

QWIK-TIP II

Refuse Container Lifting and Dumping Accessory
On Rear-Loading Packer

OPERATION INSTRUCTIONS

MAINTENANCE GUIDE

PARTS LIST

IMPORTANT

Two Copies Furnished
Keep One In Cab of Vehicle

WARNING

**READ AND UNDERSTAND ALL DECALS AND THIS MANUAL BEFORE
OPERATING QWIK-TIP II**

U.S. Patent 5,425,613

Canadian Patent 2,094,342

QWIK-TIP INC. 2415 East Higgins Road, Elk Grove, Illinois 60007

Phone 847- 640-7387

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INTRODUCTION

WE AT QWIK-TIP, INC. ARE PROUD OF THE QUALITY ENGINEERING, MATERIAL AND WORKMANSHIP THAT GOES INTO EACH AND EVERY REFUSE CONTAINER LIFTING AND DUMPING ACCESSORY WE PRODUCE.

ADDITIONALLY, OF GREAT IMPORTANCE TO US AT QWIK-TIP IS SAFETY. THIS ACCESSORY WAS DESIGNED AND MANUFACTURED TO CONFORM, WHERE APPLICABLE, TO THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) STANDARD FOR MOBILE REFUSE COLLECTION AND COMPACTION EQUIPMENT - SAFETY REQUIREMENTS, ANSI Z245.1 - 1992.

MANUALS PROVIDED WITH THE QWIK-TIP UNIT ARE CONSIDERED A PERMANENT PART OF THE UNIT AND SHOULD BE INCLUDED IN THE EVENT OF A RESALE.

THIS MANUAL IS INTENDED TO ACT AS A GUIDE FOR SAFE OPERATION AND ROUTINE MAINTENANCE, BUT IS IN NO WAY INTENDED TO ENCOURAGE USAGE OR REPAIR OF THE QWIK-TIP LIFTING AND DUMPING ACCESSORY BY THOSE WHO ARE NOT QUALIFIED TO DO SO.

THE CONTENTS OF THIS MANUAL INCLUDES GENERAL OPERATION INSTRUCTIONS AND SAFETY PRECAUTIONS, OPERATING INSTRUCTIONS, DECAL PLACEMENT, A MAINTENANCE GUIDE, A HYDRAULIC/ELECTRICAL SCHEMATIC AND A PARTS LIST FOR THE QWIK-TIP LIFTING AND DUMPING ACCESSORY. NOTE: MAINTENANCE AND REPAIR SHOULD ONLY BE PERFORMED BY A QUALIFIED QWIK-TIP DISTRIBUTOR OR INSTALLER.

WE STRONGLY URGE THE OWNER, USER OR ANYONE ELSE THAT HAS QUESTIONS AS TO THE INSTALLATION, OPERATION, USAGE, MAINTENANCE OR REPAIR OF THE QWIK-TIP LIFTING AND DUMPING ACCESSORY TO CONTACT THE AUTHORIZED DISTRIBUTOR FROM WHOM THE ACCESSORY WAS PURCHASED, OR CONTACT THE FACTORY AT THE BELOW ADDRESS OR PHONE NUMBER. (847) 640-7387 FAX: 847-640-0251

FOR PROMPT SERVICE WHEN CALLING, PLEASE HAVE AVAILABLE THE MODEL NUMBER AND SERIAL NUMBER SHOWN ON THE QWIK-TIP SERIAL PLATE ATTACHED TO THE ACCESSORY.

GENERAL OPERATION INSTRUCTIONS AND SAFETY PRECAUTIONS

The Qwik-Tip II Refuse Container Lifting and Dumping Accessory mounted on a rear-loading packer is designed with the operator's safety in mind. However, as with any industrial machinery, especially those that apply force through hydraulic pressure, the ultimate responsibility for safety rests with the user. An alert, conscientious attitude and strict observance of all known safe operating practices are the best ways to prevent accidents.

An untrained operator presents a safety hazard. Before operating the Qwik-Tip II unit, it is the operator's responsibility to be thoroughly familiar with the instructions contained in this manual.

Publication of these precautions does not imply or in any way represent an all inclusive list. It is the operator's responsibility to be familiar with, and ensure that operation is in accordance with safety requirements and codes including all applicable Occupational Safety and Health Act (OSHA) and American National Standards Institute (ANSI) rules, regulations and requirements.

CAUTION: Never operate Qwik-Tip while wearing jewelry or loose clothing. These items may become caught by or entangled in the Qwik-Tip II causing serious injury. Wear proper safety equipment as required by employer.

CAUTION: Never operate Qwik-Tip II while under the influence of alcohol, narcotics or other mood altering substances.

CAUTION: Always stand clear and keep clear of rear of vehicle and the rear-loading packer's hopper while lifting and dumping a refuse container with the Qwik-Tip II.

CAUTION: Never allow operator, helper or a bystander to stand in a position where falling refuse or a falling container could cause injury.

1. MAKE CERTAIN THE AREA IN WHICH THE REFUSE CONTAINER IS RAISED AND LOWERED HAS OVERHEAD CLEARANCE AND IS SPECIFICALLY CLEAR OF ALL OBSTRUCTIONS, INCLUDING, TREE LIMBS, UTILITY WIRES, REFUSE CONTAINER ENCLOSURES, OTHER VEHICLES OR PERSONS BEFORE OPERATING THE QWIK-TIP II.
2. ONLY OPERATE QWIK-TIP II WITH THE LIFTING AND DUMPING CONTROLS ON THE SIDE OF THE VEHICLE AND WITH BOTH OF OPERATOR'S FEET STANDING ON LEVEL GROUND.
3. CHECK VEHICLE'S HYDRAULIC FLUID AT LEAST MONTHLY AND CHANGE FLUID REGULARLY FOR SMOOTH AND EFFICIENT OPERATION OF THE QWIK-TIP II ACCESSORY.
4. LUBRICATE QWIK-TIP II ACCESSORY AS PER SCHEDULE FOUND IN THIS MANUAL.

5. READ AND FOLLOW URGENT WARNING DECALS, OPERATING DECALS, QWIK-TIP II CONTROLS DECAL, CAUTION DECALS AND THIS MANUAL BEFORE USING THE QWIK-TIP II ACCESSORY.
6. VISUALLY INSPECT QWIK-TIP II FREQUENTLY FOR LOOSENED BOLTS, SET SCREWS, EXCESSIVE WEAR, WORN PARTS, BROKEN STRUCTURES, BROKEN WELDS, OTHER DAMAGE OR SIGNS OF ABUSE.
7. KEEP ALL DECALS IN PLACE AND LEGIBLE; AND RETAIN THIS MANUAL IN VEHICLE.
8. DO NOT ALLOW QWIK-TIP II TO BE USED BY PERSONS NOT FAMILIAR WITH ITS OPERATION.
9. DO NOT USE QWIK-TIP II IF UNIT SHOWS SIGNS OF DAMAGE, ABUSE OR FAILS TO OPERATE FREELY.
10. DO NOT ATTEMPT TO LIFT REFUSE CONTAINERS LARGER THAN 6 YARDS CAPACITY.
11. NEVER LOAD THE PACKER'S HOPPER ABOVE THE LOADING SILL.
12. IF REFUSE CONTAINER SHOWS SIGNS OF DAMAGE, HAS BROKEN OR BENT TRUNNION BARS. OR APPEARS TO BE UNSAFE OR OVERLOADED DO NOT LIFT WITH QWIK-TIP II
13. HYDRAULIC FLUID OPERATES UNDER HIGH TEMPERATURES AND HIGH PRESSURE. AVOID CONTACT WITH HOSES, FITTINGS OR CYLINDERS TO PREVENT BURNS.
14. DO NOT ATTEMPT TO REPAIR, ADJUST OR REPLACE HYDRAULIC HOSES OR FITTINGS WITH THE QWIK-TIP II LOWER TIP BAR IN THE RAISED POSITION OR, LIE UNDER THE LOWER TIP BAR WHEN IN A RAISED POSITION AS THE RELEASE OF HYDRAULIC FLUID AND/OR PRESSURE WILL CAUSE LOWER TIP BAR TO FALL. REMEMBER, HYDRAULIC FLUID ESCAPING UNDER PRESSURE MAY CAUSE INJURY
15. WHEN RAISING TAILGATE OF PACKER TO EMPTY RUBBISH OR PERFORM MAINTENANCE BE SURE TO SUPPORT TAILGATE AND QWIK-TIP II UNIT WITH SUPPORT JACKS CAPABLE OF SUPPORTING TAILGATE AND THE QWIK-TIP II LIFTING AND DUMPING ACCESSORY, OR AT LEAST 8,500 LBS.
16. DO NOT ATTEMPT TO OPERATE QWIK-TIP II UNIT OR LIFT CONTAINERS WITH THE QWIK-TIP II UNIT UNLESS BOTH THE VEHICLE AND PACKER BODY ARE ON LEVEL GROUND
17. DO NOT MOVE VEHICLE WITH THE CONTAINER STILL ATTACHED, HANGING OR DANGLING FROM THE QWIK-TIP II LIFTING AND DUMPING ACCESSORY.

