

INSTALLATION INSTRUCTIONS FOR ROBOLUBE PORTABLE TRACK LUBRICATORS; MODELS RY-50, MR-75, 120, 240 & 450

BEFORE STARTING THE INSTALLATION, CHECK FOR DAMAGE THAT OCCURRED DURING SHIPMENT. PLEASE READ AND UNDERSTAND THESE INSTRUCTIONS BEFORE STARTING. ALSO CHECK TO BE SURE All PARTS ARE IN THE ACCESSORY KIT. IF ANYTHING IS MISSING OR DAMAGED PLEASE CONTACT RBL, INC. at; (612)-339-9395.



WEAR ALL APPLICABLE SAFETY EQUIPMENT (PPE) AND USE CAUTION WHEN INSTALLING AND USING THIS EQUIPMENT. THERE WILL BE WARNINGS AND CAUTIONS THROUGHOUT WHEN APPROPRIATE.

IF THE TRUCK ALREADY HAS EQUIPMENT IN THE BED, SOME OF THIS EQUIPMENT MIGHT HAVE TO RELOCATED.

56 PLYMOUTH AVE NORTH MINNEAPOLIS, MN 55411 612-339-9395 612-339-1316 (FAX)

OPERATOR & INSTALLATION MANUAL

THANK YOU FOR YOUR INVESTMENT IN THE ROBOLUBE TRACK LUBRICATION SYSTEM. YOU NOW OWN THE WORLD'S FINEST TRACK LUBRICATOR AVAILABLE TO THE RAIL INDUSTRY



FOR OPERATING INSTRUCTIONS PARTS LISTS AND MAINTENANCE OF THE ROBOLUBE TRACK LUBRICATOR

KEEP THIS MANUAL WITH THE LUBRICATOR. NEW OPERATORS SHOULD READ AND BE FAMILIAR WITH THE OPERATING PROCEDURES OF THE LUBRICATOR BEFORE OPERATING.

PLEASE REFERENCE THE MODEL NUMBER AND SERIAL NUMBER WHEN ORDERING PARTS FOR YOU TRACK LUBRICATOR. INSTALL False floor (*if equipped*): The false floor will be located as far forward as possible and centered. There are angles mounted to the floor to bolt it to the bed.

- 1. Mark the holes, (front and rear), remove the floor and drill 13/32" holes, making sure there are no obstructions under the bed. You will also want to drill the holes for the hoses and wiring to pass through the bed.
- 2. Install the supplied edging for the holes.
- 3. The hole should be as close as possible to the hole that is located in the bottom of the lubricator floor.
- 4. Set the enclosure and determine that there is no obstruction or interference with any chassis components or equipment. Make sure that there is proper clearance for the top of the lubricator to open, without any interference from strobe lights, work lights, etc.
- 5. Also assure there is nothing to hinder bolting it down to the floor of the bed. Drill the 5 " hole to align with the hole in the enclosure, or as close as possible.
- 6. When you are satisfied drill the 13/32" holes through the enclosure and bed. Install the edging supplied in the hole to protect the wiring and hoses. Bolt the False Floor onto the Bed.









LUBRICATOR ENCLOSURE MOUNTING:

If you are installing a lubricator with just the riser, then locate the enclosure where the customer wants it placed. It is normally mounted right behind the cab of the vehicle. See above for preparing bed are for mounting.

The photo below is a good example of the preferred location for mounting the Model 240 with a Riser.



The next photo shows the preferred mounting location for a Model MR-75 with a False Floor.



The Newest Model RY-50 allows for various mounting locations because of its compact size. Below is an example



of the RY-50 mounted in a small service body behind the hydraulic tool circuit hose reel.



All of the same mounting instructions and principles apply to the installation. There is <u>NO</u> battery shipped with the RY-50, so this must be supplied, located, wired and mounted by the installer.



CONTROL MODULE MOUNTING AND WIRING:

- 1. Mounting the control panel can be anywhere in the cab. You must keep in mind operator accessibility and visibility. (*The least amount of time the driver has is eyes off the road the safer*).
- 2. After finding a suitable location; use the mounting bracket as a drilling guide.



