KALAMAZOO INDUSTRIES, INC.

Instruction Manual

KS390 Belt Grinder Series
Covers KS390, KS390V and KS390HV-5

www.kalamazooind.com

Kalamazoo Industries, Inc.
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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) No belt tension adjustment is needed.
- Belt changing – Disconnect power. Pull out the tension shaft using the tension release lever (23) and replace the belt. Then push the tension release lever (23) back in to re-apply belt tension.
- Belt tracking – With power disconnected, hand-rotate the belt to center it; loosen hex nut (38), then turn tracking bolt (29) in or out to “track” the belt. When the belt is correctly positioned, hold the tracking bolt (29) steady with one wrench and tighten hex nut (38) 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.

KS390 Belt Grinder Series Industrial Belt Grinder – Machine Overview

Description:

The KS390 Series consists of heavy-duty 3" 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 KS390 is the base model; the KS390V includes an integrated vacuum base; and the KS390HV-5 includes a high-capacity dust collector for enhanced safety and cleanliness.

Intended Use:

Engineered for metalworking professionals, fabricators, and maintenance shops, the KS390, KS390V and KS390HV 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:

KS390 – 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

KS390V – 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

KS390HV-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 – KS390 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 KS390, KS390V, and KS390HV 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 3" 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 damanged (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 damanaged contact wheel and or idler pully.

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..

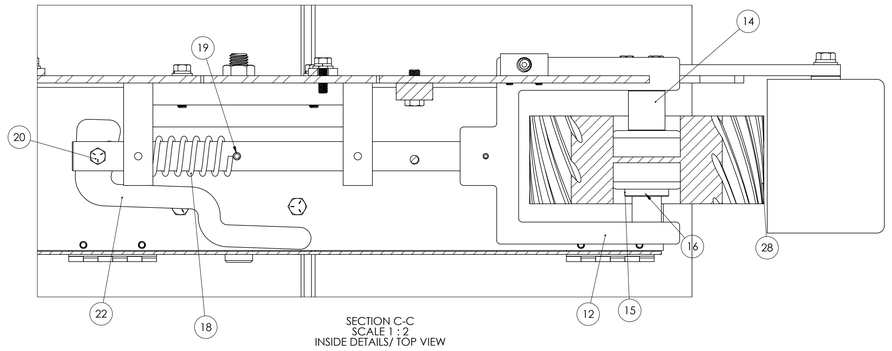
General Tips:

- 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.

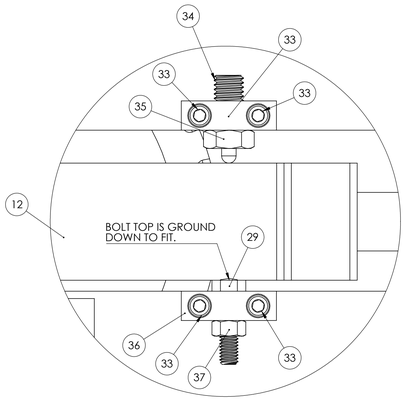
Technical Information – KS390 Series Industrial Belt Grinders

Specification	KS390	KS390V	KS390HV-5
Belt Size	3″ × 90″	3″ × 90″	3″ × 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 × 3″ width, 70 durometer, serrated surface	8″ OD × 3″ width, 70 durometer, serrated surface	8″ OD × 3″ 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 KS390 plus built-in vacuum base (~100 CFM)	Direct drive; spring belt tension; quick-release tension lever Direct dust collector base (~400 CFM)
Appximate 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

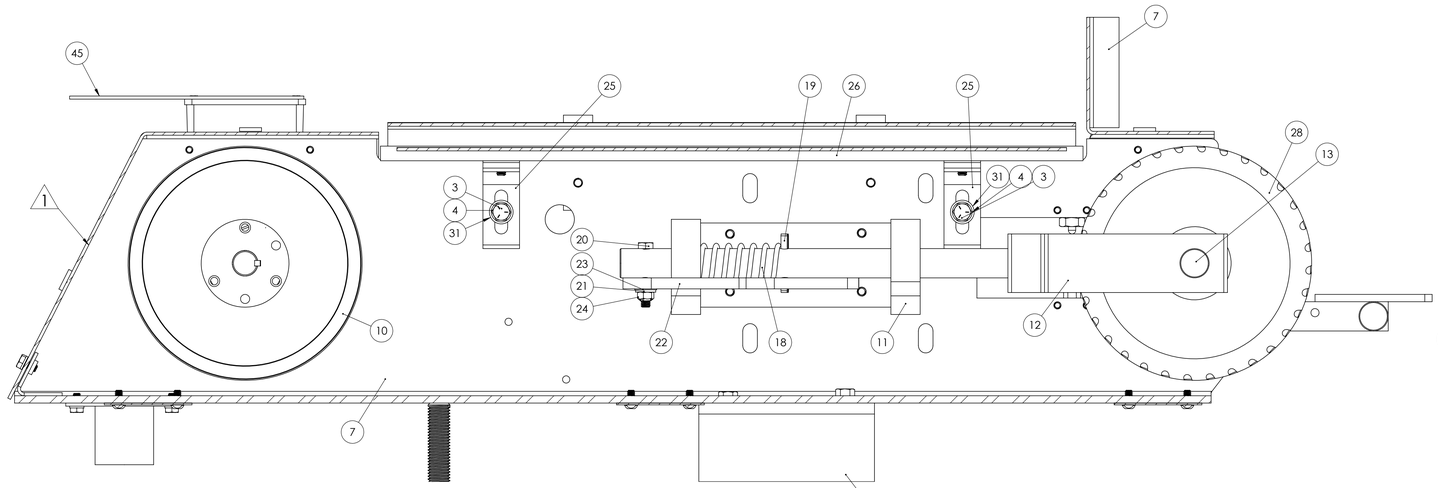
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
F7	1	WELDED BACK PANEL AND REMOVABLE TOP BACK PANEL ARE REPLACED BY SINGLE REMOVABLE PANEL	9/2/2025	



