FOLEY COMPANY

622
AUTO - INDEX
SPIN / RELIEF
REEL MOWER GRINDER

Patent No. 5,321,912
6,010,394 & 6,290,581
6,685,544 & 6,699,103

SERVICE MANUAL

⚠ WARNING

You must thoroughly read and understand all manuals before operating the equipment, paying particular attention to the Warning & Safety instructions.

IMPORTANT SAFETY MESSAGE

As manufacturers of sharpening equipment, we want to confirm to you, our customers, our concern for safety. We also want to remind you about the simple, basic, and common sense rules of safety when using this equipment. Failure to follow these rules can result in severe injury or death to operators or bystanders.

It is essential that everyone involved in the assembly, operation, transport, maintenance, and storage of this equipment be aware, concerned, prudent, and properly trained in safety. Always use proper shielding and personal protective equipment as specified by the manufacturer.

Our current production machines include, as standard equipment, guards or shields for the grinding wheel, safety signs, and operator's and service manuals. Never bypass or operate the machine with any of the guards or safety devices removed or without the proper personal safety equipment.

Read and fully understand all the safety practices discussed in this manual and the Operator's Manual. All safety rules must be understood and followed by anyone who works with reel grinders.

Before operating this grinder, an operator must read and understand all of the information in the Operator's Manual and understand all of the safety signs attached to the product. A person who has not read or understood the Operator's Manual and safety signs is not qualified to operate the unit. Accidents often occur on machines that are used by someone who has not read the Operator's Manual and is not familiar with the equipment. If you do not have an Operator's Manual or current production safety signs, contact the manufacturer or your dealer immediately.

The equipment is designed for one-man operation. Never operate the equipment with anyone near, or in contact with, any part of the grinder. Be sure no one else, including bystanders, is near you when you operate this product.

Following these simple, basic safety rules, as well as others:

- Find and understand all safety signs in the Operator's Manual and on the equipment. This will help minimize the possibility of accidents and increase your productivity in using this product.
- Be careful and make sure that everyone who operates the grinder knows and understands that it is a very powerful piece of machinery, and if used improperly, serious injury or death may result.
- The final responsibility for safety rests with the operator of this machine.

Throughout this manual, the following safety symbols will be used to indicate the degree of certain hazards.

This symbol is used throughout this manual to call attention to the safety procedures.

DANGER **The word DANGER indicates an immediate hazardous situation, which if not avoided, will result in death or serious injury.**

WARNING **The word WARNING indicates a potential hazardous situation, which if not avoided, could result in death or serious injury.**

CAUTION **The word CAUTION preceded with a safety alert symbol indicates a potential hazardous situation which, if not avoided, may result in minor or moderate injury.**

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Read the Operator's Manual before operating this equipment. Keep this manual handy for ready reference. Require all operators to read this manual carefully and to become acquainted with all adjustments and operating procedures before attempting to operate the equipment. Replacement manuals can be obtained from your selling dealer or the manufacturer.

The equipment you have purchased has been carefully engineered and manufactured to provide dependable and satisfactory use. Like all mechanical products, it will require cleaning and upkeep. Lubricate and clean the unit as specified in the Operator's Manual. Please observe all safety information in this manual, the Operator's Manual and the safety decals on the equipment.

This machine is designed for sharpening reel type mower blades ONLY.
Any use other than this may cause personal injury and will void the warranty.

To assure the quality and safety of your machine and to maintain the warranty, you MUST use original equipment manufacturer's replacement parts and have any repair work done by a qualified professional.

ALL operators of this equipment must be thoroughly trained BEFORE operating the equipment.

Do not use compressed air to clean grinding dust from the machine. This dust can cause personal injury as well as damage to the grinder.

INSTALLATION, DAILY MAINTENANCE, AND BASIC UPKEEP IS DISCUSSED IN THE OPERATOR'S MANUAL. THIS MANUAL SHOULD BE USED IN CONJUNCTION WITH THE SERVICE MANUAL FOR PERFORMING SERVICE ON THIS EQUIPMENT.

SAFETY INSTRUCTIONS

- ORIGINAL INSTRUCTIONS -

⚠ WARNING

TO AVOID INJURY, READ AND UNDERSTAND THE SAFETY ITEMS LISTED BELOW. IF YOU DO NOT UNDERSTAND ANY PART OF THIS MANUAL AND NEED ASSISTANCE, CONTACT YOUR LOCAL DEALER.

1. **KEEP GUARDS IN PLACE** and in working order.

2. **REMOVE WRENCHES AND OTHER TOOLS.**

3. **KEEP WORK AREA CLEAN.**

4. **DON'T USE IN DANGEROUS ENVIRONMENT.** Don't use grinder in damp or wet locations. Machine is for indoor use only. Keep work area well it.

5. **KEEP ALL VISITORS AWAY.** All visitors should be kept a safe distance from work area.

6. **MAKE WORK AREA CHILD-PROOF** with padlocks or master switches.

7. **DON'T FORCE THE GRINDER.** It will do the job better and safer if used as specified in this manual.

8. **USE THE RIGHT TOOL.** Don't force the Grinder or an attachment to do a job for which it was not designed.

9. **WEAR PROPER APPAREL.** Wear no loose clothing, gloves, neckties, or jewelry which may get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair. Wear respirator or filter mask where appropriate. Wear protective gloves.

10. **ALWAYS USE SAFETY GLASSES.**

11. **SECURE YOUR WORK.** Make certain that the cutting unit is securely fastened with the clamps provided before operating.

12. **DON'T OVERREACH.** Keep proper footing and balance at all times.

13. **MAINTAIN GRINDER WITH CARE.** Follow instructions in Service Manual for lubrication and preventive maintenance.

14. **DISCONNECT POWER BEFORE SERVICING,** or when changing the grinding wheel.

15. **REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure the switch is OFF before plugging in the Grinder.

16. **USE RECOMMENDED ACCESSORIES.** Consult the manual for recommended accessories. Using improper accessories may cause risk of personal injury.

17. **CHECK DAMAGED PARTS.** A guard or other part that is damaged or will not perform its intended function should be properly repaired or replaced.

18. **NEVER LEAVE GRINDER RUNNING UNATTENDED. TURN POWER OFF.** Do not leave grinder until it comes to a complete stop.

19. **KNOW YOUR EQUIPMENT.** Read this manual carefully. Learn its application and limitations as well as specific potential hazards.

20. **KEEP ALL SAFETY DECALS CLEAN AND LEGIBLE.** If safety decals become damaged or illegible for any reason, replace immediately. Refer to replacement parts illustrations in Service Manual for the proper location and part numbers of safety decals.

21. **DO NOT OPERATE GRINDER WHEN UNDER THE INFLUENCE OF DRUGS, ALCOHOL, OR MEDICATION.**

SAFETY INSTRUCTIONS

⚠ WARNING

IMPROPER USE OF GRINDING WHEEL MAY CAUSE BREAKAGE AND SERIOUS INJURY.

GRINDING IS A SAFE OPERATION IF THE FEW BASIC RULES LISTED BELOW ARE FOLLOWED. THESE RULES ARE BASED ON MATERIAL CONTAINED IN THE ANSI B7.1 SAFETY CODE FOR "USE, CARE AND PROTECTION OF ABRASIVE WHEELS". FOR YOUR SAFETY, WE SUGGEST YOU BENEFIT FROM THE EXPERIENCE OF OTHERS AND CAREFULLY FOLLOW THESE RULES.

DO

1. **DO** always **HANDLE AND STORE** wheels in a **CAREFUL** manner.

2. **DO VISUALLY INSPECT** all wheels before mounting for possible damage.

3. **DO CHECK MACHINE SPEED** against the established maximum safe operating speed marked on wheel.

4. **DO CHECK MOUNTING FLANGES** for equal and correct diameter.

5. **DO USE MOUNTING BLOTTERS** when supplied with wheels.

6. **DO** be sure **WORK REST** is properly adjusted.

7. **DO** always **USE A SAFETY GUARD COVERING** at least one-half of the grinding wheel.

8. **DO** allow **NEWLY MOUNTED WHEELS** to run at operating speed, with guard in place, for at least one minute before grinding.

9. **DO** always **WEAR SAFETY GLASSES** or some type of eye protection when grinding.

DON'T

1. **DON'T** use a cracked wheel or one that **HAS BEEN DROPPED** or has become damaged.

2. **DON'T FORCE** a wheel onto the machine **OR ALTER** the size of the mounting hole - if wheel won't fit the machine, get one that will.

3. **DON'T** ever **EXCEED MAXIMUM OPERATING SPEED** established for the wheel.

4. **DON'T** use mounting flanges on which the bearing surfaces **ARE NOT CLEAN, FLAT AND FREE OF BURRS.**

5. **DON'T TIGHTEN** the mounting nut excessively.

6. **DON'T** grind on the **SIDE OF THE WHEEL** (see Safety Code B7.2 for exception).

7. **DON'T** start the machine until the **WHEEL GUARD IS IN PLACE.**

8. **DON'T JAM** work into the wheel.

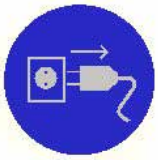
9. **DON'T STAND DIRECTLY IN FRONT** of a grinding wheel whenever a grinder is started.

10. **DON'T FORCE GRINDING** so that motor slows noticeably or work gets hot.

⚠ WARNING

AVOID INHALATION OF DUST generated by grinding and cutting operations. Exposure to dust may cause respiratory ailments. Use approved NIOSH or MSHA respirators, safety glasses or face shields, and protective clothing. Provide adequate ventilation to eliminate dust, or to maintain dust level below the Threshold Limit Value for nuisance dust as classified by OSHA.

⚠ WARNING



UNPLUG THE EQUIPMENT PRIOR TO DOING ANY SERVICE ON THIS EQUIPMENT. FAILURE TO REMOVE POWER TO THIS EQUIPMENT BEFORE SERVICING MAY RESULT IN INJURY OR DEATH.

IF POWER IS REQUIRED FOR TESTING OR TROUBLESHOOTING, THIS SHOULD BE PERFORMED BY A TRAINED PROFESSIONAL OR LICENSED ELECTRICIAN.

REVIEW THE SYMBOLS AND DESCRIPTIONS ON PAGES 10 AND 11 OF THE OPERATOR'S MANUAL. UNDERSTAND ALL SYMBOLS BEFORE OPERATING OR SERVICING THIS EQUIPMENT.

This is the Electrical Hazard Symbol. It indicates that **DANGEROUS HIGH VOLTAGES ARE PRESENT** inside the enclosure of this product. TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, do not attempt to open the enclosure or gain access to areas where you are not instructed to do so. **REFER SERVICING TO QUALIFIED SERVICE PERSONNEL ONLY.**

IMPORTANT GROUNDING INSTRUCTIONS

If electrical testing is required, always verify the machine has a proper ground before performing any tests.

In case of a malfunction or breakdown, grounding reduces the risk of electrical shock by providing a path of least resistance for electrical current.

This Grinder has an electrical cord with an equipment grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded according to all local or other appropriate electrical codes and ordinances.

Before plugging in the Grinder, make sure it will be connected to a supply circuit protected by a properly-sized circuit breaker or fuse. SEE SERIAL NUMBER PLATE FOR FULL LOAD AMP RATING OF YOUR MACHINE.

Never modify the plug provided with the machine--if it won't fit the outlet, have a proper outlet and circuit installed by a qualified electrician.

⚠ WARNING

ALWAYS PROVIDE A PROPER ELECTRICAL GROUND FOR YOUR MACHINE. AN IMPROPER CONNECTION CAN CAUSE A DANGEROUS ELECTRICAL SHOCK. IF YOU ARE UNSURE OF THE PROPER ELECTRICAL GROUNDING PROCEDURE, CONTACT A QUALIFIED ELECTRICIAN.

SKILL AND TRAINING REQUIRED FOR SERVICING

This Service Manual is designed for technicians who have the necessary mechanical and electrical knowledge and skills to reliably test and repair the 622 Spin/Relief Grinder. For those without the background, service can be arranged through your local distributor.

This section presumes that you are already familiar with the normal operation of the grinder. If not, you should read the Operator's Manual or do the servicing in conjunction with someone who is familiar with its operation.

⚠ WARNING

Persons without the necessary knowledge and skills should not remove any panels or shields, or attempt any internal troubleshooting, adjustments, or parts replacement.

If you have questions not answered in this manual, please contact your distributor.

TORQUE REQUIREMENTS

Throughout this manual we refer to torque requirements as "firmly tighten" or the like. For more specific torque values, refer to the information below.

Bolts Going Into a Nut, or Into a Thread Hole in Steel.
Refer to the table at the right.

Bolts Going Into a Thread Hole In Aluminum
Use the Grade 2 values in the table at the right.

Socket-Head Screws Going Into a Nut or Steel
Use the Grade 8 values in the table at the right.

Machine Screws
No. 6 screws: 11 in.- lbs (0.125kg - m)
No. 8 screws: 20 in. - lbs (0.23 kg - m)
No. 10 screws: 32 in. - lbs (0.37 kg - m)

	GRADE 2  SMOOTH HEAD	GRADE 5  3 MARKS on HEAD	GRADE 8  6 MARKS on HEAD
1/4 In. thread	6 ft-lbs (0.8 kg-m)	9 ft-lbs (1.25 kg-m)	13 ft-lbs (1.8 kg-m)
5/16 In. thread	11 ft-lbs (1.5 kg-m)	18 ft-lbs (2.5 kg-m)	28 ft-lbs (3.9 kg-m)
3/8 In. thread	19 ft-lbs (2.6 kg-m)	31 ft-lbs (4.3 kg-m)	46 ft-lbs (6.4 kg-m)
7/16 In. thread	30 ft-lbs (4.1 kg-m)	50 ft-lbs (6.9 kg-m)	75 ft-lbs (10.4 kg-m)
1/2 In. thread	45 ft-lbs (6.2 kg-m)	75 ft-lbs (10.4 kg-m)	115 ft-lbs (15.9 kg-m)

PERIODIC MAINTENANCE

DAILY MAINTENANCE IS SPECIFIED ON PAGE 7 OF THE OPERATOR'S MANUAL AND IS TO BE PERFORMED BY THE OPERATOR.

