



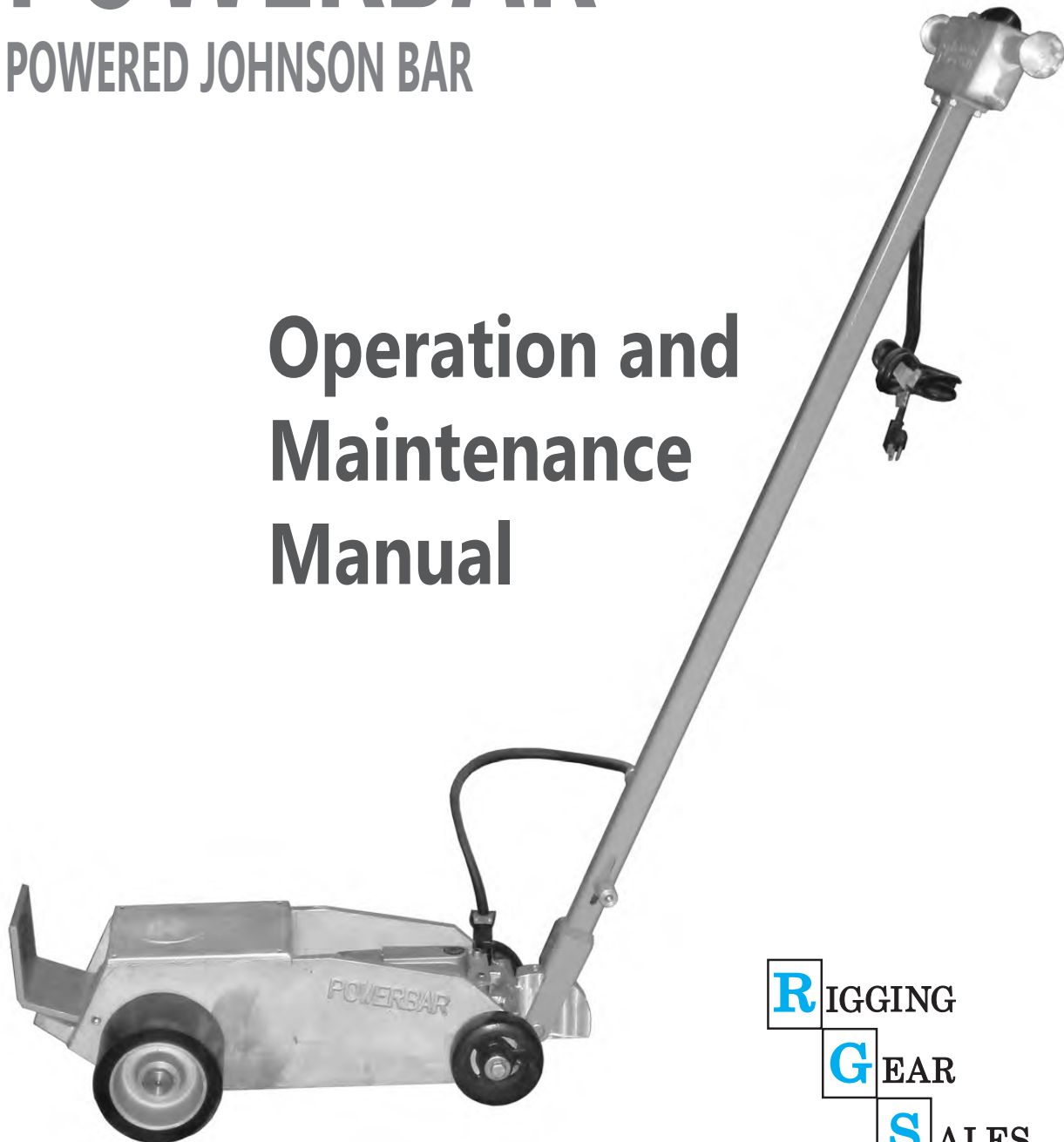
## OPERATION MANUAL

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# POWERBAR

## POWERED JOHNSON BAR

## Operation and Maintenance Manual



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# POWERBAR

## GENERAL

The POWERBAR is design to assist in the skidding of and pushing of heavy dollied loads, The POWERBAR is not designed to pull loads.

