

SMITH[®] Handhelds

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***For removal of materials from flat concrete and asphalt surfaces.
For professional use only.***

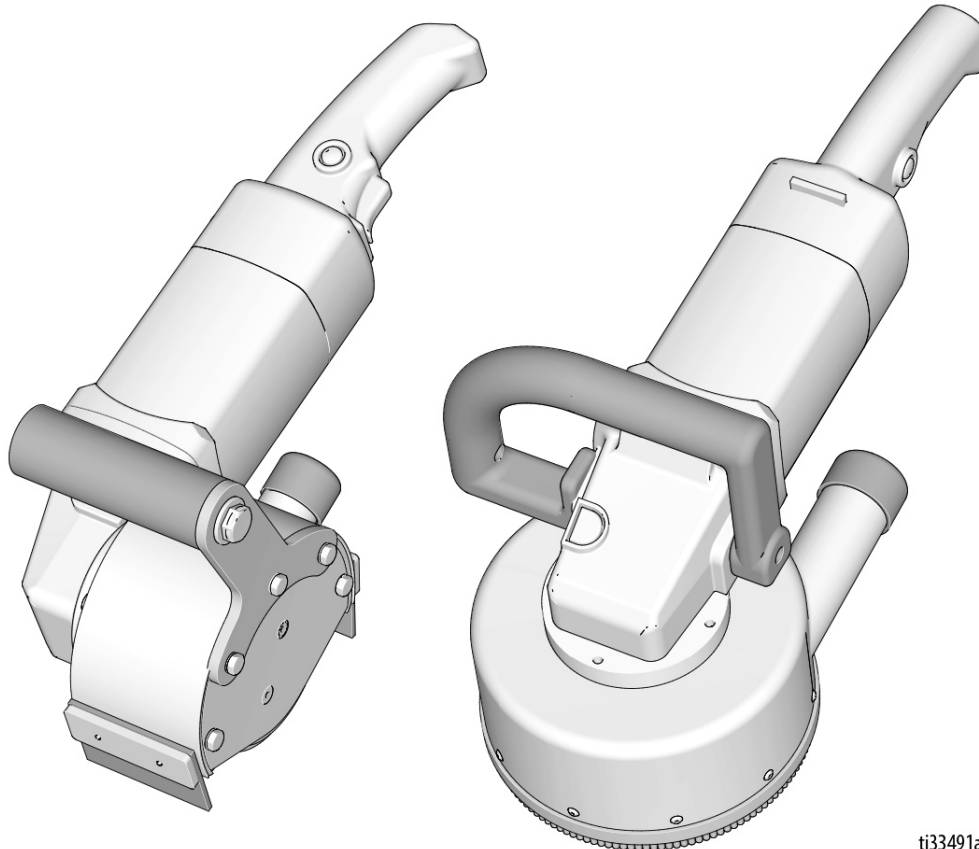
SMITH FS050 Handheld Electric Scarifier-Grinder / 1hp, 120Vac

SMITH FS150 Rotary Electric Scarifier-Grinder / 1hp, 120Vac



Important Safety Instructions

Read all warnings and instructions in this manual and the grinder manual before using the equipment. Be familiar with the controls and the proper usage of the equipment. Save all instructions.



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SMITH FS050 Handheld

SMITH FS150 Rotary Handheld

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Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to procedure-specific risks. When these symbols appear in the body of this manual or on warning labels, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

