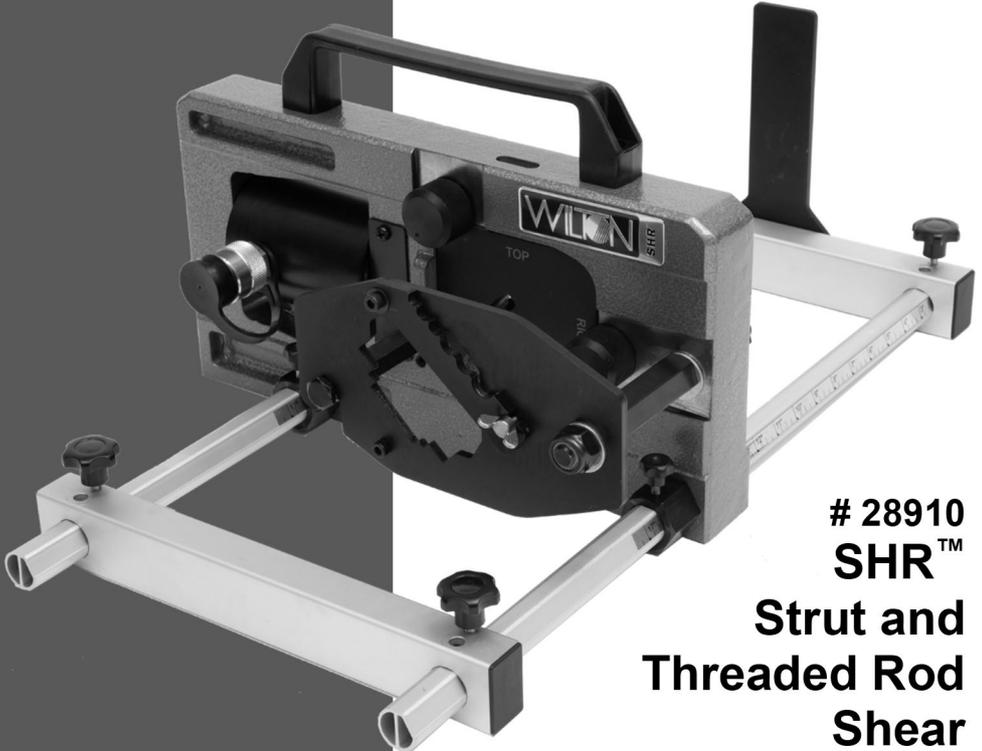




Operating Instructions & Service Parts Manual



28910 SHR™ Strut and Threaded Rod Shear

Record purchase information for quick reference:

Stock No.:	
Serial No.:	
Purchased from:	
Date purchased:	

WILTON
427 New Sanford Road
LaVergne, Tennessee 37086
Ph.: 800-373-8206
www.wiltontools.com

Document No. **M-28910**
Edition 1
10/2020

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1.0 IMPORTANT SAFETY INSTRUCTIONS

WARNING – To reduce risk of injury:

1. Read and understand all warnings posted on the machine and in this manual. Failure to comply with all of these warnings may cause serious injury.
2. Do not use this shearing machine for other than its intended use.
3. Replace warning labels if they become obscured or removed.
4. Make sure the Wilton SHR™ is properly supported by the guide bars and bases, so that it will not tip over during use.
5. Keep ground or floor around the machine uncluttered and free of scrap material, oil and grease. Wear non-slip footwear.
6. Always wear protective eye wear when operating machinery. Eye wear shall be impact resistant, protective safety glasses with side shields which comply with ANSI Z87.1 specifications. Use of eye wear which does not comply with ANSI Z87.1 specifications could result in severe injury from breakage of eye protection.
7. Wear gloves when handling steel work pieces to prevent possible injury from sharp edges.
8. Wear hearing protection if noise becomes uncomfortable or reaches unsafe levels.
9. Crushing hazard - Keep hands away from cutting area during operation.
10. Always inspect the SHR™ before use. Check for misalignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect the machine's operation. If damage is found, repair the machine immediately or replace it.
11. Disconnect from power/hydraulic source before performing any maintenance or cleaning.
12. Have machine serviced only by qualified personnel, using authorized replacement parts.
13. Provide for adequate space surrounding work area and sufficient lighting.
14. Do not use this machine while tired or under the influence of drugs, alcohol or medication.
15. Keep bystanders, especially children, away from the area while using the machine.
16. Give your work undivided attention. Looking around, carrying on a conversation and "horse-play" are careless acts that can result in serious injury.
17. Maintain a balanced stance at all times. Do not overreach while performing the work.

 **WARNING:** This product can expose you to chemicals including lead which is known to the State of California to cause cancer and reproductive harm. For more information go to <http://www.p65warnings.ca.gov>.

