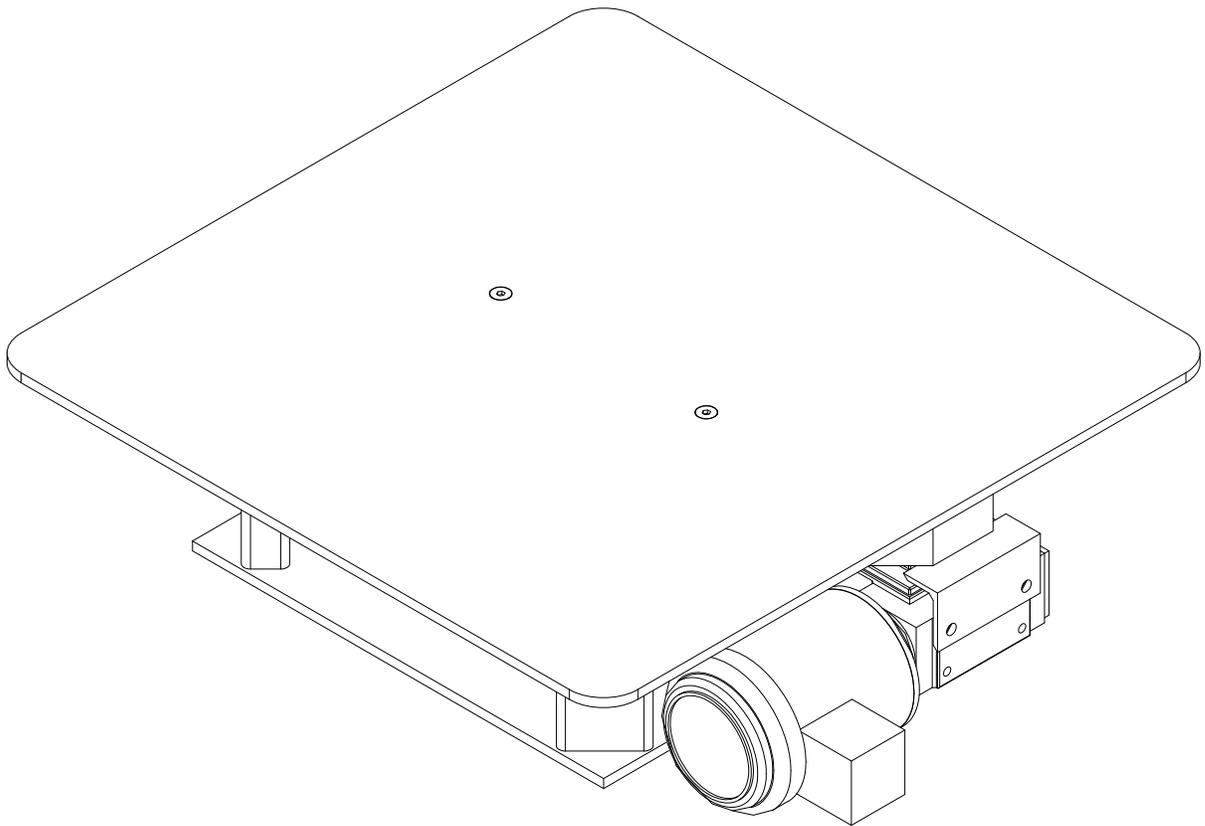


# INSTALLATION, OPERATION AND SERVICE MANUAL

## 'SRP'-'SRPR'-'SRPRB' POWERED TURNTABLE



P.O. Box 1058 • 1058 West Industrial Avenue • Guthrie, OK 73044-1058 • 888-811-9876  
• 405-282-5200 • FAX: 405-282-3302 • [www.autoquip.com](http://www.autoquip.com)

Item # 830SRP

Version 2.0  
10/2009

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## IMPORTANT

Please read and understand this manual prior to installation or operation of this equipment. Failure to do so could lead to property damage and/or serious personal injury. If any questions arise, call a local representative or *Autoquip Corporation* at 888-811-9876 or 405-282-5200.

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## PLANNED MAINTENANCE PROGRAM

A local *Autoquip* representative provides a Planned Maintenance Program (PMP) for this equipment using factory-trained personnel. Call a local representative or *Autoquip Corporation* at 1-888-811-9876 or 405-282-5200 for more information.

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# IDENTIFICATION & INSPECTION

## **IDENTIFICATION**

PLEASE HAVE THE MODEL NUMBER AND SERIAL NUMBER of the turntable, when ordering parts or requesting information or service. This information is on the nameplate attached to the turntable assembly. Replacement parts are available from a local *Autoquip* distributor.

## **INSPECTION**

Immediately upon receipt of the turntable, a visual inspection should be made to determine that it has not been damaged in transit. Any damage found must be noted on the delivery receipt. In addition to this preliminary inspection, the turntable should be carefully inspected for concealed damage. Any concealed damage found that was not noted on the delivery receipt should be reported in writing to the delivering carrier within 48 hours.

The following is a checklist that will aid you in the inspection of this turntable:

1. Examine entire unit for any signs of mishandling or damage. Pay special attention to the power unit and PUSH BUTTONS.
2. Using an overhead hoist, remove the turntable platform. Thoroughly examine all base rollers, bolts and hex nuts. Inspect the base frame and turntable, making sure they have not been damaged during transit. For units that have the controls mounted and wired inspect wiring for any signs of damage.
3. After inspection, lag the turntable base securely to the floor or lift platform. Using the overhead hoist, assemble the turntable on the base, and inspect the turntable operation.

# RESPONSIBILITY OF OWNERS/USERS

## **DEFLECTION**

It is the responsibility of the user/purchaser to advise the manufacturer where deflection may be critical to the application.

## **INSPECTION & MAINTENANCE**

The turntable shall be inspected and maintained in proper working order in accordance with Autoquip's Operation & Service Manual and with other applicable safe operating practices.

## **REMOVAL FROM SERVICE**

Any turntable not in safe operating condition such as, but not limited to, missing rollers, pins, or fasteners, any bent or cracked structural members, cut or frayed electrical wires, damaged or malfunctioning controls, detents or manual locks, etc. shall be removed from service until it is repaired to the original manufacturer's standards.

## **REPAIRS**

All repairs shall be made by qualified personnel in conformance with Autoquip's instructions.

## **OPERATORS**

Only trained personnel and authorized personnel shall be permitted to operate this turntable.

## **BEFORE OPERATION**

Before using the unit, the operator shall have:

- Read and/or had explained, and understood, the manufacturer's operating instructions and safety rules.
- Inspected the turntable for proper operation and condition. Any suspect item shall be carefully examined and a determination made by a qualified person as to whether it constitutes a hazard. All items not in conformance with Autoquip's specification shall be corrected before further use of the turntable.

## **DURING OPERATION**

The equipment shall only be used in accordance with Autoquip's Operation & Service Manual.

- Do not overload the turntable.
- Ensure that all safety devices are operational and in place.

## **MODIFICATIONS OR ALTERATIONS**

Modifications or alterations to industrial turntable shall be made only with written permission of Autoquip. Autoquip does not foresee and does not anticipate unauthorized modifications, and these changes or alterations are grounds for voiding all warranties.

# SAFETY SIGNAL WORDS

## **SAFETY ALERTS (Required Reading!)**

The following SAFETY ALERTS are intended to create awareness of owners, operators, and maintenance personnel of the potential safety hazards and the steps that must be taken to avoid accidents. These same alerts are inserted throughout this manual to identify specific hazards that may endanger uninformed personnel. Identification of every conceivable hazardous situation is impossible. Therefore, all personnel have the responsibility to diligently exercise safe practices whenever exposed to this equipment.

---



### **DANGER!**

Identifies a hazardous situation, which, if not avoided, will result in death or severe personal injury.

---



### **WARNING!**

Identifies a hazardous situation, which, if not avoided, could result in death or serious personal injury.

---



### **CAUTION!**

Identifies a hazardous situation, which, if not avoided, may result in minor or moderate personal injury.

---

### **NOTICE!**

Indicates a potentially hazardous situation, which, if not avoided, may result in property or equipment damage.

# SAFETY PRACTICES

**Read and understand this manual and all labels prior to operating or servicing the turntable. All labels are provided in accordance with ANSI Z535.4.**

---



**DANGER!**

The turntable base **MUST** be lagged securely to the floor or sufficient structure, or attached to a lift platform (when applicable) before operating the turntable. An unsecured base could become unstable and cause the load to shift unexpectedly resulting in serious personal injury or death.

---



**DANGER!**

**HIGH VOLTAGE!!** Disconnect and/or lock out the electrical supply to the power unit per OSHA regulations prior to any maintenance being performed.

---



**DANGER!**

To avoid personal injury or death, do not use the unit in or around an area where flammable liquids or vapors may be present.

---



**DANGER!**

To avoid personal injury or death, do not use the unit near water. If electrical parts become wet, electrical shock may occur.

---



**DANGER!**

Extending the platform length or width beyond the factory limit could cause the turntable to tip and the load to shift unexpectedly, resulting in personal injury or death.

---

# SAFETY PRACTICES



## **WARNING!**

NEVER stand, sit, or ride on the turntable! A rotating work surface may shift position unexpectedly and cause serious personal injury.

---



## **WARNING!**

All warning and information decals should be in place as outlined in the “Label Identification” section. If decals are missing or damaged, they should be replaced with new decals. Contact *Autoquip* for replacements.

---



## **WARNING!**

Do not install the turntable in a pit unless it has beveled-toe guards or other approved toe protection. A shear point can exist which can cause severe personal injury.

---



## **WARNING!**

Load the turntable top as evenly as possible to prevent overloading. Excessive eccentric loading may overstress the turntable structure and cause the load to become unstable, possibly resulting in serious personal injury.

# SAFETY PRACTICES



## **WARNING!**

To avoid personal injury, stand clear of the unit when the turntable is in motion.

---



## **WARNING!**

Familiarize yourself with the operator's manual before operating this equipment.

---

## **NOTICE**

Do not continue to depress the "CW" or "CCW" switch if the platform does not turn or if the platform is jammed. To do so may result in permanent damage to the motor or speed reducer.

