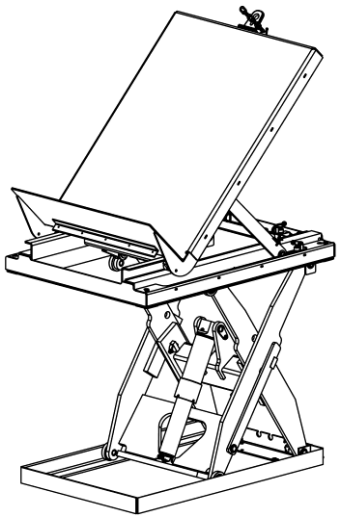
Vestil Manufacturing Company
2999 North Wayne Street, P.O. Box 507, Angola, IN 46703
Telephone: (260) 665-7586 -or- Toll Free (800) 348-0868
Fax: (260) 665-1339
Web: www.vestil.com e-mail: info@vestil.com

EHLTT & EHLTTS-Series Double Scissor Electric-Hydraulic Lift Tables



EHLTT Shown

Receiving Instructions

After delivery, remove the packaging from the product. Inspect the product closely to determine whether it sustained damage during transport. If damage is discovered, record a complete description of it on the bill of lading. If the product is undamaged, discard the packaging.

NOTE: The end-user is solely responsible for confirming that product design, use, and maintenance comply with laws, regulations, codes, and mandatory standards applied where the product is used.

Technical Service & Replacement Parts

For answers to questions not addressed in these instructions and to order replacement parts, labels, and accessories, call our Technical Service and Parts Department at (260) 665-7586. The Department can also be contacted online at https://www.vestil.com/page-parts-request.php.

Electronic Copies of Instruction Manuals

Additional copies of this instruction manual may be downloaded from https://www.vestil.com/page-manuals.php.

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SIGNAL WORDS

This manual uses SIGNAL WORDS to indicate the likelihood of personal injuries, as well as the probable seriousness of those injuries, if the product is misused in the ways described. Other signal words call attention to uses of the product likely to cause property damage. The following are signal words used in this manual and their definitions.

⚠ DANGER	**Identifies a hazardous situation which, if not avoided, WILL result in DEATH or SERIOUS INJURY. Use of this signal word is limited to the most extreme situations.**
⚠ WARNING	**Identifies a hazardous situation which, if not avoided, COULD result in DEATH or SERIOUS INJURY.**
⚠ CAUTION	**Indicates a hazardous situation which, if not avoided, COULD result in MINOR or MODERATE injury.**
NOTICE	**Identifies practices likely to result in product/property damage, such as operation that might damage the product.**

SAFETY INSTRUCTIONS

Vestil strives to identify all hazards associated with the use of our products. However, material handling is dangerous and no manual can address every risk. The most effective way to avoid injury is for the end-user to exercise sound judgment whenever using this product.

⚠ WARNING

Improper or careless operation might result in serious personal injuries or death.

- Read the entire manual before assembling, installing, using, or servicing the table. A copy of this manual must be available at all times to persons who assemble, install, use, or service the table. Read the manual whenever necessary to refresh your understanding of use and maintenance procedures.
- This product presents pinch point and hydraulic pressure hazards to the user and bystanders. ALWAYS follow the instructions provided in this manual to avoid injury.
- This product must be solidly anchored to the supporting surface before it is used. DO NOT use the table until it is solidly anchored to the floor. See *INSTALLING THE TABLE* on p. 25-27.
- DO NOT operate a lift table with its perimeter toe guard removed, disabled, or inoperable.
- DO NOT attempt to lift a load that weighs more than the capacity of your table. The table is labeled with its capacity. See Label 1153 as shown in *LABELING DIAGRAM* on p. 34. Handle only stable and safely arranged loads within the capacity of the table.
- DO NOT allow people to stand or sit on either the table or the load. DO NOT lift people with the table.
- Stand clear of the table while raising or lowering the tabletop. Particularly avoid pivot/pinch points while the tabletop rises and lowers.
- DO NOT attempt to lift an overhanging or cantilevered load.
- DO NOT reach through the legs or crawl under the tabletop unless maintenance stops are deployed.
- DO NOT use the table in corrosive environments.
- ONLY install the table on compacted, improved surfaces capable of supporting the combined weight of the table plus a maximum rated load. The installation surface must be even and level.
- DO NOT perform maintenance on this table or its power unit UNLESS the table is unloaded and maintenance stops are in place. ONLY install manufacturer-approved replacement parts.
- Center and evenly distribute loads on the tabletop.
- Strap loads to the tabletop when necessary to prevent rolling or sliding.
- Inspect the unit according to the *INSPECTING & MAINTAINING THE TABLE* instructions on p. 29-30. DO NOT use the table unless it is in *SATISFACTORY CONDITION*. See *RECORD* on p. 27.
- Observe the tabletop while raising and lowering it. It should rise smoothly and evenly from side-to-side. Watch for binding or jerky movement. Listen for unusual noises. Tag the unit "Out of order" & remove it from service if you notice damage or observe (see or hear) anything about the table that is abnormal.
- Always watch the load carefully while raising and lowering the tabletop.
- DO NOT continue to press the UP button if the tabletop is fully elevated.
- Before leaving the table unattended, unload it and relieve hydraulic pressure by pressing the DOWN button and holding it until the tabletop is completely lowered.
- DO NOT use the table UNLESS all labels are in place & easily readable. See *LABELING DIAGRAM*, p. 34.
- DO NOT modify this product in any way. Modifications automatically void the *LIMITED WARRANTY* and might make the table unsafe to use.

NOTICE

Proper use and maintenance are essential for this product to function properly.

- Periodically lubricate pivot points with bearing grease.
- Keep the product clean & dry. Only install and use this table indoors.
- Only use manufacturer-approved replacement parts. Order replacement parts for this equipment by contacting the *TECHNICAL SERVICE DEPARTMENT*. See cover page for contact information.
- DO NOT use brake fluid or jack oils in the hydraulic system. If oil is needed, only use an anti-wear hydraulic oil with a viscosity grade of 150 SUS at 100°F, (ISO 32 cSt @ 40°C), or Dexron transmission fluid.
- Contact the manufacturer for SDS (Safety Data Sheet) documentation

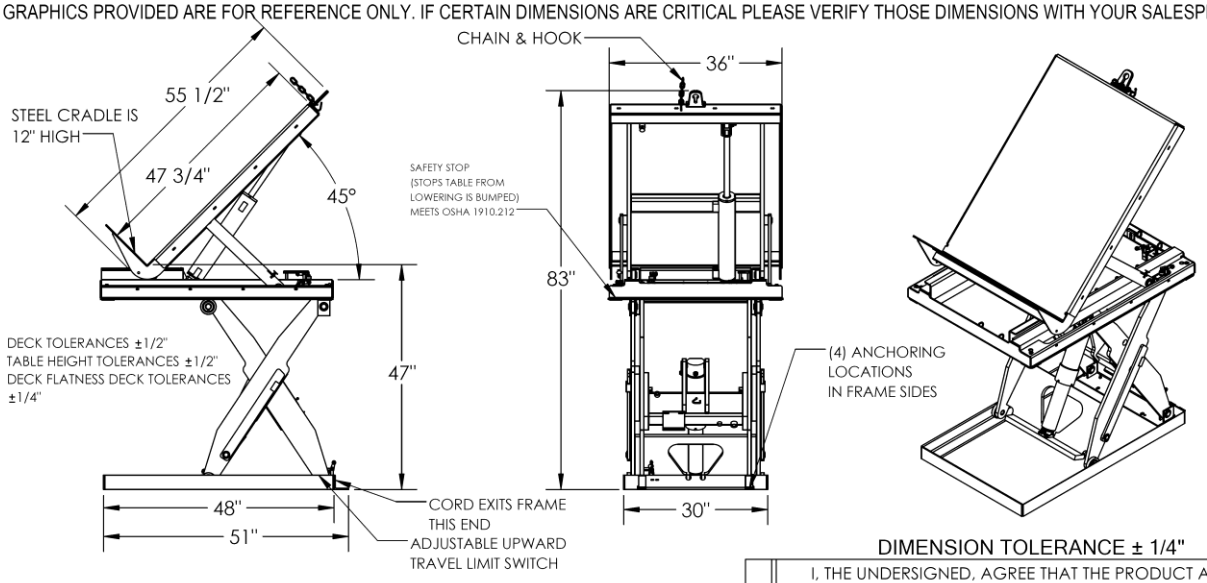
SPECIFICATIONS

Documents that provide specifications for EHLTT series portable scissor lift tables are available online to anyone who visits Vestil's website. Specifications include dimensions, net weight, and capacity information. To access the appropriate specifications document, navigate to the EHLTT webpage at https://www.vestil.com/product.php?FID=209. Scroll the page to the entry for the specific model you purchased. Click the button in the "PDF" column that looks like a pencil inside a blue-bordered box. A PDF file will open. This file is the specifications document. Print a copy of the document and keep it with your copy of this manual. If your model is not included on the EHLTT webpage, or if you cannot access and/or print the specifications document, contact the *TECHNICAL SERVICE DEPT*. Contact information for the department is provided on the cover page of this manual. The following graphic is an exemplar specifications document for model EHLTT-3648-1-47.

LIFT AND TILT SCISSOR TABLE - EHLTT-3648-1-47

APPROX WEIGHT: 1012 lbs.
DOES NOT INCLUDE WEIGHT OF POWER OR PACKAGING!!!

*** ANY ADDITIONS, DELETIONS, OR OMISSIONS MUST BE CORRECTED ON THIS DRAWING AS THIS DRAWING WILL BE CONSIDERED ALL INCLUSIVE ***
ALL GRAPHICS PROVIDED ARE FOR REFERENCE ONLY. IF CERTAIN DIMENSIONS ARE CRITICAL PLEASE VERIFY THOSE DIMENSIONS WITH YOUR SALESPERSON



DIMENSION TOLERANCE ± 1/4"

STANDARD FEATURES
MODEL NUMBER: EHLTT-3648-1-47
MAX. CAPACITY: 1,000 LBS
FRAME WIDTH: 30"
OVERALL LENGTH: 55 1/2"
PLATFORM WIDTH: 36"
PLATFORM LENGTH: 47 3/4"
PLATFORM RAISED HEIGHT: 47"
PLATFORM LOWERED HEIGHT: 11"
OVERALL HEIGHT: 83"
PLATFORM TILTS ON THE END OF THE LEG ASSEMBLY
PLATFORM TILTING STYLE IS A SLIDE TILT
∅1/4" X 60" CHAIN AND HOOK (NOT DRAWN TO SCALE)
MAXIMUM TILT ANGLE IS 45°
INTERNAL POWER UNIT
CONTROL IS HANDHELD, 4 BUTTON, NEMA 4
PENDANT WITH MINIMUM 8' USABLE COIL CORD
DURABLE LIQUID PAINT BLUE FINISH

PLEASE CIRCLE SPECIFICATIONS:

POWER	AC	~~DC (12V)~~	~~AIR/OIL~~
MOTOR VOLTAGE	~~115~~	~~208~~	~~230~~ 460
DEDICATED CIRCUIT REQUIRED 60Hz			
MOTOR PHASE	~~SINGLE~~	THREE	
CONTROL	HAND	~~FOOT~~	

SPECIAL FEATURES
NONE

APPROVAL

I, THE UNDERSIGNED, AGREE THAT THE PRODUCT AS REPRESENTED SATISFIES DESIGN AND DIMENSION REQUIREMENTS. I ALSO ACKNOWLEDGE MY DUTY TO CONFIRM PRODUCT AND INSTALLATION COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS AND STANDARDS.

UNITS REQUIRING APPROVAL DRAWINGS OR MODIFIED ARE NON-RETURNABLE

[ ] As drawn [ ] As marked

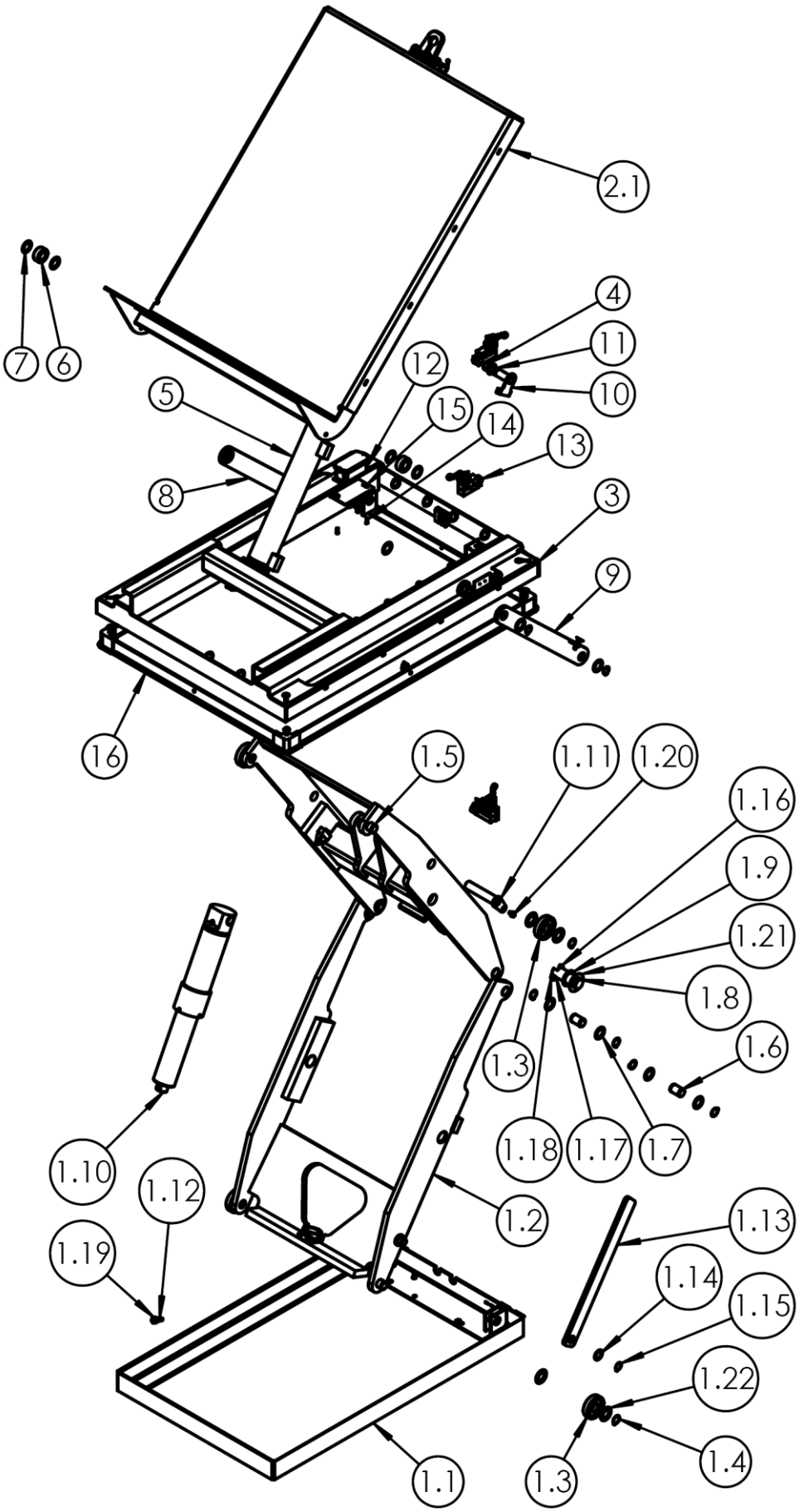
Signed:_____ Date:_____

Printed Name:_____

LEAD TIME WILL START UPON RECEIPT OF SIGNED APPROVAL DRAWING

DISTRIBUTOR'S NAME: VESTIL MANUFACTURING			P.O.# -
			W.O.# -
DRAWN BY: CRA	DATE: 07/22/2021		SALES: -
REFERENCE: -		SCALE: 1:25	FILE NAME: 02-007-333
QUOTED LEAD TIME: _	QUOTE # _		

