



Instruction Manual

KS490 Belt Grinder Series Covers KS490, KS490V and KS490HV-5

www.kalamazooind.com

Kalamazoo Industries, Inc.
6856 East K Avenue
Kalamazoo, MI 49048
Phone 269-382-2050

GENERAL POWER TOOL SAFETY WARNINGS

 WARNING: TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN, LIQUID, OR MOISTURE.

READ AND SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Precautions (Grinding & Power Tool Use)

- Personal protective equipment (PPE)

Work area & environment

- Keep the area clean, dry, and well-lit; remove trip hazards.
- Never operate in explosive atmospheres (flammable liquids, gases, or dust).
- Keep children, bystanders, and pets away from the work zone.
- Provide adequate ventilation and, where possible, use dust collection.
- Keep a Class ABC fire extinguisher within reach and know how to use it.

Clothing & personal safety

- Tie back or cover long hair; remove jewelry and secure hoodie strings.
- Wear close-fitting clothing—no loose sleeves or dangling items near moving parts.
- Use non-slip, closed-toe footwear.

Machine & accessory checks (before powering on)

- Verify guards, tool rests, and spark deflectors are installed and adjusted correctly.
- Inspect sanding belts/pully/contact wheel for damage, cracks, or wear; replace if questionable.
- Confirm tracking and tension on belts.
- Ensure workpieces and fixtures are secure and clear of the belt/wheel path.
- Check power cords, plugs, and switches.

After use & maintenance

- Power off and unplug/lock out before changing belts/wheels or performing maintenance.
 - Allow parts and accessories to stop completely and cool before handling.
 - Clean the work area, empty spark/dust collectors safely, and store tools properly.
 - Repair any damage before the next use.
-

OPERATING INSTRUCTIONS

- Stand to the side of the belt/contact wheel on start-up and allow it to reach full speed before contacting the work.
- Maintain a firm grip; keep hands and fingers clear of pinch points.
- Apply even pressure—do not force the tool or stall the motor.
- Grind on the intended surface of the accessory; avoid side-loading unless rated for it.
- Never remove guards or defeat safety devices.
- Keep sparks directed away from yourself, others, and combustibles.
- Disconnect power before making any adjustments
- Abrasive belt rotation is clockwise. If the abrasive belt is lap spliced, be sure of correct rotation. Butt spliced belts are bi-directional.
- Belt tension is pre-set with tension spring (19,28) No belt tension adjustment is needed.
- Belt changing – Disconnect power. Pull out the tension shaft using the tension release lever (23, 32) and replace the belt. Then push the tension release lever (23, 32) back in to re-apply belt tension.
- Belt tracking – With power disconnected, hand-rotate the belt to center it; loosen hex nut (38, 48), then turn tracking bolt (29, 38) in or out to “track” the belt. When the belt is correctly positioned, hold the tracking bolt (29, 38) steady with one wrench and tighten hex nut (38, 48) with a second wrench.
- Examine the abrasive belt carefully before use. Never use an abrasive belt with a nicked or cut edge, crease, or handling damage.

Vacuum / Dust Collection – Always keep the grinder connected to a metal-rated vacuum or dust collector. Make sure the hose is secure, filters are clean and replaced as needed, and the container is emptied regularly; never use a household vacuum for metal dust.

KS490 Belt Grinder Series Industrial Belt Grinder – Machine Overview

Description:

The KS390 Series consists of heavy-duty 4" x 90" industrial belt grinders built for high production grinding, deburring, and finishing. Each model delivers reliable performance with rigid construction, a powerful motor, and smooth belt tracking for consistent results. The KS490 is the base model; the KS490V includes an integrated vacuum base; and the KS490HV-5 includes a high-capacity dust collector for enhanced safety and cleanliness.

Intended Use:

Engineered for metalworking professionals, fabricators, and maintenance shops, the KS490, KS490V and K490HV grinders are suited for grinding, shaping, deburring, and finishing both ferrous and non-ferrous metals. It's ideal for tool sharpening, weld preparation, edge finishing, and surface conditioning. Its compact design allows it to fit easily into small or large workshops while maintaining industrial-grade performance.

Key Benefits:

KS490 – Standard Belt Grinder

- Heavy-duty construction for long-term industrial use
- Smooth belt tracking and fast belt changes
- Ideal for general grinding, deburring, edge prep, and metal finishing
- Compact footprint fits small to large fabrication shops

KS490V – Belt Grinder With Vacuum Base

- Integrated metal-rated vacuum system for cleaner operation
- Reduces airborne dust and improves operator visibility
- No need for a separate dust collection hookup
- Perfect for shops needing mobility and built-in dust control

KS490HV-5 – Belt Grinder With Dust Collector

- High-volume, dedicated dust collection system for heavy grinding
- Enhanced safety by capturing metal dust and sparks at the source
- Supports continuous production environments
- Best choice for shops with strict air-quality or cleanliness requirements

Country of Origin: All models are manufactured in the United States.

Setup and Installation – KS490 Series Industrial Belt Grinders

Unpacking and Inspection

- Carefully remove the grinder from its shipping container.
- Inspect for any shipping damage before discarding packaging materials.
- Verify that all components, hardware, and accessories are included.

Mounting the Grinder

- Secure the KS490, KS490V, and KS490HV to the floor with the proper fasteners.
- Ensure the mounting surface can support the grinder's weight and resist vibration during operation.
- Confirm that the unit is positioned for safe and convenient access to the on/off switch and belt area.

Electrical Connection

- Verify that the available power supply matches the voltage and phase rating on the grinder's motor nameplate.
- Have a qualified electrician perform all electrical connections in accordance with local electrical codes.
- Ensure the grinder is properly grounded before use.

Belt Installation

- Release belt tension by rotating the tension lever.
- Install a 4" x 90" abrasive belt over the contact wheel, idler, and drive pulley.
- Reapply tension and check that the belt tracks properly before operation.
- Adjust the tracking as needed to ensure the belt runs centered on all pulleys.

Pre-Operation Check

- Verify that all guards and covers are securely in place.
 - Confirm that work tables and tool rests are adjusted to the correct position and locked.
 - Run the grinder briefly to check for smooth, vibration-free operation.
 - Adjust tracking if needed before beginning work.
-

Troubleshooting

Grinder will not start:

- Verify power supply matches motor voltage and phase requirements.
- Check that power cord and plug are in good condition.
- Ensure switch is in the ON position.
- Inspect circuit breaker or fuse and reset or replace as necessary.

Belt slips or will not track properly:

- Check belt tension and adjust as needed.
- Inspect tracking knob and collar for proper adjustment.
- Ensure pulleys and contact wheels are clean and free of debris.
- Verify belt is installed correctly and not worn or stretched.
- Crown on the idler pulley is worn (needs to be replaced)
- Contact wheel is damaged (needs to be replaced)

Excessive vibration or noise:

- Confirm grinder is securely mounted to a stable surface.
- Check belt for damage, uneven wear, or improper tension.
- Inspect contact wheel and pulleys for balance or bearing wear.
- Tighten all mounting and guard fasteners.

Poor grinding performance:

- Replace worn or glazed abrasive belt.
 - Verify correct belt grit and type for the material being ground.
 - Check that belt tracking is properly centered.
 - Clean buildup from contact wheel and work surface.
 - Check for damaged contact wheel and or idler pulley.
-

Preventive Maintenance

Daily:

- Inspect abrasive belt for wear, damage, or loading; replace if necessary.
- Check belt tracking and tension before operation.
- Ensure all guards and covers are securely in place.
- Clean dust and debris from around the grinder, pulleys, and motor vents.
- Verify the on/off switch operates properly.
- Clean, inspect, and replace the vacuum filter as needed.

Weekly:

- Inspect contact wheel, idler wheel, and drive pulley for wear or buildup; clean as needed.
- Check fasteners and mounting bolts to ensure the machine is securely tightened.
- Inspect electrical cord and connections for signs of wear or damage.
- Confirm belt alignment and that the tracking knob functions smoothly.
- Inspect vacuum hoses and connections for clogs, leaks, or reduced airflow.

Monthly:

- Inspect motor ventilation openings and clean thoroughly to prevent overheating.
- Examine the machine frame and stand for signs of vibration fatigue or loose hardware.
- Check overall grinder performance for unusual noise or vibration and address issues promptly.
- Evaluate vacuum system performance and replace filters if airflow is reduced..

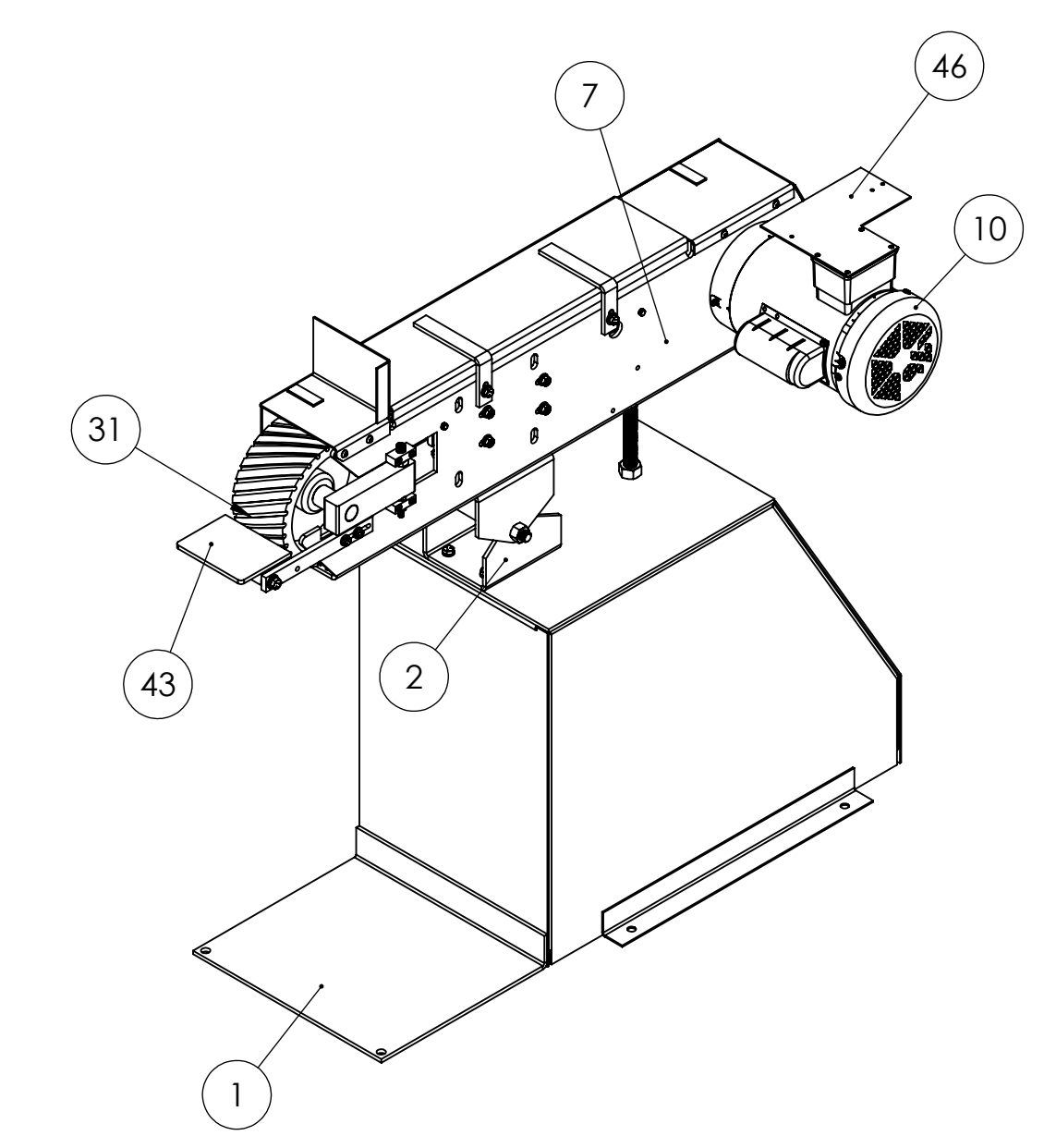
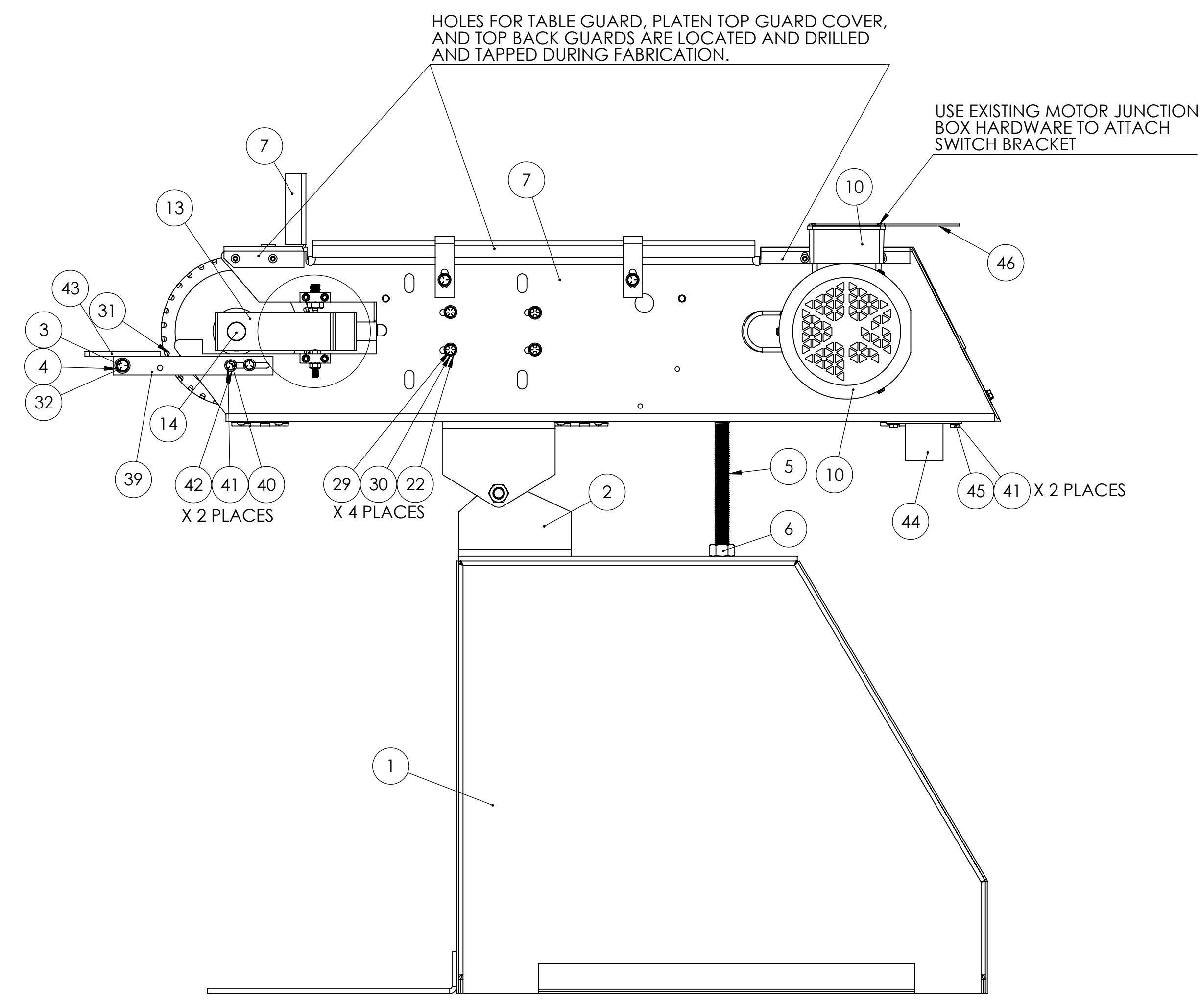
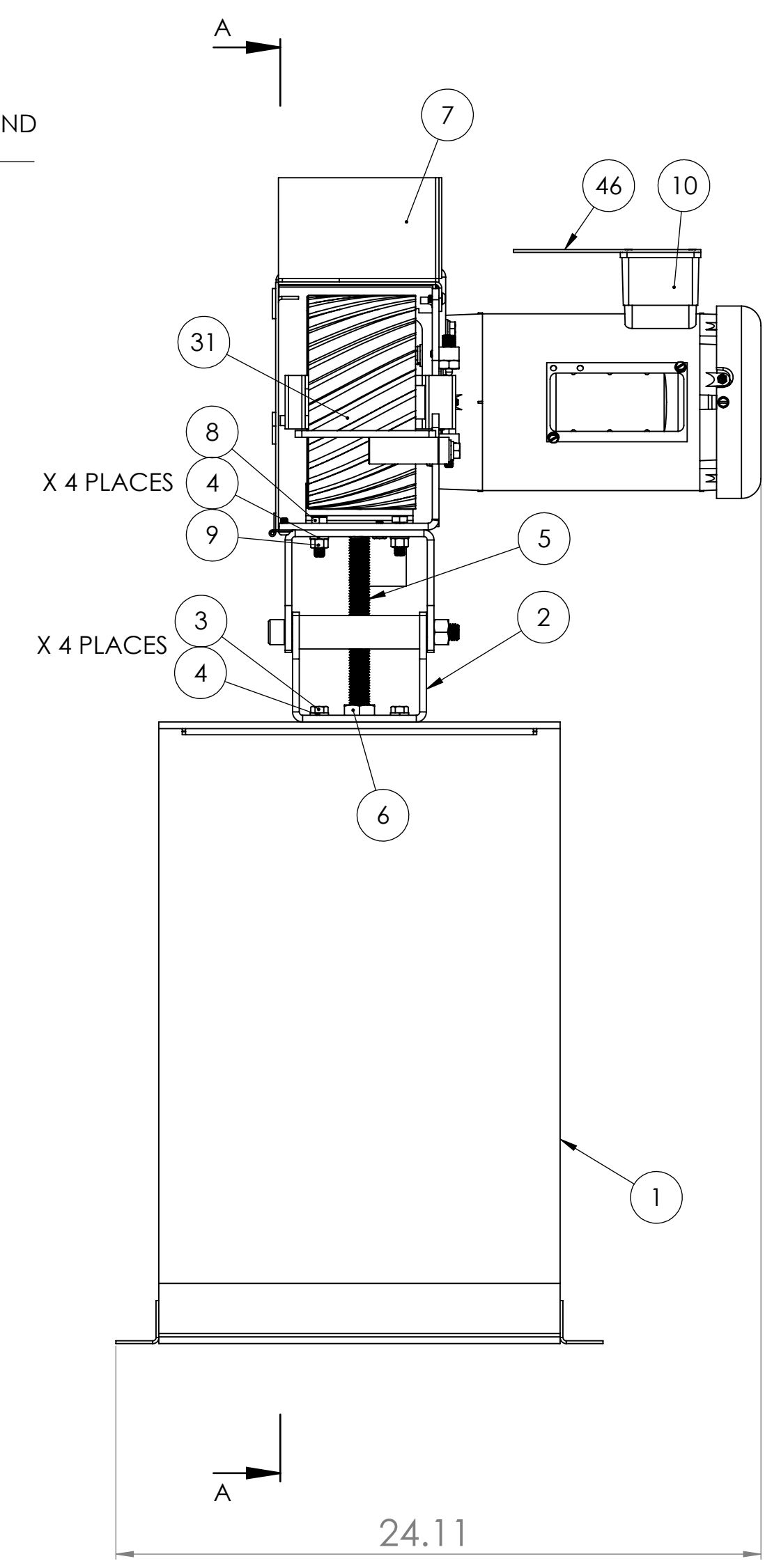
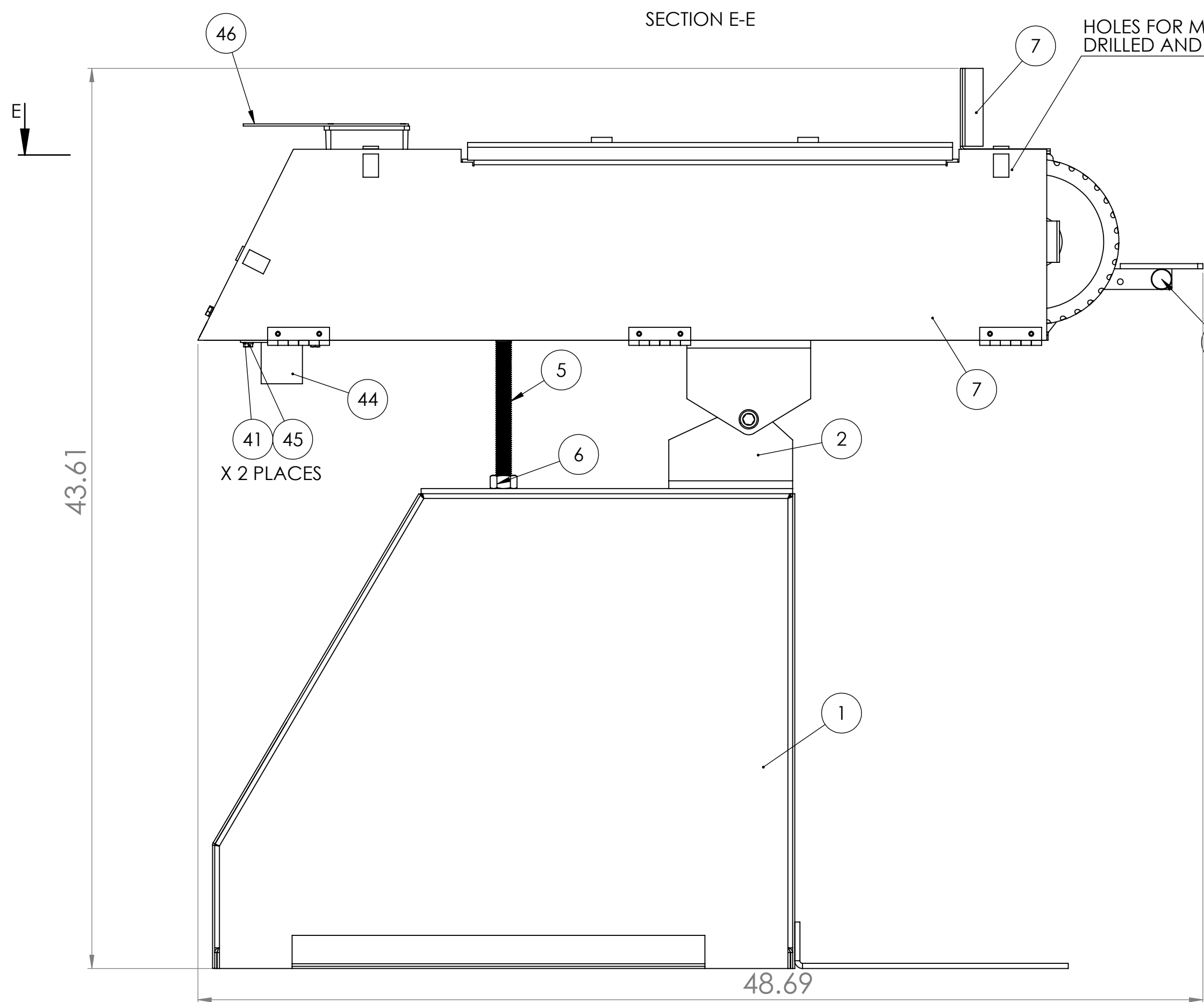
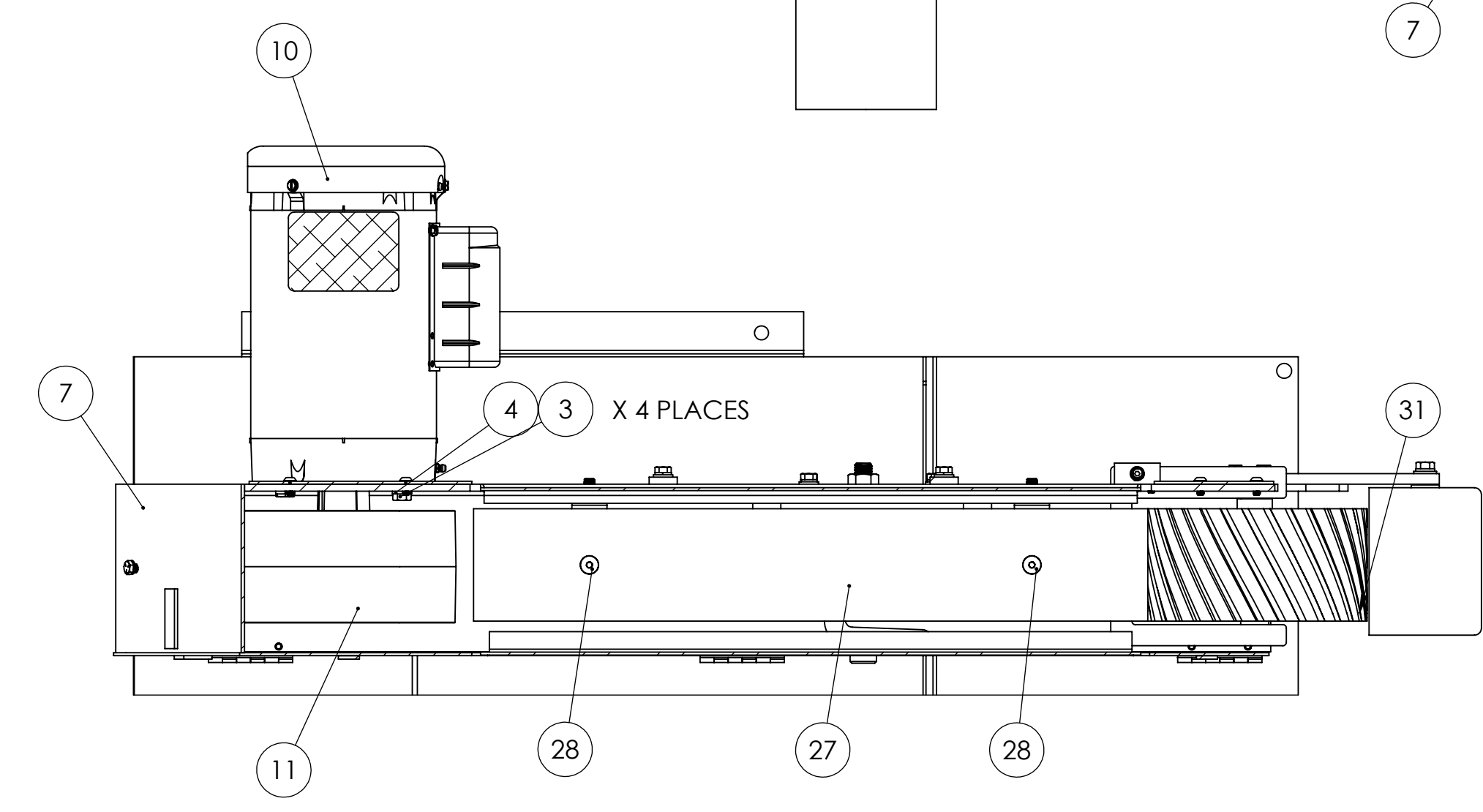
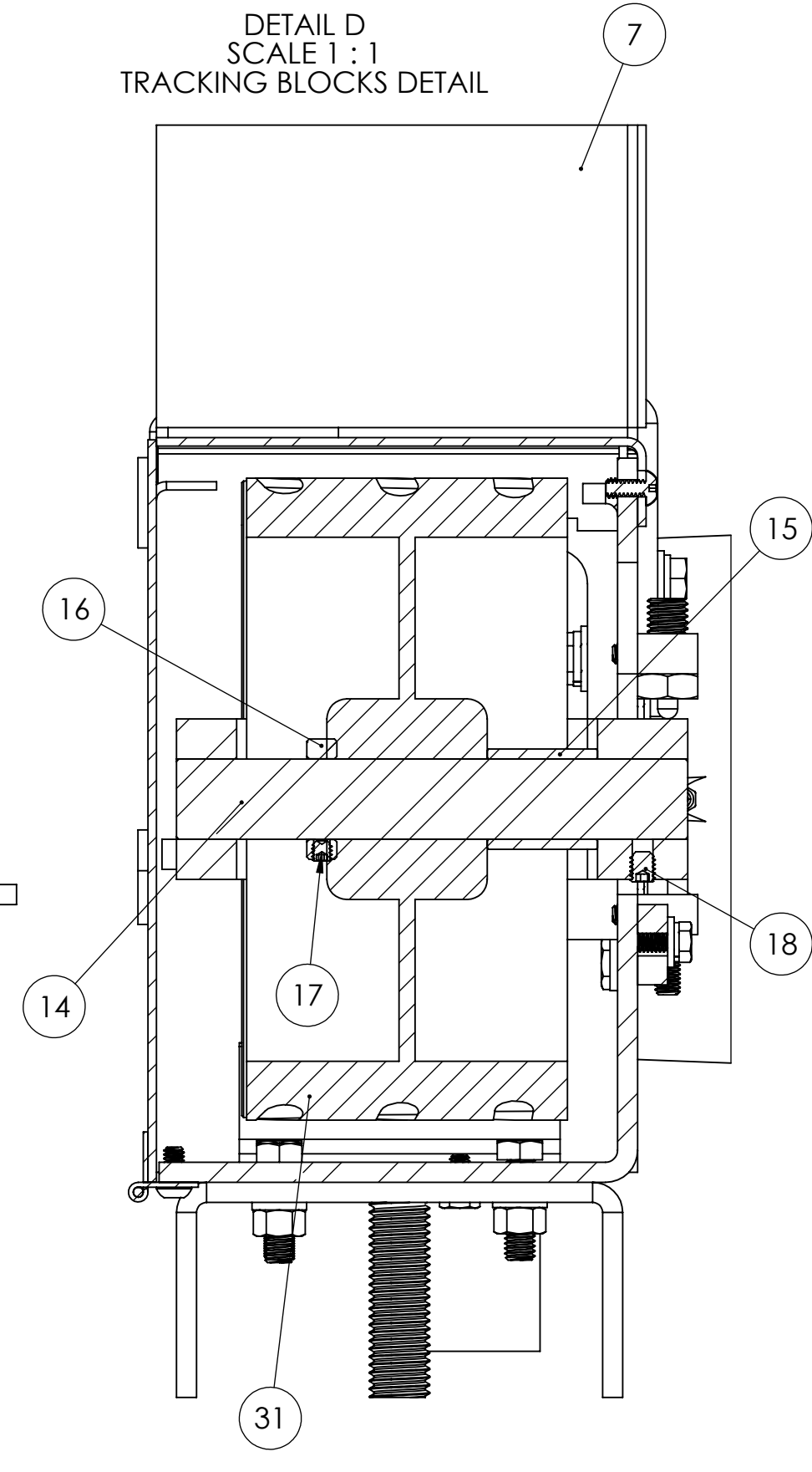
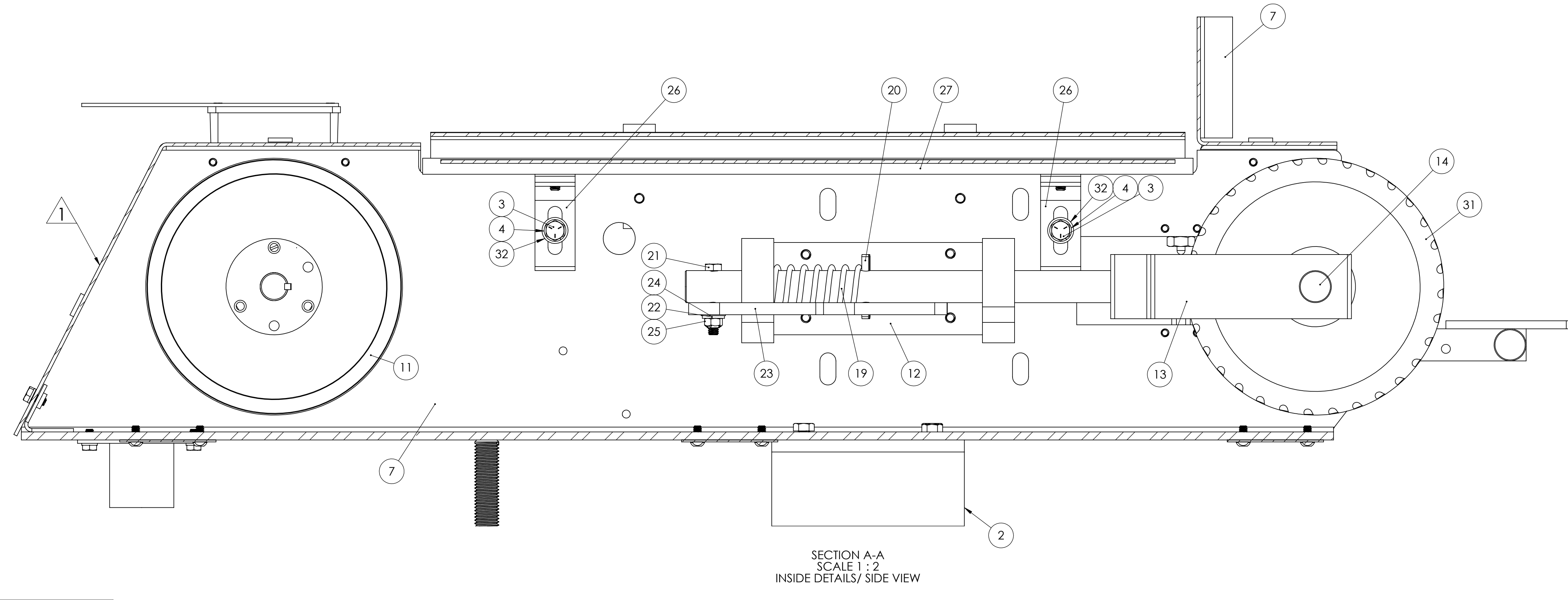
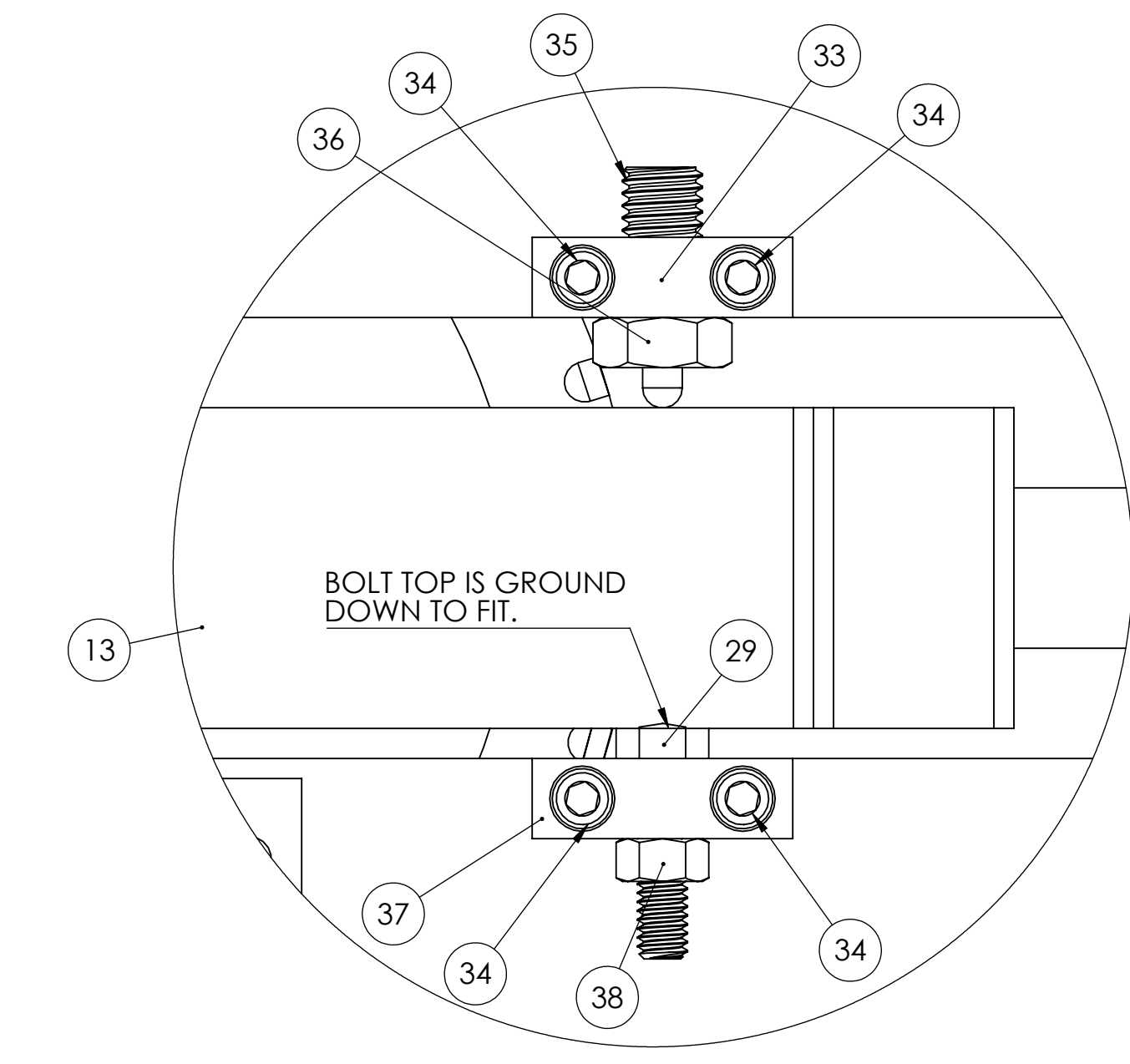
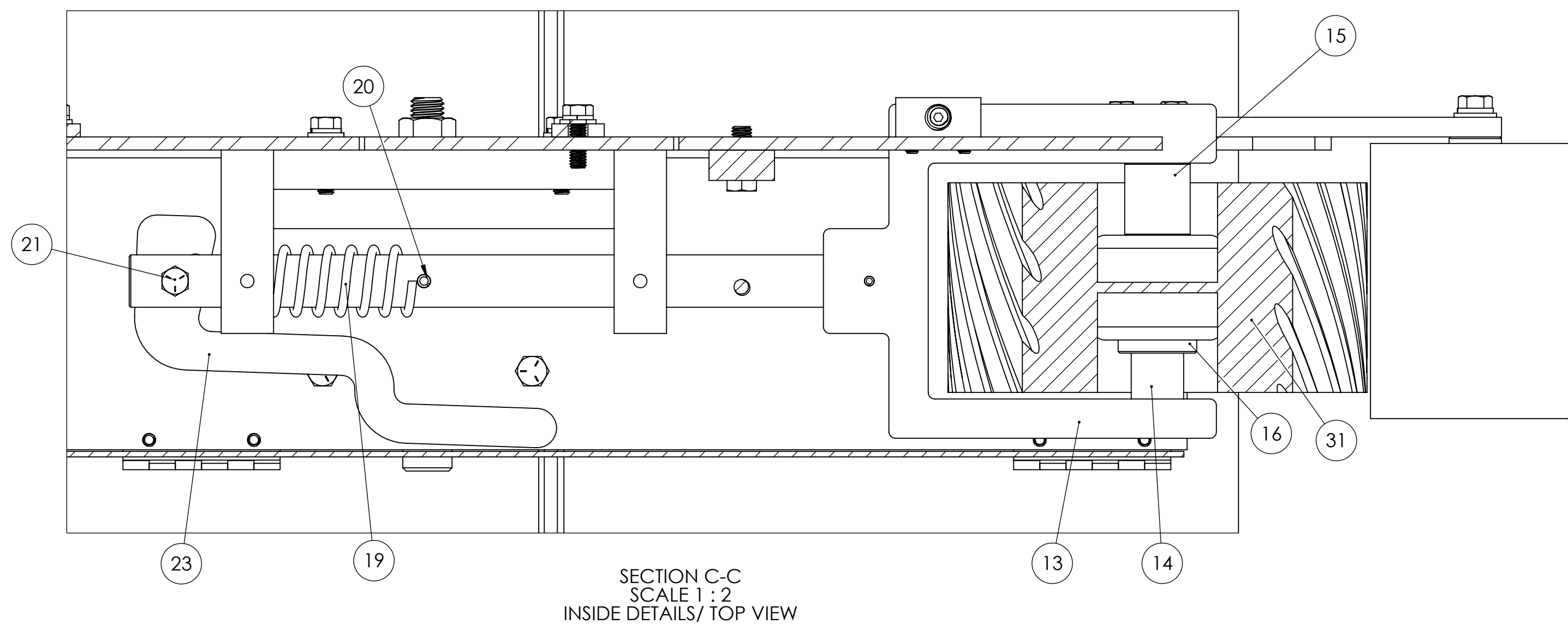
General Tips:

