KALAMAZOO INDUSTRIES, INC.

Instruction Manual

2FS72 Series - 2FS72 less motor & 2FS72M

www.kalamazooind.com

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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

- Always wear safety glasses or a face shield when operating power tools.
- Keep work area clean and well lit.
- Do not operate power tools in explosive atmospheres, such as the presence of flammable liquids, gases, or dust.
- Keep children and bystanders away while operating a power tool.
- Keep long hair tied back or covered and never wear loose-fitting clothing near a running machine.
- Additional precautions may be necessary when grinding materials that are flammable or have other hazardous properties. Consult manufacturer of materials for safe grinding and handling.
- Disconnect power before servicing, changing belts, or making adjustments.
- Inspect belts and pulleys for damage or wear before each use. Replace worn or damaged parts immediately.
- Ensure all guards and covers are securely in place before operating the grinder.
- Mount the grinder securely to a stable surface to prevent movement during operation.
- Do not operate the grinder without proper grounding and an appropriate electrical connection.
- Do not force the workpiece—allow the abrasive belt to do the cutting.
- Avoid contact with the belt or rotating parts while the machine is running.
- Allow the belt to come to a complete stop before making contact or adjustments.
- Do not use the grinder if unusual vibration or noise occurs; shut down and inspect immediately.
- Never leave the machine running unattended. Turn off and unplug after use.

OPERATING INSTRUCTIONS

- Disconnect power before making any adjustments.
- Abrasive belt rotation is counterclockwise. If the abrasive belt is lap-spliced, be sure of correct rotation. Butt-spliced belts are bi-directional.
- Belt tension is pre-set with internal spring (10, 12). No belt tension adjustment is needed.
- Belt changing – disconnect power, loosen tracking knob (18, 13), compress spring belt tension, remove belt, and install a new belt. Confirm correct belt orientation.
- After any belt change, jog the machine and adjust tracking so the belt runs centered on the wheels. Run for ~1 minute to verify stable tracking.
- Always keep the worktable (24, 25) within 1/8" of the sanding belt. Set the gap before start-up; do not adjust while running.
- Examine the abrasive belt carefully before use. Never use an abrasive belt with a nicked/cut edge, crease, or handling damage.
- Wear eye/face and hearing protection. Secure loose clothing and hair; remove jewelry.
- Operate only with all guards in place and secured.
- Aim sparks away from personnel and combustibles; keep a Class ABC fire extinguisher nearby.
- Use an appropriate metal-grinding dust collector with a spark arrester.
- Mount the machine securely; check that all fasteners, wheels, and the platen are tight before use.
- Rotate the belt by hand before start-up to confirm free travel and clearances.
- Support work on the table/rest; apply moderate pressure—do not force the cut or side-load wheel edges.
- Quench heat-sensitive parts; use pliers/tongs for small or hot workpieces.
- If vibration, unusual noise, odor, or tracking instability occurs—stop, disconnect power, and correct the issue before resuming.
- Disconnect power before maintenance. Replace worn/damaged belts; store belts flat and dry.
- After use, clean the machine and surrounding area, and remove any accumulated metal dust.

2FS72 / 2FS72M — OVERVIEW, DESCRIPTION & INSTALLATION

MACHINE OVERVIEW

The 2FS72 and 2FS72M are industrial belt grinders designed for deburring, shaping, and finishing metal components. They utilize a continuous abrasive belt driven by precision-balanced pulleys to produce smooth, consistent surface finishes. The machines' robust construction ensures long service life and dependable performance in demanding workshop and production environments.

Key components include:

- Drive motor (2FS72M only) and or v-belt pulley (2FS72 only)
- Idler pulley assembly — maintains belt alignment and spring-loaded tension.
- Platen — provides a flat backing surface for precision grinding.
- Removable worktable / work rest — supports the workpiece during grinding operations.
- Tracking adjustment knob — allows the operator to center the belt on the pulleys.
- Umbrella guards and covers — protect the operator from moving parts and sparks.