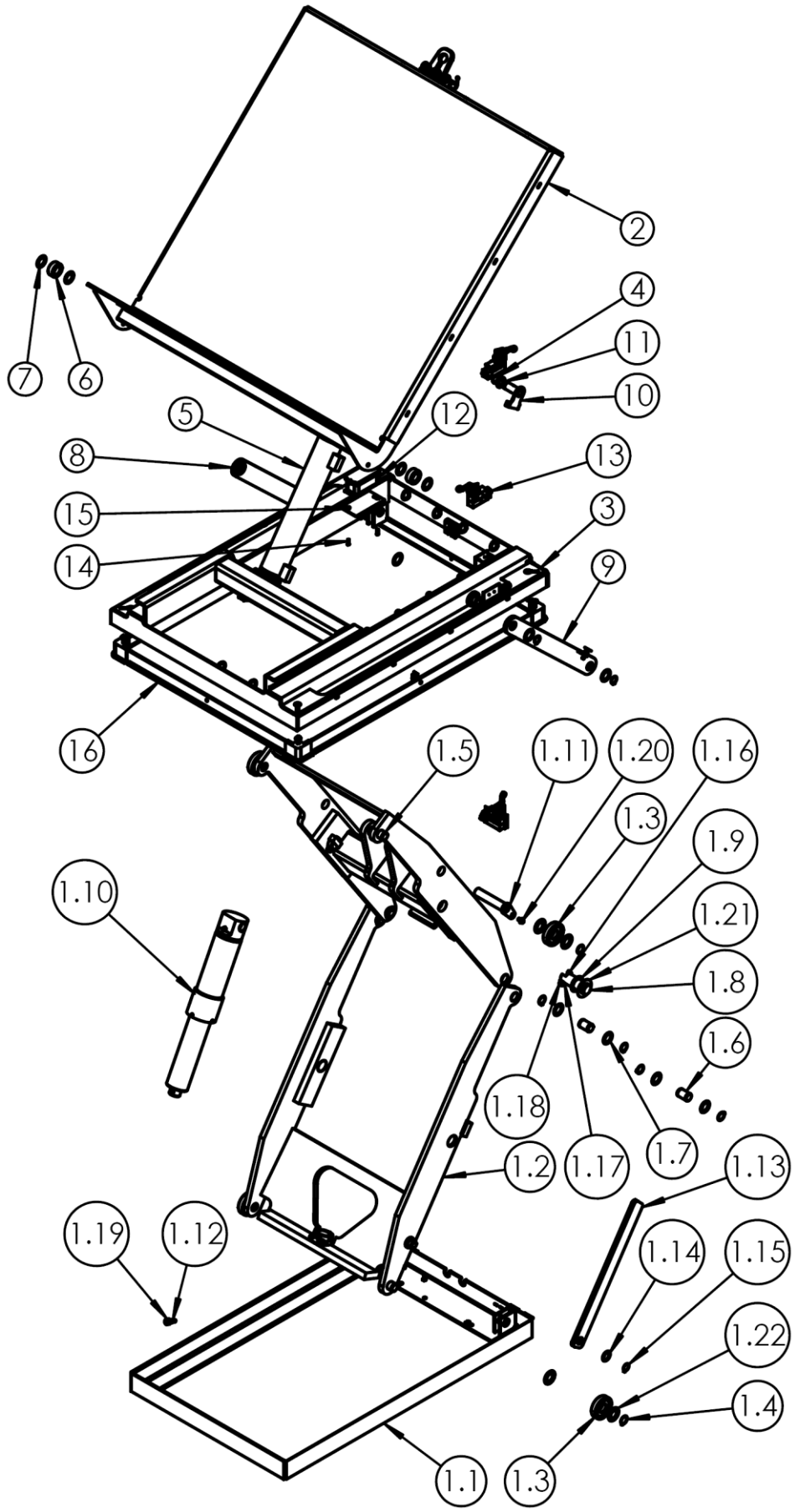
EXPLODED VIEW: EHLTT-3648-1/2/3/4-47 (02-006-333)



BILL OF MATERIALS: EHLTT-3648-1/2/3/4-47 (02-006-333)

ITEM	PART NO.	DESCRIPTION	QTY.
1	24-002-050 24-002-110	FINAL ASSEMBLY W/O POWER UNIT (NO DECK) EHLTT-3648-1/2/3-47 EHLTT-3648-4-47	1
1.1	01-514-007	WELDMENT, FRAME ASSEMBLY	1
1.2	24-510-008 24-510-011	WELDMENT, LEG, OUTER EHLTT-3648-1/2/3-47: SINGLE CYL. EHLTT-3648-4-47: DOUBLE CYL.	1 1
1.3	01-527-001	ROLLER W/ BUSHING	4
1.4	68021	EXTERNAL RETAINING RING, PHOSPHATE FINISH, 1-1/8"	12
1.5	24-510-014 24-510-017	WELDMENT, LEG, INNER EHLTT-3648-1/2/3-47: SINGLE CYL. EHLTT-3648-4-47: DOUBLE CYL.	1 1
1.6	01-112-004	PIN, CLEVIS	4
1.7	33454	NARROW MACHINERY BUSHING, PLAIN FINISH, 1 3/4" X 18 GA	8
1.8	01-112-019	PIN, SCISSOR PIVOT, Ø1 1/2"	2
1.9	33474	SPACER, SHIM, 1 1/2" ID X 2 1/4 OD X 18 GA	2
1.1	99-521-901-002 99-521-906-001	CYLINDER, HYDRAULIC EHLTT-3648-1/2/3-47: Ø3" x 10" RAM STYLE, MACHINED END, 3GPM VF EHLTT-3648-4-47: 2.5" x 10" RAM STYLE, MACHINED END, 2GPM VF	1 1
1.11	24-612-003	WELDMENT, CYLINDER PIN	1
1.12	01-118-001	BOLT, CYLINDER RETAINING	1
1.13	24-037-001	MAIN PROP, EHLT	2
1.14	33444	MACHINE BUSHING, Ø 1 X 18 GA.	2
1.15	20-117-003	EXTERNAL RETAINING RING, 1" DIA SHAFT	2
1.16	26333	SHOULDER SCREW, GRADE 2, 0.375x1.5" LG	2
1.17	33006	FLAT WASHER,ZINC PLATED,USS, Ø5/16"	2
1.18	37021	NYLON INSERT LOCK NUT, GRADE 2, ZINC FINISH, 5/16"-18	2
1.19	36209	1/2 - 13 HEX JAM NUT PLAIN, GRADE A	1
1.2	32415	Ø5/16 - 18 x 1/2 HWH THREAD CUTTING SCREW, TYPE F, ZINC	1
1.21	01-115-002	WASHER, THRUST BEARING	2
1.22	01-115-001	WASHER, THRUST BEARING, 1 1/8 ID	8
2	02-513-057 02-513-059	WELDMENT, DECK 36 W x 48 LG EHLTT-3648-1/2/3-47 EHLTT-3648-4-47	1 1
2.1	03-013-064	DECK, BOLT-ON 36" X 48", FORMED	1
2.2	03-131-017	GUSSET, LIP, BOLT ON	2
2.3	03-016-024	SAFETY CHAIN LOCK	1
2.4	03-511-013	CYL BRKT & CONNEX BEARING	1
2.4.1	03-011-013	BRACKET, CYLINDER MOUNT	1
2.4.2	01-111-063	BEARING, SLEEVE 1 ID x 1 LG	1
2.5	02-017-003	BAR, STIFFENER, 36W DECK	2
2.6	02-018-002	TUBE, TORSION, DECK	1
2.7	02-020-001	BOSS, LINK MOUNT	2
2.8	02-016-008	BRACKET, LIMIT SWITCH	1
2.9	02-035-004	ANGLE, STIFFENER, DECK	1
2.1	02-040-002	LEVER, ROLLER MOUNT	2
2.11	02-112-003	PIN, ROLLER	2
2.12	99-145-036	Ø 1/4" CHAIN 60"	1
2.12.1	45-003	Ø1/4" CHAIN LINK	12
2.13	99-145-013	COLD SHUT	1
2.14	36102	HEX NUT, GRADE A, ZINC PLATED, 1/4-20	1
2.15	22804	FLAT COUNTERSUNK HEAD ELEVATOR BOLT, PLAIN FINISH, GRADE A, 1/4-20X1.5	1
2.16	02-017-058	BAR, STIFFENER, DECK SUPPORT FOR ACC SKIRT MOUNT	1
3	02-513-054	WELDMENT, SUB-DECK 1-3K, 36" WIDE, BOLT-ON	1
4	20-117-003	EXTERNAL RETAINING RING, 1" DIA SHAFT	6
5	99-021-923-001	CYLINDER, HYDRAULIC, Ø3" x 16" PISTON STYLE, W/ CLEVIS MOUNTS	1
6	02-527-002	ROLLER ASS'Y W/ BUSHING 2 OD x 1 1/8" ID	2
7	33454	NARROW MACHINERY BUSHING, PLAIN FINISH, 1 3/4" X 18 GA	12
8	02-540-003	WELDMENT, LEVER, LINKTILT LINKAGE	1
9	02-540-006	WELDMENT, LEVER, LINK TILT LINKAGE, WITH LIMIT SWITCH BKT	1
10	03-612-002	HINGE PIN ASS'Y (EM)	2
11	33446	MACHINERY BUSHING, PLAIN FINISH, Ø1" ID x 10 GA.	2
12	99-029-011	CONTROL BOX	1
13	01-022-001	LIMIT SWITCH W/ROLLER ARM	2
14	27560	#10-32 x 3/4 LG SLOTTED MACHINE SCREW	2
15	36030	10-32 HEX NUT, GRADE 2	2
16	01-515-015	SUB-ASSEMBLY, TOE GUARD, 36" X 48", INCLUDES HARDWARE & SWITCHES	1

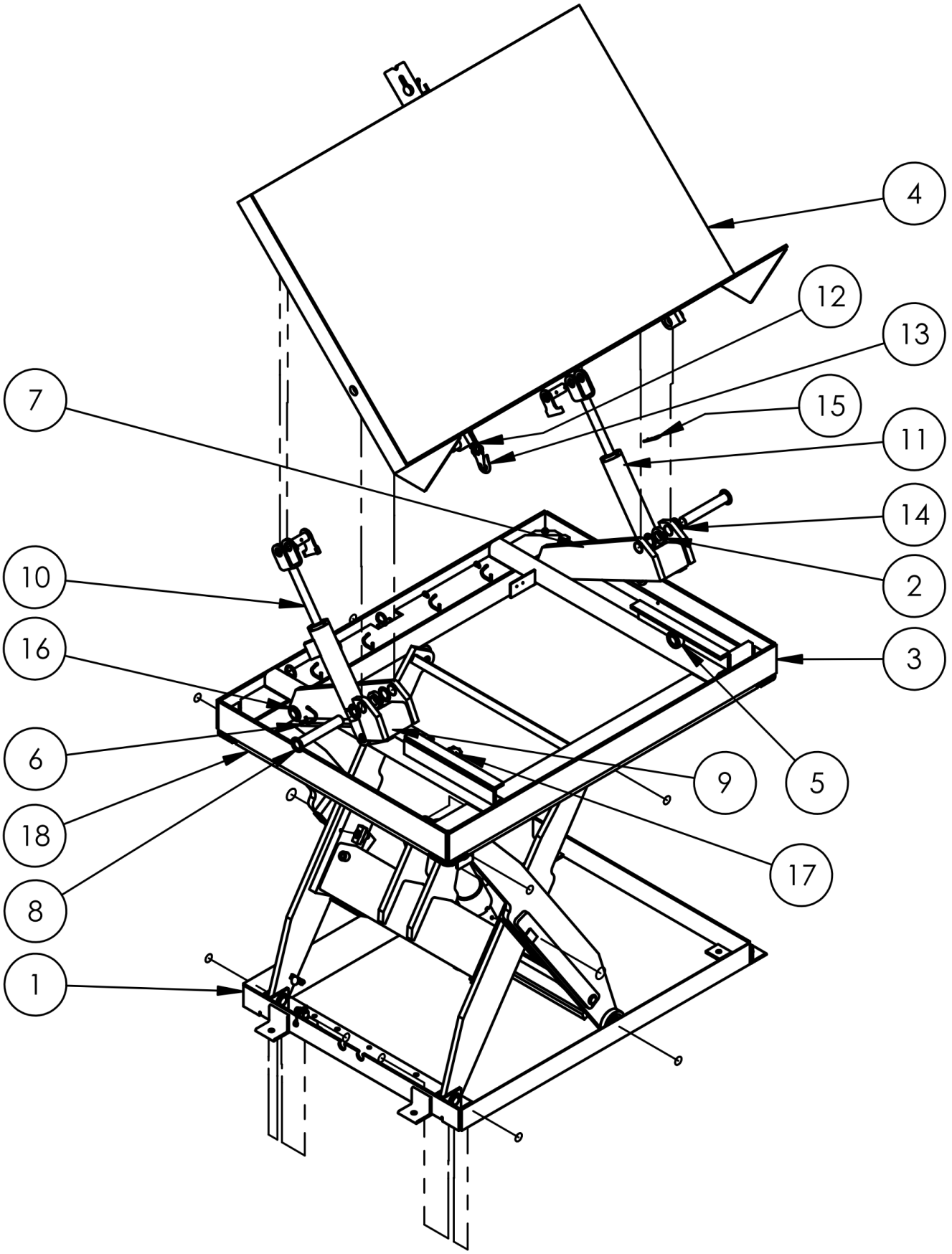
EXPLODED VIEW: EHLTT-4848-1/2/3/4-47 (02-006-330)



BILL OF MATERIALS: EHLTD-4848-1/2/3/4-70 (26-006-111-002)

ITEM	PART NO.	DESCRIPTION	QTY.
1	24-002-050 24-002-110	FINAL ASSEMBLY W/O POWER UNIT (NO DECK) EHLTT-4848-1/2/3-47 EHLTT-4848-4-47	 1 1
1.1	01-514-007	WELDMENT, FRAME ASSEMBLY	1
1.2	24-510-008 24-510-011	WELDMENT, LEG, OUTER EHLTT-4848-1/2/3-47: SINGLE CYL. EHLTT-4848-4-47: DOUBLE CYLINDER	 1 1
1.3	01-527-001	ROLLER W/ BUSHING	4
1.4	68021	EXTERNAL RETAINING RING, PHOSPHATE FINISH, 1-1/8"	12
1.5	24-510-014	WELDMENT, LEG, INNER, SINGLE CYL	1
1.6	01-112-004	PIN, CLEVIS	4
1.7	33454	NARROW MACHINERY BUSHING, PLAIN FINISH, 1 3/4" X 18 GA	8
1.8	01-112-019	PIN, SCISSOR PIVOT, Ø1 1/2"	2
1.9	33474	SPACER, SHIM, 1 1/2" ID X 2 1/4 OD X 18 GA	2
1.1	99-521-901-002 99-521-906-001	CYLINDER, HYDRAULIC EHLTT-4848-1/2/3-47: Ø3" x 10" RAM STYLE, MACHINED END, 3GPM VF EHLTT-4848-4-47: 2.5" X 10" RAM STYLE, MAHCINED END, 2GPM VF	 1 2
1.11	24-612-003	WELDMENT, CYLINDER PIN	1
1.12	01-118-001	BOLT, CYLINDER RETAINING	1
1.13	24-037-001	MAIN PROP, EHLT	2
1.14	33444	MACHINE BUSHING, Ø 1 X 18 GA.	2
1.15	20-117-003	EXTERNAL RETAINING RING, 1" DIA SHAFT	2
1.16	26333	SHOULDER SCREW, GRADE 2, 0.375x1.5" LG	2
1.17	33006	FLAT WASHER,ZINC PLATED,USS, Ø5/16"	2
1.18	37021	NYLON INSERT LOCK NUT, GRADE 2, ZINC FINISH, 5/16"-18	2
1.19	36209	1/2 - 13 HEX JAM NUT PLAIN, GRADE A	1
1.2	32415	Ø5/16 - 18 x 1/2 HWH THREAD CUTTING SCREW, TYPE F, ZINC	1
1.21	01-115-002	WASHER, THRUST BEARING	2
1.22	01-115-001	WASHER, THRUST BEARING, 1 1/8 ID	8
2	02-513-058 02-513-060	WELDMENT, DECK 48W x 48 LG EHLTT-4848-1/2/3-47 EHLTT-4848-4-47	 1 1
3	02-513-054 02-513-056	WELDMENT, SUB-DECK EHLTT-4848-1/2/2-47: 1-3K, 36" WIDE, BOLT-ON EHLTT-4848-4-47: 4K, 36" WIDE, BOLT-ON	 1 1
4	20-117-003	EXTERNAL RETAINING RING, 1" DIA SHAFT	6
5	99-021-923-001	CYLINDER, HYDRAULIC, Ø3" x 16" PISTON STYLE, W/ CLEVIS MOUNTS	1
6	02-527-002	ROLLER ASS'Y W/ BUSHING 2 OD x 1 1/8" ID	2
7	33454	NARROW MACHINERY BUSHING, PLAIN FINISH, 1 3/4" X 18 GA	12
8	02-540-003	WELDMENT, LEVER, LINKTILT LINKAGE	1
9	02-540-006	WELDMENT, LEVER, LINK TILT LINKAGE, WITH LIMIT SWITCH BKT	1
10	03-612-002	HINGE PIN ASS'Y (EM)	2
11	33446	MACHINERY BUSHING, PLAIN FINISH, Ø1" ID x 10 GA.	2
12	99-029-011	CONTROL BOX	1
13	01-022-001	LIMIT SWITCH W/ROLLER ARM	2
14	27560	#10-32 x 3/4 LG SLOTTED MACHINE SCREW	2
15	36030	10-32 HEX NUT, GRADE 2	2
16	01-515-015	SUB-ASSEMBLY, TOE GUARD, 36" X 48", INCLUDES HARDWARE & SWITCHES	1

