



# Operating Instructions and Parts Manual Box and Pan Brake

Model: BP-1248H



**JET**

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# Warranty and Service

JET warrants every product it sells against manufacturers' defects. If one of our tools needs service or repair, please contact Technical Service by calling 1-800-274-6846, 8AM to 5PM CST, Monday through Friday.

## Warranty Period

The general warranty lasts for the time period specified in the literature included with your product or on the official JET branded website.

- JET products carry a limited warranty which varies in duration based upon the product. (See chart below)
- Accessories carry a limited warranty of one year from the date of receipt.
- Consumable items are defined as expendable parts or accessories expected to become inoperable within a reasonable amount of use and are covered by a 90 day limited warranty against manufacturer's defects.

## Who is Covered

This warranty covers only the initial purchaser of the product from the date of delivery.

## What is Covered

This warranty covers any defects in workmanship or materials subject to the limitations stated below. This warranty does not cover failures due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, improper repair, alterations or lack of maintenance. JET woodworking machinery is designed to be used with Wood. Use of these machines in the processing of metal, plastics, or other materials may void the warranty. The exceptions are acrylics and other natural items that are made specifically for wood turning.

## Warranty Limitations

Woodworking products with a Five Year Warranty that are used for commercial or industrial purposes default to a Two Year Warranty. Please contact Technical Service at 1-800-274-6846 for further clarification.

## How to Get Technical Support

Please contact Technical Service by calling 1-800-274-6846. **Please note that you will be asked to provide proof of initial purchase when calling.** If a product requires further inspection, the Technical Service representative will explain and assist with any additional action needed. JET has Authorized Service Centers located throughout the United States. For the name of an Authorized Service Center in your area call 1-800-274-6846 or use the Service Center Locator on the JET website.

## More Information

JET is constantly adding new products. For complete, up-to-date product information, check with your local distributor or visit the JET website.

## How State Law Applies

This warranty gives you specific legal rights, subject to applicable state law.

## Limitations on This Warranty

JET LIMITS ALL IMPLIED WARRANTIES TO THE PERIOD OF THE LIMITED WARRANTY FOR EACH PRODUCT. EXCEPT AS STATED HEREIN, ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

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## Product Listing with Warranty Period

|   |
|---|
| 90 Days – Parts; Consumable items; Light-Duty Air Tools   |
| 1 Year – Motors; Machine Accessories; Heavy-Duty Air Tools; Pro-Duty Air Tools  |
| 2 Year – Metalworking Machinery; Electric Hoists, Electric Hoist Accessories; Woodworking Machinery used for industrial or commercial purposes                  |
| 5 Year – Woodworking Machinery  |
| Limited Lifetime – JET Parallel clamps; VOLT Series Electric Hoists; Manual Hoists; Manual Hoist Accessories; Shop Tools; Warehouse & Dock products; Hand Tools |

NOTE: JET is a division of JPW Industries, Inc. References in this document to JET also apply to JPW Industries, Inc., or any of its successors in interest to the JET brand.

# Warnings

1. Read and understand the entire owners manual before attempting assembly or operation.
2. Read and understand the warnings posted on the machine and in this manual. Failure to comply with all of these warnings may cause serious injury.
3. Replace the warning labels if they become obscured or removed.
4. This box & pan brake 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 a box & pan brake, do not use until proper training and knowledge have been obtained.
5. Do not use this box & pan brake for other than its intended use. If used for other purposes, JET 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 box & pan brake. Everyday eyeglasses only have impact resistant lenses; they are not safety glasses.
7. Before operating this box & pan brake, remove tie, rings, watches and other jewelry, and roll sleeves up past the elbows. Remove all loose clothing and confine long hair. Non-slip footwear or anti-skid floor strips are recommended. Do **not** wear gloves.
8. Wear ear protectors (plugs or muffs) during extended periods of operation.
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 machine while tired or under the influence of drugs, alcohol or any medication.
11. Make certain the switch is in the **OFF** position before connecting the machine to the power supply.
12. Make certain the machine is properly grounded.
13. Make all machine adjustments or maintenance with the machine unplugged from the power source.
14. Remove adjusting keys and wrenches. Form a habit of checking to see that keys and adjusting wrenches are removed from the machine before turning it on.
15. Keep safety guards in place at all times when the machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately.
16. Make sure the box & pan brake is firmly secured to the floor or bench before use.
17. Check damaged parts. Before further use of the machine, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
18. Provide for adequate space surrounding work area and non-glare, overhead lighting.
19. Keep the floor around the machine clean and free of scrap material, oil and grease.
20. Keep visitors a safe distance from the work area. **Keep children away.**
21. Make your workshop child proof with padlocks, master switches or by removing starter keys.
22. Give your work undivided attention. Looking around, carrying on a conversation and “horse-play” are careless acts that can result in serious injury.