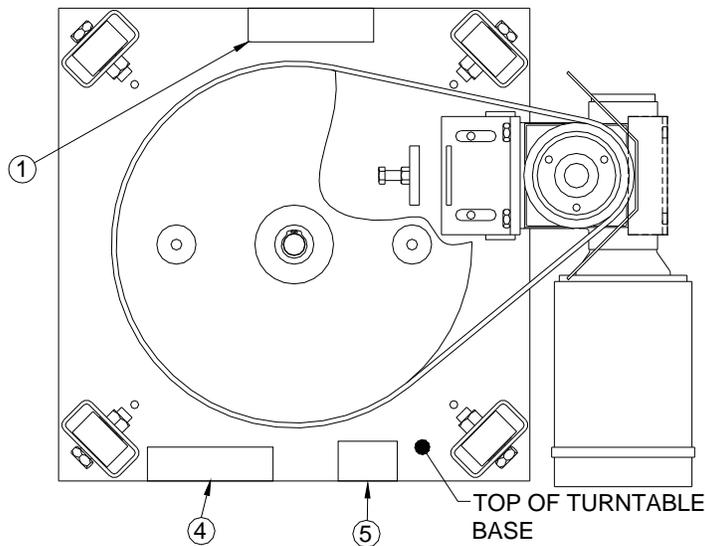
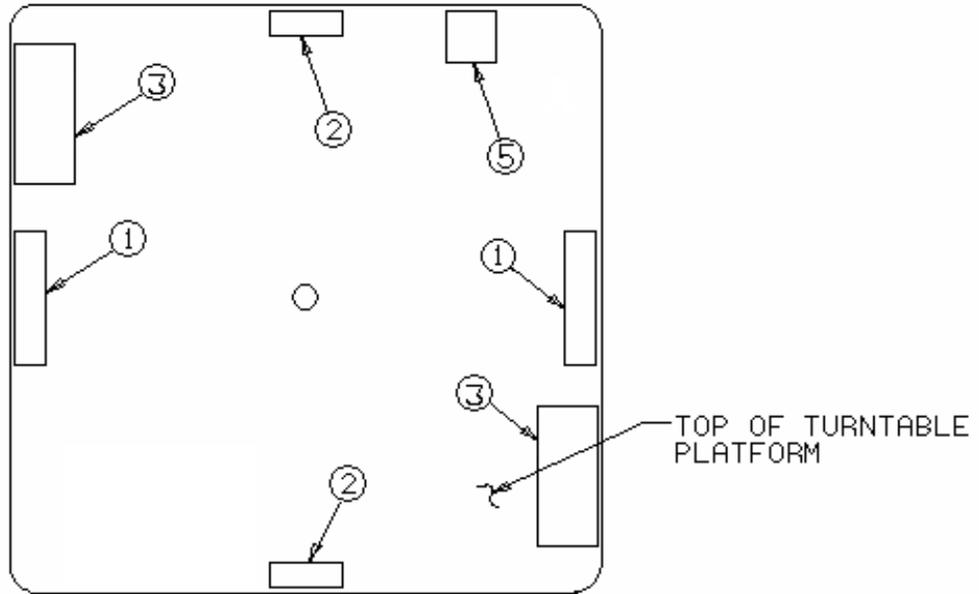
---

## **NOTICE**

Do not operate the turntable if the torque limiter is out of adjustment.

---

# LABEL IDENTIFICATION



**Figure 1: Decal Placement Diagram**

| <b>POWERED Turntable Decals</b> |     |  |          |
|---------------------------------|-----|--|----------|
| Item No.                        | Qty | Description                                    | Part No. |
| 1                               | 3   | DECAL, CAPACITY : x,000 POUNDS; (2-1/2" x 11") | 36401586 |
| 2                               | 2   | DECAL, WARNING-NO RIDERS; (2" x 6")            | 36403707 |
| 3                               | 2   | AUTOQUIP LOGO (3" x 7")                        | 36403220 |
| 4                               | 1   | AUTOQUIP Serial Number Nameplate (2" x 8")     | 36401560 |
| 5                               | 2   | WIRE CODE Identification (4" x 4")             | 36403343 |

# LABEL IDENTIFICATION

Note: Labels shown here are not actual size, see Figure 1 for location of label on Turntable.



Figure 2: Capacity Decal (36401586)



Figure 3: WARNING-NO RIDERS Decal (36403707)

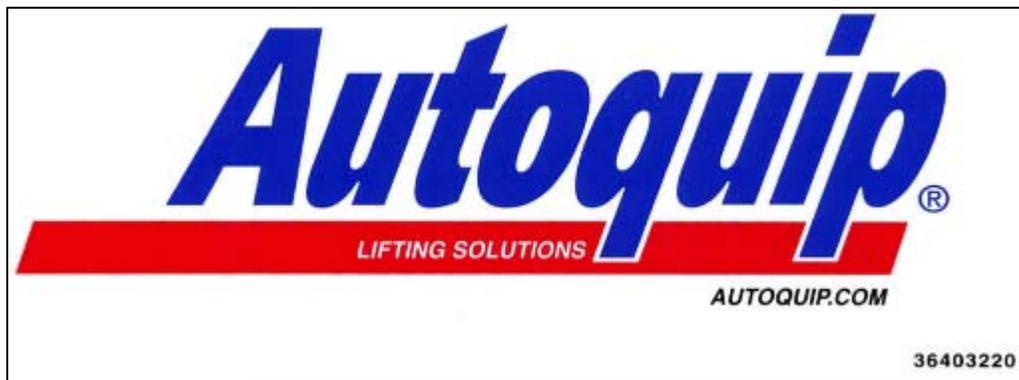
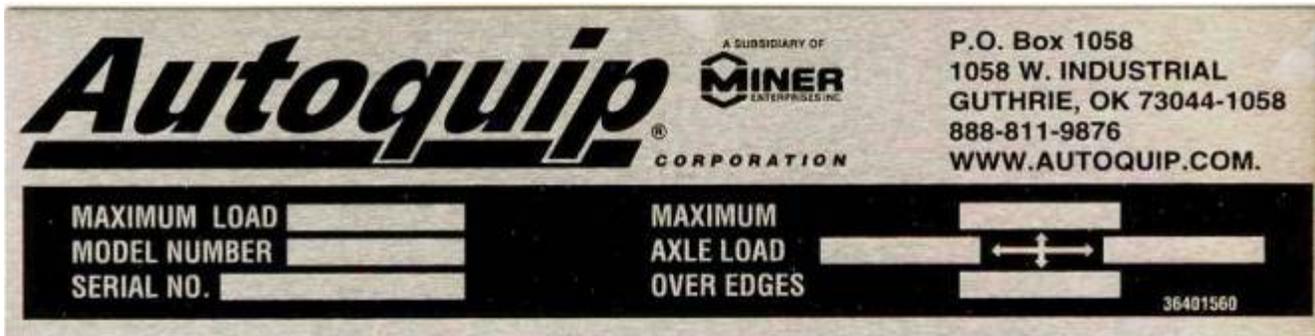


Figure 4: AUTOQUIP LOGO Decal (36403220)

# LABEL IDENTIFICATION

**Note: Labels shown here are not actual size, see Figure 1 for location of label on Turntable.**



**Figure 5: Serial Number Nameplate (36401560)**

|   |                  |              |              |
|---|------------------|--------------|--------------|
| <b>JOB NO.</b>  | <b>MODEL NO.</b> |              |              |
| <b>MOTOR</b>  | <b>VOLTS</b>     | <b>CYCLE</b> | <b>PHASE</b> |
| <b>CONTROL</b>  | <b>VOLTS</b>     |              |              |
| <b>WIRE CODE</b>  |                  |              |              |
| BLACK –   |                  |              |              |
| WHITE –   |                  |              |              |
| RED –   |                  |              |              |
| ORANGE –  |                  |              |              |
| BLUE –  |                  |              |              |
| GREEN –   |                  |              |              |
| <small>TO OBTAIN PROPER ROTATION ON 3 PHASE UNITS-RUN PUMP MOTOR 5 TO 10 SECONDS ONLY- IF LIFT DOES NOT RISE CHANGE ROTATION.</small> |                  |              |              |
| <small>PN 364-0334-3</small>  |                  |              |              |

**Figure 6: WIRE CODE Identification Decal (36403343)**

# TURNTABLE SPECIFICATIONS

## 'SRP' TURNTABLE -- "CHAIN & SPROCKET DRIVE"

| Standard Model | Rotating Capacity | Platform Dimensions | Base Dimensions | Lowered Height | Speed (RPM) | Shipping Weight |
|----------------|-------------------|---------------------|-----------------|----------------|-------------|-----------------|
| SRP-36-25      | 2,500             | 36 x 36             | 24 x 24         | 10             | 3.50        | 385             |
| SRP-36-40      | 4,000             | 36 x 36             | 24 x 24         | 10             | 3.50        | 385             |
| SRP-36-60      | 6,000             | 36 x 36             | 24 x 24         | 10             | 3.50        | 385             |
| SRP-42-25      | 2,500             | 42 x 42             | 24 x 24         | 10             | 3.50        | 450             |
| SRP-42-40      | 4,000             | 42 x 42             | 24 x 24         | 10             | 3.50        | 450             |
| SRP-42-60      | 6,000             | 42 x 42             | 24 x 24         | 10             | 3.50        | 450             |
| SRP-4248-25    | 2,500             | 42 x 48             | 24 x 24         | 10             | 3.50        | 485             |
| SRP-4248-40    | 4,000             | 42 x 48             | 24 x 24         | 10             | 3.50        | 485             |
| SRP-4248-60    | 6,000             | 42 x 48             | 24 x 24         | 10             | 3.50        | 485             |
| SRP-48-25      | 2,500             | 48 x 48             | 24 x 24         | 10             | 3.50        | 525             |
| SRP-48-40      | 4,000             | 48 x 48             | 24 x 24         | 10             | 3.50        | 525             |
| SRP-48-60      | 6,000             | 48 x 48             | 24 x 24         | 10             | 3.50        | 525             |

## 'SRPR' ROUND TURNTABLE -- "CHAIN & SPROCKET DRIVE"

| Standard Model | Rotating Capacity | Platform Diameter | Base Dimensions | Lowered Height | Speed (RPM) | Shipping Weight |
|----------------|-------------------|-------------------|-----------------|----------------|-------------|-----------------|
| SRPR-36-25     | 2,500             | 36                | 24 x 24         | 10             | 3.50        | 375             |
| SRPR-36-40     | 4,000             | 36                | 24 x 24         | 10             | 3.50        | 375             |
| SRPR-36-60     | 6,000             | 36                | 24 x 24         | 10             | 3.50        | 375             |
| SRPR-42-25     | 2,500             | 42                | 24 x 24         | 10             | 3.50        | 440             |
| SRPR-42-40     | 4,000             | 42                | 24 x 24         | 10             | 3.50        | 440             |
| SRPR-42-60     | 6,000             | 42                | 24 x 24         | 10             | 3.50        | 440             |
| SRPR-48-25     | 2,500             | 48                | 24 x 24         | 10             | 3.50        | 520             |
| SRPR-48-40     | 4,000             | 48                | 24 x 24         | 10             | 3.50        | 520             |
| SRPR-48-60     | 6,000             | 48                | 24 x 24         | 10             | 3.50        | 520             |

# SPECIFICATIONS

## 'SRPRB' TURNTABLE -- "RING BEARING DRIVE"

| Standard Model | Rotating Capacity | Platform Dimensions | Base Dimensions | Lowered Height | Speed (RPM) | Shipping Weight |
|----------------|-------------------|---------------------|-----------------|----------------|-------------|-----------------|
| SRPRB-36-25    | 2,500             | 36 x 36             | 24 x 24         | 10             | 1.00        | 650             |
| SRPRB-36-40    | 4,000             | 36 x 36             | 24 x 24         | 10             | 1.00        | 680             |
| SRPRB-36-60    | 6,000             | 36 x 36             | 24 x 24         | 10             | 1.00        | 705             |
| SRPRB-42-25    | 2,500             | 42 x 42             | 24 x 24         | 10             | 1.00        | 675             |
| SRPRB-42-40    | 4,000             | 42 x 42             | 24 x 24         | 10             | 1.00        | 705             |
| SRPRB-42-60    | 6,000             | 42 x 42             | 24 x 24         | 10             | 1.00        | 730             |
| SRPRB-42-48-25 | 2,500             | 42 x 48             | 24 x 24         | 10             | 1.00        | 700             |
| SRPRB-42-48-40 | 4,000             | 42 x 48             | 24 x 24         | 10             | 1.00        | 730             |
| SRPRB-42-48-60 | 6,000             | 42 x 48             | 24 x 24         | 10             | 1.00        | 755             |
| SRPRB-48-25    | 2,500             | 48 x 48             | 24 x 24         | 10             | 1.00        | 775             |
| SRPRB-48-40    | 4,000             | 48 x 48             | 24 x 24         | 10             | 1.00        | 1000            |
| SRPRB-48-60    | 6,000             | 48 x 48             | 24 x 24         | 10             | 1.00        | 1025            |

### **LOAD CAPACITY**

1. The load capacity rating is labeled on the top of the turntable platform.



### **WARNING!**

**The Turntable should not be overloaded beyond the established Capacity as damage and/or personal injury may result.**

2. When attaching the turntables to other pieces of equipment such as scissors lifts, remember that the rated capacity of the turntable must not exceed the rated capacity of the lift, tilter, etc.