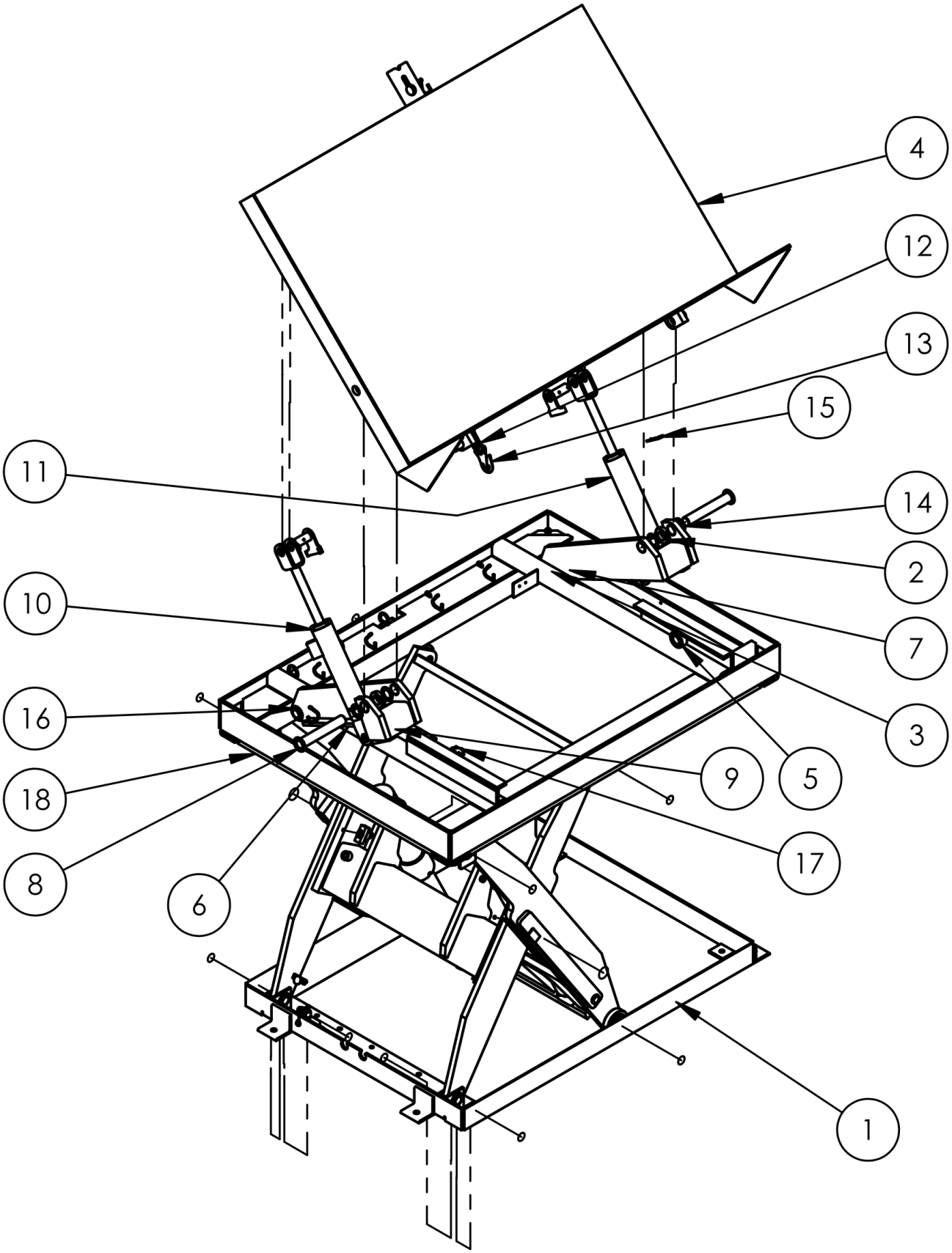
EXPLODED VIEW: EHLTTS-3654-2-48 (02-006-211-001)



BILL OF MATERIALS: EHLTTS-3654-2-48 (02-006-211-001)

ITEM	PART NO.	DESCRIPTION	QTY.
1	02-002-210	FINAL ASSEMBLY W/O POWER UNIT (NO DECK)	1
2	01-145-006	SHAFT COLLAR, 1PC SPLIT, Ø1 1/8"	2
3	02-513-028	WELDMENT, DECK (SUB) 1-4K 38 x 54	1
4	02-513-029	WELDMENT, DECK, ASS'Y 1-4K	1
5	02-527-002	ROLLER ASS'Y W/ BUSHING 2 OD x 1 1/8" ID	2
6	02-540-007	WELDMENT, LEVER ASSMEBLY	1
7	02-540-008	WELDMENT, LEVER ASSMEBLY	1
8	02-612-011	PIN, DECK LINK Ø1 1/8 x 7 3/16 LG	2
9	04-612-011	WELDMENT, PIN W/RETAINING BRKT	4
10	99-021-929-001	CYLINDER, HYDRAULIC, Ø2" x 6" PISTON STYLE W/ CLEVIS MOUNTS (RIGHT HAND PORT)	1
11	99-021-930-001	CYLINDER, HYDRAULIC, Ø2" x 6" PISTON STYLE W/ CLEVIS MOUNTS (LEFT HAND PORT)	1
12	99-145-036	Ø 1/4" CHAIN 60"	1
13	99-145-069	1/4" CHAIN HOOK	1
14	33454	NARROW MACHINERY BUSHING, PLAIN FINISH, 1 3/4" X 18 GA	12
15	45286	#11 HITCH PIN CLIP, Ø1/8" X 2 5/8 LG	4
16	68021	EXTERNAL RETAINING RING, PHOSPHATE FINISH, 1-1/8"	4
17	01-022-001	LIMIT SWITCH W/ROLLER ARM	1
18	01-515-044	SUB-ASSEMBLY, TOE GUARD, 38" X 54", INCLUDES HARDWARE & SWITCHES	1

EXPLODED VIEW: EHLTTS-3654-4-48 (02-006-221-001)



BILL OF MATERIALS: EHLTTS-3654-4-48 (02-006-221-001)

ITEM	PART NO.	DESCRIPTION	QTY.
1	02-002-220	FINAL ASSEMBLY WITHOUT POWER UNIT (NO DECK)	1
2	01-145-006	SHAFT COLLAR, 1PC SPLIT, Ø1 1/8"	2
3	02-513-028	WELDMENT, DECK (SUB) 1-4K 38 x 54	1
4	02-513-029	WELDMENT, DECK, ASSEMBLY 1-4K	1
5	02-527-002	ROLLER ASS'Y W/ BUSHING 2 OD x 1 1/8" ID	2
6	02-540-007	WELDMENT, LEVER ASSMEBLY	1
7	02-540-008	WELDMENT, LEVER ASSMEBLY	1
8	02-612-011	PIN, DECK LINK Ø1 1/8 x 7 3/16 LG	2
9	04-612-011	WELDMENT, PIN W/RETAINING BRACKET	4
10	99-021-929-001	CYLINDER, HYDRAULIC, Ø2" x 6" PISTON STYLE W/ CLEVIS MOUNTS (RIGHT HAND PORT)	1
11	99-021-930-001	CYLINDER, HYDRAULIC, Ø2" x 6" PISTON STYLE W/ CLEVIS MOUNTS (LEFT HAND PORT)	1
12	99-145-036	Ø 1/4" CHAIN 60"	1
13	99-145-069	1/4" CHAIN HOOK	1
14	33454	NARROW MACHINERY BUSHING, PLAIN FINISH, 1 3/4" X 18 GA	12
15	45286	#11 HITCH PIN CLIP, Ø1/8" X 2 5/8 LG	4
16	68021	EXTERNAL RETAINING RING, PHOSPHATE FINISH, 1-1/8"	4
17	01-022-001	LIMIT SWITCH W/ROLLER ARM	1
18	01-515-044	SUB-ASSEMBLY, TOE GUARD, 38" X 54", INCLUDES HARDWARE & SWITCHES	1

ELECTRIC CIRCUIT DIAGRAMS

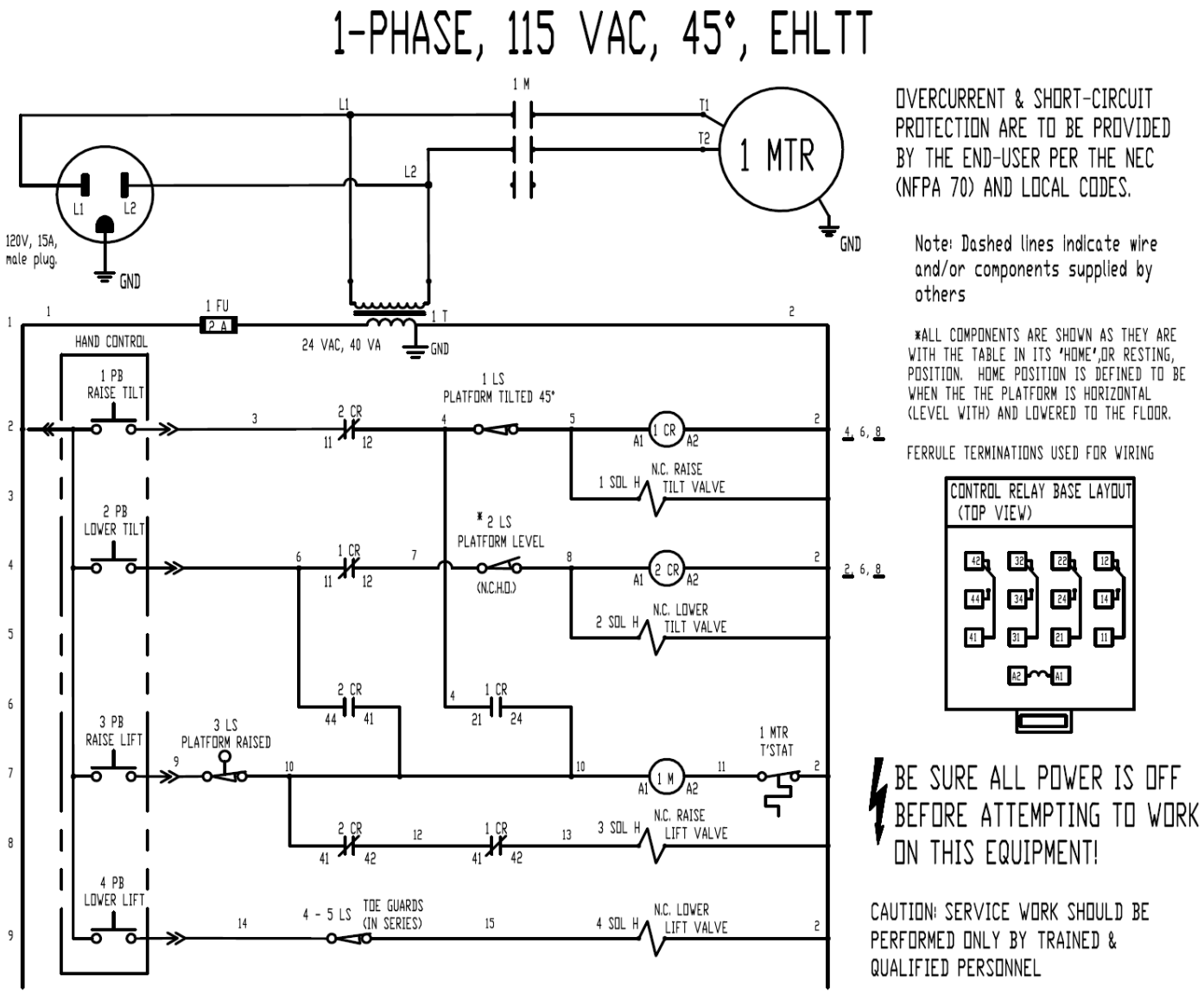
⚠ WARNING Care should be taken to identify all potential hazards and comply with applicable safety procedures before beginning work. Ensure that all system pressure and electrical power have been removed before attempting to work on the electrical or hydraulic systems. Follow all applicable lockout/tagout procedures.

⚠ WARNING The load must be removed, and the platform either positively and adequately supported or fully lowered, before any work is performed on the lift table.

Only qualified individuals trained to understand mechanical devices and their associated electrical and hydraulic circuits, as well as the hazards associated with them, should attempt troubleshooting and repair of this equipment.

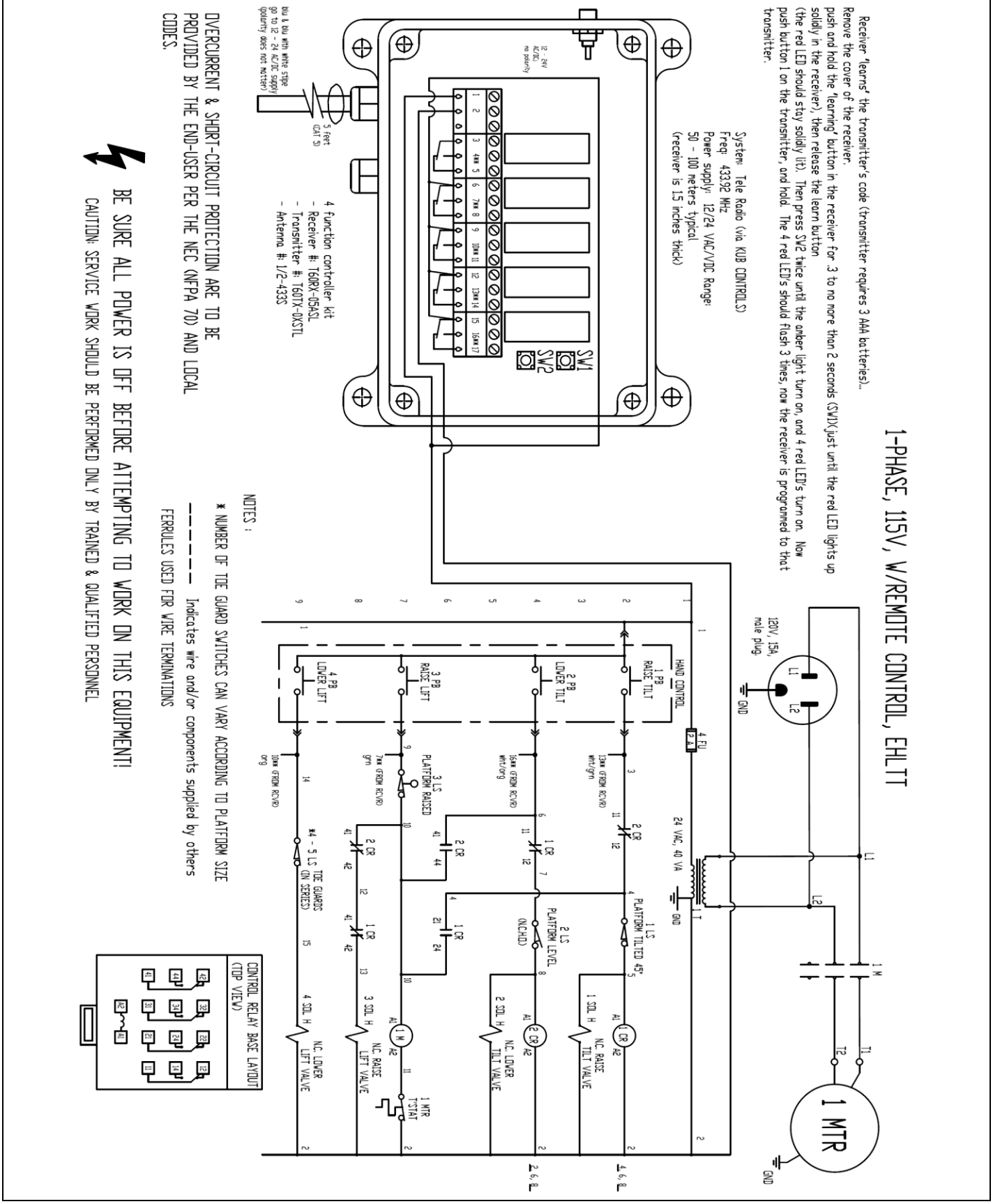
115 VAC, Single-Phase without Remote Control
Electric Circuit Diagram (02124012 Rev. D)

Note: Overcurrent & short circuit protection and disconnect must be provided by end user.



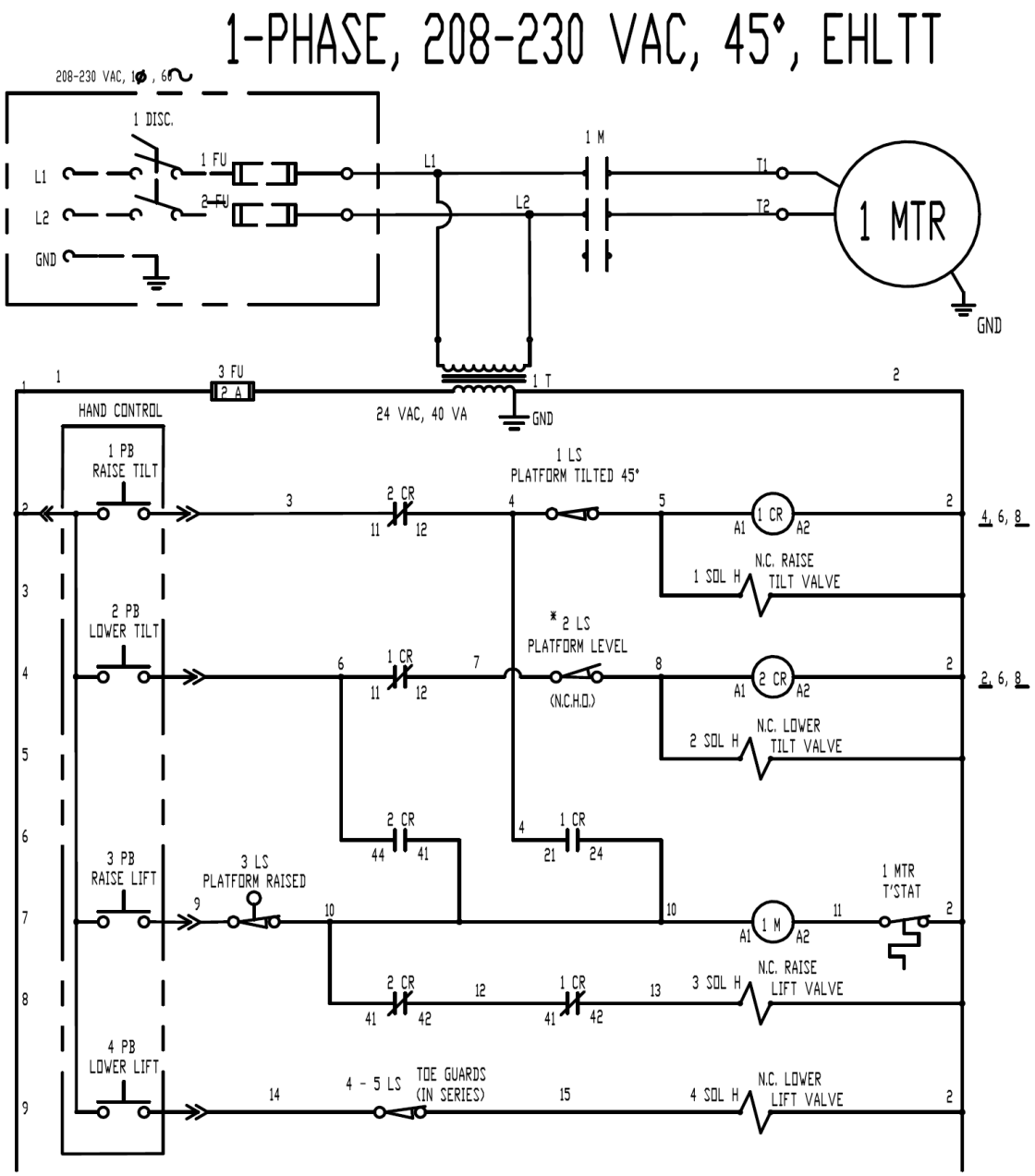
115 VAC, Single-Phase with Remote Control
Electric Circuit Diagram (02124021)

Note: Overcurrent & short circuit protection and disconnect must be provided by end user.