- Always disconnect power before performing maintenance.
 - Use only recommended replacement belts and parts.
 - Keep maintenance records to track performance and part replacement intervals.
 - Follow manufacturer guidelines for vacuum system filter type and replacement frequency.
-

Technical Information – KS490 Series Industrial Belt Grinders

Specification	KS490	KS490V	KS490HV-5
Belt Size	4" x 90"	4" x 90"	4" x 90"
Motor Options	2 HP 1PH (220V) or 3HP 3PH (220V/440 V)	Grinder available in 2 HP 1PH 220V or 3 HP 3 PH; vacuum operates on 115V.	Grinder is 5 HP, 3-phase (220/230 V or 440/460 V); vacuum operates on 3PH.
Belt Speed	6900 SFPM	6900 SFPM	6900 SFPM
Contact Wheel	8" OD x 4" width, 70 durometer, serrated surface	8" OD x 4" width, 70 durometer, serrated surface	8" OD x 4" width, 70 durometer, serrated surface
Platen	24½" reversible steel platen	24½" reversible steel platen	24½" reversible steel platen
Construction / Feature Highlights	Direct drive; spring belt tension; quick-release tension lever; multi-position head (horizontal through vertical)	Same as KS490 plus built-in vacuum base (~100 CFM)	Direct drive; spring belt tension; quick-release tension lever Direct dust collector base (~400 CFM)
Approximate Shipping Dimensions and Weight	L 48" x W 59" x 56": approx weight: ~350	L 48" x W 59" x 56": approx weight: ~400	L 48" x W 59" x 56": approx weight: ~500
Country of Origin	USA	USA	USA

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
F7	1	WELDED BACK PANEL AND REMOVABLE TOP BACK PANEL ARE REPLACED BY SINGLE REMOVABLE PANEL	9/2/2025	



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	716-015W	STAND ASSEMBLY FOR KS390 AND KS490	1
2	572-004	TILT BRACKET FOR KS390 AND KS490 SANDERS	1
3	HHC5037016	3/8-16 X 1 HHCS GR5 Z	11
4	SLWZ037	3/8 SPLIT L/W Z	15
5	709-012	STUD, LEVELING FOR KS390 AND KS490 SANDERS	1
6	FHN5075	3/4-10 FHN GR5 Z	1
7	291-016ASSY	KS390, KS490 MAIN FRAME AND GUARDS	1
8	HHC5037020	3/8-16 X 1-1/4 HHCS GR5 Z	4
9	FHN5037	3/8-16 FHN GR5 Z	4
10	486-003	2HP MOTOR FOR KS390-490	1
11	560-138	DRIVE PULLEY ASSEMBLY FOR KS390/490 (INCLUDES PULLEY 560-042 AND BUSHING 049-063)	1
12	291-018	CAST IRON FRAME FOR S460 DRY SANDERS	1
13	960-012	YOKE AND TENSION SHAFT ASSEMBLY FOR KS390 AND KS490	1
14	701-032	SPINDLE, IDLER FOR KS390 AND KS490 SANDERS	1
15	049-116	SPACER BUSHING FOR KS90, KS490, K20/15HP SERIES SPINDLE	1
16	123-016	S6 IDLER PULLEY LOCK COLLAR	1
17	SSKA025004	1/4-20 X 1/4 SOC SET KNURL PT.	1
18	SSKA031006	5/16-18 X 3/8 SOC SET KNURL PT.	1
19	697-024	SPRING, TENSION FOR BG260, S460, S6M SANDERS, K12-149 SAW, KS390, KS490, KS690 BELT GRINDERS	1
20	ROLA025024	1/4 X 1-1/2 ROLL PIN	1
21	HHT5031032	5/16-18x2 HEX HEAD TAP BOLT GR5 ZINC	1
22	UFWZ031	5/16 USS F/W Z	5
23	455-003	TENSION RELEASE LEVER FOR S6 SANDER HEADS	1
24	BWWA031	5/16 BOWED SPRING WASHER 21/64	1
25	STNZ031	5/16-18 STOVER LOCK NUT ZINC-WAX	1
26	041-029	PLATEN SUPPORT BRACKET FOR KS390 AND KS490 SANDERS	2
27	563-009	PLATEN FOR KS390 AND KS490 SERIES	1
28	FSCA031016	5/16-18 X 1 FSHCS	2
29	HHC5031020	5/16-18 X 1-1/4 HHCS GR 5 Z	5
30	SLWZ031	5/16 SPLIT L/W Z	4
31	936-010	WHEEL CONTACT FOR KS490 SANDER WITH 1" BORE W/BEARINGS	1
32	UFWZ037	3/8 USS F/W Z	3
33	053-009B	TRACKING BLOCK- 1/2-13 THREADED HOLE	1
34	SHCA025012	1/4-20 X 3/4 SHCS	4
35	SPPA050020	1/2-13 X 1-1/4 SPRING PLUNGER W BROWN DELRIN NOSE ALLOY	1
36	FJNZ050	1/2-13 F H JAM NUT Z	1
37	053-009	TRACKING BLOCK- 5/16 THREADED HOLE	1
38	FHN5031	5/16-18 FHN GR5 ZINC	1
39	455-014	ARM FOR KS390, KS490 WORK TABLE	1
40	HHC5025012	1/4-20 X 3/4 HHCS GR5 Z	2
41	SLWZ025	1/4 SPLIT L/W Z	4
42	UFWZ025	1/4 USS F/W Z	2
43	829-026	TABLE, WORK FOR KS390 AND KS490 SANDERS	1
44	168-004	DCV-4, KS390V, KS490V VACUUM PORT	1
45	HHC5025008	1/4-20 X 1/2 HHCS GR5 Z	2
46	041-102	SWITCH BRACKET FOR KS390, KS490 3HP, 3HP MAG SWITCH	1

UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN INCHES
 TOLERANCES:
 FRACTIONS ± .005
 ANGULAR ± .0315
 HORIZONTAL DECIMAL ± .005
 VERTICAL DECIMAL ± .005
 INTERFERENCE GEOMETRIC TOLERANCES PER
 ASME Y14.5-2009

PROPERTY AND CONFIDENTIAL
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF KALAMAZOO. IT IS TO BE USED FOR THE MANUFACTURE OF THE PRODUCT DESCRIBED HEREIN AND IS NOT TO BE REPRODUCED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF KALAMAZOO. ANY REPRODUCTION OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF KALAMAZOO IS PROHIBITED.