OPERATING INSTRUCTIONS

1. POSITION CONTAINER SO THAT ITS TRUNNION BARS ARE WITHIN GRASPING RANGE OF THE QWIK-TIP'S ROTATING HOOKS.
2. CHECK TO SEE THAT TRUNNION BARS ARE NOT BENT, CRACKED OR BROKEN.
3. BE SURE REFUSE IS COMPLETELY INSIDE THE CONTAINER AS WITH THE LID CLOSED, AND THAT NO REFUSE IS PROTRUDING ABOVE THE CONTAINER'S WALLS.
4. ONLY NOW CAN YOU BEGIN TO LIFT AND DUMP THE CONTAINER WITH THE QWIK-TIP II.
5. ADJUST QWIK-TIP II "BANG BAR" ABOVE THE HOPPER TO THE SIZE OF THE CONTAINER, AS NEEDED, BY PUSHING OR PULLING THE QWIK-TIP II CONTROL HANDLE. (if your unit has this option)
6. STAND TO THE SIDE OF THE VEHICLE THAT HAS THE LIFTING AND DUMPING CONTROLS.
7. PULL THE QWIK-TIP II CONTROL HANDLE OUT TO ENGAGE ROTATING HOOKS TO START THE LIFT AND DUMP CYCLE.

NOTE: *RELEASING THE QWIK-TIP II CONTROL HANDLE WILL STOP THE QWIK-TIP ROTATING HOOKS AND ITS DUMPING CYCLE BUT NOT THE PACKER BLADE.*

8. DUMP ENOUGH REFUSE TO FILL VEHICLE'S HOPPER, USE PACKER BLADE TO EMPTY HOPPER. CONTINUE DUMPING CYCLE UNTIL CONTAINER IS EMPTY.
9. TO LOWER EMPTY CONTAINER TO THE GROUND, PUSH THE QWIK-TIP II CONTROL HANDLE IN UNTIL HOOKS STOP ROTATING AND CONTAINER IS ON THE GROUND, FREE FROM THE VEHICLE AND HOOKS ARE BACK TO THEIR ORIGINAL STORED POSITION.

NOTE: *TO OPERATE LOWER TIP BAR ONLY (NOT HOOKS) PRESS AND HOLD BLACK QWIK-TIP II OVERRIDE BUTTON AND PULL QWIK-TIP II CONTROL HANDLE*

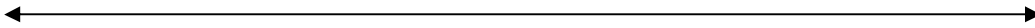
OPTIONAL WINCH LOCK OUT SYSTEM INSTALLED

THIS OPTION REQUIRES THE CONTAINER TRUNION TO BE CAPTURED BY THE QWIK-TIP II LOCKING HOOKS BEFORE PICKING UP CONTAINER WITH THE WINCH.

ROTATING LOCKING HOOKS MUST CAPTURE THE CONTAINER TRUNION AND LOCKING HOOKS MUST BE STRAIGHT UP (12 O'CLOCK POSITION) TO ALLOW WINCH UP OPERATION.

IMPORTANT **NOTICE**

**QWIK-TIP II HOOKS MUST ALWAYS BE RETURNED TO
STORED OR PARKED POSITION WHEN IN TRANSIT
TO PREVENT SERIOUS DAMAGE TO HOOKS AND
ROTARY ACTUATORS. FAILURE TO FOLLOW THIS
NOTICE WILL VOID WARRANTY.**



MAINTENANCE GUIDE

THE FOLLOWING INSPECTION AND MAINTENANCE OPERATIONS SHOULD BE PERFORMED AT THE RECOMMENDED INTERVALS OR AT ANY TIME THE QWIK-TIP II UNIT SHOWS SIGNS OF IMPROPER OR ABNORMAL OPERATION. FOLLOWING THIS GUIDE WILL HELP INSURE THE MAXIMUM IN OPERATOR SAFETY AND SATISFACTION WITH YOUR QWIK-TIP II LIFTING AND DUMPING ACCESSORY.

REGULAR DAILY INSPECTION

1. CHECK THAT THE QWIK-TIP II UNIT OPERATES FREELY, SMOOTHLY AND THAT THE ROTATING HOOKS OPERATE IN UNISON, AND THERE IS NO UNUSUAL NOISE OR VIBRATION.
2. CHECK FOR ANY APPARENT DAMAGE OR ABUSE TO THE QWIK-TIP II UNIT SUCH AS BENT OR DISTORTED PARTS, OR CRACKED WELDS WHICH MAY HAVE RESULTED FROM ABUSE, LIFTING OVERLOADED CONTAINERS OR LIFTING CONTAINERS IN EXCESS OF 6 YARDS.
3. CHECK FOR EXCESSIVE WEAR OR DAMAGE IN THE FOLLOWING AREAS:
 - A. Rotating Hooks
 - B. Lower Tip Bar
 - C. All Cylinders
 - D. Welds
 - E. Frame and End Plates
4. MAKE CERTAIN HOSES, FITTINGS AND CONNECTIONS ARE IN GOOD ORDER, SECURE AND FREE FROM CRACKS OR LEAKS.
5. CHECK FOR OIL LEAKS IN THESE AREAS:
 - A. HYDRAULIC LIFT CYLINDERS
 - B. HYDRAULIC HOSES - REPLACE IF THEY SHOW SIGNS OF EXCESSIVE ABRASION OF THE COVERING OR LEAKAGE, i.e. HYDRAULIC FLUID UNDER UNIT
 - C. HYDRAULIC FITTINGS - TIGHTEN OR REPLACE ALL HYDRAULIC COMPONENTS AS MAY BE REQUIRED TO STOP OIL LEAKAGE.

6. HYDRAULIC FLUID AND FILTERS - THE QWIK-TIP II LIFTING AND DUMPING ACCESSORY CONNECTS TO AND OPERATES OFF THE PACKER'S HYDRAULIC SYSTEM. EXPERIENCE HAS TAUGHT US THAT ALMOST ALL PROBLEMS WHICH PREVENT THE SMOOTH AND EFFICIENT OPERATION OF THE QWIK-TIP II UNIT ARE TRACED DIRECTLY TO THE PACKER'S HYDRAULIC FLUID, FILTERS AND RESERVOIR TANK. IT IS OF UTMOST IMPORTANCE THAT STRICT ADHERENCE TO THE PACKER MANUFACTURER'S PREVENTIVE MAINTENANCE PROGRAM BE OBSERVED.
7. **LUBRICATION** - ALL QWIK-TIP II GREASE FITTINGS WEEKLY FREQUENT INSPECTION OF GREASE POINTS IS ADVISABLE.
8. EXAMINE ALL DECALS. IF THEY ARE FOUND TO BE ILLEGIBLE THEY SHOULD BE REPLACED. DECALS ARE OBTAINABLE FROM QWIK-TIP II, INC. AT NO CHARGE

IMPORTANT: MAINTAINING TORQUE

AS PART OF REGULAR MAINTENANCE OF THE QWIK-TIP II LIFTING AND DUMPING ACCESSORY, AT LEAST ONCE EVERY 21 DAYS:

A. TORQUE 5/8" GRADE EIGHT ACTUATOR MOUNTING BOLTS (8). FOUR (4) BOLTS ON EACH ACTUATOR. TORQUE EACH BOLT TO 220 FOOT LBS.

NOTE: THE TOP BOLT ON EACH ACTUATOR IS COUNTERSUNK AND HAS A 3/8" HEX DRIVE HEAD. THESE BOLTS ARE LOCATED ON INSIDE OF THE RIGHT AND LEFT SIDE PLATES. FAILURE TO TORQUE THESE BOLTS CAN RESULT IN FAILURE OF THE LOWER HYDRAULIC STEEL TUBES ON EACH ACTUATOR.