⚠ WARNING: Some dust, fumes and gases created by power sanding, sawing, grinding, drilling, welding and other construction activities contain chemicals known to the State of California to cause cancer and 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 dust masks that are specifically designed to filter out microscopic particles. For more information go to <http://www.p65warnings.ca.gov/> and <http://www.p65warnings.ca.gov/wood>.

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



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



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

2.0 About this machine

The SHR™ Strut and Threaded Rod Shear is a portable hydraulic machine designed to quickly cut common U.S. manufactured brand struts in 12, 14, 16 and 18-gauge mild steel. A single set of blades will provide thousands of clean, even cuts, eliminating the need for deburring. Contact WILTON for special application blade and hydraulic sets. This product has been designed and constructed to provide consistent long-term operation, if used in accordance with instructions as set forth in this document. **NOTE:** *This machine is not designed for use with fiberglass, aluminum, or stainless steel strut.*

Register your product using the mail-in card provided, or register online:

<http://www.wiltontools.com/us/en/service-and-support/warranty/registration/>

3.0 About this manual

This manual covers operation and maintenance procedures for the SHR™ Strut and Threaded Rod Shear. It contains instructions on setup, safety precautions, general operating procedures, maintenance instructions and parts breakdown. If there are questions or comments, please contact your local supplier or WILTON. WILTON can also be reached at our web site: www.wiltontools.com.

Retain this manual for future reference. If the machine transfers ownership, the manual should accompany it.

4.0 Specifications

Table 1

Model number	WSHR-3017
Stock number	28910
Power supply and cylinder	
Required power supply (not provided)	10,000 PSI hydraulic
Recommended hydraulic fluid (not provided)	ASTM 215, or equivalent
Cutting cycle	3 seconds
Cylinder linear force	30 short tons (27.2 metric tons)
Cylinder stroke	1 in. (25.4 mm)
Standard blade set capacities	
Deep strut	1-5/8 x 1-5/8 in. (41.3 x 41.3 mm)
Shallow strut	1-5/8 x 13/16 in. (41.3 x 20.6 mm)
Maximum capacity for cut material ¹	12 gauge mild steel
Maximum cut length when using stock stop & included guide bars ²	17 in.
Minimum strut length	7-5/8 in.
Threaded rod material ¹	Low carbon steel (ASTM A307, grade A)
Threaded rod diameters	1/4, 3/8, 1/2, 5/8 in.
Main materials	
Body frame	ductile iron, ASTM A536 Grade 80-60-03
Blade set	carbon tool steel, ASTM W5
Stock rest and back stop	steel
Support and rods	aluminum extrusion
Dimensions	
Assembled dimensions (LxWxH)	26-1/8 x 17-1/32 x 10-3/8 in.(664 x 432 x 264 mm)
Shipping dimensions (LxWxH)	26 x 13 x 10-5/32 in.(660 x 330 x 258 mm)
Weights	
Net weight	71.5 lb. (32.5 kg)
Shipping weight	76 lb. (34.5 kg)

¹ Not designed for use with fiberglass, aluminum or stainless steel.

² For longer workpieces, install 1-in. diameter rods (not provided) to desired length.

L = length, W = width, H = height

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



WARNING Read and understand the entire contents of this manual before attempting setup or operation of the Strut Cutter. Failure to comply may cause serious injury.

