



# Dutchman

## INDUSTRIES

DIVISION OF  
**Dutchmaster Nurseries Ltd.**

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# Tree Tyer

# Owners Manual

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Manufactured and Sold by  
**Dutchman Industries Inc.**  
3735 Sideline 16, Brougham,  
Ontario, Canada L0H 1A0

**1.800.293.0070**

**1.905.683.8233**

[www.dutchmantreespade.com](http://www.dutchmantreespade.com)  
[www.dutchmantruckspade.com](http://www.dutchmantruckspade.com)

Serial Number: \_\_\_\_\_  
Date Of Purchase: \_\_\_\_\_

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**THESE INSTRUCTIONS ARE OF GREAT IMPORTANCE AND MUST BE READ AND FOLLOWED CAREFULLY AND OBEYED.**

**➔ ATTENTION: This ARROW symbol is used throughout this manual to call attention to the safety instructions.**

**➔ WARNING: Before attempting to operate the machine, fully read and follow all instructions herein with care.**

The safety of the operator is of great importance to Dutchman Industries Inc. We have provided decals, an Operators Manual, shields, and other safety features to aid you in using the tree spade safely. Be a careful operator. Properly use and service your Tree Spade according to instructions provided in this manual.

# **DUTCHMAN TREE TYER**

## **SIZES 28"/36"/40"/50"/60"**

Thank you for purchasing the Dutchman Tree Tyer. The fully functional Dutchman Tree Tyer makes the job of tying up trees effortless. The machine is designed and manufactured with the highest degree of quality in mind which means you will enjoy many years of use.

### **FEATURES:**

- Unique, compact design allows for a tighter, more even wrap
- Hydraulic tubular gate for greater opening
- Frontal tongs for initial branch lift
- Internal "steel" ring for greater longevity and compact design
- Optional pivoting arm or better angle reach
- Optional "Horse-shoe Ring" for down-sizing and added versatility
- Comes complete with Dutchman's "Pistol Grip Joystick"
- Sizes currently ranging from 30-inch to 60-inch
- Built to last using good quality components

## TYING THE TREE

➔ **ALWAYS EXERCISE EXTREME CARE WHEN WORKING AROUND MOVING MACHINERY. STAND CLEAR OF THE ROTATING CANISTER AT A MINIMUM OF 10 FEET WHILE IN OPERATION.**

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Adjustments can be made to the string canister depending on the type of tree that is being tied and the desired tension. You may choose one of the two eyelets available to suit the branch structure.

**Depending on the tree size, you may chose to use the optional insert ring.**

1. Align the opening in rotating channel with the gate opening on the Tree Tyer.
2. Open the gate of the Tree Tyer
3. Approach the tree at ground level. Some branches may have to be lifted by a ground process in order for the operator to have good view of the tree trunk. Once the Tree Tyer is around the stem of the tree, close the gate.
4. Lift the Tree Tyer approximately 12” or until the hinged string canister is off the ground.
5. Pull string from the canister and tie it to a lower branch of the tree - OR – Hold the string in hand (under foot) **standing clear of the machine.**
6. Start rotating the string canister channel while lifting the loader.  
-The rate at which you raise your loader will determine the consistency and density of the string wrap.
7. Continue to raise loader to the top of tree (or desired height).
8. Align rotating channel opening with gate opening.
9. Open gate.
10. Back the Tree Tyer away from the tree.
11. Lower the unit to ground level.
12. After the machine comes to a stop, cut and tie off.

## **MAINTENANCE AND ADJUSTMENTS**

### **To adjust the speed of the rotating canister:**

1. Locate the spool limiters on the valve assembly  
(Right and Left spool limiters regulate the speed of the canister in their respective directions)
2. Loosen the jam nut
3. Using an Allen Key turn the limiter clockwise to decrease the speed.  
Counter clockwise to increase the speed at which the canister turns.

Idler wheels should be adjusted so that they maintain the integrity of the circular path for the rotating channel.