- 3. Run the wires from the control panel through the firewall where you will need to drill a ³/₄" hole and install the grommet supplied.
- 4. Run the cable through the 5" hole into the lubricator to the terminal strip. **CAUTION:** Make sure when you are running the wiring that you avoid all sharp edges and heat sources.
- 5. Use the supplied rubber coated clamps to support the cable. The wires are color coded for easy installation. Run the wires to the Terminal Block in the enclosure and match the wire colors in the cable to the wires on the Terminal Block. The12 gauge Red wire coming out of the control panel goes to a 12 volt ignition source.
- 6. Install the 20amp fuse at the power source. The 16 gauge white wire goes to a good chassis ground. Reference the Wiring Schematic for the Top of Rail Greasing installation. The difference for the Gauge Face wiring is that the two (2) Top of Rail Switches and Rotary Valves are deleted.



- 1. Find a suitable location for the battery isolator in the engine compartment as close to the chassis battery as possible. Mount the 120 amp circuit breaker near the isolator. Follow the instructions for wiring the isolator to your particular vehicle.
- 2. Route a #4 battery cable from the #2 Terminal on the isolator to the post labeled "Battery" on the circuit breaker.
- 3. Run a #4 cable from the post labeled "AUX" on the breaker, to the Positive Post on the Lubricator Battery. Run a ground from the Negative Post on the Lubricator Battery to a good chassis ground.
- 4. Test the isolator following the procedure found in the isolator instructions.





HEATER HOSE INSTALLATION:

- 1. We supply 40' of heater hose which is enough to cut the hose in half. Cover the hose with the insulation supplied leaving about 2 feet uninsulated and. then wrap them with duct tape.
- 2. Locate the heater control valves and run the hoses up through the 5" hole into the lubricator enough to reach the heater valves. The nipples have a tag marked "in" or "out'. Attach the hoses with the supplied hose clamps. NOTE:: Mark the ends of the hoses for Supply & Return to avoid crossing the hoses up. Also make sure you cover the ends of the hoses so foreign material does not get into the hoses.
- 3. Route the hoses to the engine compartment using a route that keeps them from **ALL** heating sources and protects them from any sharp edges and moving parts. Use the supplied rubber coated clamps to secure the hoses.
- 4. Locate the return hose coming from the truck heater. Either remove or cut this hose & connect the supply line from the lubricator to it using the supplied nipple and clamp. (This allows the cab heater to have



priority) The other hose will be connected to the truck return hose with nipple & clamps. This hose will be connected as the supply line to the three-way valve per the diagram. The other hose will be spliced to the hose that was removed from the return on the engine heater and connected to the other three-way valve per diagram.

(See following diagram).





LUBRICATOR HEATER CONTROL VALVE



LUBRICATOR HOT WATER HEATER



Figure below shows an example of the sure stop mounting location. They can be mounted anywhere, but just be sure the noncon hoses will reach and can be run so that they do not interfere with anything. If you have the Top of Rail option, you will stack two valves on each side for each nozzle.







- 1. Deploy railgear to rail position. If possible do this on rails. If not lay short pieces of 2x4 under the truck tires and rail wheels will work.
- 2. Familiarize yourself with the nozzle assemblies or standoffs. There are left and right hand assemblies. Assemble the nozzle if they are not already together. <u>Note</u>: It is important to make sure the truck is at working height. Add weight if required. If you do not do this, it's possible there will not be enough adjustment for the grease bead to hit the rail correctly.
- 3. Looking at figure below you will see a general mounting of the bolt on channel on Harsco gear. If necessary, you can weld the channel to the derail skid. Your rail gear may be different.
- 4. You will want to make sure the nozzle is in the correct position before mounting this channel to do this, run a straight edge down the back side of the rail wheel flange and out past the derail skid, then position the nozzle hose against the straight edge, then adjust so there is 1/8" to¼" gap. This will help locate the channel on the derail skid. Once in position, tack weld the slotted channel to the derail skid channel mounted earlier. Remove the swivel and finish welding the channel.

Note: The nozzle must be behind the guide flange so it will clear crossings, switches, etc.

5. Make sure the slotted channel bracket is bolted in the center on the derail channel. This will assure adjustment later on. See figure below for top of rail applications; refer to figure below for an installation example.





BOLT-ON CHANNEL TO DERAIL SKID



6. The mounting bracket should be mounted flush to the bottom of the derail skid with the vertical adjustment in the middle position.



