

# JET<sup>®</sup>

## Operating and Maintenance Instructions 5" (or 4-1/2") Angle Grinder Model JNS-185



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**Part No. M-JNS185**

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# Warranty and Service

Walter Meier (Manufacturing) Inc., warrants every product it sells. If one of our tools needs service or repair, one of our Authorized Service Centers located throughout the United States can give you quick service. In most cases, any of these Walter Meier Authorized Service Centers can authorize warranty repair, assist you in obtaining parts, or perform routine maintenance and major repair on your JET® tools. For the name of an Authorized Service Center in your area call 1-800-274-6848.

## MORE INFORMATION

Walter Meier is consistently adding new products to the line. For complete, up-to-date product information, check with your local Walter Meier distributor, or visit [waltermeier.com](http://waltermeier.com).

## WARRANTY

JET products carry a limited warranty which varies in duration based upon the product (MW = Metalworking, WW = Woodworking).

<b>90</b> DAY WARRANTY	<b>1</b> YEAR WARRANTY	Body Repair Kits Bottle Jacks Cable Pullers Cold Saws Hoists-Air Hoists-Electric Metal forming Mill/Drills Milling Machines MW Bandsaws MW Drill Presses MW Finishing Equipment MW Lathes MW Precision Vises	<b>2</b> YEAR WARRANTY	Palet Trucks Rigging Equip. Service Jacks Stackers Surface Grinders Tapping Trolleys-Air Trolleys-Electric Web Slings Winches-Electric	<b>3</b> YEAR WARRANTY	WW Benchtop Tools	Beam Clamps Chain Hoist- Manual Lever Hoists Pullers-JCH Models Scissor Lift Tables Screw Jacks Trolleys-Geared Trolleys-Plain Winches-Manual WW Air Filtration WW Bandsaws WW Buffers	<b>5</b> YEAR WARRANTY	WW Drill Presses WW Dust Collectors WW Dust Filters WW Dust Fittings WW Jointers WW Lathes WW Planers WW Sanders WW Shapers WW Tablesaws	<b>LIFE</b> LIFETIME WARRANTY	Fastening Tools Mechanics Hand Tools Striking Tools Vises (no -precision) Clamps
Warranty reverts to 1 Year Warranty if woodworking (WW) products listed above are used for industrial or educational purposes.											

## WHAT IS COVERED?

This warranty covers any defects in workmanship or materials subject to the exceptions stated below. Cutting tools, abrasives and other consumables are excluded from warranty coverage.

## WHO IS COVERED?

This warranty covers only the initial purchaser of the product.

## WHAT IS THE PERIOD OF COVERAGE?

The general JET warranty lasts for the time period specified in the product literature of each product.

## WHAT IS NOT COVERED?

Five Year Warranties do not cover woodworking (WW) products used for commercial, industrial or educational purposes. Woodworking products with Five Year Warranties that are used for commercial, industrial or education purposes revert to a One Year Warranty. This warranty does not cover defects due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, improper repair or alterations, or lack of maintenance.

## HOW TO GET SERVICE

The product or part must be returned for examination, postage prepaid, to a location designated by us. For the name of the location nearest you, please call 1-800-274-6848.

You must provide proof of initial purchase date and an explanation of the complaint must accompany the merchandise. If our inspection discloses a defect, we will repair or replace the product, or refund the purchase price, at our option. We will return the repaired product or replacement at our expense unless it is determined by us that there is no defect, or that the defect resulted from causes not within the scope of our warranty in which case we will, at your direction, dispose of or return the product. In the event you choose to have the product returned, you will be responsible for the shipping and handling costs of the return.

## HOW STATE LAW APPLIES

This warranty gives you specific legal rights; you may also have other rights which vary from state to state.