# Warnings

23. Maintain a balanced stance at all times so that you do not fall or lean against the machine or other moving parts. Do not overreach or use excessive force to perform any machine operation.
24. Use the right tool at the correct speed and feed rate. 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.
25. Use recommended accessories; improper accessories may be hazardous.
26. Maintain tools with care. Keep machine sharp and clean for the best and safest performance. Follow instructions for lubricating and changing accessories.
27. Make sure the work piece is securely attached or clamped to the table. Never use your hand to hold the work piece.
28. Turn off the machine before cleaning. Use a brush or compressed air to remove chips or debris — do not use your hands.
29. Do not stand on the machine. Serious injury could occur if the machine tips over.
30. Never leave the machine running unattended. Turn the power off and do not leave the machine until it comes to a complete stop.
31. Remove loose items and unnecessary work pieces from the area before starting the machine.

**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 machine damage.

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

**- - SAVE THESE INSTRUCTIONS - -**

# Introduction

This manual is provided by JET covering the safe operation and maintenance procedures for a Model BP-1248H Box & Pan Brake. This manual contains instructions on installation, safety precautions, general operating procedures, maintenance instructions and parts breakdown. This machine has been designed and constructed to provide years of trouble free operation if used in accordance with instructions set forth in this manual. If there are any questions or comments, please contact either your local supplier or JET. JET can also be reached at our web site: [www.jettools.com](http://www.jettools.com).

# Specifications

|   |                   |
|---|-------------------|
| Model Number:.....                                | BP-1248H          |
| Stock Number: .....                               | 754100            |
| Capacity (mild steel).....                        | 12 gauge          |
| Bending Length Capacity .....                     | 48"               |
| Maximum Box Depth .....                           | 4"                |
| Maximum Lift of Beam .....                        | 1-1/2"            |
| Beam Adjustment.....                              | 7/8"              |
| Number of Fingers and Width .....                 | .5@3", 2@4", 5@5" |
| Finger Nose Angle .....                           | 45                |
| Finger Nose Radius .....                          | 1/32"             |
| Overall Dimensions (Width x Depth x Height) ..... | 72" x 52 x 33.5"  |
| Weight (net/shipping) .....                       | 1757 / 1940 lbs.  |

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



**Read and understand the entire contents of this manual before attempting set-up or operation! Failure to comply may cause serious injury.**

## Unpacking

1. Remove the crate from around the machine.
2. Carefully clean all rust protected surfaces with a mild solvent or kerosene and a soft rag. Do not use lacquer thinner, paint thinner, or gasoline. These will damage painted surfaces.
3. Coat all machined surfaces with a light coat of oil to inhibit rust.
4. Remove the bolts holding the machine to the skid.
5. Carefully move the machine to a well-lighted area on a solid, level workbench, and secure to the bench with lag screws or bolts.
6. Machine location must allow access to all sides.

## Assembly

The BP-1248H does not require assembly. However, it is important to make sure that the machine is level; otherwise the brake will not bend properly.

Use a machinist's level and shims if necessary.

## Adjustments

The (#) in the text refers to the *Item Number* in the *Parts Breakdown* section.

The *apron* assembly has been adjusted at the factory for use with material having the capacity as listed in the Specifications section. During shipment of this unit the machine may have come out of alignment.