# SPECIFICATIONS

## **UNBALANCED LOADING — CHAIN & SPROCKET MODELS:**

1. All standard turntable capacities assume that the load on the turntable is uniformly distributed and that the center of gravity of the load is placed within 10" of the center pin.
2. Standard turntables are not designed to withstand true edge or axle loading. If edge or axle loading is anticipated, additional turntable support rollers must be located at the turntable edges for this design. Contact Autoquip Service Department for questions on turntable loading.



## **WARNING!**

**Load the turntable top as evenly as possible to prevent overloading. Excessive eccentric loading may overstress the turntable structure and cause the load to become unstable, possibly resulting in serious personal injury.**

## **UNBALANCED LOADING — RING BEARING MODELS:**

1. Ring bearing turntables are designed to withstand eccentric loading. Do not, however, exceed the edge load rating stamped on the nameplate.
2. Though the platform is designed to withstand offset loading, ensure that the turntable base is rigidly attached to its mounting surface to prevent tipping of the load.

# INSTALLATION INSTRUCTIONS

## FLOOR INSTALLATION

1. Make sure floor is clean and level before starting.
2. Place the turntable in the installation area.
3. If the permanent electrical work is not complete, some means of temporary lines with an on-off device for the power supply should be set up for testing purposes.



### **CAUTION!**

**When lifting the turntable, do not attempt to pick it up by the platform; it is attached in the center only and could be damaged. Pick up the turntable from under the base frame ONLY using a strap sling.**

4. Make temporary electrical connections. Operate the turntable to ensure that rotation is in the proper direction.
5. If needed, shim to the desired height. DO NOT “spot” shim. Shim the full length of the base frame. This will prevent the plate from bending under an exceptionally heavy load.



### **DANGER!**

**HIGH VOLTAGE!! – Disconnect and/or lock out the electrical supply to the power unit per OSHA regulations prior to any installation or maintenance being performed.**

6. The base plate of the turntable has pre-drilled holes for lagging it securely to the floor. Mark the holes, drill, and install with anchors. Turntables with oversize platforms have minimum pull out requirements of 2,000 lbs. for each anchor.
7. Make permanent electrical connections and operate the turntable through a few cycles.

# INSTALLATION INSTRUCTIONS

## PIT INSTALLATION -- MODELS WITH BEVEL TOE GUARDS MOUNTED ON SCISSOR LIFT or MOUNTED TO PIT FLOOR.



### **WARNING!**

**Do not install the turntable in a pit unless it has a bevel toe guard or other approved toe protection. A shear point can exist which can cause severe injury to the foot.**

1. Check the pit dimensions. Length and width should be 2" longer (minimum) and 2" wider (minimum) than the turntable or lift platform, whichever is greater.
2. Check the conduit chase entrance into the pit. The conduit diameter should be 3". If the permanent electrical work is not complete, some means of temporary lines with an on-off device for the motor control should be set up for testing purposes.
3. Make sure the pit floor is clean and level before starting. Lower the Lift and Turntable into the pit and check for proper height. The turntable should be flush with the pit angle framing. If needed, shim the LIFT BASE FRAME to the desired height. DO NOT "spot" shim. Shim the ALL (4) Sides of the Lift base frame. This will prevent the Lift Base from bending under an exceptionally heavy load.



### **CAUTION!**

**When lifting the turntable, do not attempt to pick it up by the platform; it is attached only in the center and could be damaged. Pick up the turntable from under the base frame ONLY using a strap sling.**

4. Make temporary electrical connections. Operate the turntable to ensure that rotation is in the proper direction.

# INSTALLATION INSTRUCTIONS

## PIT INSTALLATION -- continued



### **DANGER!**

**HIGH VOLTAGE!! – Disconnect and/or lock out the electrical supply to the power unit per OSHA regulations prior to any installation or maintenance being performed.**

5. The base frame of the turntable has pre-drilled holes for lagging it securely to the floor. Mark holes, drill, and install with anchors. Turntables with oversize platforms have minimum pull out requirements of 2,000 lbs. for each anchor.
6. Make the permanent electrical connections and operate the turntable through a few cycles.



### **WARNING!**

**The turntable base MUST be attached securely to the lift platform before operating the turntable.**

**NOTE:** Turntables that have platform sizes larger than the lifts to which they are attached must have toe protection, such as beveled-toe guards.

7. A home position limit switch is mounted to the turntable base and wired to the lift controller. This will ensure that the turntable (in **home position**) is positioned exactly over the pit opening before it is lowered into the pit. **Home position for the turntable allows 1” clearance between each side of the turntable and the pit curb angle.**
8. Lower the lift & turntable combination into the pit and check for proper lowered height.
9. Make the permanent electrical connections and operate the combination through a few cycles. Check to ensure that the lift will not lower until the turntable platform is in **home position** (for four-sided platform).

## **CLEAN UP**

1. Clean up any debris from the area. A clean installation makes a good impression and creates a much safer environment!
2. Touch-up paint is available from *Autoquip* for repair of damaged paint surfaces.

# OPERATING INSTRUCTIONS



## **WARNING!**

All **DANGER**, **WARNING**, and **CAUTION** labels and informational decals and plates must be intact and in place on the unit. Contact an Autoquip representative if labels are missing or damaged. See “Label Identification” section of this manual.



## **WARNING!**

Familiarize yourself with this operator’s manual before operating this equipment.



## **WARNING!**

**NEVER** stand, sit or ride on the turntable! Personal injury could result.



## **WARNING!**

Personnel should always maintain a safe operating distance of at least 36” away from any side of the turntable, any time the turntable is operated.

1. Press the “CW” button to cause a clockwise rotation of the turntable. When the “CW” button is pressed, the coil of the motor starter will close the line contact permitting electrical power to be applied to the motor. The rotating motor shaft is mechanically coupled to a gear reducer.

### **CHAIN AND SPROCKET DESIGN**

The gear reducer has an output shaft keyed to a drive sprocket. A drive chain connects the drive sprocket to a large diameter sprocket attached to the underside of the turntable platform. As the motor rotates, the output shaft turns and rotates the platform in the clockwise direction.

# OPERATING INSTRUCTIONS

## **RING BEARING DESIGN**

1. The gear reducer output shaft is keyed to a custom-fit gear that meshes with and drives the drive ring of the ring bearing. The drive ring is bolted to and rotates the turntable platform in the clockwise direction.
2. Press the “CCW” button to cause a counter-clockwise rotation of the turntable. Pressing the “CCW” button will cause the reversing motor starter to engage and start the motor. The platform will rotate counter-clockwise.
3. Normally, the platform will continue to rotate as long as the buttons are pushed.

# ROUTINE MAINTENANCE



## WARNING!

**Before maintaining the turntable, read & follow the recommended safety practices in the Safety Practices section. Failure to follow these safety practices could result in death or serious injury.**

Powered turntables normally will require very little maintenance. However, a routine maintenance program could prevent costly replacement of parts and/or downtime.

### **DYNAMIC INSPECTION (Turntable running)**

1. Check any unusual noise when it occurs. Determine the source and correct as necessary.
2. Check for chain tightness and lubricate every 90 days (chain & sprocket models).



## DANGER!

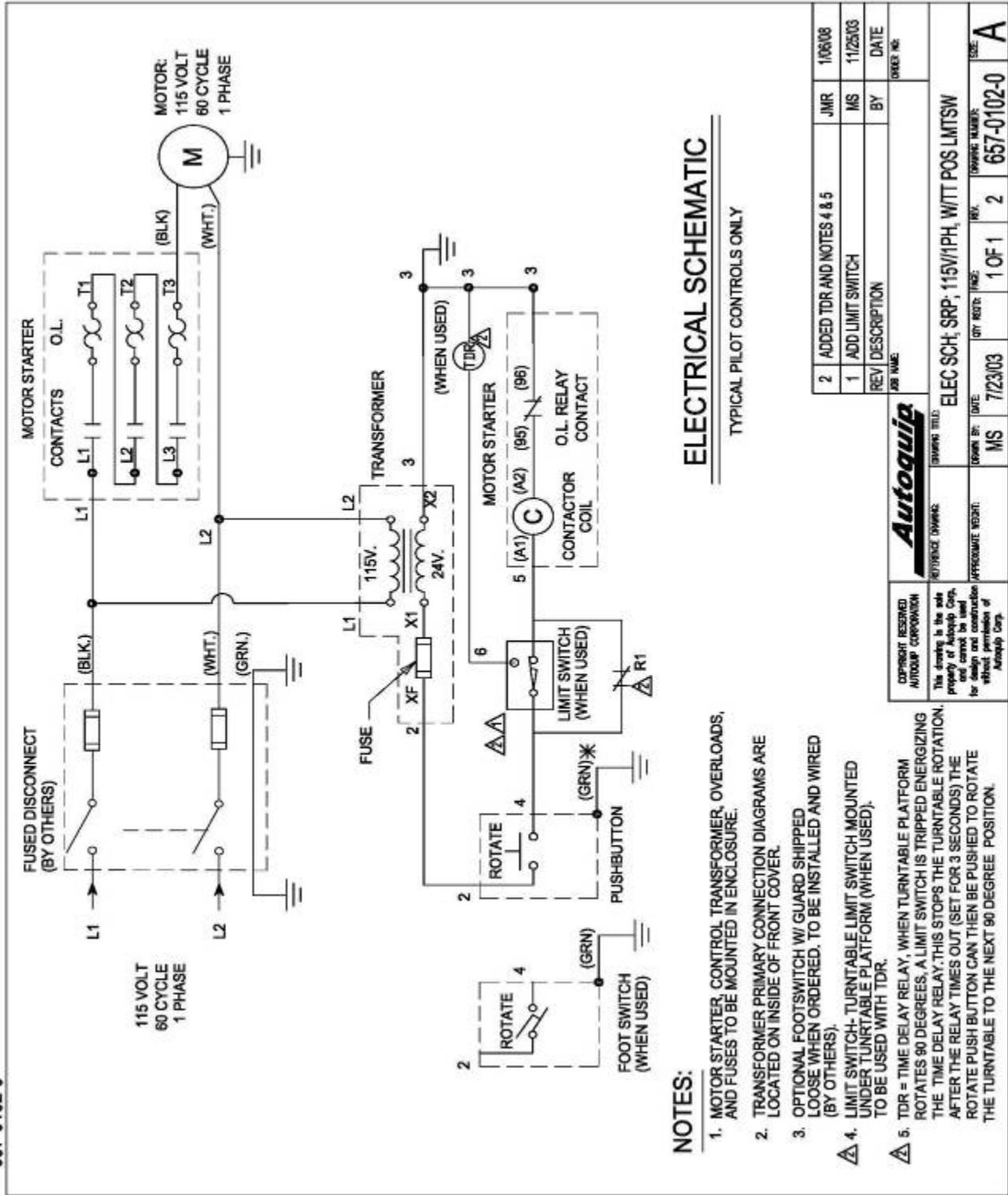
**HIGH VOLTAGE!! – Disconnect and/or lock out the electrical supply to the power unit per OSHA regulations prior to any installation or maintenance being performed.**

### **ROUTINE STATIC INSPECTION**

1. Check for unusual wear on the rollers. Make sure they are free to rotate and that there is desirable clearance between the rollers and the platform.
2. Check that all platform retention hardware is in place and secure.
3. Check broken or cracked welds.
4. Check that all lag down anchors are in place and secure.
5. Check that the chain connections are secure and that all keepers are in place.
6. Check that all electrical connections and wiring are undamaged and secure.
7. Check the oil level every 90 days in the: gear reducer & air lubricator and add appropriate oil when needed. Contact Autoquip Service Department for oil information.
8. Check for unusual wear between worm gear & drive shaft (Ring Bearing Models).
9. Grease Ring Bearing and check oil level in gear reducer every 90 days. Contact Autoquip Service Department for grease & oil information.