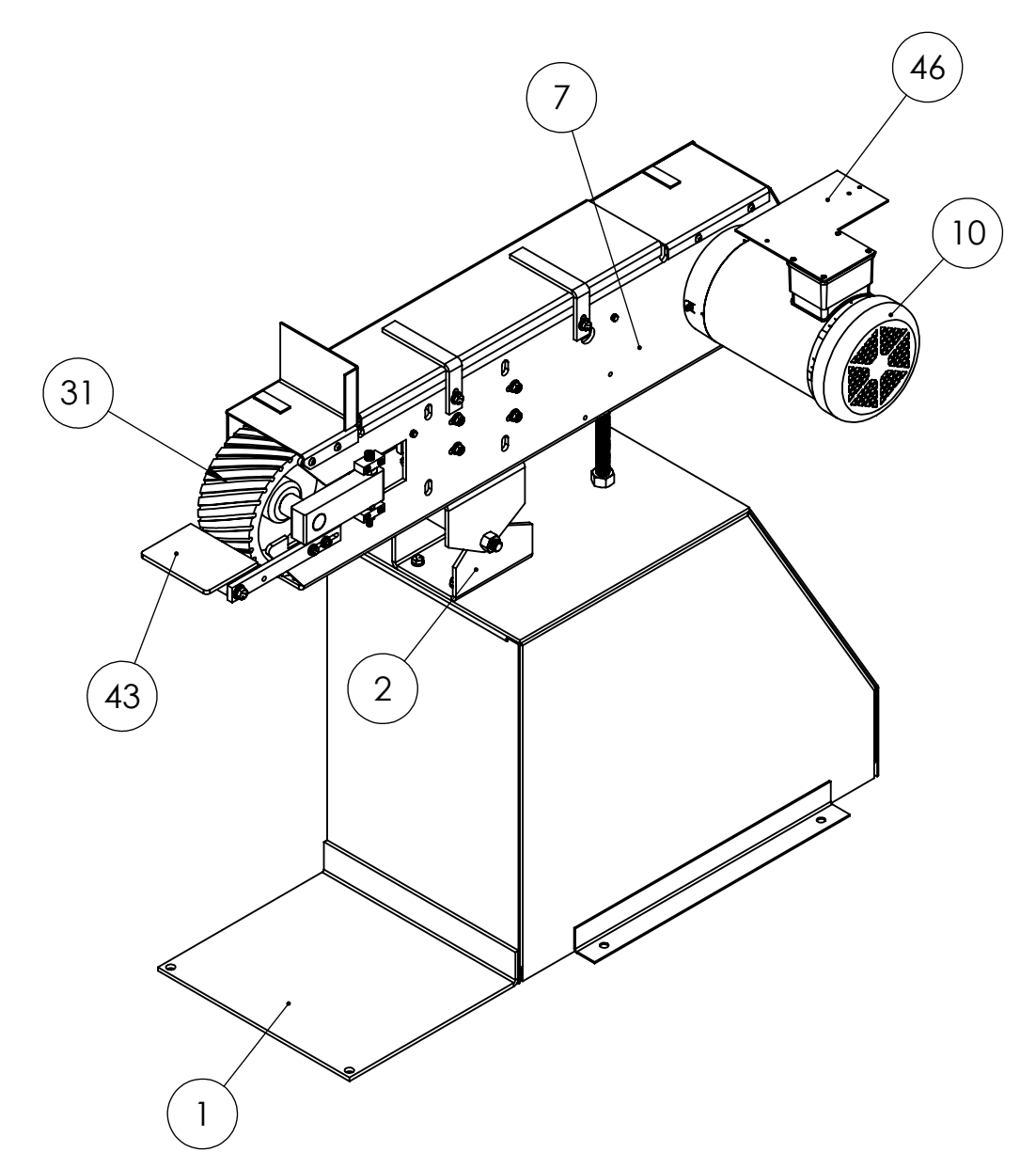
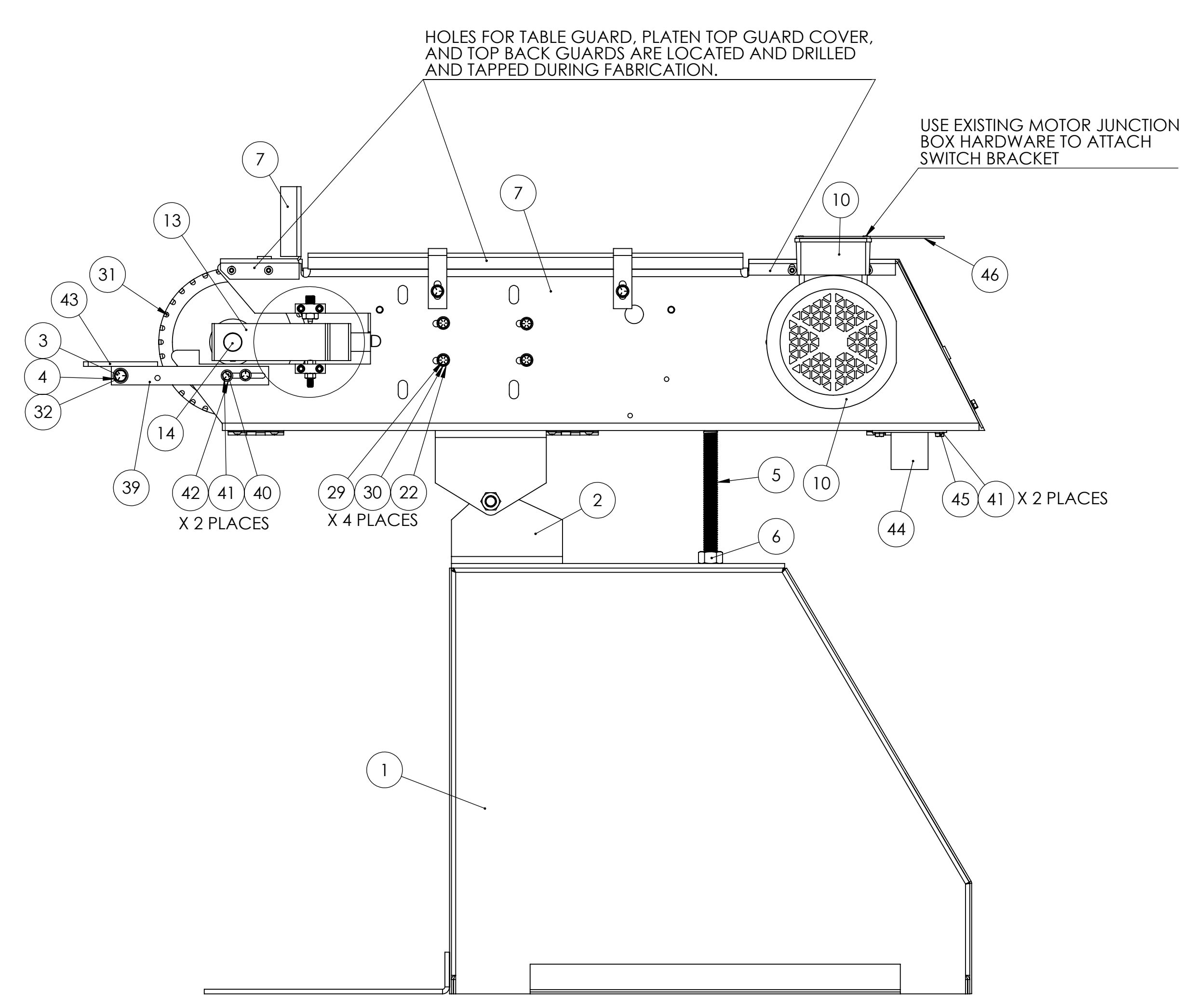
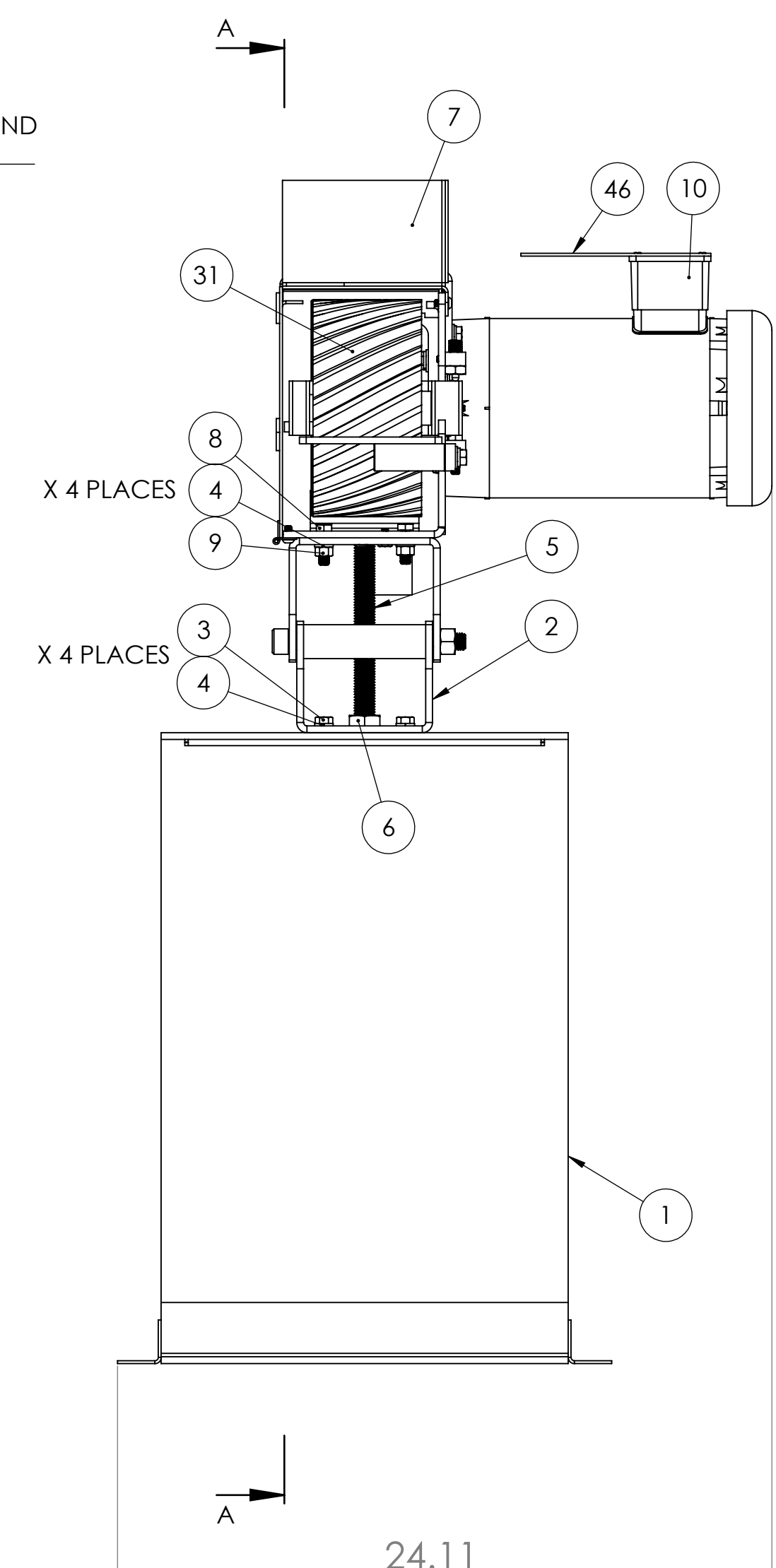
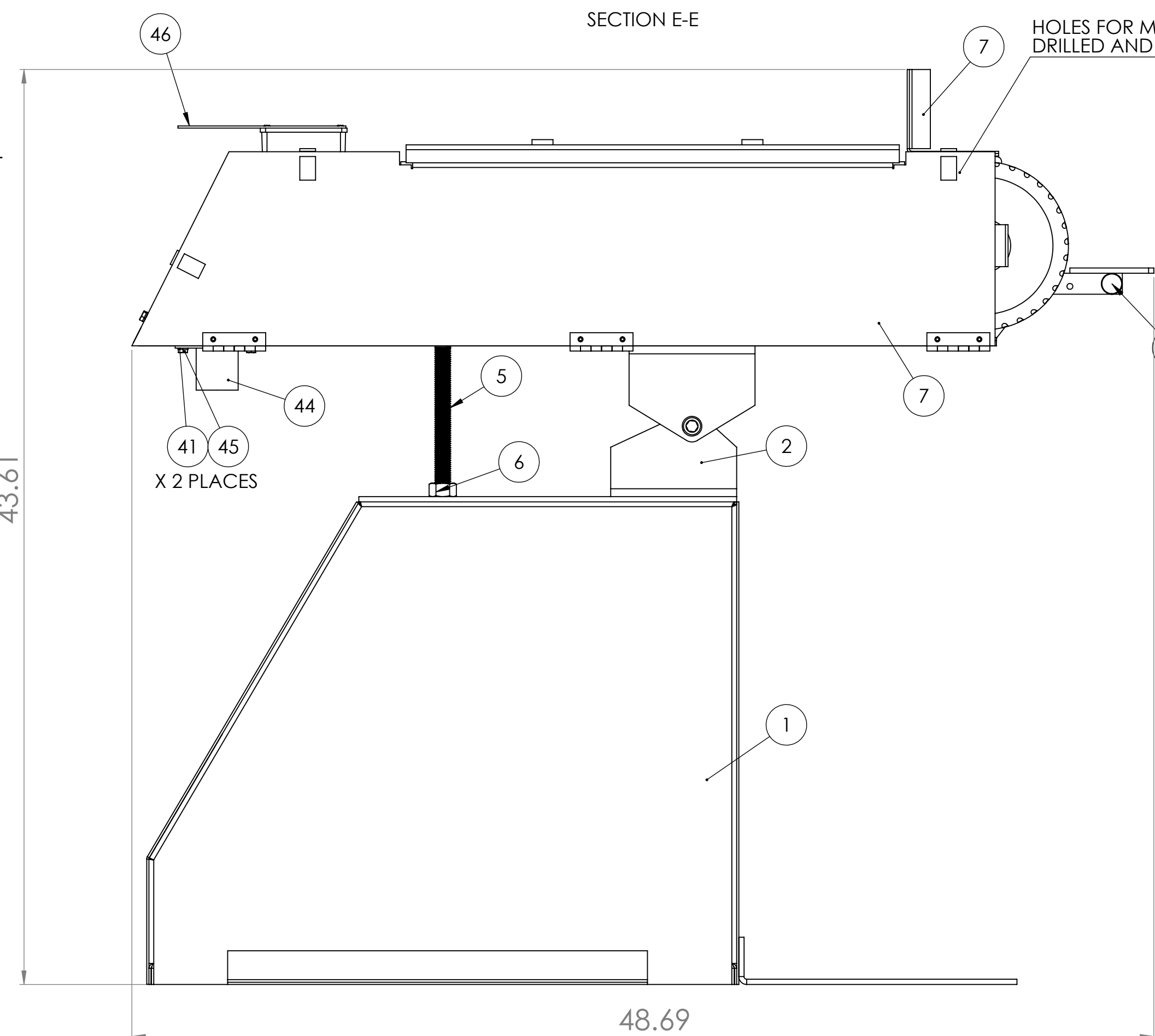
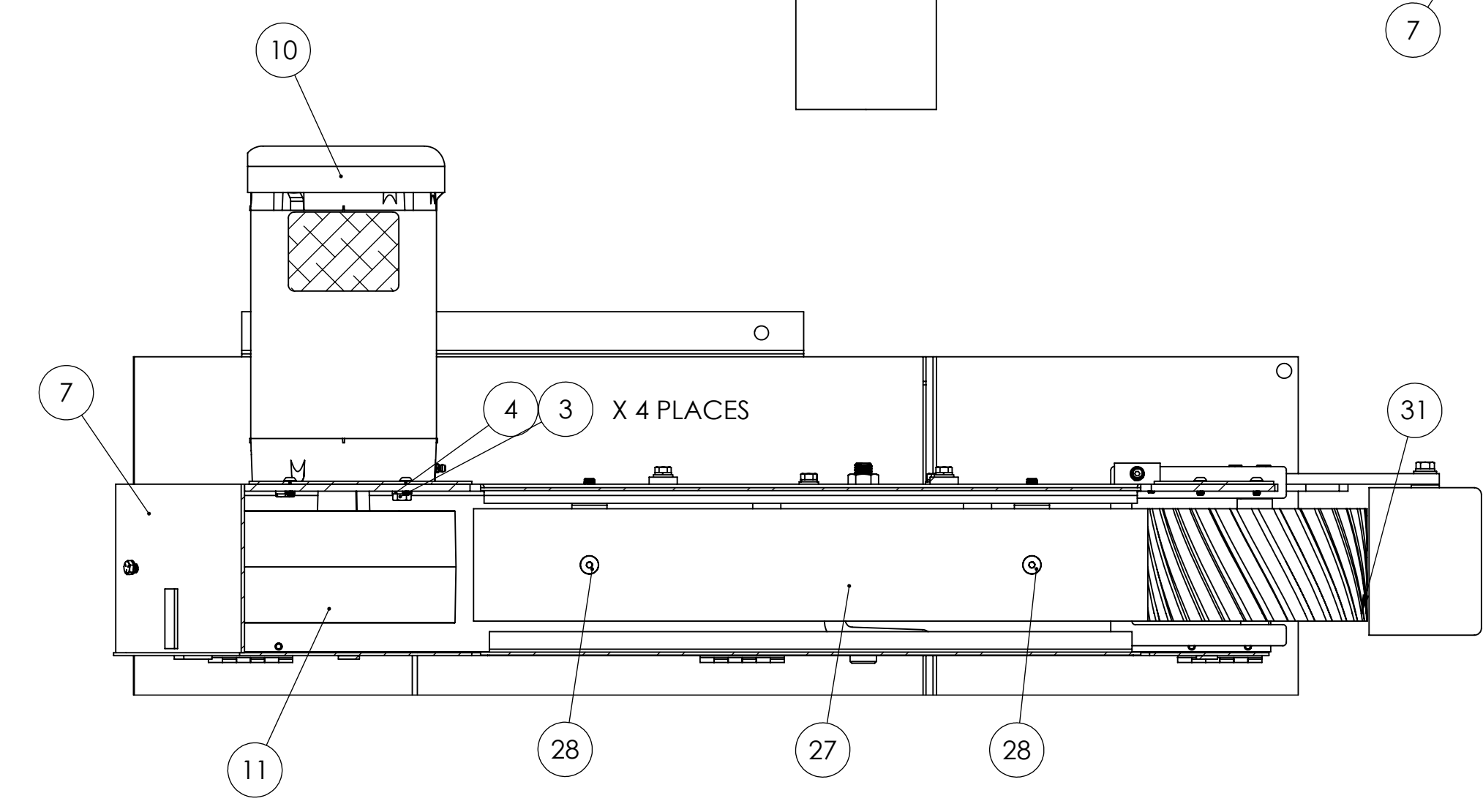
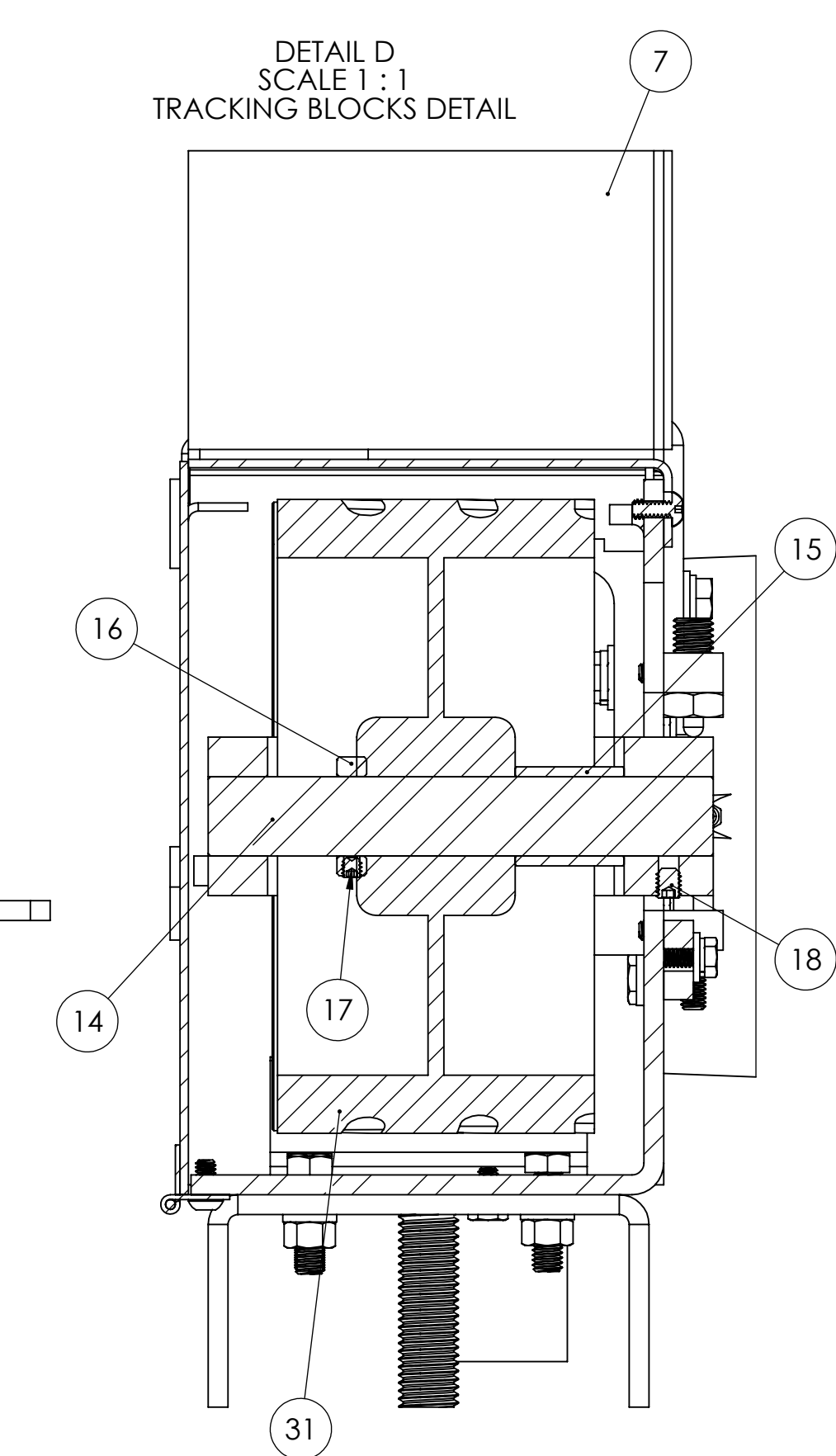
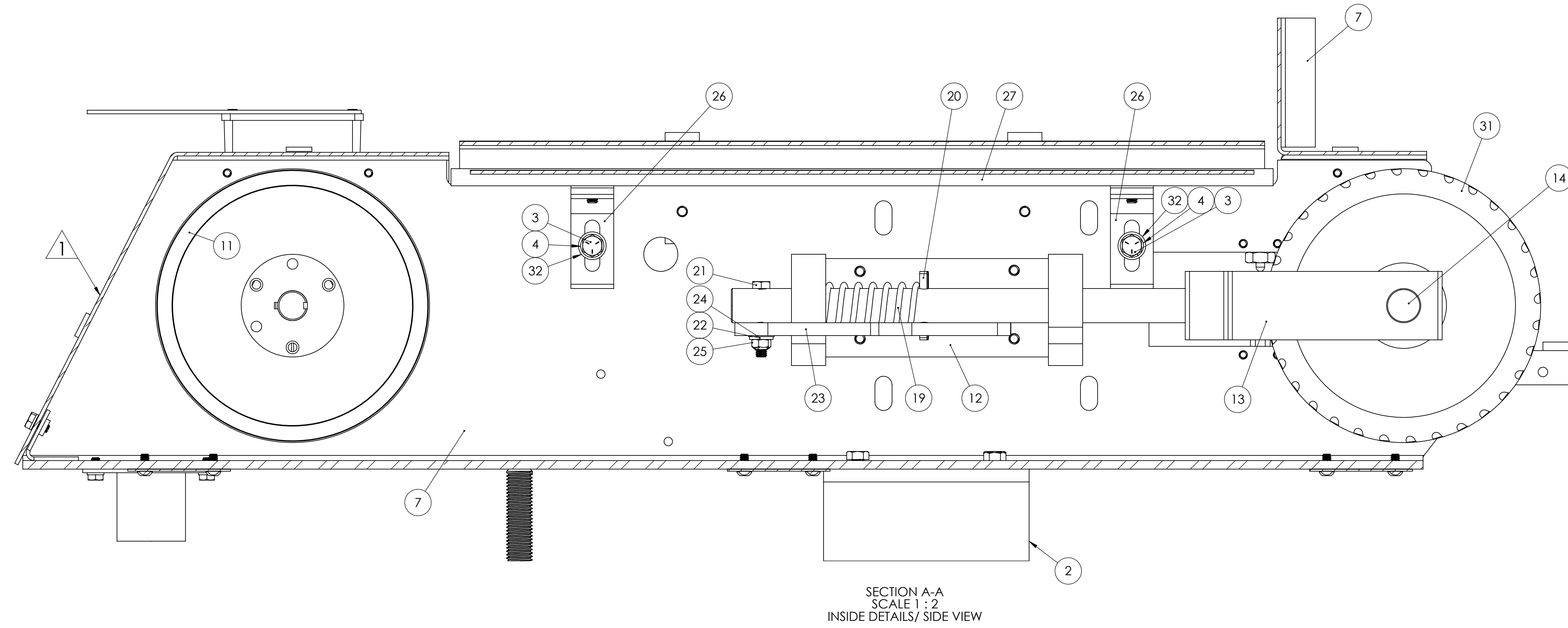
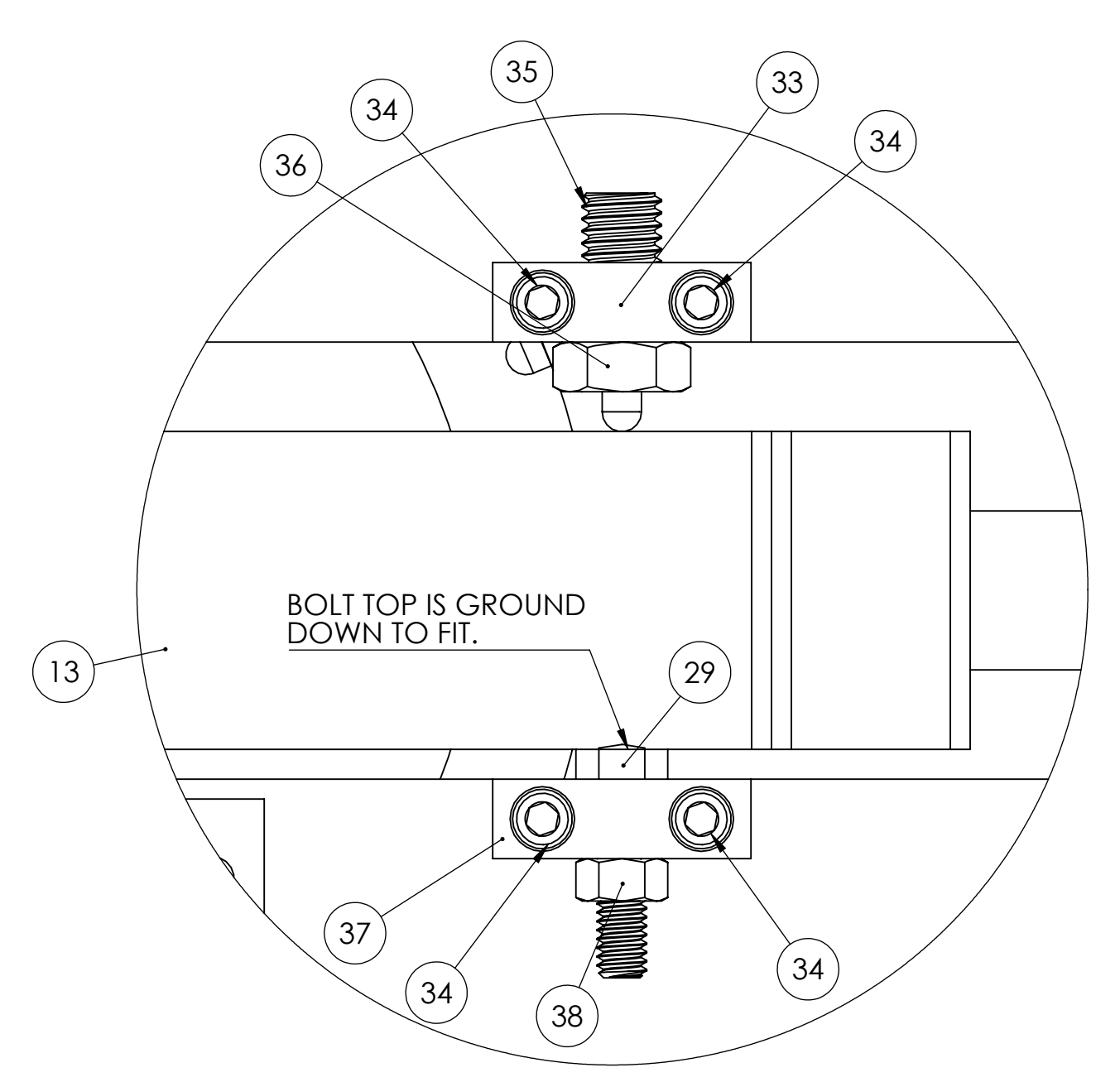
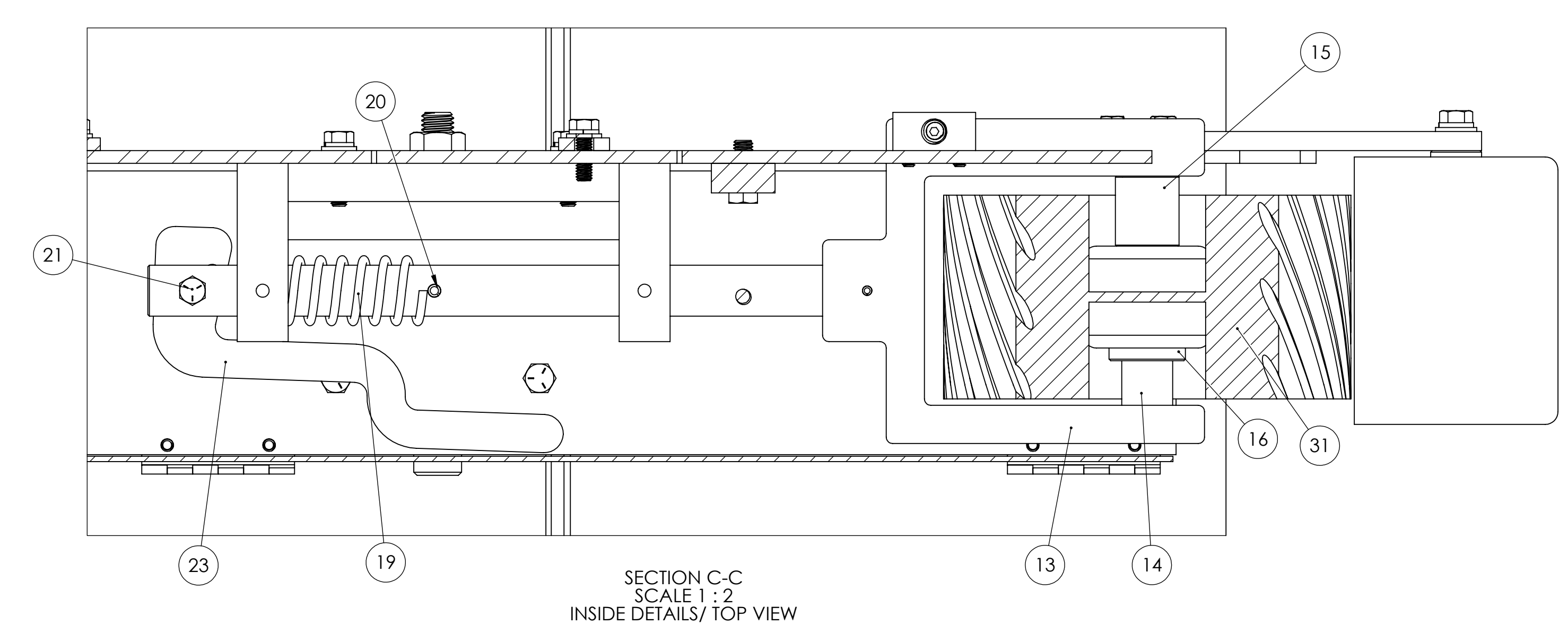
APP.	DATE	NAME	DATE

