

LITTLE DAVID

OWNERS MANUAL



LD16AP

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P/N: PM16AP

GENERAL SAFETY PRECAUTIONS

BEFORE INSTALLING, OPERATING OR SERVICING THIS EQUIPMENT, READ THE FOLLOWING PRECAUTIONS CAREFULLY:

- * THIS MACHINE IS EQUIPPED WITH MOVING BELTS. DO NOT PLACE HANDS NEAR THE REAR OF THIS MACHINE WHEN BELTS ARE MOVING, AS FINGERS MAY BE PINCHED WHERE BELTS ENTER FRAME. ALWAYS USE A ROLLER TYPE EXIT CONVEYOR AND ALWAYS REMOVE THE BOXES AFTER THEY CLEAR THE EXIT END OF THE MACHINE.
- * OBSERVE CAUTION WHEN NEAR CARTRIDGE KNIFE OR WHEN THREADING TAPE. KNIFE IS VERY SHARP, AUTOMATICALLY OPERATED AND IS LINKED TO THE WIPE DOWN ROLLERS.
- * DO NOT ATTEMPT TO OPEN OR WORK ON ELECTRICAL BOX, JUNCTION BOXES, OR OTHER ELECTRICAL COMPONENTS WITHOUT FIRST DISCONNECTING POWER TO THE MACHINE. SHOCK HAZARD EXISTS IF POWER IS NOT DISCONNECTED.
- * DO NOT BY-PASS ANY DESIGNED-IN SAFETY FEATURES SUCH AS INTERLOCKS, GUARDS OR SHIELDS.
- * FULLY AUTOMATIC MACHINES ARE EQUIPPED WITH A REAR FLAP KICKER. DO NOT PLACE ANY PART OF THE BODY NEAR THIS AREA WITHOUT FIRST DISCONNECTING POWER AND AIR SUPPLY.
- * DO NOT PLACE HANDS OR BODY INSIDE CONFINES OF RANDOM TYPE MACHINES. THE SIDE RAILS AND HEAD OPERATE AUTOMATICALLY.
- * DO NOT PLACE HANDS OR BODY INSIDE CONFINES OF UNIFORM TYPE MACHINES UNLESS HEAD IS SECURELY LOCKED AND POWER AND AIR ARE DISCONNECTED.
- * ALWAYS DISCONNECT POWER AND AIR SUPPLY (IF APPLICABLE) BEFORE SERVICING MACHINE.
- * WHEN OPERATING A SEMI-AUTOMATIC MACHINE, HOLD BOX FLAPS DOWN AT THE TRAILING EDGE OF THE BOX. RELEASE HANDS AS SOON AS THE BELTS TAKE THE BOX.
- * DO NOT WEAR JEWELRY, LOOSE CLOTHING, SUCH AS TIES, SCARVES, ETC., AND LONG HAIR SHOULD BE PULLED BACK WHEN OPERATING THE MACHINE.
- * SAFETY GLASSES SHOULD BE WORN WHEN WORKING WITH OR AROUND MACHINE.

ARRIVAL INSPECTION

****NOTE****

WHEN UNCRATING MACHINE, CHECK FOR ANY PHYSICAL DAMAGE.

IF ANY DAMAGE HAS OCCURRED, NOTIFY SHIPPING COMPANY IMMEDIATELY.

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INTRODUCTION

THE LD16A TAPING MACHINE HAS BEEN CUSTOM MANUFACTURED FOR YOUR SPECIFIC PACKAGING REQUIREMENTS. A GREAT DEAL OF CARE HAS BEEN EXERCISED BY OUR DESIGN AND ENGINEERING GROUP IN THE CONSTRUCTION OF YOUR HIGHLY EFFICIENT LD16A MACHINE. THE HIGHEST QUALITY MATERIALS HAVE BEEN USED FOR ALL PARTS AND COMPONENTS IN THE FABRICATION OF YOUR LD16A.

UNDERSTANDABLY, A MACHINE AS SOPHISTICATED AS THE LD16A MAY REQUIRE SOME ADJUSTMENTS FROM TIME TO TIME. IF ADJUSTMENTS ARE NECESSARY, YOU WILL FIND SIMPLE INSTRUCTIONS OUTLINED IN THIS MANUAL.

IF YOU ARE IN DOUBT ABOUT ANY ADJUSTMENT, OR IF A PROBLEM OCCURS WHICH IS NOT COVERED IN THIS MANUAL, PLEASE TELEPHONE OUR SERVICE DEPARTMENT. IT IS IMPORTANT TO BE ABLE TO DESCRIBE THE PROBLEM IN FULL DETAIL. MOST PROBLEMS CAN BE CORRECTED THROUGH A TELEPHONE CONVERSATION. SHOULD IT BE A MORE SERIOUS PROBLEM, WE MAY BE ABLE TO OFFER A TEMPORARY SOLUTION UNTIL OUR FIELD SERVICEMAN CAN GET TO YOUR PLANT.

IF IN THE UNITED STATES:

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MACHINE SPECIFICATIONS

MACHINE DIMENSIONS:

HEIGHT:	70"	1778 mm
WIDTH:	35"	890 mm
LENGTH:	77"	1956 mm

INFEED HEIGHT:

22 ¼"	565 mm	STANDARD - OPTIONAL DIMENSIONS ON REQUEST.
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ELECTRICAL:

STANDARD:	115V/220V - 1 PH - 60 CYCLES
	220V - 3 PH - 60 CYCLES
OPTIONAL:	240V - 1 PH - 50 CYCLES
	380V - 3 PH - 50 CYCLES
	440V - 3 PH - 50 CYCLES
	440V - 3 PH - 60 CYCLES
	575V - 3 PH - 60 CYCLES

BOX CAPACITY:

LENGTH:	8 ¼" min. to 24" max.	206 mm to 610 mm
WIDTH:	4 ½" min. to 20" max.	114 mm to 508 mm
HEIGHT:	4 ½" min. to 20" max.	114 mm to 508 mm

OPERATING SPEED:

BELT SPEED:	80 ft/min	24.4 m/min.
NUMBER OF BOXES PER MIN.:	up to 14 depending on box dimension	

CLOSURE MATERIAL: PRESSURE SENSITIVE TAPE

WIDTH:	1 ½" to 2"	38 mm to 50 mm
MAX. ROLL DIAMETER:	15"	380 mm

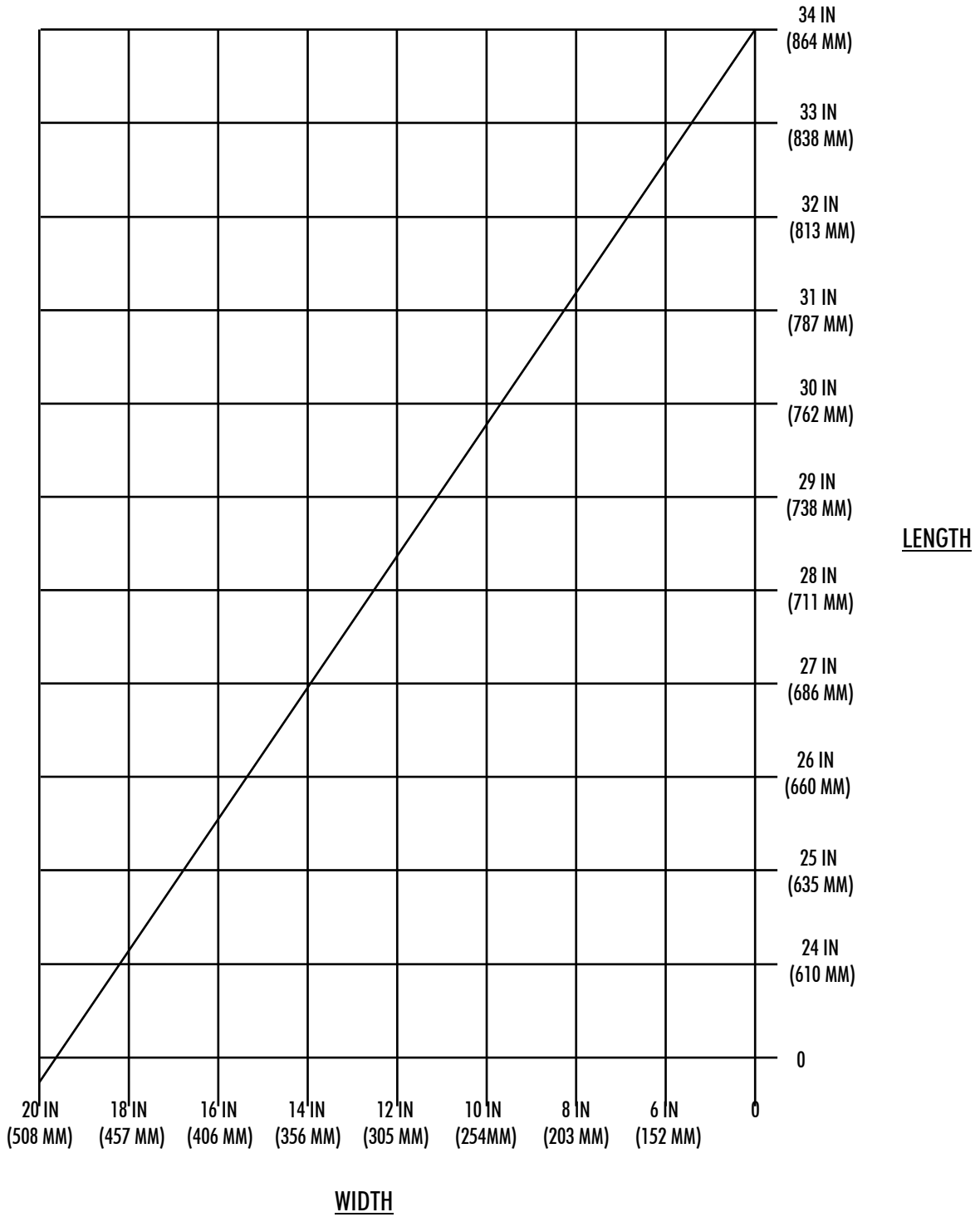
WEIGHT:	(UNCRATED)	650 lbs.	302 kg.
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AIR REQUIREMENTS:

0.15 cf. free air per cycle at 75 psi	4.2 liter free air at 5.3 kg per sq. cm.
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NOTE: THE MACHINE SPECIFICATIONS LISTED ABOVE ARE FOR STANDARD LD16A TAPING MACHINES. IF ORDERING A SPECIAL LD16A MACHINE, THE SPECIFICATIONS WILL CHANGE DEPENDING ON EACH INDIVIDUAL CUSTOMER APPLICATION.

MAXIMUM BOX SIZE SPECIFICATIONS



INSTALLATION

THE LD16A MACHINE IS SHIPPED COMPLETELY ASSEMBLED.

TO UNPACK MACHINE, LIFT OFF THE UPPER CRATE, THEN UNFASTEN SKID. LIFT MACHINE FROM SKID AND PULL SKID AWAY. REMOVE ALL PACKING MATERIAL THAT IS USED TO SECURE THE HEAD AND CARTRIDGE.

THE BED HEIGHT OF THE MACHINE SHOULD BE ALIGNED WITH THE ROLLER HEIGHT OF THE CONVEYOR. THE MACHINE SHOULD BE CENTERED ON THE INFEED CONVEYOR ROLLER. THE MACHINE SHOULD THEN BE LEVELED. THE STRIPPER PLATE SHOULD BE USED TO ADJUST ANY MINOR HEIGHT DIFFERENCES.

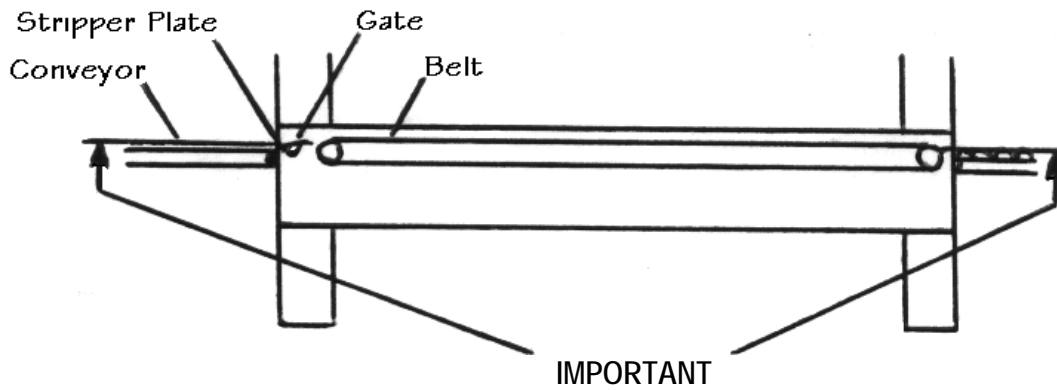
AFTER THE MACHINE IS IN PLACE AND LEVEL, CONNECT THE MACHINE TO AN APPROPRIATE GROUNDED ELECTRICAL CONNECTION, (SEE MACHINE SPECIFICATION LABEL FOR VOLTAGE). CONNECT THE AIR SUPPLY TO AN AIR SOURCE. MINIMUM LINE PRESSURE - 70 LBS. (5 kg/cm²).

TO START MACHINE, LOAD THE TAPE CARTRIDGES WITH TAPE AND THREAD THE TAPE. SEE TAPE THREADING DIAGRAM.

THE MACHINE IS NOW READY FOR OPERATION. PLEASE NOTE THAT IN ORDER TO START THE MACHINE, THE SAFETY GATES MUST BE CLOSED. WHEN THE SAFETY GATES ARE OPENED, THE MACHINE WILL AUTOMATICALLY SHUT DOWN.

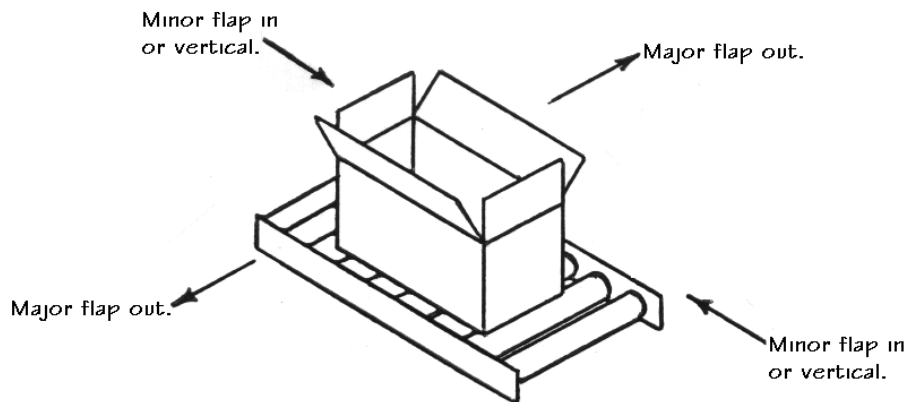
MACHINE PREPARATION

CONVEYOR ALIGNMENT



ELEVATIONS OF CONVEYOR ROLLERS, STRIPPER PLATE. GATE ROLLER IN "DOWN" POSITION & BELT SHOULD PROVIDE A SMOOTH BOX FLOW INTO THE MACHINE.

BOX PREPARATION



NOTE: MAJOR FLAPS SHOULD NOT BE INSIDE MINOR FLAPS OR BENT OUTWARD FAR ENOUGH TO MISS THE FLAP FOLDERS. MINOR FLAPS SHOULD BE VERTICAL OR SLIGHTLY INWARDS IN THE CASE OF DOUBLE WALL BOXES. MINOR FLAP SCORE LINES MUST BE BROKEN.

START-UP

1. CHECK TO SEE THAT ELECTRICITY AND AIR ARE CONNECTED TO THE LD16A.
2. CLOSE SAFETY GATES. (MACHINE WILL NOT OPERATE IF SAFETY GATES ARE OPEN).
3. DEPRESS "START" BUTTON. DRIVE MOTORS SHOULD RUN/DRIVE BELTS SHOULD MOVE.

THE LD16A SHOULD NOW CYCLE AUTOMATICALLY WHEN A BOX ENTERS THE MACHINE.

CAUTION: KEEP CLEAR OF MACHINE. DO NOT ALLOW ANY PART OF YOUR BODY TO REACH INTO MACHINE AS YOU MAY INADVERTENTLY TRIGGER SOME AUTOMATIC ACTION.

NOTE: IF THIS MACHINE IS EQUIPPED WITH A 3-PH MOTOR, CHECK TRAVEL DIRECTION OF BELTS - THEY SHOULD MOVE FROM INFEED END TO EXIT END OF MACHINE. IF THE DIRECTION IS REVERSED, STOP MACHINE. HAVE A LICENSED ELECTRICIAN REVERSE TWO WIRES ON THE MAIN CIRCUIT BREAKER.

SEQUENCE OF OPERATION

WHEN A BOX ENTERS THE LD16A, A SEQUENCE OF OPERATIONS IS INITIATED. THIS SEQUENCE TAKES THE FORM OF DISCRETE STEPS. EACH MUST BE SENSED AND COMPLETED BEFORE THE NEXT STEP CAN PROCEED. BELOW, EACH STEP IS DESCRIBED IN TWO WAYS: PARAGRAPH "A" DESCRIBES THE ACTION OF THE OPERATING PARTS; AND PARAGRAPH "B" DESCRIBES THE STATE OF THE SOLENOID VALVES AND LIMIT SWITCHES RESPONSIBLE FOR THE ACTION. THE HEADING FOR EACH STEP IDENTIFIES THE SENSOR CONTROLLING THE ACTIONS OF THAT STEP.