B. TORQUE ALL GRASPING HOOKS' 5/16 HEX DRIVE HEAD TAPER-LOCK BUSHING SET SCREWS (4). TWO (2) ON EACH HOOK. TORQUE EACH SCREW TO 66 FOOT LBS. THESE SCREWS ARE LOCATED ON THE HOOKS' HUB. FAILURE TO TORQUE THESE SCREWS CAN RESULT IN THE HOOK LOOSENING ON THE ACTUATOR SHAFT.

ANNUAL INSPECTION

1. PERFORM STEPS 1 THROUGH 8 OF REGULAR INSPECTION ABOVE.
2. MAINTAIN TORQUE AS SET FORTH IN A AND B ABOVE.

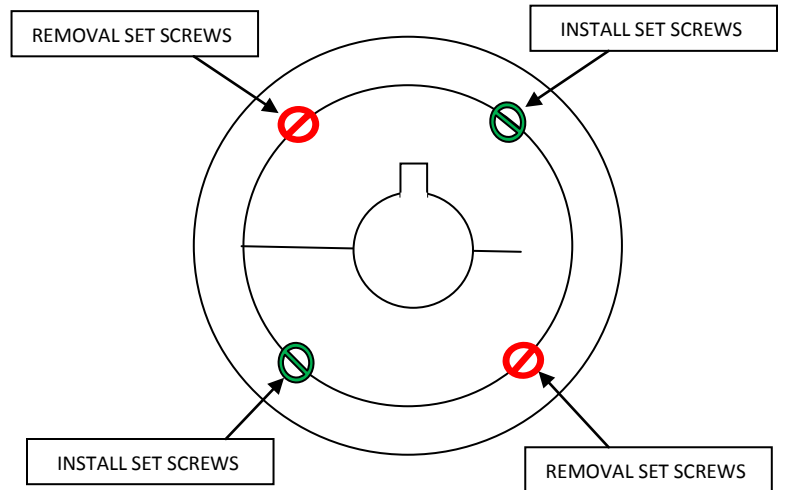
TAPER-LOCK HOOK BUSHING



INSTALL SET SCREWS



REMOVAL SET SCREWS



WARNING

Follow Lockout/Tagout procedures before performing any maintenance or repairs. Failure to observe these precautions could result in bodily injury.

TO REMOVE

1. Remove 2 set screws from Green Location on drawing. (Install Location)
2. Insert set screws in Red Location on drawing. Loosen bushing by alternately tightening screws.

TO INSTALL

1. Clean shaft, bore of bushing, outside of bushing and hub bore of all oil, paint and dirt. File away any burrs.
2. Insert bushing in hub. Match the hole pattern, not threaded holes (each complete hole will be threaded on one side only).
3. **Lightly ! Oil Set Screws** and thread into those half threaded holes at the Green Location on drawing.

CAUTION

Do not lubricate the bushing taper, bushing bore, hub taper or the shaft, doing so could result in damage to the product.

4. Position assembly onto shaft allowing for the small axial movement which will occur during tightening procedure.
5. Alternately torque SET SCREWS' to recommended torque of 66 foot pounds.
6. To increase gripping force, lightly hammer face of hook. **(Do Not Hit Bushing Directly With Hammer)**
7. Re-torque set screws after hammering.
8. Recheck screw torques after initial run-in, and periodically thereafter. Repeat steps 5, 6 and 7 if loose.

QWIK –TIP II TIMING CHECK

PROCEDURE TO CHECK QWIK-TIP OPERATION AND TIMING OF HOOKS AND TIP BAR:

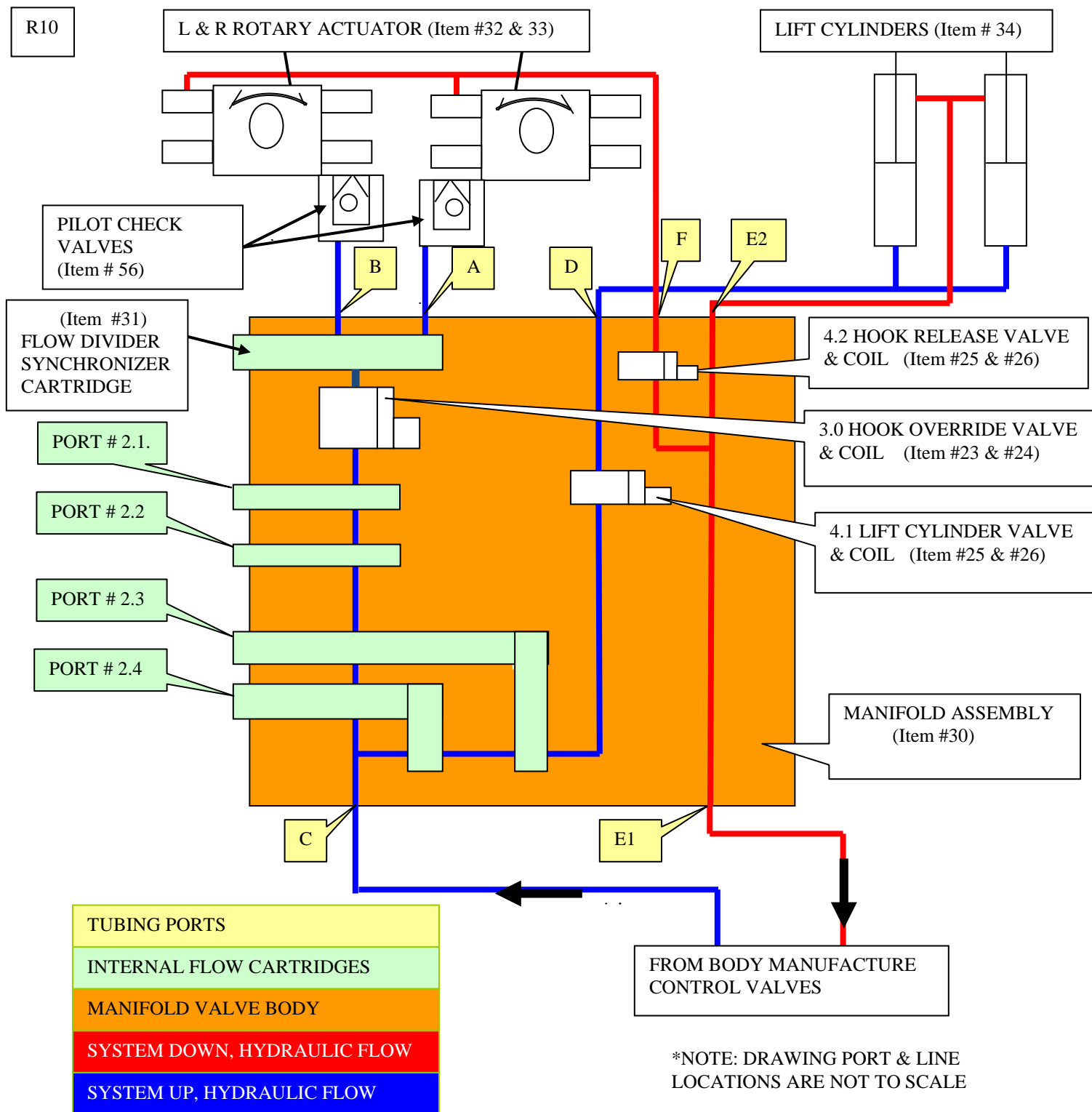
- a. Stand at right side (curbside) of truck facing Qwik-Tip II tip-bar and bang bar control handles. You are now viewing left-side hook and lower tip-bar
- b. PULL Qwik-Tip II tip-bar control handle OUT, this will activate hooks causing them to rotate from "7 o'clock", their parked position, to "1 o'clock" position, at which time lower tip-bar MUST begin to rotate upward, while hooks continue to complete their rotation and lock in place at "3 o'clock". Tip-bar will now be at "11 o'clock". A switch mounted on the right side actuator under actuator side cover controls tip bar up cycle. A pre-set cam is fastened to center of actuator shaft and activates the switches plunger to start tip bar up cycle This cam has a timing location pin that maintains hook and tip bar timing in up cycle only.
- c. PUSH same Qwik-Tip II tip-bar control handle IN, this will activate tip bar to rotate back down from "11 o'clock" position to "9 o'clock" at which time hooks MUST start to rotate back down with tip-bar until both are returned to their starting positions fully parked and stop. A switch mounted under the right side taillight box cover controls activation of hooks in the down cycle. This is a non adjustable proximity switch it can be accessed from within the right side taillight box located near the upper right side tip bar leg pivot. This is control the timing of the hooks in the down cycle.