### **To adjust the idler wheels:**

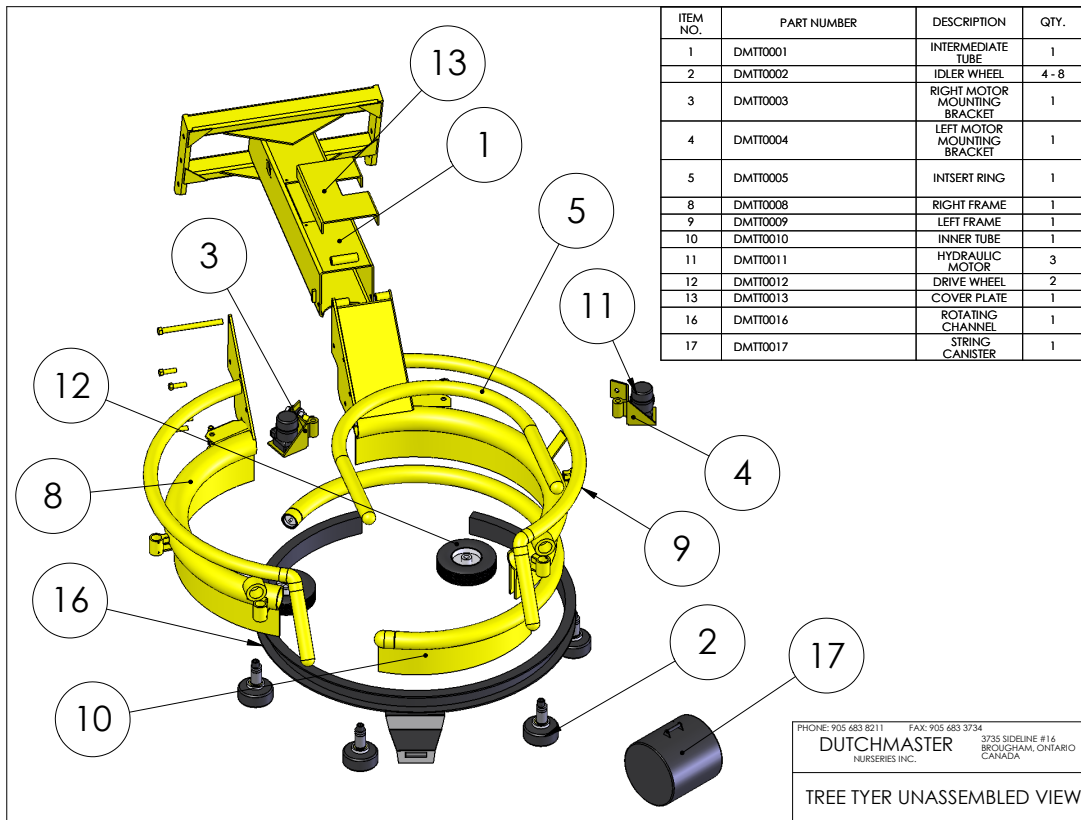
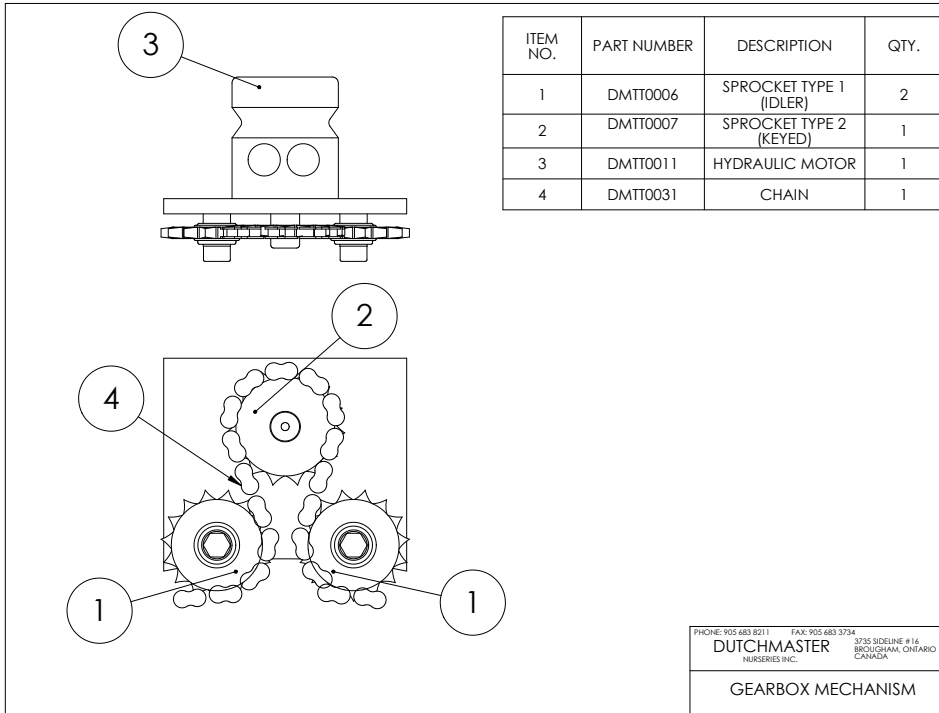
1. Loosen the 3/8 bolts about half a turn holding the wheel in place.
2. Using an Allen Key, turn the wheel assembly to make desired contact.
4. Tighten the 3/8 bolts.

The drive wheels should form good contact with the rotating channel.