STEP 1: BOX ENTERS MACHINE

- A. (1) LIMIT SWITCH LD-1 IS DEPRESSED.
- B. (2) SV-1 IS DE-ENERGIZED.
KICKER VALVE BRINGS KICKER UP.
GATE CYLINDER SOLENOID VALVE SV-2 IS DE-ENERGIZED BRINGING GATE UP.

STEP 2: BOX DEPRESSES LIMIT SWITCH LS-2

NO ACTION.

STEP 3: BOX RELEASES LS-1 (LS-2 IS STILL DEPRESSED)

- A. (1) KICKER SOLENOID VALVE SV-2 IS ACTIVATED.
KICKER COMES DOWN.
GATE IS STILL UP.

STEP 4: BOX RELEASES LS-2

- A. (1) GATE CYLINDER SOLENOID VALVE SV-2 IS ENERGIZED BRINGING
GATE DOWN.

THE SAFETY GATE SWITCHES, LS-3, LS-4, LD-5, LS-6, DE-ACTIVATE THE "E"-STOP CIRCUIT BY OPENING ANY ONE OF THE FOUR SAFETY GATES. THIS WILL STOP THE MACHINE AND DE-ACTIVATE THE MAIN AIR DUMP VALVE. TO RE-START THE MACHINE, SAFETY GATES MUST FIRST BE CLOSED AND THE "E"-STOP PUSH BUTTON MUST BE FULLY EXTENDED, THEN THE "START" PUSH BUTTON ON THE CONTROL STATION IS PRESSED.

INFEED GATE

THE INFEED GATE WHEN ITS "UP" POSITION, PREVENTS BOXES FROM ENTERING THE MACHINE; AND IN ITS "DOWN" POSITION, ALLOWS BOX TO ENTER. THE INFEED GATE DROPS DOWN WHEN THE BOX RELEASES LS-2.

SIDE RAILS

THE SIDE RAILS KEEP A BOX CENTERED IN THE MACHINE AS IT IS BEING PROCESSED. THE SIDE RAIL SYSTEM CONSISTS OF TWO STAINLESS STEEL TUBES MOUNTED TO A SET OF PIVOTING ARMS WHICH ARE INTERCONNECTED AND MANUALLY ADJUSTED. TO ADJUST THE SIDE RAILS, TURN THE HAND KNOB COUNTERCLOCKWISE AND PLACE A SAMPLE SIZE BOX TO BE SEALED ON THE BED OF THE MACHINE. PUSH THE SIDE RAILS IN UNTIL THEY ARE SNUG AGAINST THE BOX; RE-TIGHTEN THE HAND KNOB. THE SIDE RAILS WILL STAY IN THIS POSITION UNTIL THEY ARE CHANGED.

BELT DRIVE SYSTEM - STANDARD

THE TWO DRIVE BELTS ARE DIRECTLY DRIVEN BY ONE DRIVE WHEEL EACH THAT IS MOUNTED TO THE GEAR REDUCER OUTPUT SHAFT. THE FRONT END OF THE BELT RUNS OVER A TENSION ROLLER. THE TENSION ROLLER BRACKET HOLDS TWO GUIDE ROLLERS THAT AUTOMATICALLY CENTER THE BELTS. THE BELTS THEN RUN OVER THE IDLER ROLLER ONTO THE PLASTIC ANTI-FRICTION CARRIER ATTACHED TO THE SHEET METAL BELT CARRIER.

THE TWO BELT TENSIONING BRACKETS ARE SPRING LOADED WITH TWO TENSION SPRINGS ON EACH. CARE SHOULD BE TAKEN TO INSURE THAT THESE SPRINGS ARE ATTACHED TO THE TENSION ROLLER BRACKET AFTER THE BELTS HAVE BEEN REPLACED.

TO REPLACE A BELT, BRING THE BELT LACING TO THE TOP AND PULL THE LACING PIN. REPLACE WITH NEW BELT. ONLY FACTORY SUPPLIED BELTS SHOULD BE USED TO AVOID MOTOR FAILURE DUE TO EXCESSIVE FRICTION. EACH BELT IS REPLACED SEPARATELY, HOWEVER, IT IS ADVISABLE TO REPLACE BOTH BELTS AT THE SAME TIME.

IF ONE OR BOTH BELTS AT THE EXIT END OF THE MACHINE TRAVEL TO THE LEFT OR RIGHT, THE BELT LAGGING ON THE DRIVE ROLLERS MUST BE REPLACED.

TO REPLACE THE BELT LAGGING, FIRST REMOVE THE BELT THAT IS TRAVELING OUT OF LINE. TURN MACHINE ON AND WITH A UTILITY KNIFE, CUT ABOUT 1/8" OFF THE BELT LAGGING WITH THE POINT OF THE KNIFE WHILE THE DRIVE ROLLER IS TURNING. BE SURE TO PLACE THE KNIFE ON THE ROLLER SO THAT THE ROLLER IS MOVING AWAY FROM THE POINT OF THE KNIFE, LIFT UP A SECTION OF THE CUT LAGGING AND PULL OFF UNTIL IT IS REMOVED FROM THE DRIVE ROLLER COMPLETELY. THIS CAN BE DONE BY JOGGING THE MACHINE ON AND OFF WHILE PULLING THE CUT STRIP OF LAGGING. ATTACH NEW BELT LAGGING. REPLACE THE BELT AND CHECK ALIGNMENT. THE BELT WILL HAVE MOVED TO THE OPPOSITE SIDE THAT WAS CUT. THIS PROCEDURE MAY HAVE TO BE REPEATED UNTIL THE BELTS ARE CENTERED.

BELT DRIVE SYSTEM - HEAVY DUTY

THE TWO BELTS ARE DRIVEN BY A BELT PULLEY SYSTEM CONNECTED TO THE GEAR REDUCER THROUGH A CHAIN DRIVE SYSTEM. IF THE CHAIN BECOMES LOOSE, LOOSEN FOUR REDUCER BRACKET SCREWS AND DROP REDUCER DOWN UNTIL CHAIN BECOMES TIGHT. TIGHTEN SCREWS WHEN ADJUSTMENTS HAVE BEEN MADE.

THE BELTS AT THE INFEED END OF THE MACHINE, TRAVEL OVER THE TENSION ROLLERS. THE TENSION ROLLER BRACKETS HOLD TWO GUIDE ROLLERS EACH THAT AUTOMATICALLY CENTER EACH BELT. THE BELTS THEN TRAVEL OVER THE IDLER ROLLER LOCATED AT THE INFEED END OF THE MACHINE. TO REPLACE A BELT, BRING THE BELT LACING TO THE TOP. PULL THE LACING PIN AND REPLACE THE BELT. ONLY FACTORY SUPPLIED BELTS ARE RECOMMENDED AND BOTH BELTS SHOULD BE REPLACED AT THE SAME TIME.

THE TWO BELT TENSIONING BRACKETS ARE SPRING LOADED WITH TWO TENSION SPRINGS ON EACH. CARE SHOULD BE TAKEN TO INSURE THAT THESE SPRINGS ARE ATTACHED TO THE TENSION ROLLER BRACKET AFTER THE BELTS HAVE BEEN REPLACED.

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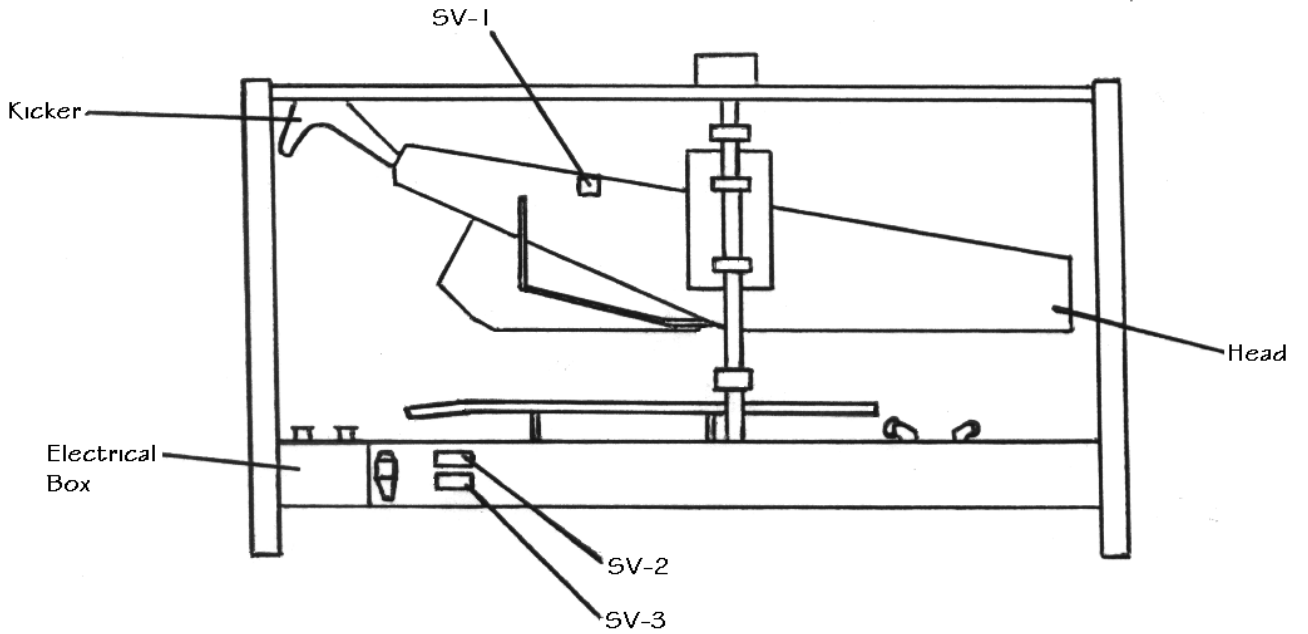
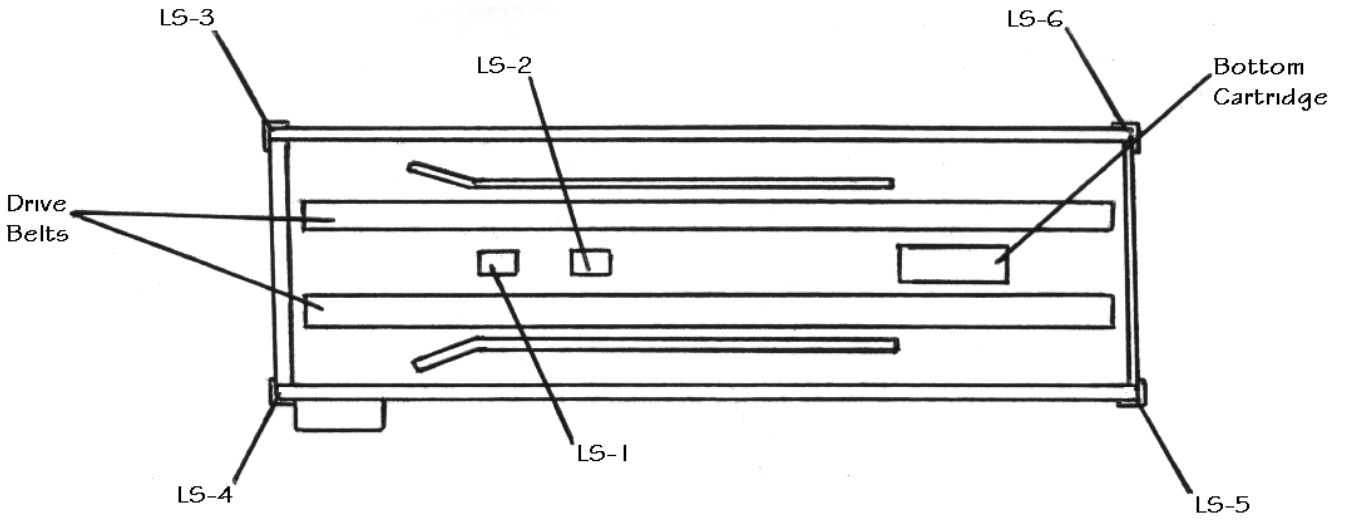
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PNEUMATIC SYSTEM

THE PNEUMATIC SYSTEM CONSISTS OF THE FILTER/REGULATOR, TWO SOLENOID VALVES, ONE KICKER VALVE, THE GATE CYLINDER AND THE KICKER CYLINDER.

THE SPEED CONTROLS FOR THE KICKER ARE LOCATED ON THE KICKER VALVE MANIFOLD. CUSHION ADJUSTMENTS ARE LOCATED ON THE KICKER CYLINDER. THE GATE SPEED IS CONTROLLED BY THE FLOW CONTROL LOCATED ON THE MAIN PNEUMATIC ASSEMBLY. THE FILTER IS SELF-DRAINING. THE MAIN REGULATOR SETTING SHOULD BE SET AT 70-75 PSI (4.9 to 5.3 kg/cm²). A LOCKOUT VALVE ON THE MAIN PNEUMATIC ASSEMBLY IS USED TO PREVENT UNDESIREED ACTIVATION OF THE PNEUMATIC SYSTEM.

LOCATION OF LIMIT SWITCHES AND SOLENOID VALVES



KICKER

KICKER ADJUSTMENTS SHOULD ONLY BE DONE BY PROPERLY TRAINED PERSONS.

BEFORE MAKING ANY KICKER ADJUSTMENT, SHUT POWER OFF TO THE MACHINE AND REMOVE ALL COMPRESSED AIR FROM THE PNEUMATIC SYSTEM. HOLD KICKER SO THAT THE CYLINDER IS IN ITS RETRACTED POSITION.

GAP "A" SHOULD BE APPROXIMATELY ½". TO ADJUST GAP "A", LOOSEN LOCK NUT AND THEN TURN CYLINDER ROD EITHER CLOCKWISE OR COUNTERCLOCKWISE AS REQUIRED, UNTIL THE CORRECT POSITION HAS BEEN REACHED. TIGHTEN LOCK NUT WHEN ADJUSTMENT HAS BEEN MADE.

GAP "B" SHOULD BE APPROXIMATELY 1/8". TO ADJUST GAP "B", LOOSEN ADJUSTING SCREW "C", THEN RAISE OR LOWER KICKER UNTIL THE CORRECT POSITION HAS BEEN REACHED. TIGHTEN ADJUSTING SCREWS WHEN ADJUSTMENT HAS BEEN MADE.

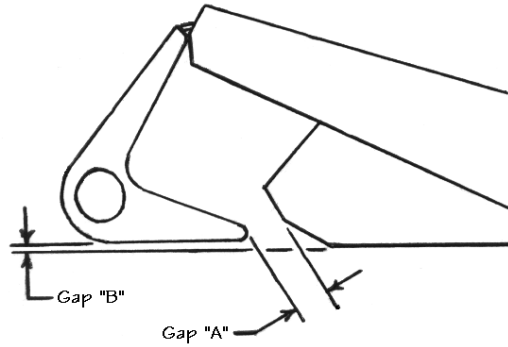
TURN POWER AND COMPRESSED AIR BACK ON AND OPERATE THE LD16A. THE KICKER SHOULD COME DOWN VERY QUICKLY WITHOUT CAUSING EXCESS JARRING TO THE MACHINE. IF NEEDED, CONTROL "B" SHOULD BE TURNED COUNTERCLOCKWISE AS FAR AS PRACTICAL, THEN THE LOCK NUT SHOULD BE TIGHTENED. SINCE THE UPWARD STROKE OF THE KICKER SHOULD BE AS SLOW AS PRACTICAL, CONTROL "A" SHOULD BE TURNED CLOCKWISE, IF NEEDED, AND THEN THE LOCK NUT SHOULD BE TIGHTENED.

IF KICKER HITS SOLIDLY OR BOUNCES AT EITHER END OF THE STROKE, THE KICKER CYLINDER MAY REQUIRE AN ADJUSTMENT OF ITS PNEUMATIC CUSHIONS.

IF SOLID HITTING OCCURS IN THE "UP" POSITION, LOOSEN LOCK NUT AND ADJUST CUSHION SCREW "A" ON THE ROD END OF THE CYLINDER USING AN ALLEN WRENCH. TURN CUSHION ADJUSTING SCREW "A" CLOCKWISE TO INCREASE THE CUSHION EFFECT. TIGHTEN LOCK NUT.

IF SOLID HITTING OCCURS AT THE END OF THE DOWNWARD STROKE, ADJUST CUSHION SCREW "B" FOUND AT THE OTHER END OF THE CYLINDER IN THE SAME MANNER AS CUSHION SCREW "A", DESCRIBED ABOVE.

TO REDUCE AN EXCESS CUSHION, WHICH IS INDICATED BY THE BOUNCING OF THE KICKER, TURN CUSHION ADJUSTING SCREW CLOCKWISE.



Note: Kicker graphics may not be exact.

FRONT SUPPRESSOR

THE FRONT SUPPRESSOR IS DESIGNED TO KEEP THE BOX FIRMLY PRESSED AGAINST THE DRIVE ROLLERS DURING THE FLAP FOLDING OPERATION. THE DOWNWARD PRESSURE CAN BE ADJUSTED BY MOVING THE COLLAR ON THE SPRING HOLDING SHAFT.

SQUEEZERS

THE SQUEEZERS ARE USED TO SQUARE UP THE TOP OF THE BOX AND TO INSURE THE PROPER BUTTING OF THE FLAPS IN PREPARATION OF THE TAPE.

TO ADJUST THE SQUEEZERS, START A SEALED BOX THROUGH THE MACHINE AND PRESS THE "STOP" BUTTON WHEN THE BOX IS BETWEEN THE TWO SQUEEZER WHEELS. THEN PUSH EACH SQUEEZER WHEEL SNUG AGAINST THE BOX. TIGHTEN THE M8 T-NUTS. THE MACHINE IS NOW READY TO PROCESS THIS SIZE BOX. IF A DIFFERENT SIZE BOX MUST BE SEALED, THE SQUEEZER WHEELS MUST BE RESET.