7. With the entire nozzle assembled and located, the dimension from the outside (Gauge Side) of the railgear flange to the outside (Gauge Side) of the nozzle, should be no more than $\frac{1}{2}$ ".



Please note: There are many variables to consider when mounting the nozzles. If you have any questions please feel free to contact us for assistance.





BELOW ARE EXAMPLES OF AN IMPROPERLY MOUNTED NOZZLE. (Too far outboard on railgear & rides on top of rail)





ROUTING OF GREASE HOSES:

- 1. The rotary valves are marked so you will be able to identify which valve goes to which nozzle. You will have either two or four grease lines. Tag the ends of the hoses left, right, etc. Run the lines up through the 5" hole into the enclosure and connect the grease lines to manifold block.
- Find the best way to run the grease lines back to the sure stop blocks and connect them to the port marked #1. Make sure you connect them to the correct block.
 Note: Make sure you run the lines away from heat sources and sharp edges. Use supplied clamps.
- 3. Run the orange non-con hoses from the port marked #2 on the sure stop block to the correct nozzle fitting. Route the lines under the railgear bumper to the nozzle. Make sure to leave enough to accommodate raising and lowering the



railgear. Clamp each hose off about 15" from each end off of the bumper and near the center.

TESTING AND ADJUSTMENTS:

- 1. When the installation is complete, check the function of the unit by turning on the ignition and activating the system to grease left or right rail. Allow enough time to purge all of the air out of the grease lines.
- 2. When you test the grease dispensing, have the nozzle tips **OFF** and put a container under the hose or have a rag on the floor under the hose you are checking and turn on that switch. It will take some time for the grease to reach the end of the hose.
- 3. Complete this operation on all of the hoses and when the air is purged, install the nozzle tips and have them pointed to the Gauge Face of the rail.

WARNING: With the nozzle tips installed, grease will come out under pressure and can shoot long distances. Be careful where the nozzles are pointing when testing.

(Nozzle tips are available in the following sizes, .025, .030, 040, & 063. The lubricator comes from the factory with .040 nozzle tips).

- 4. Start the engine and run to operating temperature to purge the air from the cooling system. This may require operating on the highway and/or use of a stationary purging system. Stop the engine and check the anti-freeze level. It will be low! Add the necessary Anti-Freeze mixture to proper operating level.
- 5. After running engine to operating temperature, check for any leaks.
- 6. Check that the lubricator heater fan operates.



7. It will be necessary to run engine at high idle for 3 to 5 minutes and/or utilize a system coolant purging system. If both the cab heater and the lubricator/tank heaters do not provide heat, drive the truck on the road and operate at highway speed for 5-10 minutes. This will purge the air that sometimes just the high idle does not.

IF YOU HAVE ANY QUESTIONS OR NEED ANY ASSISTANCE, PLEASE CALL US AT 612-339-9395 AND ASK FOR SERVICE.

ADJUSTING THE ROBOLUBE TRACK LUBRICATOR

HYDRAULIC POWER UNIT ADJUSTMENTS: These are Pre-Set at the factory and should not require any adjustments

<u>GREASE FLOW ADJUSTMENT:</u> A flow control valve is located at the base of the grease pump.



The normal setting is 2-1/2 turns from closed. Do not close valve less than ½ turn from closed.

SWITCH PANELS (Two standard models available)



TOP OF RAIL, 6 PLACE SWITCH PANEL



The system switch panel is mounted in the cab of the truck with easy access to the driver. The six rocker switches on the panel are each protected by a fuse located at the rear of the control panel. Each switch operates as follows;

- 1. The first switch controls the system power. When this switch is activated, the system will have the necessary electrical power for operation of the unit.
- 2. The second switch controls the greasing on top of the left rail. The switch is active when it is in the up position.
- 3. The third switch controls the greasing of the left rail gauge face. The switch is active when it is in the up position.
- 4. The fourth switch controls the greasing of the right rail gauge face. The switch is active when it is in the up position.
- 5. The fifth switch controls the greasing on top of the right rail.



NOTE: Each switch may be used independently of each other or in any combination.

6. The sixth switch controls the heater fan in the enclosure. When this switch is activated, the heater fan in the enclosure will run. The switch is active when it is in the down position and is independent of the power switch.



