



Instruction Manual

S272 Series 2" x 72" Belt Grinder

Covers: S272, S272S AND S272V BELT GRIDERS

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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.
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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 factory pre-set with the tension handle (29) and can be easily adjusted as needed.
 - Belt changing – Disconnect power. Release belt tension by lowering the tension handle (29). Remove the old belt and install the new one. Raise the tension handle (29) to reapply tension, then retrack the belt as needed.
 - Belt tracking – With power disconnected, hand-rotate the belt to center it; Turn tracking knob (27) in or out to “track” the belt.
 - Examine the abrasive belt carefully before use. Never use an abrasive belt with a nicked or cut edge, crease, or handling damage.
 - When operating the S272V with its vacuum base, the dust collector and steel mesh filter must be emptied and cleaned frequently to maintain efficiency and prevent the buildup of combustible materials. Do not mix different materials in the collector. Thoroughly clean the machine and collector before grinding a different material.
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S272 and S272V 2" x 72" Industrial Belt Grinders – Machine Overview

Description:

The Kalamazoo Industries S272 & S272V 2" x 72" industrial belt grinders are heavy-duty, multi-purpose machines built for fast, cool metal removal and long-term reliability. Powered by an industrial 1 HP motor with 7200 SFPM belt speed, they feature quick-change 3" and 1.5" contact wheels, a rotating platen, and an adjustable work table for maximum versatility in grinding, deburring, and finishing applications. The S272V adds an integrated vacuum base with reusable steel mesh filter to help capture metal grinding dust and maintain a cleaner work area.

Intended Use:

The Kalamazoo Industries S272 and S272V 2" x 72" industrial belt grinders are designed for metalworking professionals, fabricators, and maintenance shops. These machines are suited for grinding, shaping, deburring, and finishing both ferrous and non-ferrous metals. Typical applications include tool sharpening, weld preparation, edge finishing, and surface conditioning. Their compact footprint allows integration into small or large workshops while still delivering industrial-grade performance, with the S272V adding an integrated vacuum base to help capture grinding dust and support a cleaner work area.

Key Benefits:

- **Versatile Grinding Capability** – Performs grinding, deburring, shaping, sharpening, and finishing on both ferrous and non-ferrous metals.
 - **Industrial-Grade Performance** – Powered by a robust 1 HP motor with 5400 SFPM belt speed for fast, efficient material removal.
 - **Quick Belt Changes** – Belt tracking and tension system allows rapid belt swaps to minimize downtime.
 - **Multiple Grinding Options** – Equipped with a rotating platen, 3" bottom contact wheel, 1.5" top contact wheel, and an optional 5" OD x 2" serrated 70-durometer contact wheel (Part No. CW-5) for expanded grinding versatility.
 - **Smooth, Stable Operation** – Heavy-duty construction and precision-balanced wheels ensure reduced vibration and consistent results.
 - **Compact Footprint** – Fits easily in small or large workshops without sacrificing performance.
 - **Enhanced Dust Collection (S272V only)** – Integrated vacuum base with reusable steel mesh filter helps maintain a cleaner, safer work environment.
 - **Made in the USA** – backed by Kalamazoo Industries' reputation for quality and performance.
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Setup and Installation – S272 & S272V 2" x 72" Industrial Belt Grinders

Uncrate 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

- S272: Securely mount the S272 to a stable, level workbench or table using appropriate fasteners.
- S272V: Install the S272V on a stable, level floor surface and secure the unit as required for safe operation.
- 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 2" x 72" 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.
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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.
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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 on/off switch operates properly.
- S272V only – Vacuum System: Empty the dust collector and clean the steel mesh filter as needed to maintain airflow and prevent buildup of combustible dust.

Weekly:

- Inspect all contact wheels and pulleys 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 tracking knob function smoothly.
- S272V only – Vacuum System: Inspect vacuum and connections for leaks, cracks, or clogs; clean and repair as needed.

Monthly:

- Inspect motor ventilation openings and clean thoroughly to help prevent overheating.
- Examine 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.
- S272V only – Vacuum System: Thoroughly clean the integrated vacuum chamber and housing, and inspect the steel mesh filter for damage or excessive wear; replace if necessary.

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.
 - S272V only – Vacuum System: Do not mix different materials in the dust collector; thoroughly clean the collector and vacuum system before grinding a different material. Dispose of collected dust in accordance with local regulations and material safety data.
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Technical Information – S272 & S272V 2" x 72" Industrial Belt Grinders

Belt Size: 2" x 72" abrasive belt

- Motor (S272): 1 HP, TEFC, available in 1PH 230V or 3PH 230/460V (specify phase and voltage at order)
- Motor (S272V): 1 HP, single-phase 230V with integrated vacuum base (current offering – internal choice, even though legacy literature mentions other voltages).
- Belt Speed: 5400 SFPM (single speed)
- Contact Wheels (Standard – both models):
 - 3" serrated contact wheel, 70 durometer
 - 1.5" serrated contact wheel, 70 durometer
 - Quick-change mounting on rotating platen

Optional Contact Wheel:

- 5" OD x 2" serrated 70-durometer contact wheel, Part No. CW-5

Platen Assembly:

- Adjustable and replaceable steel platen
- Platen rotates 360° to accommodate various part shapes and grinding angles

Work Table:

- Adjustable cast-iron work table
- Miter gauge slot for angular work support

Dust Collection (S272V only):

- Integrated DCV-6 vacuum base with metal grinding dust collector
- Reusable steel mesh filter
- Separate ON/OFF switches for grinder and dust collector

Shipping Data:

- S272: Shipping weight approx. 150 lb; shipping dimensions L 28" x W 39" x H 26"
- S272V: Shipping weight approx. 350 lb; shipping dimensions L 33" x W 43" x H 52"

