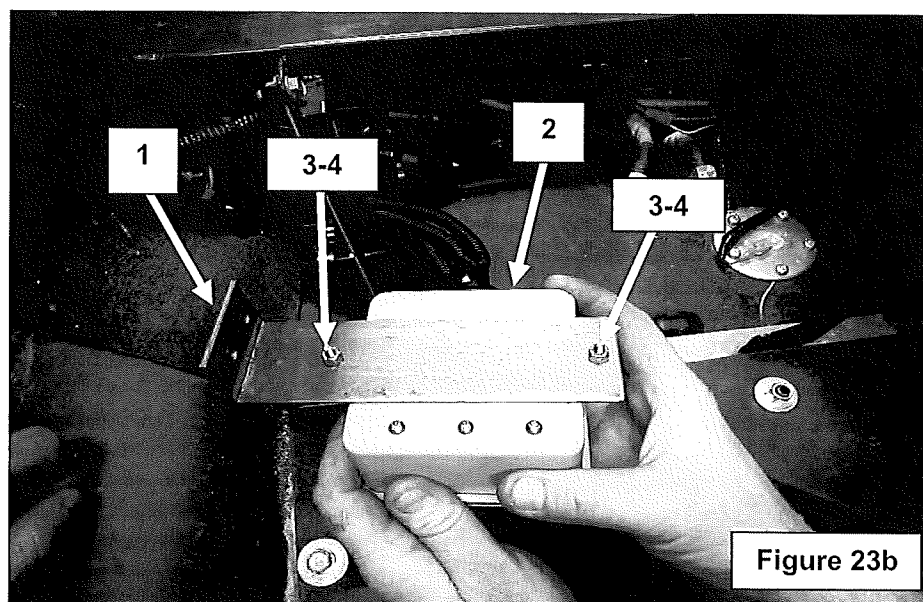
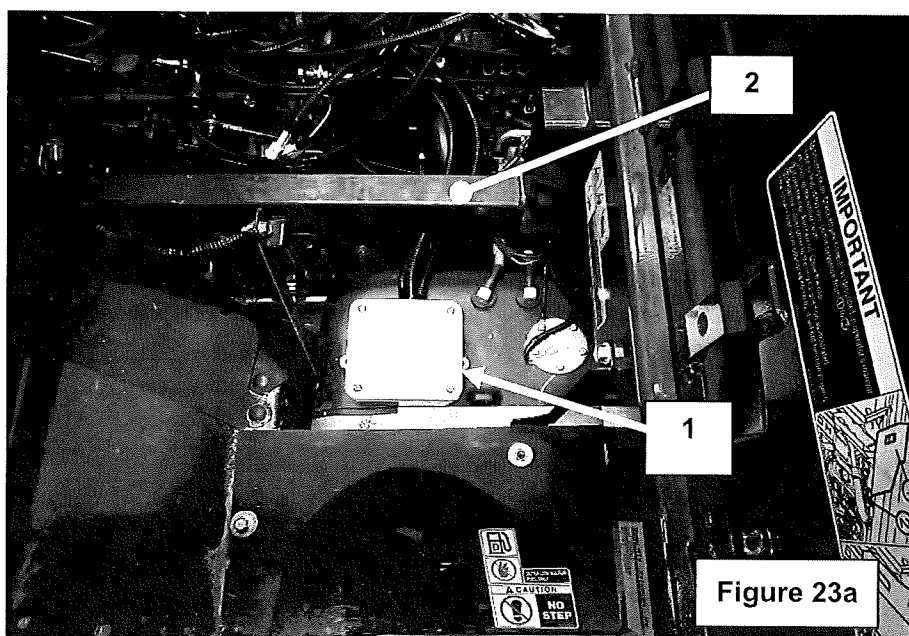
# ASSEMBLY

## Installation of the Electric Harness



# ASSEMBLY

1. **Figure 23a:** Place the harness on the engine and route the electrical box (item 1) under the frame tube (item 2) and place it on the top of the fuel tank.
2. **Figure 23b:** Attach the L support (item 1) to the electric box (item 2) with two 8-32 x 3/4" lg bolts and two 8-32 nylon insert lock nuts (items 3-4). **Tighten gently to not damage the box.**

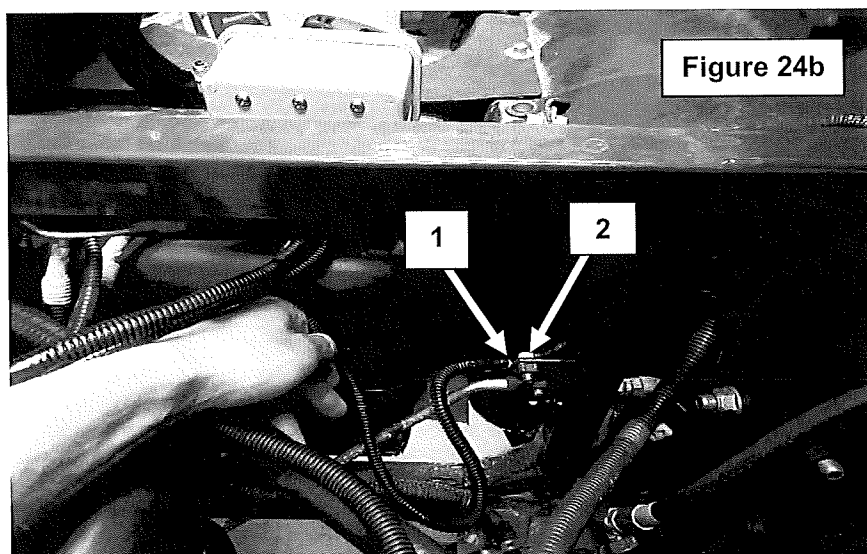
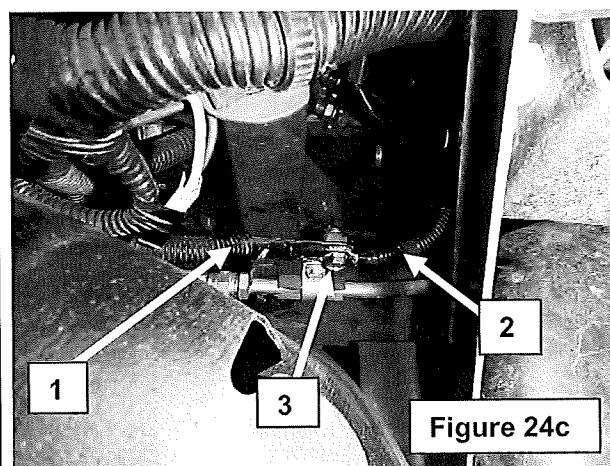
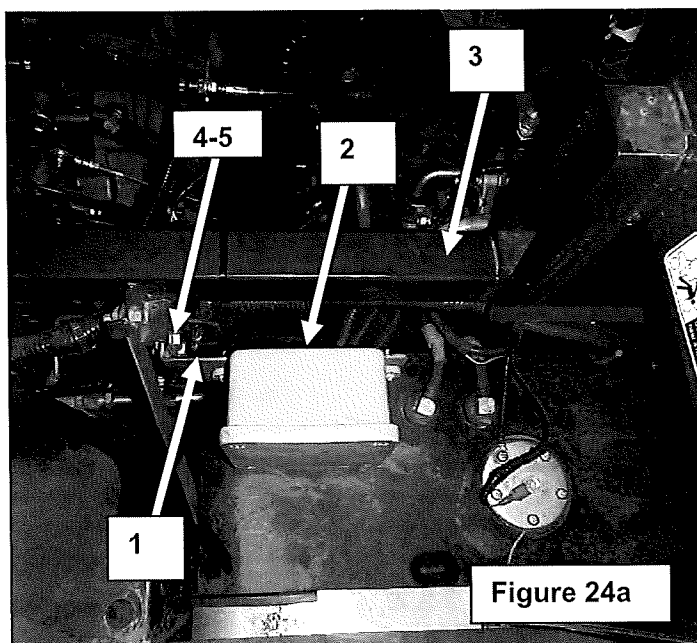


# ASSEMBLY

3. **Figure 24a:** Attach the L support (item 1) with electrical box (item 2) to the vehicle frame (item 3) with two 5/16"NC x 3/4" lg serrated flange bolts and two 5/16"NC serrated flange nuts (items 4-5).

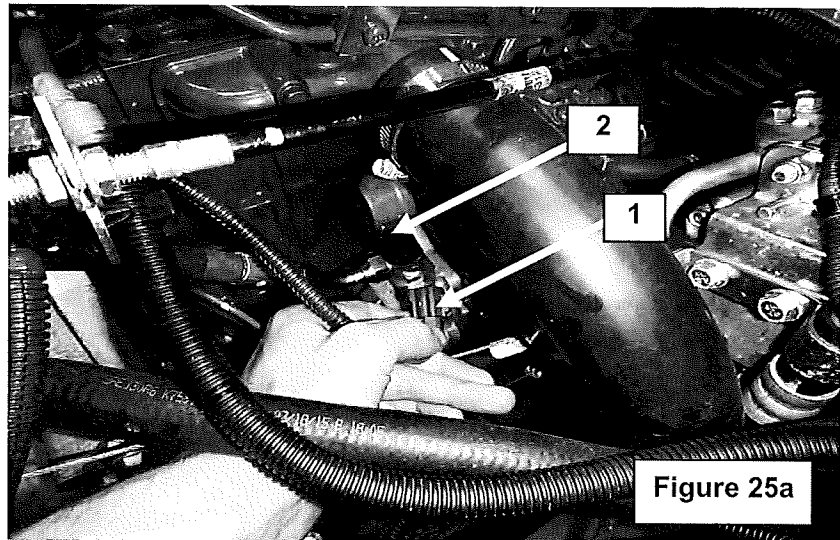
4. **Figure 24b:** Attach the round terminal (item 1) to the vehicle frame ground bolt (item 2).

5. **Figure 24c:** Keep that stacking order of ground connectors to the frame: first the vehicle ground (item 1), then the electrical box ground (item 2) and finally the bolt (item 3).

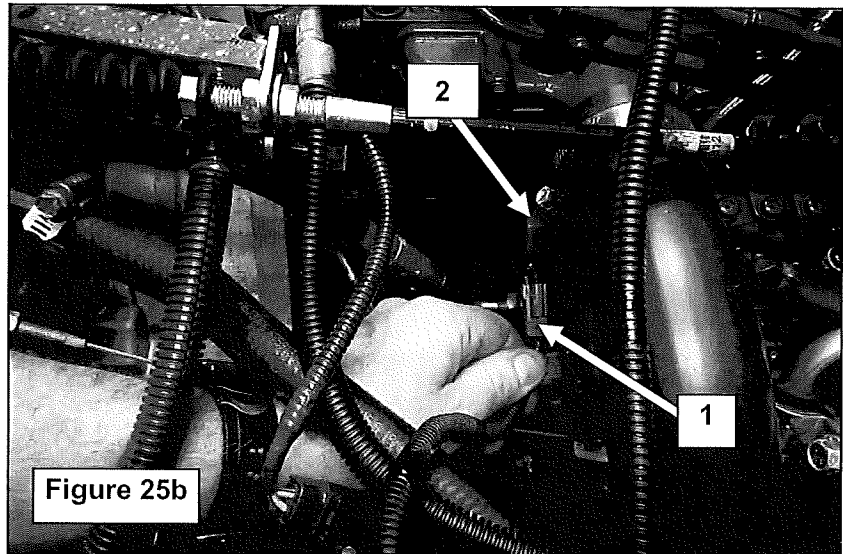


# ASSEMBLY

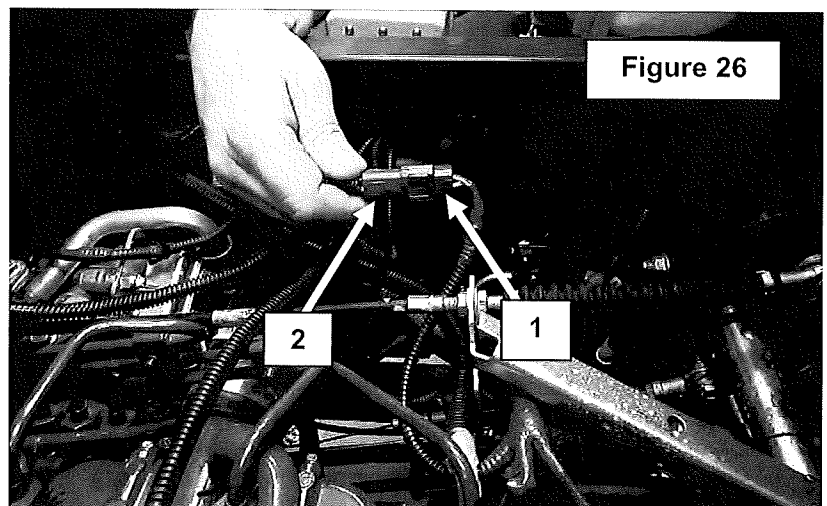
6. **Figure 25a:** Disconnect the wire (item 1) of the fuel pump solenoid (item 2).



7. **Figure 25b:** Refer to the harness diagram on page 29 to identify the connector. Connect the Sumitomo 1 connector (item 1) from the electrical box to the fuel pump solenoid connector (item 2).



8. **Figure 26:** Refer to the harness diagram on page 29 to identify the connector. Connect the Sumitomo 2 connector (item 1) to the female connector previously disconnected from the fuel pump solenoid (item 2).



# ASSEMBLY

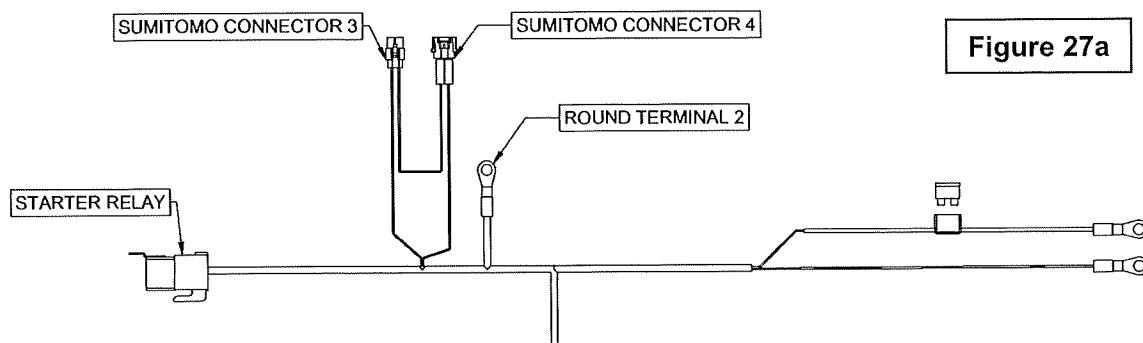


Figure 27a

9. **Figure 27b:** Run the wire section (item 1) shown in **figure 27a** in front of the vertical tube (item 2) and run under the radiator hose (item 3).

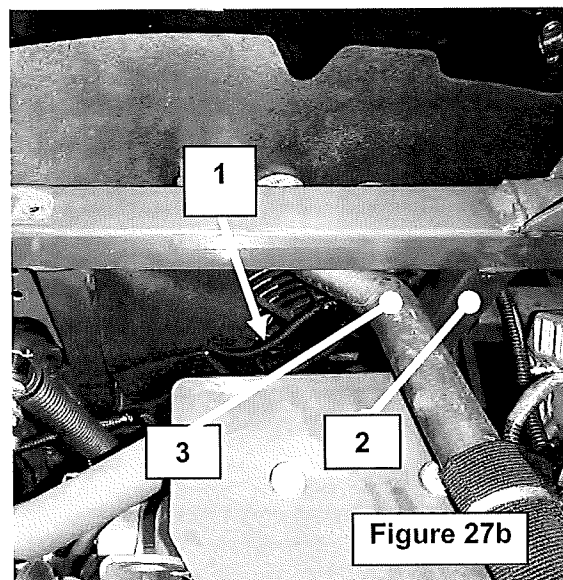


Figure 27b

10. **Figure 27c:** Remove the rear wheel on the driver side (item 1).

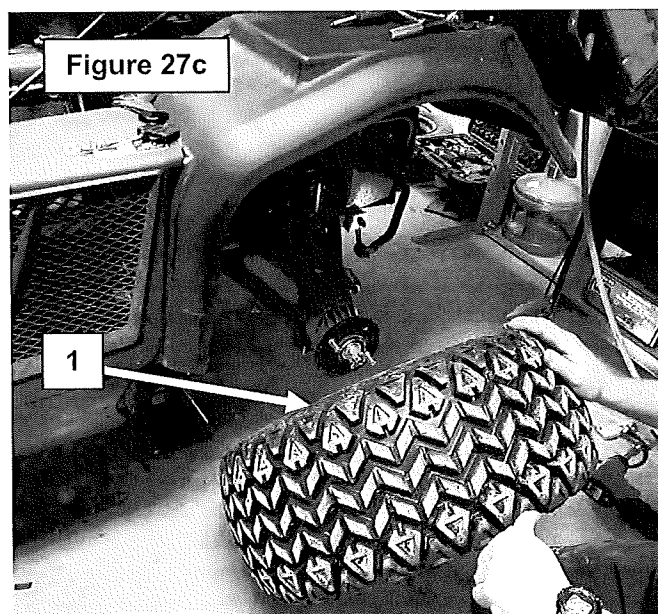


Figure 27c

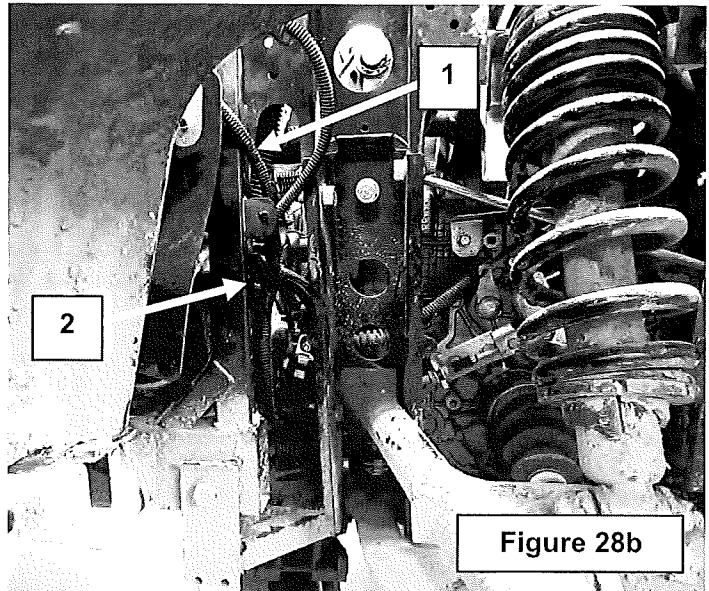
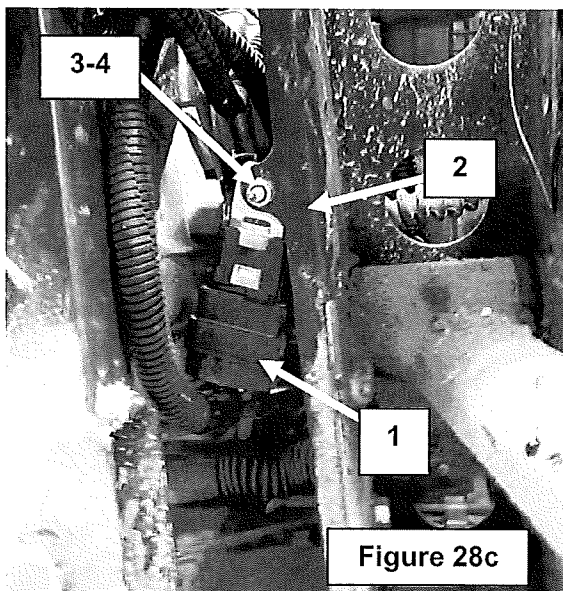
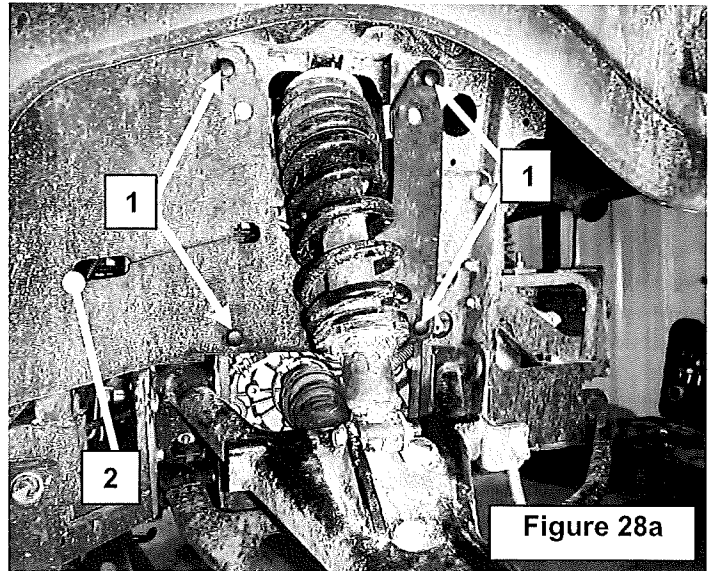


# ASSEMBLY

11. **Figure 28a:** Remove the four finishing fasteners (item 1) and remove the rubber deflector (item 2).

12. **Figure 28b:** Route the harness section with the relay starter (item 1) outside of the frame tube (item 1).

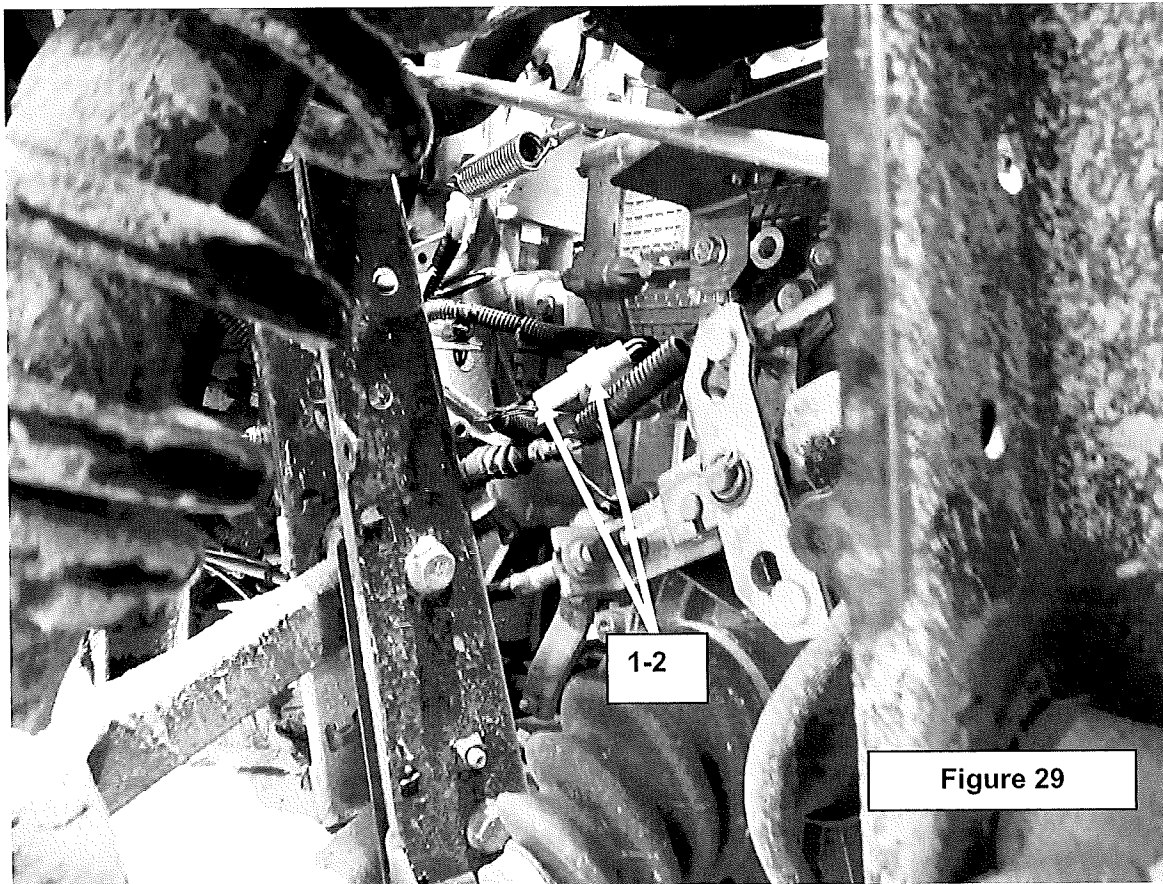
13. **Figure 28c:** Attach the starter relay (item 1) to the frame (item 2) where the wheel was removed with a 8-32 x 3/4" bolt and a 8-32 nylon insert locknut (items 3-4).





# ASSEMBLY

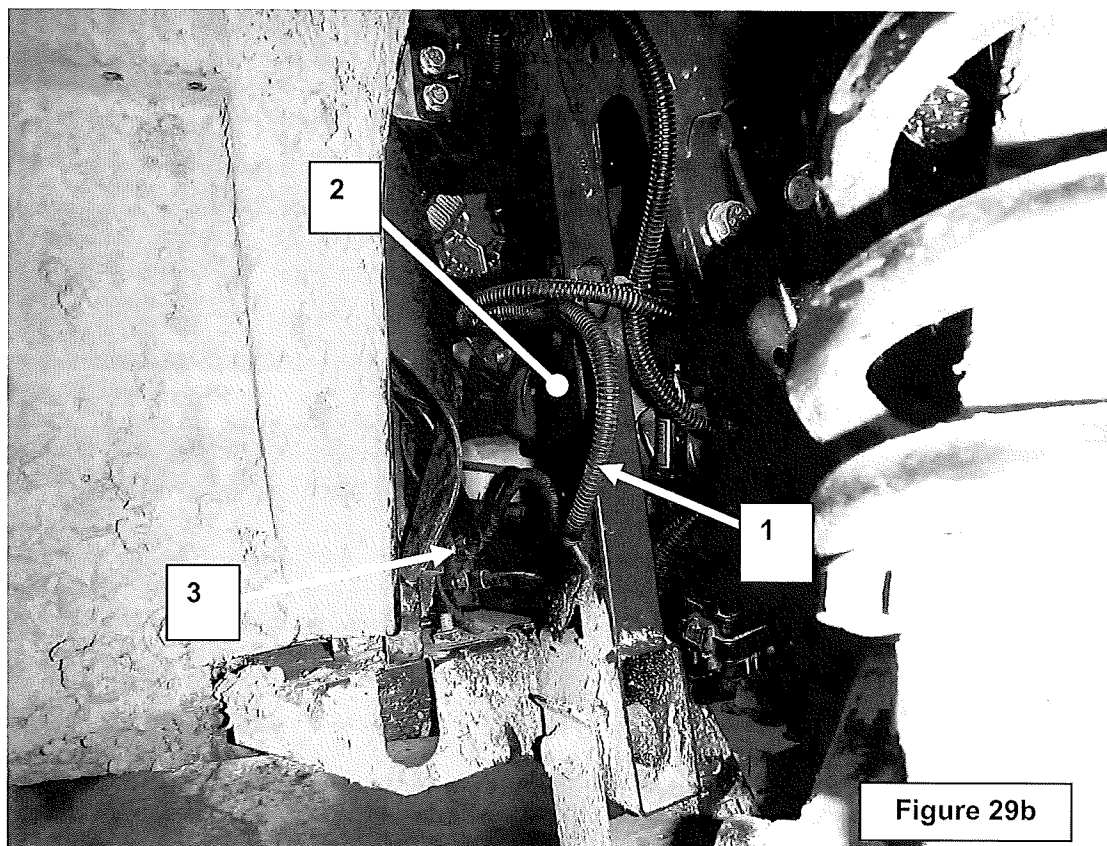
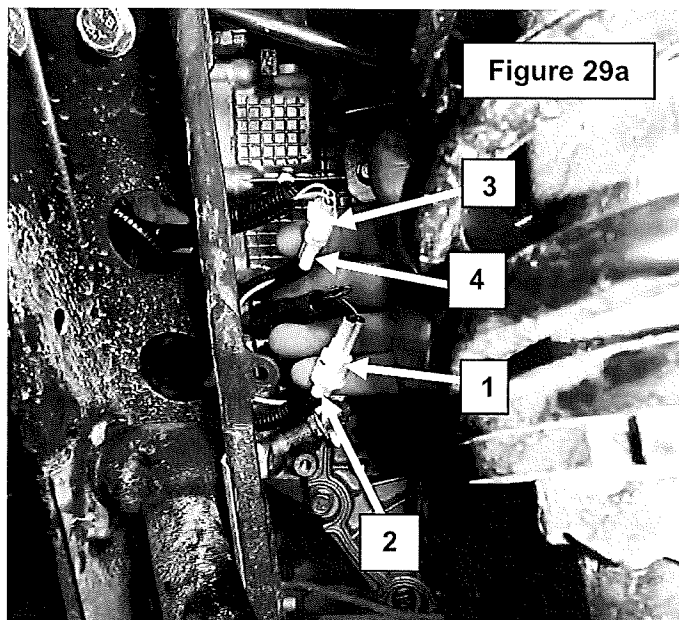
14. **Figure 29:** Disconnect the white connectors (items 1-2) located on the side of the transmission where the wheel was removed.



# ASSEMBLY

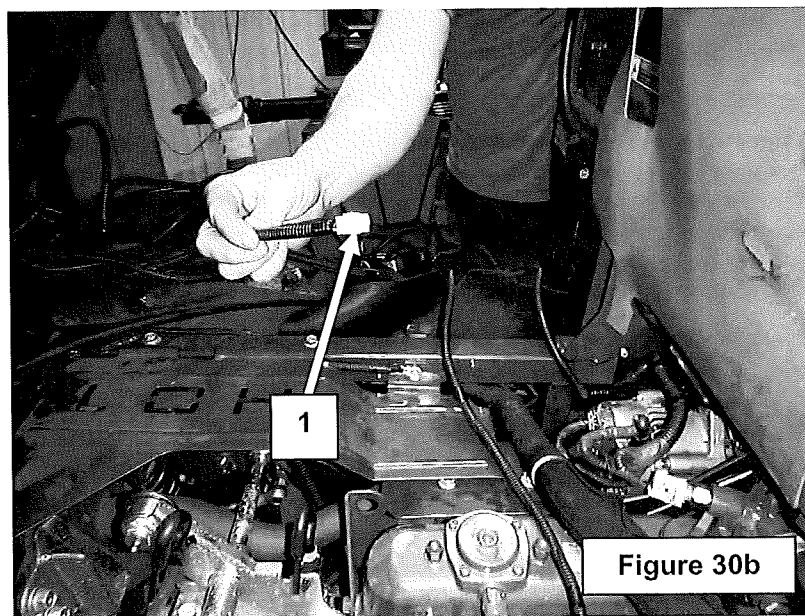
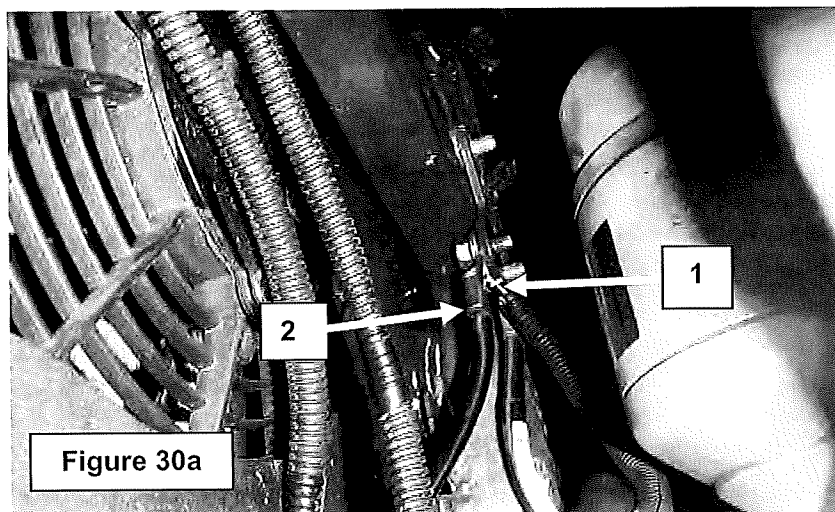
15. **Figure 29a:** Refer to the harness diagram on page 29 to identify the connector. Connect the female connector of the transmission (item 1) to the Sumitomo 3 connector of the PTO harness (item 2). Connect the male connector previously disconnected from the transmission (item 3) to the Sumitomo 4 connector (item 4).

16. **Figure 29b:** Route the ground wire with the round terminal (item 1) outside the frame tubing (item 2) toward the vehicle ground wire (item 3) located behind the radiator.