TITLE: **KS490 BELT GRINDER, 2HP-1PH**

SIZE: DWG. NO. **E** KS490-2HP-1PH REV **1**

SCALE: 1:5 WEIGHT: SHEET 1 OF 1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
F7	1	WELDED BACK PANEL AND REMOVABLE TOB BACK PANEL ARE REPLACED BY SINGLE REMOVABLE PANEL	9/2/2025	



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	716-015W	STAND ASSEMBLY FOR KS390 AND KS490	1
2	572-004	TILT BRACKET FOR KS390 AND KS490 SANDERS	1
3	HHC5037016	3/8-16 X 1 HHCS GR5 Z	11
4	SLWZ037	3/8 SPLIT L/W Z	15
5	709-012	STUD, LEVELING FOR KS390 AND KS490 SANDERS	1
6	FHN5075	3/4-10 FHN GR5 Z	1
7	291-016ASSY	KS390, KS490 MAIN FRAME AND GUARDS	1
8	HHC5037020	3/8-16 X 1-1/4 HHCS GR5 Z	4
9	FHN5037	3/8-16 FHN GR5 Z	4
10	486-007A	3HP MOTOR FOR DCV-1 AND KS390-490	1
11	560-138	DRIVE PULLEY ASSEMBLY FOR KS390/490 (INCLUDES PULLEY 560-042 AND BUSHING 049-063)	1
12	291-018	CAST IRON FRAME FOR S460 DRY SANDERS	1
13	960-012	YOKE AND TENSION SHAFT ASSEMBLY FOR KS390 AND KS490	1
14	701-032	SPINDLE, IDLER FOR KS390 AND KS490 SANDERS	1
15	049-116	SPACER BUSHING FOR KS90, KS490, K20/15HP SERIES SPINDLE	1
16	123-016	S6 IDLER PULLEY LOCK COLLAR	1
17	SSKA025004	1/4-20 X 1/4 SOC SET KNURL PT.	1
18	SSKA031006	5/16-18 X 3/8 SOC SET KNURL PT.	1
19	697-024	SPRING, TENSION FOR BG260, S460, S6M SANDERS, K12-149 SAW, KS390, KS490, KS690 BELT GRINDERS	1
20	ROLA025024	1/4 X 1-1/2 ROLL PIN	1
21	HHT5031032	5/16-18x2 HEX HEAD TAP BOLT GR5 ZINC	1
22	UFWZ031	5/16 USS F/W Z	5
23	455-003	TENSION RELEASE LEVER FOR S6 SANDER HEADS	1
24	BWVA031	5/16 BOWED SPRING WASHER 21/64	1
25	STNZ031	5/16-18 STOVER LOCK NUT ZINC-WAX	1
26	041-029	PLATEN SUPPORT BRACKET FOR KS390 AND KS490 SANDERS	2
27	563-009	PLATEN FOR KS390 AND KS490 SERIES	1
28	FSCA031016	5/16-18 X 1 FSHCS	2
29	HHC5031020	5/16-18 X 1-1/4 HHCS GR 5 Z	5
30	SLWZ031	5/16 SPLIT L/W Z	4
31	936-010	WHEEL CONTACT FOR KS490 SANDER WITH 1" BORE W/BEARINGS	1
32	UFWZ037	3/8 USS F/W Z	3
33	053-009B	TRACKING BLOCK- 1/2-13 THREADED HOLE	1
34	SHCA025012	1/4-20 X 3/4 SHCS	4
35	SPPA050020	1/2-13 X 1-1/4 SPRING PLUNGER W BROWN DELRIN NOSE ALLOY	1
36	FJNZ050	1/2-13 F H JAM NUT Z	1
37	053-009	TRACKING BLOCK- 5/16 THREADED HOLE	1
38	FHN5031	5/16-18 FHN GR5 ZINC	1
39	455-014	ARM FOR KS390, KS490 WORK TABLE	1
40	HHC5025012	1/4-20 X 3/4 HHCS GR5 Z	2
41	SLWZ025	1/4 SPLIT L/W Z	4
42	UFWZ025	1/4 USS F/W Z	2
43	829-026	TABLE, WORK FOR KS390 AND KS490 SANDERS	1
44	168-004	DCV-4, KS390V, KS490V VACUUM PORT	1
45	HHC5025008	1/4-20 X 1/2 HHCS GR5 Z	2
46	041-102	SWITCH BRACKET FOR KS390, KS490 3HP, 3HP MAG SWITCH	1

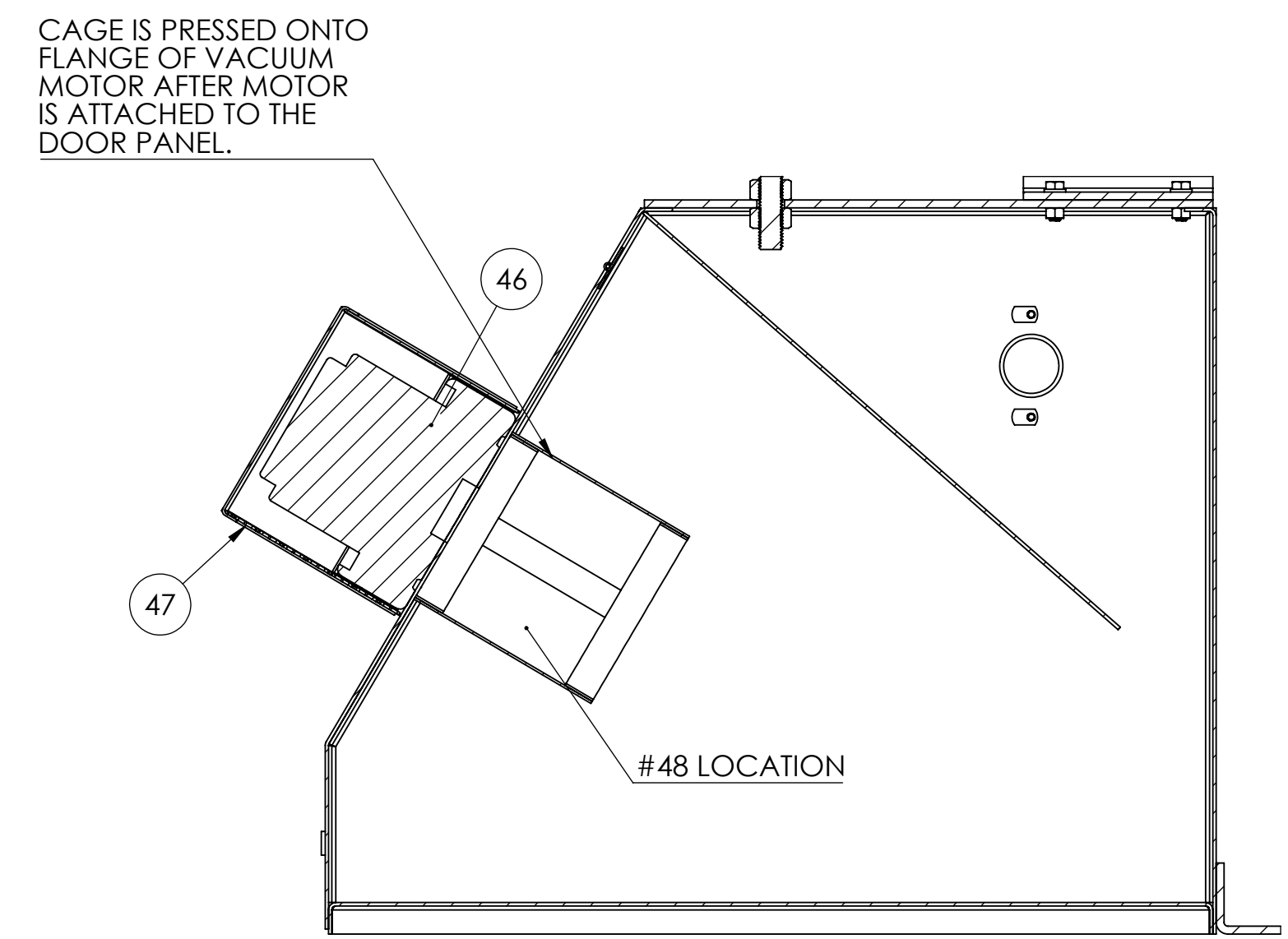
UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN INCHES
 TOLERANCES:
 FRACTIONS ± .005
 ANGULAR ± .0315
 HORIZONTAL DECIMAL ± .005
 VERTICAL DECIMAL ± .005
 INTERFERENCE GEOMETRIC TOLERANCES PER
 ASME Y14.5-2009

PROPERTY AND CONFIDENTIAL
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF KALAMAZOO. IT IS TO BE USED ONLY FOR THE PROJECT AND REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF KALAMAZOO COMPANY IS PROHIBITED.

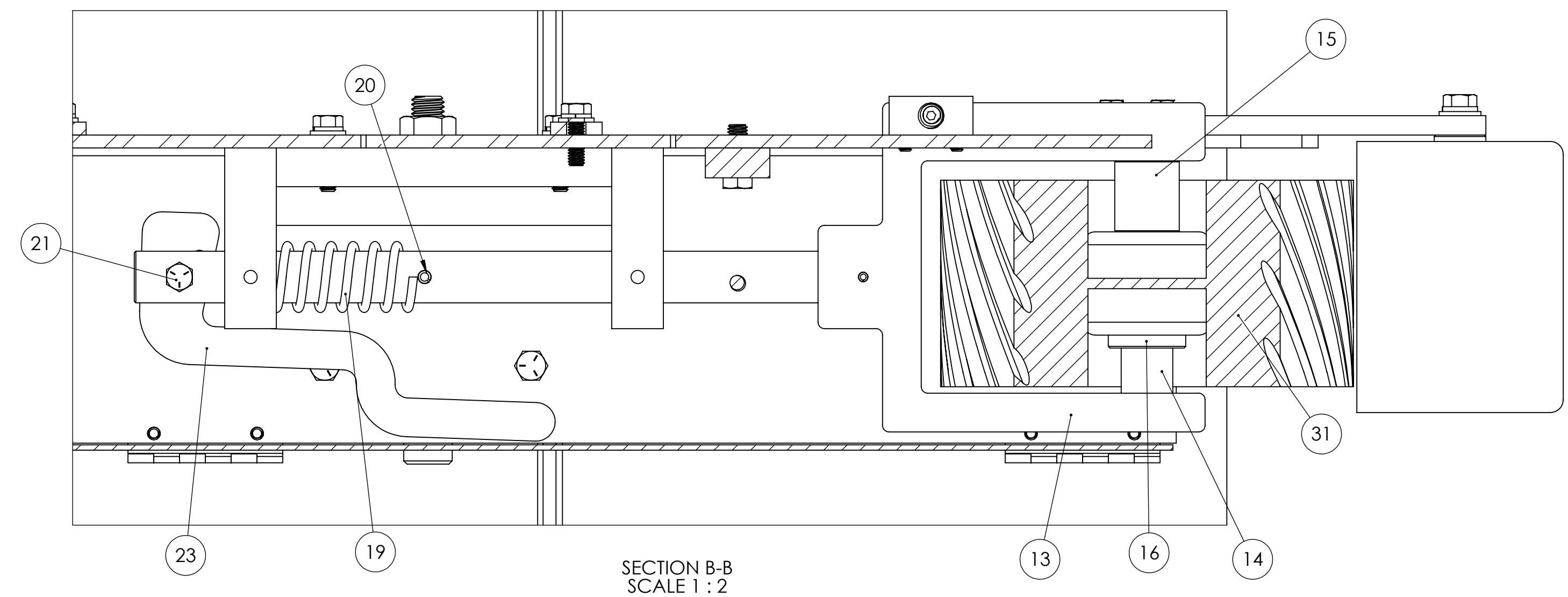
APPICATION	USED ON	FINISH	DATE

KALAMAZOO
 TITLE: **KS490 BELT GRINDER, 3HP-3PH**
 SIZE: DWG. NO. **E** KS490-3HP-3PH
 SCALE: 1:5 WEIGHT: **1** SHEET 1 OF 1

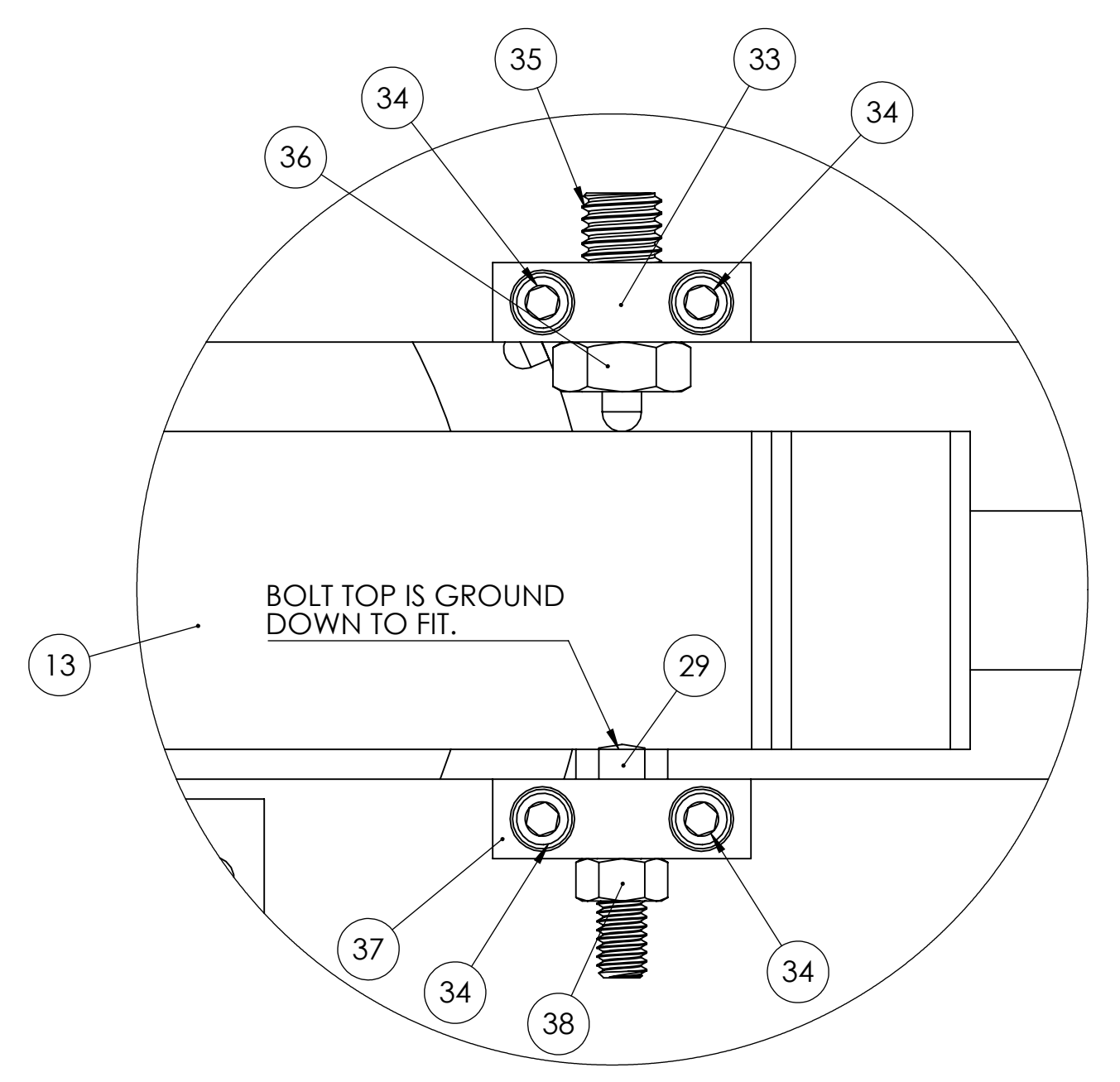
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
F7	1	WELDED BACK PANEL AND REMOVABLE TOP BACK PANEL ARE REPLACED BY SINGLE REMOVABLE PANEL	9/3/2025	