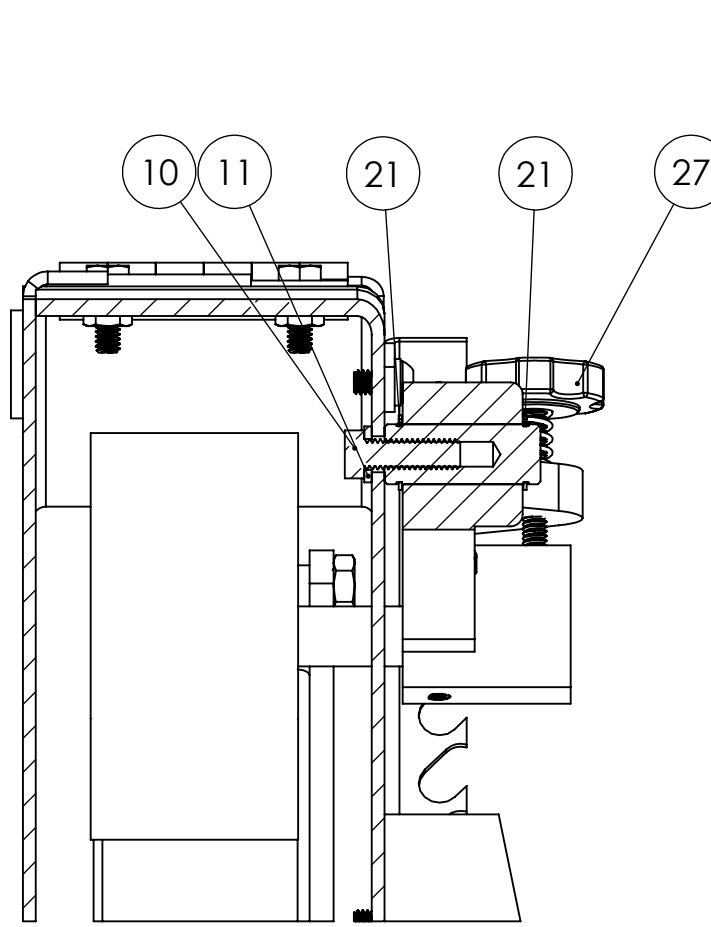
Country of Origin: Made in USA

Technical Information – BG272 2" x 72" Industrial Belt Grinder

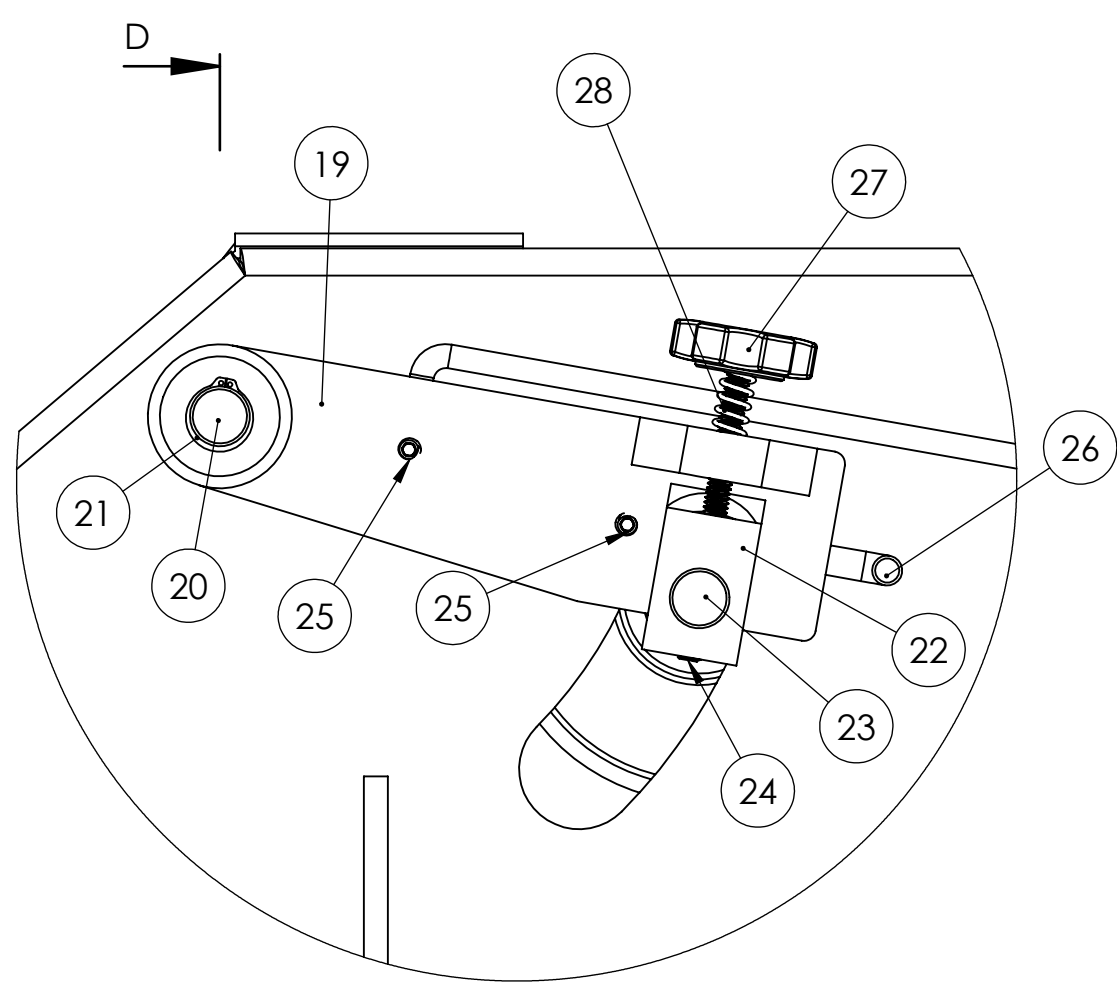
Replacement Belts and Parts

Contact Kalamazoo Industries, Inc. for parts, accessories, or technical support.