The forward edge of the *holddown fingers* (41-1, 41-2, 41-3) should be adjusted parallel to the pivot edge of the clamp block. Release clamping pressure on the *holddown assembly* (34) by pushing the clamp handles (31, 32) slightly to the rear. Turn the *hand knobs* (58) to adjust for parallel.

The center of the *apron* can be adjusted by tightening the *truss nut* on the apron assembly.

*Finger alignment* can be achieved by loosening all cap screws (38) and rotating the *apron* (1) to the 90-degree position. Push the *fingers* forward against the *bending leaf* for proper alignment. Tighten screws (38).

## Operation

### Adjusting for Metal Thickness

The *holddown assembly* (34) must be adjusted to allow for clearance when making bends according to the thickness of the material. Clearance for material within four gauges of the capacity should be twice the thickness of the material. For lighter gauges use 1-1/2 times the thickness. The forward edge of the *holddown fingers* should be adjusted parallel to the pivot edge of the clamp block. Release clamping pressure on the *holddown assembly* by pushing clamp handles (31, 32) slightly to the rear. Turn the hex cap screws (58) to adjust for parallel and proper clearance. The center of the *holddown* can be adjusted by tightening the *truss nut* on the *holddown assembly* (34).

### Adjusting the Clamping Pressure

The clamping pressure should be adjusted according to the thickness of the material. The clamping pressure should be great enough to hold the material securely in place but not so much that it is difficult to lock the *clamping handles* (31, 32). Clamping pressure can be adjusted by turning the nuts (55) on the threaded rod portion of the *yoke assembly* (29, 30).

### Flange Capacity

The recommended minimum flange capacity is one inch.

### Repeat Bends

Adjust the *stop collar* (48) on the *stop rod* (21) to limit the swing of the *apron* assembly.

### Counter Weight

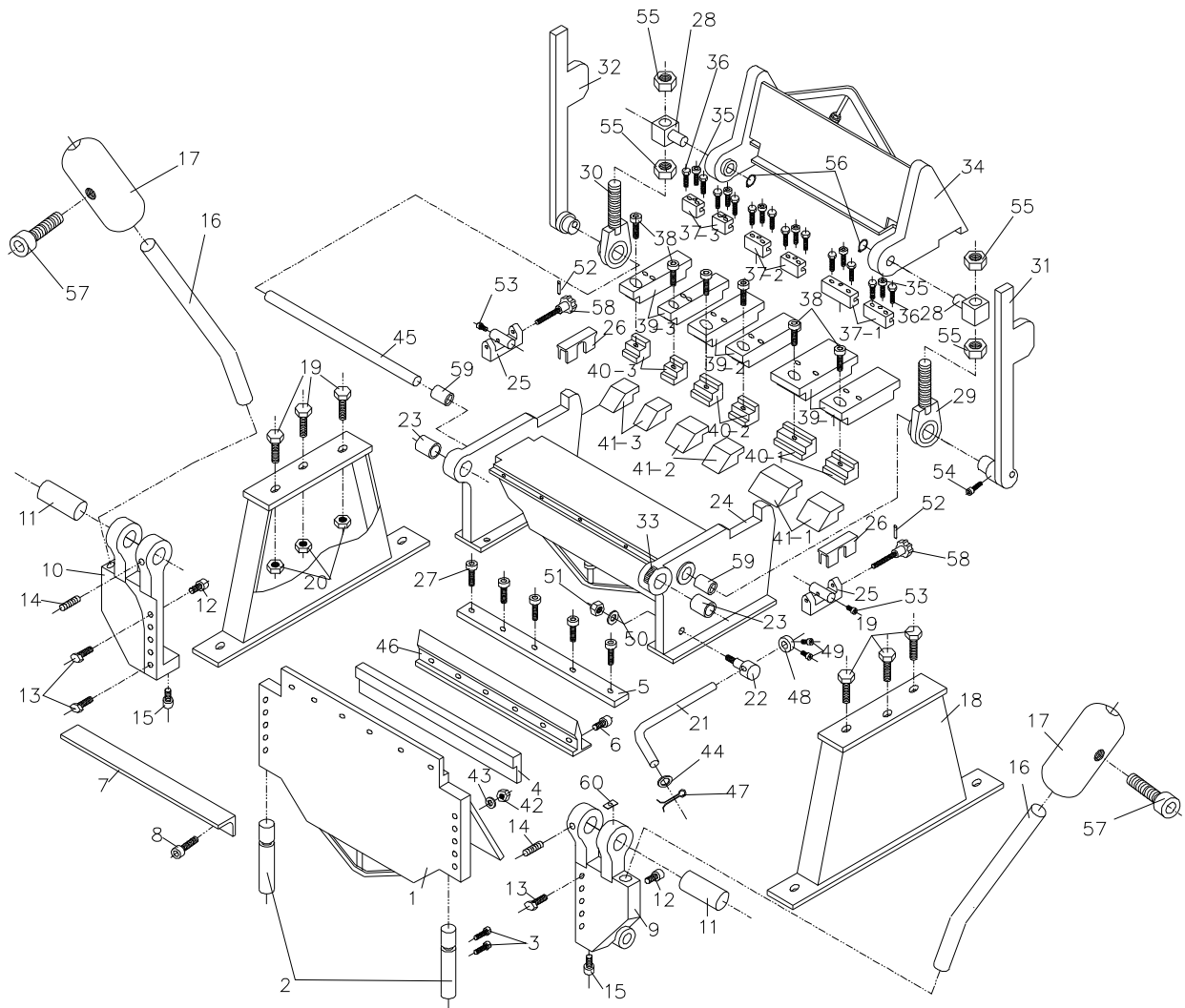
The *counter weight* (17) can be moved up or down to provide more or less leverage.