## **NOTICE**

Authorized personnel, trained to operate the equipment, must demonstrate a complete knowledge and understanding of the system including:

- ❖ Proper operating procedures
- ❖ Safety factor requirements
- ❖ Proper maintenance procedures
- ❖ Troubleshooting techniques

Personnel operating the system must advise the supervisor **immediately** if a malfunction occurs.

## **OPERATING CHARACTERISTICS & LIMITATIONS**

Prior to operation, become familiar with the system and its limitations. DO NOT rely on past experience with similar types of lifting devices.

## **WARNINGS & CAUTIONS**

Anyone authorized to operate and maintain the POWERBAR must become completely familiar with this manual.

Since the safety of personnel through the proper use of the POWERBAR is paramount, **warnings** and **cautions** have been used throughout this manual to emphasize these areas of concern. They are defined as follows:

### **WARNINGS**

If not followed could end in injury or death to personnel.

### **CAUTIONS**

If not followed could end in damage or loss of the POWERBAR.

## **MAINTENANCE RECORDS & EQUIPMENT UTILIZATION LOGS**

Accurate records on the usage and the maintenance of the POWERBAR are highly recommended.

Authorized personnel must update the records each time POWERBAR maintenance duties are performed.

## **ALWAYS DO THE FOLLOWING:**

- Understand all POWERBAR operations, including the safety procedures, before accepting any operating or maintenance responsibility.
- Perform complete pre-start inspection of the POWERBAR before each use. Perform required maintenance functions before beginning use.
- Be alert to any space problems and clearances required.
- Check power cords for proper gauge and length.
- Use proper operating procedures. Verify that all safety devices are properly connected and engaged.
- Only use on firm ground.
- Avoid abrupt stops and starts.
- Only use 50 foot or less of drop cord with a gauge of 12 or larger.
- Change direction (forward or reverse) only after the POWERBAR has come to a complete stop. Failure to do so can cause spur gear damage (Ref. Part Number 13)
- Use at least a 20 amp circuit.
- Push the load forward only.

## **NEVER DO THE FOLLOWING:**

- Operate the POWERBAR without performing all necessary inspections, preparation, and proper set-up beforehand.
- Allow unauthorized or inexperienced personnel to operate the POWERBAR.
- Operate a malfunctioning POWERBAR. Shut down and seek qualified assistance.
- Leave the POWERBAR controls unattended with the motor running, or when a load is in the process of being moved.
- Take anyone's word for the weight of a load.
- Allow people to do any work near a dollied load unless spotters are used.
- Allow anyone to override or bypass safety features.
- Allow anyone to change or alter the plumbing, electrical, or fabricated assemblies without the expressed permission of the manufacturer.
- Underestimate the power of the POWERBAR.
- Never use a cord that is over 50 feet in length or that has a smaller gauge than 12.
- Change direction (forward or reverse) before the POWERBAR has come to a complete stop. Doing so can cause spur gear damage (Ref. Part Number 13)

### **WARNING!**

**Never set a load directly on the body of the POWERBAR, it is not designed to carry a load, doing so can cause damage and/or injury. Only use the POWERBAR tongue.**

### **WARNING!**

**When operating the POWERBAR in reverse, never allow yourself to become trapped between the POWERBAR and another object. Doing so can cause severe bodily injury.**

## **PRE-START INSPECTION**

The Pre-start inspection and maintenance must include checks for:

- A. Overall condition
- B. Condition of the tires
- C. No cracks in the body of the Powerbar
- D. Handle not damaged
- E. Power cord is not damaged
- F. All safety devices in place

