

DUSTKOP

ROTARY VALVE

MAINTENANCE INSTRUCTIONS FOR ROTARY VALVE MODELS

RV-8, RV-10, RV-12

WARNING

The drive chain has not been installed at the factory. Correct rotation of gear motor must be established **BEFORE** chain is installed. The motor needs to be wired, such that rotation of the rotor is the same as the rotation arrow (CCW from drive side). Incorrect rotation **WILL** cause permanent damage to the gear reducer and/or the motor. It is very **IMPORTANT** that you follow all safety precautions prior to and during performing maintenance on this unit. Make absolutely certain that all electrical power to the rotary valve is disconnected and locked out prior to commencing work. If regreasing the motor while the valve is running, take **EXTREME** caution. There are moving parts on this piece of equipment than can cause serious bodily injury. **NEVER** operate the rotary valve without the valve being mounted on the cyclone, the chain guard being in place, and an appropriate discharge guard.

LUBRICATION

MOTOR

Lubrication: The motor has been lubricated by the manufacturer, using Polyrex EM (Exxon Mobil). If other greases are preferred, check with a local motor Service Center for recommendations. Lubrication is recommended every 12000 hours.

Procedure: The motor can be regreased while stopped (at less than 176° F) or running (take **EXTREME** caution if regreasing while valve is running). Clean the grease fitting and the area around the fitting prior to injecting grease. Attach grease gun to fitting. Too much grease, or injecting grease too quickly, can cause premature bearing failure. Slowly inject the recommended amount of grease (.30 ounce). Caution: Keep grease clean. Mixing dissimilar grease is not recommended.

FLANGE BEARINGS

Lubrication: The ball bearings are pregreased by the manufacturer. Any good quality lithium or lithium complex base grease, using mineral oil, conforming to NLGI grade 2 consistency, and an oil viscosity of 455-1135 SUS at 100° F, may be used for relubrication.

Procedure: Recommended relubrication grease charge of .20 ounce every 6-12 months. For safety, stop the rotary valve. Add one half of the recommended amount. Start rotary valve, and run for a few minutes. Stop rotary valve and add the second half of the recommended amount.

ROLLER CHAIN

Lubrication: **EXTREME** caution should be taken while relubricating the roller chain. The moving parts can cause serious bodily injury. Relubricate every time the bearings are serviced, using SAE 85W-90 gear oil.