 WARNING	
 	DUST AND DEBRIS HAZARD Grinding concrete and other surfaces with this equipment can create dust that contains hazardous substances. Grinding can also create flying debris. To reduce the risk of serious injury: <ul style="list-style-type: none"> • Control the dust to meet all applicable workplace regulations. • Wear protective eyewear and a properly fit-tested and government approved respirator suitable for the dust conditions. • Use equipment only in a well-ventilated area. • Grinding equipment must be used only by trained personnel who understand the applicable workplace regulations.
 	ROTATING PARTS HAZARD Rotating parts can cut or amputate fingers and other body parts. <ul style="list-style-type: none"> • Keep clear of rotating parts. • Do not operate equipment with protective guards or covers removed. • Before checking, moving, or servicing equipment, disable power supply.
	BURN HAZARD Equipment surfaces that are heated can become very hot during operation. To avoid severe burns, do not touch hot equipment. Wait until equipment has cooled completely.
	EQUIPMENT MISUSE HAZARD Misuse can cause death or serious injury. <ul style="list-style-type: none"> • Do not operate the unit when fatigued or under the influence of drugs or alcohol. • Do not leave the work area while equipment is energized. Turn off all equipment when equipment is not in use. • Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only. • Do not alter or modify equipment. • Use equipment only for its intended purpose. Call your distributor for information. • Keep children and animals away from work area. • Comply with all applicable safety regulations. • Maintain a safe operating distance from other people in the work area. • Avoid any pipes, columns, openings, or any other objects protruding from work surface.
 	PERSONAL PROTECTIVE EQUIPMENT You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury, inhalation of dust or chemicals, burns, and hearing loss. This equipment includes but is not limited to: <ul style="list-style-type: none"> • Protective eye wear. • Protective shoes. • Gloves. • Hearing protection. • Properly fit-tested and government approved respirator suitable for the dust conditions.



WARNING



ELECTRIC SHOCK HAZARD

This equipment must be grounded. Improper grounding, setup, or usage of the system can cause electric shock.

- Turn off and disconnect power cord before servicing equipment.
- Connect only to grounded electrical outlets.
- Use only 3-wire extension cords.
- Ensure ground prongs are intact on power and extension cords.
- Do not expose to rain. Store indoors.



GROUNDING

This product must be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current. This product is equipped with a cord having a grounding wire with an appropriate grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

- Improper installation of the grounding plug is able to result in a risk of electric shock.
- When repair or replacement of the cord or plug is required, do not connect the grounding wire to either flat blade terminal.
- The wire with insulation having an outer surface that is green with or without yellow stripes is the grounding wire.
- Check with a qualified electrician or serviceman when the grounding instructions are not completely understood, or when in doubt as to whether the product is properly grounded.
- Do not modify the plug provided; if it does not fit the outlet, have the proper outlet installed by a qualified electrician.
- This product is for use on a nominal 120V circuit and has a grounding plug similar to the plugs illustrated in the figure below.

120V US



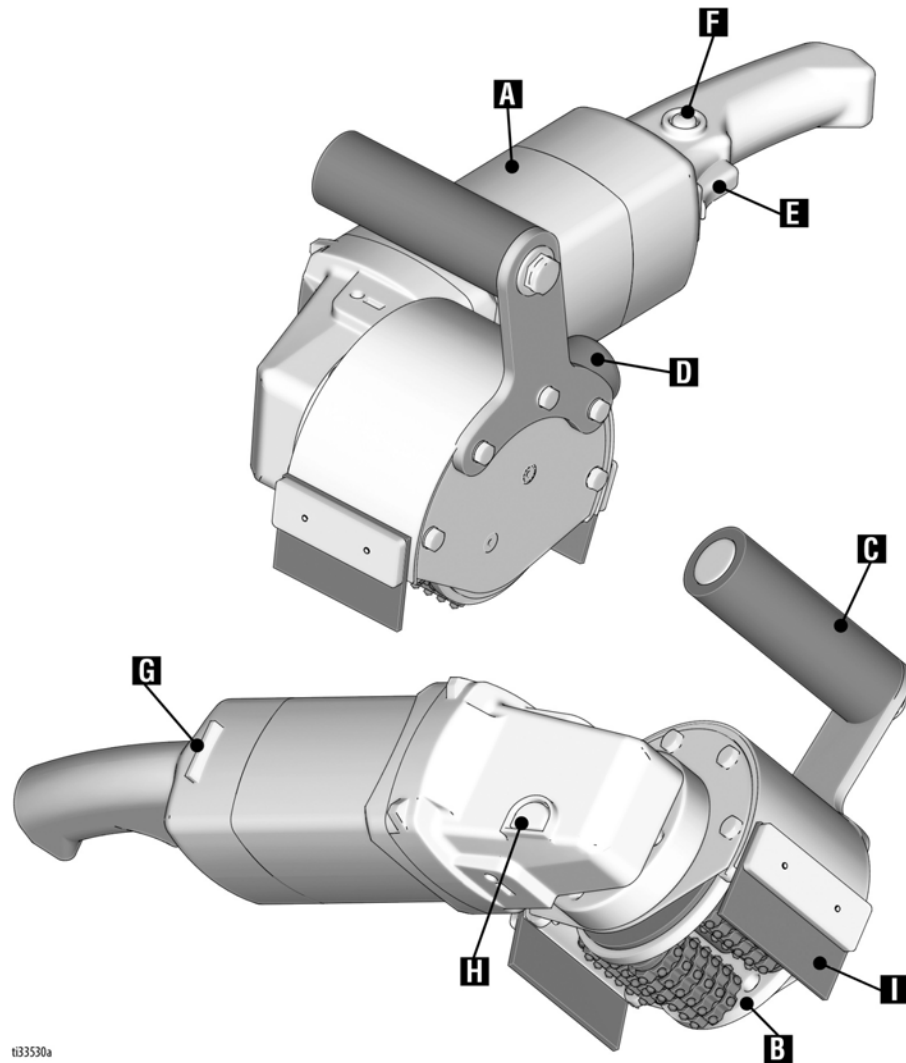
- Only connect the product to an outlet having the same configuration as the plug.
- Do not use an adapter with this product.