208-230 VAC, Single-Phase Electric Circuit Diagram (24124013 Rev. A)

Note: Overcurrent & short circuit protection and disconnect must be provided by end user.



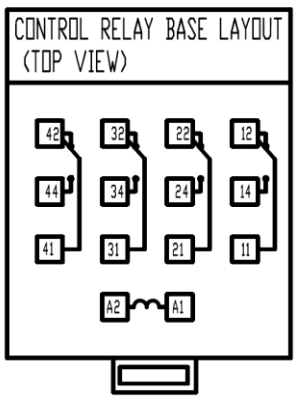
OVERCURRENT & SHORT-CIRCUIT PROTECTION, AND DISCONNECT ARE TO BE PROVIDED BY THE END-USER PER THE NEC (NFPA 70) AND LOCAL CODES.

Note:

— — — Indicates wire and/or components supplied by others

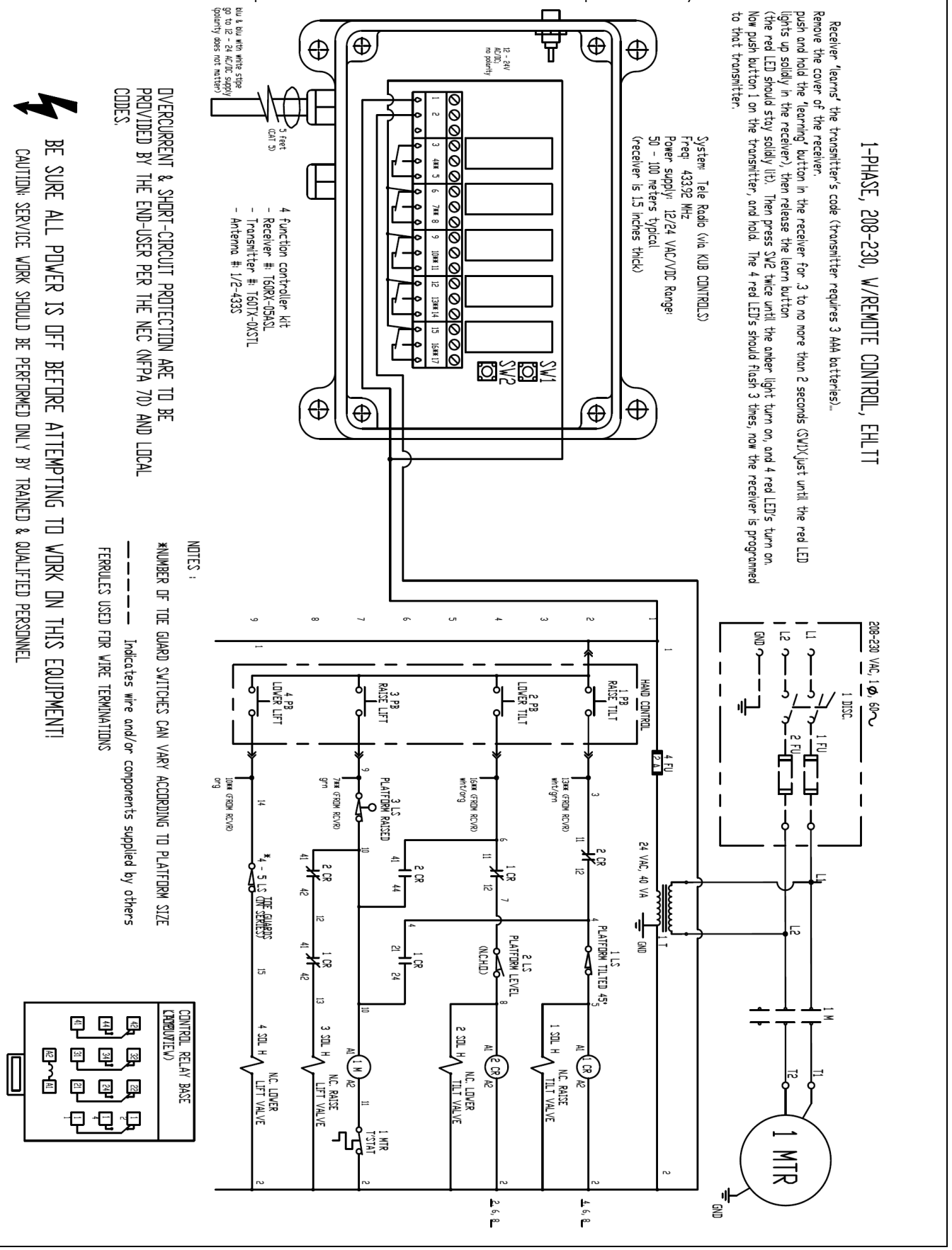
*ALL COMPONENTS ARE SHOWN AS THEY ARE WITH THE TABLE IN ITS 'HOME', OR RESTING, POSITION. HOME POSITION IS DEFINED TO BE WHEN THE THE PLATFORM IS HORIZONTAL (LEVEL WITH) AND LOWERED TO THE FLOOR.

FERRULE TERMINATIONS USED FOR WIRING



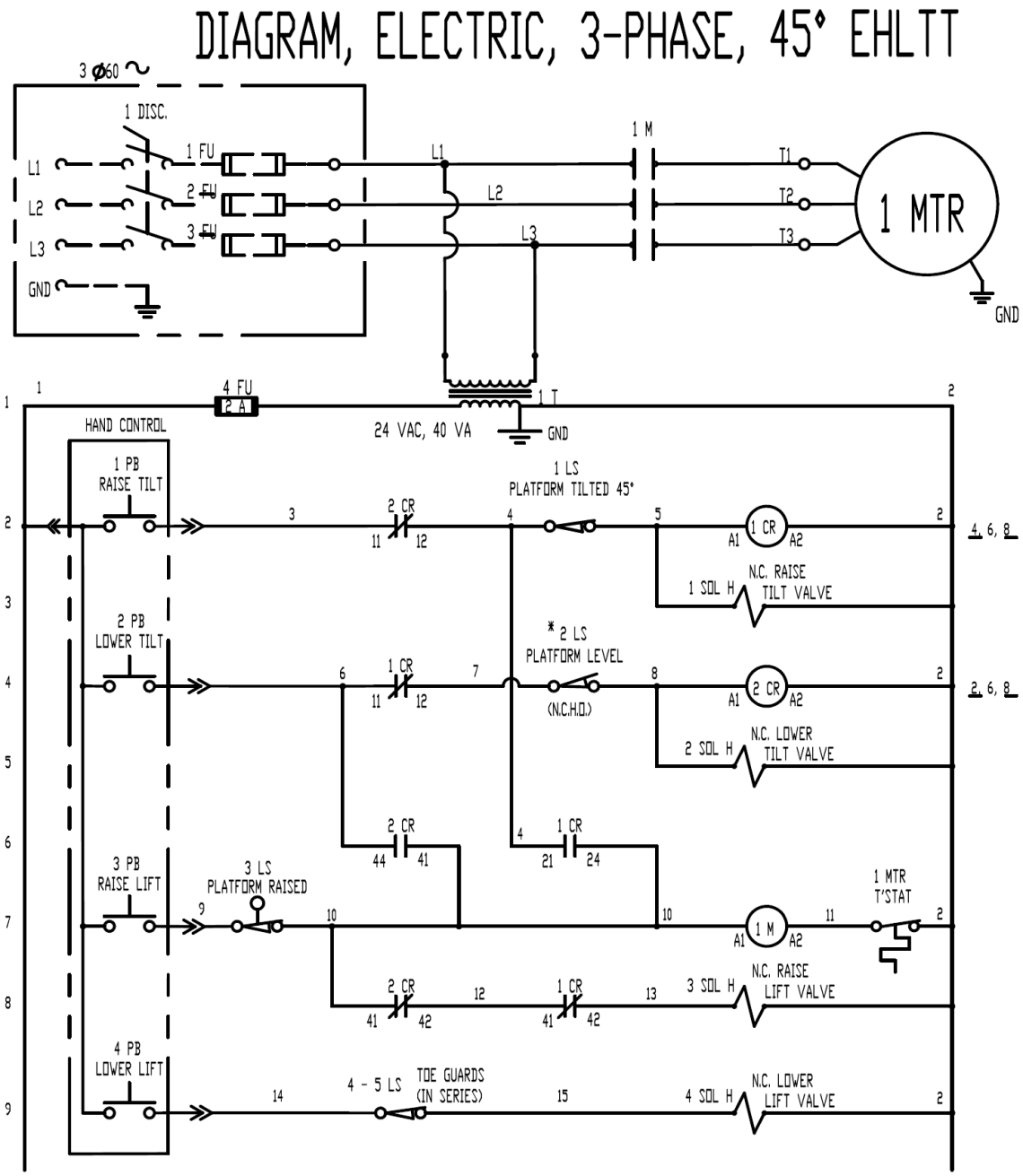
208-230 VAC, Single-Phase with Remote Control
Electric Circuit Diagram (02124022)

Note: Overcurrent & short circuit protection and disconnect must be provided by end user.



460VAC, 3-Phase Electric Circuit Diagram (02124014 Rev. D)

Note: Overcurrent & short circuit protection and disconnect must be provided by end user.

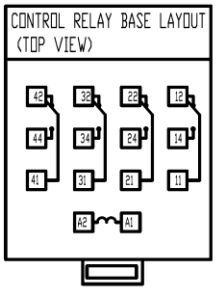


OVERCURRENT & SHORT-CIRCUIT PROTECTION, AND DISCONNECT ARE TO BE PROVIDED BY THE END-USER PER THE NEC (NFPA 70) AND LOCAL CODES.

Note: — — — Indicates wire and/or components supplied by others

*ALL COMPONENTS ARE SHOWN AS THEY ARE WITH THE TABLE IN ITS 'HOME', OR RESTING, POSITION. HOME POSITION IS DEFINED TO BE WHEN THE THE PLATFORM IS HORIZONTAL (LEVEL WITH) AND LOWERED TO THE FLOOR.

FERRULE TERMINATIONS USED FOR WIRING

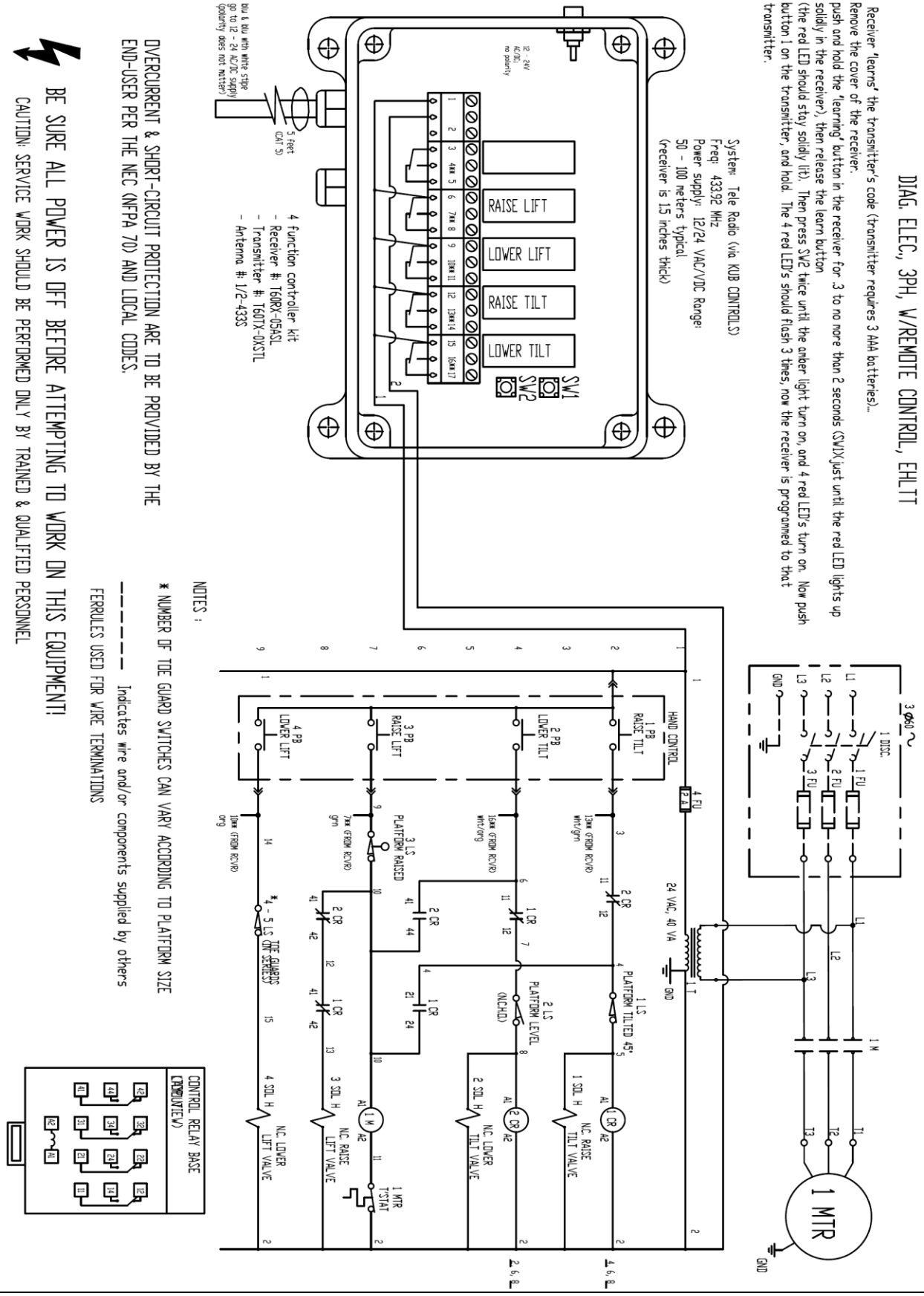


BE SURE ALL POWER IS OFF BEFORE ATTEMPTING TO WORK ON THIS EQUIPMENT!

CAUTION: SERVICE WORK SHOULD BE PERFORMED ONLY BY TRAINED & QUALIFIED PERSONNEL

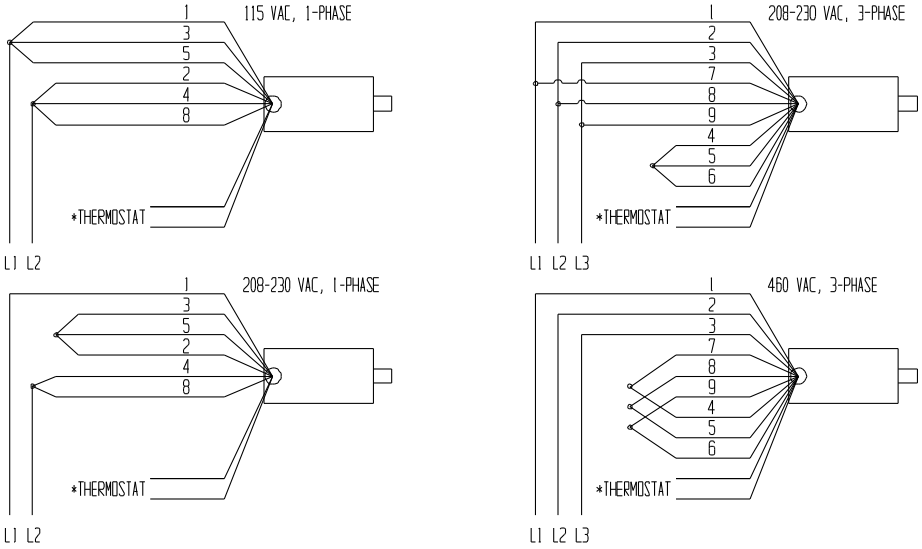
460VAC, 3-Phase with Remote Control
Electric Circuit Diagram (02124014 Rev. A)

Note: Overcurrent & short circuit protection and disconnect must be provided by end user.



Motor Lead Connections (99124021).