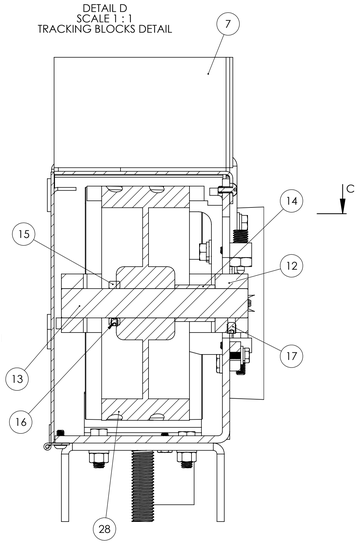
SECTION C-C
SCALE 1 : 2
INSIDE DETAILS/ TOP VIEW



DETAIL D
SCALE 1 : 1
TRACKING BLOCKS DETAIL



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

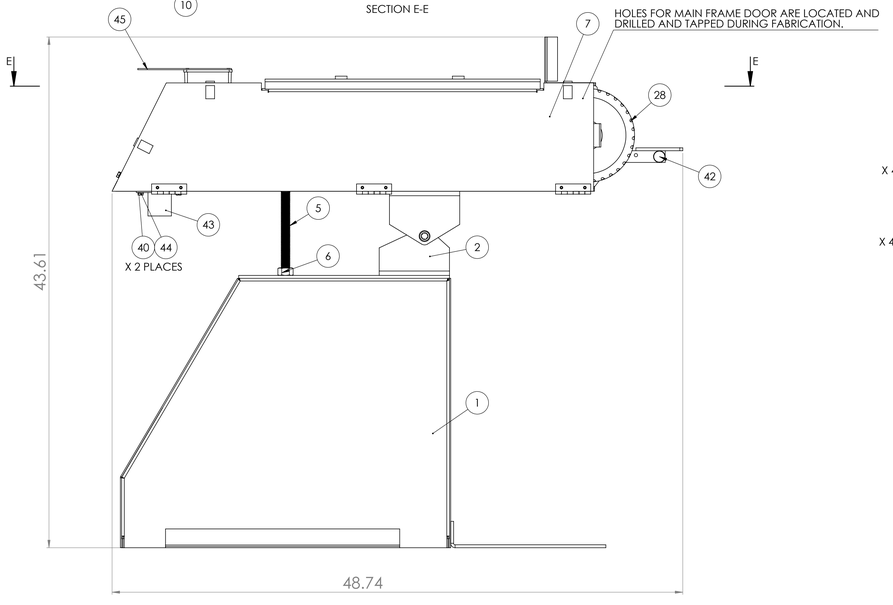


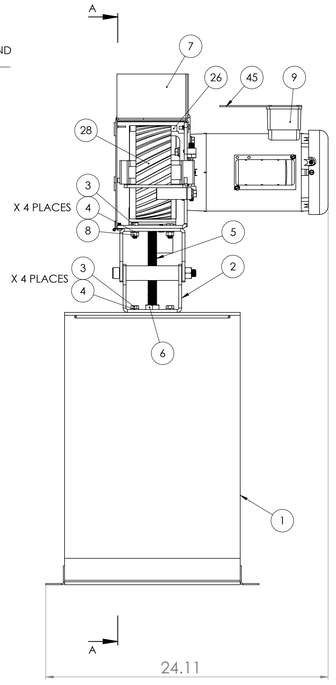
SECTION B-B
SCALE 1 : 2

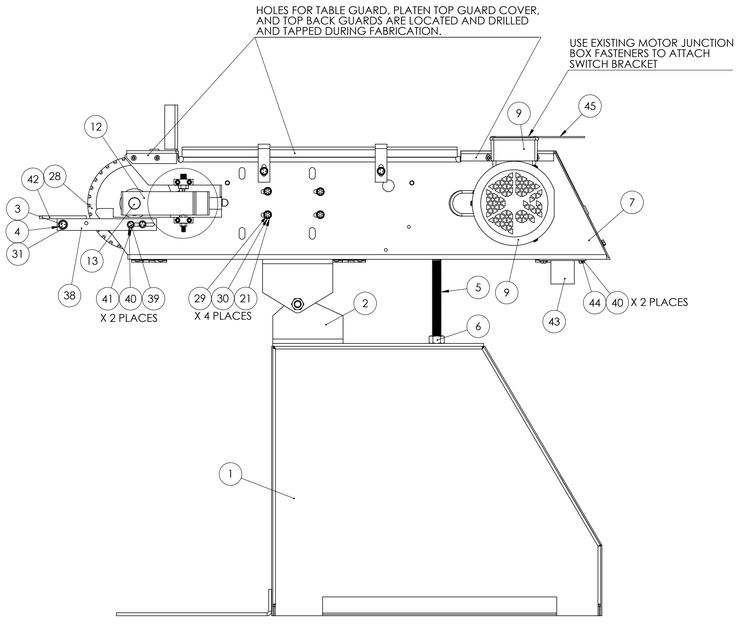
IDLER PULLEY DETAILS

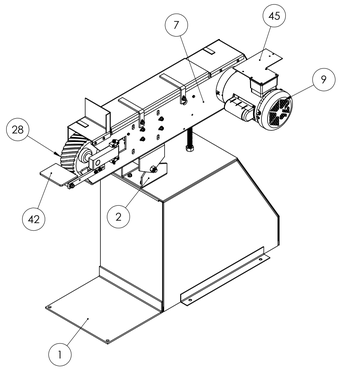
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	716-015W	STAND ASSEMBLY FOR KS390 AND KS490	1
2	572-004	TILT BRACKET FOR KS390 AND KS490 SANDERS	1
3	HHC5037016	3/8-16 X 1 HHCS GR5 Z	15
4	SLWZ037	3/8 SPLIT L/W Z	15
5	709-012	STUD, LEVELING FOR KS390 AND KS490 SANDERS	1
6	FHN5075	3/4-10 FHN GR5 Z	1
7	291-016ASSY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

SECTION E-E









UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±
ANGULAR: MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±
INTERPRET GEOMETRIC TOLERANCING PER:
MATERIAL
FINISH
NEXT ASSY | USED ON
APPLICATION | DO NOT SCALE DRAWING

	NAME	DATE
DRAWN		
CHECKED		
ENG APPR.		
MFG APPR.		
Q.A.		
COMMENTS:		

KALAMAZOO INDUSTRIES, INC.

TITLE:
KS390 BELT GRINDER, 2HP/ 1PH

SIZE E | DWG. NO. KS390-2HP-1PH | REV 1
SCALE: 1:5 WEIGHT: | SHEET 1 OF 1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
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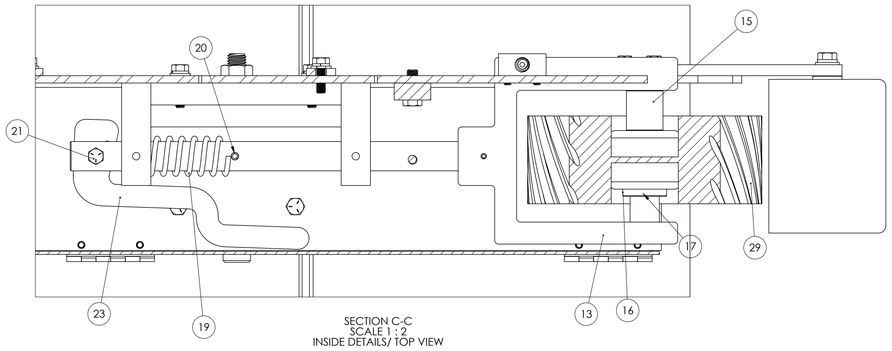
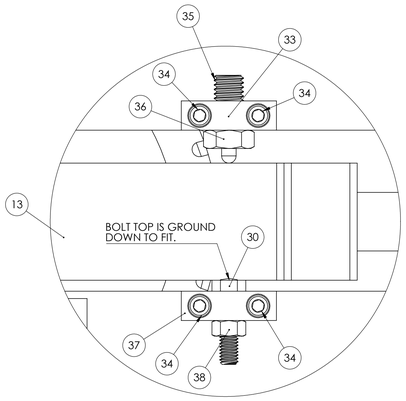
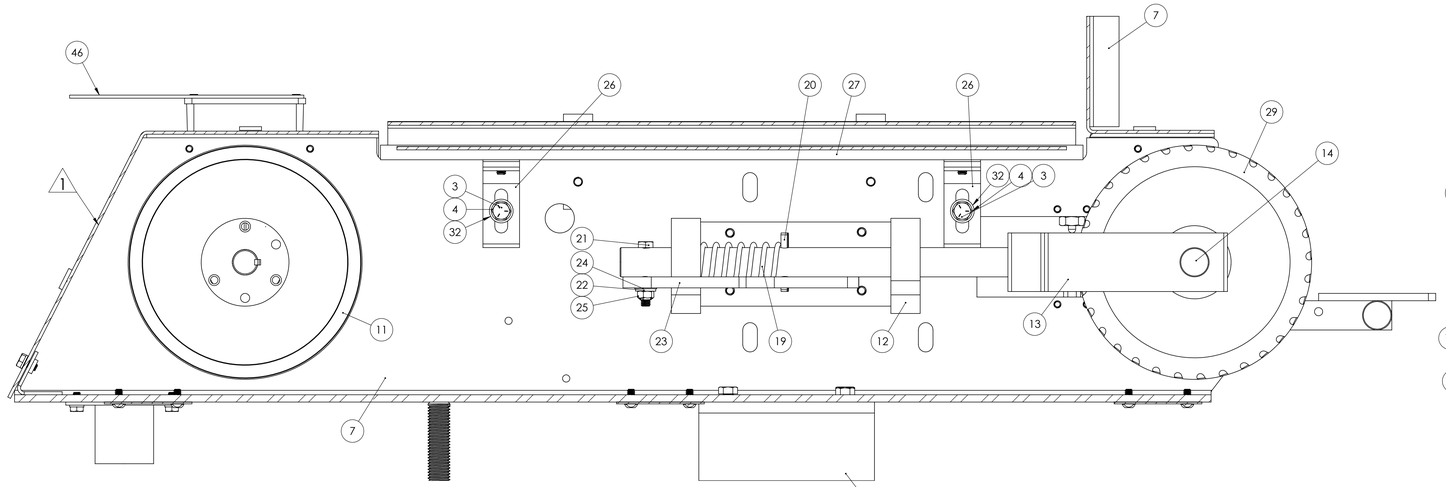


