

INSTALLATION OF R-490 EMERGENCY HAND PUMP FOR PTO APPLICATIONS

SAFETY PRECAUTIONS

If any installation problems are encountered, please call G&B Specialties, Inc. for technical assistance before continuing with the installation process.



- Failure to heed to any of the following warnings could result in severe bodily injury and/or equipment damage.
- Read and understand this manual completely before attempting installation of the equipment.
- Installation instructions provided below only address the Rafna railgear equipment. Applicable railway company procedures and policies must be adhered to.
- Before performing any work under the vehicle or railgear, ensure the engine is turned off and the parking brake is set.
- Beware of all pinch points on the railgear and keep all parts of the body clear.
- When routing hydraulic hoses, ensure that the hoses do not contact any sharp edges or hot surfaces.
- When routing electrical wires, ensure that the wires do not contact any sharp edges or hot surfaces.
- All wire connections are to be soldered and heat shrink sealed to prevent future corrosion related problems.
- All wires must be covered with protective cable loom.
- Always disconnect the vehicle's battery when welding on the vehicle or railgear in order to protect the vehicle's electrical system.

INSTALLATION OF EMERGENCY HAND PUMP

K-H49EMG001 - Emergency Hand Pump Kit - 1/4"		
Part Number	Description	Qty
R-056	Emergency Hand Pump	1
HY-844FS-04-04	1/4" Male JIC to 1/4" Male JIC Tee	2
R-23204	1/4 Quick Connect Plug	2
R-23202	1/4 Quick Connect Coupler	2
R-8594	Ball Valve	1
R-23206	1/4 Dust Cap	2
R-23208	1/4 Dust Plug	2

NEW INSTALLS:

1. The emergency hand pump quick connects and components must be installed in conjunction with the main hydraulic kit as order for the vehicle. Refer to the following hydraulic schematic for additional information. (Figure 1)

EXISTING INSTALLS:

1. The emergency hand pump quick connects and components must be integrated into the existing hydraulics of the vehicle. Refer to the following hydraulic schematic for additional information. (Figure 1)