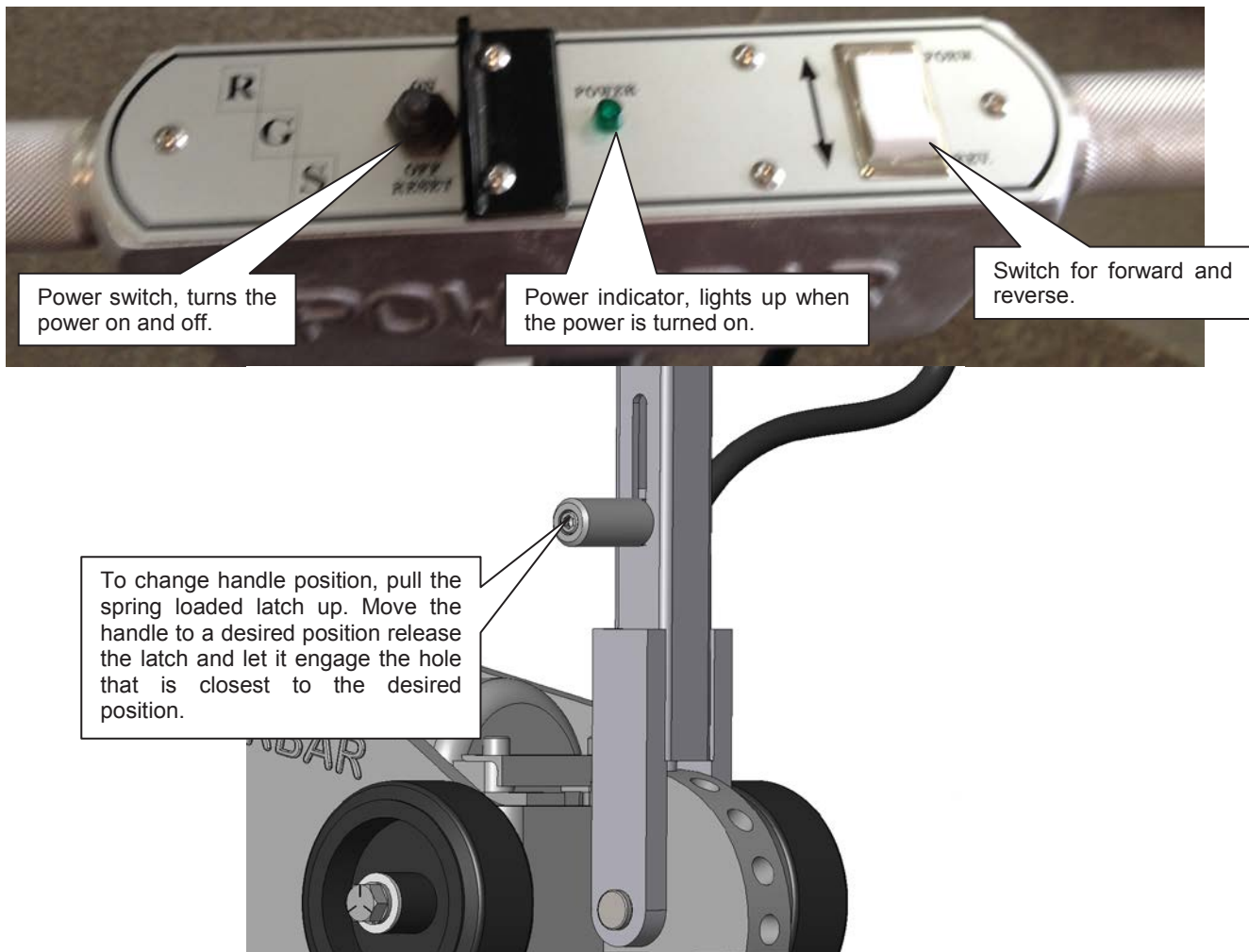
It is the user's responsibility to inspect the POWERBAR before operation, even if other personnel may have recently used the system.

## **OVERALL CLEANLINESS**

Check all POWERBAR surfaces to be sure they are free of oil, and any foreign objects (towels, papers, tools, etc.) which might interfere with operation or maintenance of the POWERBAR. Check for signs of physical damage or wear. Repair or replace as required.

## OPERATION

When plugging the POWERBAR in, it may be necessary to use a drop cord. The drop cord should not be over 50ft in length and it should at least be a 12 gauge or larger. The POWERBAR has two switches, one ON/OFF switch and the other is for forward and reverse. The handle has 5 different positions to choose from. There are two tongues that can be used depending on the load, the fixed tongue is for loads that are low to the ground and the pivoting tongue is for loads that are higher off the ground.



To push a load place one of the tongues under the load, the rear wheels should be off the ground. Position the handle so that the operator can easily apply downward force on the handle so that the drive wheels can get plenty of traction. Move the travel switch to the forward position, If the drive wheels spin then more pressure needs to be applied. It takes some experience to determine what works best, as far as handle position and which tongue to use.