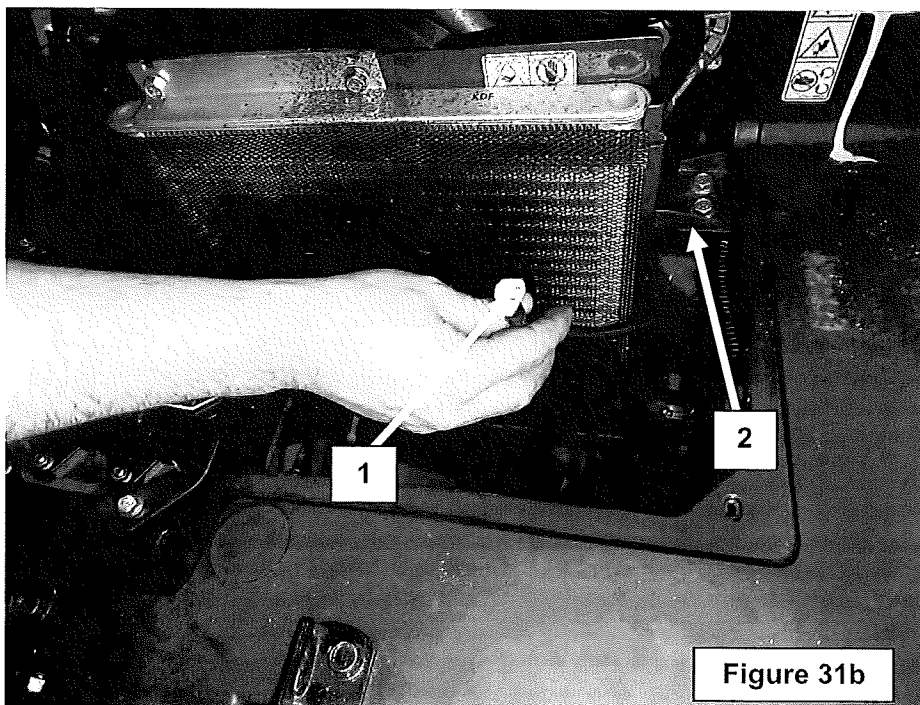
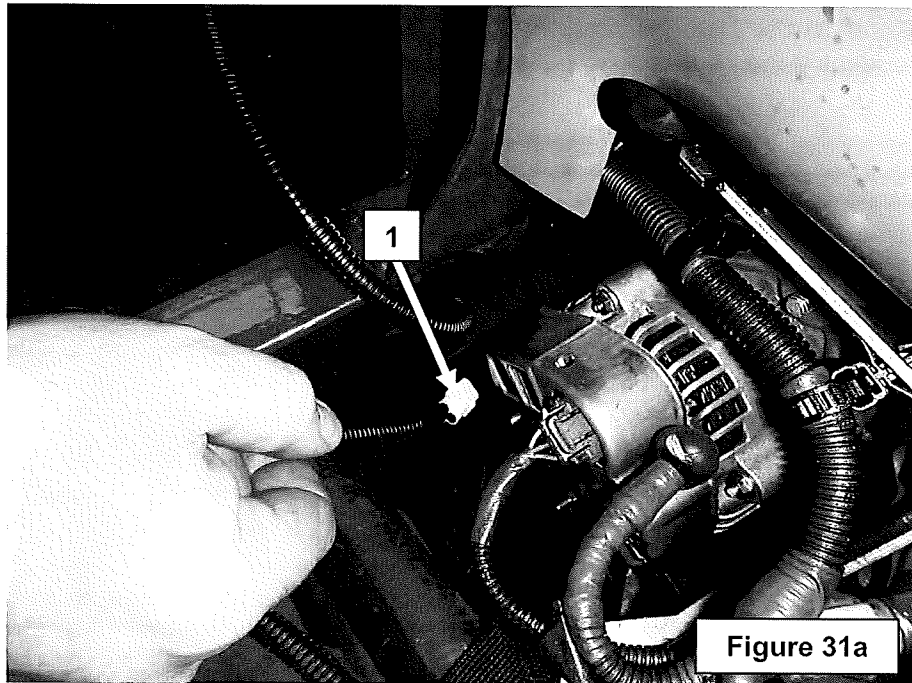
# ASSEMBLY

17. **Figure 30a:** Connect the ground wire with the round terminal (item 1) to the vehicle ground wire (item 2). Stack the ground wire 2 over the vehicle ground wire.
18. **Figure 30b:** Refer to the harness diagram on page 29 to identify the Sumitomo 5 male connector (item 1).



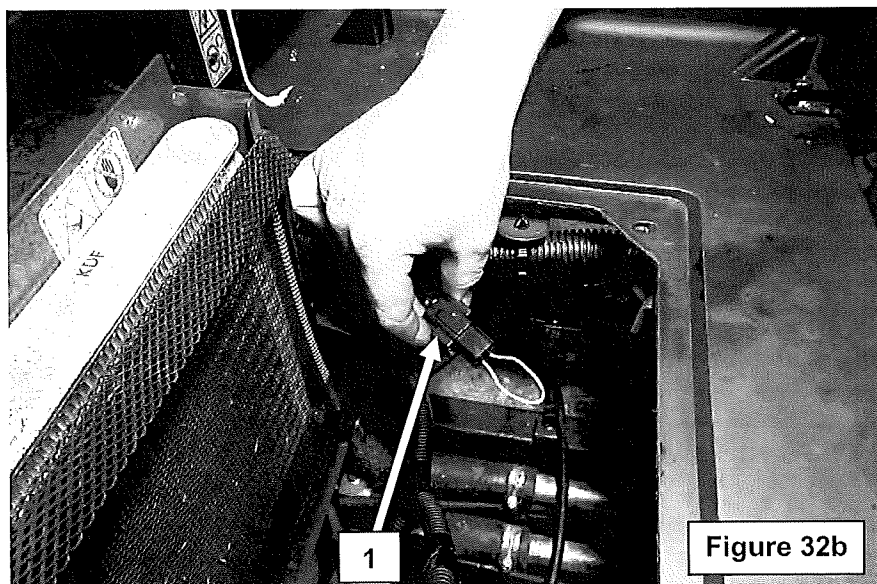
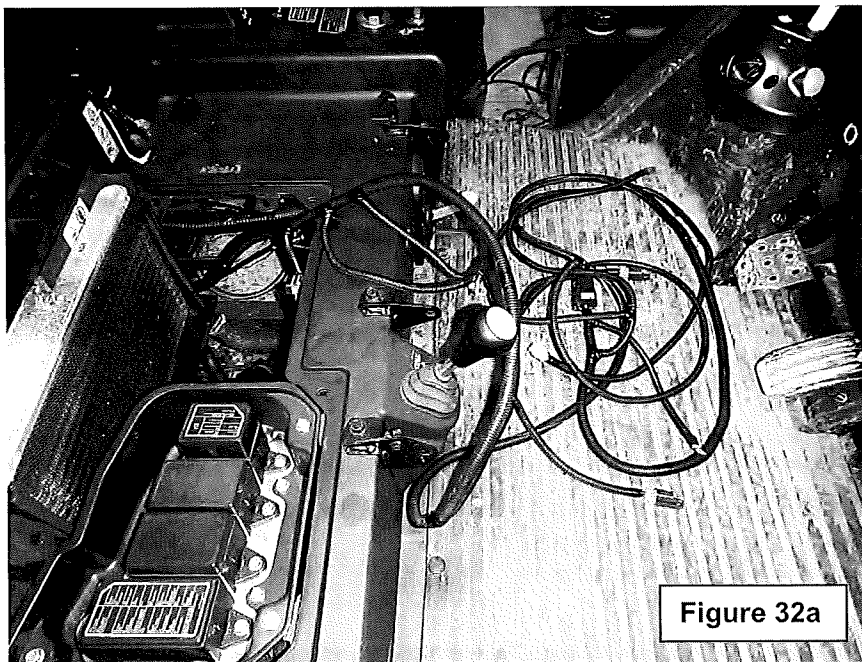
# ASSEMBLY

19. **Figure 31a:** Insert the Sumitomo 5 connector (item 1) under the alternator.
20. **Figure 31b:** Run the wire (item 1) under the oil cooler bracket (item 2).



# ASSEMBLY

21. **Figure 32a:** Drop off the rest of the wiring inside cabin.
22. **Figure 32b:** Locate the PTO light connector (item 1) that is attached with blue tape to the vehicle harness.

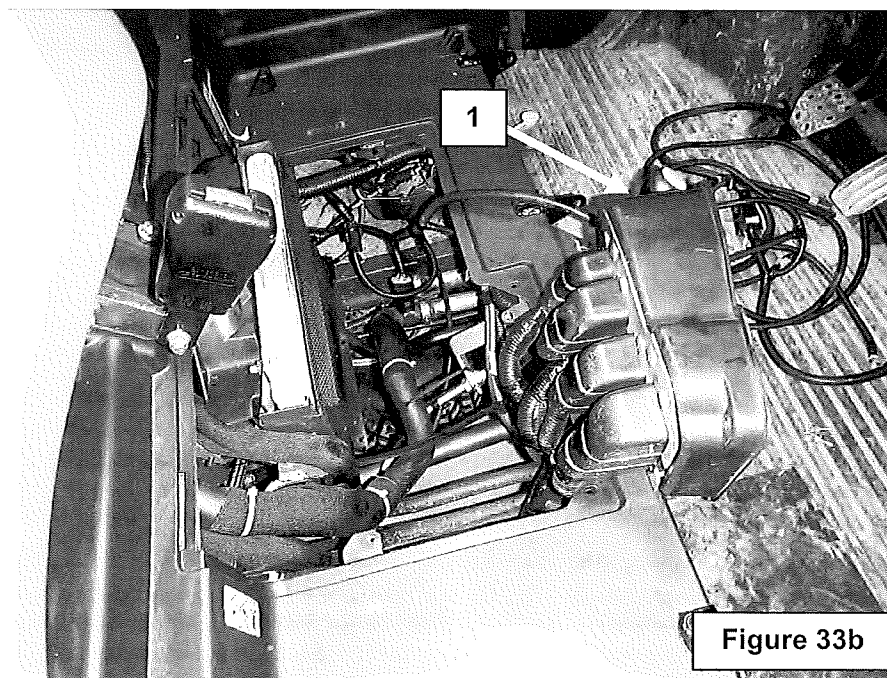
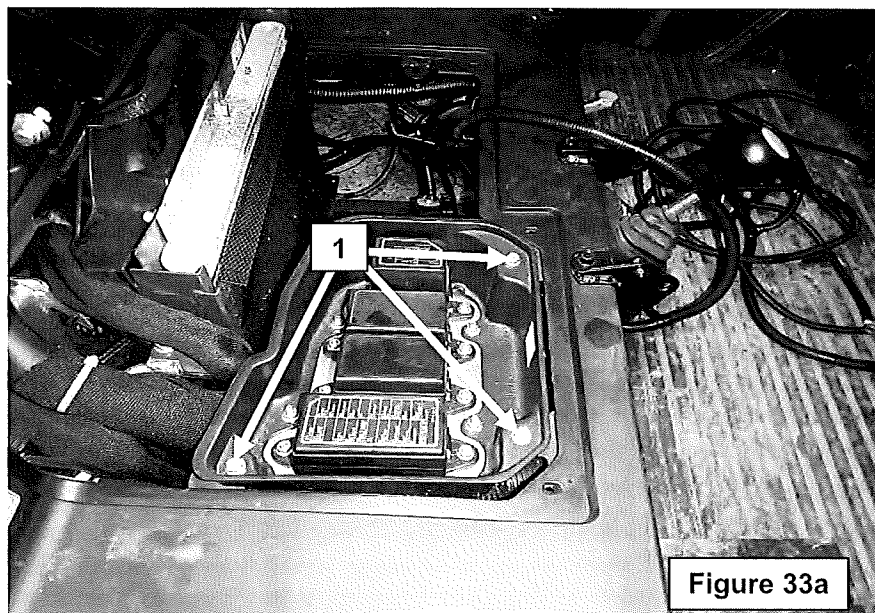




# ASSEMBLY

23. **Figure 33a;** Remove the three bolts of the fuse case (item 1).

24. **Figure 33b;** Lift the fuse case.



# ASSEMBLY

25. **Figure 34b-34c:** Run the wire section shown at **figure 34a** and let the wire fall on the ground.
26. **Figure 34d:** Place the 5/16" round ground terminal 3 (item 1) on the non-threaded side (item 2) of the bracket for the fuse case.

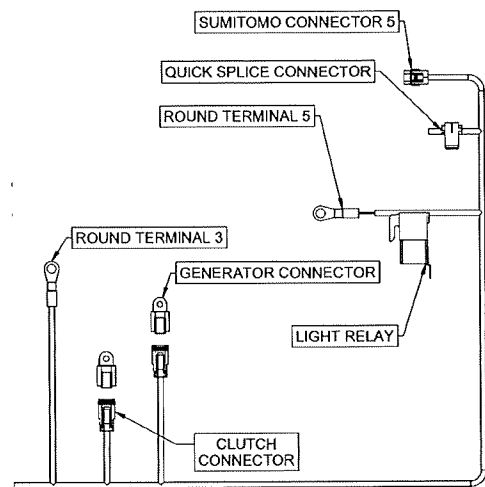
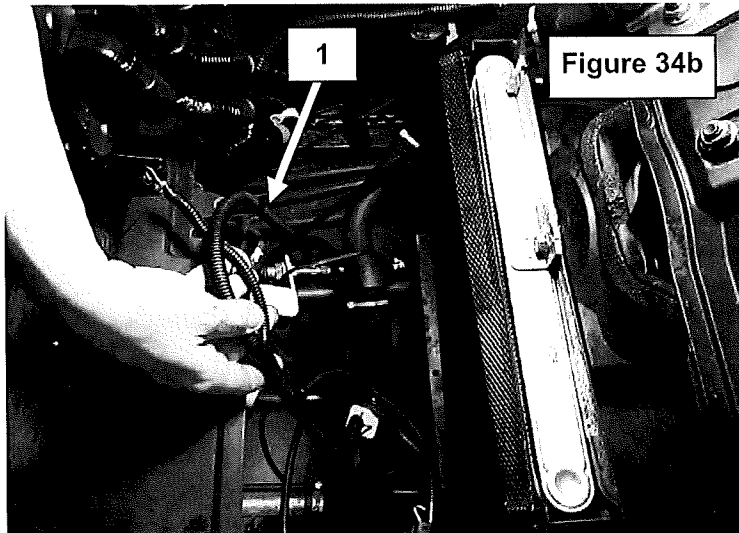
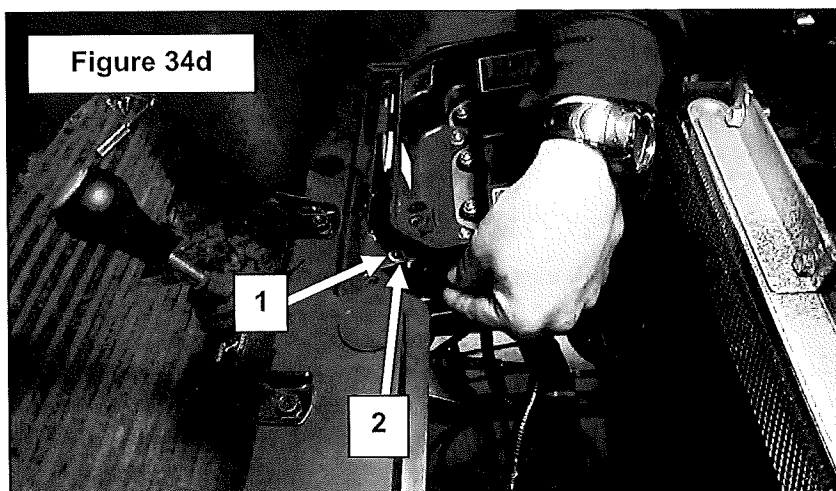
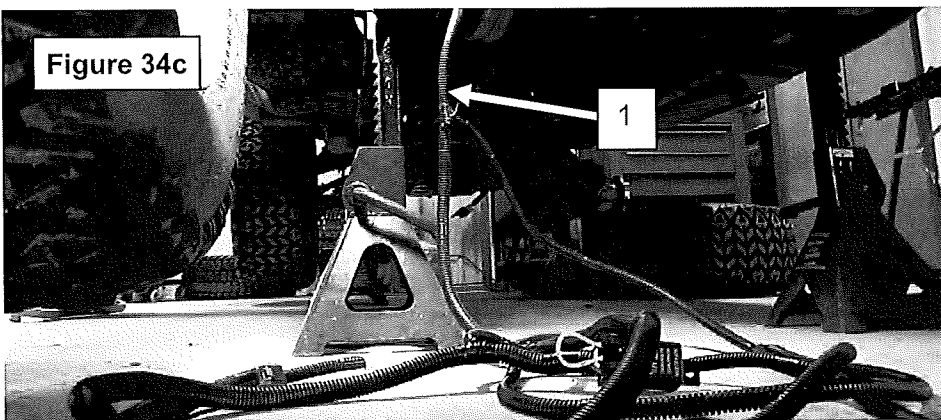


Figure 34a



# ASSEMBLY

27. **Figure 35b:** Attach the 5/16" round ground terminal 3 and the fuse case with the three bolts previously removed.
28. **Figure 35c:** Run the harness section shown in **figure 35a** (item 1) under the vehicle floor (item 2) and over the hydraulic hoses (item 3).

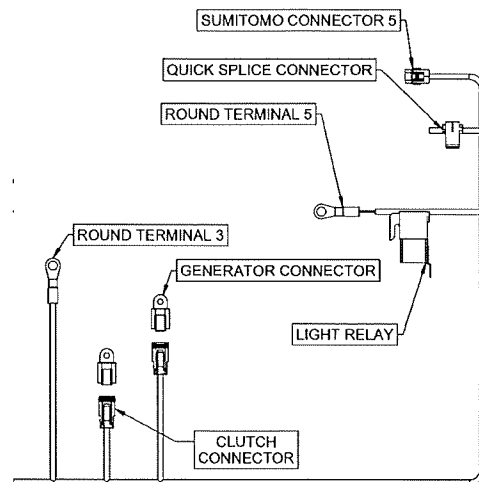
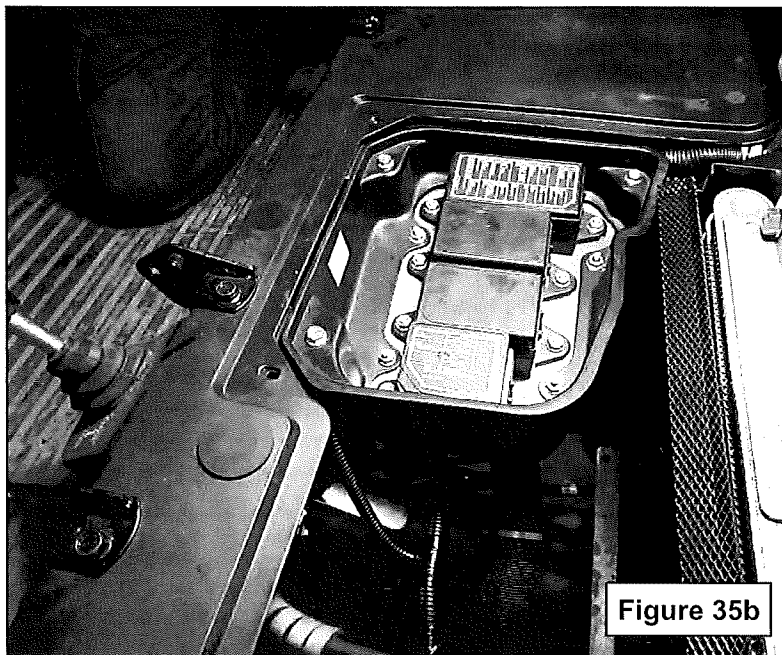
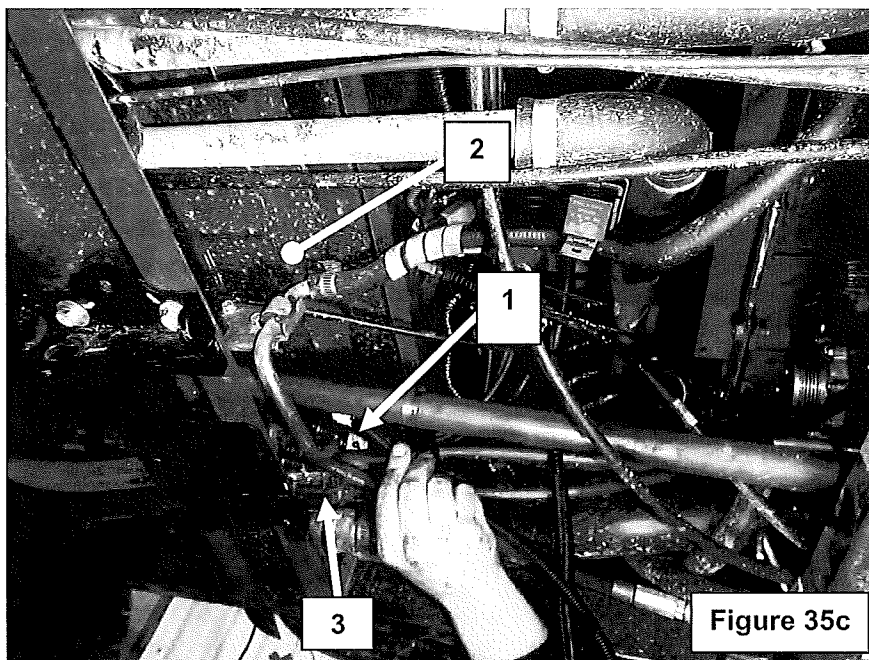


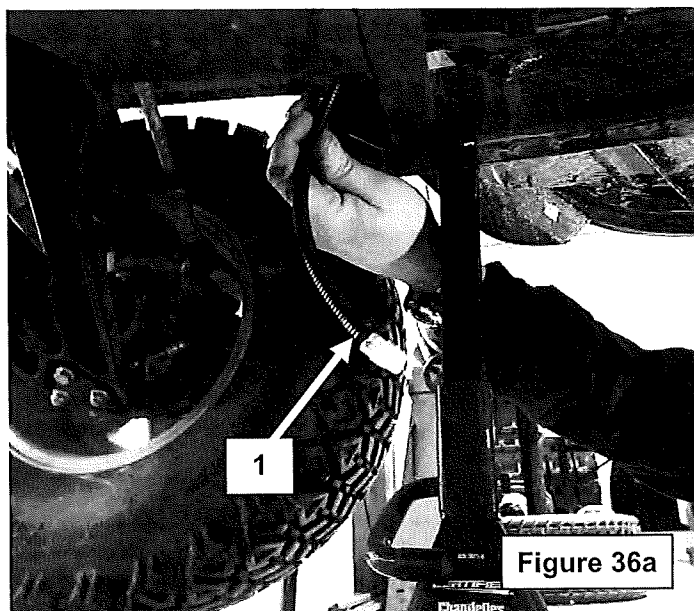
Figure 35a



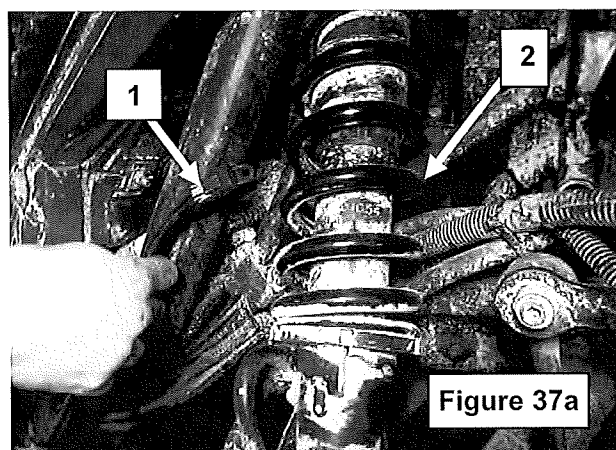


# ASSEMBLY

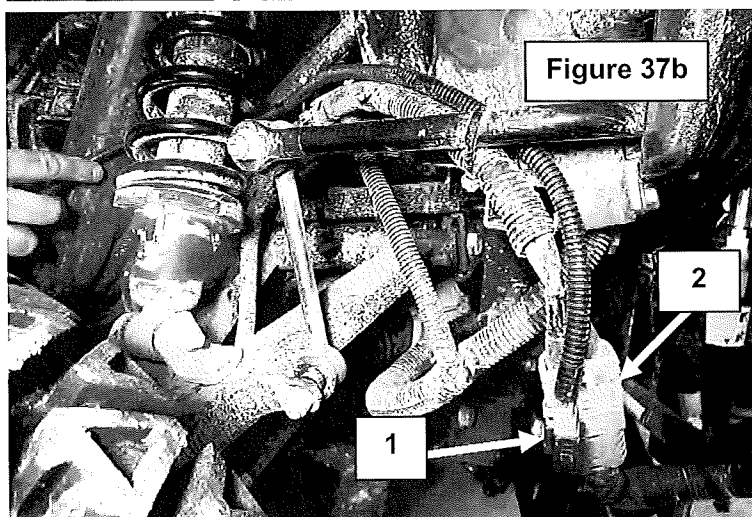
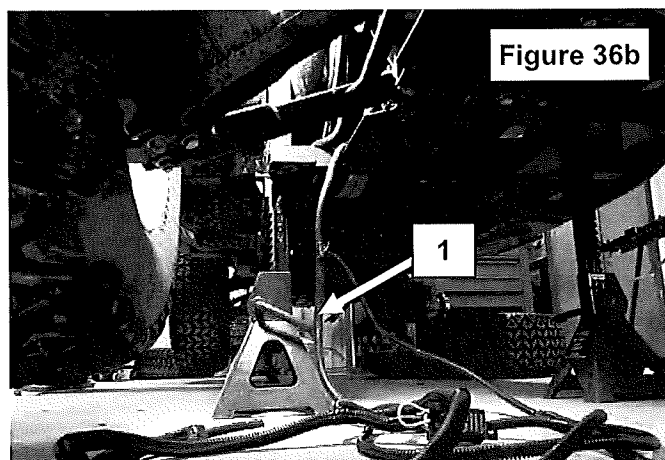
29. **Figures 36a-36b:** Route the harness section (item 1) to the front of the vehicle along the top of the radiator hoses.



30. **Figure 37a:** Run the generator connector (item 1) behind the shock absorber (item 2).

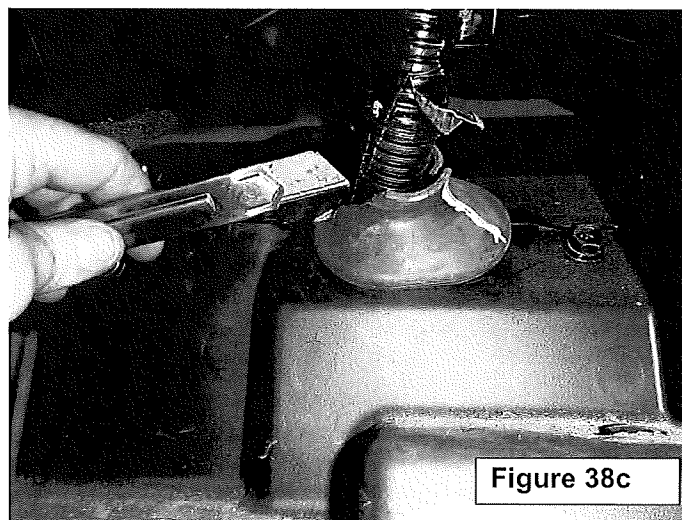
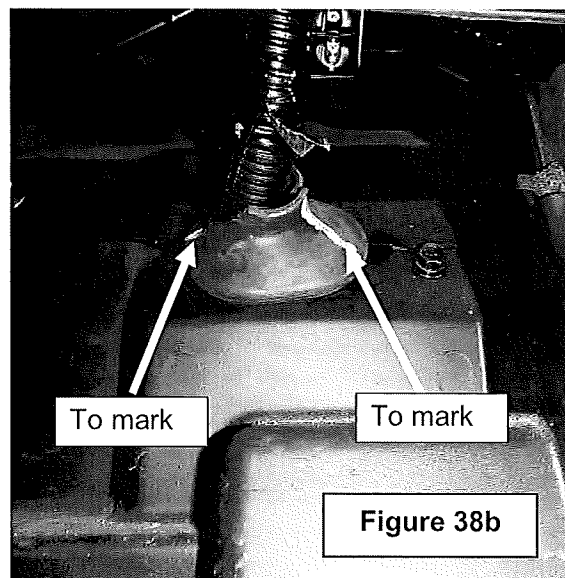
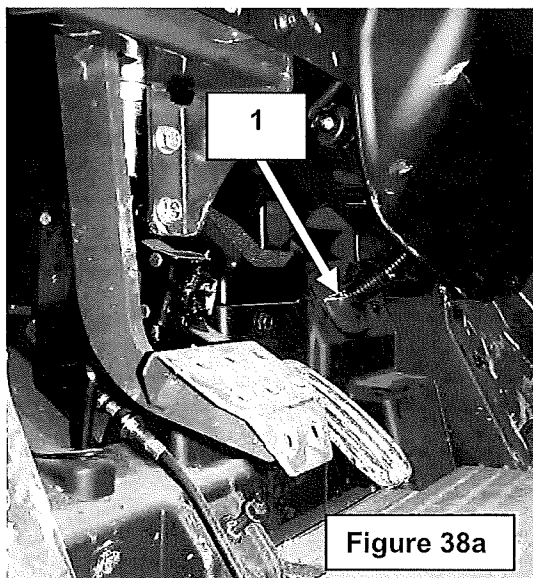


31. **Figure 37b:** Bring the generator connector (item 1) beside the 12V gray connector (item 2) from the 4pt hitch harness.



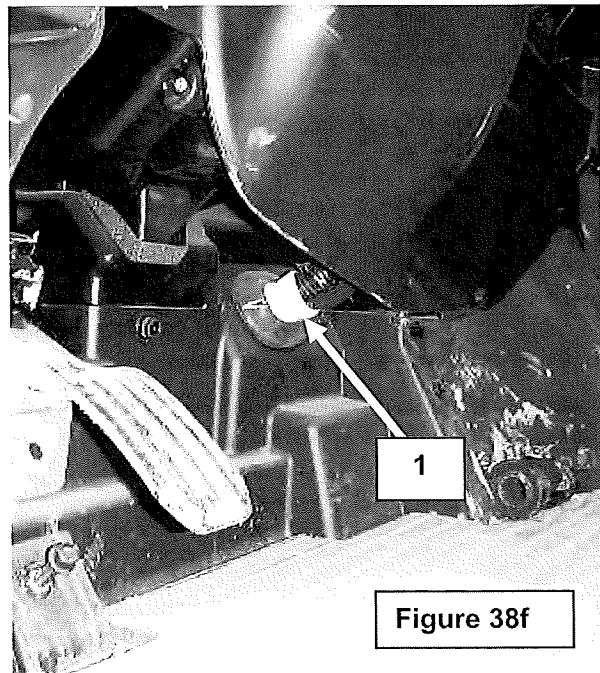
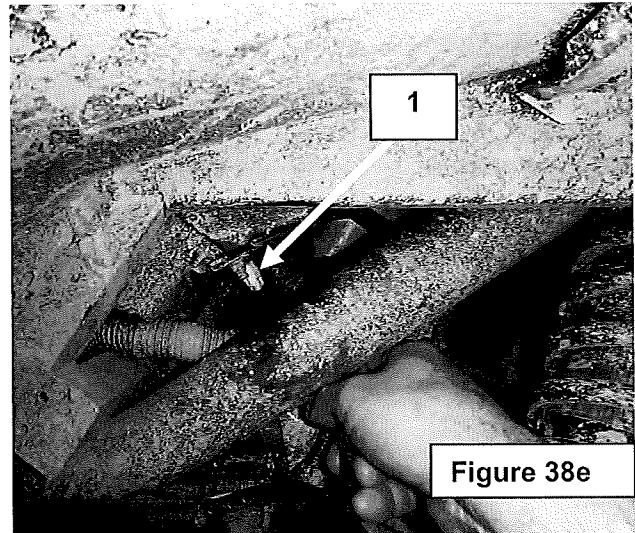
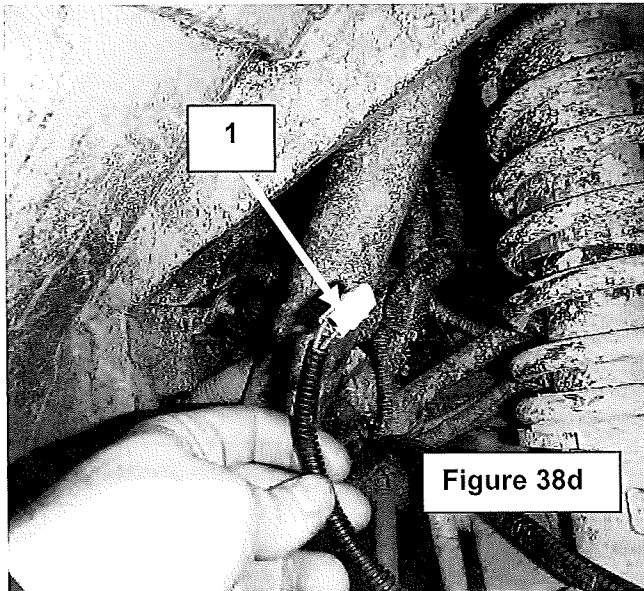
# ASSEMBLY

32. **Figure 38a:** Locate the rubber grommet (item 1) under the dashboard on the passenger side.
33. **Figure 38b:** Mark each side of the rubber grommet with a marker.
34. **Figure 38c:** With a utility knife cut the mark on the rubber grommet without cutting the retaining lip.