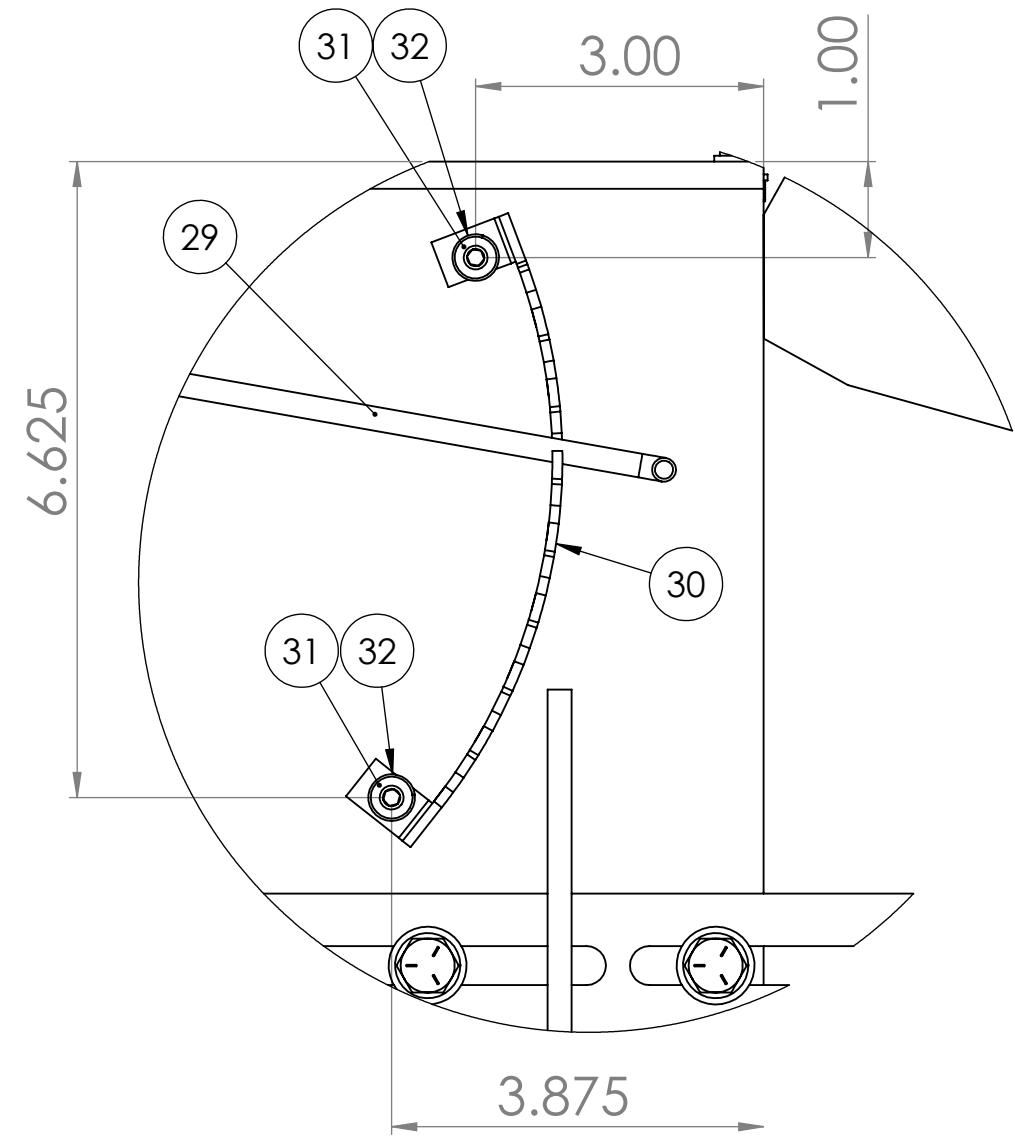
- Phone: (269) 382-2050
- Website: www.kalamazooind.com
- info@kalamazooindustries.com