LISTED BELOW ARE PERIODIC MAINTENANCE ITEMS TO BE PERFORMED BY YOUR COMPANY'S MAINTENANCE DEPARTMENT:

1. Clean the dust tray located under the grinding wheel area. Use a vacuum or a small broom and dust pan to clean.

2. Inspect the Poly-V belt on the grinding motor for cracking and make any necessary adjustments every three months.

3. Wipe off and lubricate, with never-seize, the vertical adjustment shafts every six months. Run the arms up and down to coat the working areas of the shaft.

4. Inspect the traverse cog belt for cracking and defects every three months. Remove any grit or dust that may affect the function of the belt. Adjust tension if necessary per procedures called out in the adjustment section.

5. Clean and lubricate the grinding shaft and traverse shafts every 2 to 4 weeks. Follow the procedure on the next page.

6. Lubricate grinding shaft bearing with one shot of grease once every 2 years. See FIG 2.

DO NOT GREASE GRINDING SHAFT BEARINGS FOR THE FIRST 2 YEARS. THEY ARE GREASED AT THE FACTORY. GREASING MAY CAUSE THE BEARINGS TO OVERHEAT AND FAIL PREMATURELY.

FIG. 2

LUBRICATION OF GRINDING SHAFT AND LINEAR BEARINGS

STEP 1 – Thoroughly clean all three shafts.

STEP 2 – Flood spray all three shafts with CRC 3-36 until the lubricant is dripping off the shafts. **Do not use a teflon-based lubricant.** Then run the grinding head assemblies back and forth through their full range of travel. This will remove the dust and deposits from inside the wheel flanges. Repeat if necessary until lubrication is clear of deposits. Clean keyways located on the grinding shaft with soft brush.

STEP 3 – With a clean rag, wipe off the excess amount of lubricant from the shafts. Run the grinding assemblies through their range of travel and wipe the shafts after each traverse. Repeat until the shafts are dry to the feel. This completes the lubrication process.

IMPORTANT:
If the unit will be shut down for an extended period of time, more than four weeks, then the shafts and other appropriate parts of the unit should be flooded with lubricant and that lubricant left in place until the unit is brought back into service. When the unit is brought back into service the full lubrication procedure as stated above should be repeated.

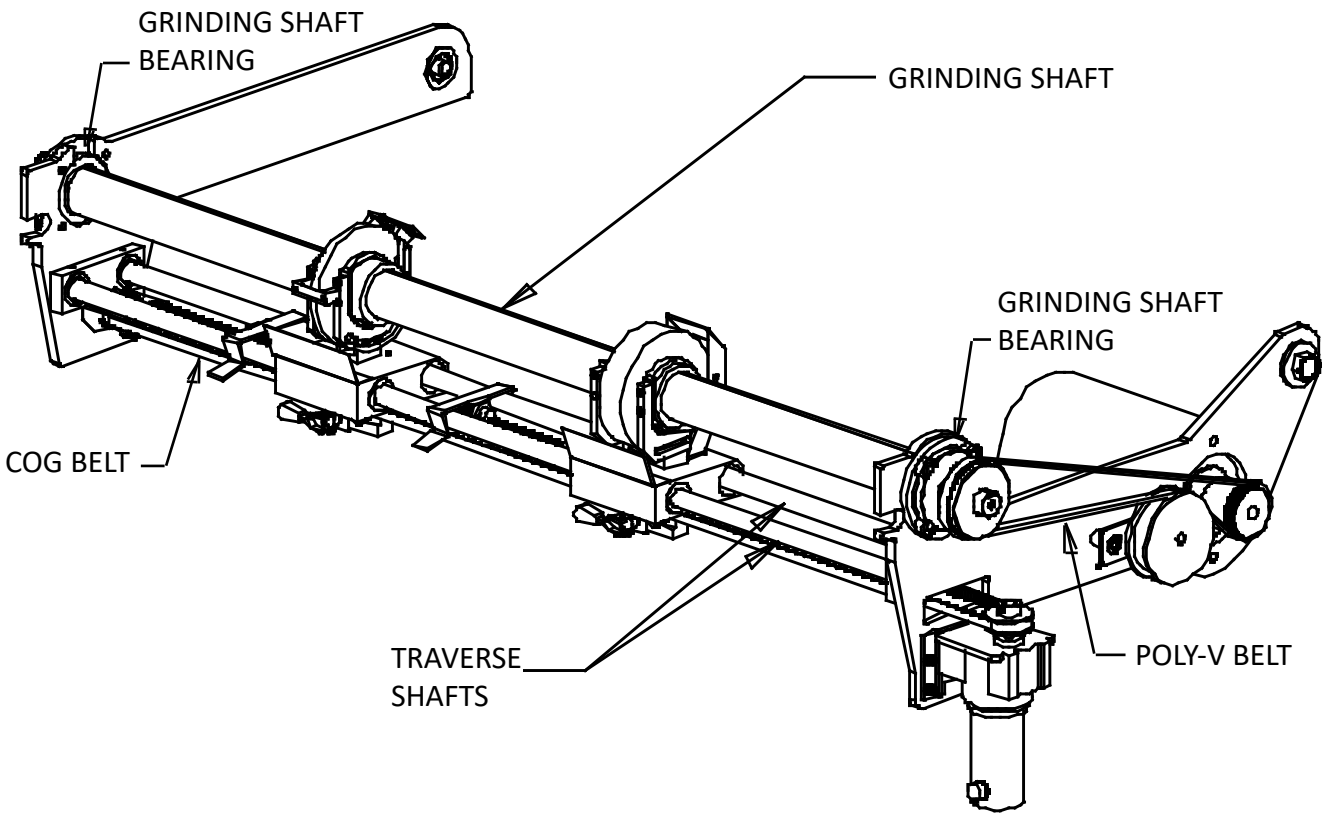


FIG. 3

REPLACEMENT OF GRINDING WHEEL

To replace the wheel lower the left side of the grinding shaft and raise the right side.

To remove the left side bearing: first, loosen the setscrews on the bearing collar, then remove the four screws that hold the bearing to the left arm.

Slide the grinding wheel hub assembly(s) off the shaft, taking note of what side the nut is on. Use the spanner wrench to remove and replace the grinding wheel(s).

Place the grinding wheel hub assembly(s) back on the grinding shaft. Verify that the spin hub is located between the spin drive yoke assembly before lowering the grinding shaft.

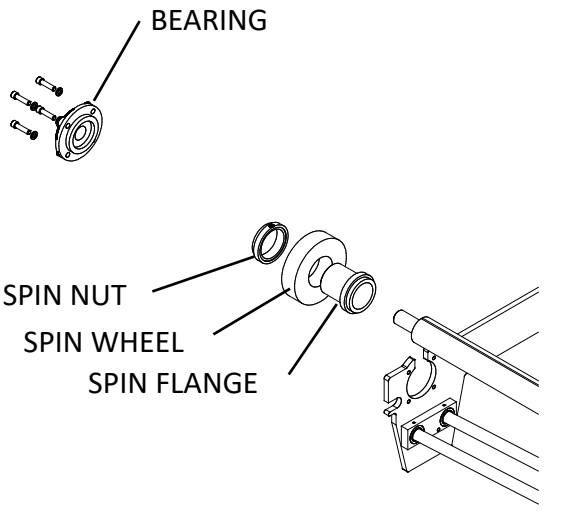


FIG. 4

MAKE SURE THE WHEEL(S) IS PLACED ON THE SHAFT WITH THE SAME ORIENTATION AS SHOWN. FAILURE TO INSTALL CORRECTLY WILL CAUSE THE WHEEL NUT TO LOOSEN. (THE NUT ON THE RELIEF HUB SHOULD BE TO THE RIGHT & THE NUT ON THE SPIN HUB SHOULD BE TO THE LEFT.)

Reinstall the bearing on the left side of the grinding shaft making sure to fit the pilot on the bearing into arm. Tighten the four mounting screws, and then tighten the setscrews to the shaft.

GRINDING MOTOR BELT REPLACEMENT/ ALIGNMENT

To replace or inspect the grinding motor belt, remove the right side cover panel. To remove the belt, pull down on the tensioner pulley.

For the belt to function properly the grinding shaft pulley and the grinding motor pulley must be in line with the tensioner pulley. To adjust the pulley position, loosen the setscrews on the pulley. Locate the belt in the center of the idler pulley. Measure from the arm to the edge of the belt at the idler pulley. Adjust the two other pulleys until the same measurement is achieved and tighten the pulley setscrews.

Reinstall the right side cover panel, then run the grind motor to assure that the belt is not misaligned. The belt will walk off the pulley if the system is not aligned properly.

TRAVERSE BELT REPLACEMENT

To replace the traverse belt, loosen the nuts on the left side ulley that are used to tension the belt. Loosen the screws holding the traverse motor and tilt the bottom of the motor out, releasing any remaining tension on the belt. On the left side remove the nut from the bottom belt tensioning screw. This will allow the belt to be removed.

Place a new belt on the left pulley, making sure it is seated properly in the cogged teeth, and replace the locknut. Feed the new belt through the slot on the right arm and place on motor pulley. Use the motor as a lever to apply tension to the new belt. Tighten motor screws and adjust the tension in the belt as specified in the BELT TENSION section. Adjust the height of the motor pulley if necessary so the belt is located in the center of the traverse belt clamp.

Reinstall the left side and right side cover panels, then test the traverse motor.

FIG. 6

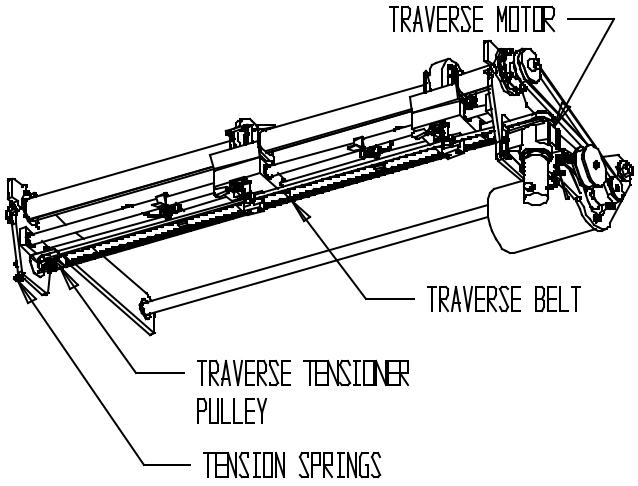


FIG. 7

CLEANING AND MAINTENANCE GUIDELINES FOR POLYCARBONATE WINDOWS

CLEANING INSTRUCTIONS

DO NOT USE GASOLINE!
Adherence to regular and proper cleaning procedures is recommended to preserve appearance and performance.

Washing to Minimize Scratching
Wash polycarbonate windows with a mild dish washing liquid detergent and lukewarm water, using a clean soft sponge or a soft cloth. Rinse well with clean water. Dry thoroughly with a moist cellulose sponge to prevent water spots. Do not scrub or use brushes on these windows. Also, do not use butyl cellosolve in direct sunlight.

Fresh paint splashes and grease can be removed easily before drying by rubbing lightly with a good grade of VM&P naphtha or isopropyl alcohol. Afterward, a warm final wash should be made, using a mild dish washing liquid detergent solution and ending with a thorough rinsing with clean water.

Minimizing Hairline Scratches
Scratches and minor abrasions can be minimized by using a mild automobile polish. Three such products that tend to polish and fill scratches are Johnson paste Wax, Novus Plastic Polish #1 and #2, and Mirror Glaze plastic polish (M.G. M10). It is suggested that a test be made on a corner of the polycarbonate window with the product selected following the polish manufacturer's instructions.

Some Important "DON'TS"
- **DO NOT** use abrasive or highly alkaline cleaners on the polycarbonate windows.
- **Never** scrape polycarbonate windows with squeegees, razor blades or other sharp instruments.
- Benzene, gasoline, acetone or carbon tetrachloride should **NEVER** be used on polycarbonate windows.
- **DO NOT** clean polycarbonate windows in hot sun or at elevated temperatures.

Graffiti Removal
- Butyl cellosolve, (for removal of paints, marking pen inks, lipstick, etc.)
- The use of masking tape, adhesive tape or lint removal tools works well for lifting off old weathered paints.
- To remove labels, stickers, etc., the use of kerosene, VM&P naphtha or petroleum spirits is generally effective. When the solvent will not penetrate sticker material, apply heat (hair dryer) to soften the adhesive and promote removal.

GASOLINE SHOULD NOT BE USED!

PROXIMITY SWITCH

For the proximity switch to perform properly and reverse the direction of the grinding head assembly, the sensor end of the prox must face toward the head assembly that is in use, and must be mounted such that it is located past the edge of the prox holder.

NOTE: The light on the proximity switch activates when metal is approximately 3/16" [4.6 mm] from front of proximity switch.

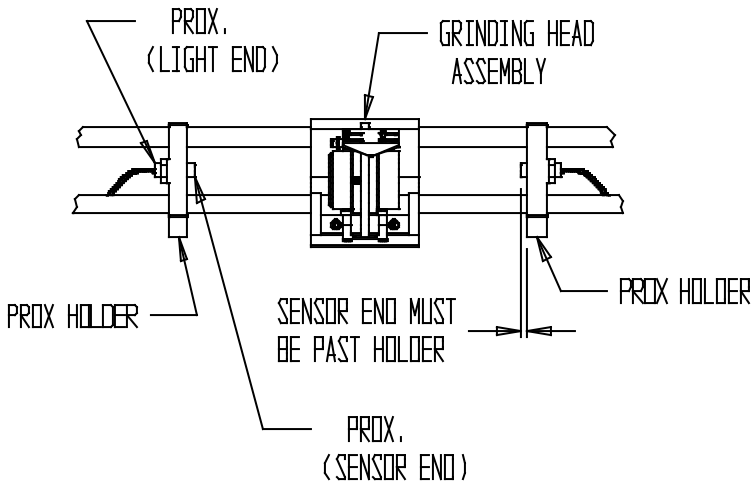


FIG. 9

SPIN MOTOR ADJUSTMENT

If the spin drive motor is moving during operation, or does not move freely into position, adjust the tension of the 2 T-Handles. See FIG. 25.