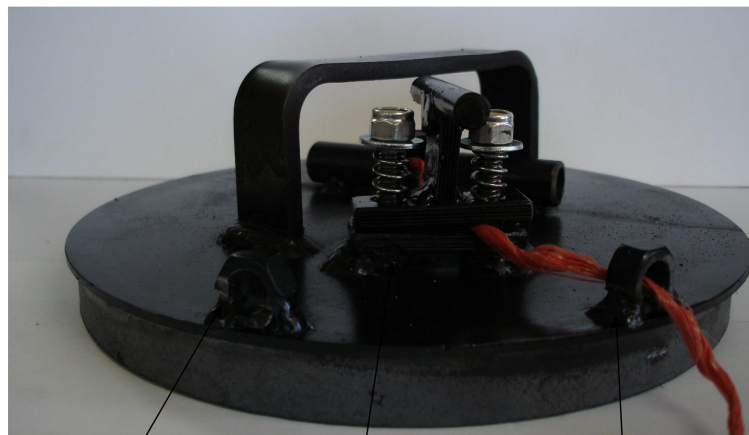
### **To adjust the drive wheels:**

To move drive wheels closer to the rotating channel – Turn the outside nut counter clockwise to the desired position and then turn the inside nut counter clockwise until it sits tightly against the mounting bracket.

To move drive wheels away from the rotating channel – Turn the inside nut clockwise to the desired position and then turn the outside nut clockwise until it sits tightly against the mounting bracket.



## **STRING CANISTER LID**



UPPER EYELET

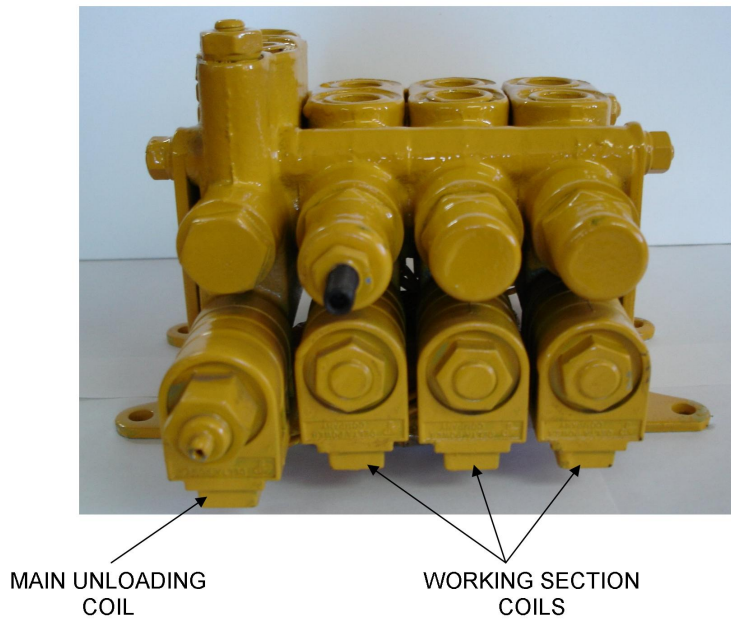
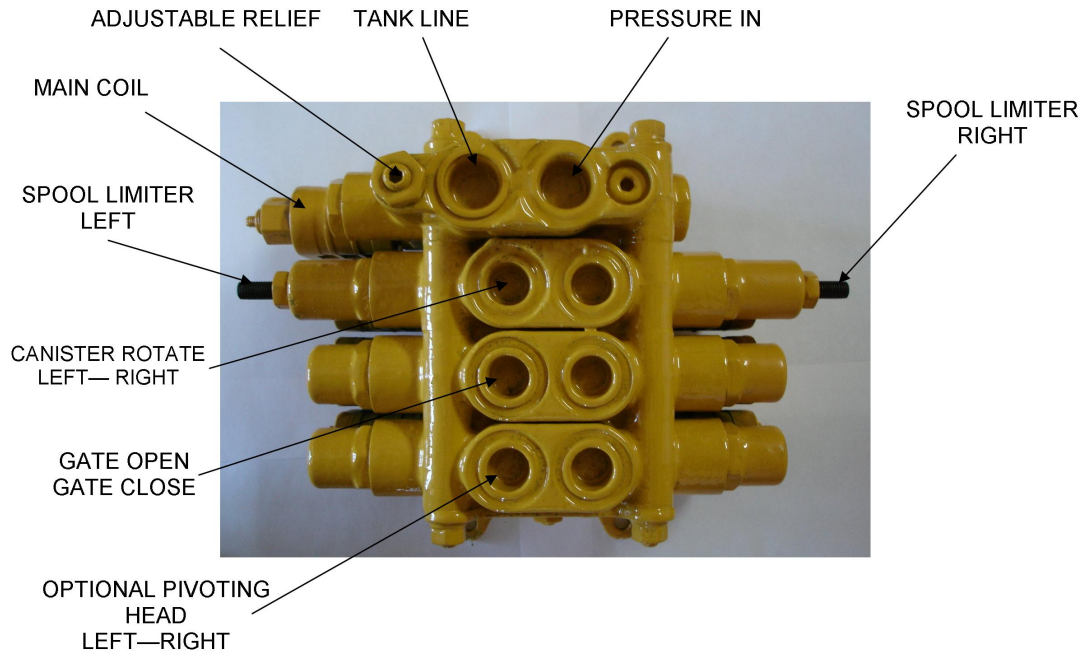
LOWER EYELET