Extension Cords:

- Use only a 3-wire extension cord that has a grounding plug and a grounding receptacle that accepts the plug on the product.
- Make sure your extension cord is not damaged. If an extension cord is necessary, use 12 AWG (2.5 mm²) minimum to carry the current that the product draws.
- An undersized cord results in a drop in line voltage and loss of power and overheating.

Component Identification

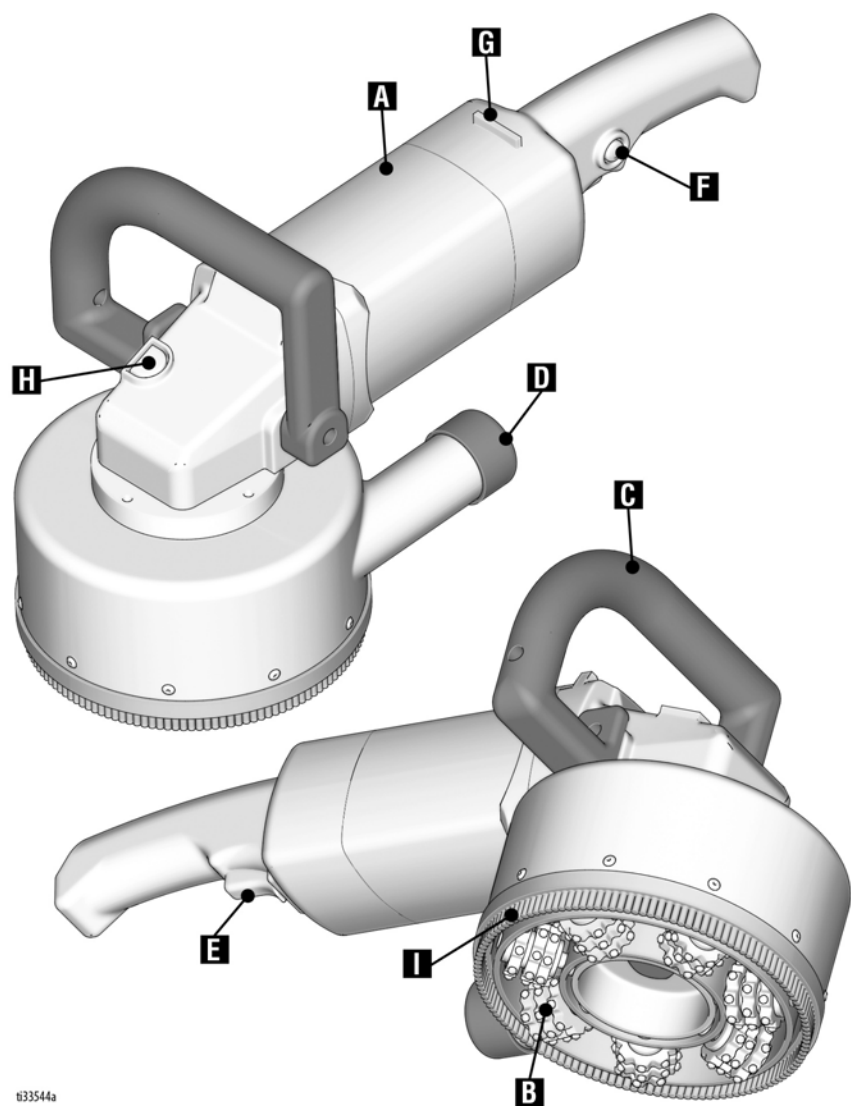
SMITH FS050



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	Component
A	Grinder
B	Cutter Drum
C	Handle
D	Vacuum Port
E	Trigger
F	Trigger Lock
G	Speed Control Dial (1-slowest, 6-fastest)
H	Drive Shaft Lock
I	Dust Skirt

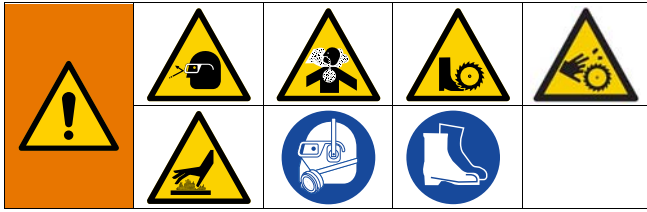
SMITH FS150



