MMPO Manual

Mid-Sized Motorized Payoff

Specifications and Features

- 1570 FPM maximum line speed off a 12 inch drum
- Emergency stop dynamic air brake at 58 ft/lbs at 60 psi
- Interchangeable pintles and reel drive dogs
- Operator push button, relay logic and limit switches for safe and proper line operation
- Line tension control supplied by dancer/accumulator 0-10 volt lazar

Reel Requirements

Reel Dimensions/Requirements	Minimum	Maximum
Diameter	12 Inches (30cm)	30 Inches (76cm)
Width (Traverse)	6 Inches (15cm)	20 Inches (51cm)
Weight		300 lbs (136 Kg)

Electrical and Pneumatic Specifications

- 230 VAC Input Voltage - Single Phase - 30 Amp
- 70 PSI of air minimum - 1 cubic foot per minute maximum
- 3 HP DC permanent magnet motor
- 180 VDC armature - 15 Amp

3 HP Motor Specifications

Max RPM of 3 HP Motor	Gear Ratio	Max. RPM of Pintle	Maximum Torque of Pintle (Ft-lbs)
1500	3:1	500	58

Pneumatic Brake Specifications

Payoff Torque for the tolomatic Pneumatic Brake: 8" diameter, 4" radius

• "Dynamic" in motion	700 in/lbs or 58 ft/lbs	Lbs force / inch @ 60psi
• "Static" holding torque	350 in/lbs or 28 ft/lbs	Lbs force / inch @ 60psi

Disc Sizing Equations

$$DYNAMIC\ TORQUE(IN.-\ LBS.)\ =\ 2.88\ x\ BRAKING\ RADIUS\ (IN.)\ x\ PRESSURE\ (PSI)$$

$$STATIC(PARKING)\ TORQUE\ (IN.-\ LBS.)\ =\ 1.44\ x\ BRAKING\ RADIUS\ (IN.)\ x\ PRESSURE\ (PSI)$$

Suggested Spare Parts

For MMPO/XX/X/XX/B, 30 inch reel (76 cm)

Quantity	Part
1	BELT-225L100
1	NUT-ALH/01
1	NUT-ARH/01
1	WIRE-CLETE
2	BRUSH-5004685

Push Button Descriptions

E. STOP: Must E. STOP all equipment in the line. Stops payoff and applies brake.

STOP: Stops payoff, applies brake and crash stops REELEX take-up.

START: If reel is all the way up, accumulator off crash switches, press start to start payoff.

BRAKE RELEASE: When payoff is stopped, press to release brake, used to line up pintle and dog when loading reel. Use STOP to engage brake.

RAISE LOWER: Raise and lower reel when payoff is stopped.

IN OUT: When payoff is stopped or reel is in down position, switch moves loading arms in and out.

Operation

Startup Procedure

1. Turn main power switch to on.
2. Make sure air is on and applied (70 lbs).
3. Use IN / OUT switch to open arm out.
4. Roll supply reel into place and make sure product feeds off the top.
5. Press Brake release button to turn off brake.
6. Rotate dog plate so the dog pin lines up with the dog hole of the supply reel.
7. Use IN / OUT switch to bring the arm to the supply reel.
8. Use the RAISE / LOWER switch to line up the pintles to the reel holes.
9. With the pintles all the way into both sides of the reel, switch RAISE / LOWER switch to RAISE.
10. String up line to the accumulator winding from inside sheave out towards you.
11. Thread line through anti reverse rollers, counter wheel and buffer (if supplied). Pull to take up and tie off.
12. Feed accumulator so that the sheaves are near the stop position and check line tension for your products PSI on the accumulator.
13. Press STOP to activate the brake.
14. Press START when ready to run line.