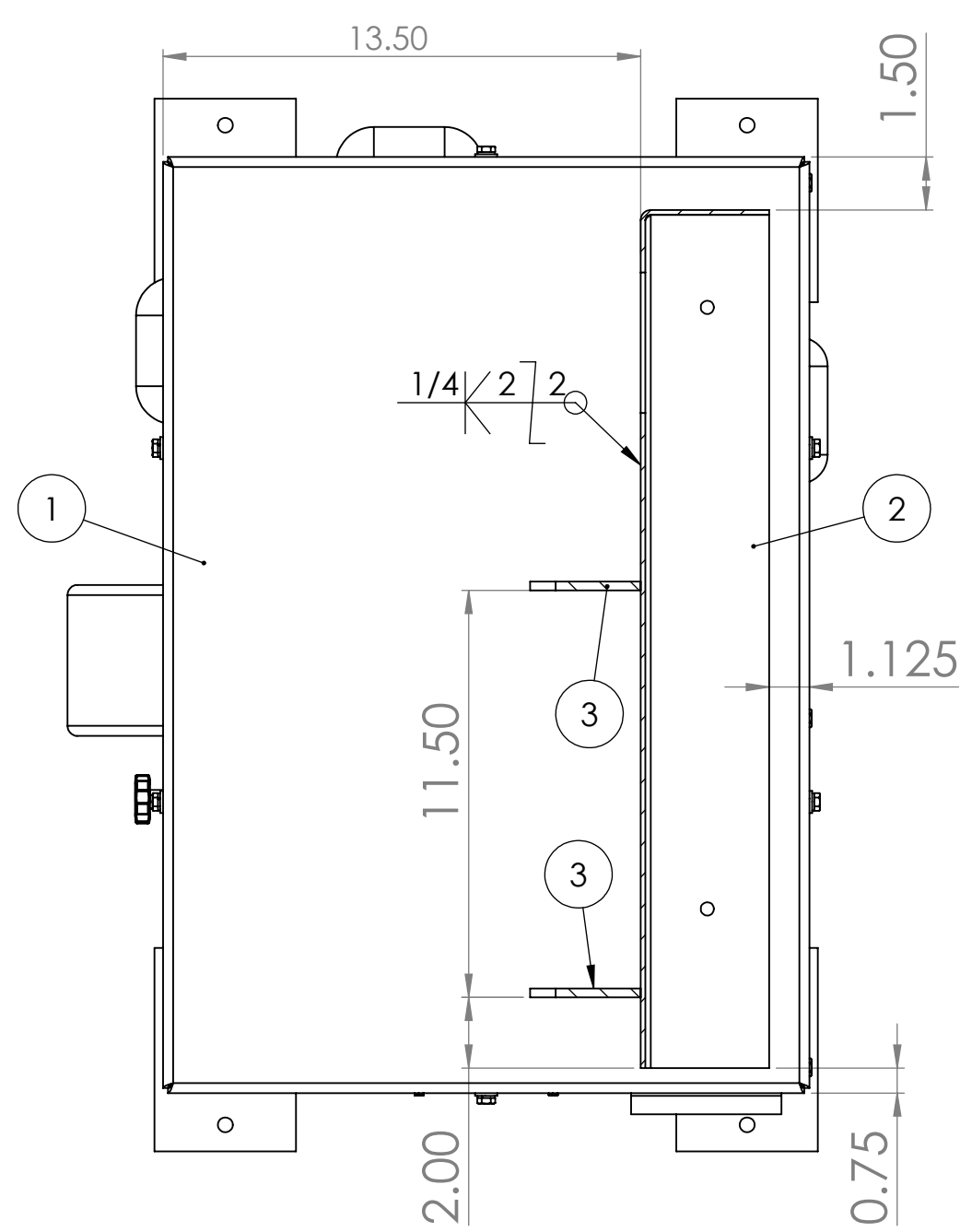
SECTION D-D
SCALE 1 : 2
TRACKING ARM
PIVOT SHAFT DETAILS



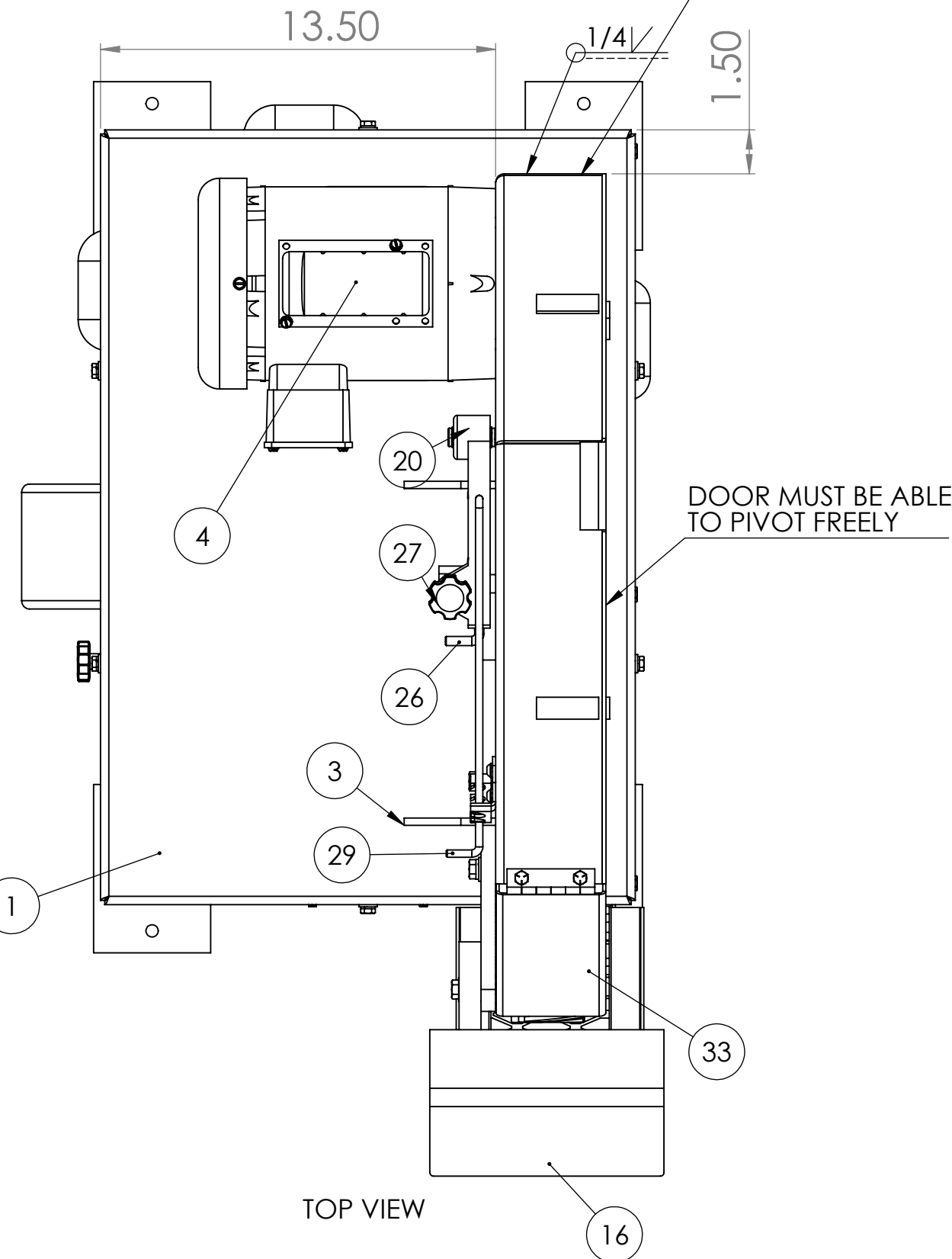
DETAIL B
SCALE 1 : 2