GAUGE FACE ONLY, 4 PLACE SWITCH PANEL

The system switch panel is mounted in the cab of the truck with easy access to the driver. The four rocker switches on the panel are each protected by a fuse located at the rear of the control panel. Each switch operates as follows;

- 1. The first switch controls the system power. When this switch is activated; the system will have the necessary electrical power for operation of the unit.
- 2. The second switch controls the greasing on gauge face of the left rail. The switch is active when it is in the up position.
- 3. The third switch controls the greasing of the right rail



position.

4. The fourth switch controls the heater fan in the enclosure. When this switch is activated the heater fan in the enclosure will run. The switch is active when it is in the down position and is independent of the power switch.

NOTE: Each switch may be used independently of each other or in any combination.

HEATER OPERATION:

There are two (2) valves located in the enclosure that control the hot water flow. With the valves in the "Summer" position, the hot water does not circulate through the heater or the heater tubes in the grease tank. With the valves in the "Winter" position hot water is allowed to circulate throughout the system.



LUBRICATOR HEATER CONTROL VALVE IN "WINTER" POSITION



Hot water will still circulate through the system even though the heater switch in the control panel is not on. This switch is for turning on the heater fan only.

If the air temperature is going to be above 40 degrees Fahrenheit for extended periods, the control valves must be in the "Summer" position or the grease tank will dry out.

There is also a 120v auxiliary heater located inside the enclosure with a plug in on the curb side of the enclosure. This heater should be plugged in at night when the temperature is going to be below 40 degrees (f) to maintain the temperature of the grease in the reservoir.

GREASE:

Your new unit comes with Robolube Curve & Flange Grease in the reservoir from our testing of your unit before shipment.

It is recommended that you use Robolube Curve & Flange Grease in your new lubricator. Robolube grease is Lithium based grease with 12% Graphite for excellent reduction of friction and excellent carry on rail. If Robolube grease is not available, you must use high quality grease with the same or very similar characteristics to the Robolube Grease to maintain your Robolube Warranty.

If the grease used is inferior quality and subsequently causes operational problems or damage to the internal components of the lubricator, warranty claims might be denied.



TROUBLESHOOTING

IN THE EVENT THAT THE GREASE PUMP IS NOT DISPENSING GREASE IN A NORMAL PATTERN OR FAILS TO DELIVER ANY GREASE AT THE DISPENSING NOZZLES, THE RED WARNING LIGHT ON THE SWITCH PANEL WILL ILLUMINATE AND THE FOLLOWING STEPS SHOULD BE TAKEN.

1. MAKE SURE THAT THE POWER IS TURNED OFF AND THE UNIT IS NOT ABLE TO OPERATE.

2. RELIEVE GREASE PRESSURE WITH RELIEF VALVE LOCATED NEXT TO THE FILTER ASSEMBLY.

3. REMOVE DISPENSING NOZZLE TIPS AND CHECK TIPS FOR BLOCKAGE.

4. NOW THAT THE DISPENSING NOZZLES ARE REMOVED, TURN THE POWER BACK ON TO SEE IF GREASE COMES OUT OT THE NOZZLE HOSES. IF NO GREASE COMES OUT OF THE NOZZLE HOSE THIS WOULD INDICATE THAT THE GREASE FILTERS ARE PLUGGED. (CONTINUE WITH STEP 5). IF GREASE COMES OUT OF THE NOZZLE HOSES THEN THE NOZZLE TIPS ARE PLUGGED. REPLACE NOZZLE TIPS AND CONTINUE WITH STEP 7.

5. REPEAT STEP 2 THEN CONTINUE WITH STEP 6.

6. REMOVE FILTERS AND CHECK FOR BLOCKAGE, REPLACE IF NEEDED.

7. REASSEMBLE NOZZLE WITH NEW OR CLEAN TIPS.

IN THE EVENT THAT THE GREASE PUMP IS NOT DISPENSING GREASE IN A NORMAL OPERATION PATTERN OR FAILS TO DELIVER ANY GREASE AT THE DISPENSING NOZZLES AND THE RED LIGHT DOES NOT COME ON THE FOLLOWING STEPS SHOULD BE TAKEN.