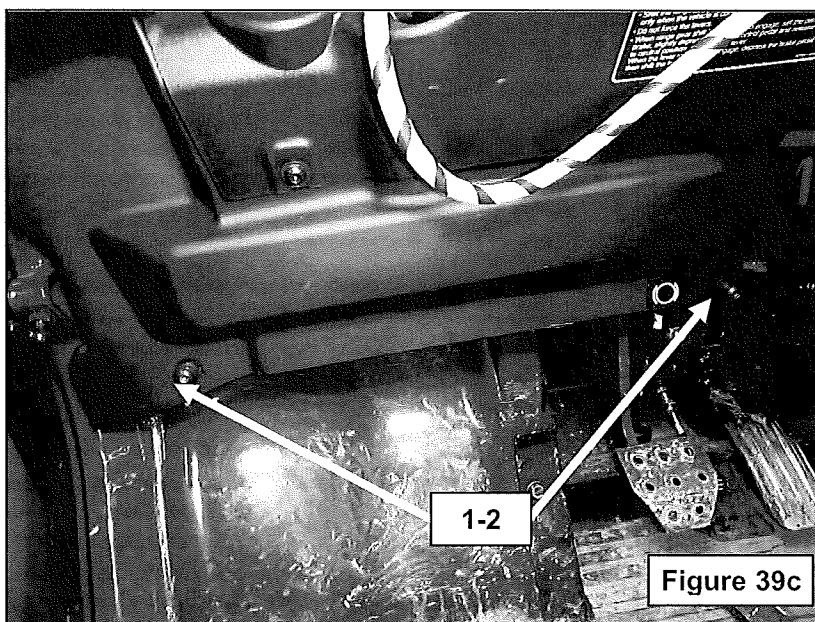
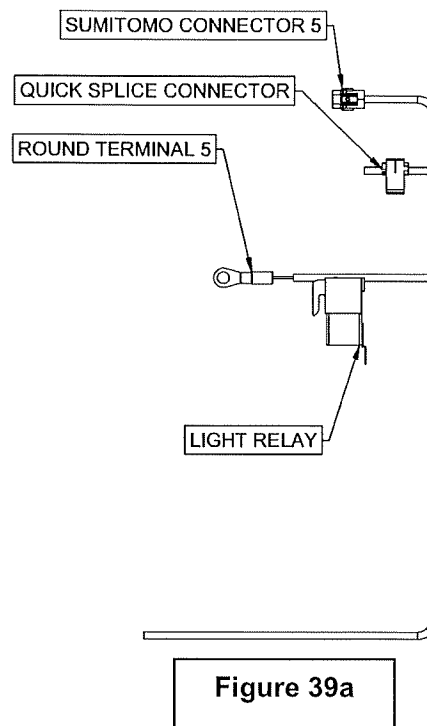
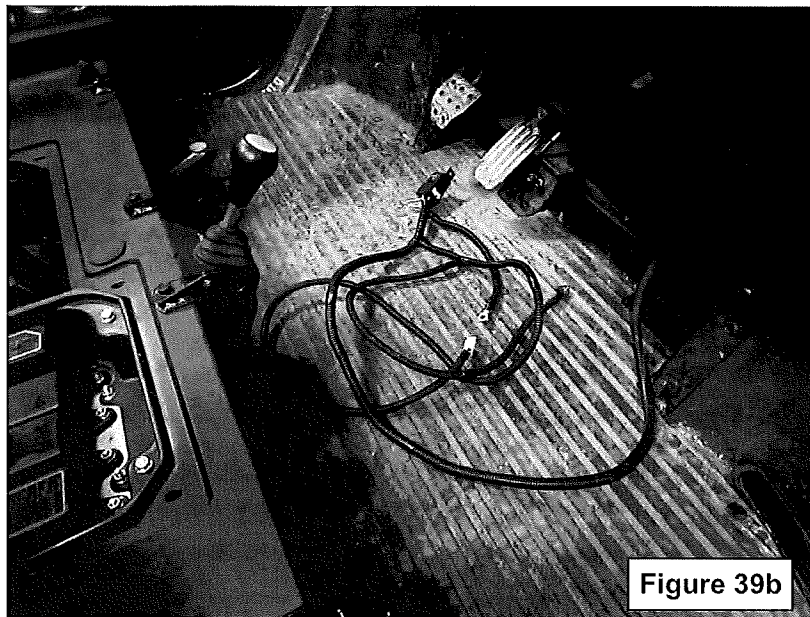
# ASSEMBLY

35. **Figure 38d-38e:** Bring the Sumitomo 5 connector (item 1) toward the inside of the cabin.
36. **Figure 38f:** Close the boot of the rubber grommet with electrical tape (item 1).



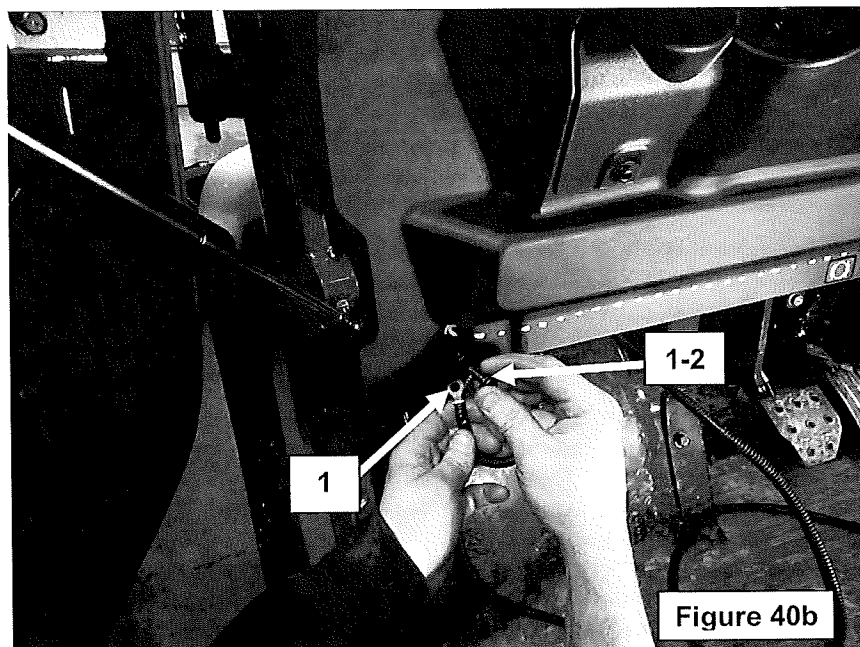
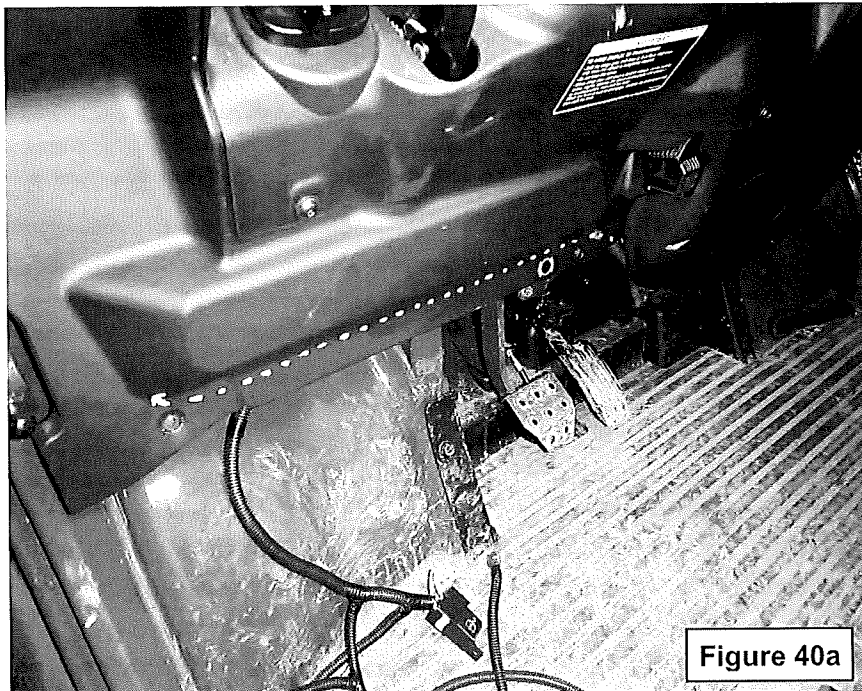
# ASSEMBLY

37. **Figure 39b:** Bring the harness section shown at **figure 39a** inside the cabin.
38. **Figure 39c:** Unscrew and remove the two bolts and flat washers (items 1-2).



# ASSEMBLY

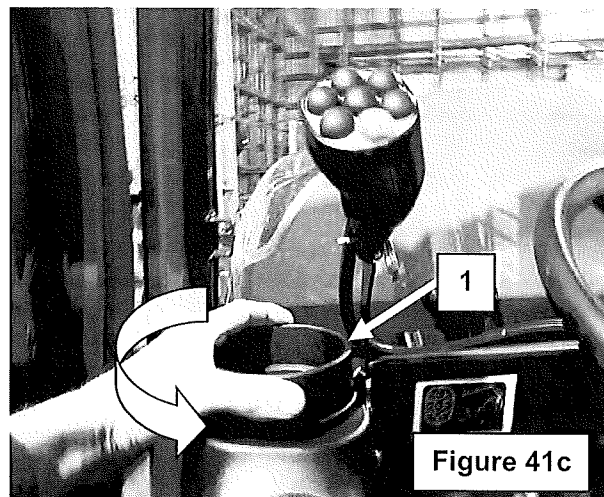
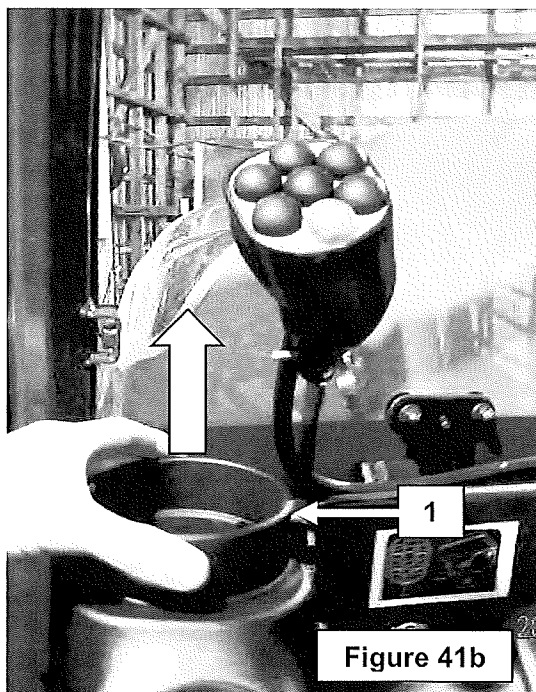
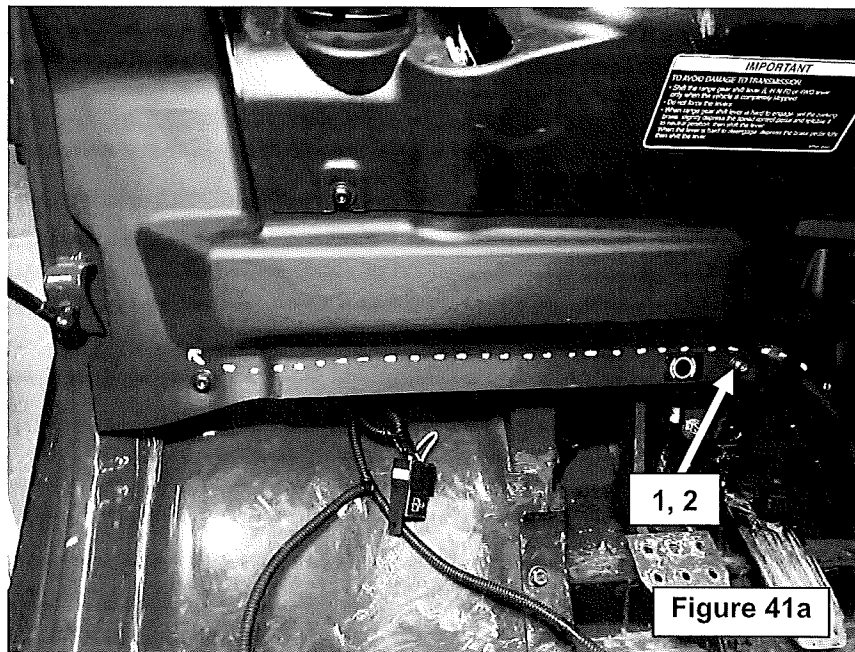
39. **Figure 40a:** Run the harness behind the dashboard. Refer to the dotted line in figure for the path to follow.
40. **Figure 40b:** Screw the round ground terminal 5 (item 1) behind the plastic of the dashboard with the bolt and flat washer (items 1-2).





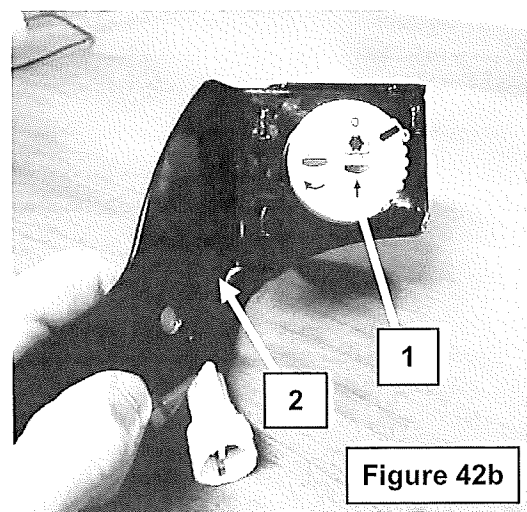
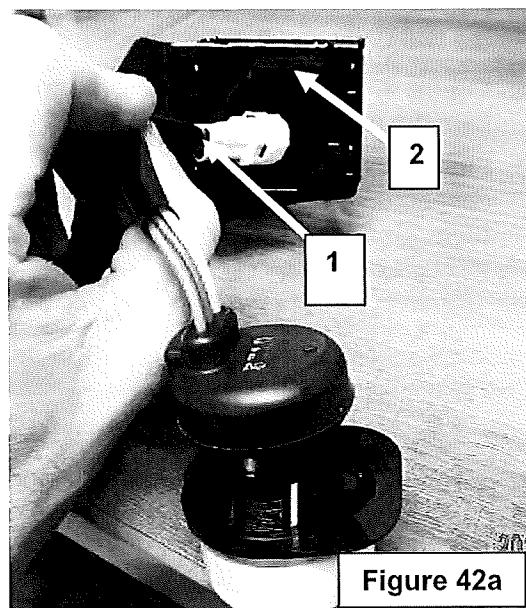
# ASSEMBLY

41. **Figure 41a:** Reinstall the flat washer and the bolt (items 1-2).
42. **Figure 41b:** Pull up the cup holder (item 1).
43. **Figure 41c:** Turn the cup holder (item 1) counterclockwise and remove it. Keep the cup holder for the future installation.



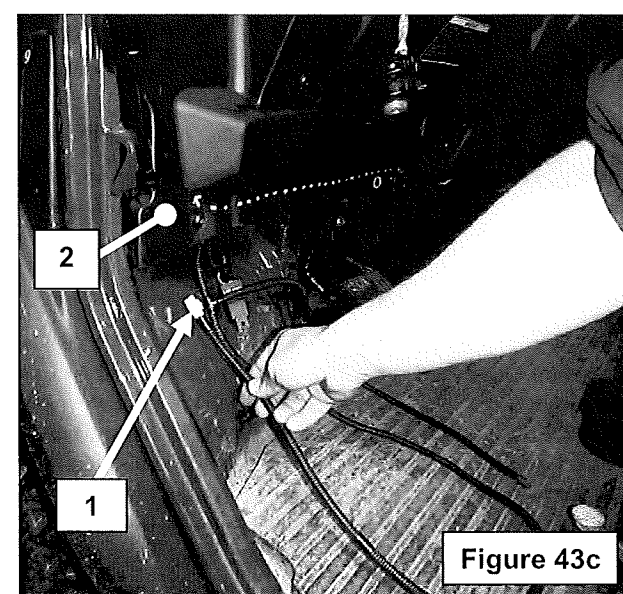
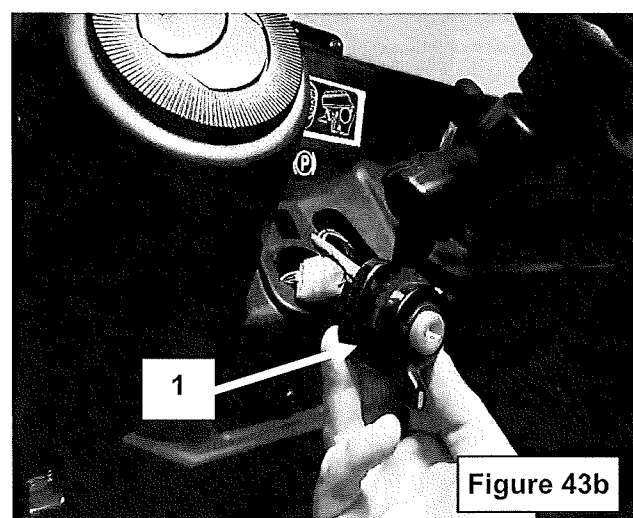
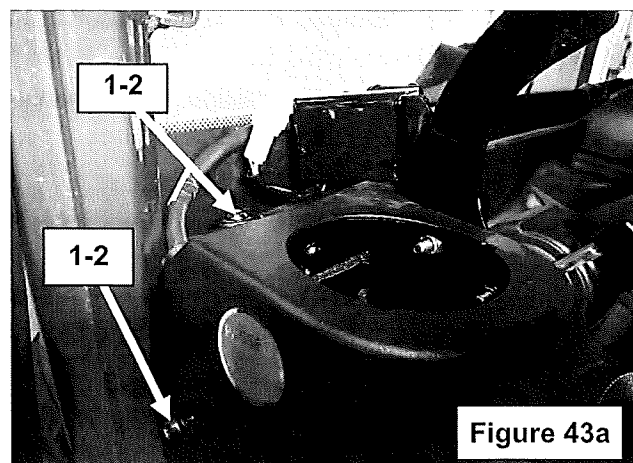
# ASSEMBLY

44. **Figure 42a:** Insert the wire of the PTO switch (item 1) through the PTO switch bracket (item 2).
45. **Figure 42b:** Clip the PTO switch (item 1) on the bracket (item 2) as shown in the figure.
46. **Figure 42c:** Remove the hardware (item 3) of the 4pt hitch control handle support (item 2). Mount the PTO switch box bracket (item 1) on the control handle support (item 2) and secure them together with the hardware removed.



# ASSEMBLY

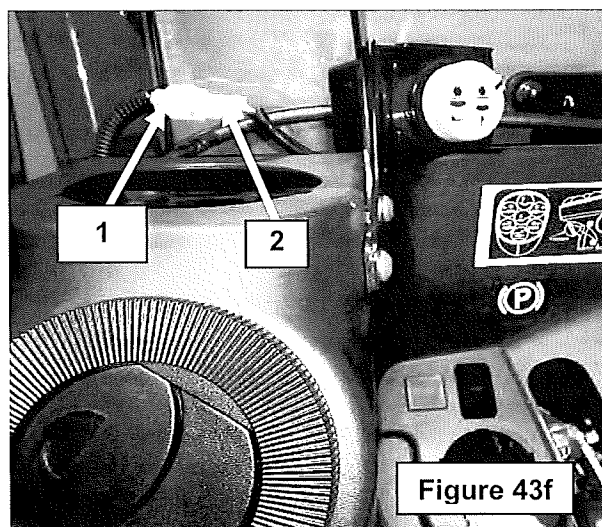
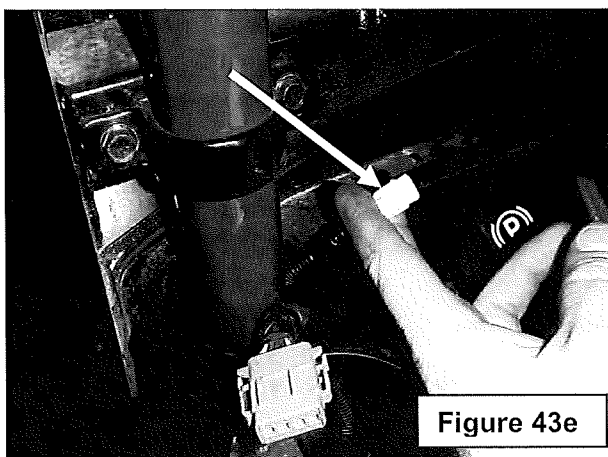
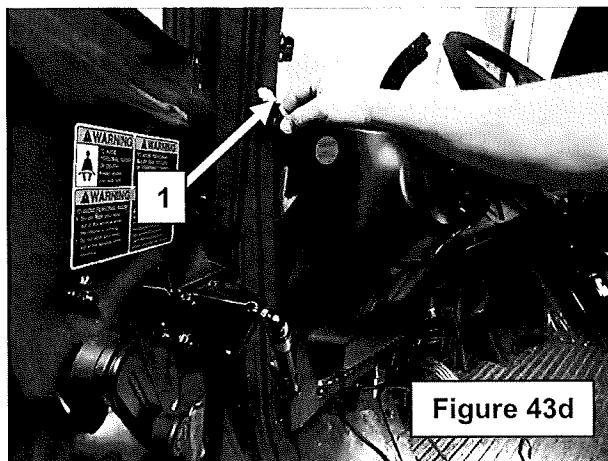
47. **FOR RTV-X1100C:** Figure 43a: Remove the two bolts and flat washers (items 1-2).
48. Figure 43b: Unclip the horn switch (item 1) from the dashboard.
49. Figure 43c: Insert the Sumitomo 5 male connector (item 1) behind the dashboard (item 2).





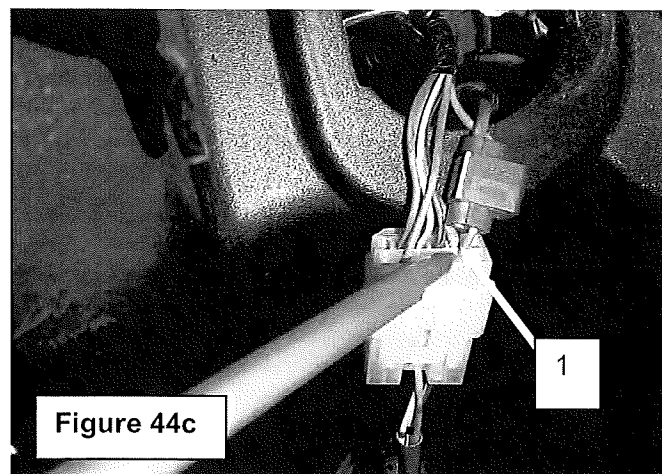
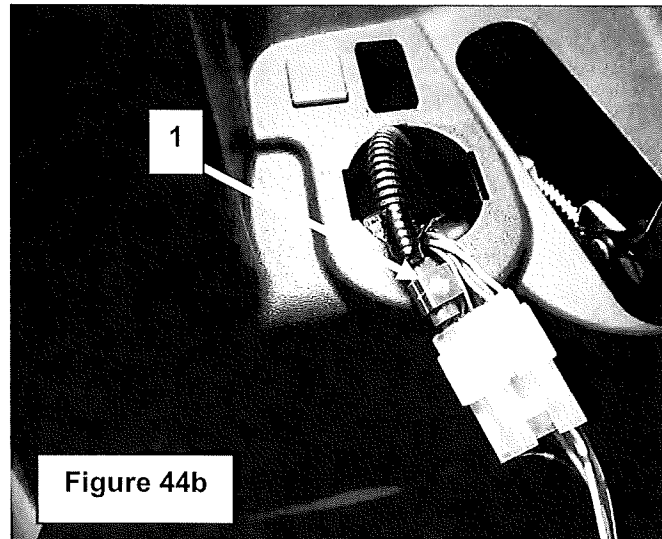
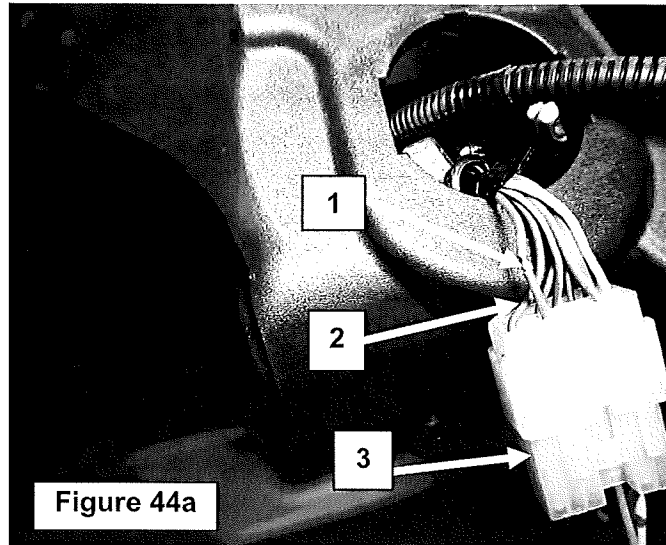
# ASSEMBLY

50. **FOR RTV-X1100C:** Figure 43d: Bring the Sumitomo 5 connector (item 1) as shown in the figure.
51. **FOR RTV-X1120D:** Figure 43e: Bring the Sumitomo 5 connector (item 1) as shown in the figure.
52. **FOR RTV-X1100C:** Figure 43f: Connect Sumitomo 5 male connector (item 1) to the female connector of the PTO switch (item 2).



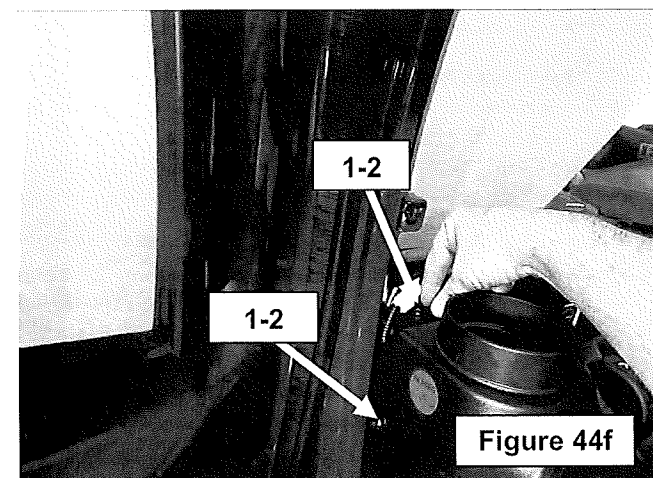
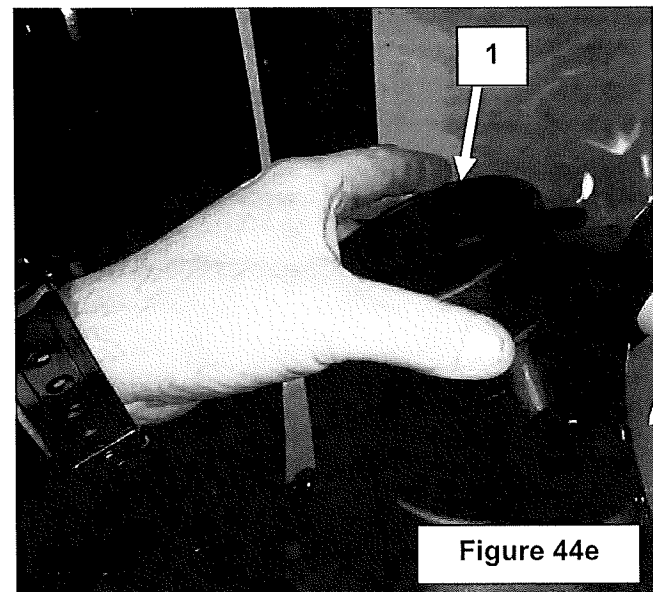
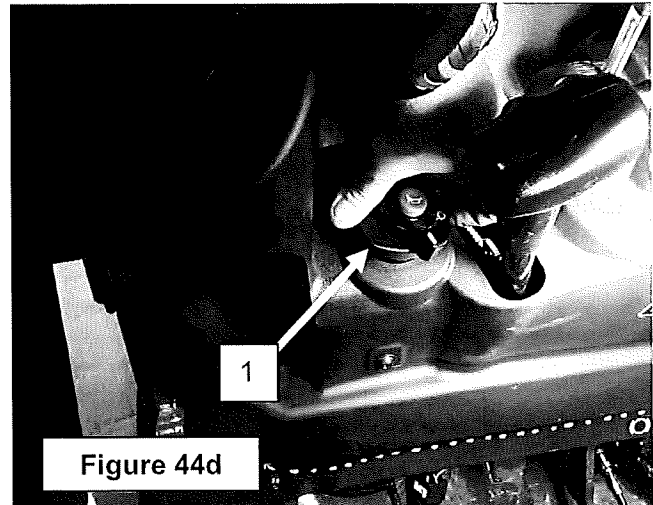
# ASSEMBLY

53. **FOR RTV-X1100C:** Figure 44a: Identify the red wire (item 1) next to the brown wire on the multi-cavity horn connector (item 3).
54. **Figure 44b:** Connect the blue tap connector to the previously identified red wire.
55. **FOR RTV-X1120D:** Figure 44c: Identify the red wire (item 1) next to the green wire on the multi-cavity horn connector and connect to it the tap connector.



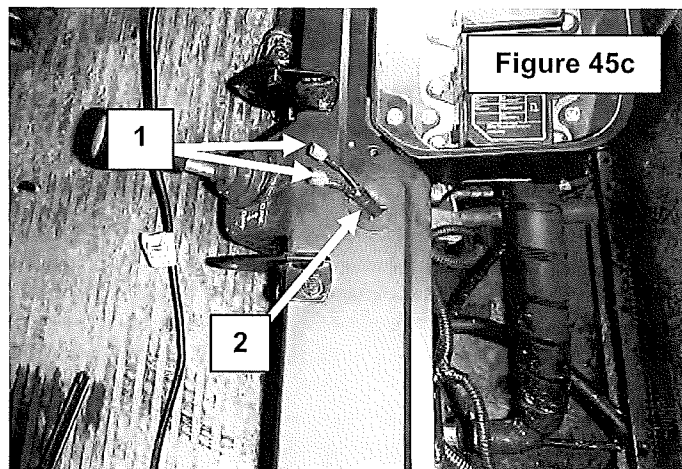
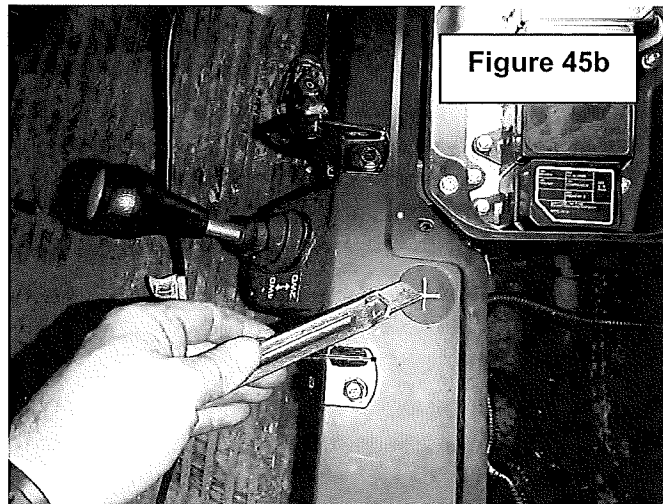
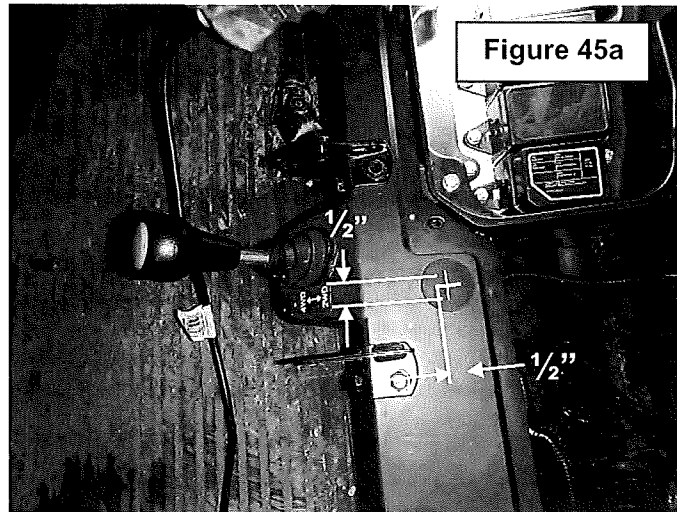
# ASSEMBLY

- 56. **Figure 44d:** Reinstall the horn switch (item 1).
- 57. **Figure 44e:** Reinstall the cup holder (item 1).
- 58. **FOR RTV-X1100C: Figure 44f:** Reinstall the two bolts and flat washers (items 1-2).