FIG. 25

TRAVERSE BELT TENSION

To adjust the tension on the traverse belt, tighten the screws and nuts located at the left side of the traverse belt. Tighten the nuts until the compression springs measure 3/4" [19mm]. See FIG. 26. If the springs are not tensioned equally, uneven loading on the traverse system may cause parts to fail.

DO NOT OVERTIGHTEN. OVERTIGHTENING COULD DAMAGE THE BELT OR TRAVERSE DRIVE SYSTEM.

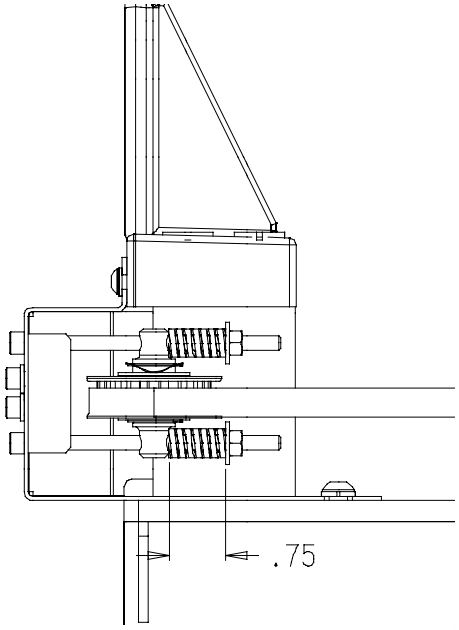


FIG. 26

TRAVERSE CLAMP FORCE

If the traverse clamp is slipping during regular operation it may be necessary to tighten the clamp. To tighten, loosen the jam nut on the clamp tip. Screw the tip out so there is .10" gap between the tip and the Clamp Support Block. See FIG 27. Lock in place by tightening the jam nut against the clamp being careful not to move the tip. Verify the distance between the clamp tip and block is still .10". The .10" setting allows slippage in a jam situation and damage can occur if this adjustment is set to narrow.

CAUTION SHOULD BE USED AS ADJUSTING THE TIP WILL AFFECT THE SLIP LOAD AND COULD DAMAGE THE CLAMP TIP, BELT OR TRAVERSE DRIVE SYSTEM.

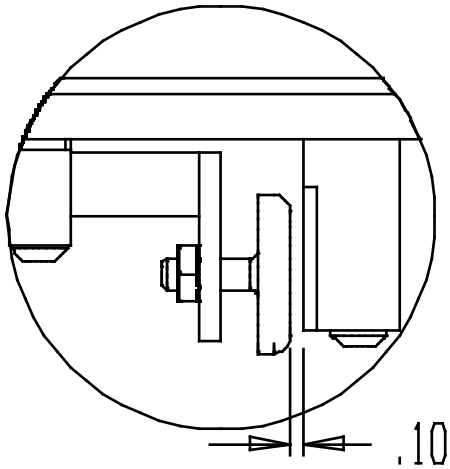


FIG. 27

CONTROL BOARD POTENTIOMETER ADJUSTMENTS

TRAVERSE DRIVE CONTROL BOARD (TDC)
The Traverse Drive Control Board has nine potentiometers and four switches as shown on drawing 6524511 which is included. These potentiometers and switches have been set at the factory to the positions shown on the drawing. Also see FIG. 23 and FIG. 24.

Fwd Accel & Rev Accel---FWD ACC & REV ACC
The potentiometer is factory preset to the minimum full counterclockwise 8:30 position. This position turns the Acceleration/Deceleration off for this application.

Maximum Speed---MAX SPD
The maximum speed potentiometer is preset to position for 90 Volts DC output to the traverse motor at terminals A1 and A2.

IR Compensation---IR COMP
The IR Comp control is preset to 3:00 position. Never adjust past the 4:30 position.

Regulation of the traverse motor may be improved by slight adjustment of the IR COMP trim pot clockwise from its factory set position. Overcompensation causes the motor to oscillate or to increase speed when fully loaded. If you reach such a point, turn the IR COMP trim pot counterclockwise until the symptoms just disappear.

Rev Torque---REV TQ
The Reverse Torque setting determines the maximum current limit for driving the motor in the reverse direction. The potentiometer is preset to the 10:30 position. It should not require adjustment.

Fwd Torque---FWD TQ
The Forward Torque setting determines the maximum current limit for driving the motor in the forward direction. The potentiometer is preset to the 10:30 position. It should not require adjustment.

Deadband---DB
This motor control board has a potentiometer which must be set for 50 HZ or 60 HZ operation. For 60 HZ set to 3:00 position. For 50 HZ set to 9:00 position.

Minimum Speed---MIN SPD
The potentiometer is factory preset to the minimum full counterclockwise 8:30 position.

Tach---TACH
The tach potentiometer is not used in this application. It should be a the factory setting of 8:30.

Armature Switch---ARMATURE 90-180
This switch is factory preset to the 90 position for a 90 VDC motor..

Feedback Switch--- FEEDBACK ARM-TACH
This switch is factory preset to the ARM position.

The lower control board has two switches. Both switches are factory preset to 115 for 115 VAC operation.

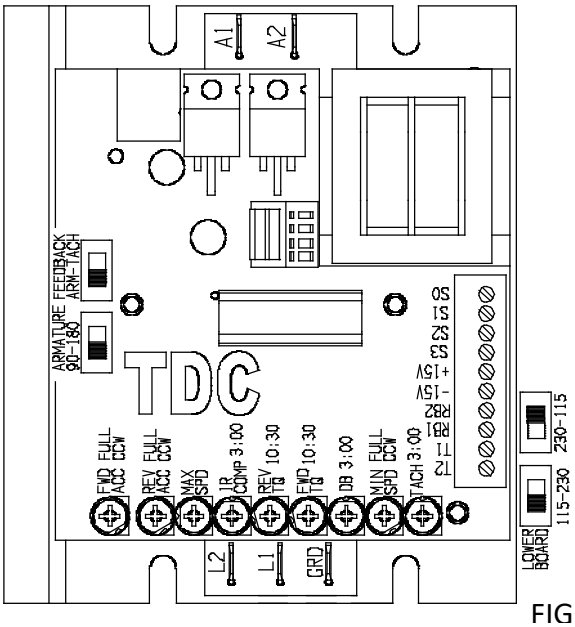
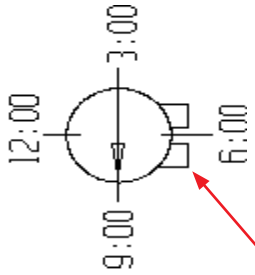


FIG. 23



Potentiometer Clock Orientation

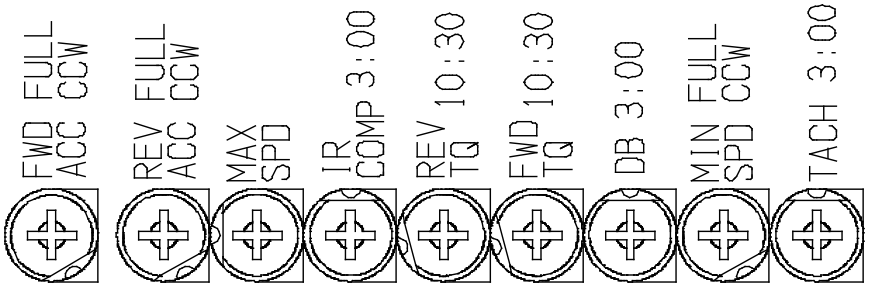


FIG. 24

Terminal ends (Feet) are always at the 6:00 position, no matter how the potentiometer is orientated on the board.

CONTROL BOARD POTENTIOMETER ADJUSTMENTS

SPIN DRIVE CONTROL BOARD (SDC)
The Spin Drive Control Board has four potentiometers, two switches and one dial as shown on FIG. 17. These potentiometers,switches and dial have been set at the factory to the positions shown on FIG. 17.

In the Spin Grinding Mode--
The Spin Torque Potentiometer (STP) and the Spin Speed Pot (SSP) interact with each other. The (STP) is located on the spin board as remote torque preset at 2:00 for torque setting. See FIG. 17. The (SSP) is located on the control panel and is for spin speed adjustment.

Spin Torque Pot (STP) controls maximum torque allowable in the spin grinding cycle only. This should never be adjusted past the 3:00 position. If the reel does not turn, check that the reel is free turning by hand spinning with the power OFF and the spin drive disconnected.

The Spin Speed Pot (SSP) controls reel spin speed, adjust as required. This controls the spin drive speed for spinning the reel.

IR COMP Pot--
The IR Compensation Pot is factory set at 9:00. Regulation of the spin or relief grind spin motor may be improved by a slight adjustment of the IR COMP Pot clockwise from its factory-set position. Overcompensation causes the motor to oscillate or to increase speed when fully loaded. If you reach such a point, turn the IR COMP Pot counterclockwise until symptoms just disappear.

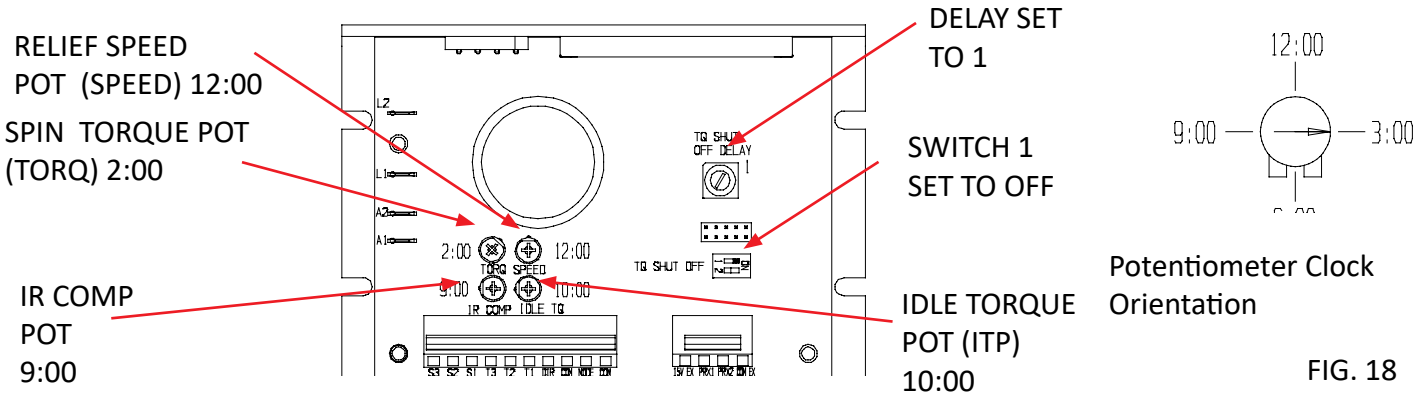


FIG. 18

SKILL AND TRAINING REQUIRED FOR ELECTRICAL SERVICING

This Electrical Troubleshooting section is designed for technicians who have the necessary electrical knowledge and skills to reliably test and repair the ACCU-Touch electrical system. For those without that background, service can be arranged through your local distributor.

This manual presumes that you are already familiar with the normal operation of the grinder. If not, you should read the Operator's Manual, or do the servicing in conjunction with someone who is familiar with its operation.

Persons without the necessary knowledge and skills should not remove the control box cover or attempt any internal troubleshooting, adjustments, or parts replacement.

If you have any question not answered in this manual, please call your distributor. They will contact the manufacturer if necessary.

WIRE LABELS

All wires on the ACCU-Master have a wire label at each end for assembly and troubleshooting. The wire label has a code which tells you wiring information. The first set of two or three numbers are the Foley wire number. The next group of letters or numbers are the code for the component to which the wire attaches. Example: RT1 for Relay Terminal 1. The last set of numbers or letters is the name of the terminal on the component to which the wire attaches.

TERMINAL BLOCKS:

To insert or remove a wire from the terminal block, insert a small screw driver into the square hole. Then insert or remove wire from the round hole. Remove screwdriver to lock the wire in place.

Note the square hole can also be used when checking for voltages. The probe tip of the multimeter can be inserted into the square hole to take readings.