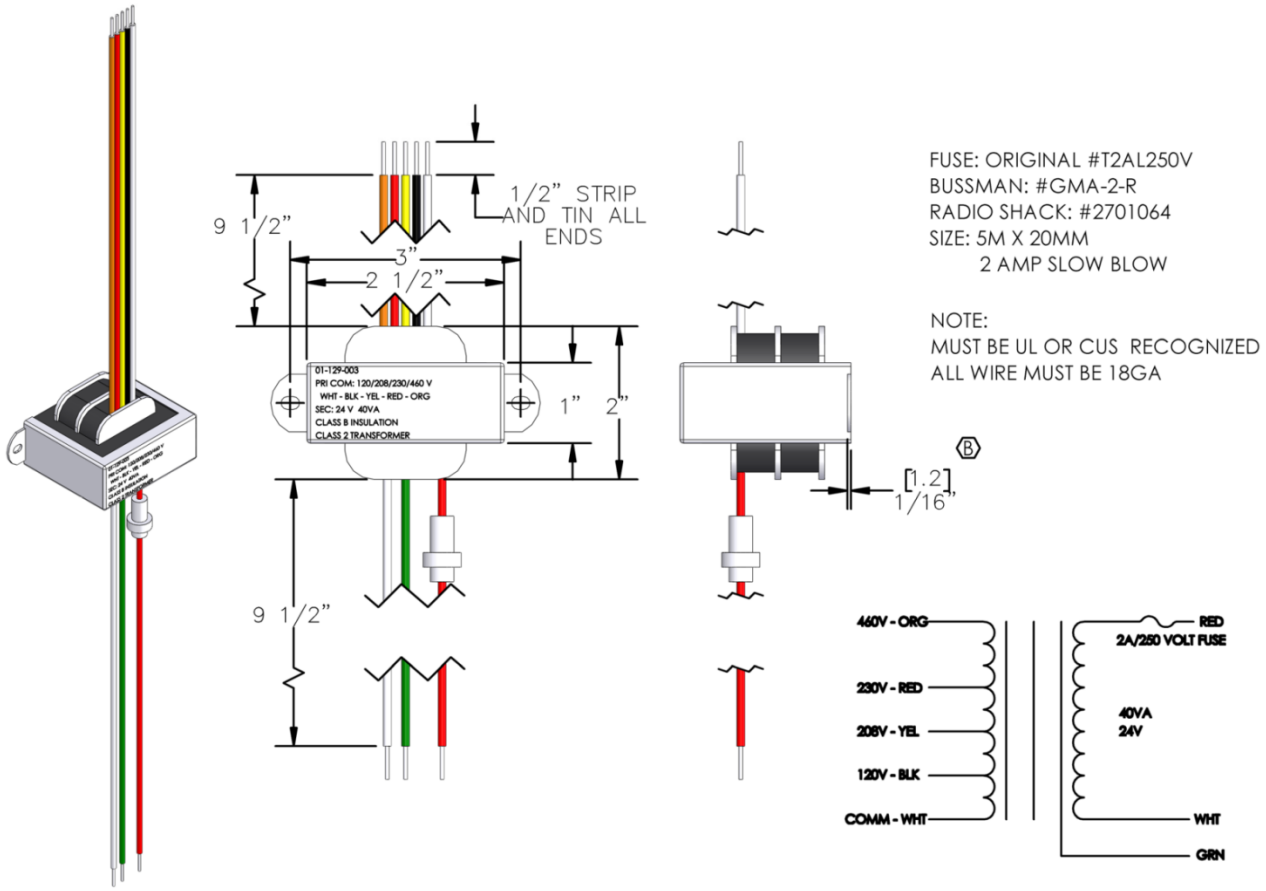
Applicable to all 0.5 HP, 0.75 HP, and 3 HP single-phase motors, and for all 2 HP, 5.5 HP, and 6.5 HP three-phase motors.



* The two thermostat leads go to (1) the grounded side of the transformer secondary, and; (2) the motor relay coil. Polarity across the thermostat leads is not important.

⚠ WARNING When changing the motor voltage configuration, you must also change the configuration of the control transformer to match the motor voltage.

Control Voltage Transformer (01-129-003 Rev. B).

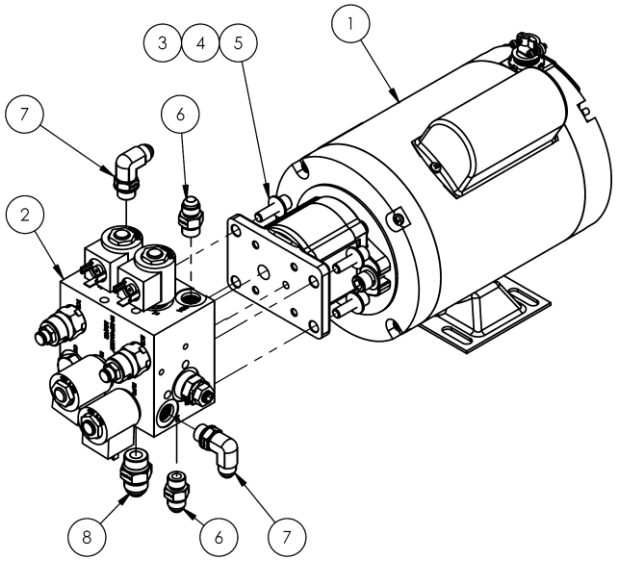


Power Unit Subassembly.

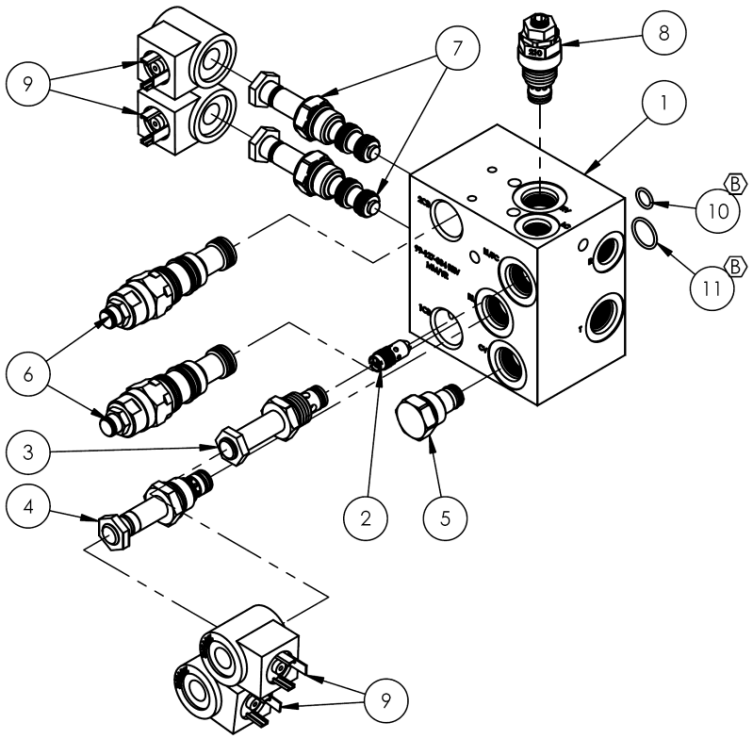
Power Unit: 115V AC, 0.75 HP, 1 PH (99-160-270).

Representative diagram. Contact the factory for replacement parts for your specific model. ALWAYS have the product serial number or model number on hand when calling the factory.

ITEM	PART NO.	DESCRIPTION	QTY.
1	99-137-007-001	MOTOR/PUMP, 115V AC, 1 PH, 0.75 HP, 1725 RPM, 0.060 DISP	1
2	99-627-024	ASSEMBLY, MANIFOLD, SINGLE & DOUBLE ACTING	1
3	23255	5/16-18 X 1 SOCKET HEAD CAP SCREW	4
4	33687	LOCK WASHER, HI COLLAR, 5/16"	4
5	33004	FLAT WASHER, USS, ZINC PLATED, Ø1/4"	4
6	99-116-030	FITTING, HYDRAULIC, 06MJ-06MORB STRAIGHT	2
7	99-116-033	FITTING, HYDRAULIC, 06MJ-06MAORB 90° ELBOW	2
8	99-116-044	FITTING, HYDRAULIC, 08MJ-08MORB STRAIGHT	1

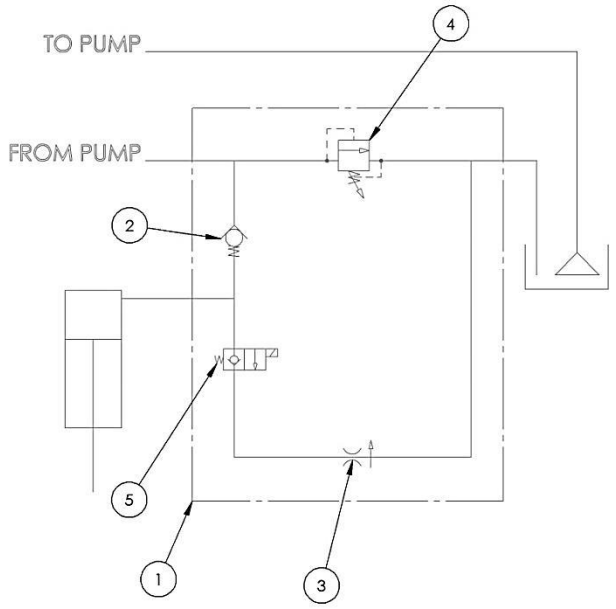


115V AC, 0.75 HP, 1 PH, Manifold Assembly (99-627-024 Rev. B).



ITEM	PART NO.	DESCRIPTION	QTY.
1	99-127-034	MANIFOLD, SINGLE AND DOUBLE ACTING	1
2	99-153-040-001	FLOW CONTROL, PRES. COMP., 2.0 GAL.	1
3	99-153-015	VALVE SOLENOID, STANDARD	1
4	99-153-098	VALVE, HYDRAULIC, N.C., 2-POSITION 2-WAY	1
5	99-153-011	CHECK VALVE, SIZE 08, NOSE-IN/SIDE-OUT	1
6	99-153-057	VALVE, COUNTER BALANCE	2
7	99-153-017	VALVE, CARTRIDGE, 2 POS., 3 WAY	2
8	99-153-006	VALVE, PRESSURE RELIEF, 210 BAR	1
9	99-034-008	COIL WITH DIN CONNECTOR	4
10	99-144-008	O-RING, MANIFOLD, 1/2" OD	1
11	99-144-009	O-RING, MANIFOLD, 3/4" OD	1

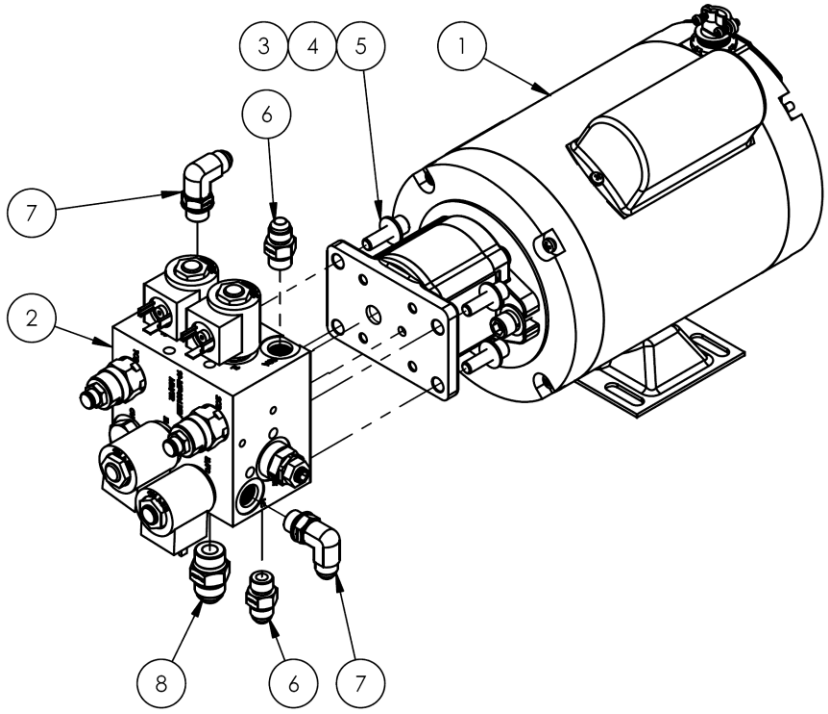
115V AC, 0.75HP Power Unit Hydraulic Schematic (01-125-008).



ITEM	PART NO.	DESCRIPTION	QTY
1	01-127-010	MANIFOLD, LHL	1
2	99-153-011	CHECK VALVE, SIZE 08, NOSE-IN/SIDE-OUT	1
3	*0.5 GPM* 99-153-049	FLOW CONTROL, PRES. COMP.	1
	1.0 GPM 99-153-038		
	1.5 GPM 99-153-039		
	2.0 GPM 99-153-040		
4	99-153-006	VALVE, PRESSURE RELIEF, 210 BAR	1
5	99-153-015	VALVE SOLENOID, STANDARD, w/o COIL	1

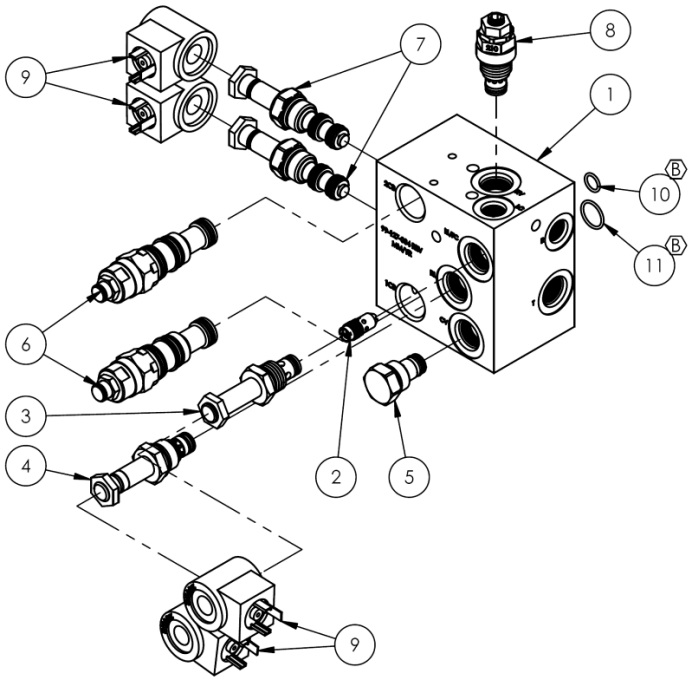
Power Unit: 230V AC, 1.5 HP, 1 PH (99-160-271).

Representative diagram. Contact the factory for replacement parts for your specific model. ALWAYS have the product serial number or model number on hand when calling the factory.



ITEM	PART NO.	DESCRIPTION	QTY.
1	99-137-009-002	MOTOR/PUMP, 208-230V AC, 1 PH, 0.75 HP, 1725 RPM, 0.122 DISP	1
2	99-627-024	ASSEMBLY, MANIFOLD, SINGLE & DOUBLE ACTING	1
3	23255	5/16-18 X 1 SOCKET HEAD CAP SCREW	4
4	33687	LOCK WASHER, HI COLLAR, 5/16"	4
5	33004	FLAT WASHER, USS, ZINC PLATED, Ø1/4"	4
6	99-116-030	FITTING, HYDRAULIC, 06MJ-06MORB STRAIGHT	2
7	99-116-033	FITTING, HYDRAULIC, 06MJ-06MAORB 90° ELBOW	2
8	99-116-044	FITTING, HYDRAULIC, 08MJ-08MORB STRAIGHT	1

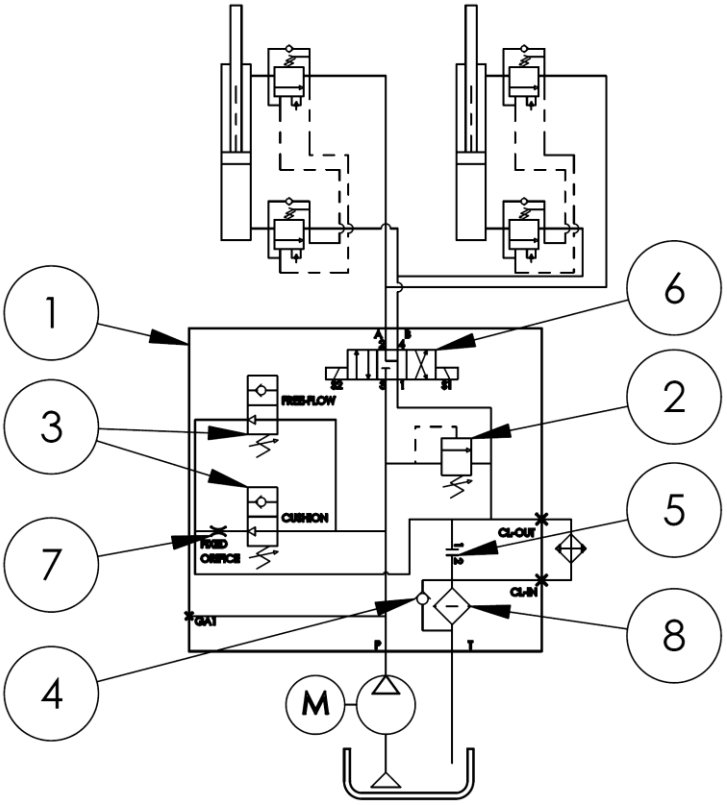
230V AC, 1.5 HP, 1 PH, Manifold Assembly (99-627-034 Rev. B).