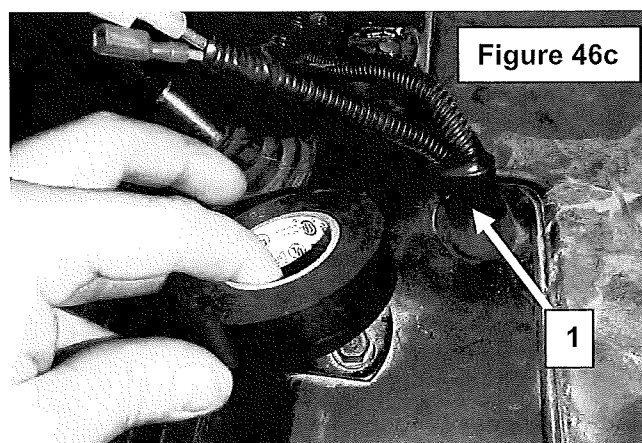
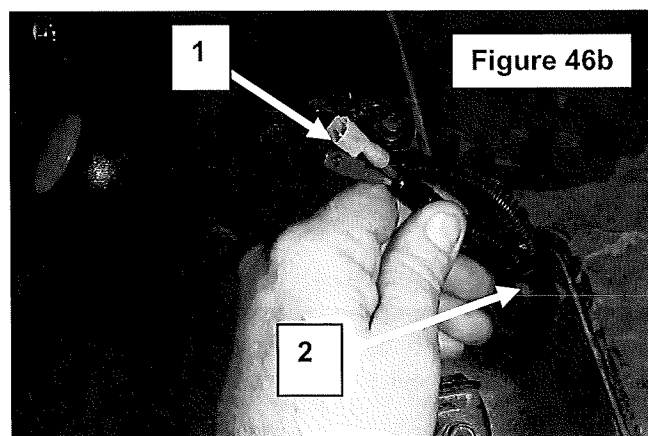
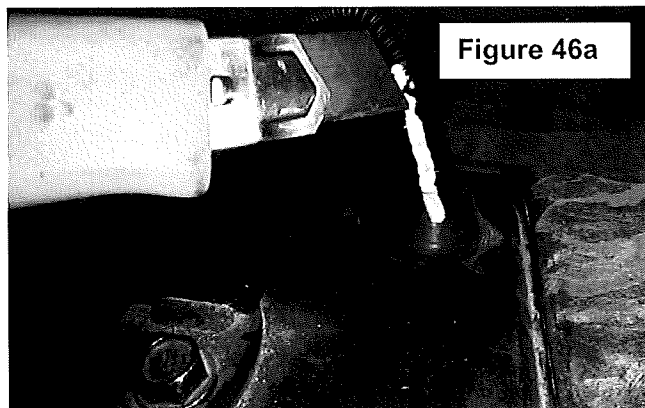
# ASSEMBLY

59. **FOR RTV-X1100C: Figure 45a:** Mark a small cross into the rubber between the seats, and at the front of the seats with a marker.
60. **FOR RTV-X1100C: Figure 45b:** Cut the cross with a utility knife.
61. **FOR RTV-X1100C: Figure 45c:** Route the harness section with two 1/4" flat terminals (item 1) through the opening made into the rubber (item 2).



# ASSEMBLY

62. **FOR RTV-X1120D:** **Figure 46a:** Using a marker, draw a small line on the rubber located near the 4WD clutch arm and cut with a utility knife.
63. **FOR RTV-X1120D:** **Figure 46b:** Route the harness section with two 1/4" flat terminals (item 1) through the opening made into the rubber (item 2).
64. **FOR RTV-X1120D:** **Figure 46c:** Put electrical tape around the rubber (item 1) previously cut.



# ASSEMBLY

## Installation of the Power Steering hose

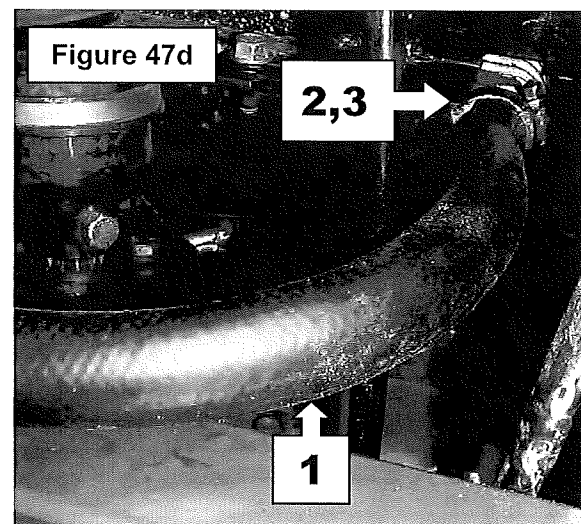
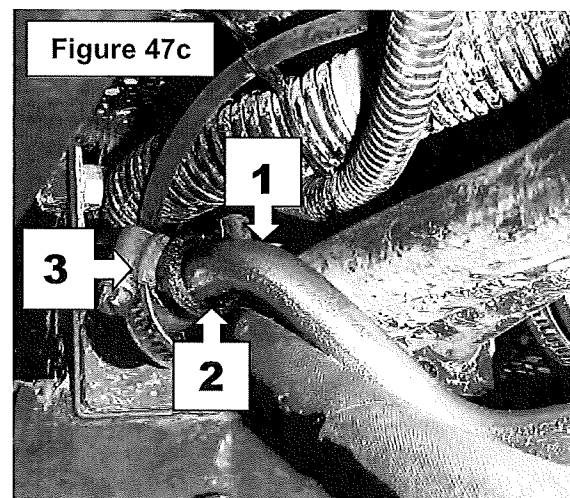
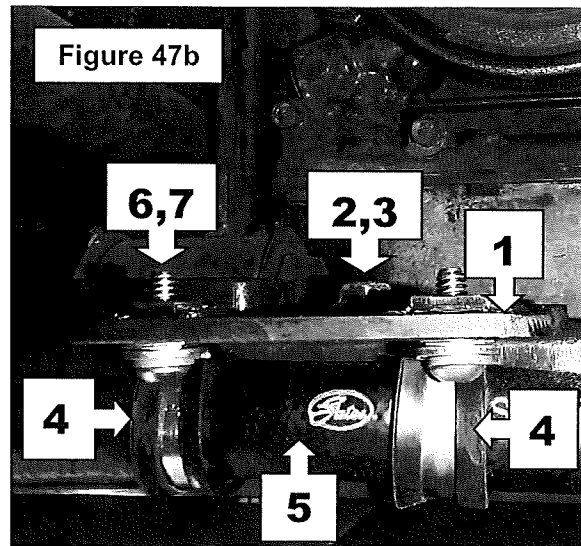
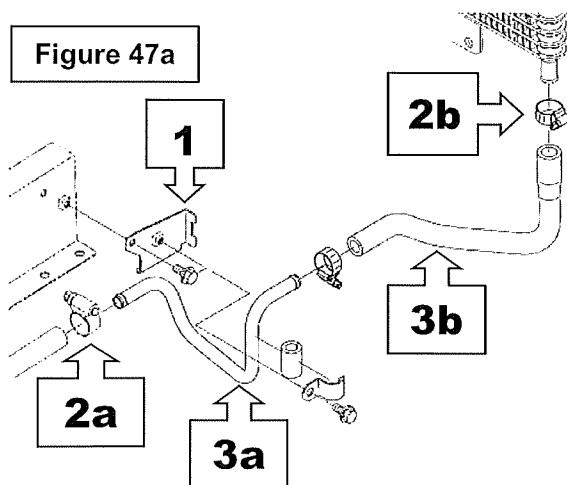
### FOR RTV-X1100C:

**Figure 47a:** Place a container under the connection near the collar (item 2a) Remove the hose support (item 1) and untighten the collar (item 2a) and push it aside for a further installation. Pull the steel tube (item 3a) out and drain the oil from the cooler into the container. Untighten the second collar (item 2b) and remove the rubber hose (item 3b) from the oil cooler. This hose assembly won't be used anymore.

**Figure 47b:** Install the oil cooler hose support (item 1) to the vehicle frame with a hex bolt M8 x 1.25 x 25mm (item 2) and a lockwasher  $\varnothing 5/16"$  (item 3). Torque to 19 lbs-ft (26 N-m) Run the hose (item 5) into both hose clamps (item 4). Slightly tight both hose clamps  $\varnothing 7/8"$  (item 4) with two allen round head cap screw  $\varnothing 1/4"$ NC (item 6) and two lockwasher (item 7).

**Figure 47c:** Insert the steel tube (item 1) of the hose into the rubber hose (item 2) of the vehicle. Tighten the collar (item 3) previously pulled aside.

**Figure 47d:** Insert the rubber hose (item 1) of the hose onto the steel tube of the oil cooler (item 2) of the vehicle. Tighten the collar (item 3) previously removed.

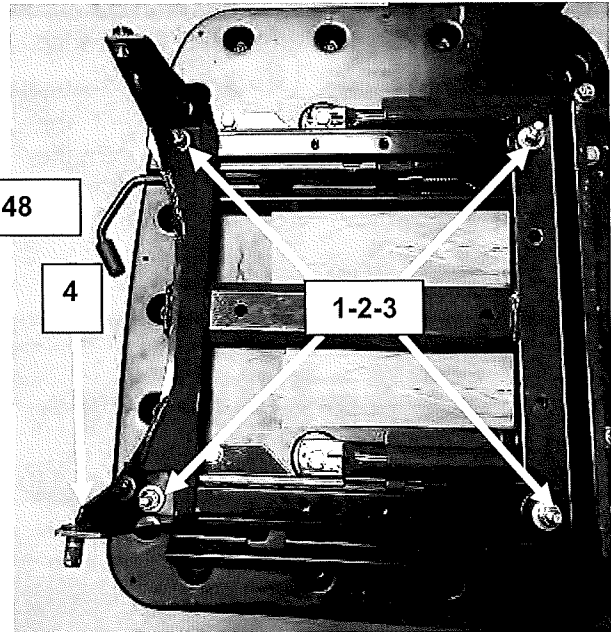
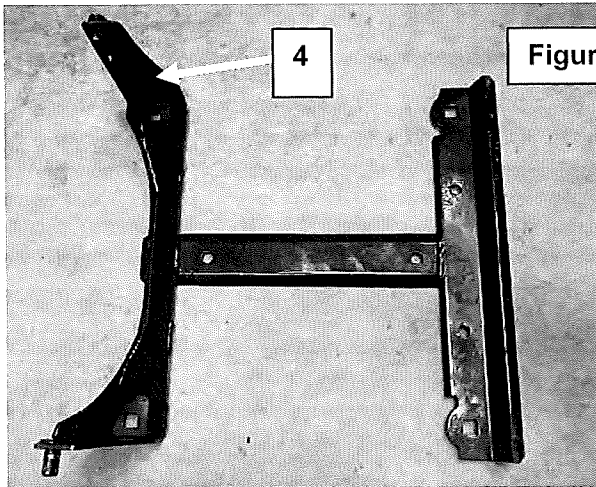




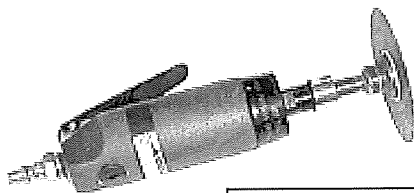
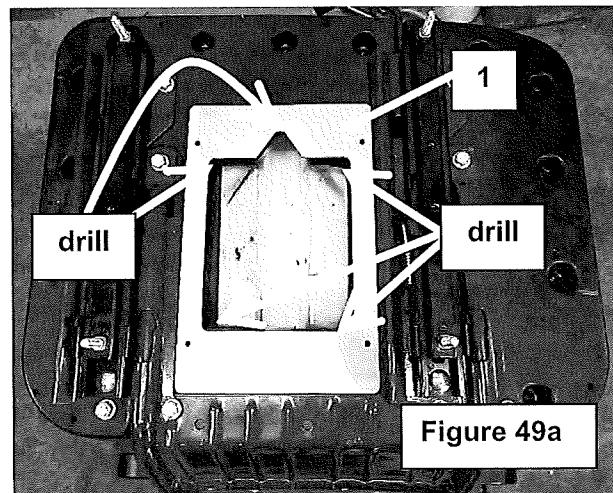
# ASSEMBLY

## Installation of the Seat Switch

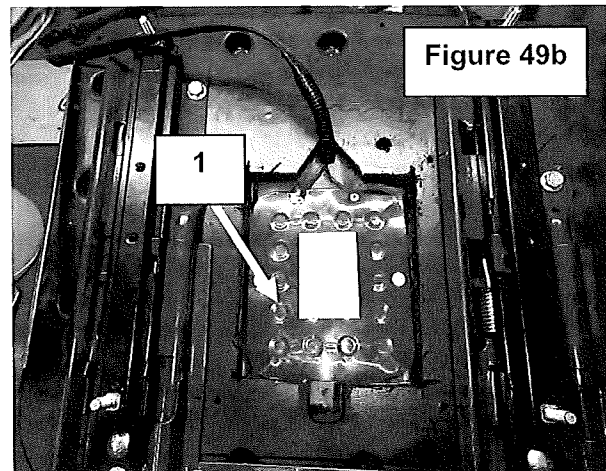
1. **Figure 48:** Remove the four nuts, lockwashers and flat washers (items 1-2-3). Remove the support of the operator's seat (item 4).



2. **Figure 49a;** Place the cutting template (item 1) on the seat. First drill with a 1/2" bit the five template corners as shown in the figure. Then using the suggested tool with a 3" diameter cutting wheel, cut the two layers of plastic as shown in the figure.
3. **Figure 49b:** Place the seat switch (item 1) in the seat as shown in the figure.

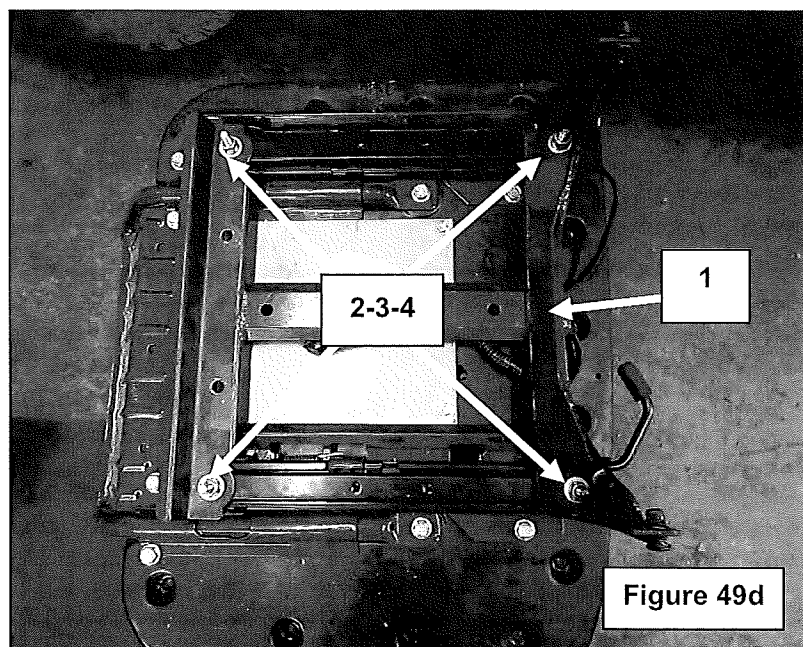
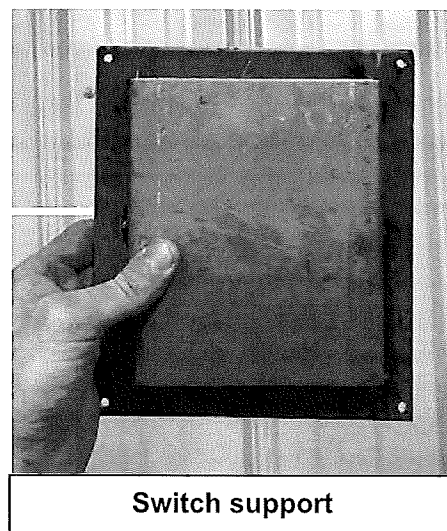
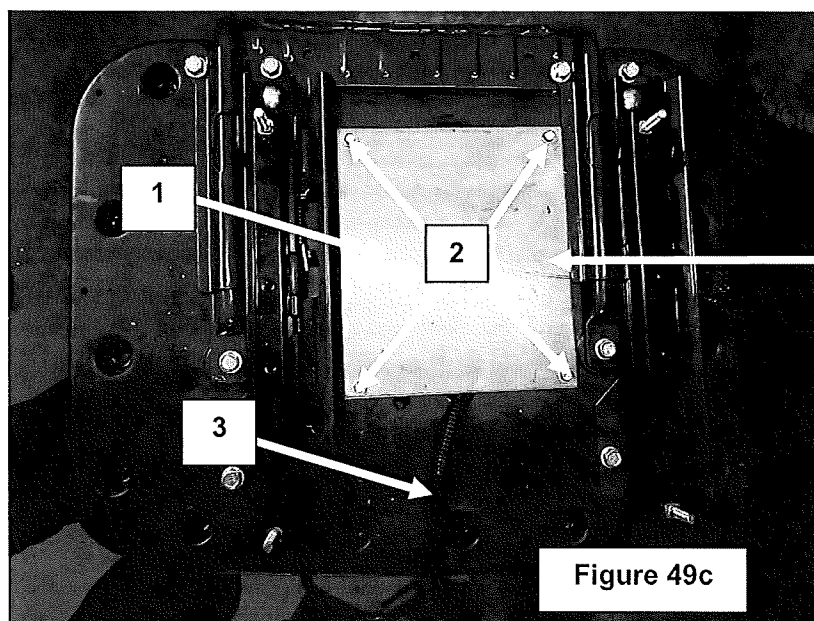


Suggested tool



# ASSEMBLY

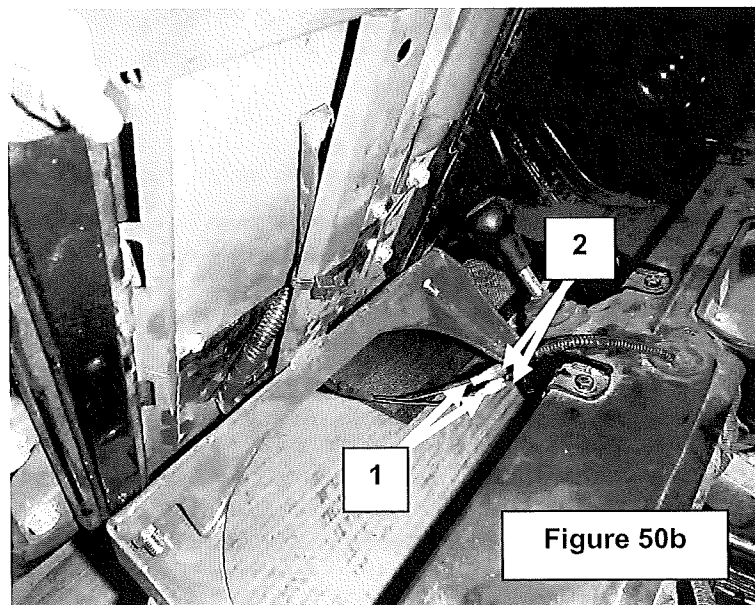
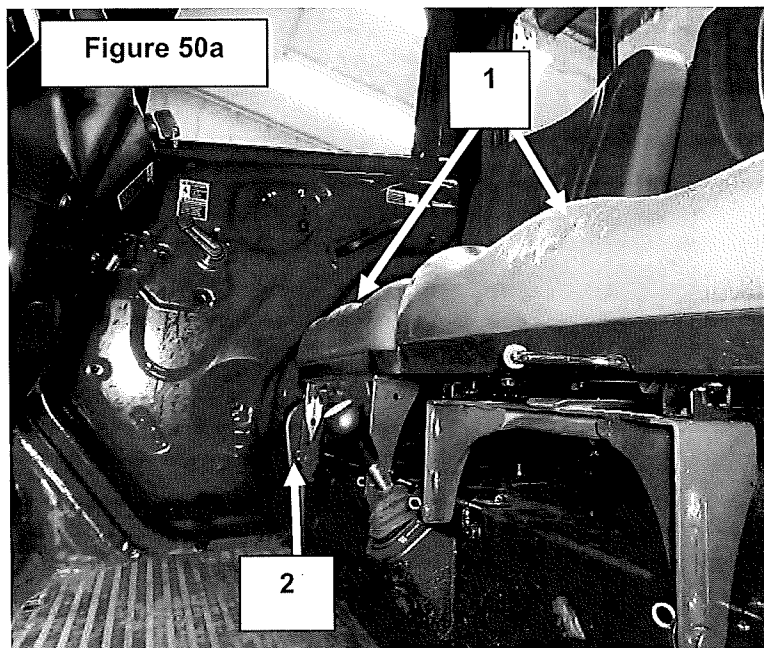
4. **Figure 49c:** Place the switch support (item 1) in the seat opening and secure with four 3/4" lg tapping screws (item 2). Let the seat switch harness (item 3) hang out by the opening.
5. **Figure 49d:** Reinstall the support of the operator's seat. (item 1) and secure with the four nuts, lockwashers and flat washers (items 2-3-4) previously removed. Torque to 19 lbs-ft (26 N-m)





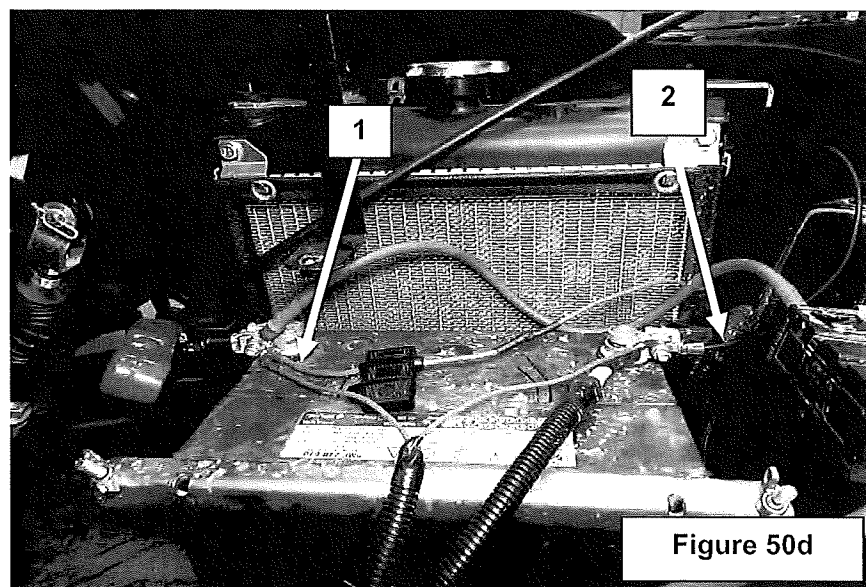
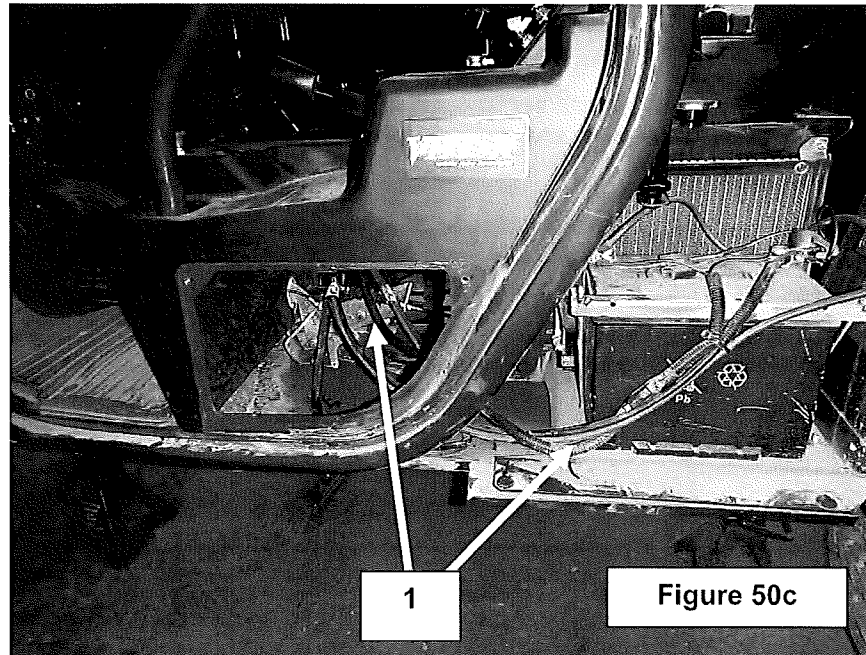
# ASSEMBLY

6. **Figure 50a:** Reinstall the two seats (item 1) and secure them with the four hairpins (item 2) previously removed.
7. **Figure 50b:** Connect the two 1/4" female terminals of the seat switch (item 1) to the 1/4" male connectors of the harness (item 2).



# ASSEMBLY

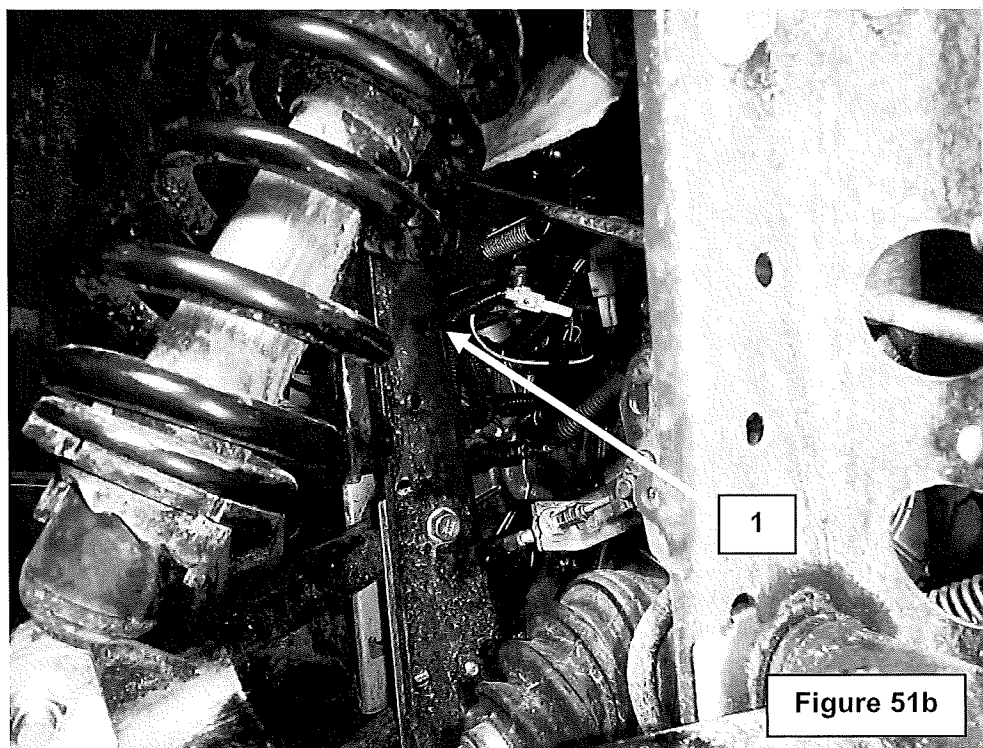
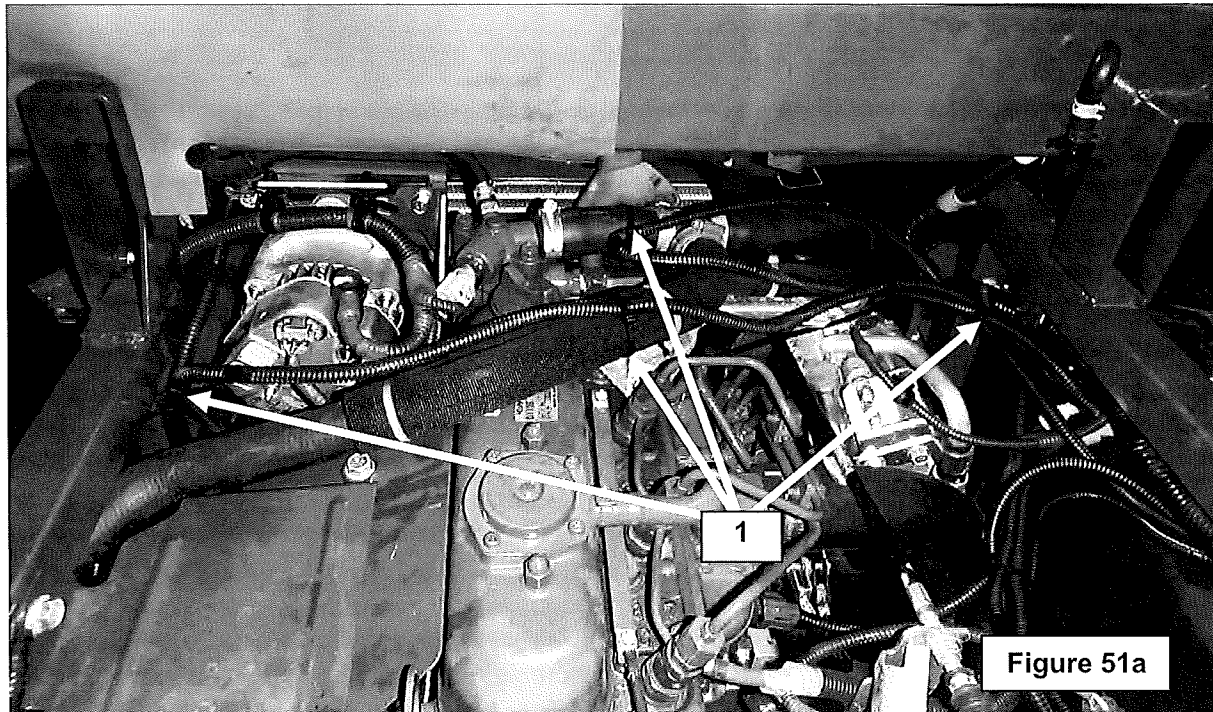
8. **Figure 50c:** Route the wire section with the round terminals 6 and 7 (item 1) towards the battery. **Refer to the harness diagram on page 29**
9. **Figure 50d:** Connect the round terminal 6 (item 1) to the positive terminal of the battery and the round terminal 7 (item 2) to the negative terminal of the battery. **Refer to the harness diagram on page 29**



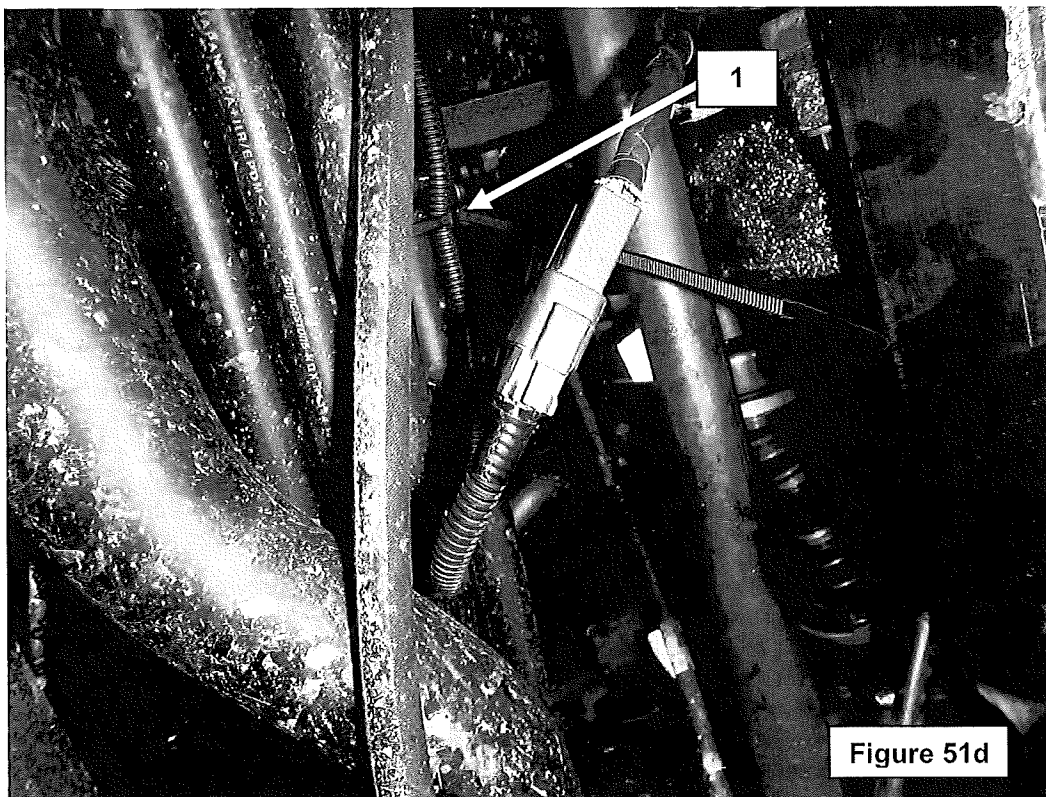
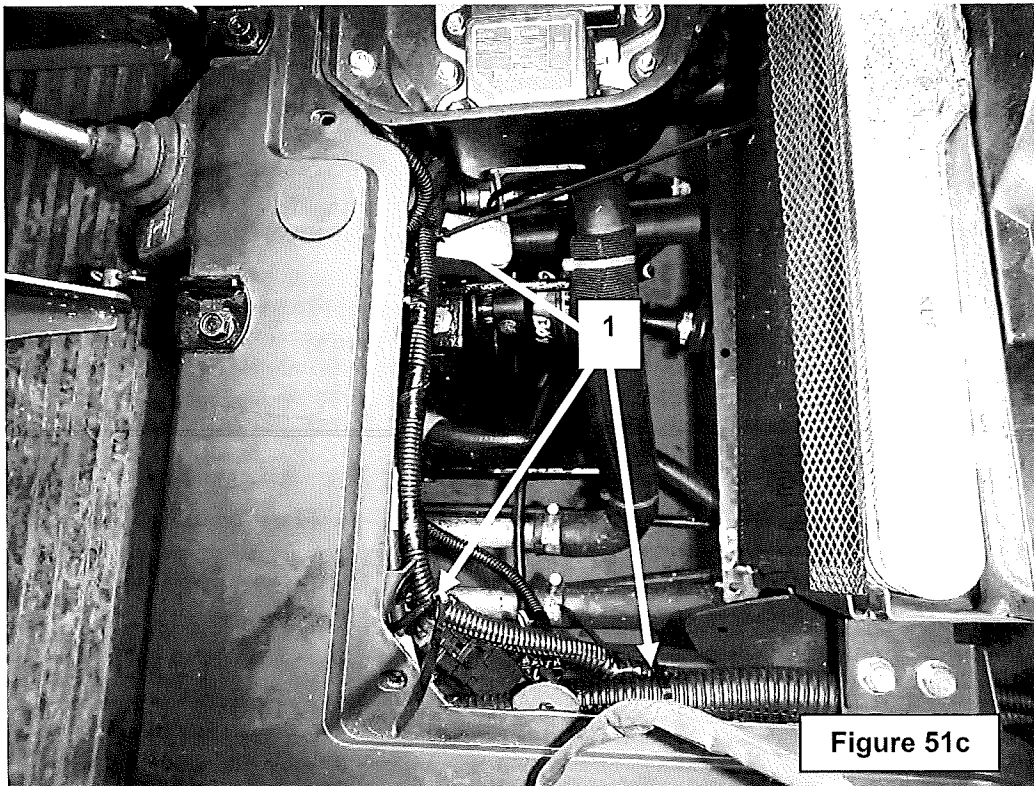
# ASSEMBLY

