

Maintenance - D-1500

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Lubrication and Preventive Maintenance

General Schedule

Component	Time Period	Action
Traverse and Cam		
Cam Box View Port	Once Per Week	Check Oil Level
Cam Box View Port	When Needed	Fill with approved lubricant
Traverse Assembly	Once Per Week	General Inspection
Traverse Slider Block Oiler	Once Per Week	Check Drip Rate
Buffer and table		
Buffer Slider Block Shaft (Thompson)	Once Per Week	Light Machine Oil
Buffer Cam Follower Bearing and Raceway	Once Per Week	Lubricating Oil
Buffer Roller Block Bearings and Wheels		Silicone Spray ONLY!
2 x Movable Table Rails on Endform Table	Once Per Week	Light Oil
Cutter Assembly and Endforms		
Outer Endform	Weekly	Grease (nipple on aluminum hub)
4 x Geneva Mechanism on Rotating Endform Arms	Once Per Week	Light Oil
2 x Spindle Pillow Blocks	Once a Month	Multi-Grease
(A) 2 x Cutter Pusher Rod	Once Per Week	Light Oil
(B) 2 x Cutter Pusher Collar	Once Per Week	Multi-grease
(G) 2 x Cutter Holder	Once Per Week	Light Oil Inside
(R) 4 x Spindle Pillow Blocks	Once Per Month	Multi-grease
(S) 2 x Pusher Collar Bearing	Once Per Week	Multi-grease
(W) 2 x Geneva mechanism	Once Per Month	Multi-grease in Cam Follower Slot
Other Components		
Norgren Filter	When Dirty	Change Filter
Norgren Coalescent Filter	When Red Indicator Shows	Change Element

Norgren Lubricator	When Empty	Fill with Pneumatic Misting Type Oil
Festo Pneumatic Lubricator (G2 only)*	see note below	Festo OFSW-32

NOTE: The lubricator reservoir is intentionally shipped empty because the valves and pneumatic actuators are all pre lubricated by the manufacturer.

The purpose of the lubricator is to extend the system life when the pre lubrication is no longer effective. The pre lubrication should be sufficient for at least 10,000,000 cycles (as per Festo).

Reelex does not recommend using oil in the lubricator unless sticking valves occur. Once oil is added to the reservoir, all of the pre lube is washed away. The machine will need to be continuously lubricated with oil from that point on.

General Checks

1. Check the wire guides for wear. If the edges of the wire guide become sharp it will damage the jacket of the wire.
2. Guide tube should be no more than 0.50-inches (13mm) away from the Endform.

Wire Buffer System

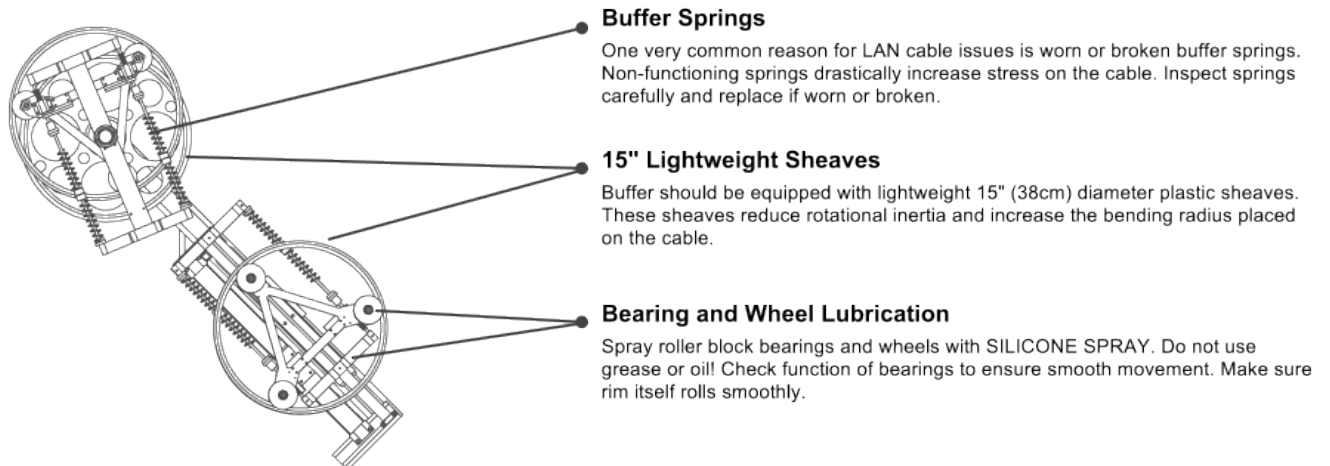
The buffer unit is essential to winding quality REELEX coils. The buffer should be regularly checked for good operation, and all springs and bearings should be replaced when worn. Not doing so could have adverse effects on the REELEX coil, including increased stress on the product (leading to poor electrical performance and other issues).