INSTALLATION

- **Unpacking and Inspection**
  - Carefully remove the machine from its packaging.
  - Inspect for shipping damage. Report any issues before use.
- **Location and Mounting**
  - Place the grinder on a solid, level surface or bench capable of supporting its weight and vibration load.
  - Secure the base using bolts through the mounting holes provided.
  - Ensure adequate clearance around the machine for belt changes and maintenance access.
- **Electrical Connection (2FS72M only)**
  - Verify that the power supply matches the voltage and phase shown on the machine nameplate.
  - All electrical connections must be performed by a qualified electrician per local electrical codes.
  - Ensure the power switch is OFF before connecting power.
- **Spark Management & Housekeeping**
  - Aim the spark stream away from personnel and combustibles.
  - Use spark trays, shields, and frequent cleanup to prevent accumulation of metal fines.
  - Never mix aluminum/magnesium/titanium dust with ferrous fines; dispose of metal dust safely and frequently.
- **Pre-Operation Check**
  - Confirm that all guards are in place and secure.
  - Rotate the abrasive belt by hand to check alignment and clearance.
  - Jog the motor and adjust tracking so the belt runs centered before continuous operation.
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2FS72 / 2FS72M — TROUBLESHOOTING GUIDE

Use this guide to identify and correct common issues with the 2FS72 and 2FS72M belt grinders. These models require dry maintenance only — do not lubricate or oil any parts. Remove debris and buildup using dry methods only.

Issue	Possible Cause	Corrective Action
Belt will not track properly	• Tracking knob out of adjustment. • Worn/uneven pulleys. • Belt splice or edge damage • Belt installed in reverse (lap splice).	• Jog and adjust tracking until belt centers. • Inspect pulley faces for wear/ buildup; replace as needed • Replace damaged belt. • Reinstall belt with correct rotation.
Belt breaks prematurely	• Rubbing on guards/edges. • Excessive pressure. • Sharp edges on guides.	• Correct tracking/clearances. • Reduce feed pressure. • Break sharp edges on contact points; ensure smooth belt path.
Excessive vibration	• Worn bearings. • Irregular belt splice. Pulley imbalance • Loose fasteners or motor mount.	• Replace bearings. • Try a different belt. • Balance pulleys. • Tighten all hardware.
Belt loads/burns quickly	• Wrong abrasive type/grit. • Excessive pressure. • Heat buildup, poor chip clearing.	• Match belt to material and grit. • Lighten pressure; let abrasive cut. • Improve spark/chip management and housekeeping; clean fines frequently (dry methods).
Uneven grinding pattern	• Worn platen/backing. • Thick/damaged belt seam • Off-center tracking. • Inconsistent pressure.	• Replace/recondition platen. • Replace belt. • Re-center tracking. • Maintain steady support on work rest.

SERVICE NOTE: Use dry cleaning methods only (vacuum, brush, lint-free cloth). Do not apply oils, greases, or spray lubricants to tracking, tension, pulleys, or guards on these units. If a component binds after dry cleaning and de-burring, replace the component.

TECHNICAL SPECIFICATIONS — 2FS72 & 2FS72M BELT GRINDERS

Specification	2FS72	2FS72M
Model Description	2" x 72" Belt Grinder (Less Motor)	2" x 72" Belt Grinder (With Motor)
Belt Size	2" x 72" (50.8 mm x 1829 mm)	2" x 72" (50.8 mm x 1829 mm)
Belt Speed	Dependent on motor RPM and pulley size	4500 SFPM (standard .5 HP, 3450 RPM motor)
Motor	Not included (accepts 1 HP motor, up to 2 HP), V-belt driven.	1.5 HP, 1 PH, 115/230 V, TEFC motor (standard)
Drive Pulley	8" x 2" diameter, 70 durometer standard serrated contact wheel	8" x 2" diameter, 70 durometer standard serrated contact wheel
Idler Pulley	4" diameter, crowned, sealed bearings	4" diameter, crowned, sealed bearings
Platen	Steel, adjustable work area	Steel, adjustable work area
Work Table / Rest	Adjustable, steel	Adjustable, steel
Belt Tension	Spring-loaded internal tension system	Spring-loaded internal tension system
Belt Tracking	Manual tracking adjustment knob	Manual tracking adjustment knob
Belt Direction	Belt rotation is clockwise, with the abrasive moving downward across the platen	Belt rotation is clockwise, with the abrasive moving downward across the platen
Frame Construction	Heavy-gauge steel weldment	Heavy-gauge steel weldment
Motor Mounting	Not available	Factory-mounted motor base
Base Dimensions	Approx. 7.53" L x 10.47" W	Approx. 12.75" L x 11.35" W
Overall Height	Approximately 36" (914 mm)	Approximately 36" (914 mm)
Approx. Weight	35 lbs	60 lbs
Dust Collection	Not available	Not available
Typical Applications	Deburring, shaping, polishing, metal finishing	Deburring, shaping, polishing, metal finishing

GENERAL MAINTENANCE CHECKLIST — 2FS72 / 2FS72M BELT GRINDERS

Important: Disconnect and lock out power before performing any maintenance. Use dry cleaning methods only — vacuum, brush, or wipe with a lint-free cloth. Do not lubricate or apply oil to tracking, tension, pulleys, or guards.