GEAR REDUCER

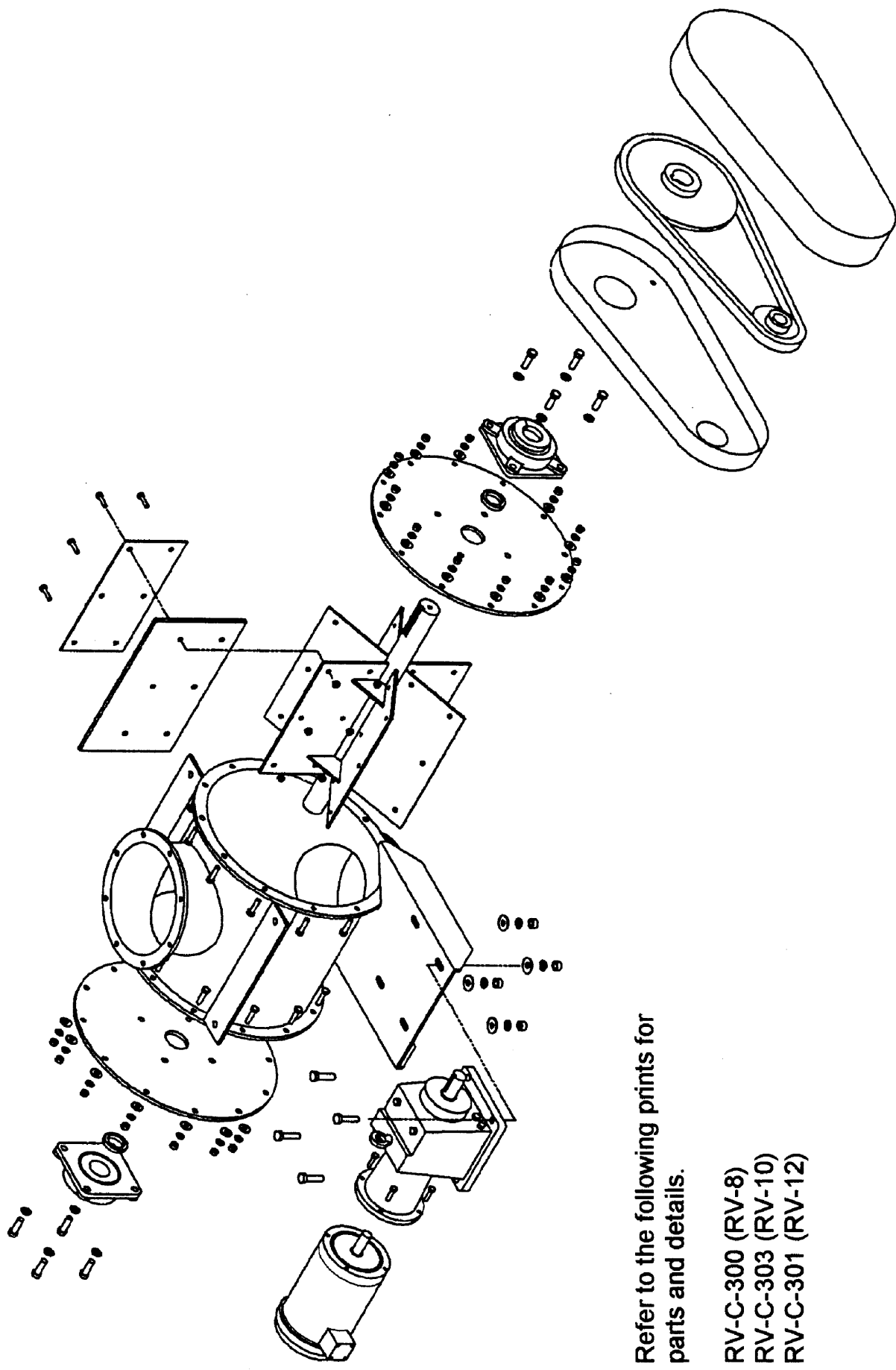
Lubrication: The gear reducer is shipped from the manufacturer with oil. The oil level should be checked every 5000 hours. In the case of synthetic oil, the lubricant does not require changing but it is recommended that the proper oil level is maintained. Add oil if required, using Mobil SHC 629 Synthetic oil. (Gear reducer oil capacity - .6 U.S. quarts (RV-8) or .95 U.S. quart (RV-10 & RV-12). Refer to Installation and Maintenance Manual for a visual fill level. Make sure the vent cap pin in the breather is clean.

OPERATION

1. The rotary valve shall be wired, so that the valve starts simultaneously with, or prior to, the start up of the dust collection system fan. The electrical system shall be wired in such a way that there is a fail safe built into it, so that if the rotary valve is not operating, the fan will not operate.
2. It is recommended that the rotary valve is wired so that it will continue to operate for a period of 30-60 seconds after the fan is shut down. This will allow residual dust in the dust collector to be discharged into the dust storage container.