TAPE CARTRIDGE

TAPE TENSION ROLLER:

THIS ROLLER IS USED TO MAINTAIN CONSTANT TENSION ON THE TAPE THROUGHOUT THE LIFE OF THE TAPE ROLL. TURNING THE KNURLED NUT CLOCKWISE WILL INCREASE THE TENSION; TURNING IT COUNTERCLOCKWISE WILL DECREASE THE TENSION.

WIPE DOWN ROLLERS:

THESE RUBBER ROLLERS WIPE DOWN THE TAPE AS THE BOX PASSES THROUGH THE MACHINE. THE PRESSURE EXERTED BY THE ROLLERS IS ADJUSTED BY CHANGING THE MAIN SPRING TO A DIFFERENT HOLE IN THE CONNECTING LINK.

TAPE GUIDE PLATE:

THE TAPE GUIDE PLATE, ALONG WITH THE FINGER PLATE, IS USED TO FORCE THE TAPE TO "STAND UP" FOR PROPER APPLICATION. THE TAPE GUIDE PLATE MOVES WHICH FORMS A CORNER AS THE BOX DEPRESSES THE WIPE DOWN ROLLER ARM. THIS INSURES A SMOOTH TIGHT TAPE APPLICATION ON THE LEADING CORNER OF THE BOX.

THE FLAT SURFACE OF THE TAPE GUIDE PLATE MUST BE TANGENT WITH THE RUBBER ROLLER FOR PROPER OPERATION. TO MAKE ADJUSTMENTS, ROTATE THE ECCENTRIC STOP THAT IT BEARS AGAINST.

FINGER PLATE:

THE FINGERS OF THE FINGER PLATE FORCE THE TAPE TO TAKE THE SHAPE OF THE TAPE GUIDE PLATE. THE FINGERS SHOULD JUST MAKE CONTACT WITH THE GUIDE PLATE (TEST THIS BY MOVING THE TAPE GUIDE PLATE - THE FINGERS SHOULD NOT MOVE WITH IT). THE FINGERS SHOULD BE AWAY FROM THE TAPE GUIDE PLATE APPROXIMATELY 1/8".

KNIFE ARM:

THE KNIFE ARM IS MOUNTED AT AN ANGLE TO CUT THE TAPE LIKE A SCISSORS. A STUD IS LOCATED ON THE MOUNTING BLOCK TO PREVENT INCORRECT REPLACEMENT OF KNIFE. THE KNIFE SHOULD BE CLEANED PERIODICALLY USING A RAG AND CLEANING FLUID. DO NOT USE A WIRE BRUSH OR OTHER ABRASIVE DEVICE. THE KNIFE ARM SHOULD BE ADJUSTED SO THAT THE TIPS OF THE KNIFE ARM ARE 2 1/2" FROM THE CARTRIDGE FRAME. THIS CAN BE ADJUSTED BY LOOSENING THE SMALL NUT ON THE KNIFE ARM STUD AND ROTATING THE STUD UNTIL THE LARGE NUT CONTACTS THE BUMPER AT THE DESIRED SETTING. THE KNIFE ARM TENSION IS CONTROLLED BY THE COMPRESSION SPRING ON THE STUD. TIGHTEN THE NYLOK NUT FOR GREATER TENSION. ALWAYS POWER DOWN FIRST.

LOADING TAPE:

TOP TAPE:

1. RETRACT DETENT WITH RIGHT HAND.
2. WITH LEFT HAND, GRAB CARTRIDGE NEAR TAPE CORE AND ROTATE UP/BACK UNTIL CARTRIDGE RESTS AGAINST STOP.
3. LOAD TAPE ON TAPE CORE.
4. FOLD TAPE ON ITSELF TO PREVENT ADHESIVE FROM GRABBING CARTRIDGE (ABOUT 1 FT.)
5. THREAD AS PER DIAGRAM.
6. ROTATE REAR ROLLER ARM TO EXPOSE KNIFE.
7. PULL EXCESS TAPE ACROSS KNIFE TO CUT OFF FOLDED TAPE.
8. RELEASE REAR ROLLER ARM.
9. GRAB TAPE ROLL WITH LEFT HAND AND ROTATE CARTRIDGE UNTIL IT CONTACTS DETENT. MAINTAIN GRIP OF TAPE ROLL WITH LEFT HAND WHILE RETRACTING DETENT WITH RIGHT HAND. LOWER CARTRIDGE INTO PLACE AND RELEASE DETENT.

BOTTOM TAPE:

1. GRAB REAR ROLLERS
2. GRAB FRONT SHAFT OF CARTRIDGE.
3. RAISE REAR OF CARTRIDGE AND MOVE CARTRIDGE UP AND OUT OF MACHINE.
4. THREADING IS SAME AS TOP CARTRIDGE.
5. GRAB THE CARTRIDGE BY REAR ROLLER AND FRONT SHAFT, ANGLE FRONT OF CARTRIDGE ONTO MOUNTING BOLTS AND THEN LOWER REAR OF CARTRIDGE.

BEFORE DOING ANY OF THE FOLLOWING, TURN POWER OFF TO THE MACHINE. SAFETY GATES MUST BE OPEN.

IMMEDIATELY BEFORE A ROLL OF TAPE HAS RUN OUT, A NEW ROLL OF TAPE SHOULD BE SPLICED ON. THE SPLICING METHOD DESCRIBED HERE IS PREFERABLE AND MUCH SIMPLER.

SPLICING PROCEDURE:

1. WITH A PAIR OF SCISSORS, CUT TAPE ON EXPIRING ROLL. REMOVE BUTT ROLL OF TAPE FROM TAPE CORE.
2. REMOVE CARTRIDGE FROM HEAD.
3. INSTALL A NEW ROLL OF TAPE ON TAPE CORE WITH TAPE FEEDING CLOCKWISE.
4. SPLICE A ½" LAP TO CUT END WITH TRAILING EDGE OF OLD TAPE ON TOP.
5. PULL SPLICE COMPLETELY THROUGH CARTRIDGE; CUT SPLICE OFF.
6. REPLACE CARTRIDGE.

RELOADING OF TAPE

1. PUSH TAPE ROLL ONTO TAPE CORE WITH TAPE FEEDING COUNTERCLOCKWISE. TAPE ROLL SHOULD BE PUSHED TO THE BACK OF THE TAPE CORE.
2. FOLD BACK ABOUT 12" (304 mm) OF TAPE AND STICK IT TO ITSELF TO FORM A LEADER. THREAD TAPE AS SHOWN IN TAPE THREADING DIAGRAM. THERE IS ALSO A THREADING DECAL LOCATED ON THE FRAMES OF THE TOP AND BOTTOM CARTRIDGES.

TO TENSION TAPE:

1. USE A SMALL ROLL OF TAPE TO SET TENSION.
2. SET TENSION ON TAPE CORE TO THE LATEST AMOUNT REQUIRED. THE KNURLED NUT SHOULD JUST TOUCH THE COMPRESSION SPRING.
3. ADJUST TENSION ON ONE-WAY CLUTCH ROLLER UNTIL OPTIMUM TAPING IS ACHIEVED. USE NYLOK NUT TO ADJUST TENSION.
4. THE CARTRIDGE IS SET TO USE A 15" DIAMETER TAPE ROLL (MAXIMUM). WHEN USING A LARGER ROLL, IT MAY BE NECESSARY TO SLIGHTLY INCREASE TAPE CORE TENSION TO ELIMINATE TAPE OVER-RUN.

LUBRICATION

BEARINGS USED IN THE IDLER ROLLERS ARE PERMANENTLY LUBRICATED AND SEALED.

BEARING BLOCKS, CHAINS, SPROCKETS AND THREADED SHAFTS SHOULD BE GREASED REGULARLY TO ENSURE FREE MOVEMENTS.

THE MASTS SHOULD BE CLEANED AND SPRAYED WITH A SILICONE LUBRICANT - THIS SHOULD BE DONE ON A WEEKLY BASIS TO ENSURE FREE MOVEMENT OF THE HEAD.

TROUBLE SHOOTING

A. TAPING DIFFICULTIES:

1. TAPE DOES NOT ADHERE WELL TO BOX:

- A. CHECK THAT BOX IS NOT WAXY OR OILY.
- B. CHECK THAT BOX IS PROPERLY CUT AND SCORED SO THAT THE FLAPS DO NOT OVERLAP. IF THE TAPE ADHERES TO THE TOP AND BOTTOM BUT NOT TO THE END PANELS, BRING IT TO THE ATTENTION OF YOUR BOX SUPPLIER.
- C. CHECK THE PRESSURE ON THE WIPE DOWN ROLLERS. IF NECESSARY, INCREASE THE MAIN SPRING PRESSURE. CHECK THAT THE SPRING IS NOT BROKEN.

2. TAPE END STICKS TO ITSELF OR MECHANISM:

- A. CHECK THAT THERE IS NOT TOO MUCH DRAG ON THE TAPE CAUSING STRETCHING AND SNAP BACK AT CUT OFF. REDUCE THE TAPE CORE DRAG SETTING.
- B. CHECK THE TAPE THREADING PATH. SEE TAPE THREADING DIAGRAM.
- C. CHECK FOR DEFECTIVE TAPE ROLL BY PULLING TAPE OFF MANUALLY. THE PULL SHOULD BE EVEN AND SHOULD NOT VARY SUDDENLY.
- D. CHECK TAPE GUIDE PLATE SETTING AND FREEDOM OF MOVEMENT.
- E. CHECK ROLLERS FOR BINDING.

3. TAPE BREAKS OR JAMS:

- A. CHECK THE TAPE ROLL BY PULLING TAPE OFF MANUALLY. THE PULL SHOULD BE EVEN AND SHOULD NOT VARY SUDDENLY.
- B. CHECK THE TAPE CORE DRAG SETTING.
- C. CHECK THE TAPE THREADING PATH. SEE TAPE THREADING DIAGRAM.
- D. CHECK FOR NICKS IN EDGE OF TAPE ROLL. PULL OFF DAMAGED TAPE.
- E. TAPE TENSION SET TOO HIGH.

4. TAPE WRINKLES:

- A. CHECK THE TAPE ROLL BY PULLING TAPE OFF MANUALLY. THE PULL SHOULD BE EVEN AND SHOULD NOT VARY SUDDENLY.
- B. CHECK THE PRESSURE OF THE WIPE DOWN ROLLERS. TOO MUCH / NO PRESSURE MAY CAUSE WRINKLES. PRESSURE THAT IS TOO GREAT MAY DEPRESS THE FLAPS CAUSING PROBLEMS. IF NECESSARY, RE-ADJUST THE PRESSURE.
- C. CHECK THAT ALL THE ROLLERS TURN FREELY ON THEIR SHAFTS.
- D. CHECK THE BOX CONTENTS. PARTIALLY FULL BOXES OR VERY COMPRESSIBLE CONTENTS MAY ALLOW FLAPS TO DEPRESS EXCESSIVELY CAUSING WRINKLES.

- E. CHECK THE DRAG OF THE TAPE. TOO MUCH DRAG MAY CAUSE OVERRUNNING OF THE TAPE ROLL. ADJUST THE TAPE CORE SETTING.
 - F. TAPE TENSION SET TOO HIGH.
 - G. CHECK ROLLER STOP INSIDE CARTRIDGE.
 - H. CHECK THAT TAPE IS PROPERLY THREADED AND THAT TAPE CORE IS PROPERLY CENTERED.
 - I. CHECK THE PRESSURE OF THE HEAD AGAINST THE BOX. IF THE PRESSURE IS INSUFFICIENT, THE BOX MAY SLIP AGAINST THE BELTS AND HESITATE AS IT IS BEING FED THROUGH THE MACHINE. ADJUST THE HEAD HEIGHT.
 - J. CHECK THAT THE BELTS ARE NOT SLIPPING.
 - K. CHECK ADJUSTMENT OF THE GUIDE PLATE AND FINGER PLATE.
5. SHORT TAPE TAB ON BOX:
- A. CHECK TAPE TENSION.
 - B. CHECK ROLLERS FOR BINDING.
6. TAPE NOT BEING WIPED ON BOTTOM OF BOX:
- A. THERE ARE LARGE ECCENTRIC STOPS THAT ARE FACTORY SET TO INSURE FRONT ROLLER ARM CANNOT BE DEPRESSED BELOW BOX HEIGHT. THEY ARE LOCATED INSIDE CARTRIDGE ON BOTH SIDES. WHEN FULLY DEPRESSED, THE FRONT WIPE ROLLER SHOULD PROTRUDE 3/32" ABOVE CARTRIDGE FRAME. IF THIS NEEDS ADJUSTING, ROTATE ECCENTRIC STOPS. USE BOTH STOPS AND MAKE SURE ROLLER ARM CONTACTS FLAT SURFACES. WHEN PROCESSING BOXES LESS THAN 5" HIGH, THE ECCENTRIC STOPS MUST BE MOVED TO THE OPPOSITE HOLE IN THE CARTRIDGE FRAME. THE FRONT ROLLER SHOULD THEN PROTRUDE TO BELT LEVEL.
7. TAPE NOT CUTTING:
- A. CHECK KNIFE ARM FOR MECHANICAL BINDING.
 - B. CHECK THAT KNIFE IS NOT DULL.
 - C. CHECK SPRINGS ON KNIFE STUDS
 - D. CHECK BUSHINGS IN KNIFE STUDS.
 - E. IF KNIFE STOP BLOCK IS CAUSING FRICTION ON KNIFE ARM STUDS, ROTATE UNTIL FREE.
 - F. TAPE TENSION IS SET TOO LOW.
8. TAPE NOT CENTERED ON BOX:
- A. USE SCREW IN CENTER OF TAPE CORE TO RE-ALIGN.

9. TAPE NOT BEING WIPED:
 - A. CHECK MAIN SPRING.
 - B. TAPE TENSION IS SET TOO HIGH.

- B. BOXES JAMMING IN MACHINE:**
 1. JAM CLEARING PROCEDURE:
 - A. STOP MACHINE.
 - B. OPEN SAFETY GATES AND RAISE HEAD.
 - C. REMOVE BOX. RETHREAD AND CUT TAPE FLUSH WITH END OF THE ROLLER .
 - D. CLOSE SAFETY GATES.
 - E. PRESS "START" BUTTON.

 2. INCORRECT BOX SIZE OR SHAPE:
 - A. CHECK BOXES TO MAKE SURE THE SIZE FALLS WITHIN THE MINIMUM / MAXIMUM LIMITS OF THE MACHINE.
 - B. MACHINE WILL NOT PROCESS UNSTABLE BOXES.

 3. CONTENTS BULGING THROUGH TOP OF BOX:
 - A. CHECK TO BE SURE THAT THE BOX IS NOT OVERFILLED WITH CONTENTS.

 4. BOX SLIPPING AGAINST BELTS:
 - A. INCREASE THE DOWN PRESSURE BY ADJUSTING THE FRONT SUPPRESSOR.

 5. HEAD PRESSURE TOO HIGH:
 - A. RAISE HEAD SLIGHTLY. ADJUST FRONT SUPPRESSOR HEIGHT.

C. BELT DRIVE PROBLEMS:

1. BELTS DO NOT MOVE:

A. CHECK THAT MACHINE IS CONNECTED TO A LIVE ELECTRICAL CIRCUIT.

2. BELTS SLIP:

A. CHECK TENSION OF BELTS AND ADJUST IDLER ROLLERS.

3. BOX SLIPS AGAINST BELTS:

A. INCREASE TENSION ON BELT DRIVE SYSTEM.

D. BOX DOES NOT ENTER MACHINE:

- A. CHECK MOUNTING HEIGHT OF INFEED CONVEYOR. TOP OF INFEED CONVEYOR ROLLER MUST BE IN-LINE WITH INFEED GATE ROLLER WHEN GATE IS DOWN.
- B. CHECK THAT GATE IS "DOWN". IF NECESSARY, CHECK PNEUMATIC CIRCUIT.

E. FRONT SUPPRESSOR DOES NOT COMPRESS PROPERLY:

- A. CHECK SENSING HEIGHT.
- B. ADJUST HEAD HEIGHT PROPERLY.

F. TAPING HEAD ADJUSTMENT MALFUNCTION:

- A. CHECK THE CHAINS ON BOTH IDLER SPROCKETS ON BOTH SIDES OF MACHINE.
- B. CHECK THAT DRIVE WHEEL IS TIGHT ON SHAFT.

G. TAPING HEAD CRUSHES BOX:

A. CHECK HEAD HEIGHT, ADJUST IF NECESSARY.

H. KICKER DOES NOT CLOSE REAR FLAP:

- A. CHECK IF KICKER CLOSING TOO EARLY OR TOO LATE - ADJUST ACCORDINGLY.
- B. CHECK SWITCH ARM ADJUSTMENT.

LITTLE DAVID® Warranty

For: All Standard Little David® Semi-Automatic Case Sealers.

All Standard LD-16 Series Fully Automatic Case Sealers.

All Special Application Case Sealers (Fully & Semi-Automatic).

2 YEAR WARRANTY ON DRIVE MOTOR

2 YEAR WARRANTY ON GEAR MOTOR

2 YEAR WARRANTY ON GEAR REDUCER

3 YEAR WARRANTY ON TAPE CARTRIDGE

(EXCEPT FOR MOVING PARTS THAT ARE SUBJECT TO NORMAL WEAR, TEAR AND REPLACEMENT, WHICH ARE WARRANTED ONLY TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP.)

1 YEAR ON PLC

1 YEAR ON SERVO DRIVE

1 YEAR ALL OTHER PART

(EXCEPT FOR WEAR AND MOVING PARTS.)