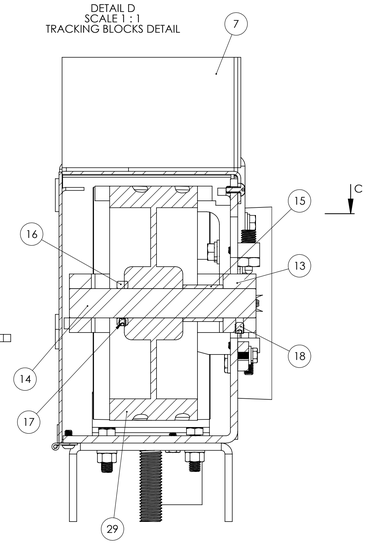
SECTION C-C
SCALE 1 : 2
INSIDE DETAILS/ TOP VIEW

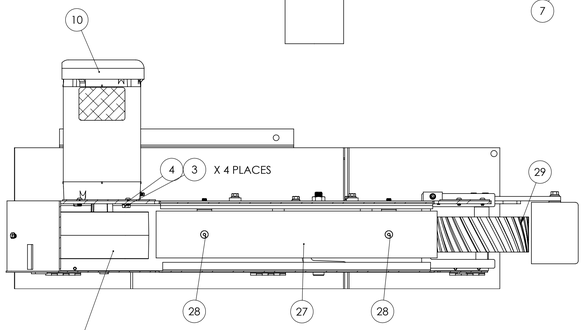


DETAIL D
SCALE 1 : 1
TRACKING BLOCKS DETAIL



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

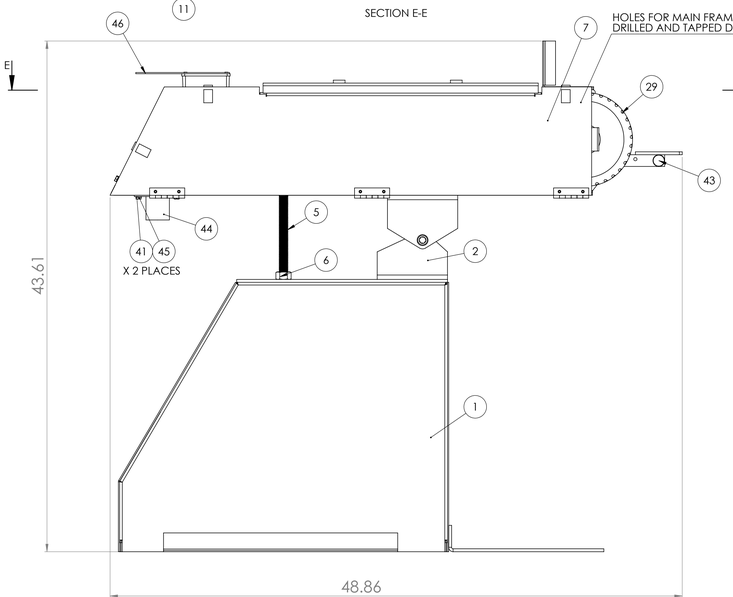


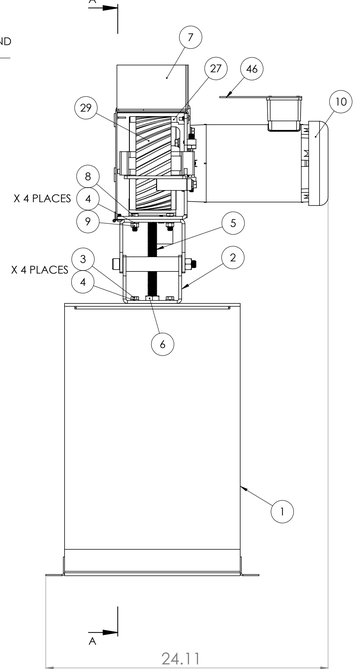


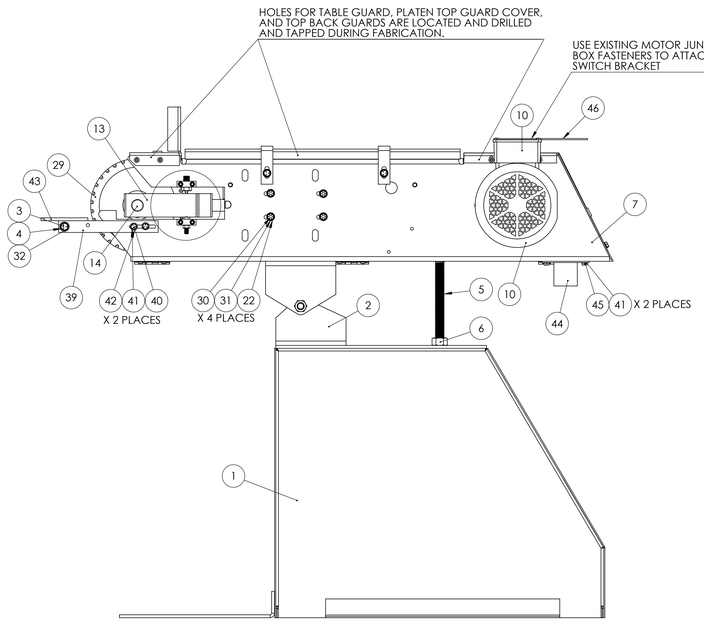
SECTION E-E

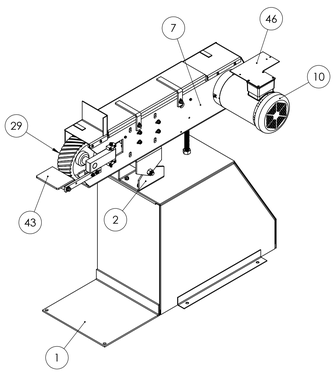
SECTION B-B
SCALE 1 : 2

IDLER PULLEY DETAILS









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2	572-004	TILT BRACKET FOR KS390 AND KS490 SANDERS	1
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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
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15	049-116	SPACER BUSHING FOR KS90, KS490, K20/15HP SERIES SPINDLE	1
16	123-016	S6 IDLER PULLEY LOCK COLLAR	1
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18	SSKA031006	5/16-18 X 3/8 SOC SET KNURL PT.	1
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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
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27	563-009	PLATEN FOR KS390 AND KS490 SERIES	1
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29	936-009	WHEEL, CONTACT FOR KS390 SANDER WITH 1" BORE W/BEARINGS	1
30	HHC5031020	5/16-18 X 1-1/4 HHCS GR 5 Z	5
31	SLWZ031	5/16 SPLIT L/W Z	4
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, 3PH MAG SWITCH	1

UNLESS OTHERWISE SPECIFIED:
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TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±
INTERPRET GEOMETRIC TOLERANCING PER:
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	NAME	DATE
DRAWN		
CHECKED		
ENG APPR.		
MFG APPR.		
Q.A.		
COMMENTS:		

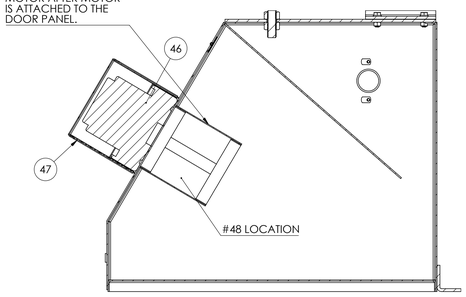
KALAMAZOO INDUSTRIES, INC.

TITLE:
KS390 BELT GRINDER, 3HP/ 3PH

SIZE E | DWG. NO. KS390-3HP-3PH | REV 1
SCALE: 1:5 WEIGHT: SHEET 1 OF 1

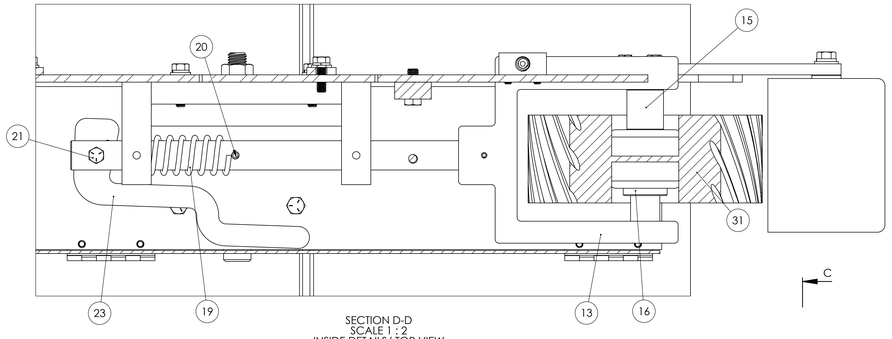
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
F7	1	WELDED BACK PANEL AND REMOVABLE TOP BACK PANEL ARE REPLACED BY SINGLE REMOVABLE PANEL	9/2/2025	

CAGE IS PRESSED ONTO FLANGE OF VACUUM MOTOR AFTER MOTOR IS ATTACHED TO THE DOOR PANEL.