DAILY MAINTENANCE

- Inspect the abrasive belt for wear, fraying, or damage before each use.
- Verify belt tracking and tension; adjust as needed.
- Ensure the worktable is set within 1/8" of the belt and securely tightened.
- Check that guards are properly installed.
- Clean metal dust and debris from the machine base, platen, and surrounding area.
- Verify the belt path is clear — no chips, tools, or obstructions.
- Listen for unusual noise or vibration; stop operation if detected.

WEEKLY MAINTENANCE

- Inspect pulleys for wear, grooves, or buildup. Remove dust and residue (dry only).
- Check spring tension assembly for corrosion, binding, or loss of travel.
- Verify tracking knob and idler arm move freely — no sticking or rubbing.
- Check platen face for flatness and even wear; replace or reface if needed.
- Confirm motor mount bolts (2FS72M only), fasteners, and guards are tight.
- Clean the belt contact area and table top surface with a dry cloth.
- Inspect power cord and switch for damage (2FS72M only).

MONTHLY MAINTENANCE

- Inspect bearings in drive and idler pulleys for smooth, dry rotation. Replace if noisy or rough.
- Check frame and welds for fatigue, cracks, or loosened hardware.
- Inspect electrical connections (2FS72M only) for security and insulation condition.
- Review alignment between drive and idler pulleys; adjust if belt wanders.
- Verify machine is securely bolted to its mounting surface or pedestal.
- Examine belt tension spring condition; replace if fatigued or corroded.

ANNUAL MAINTENANCE

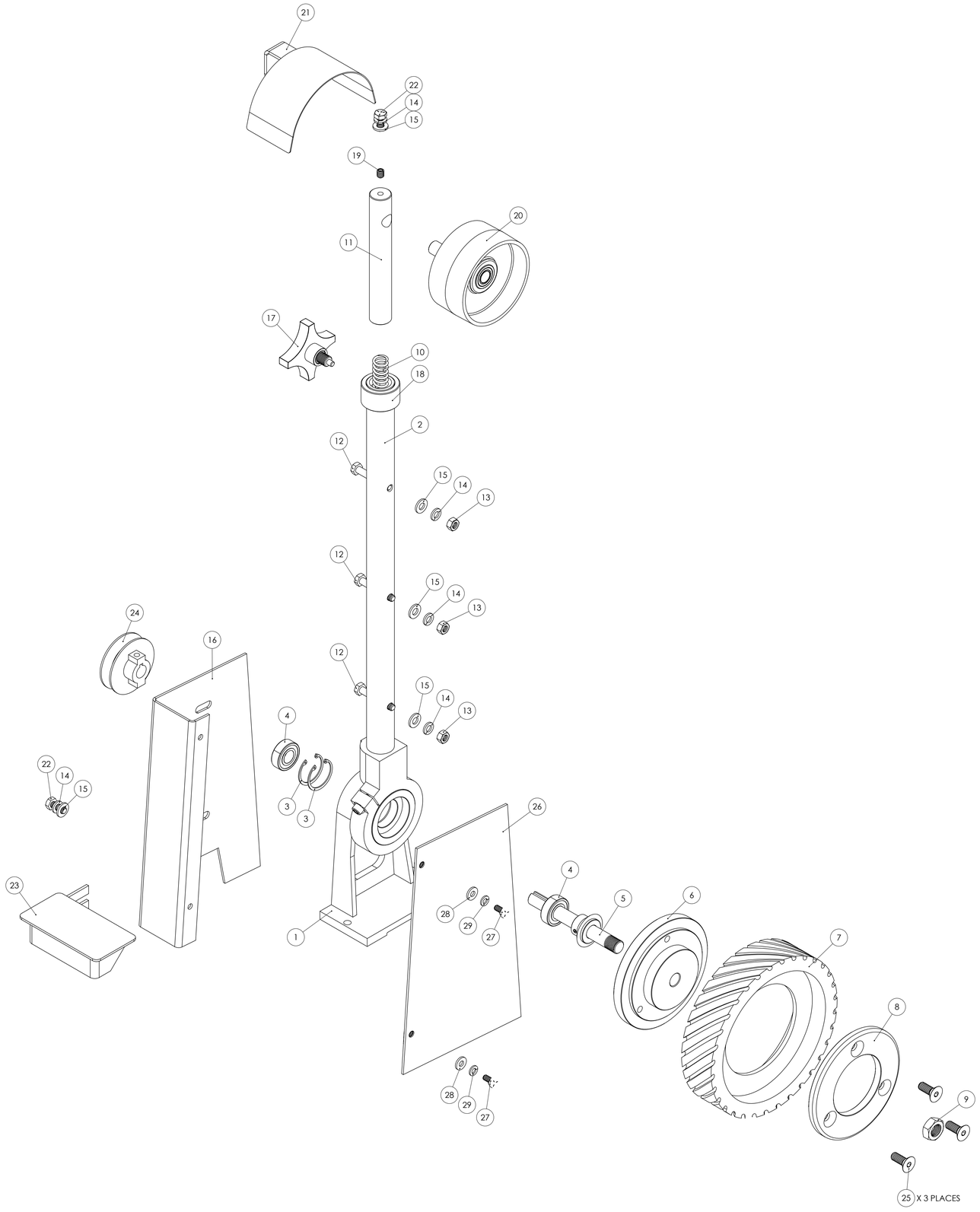
- Perform a complete inspection of all moving parts, guards, and electrical components.
- Replace worn platen, pulleys, or bearings as preventive maintenance.
- Inspect and repaint any worn or corroded exterior surfaces to prevent rust.
- Confirm nameplate, warning labels, and safety decals are legible and in place.
- Verify that all operating and safety instructions are available to operators.