* LIMITED WARRANTY – **LOVESHAW**, AN **ITW** COMPANY (HEREIN AFTER “**LOVESHAW**”) WARRANTS ONLY THAT THE GOODS SOLD BY IT SHALL BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP, UNDER PROPER AND NORMAL USE AND MAINTENANCE, AS FOLLOWS:

<u>DRIVE MOTOR</u> -	2 YEARS
<u>GEAR REDUCER</u> -	2 YEARS
<u>GEAR MOTOR</u> -	2 YEARS
<u>TAPE CARTRIDGE</u> -	3 YEARS

(THIS APPLIES TO SIDE BELT MACHINES ONLY.)
(EXCEPT FOR MOVING PARTS THAT ARE SUBJECT TO NORMAL WEAR, TEAR AND REPLACEMENT, WHICH ARE WARRANTED ONLY TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP.)

<u>PLC</u> -	1 YEAR
<u>SERVO DRIVE</u> -	1 YEAR
<u>ALL OTHER PARTS</u> -	1 YEAR

(EXCEPT FOR MOVING PARTS THAT ARE SUBJECT TO NORMAL WEAR, TEAR AND REPLACEMENT, WHICH ARE WARRANTED ONLY TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP.)

THE WARRANTY PERIOD SHALL COMMENCE AS OF THE DATE OF DELIVERY TO THE PURCHASER. THE OBLIGATION OF **LOVESHAW** UNDER THIS WARRANTY IS STRICTLY LIMITED TO THE COST OF REPAIRING OR REPLACING, AS **LOVESHAW** MAY ELECT, ANY PART OR PARTS THAT PROVE IN **LOVESHAW'S** JUDGMENT TO HAVE BEEN DEFECTIVE IN MATERIAL OR WORKMANSHIP AT THE TIME THE GOODS WERE SHIPPED FROM **LOVESHAW'S** PLANT. ANY WARRANTY CLAIM NOT MADE IN WRITING TO **LOVESHAW** AT ITS HOME OFFICE WITHIN THE APPLICABLE WARRANTY PERIOD AND WITHIN 10 DAYS OF FAILURE WILL NOT BE VALID. THIS IS THE SOLE AND EXCLUSIVE REMEDY AVAILABLE UNDER THIS WARRANTY. UNDER NO CIRCUMSTANCES WILL **LOVESHAW** BE LIABLE FOR INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES.

IF REQUESTED BY **LOVESHAW**, PURCHASER SHALL RETURN ANY DEFECTIVE PART OR PARTS TO **LOVESHAW'S** PLANT, FREIGHT PREPAID. ALL WARRANTY PART REPLACEMENTS AND/OR REPAIRS MUST BE MADE BY **LOVESHAW** OR A **LOVESHAW** DEALER AUTHORIZED TO HANDLE THE GOODS COVERED BY THIS WARRANTY. ANY OUTSIDE WORK OR ALTERATIONS DONE WITHOUT **LOVESHAW'S** PRIOR WRITTEN APPROVAL WILL RENDER THIS WARRANTY VOID. **LOVESHAW**, AN **ITW** COMPANY, WILL NOT ASSUME ANY EXPENSE OR LIABILITY FOR ANY REPAIRS MADE TO ITS GOODS OUTSIDE ITS FACILITY WITHOUT PRIOR WRITTEN CONSENT. THIS WARRANTY SHALL NOT APPLY TO ANY ITEM THAT HAS NOT BEEN USED, OPERATED, AND MAINTAINED IN ACCORDANCE WITH **LOVESHAW'S** RECOMMENDED PROCEDURES. **LOVESHAW** SHALL HAVE NO LIABILITY WHATSOEVER WHERE THE GOODS HAVE BEEN ALTERED, MISUSED, ABUSED OR INVOLVED IN AN ACCIDENT.

NO PERSON IS AUTHORIZED TO MAKE ANY WARRANTY OR TO CREATE ANY LIABILITY BINDING UPON **LOVESHAW**. WHICH IS NOT STATED IN THIS WARRANTY. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES OF ANY KIND, EXPRESSED OR IMPLIED, WHICH ARE HEREBY EXCLUDED. IN PARTICULAR, THE IMPLIED WARRANTY OF MERCHANTABILITY, AS WELL AS, THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY EXCLUDED.

LOVESHAW AN ITW COMPANY

2206 EASTON TURNPIKE, BOX 83 SOUTH CANAAN, PA 18459
TEL: 570.937.4921 – 800.572.3434 – FAX: 570.937.3229

ILLUSTRATED MACHINE ASSEMBLIES TABLE OF CONTENTS

FRAME ASSEMBLY

HEAD ASSEMBLY

 SQUEEZER ASSEMBLY

 KICKER VALVE ASSEMBLY

HEAD LIFTING ASSEMBLY

INFEEED GATE ASSEMBLY

SAFETY GATE ASSEMBLY

SIDE RAIL ASSEMBLY

SWITCH SLIDE ASSEMBLY

MOTOR ASSEMBLY

BOTTOM BELT ASSEMBLY

TAPE CARTRIDGE

PNEUMATIC SCHEMATIC

ELECTRICAL DRAWINGS

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	11/25/2008	AMYR

MATL	PART #	CAD FILE	FRA16A
C.R.S.	STD	PLOT DATE	11/25/2008
ST-ST		DRAWN DATE	11/25/2008

TOLERANCES UNLESS OTHERWISE NOTED:			
X	= ±.050	ANGLES	±.1/2
INCH	XX = ±.015		
	XXX = ±.005		

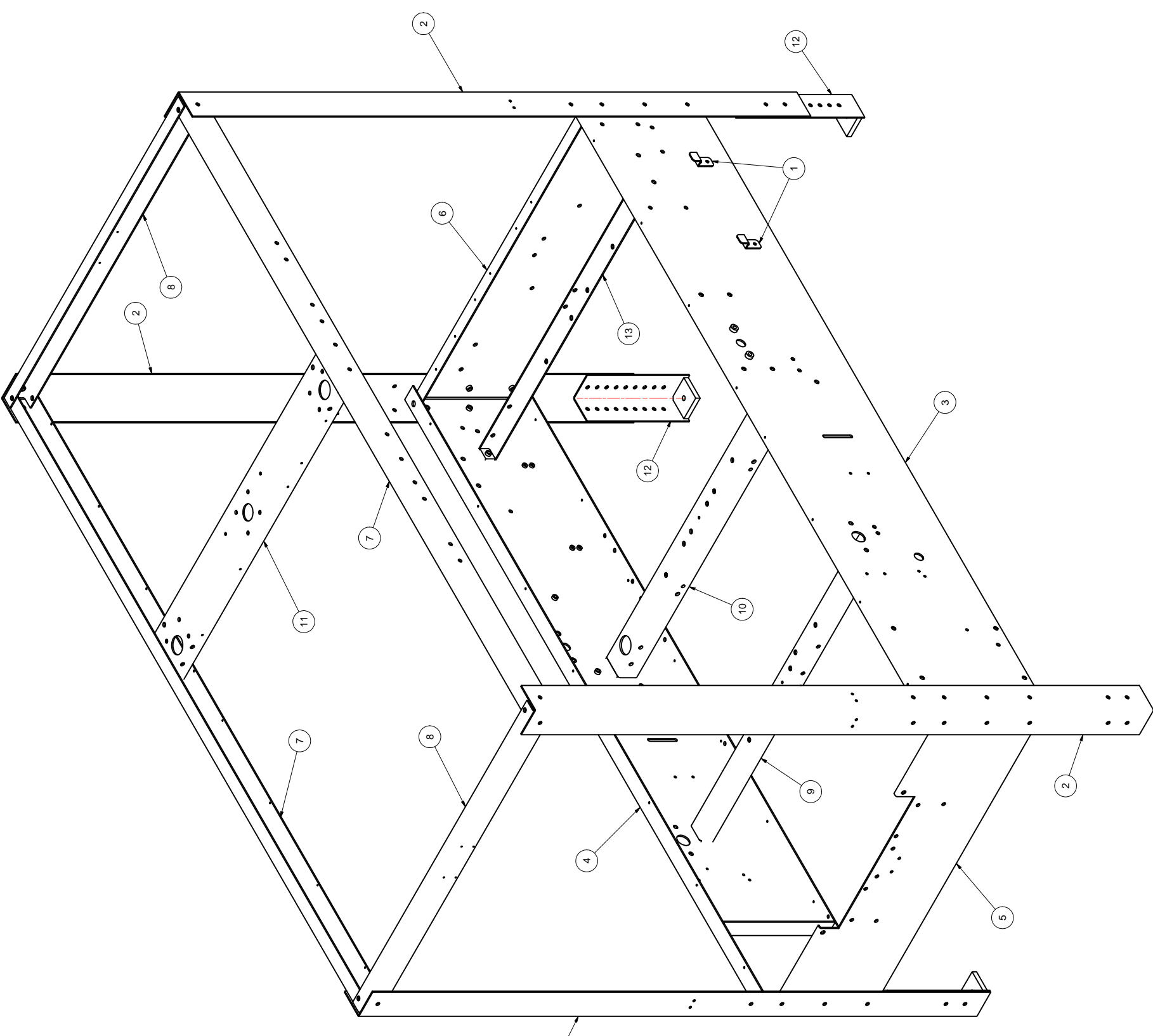
DO NOT SCALE PRINT			

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TITLE			
FRAME ASSEMBLY LD16A			
DWG NO. ...FRA16A			
MATERIAL			
DRAWN AMYR			
CHECKED			
APPROVED			

FRACTIONS ± 1/64			

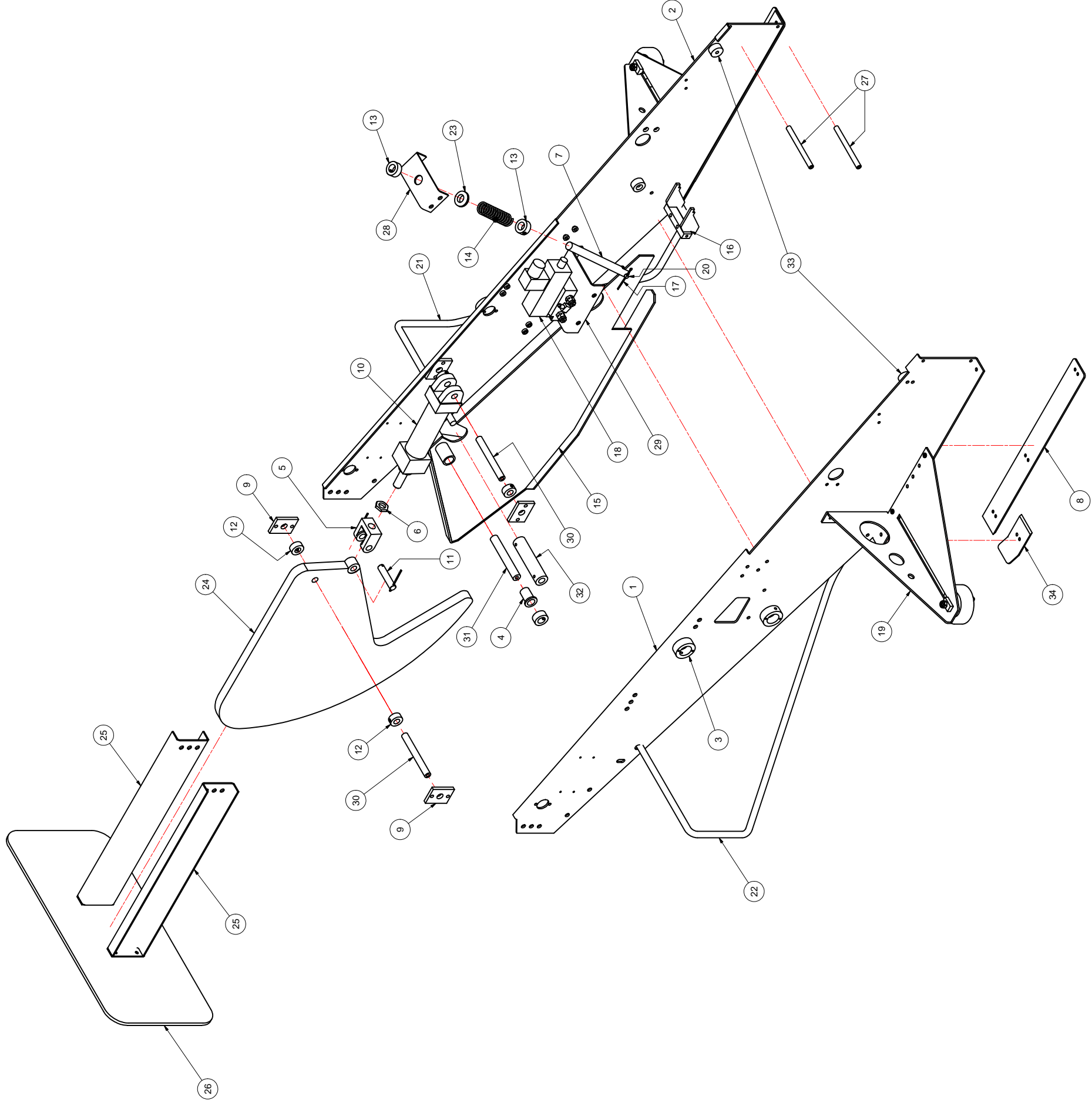
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	LP09-047-3	CARTRIDGE SUPPORT
2	4	LD16P-0004-6	LEG
3	1	LD16P-0003-6	FRAME CHANNEL RIGHT
4	1	LD16P-0007-6	FRAME CHANNEL LEFT
5	1	LD16P-0006-6	FRONT FRAME
6	1	LD16P-0008-6	REAR FRAME
7	2	LD16P-0009-6	TOP SIDE BRACES
8	2	LD16P-0010-6	TOP FRONT & REAR BRACES
9	1	LD16P-0012-6	SWITCH SLIDE BRACE
10	1	LD16P-0013-6	BOTTOM CENTER BRACE
11	1	LD16P-0011-6	TOP CENTER BRACE
12	4	LD16P-0005-5	LEG EXTENSION
13	1	LD16P-0014-6	REDUCER BRACE



REV	DESCRIPTION	DATE	BY
A	RELEASED	11/26/2008	AMYR

REVISION HISTORY
1

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	LD16P-0028-6	HEAD FRAME RIGHT
2	1	LD16P-0029-6	HEAD FRAME LEFT
3	4	FG1120	COLLAR
4	2	JG1010	BUSHING
5	1	K255	CLEVIS - KICKER CYLINDER
6	1	K255A	JAM NUT - KICKER CYLINDER
7	1	LD12B-1018-4	SUPPRESSOR BAR
8	2	LD16P-0057-5	HOLD DOWN RAIL HEAD
9	4	LD16B-1013-3	SPACER - KICKER CYLINDER
10	1	N211A-NOR	KICKER CYLINDER
11	1	N229	CLEVIS PIN
12	4	SC50	COLLAR
13	4	SC62	SET COLLAR
14	1	UG58-10	SUPPRESSOR SPRING
15	1	LD12B-1012-6	SUPPRESSOR
16	1	LD12B-3938-4	TOP LOAD BRACKET
17	3	HP105	COTTER PIN
18	1	KICKER VALVE ASSY.	SEE NEXT PAGE
19	1	SQUEEZER ASSY.	SEE NEXT PAGE
20	1	PSR101CLP-3	CLEVIS PIN
21	1	LD12B-1013-6	FLAP FOLDER LEFT
22	1	LD12B-1014-6	FLAP FOLDER RIGHT
23	1	PSR604	GROMMET
24	1	LD12B-3906-6	KICKER (UHMW)
25	2	LD12B-3910-5	KICKER GUARD
26	1	LD12B-3911A-5	KICKER GUARD LEXAN
27	2	LD16B-1014-3	SHAFT TIE BAR HEAD
28	1	LD16B-1021-4	SUPPRESSOR BRACKET
29	1	LP13B-06-4-SMC	BRACKET - KICKER VALVE
30	2	LP13B-16A-3	SHAFT - KICKER CYLINDER
31	1	LD16B-1011-3	SHAFT SUPPRESSOR
32	1	LD16B-1009-4	COUPLING
33	4	LD7P-0013-3	CARTRIDGE SPACER
34	2	LD16P-0058-4	BOX GUIDE



MATL	PART #	CAD FILE	HDA16_3_PL	TOLERANCES UNLESS OTHERWISE NOTED:	ANGLS ±.12
C.R.S.	STD	PLOT DATE	2/10/2009	INCH .XX±.015	MACH
ST-ST		DRAWN DATE	11/26/2008	.XX±.006	FINISH
	STAINLESS - NO FINISH		DO NOT SCALE PRINT		METRIC .XXX±.1mm
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LOVESHAW an ITW Company			RT. 296, SOUTH CANAAN, PA.		
TITLE			HEAD ASSEMBLY		
DWG NO			...HDA16/3/PLS		
MATERIAL			DRAWN AMYR		
CHECKED			APPROVED		