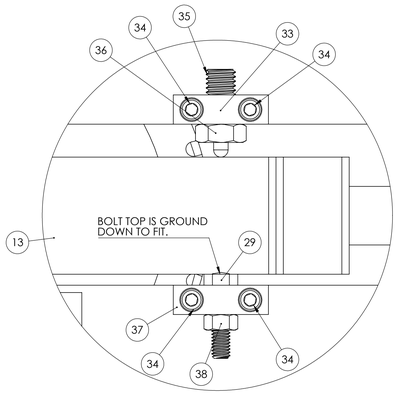


SECTION A-A

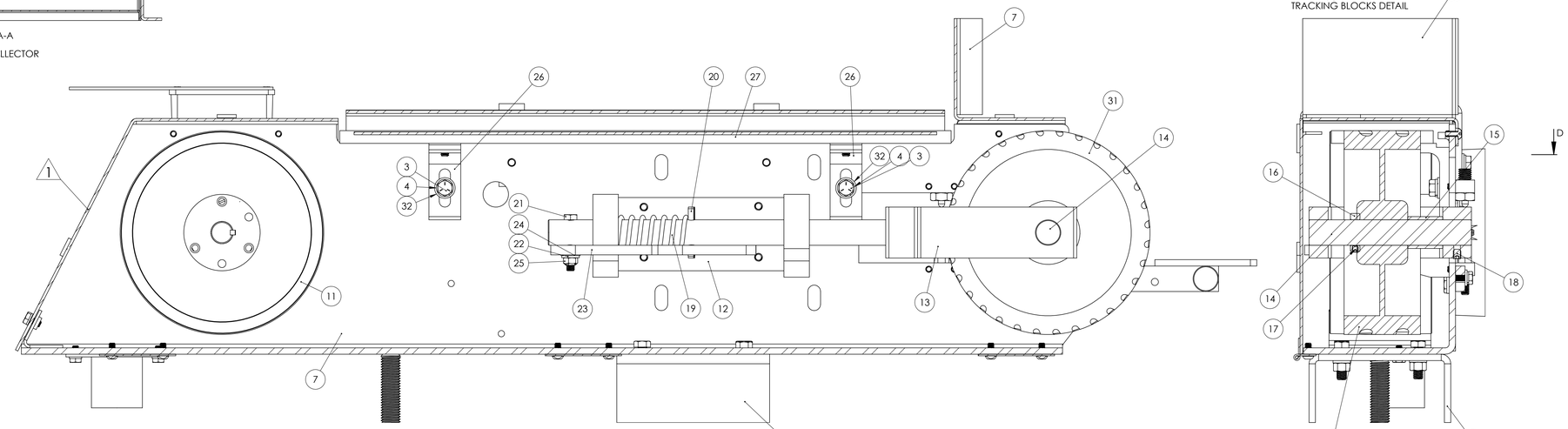
INSIDE DUST COLLECTOR



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



DETAIL E
SCALE 1 : 1
TRACKING BLOCKS DETAIL

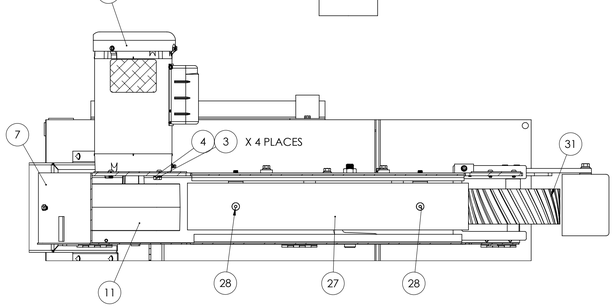


SECTION B-B
SCALE 1 : 2
INSIDE DETAILS/ SIDE VIEW

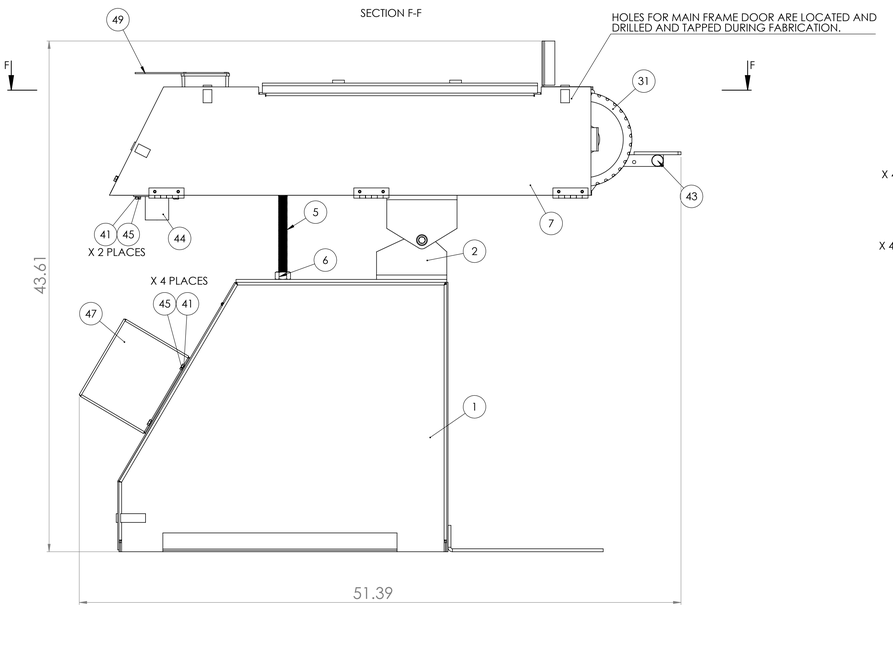
SECTION C-C
SCALE 1 : 2

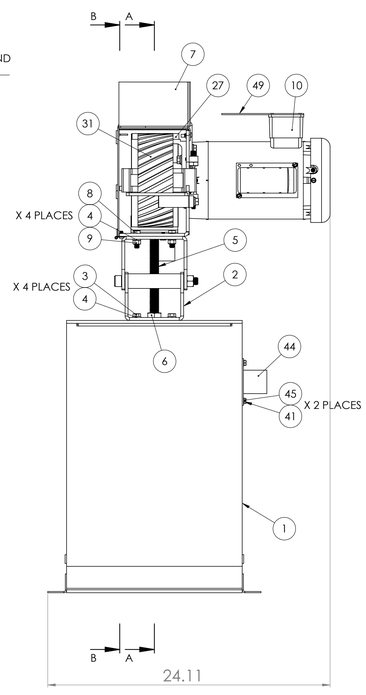
IDLER PULLEY DETAILS

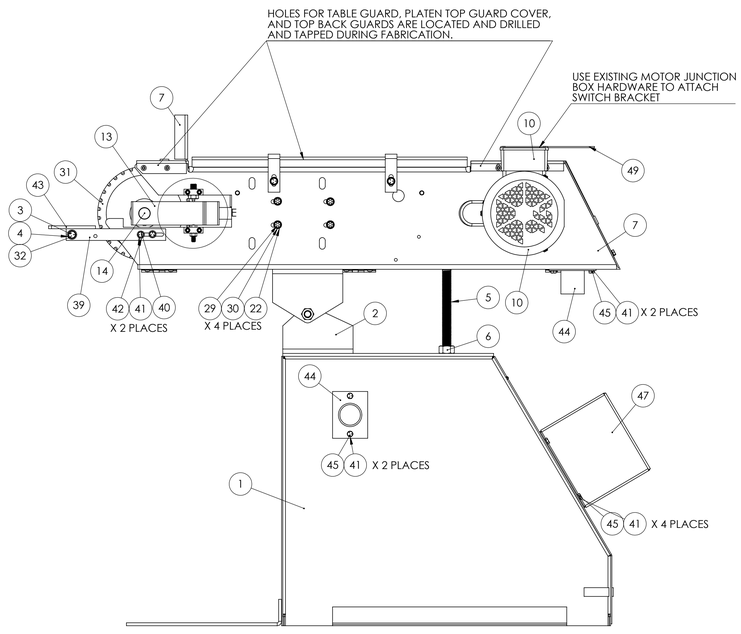
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	716-016W	STAND, VACUUM ASSEMBLY FOR KS390 AND KS490	1
2	572-004	TILT BRACKET FOR KS390 AND KS490 SANDERS	1
3	HHC5037016	3/8-16 X 1 HHCS GR5 Z	11
4	SLWZ037	3/8 SPLIT L/W Z	15
5	709-012	STUD, LEVELING FOR KS390 AND KS490 SANDERS	1
6	FHN5075	3/4-10 FHN GR5 Z	1
7	291-016ASSY	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 BG260, S460, S6M SANDERS, K12-14B 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	936-009	WHEEL, CONTACT FOR KS390 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, VACUMM 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

