



5900 Schooner Street – Belleville, MI 48111 – USA
TEL (800) 422-2558 – FAX (734) 665-9099

www.Eberbachlabtools.com

E5902.HD Shaker Power Unit

Heavy Duty Reciprocating, Two Speed,
160 or 240 (+/-10%) osc/min, 115V, 60 Hz
Capacity: 250lbs

USE AND CARE FOR CATALOG NUMBER:

E5902.HD Shaker Power Unit, Reciprocating, Two Speed,
160 or 240 (+/-10%)osc/min, 115V, 60 Hz
250lbs Capacity

INITIAL PREPARATION:

This shaker power unit is furnished without carriers, and prior to installing any carrier, the shaker should be run for a short period of time. With the power switch on the front panel in the OFF position, plug the cord into a 115 V, 60 HZ source. Turn Shaker on by moving the switch to the low or high position.

INSTALLATION OF CARRIERS: (SEE ENCLOSED DRAWING)

To install the large platform, E5910.00 onto the shaker platform, use the eight (8) 1 inch spacers and the truss head screws supplied with the platform. This large platform has 828, 1/4 inch diameter holes for mounting E6090.00 Flask Holders by means of the threaded strips, E5913.00.

LARGE PLATFORM (E5910.00) WILL ACCOMMODATE THE FOLLOWING FLASK HOLDERS (E6090.00):

Size	Not Allowing Overhang	Allowing Overhang
125 ml	77	108
250 ml	48	68
500 ml	48	54
1000 ml	24	30
1500 ml	15	24
2000 ml	15	24
4000 ml	8	12
2500 ml	6	12
2800 ml	8	12

The large utility carrier E5915.00 is secured to the large platform by means of eight (8) machine screws and hex nuts furnished with the carrier. Additional crosswise bar clamps can be added to hold various size and shapes of containers. It will secure six (6) five-gallon Carboys or six (6) five-gallon Jerry Cans.

LOADING:

It is impossible to outline the exact limitations for loading a shaker, as resulting shaking action is dependent upon several factors. Principal among these is the size and shape of the containers, speed, length of stroke, and the amount and type of material being shaken.

Basic considerations should be:

- Use lowest speed consistent with the required shaking action.
- At higher speed use less weight on platform and/or shorter stroke.
- At lower speeds, weight on platforms and/or length of stroke can be increased.
- When using one platform tiered above the other, place equal load on each, or if it is possible, place heavier mass on lower platform and lighter on the top. If shaking action imparts a “whip” to the upper platform, then either the speed is too high or the load is too heavy on that platform.
- If shaker has tendency to “walk” on floor, then rubber suction cup feet should be secured to the floor using rubber or contact cement.
- Good judgment in the selection of the factors will contribute to proper use of the shaker.

MAINTENANCE:

FOR THE FOLLOWING LUBRICATION AND MAINTENAINCE IT WILL BE NECESSARY TO REMOVE EITHER THE FRONT OR BACK LOWER PANEL.

LUBRICATION: (USE A GOOD GRADE OF SAE #30 OIL)

LUBRICATION FOR CONTINUOUS DUTY APPLICATIONS OF +100 HOURS:

- Oil crank bearings through hole in center of bearing housings ever three (3) months.
- Oil the idler bearing bracket through the hole in the top of the bearing block every three (3) months.
- Oil the sixteen (16) bearings located at the top and bottom of each of the eight (8) rocker arms every three (3) months. Place oil on the shaft next to the bearing.
- Oil the connecting rod bearings every (3) months. Place oil on the shaft next to the bearing at the upper end and the crank end of the connecting rod.

LUBRICATION WHEN THE SHAKER IS USED FOR INTERMITTENT DUTY:

- Oil crank bearings through hole in bearing housings every six (6) months.
- Oil the idler bearing bracket once every six (6) months through the hole in the top of the casting.
- Oil the sixteen (16) rocker arm bearings every six (6) months. Place oil on the shaft next to the bearing.
- Oil the connecting rod bearings every six (6) months. Place oil on the shaft next to the bearing at the upper end and the crank end of the connecting rod.

BELT INSPECTION AND REPLACEMENT:

Inspect the belt at each oiling period and replace if actually broken or if the cords are exposed and frayed. Small outer fabric breaks are not harmful.

BELT REPLACEMENT AND ADJUSTMENT

To replace belt, loosen motor screws and remove belt, then install new belt. Tighten the motor screws but do not tighten belt to the point where the bearings will be overloaded. When belt is tight, the operator should be able to press lightly on the middle of the belt and cause it to bow in an amount equal to the width of the belt.