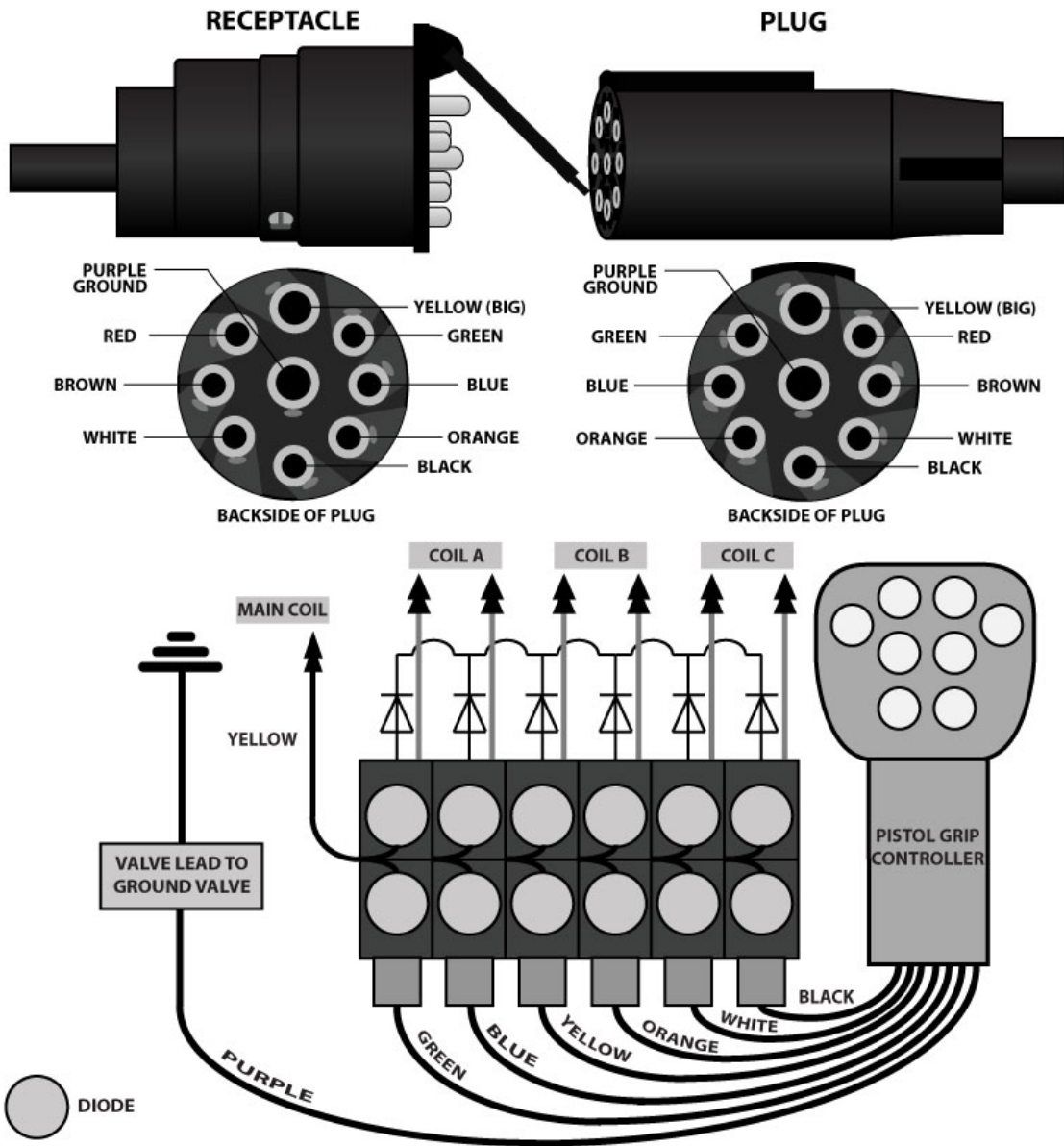
STRING TENSION PLATES

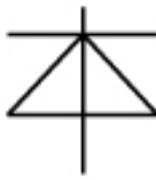
To adjust the string tension:

1. Locate the two spring tension plates in which the string passes through after exiting the canister.
2. Tighten the nuts to increase the tension. Loosen them to decrease the tension

# TREE TYER VALVE ASSEMBLY





DIODES	WIRING CODE	
 <p>6A Diodes (6A4)</p>	Yellow	Power (Live)
	Black	Common Ground
	Purple	Ground
	Green	Left
	Blue	Right
	Yellow	Close
	Orange	Open
	White	Down
Black	Up	
		PISTOL GRIP

## **Trouble Shooting for Electric over Hydraulic Valve**

If your unit has lost one or more of its functions, it may be due to a variety of reasons that can be isolated by reviewing the following trouble shooting tips.