ITEM	PART NO.	DESCRIPTION	QTY.
1	99-127-034	MANIFOLD, SINGLE AND DOUBLE ACTING	1
2	99-153-040-001	FLOW CONTROL, PRES. COMP., 2.0 GAL.	1
3	99-153-015	VALVE SOLENOID, STANDARD	1
4	99-153-098	VALVE, HYDRAULIC, N.C., 2-POSITION 2-WAY	1
5	99-153-011	CHECK VALVE, SIZE 08, NOSE-IN/SIDE-OUT	1
6	99-153-057	VALVE, COUNTER BALANCE	2
7	99-153-017	VALVE, CARTRIDGE, 2 POS., 3 WAY	2
8	99-153-006	VALVE, PRESSURE RELIEF, 210 BAR	1
9	99-034-008	COIL WITH DIN CONNECTOR	4
10	99-144-008	O-RING, MANIFOLD, 1/2" OD	1
11	99-144-009	O-RING, MANIFOLD, 3/4" OD	1

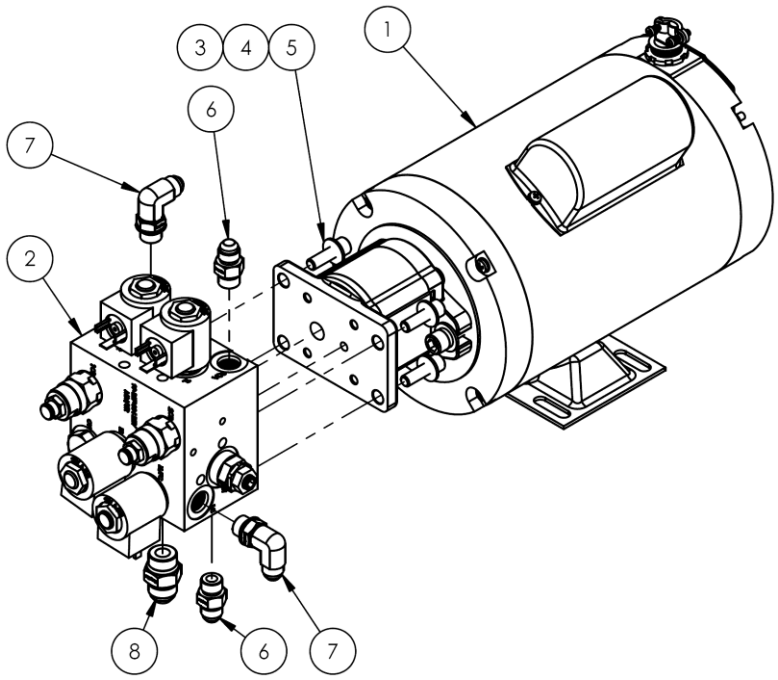
Hydraulic Schematic (99-627-034 Rev. B).

ITEM	PART NO.	DESCRIPTION	QTY.
1	99-127-040	MANIFOLD, DOUBLE ACTING, HIGH CYCLE	1
2	99-153-006	VALVE, PRESSURE RELIEF, 210 BAR	1
3	99-153-064	cartridge valve, Normally Open, size 8	2
4	99-153-068	VALVE, CHECK, NOSE-IN/SIDE-OUT, 25 PSI	1
5	99-153-086	PLUG, CAVITY, VC08-2	1
6	99-153-090	DIRECTIONAL VALVE, HYDRAULIC, DO3, MOTOR CENTER, SOLENOID OPERATED	1
7	99-119-012	SCREWS, MODIFIED, 5/16"-18 x 1/4" HEX DRIVE CUP, SOCKET SET SCREW	1
8	22-031-007	RESERVOIR, FILTER, HYDRAULIC, SPIN-ON, 1"-12 THREAD, 10 MICRON	1



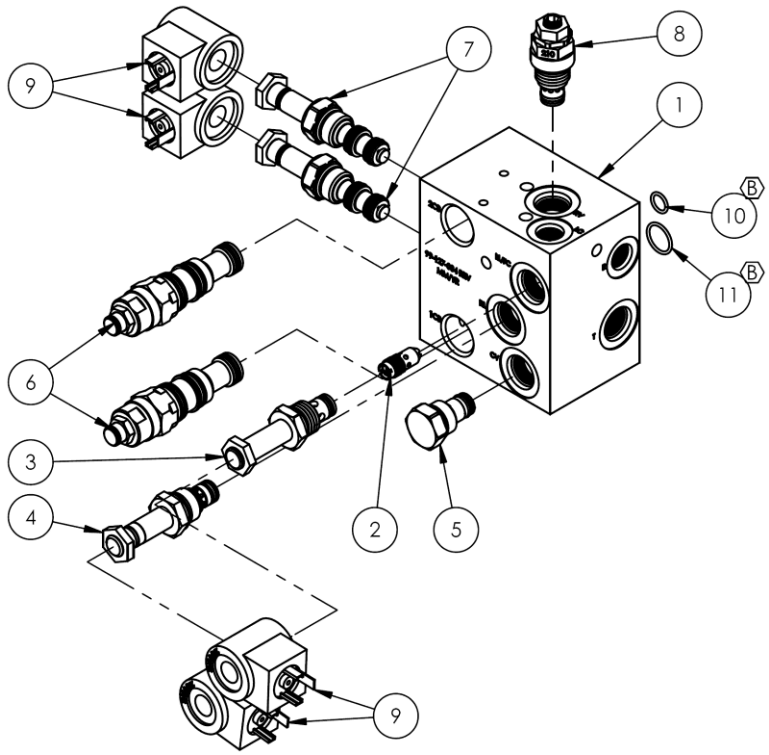
Power Unit: 230V AC, 2 HP, 1 PH (99-160-272).

Representative diagram. Contact the factory for replacement parts for your specific model. ALWAYS have the product serial number or model number on hand when calling the factory.



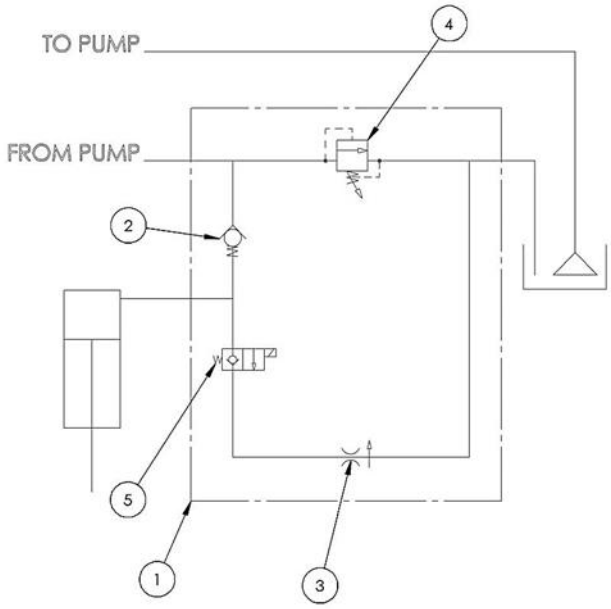
ITEM	PART NO.	DESCRIPTION	QTY.
1	99-137-012-002	MOTOR/PUMP, 208-230V AC, 1 PH, 2 HP, 3450 RPM, 0.073 DISP	1
2	99-627-024	ASSEMBLY, MANIFOLD, SINGLE & DOUBLE ACTING	1
3	23255	5/16-18 X 1 SOCKET HEAD CAP SCREW	4
4	33687	LOCK WASHER, HI COLLAR, 5/16"	4
5	33004	FLAT WASHER, USS, ZINC PLATED, Ø1/4"	4
6	99-116-030	FITTING, HYDRAULIC, 06MJ-06MORB STRAIGHT	2
7	99-116-033	FITTING, HYDRAULIC, 06MJ-06MAORB 90° ELBOW	2
8	99-116-044	FITTING, HYDRAULIC, 08MJ-08MORB STRAIGHT	1

230V AC, 2 HP, 1 PH, Manifold Assembly (99-627-024 Rev. B).



ITEM	PART NO.	DESCRIPTION	QTY.
1	99-127-034	MANIFOLD, SINGLE AND DOUBLE ACTING	1
2	99-153-040-001	FLOW CONTROL, PRES. COMP., 2.0 GAL.	1
3	99-153-015	VALVE SOLENOID, STANDARD	1
4	99-153-098	VALVE, HYDRAULIC, N.C., 2-POSITION 2-WAY	1
5	99-153-011	CHECK VALVE, SIZE 08, NOSE-IN/SIDE-OUT	1
6	99-153-057	VALVE, COUNTER BALANCE	2
7	99-153-017	VALVE, CARTRIDGE, 2 POS., 3 WAY	2
8	99-153-006	VALVE, PRESSURE RELIEF, 210 BAR	1
9	99-034-008	COIL WITH DIN CONNECTOR	4
10	99-144-008	O-RING, MANIFOLD, 1/2" OD	1
11	99-144-009	O-RING, MANIFOLD, 3/4" OD	1

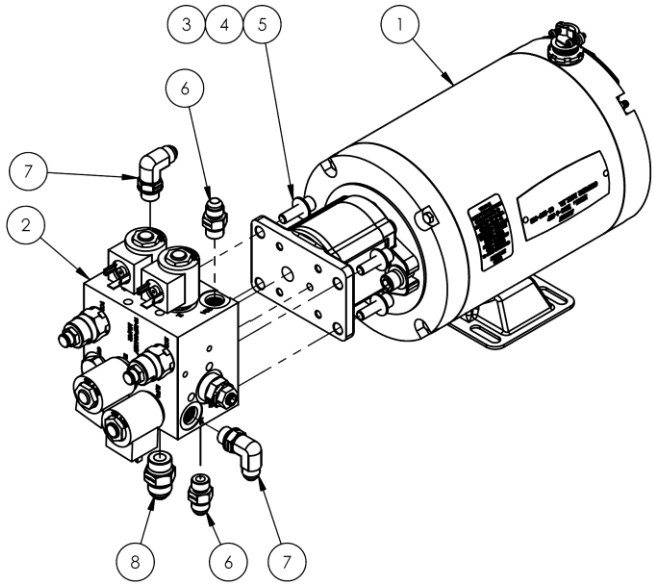
230V AC, 2 HP, 1 PH Power Unit Hydraulic Schematic (01-125-008).



ITEM	PART NO.	DESCRIPTION	QTY
1	01-127-010	MANIFOLD, LHL	1
2	99-153-011	CHECK VALVE, SIZE 08, NOSE-IN/SIDE-OUT	1
3	*0.5 GPM* 99-153-049 *1.0 GPM* 99-153-038 *1.5 GPM* 99-153-039 *2.0 GPM* 99-153-040	FLOW CONTROL, PRES. COMP.	1
4	99-153-006	VALVE, PRESSURE RELIEF, 210 BAR	1
5	99-153-015	VALVE SOLENOID, STANDARD, w/o COIL	1

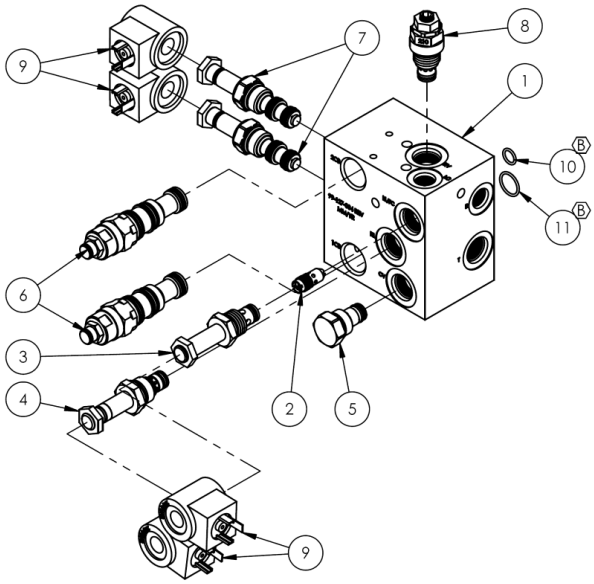
Power Unit: 208-230V/460V AC, 2 HP, 3 PH, 1725 RPM (99-160-273).

Representative diagram. Contact the factory for replacement parts for your specific model. ALWAYS have the product serial number or model number on hand when calling the factory.



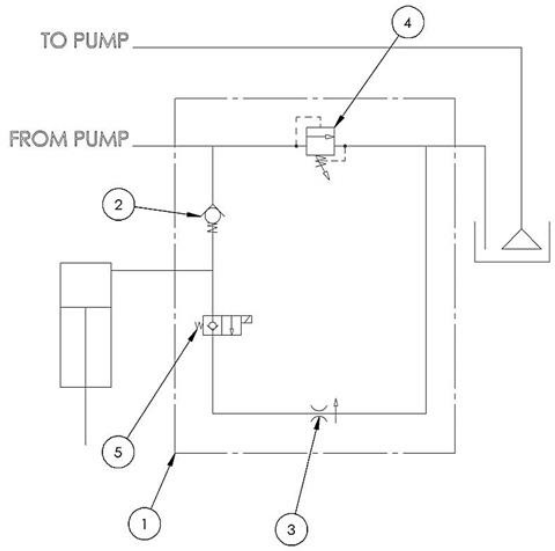
ITEM	PART NO.	DESCRIPTION	QTY.
1	99-137-012-002	MOTOR/PUMP, 208-230V AC, 1 PH, 2 HP, 3450 RPM, 0.073 DISP	1
2	99-627-024	ASSEMBLY, MANIFOLD, SINGLE & DOUBLE ACTING	1
3	23255	5/16-18 X 1 SOCKET HEAD CAP SCREW	4
4	33687	LOCK WASHER, HI COLLAR, 5/16"	4
5	33004	FLAT WASHER, USS, ZINC PLATED, Ø1/4"	4
6	99-116-030	FITTING, HYDRAULIC, 06MJ-06MORB STRAIGHT	2
7	99-116-033	FITTING, HYDRAULIC, 06MJ-06MAORB 90° ELBOW	2
8	99-116-044	FITTING, HYDRAULIC, 08MJ-08MORB STRAIGHT	1

208-230V/460V AC, 2 HP, 3 PH, Manifold Assembly (99-627-024 Rev. B).



ITEM	PART NO.	DESCRIPTION	QTY.
1	99-127-034	MANIFOLD, SINGLE AND DOUBLE ACTING	1
2	99-153-040-001	FLOW CONTROL, PRES. COMP., 2.0 GAL.	1
3	99-153-015	VALVE SOLENOID, STANDARD	1
4	99-153-098	VALVE, HYDRAULIC, N.C., 2-POSITION 2-WAY	1
5	99-153-011	CHECK VALVE, SIZE 08, NOSE-IN/SIDE-OUT	1
6	99-153-057	VALVE, COUNTER BALANCE	2
7	99-153-017	VALVE, CARTRIDGE, 2 POS., 3 WAY	2
8	99-153-006	VALVE, PRESSURE RELIEF, 210 BAR	1
9	99-034-008	COIL WITH DIN CONNECTOR	4
10	99-144-008	O-RING, MANIFOLD, 1/2" OD	1
11	99-144-009	O-RING, MANIFOLD, 3/4" OD	1

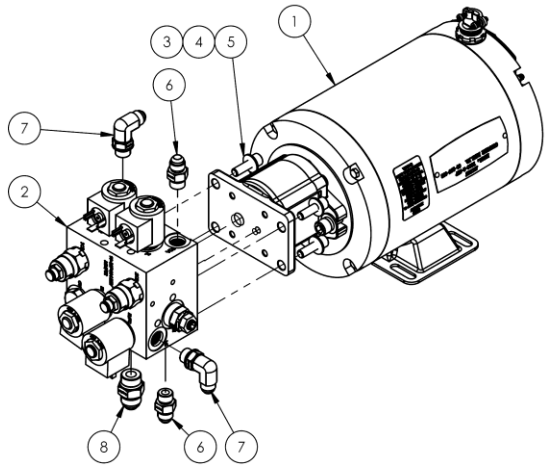
208-230V AC, 2 HP, 3 PH Power Unit Hydraulic Schematic (01-125-008).



ITEM	PART NO.	DESCRIPTION	QTY.
1	01-127-010	MANIFOLD, LHL	1
2	99-153-011	CHECK VALVE, SIZE 08, NOSE-IN/SIDE-OUT	1
3	*0.5 GPM* 99-153-049	FLOW CONTROL, PRES. COMP.	1
	1.0 GPM 99-153-038		
	1.5 GPM 99-153-039		
	2.0 GPM 99-153-040		
4	99-153-006	VALVE, PRESSURE RELIEF, 210 BAR	1
5	99-153-015	VALVE SOLENOID, STANDARD, w/o COIL	1

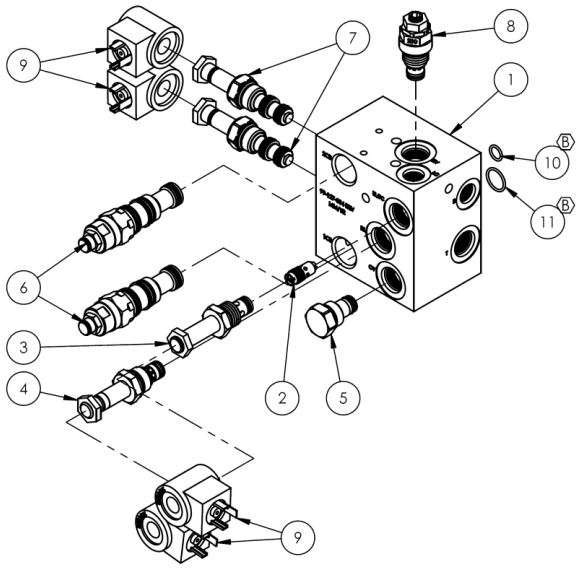
Power Unit: 208-230V/460V AC, 2 HP, 3 PH, 3450 RPM (99-160-274).

Representative diagram. Contact the factory for replacement parts for your specific model. ALWAYS have the product serial number or model number on hand when calling the factory.



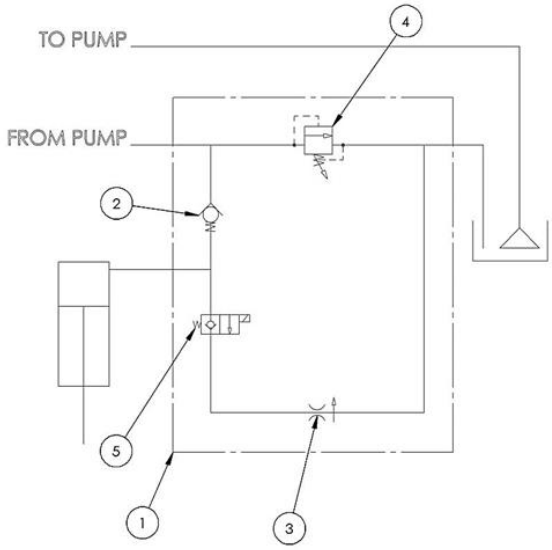
ITEM	PART NO.	DESCRIPTION	QTY.
1	99-137-020	MOTOR/PUMP, 208-230/460V AC, 3 PH, 2 HP, 3450 RPM, 0.073 DISP	1
2	99-627-024	ASSEMBLY, MANIFOLD, SINGLE & DOUBLE ACTING	1
3	23255	5/16-18 X 1 SOCKET HEAD CAP SCREW	4
4	33687	LOCK WASHER, HI COLLAR, 5/16"	4
5	33004	FLAT WASHER, USS, ZINC PLATED, Ø1/4"	4
6	99-116-030	FITTING, HYDRAULIC, 06MJ-06MORB STRAIGHT	2
7	99-116-033	FITTING, HYDRAULIC, 06MJ-06MAORB 90° ELBOW	2
8	99-116-044	FITTING, HYDRAULIC, 08MJ-08MORB STRAIGHT	1

208-230V/460V AC, 2 HP, 3 PH, Manifold Assembly (99-627-024 Rev. B).