# GENERAL MAINTENANCE

657-0102-0



**NOTES:**

1. MOTOR STARTER, CONTROL TRANSFORMER, OVERLOADS, AND FUSES TO BE MOUNTED IN ENCLOSURE.
2. TRANSFORMER PRIMARY CONNECTION DIAGRAMS ARE LOCATED ON INSIDE OF FRONT COVER.
3. OPTIONAL FOOTSWITCH W/ GUARD SHIPPED LOOSE WHEN ORDERED. TO BE INSTALLED AND WIRED (BY OTHERS).
4. LIMIT SWITCH- TURNABLE LIMIT SWITCH MOUNTED UNDER TURNABLE PLATFORM (WHEN USED). TO BE USED WITH TDR.
5. TDR = TIME DELAY RELAY. WHEN TURNABLE PLATFORM ROTATES 90 DEGREES, A LIMIT SWITCH IS TRIPPED ENERGIZING THE TIME DELAY RELAY. THIS STOPS THE TURNABLE ROTATION. AFTER THE RELAY TIMES OUT (SET FOR 3 SECONDS) THE ROTATE PUSH BUTTON CAN THEN BE PUSHED TO ROTATE THE TURNABLE TO THE NEXT 90 DEGREE POSITION.

**ELECTRICAL SCHEMATIC**

TYPICAL PILOT CONTROLS ONLY

|           |                           |           |          |
|-----------|---------------------------|-----------|----------|
| 2         | ADDED TDR AND NOTES 4 & 5 | JMR       | 1/06/08  |
| 1         | ADD LIMIT SWITCH          | MS        | 11/25/03 |
| REV       | DESCRIPTION               | BY        | DATE     |
| JOB NAME: |                           | ORDER NO: |          |



|                     |                     |   |      |            |
|---------------------|---------------------|---|------|------------|
| DESIGNED BY:        | DATE:               | QTY:                                    | REV: | ISSUE:     |
| MS                  | 7/23/03             | 1 OF 1                                  | 2    | 657-0102-0 |
| APPROXIMATE WEIGHT: | APPROXIMATE HEIGHT: | DRAWING NUMBER:                         |      |            |
|                     |                     | ELEC SCH; SRP; 115V/1PH; W/TT POS LMTSW |      |            |

Figure 7: SRP Electrical Schematic 115V/1PHASE / CW Rotation w/ LIMIT SWITCHES



# GENERAL MAINTENANCE

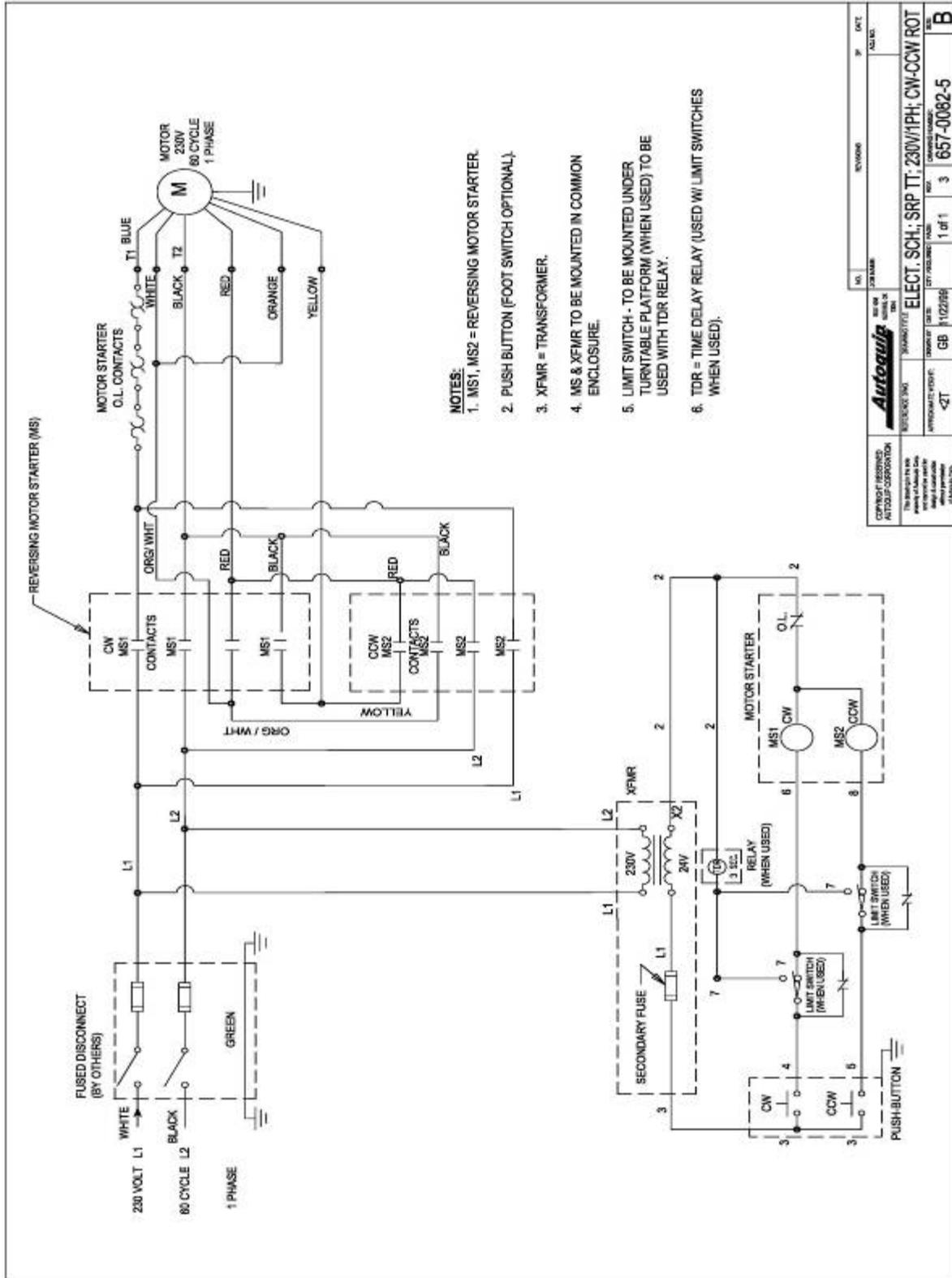
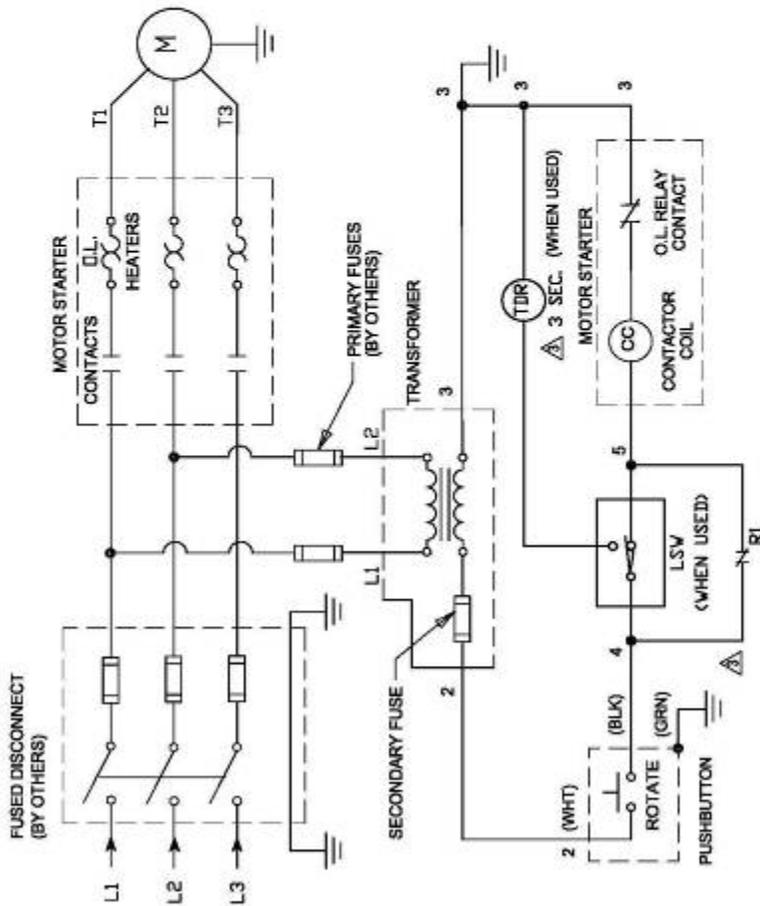


Figure 9: SRP Electrical Schematic: 230V/1PHASE / CW-CCW Rotation w/ LIMIT SWITCHES

# GENERAL MAINTENANCE

657-0002-0

- NOTES:
- SEE ASSEMBLY AND/OR SPEC. SHEET FOR SPECIFIC VOLTAGES OR CONTROLS SUPPLIED AND CONFIGURED.
  - TRANSFORMER PRIMARY CONNECTION DIAGRAMS ARE LOCATED ON INSIDE OF FRONT COVER OR ON DEVICE.
  - PUSH BUTTON SHOWN AS TYPICAL PILOT DEVICE.
  - LSW = LIMIT SWITCH MOUNTED UNDER TURNTABLE PLATFORM, (WHEN USED).
  - TDR = TIME DELAY RELAY, WHEN TURNTABLE PLATFORM ROTATES 90 DEGREES, A LIMIT SWITCH IS TRIPPED ENERGIZING THE TIME DELAY RELAY. THIS STOPS THE TURNTABLE ROTATION. AFTER THE RELAY TIMES OUT (SET FOR 3 SECONDS) THE ROTATE PUSH BUTTON CAN THEN BE PUSHED TO ROTATE THE TURNTABLE TO THE NEXT 90 DEGREE POSITION.