- Check the fuse located by the controller. The fuse is a standard 5-amp that can easily be replaced.
- Turn the key for loader unit on in order to energize the spade electronics.  
**\*Turn the key to accessory mode if possible.**
- Check to make sure the main power wire is connected securely to the valve. This will insure that electric current is flowing.
- Activate all available circuits on the pistol grip and test the plug connection using a test light. This should be done one at a time so as to avoid confusion.

### **POSSIBLE ISSUES**

#### **1. The Power is connected to the valve but the unit does not function.**

- This would indicate that a ground from the controller is not secured properly or that the ground wire has fallen off from its contact.
- Retrace the ground wire coming from the control box and make certain that the ground lead is fastened to a proper ground that reads “0-volts”. Check to ensure that the positive and negative “butt plugs” coming out of the controller are fastened together. Also check that the ground wire from the controller is not severed or spliced into the positive wire.

#### **2. One or more of the functions does not operate.**

- This would indicate that there is a wire coming from the controller to the circuit board that has been severed, pinched, or fallen off of contact from the plug.
- With the use of a test-light, test all plug-ends by having another person press or move the functions. One power light will stay on constantly and the others will light up when activated. If there is a function(s) that do not light up when using a test light, then by using regular eye contact, examine the cord and plug connections from the circuit board to the controller and be sure that the cord has not been pinched or cut. Also check the ends of the plug to be sure that the wires are securely fastened to the plug ends.
- If a wire “break” can be detected, than turn off the power from the loader. Using a small knife, make a small, lengthwise incision in the cable being careful not to

cut into another wire. Locate the wire “break” and splice it back together if possible. Using the test light again, test to see if all functions work.

- If the function(s) are working again. Tape the repaired wires individually as well as the cable using electrical tape.

### **3. The functions operate forward but not in reverse.**

- This would indicate that a ground from the controller is not secured properly or that the ground wire has fallen off from its contact.
- Retrace the ground wire coming from the control box and make certain that the ground lead is fastened to a proper ground that reads “0-volts”. Check to ensure that the positive and negative “butt plugs” coming out of the controller are fastened together. Also check that the ground wire from the controller is not severed or spliced into the positive wire.

### **4. The wires have power but nothing functions at all.**

- This would most likely indicate that the “Main Solenoid”, which is located on the top of the valve, is not functioning.
- Check the wire harness connections on the bottom of the circuit board and be certain that they are fastened securely.
- Also check to see that there is adequate oil flow coming from the loader to the tree spade.
- If there is not proper oil flow, it may be attributed to: poor loader pump sender and/or restricted coupler connections

### **5. The wires have power but one or more function(s) do not operate.**

- This would most likely indicate that there is problem at the valve body.
- Check the wire harness connections on the bottom of the circuit board and be certain that they are fastened securely.
- If all wires are fastened securely then check the wires that lead into the coils of the valve.
- Listen to hear if the coils are “clicking”. This insures that there is power going to the coils.
- Using a metal end (i.e. pocketknife or screwdriver), check to see that the nut that holds the coil in place has magnetism. The metal end should stick to the nut when the function is activated.
- With a plastic end, lightly tap the nut to see if it releases the function. This would likely indicate that a valve actuator has become stuck and needs a replacement.

If the above tips do not help the problem, then unplug the wire harnesses on the circuit board itself and remove it from its housing by unscrewing the bolts located on the corners and check to see if there is any discolor on the back of the board.

**If there is discolor on the back of the circuit board, it is advised that you call for technical support from the manufacturer.**

# **PISTOL GRIP JOYSTICK**

## **MOUNTING INSTRUCTIONS**

## **Pistol Grip Joystick Mounting**

Before mounting the pistol grip onto your skid steer or loader, be certain you have decided exactly what side (left or right) you prefer. The pistol grip has an extra brown wire along with the positive and negative end. This brown wire could be used to splice an existing horn or two-speed button. If your right hand handle has more existing wires than your left, simply switch the right to the left and mount the pistol grip on the right.

**\*If your existing handle has more than one wire already mounted in it, you will lose these functions.** If this is the case, (i.e. Bobcat) then please proceed to the: **Bobcat** section of these instructions. Always make sure your positive and negative connections are secure to maximize joystick operation.

## **Case/Gehl/Hydramac/Thomas/Mustang/Skat-Trak/Takeuchi**

Most of the above skid steers involve the use of a foot pedal to activate the hydraulic system. For these machines, the joystick mounting is fairly universal. First, locate your desired position, left or right, and ensure that you will not lose any existing function. Once this is confirmed, peel back the rubber boot that flexes with the handle. Locate the tube that attaches to the handle. This tube should be cylindrical in shape and quite often involves a set-screw. Be sure to disconnect all existing functions (i.e. horn) before removing this tube. Your pistol grip joystick will come complete with the same type of adapting handle. Simply remove the old system and replace it with the new. **Be sure to screw your joystick into the adapting tube before mounting.** When this is complete, splice in any necessary functions and peel the rubber boot back. Allow the cable to run out the back of the skid steer cab and onto the back loader arm. Run the cable down towards the front of the loader arm and attach to the receptacle plug bracket. Clip cables down as desired and locate a positive and negative connection in your skid steer.