## Installation of the Tie Wraps

1. Figures 51a to 51g: Install the tie wraps (item 1) to the locations shown in figures.

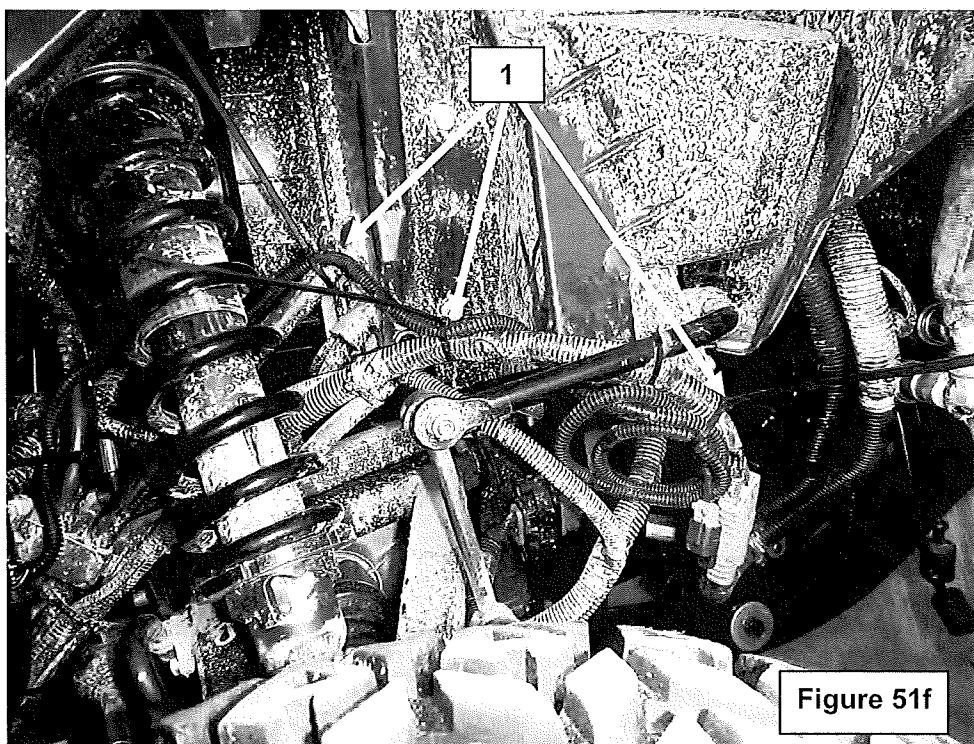
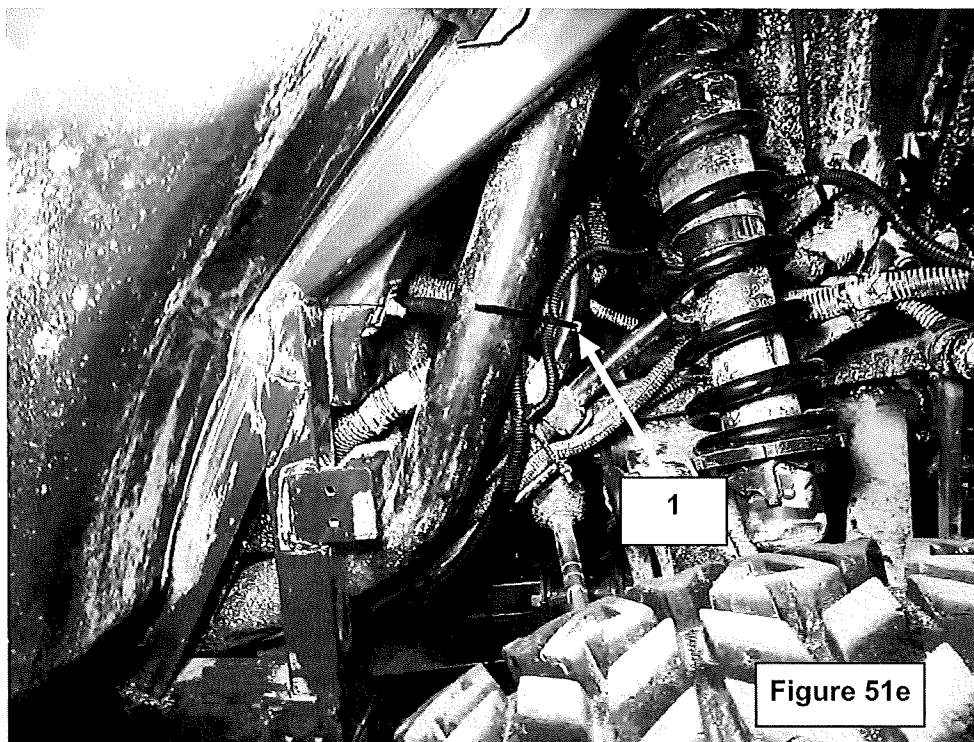


# ASSEMBLY

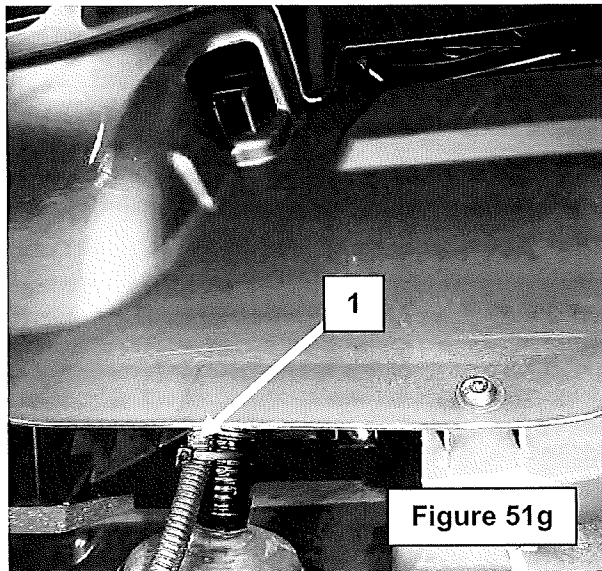




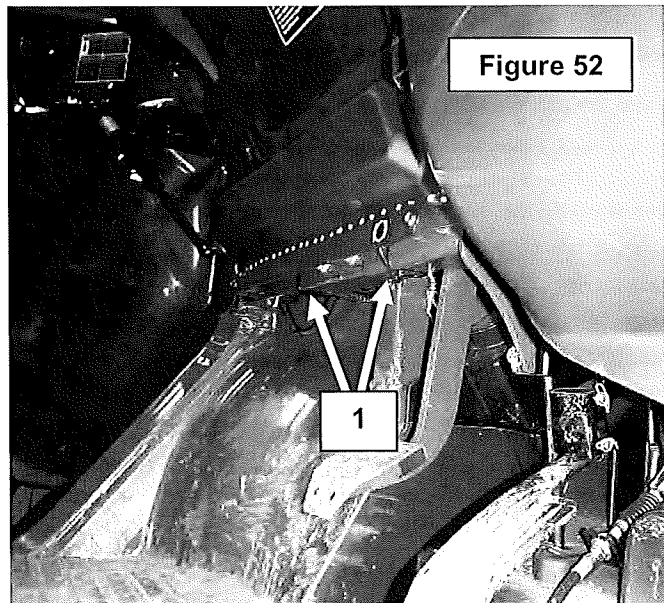
# ASSEMBLY



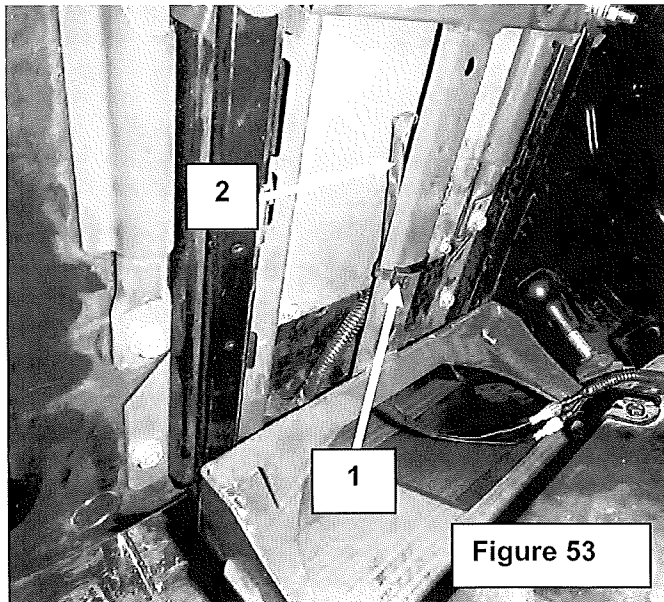
# ASSEMBLY



2. **Figure 52:** Attach the light relay and the harness to the frame under the dashboard (item 1) using tie wraps.



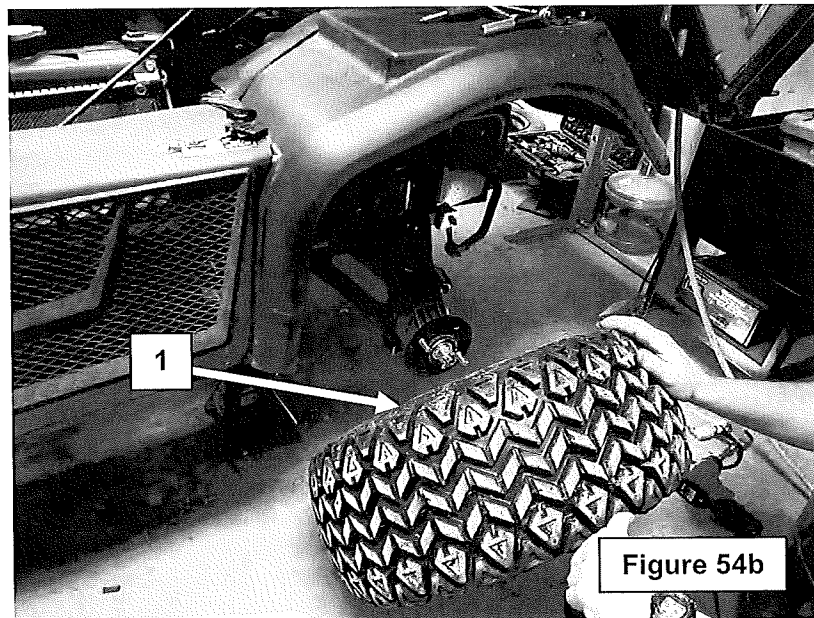
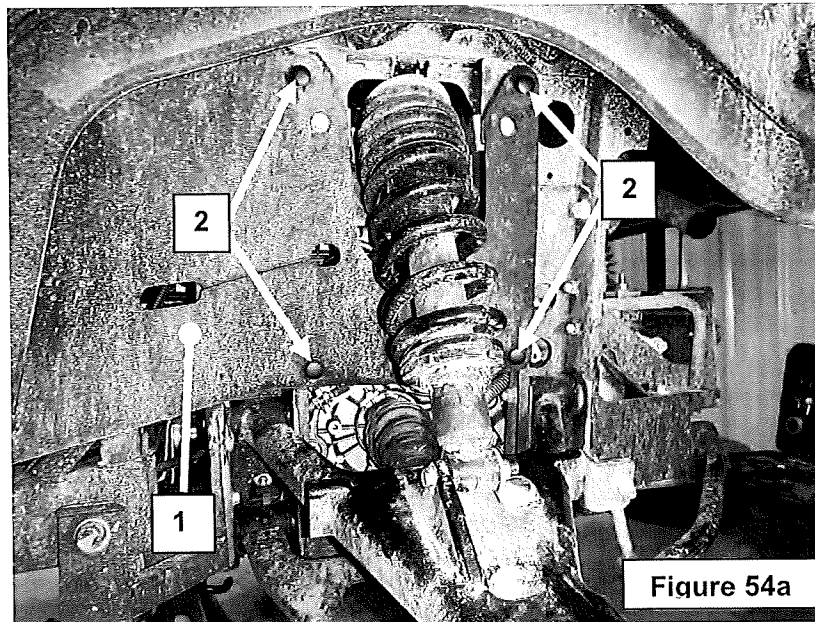
3. **Figure 53:** Raise the operator's seat and attach the excess of the seat switch harness (item 2) with a tie wrap (item 1). Verify that the seat may be lifted and lowered without disconnecting the switch.



# ASSEMBLY

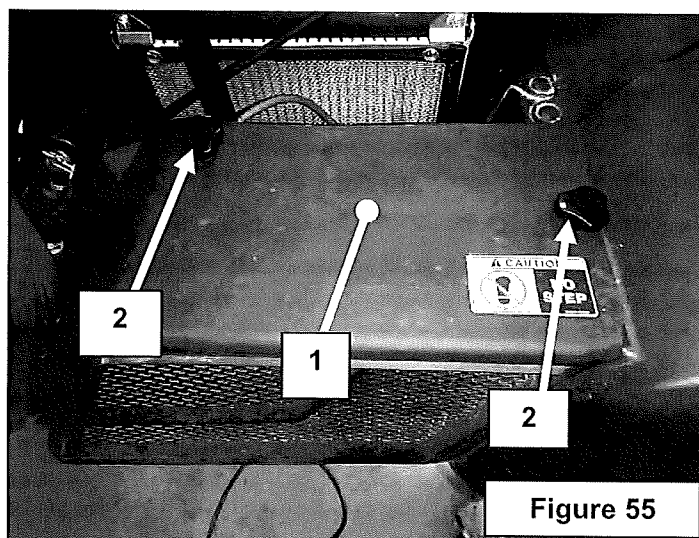
## Remounting the Vehicle

1. **Figure 54a:** Reinstall the rubber protector (item 1) and secure with the four finishing fasteners previously removed (item 2)
2. **Figure 54b:** Reinstall the wheel on the driver side (item 1).



# ASSEMBLY

3. **Figure 55:** Reinstall the plastic panel of the battery (item 1) and secure with the two plastic buttons (item 2).





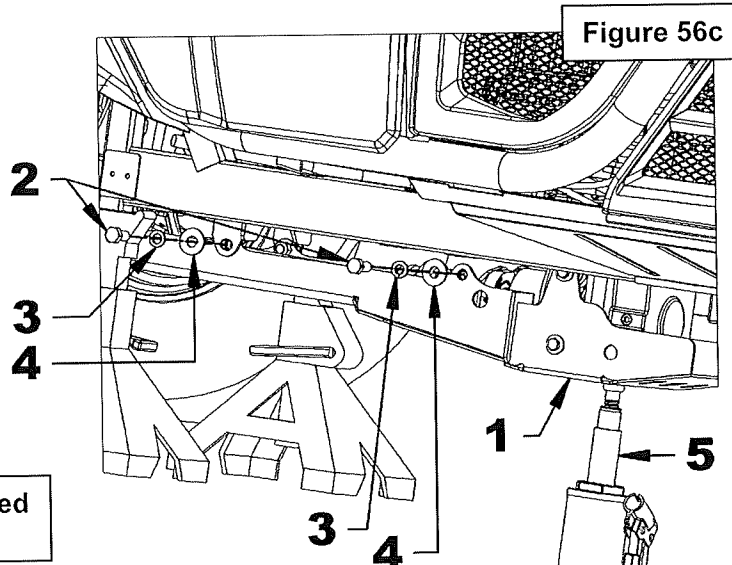
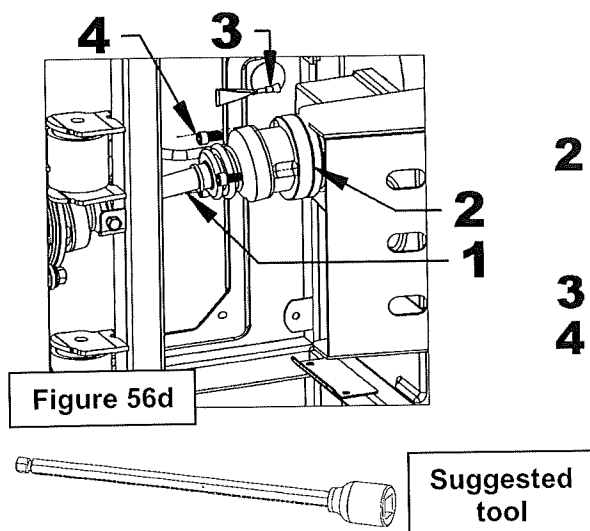
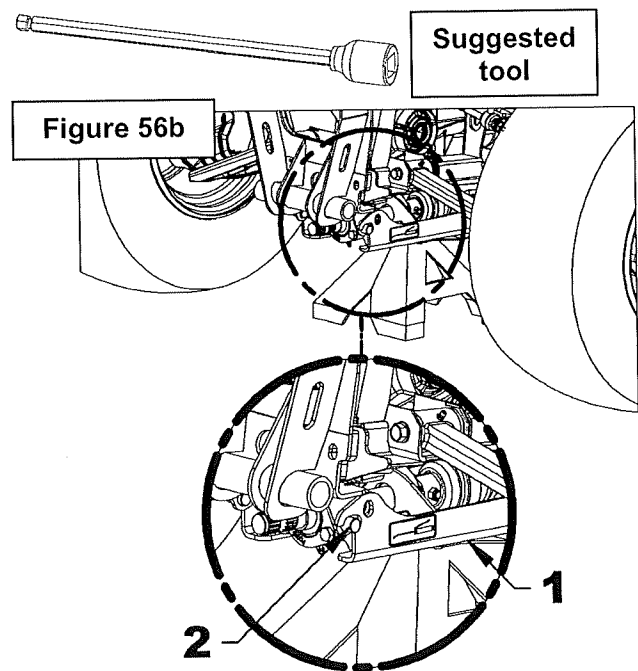
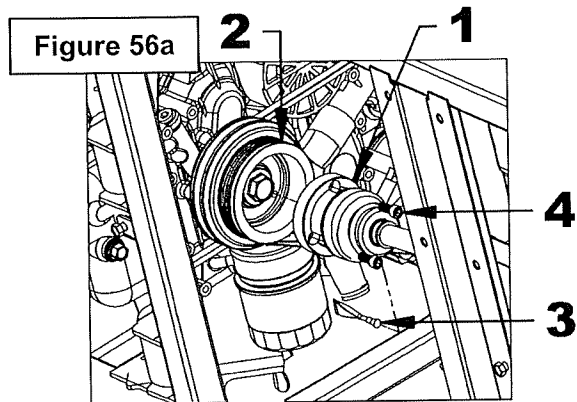
# ASSEMBLY

## Installation of the Drive System

1. **Figure 56a:** Insert the flange double CV shaft (item 1) in the pulley (item 2). Align the holes of the pulley (item 2) and the holes of the flange double CV shaft (item 1). Apply one capsule of "Loctite" #243 for the three allen socket head cap screws  $\varnothing 5/16$ "NC x  $3/4$ " (item 4). Secure the flange double CV shaft (item 1) with three allen socket head cap screw  $\varnothing 5/16$ "NC x  $3/4$ " (item 4) and torque at 17 lb-ft (24 N-m).

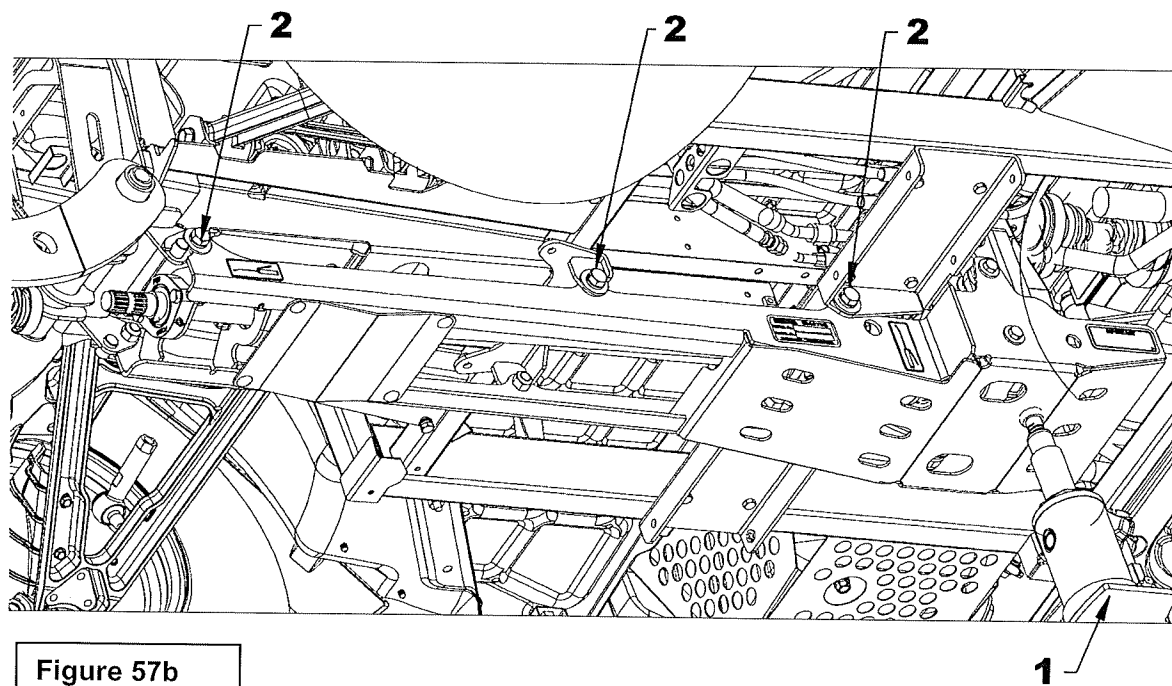
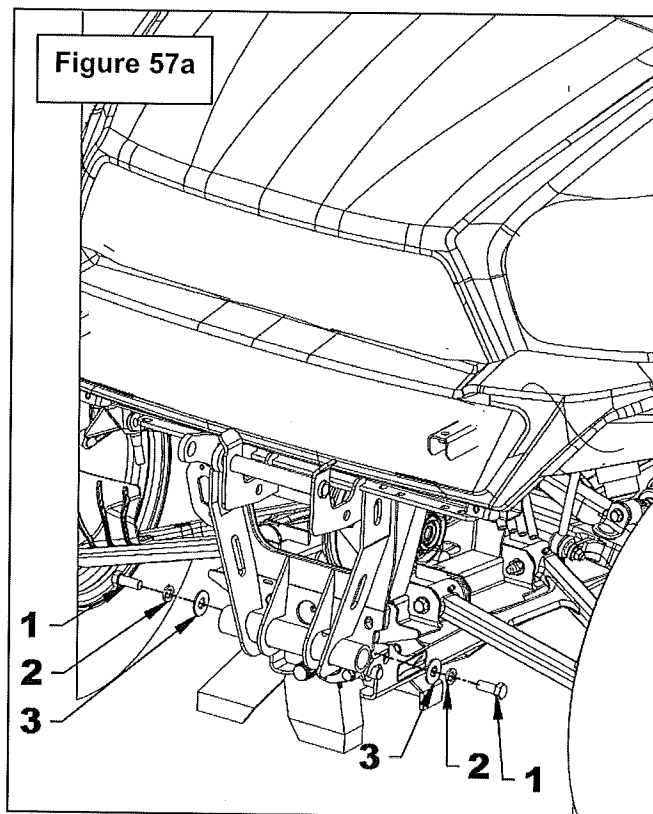
**IMPORTANT :** Always use three NEW allen socket head cap screw  $5/16$ "NC x  $3/4$ " lg and Loctite #243 for the reinstallation and torque at 17 lb-ft (24 N-m).

2. **Figure 56b:** Hang the front hooks of the drive system (item 1) on the pins of the subframe (item 2).
3. **Figure 56c:** Lift the drive system (item 1) with a jack. Attach the drive system with four  $1/2$ " x  $1 1/4$ " lg bolts (item 2), four  $1/2$ " flat washers (item 3) and four  $1/2$ " lockwashers (item 4). Do not tighten.
4. **Figure 56d:** Install the flange double CV shaft (item 1) on the flange shaft of the gearbox (item 2). Align the holes of the gearbox shaft (item 2) and the holes of the flange double CV shaft (item 1). Apply one capsule of "Loctite" #243 for the three allen socket head cap screws  $\varnothing 5/16$ "NC x  $5/8$ " (item 4). Secure the flange double CV shaft (item 1) with three allen socket head cap screw  $\varnothing 5/16$ "NC x  $5/8$ " (item 4) and torque to 17 lb-ft (24 N-m).



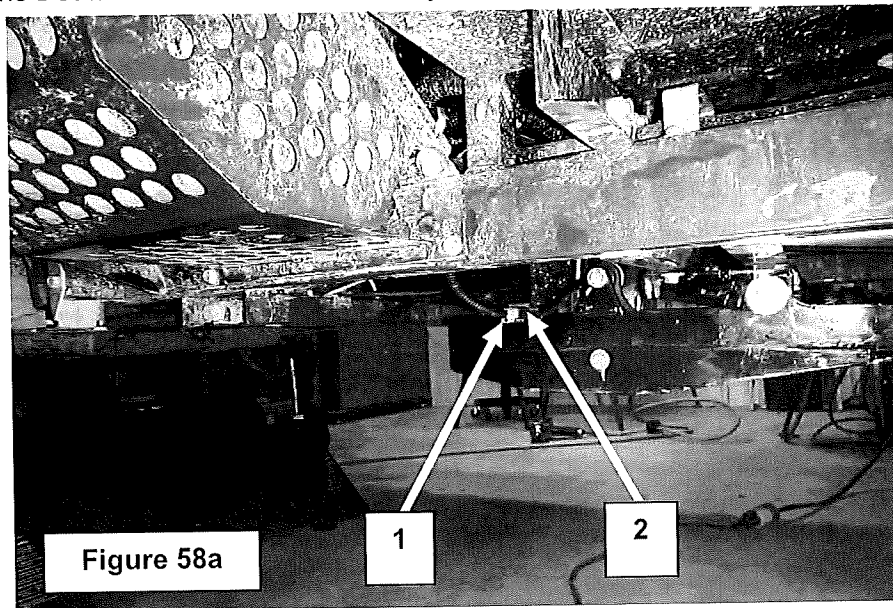
# ASSEMBLY

5. **Figure 57a:** Install a 1/2"NC x 1 1/4" lg bolt (item 1), a 1/2" lockwasher (item 2) and a 1/2" flat washer (item 3) on each side of the front drive system (item 4). Do not tighten.
6. **Figure 57b:** Remove the jack (item 1) and torque the six 1/2" x 1 1/4" bolts (item 2), located on each side of the drive system. Torque to 76 lbs-ft (105 N-m)

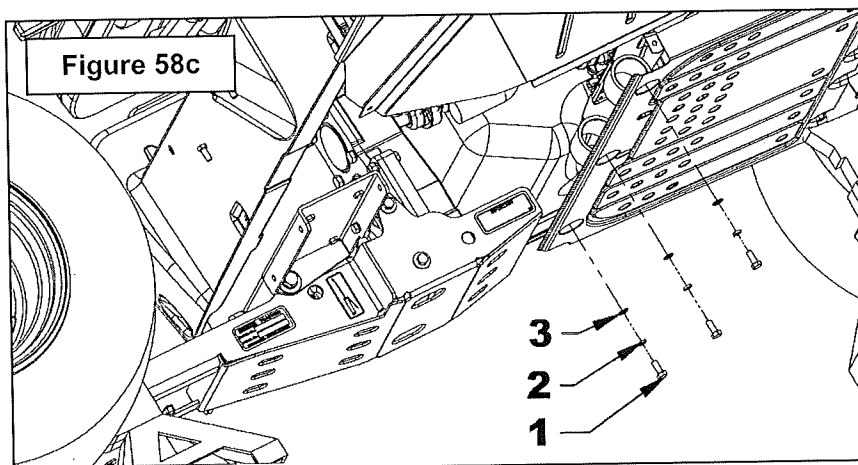
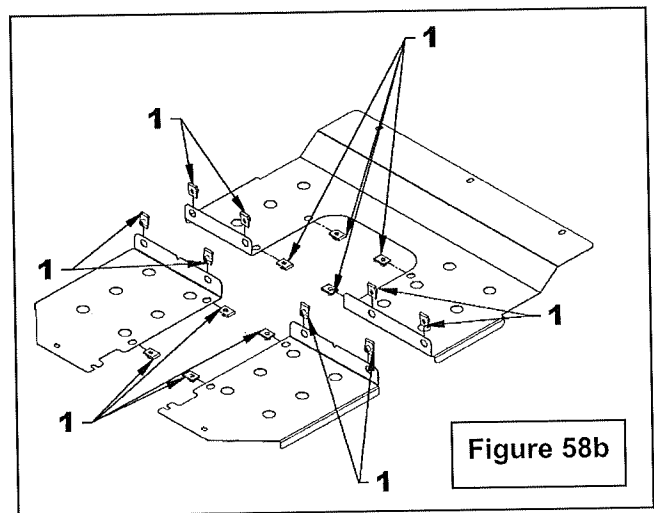


# ASSEMBLY

7. **Figure 58a:** Connect the clutch Deutsch connector of the harness (item 1) to the Deutsch connector of the drive system clutch (item 2).



8. **Figure 58b:** Install the sixteen spring nuts (item 1) on the protective plates in the orientations shown in the figure.
9. **Figure 58c:** Remove the three front screws (item 1), lockwashers (item 2) and flat washers (item 3) of the rear skid plate.