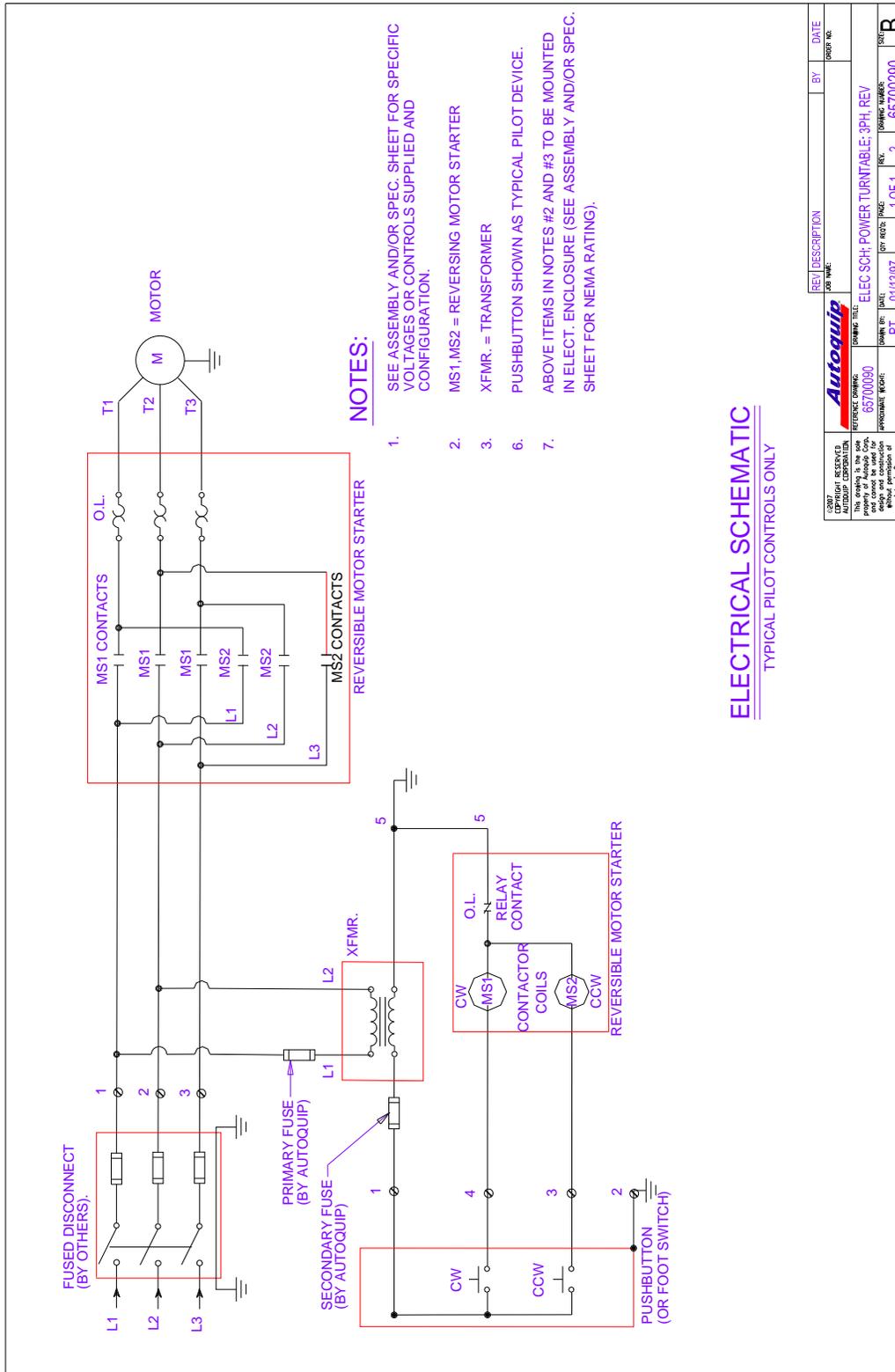
|          |                              |           |          |
|----------|------------------------------|-----------|----------|
| 3        | ADDED LIMIT SWITCH AND RELAY | JP        | 08/03/05 |
| 2        | REDRAWN IN AUTOCAD           | JZ        | 10/5/01  |
| 1        | REDRAWN WINNEW TITLEBLOCK    | DWL       | 2/1/97   |
| REV      | DESCRIPTION                  | BY        | DATE     |
| JOB NAME |                              | DRAFT NO. |          |

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|   | DATE:<br>DWL 6/26/95                                      |
|   | BY:<br>JP   |
|   | DATE:<br>08/03/05   |

Figure 10: SRP Electrical Schematic 208-230-460V/3PHASE / CW Rotation  
w/ LIMIT SWITCH

# GENERAL MAINTENANCE



| REV | DESCRIPTION | BY     | DATE |
|-----|-------------|--------|------|
| RT  | 0113/97     | 1 OF 1 | 2    |

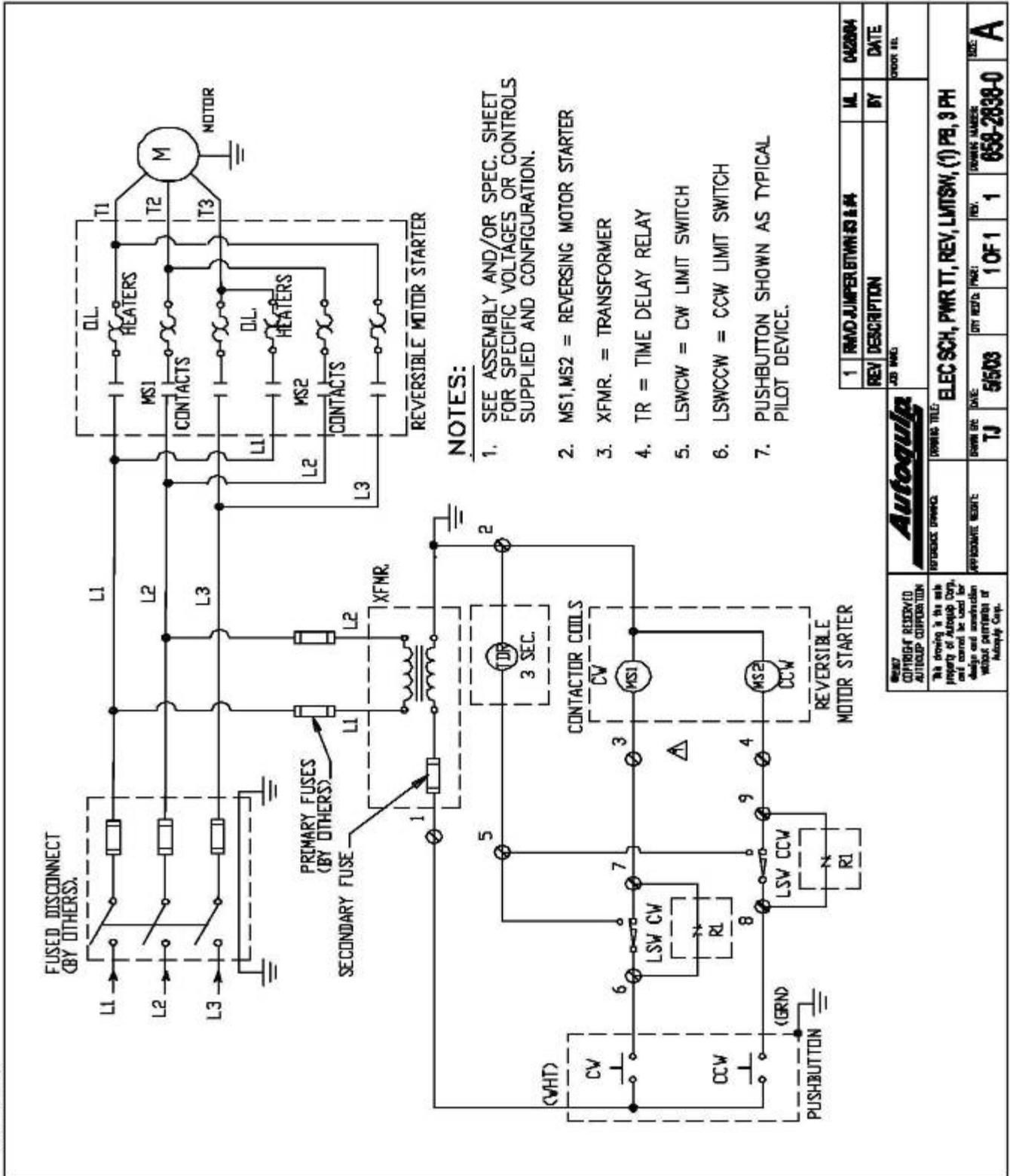
  

|   |   |                       |                  |
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|---|---|-----------------------|------------------|

Figure 11: SRP Electrical Schematic 208-230-460V/3PHASE  
CW-CCW Rotation & No Limit Switches.

# GENERAL MAINTENANCE

658-2838-0



|                    |  |        |                |
|--------------------|--|--------|----------------|
| 1                  | REV DESCRIPTION                              | ML     | DATE           |
|                    | JOB NO.                                      | BY     | WORK REL.      |
| <b>Autoquip</b>    |  |        |                |
| REFERENCE DRAWING  | WORKING TITLE                                |        |                |
|                    | ELEC SCH, PWR TT, REV, LIMITSW, (1) PB, 3 PH |        |                |
| APPROPRIATE REVISE | DATE   | REV.   | DRAWING NUMBER |
| TJ                 | 5/5/03                                       | 1 OF 1 | 658-2838-0     |
|                    |  |        | REV. A         |

Figure 12: SRP Electrical Schematic 208-230-460V/3PHASE CW-CCW Rotation w/ Detent LIMIT SWITCHES