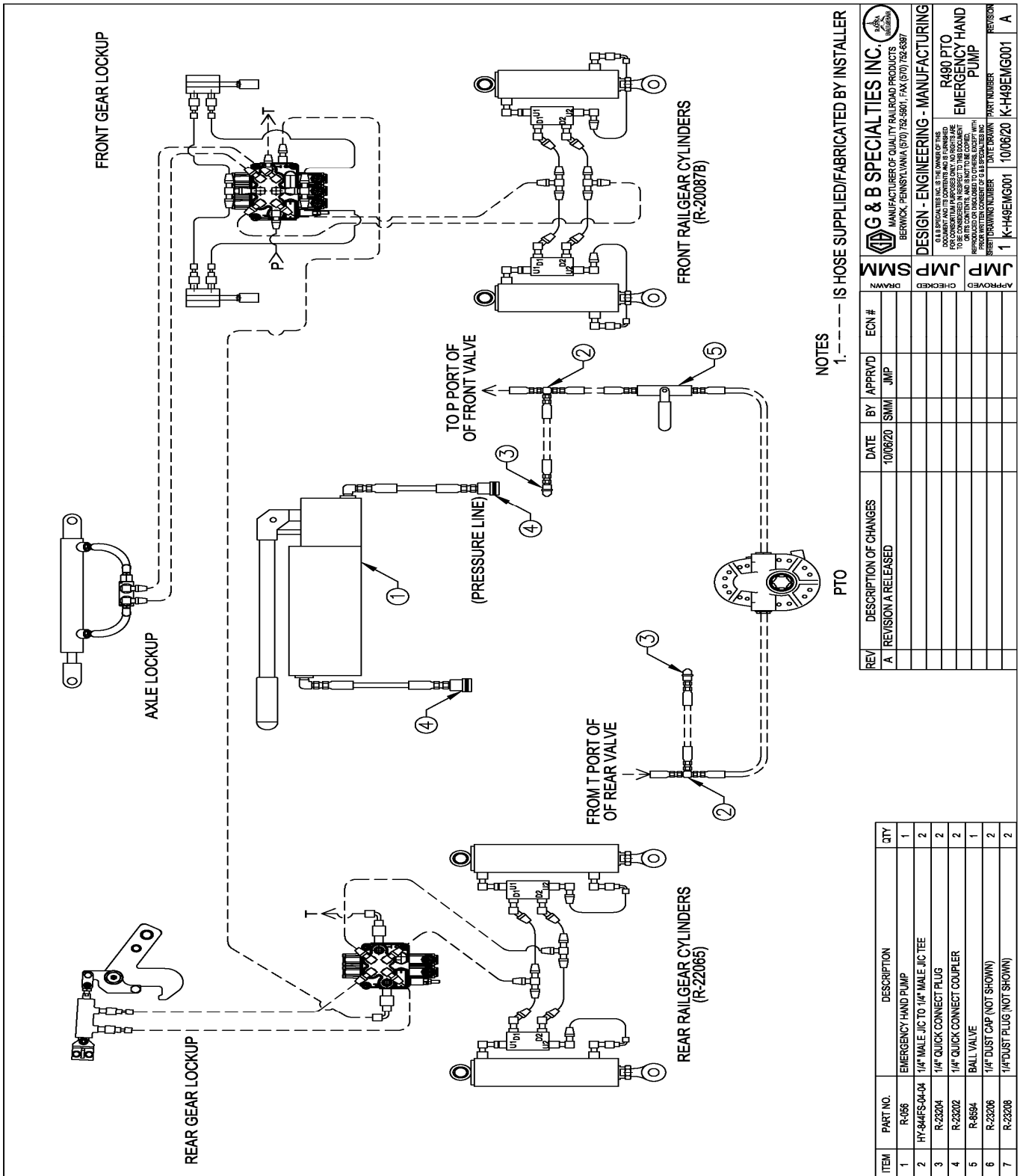


Figure 1: Emergency Hand Pump Schematic

OPERATION OF R-490 EMERGENCY HAND PUMP FOR PTO APPLICATIONS

OPERATION PRECAUTIONS

If any operating, service or parts problems are encountered, please call G&B Specialties, Inc. for technical assistance.



- Failure to heed to any of the following warnings could result in severe bodily injury and/or equipment damage.
- Read and understand this manual completely before attempting operation of the railgear equipped vehicle.
- Operating instructions provided below only address the Rafna railgear equipment. Applicable railway company procedures and policies must be adhered to.
- Railway company rules governing rail travel must always be observed.
- Before performing any work under the vehicle or railgear, ensure the engine is turned off and the parking brake is set.
- Ensure all body parts and loose clothing is clear of any moving parts of the railgear. Be aware of all pinch points.
- Ensure the hydraulic pump has been de-energized before starting road or rail travel.
- Never operate the vehicle if the Gross Vehicle Weight Rating (GVWR), Gross Axle Weight Rating Front or Rear (GAWR), or the wheel or tire load ratings are exceeded.

EMERGENCY HAND PUMP OPERATION

The emergency hand pump is designed to operate the railgear if the vehicle's PTO should fail. It can be used to raise and / or lower the railgear.



WARNING:

Do not use the emergency hand pump to raise and lower the railgear on a routine basis.

The following emergency hand pump operating procedures can be substituted into the normal operating procedures. The hand pump tank should be no more than ½ full. If the oil level is higher than this, it is possible for the tank to overflow.

To Raise Each Railgear Off the Track:

1. Position the hand pump on a solid railway tie near the railgear.
2. Locate the two hydraulic quick connects on the system. There is a ball valve in line on the pressure side of the system. Carefully close this ball valve. Note: this is to prevent back feeding into the PTO pump.
3. Locate the release valve on the hand pump. Open this valve to equalize the hydraulic pressure in the hand pump.
4. Remove the quick connect dust shields and connect the hand pump quick connects to the system's quick connects. Ensure the hand pump pressure line is connected to the pressure side of the hydraulic system.
5. Ensure the ball valve between the quick connects and PTO is closed. Close the release valve on the hand pump.
6. Pump the hand pump to pressurize the system and operate the lever on the associated valve of the railgear in need of being raised. Note: The same process will apply to disengage the Vehicle Axle Lockup and to engage the Railgear Axle Lockup.
7. Carefully open the ball valve between the quick connects on the railgear. Note that the railgear may drop if the lock pin is not engaged.
8. Carefully open the release valve on the hand pump. Note that the railgear may drop if the lock pin is not engaged.
9. Disconnect the hand pump quick connects and replace the dust shields on the quick connects.
10. Ensure the ball valve between the quick connects and PTO is open. Close the release valve on the hand pump.

To Lower Each Railgear onto The Track:

1. Position the hand pump on a solid railway tie near the railgear.
2. Locate the two hydraulic quick connects on the system. There is a ball valve in line on the pressure side of the system. Carefully close this ball valve. Note: this is to prevent back feeding into the PTO pump.
3. Locate the release valve on the hand pump. Open this valve to equalize the hydraulic pressure in the hand pump.
4. Remove the quick connect dust shields and connect the hand pump quick connects to the system's quick connects. Ensure the hand pump pressure line is connected to the pressure side of the hydraulic system.
5. Ensure the ball valve between the quick connects and PTO is closed. Close the release valve on the hand pump.
6. Pump the hand pump to pressurize the system and operate the lever on the associated valve of the railgear in need of being lowered. Note: The gear may need to be raised in order to remove the axle lock pins before it can be lowered.
7. Ensure the locking pins are disengaged and there is nothing beneath the railgear.
8. Pump the hand pump and operate the control lever to lower the railgear until the hydraulic cylinder is fully extended.
9. Close the ball valve between the quick connects and the PTO. Open the release valve on the hand pump.
10. Disconnect the hand pump quick connects and replace the dust shields on the quick connects. Ensure that the ball valve between the quick connects and the PTO is open and the release valve on the hand pump is closed.