SEAL REPLACEMENT

1. Make absolutely certain that all electrical power to the rotary valve is disconnected and locked out prior to replacing the seals. Have a qualified electrician disconnect the electrical supply to the rotary valve.
2. There are two ways in which to change the seals in the rotary valve. 1) Disconnect the rotary valve and lower it to the ground. 2) While the valve is still in place. We have found that it is far easier and less time consuming to go with option number 1, which is outlined below.
3. Using a forklift, relieve the weight of the rotary airlock on the structural support rods. Remove the structural support and unbolt the rotary valve from the adapter. Lower the rotary valve to the ground. Carefully lay the valve on its side, using two 2 x 4's as shims, so that the drive side is up. It is best to change the seals when they are at ambient temperature of 70°F or warmer. The seals are more flexible and easier to work with at a warm temperature.
4. Remove the chain guard cover by removing the four sheet metal screws.
5. Remove the master link from the chain and remove the chain from the sprockets. If required, loosen the gear reducer to create some slack in the chain.
6. Loosen the two set screws on the large sprocket and remove the sprocket from the rotor shaft. A wheel puller may be required.
7. Using a Torx bit #TX-27 (RV-8) or #TX-30 (RV-10 & RV-12), remove the Skwezloc collar on the bearing. When re-installing the collar, use a torque wrench at torque to 90-100 in-lbs (RV-8) or 220-240 in-lbs (RV-10 & RV-12).
8. Remove the four hex hd bolts from the bearing, and remove the bearing from the side plate. Remove the bearing from the opposite side. When re-installing the bearing, it is very IMPORTANT to use the exact hardware that was removed. The bolt will protrude through the plate and damage the seals if the washer and/or lock washer are not used.
9. Remove the side plate by removing the 12 sets of 3/8-16NC x 1 1/2 hex hd bolts (grade 5), washer, lock washer, and nut. When re-installing plate, replace gasket as required.
10. Remove the rotor assembly from the housing. The end of the rotary shaft has been tapped, so that you may use a 3/8 eye bolt to remove and re-install the rotor. Clean the inside of the housing and sand smooth any damage, as required.
11. One at a time, remove the seal backup plate and the seal, and replace with a new seal. Tighten the seals in place, starting with the top row. Push the seal as tight as possible to the shaft, and then tighten the bolts. Repeat this process until all seals have been changed.
12. Remove and replace the shaft seals which are inserted into each side plate.
13. When installation of all seals has been completed, re-assembly of the valve may be started.
14. Carefully lower the rotor assembly back into the housing. Carefully bending the seals, so that they will be turning in a counterclockwise rotation. Push the rotor in until the seals are hitting the opposite plate. The side plate will force the seals the rest of the way in.
15. Carefully place the side plate over the shaft and draw the plate down tight. A drift pin and some clamps will be required. Once the plate has been fastened down, reverse steps 1-8 for re-assembly.



Refer to the following prints for
parts and details.

- RV-C-300 (RV-8)
- RV-C-303 (RV-10)
- RV-C-301 (RV-12)

SEAL REPLACEMENT, cont.

16. Before locking the Skwezloc clamp collars around the shaft, check to make sure that the rotor is centered in the housing. This may be done by measuring from the edge of the blade to the inside of the side plate. Center as required.
17. This would be a good time to perform any other maintenance that is required.

TROUBLESHOOTING

<u>PROBLEM</u>	<u>CAUSE</u>	<u>SOLUTION</u>
Excessive dust emissions from cyclone.	Seals are worn out or damaged. Cyclone is plugged.	Replace seals. Remove cleanout door and visually inspect cyclone and rotary valve. Clean as required.
	Rotor not turning (locked rotor)	Visually inspect drive. Check electrical controls and wiring. Check gear-box oil level. Check rotor for blockage on supply side. Contact nearest Agat representative.

STATEMENT OF WARRANTY

AGET MANUFACTURING COMPANY warrants the equipment produced for a period of one year from the date of shipment against defects in workmanship and materials. Seals are an exception to the warranty, due to the degree of severity of different applications, and are therefore NOT covered by this warranty. All necessary replacements or repairs are F.O.B. Adrian, Michigan, and are subject to our inspection.

All electrical motors and gear reducers furnished with our equipment are warranted by the manufacturer, and the industry's policy on repair or replacement must be followed in the event of a failure. The user must take the motor or gear reducer to the nearest authorized repair or service station with the request, preferably in writing, that the motor or gear reducer is for warranty inspection, providing the source of the component (Aget Manufacturing Company) and the date of its acquisition.

From the code numbers on the motor, the service shop can determine whether or not it is still within the warranty period. If found to be defective, it will either be repaired or replaced.

Contact Aget Manufacturing Company first before taking any action on a defective motor or gear reducer. We can then advise the location of the nearest service center authorized by the manufacturer to handle claims under warranty.

This warranty does not cover any product which, in the judgment of Aget Manufacturing Company, has been subject to misuse or neglect, or which has been repaired or altered outside Aget Manufacturing Company's plant in any way, which may have impaired its safety, operation, or efficiency, nor to any product which has been subject to accident.

This warranty is in lieu of any other warranty, spoken or implied.

AGET Manufacturing Company

1408 East Church Street

P.O. Box 248

Adrian, Michigan 49221

Form No. I-8B

Phone: 517/263-5781 Fax: 517/263-7154

website: www.agetmfg.com