NOTE: above timing is critical for proper container release

- d. If bang bar option is included in installation, operate bang bar control handle by pulling it OUT and IN to be sure bang bar is moving through its entire travel. Bang bar is moved during refuse collection to adjust hopper opening.
- e. On initial setup cycle the Qwik-Tip II unit at least four (4) times to remove any air from hydraulic system. CHECK ALL HYDRAULIC FITTINGS FOR LEAKS. CHECK LIGHTS FOR PROPER OPERATION.

DECAL PLACEMENT: (attached hereto)

NOTE: Qwik-Tip II is shipped with a urethane primer sealer already applied. However, primer needs to be scuffed before topcoats are applied.



DESCRIPTION OF MANIFOLD PORTS

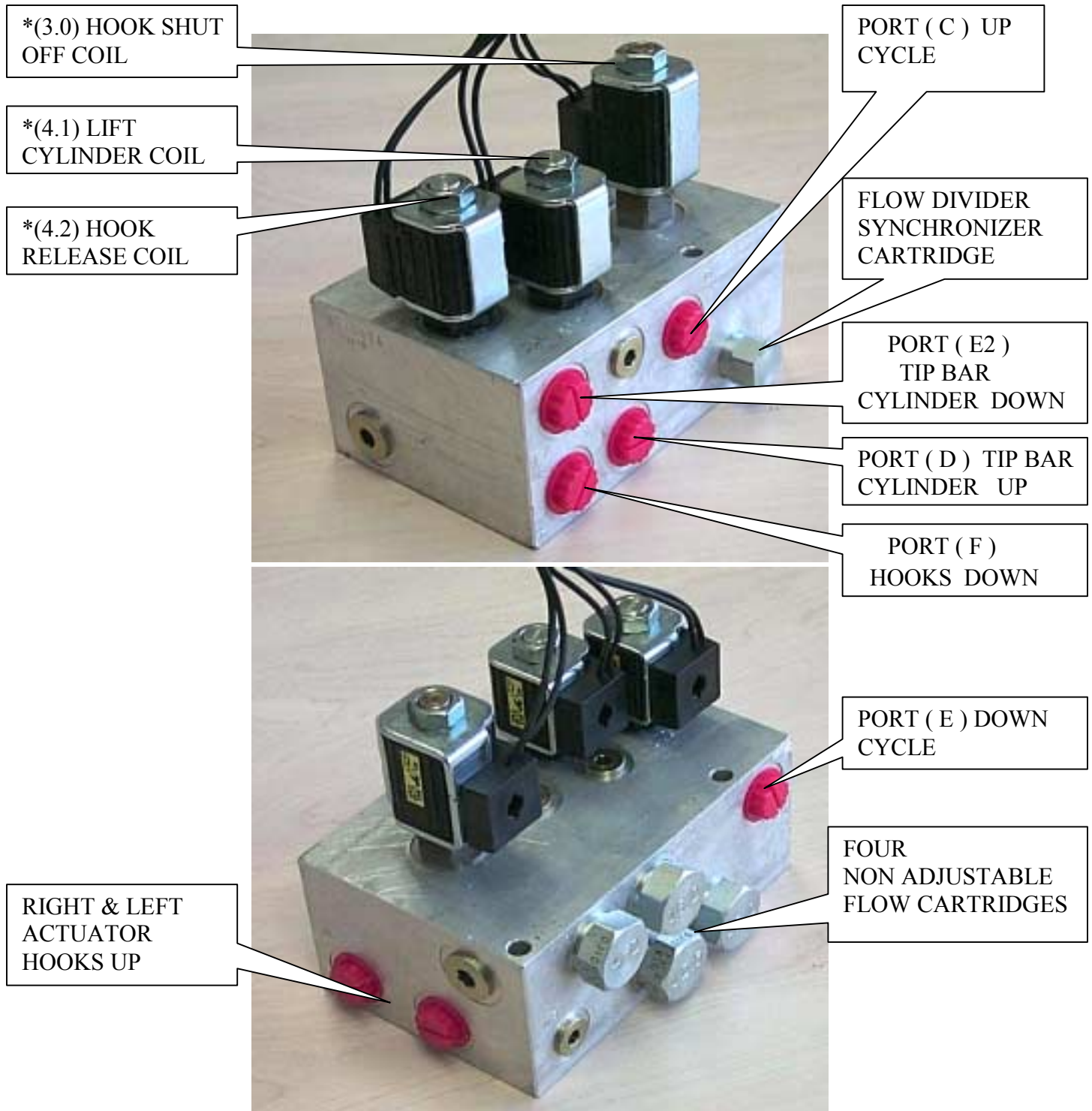
Flow Control Port # 2.1 Hook Speed Down 4.2 GPM (Item # 28)
 Flow Control Port # 2.2 Hook Speed Up 16.2 GPM (Item # 27)
 Flow Control Port # 2.3 Cylinder Up 16.2 GPM (Item # 29)
 Flow Control Port # 2.4 Cylinder Down 16.2 GPM (Item # 27)
 Solenoid Function Control 3.0 Hook Override
 Solenoid Function Control 4.1 Lift Cylinder Up
 Solenoid Function Control 4.2 Hook Release

DESCRIPTION INLET & EXIT PORT

Port number **A & B** Hook up through flow divider
 Port number **C** Inlet from control valve-raise
 Port number **D** Cylinder raise
 Port number **E** Inlet from control valve-lower
 Port number **F** Hook down
 Port number **E2** Cylinder lower