# ASSEMBLY

10. **Figure 59:** Install the right protective plate (item 1) and the left protective plate (item 2) and secure and torque with eight M8 x 1.25 x 25 bolts (item 3), eight 5/16" lockwashers (item 4) and four 5/16" flat washers (item 5). Torque to 19 lbs-ft (26 N-m)

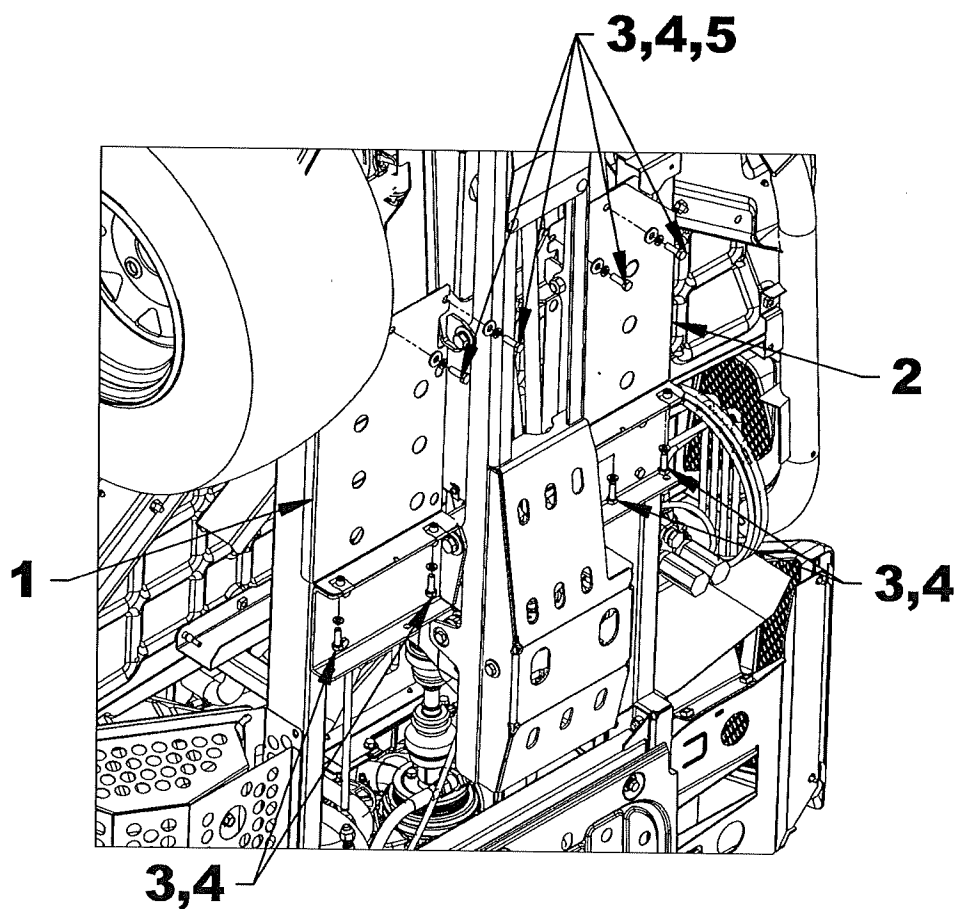
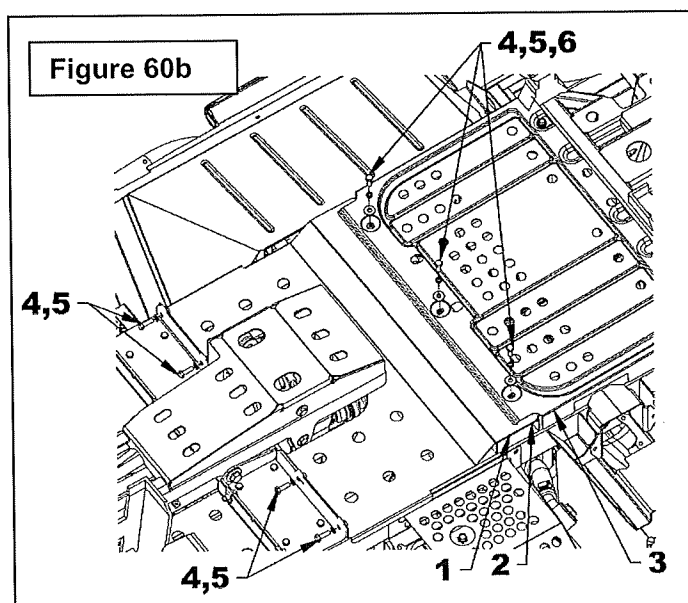
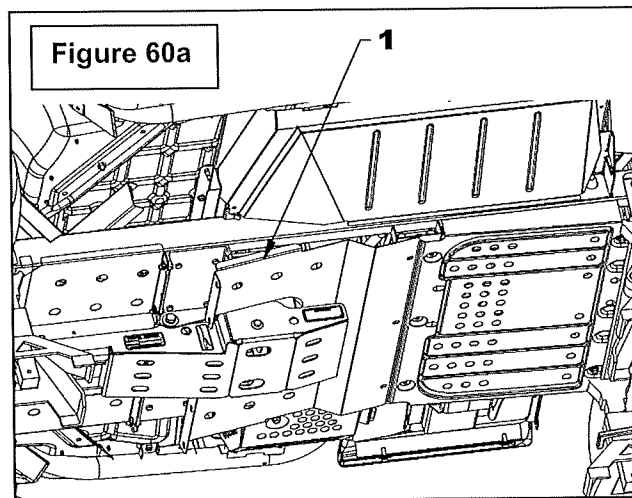


Figure 59

# ASSEMBLY

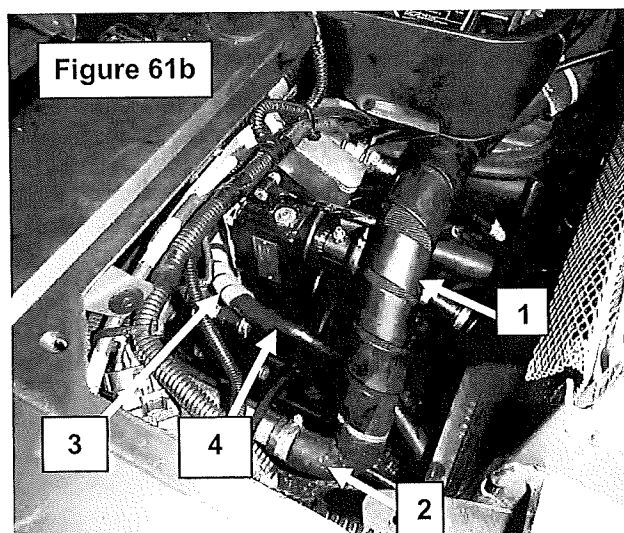
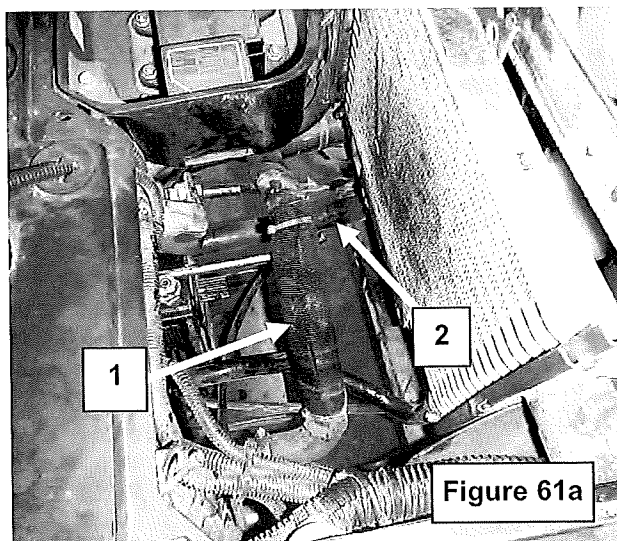
11. **Figure 60a:** Position the middle protective plate (item 1) as show in the figure.

12. **Figure 60b:** Insert the middle protective plate (item 1) between the frame (item 2) and the rear skid plate (item 3). Secure with seven M8 x 1.25 x 25mm bolts (item 4), seven 5/16" lockwashers (item 5) and three 5/16" flat washers (item 6). Torque at 24 lb-ft (17 N-m).



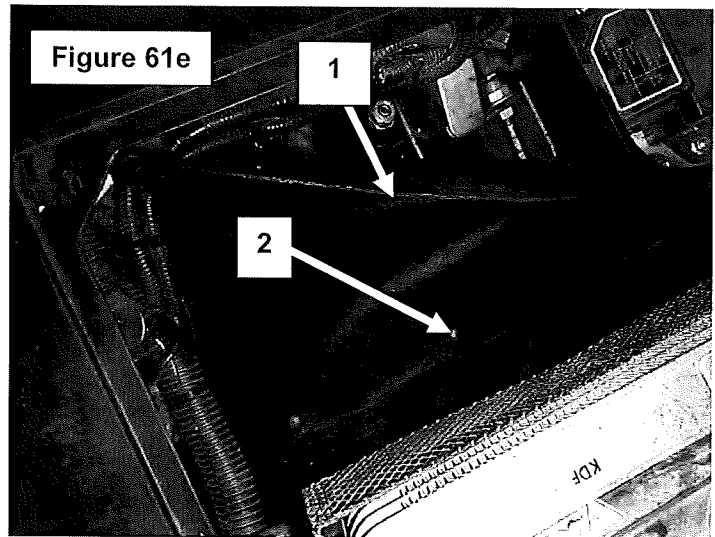
13. **Figure 61a:** Reposition the motor cooling hose (item 1) on top of the gearbox on the rod of the hose support (item 2) to avoid interferences with the double CV shaft.

14. **Figure 61b:** Install the big plastic guard for hose (item 1) on the motor cooling hose (item 2) and install the small plastic guard for hose (item 3) on the tank hydraulic hose (item 4).

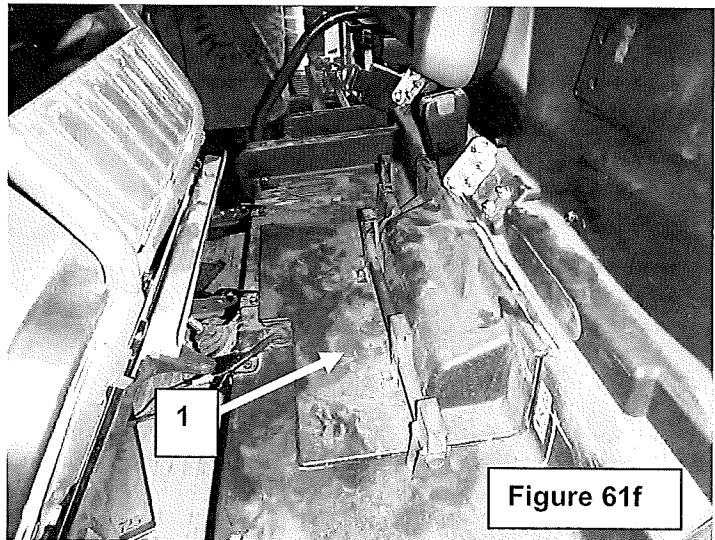


# ASSEMBLY

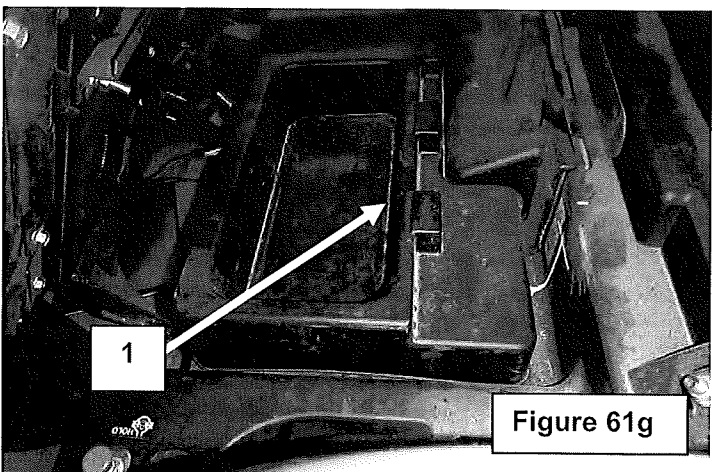
15. **Figure 61e:** Reinstall the rubber protector (item 1) and the plastic fasteners (item 2) previously removed at their original location.



16. **Figure 61f:** Reinstall the plastic cover (item 1) previously removed.



17. **Figure 61g:** Reinstall the plastic container (item 1) previously removed.



# ASSEMBLY

## Engagement System Installation

1. **Figure 62a:** Remove the 4pt hitch by removing the 3/16 "x 1 1/2" lg cotter pin (item 1), the 3/4" flat washer (item 2) and the 3/4" x 4 1/2" lg pin (Item 3). Remove the 5/16" x 1.8" lg shoulder pin (item 4), the L pivot pin (item 5) and remove the hitch (item 6).
2. **Figure 62b:** Attach the 2 3/8 "anti-friction guides (item 1) to the 4-point male hitch (item 2) using the eight 1/4"NC x 3/4" hex bolts (item 3) and eight 1/4"NC stover locknuts (item 4).
3. **Figure 62c:** Insert the 5/8"lg x ø1/2" ID x ø5/8" OD plastic shoulder bushings (item 1) in the bushings of the engagement lever (item 2). Attach the engagement lever (item 2) to the 4-point male hitch (item 3) using two 3/8"NC x 1 1/4" allen socket head cap screws (item 4), two ø1/2" x 11/16" lg pivot bushings (item 5), two 10mm flat washers (item 6) and two 3/8"NC stover locknuts (item 7).

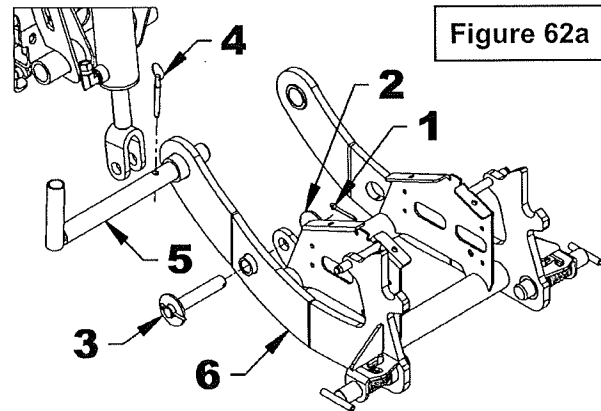


Figure 62a

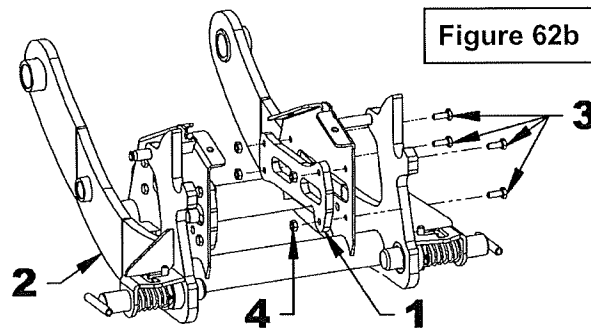


Figure 62b

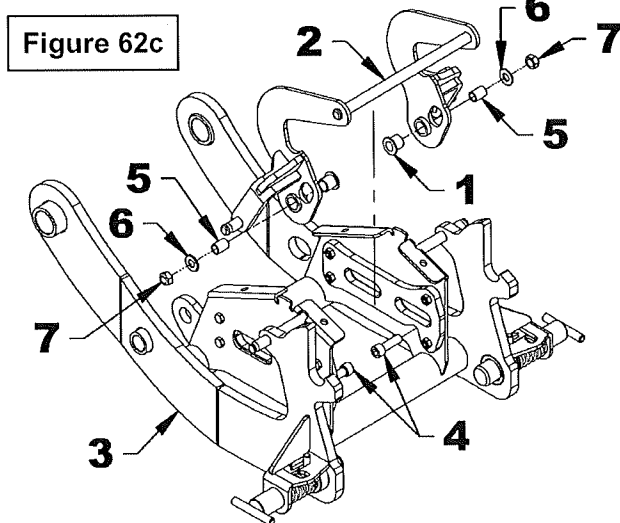


Figure 62c

# ASSEMBLY

4. **Figure 62d:** Place the engagement lever (item 1) backwards as shown in the figure.

5. **Figure 62d:** Insert the two 3/8"NC x 1 1/4" allen socket head cap screws. (item 4) inside the  $\varnothing$ 3/4" ext. x 5/8" lg fixed bushings (item 5).

**IMPORTANT:** The head of the screws must not protrude from the bushings (item 5).

6. **Figure 62d:** Secure the back of the connection support (item 2) using the two 3/8"NC x 1 1/4" lg.allen cylindric head screws (item 4), two  $\varnothing$ 3/4"ext. x 5/8" lg. fixed bushings (item 5), two 2-hole spacers (item 6) and two 3/8"NC nylon insert locknuts (item 7).

7. **Figure 62d:** Insert the two plastic bushings  $\varnothing$ 5/8" ext. X  $\varnothing$ 1/2" int. x 1/2" lg (item 11) inside the two  $\varnothing$ 3/4" ext. x 15/32" lg pivot bushings (item 10).

8. **Figure 62d:** Attach the front of the connection support (item 2) using the two 3/8"NC x 2" hex bolts (item 8), two 10mm flat washers (item 9), two  $\varnothing$ 3/4" ext. x 15/32" lg pivot bushings (item 10), two  $\varnothing$ 5/8" ext. x  $\varnothing$ 1/2" int. x 1/2" lg plastic bushings (item 11), two  $\varnothing$ 3/4" ext. x 1 1/4" lg pivot bushings (item 12), two 2-hole spacers (item 6) and two 3/8"NC stover locknuts (item 13).

**IMPORTANT:** During assembly, make sure to insert the two  $\varnothing$ 3/4" ext. x 1 1/4" lg pivot bushings (item 12) in the oblong holes of the engagement lever (item 1).

9. **Figure 62e:** Position the engagement lever (item 1) as to be in the position as shown. Install the two 3/4" x 4 1/2" lg springs (items 1) on the pins of the 4pt hitch (item 2) and of the engagement lever (item 3).

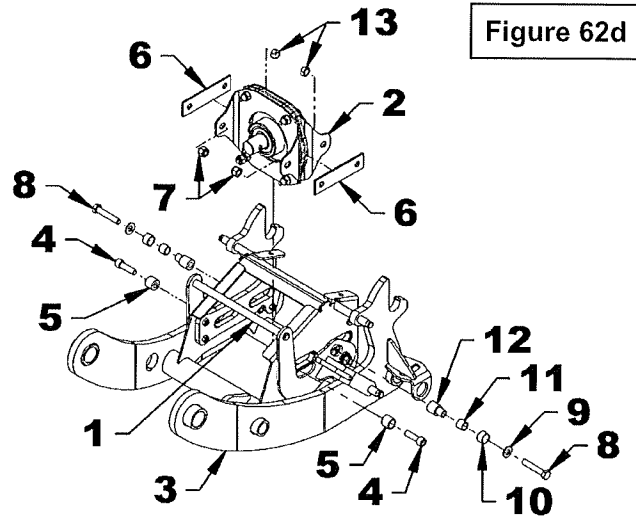


Figure 62d

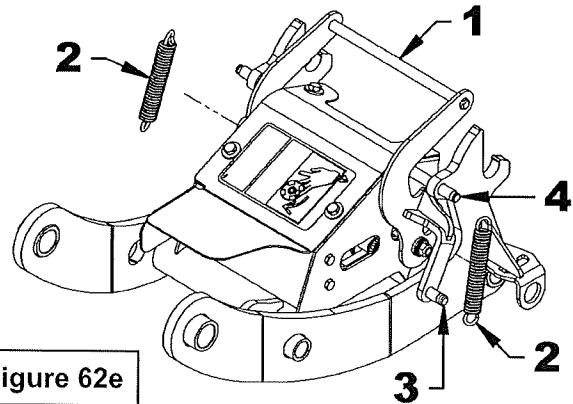


Figure 62e



# ASSEMBLY

## Driveline Installation

1. **Figure 63a:** Install the 1/4" x 1" lg key (item 1) on the connection support (item 2). Secure the driveline (item 3) on the connection support (item 2) with a 1/4"NC x 2" lg bolt (item 4) and 1/4" stover locknut (item 5). Apply "Loctite 243" type threadlocker on the 3/8"NC x 1/4" lg set screw thread (item 6) and install on the driveline. Torque the set screw to 42 lb-ft (31 N-m).
2. **Figure 63b:** Install the driveshaft guard (item 1) on the 4pt hitch (item 2) with four 5/16" x 3/4" hex bolts (item 3) and four flat washers 5/16"NC (item 4).

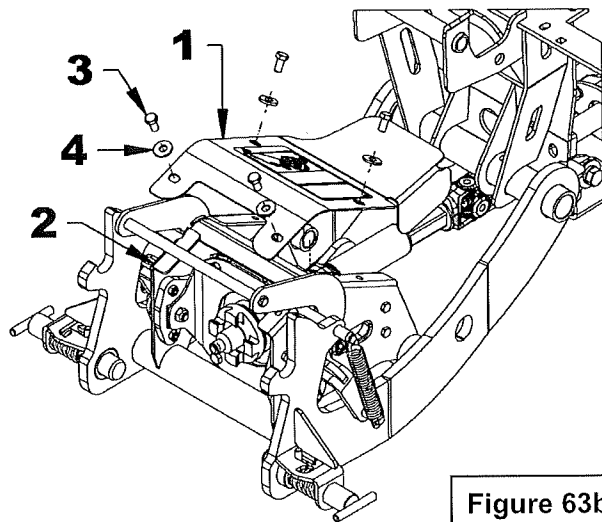
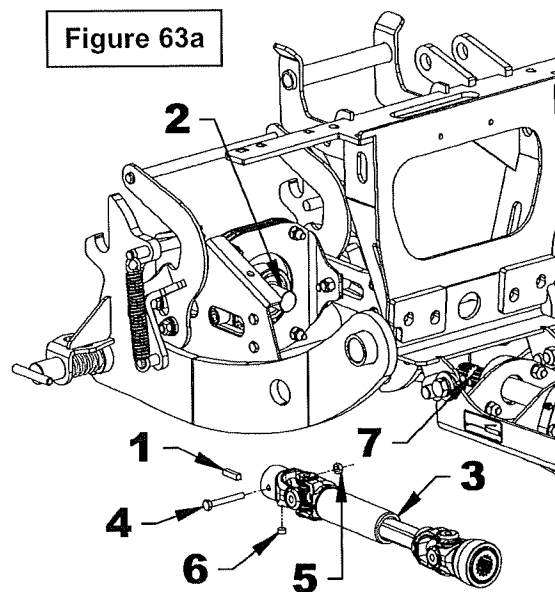
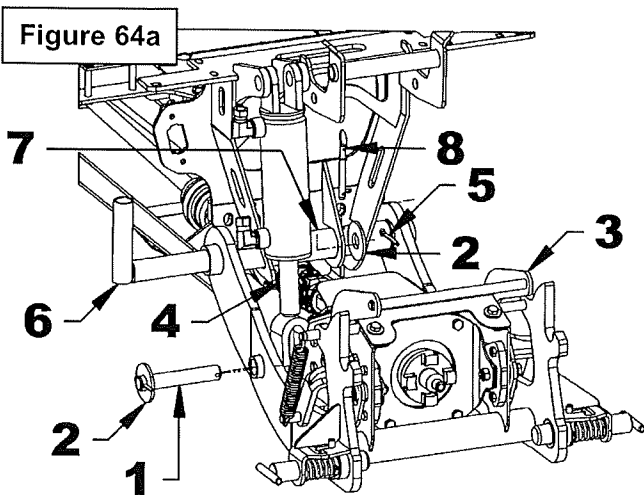


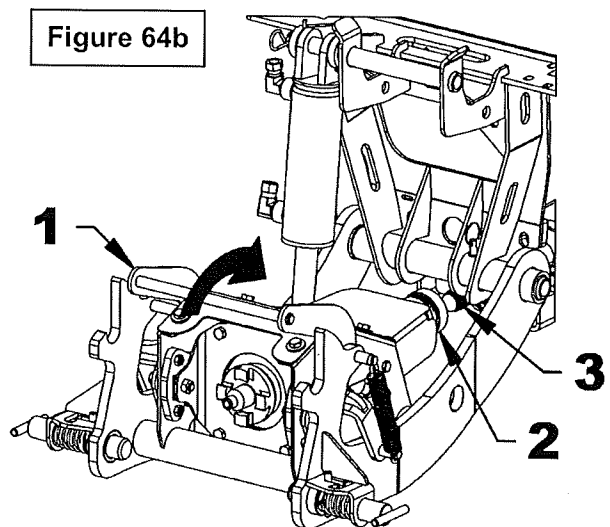
Figure 63b

# ASSEMBLY

3. **Figure 64a:** Insert the 3/4" x 4 1/2" lg pin (item 1) with the flat washer (item 2) through the cylinder (item 4) and the hitch (item 3) and secure with the 3/4" flat washer (item 2) and 3/16" x 1 1/2" cotter pin (item 5). Insert the L pin (item 6) through the hitch (item 3) and the subframe (item 7) and secure with the 5/16" x 1.8" lg shoulder pin (item 8) in the hole of the subframe (item 7).



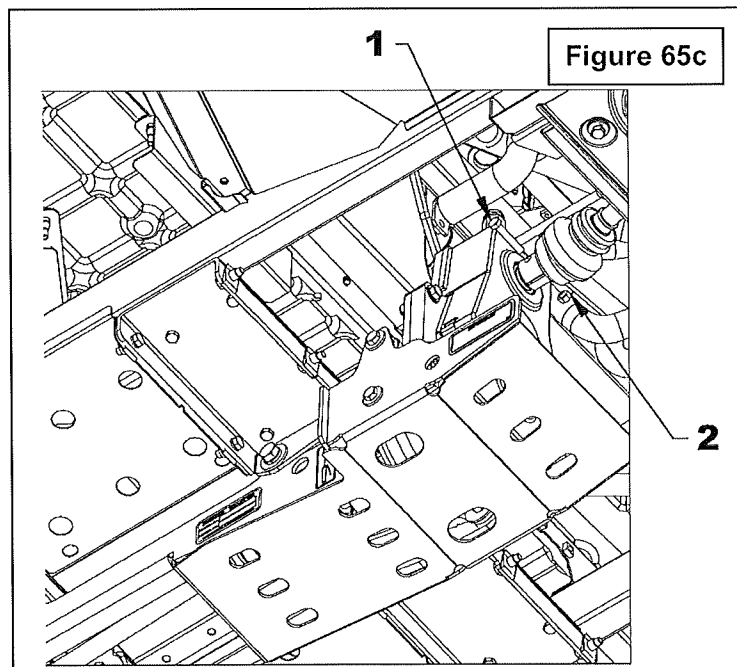
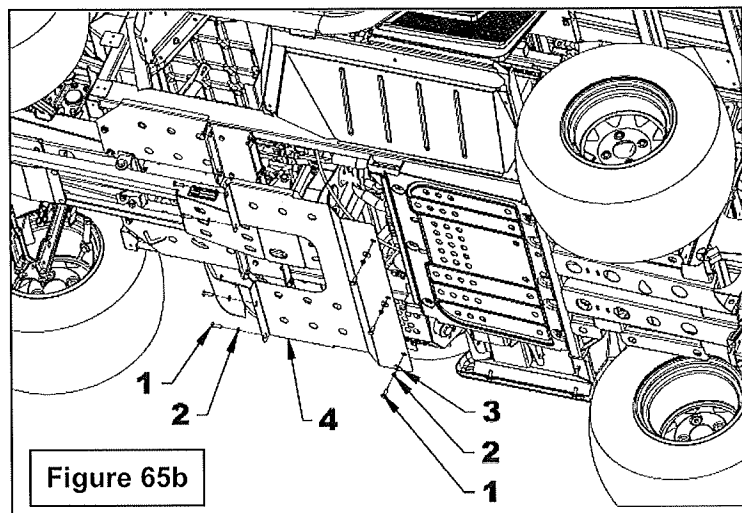
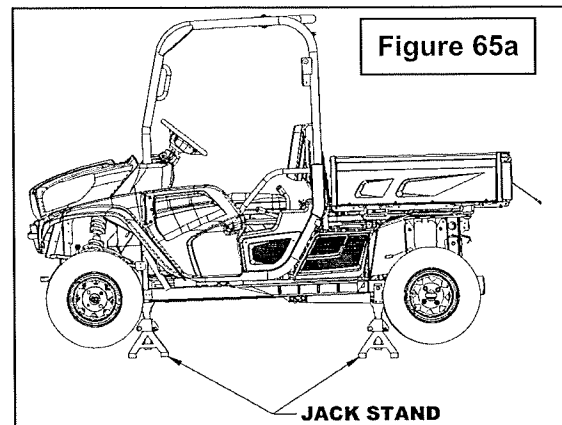
4. **Figure 64b:** Push the engagement lever (item 1) rearward as shown in the figure. Connect the driveline (item 2) to the output shaft of the drive system (item 3).



# ASSEMBLY

## Drive System Uninstallation

1. **Figure 65a:** Raise the vehicle with a jack and install jack stands to facilitate the uninstallation.
2. **Figure 65b:** Remove the seven M8 x 25mm lg bolts (item 1), 5/16" lockwashers (item 2) and 5/16" flat washers (item 3) and remove the middle protective plate (item 4).
3. **Figure 65c:** Remove the 5/16"NC x 1 3/4" lg bolt (item 1) and the 5/16" serrated flange nut (item 2) from the CV joint shaft and the gearbox shaft.

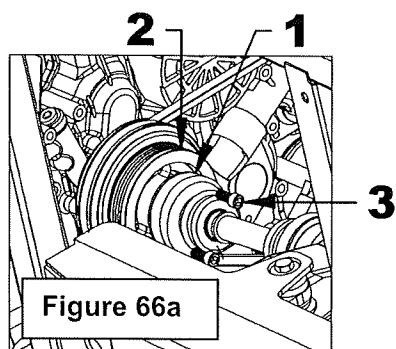


# ASSEMBLY

4. **Figure 66a:** Remove the three allen socket head cap screw 5/16"NC x 3/4" lg (item 3) from the CV joint shaft (item 1) and the pulley coupling (item 2). Make sure to clean all the loctite from the thread of the pulley (item 2).

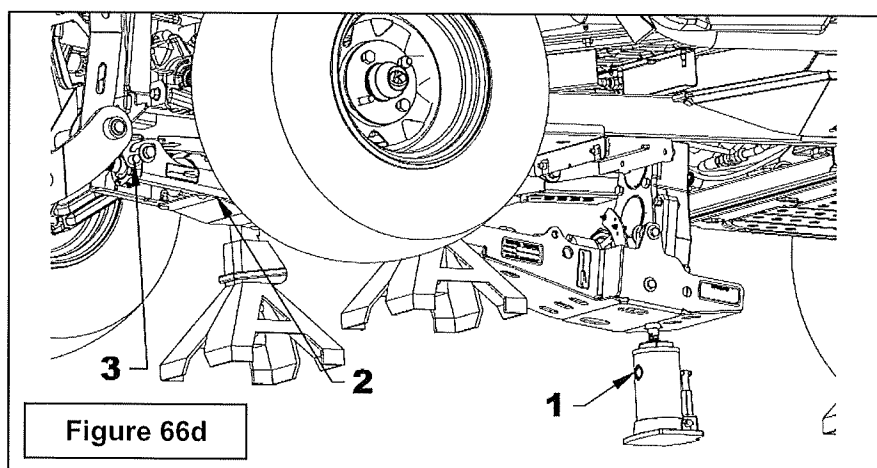
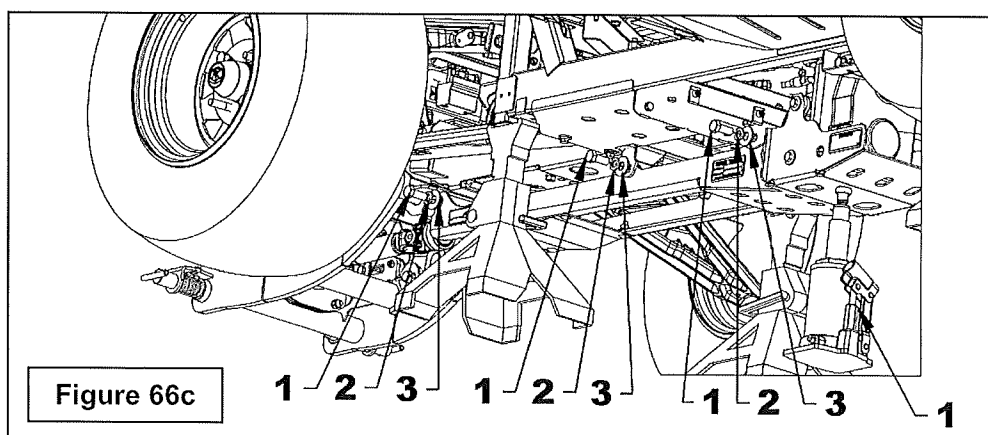
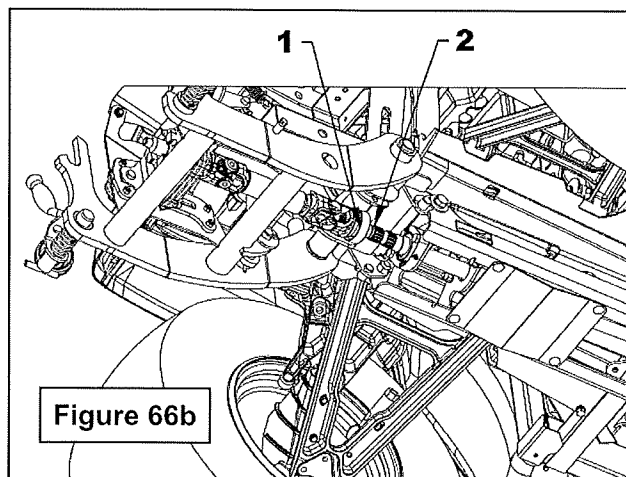
**IMPORTANT :** Always use three new allen socket head cap screw 5/16"NC x 3/4" lg and Loctite #243 for the reinstallation.

5. **Figure 66b:** Disconnect the driveline (item 1) from the output shaft of the drive system (item 2).



6. **Figure 66c:** Install a jack (item 1) under the drive system. Remove the three 1/2" x 1 1/4" lg bolts (item 2), six 1/2" lockwashers (item 3) and six 1/2" flat washers on each side of the drive system.