NOTE: If replacement fuse blows almost immediately, repairs may be needed. Contact your supplier or Eberbach Corporation technical support with any inquiries concerning operation.

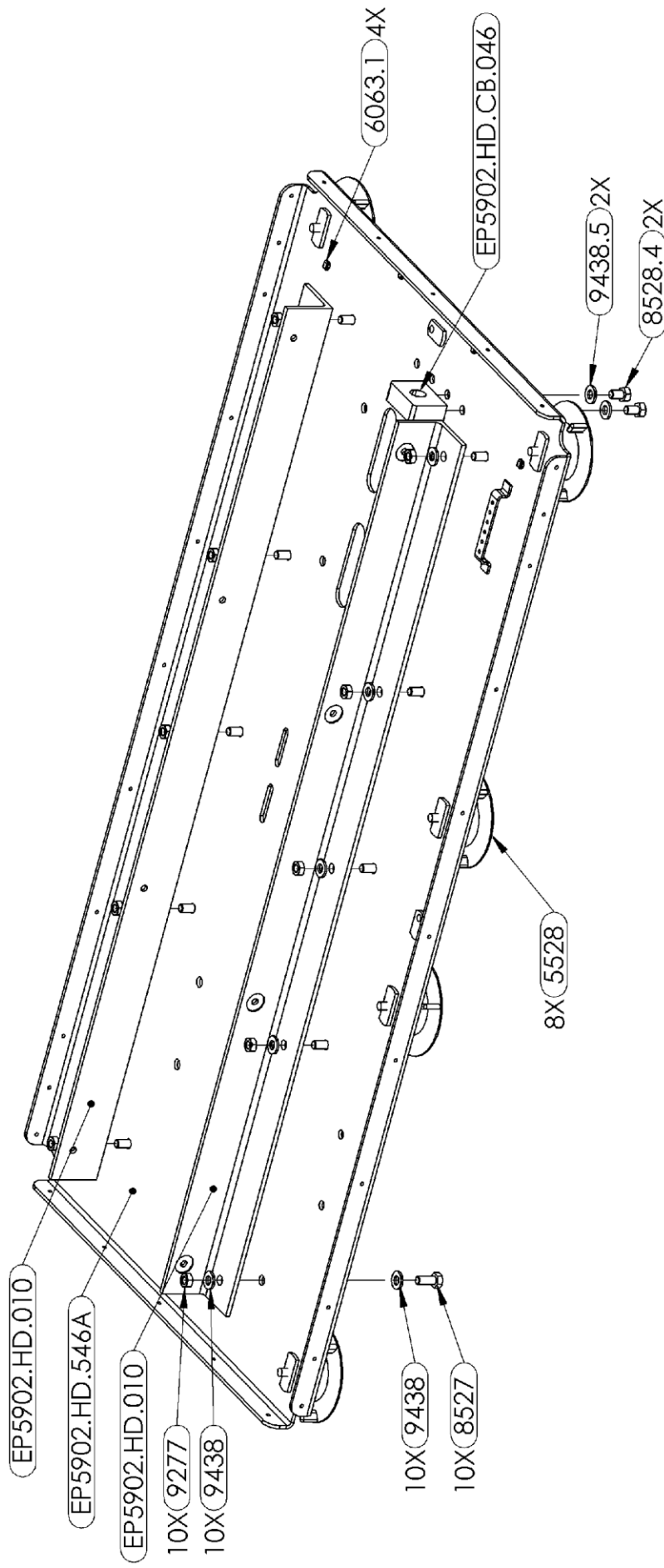
REPLACEMENT PARTS LIST FOR E5902.HD

<u>PartNo</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
4289.3	4L360 BELT	1
4289.4	BELT, 4L410	2
4349	SHAFT COLLAR	2
4352	SHAFT COLLAR	1
4401.1	3/16" X 7/8" KEY	1
4401.2	3/16" X 2.0" KEY	1
4401.7	3/16" X 1.0" KEY	2
4403	BUSHING 3/4"	2
4416	PULLEY, 8"	2
4481.2	AK25 X 5/8 PULLEY W/ KEY	1
5528	3.75" SUCTION CUP W/ 5/16-18 THREADED POST	8
6063.1	CABLE TIE MOUNT, HOLE DIA (.025 - .125")	4
6063.2	CABLE TIE, 5.5" X 1" X 0.19" W	7
6121.4	CIRCUIT BREAKER 12 AMP	1
6272	AC POWER INLET	1
6518	SWITCH	1
6649	115V POWER CORD, TYPE B PLUG	1
6800.5	LOGO PLATE	1
7055	MOTOR, 1/2 HP, 115 V, 60 Hz, 1725/1140 RPM	1
7568	#4-40 X 1/4" S/S PAN HD. MACHINE SCREW	2