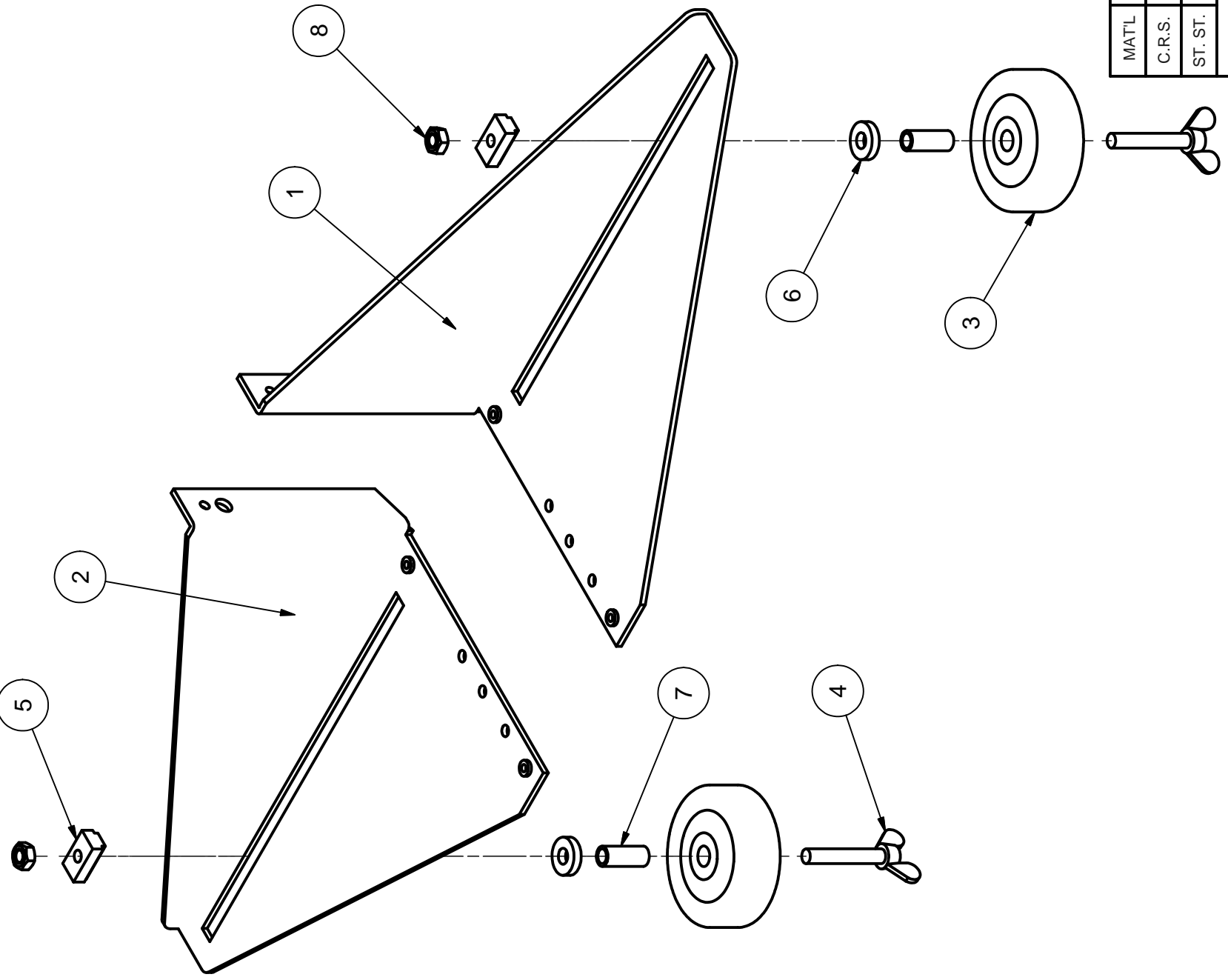
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REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	10/22/2003	AMYR

Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	LD12B-1023-6	SQUEEZER FRAME LEFT
2	1	LD12B-1024-6	SQUEEZER FRAME RIGHT
3	2	LD12B-1027A	SQUEEZER WHEEL
4	2	OPU301102	WING SCREW
5	2	OPU301103-3	SQUEEZER T-NUT
6	2	OPU301104-3SS	SPACER
7	2	OPU501	BUSHING
8	2	M8	HEX NUT



LOVESHAW an ITW Company RT. 296, SOUTH CANAAN, PA.		TOLERANCES UNLESS OTHERWISE NOTED: .X = ±.050 INCH .XX = ±.015 ANGLES ±1/2° .XXX = ±.005 .X = ±1.0mm MACH. 125° METRIC .XX = ±.3mm FINISH .XXX = ±.1mm		TITLE TOP SQUEEZER ASSEMBLY	
MAT'L	PART #	CAD FILE	TSA16A	DWG NO	.TSA16A
C.R.S.	STD	PLOT DATE	8/9/2004	MATERIAL	N/A
ST. ST.	N/A	DRAWN DATE	10/22/2003	DRAWN	AMYR
STAINLESS : NO FINISH			DO NOT SCALE PRINT THIS DRAWING AND SUBJECT MATTER THEREON IS THE EXCLUSIVE PROPERTY OF LOVESHAW-ITW AND IS TO BE TREATED BY YOU AS CONFIDENTIAL PROPRIETARY INFORMATION. THIS DRAWING OR SUBJECT MATTER THEREOF SHALL NOT BE REPRODUCED OTHER THAN FOR YOUR OWN USE OR TO BE DISCLOSED TO OTHER WITHOUT THE EXPRESSED WRITTEN CONSENT OF LOVESHAW-ITW AND WILL BE RETURNED TO LOVESHAW-ITW UPON REQUEST.		
FRACTIONS ± 1/64			SCALE N/A		
CHECKED			APPROVED		

B

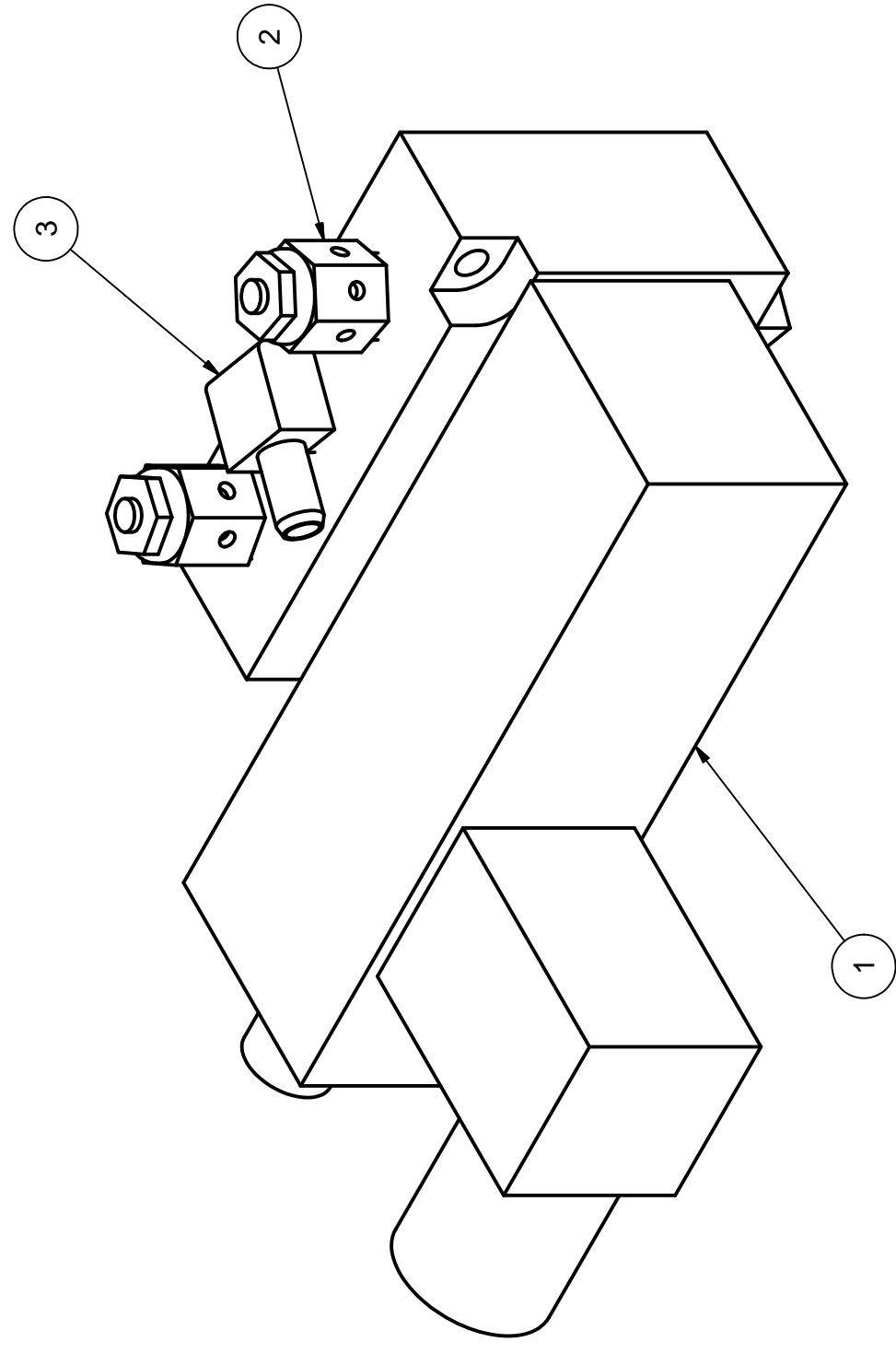
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4 3 2 1

4 3 2 1

B B

A A



Parts List

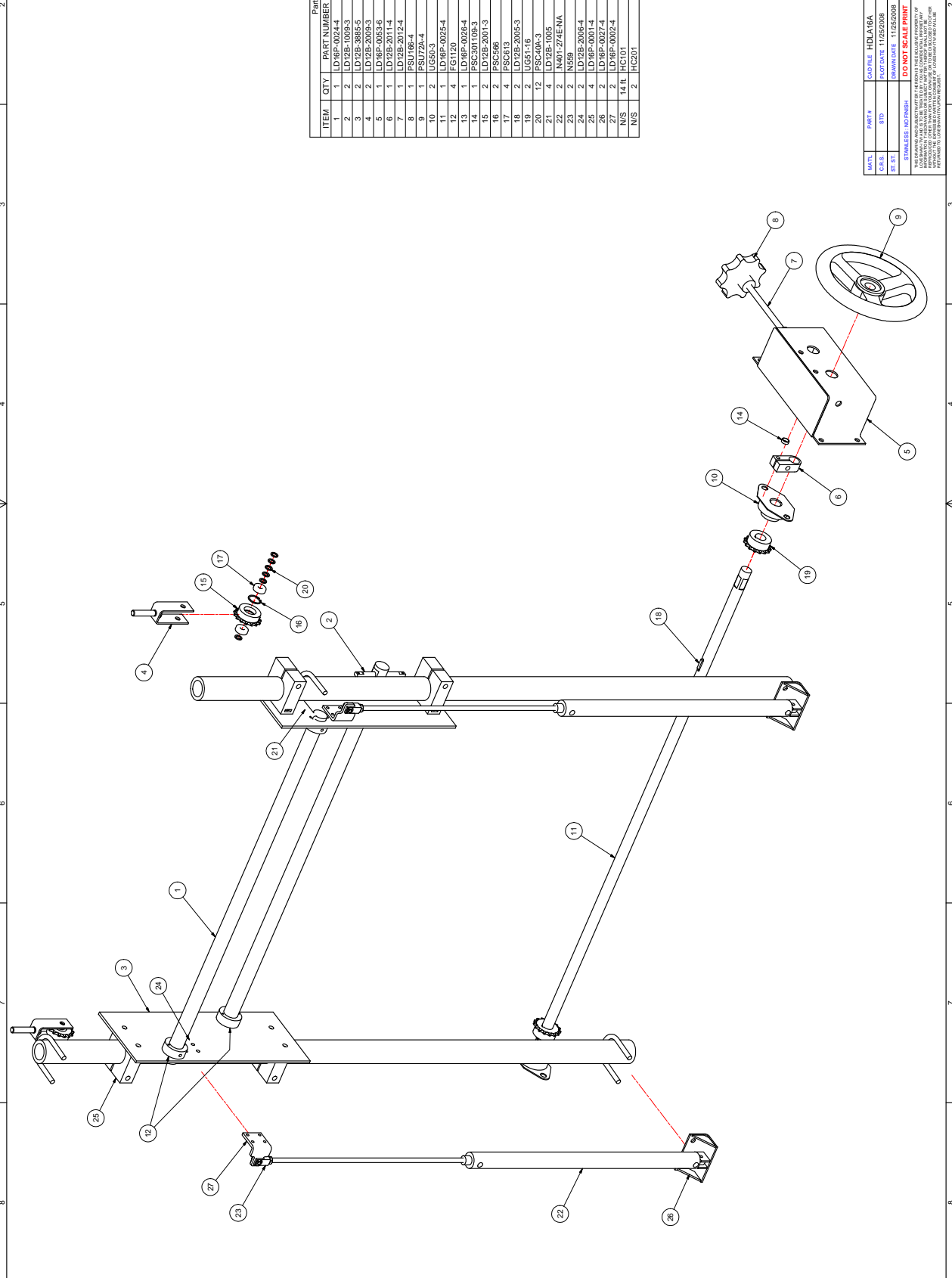
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	N266	VALVE
2	2	N220	SPEED CONTROL
3	3	H122A	BRASS FITTING

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	8/6/2004	AMYR

MAT'L	PART #	CAD FILE	SV-1-16A
C.R.S.	STD	PLOT DATE	8/6/2004
ST. ST.	N/A	DRAWN DATE	8/6/2004
STAINLESS : NO FINISH			
<p>THIS DRAWING AND SUBJECT MATTER THEREON IS THE EXCLUSIVE PROPERTY OF LOVESHAW-ITW AND IS TO BE TREATED BY YOU AS CONFIDENTIAL PROPRIETARY INFORMATION. THIS DRAWING OR SUBJECT MATTER THEREOF SHALL NOT BE REPRODUCED OTHER THAN FOR YOUR OWN USE OR TO BE DISCLOSED TO OTHER WITHOUT THE EXPRESSED WRITTEN CONSENT OF LOVESHAW-ITW AND WILL BE RETURNED TO LOVESHAW-ITW UPON REQUEST.</p>			
TOLERANCES UNLESS OTHERWISE NOTED:		INCH .X = ±.050 .XX = ±.015 .XXX = ±.005 ANGLES ±1/2°	
TITLE		KICKER VALVE ASSEMBLY FRACTIONS ± 1/64	
LOVESHAW an ITW Company RT. 296, SOUTH CANAAN, PA.		DWG NO .SV-1-16A SCALE N/A	
DRAWN		AMYR	
CHECKED		N/A	
APPROVED		N/A	

4 3 2 1

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	11/28/2008	AMTR

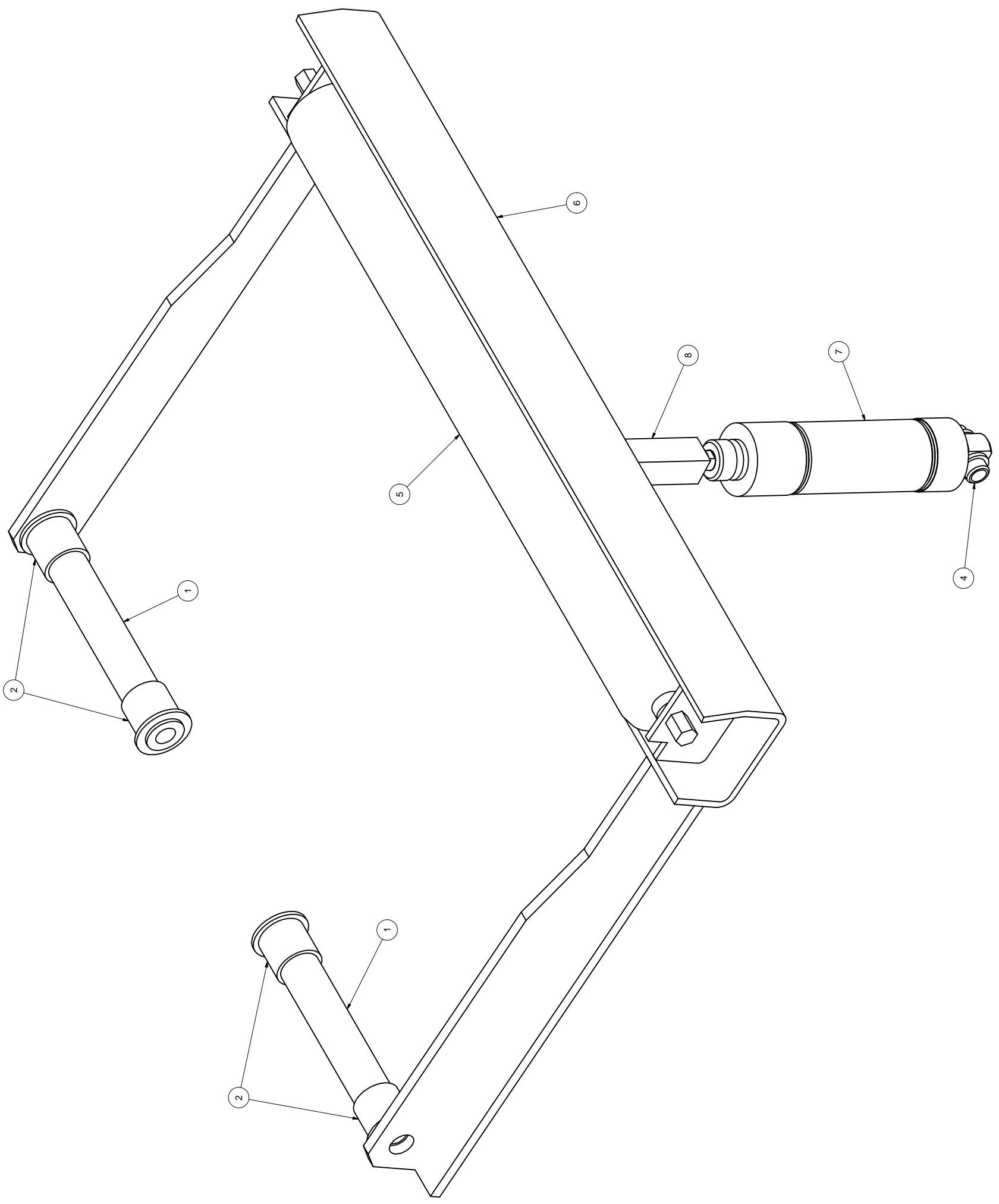


ITEM	QTY	PARTS LIST	PART NUMBER	DESCRIPTION
1	1		LD1BP-0024-4	HEAD SHAFT
2	2		LD12B-1009-3	THREADED ROD SHAFT
3	2		LD12B-3885-5	SLIDE PLATE
4	2		LD12B-3885-5	SLIDE PLATE
5	2		LD12B-3885-5	SLIDE PLATE
6	1		LD12B-2011-4	CLAMP BLOCK
7	1		LD12B-2011-4	CLAMP BLOCK
8	1		LD12B-2011-4	LOCKING SCREW WELDMENT
9	1		PSU166-4	SIDE RAIL HAND KNOB
10	2		UG50-3	BEARING BLOCK
11	1		LD1BP-0025-4	HEAD LIFTING SHAFT
12	4		UG126-3	CLAMP BLOCK
13	4		UG126-3	CLAMP BLOCK
14	1		PSC2001106-3	SPACER - REAR ROLLER ARM
15	2		LD12B-2001-3	IDLER SPROCKET
16	2		PSC566	RETAINING RING
17	4		PSC513	BALL BEARING
18	2		LD12B-2005-3	KEY - SPROCKET
19	2		UG51-16	SPROCKET
20	12		PSC48B-3	SPACER BEARING
21	2		UG126-3	CLAMP BLOCK
22	2		NM41-274E-NA	DOUBLE ACTING CYLINDER
23	2		N559	ROD CLEVIS
24	2		LD12B-2006-4	MAST
25	4		LD1BP-0001-4	MAST CLAMP
26	2		LD1BP-0027-4	CYLINDER MOUNT
27	2		LD1BP-0002-4	CLEVIS MOUNT
NIS	14.1L		HC101	#35 CHAIN
NIS	2		PC501	#35 CHAIN LINK