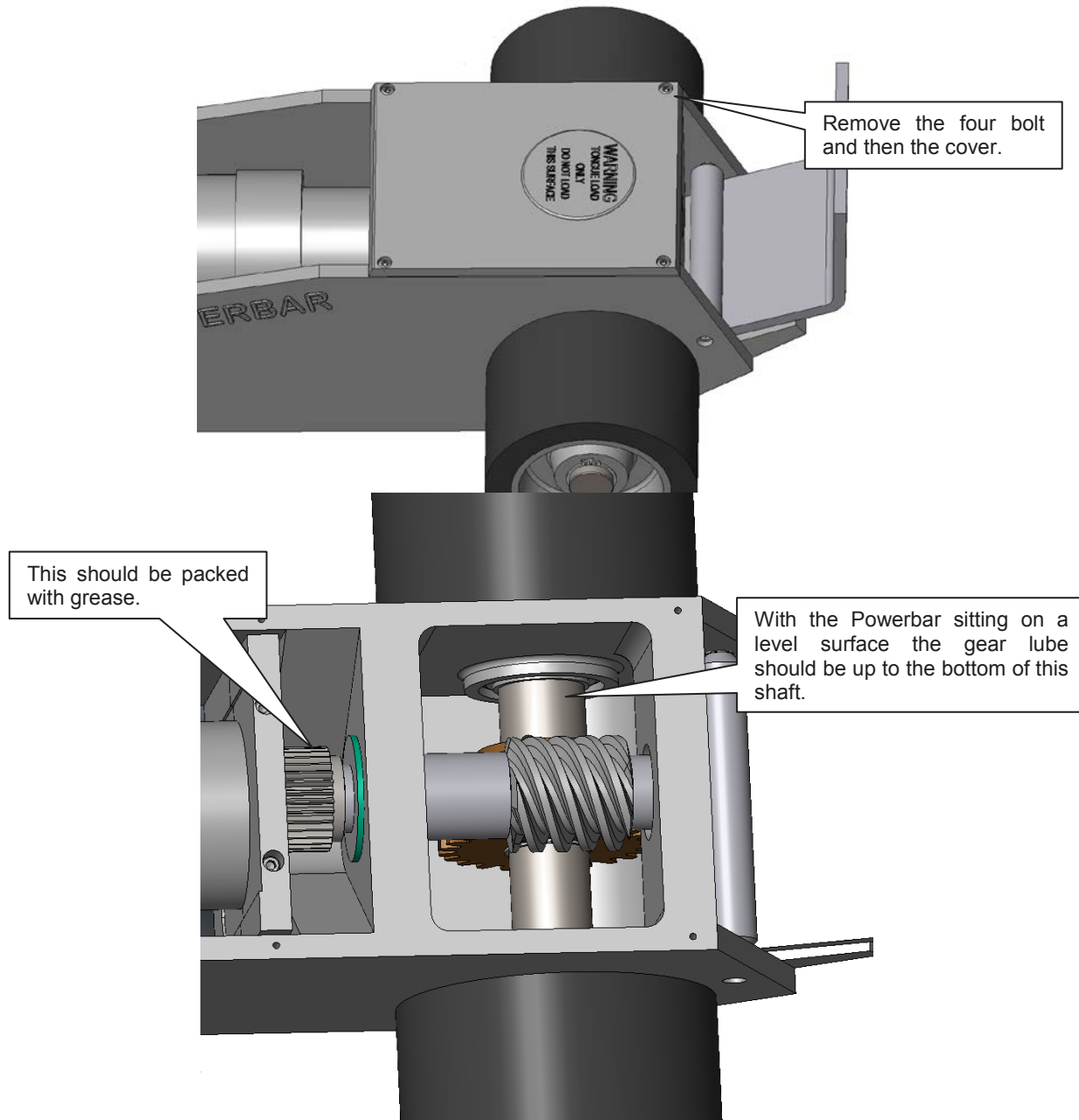
When completed with moving the load, move the switch to the reverse position and back the POWERBAR away from the load. Use caution when backing up so you do not get trapped between the POWERBAR and an immovable object.



## MAINTENANCE

### LUBRICATION

To check the gear lube in the POWERBAR, with the unit sitting on a level surface, remove the the four allen head bolts that hold the top cover in place.