7617	#6-32 X 1/2" S/S ROUND HD. MACHINE SCREW	2
8285	#8-32 X 1/4" S/S TRUST HD. SCREW	70
8296.7	1/4"-20 X 3/4" BUTTON HD. SOCKET SCREW	6
8321.5	#10-32 X 1/4" SET SCREW	4
8526	5/16"-24 X 5/8" HEX HEAD SCREW	8
8527	5/16"-24 X 3/4" HEX HEAD SCREW	10
8528.4	5/16"-24 X 1/2" HEX HEAD SCREW	2
8535	5/16-24 X 1-1/4 HHCS	4
8553.7	3/8"-16 X 3/4" HEX HEAD SCREW	4
8575.65	1/2"-20 X 4" HEX HEAD SCREW	1
8606	#10-32 X 1/4", 1/4"L SOCKET SHOULDER SCREW	16
9175	#4-40X.25" PAN HD. SHEET METAL SCREW	2
9206	#6-32 NYLON LOCK NUT	2
9217	#4-40 S.S NYLON LOCK NUT	2
9277	5/16"-24 HEX NUT	10
9438	5/16" SAE WASHER	25
9438.5	5/16" S/S SAE WASHER	9
9483.5	3/8" S/S SAE WASHER	4
9500.5	1/2" S/S SAE WASHER	1
9523	1/4 INTERNAL TOOTH LOCK WASHER	8
9627	FIBER WASHER, 33/64 X 3/4 X 1/32	2
9627.5	DELTRIN WASHER, 0.515 X 0.885 X 0.067	2
EP5902.HD.007	STIFFENER JOURNAL	2
EP5902.HD.010	BASE SUPPORT ANGLE IRON	2
EP5902.HD.017	IDLE PULLEY SHAFT	1
EP5902.HD.035	FRONT PANEL	1
EP5902.HD.036	REAR PANEL	1
EP5902.HD.037	TOP COVER PANEL	2
EP5902.HD.038	TOP GAURD PANEL	2
EP5902.HD.063	PULLEY 2.8	1
EP5902.HD.065	PULLEY	1

EP5902.HD.508A	LEFT PANEL ASSEMBLY	1
EP5902.HD.509A	RIGHT PANEL ASSEMBLY	1
EP5902.HD.540A	TOP PLATE ASSEMBLY	1
EP5902.HD.546A	BASE ASSEMBLY	1
EP5902.HD.547A	ROCKER ARM ASSEMBLY	4
EP5902.HD.548A	BEARING BLOCK ASSEMBLY	1
EP5902.HD.652A	WIRE HARNESS	1
EP5902.HD.CB.046	TENSIONER BLOCK	1
EP5902.HD.CB.047	CASTING PLATE	1
EP5902.HD.CB.505A	MOTOR SLED ASSEMBLY	1
EP6000.037	SWITCH ESCUTCHEON	1
EP6010.516A	BEARING BLOCK ASSEMBLY	1