MATL	PART #	CAD FILE	HD LATA	SCALE
CAS	STD	PLT DATE	11/28/2008	SCALE
DO NOT SCALE PRINT THIS DRAWING IS THE PROPERTY OF LOVE SHAW. IT IS TO BE USED ONLY FOR THE PROJECT AND FOR THE QUANTITY OF PARTS SPECIFIED THEREON. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF LOVE SHAW.				
TOLERANCES UNLESS OTHERWISE NOTED: HOLE: .XX+.005 ANGLES: 1/2° FINISH: .XX+.005 .XX+.010 METRIC: .XX+.3mm .XX+.5mm .XX+.01mm .XX+.015mm				
MATERIAL: HD LATA DIMENSIONS: AMTR CHECKED: AMTR APPROVED: AMTR				

LOVESHAW an ITW Company
 RT. 298 SOUTH CANNON, PA.
HEAD LIFTING ASSEMBLY
 TITLE: HD LATA
 PART: AMTR
 SCALE: AMTR
 CHECKED: AMTR
 APPROVED: AMTR

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	12/3/2008	AMYR

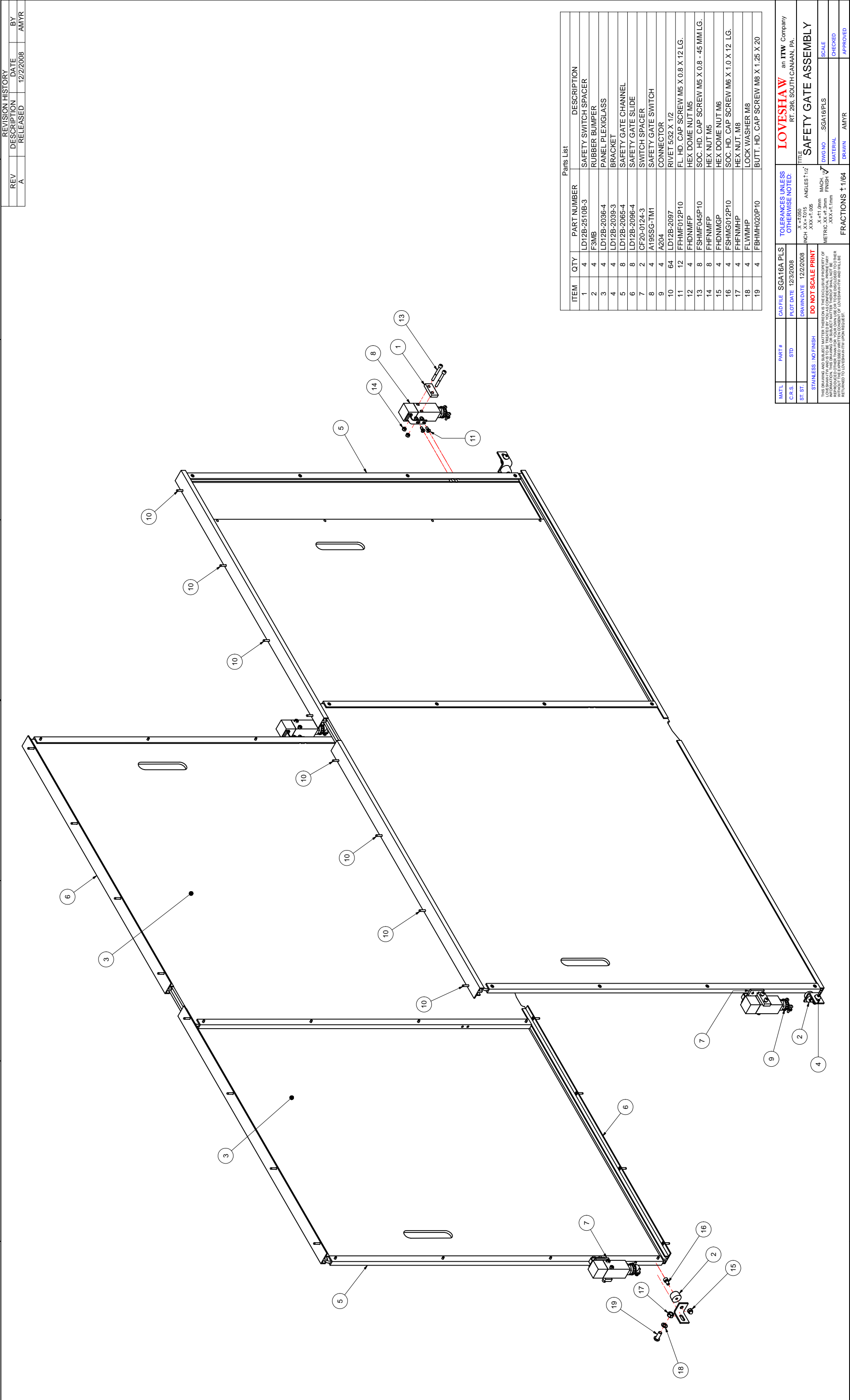


Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	LD12B-2054-3	SHAFT - GATE
2	4	PSC301224	BUSHING
3	1	PSR101CLP-3	CLEVIS PIN (NOT SHOWN)
4	2	OPC501	BUSHING - GATE CYLINDER
5	1	RL-1009	ROLLER
6	1	LD16P-0049-6	INDEXING GATE
7	1	LD12B-2048	CYLINDER
8	1	LD16P-0050-3	CLEVIS

MATL	PART #	CAD FILE	IGA16_PT_3	PLT	TOLERANCES UNLESS OTHERWISE NOTED:	TITLE
C.R.S.	STD	PLOT DATE	12/3/2008		INCH .XX ±.015	INFEED GATE ASSEMBLY
ST. ST.		DRAWN DATE	12/3/2008		.XX ±.006	DWG NO. IGA16PT/3PLS
	STAINLESS - NO FINISH				ANGLES ±.1/2	MATERIAL
<p>THIS DRAWING AND SUBJECT MATTER THEREON IS THE EXCLUSIVE PROPERTY OF LOVESHAW. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. ANY REPRODUCTION OR TRANSMISSION OF THIS DRAWING OR SUBJECT MATTER THEREOF SHALL NOT BE REPRODUCED OTHER THAN FOR YOUR OWN USE OR TO BE DISCLOSED TO OTHERS WITHOUT THE WRITTEN PERMISSION OF LOVESHAW. LOVESHAW AND ITS AFFILIATES RETURNED TO LOVESHAW UPON REQUEST.</p>						
					X ±.1 0mm	SCALE
					XX ±.1 0mm	CHECKED
					XXX ±.1 0mm	APPROVED
					FRACTIONS ± 1/64	DRAWN AMYR

D C B A

1 2 3 4 5 6 7 8



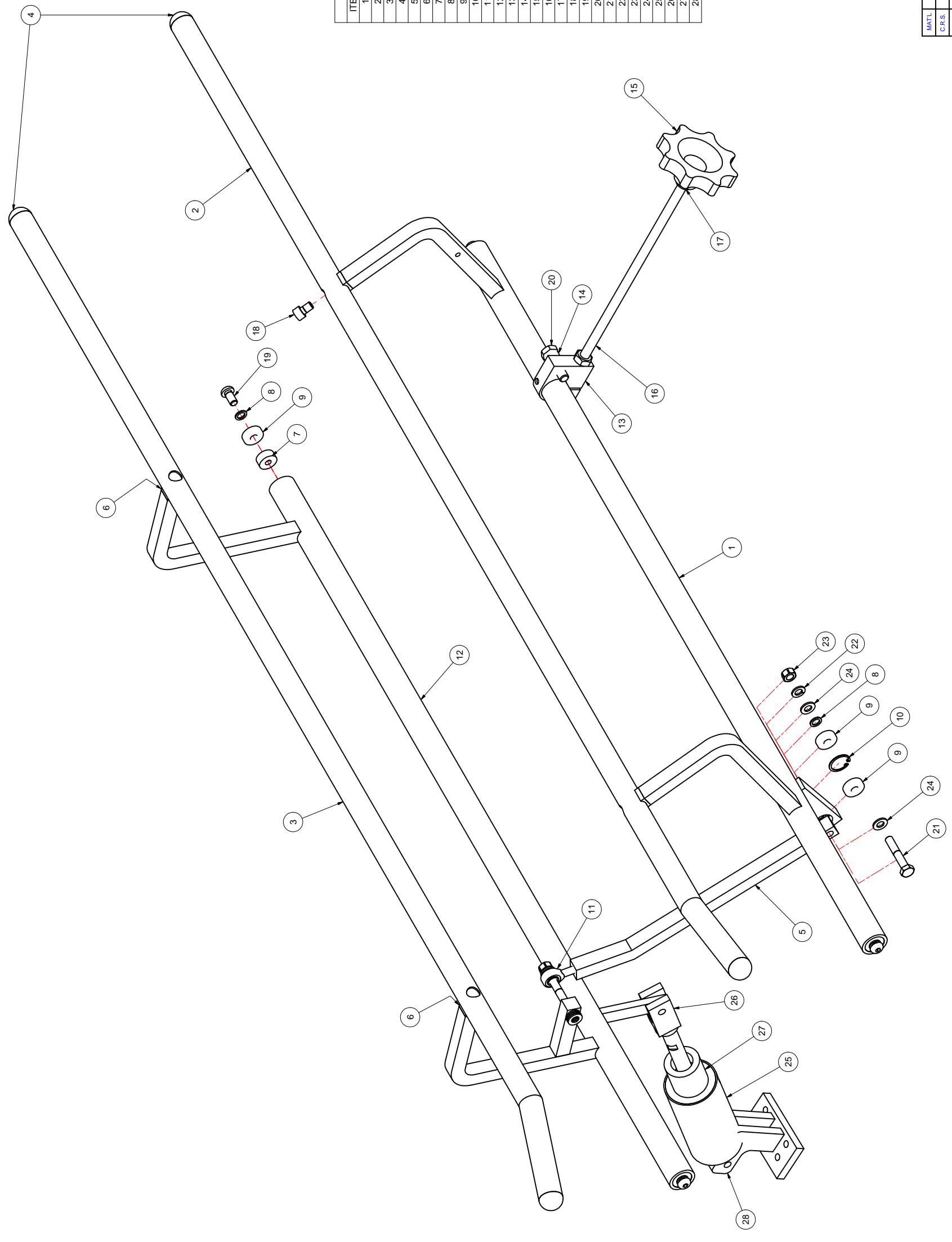
REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	12/2/2008	AMYR

Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	4	LD12B-2510B-3	SAFETY SWITCH SPACER
2	4	F3MB	RUBBER BUMPER
3	4	LD12B-2036-4	PANEL PLEXIGLASS
4	4	LD12B-2039-3	BRACKET
5	8	LD12B-2065-4	SAFETY GATE CHANNEL
6	8	LD12B-2096-4	SAFETY GATE SLIDE
7	2	CF-20-0124-3	SWITCH SPACER
8	4	A195SG-TM1	SAFETY GATE SWITCH
9	4	A204	CONNECTOR
10	64	LD12B-2097	RIVET 5/32 X 1/2
11	12	FFHMF012P10	FL. HD. CAP SCREW M5 X 0.8 X 12 LG.
12	4	FHDNMF	HEX DOME NUT M5
13	8	FSHMF045P10	SOC. HD. CAP SCREW M5 X 0.8 - 45 MMLG.
14	8	FHFNMFP	HEX NUT M5
15	4	FHDNMG	HEX DOME NUT M6
16	4	FSHMG012P10	SOC. HD. CAP SCREW M6 X 1.0 X 12 LG.
17	4	FHFNMHP	HEX NUT, M8
18	4	FLWMHP	LOCK WASHER M8
19	4	FBHMH020P10	BUTT. HD. CAP SCREW M8 X 1.25 X 20

MATL	PART #	CAD FILE	SGA16A PLS
C.R.S.	STD	PLOT DATE	12/3/2008
ST. ST.		DRAWN DATE	12/2/2008
STAINLESS - NO FINISH		DO NOT SCALE PRINT	
<small> THIS DRAWING AND SUBJECT MATTER THEREON IS THE EXCLUSIVE PROPERTY OF LOVESHAW. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. ANY REPRODUCTION OR TRANSMISSION OF THIS DRAWING OR SUBJECT MATTER THEREON SHALL NOT BE REPRODUCED OTHER THAN FOR YOUR OWN USE OR TO BE DISCLOSED TO OTHER PARTIES WITHOUT THE WRITTEN PERMISSION OF LOVESHAW. LOVESHAW AND ITS AFFILIATES SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE TO PERSONS OR PROPERTY CAUSED BY THE USE OF THIS DRAWING. THIS DRAWING IS TO BE RETURNED TO LOVESHAW UPON REQUEST. </small>			
TOLERANCES UNLESS OTHERWISE NOTED:		<small> X = ±.050 ANGLES ±.1/2 INCH .XX = ±.015 .XX = ±.006 X = ±1.0mm MACH. .XX = ±.1mm FINISH .XXX = ±.1mm </small>	
TITLE		SAFETY GATE ASSEMBLY	
DWG NO.		...SGA16/PLS	
MATERIAL		DRAWN	
SCALE		CHECKED	
FRACTIONS ± 1/64		APPROVED	

LOVESHAW an ITW Company
 RT. 296, SOUTH CANAAN, PA.