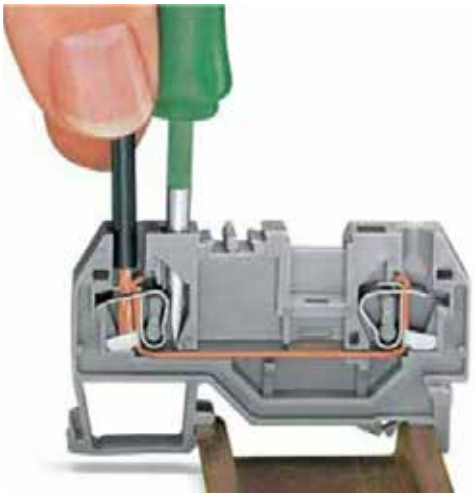


FIG. 28

6339541 REAR CLAMP ASSEMBLY

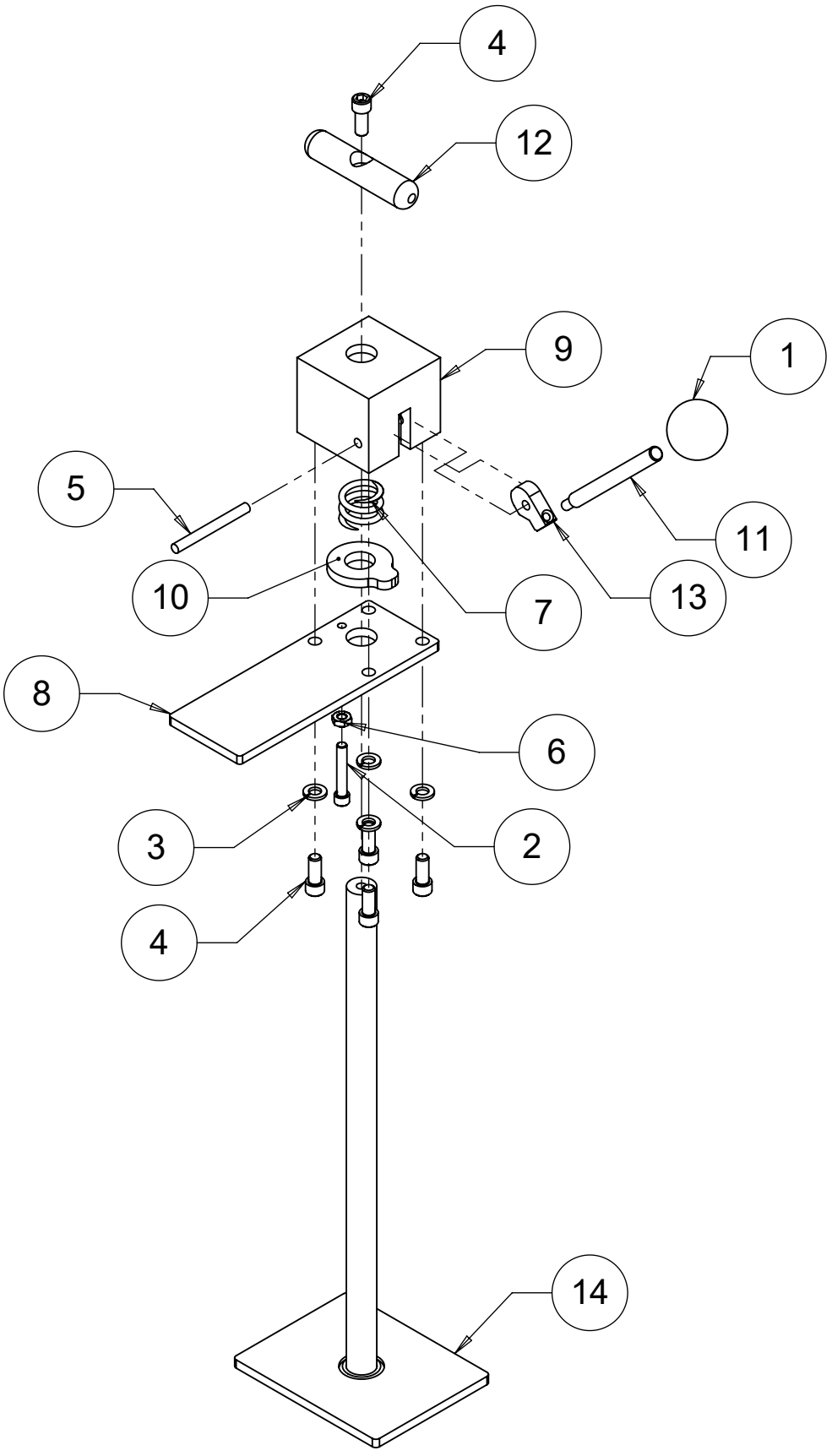


DIAGRAM NO.	PART NUMBER	DESCRIPTION
1	09351	KNOB - BALL 1.18 OD x 3/8-16F (B27)
2	B252431	1/4-28 x 1.5 SOCKET HEAD CAP SCREW FULL THREAD
3	K311501	5/16 LOCKWASHER SPLIT
4	B311211	5/16-18 x 3/4 SOCKET HEAD CAP SCREW
5	H252807	PIN - DRIV LOC .25 D x 1.75 LG
6	J252100	JAM NUT 1/4-28
7	3706207	COMPR SPRING .84 ID X .88 LG
8	6339160	CLAMP BAR
9	6339161	CLAMP HOUSING
10	6339163	CLAMP RING
11	6339164	LEVER HANDLE
12	6339165	BASE HANDLE
13	6339212	CAM LOCK
14	6339540	REAR CLAMP WELDMENT

6339545 REAR GUARD DOOR ASSY.

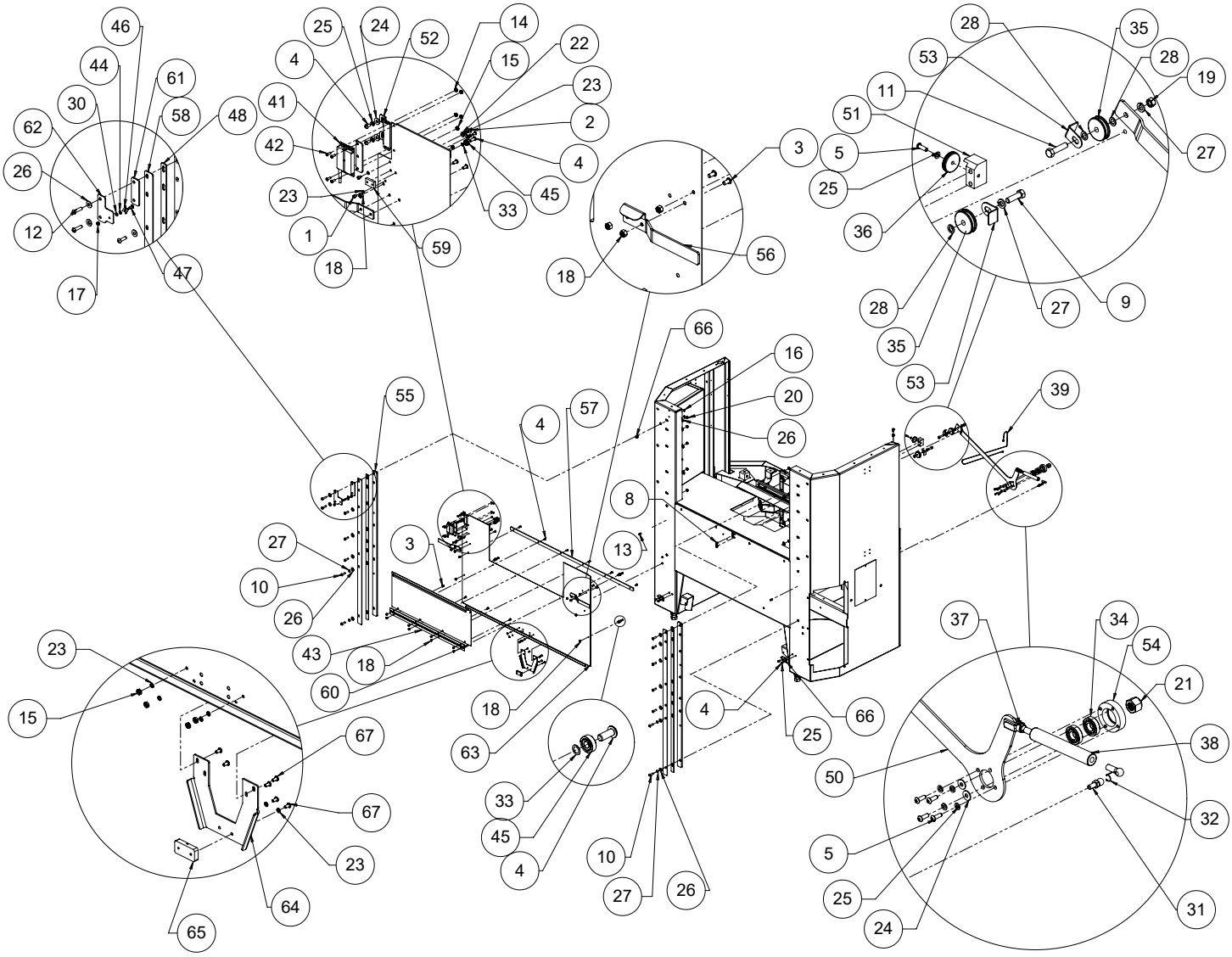


DIAGRAM NO.	PART NO.	DESCRIPTION
1	B190411	10-24x1/4 SOCKET HEAD CAP SCREW
2	B190613	10-24x3/8 BUTTON HEAD SOCKET SCREW CAP
3	B250816	1/4-20x1/2 BUTTON HEAD SOCKET SCREW CAP
4	B251016	1/4-20x5/8 BUTTON HEAD SOCKET SCREW CAP
5	B251216	1/4-20x3/4 BUTTON HEAD SOCKET SCREW CAP
6	B310813	5/16-18x1/2 BUTTON HEAD SOCKET SCREW CAP
7	B370801	3/8-16x1/2 HEX HEAD CAP SCREW
8	B370816	3/8-16x1/2 BUTTON HEAD SOCKET SCREW CAP
9	B372001	3/8-16x1-1/4 HEX HEAD CAP SCREW
10	B372016	3/8-16x1.25 BUTTON HEAD SOCKET SCREW CAP
11	B372401	3/8-16x1-1/2 HEX HEAD CAP SCREW
12	B372416	3/8-16 X 1-1/2 BUTTON HEAD SOCKET SCREW CAP
13	H371202	ROLL PIN .375Dx.75
14	J167000	8-32 LOCKNUT JAM
15	J191000	10-24 HEX NUT
16	J252000	1/4-20 HEX JAM NUT
17	J257000	1/4-20 LOCKNUT JAM
18	J257100	1/4-20 LOCKNUT
19	J371000	3/8-16 HEX NUT
20	J377000	3/8-16 LOCKNUT JAM
21	J627100	5/8-11 LOCKNUT
22	K190001	FLAT WASHER #10 SAE
23	K191501	#10 LOCKWASHER SPLIT
24	K250001	FLAT WASHER 1/4 SAE
25	K251501	1/4 LOCKWASHER SPLIT
26	K370001	FLAT WASHER 3/8 SAE
27	K371501	3/8 LOCKWASHER SPLIT
28	09054	FLAT WASHER .387x..625X.065
29	55492	DOOR SAFETY SWITCH PLATE
30	80406	FLAT WASHER .27IDx.50 x .06
31	80418	STUD GAS SPRING
32	80421	RETAINING CLIP GAS
33	3249153	FLAT WASHER .252x.375x.018
34	3706032	BALL BRG R10 W/OIL
35	3706097	PULLEY 1.75OD X .37ID
36	3706098	PULLEY 1.5OD X .25ID
37	3706099	CLEVIS ROD END M8
38	3706100	GAS SPRING 202# 3.9 STROKE
39	3706212	CABLE ASSY REAR DOOOR
40	3707029	STRAIN RELF LIQUID TIGHT
41	3707908	DOOR SWITCH WITH DISCONNECT
42	3708820	8-32x.50 BUTTON HEAD SAFETY SCREW
43	3708869	SPRING HINGE
44	3708998	WAVE SPRING .35 ID
45	3709597	BALL BEARING
46	6329131	CATCH
47	6329133	CATCH PIN
48	6329136	REAR SLIDE SPACER
49	6329137	REAR SLIDING DOOR
50	6329163	REAR DOOR ARM
51	6329164	PULLEY BLOCK
52	6329165	DOOR SWITCH BRACKET
53	6329166	CABLE GUIDE
54	6329167	BEARING BLOCK
55	6329172	REAR DOOR INNER SLIDE
56	6329174	REAR DOOR LIFT HANDLE
57	6329175	REAR DOOR STIFFENER
58	6329179	REAR DOOR OUTER PLATE
59	6329180	DOOR STOP BLOCK
60	6329181	HINGED WALKER PANE
61	6329182	DOOR STOP SPACER PLATE
62	6329183	DOOR CATCH BRACKET
63	6339168	REAR DOOR SLIDE UP
64	6339169	REAR DOOR CABLE BRACKET
65	6339170	CABLE CLAMP BLOCK
66	6339171	DOOR STOP BLOCK
67	B190813	10-24X1/2 BUTTON HEAD SOCKET CAP SCREW

6339505 - SPIN DRIVE ASSEMBLY.