5.0 WSHR-3017 overview

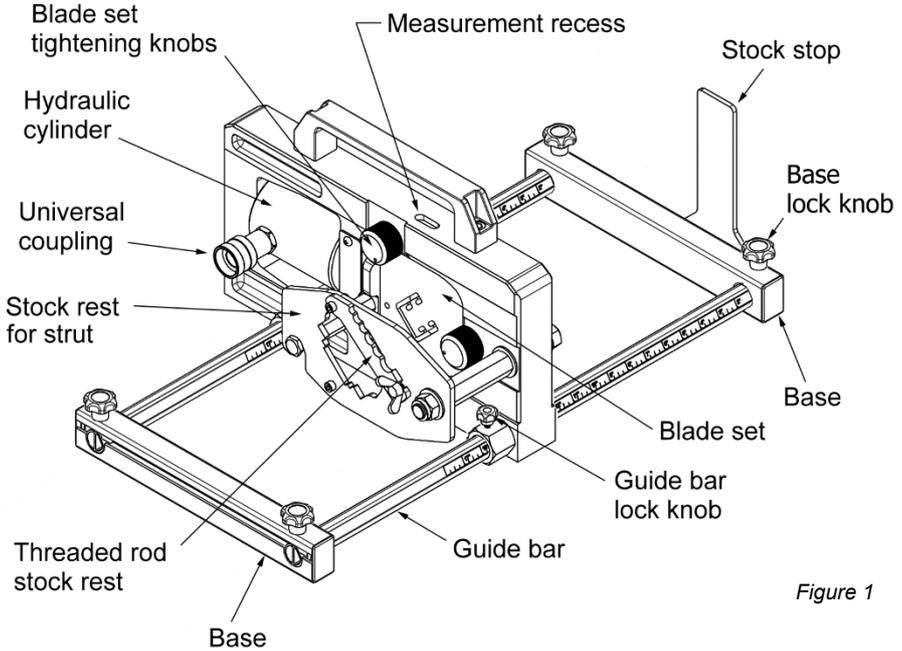


Figure 1

6.0 Shipping contents

- 1 Main unit with hydraulic cylinder
- 1 Stock rest assembly
- 2 Bases
- 1 Stock stop
- 1 Blade set (pre-installed)
- 4 Lock knobs large
- 2 Lock knobs small
- 2 Guide bars w/scale 17-in.
- 1 Instructions and parts manual
- 1 Product registration card

Remove all contents from shipping carton, and check for shipping damage or missing parts. If either of these is discovered, contact your dealer or Wilton at the phone number on the cover.

7.0 Assembly

See Figures 2 and 3.

1. Insert two guide bars (A) through the frame holes. The guide bars are identical; however, they must be oriented as shown in Figure 2. Tighten the guide bars in place with the small lock knobs (B).
2. Slide base (C) with stock stop attached onto the bars. *Make end of bars flush with outer surface of base* to ensure proper scale use, see Figure 2 inset. Install large lock knobs (D) to secure.
3. Slide base (C) onto opposite end of bars as shown. It is not important that the bar be flush on this end. Secure with knobs (D).

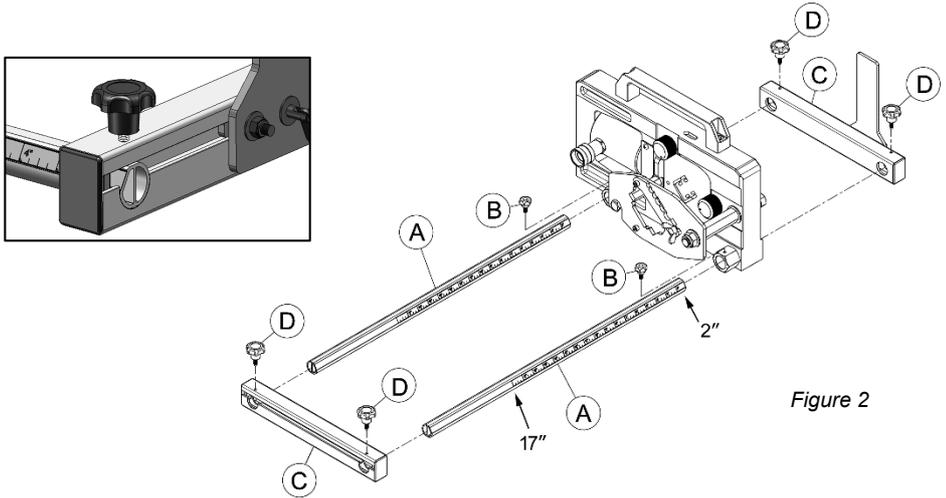


Figure 2

4. Thread the stock rest pivot rod (E) into the frame, with flat washers (F), lock washer (G) and nylon lock nut (H).
5. Thread the stock rest support rod (J) into frame.
6. Install stock rest onto the rods and secure with flat washer (F) and lock nut (H).
7. The stock rest should be snug but still able to rotate freely out of the way.

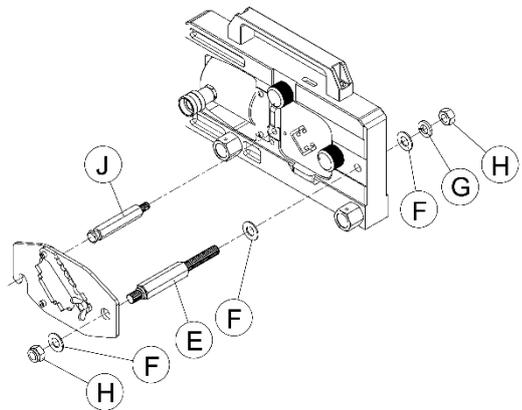


Figure 3

8.0 Operation

⚠ CAUTION Guide bars and bases must be used during operation to prevent unit from tipping.

1. Connect 10,000-psi hydraulic power source (not provided) to the universal coupling on the cylinder. Use clean ASTM 215 or equivalent hydraulic fluid.
2. Turn on hydraulic power source and observe the machine's operation without strut inserted. The blade set consists of a stationary blade in front and a moving shear blade in back. Watch shear blade motion from rear of machine; it should have smooth movement. When shear blade has returned to rest position, both blades should remain aligned.
3. **Make sure locking knobs holding the stationary blade are tight.** Loose knobs will cause additional load on the blades and may shorten their life span.
4. Adjust guide bars for stock stop position. The scale indicates length from the cutting blade to the stock stop. Measurement is read at the angled edge of the red plate. See Figure 4.