TENSION ARM DETAILS



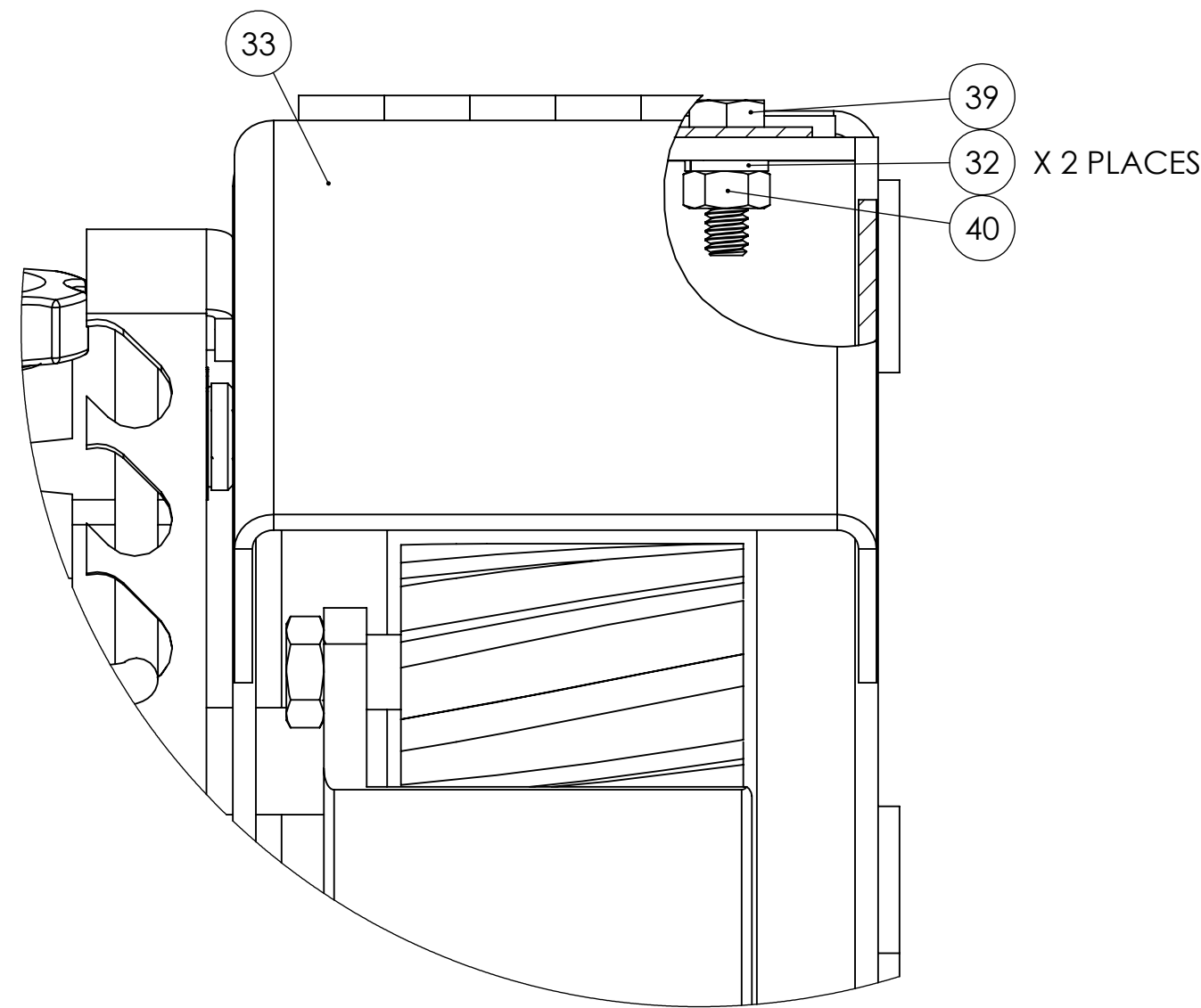
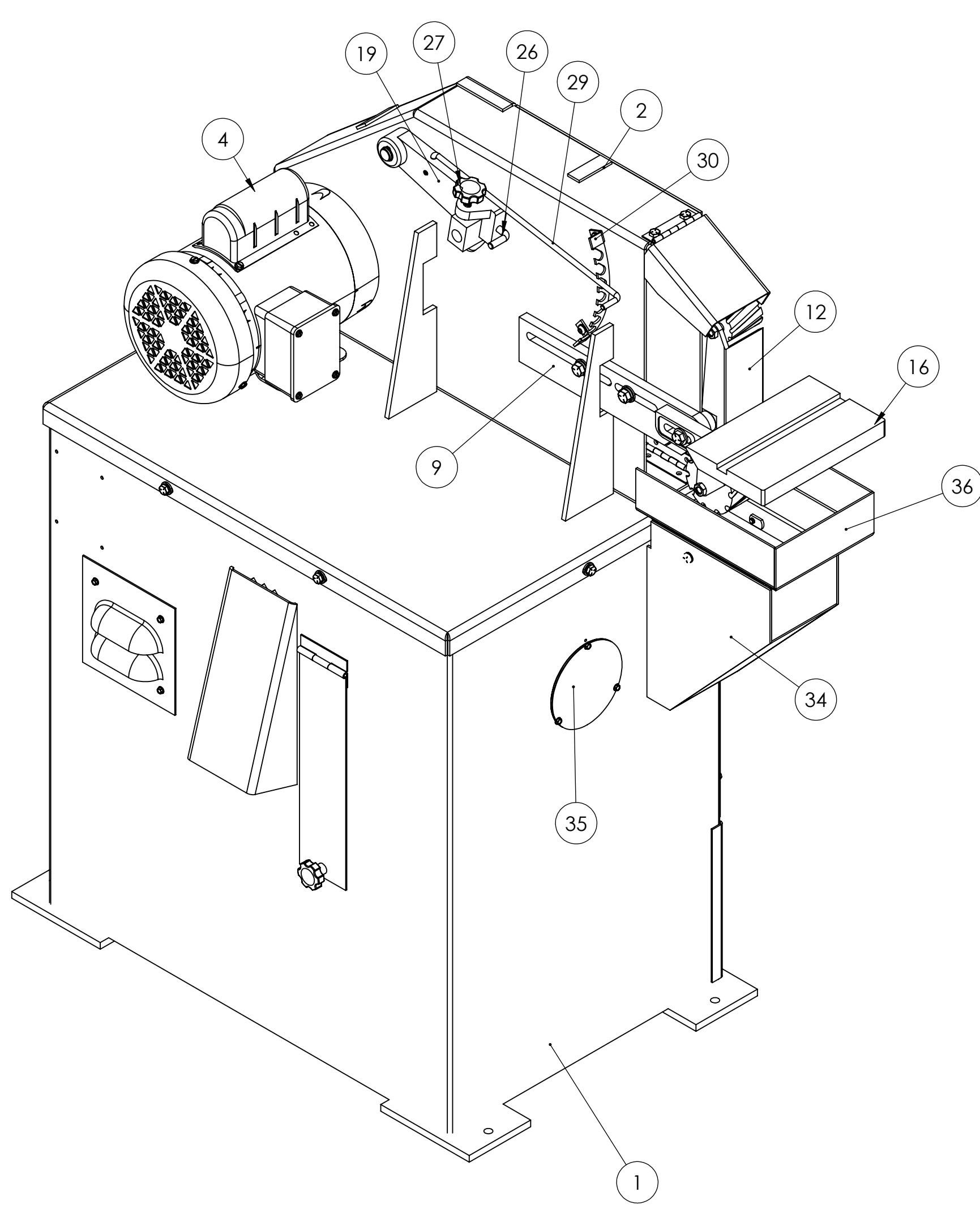
DETAIL E
SCALE 1 : 2
TENSION BRACKET DETAILS