## **New Holland/John Deere/Case 1845C**

These skid steers activate the hydraulic system or hand controls through the use of a right hand swivel that locks down. The adapting swivel that should have been provided with your joystick can replace this swivel. Remove the existing swivel, existing handle, and wires. Once this has been completed, replace the old swivel with the new swivel and pistol grip joystick. **Be sure to screw your joystick into the adapting tube before mounting.** When this is complete, splice in any necessary functions and peel the rubber boot back. Allow the cable to run out the back of the skid steer cab and onto the back loader arm. Run the cable down towards the front of the loader arm and attach to the receptacle plug bracket. Clip cable down as desired and find a positive and negative connection in your skid steer.

## **\*Bobcat/Multi-Function Control Handles**

Because the Bobcat handles have a multi-button control system, the pistol grip joystick simply cannot replace an existing handle because you would lose too many functions. To alleviate this problem, your pistol grip joystick should have included a “side-mount bracket”. Simply attach the bracket to the side of the desired handle. **Be sure to screw**

**your joystick into the adapting tube before mounting.** Clamp down the bracket with the use of the hose clamp that should have been provided. This system will still allow you to operate your loader arms because the pistol grip now becomes an extension of your previous handles. When this is complete, allow the cable to run out the back of the skid steer cab and onto the back loader arm. Run the cable down towards the front of the loader arm and attach to the receptacle plug bracket. Clip cable down as desired and find a positive and negative connection in your skid steer.

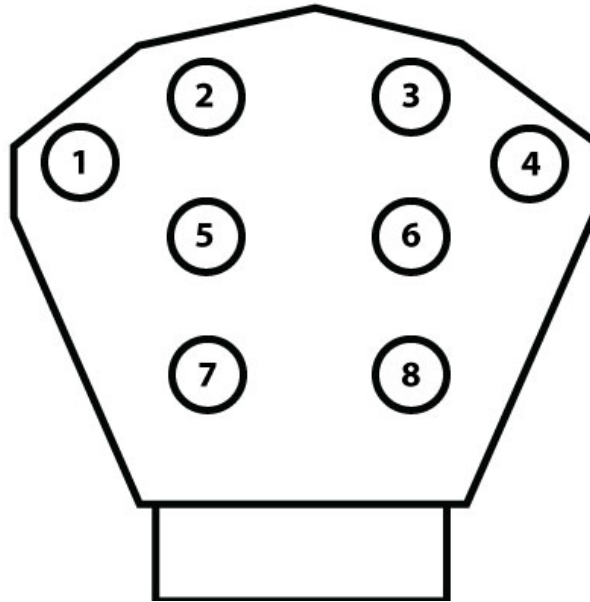
### **Articulated Loaders/Excavators**

All loaders and excavators will have a mounting system similar to the skid steer mounting above. If your existing handle has a **Multi-Function** control, follow the **Bobcat** instructions above. Once your pistol grip has been installed, run your cable out of the cab and down your loader arm. **Be sure your cable is secured to ensure that it is not subject to being pinched.** The way the cable runs out of the cab is up to the end users preference.

### **Note**

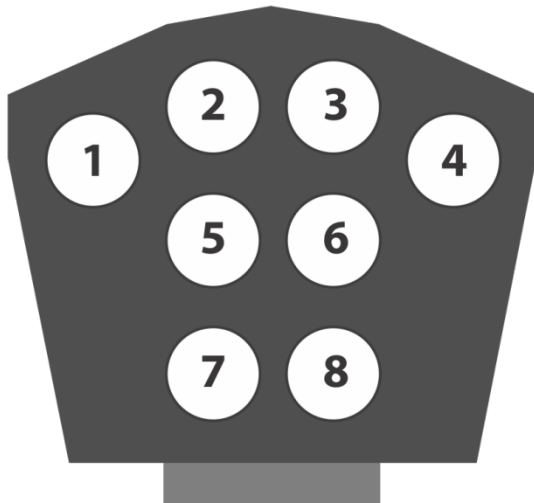
After your Pistol Grip Joystick has been installed, proper service checks should be made to ensure that the joystick is functioning properly. Also make sure you have a solid positive and negative connection. Any bad connection will not allow the spade to function. Thank-you for your interest in the **Dutchman** product.