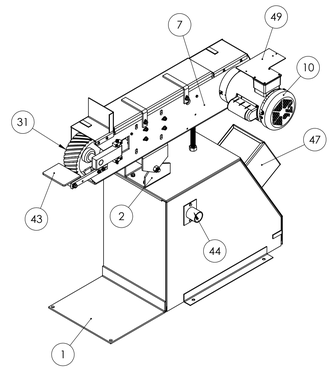


SECTION F-F









UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±
ANGULAR: MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±
INTERPRET GEOMETRIC TOLERANCING PER:
MATERIAL
FINISH
NEXT ASSY | USED ON
APPLICATION | DO NOT SCALE DRAWING

	NAME	DATE
DRAWN		
CHECKED		
ENG APPR.		
MFG APPR.		
Q.A.		
COMMENTS:		

KALAMAZOO INDUSTRIES, INC.

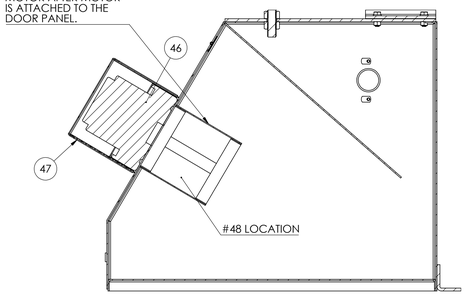
TITLE: KS390 BELT GRINDER, 2HP, 1PH W VACUUM IN BASE

SIZE E | DWG. NO. KS390V-2HP-1PH | REV 1

SCALE: 1:5 WEIGHT: | SHEET 1 OF 1

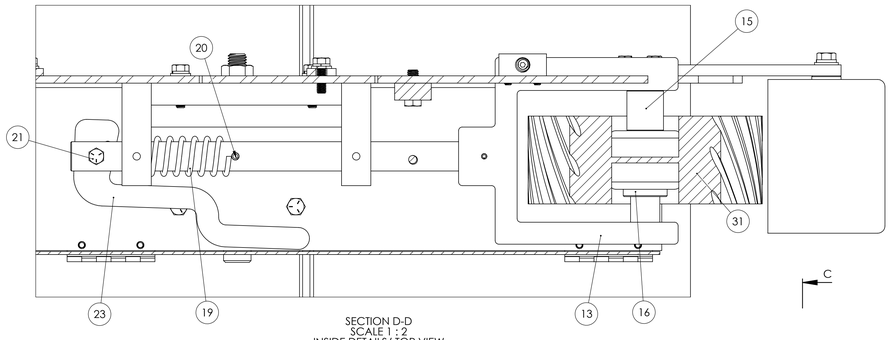
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
F7	1	WELDED BACK PANEL AND REMOVABLE TOP BACK PANEL ARE REPLACED BY SINGLE REMOVABLE PANEL	9/2/2025	

CAGE IS PRESSED ONTO FLANGE OF VACUUM MOTOR AFTER MOTOR IS ATTACHED TO THE DOOR PANEL.