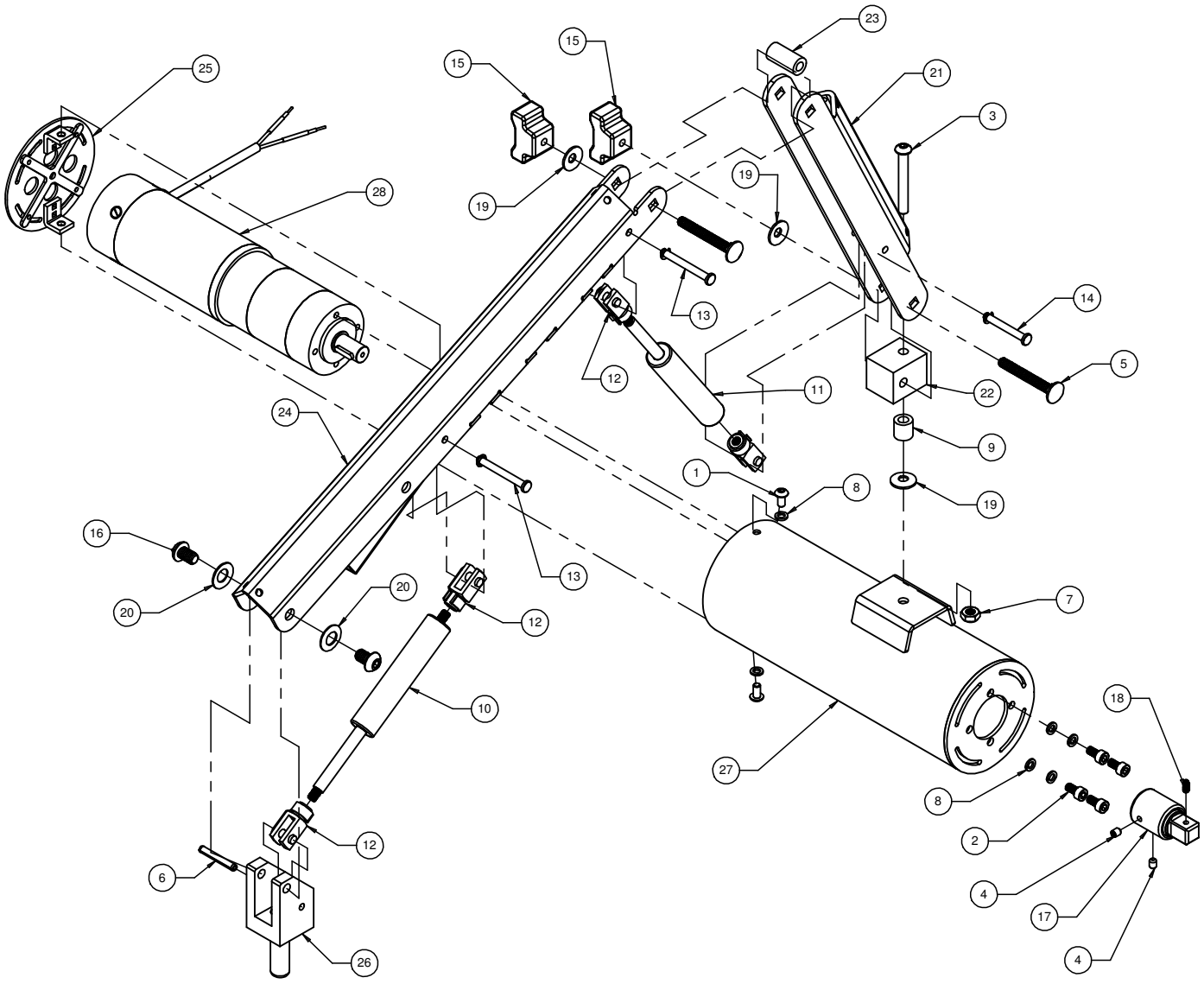


DIAGRAM NO.	PART NO.	DESCRIPTION
1	B190613	10-24 x 3/8 BUTTON HEAD SOCKET CAP SCREW
2	B200611	M5-.8 x 10 SOCKET HEAD CAP SCREW METRIC
3	B253216	1/4-20 x 2 BUTTON HEAD SOCKET CAP SCREW
4	C190420	10-24 x 1/4 SOCKET SET SCREW CAP POINT
5	E253200	CARRIAGE BOLT 1/4-20 x 2.00
6	H182002	PIN - ROLL .188Dx1.25LG
7	J257000	1/4-20 LOCKNUT JAM NYLON INSERT
8	K191501	#10 LOCKWASHER SPLIT
9	3109027	SPACER .281 ID x .50 OD x .50 L STL
10	3706138	GAS SPRING 130# 1.97"STROKE
11	3706255	GAS SPRING 30# 1.97" STROKE
12	3706155	STEEL CLEVIS ROD END FOR M6 x 1
13	3706156	CLEVIS PIN 3/16 x 1-3/4L
14	3706157	CLEVIS PIN 3/16 x 1-1/2L
15	3706158	KNOB T 1.5 1/4-20F
16	3706159	5/16-18 x .5" BUTTON HEAD SOCKET CAP SCREW W/PATCH
17	3706165	MOTOR DRIVE ADAPTER 12MM-1/2 SQ
18	3706166	8-32 BALL NOSE SPRING PLUNGER
19	3708861	CONICAL WASHER .258 x .688 x .048
20	3709062	CONICAL WASHER .382 x .75 x .035 T
21	6339005	SPIN DRIVE UPPER ARM
22	6339006	SPIN MOTOR PIVOT BLOCK
23	6339012	SPACER .26 ID x .5 OD x 1.0 L
24	6339501	SPIN DRIVE LOWER ARM WELDMENT
25	6339503	MOTOR HOUSING END CAP
26	6339504	SPIN DRIVE BASE PIVOT BLK ASSY
27	6339564	MOTOR HOUSING WELDMENT W/ SLOT
28	6339565	SPIN MOTOR ASSY 1.9A

6229504 - INFEED TOWERS

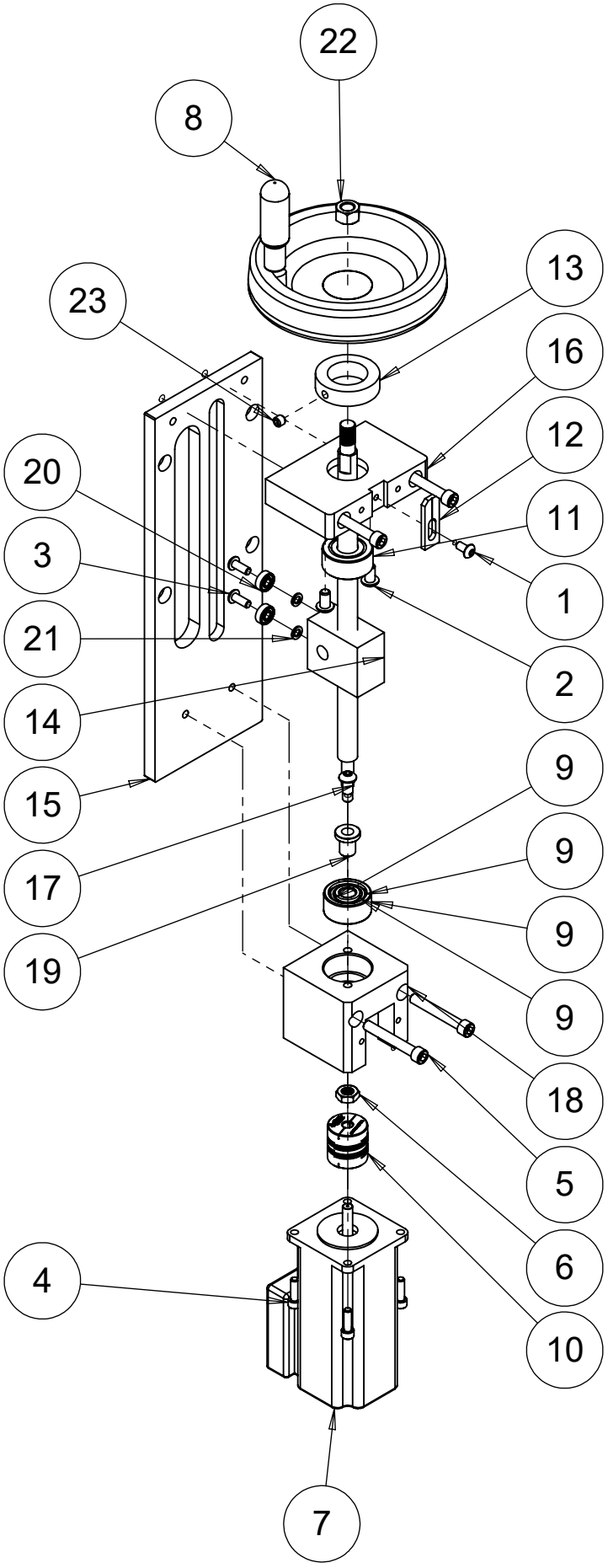
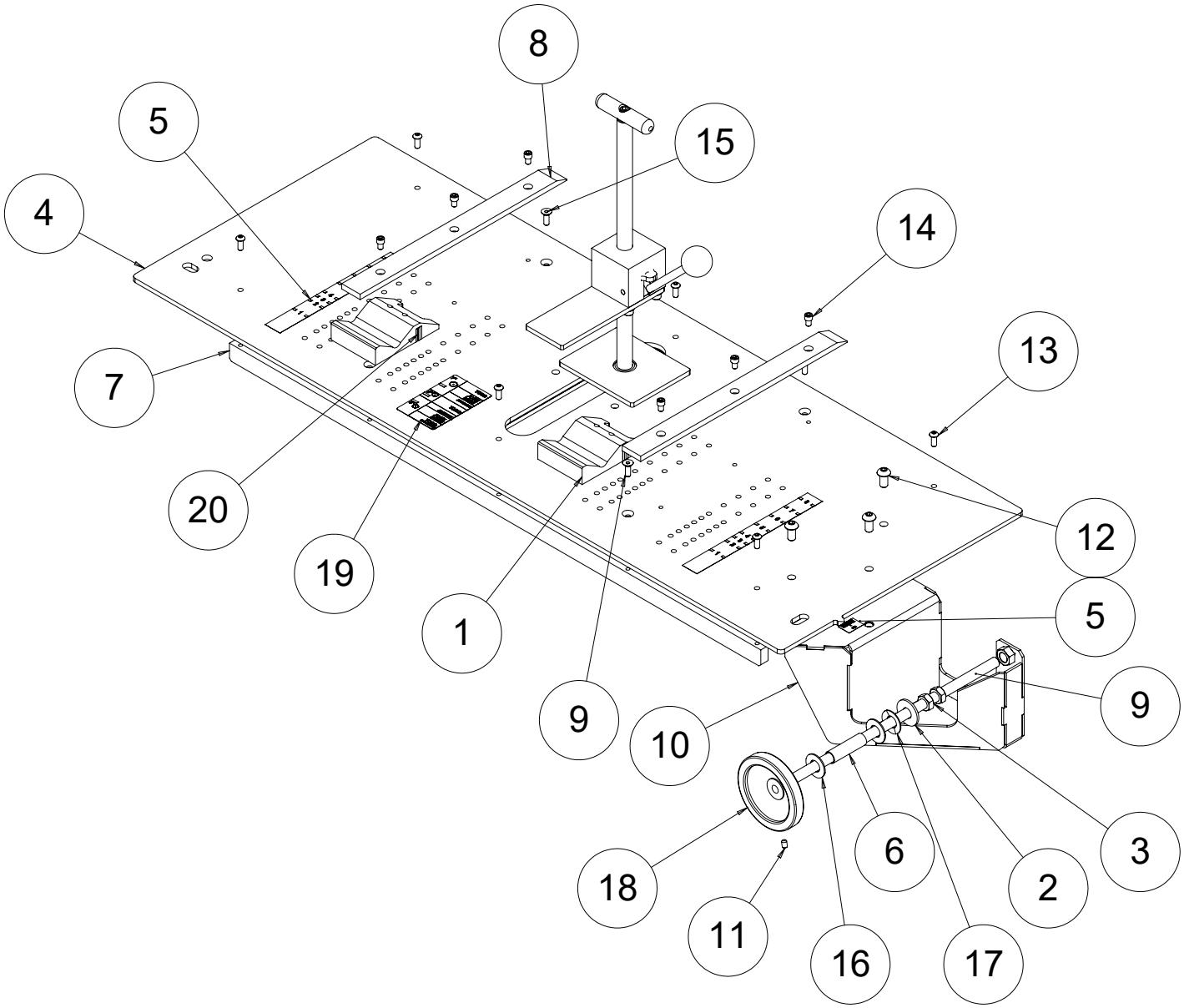


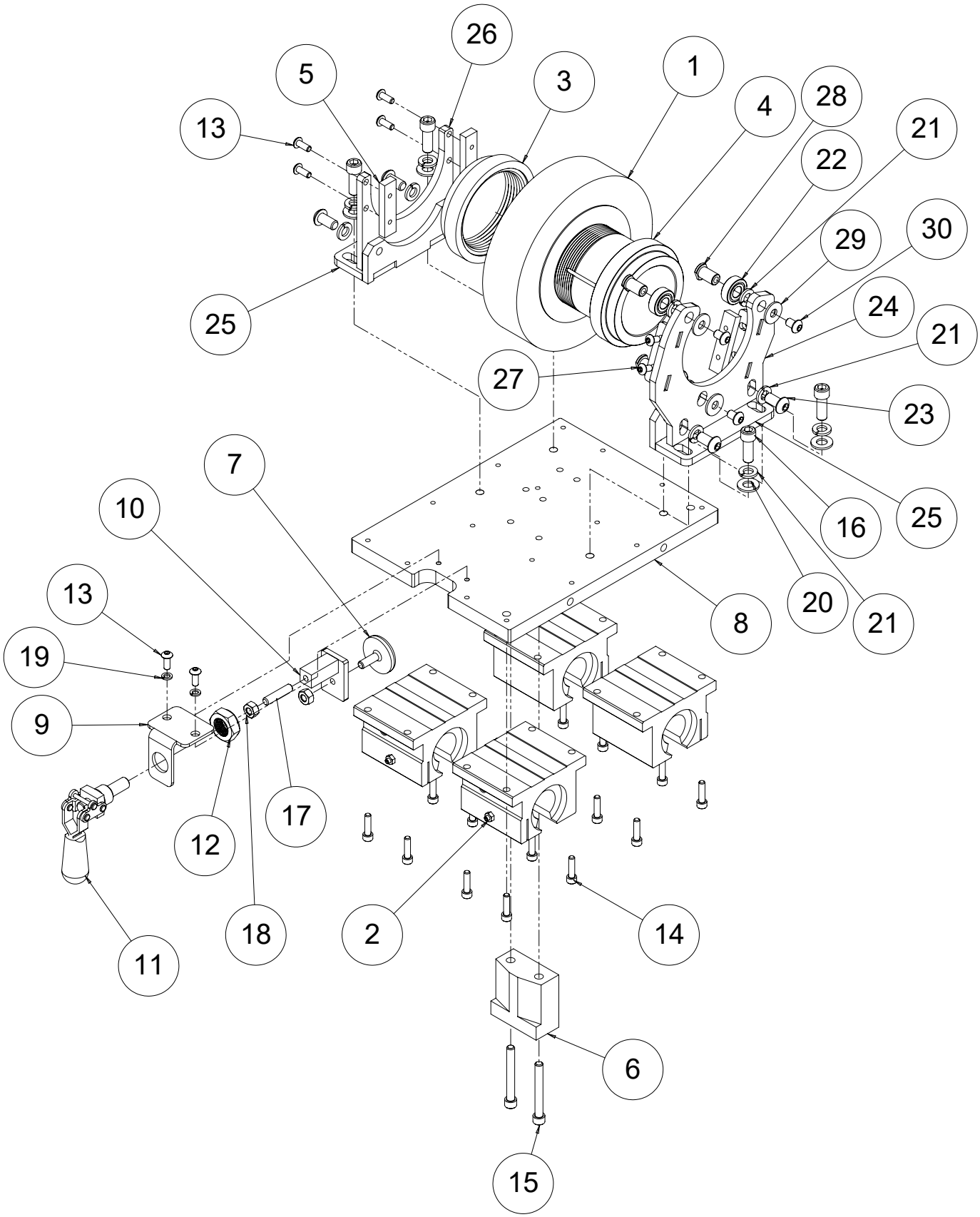
DIAGRAM NO	PART NO.	DESCRIPTION
1	B190613	10-24x3/8 BHSCS
2	B250616	1/4-20x3/8 BHSCS
3	B190813	10-24x1/2 BHSCS
4	B191011	10-24x5/8 SHCS
5	B252811	1/4-20x1-3/4 SHCS FULL THD
6	J312000	5/16-18 HEX NUT JAM
7	3706281	STEPPER MOTOR, SIZE23, RS232
8	6229158	INFEED HANDLE
9	3708187	BALL BRG DBL ROW 5200-2RS WJB
10	3708629	COUPLING FLEX 1x1x.25 BORE
11	3706331	SELF ALIGNING BEARING, 32mm X 12mm
12	3809047	INDICATOR - CLEAR
13	6059082	RING - CALIBRATION
14	6229035	ARM BLOCK
15	6229037	INFEED BASE PLATE
16	6229067	INFEED UPPER SUPPORT
17	6229069	INFEED SCREW
18	6229070	INFEED BASE BLOCK
19	6329138	BEARING SLEEVE
20	3706026	BALL BRG MRC-R3ZZ
21	K191501	#10 LOCKWASHER SPLIT
22	J377000	3/8-16 LOCKNUT JAM NYLON INSERT
23	C250420	1/4-20x1/4 SSS CPPT