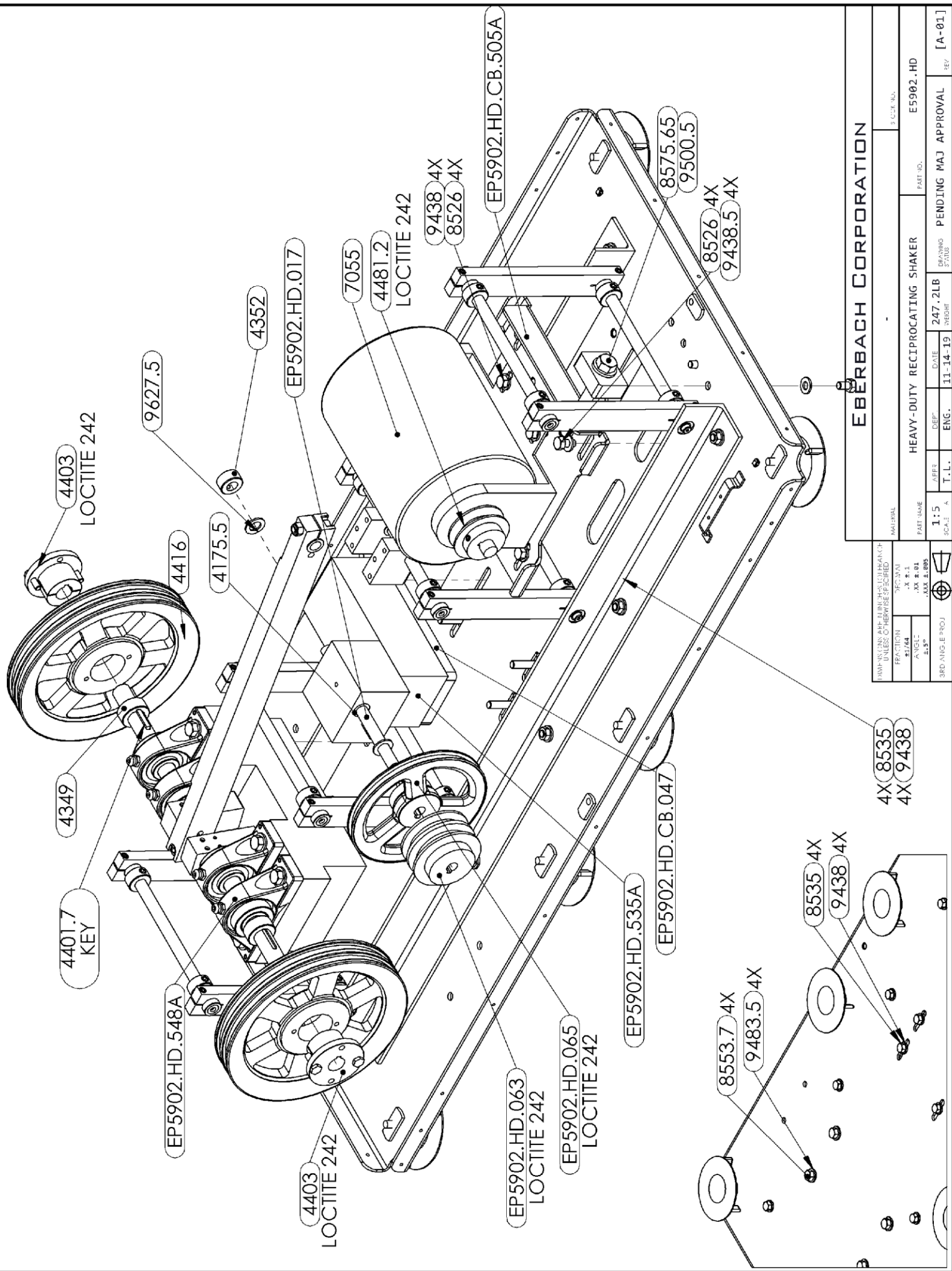
NOTE: If replacement fuse blows almost immediately, repairs may be needed. Contact your supplier or Eberbach Corporation technical support with any inquiries concerning operation.



EBERBACH CORPORATION

DRAWING TITLE: HEAVY-DUTY RECIPROCATING SHAKER		3-CHK. NO.	
MATERIAL		PART NO. E5902.HD	
PART NAME		DATE 247-11B	
SCALE 1:6		DRAWING GROUP PRODUCTION	
APPR. T.L.L.		ENG. 11-14-13	
3RD ANGLE PROJ.		REV. A-08+	