- 1. CHECK THE LEVEL OF THE HYDRAULIC FLUID IN THE POWER UNIT.
- 2. CHECK THE LEVEL OF THE GREASE IN THE BULK TANK, THIS COULD INDICATE THE UNIT IS EITHER OUT OF GREASE OR HAS CAVITATED.
- 3. FILL THE TANK WITH GREASE

BEFORE SERVICING HYDRAULIC OR GREASE PRESSURE LINE, OPEN THE GREASE RELIEF VALVE AND PLACE A RAG OVER THE FITTING TO BE LOOSENED. LOOSEN FITTING SLOWLY TO ALLOW ANY EXCESS PRESSURE IN THE LINES. FAILURE TO PROPERLY RELIEVE ANY PRESSURE COULD LEAD TO SERIOUS INJURY.

PLEASE CONTACT RBL, INC FOR ANY QUESTIONS ABOUT SERVICING YOUR LUBRICATOR

ROLLERLUBE ASSEMBLY



If your unit includes a Rollerlube Assembly, Installation varies from vehicle to vehicle, but general mounting provisions apply as follows;

When you are installing the Rollerlube on the rear of the truck you want to make sure that the Rollerlube is mounted on a flat surface. The best way to do this if you are mounting the Rollerlube on a truck with factory bumper is to cut a 6" X 6" piece of angle 66" long and bolt the angle onto the receiver hitch then bolt the Rollerlube to the piece of angle.







ROBOLUBE INDUSTRIES TRACK LUBRICATORS DISTRIBUTED BY RBL, INC.

RBL. INC. DISCLAIMER

RBL, INC IS NOT RESPONSIBLE FOR ACTUAL GREASE APPLICATION ON RAIL. EACH INDIVIDUAL RESPONSIBLE FOR OPERATING THIS EQUIPMENT SHOULD BE AWARE OF THE REQUIREMENTS OF THEIR RESPECTIVE RAILROAD REGARDING THE AMOUNTS AND FREQUENCY OF GREASE APPLICATION.

BECAUSE OF MANY VARIABLES IN SUCCESSFUL GREASING OF RAIL, (i.e. RAIL PROFILE, TEMPERATURE, ELEVATION, TRAIN FREQUENCY ETC.) RBL INC. IN NO WAY CAN DICTATE PROPER GREASING PROCEDURES OR FREQUENCY OF GREASING FOR EACH INDIVIDUAL SITUATION. WE RECOMMEND THAT YOU EXPERIMENT WITH SMALL APPLICATIONS AND MONITOR THEM UNTIL YOU ACHIEVE YOUR DESIRED RESULTS.



RECOMMENDED LUBRICANTS BY RBL, INC. ARE FOR THE PURPOSES OF PROPER OPERATIONS OF YOUR NEW LUBRICATOR AND MAY OR MAY NOT PERFORM TO YOUR REQUIREMENTS FOR PROPER RAIL LUBRICATION.

********WARNING!!!!!!!WARNING!!!!!!WARNING**********

BEFORE SERVICING HYDRAULIC OR GREASE PRESSURE LINE, OPEN THE GREASE RELIEF VALVE AND PLACE A RAG OVER THE FITTING TO BE LOOSENED. LOOSEN FITTING SLOWLY TO ALLOW ANY EXCESS PRESSURE IN THE LINES. FAILURE TO PROPERLY RELIEVE ANY PRESSURE COULD LEAD TO SERIOUS INJURY.

PLEASE CONTACT RBL, INC FOR ANY QUESTION ABOUT SERVICING YOU LUBRICATOR.

QUESTIONS OR ASSISTANCE PLEASE CALL 612-339-9395

ROBOLUBE WARRANTY

THIS SYSTEM IS COVERED BY RBL, INC STANDARD WARRANTY IF THE EQUIPMENT IS INSTALLED AND MAINTAINED ACCORDING TO THE CONDITIONS NOTED BELOW AND THE INSTRUCTIONS CONTAINED HEREIN.