ITEM	PART NO.	DESCRIPTION	QTY.
1	99-127-034	MANIFOLD, SINGLE AND DOUBLE ACTING	1
2	99-153-040-001	FLOW CONTROL, PRES. COMP., 2.0 GAL.	1
3	99-153-015	VALVE SOLENOID, STANDARD	1
4	99-153-098	VALVE, HYDRAULIC, N.C., 2-POSITION 2-WAY	1
5	99-153-011	CHECK VALVE, SIZE 08, NOSE-IN/SIDE-OUT	1
6	99-153-057	VALVE, COUNTER BALANCE	2
7	99-153-017	VALVE, CARTRIDGE, 2 POS., 3 WAY	2
8	99-153-006	VALVE, PRESSURE RELIEF, 210 BAR	1
9	99-034-008	COIL WITH DIN CONNECTOR	4
10	99-144-008	O-RING, MANIFOLD, 1/2" OD	1
11	99-144-009	O-RING, MANIFOLD, 3/4" OD	1

208-230V AC, 2 HP, 3 PH Power Unit Hydraulic Schematic (01-125-008).



ITEM	PART NO.	DESCRIPTION	QTY.
1	01-127-010	MANIFOLD, LHL	1
2	99-153-011	CHECK VALVE, SIZE 08, NOSE-IN/SIDE-OUT	1
3	*0.5 GPM* 99-153-049	FLOW CONTROL, PRES. COMP.	1
	1.0 GPM 99-153-038		
	1.5 GPM 99-153-039		
	2.0 GPM 99-153-040		
4	99-153-006	VALVE, PRESSURE RELIEF, 210 BAR	1
5	99-153-015	VALVE SOLENOID, STANDARD, w/o COIL	1

INSTALLATING THE TABLE

Read the installation instructions in their entirety before installing the scissor lift table.

Consult the factory in the event of questions or problems at the time of installation.

Modifications or additions to the lift table, without prior approval by the manufacturer, automatically void the warranty. Attaching ancillary equipment to the platform will lower its load capacity. See ANSI standard MH29.1-2003, *Safety Requirements for Industrial Scissor Lifts*, Section 12.6.

The installation shall comply with all applicable regulations for its location and use.

The end user is responsible for verifying that this lift table and its installation are suitable for its environment and application.

This lift table shall be installed only by qualified and trained personnel with access to appropriate equipment. Electrical connections shall be performed by a qualified electrician.

Before You Begin.

The Electric Hydraulic Scissors Lift Table must be anchored to a smooth, level, and adequately strong concrete surface.

If the lift table will be installed in a pit, first determine where and how the electrical and/or hydraulic connections will be made when the lift table is in place.

Tools And Supplies.

The following tools and supplies might be needed to install your Electric Hydraulic Scissor Lift Table. These items are not supplied with the product.

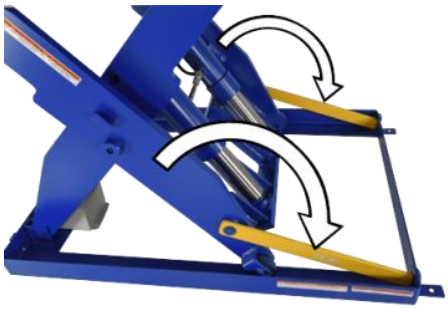
- A fork truck or hoist capable of unloading the left table and setting it in place.
- A smooth, level concrete surface on which to mount the lift table.
- Four concrete anchors. The customer is responsible for selecting anchors appropriate for the EHLTD model and concrete floor conditions. DO NOT operate an unsecured lift table.
- A power supply and electrical disconnect matching the motor's voltage and current requirements. Refer to the lift table's data plate, labels on the control enclosure, and the electrical diagrams in this manual for more information. The end-user is responsible for supplying the required ground-fault and short-circuit protection on the supply. Motor overload protection is provided by a thermostat built into the motor.

Installation Dimensions.

When installing in a floor pit, provide clearance of at least 1/4", but no more than 7/8", on all sides.

Installation.

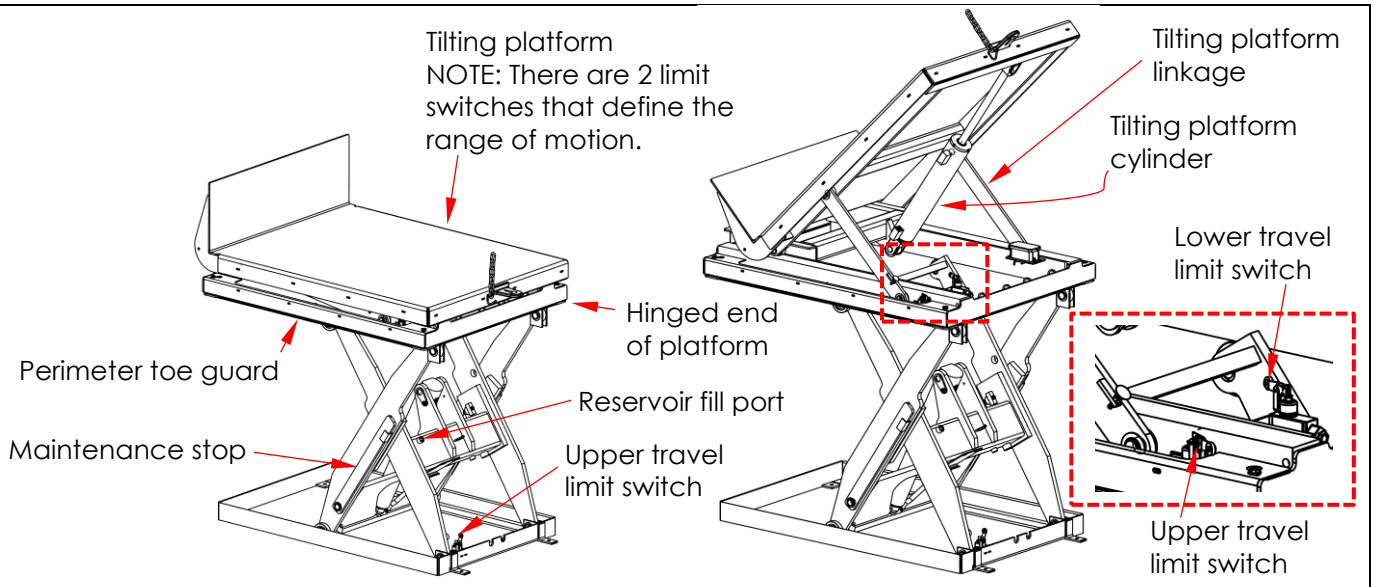
1. The platform must be lowered and fully supported under its frame when moved. Support the lift table with straps or forks that span the entire width or length of the base frame. Remove the 4x4 wood dunnage from the base. Use care to avoid damaging the electrical and hydraulic components in the lift table.
2. Move the lift table into position.
3. Temporarily connect the power supply to the power cable supplied with the lift table. Raise the platform to just below its fully raised height. Place both of the maintenance stops in the corners of the base frame. Lower the platform until it is supported by the maintenance stops.



Lower platform until it is fully supported by the (yellow) maintenance stops. The stops should firmly contact the corners of the base frame.

To raise the platform ***without using a power supply***, use a hoist with straps or chain rigging, or a forklift truck. Lift the platform from the hinged end (not the free end) of the platform. See diagram below step 7. Take care not to damage the aluminum perimeter toe guard under the platform. Use the 4x4 wood dunnage to secure the base while lifting the platform.

4. Anchor the frame to the floor through the four mounting holes in the frame.
5. Shim and/or grout the base frame. The entire base frame must be supported with no gaps in its foundation for the lift table to function properly.
6. Have a qualified electrician make a permanent connection to the power supply.
7. Operate the lift table through several full raise and lower cycles. Verify that actuating the upper travel limit switch (mounted on the base frame, near the left-side hinge) prevents further upward travel of the platform. Verify that actuating the perimeter toe guard switches (under the platform) from any side of the lift table prevents further downward travel of the platform. DO NOT place a lift table in service if either of these devices isn't functioning properly.



8. Check the hydraulic oil level. It should be filled to within 1" to 1-½" of the reservoir's fill port. *Note: The reservoir is an integral part of the scissor mechanism*. If oil is needed, use an anti-wear hydraulic oil with a viscosity grade of 150 SUS at 100°F (ISO 32 at 40°C) or a non-synthetic automatic transmission fluid.
9. Clean up debris, spilled oil, etc. Verify that all of the labels applied to the table are in satisfactory condition. See RECORD; p. 27.

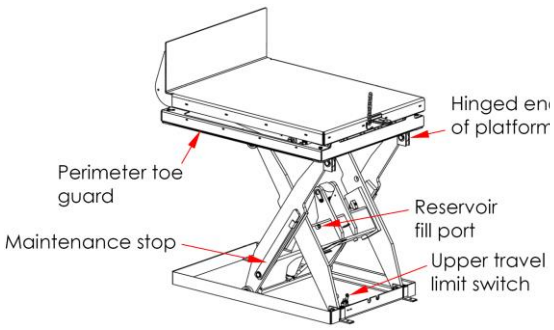
RECORD OF SATISFACTORY CONDITION (THE "RECORD")

After assembling and installing the scissor lift table, and before using it for the first time, make a record describing its appearance. Thoroughly photograph the lift table from multiple angles, including all welds, anchor points, and all labeling applied to it. Describe where each label is located. Cycle the platform up and down by pressing the RAISE LIFT and RAISE LOWER buttons. Describe the motion of the cylinder(s), platform, scissor legs, and rollers as the platform elevates and descends. Describe how the table sounds as the platform elevates and lowers. Cycle the tilting platform by pressing the TILT RAISE and TILT LOWER buttons. Describe the motion of the cylinder(s), tilting platform, linkages, and rollers as the tilting platform elevates and descends. Describe how the tilting platform sounds as it elevates and lowers. Collect all photographs and writings into a file. Mark the file appropriately to identify it. This record documents satisfactory condition. Compare the results of future inspections to this *RECORD* to determine whether the unit is in satisfactory condition. Do not use the table unless it is in satisfactory condition. Purely cosmetic changes, like damaged paint or powder coat, do not constitute changes from satisfactory condition. However, touchup paint should be applied to all affected areas as soon as damage occurs.

OPERATING THE TABLE

Consult ANSI standard MH29.1, Section 12 for the owner's/user's responsibilities regarding the operation, care, and maintenance of this machine.

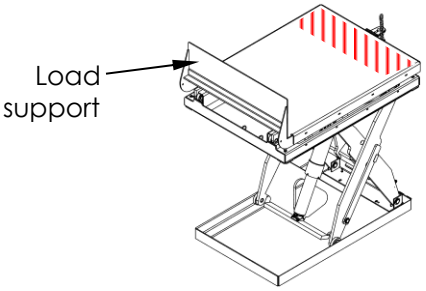
The end-user/owner shall ensure that operators understand that they are responsible for operating the table safely. The user shall also ensure that operators are knowledgeable of, and observe, the safety rules and practices in this section.



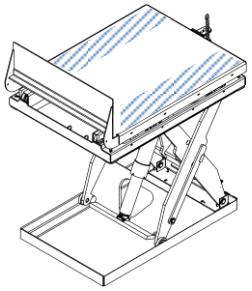
Standard EHLTT scissor lift tables are suitable for use indoors in most non-classified industrial locations and many commercial locations. It is intended to lift stable, evenly-distributed, nonhazardous materials loads having a size or footprint approximately the same size as the platform.

Loading the platform.

The table's load rating/capacity is provided on label 1153, which is applied to the hinged end of the platform. See *LABELING DIAGRAM* on p. 34. This indicates the net capacity of the table for a static load, centered and evenly distributed on the platform. *All loads placed on the platform must rest against the load support*. For off-center loads, the lift table's maximum load weight is 50% of the rated capacity for end loading (either end), and 50% for side loading (either side). NOTE: Do not drop loads onto the platform.



End loading max. load weight = 50% of rated capacity.



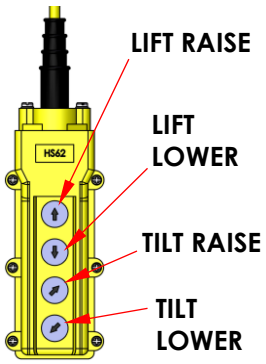
Side-loading max. load weight = 50% of rated capacity.

⚠WARNING

- *DO NOT exceed the lift table's load ratings. Injury to personnel or permanent damage to the lift table can result from exceeding the listed capacity.* ***Note:*** *Take into account the weight of any equipment added to the platform by third parties when determining the maximum working load to be placed on the platform.*
- *The platform rollers are not captured. DO NOT overhang any load over the side of the platform. A cantilevered or overhanging load at the hinged end can cause the platform to tilt and dump the load. For applications involving side or end edge loading, consult the factory.*
- *This lift table is not approved for lifting personnel.*

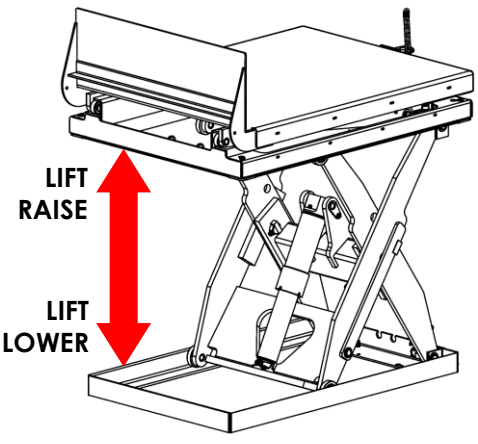
Operation.

At the beginning of every shift, inspect the perimeter toe guard. Confirm satisfactory operation. See *RECORD OF SATISFACTORY CONDITION*. Raise the platform by pressing the LIFT RAISE button. Push and hold a section of the perimeter toe guard up against the underside of the platform. While pressing the toe guard against the platform, press the LIFT LOWER button. The platform should not move if the toe guard system is operating correctly. Perform this check on all four sides of the platform.



Check the condition of the guards, controls, scissor mechanism, hydraulic lines, and limit switches. If any item is in need of repair or otherwise contributes to an unsafe condition, remove the lift table from service until it has been restored to satisfactory condition.

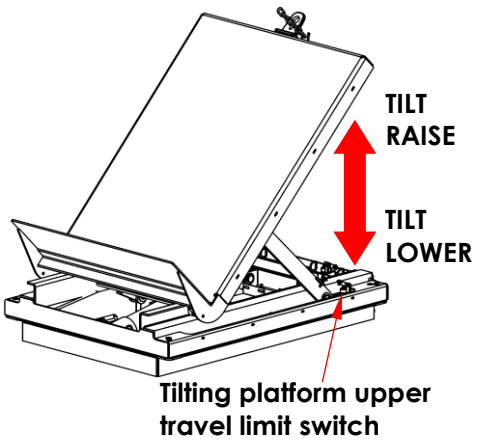
The standard EHLTTT scissor lift table is provided with a handheld 4-pushbutton controller and either an internally, or externally, mounted electric-hydraulic power unit. NOTE: Lift tables with external modular power units have pushbutton controls and a key switch in the power unit cover. The key switch must be turned to the "ON" position to operate the controls.



- Press the LIFT RAISE pushbutton to energize the power unit and elevate the platform. The platform ascends only while the pushbutton is pressed. If the pushbutton is released, the platform stops and holds its position. At maximum platform elevation, a limit switch shuts off the motor. Each EHLTT lift table is provided with hydraulic overload protection. This feature prevents damage that might otherwise occur by attempting to lift a load that exceeds the rated capacity of the table.
- Lower the platform by pressing the LIFT LOWER pushbutton. The platform descends by gravity (pump motor does not run). Release the pushbutton to stop the descent of the platform. If the perimeter toe guard is activated as the platform descends, the

valve will close and prevent further platform descent. Platform lowering speed is preset at the factory and not to exceed 30 fpm. In the event of a hydraulic line failure, a velocity fuse internal to the cylinder prevents the platform from lowering.

- Press the TILT RAISE pushbutton to energize the power unit and elevate the free end of the tilting platform. The free end rises only while the pushbutton is pressed. When the pushbutton is released, the platform will stop and hold its position. At the platform's maximum tilt angle (45° or 90° for EHLTT-H models), activation of a tilting platform upper limit switch (see diagrams on p. 17) causes the motor to turn off. Each EHLTT lift table is provided with hydraulic overload protection to prevent it from attempting to raise a load that exceeds its rated capacity.



- Pressing the TILT LOWER pushbutton also activates the motor because the cylinder is double-acting (powered extension and retraction). Press the button to lower the tilting platform. Release the pushbutton to stop the motion of the platform. In the event of a hydraulic line failure, a velocity fuse internal to the cylinder will prevent the tilting platform from lowering. A tilting platform lower limit switch turns off the motor when the tilting platform reaches its resting/home position.