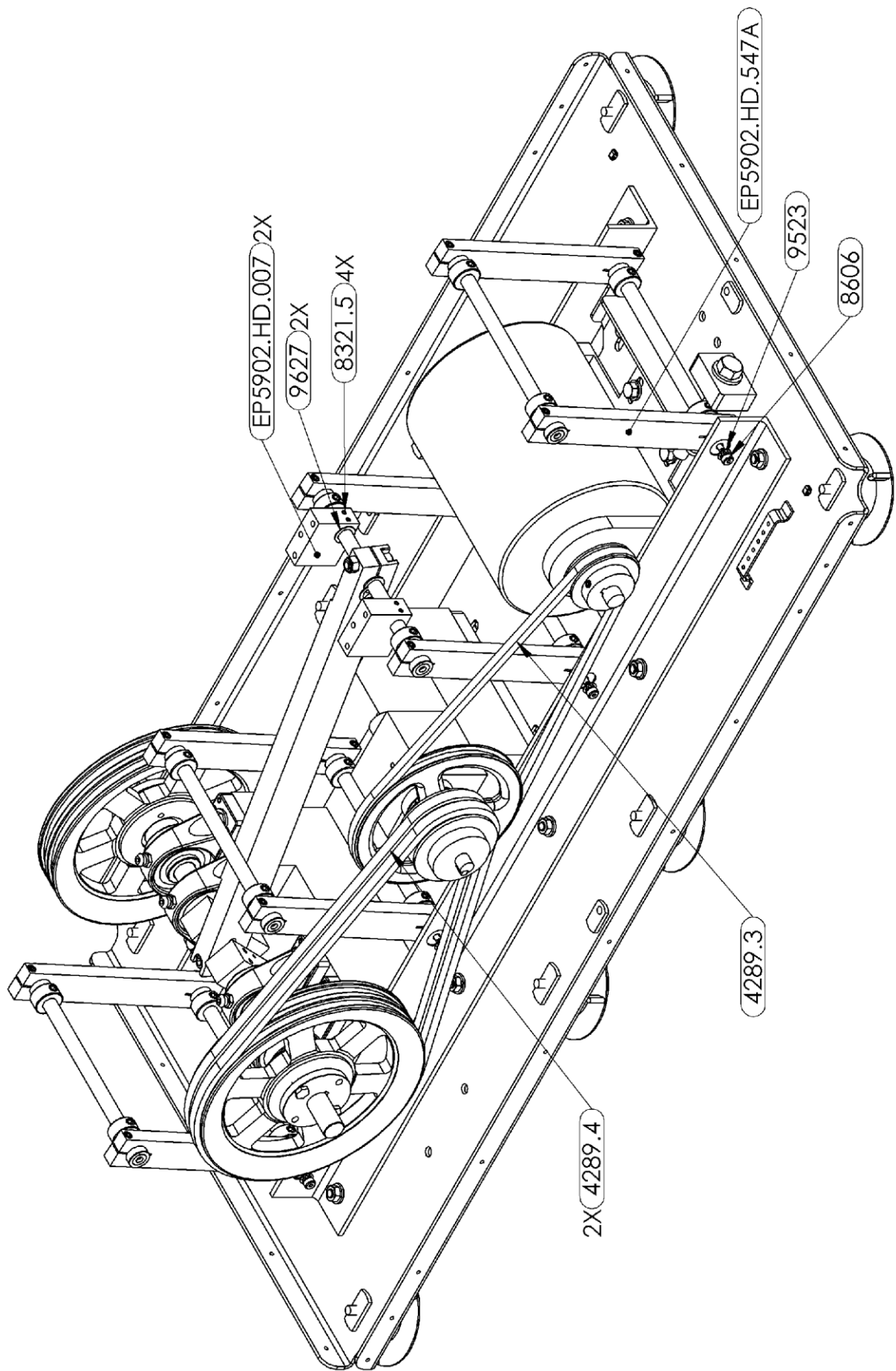
DIMENSIONS IN INCHES UNLESS OTHERWISE SPECIFIED	
FRAC-TION	DEC-IMAL
1/16"	.0625"
1/8"	.125"
3/16"	.1875"
1/4"	.25"
5/16"	.3125"
3/8"	.375"
7/16"	.4375"
1/2"	.5"
5/8"	.625"
3/4"	.75"
7/8"	.875"
1"	1.0"



EBERBACH CORPORATION <small>10000 W. 10TH AVE. DENVER, CO. 80202</small>	
HEAVY-DUTY RECIPROCATING SHAKER	PART NO. E5902.HD
SCALE: 1:5	DATE: 11-14-19
APPR: T.L.	DESG: ENG.
DRAWING: PENDING MAJ APPROVAL	REV: [A-01]