## LIMITATIONS ON THIS WARRANTY

WALTER MEIER (MANUFACTURING) INC., LIMITS ALL IMPLIED WARRANTIES TO THE PERIOD OF THE LIMITED WARRANTY FOR EACH PRODUCT. EXCEPT AS STATED HEREIN, ANY IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS ARE EXCLUDED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG THE IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

WALTER MEIER SHALL IN NO EVENT BE LIABLE FOR DEATH, INJURIES TO PERSONS OR PROPERTY, OR FOR INCIDENTAL, CONTINGENT, SPECIAL, OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF OUR PRODUCTS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

Walter Meier sells through distributors only. The specifications in Walter Meier catalogs are given as general information and are not binding. Members of Walter Meier reserve the right to effect at any time, without prior notice, those alterations to parts, fittings, and accessory equipment which they may deem necessary for any reason whatsoever. JET® branded products are not sold in Canada by Walter Meier.

# Warnings

1. Read and understand this entire manual before attempting assembly or operation.
2. Read and understand the warnings posted on the tool and in this manual. Failure to comply with all of these warnings may cause serious injury.
3. Replace warning labels if they become obscured or removed.
4. This angle grinder is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe operation of an angle grinder, do not use until proper training and knowledge have been obtained.
5. Do not use this tool for other than its intended use. If used for other purposes, Walter Meier (Manufacturing) Inc., disclaims any real or implied warranty and holds itself harmless from any injury that may result from that use.
6. Always wear approved safety glasses/face shields while using this angle grinder. (Everyday eyeglasses only have impact resistant lenses; they are *not* safety glasses.)
7. Wear ear protectors (plugs or muffs) if the noise exceeds normal levels.
8. Gloves are recommended when operating the angle grinder. Keep hands and body away from the wheel area of the tool.
9. Some dust created by power sanding, sawing, grinding, drilling and other construction activities contain chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
  - Lead from lead based paint.
  - Crystalline silica from bricks, cement and other masonry products.
  - Arsenic and chromium from chemically treated lumber.Your risk of exposure varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area and work with approved safety equipment, such as face or dust masks that are specifically designed to filter out microscopic particles.
10. Do not operate this tool while tired or under the influence of drugs, alcohol or any medication.
11. Maintain proper balance and keep your footing at all times. Non-slip footwear or anti-skid floor strips are recommended.
12. Secure the work with clamps or a vise so that both hands are free to operate the angle grinder.
13. Before operating this angle grinder, remove tie, rings, watches and other jewelry, and roll sleeves up past the elbows. Remove all loose clothing and confine long hair.
14. Make sure the angle grinder is in OFF position before connecting the air hose.
15. Excessive air pressure will decrease the life of the tool and may cause a hazardous situation.
16. Check air hoses for wear, and keep them away from heat and sharp edges. Do not carry the angle grinder by the air hose.
17. Do not use this air tool near flammable objects or potentially explosive environments.
18. Do not leave a connected tool unattended. When not in use, turn off the angle grinder and disconnect it from the air source.
19. Disconnect angle grinder from air supply before making adjustments or changing accessories.
20. Keep work area clean and free of clutter. Provide for adequate space surrounding work area and non-glare, overhead lighting.
21. Keep visitors a safe distance from the work area. **Keep children away.**
22. Give your work undivided attention. Looking around, carrying on a conversation and “horse-play” are careless acts that can result in serious injury.

23. Do not force a tool or attachment to do a job for which it was not designed. The right tool will do the job better and safer.
24. Use recommended accessories; improper accessories may be hazardous. Use only grinding wheels that have an RPM rating equal to or greater than your angle grinder.
25. Maintain tools with care. Keep the angle grinder clean and oiled for best and safest performance.

**Familiarize yourself with the following safety notices used in this manual:**

**CAUTION** This means that if precautions are not heeded, it may result in minor injury and/or possible tool damage.

**WARNING** This means that if precautions are not heeded, it may result in serious injury or possibly even death.

**- - SAVE THESE INSTRUCTIONS - -**

## Specifications

Stock Number.....	JNS-185
Wheel Size (in.) .....	Ø 4-1/2 x 7/8 Bore, Ø 5 x 7/8 Bore
Spindle Thread (in./TPI).....	5/8-11
Free Speed [No Load] (RPM) .....	11,000
Required Air Pressure (PSI).....	90
Average Air Consumption (CFM) .....	6
Air Inlet (in.).....	1/4 NPT
Air Hose Inside Diameter (in.) .....	3/8
Vibration Value (m/s <sup>2</sup> ) .....	(according to EN12096) 3.4
Overall Length (in.) .....	9
Net Weight (lbs.).....	3.87
Shipping Weight (lbs.).....	4.5

The above specifications were current at the time this manual was published, but because of our policy of continuous improvement, Walter Meier (Manufacturing) Inc., reserves the right to change specifications at any time and without prior notice, without incurring obligations.