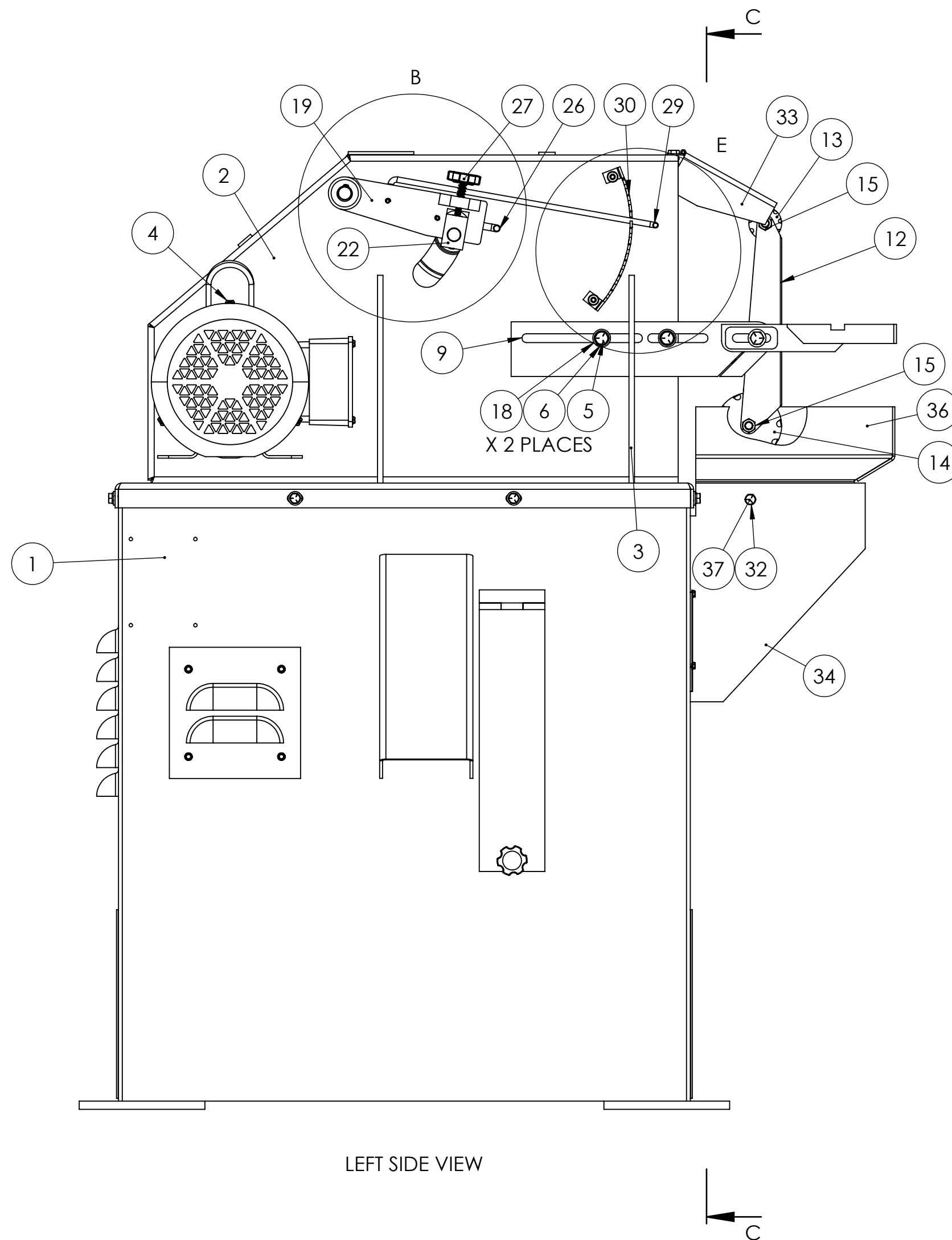
SECTION G-G
WELDING OF MAIN FRAME
TO DCV-6



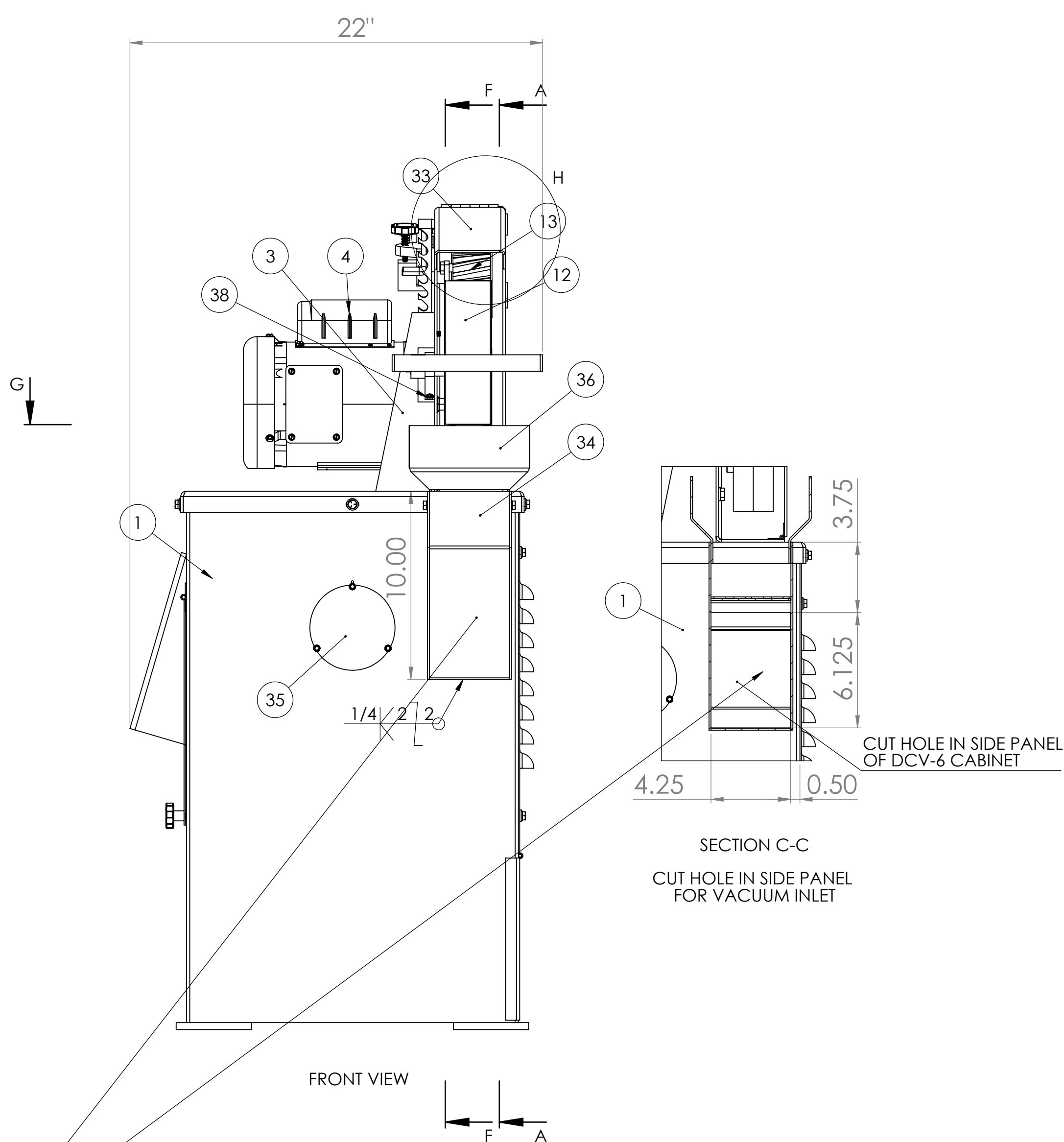
TOP VIEW



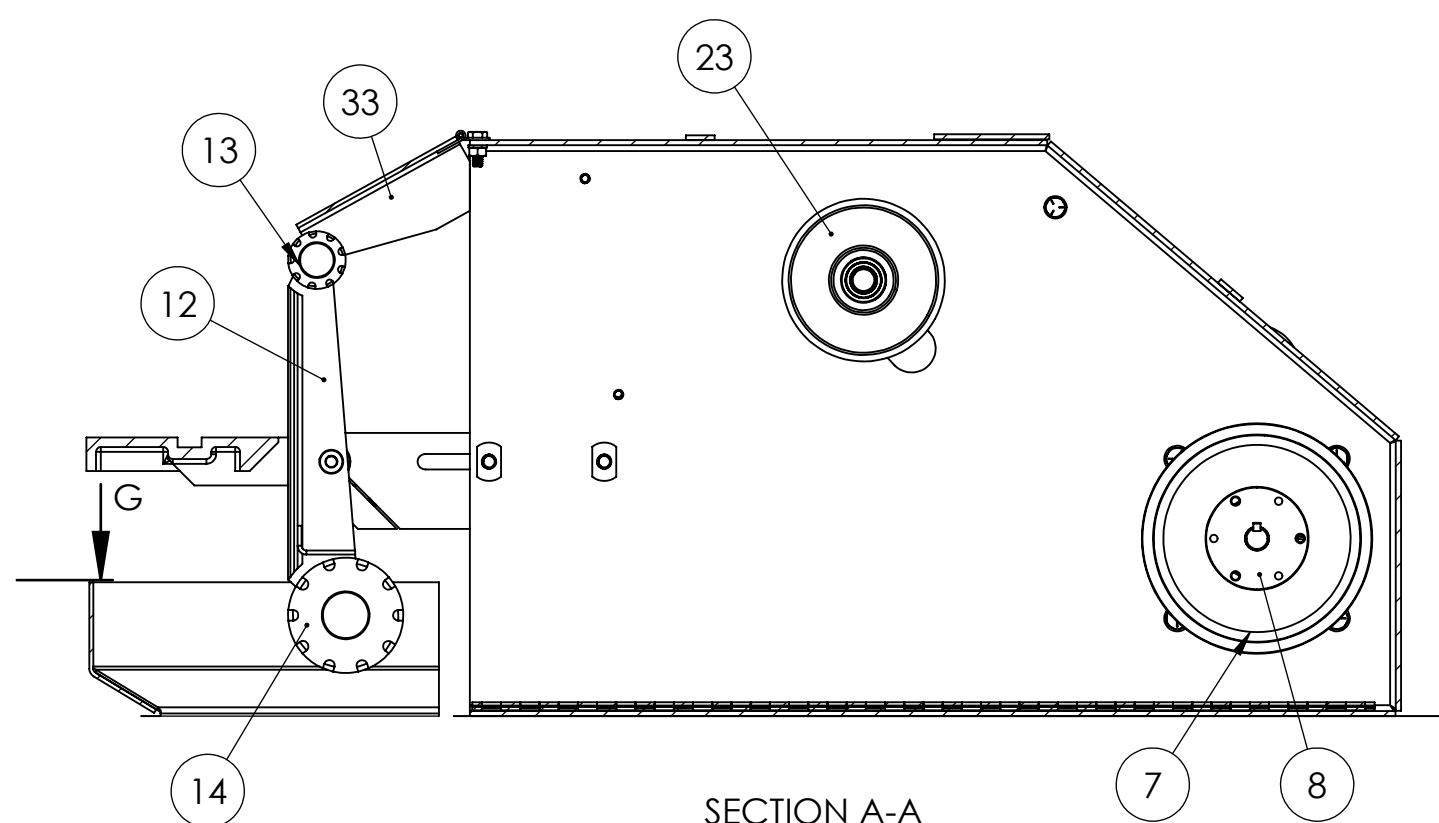
DETAIL H
SCALE 1 : 1
ATTACHING FRONT BELT GUARD
TO MAIN FRAME



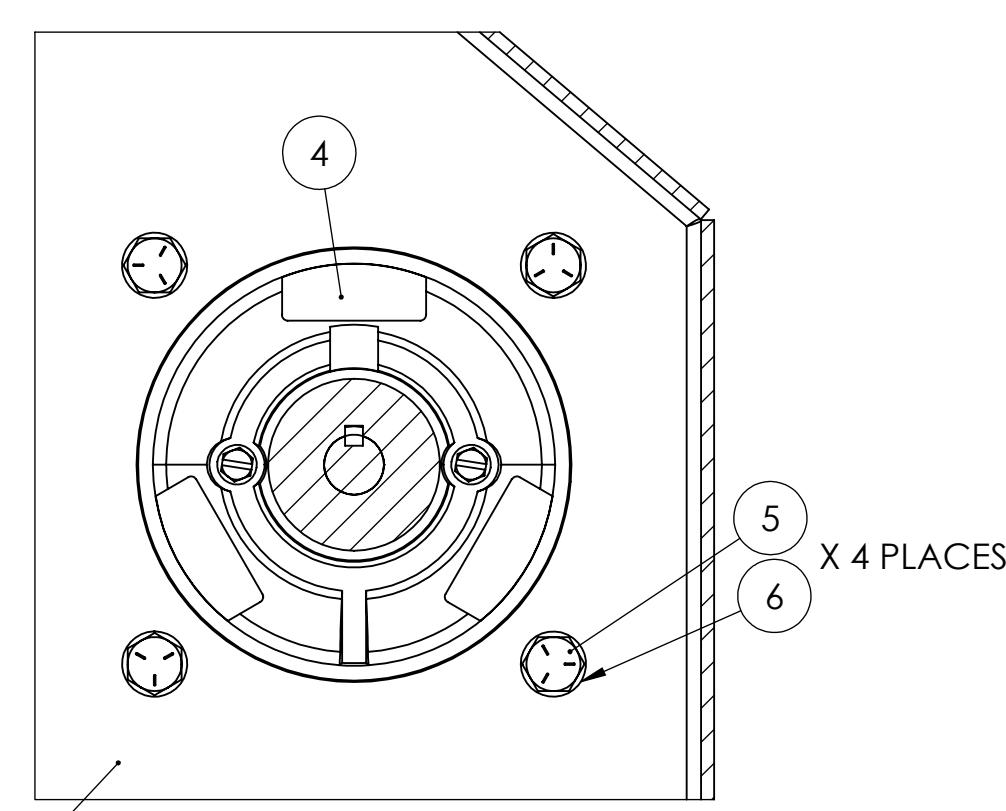
LEFT SIDE VIEW



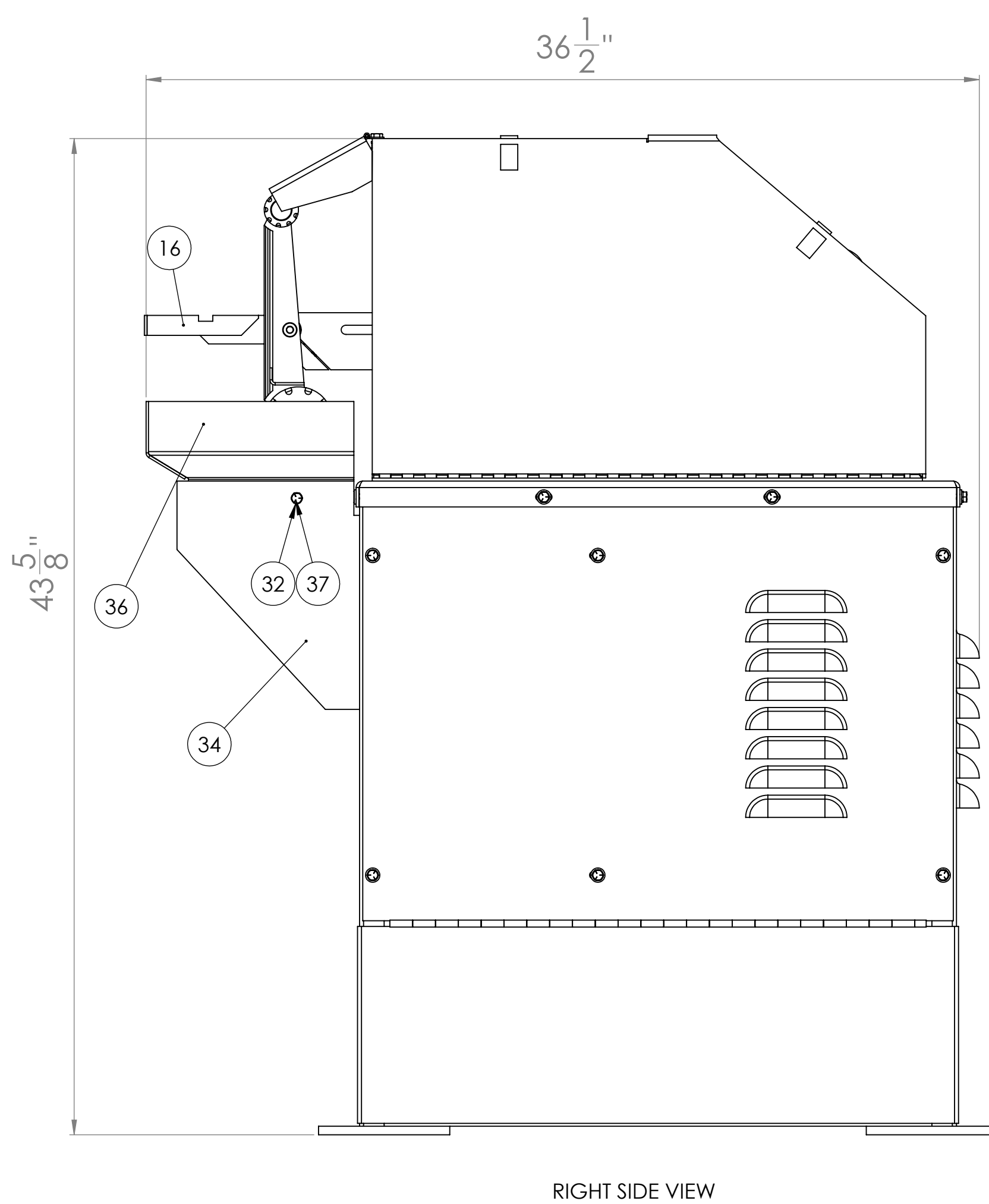
FRONT VIEW



SECTION A-A
MAIN FRAME INTERIOR
DETAILS



SECTION F-F
MOTOR MOUNT DETAILS
SCALE 1 : 2



RIGHT SIDE VIEW

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	DCV-6	DCV-6 DUST COLLECTOR	1
2	291-036	FRAME FOR S272 SANDERS	1
3	061-011	BRACE FOR S272 FRAME	2
4	486-002	1 HP MOTOR FOR 2FSM-1HP, 2FS72M-1HP, S272, S45-1HP, S45WB, S460D, BG272, DCV-6, DCV-8	1
5	HHC5037016	3/8-16 X 1 HHCS GR5 Z	6
6	SLW2037	3/8 SPLIT L/W Z	6
7	560-053	6" DIA DRIVE PULLEY (NEW STYLE) FOR S272 AND BG260	1
8	049-019	BUSHING FOR SPINDLE V-BELT PULLEY FOR S460W, S6MW, S612, BG272	1
9	048-003	ADJUSTING BAR FOR S272	1
10	HHC5031016	5/16-18 X 1 HHCS GR5 Z	1
11	SLW2031	5/16 SPLIT L/W Z	1
12	563-028	PLATEN FOR S272 SANDERS (NEW STYLE)	1