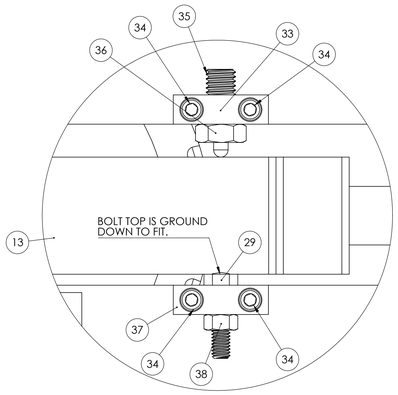


SECTION A-A

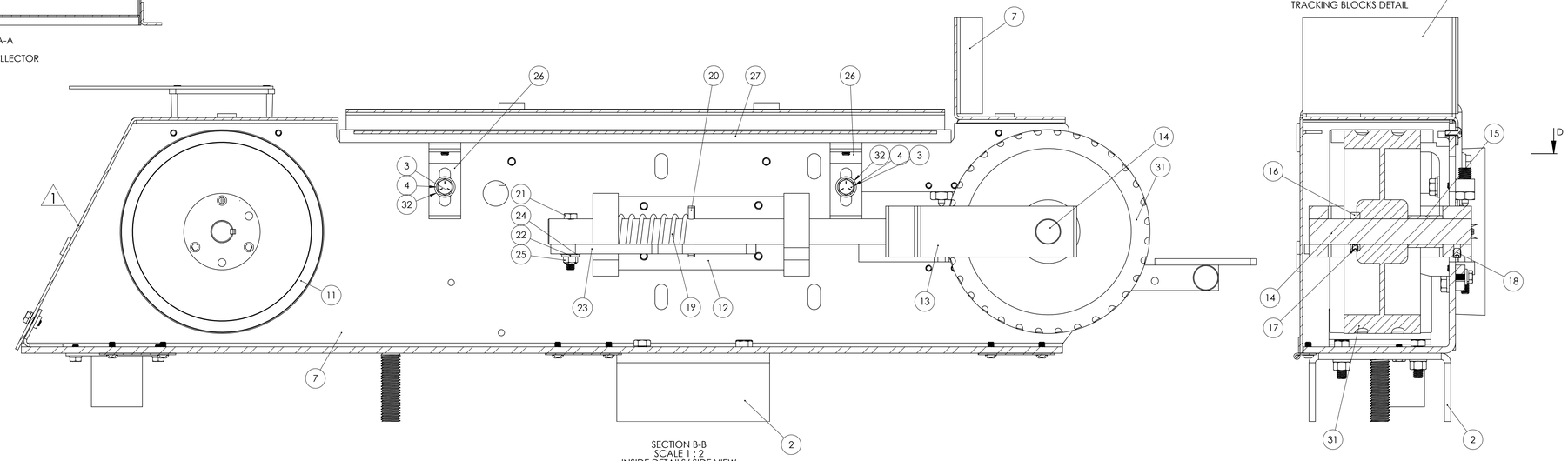
INSIDE DUST COLLECTOR



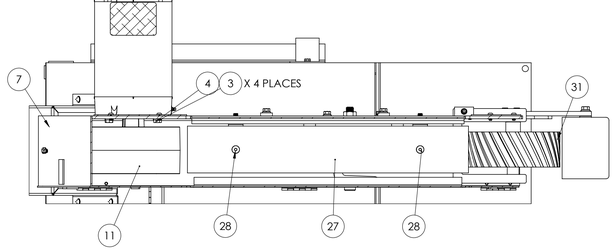
SECTION D-D
SCALE 1 : 2
INSIDE DETAILS/ TOP VIEW



DETAIL E
SCALE 1 : 1
TRACKING BLOCKS DETAIL



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

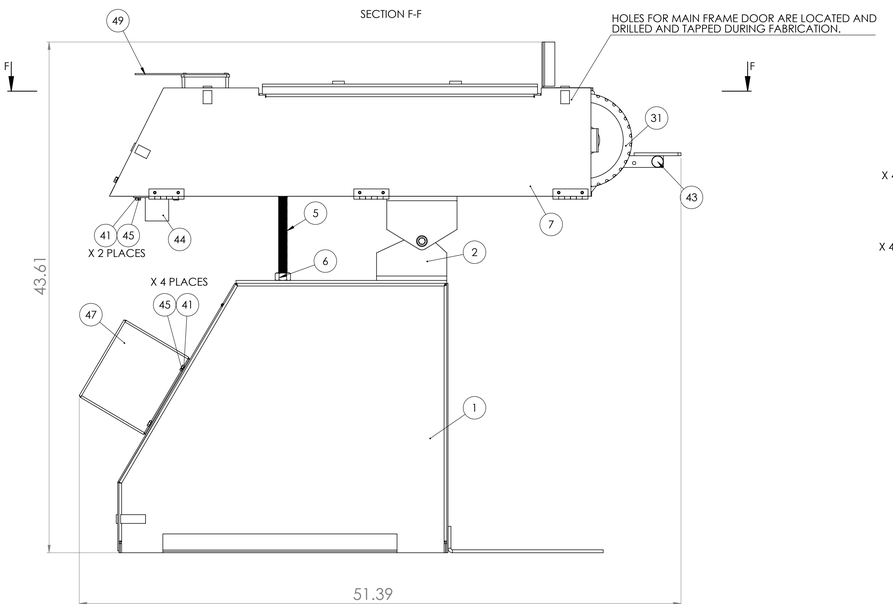


SECTION C-C
SCALE 1 : 2

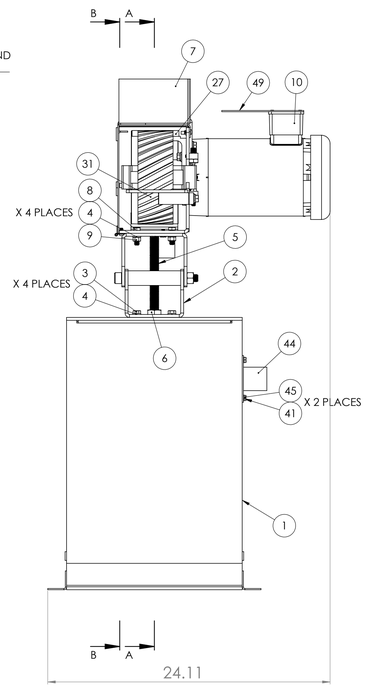
C

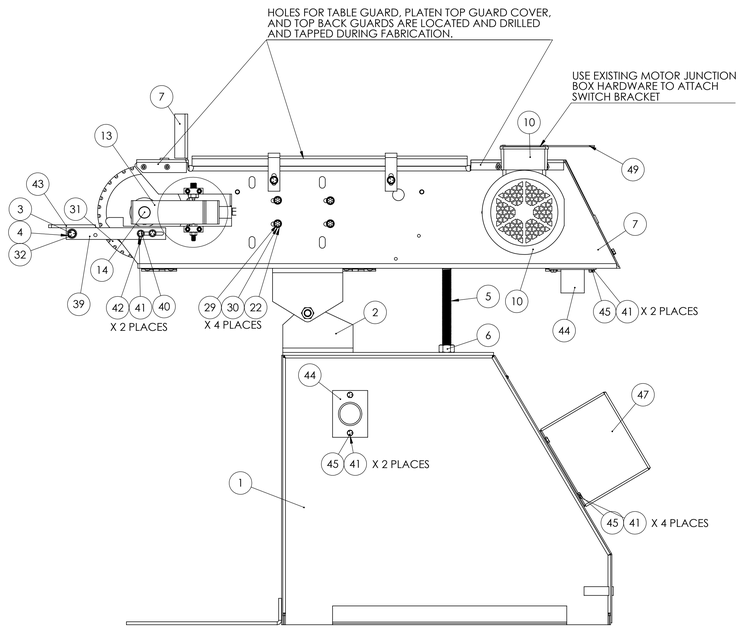
IDLER PULLEY DETAILS

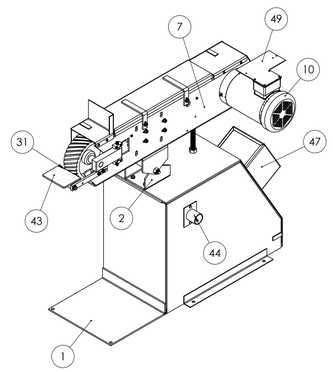
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	716-016W	STAND, VACUUM ASSEMBLY FOR KS390 AND KS490	1
2	572-004	TILT BRACKET FOR KS390 AND KS490 SANDERS	1
3	HHC5037016	3/8-16 X 1 HHCS GR5 Z	11
4	SLWZ037	3/8 SPLIT L/W Z	15
5	709-012	STUD, LEVELING FOR KS390 AND KS490 SANDERS	1
6	FHN5075	3/4-10 FHN GR5 Z	1