The wire buffer unit is designed to be raised and lowered as necessary. When raised, the buffer is in its normal operation position. There is a lockout switch system, which prevents the machine from starting unless the buffer is in the full up position.

The wire buffer is designed to compensate for changes in wire length during winding. The slider block shaft requires an application of light machine oil weekly, as the bearings in the buffer slider block are subjected to high velocity and cycle rates. Inspect all rollers and sheaves for serviceability. Check all securing devices, i.e. nuts, bolts, set screws, and lock rings also tighten if necessary.

The buffer slider block is equipped with a cam follower bearing, which tracks in a raceway. Check the cam follower bearing and raceway for wear and apply a small amount of lubricating oil weekly.

Inspection and Maintenance



Buffer Replacement Kit

REELEX Offers a wearing parts replacement kit that includes commonly worn parts. Alternatively, you can order a complete refurbished buffer and swap out your worn buffer. To order a kit or replace your current buffer with a new one, call +1 845-878-7878 or email sales@reelex.com.

Buffer Repair Kit - Part Number:	Refurbished Buffer Swap Program:
REPAIR-BUF/01	REFURB-BUF/01

Cutter Setup Procedure

Reference Drawing:

- [12000 - Sheets 1 & 9](#)

Procedure

1. Mount Part #73 (Cutter Pusher Collar)
 - Mount Part #71 (Slider, Pusher Collar Bearing Tube)
 - Mount Part #84 (Endform)
 - Mount Mandrel to Part #39 (Spindle Shaft)
 - DO NOT FASTEN ANY PARTS DOWN - JUST MOUNT
2. Mount Mandrel (not shown on drawing) flush to front of spindle #39 (spindle shaft). Lock down two setscrews on the flat on spindle #39.
3. Move Part #84 (endform) to back of mandrel and lock set screws to flat on spindle #39.
4. Move Part #71 (Pusher Collar Bearing Tube) flush to part #40 (Pillow Blocks) and lock to flat on spindle #39. Set screw close to Part #98.
5. Fit Part #73 (Cutter Pusher Collar) between cam followers on Part #41 (Cutter Pusher Rod Part).
6. Make sure Part #41 is attached to misalignment coupling (Item # Rod-LC-1-08) which is attached to the cutter piston.
7. At this time make sure parts #79 & 78 are fastened and part #77 is mounted but not fastened.
8. Now adjust part #151 (Shock Absorber) so that they extend 3/8" (Ref.) beyond part #40 toward parts #79 & 78.
9. Attach part #54 and #52 to part #73 with one 3/8-16 bolt and jam nut. Be sure not to over tighten the 3/8-16 Bolt. Parts #54 and #52 needs to operate independently (.003 to .004 of clearance). Be sure to tighten the Jam Nut.
10. Push Collar #73 in until Cutter Piston is fully retracted. At this point check Part #181 within the cutter holder so that part #181 does not bottom out within the groove holder. If it does, move the endform part #84 back enough so part #181 does not bottom out.
 - *The mandrel will have to be brought back FLUSH with the endform part #84. It is okay if there is some spindle shaft part #39 protruding out the end of the mandrel 1/2" to 3/4" but if there is more check to see if part #39 Spindle Shaft is out of set position. (REFERENCE- 19 1/2" from front of frame to extending end of part #39.*
11. Move Part #41 forward (toward cut position) until the Vee in the Cutter K is just finishing the cut on the inside of part #80. This is the position where we now adjust part #40 Slotted Spindle Block so that the shock absorbers are just touching part ##79&78. Before loosening the bolt on part #40 scribe two lines on the ends of the pillow block part #98 and the slotted spindle block part #40 so that you don't lose parallel from the spindle shaft part #39 to the Traverse (cam) - not shown.