QWIK-TIP MANIFOLD

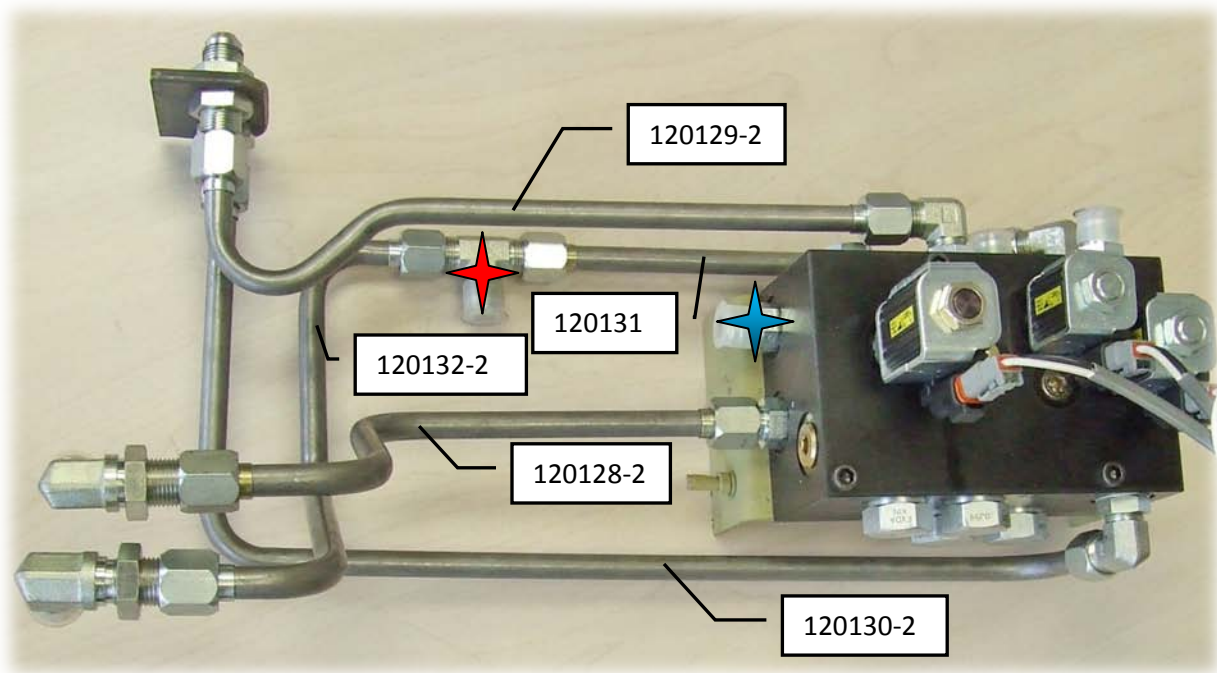
PART AND PORT LOCATION INFORMATION GUIDE





NOTE: PORT AND COIL LOCATIONS ARE STAMPED IN MANIFOLD HOUSING

* YOUR MODEL MAY APPEAR DIFFERENT THEN ABOVE PHOTO

QWIK-TIP II MANIFOLD TUBING LOCATION AND PART NUMBERS



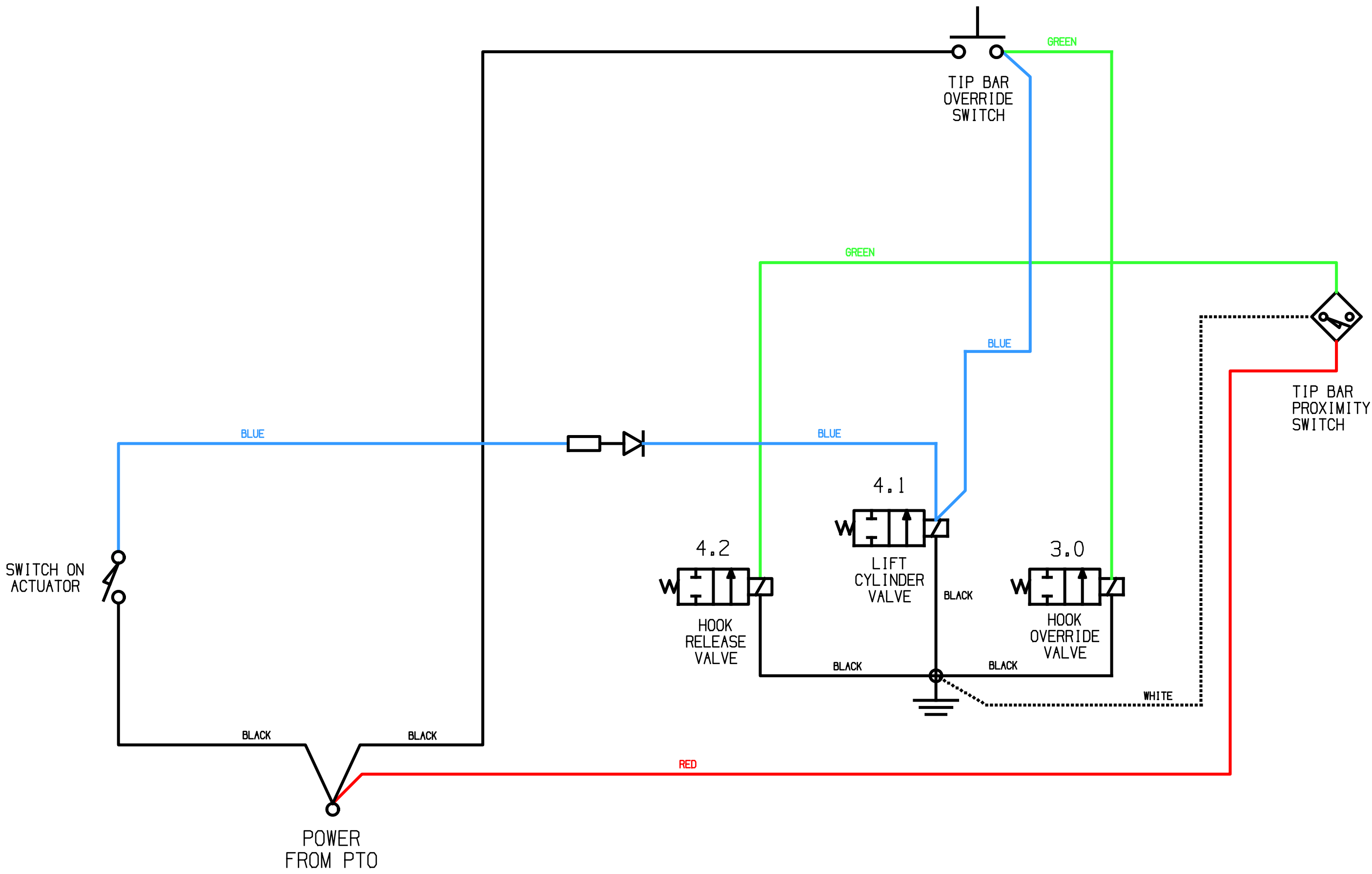
<u>PART REF. #</u>	<u>PART #</u>	<u>DESCRIPTION</u>
57	120128-2	ACTUATOR UP RIGHT SIDE
68	120129-2	MANIFOLD PORT (C) UP CYCLE
67	120130-2	MANIFOLD PORT (E1) DOWN CYCLE
58	120131	ACTUATOR DOWN CYCLE
59	120132-2	ACTUATOR DOWN CYCLE
	#8 TWO WIRE 4000 PSI HOSES TO LEFT SIDE ACTUATOR BULKHEAD FITTING DOWN CYCLE	
	#8 TWO WIRE 4000 PSI HOSES TO LEFT SIDE ACTUATOR BULKHEAD FITTING UP CYCLE	

RIGHT AND LEFT SIDE ACTUATOR TUBING LOCATION AND PART NUMBERS

Note: Part Numbers Below Are Not Pictured

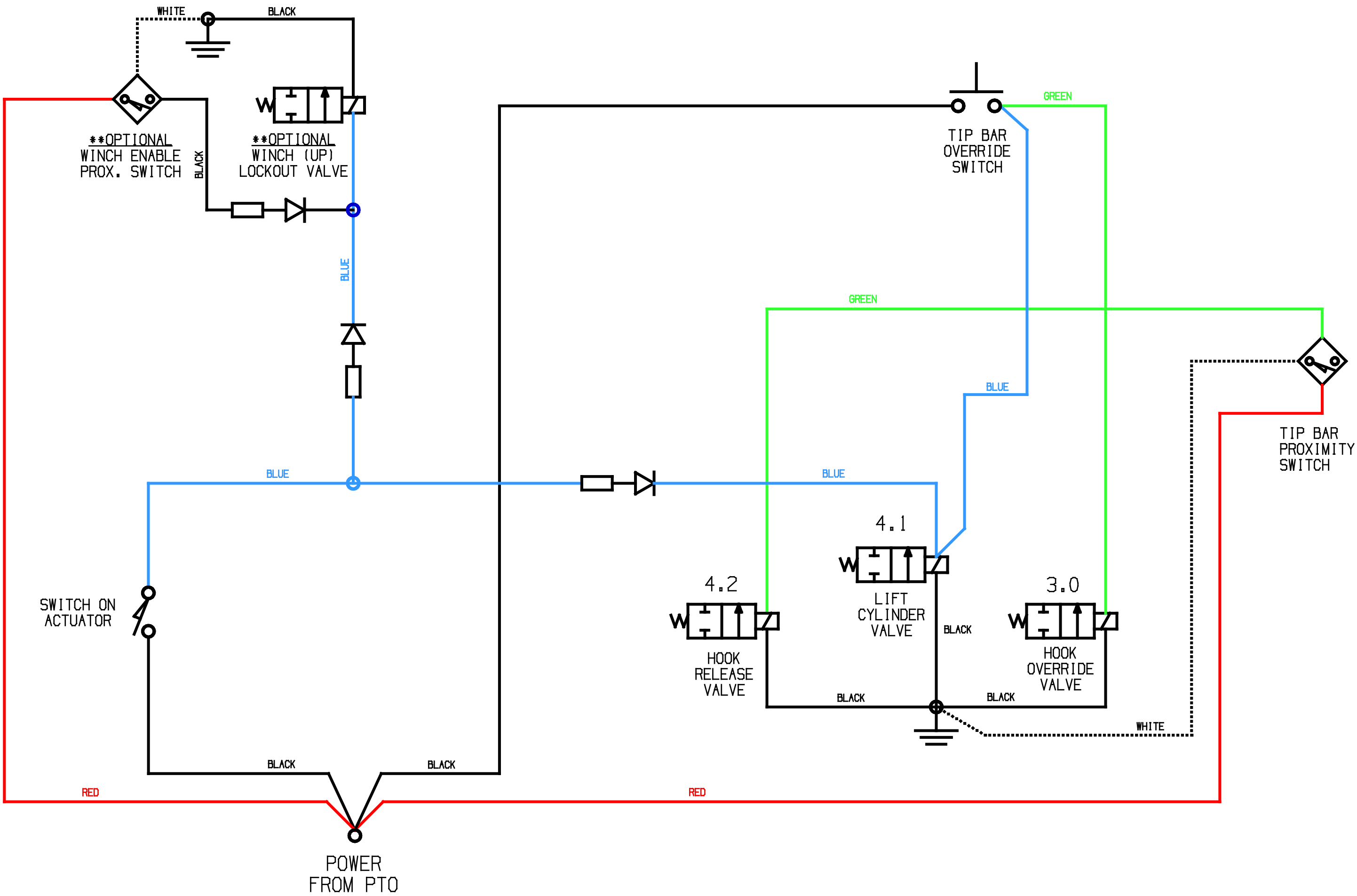
<u>PART REF. #</u>	<u>PART #</u>	<u>DESCRIPTION</u>
62	120139	ACTUATOR LEFT FRONT
60	120137	ACTUATOR LEFT REAR
61	120138	ACTUATOR RIGHT FRONT
63	120140	ACTUATOR RIGHT REAR