7	291-016ASSY	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	486-007A	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, K12-14B 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	936-009	WHEEL, CONTACT FOR KS390 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 5612V (OLD STYLE)	1
47	342-037	GUARD, VACUMM 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



SECTION F-F







UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±
ANGULAR: MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±
INTERPRET GEOMETRIC TOLERANCING PER:
MATERIAL
FINISH
NEXT ASSY | USED ON
APPLICATION | DO NOT SCALE DRAWING

	NAME	DATE
DRAWN		
CHECKED		
ENG APPR.		
MFG APPR.		
Q.A.		
COMMENTS:		

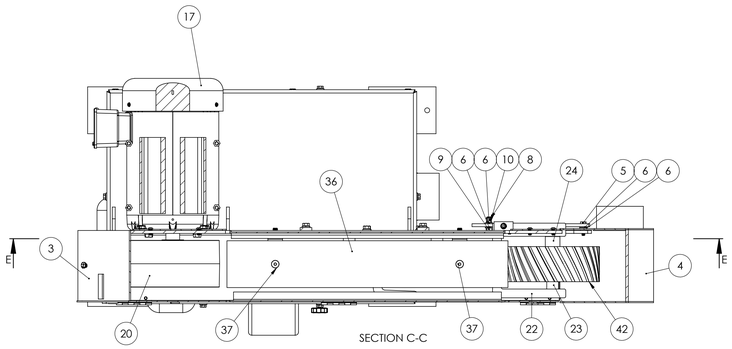
KALAMAZOO INDUSTRIES, INC.

TITLE:
KS390 BELT GRINDER, 3HP, 3PH W VACUUM IN BASE

SIZE E | DWG. NO. KS390V-3HP-3PH | REV 1

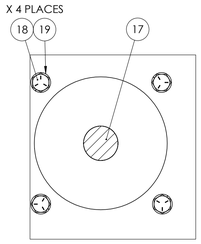
SCALE: 1:5 WEIGHT: | SHEET 1 OF 1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
F8	1	WELDED BACK PANEL AND REMOVABLE TOP BACK PANEL ARE REPLACED BY SINGLE REMOVABLE PANEL	9/2/2025	