## Lubrication

The machine must be lubricated every day of service with a few drops of oil. Oil pinholes are located at both yoke assemblies (29, 30) and the apron assembly (1) near the *hinge pin* (11). Lightly oil the machined parts when not in use to prevent rust.

## Parts List for BP-1248H Box and Pan Brake

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



| Index No. | Part No.   | Description           | Size   | Qty |
|-----------|------------|-----------------------|--------|-----|
| 1         | BP1248N-1  | Apron Assembly        |        | 1   |
| 2         | BP1248F-02 | Bend Handle           |        | 2   |
| 3         | TS-1505011 | Socket Head Cap Screw | M10x16 | 4   |
| 4         | BP1248F-04 | Insert Bar            |        | 1   |
| 5         | BP1248F-05 | Bottom Bar            |        | 1   |
| 6         | TS-1505021 | Socket Head Cap Screw | M10x20 | 9   |
| 7         | BP1248F-07 | Angle Bar             |        | 1   |
| 8         | TS-1506021 | Socket Head Cap Screw | M12x25 | 4   |
| 9         | BP1248N-9  | Hinge (R.H)           |        | 1   |
| 10        | BP1248N-10 | Hinge (L.H)           |        | 1   |
| 11        | BP1248N-11 | Hinge Pin             |        | 2   |
| 12        | TS-1506041 | Socket Head Cap Screw | M12x35 | 2   |
| 13        | TS-1499141 | Hex Cap Screw         | M12x80 | 10  |
| 14        | TS-1525051 | Socket Set Screw      | M10x25 | 2   |
| 15        | TS-1506071 | Socket Head Cap Screw | M12x50 | 2   |
| 16        | BP1248F-16 | Rod                   |        | 2   |