## Operation

The box should include **1 Angle Grinder, 1 Handle** and **2 Wrenches**. Any missing parts should be reported to your JET distributor. Read this instruction manual thoroughly for operation, maintenance and safety instructions.

1. Lubricate the angle grinder before operating. See "Maintenance" section for oiling instructions.
2. Assemble the handle to the threaded hole of the angle grinder.
3. The disc guard can be rotated left or right. Remove the socket head cap screws (Figure 1) with a 4mm hex wrench, and re-position the guard. *All four* of the socket head cap screws must be installed and tightened before operating the grinder.

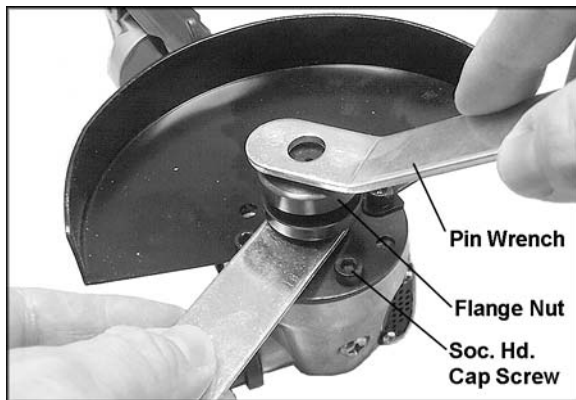


Figure 1

4. Remove the flange nut (Figure 1) and mount a 4-1/2" or 5" diameter grinder wheel (not provided) on the spindle. Re-install and securely tighten the flange nut against the grinding wheel, using the provided pin wrench while holding the other wrench on the flats of the spindle as shown.

**CAUTION** Only use grinding wheels that have an RPM rating equal to or greater than the angle grinder itself.

5. Remove the cap from the grinder's air inlet (Figure 2) and connect the air supply hose to the grinder. Set the air pressure to 90 psi.

**IMPORTANT:** Connecting a quick-change coupling directly to the angle grinder is not recommended, as vibration may cause the connection to fail. Instead, add a leader hose and install any quick-change couplings farther down the line.

6. Push forward the throttle lever lock and press up on the throttle lever (Figure 2). How far the throttle lever is pressed determines rotation speed.

## Maintenance

The angle grinder should be lubricated daily (or before each use) with air tool oil. During continual operation, it should be oiled every 1 to 2 hours. This may be done using an in-line oiler, or manually. If done manually, proceed as follows:

1. Disconnect grinder from air supply.
2. Place a few drops of air tool oil\* into the air inlet (Figure 2).

(\*Not included. Air tool oil may be purchased from your JET dealer, or is available at major tool and hardware stores. SAE #10-weight oil may be used as a substitute. Do not use detergent oil.)



Figure 2

3. Connect the grinder to the air supply. Run the tool without load for a few seconds to distribute the oil through the tool. **NOTE:** Any excess oil may be propelled from the spindle area – keep it pointed in a safe direction.
4. When you are finished operating the grinder, before storing it disconnect the air hose and place 4 or 5 drops of air tool oil into the air inlet, then re-connect and run the tool to distribute the oil. This will prolong the life of your grinder.
5. Avoid storing the grinder in a humid environment which promotes rusting of internal mechanisms; and always oil it before storage.