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	APPROVED



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		TITLE	
		QWIK-TIP ELECTRICAL SCHEMATIC WITHOUT OPTIONAL WINCH ENABLE CIRCUIT WITHOUT OPTIONAL WINCH (UP) LOCKOUT VALVE	
		SIZE C	DATE: 12-03-10
		DWG NO 11A-OM	REV 0
		SCALE	DRAWN BY: MATEUSZ KRUZEL
		SHEET 2	

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	APPROVED



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Qwik-Tip Incorporated

TITLE
QWIK-TIP ELECTRICAL SCHEMATIC
WITH OPTIONAL WINCH ENABLE CIRCUIT
WITH OPTIONAL WINCH (UP) LOCKOUT VALVE

SIZE C	DATE: 12-03-10	DWG NO 11A-OM	REV 0
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SCALE	DRAWN BY: MATEJ SZ KRUEL	SHEET 1
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Qwik-Tip Incorporated

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R1

OPTIONAL WINCH LOCK OUT VALVE INSTALLATION

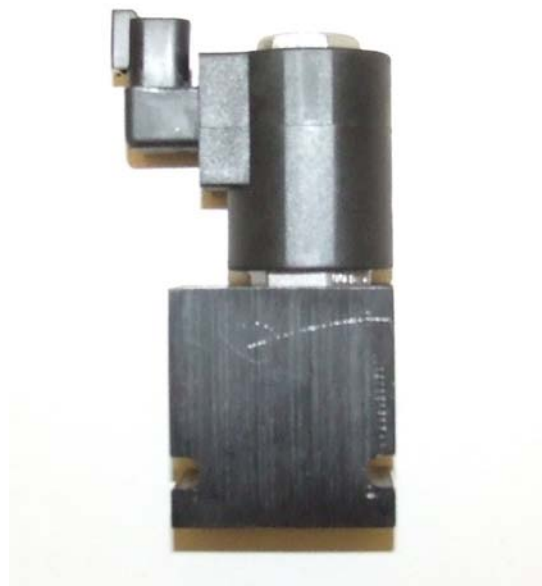
REEVING WINCH:

1. REMOVE REEVING CYLINDER EXTEND HOSE FROM VALVE SECTION. USING SUPPLIED FITTINGS PLUMB #1 PORT OF LOCK VALVE TO VALVE SECTION. PLUMB EXTEND HOSE FROM REEVING WINCH TO PORT #2.

2. RUN 2 WIRE CABLE DOWN SIDE OF HOPPER(THRU LEADING EDGE TUBE IF POSSIBLE) TO RIGHT SIDE OF QWIK-TIP LIGHT PANEL BOX, CONNECT BLACK WIRE TO BLUE WIRE, WHITE WIRE TO GROUND STUD.

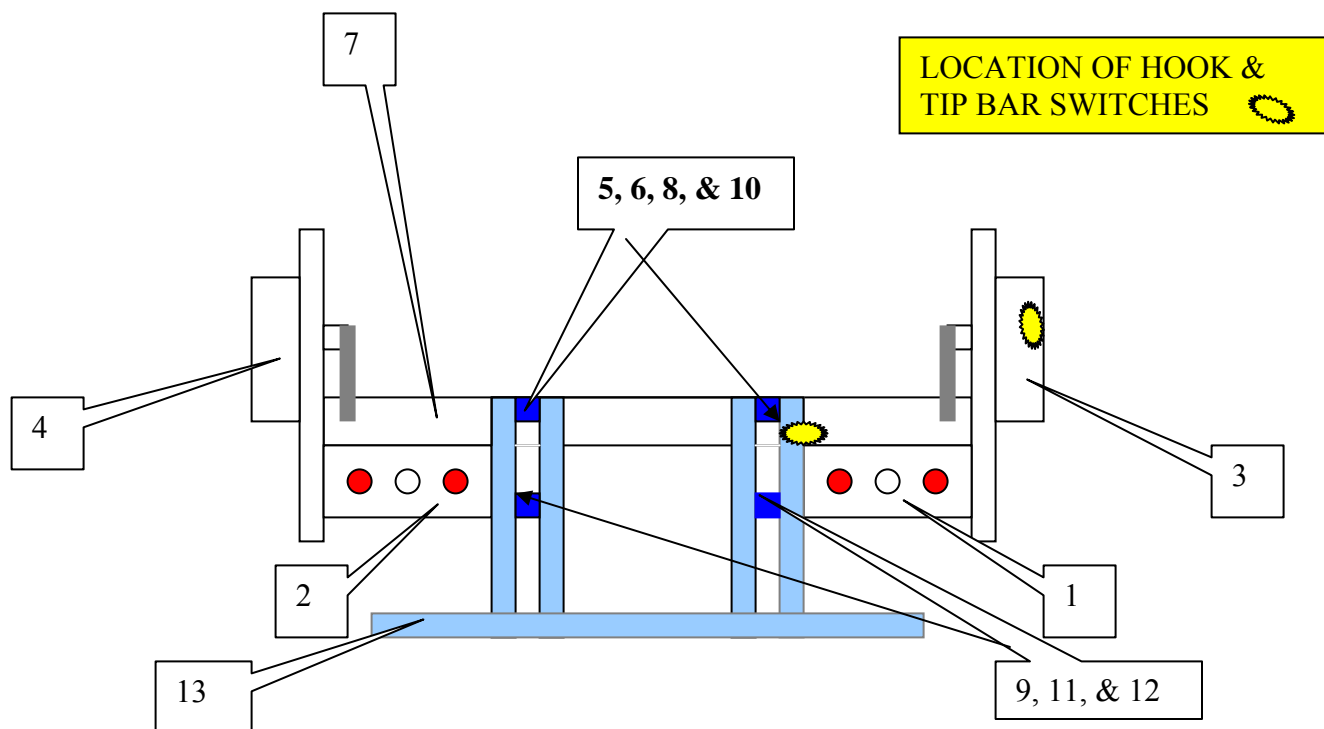
VALVE WILL ALLOW FREE FLOW OF OIL TO RETRACT CYLINDER (CABLE OUT), AND BLOCK OIL TO EXTEND CYLINDER (CABLE IN). VALVE WILL OPEN TO ALLOW CYLINDER EXTEND (CABLE IN) ONLY WHEN QWIK-TIP CONTROL IS OPERATED AND LOCKING HOOKS ARE AT THE 12: 00 O'CLOCK POSITION. CONTAINER TRUNNION WILL BE CAPTURED AT THIS POINT AND CONTAINER CAN BE SAFETLY RAISED TO THE DUMP POSITION. IT IS RECOMMENDED THAT ONCE THE CONTAINER IS IN THE RAISED POSITION THAT THE QWIK-TIP CONTROL BE OPERATED UNTILL THE LOCKING HOOKS HAVE THE TRUNNION BAR LOCKED DOWN ONTO THE LOAD SILL.

