

SECTION 9.0

MAINTENANCE

GENERAL MAINTENANCE

CLEANLINESS IS THE KEY TO THE PERFECT STO-AWAY

**KEEP DIRT, MUD, AND SALT FROM BUILDING UP ON YOUR
STO-AWAY**

If you have a pressure washer, use it to keep your STO-AWAY clean. Make sure that you lubricate and grease it afterwards. If you use your STO-AWAY in salt, rich environments, make sure you order a W.R. kit for your STO-AWAY (if you don't already have one).

YOU WON'T REGRET IT!!!!!!

RECOMMENDED MAINTENANCE SCHEDULE

1. **EVERY TIME YOUR LIFTING CABLE HAS BROKEN STRANDS, KINKS, OR FLAT SPOTS, REPLACE IT!**

2. Every time your **STO-AWAY** is covered with heavy mud or snow.

3. Once a week:

A. Clean the entire crane, winch drive, and cable. Grease the following:

I. Both the upper and lower bearings located in the lower bearing section.

II. Both sides of the bottom mast pulley

III. Main thrust bearing - rotate the lubrication port in the metal dust guard every 1/4 turn and pack the thrust bearing with grease using a needle tip on your grease gun - don't stop until the grease comes out of the metal dust guard. After greasing all four sides of the thrust bearing - wipe off excess grease.

THIS BEARING IS THE MOST IMPORTANT FOR A DEPENDABLE, LONG WORKING LIFE OF A STO-AWAY

IV. If you have the **Posi-Lock** option, lubricate the lock pin

V. Use a brand name steel cable lubricate and coat the complete lifting cable.

VI. Clean and lubricate the outrigger leg

VII. If the crane shows signs of rust - clean - prime - and re-paint

- A RUSTED CRANE IS A WEAKENED CRANE

4. Once a month add these steps to your weekly maintenance:

A. Remove the booms end pulley and clevis pin for inspection. If there are no grooves found in the clevis pin or cracks in the bearing insert on the pulley, then apply a light coat of grease on the bearing and clevis pin and reassemble.

5. Once a year:

A. Replace all clevis pins, aircraft keepers, and pulleys. If you haven't already replaced the lifting cable, it is now time.

GENERAL SERVICING

If the **STO-AWAY** is cleaned and properly lubricated, then the **STO-AWAY** seldom needs servicing except for cable replacement.

The **STO-AWAY** is designed so that the sealed needle bearings and thrust bearings can only be serviced at the factory. This process is easier than it sounds. All you have to do is call the factory, indicate what model crane you have and we will arrange for a replacement mast to be shipped to you while your mast is in for a bearing change.

CABLE REPLACEMENT FOR STANDARD LIFTING WINCHES:

If the winch cable gets frayed or breaks, simply unwind the remaining cable until there is only about 1/2 a wrap on the drum. This will place the cable set screw on the top of the drum for easy access. Use a 3/32" size Allen wrench, loosen the set screw and remove the damaged cable.

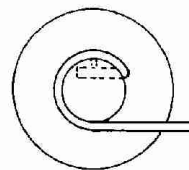


FIG. 5

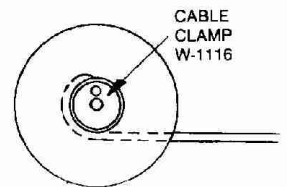


FIG. 6

CABLE REPLACEMENT FOR B.L.G.L. WINCHING SYSTEM:

Normally all **B.L.G.L.** winches are pre-spooled at the factory, and all the installer has to do is bolt the winch to the mounting plate and connect the wires to the back of the motor.

Step 1. Set the **STO-AWAY** up as you are going to make a lift. Fully insert the mast lock pin, feed all the steel cable, emptying the winch drum completely. Keep the cable taut at all times.

Step 2. Rotate the drum so that the locking 3/32" set screw is visible and back out the set screw to remove the cables end. Remove the last 3-1/2 wraps of cable and pull the remaining cable through the 1/4" port in the aluminum drum.

Step 3. Tie a small, 15' long leader string on the end of the old cable, and pull the old cable out of the crane (making sure you do not pull the leader string completely out with it). If you do, that was a big mistake!

Step 4. Tie the end of the new cable on the end of the leader string and pull the new cable back through the crane, guide the cables end through the port in the aluminum drum, wrap it **3-1/2 times back** around the drum, lock the end of the cable with the set screw, and pull all the slack off the drum, re-wrap the drum by powering the cable- keeping taut all the time - when finished - store the bumper crane.