# GENERAL MAINTENANCE

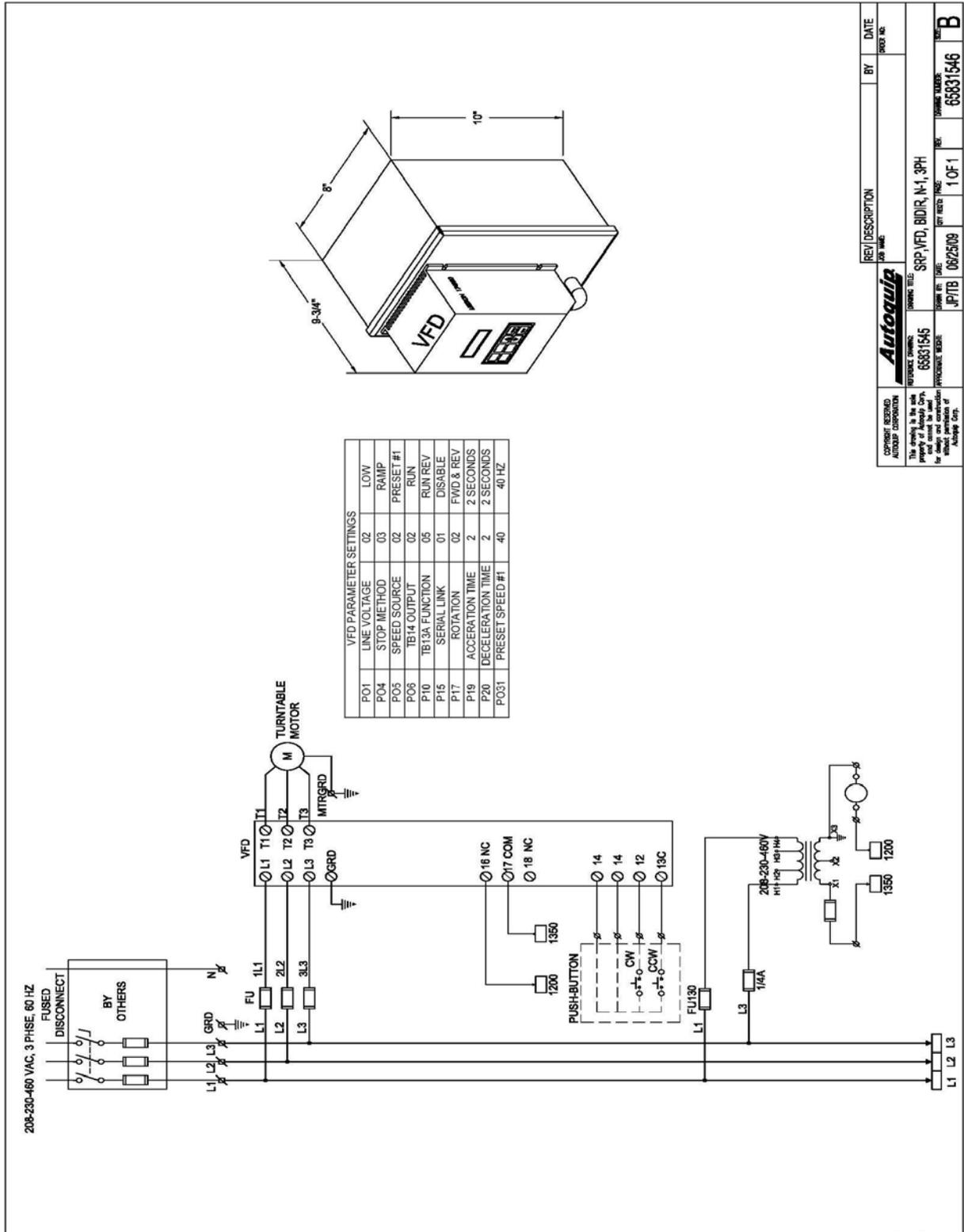
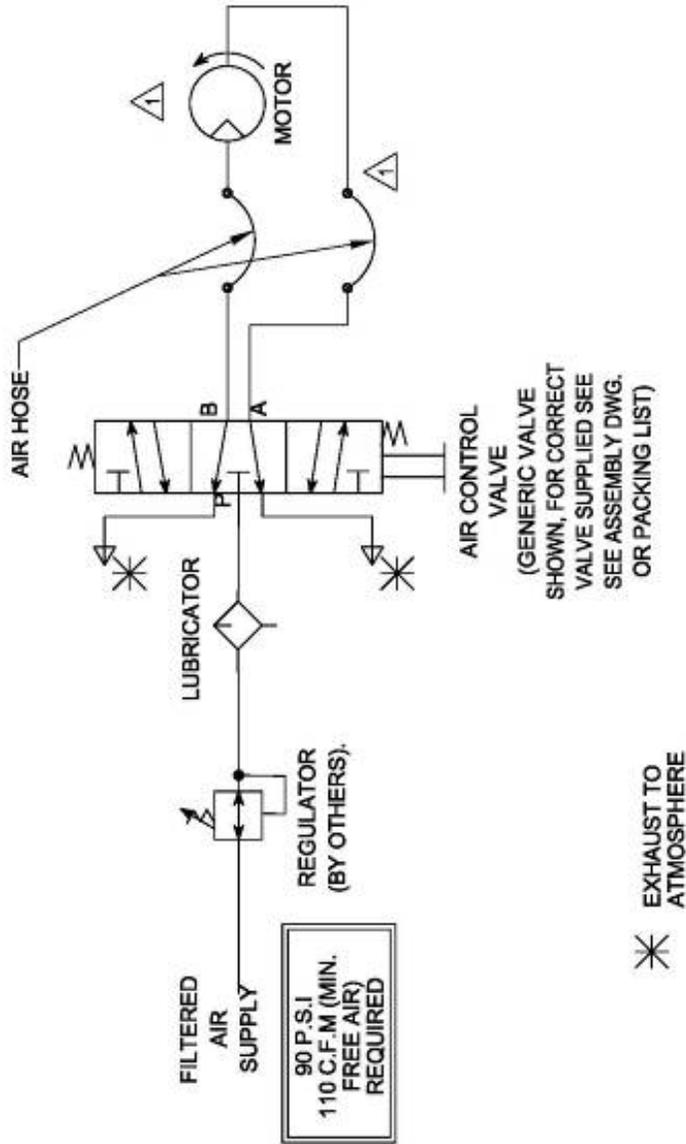


Figure 15: SRP & SRPRB Electrical Schematic: ' VFD 208-230-460V/3PHASE ' CW-CCW ROTATION

# GENERAL MAINTENANCE

65830780



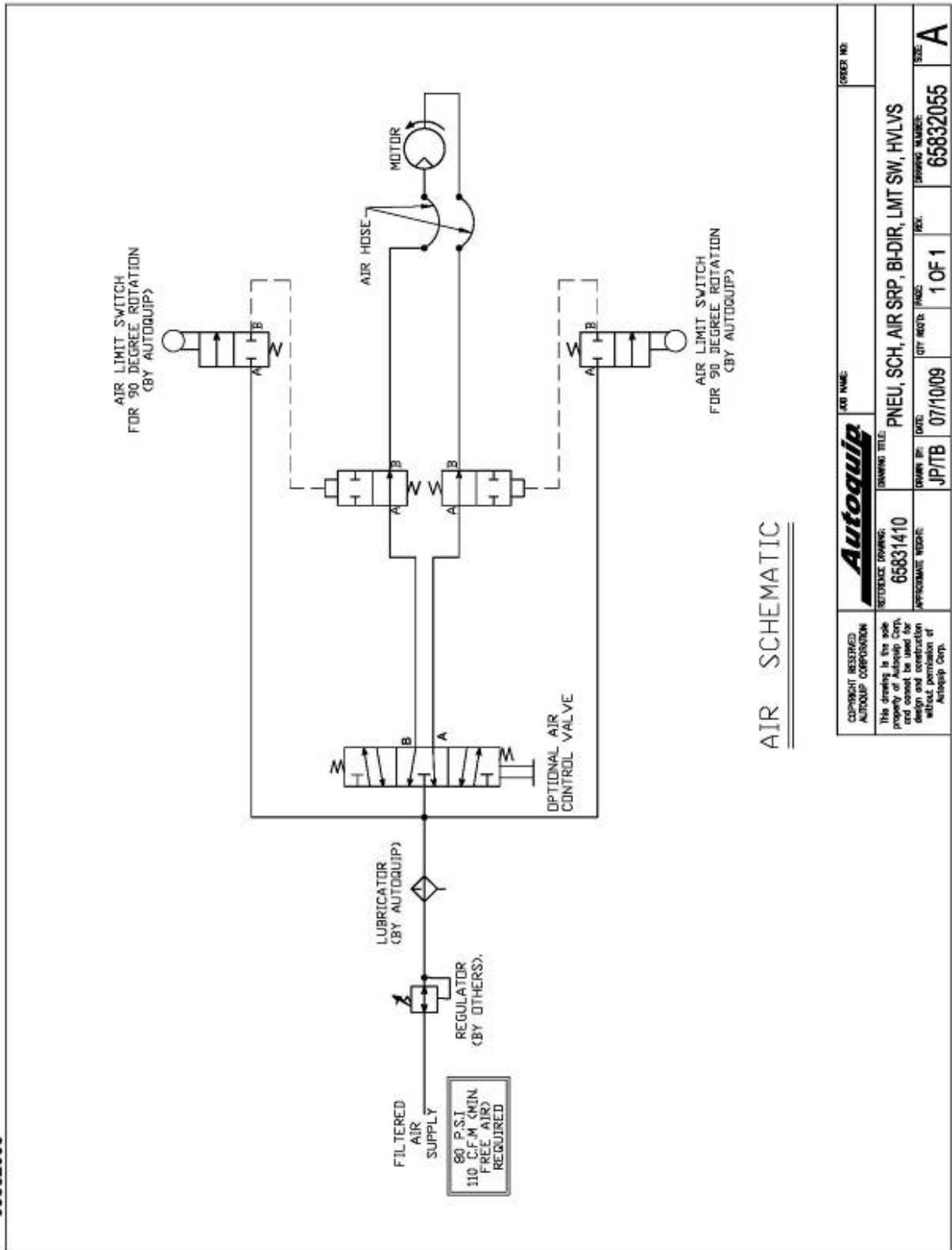
## AIR / HYDRAULIC SCHEMATIC

|   |                                    |        |                          |
|---|------------------------------------|--------|--------------------------|
| 2008 COPYRIGHT RESERVED AUTOLAMP CORPORATION  | ADDED AIR HOSE AND REMOVED MUFFLER | JP/TB  | 10/13/09                 |
| This drawing is the sole property of Autoquip Corp. and cannot be used for design and construction without permission of Autoquip Corp. | REV/ DESCRIPTION                   | BY     | DATE                     |
| Autoquip  | JOB NAME                           |        | ORDER NO:                |
| REFERENCE DRAWING: 65829000   |                                    |        |                          |
| APPROXIMATE WEIGHT:   | DATE: 2/15/05                      | REV: 1 | DRAWING NUMBER: 65830780 |
|   | QTY: 1                             | 1 OF 1 | SIZE: A                  |

Figure 16: 'SRPA' Pneumatic Schematic: CW-CCW Rotation

# GENERAL MAINTENANCE

65832055



|  |  |   |   |
|--|--|---|---|
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|  | <small>REFERENCE DRAWING:</small><br><b>65831410</b> | <small>DRAWING TITLE:</small><br><b>PNEU, SCH, AIR SRP, BI-DIR, LMT SW, HVLVS</b> | <small>DRAWING NUMBER:</small><br><b>65832055</b> |
| <small>APPROXIMATE WEIGHT:</small>   | <small>DRAWN BY:</small><br><b>JP/TB</b>             | <small>DATE:</small><br><b>07/10/09</b>   | <small>REV.:</small><br><b>1 OF 1</b>             |
| <small>SIZE:</small>   |  |   | <b>A</b>  |

Figure 17: 'SRPA' Pneumatic Schematic W/ LIMIT SWITCHES / CW-CCW Rotation

# GENERAL MAINTENANCE

## Torque Limiter Installation and Adjustment Instructions Chain & Sprocket Models



**DANGER!**

**HIGH VOLTAGE!! – Disconnect and/or lock out the electrical supply to the power unit per OSHA regulations prior to any installation or maintenance being performed.**



**WARNING!**

**Operating turntable without guards in place can result in severe injury or death.**

The SRP powered turntables come equipped with an adjustable torque limiter. This torque limiter provides overload protection on light drives by supplying a controlled and variable slip level in the event that the turntable makes unexpected contact with an obstruction. The supplied torque limiter has a maximum torque rating of 2800 (in-lbs) when used with a single spring and a 4900 (in-lbs) rating when used with two springs.