PORT # 1



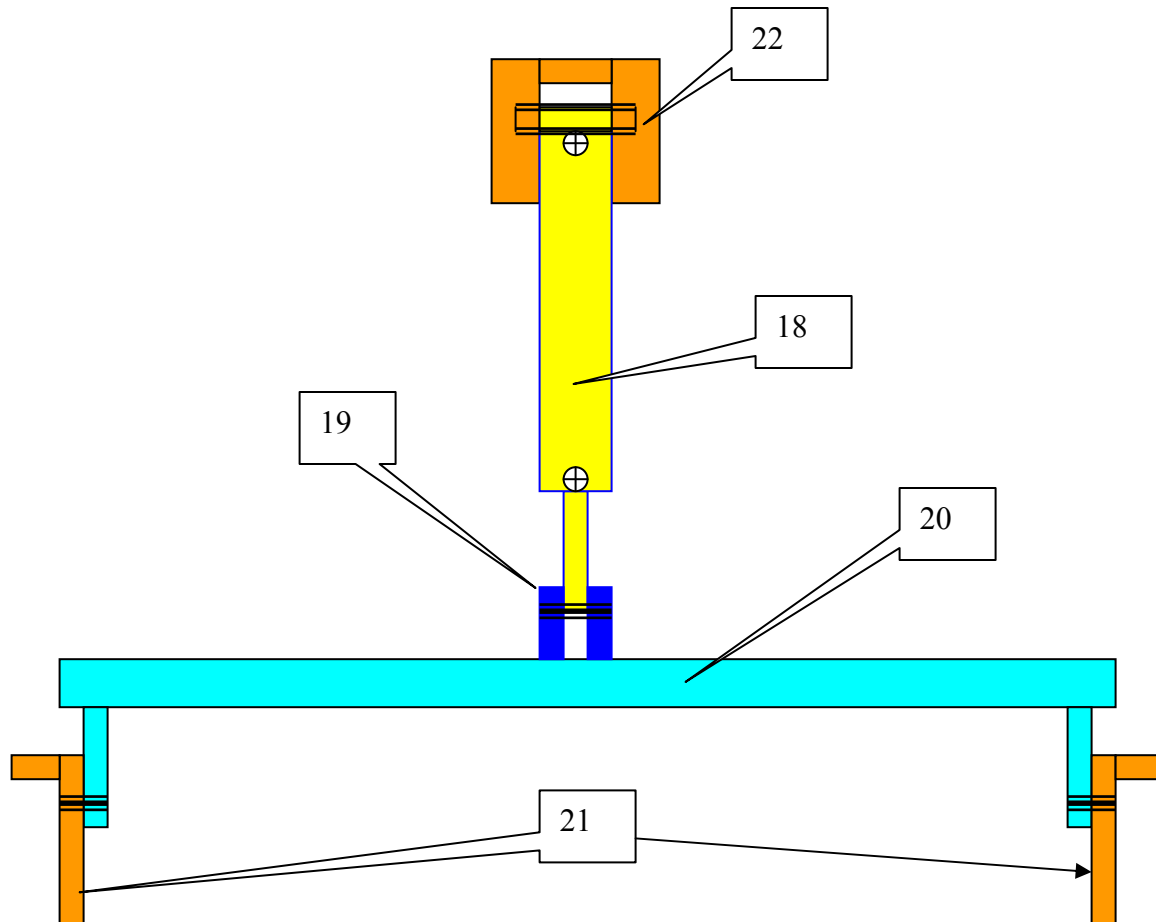
PORT #2

QWIK-TIP II BOLSTER



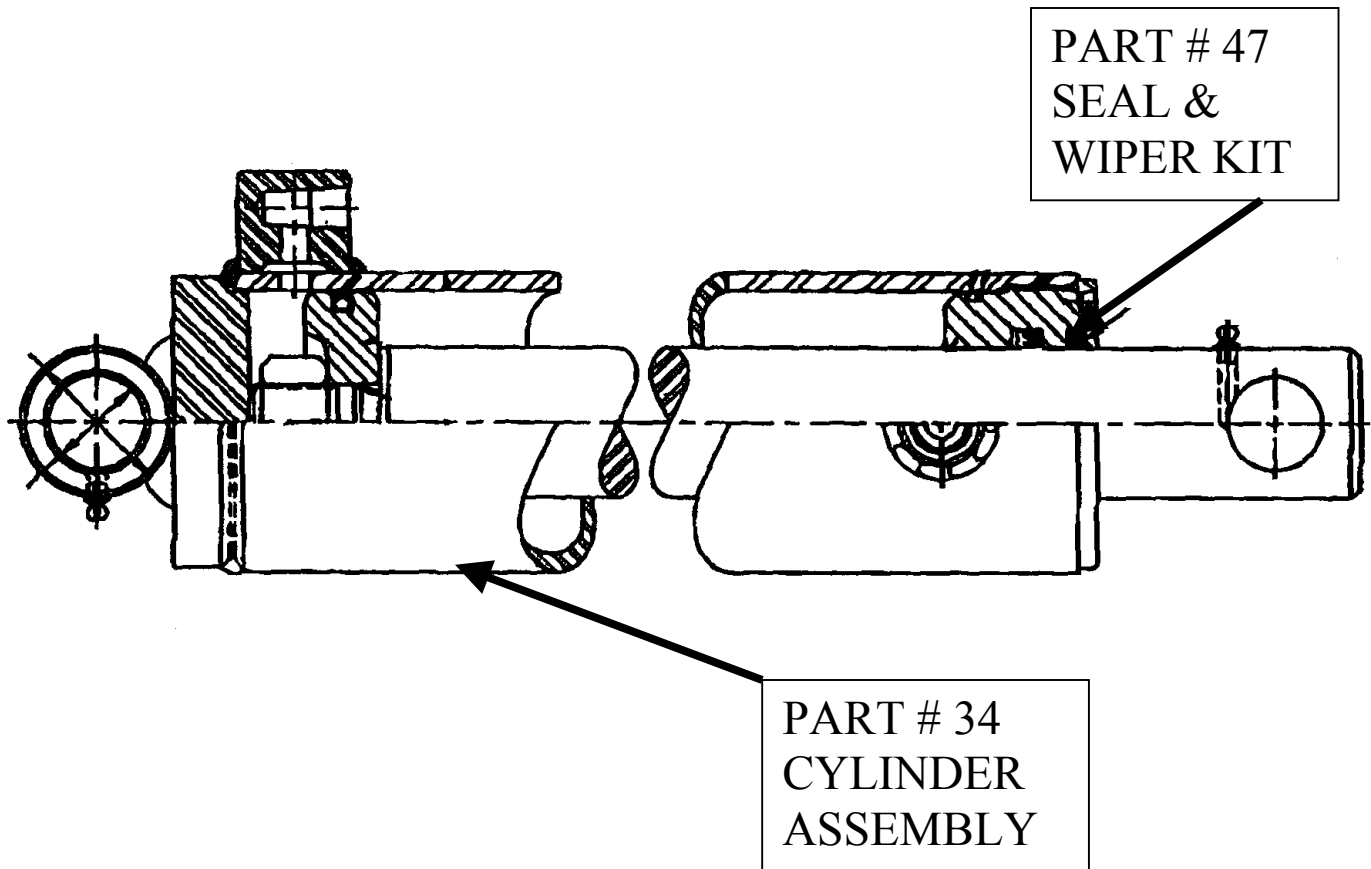
<u>NUMBERS</u>	<u>DESCRIPTION</u>
1	LIGHT BOX RIGHT SIDE
2	LIGHT BOX LEFT SIDE
3	ACTUATOR COVER RIGHT SIDE
4	ACTUATOR COVER LEFT SIDE
5	BOLSTER OUTER PIVOT BUSHINGS (2)
6	BOLSTER INNER PIVOT BUSHINGS (2)
7	BOLSTER BODY ASSEMBLY
8	BOLSTER PINS (2)
9	UPPER LIFT CYLINDER PINS (2)
10	TIP BAR TOP PIVOT BUSHINGS (2)
11	TIP BAR OUTER LEG BUSHING (2)
12	TIP BAR INNER LEG BUSHING (2)
13	TIP BAR ASSEMBLY