## PISTOL GRIP SCHEMATICS

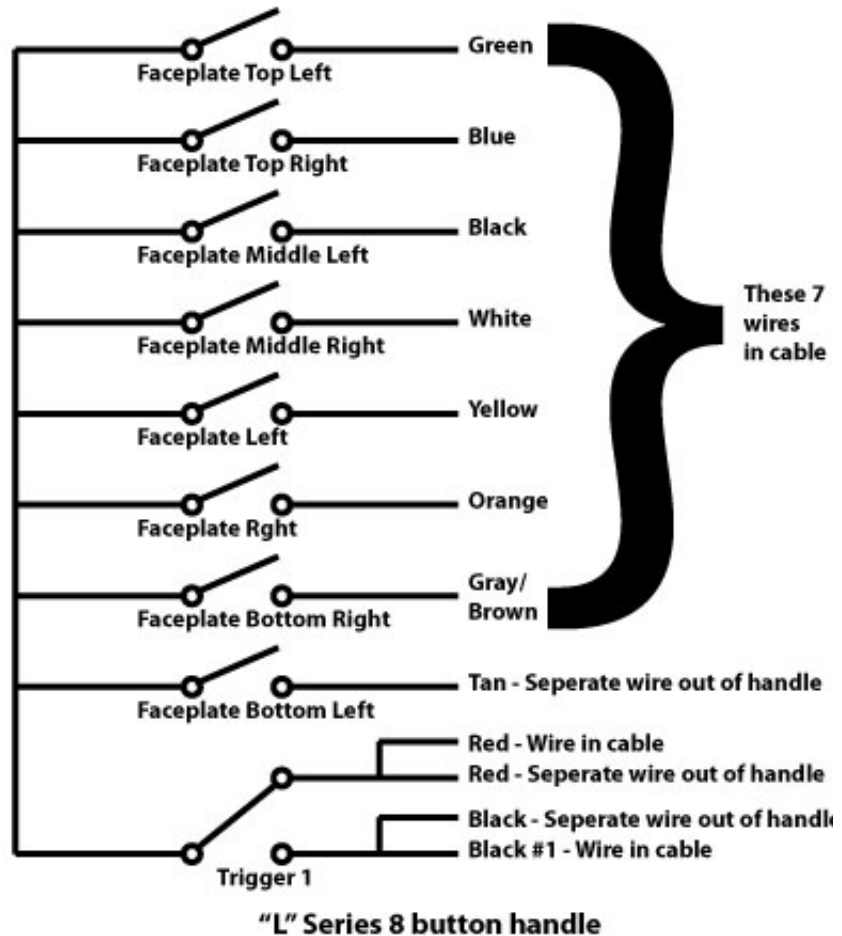


Tree Rex		
Button	Function	Wire Colour
1	Close	Yellow
2	Rotate Left	Green
3	Rotate Right	Blue
4	Open	Orange
5	Pivot Left	Black
6	Pivot Right	White
7		Brown
8		Grey

## PISTOL GRIP SCHEMATICS



Button Position	Wire Colour
1	Yellow
2	Green
3	Blue
4	Orange
5	Black
6	White
7	Gray or Brown
8	Tan