ADDITIONAL NOTES

Keep a log of all maintenance activities with date, technician initials, and observations.
Replace any damaged or questionable components immediately — do not continue operation.
Use only genuine Kalamazoo Industries parts for service and replacement.

ORDER 936-041 ASSY FOR
COMPLETE DRIVE CONTACT
WHEEL ASSEMBLY. INCLUDES:

292-026 (QTY1)
936-018 (QTY1)
292-027 (QTY1)
FSCA037016 (QTY3)



ITEM NO.	PART NUMBER	DESCRIPTION	
1	041-053	BASE BRACKET FOR 2FS72	1
2	291-011	2FS72 FRAME ASSEMBLY (LESS MOTOR)	1
3	641-015	RETAINING RING N5000-137 BLACK PHOSPHATE FOR 2FS, 2FS72 BASE	2
4	044-007	K10 BEARING	2
5	701-009	SPINDLE W FLANGE FOR 2FS	1
6	292-026	TIGHT FLANGE FOR CONTACT WHEEL FOR 2FS72	1
7	936-018	WHEEL, DRIVE (8X2) C134T, 8"DIA, 1.875 FACE, 70 DURO, STANDARD SERRATION FOR BG248 AND 2FS72M	1
8	292-027	LOOSE FLANGE FOR WHEEL ADAPTOR FOR 2FS72 AND BG448 (NEW STYLE)	1
9	FJNZ063	5/8-18 F H JAM NUT Z	1
10	697-013	TENSION SPRING FOR 2FS, 2FS72, 2FSM, BG142, 2FS72M, K12-14B	1
11	645-008	TENSION ROD FOR 2FS, 2FSM, 2FS72, 2SK7 SANDERS	1
12	HHC5031032	5/16-18 X 2 HHCS GR5 Z	3
13	FHN5031	5/16-18 FHN GR5 ZINC	3
14	SLWZ031	5/16 SPLIT L/W Z	5
15	UFWZ031	5/16 USS F/W Z	5
16	563-040	PLATEN FOR 2FS72 AND 2FS72M	1
17	441-011	TRACKING KNOB FOR 2FS, 2FS72, 2FSM, 2SK7 SANDERS	1
18	123-004	TRACKING COLLAR FOR 2FS, 2FS72, 2FSM, 2SK7, BG142	1
19	SSKA031006	5/16-18 X 3/8 SOC SET KNURL PT.	1
20	936-003	NYLON IDLER PULLEY W BEARINGS FOR S272, BG272, 2FS72M, BG248	1
21	342-009	GUARD, UMBRELLA FOR 2FS, 2FS72, 2FS72M, BG248 SANDERS	1
22	HHC5031012	5/16-18 X 3/4 HHCS GR5 Z	2
23	829-004-REV1	WORK TABLE FOR 2", 4", DS10-4 SANDERS/ REV1	1
24	560-004	MOTOR PULLEY FOR K7B, K8B, 2FS, 2FS72M	1
25	FSCA037016	3/8-16 X 1 FSHCS	3
26	563-040SP	SIDE PLATE FOR 2FS72 AND 2FS72M PLATEN	1
27	HHC5025008	1/4-20 X 1/2 HHCS GR5 Z	2
28	UFWZ025	1/4 USS F/W Z	2
29	SLWZ025	1/4 SPLIT L/W Z	2