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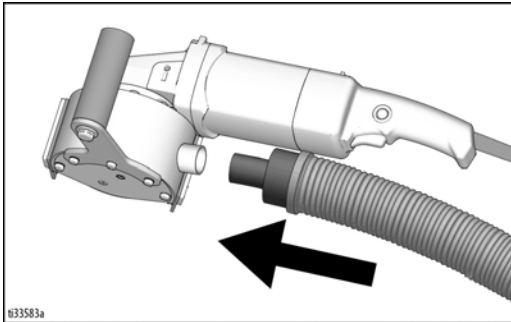
	Component
A	Grinder
B	Cutter Drum
C	Handle
D	Vacuum Port
E	Trigger
F	Trigger Lock
G	Speed Control Dial (1-slowest, 6-fastest)
H	Drive Shaft Lock
I	Dust Skirt

Operation

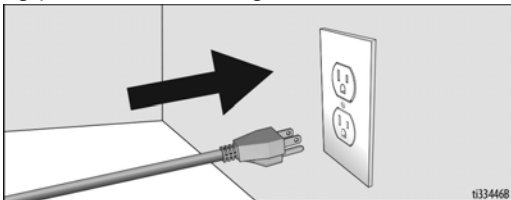


Machine Start-Up

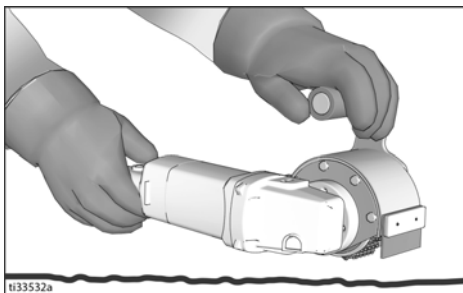
1. If using a vacuum, attach vacuum hose to the vacuum port. Turn the vacuum on.



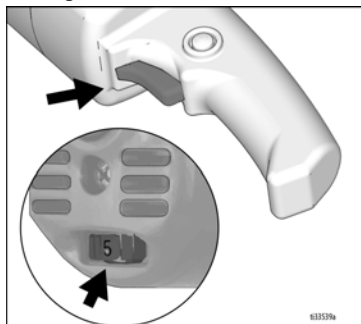
2. Plug power cord into a grounded outlet.



3. Hold the unit with the cutters 2-4 inches (5-10 cm) off the surface to be scarified.



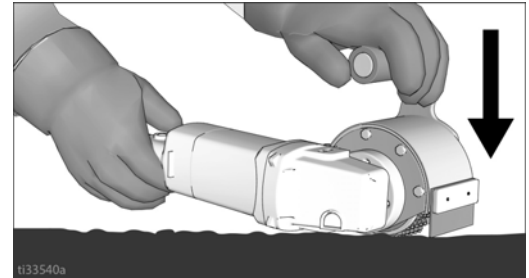
4. Depress the trigger and adjust the speed dial to the desired setting.