13	936-013	WHEEL CONTACT 1-1/2" DIA (2" WIDE) FOR S272 SANDERS	1
14	936-012	WHEEL CONTACT 3" DIA (2" WIDE) FOR S272 SANDERS	1
15	FJNZ038	3/8-24 F H JAM NUT	2
16	829-034	CAST IRON WORK TABLE FOR S272, S460, AND BG446	1
17	HHC5037032	3/8-16 X 2 HHCS GR5 Z	1
18	UFW2037	3/8 USS F/W Z	3
19	002-009	ARM, TRACKING FOR S272	1
20	562-013	TRACKING ARM PIN FOR S272 AND BG272	1
21	641-016	RETAINING RING SHR-62 ST PA 5/8	2
22	053-004	S272 TRACKING BLOCK	1
23	936-011	NYLON IDLER PULLEY W BEARINGS FOR S272 AND BG272	1
24	SSKA025006	1/4-20 X 3/8 SOC SET KNURL PT.	1
25	SSKA025004	1/4-20 X 1/4 SOC SET KNURL PT.	2
26	562-014	PIVOT PIN FOR S272 SANDERS	1
27	696-009	KNOB, TRACKING FOR S272 AND BG272 SANDERS	1
28	697-036	SPRING, FOR S272 TRACKING KNOB	1
29	455-001	TENSION HANDLE FOR S272 AND BG272 HANDLE	1
30	041-014	TENSION BRACKET FOR S272 AND BG272	1
31	BSCA025008	1/4-20 X 1/2 BSHCS	2
32	SLW2025	1/4 SPLIT L/W Z	6
33	342-015	BELT GUARD FOR S272 SANDERS	1
34	124-005-INLET	VACUUM INLET FOR S272 SANDERS/ DCV-6 CABINET	1