| Index No. | Part No.     | Description             | Size     | Qty |
|-----------|--------------|-------------------------|----------|-----|
| 17        | BP1248N-17   | Counter Weight Assembly |          | 2   |
| 18        | BP1248N-18   | Stand Assy              |          | 2   |
| 19        | TS-1492041   | Hex Cap Screw           | M12x40   | 6   |
| 20        | TS-2311121   | Hex Nut                 | Full M12 | 6   |
| 21        | BP1248F-21   | Rod Gauge Assembly      |          | 1   |
| 22        | BP1248N-22   | Box, Adj. Assembly      |          | 1   |
| 23        | BP1248N-23   | Bushing (2)             |          | 2   |
| 24        | BP1248N-24   | Base Assembly           |          | 1   |
| 25        | BP1248N-25   | Bolt Adj. Assembly      |          | 2   |
| 26        | BP1248N-26   | Holder                  |          | 2   |
| 27        | TS-1506021   | Socket Head Cap Screw   | M12x25   | 5   |
| 28        | BP1248F-28   | Swivel Pin Assembly     |          | 2   |
| 29        | BP1248N-29   | Yoke Assy (R.H)         |          | 1   |
| 30        | BP1248N-30   | Yoke Assy (L.H)         |          | 1   |
| 31        | BP1248N-31   | Clamp Handle (R.H)      |          | 1   |
| 32        | BP1248N-32   | Clamp Handle (L.H)      |          | 1   |
| 33        | BP1248N-33   | Scale                   |          | 1   |
| 34        | BP1248N-34   | Hold Down Assembly      |          | 1   |
| 35        | TS-1506021   | Socket Head Cap Screw   | M12x25   | 12  |
| 36        | TS-1491081   | Hex Cap Screw           | M10x50   | 24  |
| 37-1      | BP1248N-37-4 | Joint Open              | 5"       | 5   |
| 37-2      | BP1248N-37-3 | Joint Open              | 4"       | 2   |
| 37-3      | BP1248N-37-2 | Joint Open              | 3"       | 5   |
| 38        | TS-1491061   | Hex Cap Screw           | M10x40   | 12  |
| 39-1      | BP1248N-39-4 | Holder, Finger          | 5"       | 5   |
| 39-2      | BP1248N-39-3 | Holder, Finger          | 4"       | 2   |
| 39-3      | BP1248N-39-2 | Holder, Finger          | 3"       | 5   |
| 40-1      | BP1248N-40-4 | Washer, Finger          | 5"       | 5   |
| 40-2      | BP1248N-40-3 | Washer, Finger          | 4"       | 2   |
| 40-3      | BP1248N-40-2 | Washer, Finger          | 3"       | 5   |
| 41-1      | BP1248N-41-1 | Finger                  | 5"       | 5   |
| 41-2      | BP1248F-39   | Finger                  | 4"       | 2   |
| 41-3      | BP1248F-38   | Finger                  | 3"       | 5   |
| 42        | TS-2311121   | Hex Nut                 | Full M12 | 10  |
| 43        | TS-2361121   | Lock Washer             | M12      | 10  |
| 44        | TS-2360121   | Flat Washer             | M12      | 1   |
| 45        | BP1248N-45   | Bracket Bar             |          | 1   |
| 46        | BP1248N-46   | Insert Clamp Bar        |          | 1   |
| 47        | BP1248N-47   | Cotter Pin              | 2.5x18   | 1   |
| 48        | BP1248N-48   | Stop Collar             |          | 1   |
| 49        | TS-1505021   | Socket Head Cap Screw   | M10x20   | 2   |
| 50        | TS-2360121   | Flat Washer             | M12      | 1   |
| 51        | TS-2311121   | Hex Nut                 | M12      | 1   |
| 52        | BP1248N-52   | Spring Pin              | 5x30     | 2   |
| 53        | TS-1525041   | Socket Set Screw        | M10x20   | 2   |
| 54        | TS-1506071   | Socket Head Cap Screw   | M12x50   | 2   |
| 55        | TS-2311241   | Hex Nut                 | Full M24 | 4   |
| 56        | BP1248N-56   | Clip Ring 38            |          | 2   |
| 57        | TS-1506041   | Socket Head Cap Screw   | M12x35   | 2   |
| 58        | BP1248N-58   | Knob Lock               |          | 2   |
| 59        | BP1248N-59   | Bushing (1)             |          | 2   |
| 60        | BP1248N-60   | Angle Scale             |          | 1   |