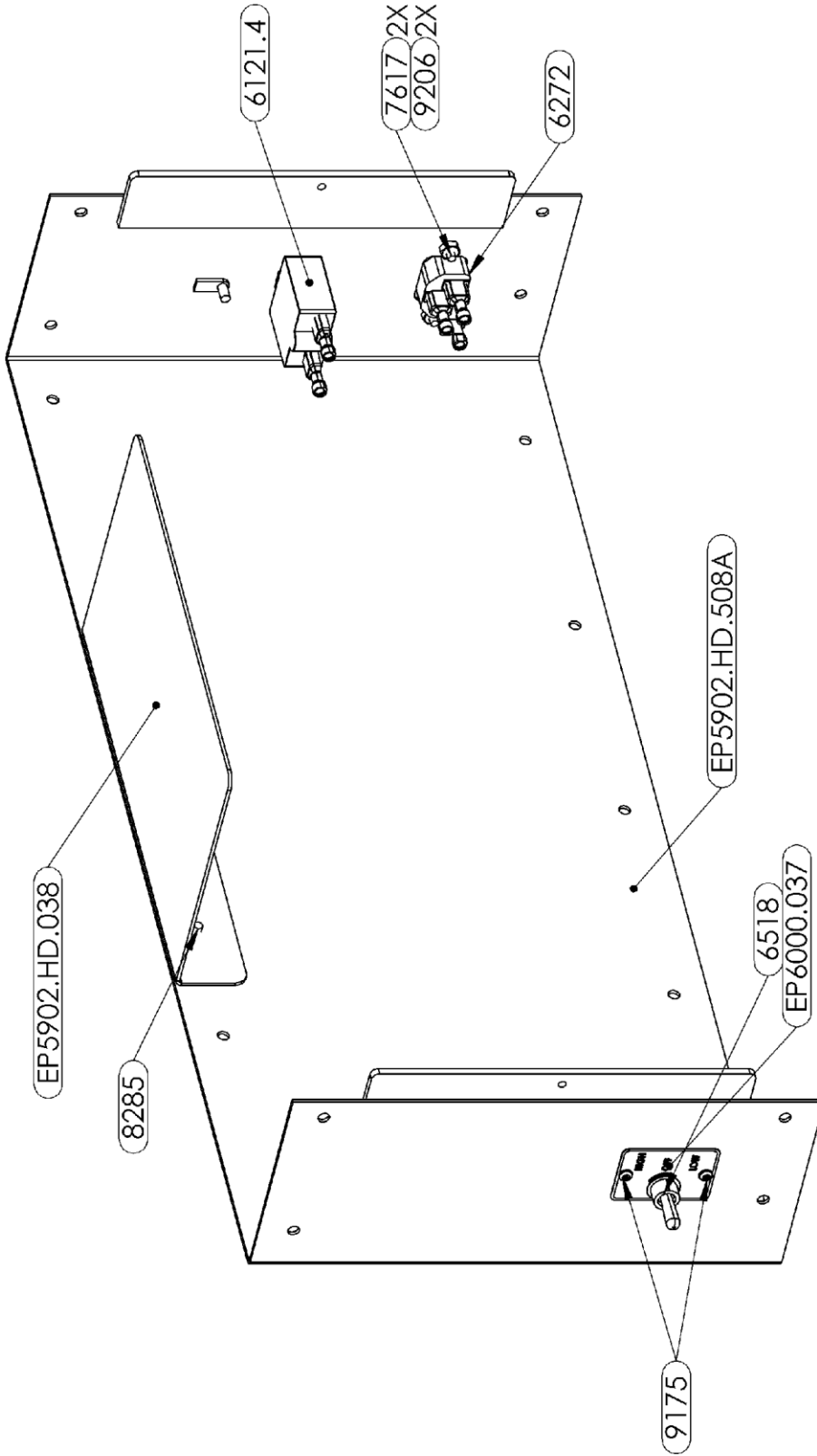
DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED	FINISH: AS SUPPLIED
TOLERANCES:	HOLE: ±0.01
ANGLES: ±0.5°	SURFACE: AS SUPPLIED

4403 LOCTITE 242	4401.7 KEY	4349	4416	4175.5	4352	7055	4481.2	LOCTITE 242	9438 4X 8526 4X	EP5902.HD.017	EP5902.HD.535A	EP5902.HD.CB.047	8575.65 9500.5	8526 4X 9438.5 4X
EP5902.HD.548A	EP5902.HD.063 LOCTITE 242	EP5902.HD.065 LOCTITE 242	8553.7 4X 9483.5 4X	8535 4X 9438 4X	4X 8535 4X 9438									