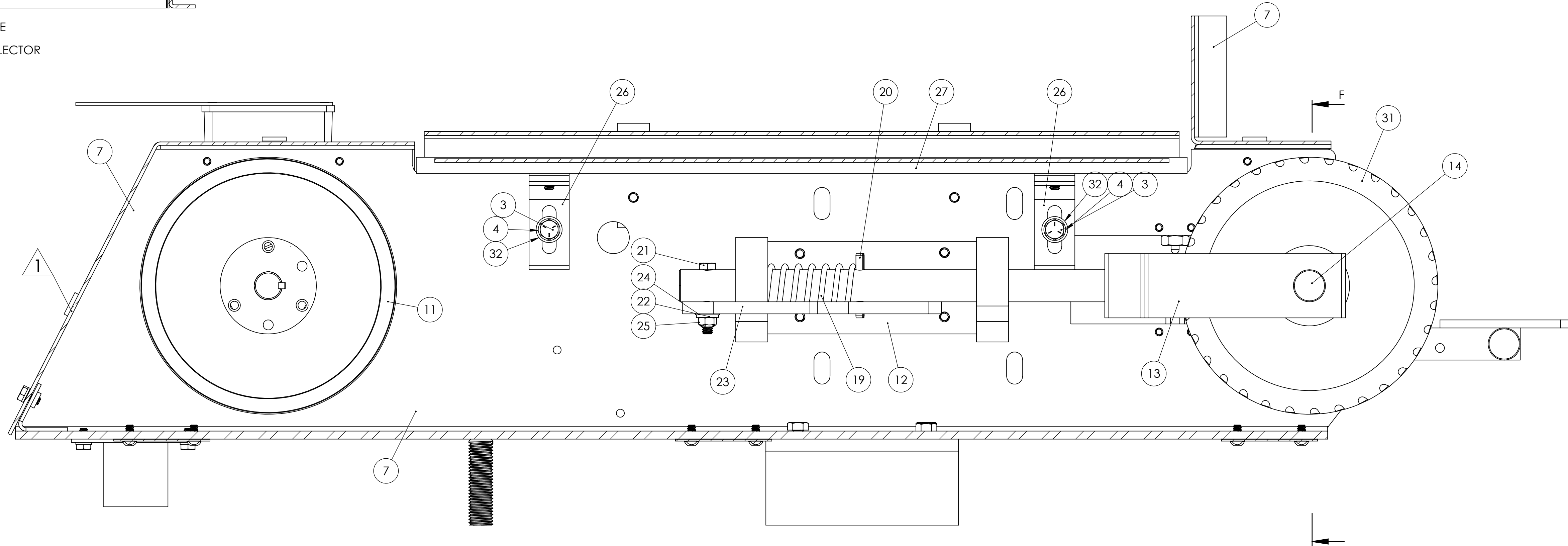
SECTION E-E
INSIDE DUST COLLECTOR



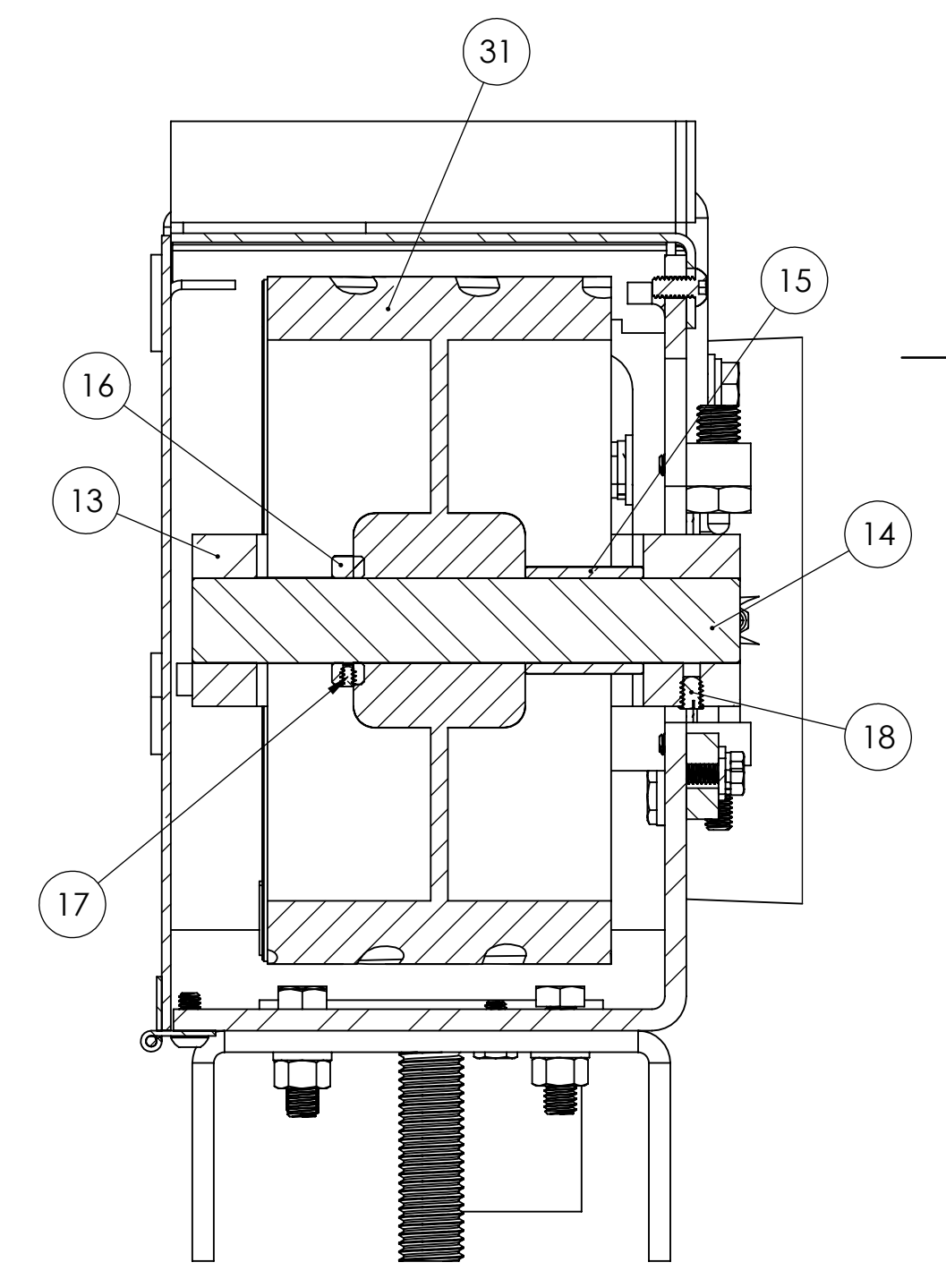
SECTION B-B
SCALE 1 : 2
INSIDE DETAILS/ TOP VIEW



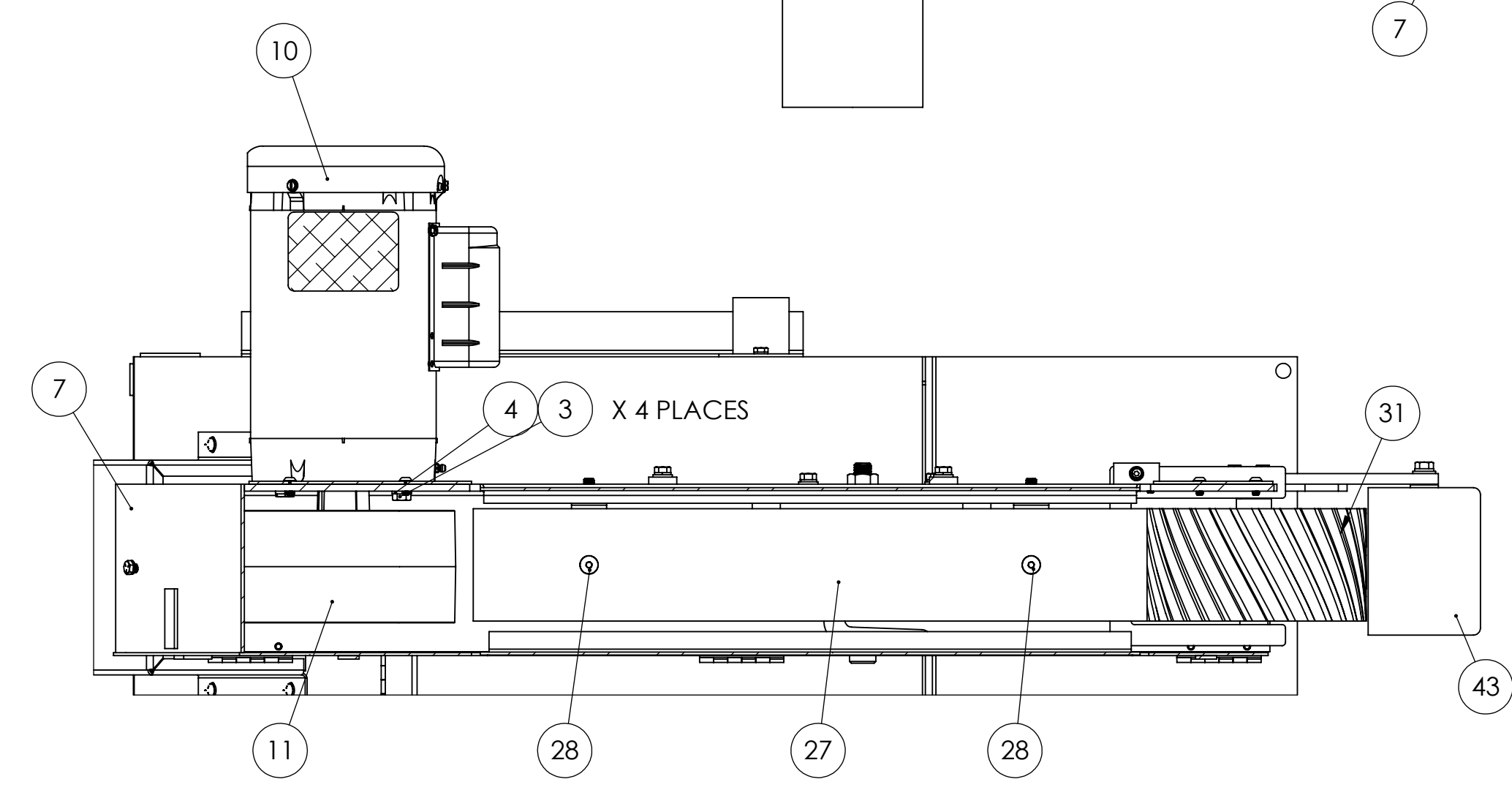
DETAIL C
SCALE 1 : 1
TRACKING BLOCKS DETAIL



SECTION A-A
SCALE 1 : 2
INSIDE DETAILS/ SIDE VIEW

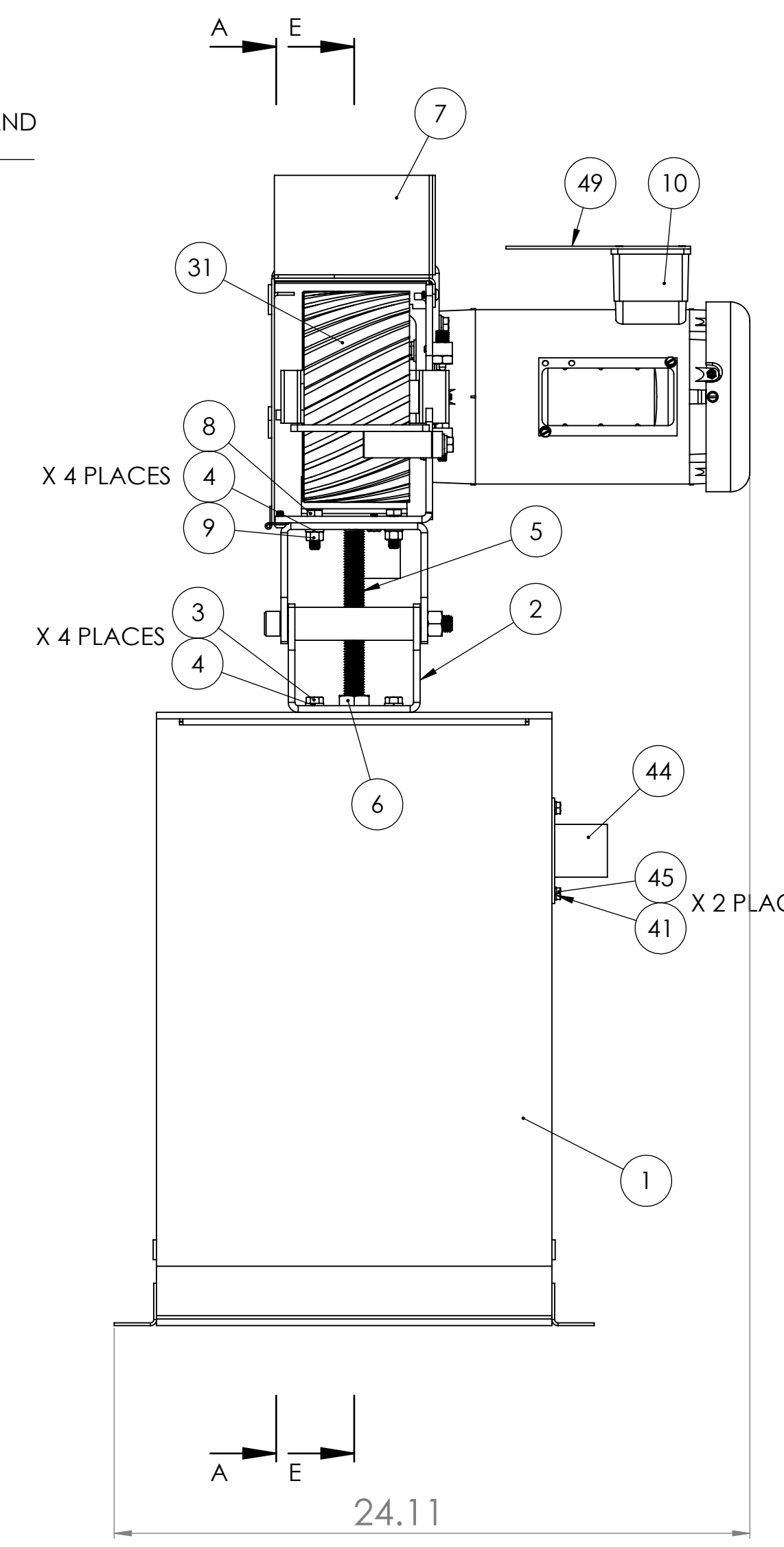


SECTION F-F
SCALE 1 : 2
IDLER PULLEY DETAILS

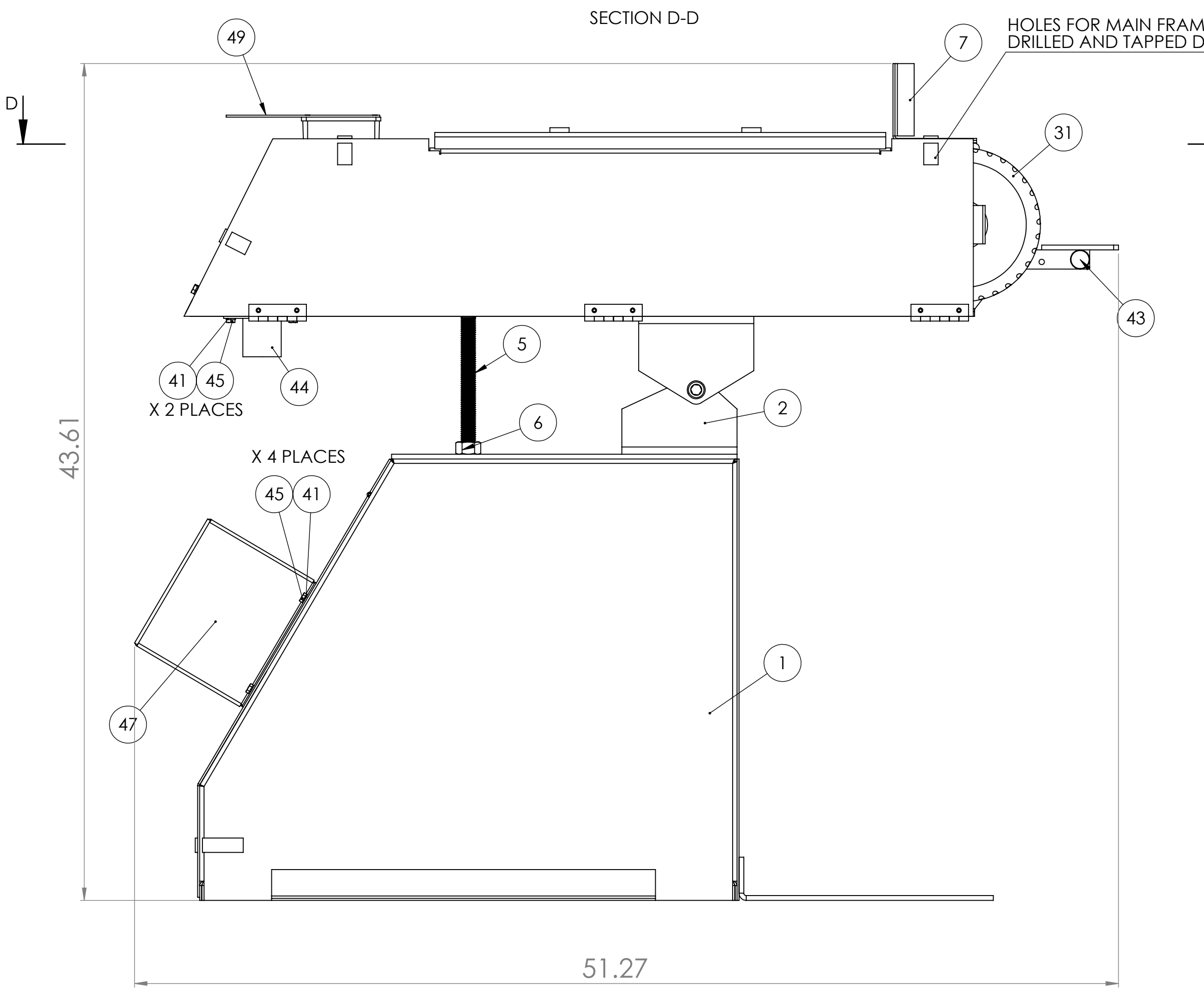
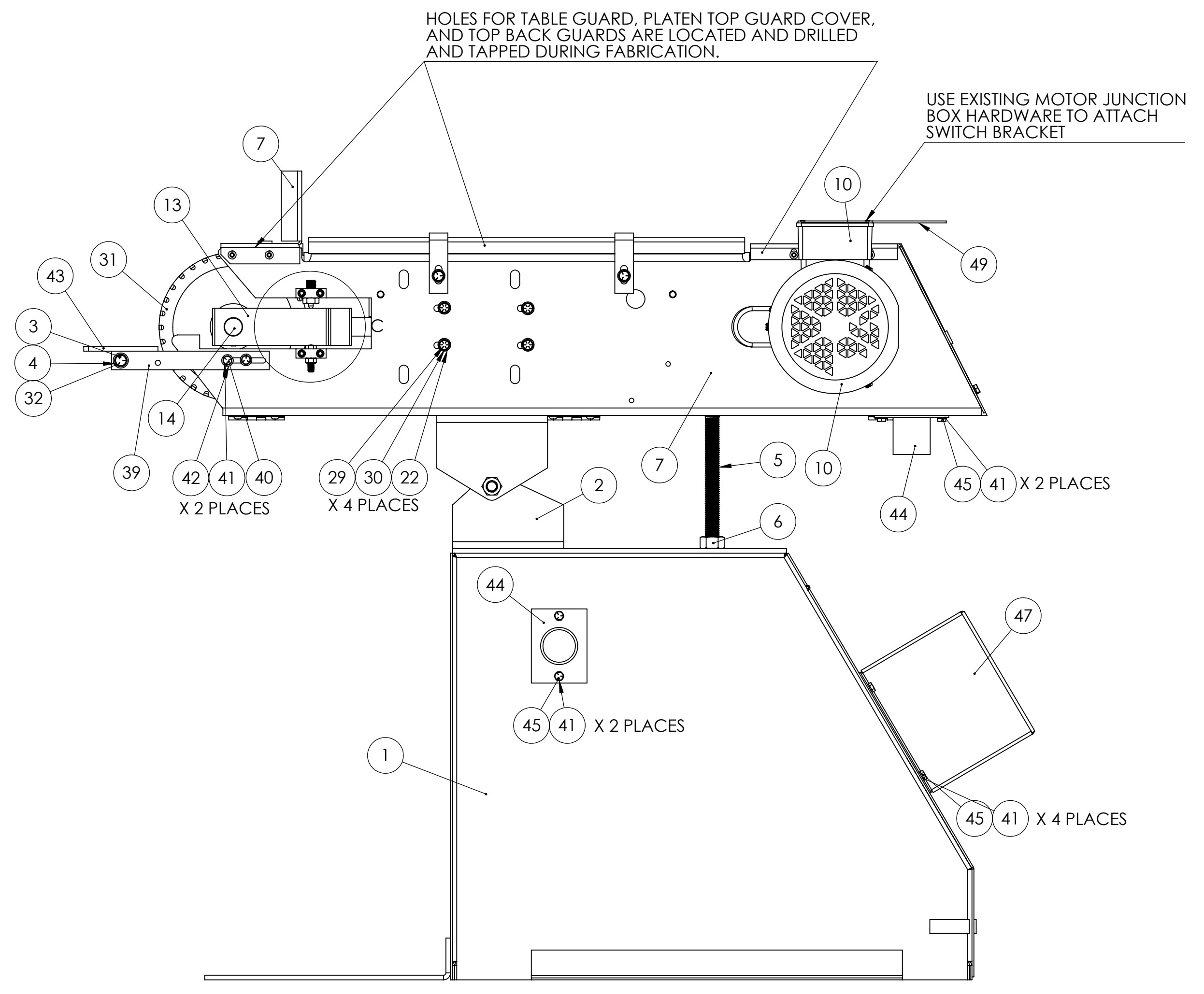


SECTION D-D

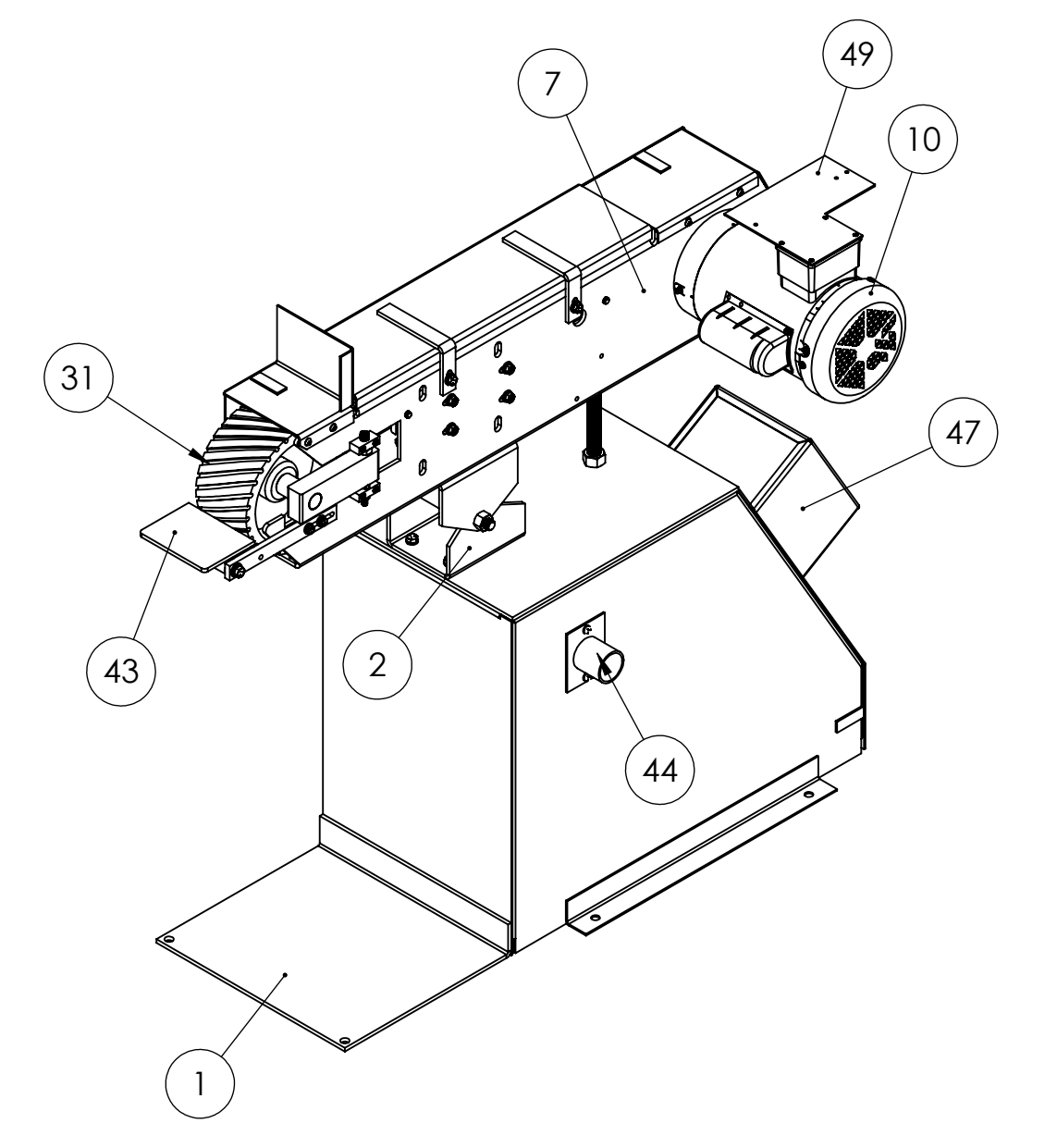
HOLES FOR MAIN FRAME DOOR ARE LOCATED AND DRILLED AND TAPPED DURING FABRICATION.



SECTION A-A
SCALE 1 : 2
INSIDE DETAILS/ SIDE VIEW



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	716-016W	STAND, VACUUM ASSEMBLY FOR KS390 AND KS490	1
2	572-004	TILT BRACKET FOR KS390 AND KS490 SANDERS	1
3	HHC5037016	3/8-16 X 1 HHCS GR5 Z	11
4	SLWZ037	3/8 SPLIT L/W Z	15
5	709-012	STUD, LEVELING FOR KS390 AND KS490 SANDERS	1
6	FHN5075	3/4-10 FHN GR5 Z	1
7	291-016ASSY	KS390, KS490 MAIN FRAME AND GUARDS	1
8	HHC5037020	3/8-16 X 1-1/4 HHCS GR5 Z	4
9	FHN5037	3/8-16 FHN GR5 Z	4
10	486-003	2HP MOTOR FOR KS390-490	1
11	560-138	DRIVE PULLEY ASSEMBLY FOR KS390/490 (INCLUDES PULLEY 560-042 AND BUSHING 049-063)	1
12	291-018	CAST IRON FRAME FOR S460 DRY SANDERS	1
13	960-012	YOKE AND TENSION SHAFT ASSEMBLY FOR KS390 AND KS490	1
14	701-032	SPINDLE, IDLER FOR KS390 AND KS490 SANDERS	1
15	049-116	SPACER BUSHING FOR KS90, KS490, K20/15HP SERIES SPINDLE	1
16	123-016	S6 IDLER PULLEY LOCK COLLAR	1
17	SSKA025004	1/4-20 X 1/4 SOC SET KNURL PT.	1
18	SSKA031006	5/16-18 X 3/8 SOC SET KNURL PT.	1
19	697-024	SPRING, TENSION FOR BG280, S460, S6M SANDERS, K12-148 SAW, KS390, KS490, KS690 BELT GRINDERS	1
20	ROLA025024	1/4 X 1-1/2 ROLL PIN	1
21	HHT5031032	5/16-18x2 HEX HEAD TAP BOLT GR5 ZINC	1
22	UFWZ031	5/16 USS F/W Z	5
23	455-003	TENSION RELEASE LEVER FOR S6 SANDER HEADS	1
24	BWWA031	5/16 BOWED SPRING WASHER 21/64	1
25	STNZ031	5/16-18 STOVER LOCK NUT ZINC-WAX	1
26	041-029	PLATEN SUPPORT BRACKET FOR KS390 AND KS490 SANDERS	2
27	563-009	PLATEN FOR KS390 AND KS490 SERIES	1
28	FSCA031016	5/16-18 X 1 FSHCS	2
29	HHC5031020	5/16-18 X 1-1/4 HHCS GR 5 Z	5
30	SLWZ031	5/16 SPLIT L/W Z	4
31	936-010	WHEEL, CONTACT FOR KS490 SANDER WITH 1" BORE W/BEARINGS	1
32	UFWZ037	3/8 USS F/W Z	3
33	053-009B	TRACKING BLOCK- 1/2-13 THREADED HOLE	1
34	SHCA025012	1/4-20 X 3/4 SHCS	4
35	SPPA050020	1/2-13 X 1-1/4 SPRING PLUNGER W BROWN DELRIN NOSE ALLOY	1
36	FJNZ050	1/2-13 F H JAM NUT Z	1
37	053-009	TRACKING BLOCK- 5/16 THREADED HOLE	1
38	FHN5031	5/16-18 FHN GR5 ZINC	1
39	455-014	ARM FOR KS390, KS490 WORK TABLE	1
40	HHC5025012	1/4-20 X 3/4 HHCS GR5 Z	2
41	SLWZ025	1/4 SPLIT L/W Z	10
42	UFWZ025	1/4 USS F/W Z	2
43	829-026	TABLE, WORK FOR KS390 AND KS490 SANDERS	1
44	168-004	DCV-4, KS390V, KS490V VACUUM PORT	2
45	HHC5025008	1/4-20 X 1/2 HHCS GR5 Z	8
46	486-008	VACUUM MOTOR FOR KS390V AND S612V (OLD STYLE)	1
47	342-037	GUARD, VACUUM MOTOR FOR KS390 SANDERS	1
48	5X878	CLOTH BAG FOR DCV-4 DUST COLLECTOR	1
49	041-102	SWITCH BRACKET FOR KS390-KS490 3HP, 3PH MAG SWITCH	1



UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONS ± .005
DECIMALS ± .005
THREE PLACE DECIMAL ± .001
INTERFERENCE GEOMETRIC TOLERANCES PER
MATERIAL

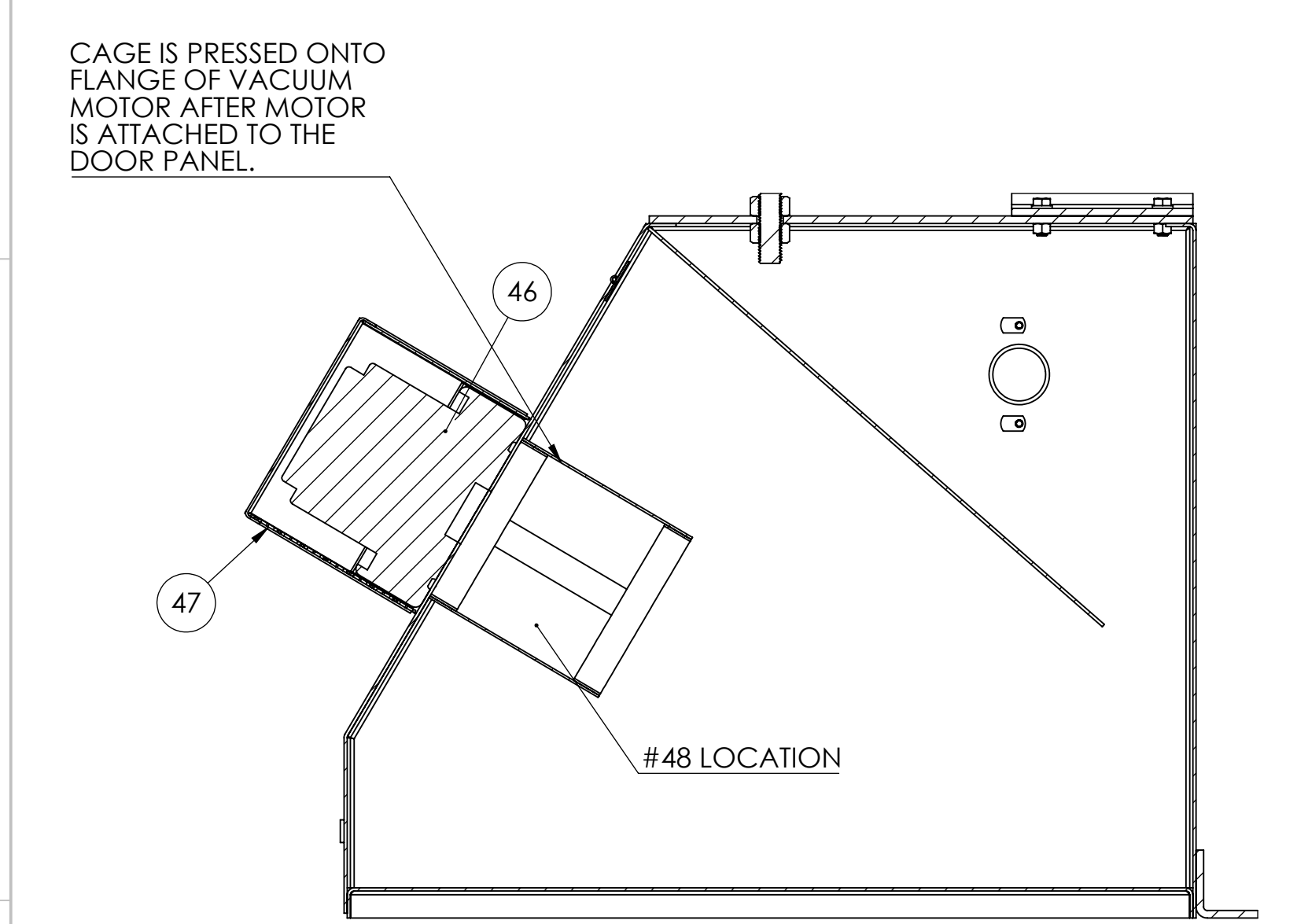
PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF KALAMAZOR. IT IS TO BE USED FOR THE MANUFACTURE OF THE PARTS AND ASSEMBLIES IDENTIFIED HEREIN. ANY REPRODUCTION IN WHOLE OR IN PART WITHOUT THE WRITTEN PERMISSION OF KALAMAZOR IS PROHIBITED.