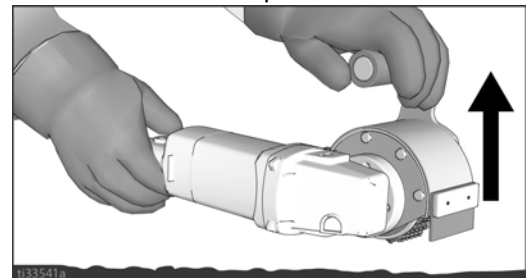
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Cutting Material

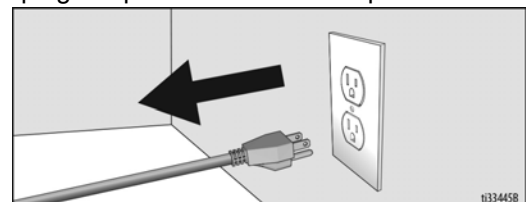
1. While holding the machine firmly, press the cutters into the surface to be cut.



2. When ready to stop cutting material, lift the cutters off the surface, release the trigger, and allow the cutters to come to a stop.







3. Unplug the power cord from the power source.

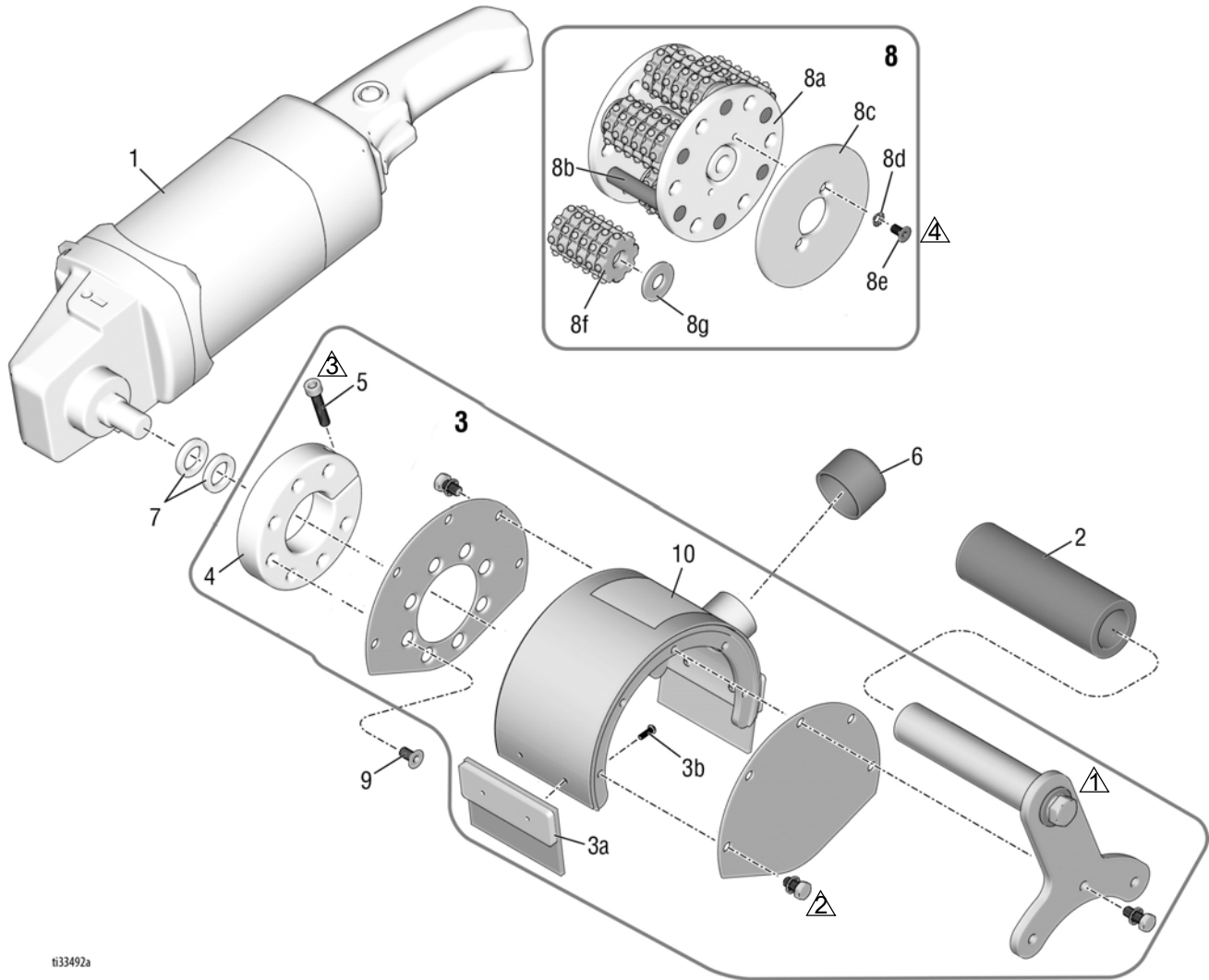


Maintenance

1. Inspect the dust skirt on the scarifier daily. Repair or replace the skirt if it is torn or damaged to ensure maximum dust and debris containment.
2. Inspect cutters daily and replace cutters that appear worn in order to achieve optimal cutting speed and surface finish.