⚠WARNING

- Always watch the area around the table & any load on the platform when it is in operation.
- Never use the lift table unless it is in SATISFACTORY CONDITION. If any damage or unusual noise is observed, if it is in need of repair, or if any other malfunction is observed. Notify your supervisor or maintenance personnel.
- Keep clear of the machine when it is in operation. Before operating the lift table, make certain no part of any person or object is under the platform.
- Guards shall be in place before operating the lift table.
- Guards cannot protect against every possible condition, and should not be considered a substitute for good judgment and care in use, loading, handling, storage, etc. of the lift table.

INSPECTING AND MAINTAINING THE TABLE

Regular maintenance is essential for maximizing the service life of this product. Compare all inspection results to the *RECORD OF SATISFACTORY CONDITION*. The table should only be used if it is in satisfactory condition. If an inspection reveals any changes from satisfactory condition, repair it before returning it to service. Only use manufacturer-approved replacement parts. DON'T GUESS! Contact *TECHNICAL SERVICE* if you have questions that are not addressed in these instructions or if you are uncertain how to address an issue discovered during an inspection. Technical Service can be contacted by calling (260) 665-7586 and asking for the Service and Parts Department or by submitting your questions through Vestil's online parts and service portal at https://www.vestil.com/page-parts-request.php.

⚠WARNING

- Identify all potential hazards and comply with applicable safety procedures before beginning work.
- Unload the table & install the maintenance stops before inspecting or servicing the lift table. See below.

Only qualified individuals trained to understand mechanical devices, electrical and hydraulic circuits, and the hazards associated with them, should attempt troubleshooting or repair of this equipment.

Inspection procedures.

Before inspecting or maintaining this lift table:

- Read and understand these maintenance procedures.
- Unload the table. Do not service a loaded table.
- Deploy both maintenance props. To use the maintenance stops, raise the platform to its maximum height. Rotate the free ends of the props into contact with the base frame. Lower the platform until the props solidly contact the corners of the base frame. The platform is now supported by the props rather than the lifting cylinder(s).


Lower platform until props contact corners of base frame.

- Disconnect power and follow established lockout/tagout policies as required.

Initial inspection.

Prior to use, any new, altered, modified, or repaired scissor lift table must be inspected by a qualified person. Perform complete *DAILY* and *MONTHLY* inspections before returning the lift table to regular use. All inspected items must be in *SATISFACTORY CONDITION*.

Daily inspection.

At the beginning of each shift, a designated person shall complete these inspections. Remove the lift table from service. Repair or replace all affected parts if any of the following is found.

1. Look for:
   a. Frayed wires.
   b. Oil leaks.
   c. Pinched, chafed, worn, or cracking hydraulic hoses.
   d. Damage, deformation, or cracks in any structural member or any weld. Give special attention to the hydraulic cylinder mounting brackets.
   e. Loose or missing fasteners.
   f. Unusual noise or evidence of binding.
2. Test the function of the upper travel limit switch and the perimeter toe guard. Press the LIFT RAISE button and hold it. The motor should shut off on its own when the platform reaches its maximum elevation. Confirm that the cylinder(s) extend smoothly. Press the LIFT LOWER button. The platform should lower smoothly and evenly.
3. Test the tilting platform upper and lower travel limit switches by cycling the tilting platform all the way and all the way down. Press the TILT RAISE button and hold it. The motor should turn off on its own when the tilting platform reaches the maximum inclination (approximately 45° or 90° for EHLTT-H models). Make sure that the tilting platform cylinder extends smoothly. Lower the tilting platform by pressing the TILT LOWER button. The motor should activate. Hold the button until the tilting platform is completely lowered. The motor should turn off when the tilting platform reaches its lower travel limit (fully lowered).

If you have questions about the results of any inspection, contact the TECHNICAL SERVICE AND REPLACEMENT PARTS DEPARTMENT.

Monthly inspection.

A qualified person must inspect the table for:

1. Oil level. The oil should be 1" to 1-½" below the reservoir fill hole with the platform in the fully lowered position. Add oil, if necessary. See the *ANNUAL INSPECTION* section (below) for hydraulic oil specifications.
2. Worn or damaged hydraulic hoses or electrical wires.
3. Wear in the pivot points on the legs.
4. Looseness or wear in the rollers.
5. Integrity of the retaining hardware on all rollers and all pivot point pins.
6. Integrity of the frame anchor bolts, and for cracks in the concrete around them.
7. Proper functioning of hand-operated and/or foot-operated mechanisms.
8. Unusual noises or movement during operation.
9. Condition of all information, safety, and hazard warning labels. All should be clean and clearly legible.
10. Dirt and debris. Clean, sweep, or wipe down as needed.

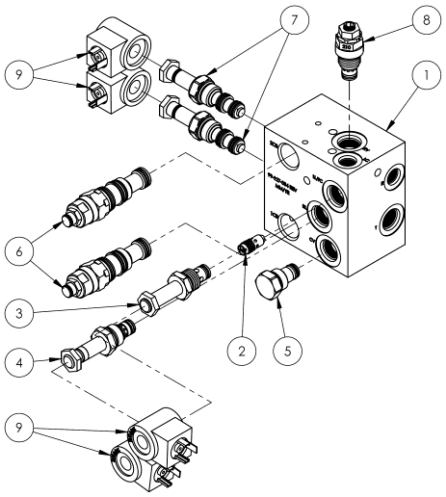
If you have questions about the results of any inspection, contact the TECHNICAL SERVICE AND REPLACEMENT PARTS DEPARTMENT.

Annual inspection.

Check the condition of the oil. Change the oil if it darkens, becomes gritty, or turns a milky color (indicating the presence of water). Replace with an anti-wear hydraulic oil with a viscosity grade of 150 SUS at 100°F (ISO 32 cSt @ 40°C), such as AW 32, HO 150 or Dexron non-synthetic transmission fluid. You may use a synthetic transmission fluid if you flush the system with the synthetic fluid before filling the reservoir. 150 SUS at 100°F (ISO 32 cSt @ 40°C) or Dexron transmission fluid.

Solenoid valve maintenance.

If the platform slowly lowers on its own after releasing the LIFT LOWER control, it will be necessary to remove the lowering cartridge valve (port LL/FC; item 3 in diagram; also see relevant *MANIFOLD ASSEMBLY diagram,* item 3, part. no. 99-153-015, p. 15) for inspection and cleaning.



1. Unload the platform. There must be no load applied to the platform.

2. Raise the platform. Deploy the maintenance props. Lower the platform until the props solidly contact the corners of the base frame.

3. On most EHLTT models, the power unit is attached to the hinged side of the scissor lift mechanism. The manifold assembly is attached to the end of the power unit.

4. Remove the nut holding the solenoid coil (item 3, right) on the solenoid valve stem. Remove the coil (9) and unscrew the valve (3) from the manifold.

5. Inspect the valve for contaminants. Inspect the O-rings and back-up washers for cuts, tears, or other damage.

6. With the valve immersed in mineral spirits or kerosene, insert a thin tool such as a small screwdriver or a small hex wrench in the hole at the bottom of the valve (). Push the spool in and out several times. A properly functioning spool should move freely, with about 1/16" of travel. Use mineral spirits to flush the valve.

7. If the spool continues to stick, the stem could be bent. The valve will need to be replaced.

8. Blow the valve off with a compressed-air gun while again pushing the spool in and out.

OLENOID VALVE
9-153-015

9. Inspect the bottom of the manifold's valve cavity for contaminants.

10. Make sure both O-rings and outer seal (flat) are seated on the valve body. Make sure the screen filter is in place and seated at the bottom of the threads on the valve body (illustration).

11. Reinstall the solenoid valve, tightening to 20 lb-ft of torque. Reattach the solenoid coil and the retaining nut.

Bleeding Air from the Hydraulic Cylinder(s).

Air can enter the hydraulic system any time it is opened for servicing. Symptoms of air in the system include jerky or bouncy motion of the platform, platform sponginess (lowers a bit when a load is applied), unusual noises, or foamy hydraulic fluid. Trapped air can also trigger the integral velocity fuse which can retard or prevent cylinder retraction.

Cycling the platform up and down without a load can expel much of the trapped air through the hydraulic reservoir. If air needs to be bled from the system:

1. Unload the platform.

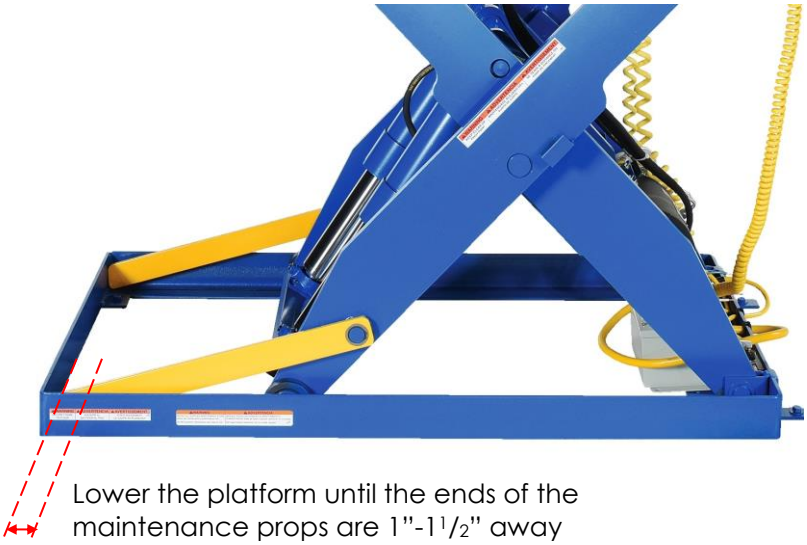
2. Raise the platform by pressing the LIFT RAISE button. Deploy the maintenance stops. Lower the platform until the ends of the props are ½"-1" away from the corners of the base frame. The platform must not be supported by the props because some motion is necessary to expel air from the system.

3. Hold a rag over the cylinder's bleeder valve to capture expelled oil. The valve is located at the top of the cylinder (see illustration). Use a ¼" wrench to open the valve about a half-turn.

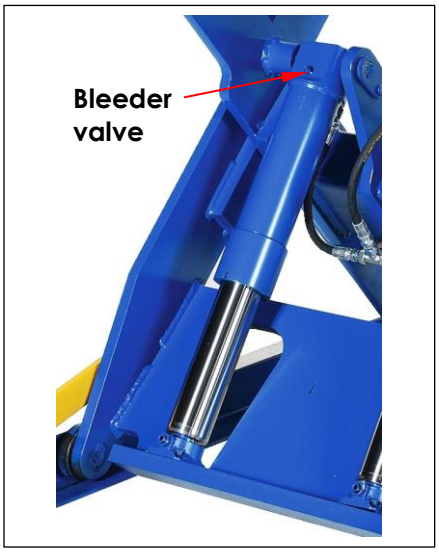
4. Oil and air will sputter from the valve. Once no more air comes out, close the valve.

5. For multi-cylinder lift tables, it will be necessary to open the bleeder valves on all cylinders simultaneously in order to bleed the valves.

BLEEDING THE HYDRAULIC CYLINDER



Lower the platform until the ends of the maintenance props are 1"-1 1/2" away from the corners of the base frame.



TROUBLESHOOTING GUIDE

⚠ WARNING *Care should be taken to identify all potential hazards and comply with applicable safety procedures before beginning work.*

⚠ WARNING *Remove any load and install the maintenance props before beginning any inspection or service on the lift table. See below.*

Only qualified individuals trained to understand mechanical devices, electrical and hydraulic circuits, and the hazards associated with them, should attempt troubleshooting and repair of this equipment.
Consult the factory for any problems not addressed in this manual. ALWAYS have the product serial number or model number on hand when calling the factory.

PROBLEM	POSSIBLE CAUSES	ACTION
Power unit doesn't run when "UP" button is pressed.	Transformer fuse is blown.	Test with meter. Replace if bad.
	No supply voltage.	Test with meter. Check fuses, breakers, and overloads to determine the cause
	Upper-travel limit switch is engaged or bad.	Inspect and test switch. Replace if bad.
	Bad control transformer.	Check for 24 VAC at secondary. Replace if bad.
	Bad motor relay coil.	Test with meter. Replace if bad.
	Bad solenoid start switch (DC units).	The green LED on motor relay will be off, or will turn off when the UP pushbutton is pressed.
	Battery voltage low (DC units).	Test with meter. Charge battery if low (is the motor relay LED on?)
Motor runs but platform doesn't move. Power unit not noisy.	Motor rotation is wrong (AC-powered units only).	Verify the motor runs CW, opposite the shaft end.
	Pump is failing to produce pressure.	Contact Technical Service.
Motor hums or pump squeals, but the platform does not move, or the platform moves only slowly.	Pump is failing to produce pressure.	Contact Technical Service.
	Excess voltage drop to motor, due to power wire size too small, wire run too long, or incoming voltage too low.	Check the power installation for adequacy. Check the incoming voltage *while the motor is running*. Correct any problems found.
	Motor is "single-phasing".	Determine and correct cause of voltage loss on phase.
	Pressure relief opening at full pressure.	Check for structural damage or binding of the scissor legs, etc. Check for platform overload condition.
	Contamination holding open the lowering valve or the check valve.	Remove and inspect valves. Clean per instructions in the "Inspecting and Maintaining" section.
Platform raises, then drifts down.	Contamination holding open the lowering valve or the check valve.	Remove and inspect valves. Clean per instructions in "Inspecting and Maintaining" section.
Spongy or jerky platform movement.	Excessive air in the hydraulic cylinders.	Bleed air per procedure described in the "Inspecting and Maintaining" section.
Platform won't lower.	Perimeter toe guard actuated.	Check for a toe guard extrusion or rubber corner that is stuck. Adjust if necessary.
	Perimeter toe guard switch or wire broken.	Inspect visually; check with mutimeter. Repair as needed.
	Solenoid coil is bad.	Check with multimeter using the diode-check function. (Reading for ohms will not provide an accurate test of the coil). Replace if bad.
	Physical blockage of the mechanism.	Inspect for foreign material or objects blocking the scissors or the rollers.
	Solenoid valve, flow control, or suction hose screen plugged.	Remove and inspect valves. Clean per instructions in "Inspecting and Maintaining" section.
Platform lowers too slowly.	Solenoid valve, flow control, or suction hose screen plugged.	Remove and inspect valves. Clean per instructions in "Inspecting and Maintaining" section.
	Velocity fuse locking (indicated by platform only slowly creeping down).	Check for air in hydraulic system. Bleed air as needed.
	Flow control valve spool sticking.	Remove and inspect valves. Clean per instructions in "Inspecting and Maintaining" section.
Platform lowers too quickly.	Flow control valve spool sticking.	Remove and inspect valves. Clean per instructions in "Inspecting and Maintaining" section.

LABELING DIAGRAM

The lift table should be labeled as shown in the diagrams. However, label content and location are subject to change so your product might not be labeled exactly as shown. Thoroughly photograph the lift table when you first receive it as discussed in the RECORD OF SATISFACTORY CONDITION section on p. 27. Make sure that your Record includes a photograph of each label. Replace all labels that are or later become damaged, missing, or not easily readable (e.g. faded).

To order replacement labels, contact the TECHNICAL SERVICE AND REPLACEMENT PARTS DEPARTMENT online at http://www.vestilmfg.com/parts_info.htm. Alternatively, you may request replacement parts and/or service by calling (260) 665-7586 and asking the operator to connect you to the Parts Department.

LIMITED WARRANTY

Vestil Manufacturing Company ("Vestil") warrants this product to be free of defects in material and workmanship during the warranty period. Our warranty obligation is to provide a replacement for a defective, original part covered by the warranty after we receive a proper request from the Warrantee (you) for warranty service.

Who may request service?

Only a warrantee may request service. You are a warrantee if you purchased the product from Vestil or from an authorized distributor AND Vestil has been fully paid.

Definition of "original part"?

An original part is a part used to make the product as shipped to the Warrantee.

What is a "proper request"?

A request for warranty service is proper if Vestil receives: 1) a photocopy of the Customer Invoice that displays the shipping date; AND 2) a written request for warranty service including your name and phone number. Send requests by one of the following methods:

US Mail	Fax	Email
Vestil Manufacturing Company	(260) 665-1339	info@vestil.com
2999 North Wayne Street, PO Box 507	Phone	Enter "Warranty service request" in subject field
Angola, IN 46703	(260) 665-7586	

In the written request, list the parts believed to be defective and include the address where replacements should be delivered. After Vestil receives your request for warranty service, an authorized representative will contact you to determine whether your claim is covered by the warranty. Before providing warranty service, Vestil will require you to send the entire product, or just the defective part (or parts), to its facility in Angola, IN.

What is covered under the warranty?

The warranty covers defects in the following original, dynamic parts: motors, hydraulic pumps, motor controllers, and cylinders. It also covers defects in original parts that wear under normal usage conditions ("wearing parts"), such as bearings, hoses, wheels, seals, brushes, and batteries.

How long is the warranty period?

The warranty period for original dynamic components is 1 year. For wearing parts, the warranty period is 90 days. Both warranty periods begin on the date Vestil ships the product to the Warrantee. If the product was purchased from an authorized distributor, the periods begin when the distributor ships the product. Vestil may, at its sole discretion, extend a warranty period for products shipped from authorized distributors by up to 30 days to account for shipping time.

If a defective part is covered by the warranty, what will Vestil do to correct the problem?

Vestil will provide an appropriate replacement for any covered part. An authorized representative of Vestil will contact you to discuss your claim.

What is not covered by the warranty?

The Warrantee (you) are responsible for paying labor costs and freight costs to return the product to Vestil for warranty service.

Events that automatically void this Limited Warranty.

- Misuse;
- Negligent assembly, installation, operation or repair;
- Installation/use in corrosive environments;
- Inadequate or improper maintenance;
- Damage sustained during shipping;
- Collisions or other accidents that damage the product;
- Unapproved modifications: Do not modify the product IN ANY WAY without first receiving written authorization from Vestil.

Do any other warranties apply to the product?

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