RBL, INC WARRANTS THAT ITS EQUIPMENT WILL BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF TWELVE (12) MONTHS FROM DATE OF SHIPMENT TO THE PURCHASER. RBL, INC. WILL REPAIR, REPLACE, OR SERVICE AT ITS OPTION ANY EQUIPMENT THAT IS IN RBL, INC. OPINION DEFECTIVE PROVIDED:

- 1. THE PROBLEM HAS NOT BEEN CAUSED BY ABUSE, NEGLIGENCE, ACCIDENT, TAMPERING, FAULTY INSTALLATION, MISAPPLICATION, ABRASION, CORROSION INADEQUATE OR IMPROPER MAINTENANCE OR SUBSTITUTION OF NON-AUTHORIZED PARTS.
- 2. THE PURCHASER SHALL RETURN TO RBL, INC AT IT'S OWN EXPENSE THE DEFECTIVE EQUIPMENT
- 3. RBL, INC. WILL NOT REIMBURSE THE PURCHASER FOR ANY EXPENSE INCURRED WITHOUT WRITTEN AUTHORIZATION FROM RBL.



4. RBL, INC. SHALL HAVE THE OPTION OF REPAIRING, REPLACING OR SERVICING THE EQUIPMENT AT THE PREMISES OF THE PURCHASER UPON THE PURCHASERS WRITTEN AUTHORIZATION WHO AGREES, IN SUCH CASE TO PAY RBL, INC.'S ESTABLISHED RATES FOR LABOR AND TRAVEL EXPENSE.

RBL MAKES NO WARRANTY AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANT ABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH RESPECT TO ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY RBL, INC. THESE ITEMS SOLD BUT NOT MANUFACTURED BY RBL, INC. IS SUBJECT TO THE WARRANTY, (IF ANY), OF THEIR RESPECTIVE MANUFACTURER.

SEE NEXT PAGE(S) FOR ADDITIONAL PROVISIONS

LIMITED WARRANTY COVERAGE:

The new products manufactured by Robolube Industries, Inc. (Hereinafter "RBL"), are warranted to be free from defects in material and workmanship under normal use, application and maintenance in accordance with RBL/Robolube recommendations, instructions and specifications. The Warranty begins on date of Shipment as documented by return of the Warranty Registration Sheet and continues for the time identified above.

Note: the Warranty Registration Sheet must be filled out and returned to RBL within 30 days after purchase. RBL's obligation under this warranty is limited to the repair or replacement, (at its option), of warranted parts that are determined by RBL, (after review and inspection), to be defective, which are returned to RBL freight prepaid within 30 days of receipt of shipping instructions. (Failure must be reported within thirty (30) days of occurrence to qualify).

CONSEQUENTIAL DAMAGES:

In no event will RBL be liable for business interruptions, loss of sales and/or profits, cost of delays or for any other special, indirect, contingent, incidental or consequential losses, costs or damages or legal fees.

CHANGES IN DESIGN:

RBL reserves the right to make changes in the design or to make



improvements to its products without obligation upon itself to install the same upon products already manufactured.

WARRANTY DOES NOT INCLUDE OR COVER:

The Chassis (whether supplied by RBL or Customer) on which the Lubricator and/or equipment is mounted or any modifications or accessories added by purchaser.

IMPLIED WARRANTY EXCLUDED:

This is the only authorized RBL warranty and is in lieu of all other expressed or implied warranties or representations, including any implied warranties of merchantability or fitness for a particular purpose or of any other obligations on the part of RBL. There are no other warranties given by RBL other than those set forth in this Limited Warranty.

LABOR CHARGE:

RBL will warrant labor charges on warranty failures for a period of (1) year from date of Shipment as documented by return of the Warranty Registration card. All warranty labor charges must be preauthorized for the time allowed at the RBL pre-authorized hourly rate charge.

WARRANTY CLAIMS:

Warranty claims must be submitted and shall be processed in accordance with RBL's warranty claims procedure, as established from time to time. Contact RBL for details.

FREIGHT:

RBL will pay the regular freight charge on all warranty parts sent to the dealer or end user. The dealer/end user is responsible for payment of any additional special freight charges.

WARRANTY VOIDED:

This warranty will be null and void if the product is not maintained in accordance with RBL's recommended maintenance



procedures. The warranty will be voided if the product is modified or altered in any way without the prior written approval of RBL or if abused, neglected, repaired, and not used for its intended purposes.

PURCHASER'S RESPONSIBILITY:

The purchaser is responsible for the cost of normal maintenance and replacement of expendable items, such as filters, belts, lubricants, and normal wear items.