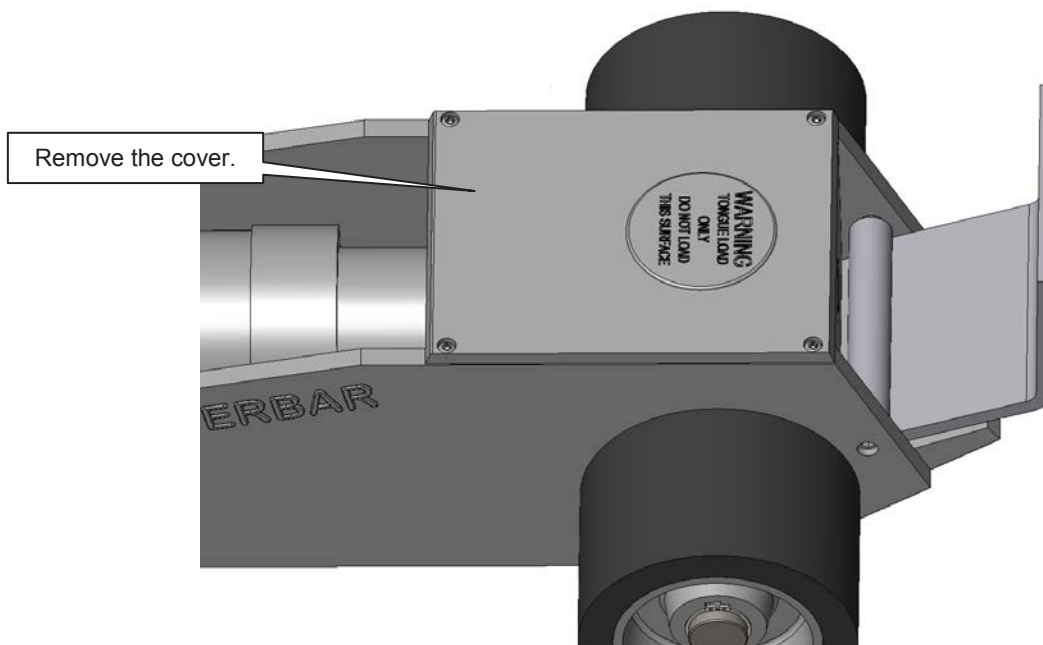


## REPLACING THE SPUR GEAR

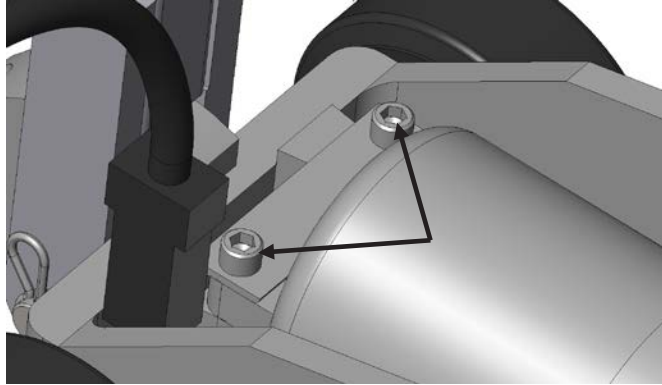
1. Disconnect the power to the POWERBAR
2. Disconnect the electrical connector to the motor.



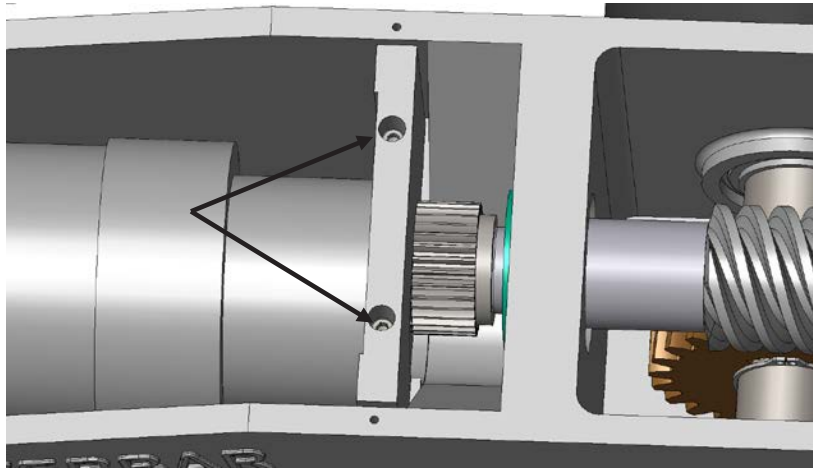
3. Remove the cover plate(if one piece). If the two piece top cover, only the small cover needs to be removed.