DATE: 9/3/2025
DRAWN BY: [Name]
CHECKED BY: [Name]
ENG APPR: [Name]
MFG APPR: [Name]
D.A.
COMMENTS:

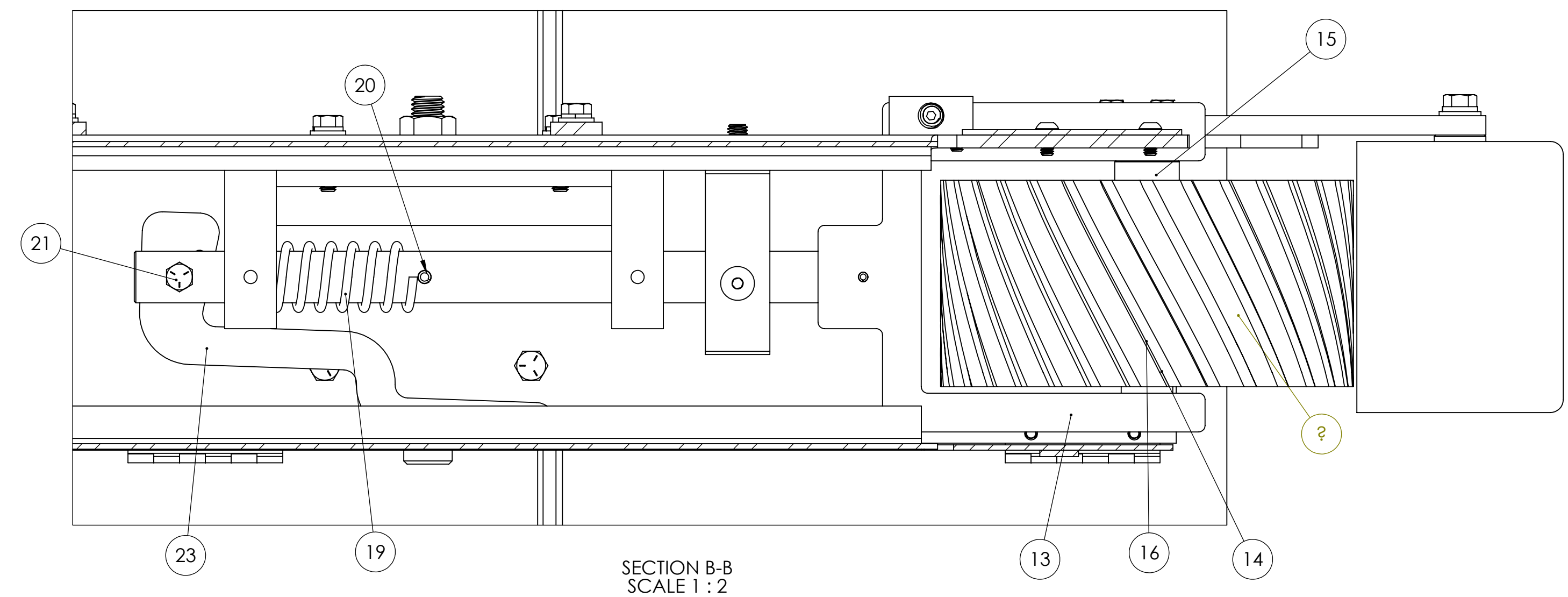
TITLE: KS490 BELT GRINDER, 2HP, 1PH W VACUUM IN BASE
SIZE: DWG. NO. E
REV: 1
SCALE: 1:5 WEIGHT: SHEET 1 OF 1

APPICATION: [Blank]
USED ON: [Blank]
FINISH: [Blank]
DO NOT SCALE DRAWING

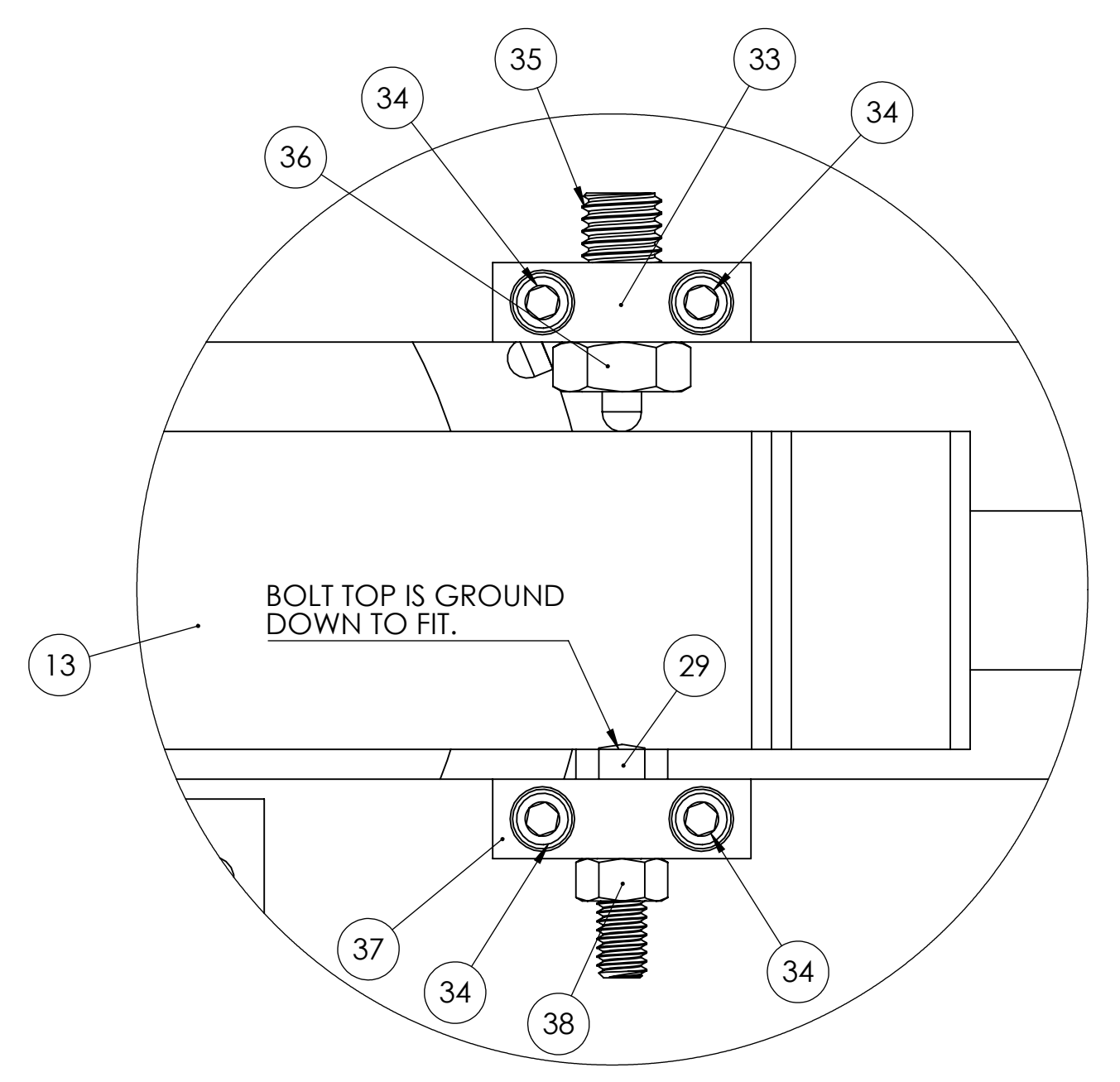
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
F7	1	WELDED BACK PANEL AND REMOVABLE TOP BACK PANEL ARE REPLACED BY SINGLE REMOVABLE PANEL	9/3/2025	



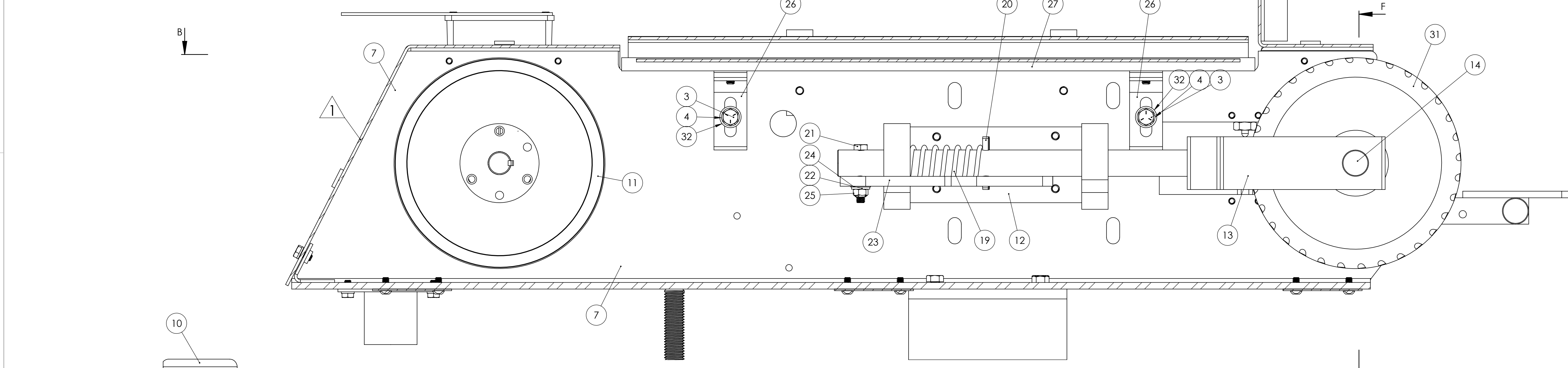
SECTION E-E
INSIDE DUST COLLECTOR



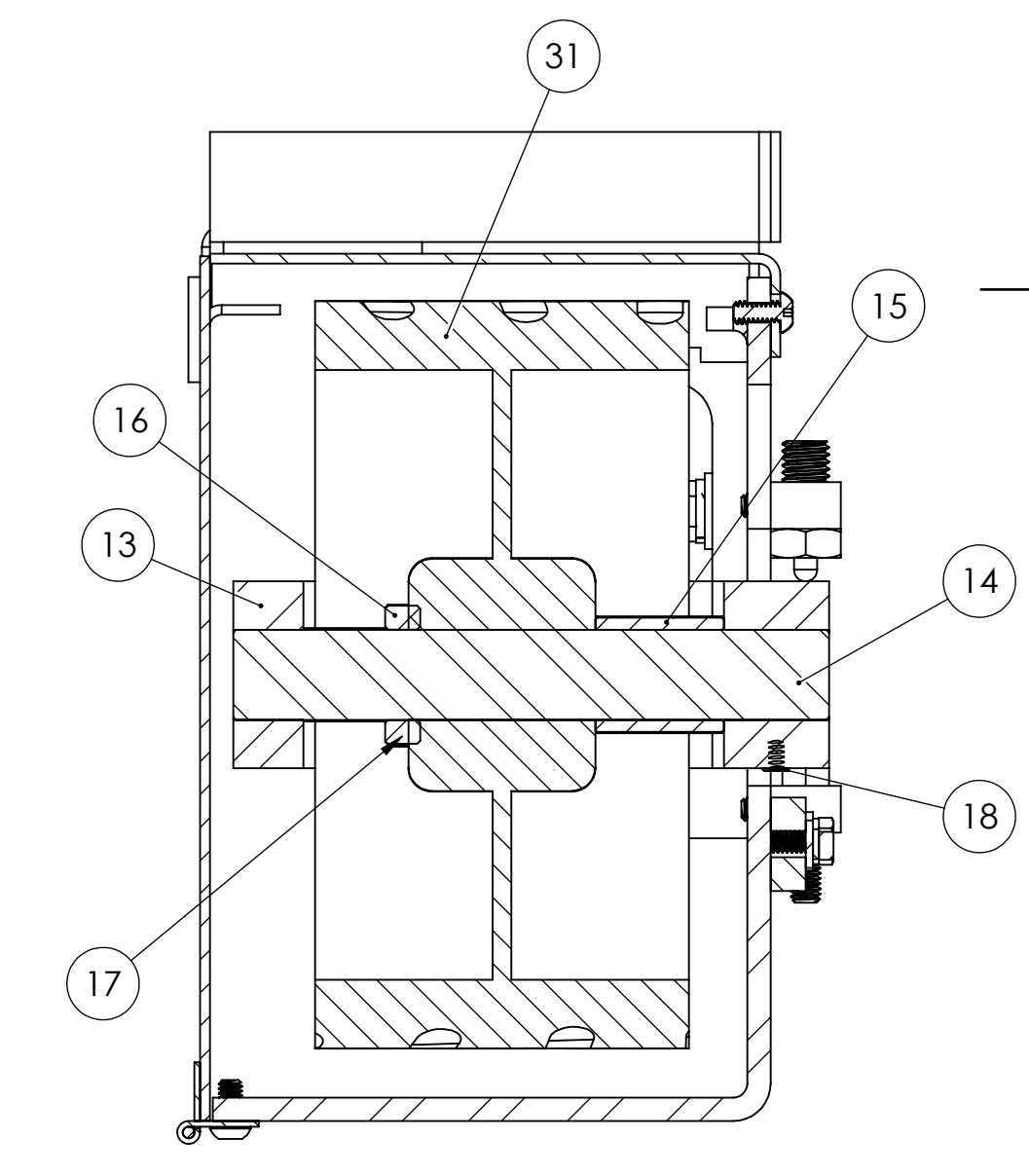
SECTION B-B
SCALE 1 : 2
INSIDE DETAILS/ TOP VIEW



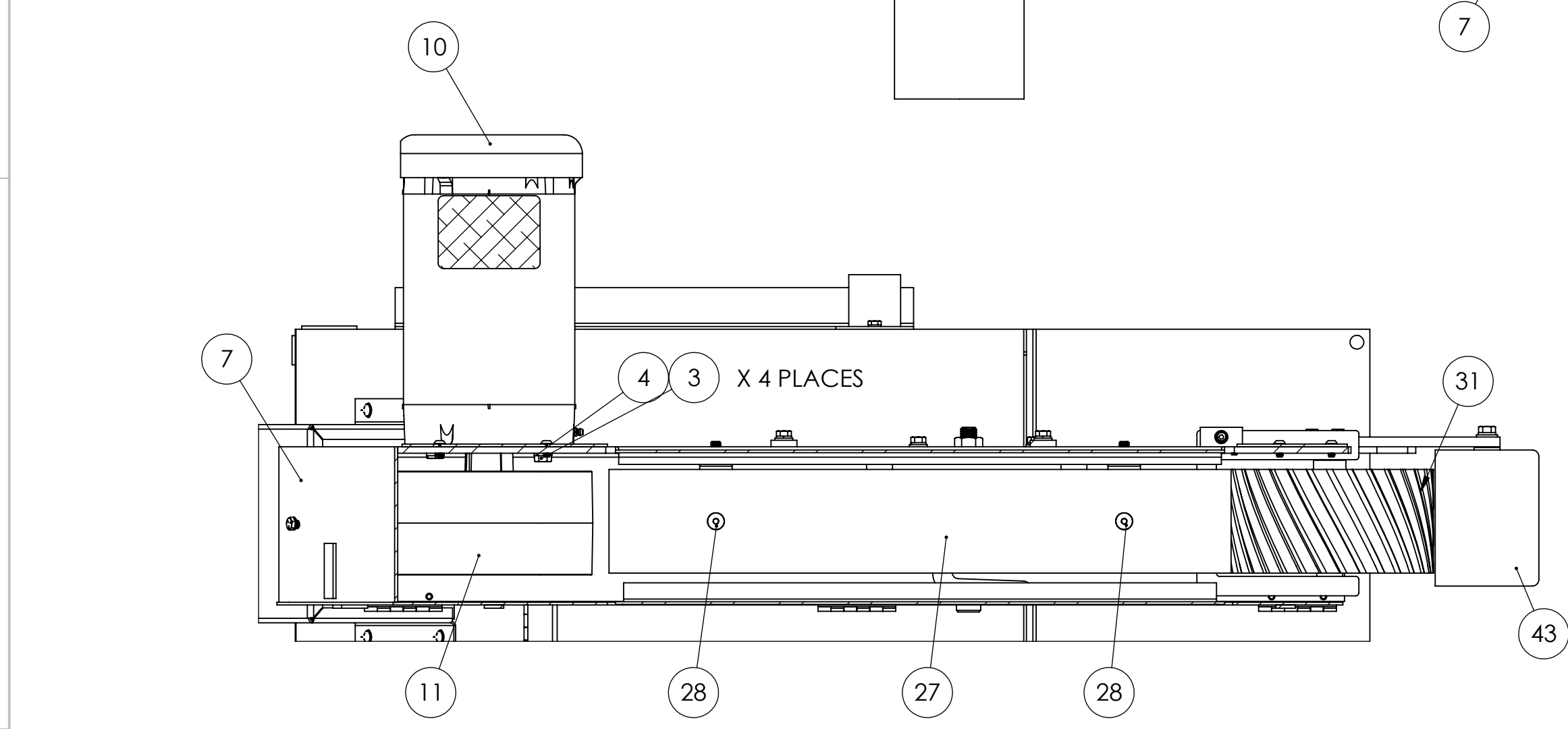
DETAIL C
SCALE 1 : 1
TRACKING BLOCKS DETAIL



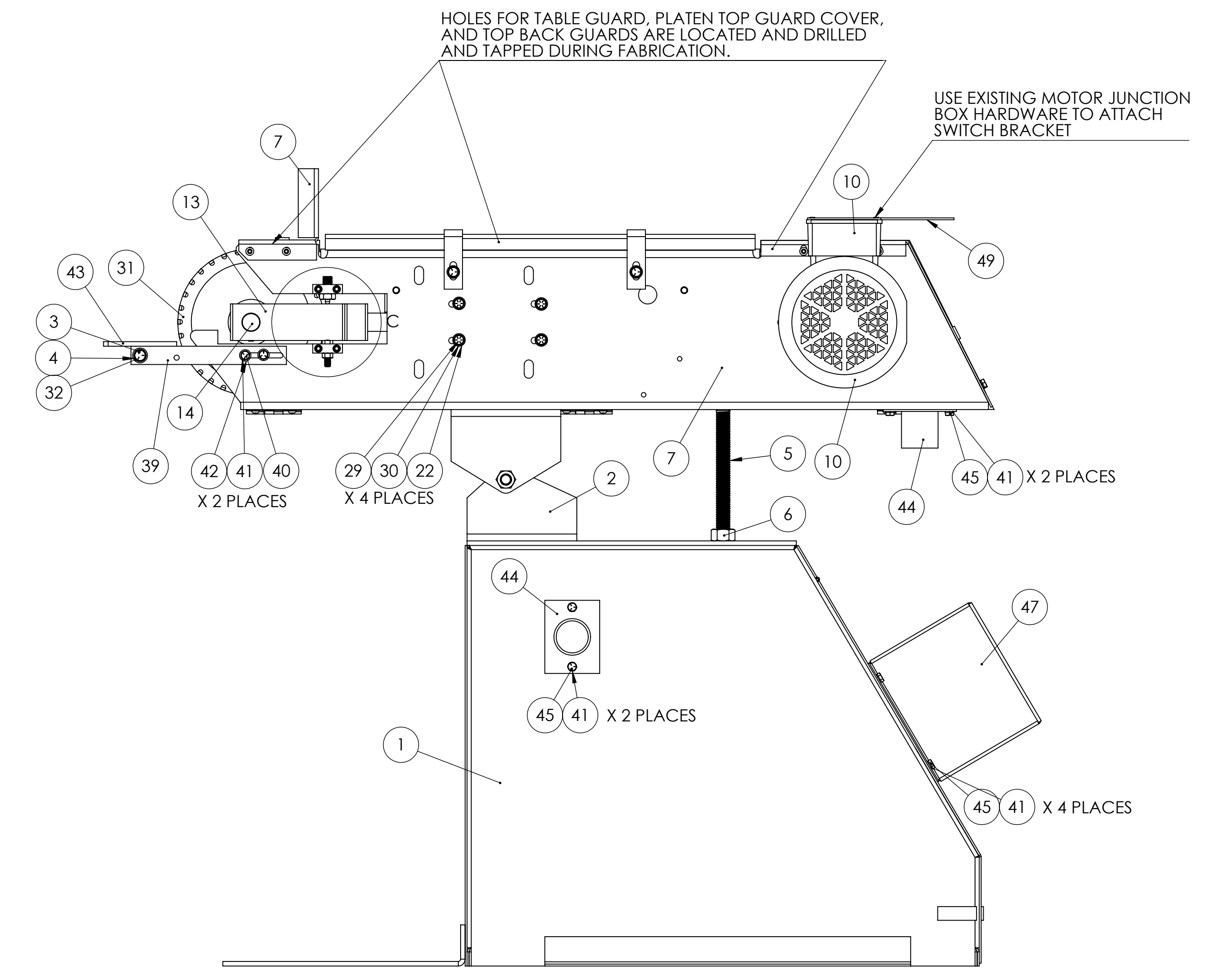
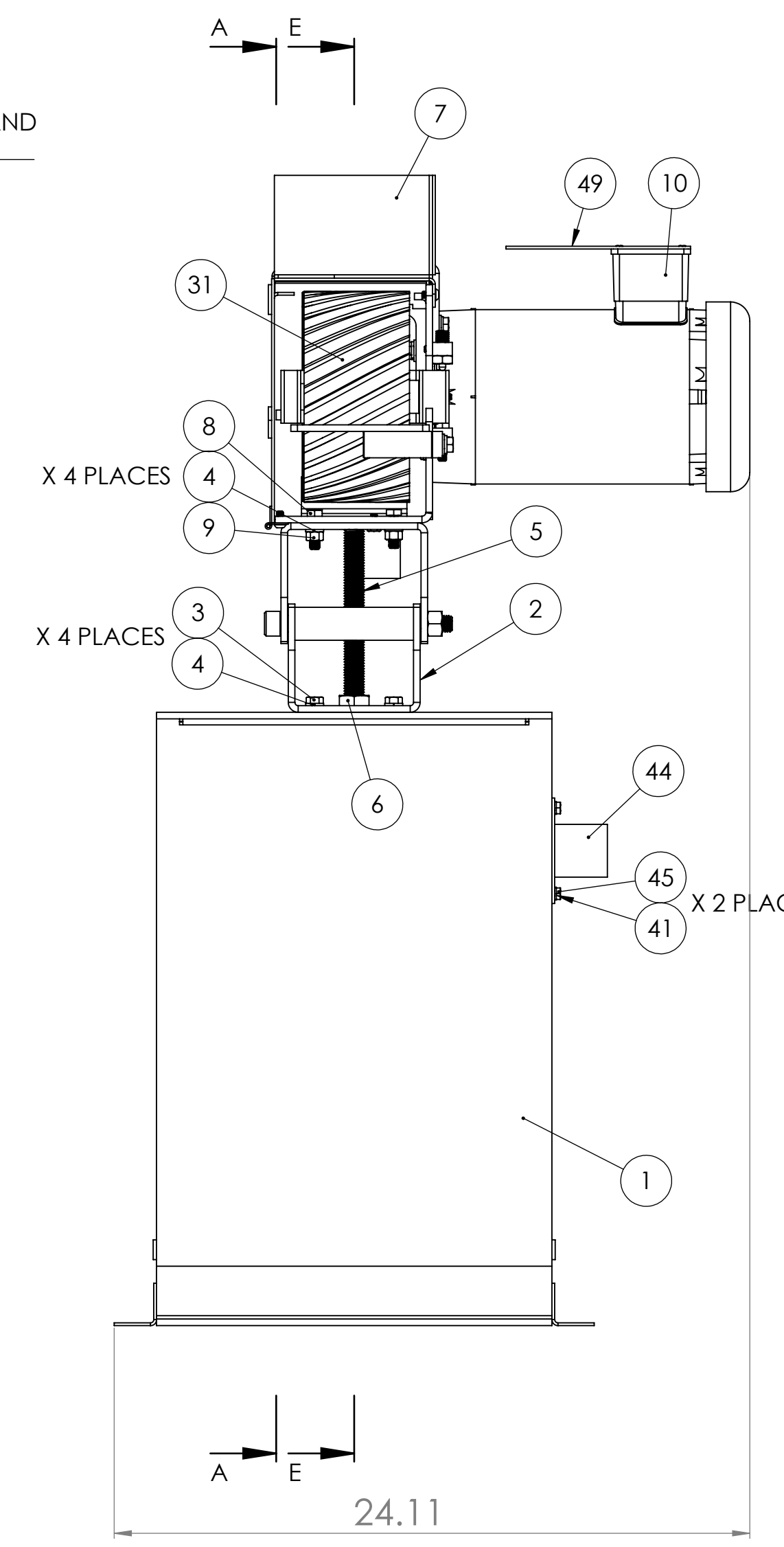
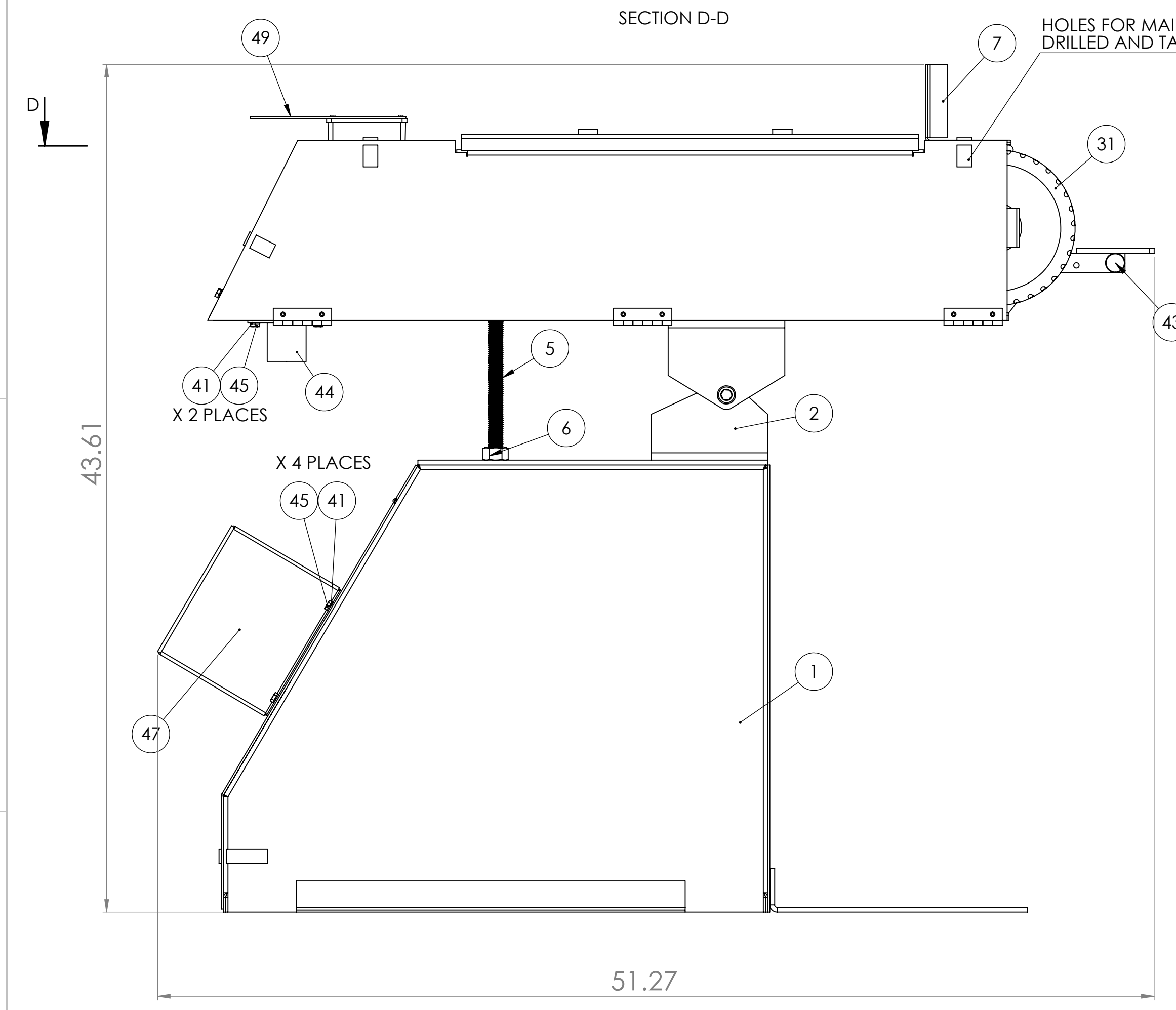
SECTION A-A
SCALE 1 : 2
INSIDE DETAILS/ SIDE VIEW