6229505 - REAR TOOLING



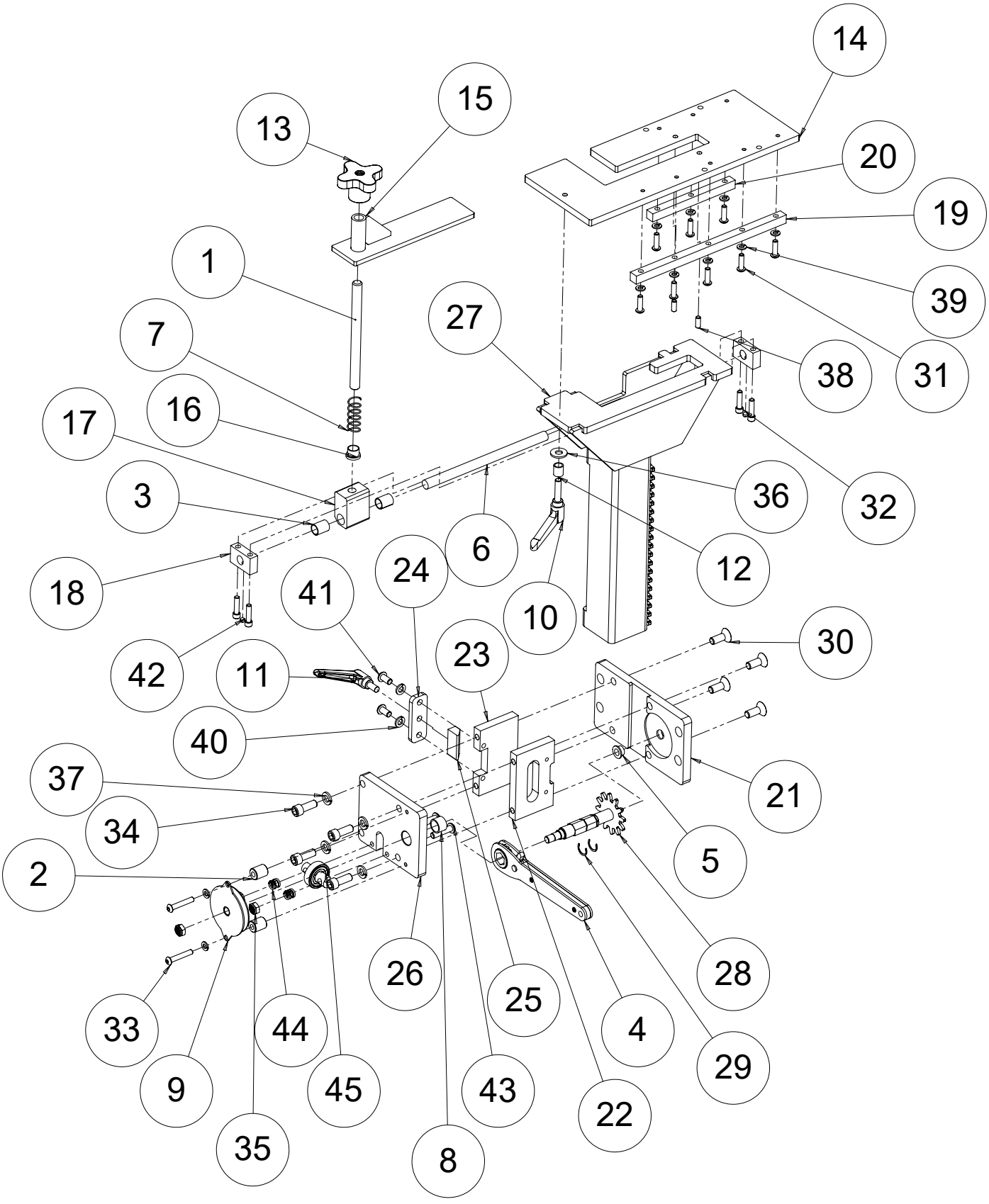
ITEM NO.	PART NUMBER	DESCRIPTION
1	H251001	PIN - DOWEL .250Dx.625LG
	6229101	V BLOCK
2	K500001	FLAT WASHER 1/2 SAE
3	J502000	1/2-13 HEX JAM NUT GR 5
4	6229519	REAR TOOLING WELDMENT
5	6229133	REAR TOOLING DECAL
6	6229114	ADJUSTER SPACER
7	6229095	REEL PLATE RIB
8	6229073	ROLLER RAMP
9	6229029	TOOLING ADJUSTMENT SHAFT
10	6229549	SCREW MOUNT WELDMENT
11	C250627	1/4-20x3/8 SSS CPPT NYLON
12	B371216	3/8-16x3/4 BHSCS
13	B251016	1/4-20x5/8 BHSCS
14	B250611	1/4-20x3/8 SHCS
15	B251205	1/4-20x3/4 FHSCS
16	3706310	THRUST WASHER, BRONZE, 5/8 SHAFT
17	3706311	DISC SPRING, .63ID, 1.25OD
18	6229145	HANDWHEEL - REAR TOOLING
19	6229140	REEL LOCATION DECAL
20	6229132	PIN LOCATION DECAL

6229517 - SPIN ASSEMBLY



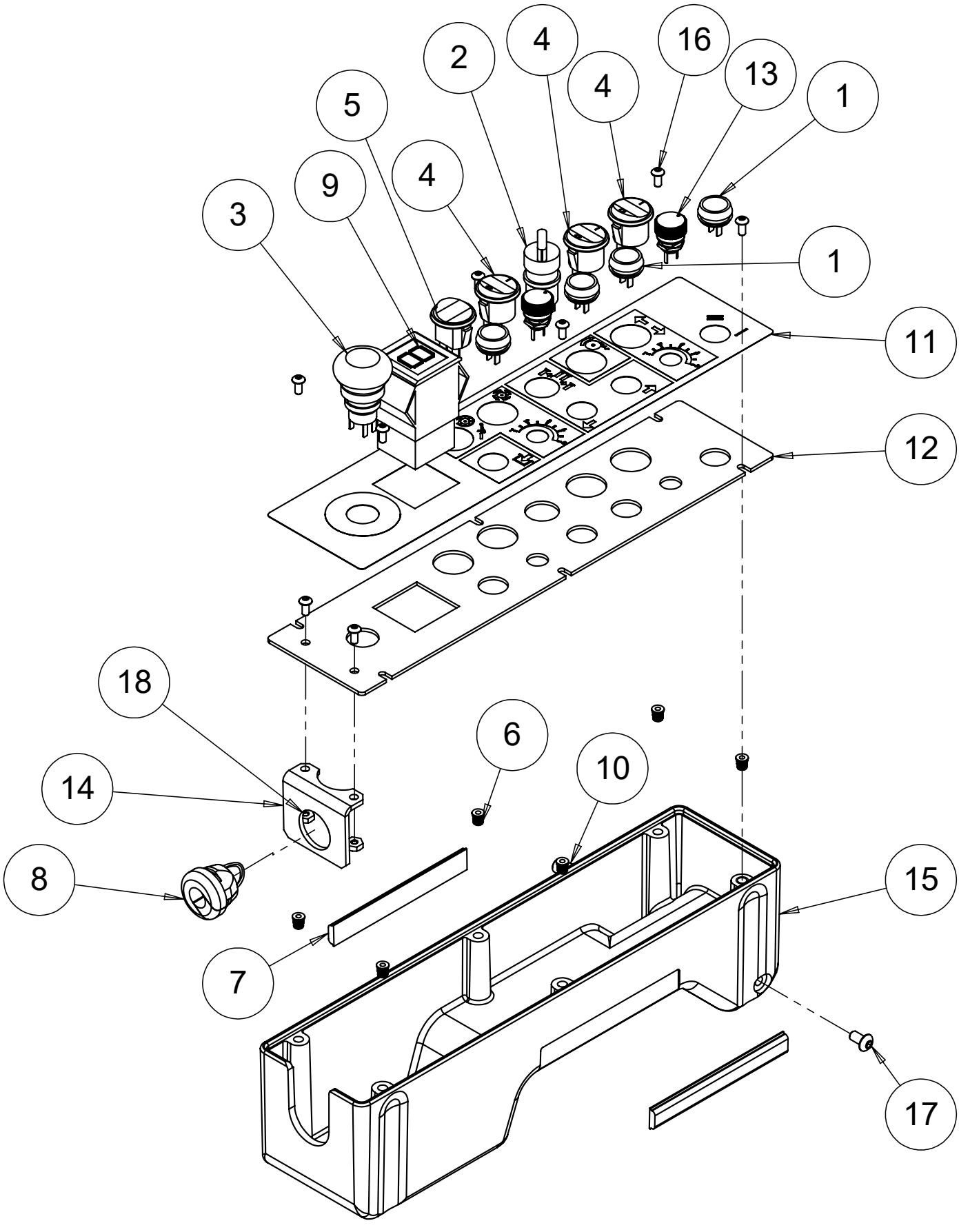
ITEM NO.	PART NUMBER	DESCRIPTION
1	05720	GR WHEEL 6x2.75Bx1.5W 46G RESIN
2	3709044	BALL BRG BUSHING
3	50037	SPIN FLANGE NUT
4	50039	SPIN HUB WHEEL FLANGE
5	50073	PAD WEAR OILITE
6	50297	SHOE - TRAVERSE
7	50310	TIP BELT CLAMP
8	6229061	SPIN PLATE
9	6229080	CLAMP BRACKET
10	6229533	BELT CLAMP WELDMENT
11	80335	CLAMP DESTACO 602
12	J627200	5/8-18 LOCKNUT JAM NYLON INSERT
13	B190813	10-24x1/2 BHSCS
14	B191211	10-24x3/4 SHCS
15	B253211	1/4-20x2 SHCS
16	B311211	5/16-18x3/4 SHCS
17	C252020	1/4-20x1-1/4 SSS CPPT
18	J252000	1/4-20 HEX JAM NUT
19	K191501	#10 LOCKWASHER SPLIT
20	K310001	FLAT WASHER 5/16 SAE
21	K311501	5/16 LOCKWASHER SPLIT
22	3708036	BALL BRG R6-2RS
23	B311013	5/16-18x5/8 BHSCS
24	6229551	WEAR PLATE 2
25	6229550	WEAR PLATE ANGLE
26	6229179	WEAR PLATE 1
27	B190613	10-24x3/8 BHSCS
28	6229186	BEARING SUPPORT
29	K250001	FLAT WASHER 1/4 SAE
30	B250616	1/4-20x3/8 BHSCS