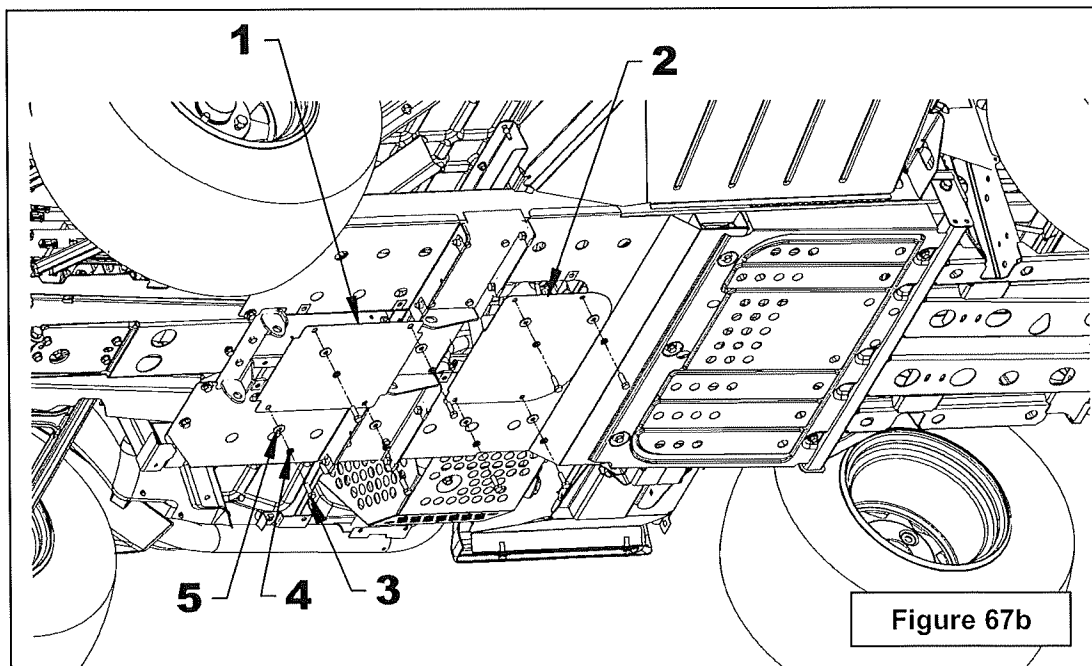
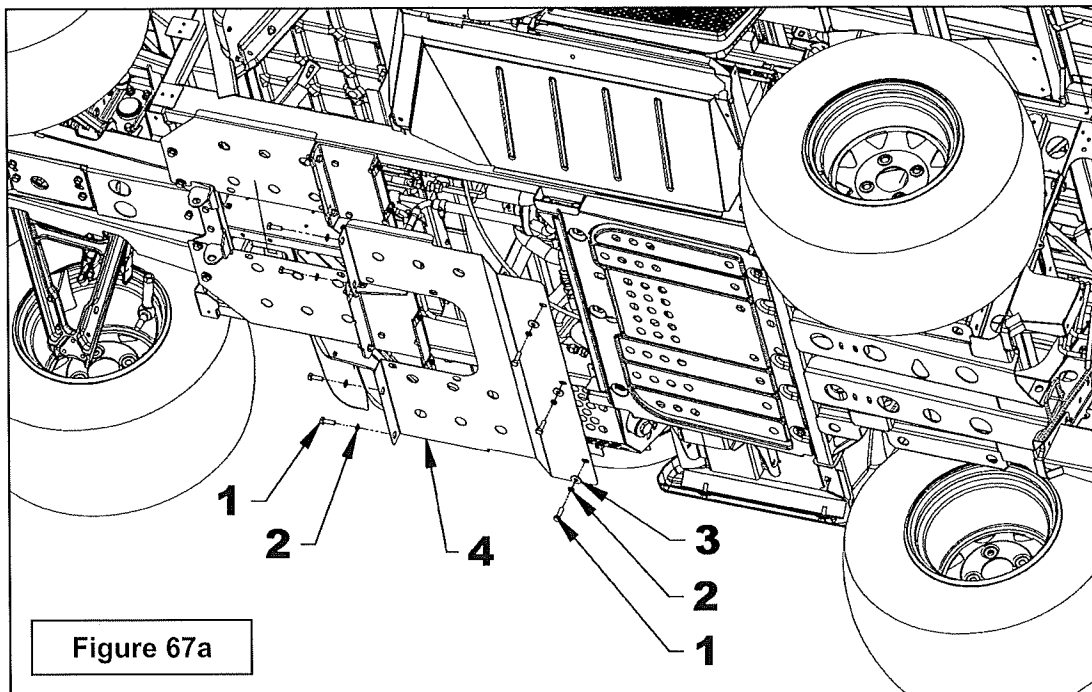
7. **Figure 66d:** Drop the drive system (item 2) to the ground by lowering the jack (item 1) and by removing the front hooks (item 3) from the pins of the subframe.



# ASSEMBLY

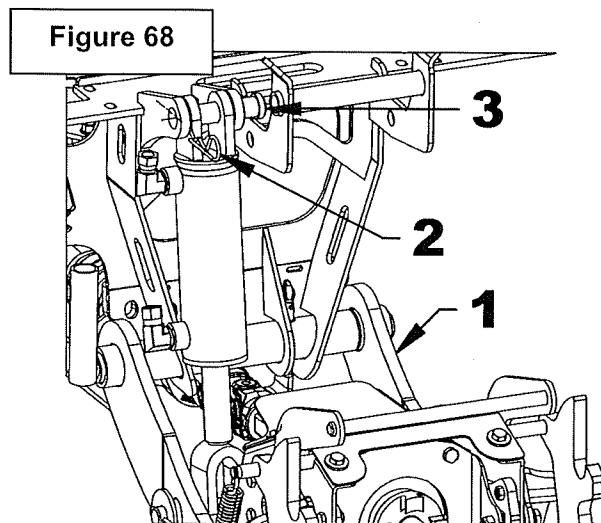
8. **Figure 67a:** Reinstall the middle protective plate (item 4) between the frame and the rear skid plate. Secure with seven M8 x 1.25 x 25mm bolts (item 4), seven 5/16" lockwashers (item 5) and three 5/16" flat washers (item 6). Torque to 19 lbs-ft (26N-m)

9. **Figure 67b:** Install the front middle protective plate (item 1) and the rear middle protective plate (item 2) with eight M8 x 1.25 x 25mm bolts (item 3), eight 5/16" lockwashers (item 4) and eight 5/16" flat washers (item 5). Torque to 19 lbs-ft (26N-m)

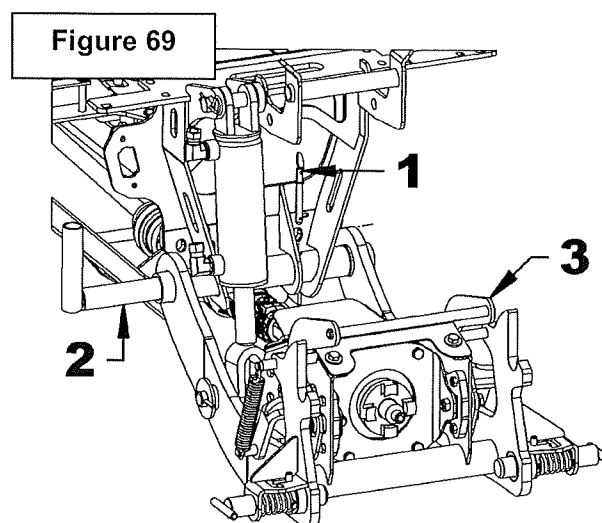


# ASSEMBLY

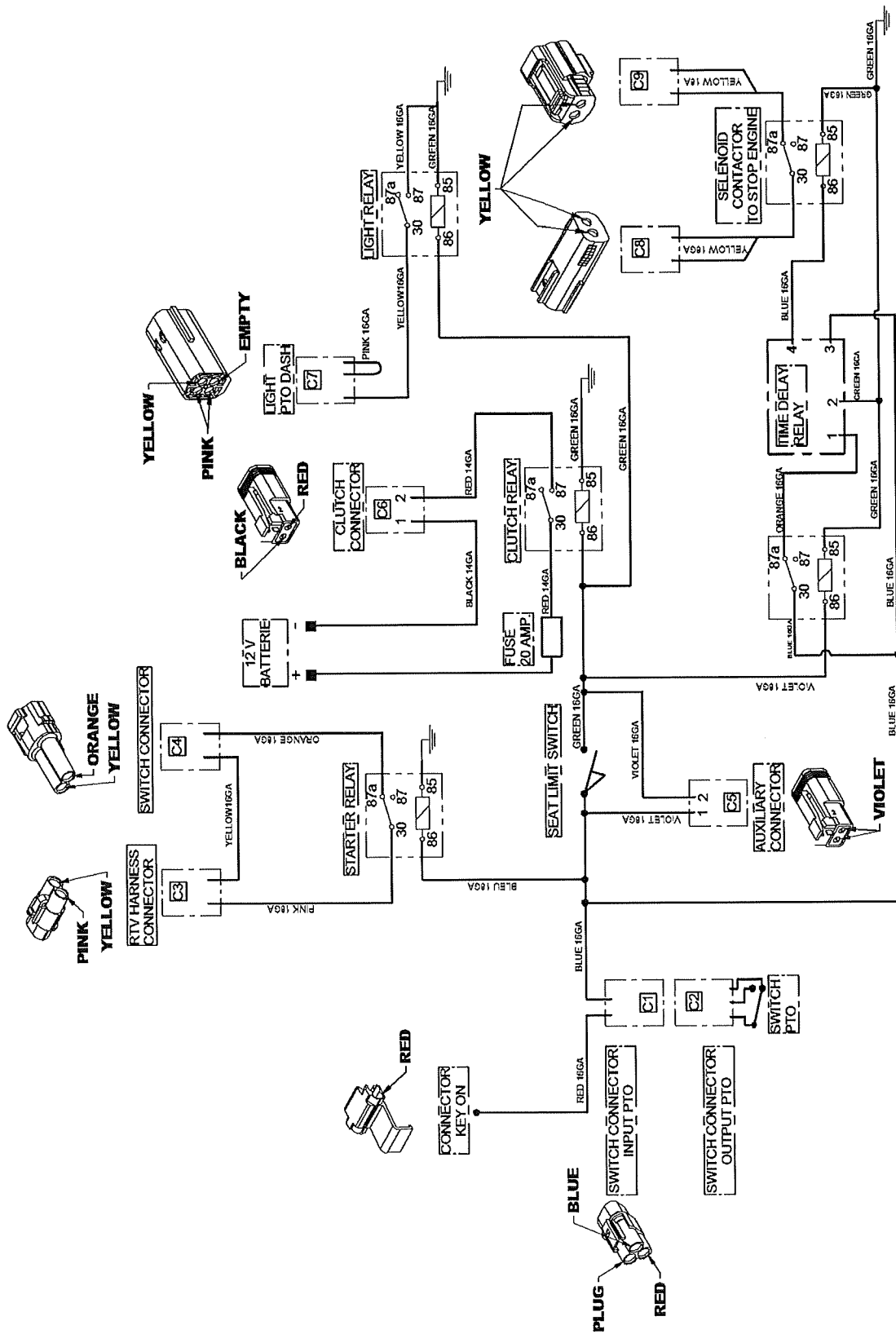
10. **Figure 68:** Activate the float mode with the control handle and lower the 4pt hitch (item 1) to the ground. Disconnect the cylinder from the subframe by removing the hairpin (item 2) and pin (item 3).



11. **Figure 69:** Remove the 5/16" x 1.8" shoulder pin (item 1) and the L pin (item 2) from the subframe. Disconnect the two hydraulic hoses connected to the power unit. Remove the 4pt hitch (item 3).



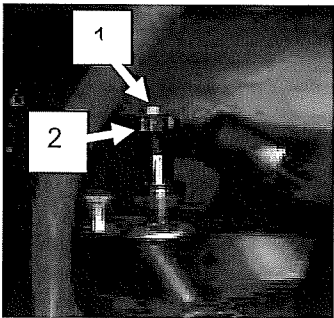
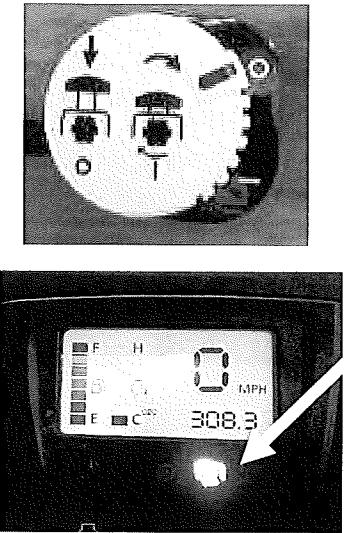
# ELECTRIC DIAGRAM





# MAINTENANCE

## OPERATION

Function	Button	Description
<b>HAND THROTTLE CONTROL - Implement control</b>		
<b>SPEED OF ROTATION</b>		<p>The control of the speed of rotation of the implement is made from the hand throttle control located to the left of the operator's seat.</p> <ul style="list-style-type: none"> <li>• To <b>increase</b> the speed of rotation of the implement, unlock the hand throttle by turning the knob (item 2) counter clockwise, press the button (item 1) with the thumb on the knob (item 2), pull it upwards, then release the button (item 1). Lock the hand throttle by turning the knob clockwise.</li> <li>• To <b>decrease</b> the speed of rotation of the implement, unlock the hand throttle by turning knob (item 2) counter clockwise press the button (item 1) with the thumb on the knob (item 2), push it down, then release the button (item 1). Lock the hand throttle by turning the knob clockwise.</li> </ul>
<b>MECHANICAL ACTIVATION - Implement</b>		
<b>REVOLUTION</b>		<p>The activation of the mechanical revolution of the implement is made from the switch to the left of the operator's steering wheel.</p> <ul style="list-style-type: none"> <li>• To <b>activate</b> the revolution, press with the thumb and rotate the switch clockwise. The PTO light in the dashboard is on. Note: the operator must be seated to activate and maintain activation of the PTO system.</li> <li>• To <b>deactivate</b> the revolution, rotate the switch counter clockwise or simply press on the switch. The PTO light in the dashboard is off.</li> </ul>

# MAINTENANCE

## Operator's presence switch verification procedure

1. Sit on the seat and fasten the safety belt.
2. Apply the handbrake.
3. Start the engine;
4. Lower gas control lever to idle position (see hand throttle control section).
5. Wait for 5 minutes; Leave the engine running for about 5 minutes. Check that there is no abnormal noise or vibration.
6. Engage the PTO (see mechanical activation section). The PTO light in the dashboard must be ON. Check that there is no abnormal noise or vibration.
7. Make sure that the PTO is rotating.
8. Keep the engine at idle;
9. Unbuckle your seatbelt and get up completely from the seat for three seconds. The engine must stop.
10. Sit back on the seat.
11. Try to start the engine, it should not restart because the PTO switch is in activate position.
12. Put the PTO switch to the OFF position.
13. Sitting on the seat, start the engine and then it must start.

## PTO drive break-in procedure

This start-up procedure will prevent premature wear of critical components (clutch and CV joints).

1. Sit on the seat and fasten the safety belt.
2. Apply the handbrake.
3. Start the engine;
4. Lower gas control lever to idle position (see hand throttle control section).
5. Wait for 5 minutes; Leave the engine running for about 5 minutes. Check that there is no abnormal noise or vibration.
6. Engage the PTO (see mechanical activation section). The PTO light in the dashboard must be ON. Check that there is no abnormal noise or vibration.
7. Make sure that the PTO is rotating.
8. Keep the engine at idle;
9. Engage PTO clutch for 10 seconds;
10. Disengage PTO clutch;
11. Wait 30 seconds;
12. Repeat steps 3 to 6 10 times;
13. Engage PTO clutch;
14. Let the vehicle run for 60 minutes at idle
15. Using the hand throttle, bring the engine at max RPM;
16. Let the system run for 30 minutes
17. Using the hand throttle, bring the engine at idle RPM;
18. Disengage PTO clutch;
19. Stop the engine;

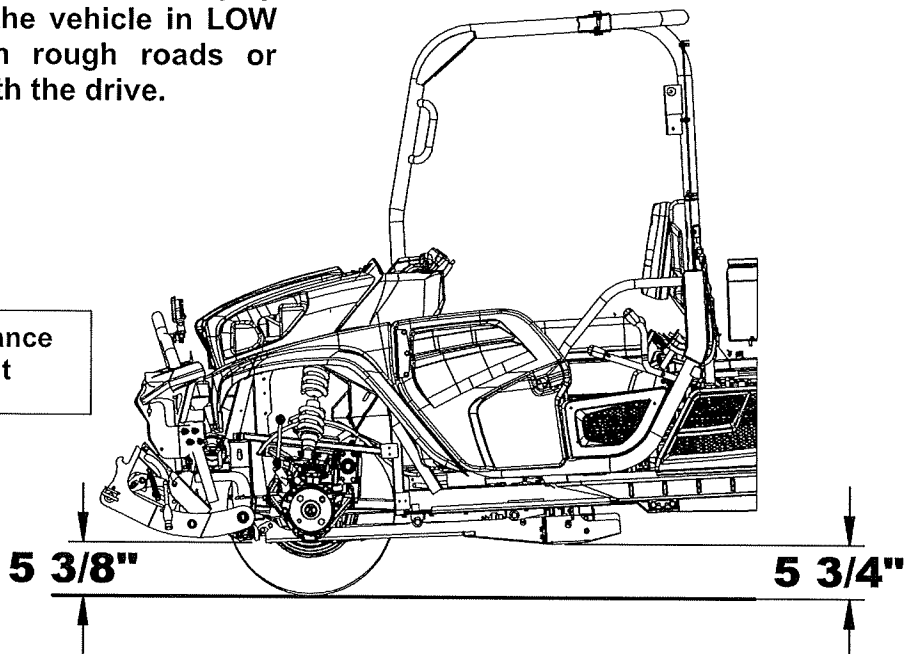
**During the above procedure, observe for abnormal noise and/or vibrations. No measurement will be taken nor will disassembly happen after this test unless strange noise or vibration happens.**

# MAINTENANCE

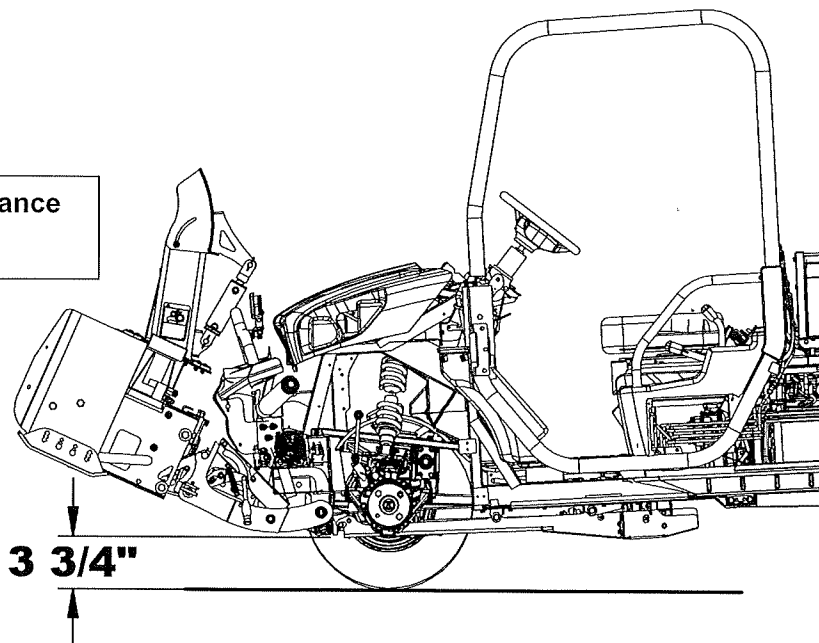
## Ground clearance of the vehicle

**⚠ WARNING:** To avoid serious personal injury or death: The PTO drive system reduces the ground clearance of the vehicle. To avoid serious personal injury or death, always keep the vehicle in **LOW GEAR** when driving in rough roads or trails when equipped with the drive.

Mimimun ground clearance  
WITHOUT equipment



Mimimun ground clearance  
WITH equipment



# MAINTENANCE

## MAINTENANCE

### **ALWAYS USE GENUINE PARTS WHEN REPLACEMENT PARTS ARE REQUIRED**

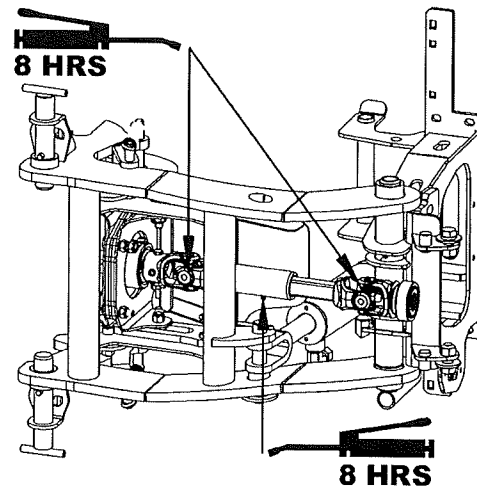
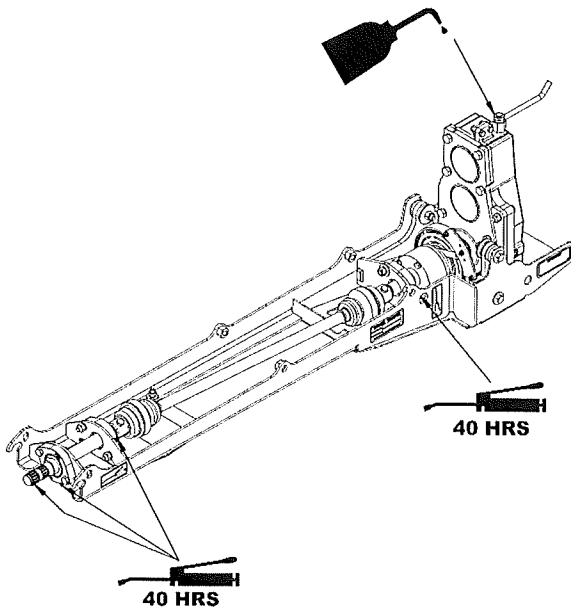
1. Keep the vehicle and implement properly maintained.
2. Park the vehicle/implement on level ground, place the transmission in neutral, set the parking brake, lower the equipment to the ground, place all control levers in neutral, shut off the engine and remove the ignition key **BEFORE** making any adjustments.
3. To avoid injury, do not adjust, unblock the driving system, or service the equipment with the vehicle engine running. Make sure rotating components have completely stopped before leaving the operator's seat.
4. Keep the vehicle/implement clean. Snow, dirt or ice build-up can lead to malfunction or personal injury from thawing and refreezing in garage.
5. Always wear eye protection when cleaning or servicing the implement or quick hitch.
6. **DO NOT** service the vehicle while the engine is running or hot, or if the unit is in motion. Always lower implement to the ground. If necessary to service implement in raised position, securely support with stands or suitable blocking before working underneath. **DO NOT** rely on hydraulically supported devices for your safety. They can settle suddenly, leak down, or be accidentally lowered.
7. **DO NOT** attempt to service machine, clear obstructions or unclog the equipment with the engine running. Always shut off engine and allow all motion to cease.
8. The manufacturer will not claim responsibility for fitment of unapproved parts and/or accessories and any damages as a result of their use.
9. Make sure all shields and guards are securely in place following all service, cleaning, or repair work.
10. **DO NOT** modify or alter this equipment or any of its components or operating functions. If you have questions concerning modifications, consult with your dealer.
11. **DO NOT** operate a unit that is defective or has missing parts. Make sure that all recommended maintenance procedures are completed before operating the unit.
12. Check all controls regularly and adjust where necessary. Make sure that the brakes are evenly adjusted.
13. Periodically check all nuts and bolts for tightness, especially wheel hub and rim nuts.
14. Escaping hydraulic/diesel fluid under pressure can penetrate the skin causing serious injury. **DO NOT** use your hands to check for leaks. Use a piece of cardboard or paper to search for leaks. If you are injured by escaping high pressure fluid, see a medical doctor at once.
15. Stop engine and relieve pressure before connecting or disconnecting hydraulic lines. Tighten all connections before starting engine or pressurizing lines.

# MAINTENANCE

## Lubrication

DESCRIPTION	TIME INTERVAL	MAINTENANCE REQUIRED
Flange bearings	20 hours of operation	Grease the flange bearings
Output Shaft	40 hours of operation	Clean and grease the front extremity
Gearbox	1 <sup>st</sup> oil change after 50 hours. (See procedure next page)	Replace oil after 50 hours. <b>Use oil part number 77700-07587 or ISO EP 150</b>
	200 hours of operation (See procedure next page)	Replace oil after 200 hours (same interval than the motor oil change).
	For USA customers	Use oil part number 77700-07587 or ISO EP 150
	For canadian customers	Use TOTAL TRANSTEC 5 80W90
Telescopic joint	8 hours of operation	Lubricate the telescopic joint. <b>IMPORTANT:</b> use a Shell Gadus S5 V100 grease or equivalent.
Universal joints	8 hours of operation	Lubricate the universal joints. <b>IMPORTANT:</b> use a Shell Gadus S5 V100 grease or equivalent.

**IMPORTANT:** Perform all maintenance procedures earlier if used for less than 20 hours per year.



# MAINTENANCE

## Gearbox Oil replacement

(Figure below)

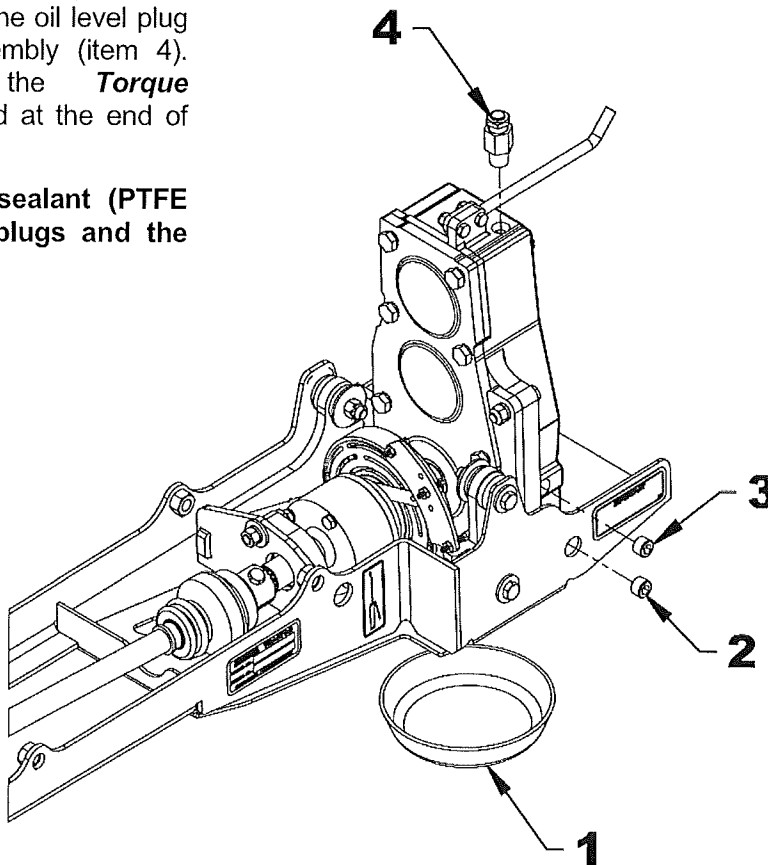


**WARNING:** To avoid serious personal injury or death: Park the tractor on level ground, place the transmission in neutral, set the parking brake, disengage the PTO, place all control levers in neutral, shut off the engine, remove the ignition key and allow the rotating parts to stop **BEFORE** making the oil replacement of the drive system.

The oil replacement may be done without removing the drive system.

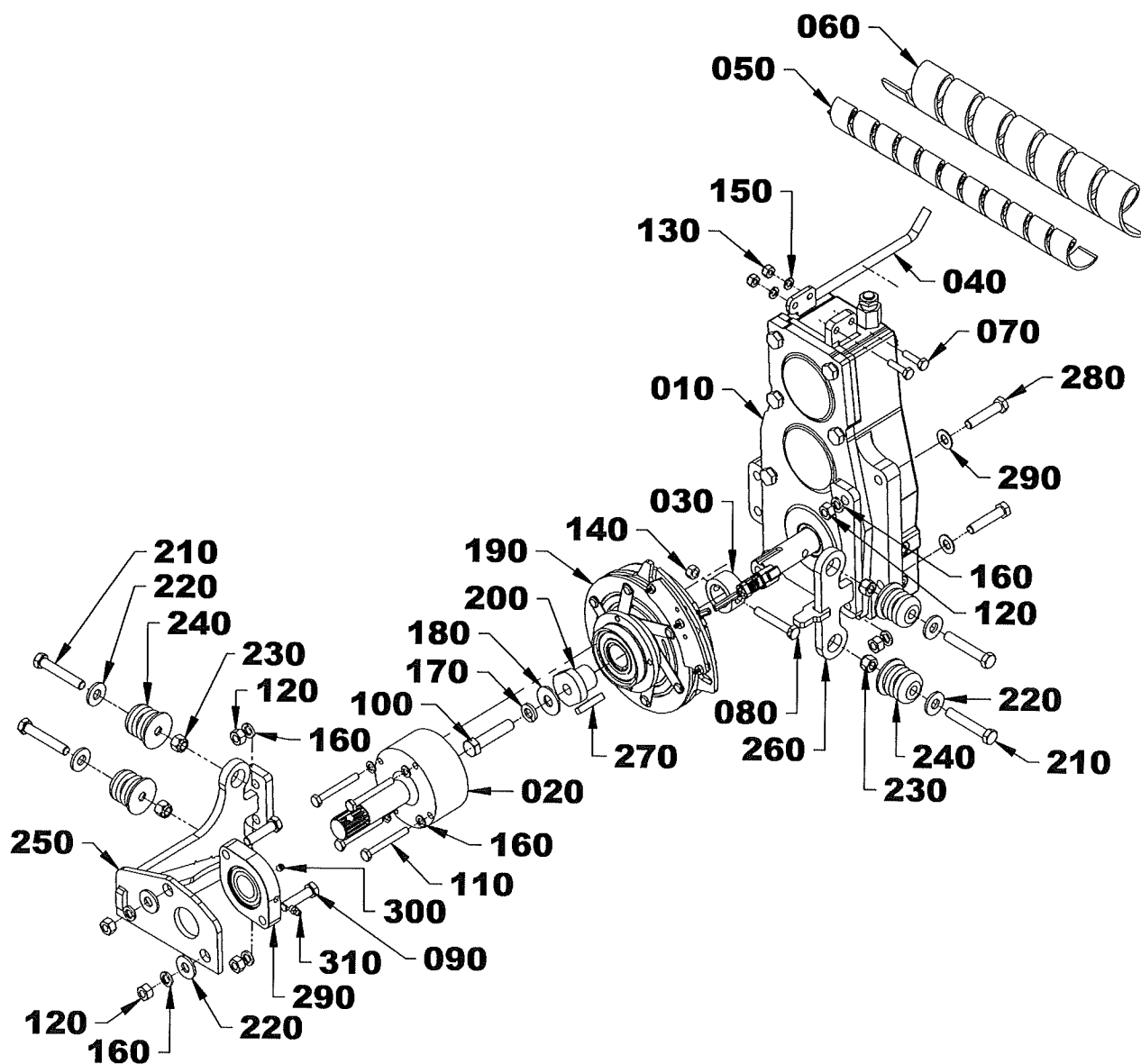
1. Place a container (item 1) under the drive system. Remove the drain plug (item 2), the level plug (item 3) and the vent assembly (item 4). Allow oil to drain completely.
2. Reinstall the drain plug (item 2). Add oil through the vent hole until the oil flows through the hole level plug (average of 8.5 ounces or 250 ml). Reinstall the oil level plug (item 3) and the vent assembly (item 4). Torque according to the **Torque Specification Table** enclosed at the end of the manual.