12. Run a straight edge from back of part #83 left spindle to right spindle part #84 then mount mandrel forward of part #84 and tighten. Now go to step 1 and follow same procedure for Left Spindle Cutter Adjustment.
13. Reset machine. After proper reset, arrow down until S1 LED is on. Press A, then 4; poke in 00 for 8 or 10 inch mandrels or 90 for 6 inch mandrels. Press the ENTER button. Use up arrow to indicate length.

Outer Endform Alignment Procedure

Reference Drawings:

- [12068-31](#), [12077](#), [12041](#), [12012](#), [12023](#)

To properly align the outer Endform, an alignment plug is needed. The plug is made from a 2" diameter steel shaft cut to 4". Drill and tap a 3/4-16 threaded hole in one end.

1. Remove the outer endform ([Item # 3 on drawing 12041](#)). Be sure to loosen the 10-32 set screw before you loosen the endform to not damage the 3/4-16 bolt that holds the endform in place.
2. Thread the machined ALIGNMENT PLUG onto the 3/4-16 bolt ([Item #21 on drawing 12012](#)) after removing the outer endform.
3. Loosen the set screws that hold the mandrel assembly in place ([Item #20 or 19 drawing 12023](#)) and slide it forward about 2".
4. Apply air (about 70 psi.) to the cylinder ([#20 on drawing 12012](#)) in the upward stroke. This will simulate a running condition. You can use the troubleshooting program in the controller to supply the air pressure for the up / down cylinder or you will have to supply air by means of an outside air source.
5. By hand, attempt to insert the alignment plug into the mandrel assembly. If alignment is off, there are two different types of alignments that need to be checked.
6. On the weldment, E/F arm ([#13 on drawing 12012](#)), use the slot in the arm to adjust radial position by sliding the 3/4-16 bolt. When you are able to insert and retract the alignment plug, tighten the 3/4-16 bolt then try again to insert and retract the alignment plug.
7. If the slotted adjustment does not permit alignment then you must readjust the GENEVA MECHANISM. This is part [#1 & 5 on drawing 12012](#). Use this adjustment to correct the angle of the endform arm.
8. To do this, remove the air pressure from the up / down cylinder ([#20 on drawing 12012](#)) then loosen the 3 bolts on the Geneva mechanism, insert the alignment plug into the mandrel assembly. Put the air pressure back on the up / down cylinder then tighten the 3 bolts on the Geneva mechanism.
9. Check alignment with plug. You may have to go back and try readjusting the endform arm slot (step 6) to complete alignment.

RPM Indicators (Generation 1 Machines)

The RPM of the Spindles and Traverse (cam) shafts can be read.

Left Spindle Shaft

During normal running, use the down arrow until "S1" LED is on. Press "C" and then "1" for the Left spindle shaft RPM. 750 is the Maximum RPM. Note that the spindle motor is going 1125 RPM.

Right Spindle Shaft

During normal running, use the down arrow until S1 LED is on. Press C and then 2 for the Right spindle shaft RPM. 750 is the maximum RPM. Note that the spindle motor is going 1125 RPM.