6229525 FRONT TOOLING



ITEM NO.	PART NUMBER	DESCRIPTION
1	17119	STUD - THD 1/2-13x6.5LG
2	3679096	SPACER .281IDx.625ODx.75L
3	3706189	BRG - DU SLEEVE 1/2 ID X 3/4 LG
4	3706190	RATCHET WRENCH .625" HEX
5	3706191	BRG - OILITE FLANGE .375X.5X.25
6	3706192	1/2"OD X 8" LG SHAFT
7	3706203	SPRING COMPR .72OD X 2 LG
8	3706234	BRG - OILITE SLEEVE .62x.73x.50
9	3706235	DAMPER - 10MM SHAFT
10	3708094	ADJ HANDLE 5/16-18x1.25LG
11	3708908	ADJ HANDLE 3/8-16x.78 LG
12	6009031	SPACER .386IDx.50ODx.56L STL
13	09853	KNOB - 4 PRONG 1/2-13F #DK89
14	6229081	FRONT TOOLING TOP PLATE
15	6229535	FRONT CLAMP WELDMENT
16	6339099	SPRING GUIDE
17	6339100	SLIDE CLAMP BLOCK
18	6339103	SHAFT SUPPORT BLOCK
19	6339104	TOOLING PLATE LONG BRACE
20	6339105	TOOLING PLATE SHORT BRACE
21	6339109	FRONT TOOLING MOUNT PLATE
22	6339111	FRONT TOOLING RIGHT SIDE PLATE
23	6339112	FRONT TOOLING LEFT SIDE PLATE
24	6339113	LOCK PLATE
25	6339114	TOOLING LOCK BLOCK
26	6339207	FRONT TOOLING OUTER PLATE (DAMP
27	6339561	FRONT ROLLER MOUNT MACHINED
28	6339562	PINION SHAFT WELDMENT (DAMPER)
29	3706204	RETAINING RING EXT 5103-62
30	B371625	3/8-16x1 FHSCS
31	B251416	1/4-20x7/8 BHSCS
32	B251631	1/4-28x1 SHCS
33	B252416	1/4-20x1-1/2 BHSCS
34	B371611	3/8-16x1 SHCS
35	J371000	5/16-18 LOCKNUT JAM NYLON INSRT
36	K310001	FLAT WASHER 5/16 SAE
37	K371501	3/8 LOCKWASHER SPLIT
38	H251202	ROLL PIN .25Dx.75LG
39	K251501	1/4 LOCKWASHER SPLIT
40	K311501	5/16 LOCKWASHER SPLIT
41	B311013	5/16-18x5/8 BHSCS
42	C250620	1/4-20x3/8 SSS CPPT
43	B312013	5/16-18x1.25 BHSCS
44	3708868	SPRING COMPR .48OD X .50LG
45	6209583	BRG ASSY LIFT

6229531 PENDANT ASSEMBLY



ITEM NO.	PART NUMBER	DESCRIPTION
1	3706270	MOMENTARY PB GREEN SPST
2	3706271	3-POS SS MTD BLACK DPDT
3	3706272	E-STOP TWIST LOCK DPST
4	3706273	ROCKER SWITCH BLK SPST I/O
5	3706274	ROCKER SWITCH BLK SPST BLANK
6	3706288	THREADED INSERT, 6-32
7	3706289	RUBBER GRIP
8	3707275	STRAIN RELF .37-.43 WIRE .875H
9	3707945	7 SEGMENT DISPLAY
	3707961	MOUNTING CAP FOR 7SEG DISPLAY
10	6229034	PENDANT - PIN
11	6229051	CONTROL DECAL 622
12	6229056	PENDANT - COVER
13	6229122	POTENTIOMETER 10K
14	6229125	STRAIN RELIEF MOUNT
15	6229138	PEDANT HOUSING - FINISHED
16	B130513	6-32x5/16 BHSCS
17	B190613	10-24x3/8 BHSCS
18	J137000	6-32 LOCKNUT JAM NYLON INSERT

6229541 - ELECTRICAL PANEL SUB ASSEMBLY

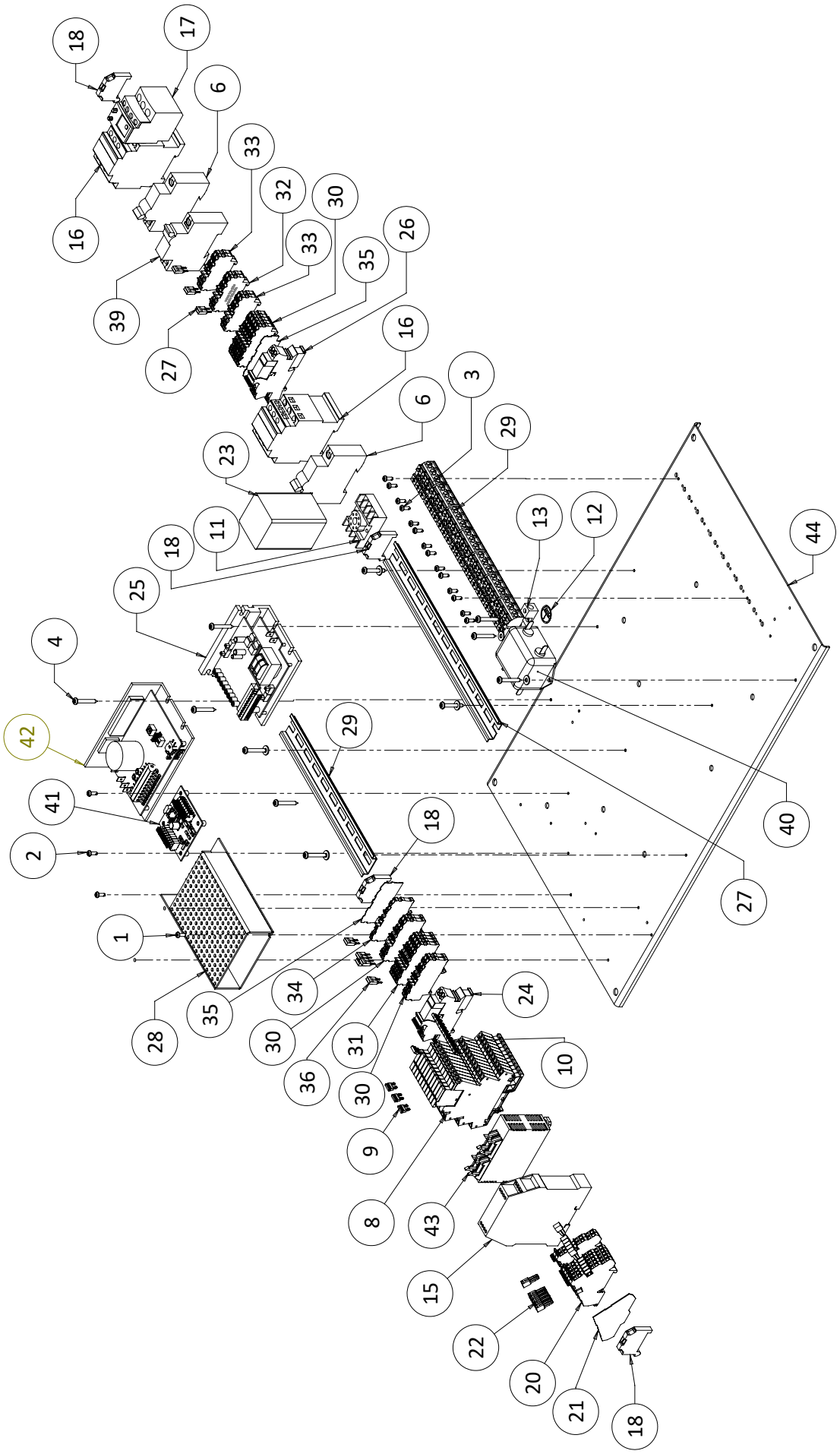
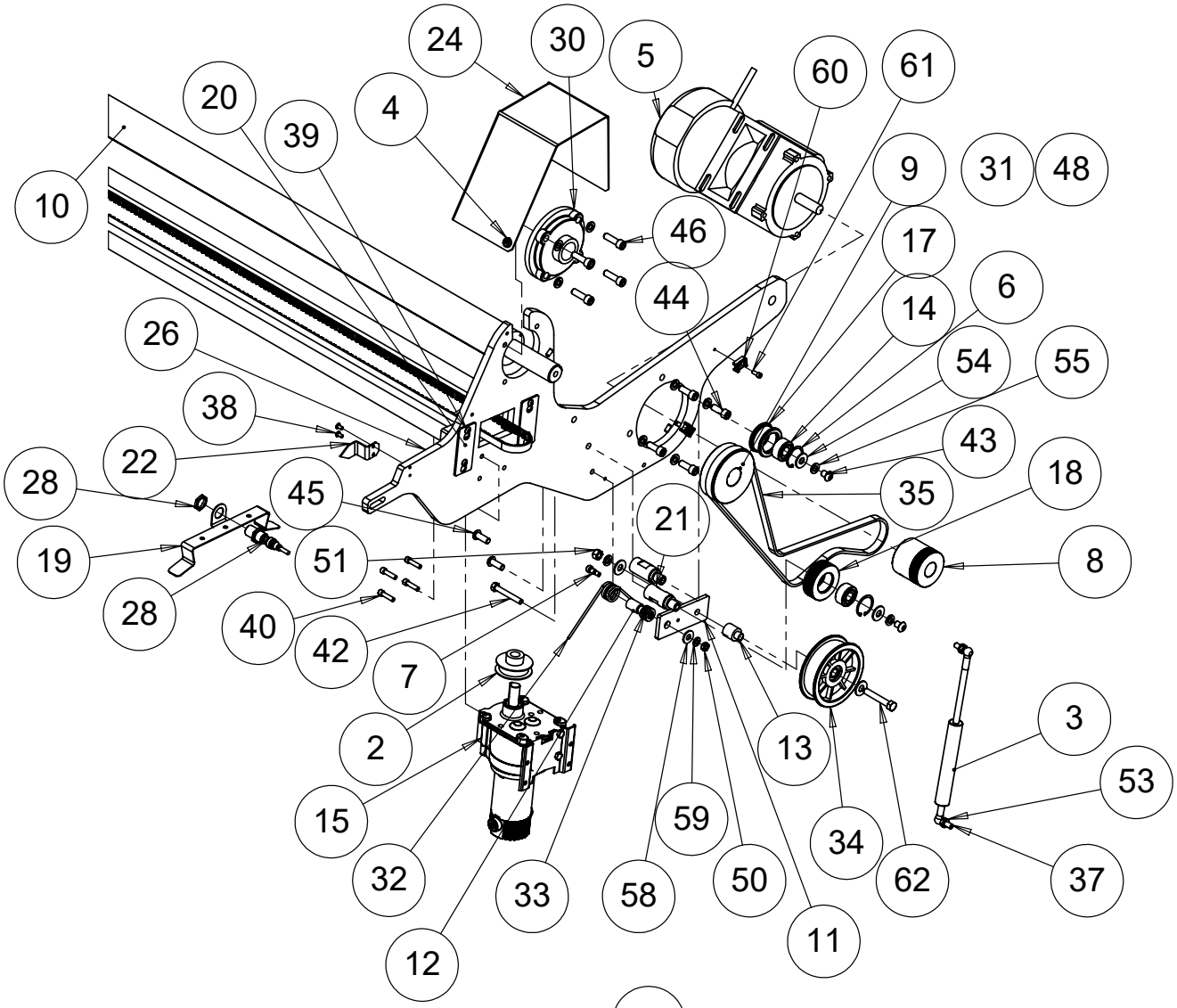
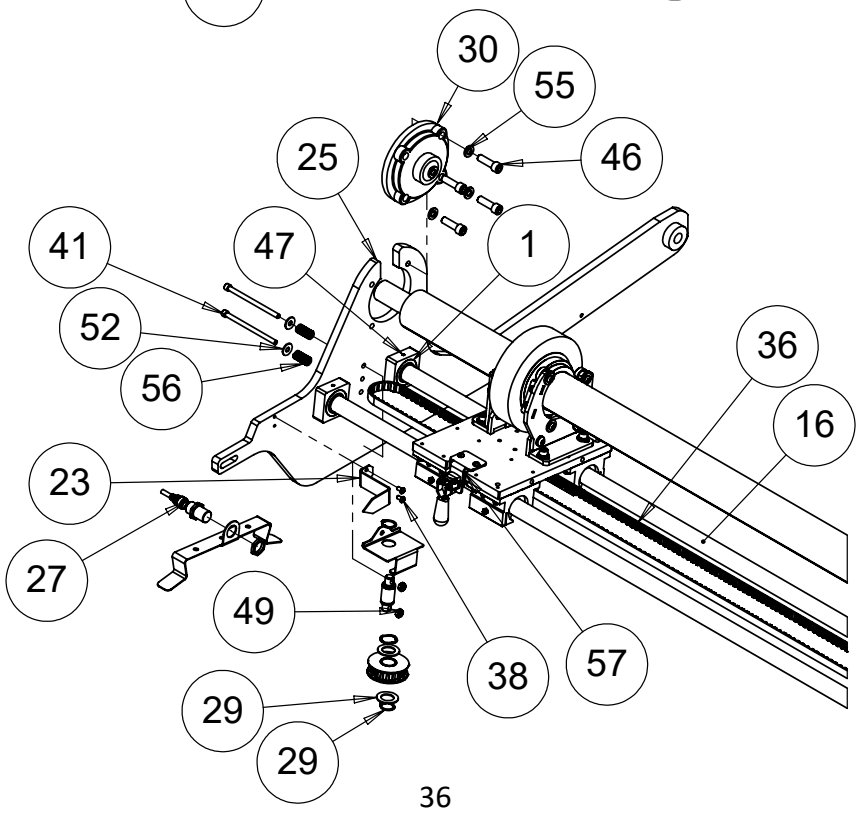