### Installation

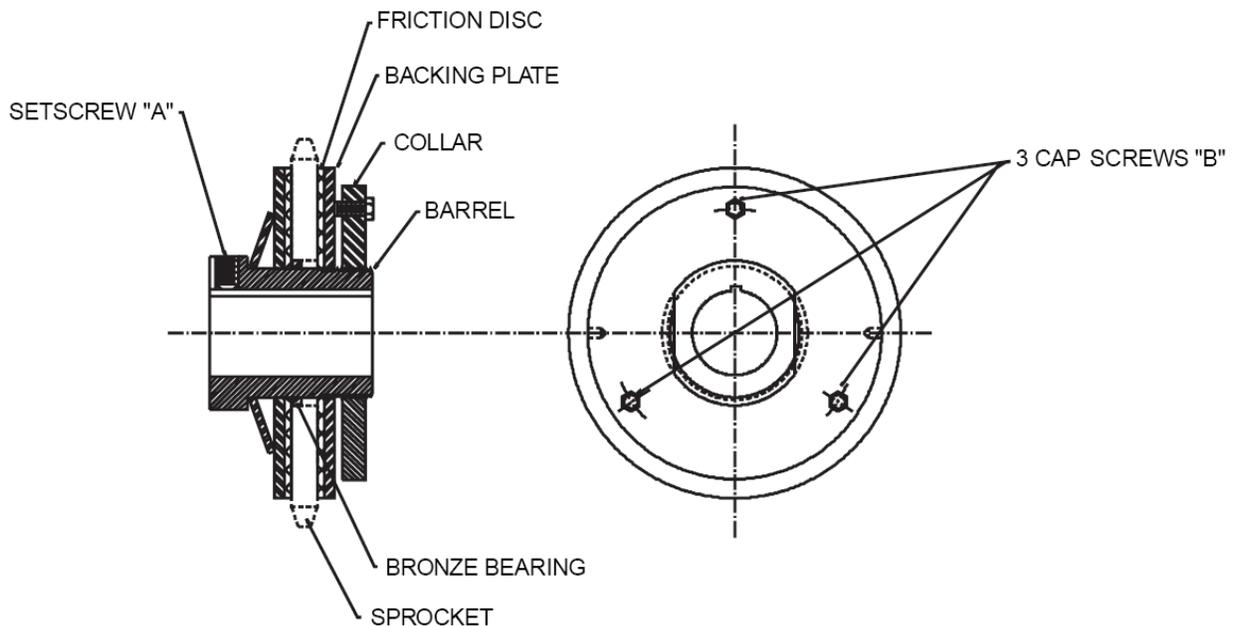
1. Clean shaft and Torque Limiter bore to remove any foreign matter. Make sure the shaft, sheave bore, keys and keyways are free of burrs, paint, etc. Slide the Torque Limiter onto shaft. While the Torque Limiter can be mounted in either direction, mounting with the collar away from machine housing permits easier adjustment. Insert key and tighten set screw “A” to the values in Table 1 (shown on the next page).
2. Remove collar, one backing plate, and one friction disc. Place the Torque Limiter sprocket over bronze bearing. Slip the friction disc and backing plate over the barrel until they rest against the sprocket. Make sure cap screws “B” are backed off until points are recessed in collar. Screw collar on barrel until it is finger-tight against backing plate.

# GENERAL MAINTENANCE

## Torque Limiter Installation and Adjustment Instructions Chain & Sprocket Models--continued

| SET SCREW SIZE | TORQUE(in-Lbs) |
|----------------|----------------|
| 1/4-20         | 87             |
| 5/16-18        | 165            |
| 3/8-16         | 250            |

**TABLE 1: Set Screw Torque (in-Lbs)**



**Figure 18: Torque Limiter**

### Adjustment

**To adjust the torque limiter to its maximum torque:**

1. Back off (3) cap screws "B" until the points are recessed in the threaded adjusting collar.
2. Tighten the threaded adjusting collar by hand and then tighten the cap screws until the heads bottom against the collar.
3. The Torque Limiter can be adjusted to the lesser torque by loosening the cap screws and the collar, and then re-tightening the cap screws until the heads are bottom against the collar. The torque may be checked in application, or by using a spring scale or other means.

# REPLACEMENT PARTS LIST

## 'SRP' Electric Motor Turntable Parts:

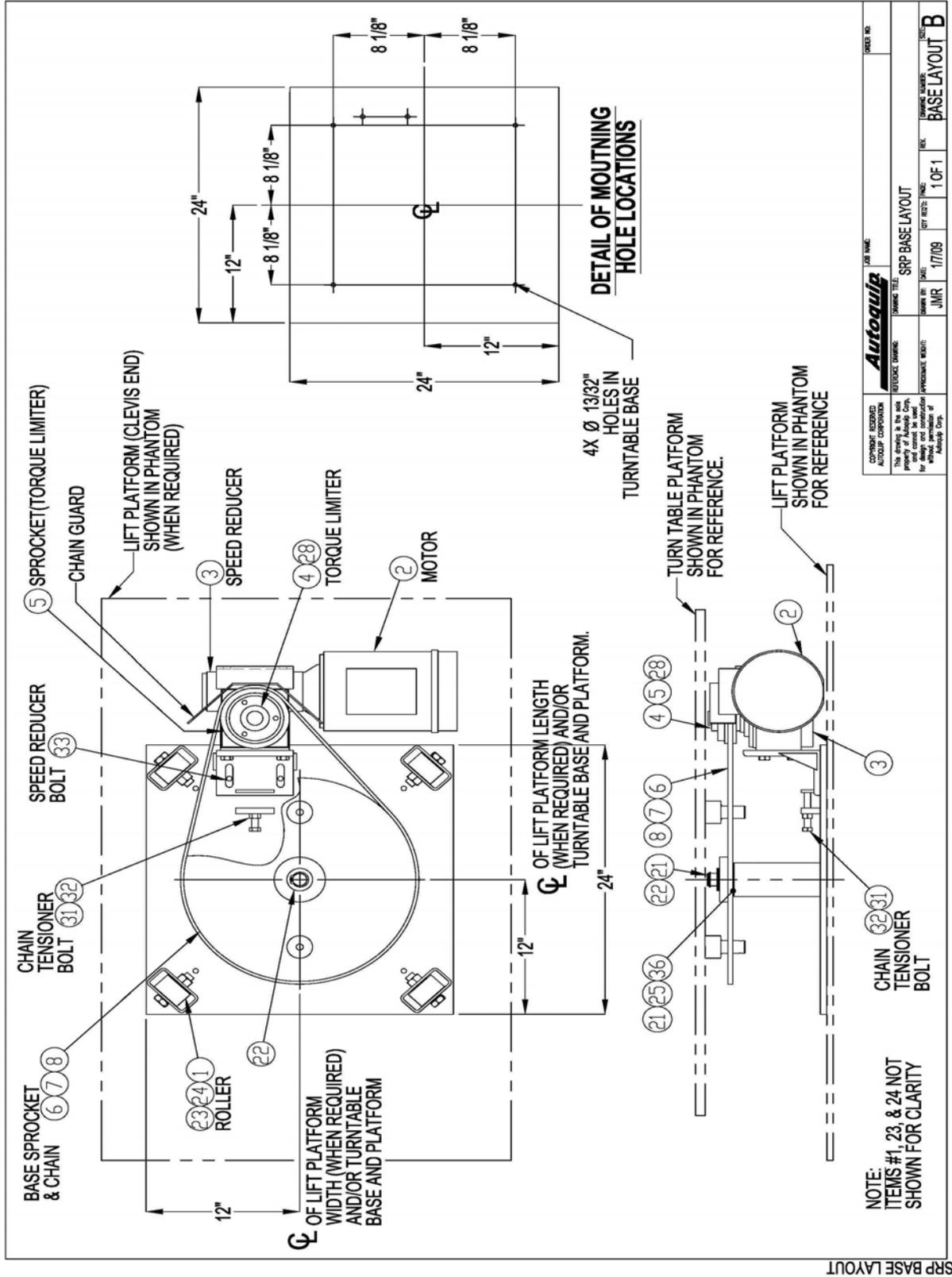


Figure 19: Replacement Parts Layout --Standard "Chain and Sprocket" Design

# REPLACEMENT PARTS LIST

## 'SRP' Electric Motor Turntable Parts List:

| ITEM No. | PART No.                             | Qty | DESCRIPTION                                 |
|----------|--------------------------------------|-----|---|
| 1        | 20012930                             | 4   | Roller                                      |
| 2        | 30000690                             | 1   | Motor 1/4HP,115-208-230V/60hz /1ph          |
| 2        | 30100300                             | 1   | Motor 1/4HP,208-230-460V/60hz /3ph          |
| 3        | 37002690                             | 1   | Speed reducer                               |
| 4        | 20053201                             | 1   | Torque limiter                              |
| 5        | 20053820                             | 1   | Sprocket (Torque Limiter)                   |
| 6        | 20053831                             | 1   | Sprocket (Base)                             |
| 7        | 28000057                             | 70" | Chain #40                                   |
| 8        | 28000198                             | 1   | Master link                                 |
| 21       | 24012353                             | 1   | Washer 1/16" x 2" Dia.                      |
| 22       | 45400223                             | 1   | Retainer Ring, 1-1/8"                       |
| 23       | 22012413                             | 4   | Bolt, 3/4" x 3"L                            |
| 24       | 23560261                             | 4   | Lock Nut, 3/4"                              |
| 25       | 24092306                             | 6   | Washer, 1/16" x 2" Dia. UHMW                |
| 28       | 28020097                             | 1   | Keystock, 1/4" x 2.5" L                     |
| 31       | 22011571                             | 1   | Chain Tension Bolt, 1/2" x 2-1/2" L         |
| 32       | 23510225                             | 1   | Hex Nut, 1/2" (Tension Bolt)                |
| 33       | 22011456                             | 2   | Bolt, 1/2" x 1-1/4"L                        |
| 36       | 24002008                             | 2   | Washer, 1/64" x 1-5/8" Dia.                 |
|          | 35101484                             | 1   | Install Bolt Kit (Mounting to Platform)     |
|          | 36202540                             | 1   | Pushbutton, 'Rotate' (1 Direction Rotation) |
|          | 36202540                             | 1   | Pushbutton, 'Rotate' (CW-CCW Rotation)      |
|          | Contact Autoquip<br>Customer Service | 1   | Controller                                  |

### Ring Bearing Design

Specific part numbers vary from job to job, depending on the model and options chosen for the application. Call the *Autoquip* Customer Assurance Department with the turntable **serial number** or **customer order number** to order the appropriate parts.