Traverse (Cam) Shaft

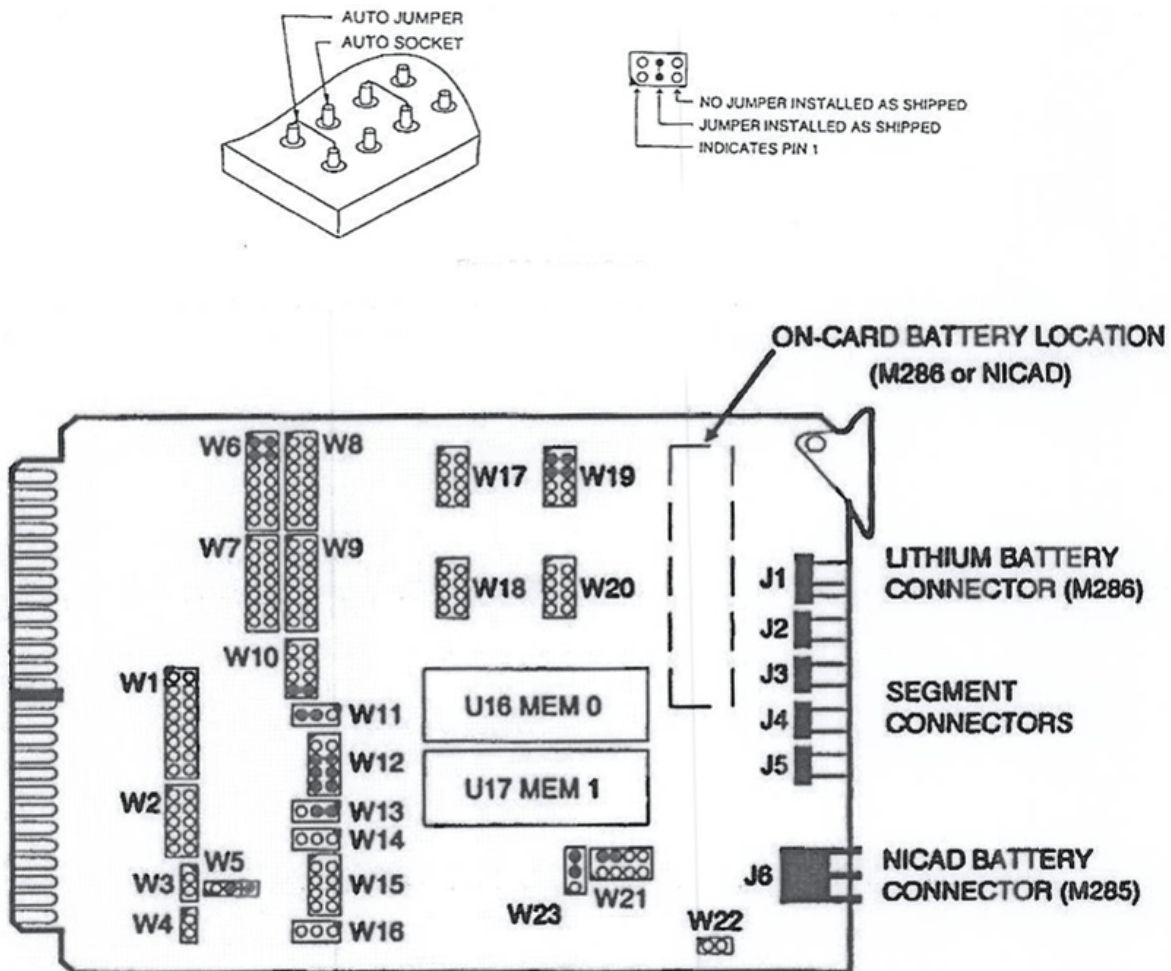
During normal running, use the down arrow until S1 LED is on. Press C and then 3 for the Traverse (cam) shaft RPM. 775 is the maximum RPM. Note that the Traverse (cam) motor is going 1162.5 RPM.

Use the UP arrow to exit this mode. The machine will run in this mode.

7721 Board (Generation 1 Only)

Jumper Connections & Batteries

The 7721 board is used to store software functions. Please use the following diagram for reference.



NOTE: When using the M286 LITHIUM BATTERY (PROLOG) jumper pins 2 and 3 on W23 (shown above). When using the CADNICA BACKUP NICAD BATTERY that is soldered to the board move the jumper on W23 to pins 1 and 2. Place the Memory chip in the U16 MEM0 socket.

Batteries Used: TADIRAN - TL5242/3.6V HIGH ENERGY LITHIUM BATTERY / SANYO – N-50SB3
NICKEL CADMIUM BATTERY