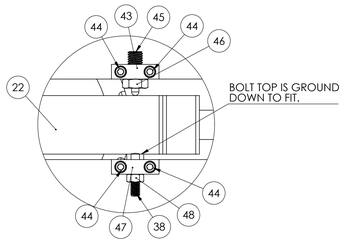
SECTION C-C

INTERNAL TOP VIEW

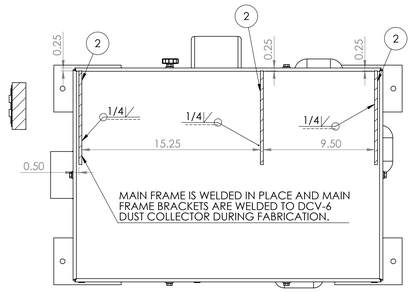


SECTION E-E
SCALE 1 : 2

ATTACHING MOTOR
TO FRAME

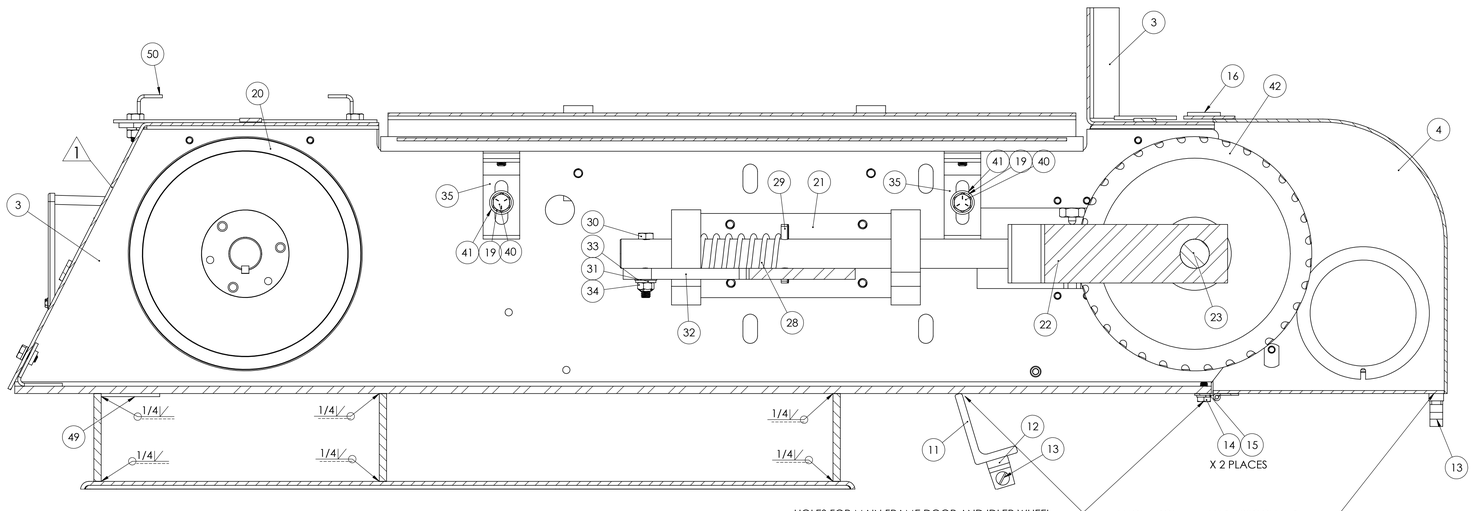


DETAIL D
SCALE 1 : 2
TRACKING BLOCKS DETAIL



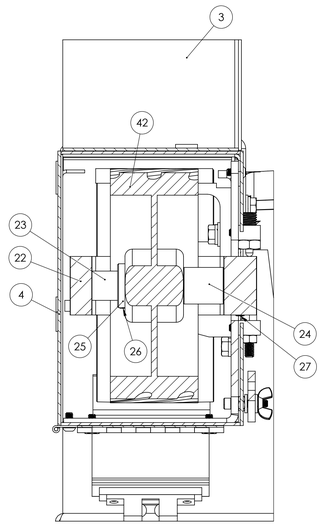
SECTION F-F

WELDING MAIN FRAME BRACES
TO TOP LID OF DUST COLLECTOR



SECTION A-A
SCALE 1 : 2

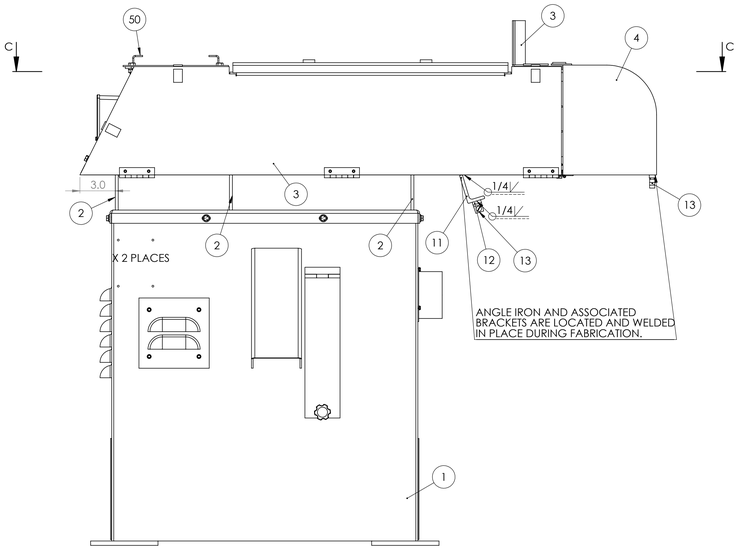
MAIN DETAILS SIDE VIEW



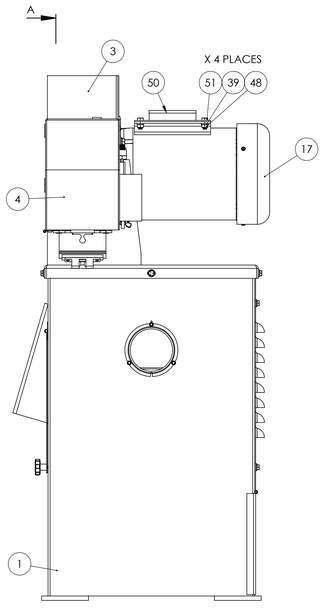
SECTION B-B
SCALE 1 : 2

IDLER PULLEY DETAILS

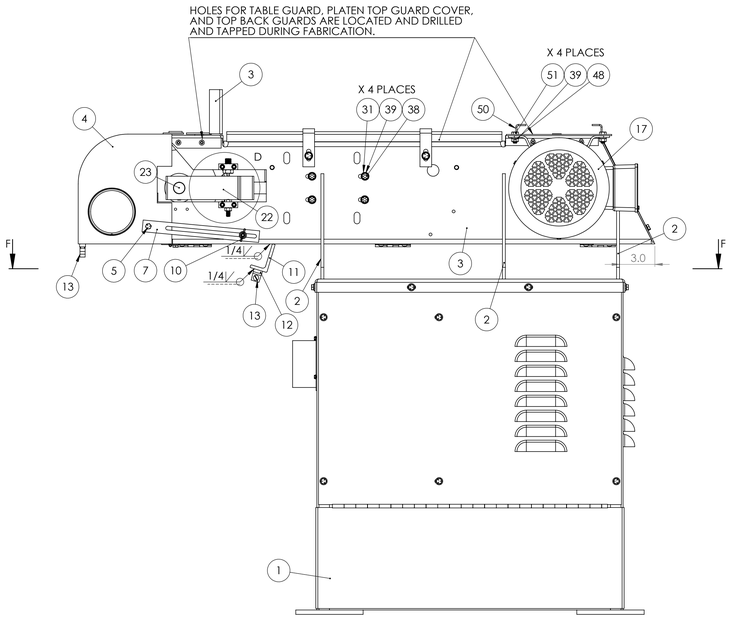
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	DCV-6	DCV-6 DUST COLLECTOR	1
2	041-083	BRACE FOR KS390HV AND KS490HV	3
3	291-016ASSY	KS390, KS490 MAIN FRAME AND GUARDS	1
4	342-147	IDLER WHEEL GUARD, FOR KS390HV AND KS490HV GRINDER	1
5	HHC5025016	1/4-20 X 1 HHCS GR5 Z	1
6	UFWZ025	1/4 USS F/W Z	4
7	455-021	PIVOT 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	WGNZ025	1/4-20 FORGED WING NUT Z	1
11	291-045ANGLEIRON	BRACKET FOR KS39HV, KS490HV, KS690HV MAIN FRAME	1
12	291-045BLOCK	LATCH MOUNTING BLOCK FOR KS39HV, 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	SLWZ025	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	SLWZ037	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	UFWZ031	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	STNZ031	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 SERIES	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	SLWZ031	5/16 SPLIT L/W Z	8
40	HHC5037016	3/8-16 X 1 HHCS GR5 Z	2
41	UFWZ037	3/8 USS F/W Z	2
42	936-009	WHEEL, CONTACT FOR KS390 SANDER WITH 1" BORE W/BEARINGS	1
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	5
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 - 5HP	1
51	HHC5031012	5/16-18 X 3/4 HHCS GR5 Z	4



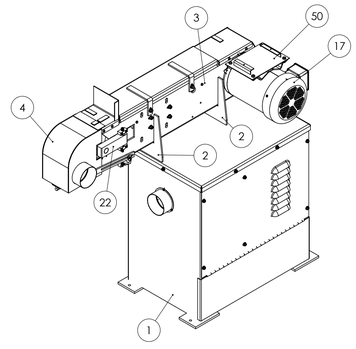
LEFT SIDE VIEW



FRONT VIEW



RIGHT SIDE VIEW



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

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONALS
ANGULAR: MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±
INTERPRET GEOMETRIC TOLERANCING PER:
MATERIAL
FINISH
NEXT ASSY | USED ON | APPLICATION | DO NOT SCALE DRAWING

	NAME	DATE
DRAWN		
CHECKED		
ENG APPR.		
MFG APPR.		
Q.A.		
COMMENTS:		

KALAMAZOO INDUSTRIES, INC.

TITLE: KS390 HORIZONTAL VACUUM

SIZE E | DWG. NO. KS390HV | REV 1

SCALE: 1:5 WEIGHT: SHEET 1 OF 2