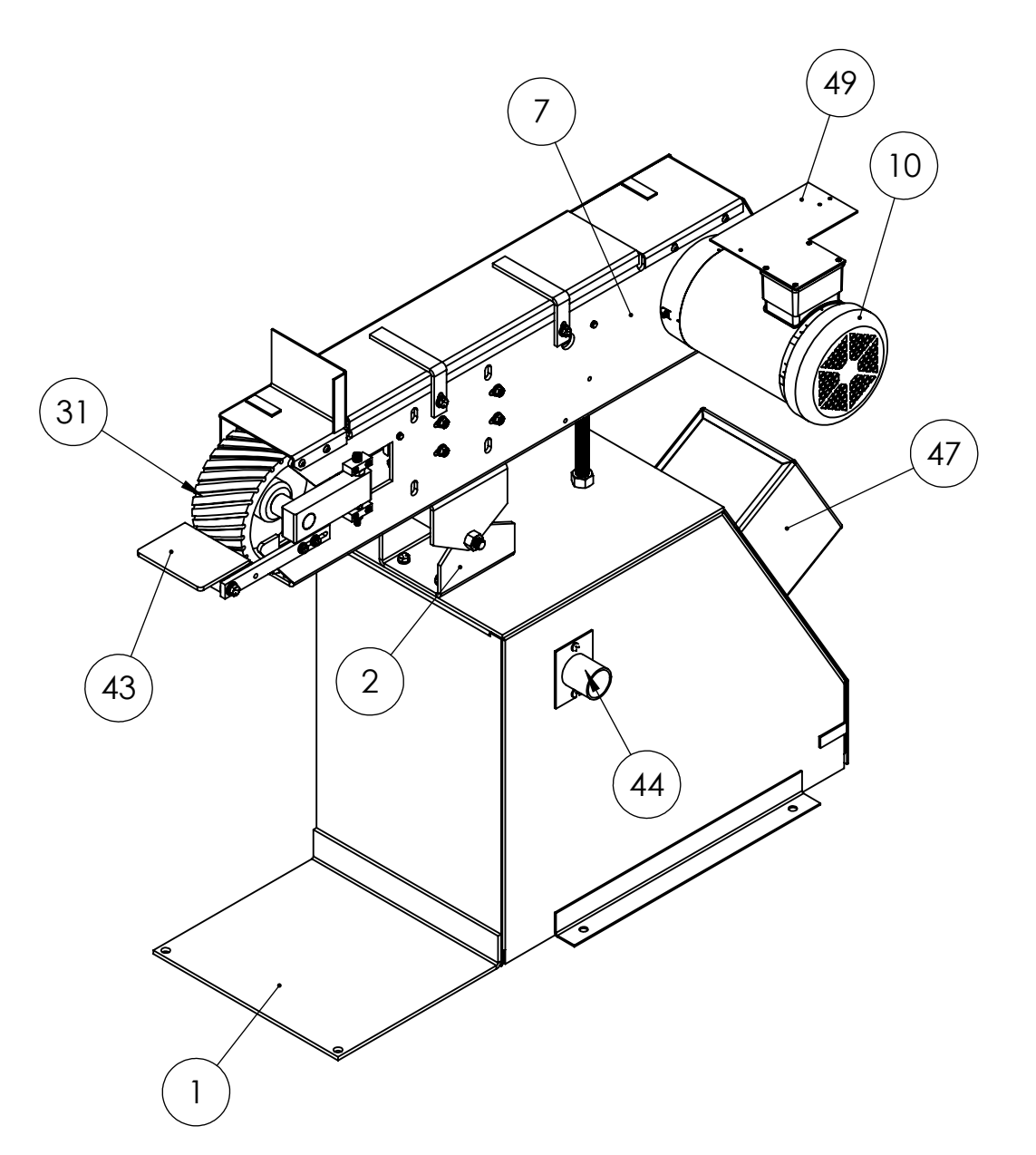
SECTION F-F
SCALE 1 : 2
IDLER PULLEY DETAILS



SECTION D-D



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	716-016W	STAND, VACUUM ASSEMBLY FOR KS390 AND KS490	1
2	572-004	TILT BRACKET FOR KS390 AND KS490 SANDERS	1
3	HHC5037016	3/8-16 X 1 HHCS GR5 Z	11
4	SLW2037	3/8 SPLIT L/W Z	15
5	709-012	STUD, LEVELING FOR KS390 AND KS490 SANDERS	1
6	FHN5075	3/4-10 FHN GR5 Z	1
7	291-016ASSY	KS390, KS490 MAIN FRAME AND GUARDS	1
8	HHC5037020	3/8-16 X 1-1/4 HHCS GR5 Z	4
9	FHN5037	3/8-16 FHN GR5 Z	4
10	486-007A	3HP MOTOR FOR DCV-1 AND KS390-490	1
11	560-138	DRIVE PULLEY ASSEMBLY FOR KS390/490 (INCLUDES PULLEY 560-042 AND BUSHING 049-063)	1
12	291-018	CAST IRON FRAME FOR S460 DRY SANDERS	1
13	960-012	YOKE AND TENSION SHAFT ASSEMBLY FOR KS390 AND KS490	1
14	701-032	SPINDLE, IDLER FOR KS390 AND KS490 SANDERS	1
15	049-116	SPACER BUSHING FOR KS90, KS490, K20/15HP SERIES SPINDLE	1
16	123-016	S6 IDLER PULLEY LOCK COLLAR	1
17	SSKA025004	1/4-20 X 1/4 SOC SET KNURL PT.	1
18	SSKA031006	5/16-18 X 3/8 SOC SET KNURL PT.	1
19	697-024	SPRING, TENSION FOR BG280, S460, S6M SANDERS, K15-148 SAW, KS390, KS490, KS690 BELT GRINDERS	1
20	ROLA025024	1/4 X 1-1/2 ROLL PIN	1
21	HHT5031032	5/16-18x2 HEX HEAD TAP BOLT GR5 ZINC	1
22	UFWZ031	5/16 USS F/W Z	5
23	455-003	TENSION RELEASE LEVER FOR S6 SANDER HEADS	1
24	BWWA0301	5/16 BOWED SPRING WASHER 21/64	1
25	STNZ031	5/16-18 STOVER LOCK NUT ZINC-WAX	1
26	041-029	PLATEN SUPPORT BRACKET FOR KS390 AND KS490 SANDERS	2
27	563-009	PLATEN FOR KS390 AND KS490 SERIES	1
28	FSCA031016	5/16-18 X 1 FSHCS	2
29	HHC5031020	5/16-18 X 1-1/4 HHCS GR 5 Z	5
30	SLWZ031	5/16 SPLIT L/W Z	4
31	936-010	WHEEL, CONTACT FOR KS490 SANDER WITH 1" BORE W/BEARINGS	1
32	UFWZ037	3/8 USS F/W Z	3
33	053-009B	TRACKING BLOCK- 1/2-13 THREADED HOLE	1
34	SHCA025012	1/4-20 X 3/4 SHCS	4
35	SPPA050020	1/2-13 X 1-1/4 SPRING PLUNGER W BROWN DELRIN NOSE ALLOY	1
36	FJNZ050	1/2-13 F H JAM NUT Z	1
37	053-009	TRACKING BLOCK- 5/16 THREADED HOLE	1
38	FHN5031	5/16-18 FHN GR5 ZINC	1
39	455-014	ARM FOR KS390, KS490 WORK TABLE	1
40	HHC5025012	1/4-20 X 3/4 HHCS GR5 Z	2
41	SLWZ025	1/4 SPLIT L/W Z	10
42	UFWZ025	1/4 USS F/W Z	2
43	829-026	TABLE, WORK FOR KS390 AND KS490 SANDERS	1
44	168-004	DCV-4, KS390V, KS490V VACUUM PORT	2
45	HHC5025008	1/4-20 X 1/2 HHCS GR5 Z	8
46	486-008	VACUUM MOTOR FOR KS390V AND S612V (OLD STYLE)	1
47	342-037	GUARD, VACUUM MOTOR FOR KS390 SANDERS	1
48	5X878	CLOTH BAG FOR DCV-4 DUST COLLECTOR	1
49	041-102	SWITCH BRACKET FOR KS390- KS490 3HP, 3HP MAG SWITCH	1



UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONS ± .005
DECIMALS ± .005
THREE PLACE DECIMAL ± .001
INTERPRET GEOMETRIC TOLERANCES PER
ASME Y14.5-2018

PROPRIETARY AND CONFIDENTIAL
THIS DRAWING IS THE PROPERTY OF KALAMAZOO BELT GRINDERS, INC. AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF KALAMAZOO BELT GRINDERS, INC.