35	124-005-VENTCOVER	S272 SANDERS/ DCV-6 CABINET 4" ORIFACE HOLE COVER	1
36	124-005-HOOD	VACUUM INLET HOOD FOR S272 SANDERS/ DCV-6 CABINET	1
37	HHC5025008	1/4-20 X 1/2 HHCS GR5 Z	2
38	SHCA025016	1/4-20 X 1 SHCS	1
39	HHC5025012	1/4-20 X 3/4 HHCS GR5 Z	2
40	FHN5025	1/4-20 FHN GR5 Z	2

DUST CHUTE IS WELDED
IN PLACE OVER OPENING
CUT IN THE SIDE OF THE DCV-6
CABINET

SEE DCV-6 CABINET DRAWING FOR CABINET DETAILS.

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS
DRAWING IS THE SOLE PROPERTY OF
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REPRODUCTION IN PART OR AS A WHOLE
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KALAMAZOO TOOL & MACHINE CO. IS
PROHIBITED.

UNLESS OTHERWISE SPECIFIED:	NAME	DATE
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONS < 1/8" ANGULAR SURFACES THREE PLACE DECIMAL THREE PLACE DECIMAL	DRAWN CHECKED ENG APPR MFG APPR	
INTERPRET GEOMETRIC TOLERANCES PER ASME Y14.5	G.A. COMMENTS:	
DATE	USED ON	FRONT
DATE	APPLICATION	DO NOT SCALE DRAWING

2" X 72" BELT GRINDER
WITH DCV-6 VACUUM

SIZE DWG. NO.
E S272V

SCALE: 1:5 WEIGHT: SHEET 1 OF 2