DIAGRAM NO.	PART NO.	DESCRIPTION
1	D130608	6-32 x .38 PAN HEAD MACHINE SCREW
2	D131266	6 x 3/4 PHIL PAN SELF TAP
3	D131666	6 x 1 PHIL PAN SELF TAP
4	D160866	8 x 1/2 LG PHIL PA
5	K160001	FLAT WASHER #8 SAE
6	80259	CIRCUIT BREAKER 20
7	3706118	PUSH IN CABLE TIE
8	3706148	TERMINAL BLOCK RELAY
9	3706149	2-POLE JUMPER FOR
10	3706150	20 POLE JUMPER FOR
11	3707073	SOCKET 8 PIN
12	3707163	DECAL PRIMARY GROUP
13	3707164	LUG GROUND PRIMARY
14	3707695	2 POLE JUMPER
15	3707907	DOOR SWITCH MONITOR
16	3707556	STARTER MAGNETIC 1
17	3707557	RELAY - OVERLOAD 1
18	3707625	END STOP SCREWLESS
19	3707684	TERMINAL BLOCK - 3
20	3707685	TERMINAL BLOCK - 3
21	3707686	END PLATE - TERM B
22	3707626	JUMPER ADJACENT
23	3707688	LOW VOLTAGE RELAY
24	3707694	RELAY TERMINAL BLOCK
25	3707697	DRIVE TRAVERSE
26	3707798	RELAY TERM BLOCK 8
27	3707829	DIN RAIL 12”
28	3707839	24VDC POWER SUPPLY
29	3707910	TERMINAL BLOCK 3-POLE
30	3707913	TERMINAL BLOCK 4-POLE
31	3707914	TERMINAL BLOCK 4-POLE
32	3707915	TERMINAL BLOCK 3-POLE
33	3707916	TERMINAL BLOCK 3-POLE
34	3707917	TERMINAL BLOCK 4-POLE
35	3707918	TERMINAL BLOCK END
36	3707919	2-POLE TERMINAL BLOCK
38	3707925	DIN RAIL 9.0 LG
39	3707936	CIRCUIT BREAKER 10
40	3707937	RFI LINE FILTER
41	3707940	CONTROL BOARD FOR
42	3707942	SPIN CONTROL BOARD
43	3707569	PLC AROMAT
44	6539074	CONTROL SUB PANEL
45	6539059	PLC CABLE - INPUTS
	6539060	PLC CABLE - OUTPUTS
	6539058	PANEL WIRE HARNESS

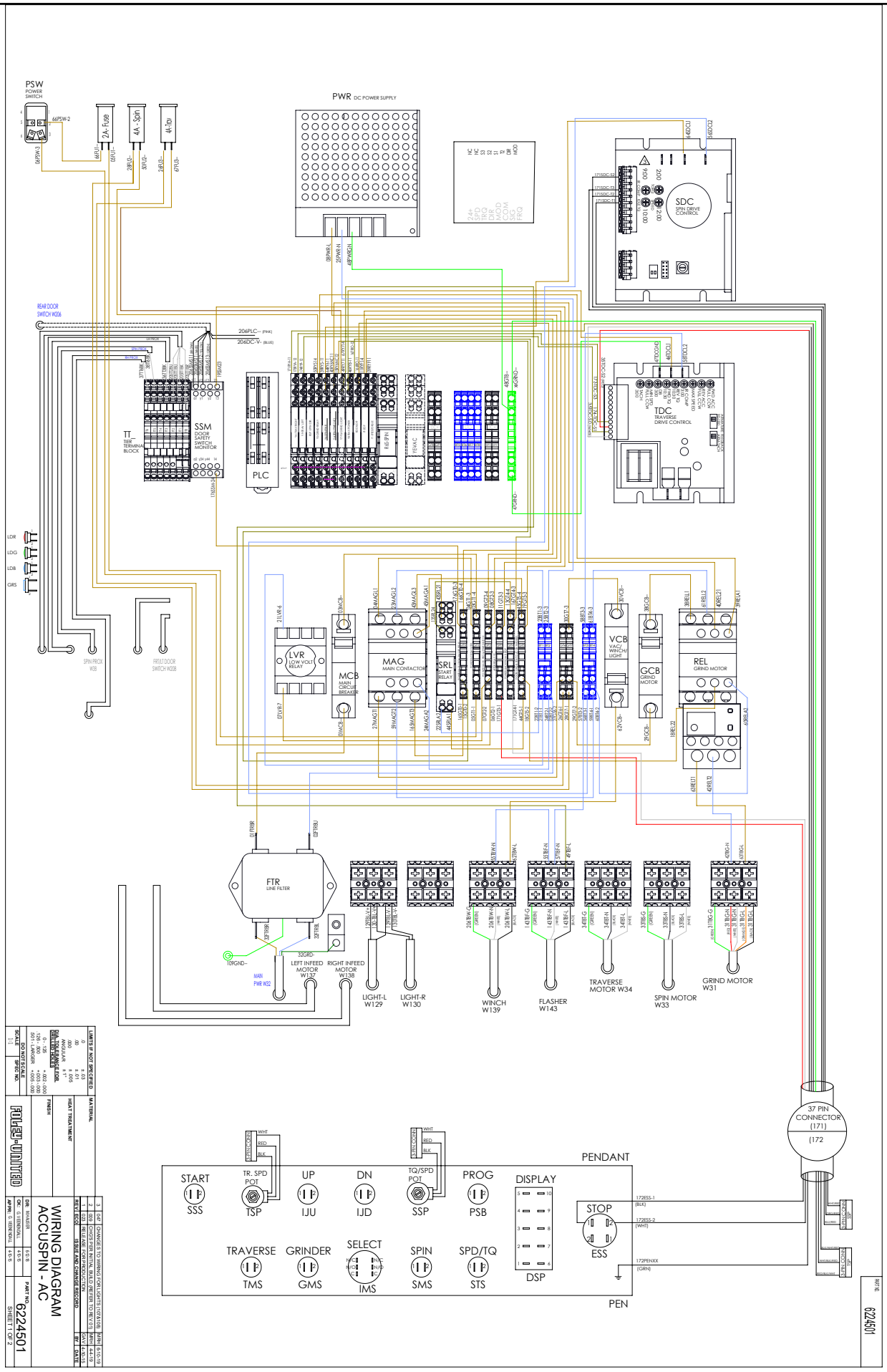
6229503 - TRAVERESE ASSEMBLY

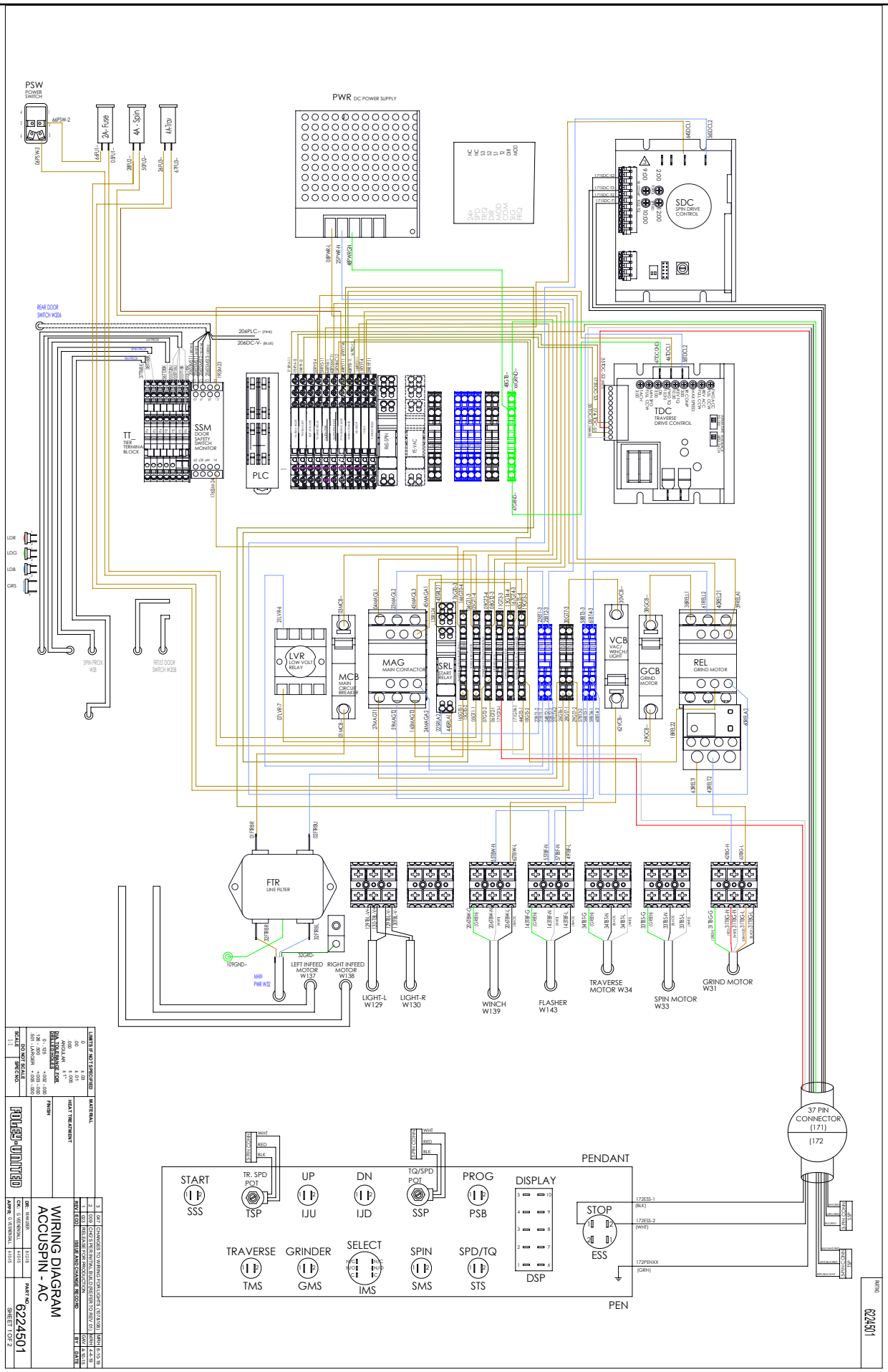




ITEM NO.	PART NUMBER	DESCRIPTION
1	09680	BRG - TORRINGTON #10SF16
2	3706056	DRIVE COG PULLEY 5/8 B x2.149PD
3	3706100	GAS SPRING 202# 3.9 STOKE
4	3707066	STRAIN RELF .22-.25 WIRE .500H
5	3707690	MOTOR 1HP 120VAC TEFC
6	3708194	RETAINING RING INT 5000-137
7	3708425	SHOULDER BOLT .313Dx.375L
8	50236	PULLEY 2.45 DIA POLY V
9	50237	PULLEY 3.72 DIA POLY V
10	50256	SHAFT - GR WHEEL 63.75 1986&UP
11	50279	BAR - TENSIONER
12	50280	SHAFT - TENSIONER PIVOT
13	50281	SHAFT TENSIONER PULLEY
14	3708204	BALL BRG DBL ROW 5202-2RS
15	80380	MOTOR - GEAR 1/20HP BISON
16	6229060	TRAVERSE RAIL 59.75LG
17	6229062	BELT PULLEY 1
18	6229063	BELT PULLEY 2
19	6229065	PROX BRACKET
20	6229066	RAIL COVER
21	6229079	PULLEY STANDOFF 1
22	6229134	HEIGHT INDIVCATOR - RIGHT
23	6229135	HEIGHT INDICATOR - LEFT
24	6229136	BELT GUARD
25	6229513	LEFT ARM
26	6229514	RIGHT ARM
27	6229152	LEFT LIMIT SWITCH
28	6229153	RIGHT LIMIT SWITCH
29	6739517	IDLER PULLEY ASSEMBLY
30	80336	BRG - PILOTED FLANGE
31	80338	KEY - .25SQ x 1.25LG
32	80342	SPRING - TORSION
33	80343	CONICAL WASHER .539x.862x.014T
34	80349	PULLEY IDLER 4.0 DIA
35	80350	BELT - POLY V 490J-6
36	80354	BELT COG 1252L050UK .375P.50W
37	80418	STUD GAS SPRING SHORT
38	B190613	10-24x3/8 BHSCS
39	B250616	1/4-20x3/8 BHSCS
40	B251611	1/4-20x1 SHCS
41	B257211	1/4-20X4.5 SHCS
42	B313601	5/16-18x2-1/4 HHCS
43	B370816	3/8-16x1/2 BHSCS
44	B371611	3/8-16x1 SHCS
45	B371616	3/8-16x1 BHSCS
46	B372011	3/8-16x1-1/4 SHCS
47	C190420	10-24x1/4 SSS CPPT
48	C250820	1/4-20x1/2 SSS CPPT
49	J257000	1/4-20 LOCKNUT JAM NYLON INSERT
50	J311000	5/16-18 HEX NUT FULL
51	J371000	3/8-16 HEX NUT
52	K250001	FLAT WASHER 1/4 SAE
53	80421	RETAINING CLIP GAS SPRING
54	K370001	FLAT WASHER 3/8 SAE
55	K371501	3/8 LOCKWASHER SPLIT
56	3708658	SPRING COMPR DANLY
57	6229517	CARRIAGE ASSEMBLY
58	K310001	FLAT WASHER 5/16 SAE
59	K311501	5/16 LOCKWASHER SPLIT
60	3706286	CABLE TIE MOUNT
61	B190813	10-32 X .5 LONG BUTTON HEAD CAP SCREW
62	B313601	5/16-18x2-1/4 HHCS

55041- WIRING DIAGRAM




PSW
POWER SWITCH
PWR DC POWER SUPPLY
SDC
SPIN DRIVE CONTROL
TDC
TRAVERSE DRIVE CONTROL
SSM
DOOR SAFETY SWITCH MONITOR
PLC
LVR
LOW VOLT RELAY
MCB
MAIN CIRCUIT BREAKER
MAG
MAIN CONTACTOR
SRL
START RELAY
VCB
VAC/ WINCH/ LIGHT
GCB
GRIND MOTOR
REL
GRIND MOTOR
FTR
LINE FILTER
REAR DOOR SWITCH W28
FRT/LT DOOR SWITCH W28
SPIN PROX W36
LEFT INFEED MOTOR W137
RIGHT INFEED MOTOR W138
LIGHT-L W129
LIGHT-R W130
WINCH W139
FLASHER W143
TRAVERSE MOTOR W34
SPIN MOTOR W33
GRIND MOTOR W31
37 PIN CONNECTOR (171)
(172)
PENDANT
START
SSS
TR. SPD POT
TSP
UP
IJU
DN
IJD
TQ/SPD POT
SSP
PROG
PSB
DISPLAY
DSP
STOP
ESS
TRAVERSE
TMS
GRINDER
GMS
SELECT
IMS
SPIN
SMS
SPD/TQ
STS
PEN
WIRING DIAGRAM
ACCUSPIN - AC
PART No. 6224501
SHEET 1 OF 2