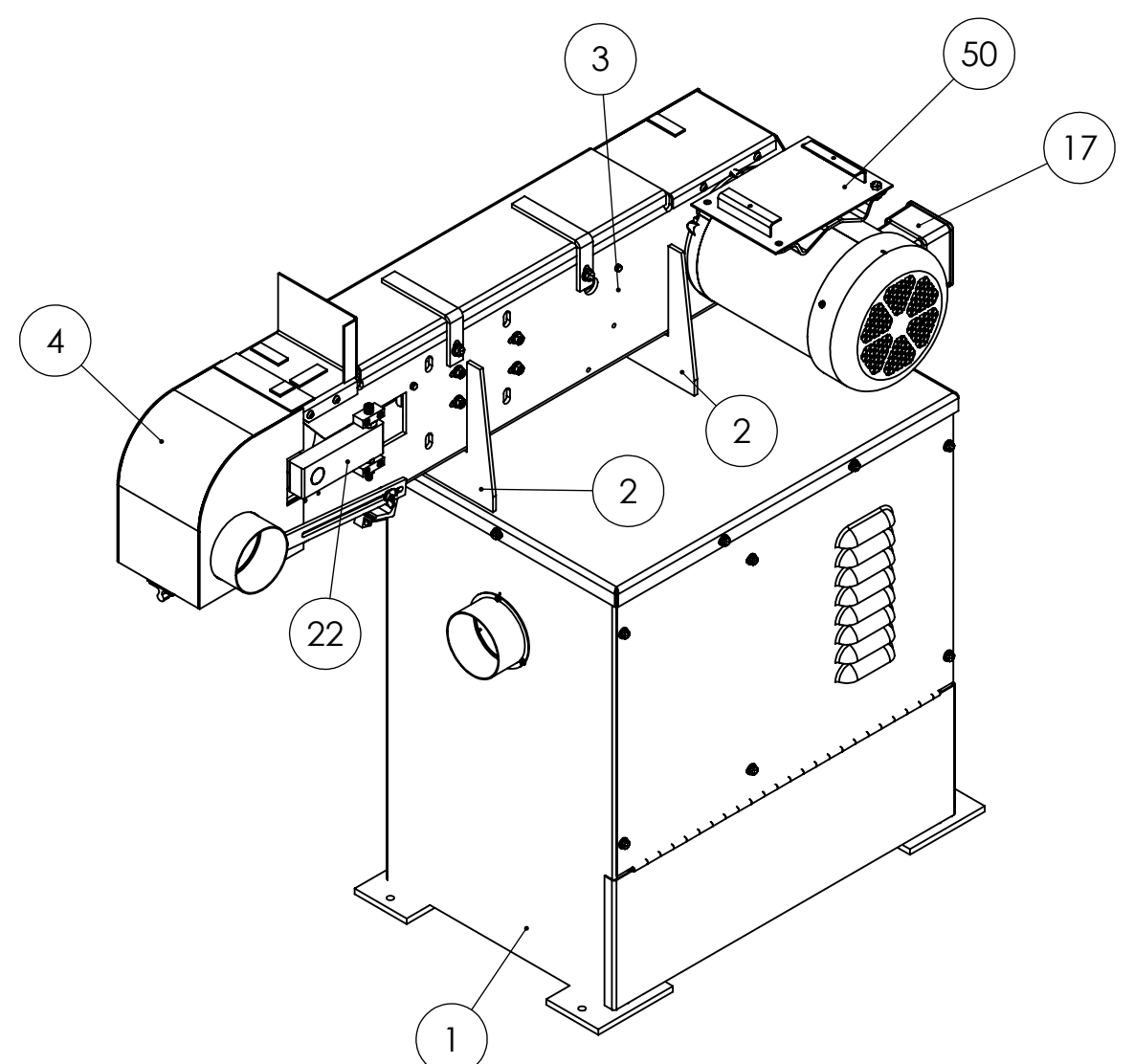
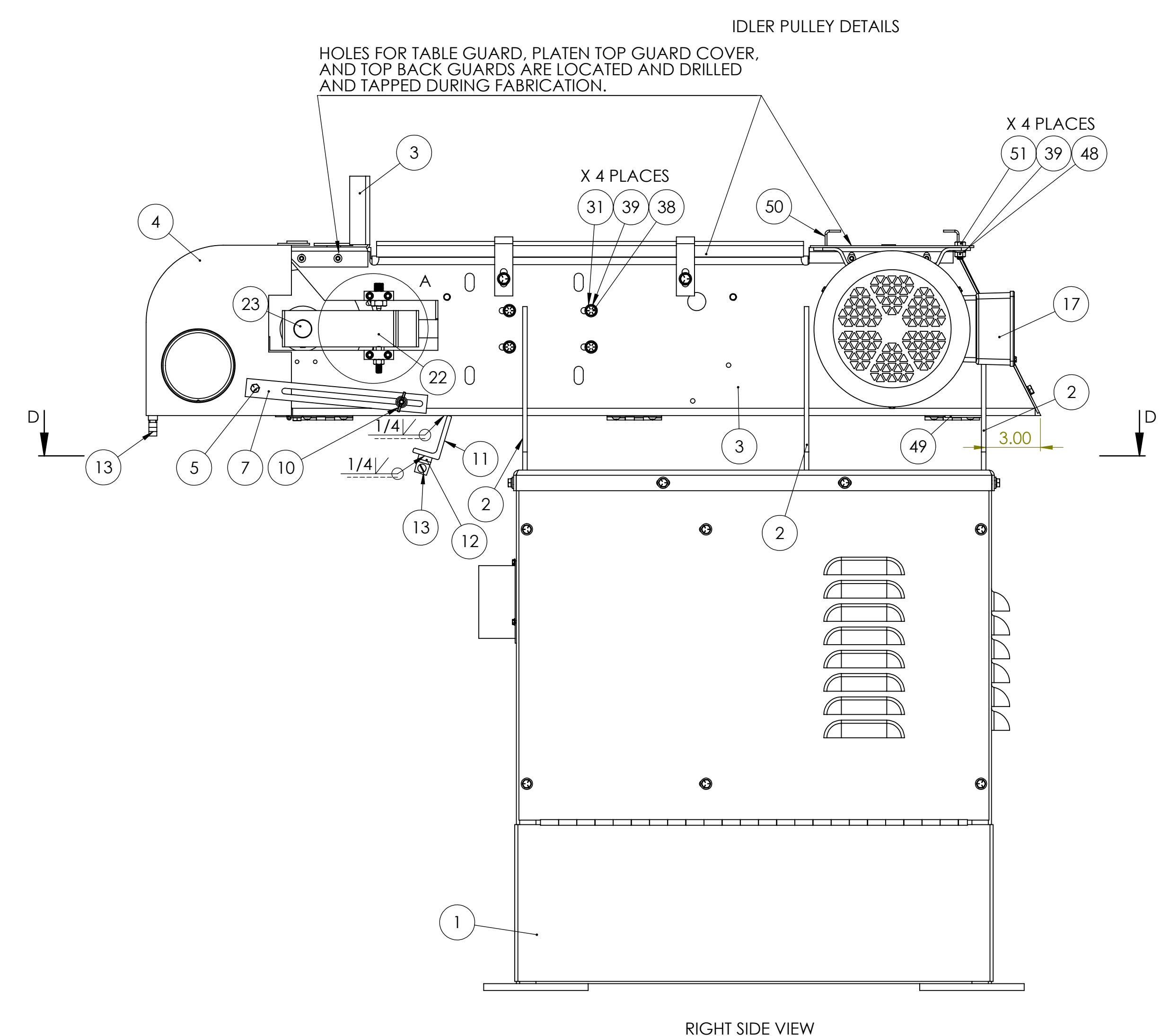
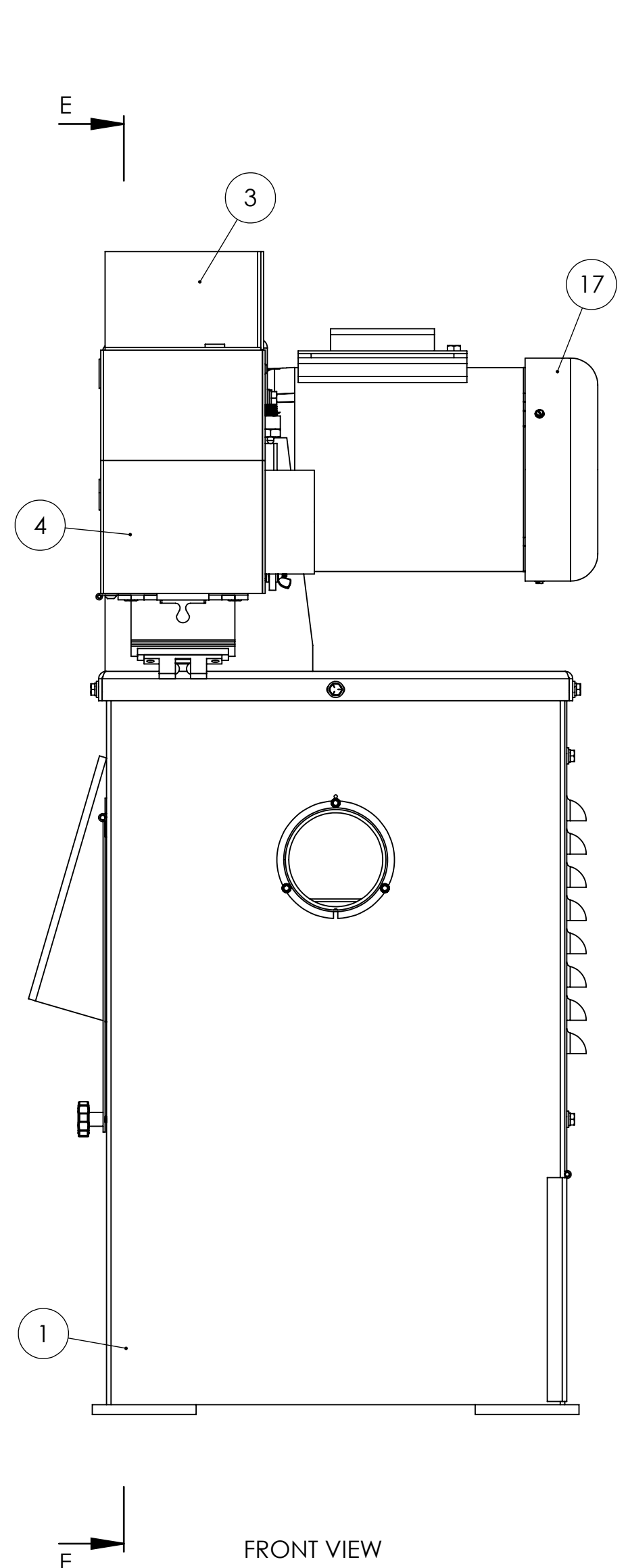
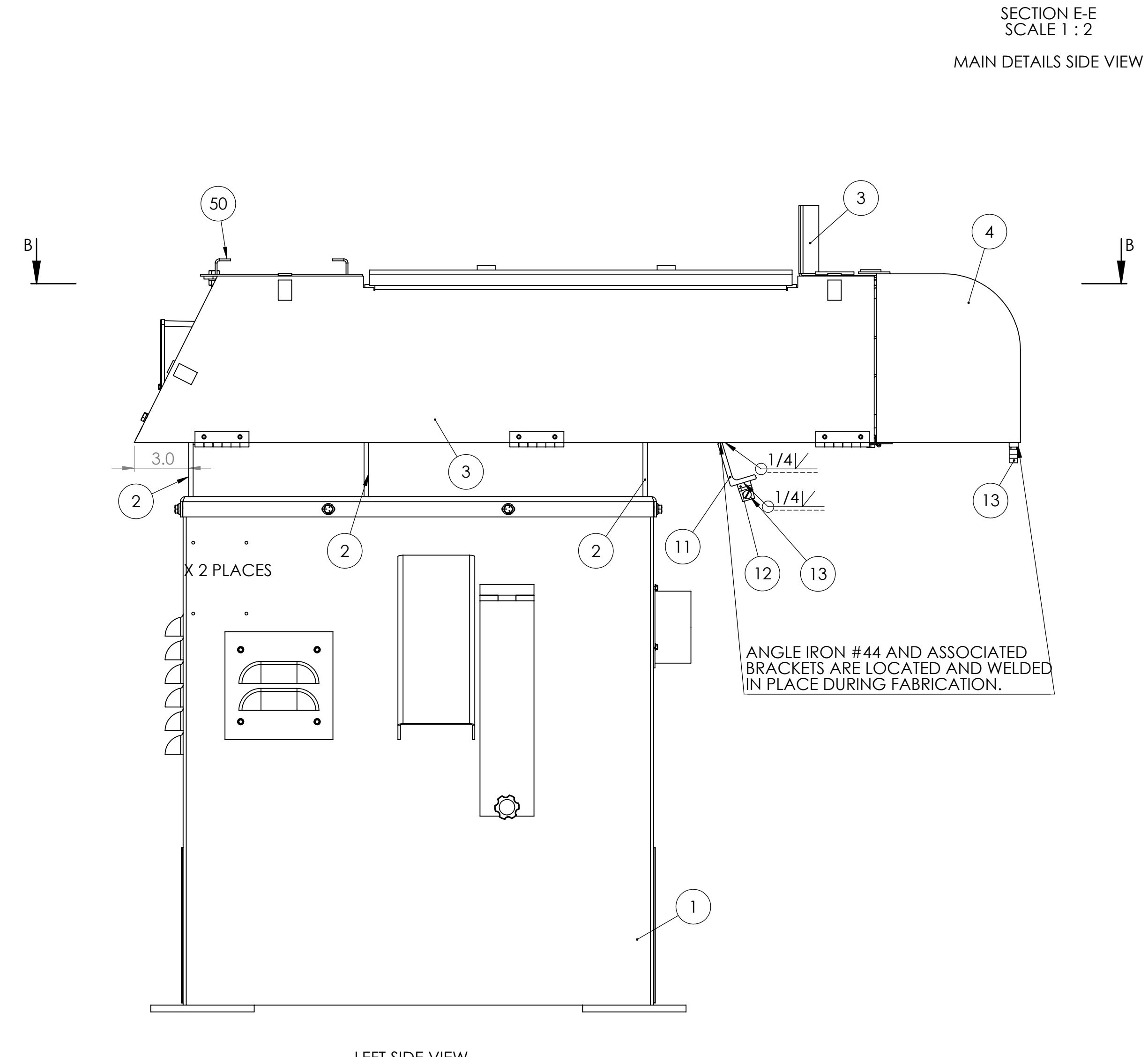
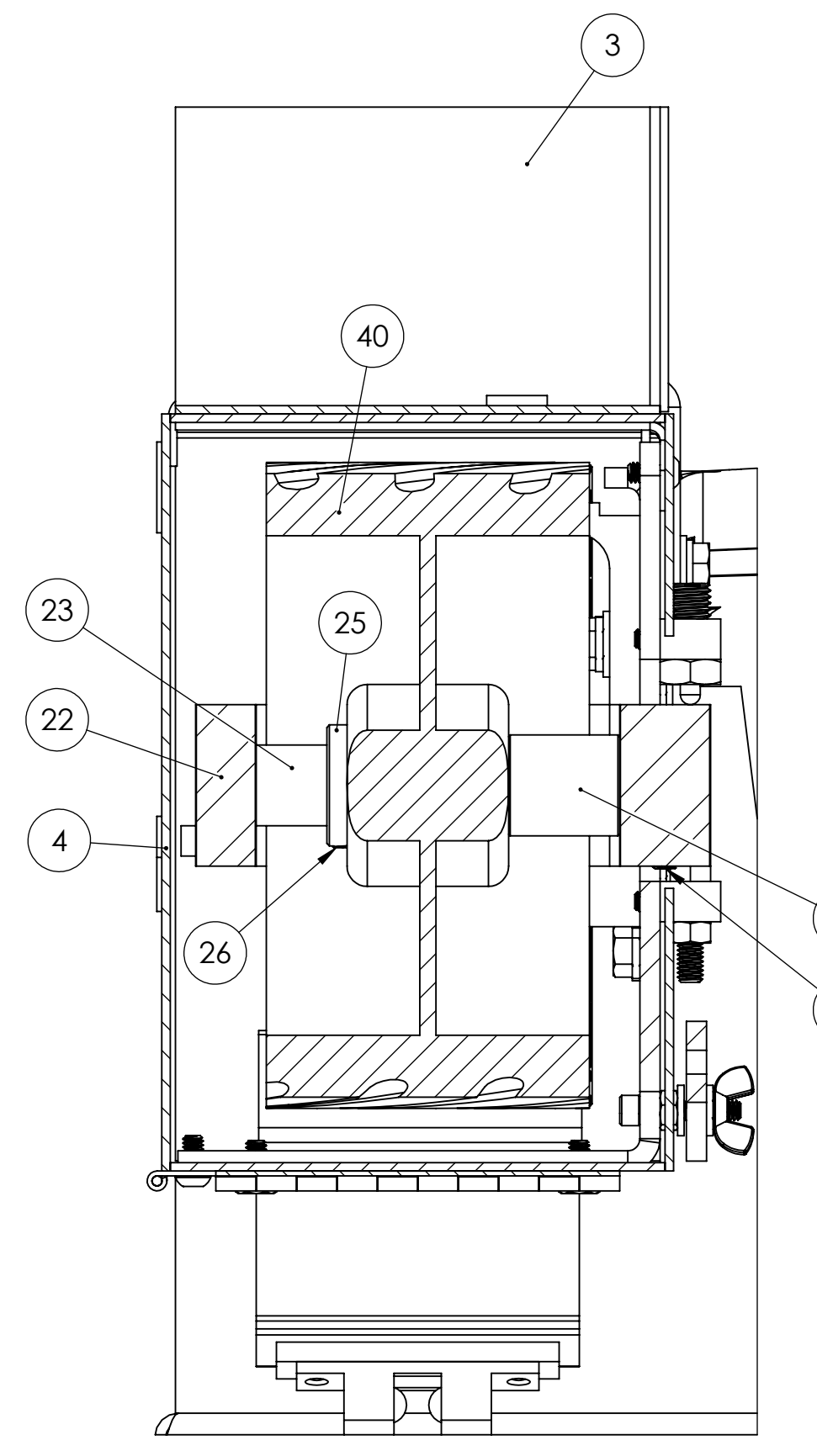
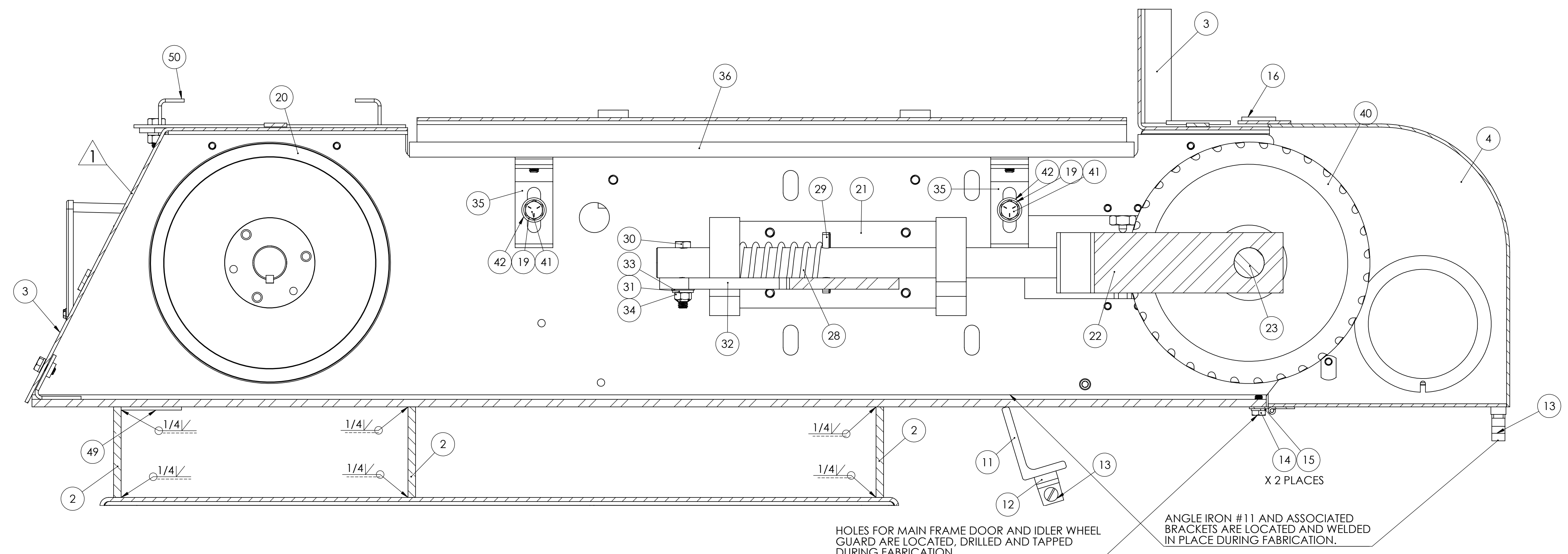
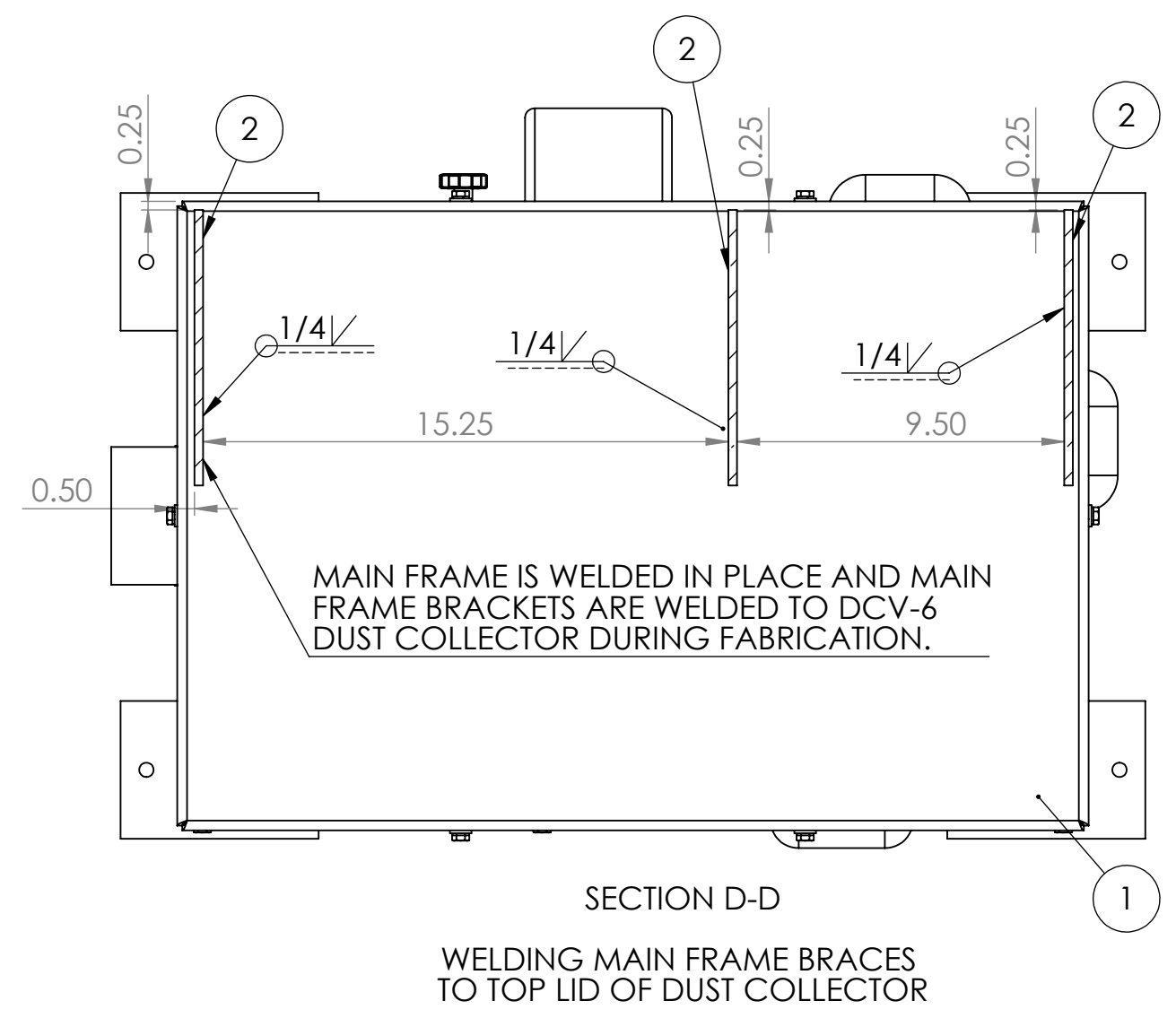
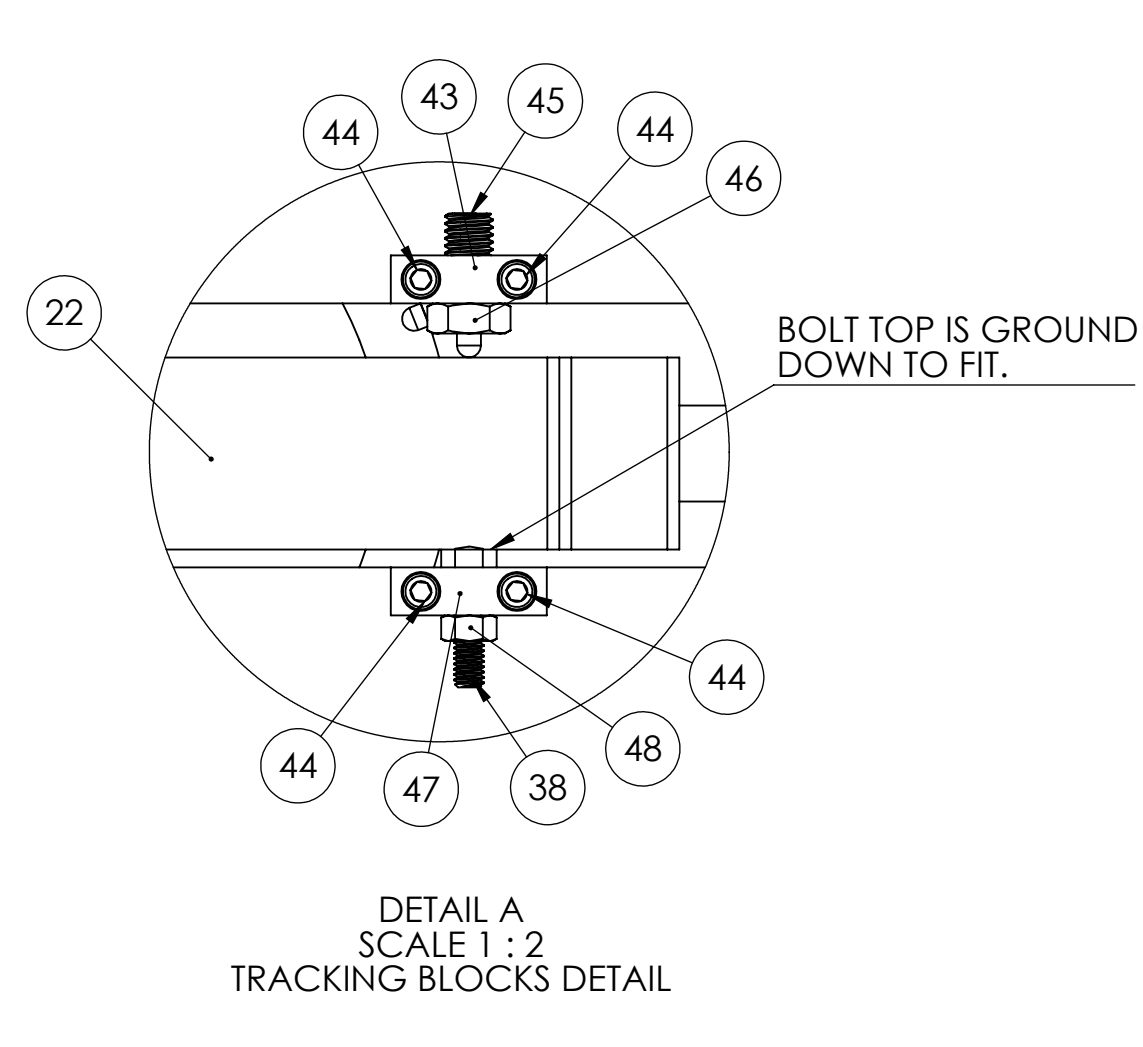
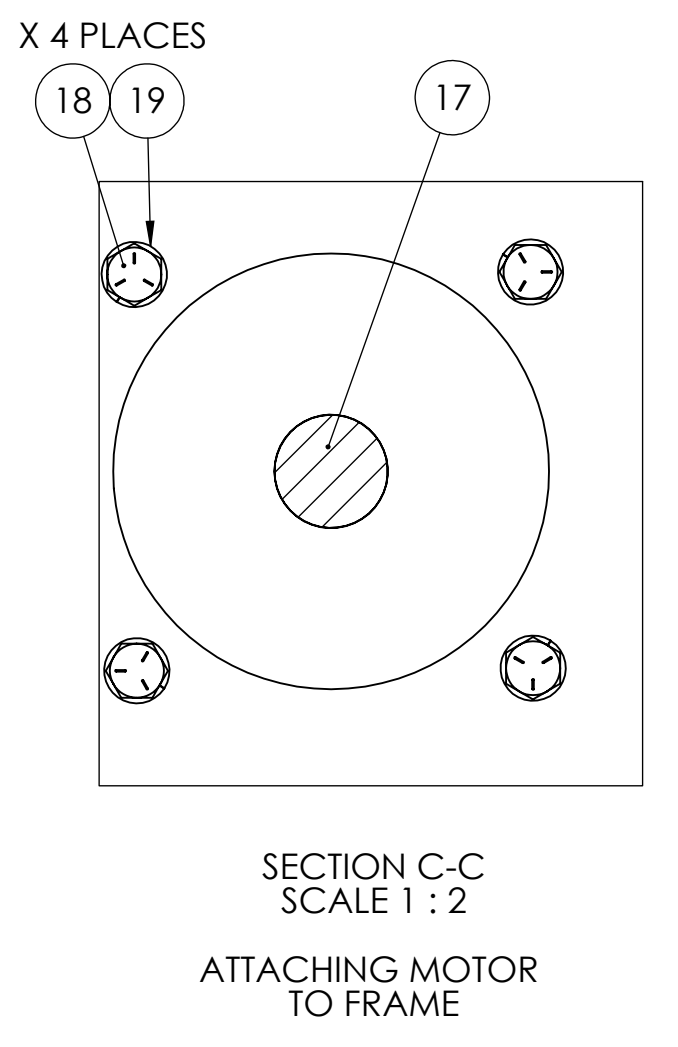
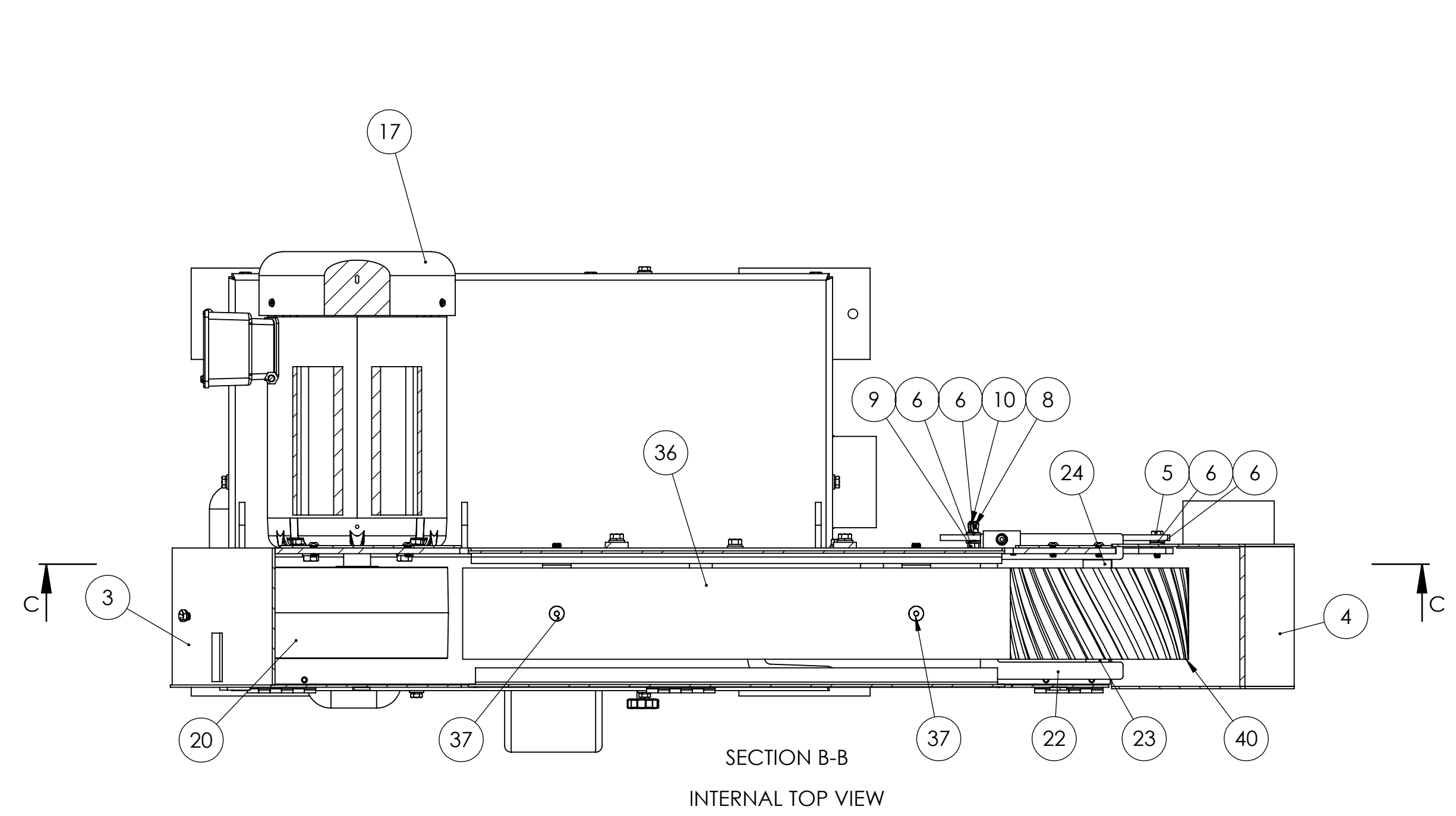
DATE: 9/3/2025
DRAWN BY: [Name]
CHECKED BY: [Name]
ENG APPR: [Name]
MFG APPR: [Name]
D.A.
COMMENTS:

TITLE: KS490 BELT GRINDER, 3HP, 3HP W VACUUM IN BASE

SIZE: DWG. NO. E
REV: 1
SCALE: 1:1.5 WEIGHT: SHEET 1 OF 1

APPROVALS:
NEXT ASSY: [Name]
USED ON: [Name]
FINISH: [Name]
DO NOT SCALE DRAWING

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
F8	1	WELDED BACK PANEL AND REMOVABLE TOP BACK PANEL ARE REPLACED BY SINGLE REMOVABLE PANEL	9/3/2025	



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	DCV-6	DCV-6 DUST COLLECTOR	1
2	041-083	BRACE FOR KS390HV AND KS490HV	3
3	291-016ASSY	KS390, KS490 MAIN FRAME AND GUARDS	1
4	342-147	IDLER WHEEL GUARD, FOR KS390HV AND KS490HV GRINDER	1
5	HHC5025016	1/4-20 X 1 HHCS GR5 Z	1
6	UFW2025	1/4 USS F/W Z	4
7	455-021	PIVOT ARM FOR KS390HV, KS490HV IDLER WHEEL GUARD	1
8	SHCA025020	1/4-20 X 1-1/4 SHCS	1
9	FHN5025	1/4-20 FHN GR5 Z	1
10	WGN2025	1/4-20 FORGED WING NUT Z	1
11	291-045ANGLEIRON	BRACKET FOR KS390HV, KS490HV, KS690HV MAIN FRAME	1
12	291-045BLOCK	LATCH MOUNTING BLOCK FOR KS390HV, KS490HV, KS690HV MAIN FRAME	1
13	170-001	BALL CATCH-DOOR LATCH FOR MACHINE PANELS AND ENCLOSURES	1
14	HHC5025008	1/4-20 X 1/2 HHCS GR5 Z	2
15	SLW2025	1/4 SPLIT L/W Z	2
16	LARGE LATCH AND STRIKE	LARGE LATCH AND STRIKE FOR MACHINE GUARDS	1
17	486-001A	5 HP MOTOR FOR FOR KS390-490-690HV	1
18	HHC5037020	3/8-16 X 1-1/4 HHCS GR5 Z	4
19	SLW2037	3/8 SPLIT L/W Z	6
20	560-056	DRIVE PULLEY ASSEMBLY FOR KS390HV-5 AND KS490HV-5 (WITH BUSHING 049-074)	1
21	291-018	CAST IRON FRAME FOR S460 DRY SANDERS	1
22	960-012	YOKE AND TENSION SHAFT ASSEMBLY FOR KS390 AND KS490	1
23	701-032	SPINDLE, IDLER FOR KS390 AND KS490 SANDERS	1
24	049-116	SPACER BUSHING FOR KS90, KS490, K20/15HP SERIES SPINDLE	1
25	123-016	S6 IDLER PULLEY LOCK COLLAR	1
26	SSKA025004	1/4-20 X 1/4 SOC SET KNURL PT.	1
27	SSKA031006	5/16-18 X 3/8 SOC SET KNURL PT.	1
28	697-024	SPRING, TENSION FOR BG260, S460, S6M SANDERS, K12-14B SAW, KS390, KS490, KS690 BELT GRINDERS	1
29	ROLA025024	1/4 X 1-1/2 ROLL PIN	1
30	HHT5031032	5/16-18x2 HEX HEAD TAP BOLT GR5 ZINC	1
31	UFW2031	5/16 USS F/W Z	5
32	455-003	TENSION RELEASE LEVER FOR S6 SANDER HEADS	1
33	BWWA031	5/16 BOWED SPRING WASHER 21/64	1
34	STN2031	5/16-18 STOVER LOCK NUT ZINC-WAX	1
35	041-029	PLATEN SUPPORT BRACKET FOR KS390 AND KS490 SANDERS	2
36	563-009	PLATEN FOR KS390 AND KS490	1
37	FSCA031016	5/16-18 X 1 FSHCS	2
38	HHC5031020	5/16-18 X 1-1/4 HHCS GR 5 Z	5
39	SLW2031	5/16 SPLIT L/W Z	5
40	936-010	WHEEL CONTACT FOR KS490 SANDER WITH 1" BORE W/BEARINGS	1
41	HHC5037016	3/8-16 X 1 HHCS GR5 Z	2
42	UFW2037	3/8 USS F/W Z	2
43	053-009B	TRACKING BLOCK - 1/2-13 THREADED HOLE	1
44	SHCA025012	1/4-20 X 3/4 SHCS	4
45	SPPA050020	1/2-13 X 1-1/4 SPRING PLUNGER W BROWN DELRIN NOSE ALLOY	1
46	FJNZ050	1/2-13 F H JAM NUT Z	1
47	053-009	TRACKING BLOCK - 5/16 THREADED HOLE	1
48	FHN5031	5/16-18 FHN GR5 ZINC	2
49	PATCH	WELDED PATCH FOR KS390 AND KS490 MAIN FRAME	1
50	041-117	SWITCH BRACKET TO MOUNT MAGNETIC SWITCH ON TO A KS390, KS490, KS690 - SHP	1
51	HHC5031012	5/16-18 X 3/4 HHCS GR5 Z	1

PLEASE REFER TO DCV-6 DRAWING FOR ADDITIONAL DETAILS REGARDING THE DCV-6 DUST COLLECTOR.

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONS ± .005
ANGULAR ± .0315
HOLE POSITION ± .005
THREE PLACE DECIMAL ± .001
HOLE POSITION ± .005
HOLE POSITION ± .005

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF KALAMAZOO TOOL COMPANY. IT IS TO BE USED ONLY FOR THE PURPOSES SPECIFIED HEREIN. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF KALAMAZOO TOOL COMPANY IS PROHIBITED.

DATE: 9/3/2025
DRAWN BY: [Name]
CHECKED BY: [Name]
ENG APPR: [Name]
MFG APPR: [Name]
D.A.
COMMENTS:

TITLE: **KALAMAZOO**
KS490 HORIZONTAL VACUUM

SIZE: DWG. NO. **E KS490HV** REV **1**
SCALE: 1:5 WEIGHT: SHEET 1 OF 1

APPROVALS:
NEXT ASSY: [Name]
USED ON: [Name]
FINISH: [Name]
APPLICATION: [Name]
DO NOT SCALE DRAWING