## Air Connection

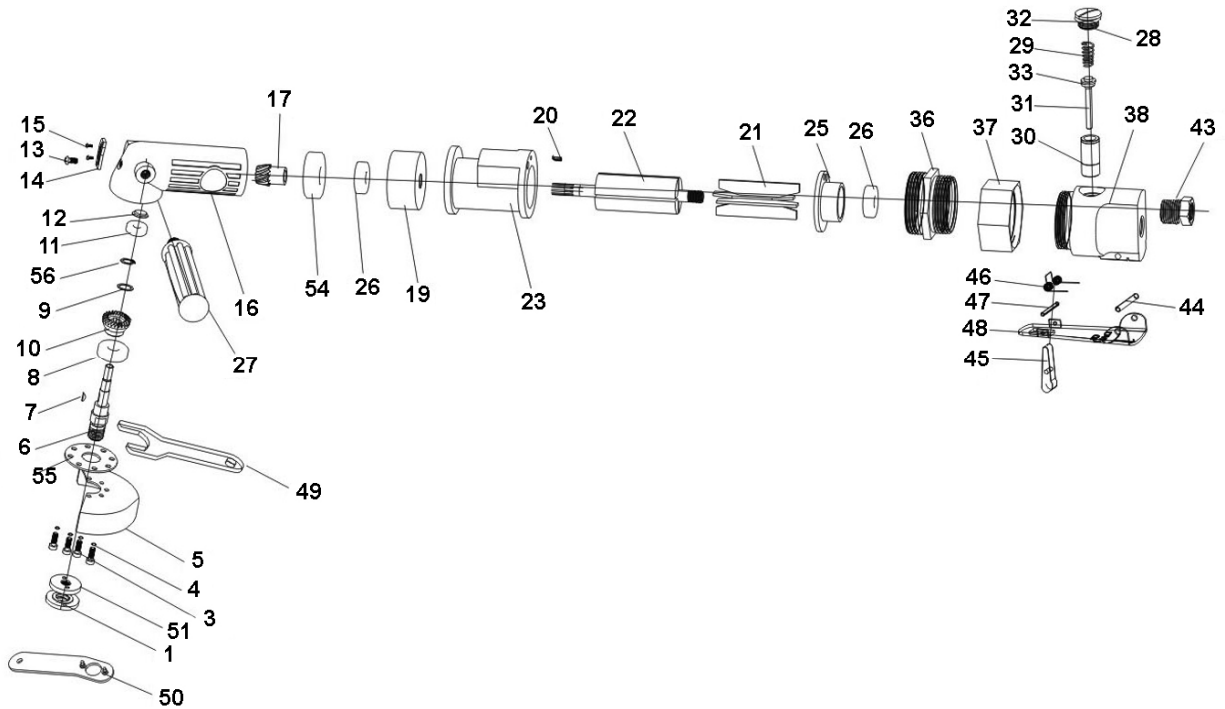
1. Make sure that the air compressor supplies the correct CFM for the grinder.
2. Set air pressure to 90 psi. Higher pressure and/or unclean air may create a hazardous situation, and will shorten the tool's life.
3. Drain water from the air compressor tank daily, as well as any condensation in the air lines. Water in the air line can enter the tool and cause damage.
4. Clean the air inlet filter cartridge weekly.
5. Line pressure should be increased accordingly to compensate for extra long air hoses (usually over 25 feet). Inside diameter of air hoses should be a minimum of 3/8".

## Troubleshooting

Trouble	Probable Cause	Remedy
Grinder does not operate at normal speed; or speed remains constant when pressing the throttle lever.	Air pressure is too low.	Adjust air pressure to 90psi.
	Air lines are twisted, or there is a blockage in them.	Untwist or clean out air lines.
	Air compressor is malfunctioning, or is not sufficient capacity for the tool.	Replace air compressor.
	Throttle is malfunctioning.	Have grinder inspected and repaired by an authorized service center.
Stops operating.	No air pressure.	Check air compressor and hoses. Make sure compressor is set at 90psi, and air lines are not twisted.
	Throttle is malfunctioning.	Have grinder inspected and repaired by an authorized service center.
Reduced torque.	Air leakage.	Check air connections. Make adjustments/repairs as needed.
Starts immediately as soon as air is connected, even though throttle is at OFF position	Throttle is malfunctioning.	Have grinder inspected and repaired by an authorized service center.
Abnormal vibration and/or excessive heat develops in the tool.	Improper lubrication.	Follow proper lubrication procedures in this manual.