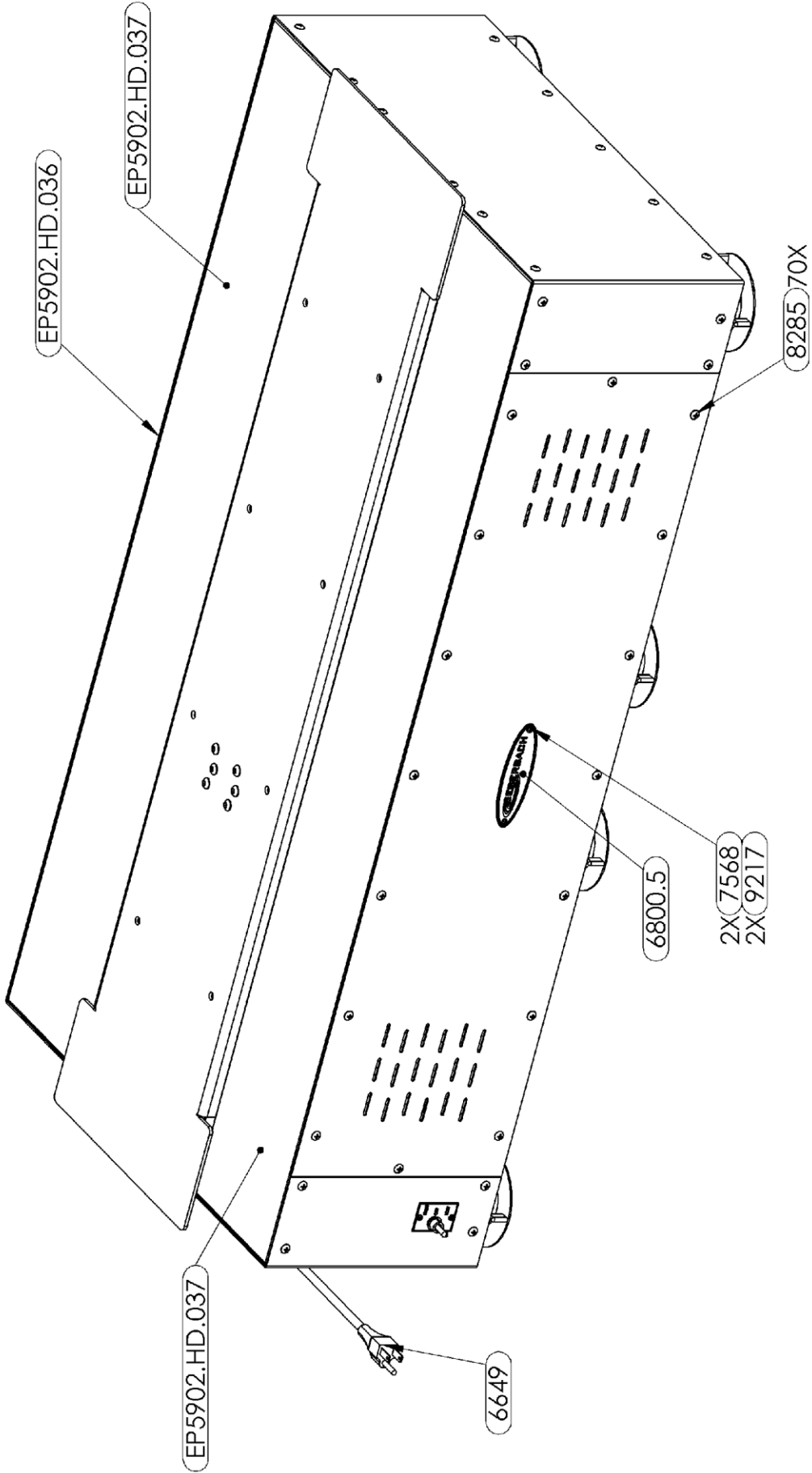
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DRAWING AND PART NUMBERS EBERBACH UNLESS OTHERWISE SPECIFIED		S. C. C. NO.	
APP. DATE 11/64	DESIGN X 2-1	PART NO.	E5902.HD
A. VEL. 1.5"	XX 2-01	PRODUCTION	
3RD ANGLE PROJ.	XXX 1-005	DATE	247.1LB
		DEF.	WEIGHT
		ENG.	11-14-19
		SCALE	A
		REV.	A-08+