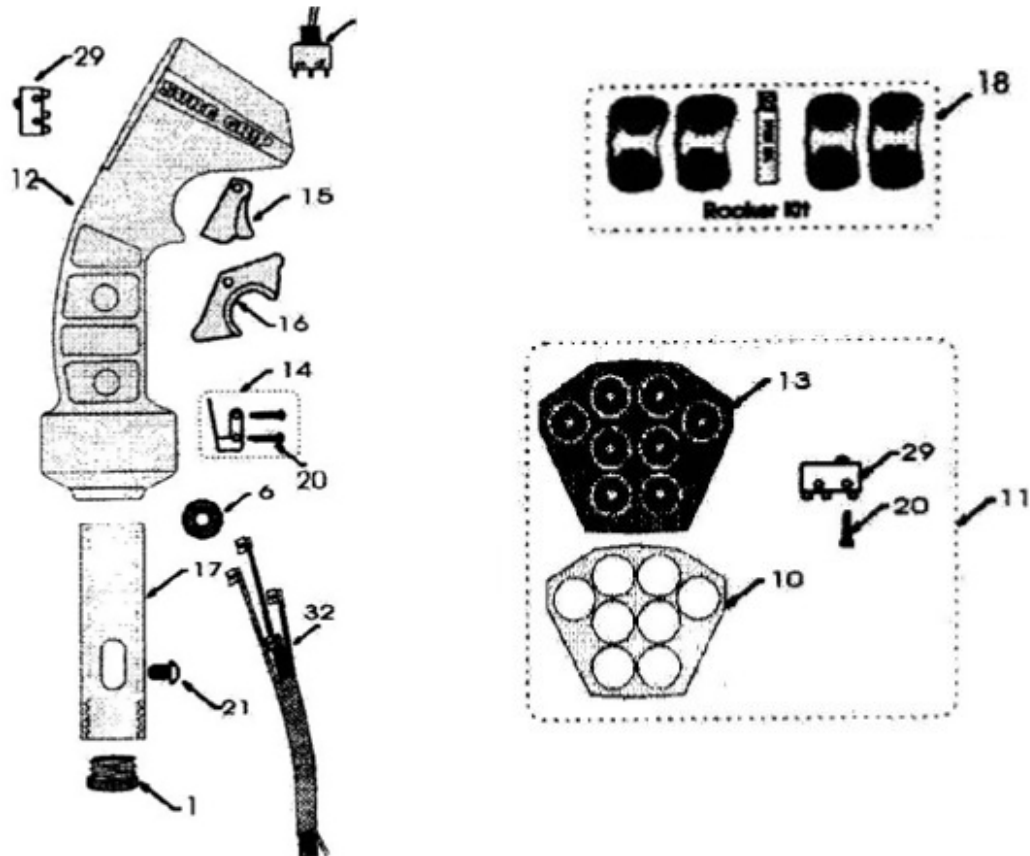


Most wire breakage problems can be traced back to two common installation mistakes.

**Crushing the wire:** Nylon tie wraps are very useful in giving the wire harness a neat and finished appearance, but applying them too tightly can crush the wire insulation and pinch the wires. When the cable is pinched, it doesn't allow the wire to slide inside the cable jacket creating a stress point.

**Forcing the wire to Flex at one point:** If the wire from the control handle is routed down the joystick shaft with little slack the wire will tend to flex over a small area. Eventually the repeated flexing will cause the wire strands to break. The solution is to provide enough slack in the cable to the flexing motion is distributed over a longer section of wire.

## PISTOL GRIP SCHEMATICS



#	Part	Description	#	Part	Description
1	BU-00	5/16 Unthreaded Bushing	14	L6-01	Leaf Spring Kit
	BU-01	10 mm X 1.25 Bushing	15	L-TR-01	Single Trigger
	BU-02	12 mm X 1.25 Bushing	16	L-TR-02	Double Trigger
	BU-03	12 mm x 1.75 Bushing	17	PN-03	Mounting Pin
	BU-04	14 mm X 2 Bushing	18	RK-02	Rocker Lid
	BU-05	5/6" NC Bushing	20	SC-03	#2 X7/16" Self Tapping Screw
8	GR-01	Wire Grommet	21	SC-02	10 – 32 X 3/8" Screw
10	L-FP-01	"L" Series Empty Faceplate	29	SW-00	Switch (Faceplate or Trigger)
11	L-FP-A8	8 Function Switch Pack Assy	31	T0-2MA	Toggle (on/off)
12	L-HL-01	Handle Case - left		T0-3M0	Toggle (on)/off/(on)
	L-HL-02	Handle Case – right	32	L1M8-W	Harness (Single Trigger)
13	L-ME-A8	5 Button Overlay		L2M6-W	Harness (Double Trigger)

# Dutchman Industries Inc.

## W A R R A N T Y

Dutchman Industries Inc., herein referred to as DMI, warrants each new industrial product of its own manufacture to be free from defects in material and workmanship, under normal use and service for one(1) full year after delivery to the owner.

During the warranty period, the authorized selling DMI Dealer shall furnish parts without charge for any DMI product that fails because of defects in material and/ or workmanship. This warranty and any possible liability of DMI hereunder is in lieu of all other warranties express, implied or statutory, including but not limited to any warranties of merchantability or fitness for a particular purpose.

The parties agree that the Buyers **SOLE AND EXCLUSIVE REMEDY** against DMI, whether in contact or arising out of warranties, representations, instructions, or defects shall be for the replacement or repair of defective parts as provided herein. The Buyer agrees that no other remedy (including, but not limited to, incidental or consequential loss) shall be available to him. If, during the warranty period, any product becomes defective by reason of material or workmanship and Buyer immediately notifies DMI of such defect, DMI shall, at its option, supply a replacement part or request return of the product to its plant in Brougham, Ontario, Canada. No parts shall be returned without prior written authorization from DMI, and this warranty does not obligate DMI to bear any transportation charges in connection with the repair or replacement of defective parts. DMI will not accept any charges for labour and/or parts incidental to the removal or remounting of parts repaired or replaced under this Warranty. **A formal, faxed estimate to DMI is required prior to any foreseen warranty repairs, alterations and/or labor.**

This Warranty shall not apply to any part or product which shall have been installed or operated in a manner not recommended by DMI, nor to any part or product that has been neglected, or used in any way which, in the Manufacturers opinion, adversely affects its performance; not negligence of proper maintenance or other negligence, fire or other accident; not with respect to wear items included but not limited to items such as tree spade blades and wear strips; nor if the unit has been altered or repaired or repaired outside of a DMI authorized dealership in a manner of which, in the sole judgment of DMI affects its performance, stability or reliability. Equipment and accessories not of our manufacture are warranted only to the extent of the original Manufacturers Warranty and subject to their allowance to us, if found defective by them.

DMI reserves the right to modify, alter and improve any product or part without incurring any obligation to replace any product or parts previously sold with such modified, altered, or improved product or part.

No person is authorized to give any other Warranty or to assume any additional obligation on the Manufacturers behalf unless made in writing and signed by an officer of the Manufacturer.