To order parts or reach our service department, call 1-800-274-6848 Monday through Friday (see our website for business hours, [jettools.com](http://jettools.com)). Having the Model Number and Serial Number of your tool available when you call will allow us to serve you quickly and accurately.

## Parts List for JNS-185 Angle Grinder



Index No	Part No	Description	Size	Qty
1.....	JNS185-1.....	Flange Nut .....		1
3.....	JNS185-3.....	Screw.....		4
4.....	JNS185-4.....	Lock Washer .....		4
5.....	JNS185-5.....	Disc Cover .....		1
6.....	JNS185-6.....	Spindle .....		1
7.....	JNS185-7.....	Flat Key.....		1
8.....	JNS185-8.....	Ball Bearing.....	6202Z.....	1
9.....	JNS185-9.....	Spindle Collar .....		1
10.....	JNS185-10.....	Bevel Gear .....		1
11.....	JNS185-11.....	Ball Bearing.....	626Z.....	1
12.....	JNS185-12.....	Spacer .....		1
13.....	JNS185-13.....	Screw.....		1
14.....	JNS185-14.....	Exhaust Screen .....		1
15.....	TS-1531012.....	Phillips Pan Head Machine Screw .....	M3x6.....	2
16.....	JNS185-16.....	Housing .....		1
17.....	JNS185-17.....	Pinion .....		1
18.....	JNS185-18.....	Rotor Collar .....		1
19.....	JNS185-19.....	Front Plate .....		1
20.....	JNS185-20.....	Woodruff Key .....	3x3.5mm, R6.5.....	1
21.....	JNS185-21.....	Vane .....		4
22.....	JNS185-22.....	Rotor .....		1
23.....	JNS185-23.....	Cylinder .....		1
24.....	JNS185-24.....	Roll Pin .....		1
25.....	JNS185-25.....	Bearing Plate .....		1
26.....	JNS185-26.....	Ball Bearing.....	608Z.....	2
27.....	JNS185-27.....	Handle .....		1
28.....	JNS185-28.....	Screw.....		1
29.....	JNS185-29.....	Spring .....		1
30.....	JNS185-30.....	Valve Stem Bushing .....		1

Index No	Part No	Description	Size	Qty
31	JNS185-31	Valve Stem		1
32	JNS185-32	O-Ring	Ø5x2.4mm	1
33	JNS185-33	O-Ring	Ø 9x2mm	1
34	JNS185-34	Roll Pin		2
35	JNS185-35	Pendulum		8
36	JNS185-36	Locking Nut		1
37	JNS185-37	Coupling Nut		2
38	JNS185-38	Throttle Valve Housing		1
39	JNS185-39	Nut		1
40	JNS185-40	Spring		1
	JNS185-100	Throttle Valve Assembly (contains index# 41 and 42)		1
41		Throttle Valve Body		1
42		Throttle Valve		3
43	JNS185-43	Air Inlet		1
44	JNS185-44	Roll Pin		1
	JNS185-200	Throttle Lever Assembly (contains index# 45 thru 48)		1
45		Throttle Lever Lock		1
46		Torsion Spring		1
47		Roll Pin		1
48		Throttle Lever		1
49	JNS285-49	Wrench		1
50	JNS285-50	Pin Wrench		1
51	JNS185-51	Flange		1
52	JNS185-52	Bushing		1
53	JNS185-WL	Warning Label (not shown)		1
54	JNS185-54	Bearing		1
55	JNS185-55	Retainer		1
56	JNS185-56	Retaining Ring		1
	JNS185-RB	Rebuild Kit (includes index # 6,8,10,17,26)		
	JNS185-RP	Repair Kit (includes index # 21,32,33,40)		

NOTE: Grinding wheels are not provided; see your dealer to order.



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