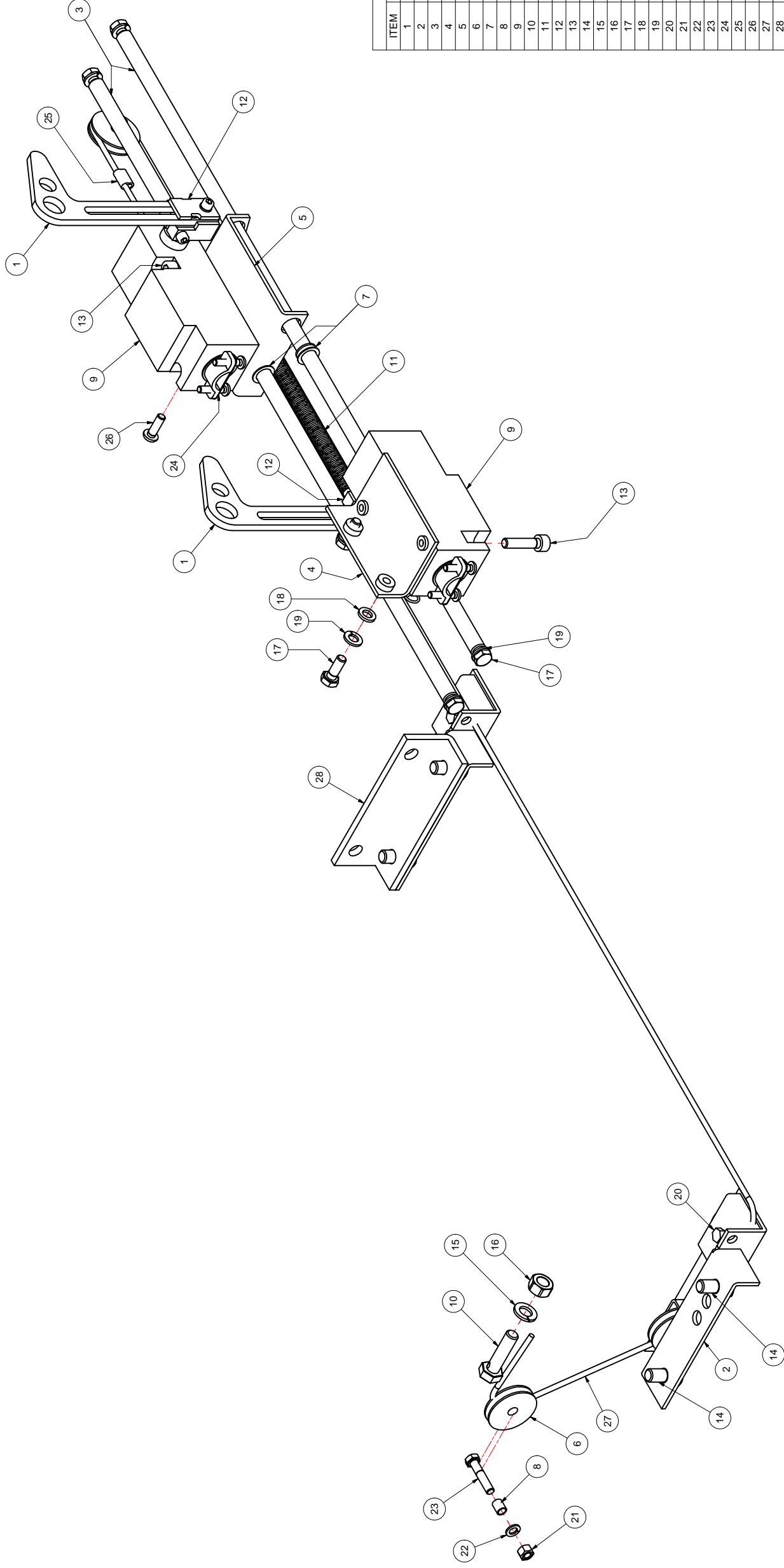
REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	12/4/2008	AMYR



Parts List		
ITEM	QTY	PART NUMBER DESCRIPTION
1	1	LD12B-2031-6 SIDE RAIL WELDMENT RIGHT
2	1	LD12B-2033-6 SIDE RAIL RIGHT
3	1	LD12B-2034-4 SIDE RAIL LEFT
4	4	PSC511A SIDE RAIL CAP
5	1	LD12B-2049-4 CONNECTING ARM
6	4	PSC212-3 SIDE RAIL SPACER
7	4	PSC38-3 SIDE RAIL PIVOT TUBE INSERT
8	8	PSC40A-3 SPACER BEARING
9	6	PSC613 BALL BEARING
10	1	PSC566 RETAINING RING
11	1	PSX8784-4 SPHERICAL ALIGN BEARING
12	1	PSX8784-4 SIDE RAIL WELDMENT LEFT
13	1	PSC301264-4 CLAMP BLOCK
14	1	PSU162-3 SPACER CLAMP BLOCK
15	1	PSU166-4 SIDE RAIL HAND KNOB
16	1	LD16P-0032-4 LOCKING ROD
17	1	FHJNMP HEX JAM NUT M10, PLATED
18	4	FSHMH012P10 SOC. HD. CAP SCREW M8 X 12
19	4	FBHMH016P10 BUTT. HD. CAP SCREW M8 X 16
20	1	FHHM035P88 HEX HD. M10 X 35mm LG.
21	2	FHHMH045P10 HEX HD. M8 X 45mm LG.
22	2	FLWMHP LOCK WASHER M8
23	2	FHFMHP HEX NUT M8
24	7	FFWMHP FLAT WASHER M8
25	1	LD12B-3087 CYLINDER
26	1	PSX2963 CLEVIS
27	1	PSR102B-3 BUMPER ROD END (HEAD)
28	1	LD12B-3140-4 SIDE RAIL CYLINDER MOUNT

MATL	PART #	CAD FILE	SRA16A PLS	LOVESHA W an ITW Company
C.R.S.	STD	PLOT DATE	12/5/2008	RT. 296, SOUTH CANAAN, PA.
ST-ST		DRAWN DATE	12/4/2008	
STAINLESS: NO FINISH		TOLERANCES UNLESS OTHERWISE NOTED:		
		X = ±.050	ANGLES ±.1/2	
		INCH .XX = ±.015	MACH. FINISH	
		.XX = ±.005	MACH. FINISH	
		X = ±1.0mm	MACH. FINISH	
		METRIC .XXX = ±.1mm	MACH. FINISH	
		THIS DRAWING AND SUBJECT MATTER THEREON IS THE EXCLUSIVE PROPERTY OF LOVESHA W. ANY REPRODUCTION OR TRANSMISSION OF THIS DRAWING OR SUBJECT MATTER THEREON WITHOUT THE WRITTEN PERMISSION OF LOVESHA W. IS STRICTLY PROHIBITED. ANY REPRODUCTION OR TRANSMISSION OF THIS DRAWING OR SUBJECT MATTER THEREON SHALL NOT BE REPRODUCED OTHER THAN FOR YOUR OWN USE OR TO BE DISCLOSED TO THEIR EMPLOYEES OR AGENTS WITHOUT THE WRITTEN PERMISSION OF LOVESHA W. ANY REPRODUCTION OR TRANSMISSION OF THIS DRAWING OR SUBJECT MATTER THEREON SHALL NOT BE RETURNED TO LOVESHA W. UPON REQUEST. © LOVESHA W. AND AFFILIATES		
TITLE		SIDE RAIL ASSEMBLY		
DWG NO.		...SRA16A PLS		
MATERIAL		DRAWN AMYR		
CHECKED		APPROVED		
FRACTIONS ± 1/64				

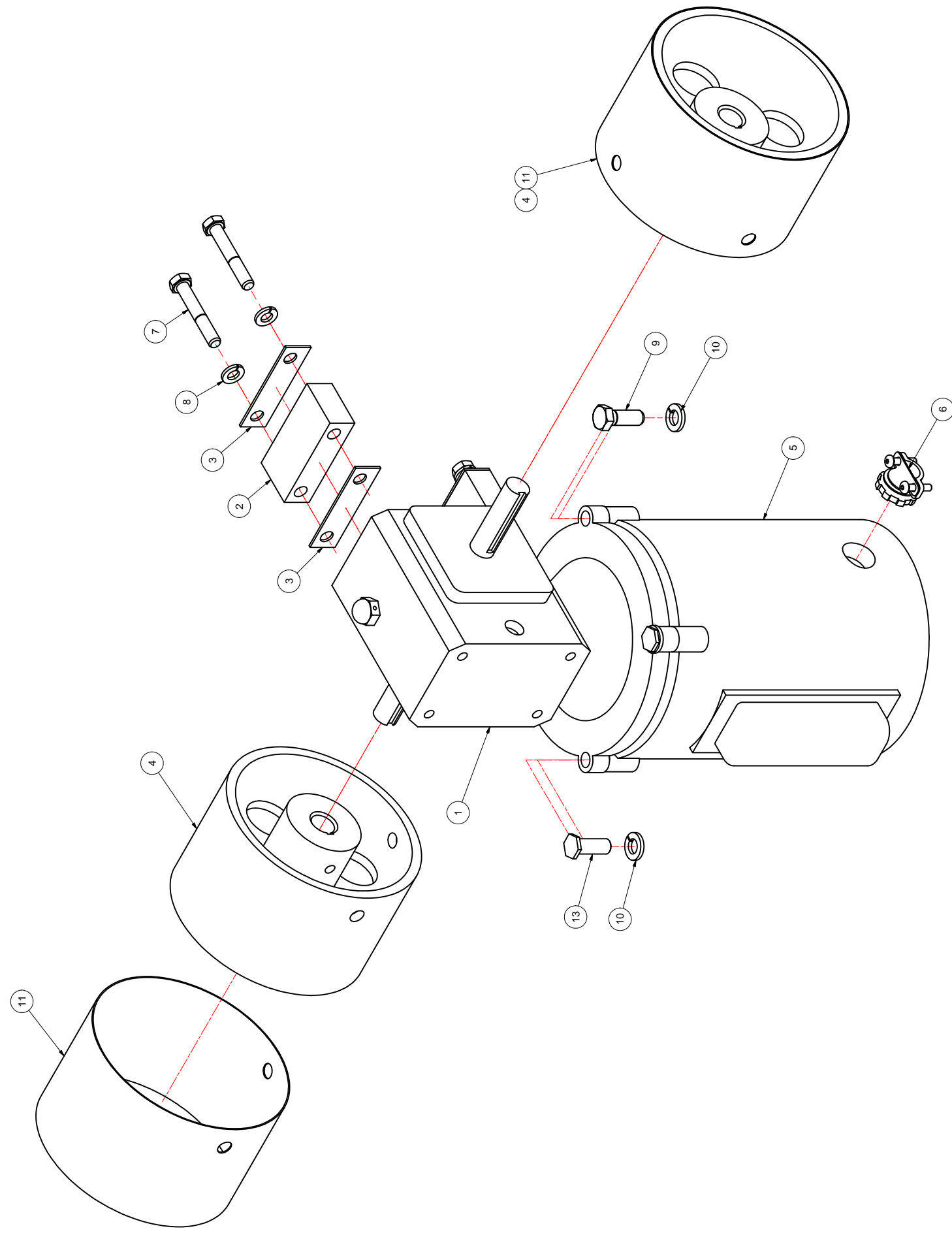
REVISION HISTORY		
REV	DESCRIPTION	DATE
A	RELEASED	11/26/2008
		BY AMYR



Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	LD118-4	LEVER ARM F-1
2	2	LD12B-2038-4	PULLEY BRACKET WELDMENT
3	2	LD12B-2046-3	SHAFT SWITCH SLIDE
4	1	LD12B-2064-4	SWITCH BRACKET
5	1	LD12B-2069-4	SWITCH BLOCK SLIDING
6	6	LD12B-2070-3	PULLEY
7	3	PSC21-4	BUSHING
8	6	LD12B-2071-3	SLEEVE PULLEY
9	2	LD12B-2071-3	LIMIT SWITCH
10	1	LD12B-2071-3	HEX SCREW
11	1	LD12B-2071-3	SPRING
12	2	LD12B-2071-3	LEVER
13	4	FHMG025P10	SOC. HD. CAP SCREW M6 X 25
14	4	FHMH016P10	HEX HD. CAP SCREW M8 X 16
15	5	FLVMHP	LOCK WASHER M8
16	1	FHNMHP	HEX NUT. M8
17	6	FHMG016P10	HEX HD. CAP SCREW M6 X 16
18	2	FWMGP	FLAT WASHER M6
19	6	FLVMGP	LOCK WASHER M6
20	5	FHMH016P10	HEX HD. M6 x 16
21	7	FHNMFP	HEX NUT M5
22	1	FLVMFP	LOCK WASHER M5
23	1	FHMH025P10	HEX HD. M5x25
24	2	A204	CONNECTOR
25	1	PSU95	CLAMP, CABLE LOOS
26	1	FHMH016P10	HEX SOC. BUTT. HD. SCREW
27	1	AG1021	CABLE
28	1	LD16P-0031-4	SPACER

MATL	PART #	CAD FILE	SWSLA16A.P
C.R.S.	STD	PLOT DATE	12/1/2008
ST. ST.		DRAWN DATE	11/26/2008
STAINLESS - NO FINISH		DO NOT SCALE PRINT	
<small>THIS DRAWING AND SUBJECT MATTER THEREON IS THE EXCLUSIVE PROPERTY OF LOVESHAW. IT IS TO BE USED ONLY FOR THE PROJECT AND PARTS IDENTIFIED THEREIN. ANY REPRODUCTION OR TRANSMISSION OF THIS DRAWING OR SUBJECT MATTER THEREON WITHOUT THE WRITTEN PERMISSION OF LOVESHAW IS STRICTLY PROHIBITED. THIS DRAWING SHALL NOT BE REPRODUCED OTHER THAN FOR YOUR OWN USE OR TO BE DISCLOSED TO OTHERS WITHOUT THE WRITTEN PERMISSION OF LOVESHAW. LOVESHAW AND ITS AFFILIATES SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE TO PROPERTY OR PERSONAL INJURY CAUSED BY THE USE OF THIS DRAWING.</small>			
TOLERANCES UNLESS OTHERWISE NOTED:		X = ±.050 ANGLES ±1/2	
		INCH .XX = ±.015	
		.XXX = ±.006	
		X = ±1.0mm	
		MACH. ±.075	
		METRIC .XXX = ±.1mm	
		.XXX = ±.1mm	
TITLE		SWITCH SLIDE ASSEMBLY	
DWG NO		...SWSLA16A/PLS	
SCALE		CHECKED	
MATERIAL		DRAWN	
		AMYR	
APPROVED			

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	12/5/2008	AMYR



Parts List		
ITEM	QTY	PART NUMBER DESCRIPTION
1	1	PSC301238S REDUCER
2	2	PSC301233-4 SPACER - REDUCER
3	4	PSC301265-3 RUBBER PAD - REDUCER SPACER
4	2	LD12B-2043-4 DRIVE ROLLER
5	1	LD16B-2033A MOTOR
6	1	A204 CONNECTOR
7	4	FHSH200P08 HEX HD. 5/16-18 X 2 LG.
8	4	FLWSEP LOCK WASHER 5/16
9	2	FHHSJ100P08 HEX HD. 3/8-16 X 1 LG.
10	4	FLWSFP LOCK WASHER 3/8
11	2	LP09-056 BELT LAGGING
12	4	FSSMH010B88 SET SCREW M8 X 10mm LG.
13	2	PSC102309-3 BOLT (LOW HEAD)

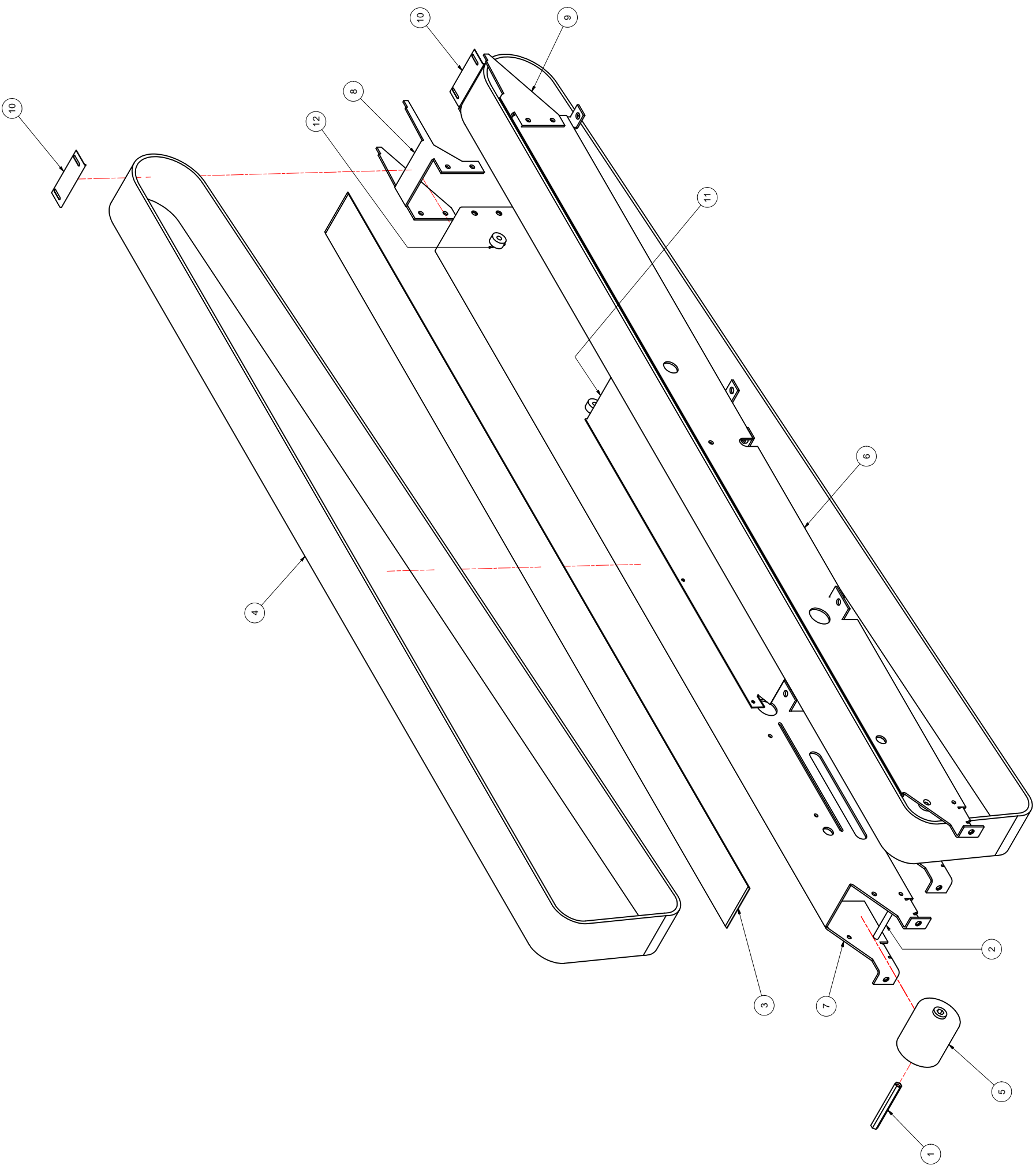
EMA16A1-115V.A.PLS			
MATL	PART #	CAD FILE	MACHINE
C.R.S.	STD		
ST-ST			
STAINLESS - NO FINISH			
THIS DRAWING AND SUBJECT MATTER THEREON IS THE EXCLUSIVE PROPERTY OF LOVESHAW AND ITW COMPANY. IT IS TO BE USED ONLY FOR THE MANUFACTURE AND REPAIR OF THE EQUIPMENT IDENTIFIED HEREIN. ANY REPRODUCTION OR TRANSMISSION OF THIS DRAWING OR SUBJECT MATTER THEREOF SHALL NOT BE MADE WITHOUT THE WRITTEN PERMISSION OF LOVESHAW AND ITW COMPANY. ANY INFORMATION OBTAINED FROM THIS DRAWING OR SUBJECT MATTER THEREOF SHALL NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF LOVESHAW AND ITW COMPANY. THIS DRAWING IS TO BE RETURNED TO LOVESHAW AND ITW COMPANY UPON REQUEST.			
TOLERANCES UNLESS OTHERWISE NOTED:		TITLE	
X = ±.050		ANGLES ±.12	
INCH .XX = ±.015		MACH. FINISH	
.XX = ±.006		X = ±1.0mm	
METRIC .XXX = ±.1mm		DWG NO. ...EMA16A1-115160	
FRACTIONS ± 1/64		MATERIAL	
		DRAWN AMYR	
		CHECKED	
		APPROVED	

LOVESHAW an ITW Company
RT. 296, SOUTH CANAAN, PA.