		UNLESS OTHERWISE SPECIFIED:		NAME	DATE
		DIMENSIONS ARE IN INCHES	DRAWN		
		TOLERANCES: FRACTIONAL ±	CHECKED		
		ANGULAR: MACH ± BEND ±	ENG APPR.		
		TWO PLACE DECIMAL ±	MFG APPR.		
		THREE PLACE DECIMAL ±	Q.A.		
		INTERPRET GEOMETRIC TOLERANCING PER:	COMMENTS:		
		MATERIAL			
NEXT ASSY	USED ON	FINISH			
APPLICATION		DO NOT SCALE DRAWING			

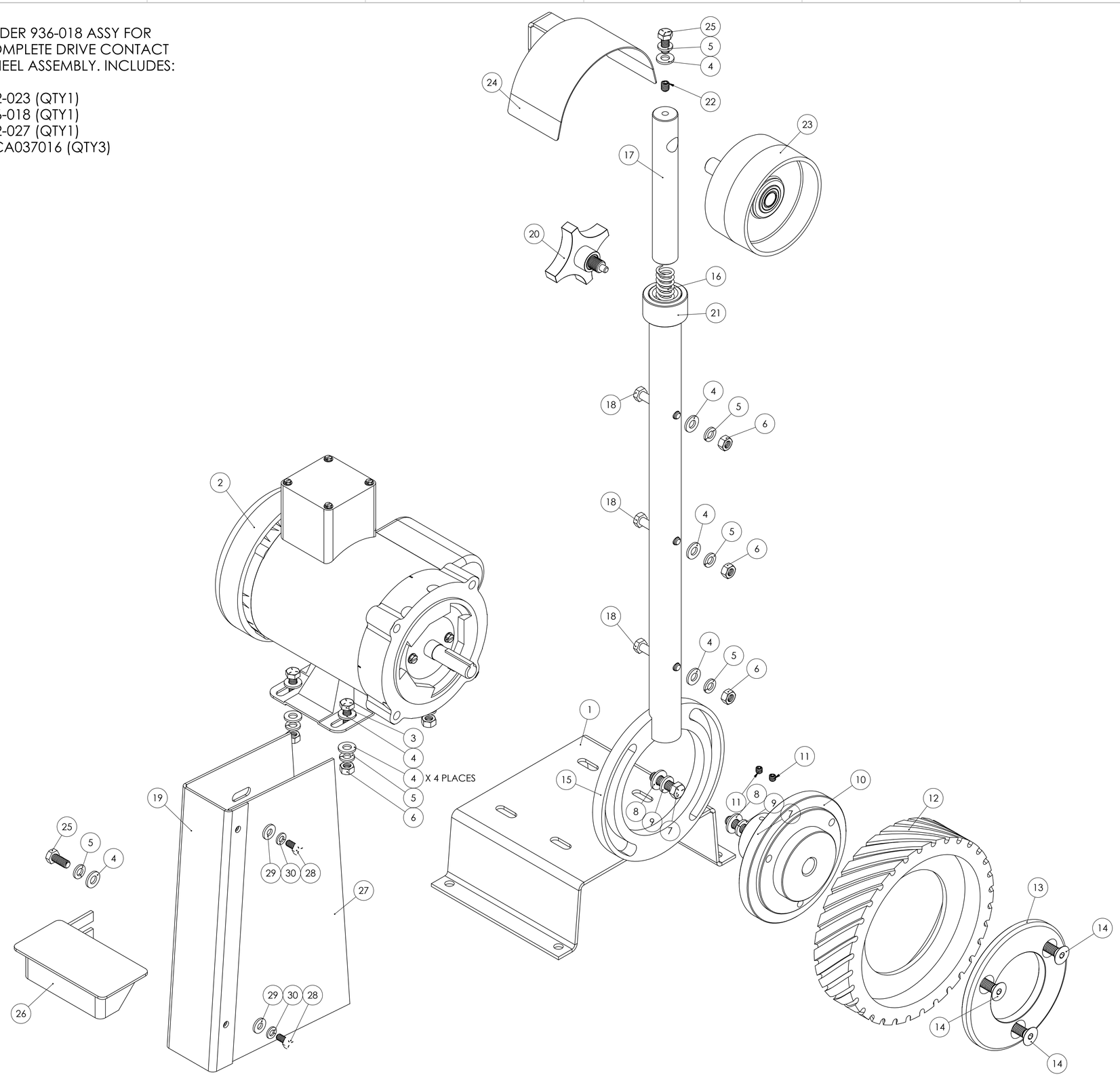
TITLE:

SIZE E | DWG. NO. 2FS72-EXPLODED | REV

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

ORDER 936-018 ASSY FOR COMPLETE DRIVE CONTACT WHEEL ASSEMBLY. INCLUDES:

292-023 (QTY1)
936-018 (QTY1)
292-027 (QTY1)
FSCA037016 (QTY3)



ITEM NO.	PART NUMBER	DESCRIPTION	
1	829-055	BASE FOR BG448 TO BENCH MOUNT MACHINE	1
2	486-077	1/2HP MOTOR FOR NEW STYLE 2FS72M AND BG248	1
3	HHC5031016	5/16-18 X 1 HHCS GR5 Z	4
4	UFWZ031	5/16 USS F/W Z	13
5	SLWZ031	5/16 SPLIT L/W Z	9
6	FHN5031	5/16-18 FHN GR5 ZINC	7
7	HHC5037020	3/8-16 X 1-1/4 HHCS GR5 Z	2
8	UFWZ037	3/8 USS F/W Z	2
9	SLWZ037	3/8 SPLIT L/W Z	2
10	292-023	TIGHT FLANGE FOR CONTACT WHEEL 936-018	1
11	SSKA025004	1/4-20 X 1/4 SOC SET KNURL PT.	2
12	936-018	WHEEL, DRIVE (8X2) C134T, 8"DIA, 1.875 FACE, 70 DURO, STANDARD SERRATION FOR BG248 AND 2FS72M	1
13	292-027	LOOSE FLANGE FOR WHEEL ADAPTOR FOR 2FS72 AND BG448 (NEW STYLE)	1
14	FSCA037016	3/8-16 X 1 FSHCS	3
15	832-022	TUBE SUPPORT W/RING FOR 2FS72M (NEW STYLE)	1
16	697-013	TENSION SPRING FOR 2FS, 2FS72, 2FSM, BG142, 2FS72M, K12-14B	1
17	645-008	TENSION ROD FOR 2FS, 2FSM, 2FS72, 2SK7 SANDERS	1
18	HHC5031032	5/16-18 X 2 HHCS GR5 Z	3
19	563-040	PLATEN FOR 2FS72 AND 2FS72M	1
20	441-011	TRACKING KNOB FOR 2FS, 2FS72, 2FSM, 2SK7 SANDERS	1
21	123-004	TRACKING COLLAR FOR 2FS, 2FS72, 2FSM, 2SK7, BG142	1
22	SSKA031006	5/16-18 X 3/8 SOC SET KNURL PT.	1
23	936-003	NYLON IDLER PULLEY W BEARINGS FOR S272, BG272, 2FS72M, BG248	1
24	342-009	GUARD, UMBRELLA FOR 2FS, 2FS72, 2FS72M, BG248 SANDERS	1
25	HHC5031012	5/16-18 X 3/4 HHCS GR5 Z	2
26	829-004-REV1	WORK TABLE FOR 2", 4", DS10-4 SANDERS/ REV1	1
27	563-040SP	SIDE PLATE FOR 2FS72 AND 2FS72M PLATEN	1
28	HHC5025008	1/4-20 X 1/2 HHCS GR5 Z	2
29	UFWZ025	1/4 USS F/W Z	2
30	SLWZ025	1/4 SPLIT L/W Z	2

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:

TITLE:

SIZE D | DWG. NO. 2FS72M-EXPLODED | REV

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