# REPLACEMENT PARTS LIST

## 'SRPA' AIR Motor Turntable Parts:

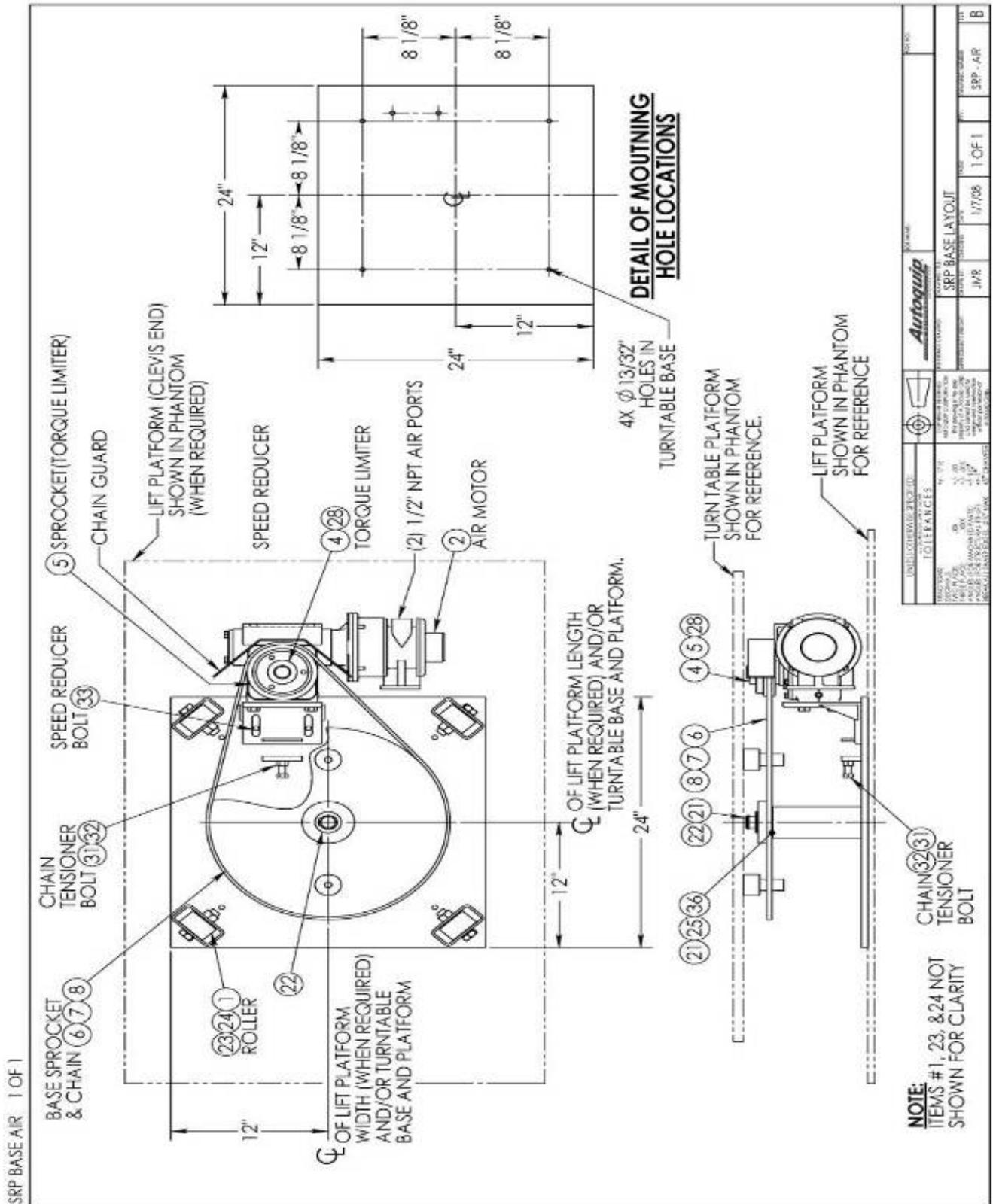


Figure 20: Pneumatic Motor 'SRPA' Base Layout

# REPLACEMENT PARTS LIST

## 'SRPA' AIR Motor\ Turntable Parts List:

| ITEM No. | PART No. | Qty | DESCRIPTION  |
|----------|----------|-----|--|
| 1        | 20012930 | 4   | Roller   |
| 2        | 40800110 | 1   | Air Motor, C-Face, 80PSI, 110CFM   |
|          | 40900029 | 1   | Muffler; Air Motor (1/2" npt)  |
| 3        | 37003320 | 1   | Speed reducer  |
| 4        | 20053201 | 1   | Torque limiter   |
| 5        | 20053821 | 1   | Sprocket (Torque Limiter)  |
| 6        | 20053831 | 1   | Sprocket (Base)  |
| 7        | 28000057 | 70" | Chain #40  |
| 8        | 28000198 | 1   | Master link  |
| 21       | 24012353 | 1   | Washer 1/16" x 2" Dia.   |
| 22       | 45400223 | 1   | Retainer Ring, 1-1/8"  |
| 23       | 22012413 | 4   | Bolt, 3/4" x 3"L   |
| 24       | 23560261 | 4   | Lock Nut, 3/4"   |
| 25       | 24092306 | 6   | Washer, 1/16" x 2" Dia. UHMW   |
| 28       | 28020097 | 1   | Keystock, 1/4" x 2.5" L  |
| 31       | 22011571 | 1   | Chain Tension Bolt, 1/2" x 2-1/2" L  |
| 32       | 23510225 | 1   | Hex Nut, 1/2" (Tension Bolt)   |
| 33       | 22011456 | 2   | Bolt, 1/2" x 1-1/4"L   |
| 36       | 24002008 | 2   | Washer, 1/64" x 1-5/8" Dia.  |
|          | 35101484 | 1   | Install Bolt Kit (Mounting to Platform)  |
|          | 41400755 | 1   | AIR Hand Valve; (1/2"npt) As shown in Figure 16 (Open Exhaust Valve)                               |
|          | 41401720 | 1   | Optional: AIR Hand Valve; (1/2"npt) For Figure 16 (Closed Exhaust Valve)                           |
|          | 41400631 | 1   | AIR Foot Valve; (1/2" npt) As shown in Figure 16 (Open Exhaust Valve)<br>(Use w/ Foot Guard below) |
|          | 41402630 | 1   | AIR Foot Valve; (1/2" npt) For Figure 16 (Closed Exhaust Valve) (Use w/ Foot Guard below)          |
|          | 35105300 | 1   | Foot Guard w/ mounting screws  |

# TROUBLESHOOTING ANALYSIS

## 'SRP' Electric Motor Turntable

| PROBLEM  | POSSIBLE CAUSE AND SOLUTION  |
|--|--|
| Turntable does not rotate                                  | <ul style="list-style-type: none"> <li>• There may be roller damage. Check the turntable base rollers for proper alignment and possible bearing damage. Replace as necessary.</li> <li>• The turntable is loaded beyond its rated capacity and causing the motor to stall or the torque limiter to slip. Check the load amount.</li> <li>• One or more pushbuttons or motor connections may not be made, or could be shorted out. Check for and resolve any connection problems.</li> <li>• There may not be sufficient amp draw for the motor. Check the amperage requirements on the motor nameplate and verify with an amp meter that sufficient power draw is available.</li> <li>• The turntable platform may have hit an obstruction. Check for and remove any obstruction that may impede the rotating path of the turntable.</li> </ul>  |
| Turntable is making loud noises<br>Or Motor Humming noise. | <ul style="list-style-type: none"> <li>• One or more roller tubes are misaligned with respect to the center pin. Each tube should be perpendicular to the center pin, or the platform will roll across the roller instead of rolling over it and make a popping noise. Perpendicularity can be checked using a large square. Call the factory for base replacement.</li> <li>• The gearbox may be cracked or damaged from overloading or improper loading. Call the factory for replacement parts.</li> <li>• Motor Humming: The voltage at the motor terminals may be too low to run the turntable with the existing load. Check by measuring the voltage at the motor terminals, or as near as possible, <u>while the turntable is running under load</u>. Reading the source voltage or turntable-idling voltage is meaningless. Inadequate or incorrect wiring can starve the motor when the source voltage is ample. Correct as necessary.</li> </ul> |
| Turntable rotates in the wrong direction                   | <ul style="list-style-type: none"> <li>• The motor or pushbutton connections may have been reversed. Check for and resolve any connection problems.</li> </ul>   |

# TROUBLESHOOTING ANALYSIS

## 'SRPA' AIR Motor Turntable

| PROBLEM  | POSSIBLE CAUSE AND SOLUTION  |
|--|--|
| Turntable does not rotate                          | <ul style="list-style-type: none"> <li>• The turntable platform may have hit an obstruction. Check for and remove any obstruction that may impede the rotating path of the turntable.</li> <li>• There may be roller damage. Check the turntable base rollers for exterior roller damage or bearing damage. Replace as necessary.</li> <li>• Turntable maybe loaded beyond its rated capacity and causing the motor to stall. Reduce load to rated capacity or less.</li> <li>• Air hose connections may be leaking air or hoses maybe crimped. Check for air leaks and hose crimping and resolve these issues.</li> <li>• There may be insufficient air pressure or air flow at the air motor. Air requirements at the air motor are: 90 PSI &amp; 110 CFM). Check the air supply at the air motor and resolve air supply issues.</li> <li>• If turntable is loaded at or below rated capacity and turntable does not rotate, adjust torque limiter per adjustment instructions.</li> </ul> |
| Turntable is making loud noise &/or rotating slow. | <ul style="list-style-type: none"> <li>• One or more roller tubes are misaligned with respect to the center pin. Each tube should be perpendicular to the center pin, or the platform will roll across the roller instead of rolling over it and make a popping noise. Perpendicularity can be checked using a large square. Call the factory for base replacement.</li> <li>• The gearbox may be cracked or damaged from overloading or improper loading. Call the factory for replacement parts.</li> <li>• Air Motor Muffler clogged or dirty: Call the factory for replacement parts.</li> </ul>   |
| Turntable rotates in the wrong direction           | <ul style="list-style-type: none"> <li>• The hoses connections to the air motor may have been reversed. Check and resolve any connection problems.</li> </ul>  |

# LIMITED WARRANTY

The user is solely responsible for using this equipment in a safe manner and observing all of the safety guidelines provided in the Owner's Manual and on the warning labels provided with the lift. If you are unable to locate either the manual or the warning labels, please contact Autoquip or access [www.autoquip.com](http://www.autoquip.com) for replacement downloads or information.

Autoquip Corporation expressly warrants that this product will be free from defects in material and workmanship under normal, intended use for a period of Two (2) Years for Labor and all electrical, mechanical, and hydraulic components, parts or devices, and warrants the structure of the lift against breakage or failure for a period of Five (5) years. The warranty period begins from the date of shipment. When making a claim, immediately send your dealer or Autoquip notice of your claim. All claims must be received by Autoquip within the warranty time period. The maximum liability of Autoquip, under this Limited Warranty, is limited to the replacement of the equipment.

This warranty shall not apply to any Autoquip lift or parts of Autoquip lift that have been damaged or broken in transit/shipping, or due directly or indirectly to misuse, abuse, vehicle impact, negligence, faulty installation, fire, floods, acts of God, accidents, or that have been used in a manner contrary to the manufacturer's limitations or recommendations as stated in the manual, or that have been repaired, altered or modified in any manner outside of Autoquip Corp's manufacturing facility or which have not been expressly authorized by Autoquip.

Autoquip Corporation makes no warranty or representation with respect to the compliance of any equipment with state or local safety or product standard codes, and any failure to comply with such codes shall not be considered a defect of material or workmanship under this warranty. Autoquip Corporation shall not be liable for any direct or consequential damages resulting from such noncompliance.

Autoquip Corporation's obligation under this warranty is limited to the replacement or repair of defective components at its factory or another location at Autoquip Corp's discretion at no cost to the owner. This is owner's sole remedy. Replacement parts (with exception of electrical components) will be warranted for a period of ninety (90) days. Except as stated herein, Autoquip Corporation will not be liable for any loss, injury, or damage to persons or property, nor for direct, indirect, or consequential damage of any kind, resulting from failure or defective operation of said equipment. All parts used to replace defective material must be genuine Autoquip parts in order to be covered by this Limited Warranty.



**AUTOQUIP CORP**  
P.O. Box 1058, Guthrie, OK 73044-1058  
Telephone: (888) 811-9876 · (405) 282-5200  
Fax: (405) 282-8105  
[www.autoquip.com](http://www.autoquip.com)