MOTOR ASSEMBLY

REV	DESCRIPTION	DATE	BY
A	RELEASED	12/5/2008	AMYR

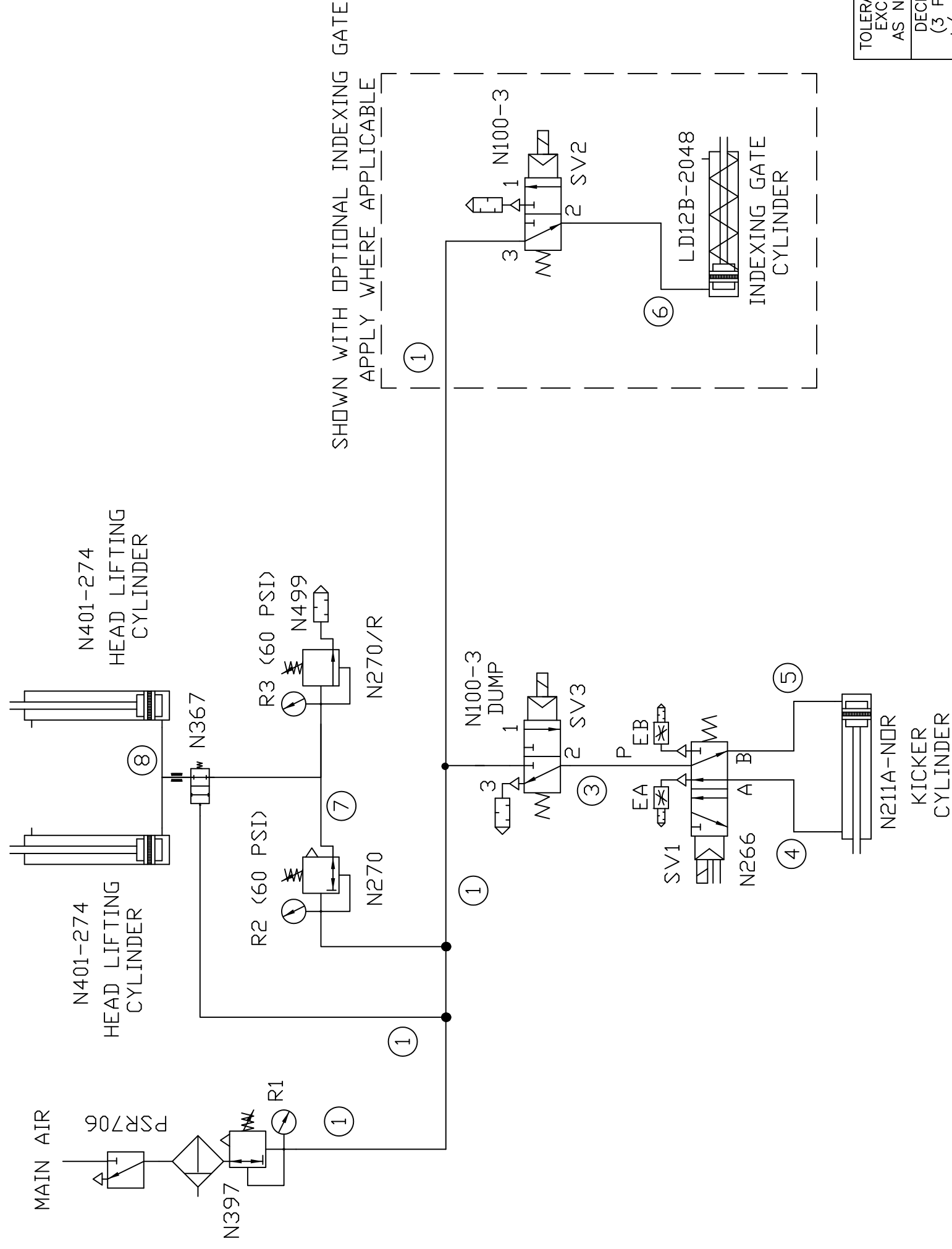
REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	11/25/2008	AMYR



Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	LD149-3	ROLLER SHAFT - INFEED
2	2	LD149-3	ROLLER SHAFT - INFEED
3	2	LD12B-2044-4	PIVOT - ROLLER ARM
4	2	LD12B-2050-4	BELT RUBBING STRIP
5	2	PSC196-4	BELT LACED BLACK
6	1	LD16P-0018-6	ROLLER INFEED - LARGE
7	1	LD16P-0019-6	BELT CHANNEL RIGHT
8	1	LD12B-2030-6	BELT CHANNEL LEFT
9	1	LD12B-2029-6	ROLLER GUARD LEFT
10	2	PSC301273C-3	ROLLER GUARD RIGHT
11	1	LD12B-2060/3-6	DRIVE BELT GUIDE
12	4	LD16P-0015-3	FLAP GUIDE
			CARTRIDGE SPACER

MATL	CAD FILE	PART #	TOLERANCES UNLESS OTHERWISE NOTED:	TITLE	
C.R.S.	BBA16A	STD	INCH .XX ± .015	ANGLES ± .12	LOVESHAW an ITW Company
ST. ST.	11/25/2008	11/25/2008	MACH. FINISH	SCALE	RT. 296, SOUTH CANAAN, PA.
STAINLESS: NO FINISH	DO NOT SCALE PRINT		METRIC .XXX ± .1mm	DWG NO	RT. 296, SOUTH CANAAN, PA.
THIS DRAWING AND SUBJECT MATTER THEREON IS THE EXCLUSIVE PROPERTY OF LOVESHAW AND SHALL REMAIN THE PROPERTY OF LOVESHAW. ANY REPRODUCTION OR REUSE OF THIS DRAWING OR SUBJECT MATTER THEREON WITHOUT THE WRITTEN PERMISSION OF LOVESHAW IS STRICTLY PROHIBITED. THIS DRAWING OR SUBJECT MATTER SHALL NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. ANY UNAUTHORIZED REPRODUCTION OR USE OF THIS DRAWING OR SUBJECT MATTER SHALL BE CONSIDERED A VIOLATION OF LOVESHAW'S PATENT RIGHTS AND WILL BE PROSECUTED TO THE FULL EXTENT OF THE LAW. THIS DRAWING IS THE PROPERTY OF LOVESHAW AND WILL BE RETURNED TO LOVESHAW UPON REQUEST.			BOTTOM BELT ASSEMBLY		
			FRACTIONS ± 1/64	MATERIAL	...BBA16A
				DRAWN	AMYR
				CHECKED	
				APPROVED	

REVISION RECORD				
REV	DESCRIPTION	DATE	ATH	DR CK
A	RELEASED	5/10/07		DW



TOLERANCES EXCEPT AS NOTED	THE LOVESHAW CORPORATION RT. 296, SOUTH CANAAN, PA.			
DECIMAL (3 PLC) +/- .005	TITLE: PNEUMATIC SCHEMATIC (STANDARD LD16A)			
FRACTIONAL +/- 1/64	DWG. NO. PNEU-0197-4	SCALE:		
ANG. - 1/2°	DESIGNED:	MATERIAL:	QTY:	APPRVD:
	DATE DRAWN: 5/10/07	DRAWN: DW		

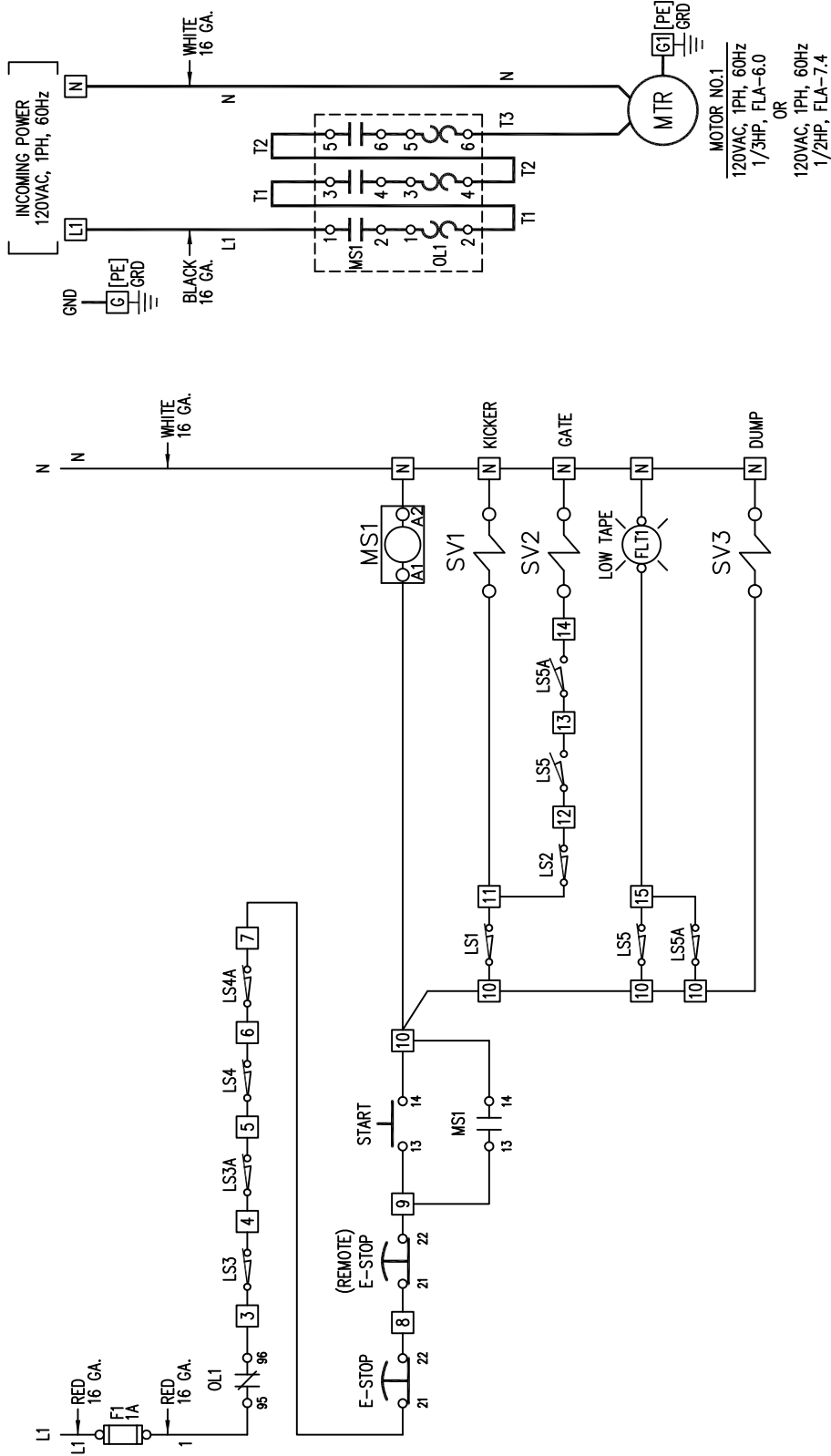
CAD FILE: G82138
DATE DRAWN: 5/10/07

REVISION RECORD

REV	DESCRIPTION	DATE	ATH	DR	CK

EBA-6-A

CUSTOMER TO SUPPLY PROPERLY PROTECTED INCOMING POWER AS PER LOCAL CODES.



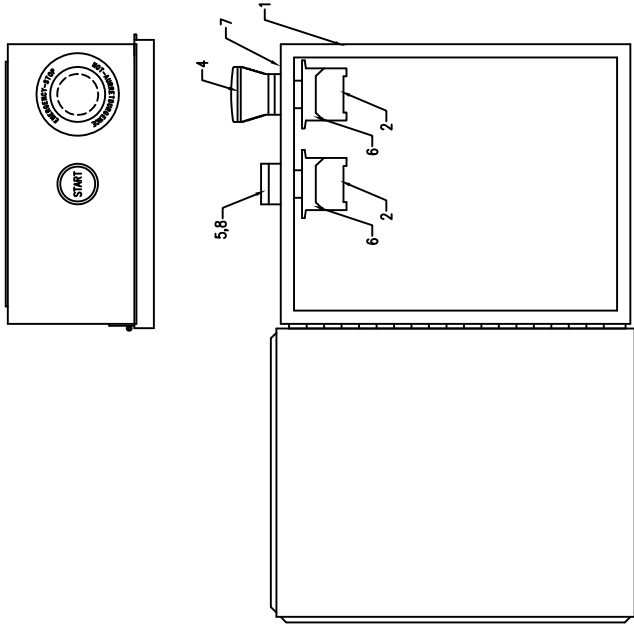
TOLERANCES EXCEPT AS NOTED	DECIMAL (3 PLC) +/- .005
FRACTIONAL	+/- 1/64
ANG. - 1/2°	

THE LOVESHAW CORPORATION RT 296, SOUTH CANAAN, PA.	
TITLE:	ELECTRICAL SCHEMATIC
DWG. NO. ED200R1	LD16 - 120/1/60
MATERIAL: N/A	SCALE: N/A
DESIGNED: MENTA	DATE: 10/21/99
DRAWN: WM	APPRVD: --

REVISION RECORD

REV	DESCRIPTION	DATE	ATH	DR	CK

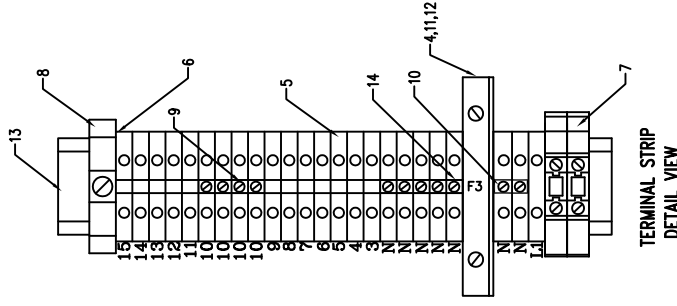
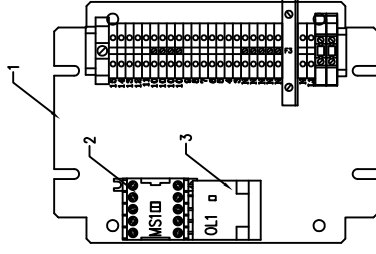
LD16 - 120/1/60 - ENCLOSURE ASSEMBLY
EEA-6-A



* ENCLOSURE SHOWN WITH DOOR OPEN FOR CLARITY

KEY	PART NO.	DESCRIPTION	QTY
1	SS1-A-R	ENCLOSURE 10x6x4	1
2	SS8-A-D7	N.O. CONTACT BLOCK	1
3	SS8-B-D7	N.C. CONTACT BLOCK	1
4	SS8-C-D7	STOP 40mm PUSH-PULL OPERATOR	1
5	SS8-D-D7	START PB OPERATOR	1
6	SS8-E-D7	COUPLING PLATE	2
7	SS8-F-D7	60mm YELLOW RING, W/EMERG STOP	1
8	SS8-G-D7	START COLOR CAP	1

LD16 - 120/1/60 - PANEL ASSEMBLY



KEY	PART NO.	DESCRIPTION	QTY
1	SS1-B-R	PANEL 8.75x6.88	1
2	SS2-A-1	CONTACTOR	1
3	SS3-D-1	MOTOR OVERLOAD	1
4	SS5-A	1A FUSE	1
5	SS6-A	TERMINAL BLOCK 4mm GREY	24
6	SS6-A1	END PIECE	2
7	SS6-B	EARTH TERMINAL	2
8	SS6-C	END CLAMP-SMALL	1
9	SS6-D	JUMPER BAR, 4-BAR	1
10	SS6-D-2	JUMPER BAR, 2-BAR	1
11	SS6-FUSE	FUSE BLOCK	1
12	SS6-FUSE-EB	END PIECE	1
13	SS6-L	DIN RAIL	1
14	SS10-A	JUMPER BAR, 5-BAR	1

KEY	PART NO.	DESCRIPTION	QTY
1	SS1-B-R	PANEL 8.75x6.88	1
2	SS2-A-1	CONTACTOR	1
3	SS3-D-1	MOTOR OVERLOAD	1
4	SS5-A	1A FUSE	1
5	SS6-A	TERMINAL BLOCK 4mm GREY	24
6	SS6-A1	END PIECE	2
7	SS6-B	EARTH TERMINAL	2
8	SS6-C	END CLAMP-SMALL	1
9	SS6-D	JUMPER BAR, 4-BAR	1
10	SS6-D-2	JUMPER BAR, 2-BAR	1
11	SS6-FUSE	FUSE BLOCK	1
12	SS6-FUSE-EB	END PIECE	1
13	SS6-L	DIN RAIL	1
14	SS10-A	JUMPER BAR, 5-BAR	1

TOLERANCES EXCEPT AS NOTED

DECIMAL (3 PLC) +/- .005

FRACTIONAL +/- 1/64

ANG. - 1/2°

THE LOVESHAW CORPORATION
RT 296, SOUTH CANAAN, PA.

TITLE: ELECTRICAL ASSEMBLY
LD16 - 120/1/60

DWG. NO. ED201R1

SCALE: N/A

DATE: 10/21/99

DESIGNED: MENTA
DRAWN: WM
APPRVD: --