Maintenance

WARNING: *Do not lubricate 2” or 3” shaft - self lubricating graphite bearing!*

Payoff Lubrication

Component	Time Period	Action
Norgren Filter	When Dirty	Change
Norgren Coalescent Filter	When Indicator Shows	Change Element
All Pillow Blocks	Once Per Month	Multi-Grease (Standard Wheel Bearing Grease)
Belts	Every Other Week	Check Tension. Tension should allow approximately .25 inch of deflection when depressed.
Rails and Thompson Bearings	Once a month	Light Oil
All Shafts and Rails	Every Other Week	Clean and Lubricate with Light Machine Oil
Keyways and couplings	Every other week	Check for loose connections
Lead Screw	Every week	Light Oil

Buffer Lubrication

Component	Time Period	Action
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

Shaft Adjustment

References:

Shaft Bearing Manual: DODGE GRIP TIGHT Adapter Mount Ball Bearings

Note that the Grip Tight ball bearings are different than the other pillow block bearings on the machine as they do not have set screws to hold shafts in place. Please reference the GRIP TIGHT bearing manual for adjustment procedure.

REELEX Drive Tune Up Procedure

References:

Schematics: 99602 to 99607

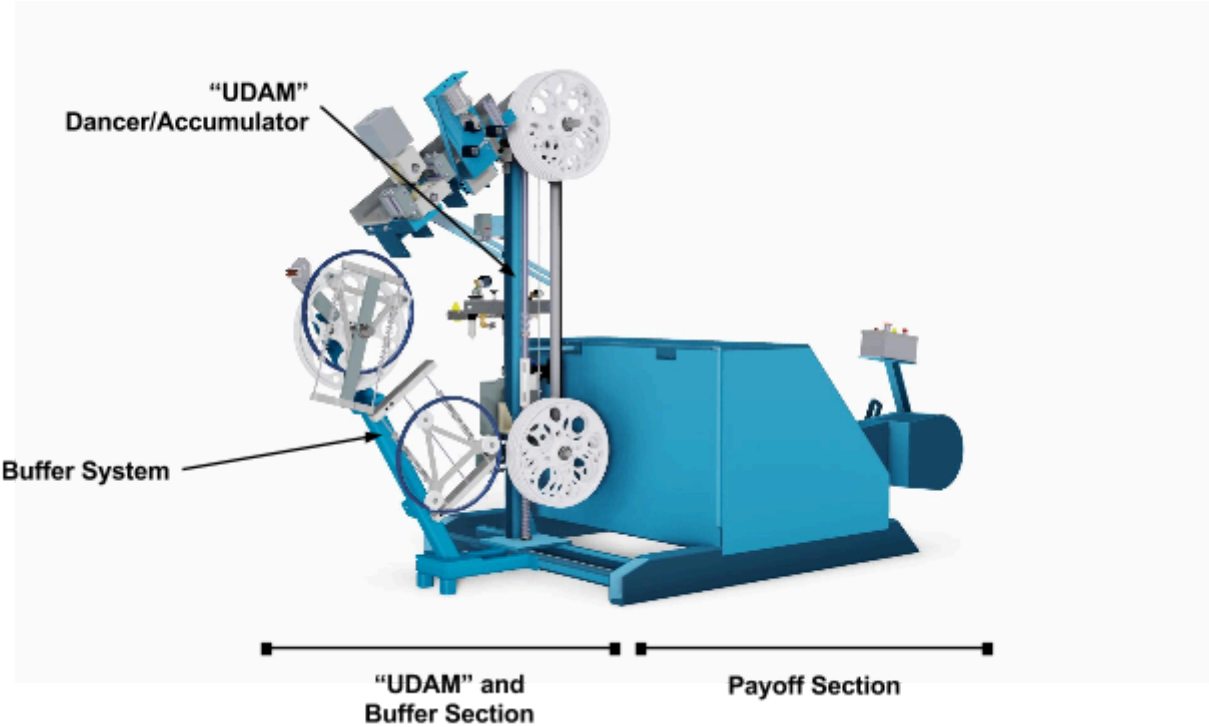
Adjustment of DC 3 HP Payoff

NOTE: All voltages are measured with respect to DC common wire # 500

1. Turn on main power
2. With a DC voltmeter measure between wire 500 and the bottom of R28 on the W101Ab main drive board marked IA on drawing 99605.
3. Adjust (P5) Offset located right bottom of the W101Ab board for 0.0 volts.
4. Turn on payoff and adjust the bottom sheave so that the empty spool/reel or dog plate does not rotate.
5. Turn off payoff and remove wire 723 off the bottom of the terminal strip. This will prevent the brake from turning off when the payoff is turned on.
6. With a AC Amp meter clamped around wire #4 on the drive, turn on payoff. Raise the sheaves to the top. If the empty spool/reel or dog plate rotates, have someone hold it still. BE CAREFUL.
7. Adjust (P2) FC forward current limit (located top right of the W101Ab board) to 15 amps.
8. Then slowly lower the sheaves to the bottom to make the payoff run in reverse.
9. Adjust (P1) RC reverse current limit (located top right of the W101Ab board) to 15 amps.
10. Turn off payoff and reconnect wire 723 back into the terminal strip.
11. Turn on payoff and adjust Position pot located in cabinet near the top for desired stopping position.