**IMPORTANT:** Apply thread sealant (PTFE tape) before reinstalling the plugs and the vent assembly.



# PARTS

## GEARBOX & CLUTCH





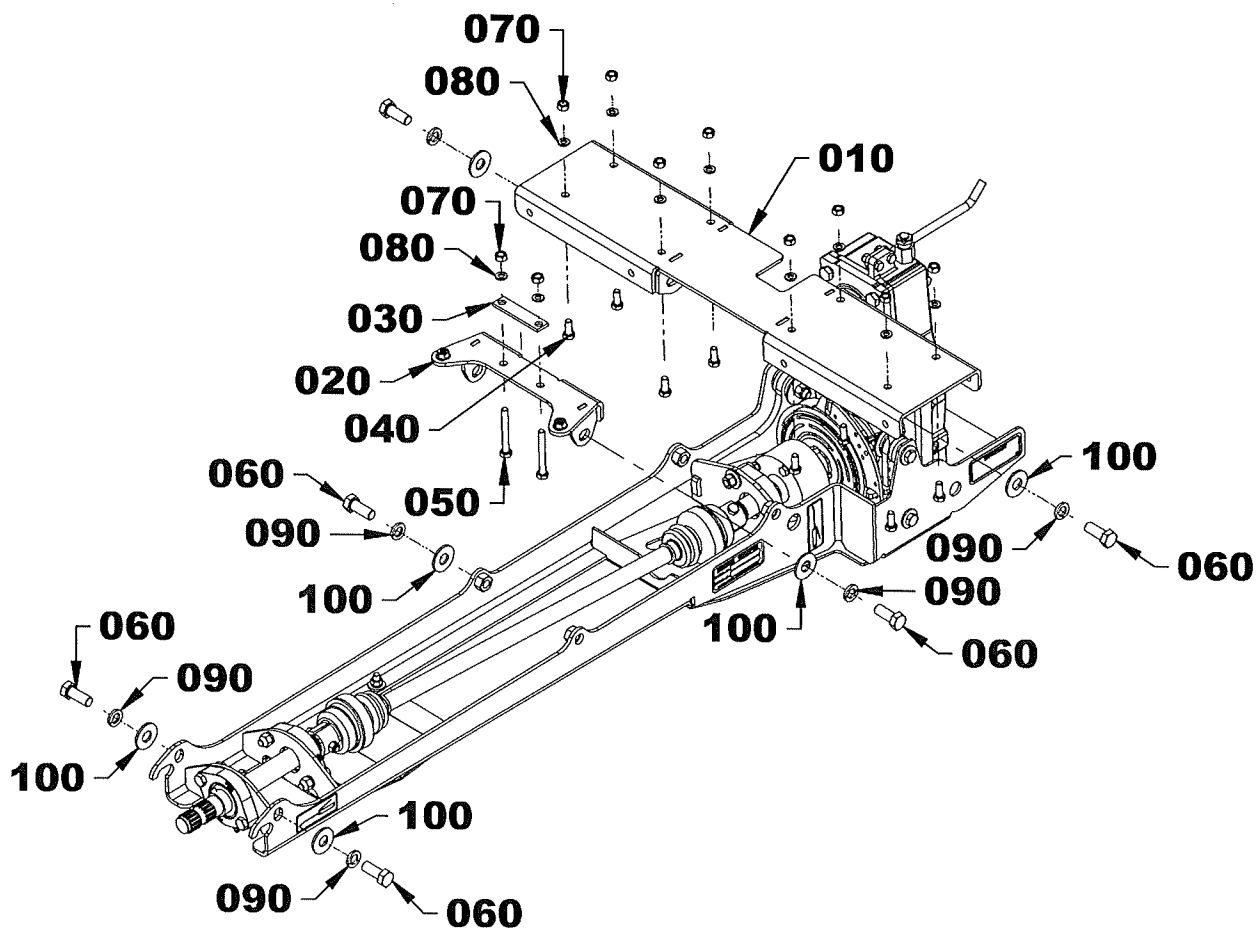
# PARTS

GEARBOX & CLUTCH				
REF.	PART #	QTY	DESCRIPTION	CODE
010	77700-11303	1	Gearbox	4500227
011	77700-11453	1	-Seal Kit (not illustrated)	4500229
020	77700-06662	1	Coupling for electrical clutch	4700309
030	77700-07638	1	Spacer ring 1.000"ID x 3/4"lg x 1.5" PTD	671487
040	77700-07048	1	Hose support	671400
050	77700-07064	1	Plastic guard for hoses ø5/8" @ ø1" x 15" lg	671428
060	77700-07065	1	Plastic guard for hoses ø1 5/8" @ ø1 7/8" x 14" lg	671429
070	75599-01120	2	Bolt hex 1/4"NC x 1" gr.5 PTD	0100004
080	75599-01240	1	Bolt hex 5/16"NC x 2" PTD	0100023
090	75599-01330	2	Bolt hex 3/8"NC x 1 1/2" Gr.5 PTD	0100040
100	77700-07618	1	Bolt hex 7/16"NF x 2" Gr.5 PTD	0100223
110	77700-06668	4	Bolt hex 1/4"NC x 2 1/4" Gr.8 PTD	0100271
120	75599-31013	6	Nut hex 3/8"NC PTD	0900003
130	75599-31911	2	Nylon insert lock nut 1/4"NC PTD	1000003
140	70001-00794	1	Stover lock nut 5/16" NC PTD	1100002
150	75599-33011	6	Lockwasher 1/4" PTD	1200002
160	75599-33013	6	Lockwasher 3/8" PTD	1200004
170	75599-33014	1	Lockwasher 7/16" PTD	1200005
180	75599-32015	1	Flat washer 7/16" (1/2" INT.) PTD	1400005
190	77700-10893	1	Electric clutch	4000196
200	77700-07620	1	Front bushing	671488
210	75599-01345	4	Bolt hex 3/8"NC x 2 1/4" Gr.5 PTD	0100043
220	75599-32014	4	Flat washer 3/8" (7/16" hole) PTD	1400004
230	75599-31913	4	Nylon insert lock nut 3/8"NC PTD	1000006
240	77700-02276	4	Vibration dampers	4200043
250	77700-07621	1	Gearbox right support	671474
260	77700-11304	1	Gearbox left support	673023
270	77700-07623	1	Key 1/4" x 1/4" x 1 3/8"	669943
280	75599-01335	4	Bolt hex 3/8"NC x 1 3/4" Gr.5 PTD	0100041
290	70060-01942	4	Flat washer 10mm (10.5mm INT.) PTD	1400019
300	70060-02699	1	Bearing 1"	4300054
310	70060-02707	2	Set screw 1/4"NF X 1/4" Gr.5 black	0500003
320	70060-00940	1	Grease fitting 1/4"NF	654106

# PARTS

## SUPPORTS

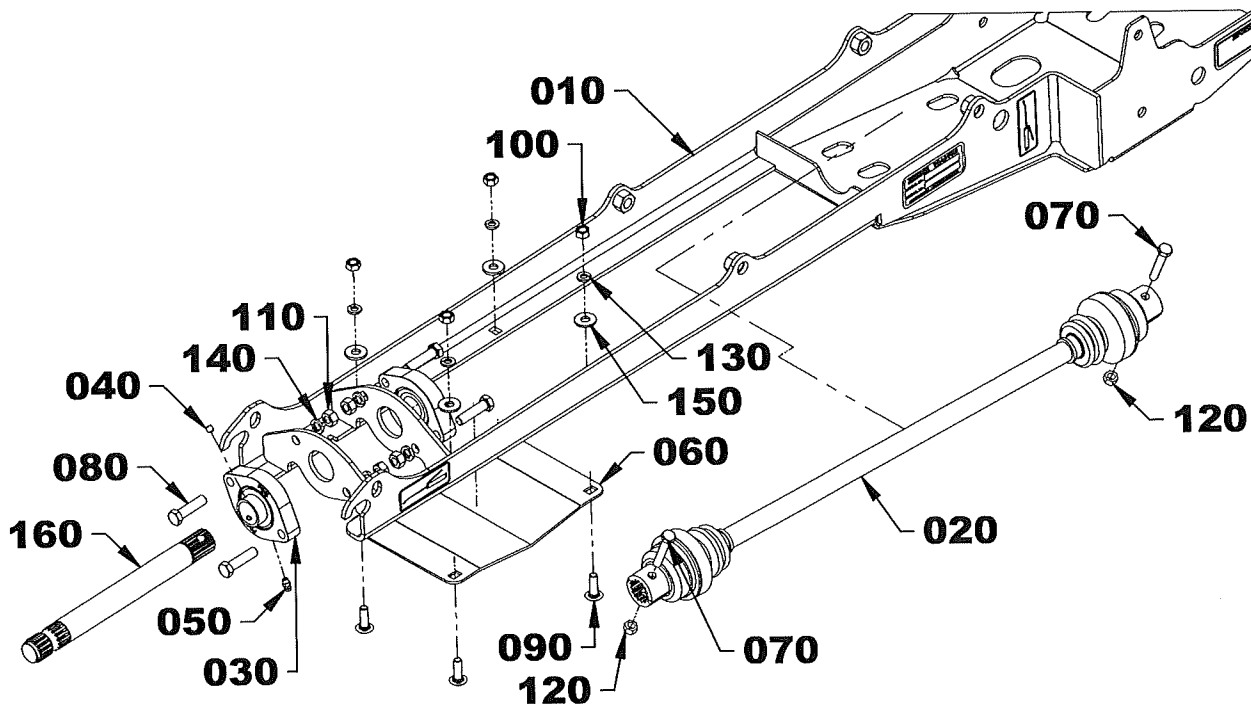
REF.	PART #	QTY	DESCRIPTION	CODE
010	77700-07194	1	Rear support	671486
020	77700-07036	1	Front support	671317
030	77700-07049	1	Reinforcement plate PTD	671401
040	77700-01638	8	Bolt hex M8 x 1.25 x 25mm PTD	0200007
050	77700-07196	2	Bolt hex M8 x 1.25 x 65mm PTD	0200077
060	75599-01525	6	Bolt hex 1/2"NC x 1 1/4" Gr.5 PTD	0100069
070	70060-01845	10	Nut hex M8 x 1.25 PTD	0900022
080	75599-33012	10	Lockwasher 5/16" PTD	1200003
090	75599-33015	6	Lockwasher 1/2" PTD	1200006
100	75599-32016	6	Flat washer 1/2" (9/16" INT.) PTD	1400006



# PARTS

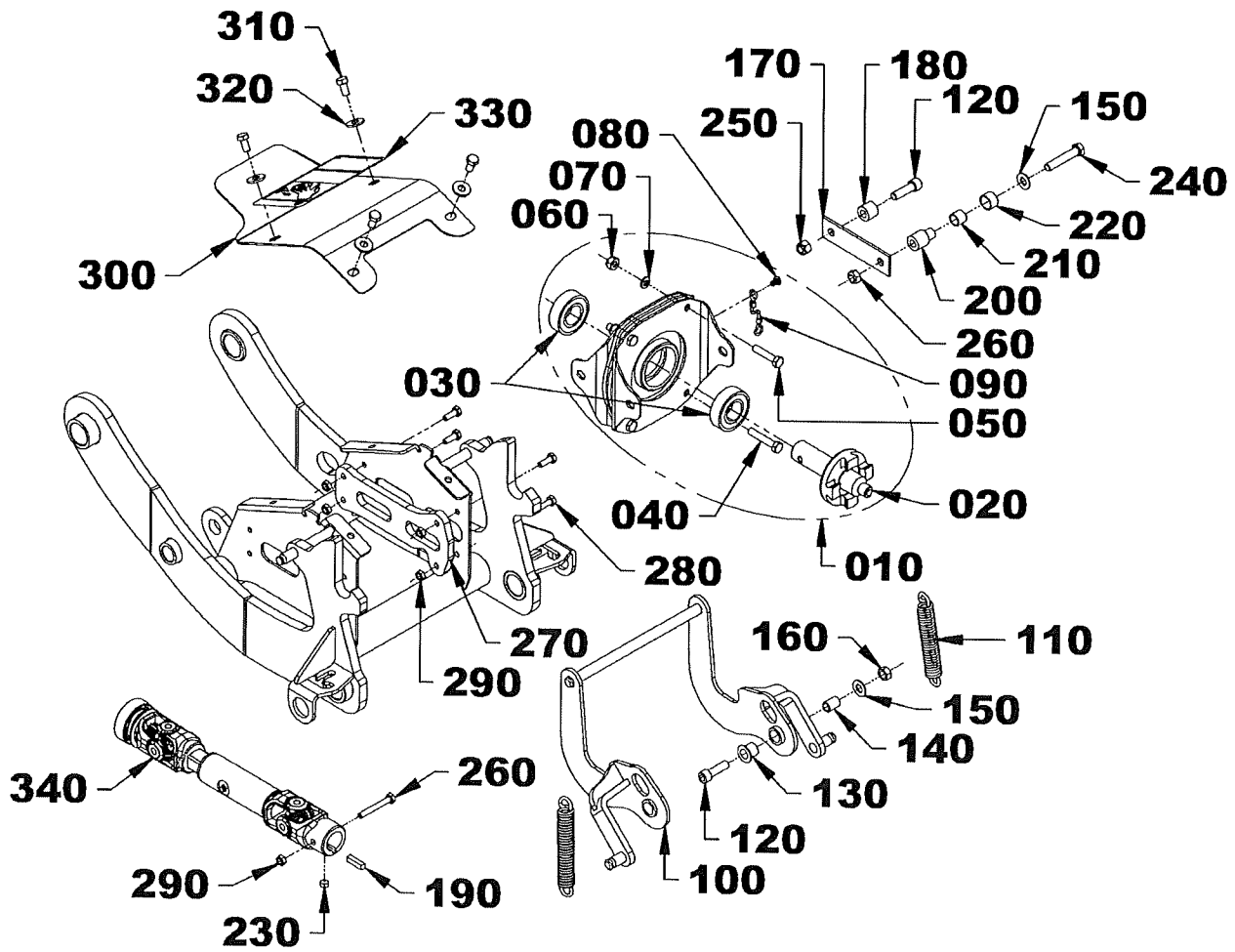
## DRIVE SUPPORT - FRAME

REF.	PART #	QTY	DESCRIPTION	CODE
010	77700-07624	1	Drive support - frame	671473
020	77700-06664	1	Double cv shaft 1-15 splines 682.5 @ 710.5MM LG	4700311
030	70060-02699	2	Bearing 1"	4300054
040	70060-02707	4	Set screw 1/4" NF X 1/4" Gr.5 black	0500003
050	70060-00940	2	Grease fitting 1/4"NF	654106
060	77700-07047	1	Front mud guard	671399
070	77700-04136	2	Bolt hex 5/16"NC X 1 3/4" Gr.5 PTD	0100022
080	75599-01330	4	Bolt hex 3/8"NC x 1 1/2" Gr.5 PTD	0100040
090	70001-00793	4	Carriage bolt 5/16"NC x 1" PTD	0300003
100	75599-31012	4	Nut hex 5/16"NC PTD	0900002
110	75599-31013	4	Nut hex 3/8"NC PTD	0900003
120	70001-00794	2	Stover lock nut 5/16"NC PTD	1100002
130	75599-33012	4	Lockwasher 5/16" PTD	1200003
140	75599-33013	4	Lockwasher 3/8" PTD	1200004
150	75599-32012	4	Flat washer 5/16"(3/8" INT.) PTD	1400003
160	77700-07067	1	Output shaft 1" x 10" lg	4700306



# PARTS

## CONNECTION SUPPORT & LEVER



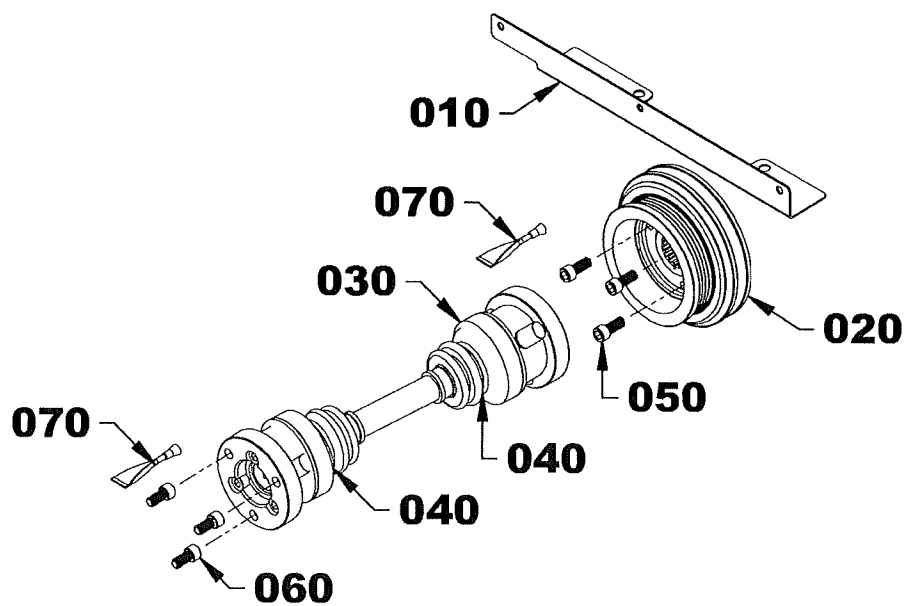
# PARTS

CONNECTION SUPPORT & LEVER				
REF.	PART #	QTY	DESCRIPTION	CODE
010	77700-04138	1	<u>Connection Support assembly</u>	670117
020	77700-04150	1	Male auto. Clutch shaft	4700246
030	77701-00566	1	-Bearing 1" int.	663916
040	77700-04136	1	-Bolt hex 5/16"NC x 1 3/4" lg PTD	0100022
050	75599-01230	3	-Bolt hex 5/16" NC x 1 1/2" lg gr.5 PTD	0100021
060	77700-33012	4	-Lockwasher 5/16" PTD	1200003
070	75599-31912	5	-Nylon insert lock nut 5/16"NC PTD	1000005
080	77700-04145	1	-Allen button head capscrew 1/4" NC x 3/8" Gr.5 PTD	0800051
090	77700-04178	1	-Cable 3/32" x 4 3/16" lg	2200030
100	77700-11289	1	Engagement lever	673017
110	77700-04146	1	Tension spring 3/4"OD x 4 1/2" lg	2200029
120	77700-04311	4	Allen socket head cap screw 3/8 NC x 1 1/4" PTD	0800048
130	77700-04147	2	Bushing 5/8" OD x 5/8" lg with shoulder	4300102
140	77700-07774	2	Pivot bushing ø1/2" ext. x 11/16" lg., PTD	671592
150	70060-01942	4	Flat washer 10mm dia. hole PTD	1400019
160	70060-04442	4	Stover nut 3/8"NC PTD	1100003
170	77700-04139	1	Spacer 10ga thick	670118
180	77700-07776	2	Pivot bushing ø3/4" ext. x 5/8" lg., PTD	671594
190	70060-00928	1	Key 1/4" x 1/4" x 1" lg	655379
200	77700-07775	2	Pivot bushing ø3/4" ext. x 1 1/4" lg., PTD	671593
210	77700-05845	2	Bushing 5/8" OD x 1/2" ID x 1/2" lg., plastic	4300122
220	77700-07777	2	Pivot bushing ø3/4" ext. x 15/32" lg., PTD	671595
230	77700-02236	1	Set screw 3/8"NC x 1/4 Gr.5 allen black	0500030
240	75599-01340	2	Hex. bolt 3/8"NC x 2" Gr.5 PTD	0100042
250	75599-31913	2	Nylon insert locknut 3/8"NC PTD	1000006
260	75599-01140	1	Bolt hex 1/4"NC x 2" Gr.5 PTD	0100010
270	77700-07779	2	Anti-friction guide 3/8"	671597
280	75599-01115	8	Hex. bolt 1/4" NC x 3/4" Gr.5 PTD	0100003
290	70060-02441	9	Stover nut 1/4", NC, PTD	1100001
300	77700-11290	1	Drive shaft guard - without decal	673018
310	75599-01212	4	Hex. bolt 5/16" NC x 5/8" lg Gr.5 PTD	0100017
320	75599-32012	4	Flat washer 3/8" PTD	1400003
330	77700-03908	1	Decal #703 "DANGER"	2500865
340	77700-06666	1	Driveline 07E series 8"C/C	4700317

# PARTS

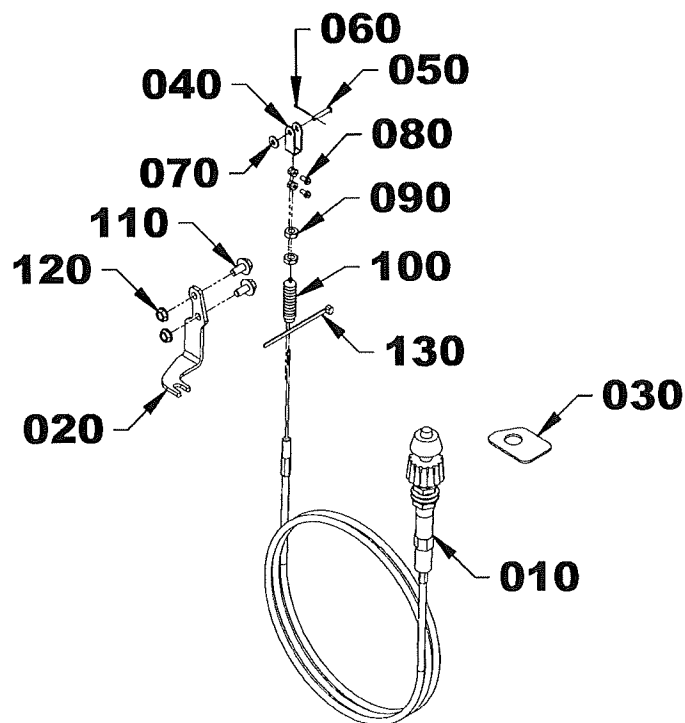
## DOUBLE CV PROP SHAFT 274.3 @ 301.4MM Ass'y

REF.	PART #	QTY	DESCRIPTION	CODE
010	77700-07612	1	Oil cooler support	671501
020	77700-07068	1	Drive pulley	4800044
030	77700-11293	1	Double cv shaft with flange both end, 274.3 @ 301.4mm	4700342
040	77700-07637	1	O-ring 1 1/2"ID x 1 3/4"OD	4700320
050	77700-11296	3	Allen socket head cap screw $\varnothing 5/16$ "NC x 3/4"	0800017
060	77700-11297	3	Allen socket head cap screw $\varnothing 5/16$ "NC x 5/8"	0800067
070	77700-11295	2	Capsule "Loctite" 243 - 0.5m	4200077



# PARTS

HANDLE CONTROL				
REF.	PART #	QTY	DESCRIPTION	CODE
010	77700-02732	1	Cable	4200046
020	77700-04987	1	Cable support	670624
030	77700-07627	1	Hand throttle plate	671502
040	77700-03056	1	"U" plate	669876
050	70060-00714	1	Pin 3/16" x 1" PTD	4600002
060	75599-53132	1	Cotter pin 1/16" x 3/4"	1500029
070	77700-01248	1	Flat washer #12 (Ø 1/4" INT)	1400016
080	77700-03057	2	Wire screw (screw & nut)	4200047
090	77700-03058	2	Jam nut hex 3/8"NF PTD	1100009
100	77700-07628	1	Flexible rubber boot 3" lg	4200054
110	70060-02415	2	Serrated flange bolt 5/16"NC x 3/4" lg PTD	0200083
120	70060-02135	2	Serrated flange nut 5/16"NC PTD	0900036
130	77700-00985	1	Nylon tie wrap 2.5mm x 4" lg black	2100001

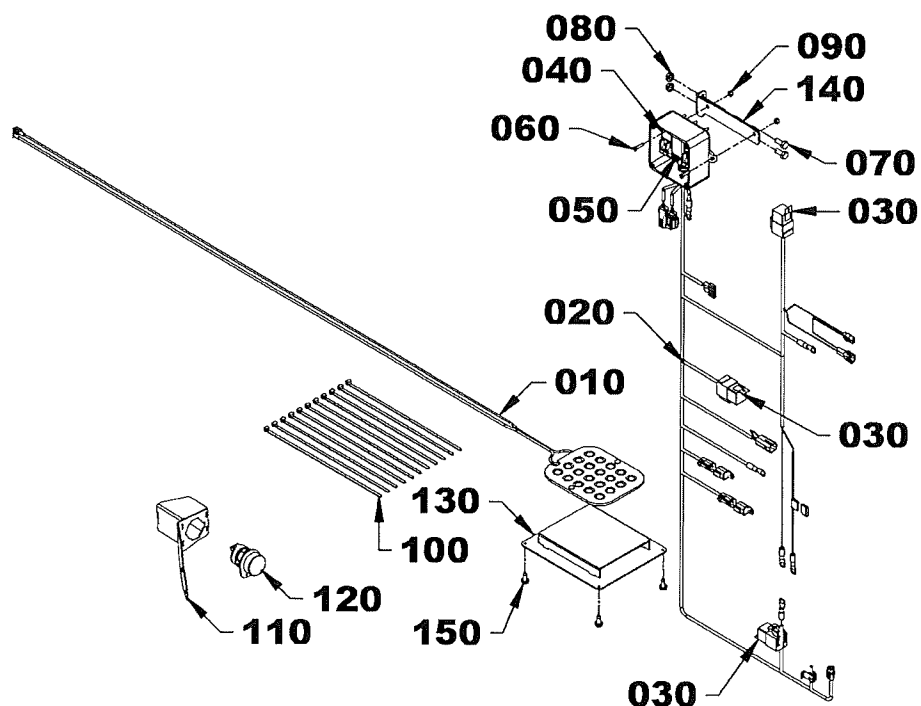




# PARTS

## ELECTRIC COMPONENTS

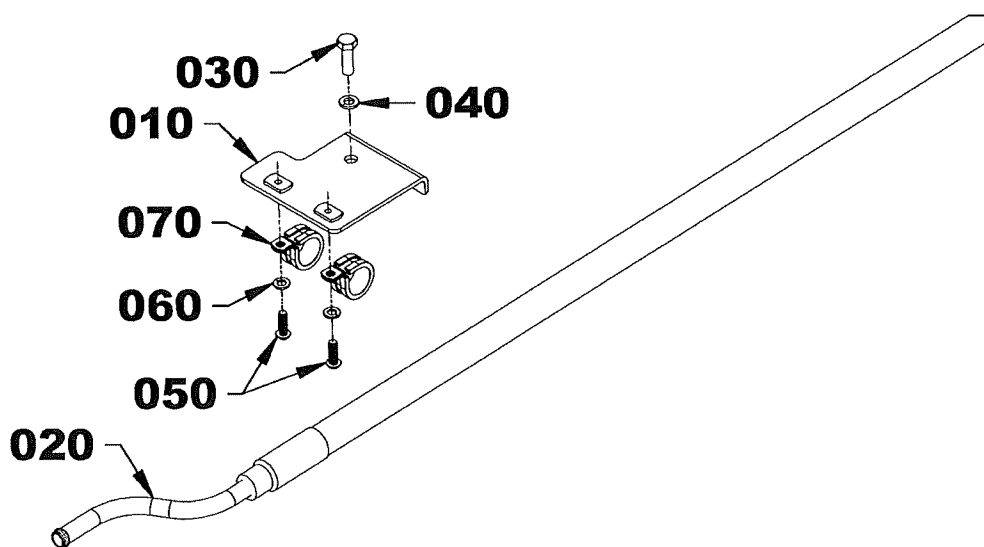
REF.	PART #	QTY	DESCRIPTION	CODE
010	77700-07632	1	Seat switch	671527
020	77700-07053	1	Electrical harness for clutch	4000144
030	77700-07164	3	Sealed relay 12V	4000152
040	77700-00951	1	Relay 12V	4000028
050	77700-07629	1	Time delay relay	4000154
060	77700-01609	2	Machine screw socket head quadrex 8-32 NC X 3/4"	2700011
070	70060-02415	2	Serrated flange bolt 5/16"NC x 3/4" gr.5 PTD	0200083
080	70060-02135	2	Serrated flange nut 5/16"NC PTD	0900036
090	77700-07197	2	Nylon insert lock nut 8-32 PTD	1000026
100	70060-02467	20	Nylon tie wrap 14 7/8" lg x 0.30" black	2100011
110	77700-07046	1	PTO switch box	671352
120	77700-06681	1	PTO switch 12V	4000141
130	77700-07195	1	Switch support w/ protective sticker	671499
140	77700-07193	1	Electric box support	671483
150	77700-07641	4	Self-drilling screw #14 x 3/4 hex.washer head	3200002



# PARTS

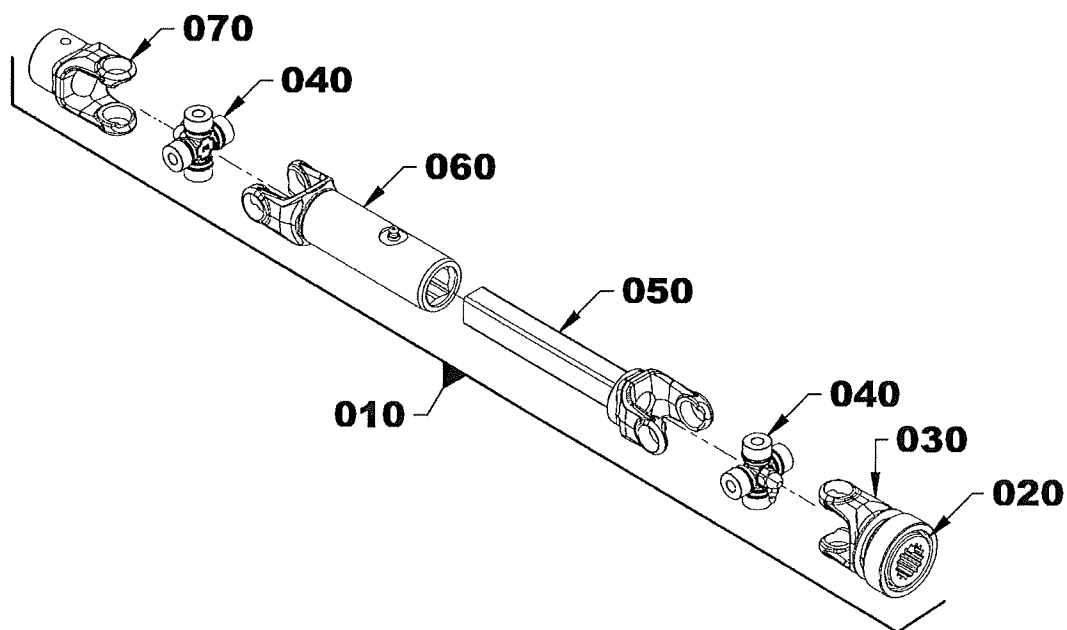
## POWER STEERING HOSE COMPONENTS

REF.	PART #	QTY	DESCRIPTION	CODE
010	77700-11291	1	Hose support	673019
020	77700-11292	1	Low pressure hose $\varnothing 5/8"$ x $\varnothing 1/2"$ bent tubing end	3700347
030	77700-01638	1	Hex. bolt M8 x 1.25 x 25 lg PTD	0200007
040	75599-33012	1	Lockwasher 5/16" PTD	1200003
050	77700-03082	2	Allen socket button head cap screw 1/4" NC x 3/4" PTD	0800050
060	75599-33011	2	Lockwasher 1/4" PTD	1200002
070	77700-11294	2	Clamp with rubber band $\varnothing 7/8"$	4200076



# PARTS

DRIVELINE				
REF.	PART #	QTY	DESCRIPTION	CODE
010	70060-01478	1	Spring-lok repair kit	658113
020	70060-02334	1	Quick disconnect yoke 07 series	665810
030	70060-02335	2	Journal cross kit	4700066
040	77700-03435	1	Male shaft and yoke	4700240
050	77700-03437	1	Female shaft and yoke	4700242
060	70060-02348	1	Yoke 07 series	4700072
070	77700-06666	1	Driveline assembly	4700317






# TORQUE SPECIFICATION TABLE




## GENERAL SPECIFICATION TABLE

### USE THE FOLLOWING TORQUES WHEN SPECIAL TORQUES ARE NOT GIVEN

Note: These values apply fasteners as received from supplier dry, or when lubricated with normal engine oil. They do not apply if special graphited or moly disulphide greases or other extreme pressure lubricants are used. These values apply to dry conditions; under lubricated conditions reduce by 25% the torques in this table.

## BOLT HEAD IDENTIFICATION

<b><u>INCHES</u></b> Bolt Size	 Grade 2		 Grade 5		 Grade 8	
	in-tpi <sup>1</sup>	N-m <sup>2</sup>	lbs-ft <sup>3</sup>	N-m	lbs-ft	N-m
1/4" – 20NC	7.4	5.6	11	8	16	12
1/4" – 28NF	8.5	6	13	10	18	14
5/16" – 18NC	15	11	24	17	33	25
5/16" – 24NF	17	13	26	19	37	27
3/8" – 16NC	27	20	42	31	59	44
3/8" – 24NF	31	22	47	35	67	49
7/16" – 14NC	43	32	67	49	95	70
7/16" – 20NF	49	36	75	55	105	78
1/2" – 13NC	66	49	105	76	145	105
1/2" – 20NF	75	55	115	85	165	120
9/16" – 12NC	95	70	150	110	210	155
9/16" – 18NF	105	79	165	120	235	170
5/8" – 11NC	130	97	205	150	285	210
5/8" – 18NF	150	110	230	170	325	240
3/4" – 10NC	235	170	360	265	510	375
3/4" – 16NF	260	190	405	295	570	420
7/8" – 9NC	225	165	585	430	820	605
7/8" – 14NF	250	185	640	475	905	670
1" – 8NC	340	250	875	645	1230	910
1" – 12NF	370	275	955	705	1350	995
1 1/8" – 7NC	480	355	1080	795	1750	1290
1 1/8" – 12NF	540	395	1210	890	1960	1440
1 1/4" – 7NC	680	500	1520	1120	2460	1820
1 1/4" – 12NF	750	555	1680	1240	2730	2010
1 3/8" – 6NC	890	655	1990	1470	3230	2380
1 3/8" – 12NF	1010	745	2270	1670	3680	2710
1 1/2" – 6NC	1180	870	2640	1950	4290	3160
1 1/2" – 12NF	1330	980	2970	2190	4820	3560

<b><u>METRIC</u></b> Bolt Size	 Class 5.8		 Class 8.8		 Class 10.9	
	mm x pitch <sup>4</sup>	N-m	lbs-ft	N-m	lbs-ft	N-m
M 5 X 0.8	4	3	6	5	9	7
M 6 X 1	7	5	11	8	15	11
M 8 X 1.25	17	12	26	19	36	27
M 8 X 1	18	13	28	21	39	29
M10 X 1.5	33	24	52	39	72	53
M10 X 0.75	39	29	61	45	85	62
M12 X 1.75	58	42	91	67	125	93
M12 X 1.5	60	44	95	70	130	97
M12 X 1	90	66	105	77	145	105
M14 X 2	92	68	145	105	200	150
M14 X 1.5	99	73	155	115	215	160
M16 X 2	145	105	225	165	315	230
M16 X 1.5	155	115	240	180	335	245
M18 X 2.5	195	145	310	230	405	300
M18 X 1.5	220	165	350	260	485	355
M20 X 2.5	280	205	440	325	610	450
M20 X 1.5	310	230	650	480	900	665
M24 X 3	480	355	760	560	1050	780
M24 X 2	525	390	830	610	1150	845
M30 X 3.5	960	705	1510	1120	2100	1550
M30 X 2	1060	785	1680	1240	2320	1710
M36 X 3.5	1730	1270	2650	1950	3660	2700
M36 X 2	1880	1380	2960	2190	4100	3220

1 in-tpi = nominal thread diameter in inches-threads per inch

2 N-m = newton-meters

3 lbs-ft= pounds-foot

4 mm x pitch = nominal thread diameter in millimeters x thread Pitch

\*Torque tolerance +0%, -15% of torquing values. Unless otherwise specified use torque values listed above





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