B.L.G.L. SYSTEMS - DIELECTRIC ROPE MODEL

The key to service a dielectric rope **B.L.G.L.** winching systems - is patience. Take your time to review these steps first, so you don't get them out of order and frustrate yourself.

Step 1. Set up the crane and empty out all the rope from the drum.

NOTE: We recommend that you remove the winch from the bumper crane

Step 2. Remove the power leads from the back of the motor, unbolt the motor using the guides in the installation section of the manual, if the rope is worn and you are planning to replace, just cut and set the drive unit to the side.

Step 3. Tie a small 15' long leader string to the end of the old rope and completely pull the old rope from the crane, big mistake if you pull the leader rope completely out.

NOTE: In order to re-rope this model, you will need to remove all the pulleys from the crane to make room for the end of the replacement rope.

Step 4. Start by removing the bottom clevis pin, keeper and pulley. Remove the booms end pulley and keeper. Remove the boom's support arm, clevis pin, and keeper. Last, remove the boom's pivot clevis pin, and keeper then remove the top mast pulley leaving only an upright mast and a clear path for the new rope.

Step 5. Tie the new rope to the leader string and feed the replacement back down the mast. Now you are ready to completely re-assemble the crane, we recommend that you start with installing the bottom pulley and clevis pin, since this will stop the rope from becoming accidentally pulled back through the mast.

HINT: USE A SMALL 1" LONG PIECE OF 1/2" DIAMETER DOWEL ROD TO HOLD THE TOP MAST PULLEY IN PLACE WHILE YOU POSITION THE BOOM AND INSERT THE PIVOT CLEVIS PIN.

Step 6. Replace the boom's support arm and its clevis pin and keeper; next replace the end boom pulley and its clevis pin and keeper.

SAFETY NOTE: IF ANY AIRCRAFT KEEPERS ARE DEFORMED, REPLACE THEM NOW!!

INSTALLING NEW ROPE TO DRIVE UNIT

Follow these steps carefully:

Step 1. Remove the 2 top 1/4" bolts and spacers and the 4 counter sunk Philips screws from the base of the motor. Remove the drum from the motor drive and set it with the large steel end housing pointing up.

Step 2. Remove all the 1/4" bolts from the outer end plate, separate the two halves. Remove the old rope from its locking channel.

Step 3. Completely clean all the rubber silicone from the two halves and remove any rust from the channels (should there be any).

Step 4. Insert the end of the new rope through the exit port on the drum and lay the end of the rope into the locking channel. Place the large knot into the large channel and lay just the rope in the small channel.

Step 5. Use rubber silicone and completely seal the exit port and both halves of the drums so that no moisture can work its way between the two halves of the end plate. **YOU MUST SEAL THE LOCKING CHANNELS COMPLETELY - IF HEAVY RUST BUILDS IN THE LOCKING CHANNELS, IT MAY CUT THE ROPE OVER TIME.**

Step 6. Place the outer end plate over the top of the drum and the rope making sure both halves properly align before you bolt them together. Place all the Allen screws back through the end plate, torquing them in an alternating pattern working from opposite sides of the drum.

Step 7. Now place the drive motor with the drive pointed up, make sure that the drum bearing and the coupler plate are properly seated before you place the drum assembly on top of the motor. **NOTE: IF THE DRUM ASSEMBLY IS PROPERLY SEATED, THE MOUNTING BASE BOLT HOLES WILL ALIGN WITHOUT ANY FORCING. IF THE HOLES DO NOT ALIGN; THEN RE-SEAT THE DRUM TO THE MOTOR.**

HINT: HOLD THE WINCH DRIVE WITH THE BASE NEAR YOUR CHEST LOOKING DOWN AT THE END DRUM BEARING. THE ROPE MUST DISCHARGE TO THE LEFT OF THE WINCH BETWEEN THE TOP SPACER AND THE MOUNTING BASE (THE 9:00 O'CLOCK POSITION). If the rope discharges at any other point from the winch base you will cut the rope when you place the unit back into service.

Step 8. With the drum properly seated to the motor, make sure the drum outer bearing is on, and place the base to the motor and insert the 4 base screws and the 2 top spacers and bolts.

Step 9. Remount the drive as outlined in the installation step and spool the drive back up, keeping the rope taut at all times.