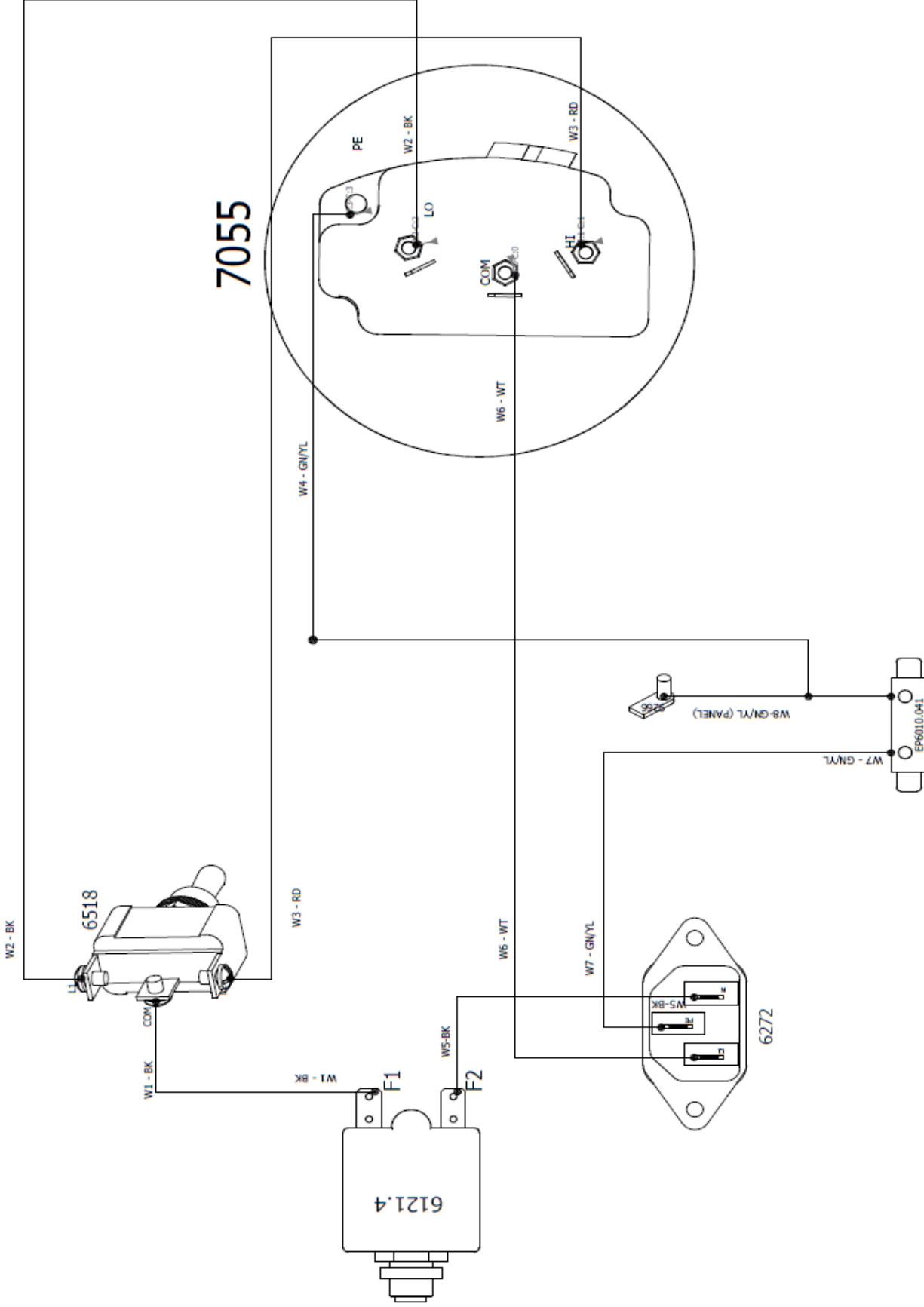
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DRAWINGS ARE DIMENSIONS UNLESS OTHERWISE SPECIFIED		PART NO.		E5902.HD	
FRACTION	DECIMAL	PART NAME		DRAWING STATUS	
1/16"	.0625"	HEAVY-DUTY RECIPROCATING SHAKER		PENDING MAJ APPROVAL	
1/8"	.125"	SCALE	DATE	HEIGHT	REV
1/4"	.25"	1:3	11-14-19	247.2LB	[A-01]
3/8"	.375"	T.L.	ENG.	247.2LB	



EBERBACH CORPORATION

DRAWING TITLE: HEAVY-DUTY RECIPROCATING SHAKER		DATE: 11-14-13		DRAWING GROUP: PRODUCTION		REV: A-08+	
MATERIAL: 303 ST. S.S.		PART NO.:		E5902.HD			
PART NAME: HEAVY-DUTY RECIPROCATING SHAKER		DATE: 11-14-13		DRAWING GROUP: PRODUCTION		REV: A-08+	
SCALE: 1:6		APPR: T.L.		ENG: T.L.			
3RD ANGLE PROJ.		TYPICAL		X ± 1		XX ± 0.1	
DIMENSIONS UNLESS OTHERWISE SPECIFIED		TOLERANCES UNLESS OTHERWISE SPECIFIED		XXX ± 0.005		± 0.5°	



E5902.HD		Eberbach Corp. 5900 Schooner Street Belleville, MI 48111 U.S.A.		Main electrical closet		REVISION	
CONTRACT: L1		LOCATION: L1		E5902.HD.605A		1	
						SCHEME	
						01	
						CHANGES	
						eberjb 3/1/2022	
						NAME	
						DATE	
						2/15/2022	
						eberjb	
						REV.	
						1	