Parts - SMITH FS050

Ref.	Torque
	240-250 in-lb (27.1-28.2 N•m)
	70-80 in-lb (7.9-9.0 N•m)
	120-130 in-lb (13.6-14.7 N•m)
	10-12 in-lb (1.1-1.4 N•m)



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Parts List

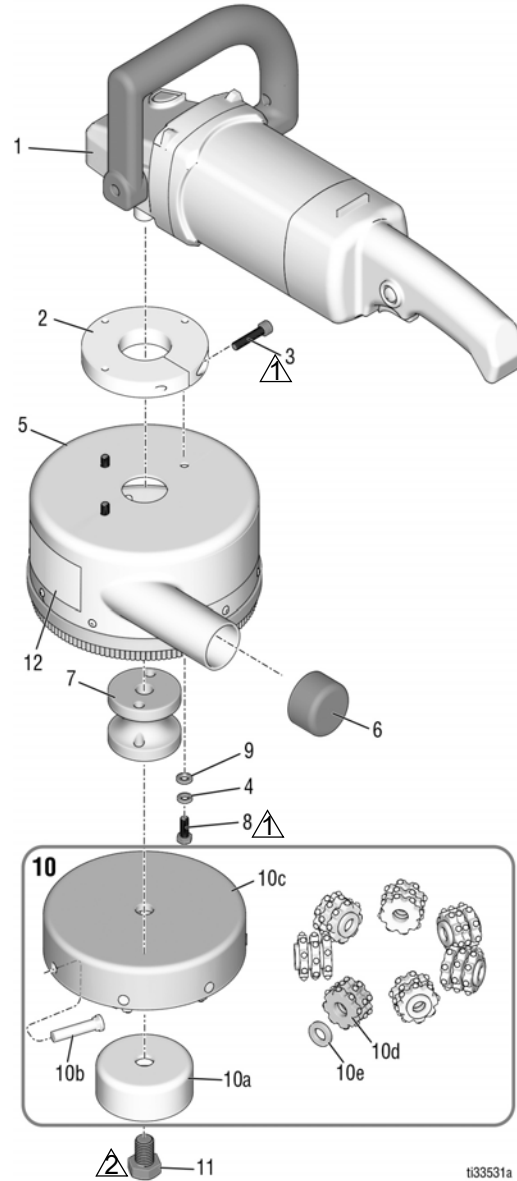
Item	P/N	Qty	Description
1	FS050.ME	1	Grinder
2	1010608.3	1	Foam Grip
3	FS050.003	1	Housing Assembly (inc. 3a-3d)
3a	FS050.051	2	Rubber Skirt
5	SHCS.M6-1.0x30mm	1	Socket Cap Screw
6	FS050.015	1	Vacuum Port Cap
7	FS050.001.L5A	2	Drum Offset Spacer
8*	5502.6.1519.2M	1	Flail Drum Assembly (inc. 8a-8g)
8a	FS050.002	1	Blank Drum (inc. 8b-8e)
8b	S10.02.0500.4	6	Shaft
8c	17W881	2	Retaining Plate
8d	ECLW10		Washer