Buffer/Dancer/Accumulator

The MMPO is designed to incorporate a frame-mounted buffer and a dancer/accumulator. The “UDAM” (Dancer/Accumulator) and Buffer, which is optional equipment on the MMPO, is capable of receiving several different sized sheaves. The standard sizes that the UDAM accepts are 6”, 9” and 15” and all are supplied by REELEX packaging solutions.



Options

- Footage Counter
- Anti-Reverse
- REELEX Buffer

UDAM Alignment Procedure

1. If equipped with the optional footage counter or optional anti-reverse they will each have an adjustable bracket to allow for appropriate placement depending on sheave size used. If 6” sheaves are use, the footage counter and anti-reverse should be placed to their lowest position. If 9” sheaves are used then the accessories should be placed in the middle position. If 15” sheaves are used then the accessories should be placed in the top position.

2. If equipped with optional buffer, the upper sheaves of the REELEX buffer should be aligned side-to-side to the bottom sheave, as the bottom sheave is stationary and cannot be adjusted.

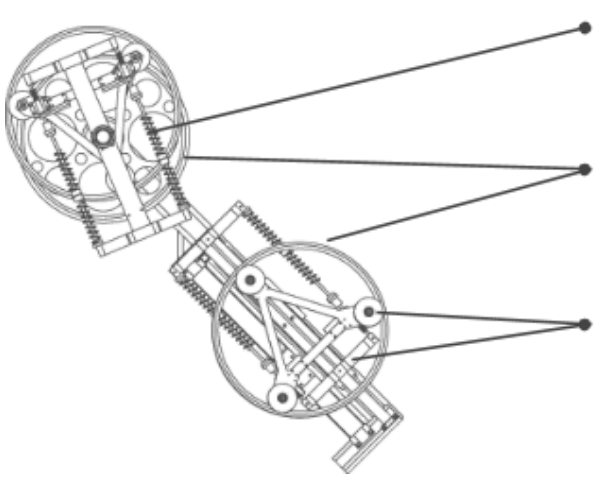
3. After the buffer is independently aligned, the footage counter and anti reverse should be aligned (if applicable) side-to-side with the input sheave of the buffer. If no REELEX buffer is present, the footage counter and anti-reverse should be aligned side-to-side with the next downstream device in the product line.

4. After the footage counter and anti-reverse are secured the outermost upper sheave of the top UDAM should be aligned with the center of the footage counter or anti-reverse (whatever device is closest to the UDAM).

5. The rest of the upper sheaves should be slid tight against the outer sheave that secured in the previous step. The bottom sheaves should be aligned to the upper sheaves at this point. This is best done by stringing up the UDAM and visually inspecting the string up to ensure that the wires are riding in the center of the sheaves and run as close to vertical as possible between the upper and lower sheaves.

6. Now string up the line from the UDAM to the buffer if applicable. Adjust the angle of the accessory bracket holding the footage counter and anti-reverse to ensure that the wire forms a straight line from the UDAM to the buffer and is tangential to both (as close as possible).

Buffer



Buffer Springs

One very common reason for LAN cable issues is worn or broken buffer springs. Non-functioning springs drastically increase stress on the cable. Inspect springs carefully and replace if worn or broken.

15" Lightweight Sheaves

Buffer should be equipped with lightweight 15" (38cm) diameter plastic sheaves. These sheaves reduce rotational inertia and increase the bending radius placed on the cable.

Bearing and Wheel Lubrication

Bearings and wheels should move freely. Oil weekly with 10w oil. Check function of bearings to ensure smooth movement. Make sure rim itself rolls smoothly.

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 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, setscrews, and lock rings and 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.

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:** **REPAIR-BUF/01**
- **Refurbished Buffer Swap Program:** **REFURB-BUF/01**