BANG BAR ASSEMBLY



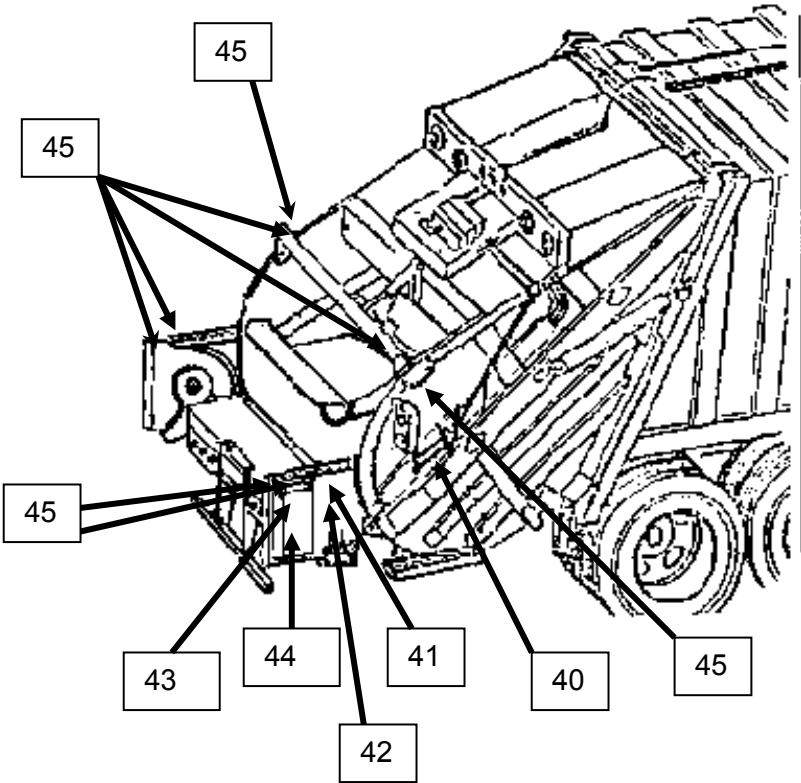
<u>NUMBERS</u>	<u>DESCRIPTION</u>
18	BANG BAR CYLINDER
19	BANG BAR ANCHOR PLATES (2)
20	BANG BAR TUBE ASSEMBLY
21	BANG BAR TUBE PIVOT PLATES (2)
22	BANG BAR UPPER CYLINDER ANCHOR

TIP BAR CYLINDER ASSEMBLY



QWIK-TIP II DECAL PLACEMENT

VERTICAL
REFLECTIVE
TAPE ON RIGHT &
LEFT ACTUATOR
COVERS



PART #	QTY	DESCRIPTION
40	1	CONTROL HANDLE DESCRIPTION
41	1	URGENT WARNING
42	1	OPERATING INSTRUCTIONS
43	1	HOOK WARNING
44	1	QWIK-TIP NAME
45	8	CAUTION KEEP HANDS CLEAR

QWIK-TIP II PARTS LIST MAY 2010

R10	PART NUMBER	DESCRIPTION	QUANTITY PER UNIT
1.	101030-2	LIGHT BOX RIGHT SIDE	1
2.	101031-2	LIGHT BOX LEFT SIDE	1
3.	101,034	ACTUATOR COVER RIGHT	1
4.	101,091	ACTUATOR COVER LEFT	1
5.	102066-2	BOLSTER OUTER PIVOT BUSHING	2
6.	102,039	BOLSTER INNER PIVOT BUSHING	2
7.	101060-2	BOLSTER ASSEMBLY	1
8.	102038-2	BOLSTER PINS	2
9.	202052-2	UPPER LIFT CYLINDER PINS	2
10.	102040-2	TIP BAR TOP PIVOT BUSHING	2
11.	202050-2	TIP BAR OUTER LEG BUSHING (AT TOP OF LIFT CYLINDER)	2
12.	202051-2	TIP BAR INNER LEG BUSHING (AT TOP OF LIFT CYLINDER)	2
13.	201061-2	TIP BAR ASSEMBLY	1
14.	302,045	LOWER LIFT CYLINDER PIN	2
15.	202,051	LOWER LIFT CYLINDER ANCHOR OUTER BUSHING	2
16.	202,050	LOWER LIFT CYLINDER ANCHOR INNER BUSHING	2
17.	301062-2	TIP BAR LIFT CYLINDER ANCHOR ASSEMBLY	1
18.	401,048	BANG BAR CYLINDER	1
19.	402,078	BANG BAR CYLINDER BRACKETS	2
20.	401,088	BANG BAR TUBE ASSEMBLY	1
21.	401,089	BANG BAR TUBE PIVOT PLATES	2
22.	402,090	BANG BAR CYLINDER UPPER MOUNT	1
23.	501,056	MANIFOLD OVER RIDE VALVE CARTRIDGE	1
24.	501,160	MANIFOLD VALVE COIL (LARGE)	1
25.	502,054	MANIFOLD CONTROL VALVE CARTRIDGE	2
26.	503,057	MANIFOLD COIL (SMALL)	2
27.	504,055	MANIFOLD FLOW CONTROL VALVE CARTRIDGE (16.2)	2
28.	501,088	MANIFOLD FLOW CONTROL VALVE CARTRIDGE (4.2)	1
29.	501,089	MANIFOLD FLOW CONTROL VALVE CARTRIDGE (16.2)	1
30.	501,063	MANIFOLD ASSEMBLY	1
31.	501,098	MANIFOLD FLOW DIVIDER SYNCHRONIZER CARTRIDGE	1
32.	702,045	ACTUATOR LEFT	1
33.	702,046	ACTUATOR RIGHT	1
34.	702,047	TIP BAR LIFT CYLINDERS	2
35.	800,105	OVERRIDE SWITCH AND CAP	1
36.	800,141	SWITCH CAM, ON RIGHT SIDE ACTUATOR	1
37.	801,102	LIMIT SWITCH ON RIGHT SIDE ACTUATOR	1
38.	801103-2	PROXIMITY SWITCH AT RIGHT SIDE TIP BAR LEG	1
39.	900,109	HEX BOLT GRADE 8 FLAT HEAD	2
40.	900,115	CONTROL ID DECAL	1
41.	901,067	URGENT WARNING	1
42.	901,068	OPERATING INSTRUCTIONS (DECAL)	1
43.	901,070	HOOK WARNING	1
44.	901,071	QWIK-TIP NAME	2
45.	907,066	CAUTION KEEP HANDS CLEAR	8
46.	902,123	HOOK KEY	2
47.	902,125	TIP BAR LIFT CYLINDER SEAL KIT	2
48.	901,063	HOOK ASSEMBLY LEFT SIDE	1
49.	901,064	HOOK ASSEMBLY RIGHT SIDE	1
50.	901,065	TAPER LOCK BUSHING, SET SCREWS	4
51.	701,071	ACTUATOR RELIEF VALVE (VENT)	2
52.	701,078	ACTUATOR PISTON CYLINDER TUBES	8
53.	701,999	ACTUATOR SEAL KIT	2
54.	701,085	ACTUATOR LONG HYDRAULIC TUBE	4
55.	701,086	CHECK VALVE HYDRAULIC TUBE	2
56.	701,087	PILOT CHECK VALVE	2
57.	120128-2	MANIFOLD HYDRAULIC TUBING	1
58.	120,131	MANIFOLD HYDRAULIC TUBING	1
59.	120132-2	MANIFOLD HYDRAULIC TUBING	1
60.	120,137	ACTUATOR HYDRAULIC TUBING (LEFT FRONT)	1
61.	120,138	ACTUATOR HYDRAULIC TUBING (LEFT REAR)	1
62.	120,139	ACTUATOR HYDRAULIC TUBING (RIGHT FRONT)	1
63.	120,140	ACTUATOR HYDRAULIC TUBING (RIGHT REAR)	1
64.	505105	OPTIONAL: WINCH LOCKOUT VALVE ASSEMBLY	1
65.	401,080	BANG BAR CYLINDER SEAL KIT	1
66.	801166-2	DIODE	1
67.	120130-2	MANIFOLD PORT (E) DOWN CYCLE TUBE	1
68.	120129-2	MANIFOLD PORT (C) UP CYCLE TUBE	1

69	600500	OPTIONAL: TIP BAR ROLLER KIT	(** INCLUDED IN KIT)	1
70	600501 **	ROLLER		2
71	600502 **	AXLE BOLT		2
72	600503 **	WASHER		4
73	600504 **	ROLLER BRACKET		2