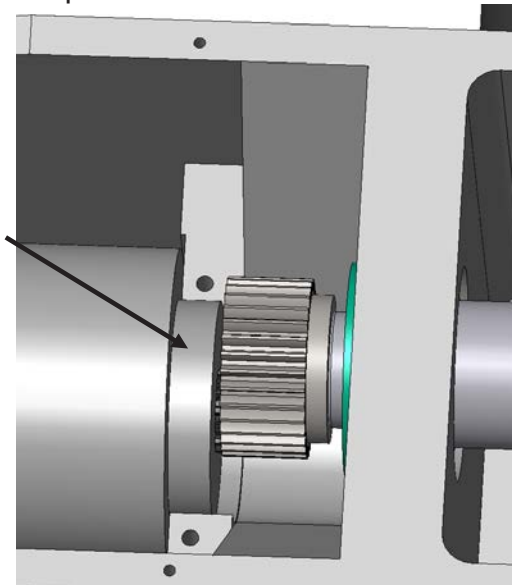
4. Remove the two (2) socket head capscrews holding the rear of the motor.



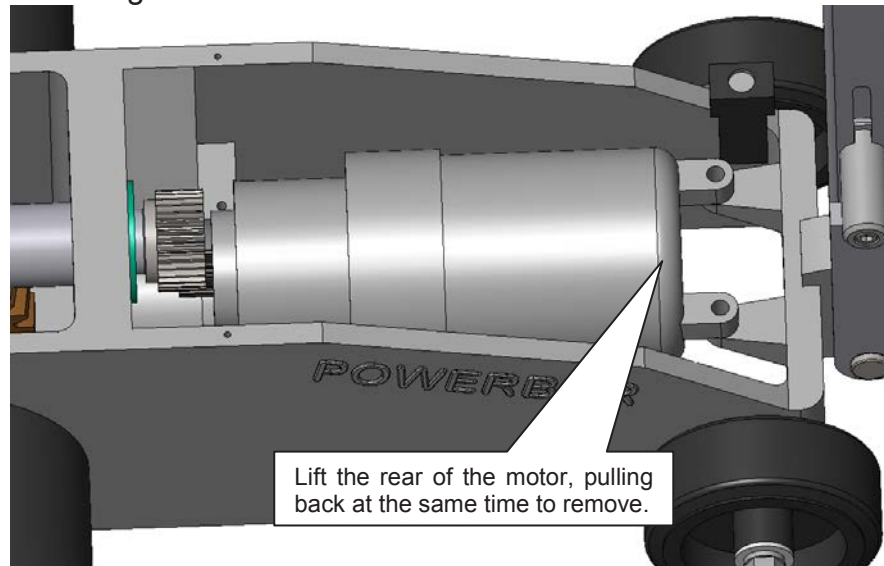
5. Remove the two (2) socket head capscrews from the vertical plate holding the nose piece of the motor.



6. Remove the top half of the plate.



7. Take the rear of the motor and lift it out of the frame and at the same time pull the motor back so the gears clear each other.



8. Loosen the setscrew on the spur gear and remove the gear.
9. Remove the old set screw from the old gear and install it into the new gear,
10. Clean out the old grease for the gears.
11. Install the new gear onto the shaft. Sometimes the gears are very tight, so use a little emery cloth to polish the bore of the gear. Take care not to get too loose of a fit. A loose fit will cause premature wear.
12. Reinstall the motor in reverse order starting with #7.
13. Apply new grease.

## GENERAL TROUBLESHOOTING

1. Always check the basic things as listed below first.
  - A. Is it plugged in?
  - B. Is the circuit breaker tripped?
  - C. Is the drop cord longer than 50ft or smaller than 12 gauge?

## TROUBLESHOOTING

CAUSES:	SOLUTIONS:
A. Motor runs but the wheels do not turn.	A. Spur gear is damaged or the key has been sheared. Replace gear and or key.
B. Circuit breaker keeps tripping.	B. Too long or too light of a drop cord, try a shorter or a heavier gauge cord.
C. Circuit breaker trips with proper size drop cord.	C. Circuit breaker needs to be at least a 20 amp. Try another circuit.