PURCHASED COMPONENTS:

RBL will warrant purchased components supplied & installed by RBL for a period of (1) year from date of Shipment as documented by return of the Warranty Registration Sheet. RBL' s obligation under this warranty is limited to the repair or replacement (at its option) of warranted parts that are determined by RBL, (after review and inspection), to be defective, which are returned to RBL freight prepaid within 30 days of receipt of shipping instructions. (Failure must be reported within thirty (30) days of failure occurrence to qualify). These components may be returned to the Vendor for evaluation. RBL will determine its disposition in a timely manner as the Vendor completes their evaluation.

NO ASSIGNMENT:

This Limited Warranty is granted to the first owner/user of record and may not be assigned.

NO SET OFF:

No deduction may be made for the value of a warranty claim from outstanding balances due and payable to RBL.



Robolube Industries, Inc.

Robolube Industries, Inc. 56 Plymouth Ave. N. Minneapolis, MN 55411 USA Phone: (612) 339-9395 Fax: (612) 339-1316

Warranty Claim Procedures:

The warranty procedures outlined here are detailed to provide the Dealer/Customer with the information necessary when filing a warranty claim. The correct and complete filing of a claim will assist RBL in processing of the claim in a timely manner. All claims, policies and procedures are governed by the terms of the Robolube Industries, Inc. (RBL) Limited Warranty. It is necessary to outline some of the more important provisions for handling claims.

RBL authorized Dealers will handle parts replacement and/or correction of defective workmanship. The failure to file a detailed Warranty Claim Service Report for each occurrence of material or workmanship defect will cause the warranty claim to be rejected. The defective material must be returned following the guidelines in the Return Parts Procedure. The failure to follow the procedure will result in forfeiture of the claim. The Dealer/Customer is responsible for the write up of the warranty claim. The Dealer/Customer shall be allowed no more than 30 days from the date of repair to file a Warranty Claim Service Report.

The RBL warranty does not cover diagnostic calls, travel or lodging. RBL will deduct from allowable credits for excessive freight charges caused by sender failing to follow the Return Parts Procedure. Dealers/Customers deducting the value of a warranty claim from outstanding balances due and payable to RBL without receiving prior written approval from RBL may be subject to forfeiture of the entire claim.

<u> Warranty Claims – General:</u>

The approval of a submitted claim depends on the following provisions:

1. RBL must issue a Warranty Claim Authorization Number.



2. The defective material must be returned following the Return

- 3. Parts Procedure.
- 4. The material must be determined defective by authorized RBL representative.
- 5. The workmanship must be determined defective by authorized RBL representative.
- 6. The unit must be within the warranty period.
- 7. The unit has been operated within design conditions in an application for which it was intended to function.

Warranty Claims - Filing procedure:

It is necessary to have the serial number of the unit when requesting Warranty and Technical Support.

- 1. Initiate the claim process through a Purchase Order for parts and/or Authorization Number for labor repair. A Warranty Claim Authorization Number will be issued for all warranty claims.
- 2. A Warranty Claim Service Report will be sent with the part or will be faxed for completion. The Warranty Claim Service Report must be filled out and returned with the defective part or faxed per address listed in item #7 below.
- 3. The defective part must be returned freight prepaid if requested by RBL Warranty Department within 30 days or claim will be forfeit.
- 4. The Service Claim Service Report must be returned for processing. The disposition will be completed within 30 days. A credit, check or a letter of explanation/denial will be issued.
- 5. RBL will consider each claim on its own merit and reserves the right to accept or reject the claim request.
- 6. There are cases where components are purchased and used by RBL. These components maybe returned to the Vendor for evaluation. RBL will determine its disposition in a timely manner as the Vendor completes their evaluation.
- 7. Send the Warranty Claim Service Report to:

Robolube Industries, Inc. Attn: Warranty Department 56 Plymouth Ave. N. Minneapolis, MN Fax: (612)-339-1316

Warranty Claims - Preparation of Material Return:

RBL may request the return of the defective material for evaluation. Credit will not be given until the material is evaluated and the warranty claim is approved. The material being returned to RBL for evaluation must be returned within 30 days freight prepaid.



The material returned to RBL must be properly packaged to prevent damage during shipment. Any damage to the material as a result of improper handling or packaging could be cause for claim denial.

The package must be marked with the Return Material Authorization.

Our warranty requires that all defective material must be returned to RBL freight prepaid. The credit will be delayed if packages are returned without a Return Material Authorization number.