8e	FHSCS.M5-08x10mm	4	Screw
8f	CF1519	36	Cutter
8g	FLW.M10	42	Spacer
9	FHSCS.M6-1.0x12mm	7	Flat Head Screw
10▲	17W315	1	Warning Label

* Other drum assembly options are available.
▲ Replacement safety labels, tags, and cards are available at no cost.

Parts - SMITH FS150

Ref.	Torque
	65-75 in-lb (7.3-8.5 N•m)
	26-30 ft-lb (35.3-40.7 N•m)



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Parts List

Item:	P/N	Qty	Description
1	FS050.ME	1	Grinder
2	FS150.475.3278	1	Locking Collar
3	SHCS.M6-1.0x30mm	1	Socket Cap Screw
4	SLW.M6	3	Lock Washer
5	FS150.000.T	1	Housing Assembly
6	FS150.004	1	Vacuum Port Cap
7	FS150.830.3160A	1	Drum Adapter Mount
8	HX-CS.M6-1.0x16mm	3	Hex Cap Screw
9	FLW.M6	3	Flat Washer

10*	FS150.1519.M	1	Flail Drum Assembly
10a	FS150.675.3151	1	Pin Retainer
10b	FS150.675.3155	7	Pin
10c	FS150.475.3150A	1	Drum Body
10d	CF1519	21	Cutter
10e	FLW.M10	21	Spacer
11	HX-CS.M14-2.0x20mm	1	Hex Cap Screw
12▲	17W315	1	Warning Label

* Other drum assembly options are available.

▲ Replacement safety labels, tags, and cards are available at no cost.

CALIFORNIA PROPOSITION 65



CALIFORNIA RESIDENTS WARNING: Cancer and reproductive harm –
www.P65warnings.ca.gov.

Technical Specifications

SMITH FS050 (FS050.3.Makita®)	
Dimensions (unpackaged)	
Height in./cm:	19 (48.3)
Width in./cm:	8 (20.3)
Length in.cm:	9 (22.9)
Weight lb/kg:	12 (5.4)
Maximum Amperage	10 Amps
Electrical Power Requirement	120Vac, 60 Hz, 15 A, 1Ø
SMITH FS150 (FS150.T.Makita®)	
Dimensions (unpackaged)	
Height in./cm:	20 (50.8)
Width in./cm:	12 (30.5)
Length in.cm:	11 (27.9)
Weight lb/kg:	15 (6.8)
Maximum Amperage	10 Amps
Electrical Power Requirement	120Vac, 60 Hz, 15 A, 1Ø

SMITH Standard Warranty

SMITH warrants all equipment referenced in this document which is manufactured by SMITH and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by SMITH, SMITH will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by SMITH to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with SMITH's written recommendations.

This warranty does not cover, and SMITH shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-SMITH component parts. Nor shall SMITH be liable for malfunction, damage or wear caused by the incompatibility of SMITH equipment with structures, accessories, equipment or materials not supplied by SMITH, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by SMITH.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized SMITH distributor for verification of the claimed defect. If the claimed defect is verified, SMITH will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

SMITH's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

SMITH MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY SMITH. These items sold, but not manufactured by SMITH (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. SMITH will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will SMITH be liable for indirect, incidental, special or consequential damages resulting from SMITH supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of SMITH, or otherwise.

FOR SMITH CANADA CUSTOMERS

The Parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés, à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

SMITH Information

For the latest information about SMITH products, visit www.smithmfg.com.

TO PLACE AN ORDER, contact your SMITH distributor, or call 1-800-653-9311.

*All written and visual data contained in this document reflects the latest product information available at the time of publication.
SMITH reserves the right to make changes at any time without notice.*

Original instructions. This manual contains English. MM 3A6353

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