NOTE: If a longer 1-in. OD pipe is used, the red plate with its screws must be removed.

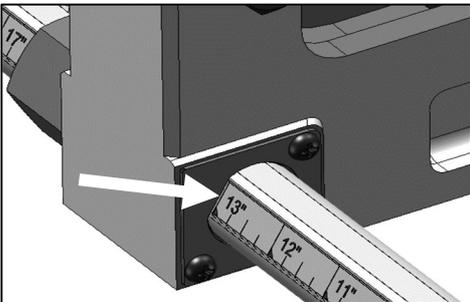


Figure 4

5. If workpiece is longer than maximum travel of scale rod, use 1-in. O.D. pipe or tube of greater length (not provided) and move stock stop farther from cutting blade. Determine distance by placing a measuring tape from the recess atop the head, to the inner edge of stock stop, as shown in Figure 5.

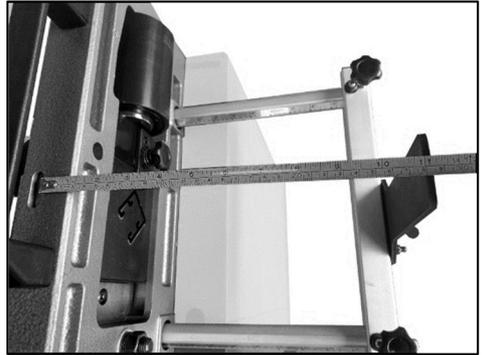


Figure 5

6. Make sure strut is clean and straight. Slide strut through stock rest and through blades, and against the stop. See Figure 6.

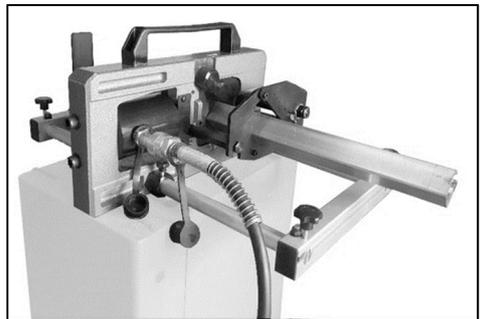


Figure 6

7. Activate hydraulic power source. Wait approximately 3 seconds for strut to separate.
8. Release hydraulic pressure to allow blade to return to rest position. Remove cutoff piece from back of unit before making additional cuts.

To cut threaded rod, loosen wing nut to release end of threaded rod rest. See Figure 7. Place threaded rod against the rest, in the curve which matches the rod diameter. Slide the rod through the matching slot in the blade.

NOTE: Cutting threaded rod requires the threaded rod blade set (not provided; see sect. 10.0).

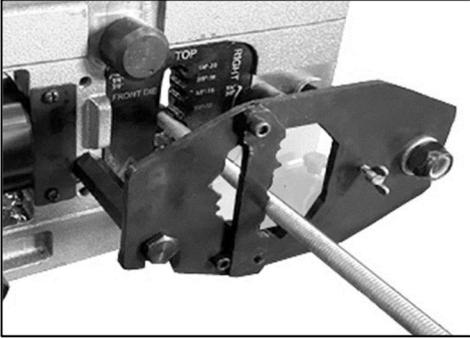


Figure 7

For threaded rod, there are two recommended positions, as identified on the threaded rod blade set. See Figure 8.

For 1/4 and 3/8 inch threaded rod, tighten locking knob completely. For 1/2 and 5/8 inch rod, turn locking knob slightly counterclockwise till the debossed reference point on knob aligns with indicator line on blade.

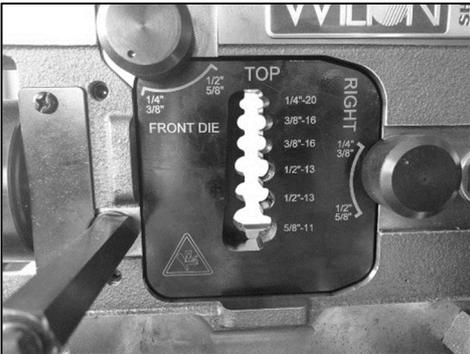


Figure 8

9.0 User-maintenance

⚠ WARNING Disconnect from power/hydraulic source before performing any cleaning or maintenance of the unit.

Periodically apply a light coat of machine oil to exposed metal areas, such as rods, to inhibit rust.

Periodically inspect tightness of knurled locking knobs which secure blades to frame.

If cutting becomes difficult, remove stationary die and clear away any shavings from cutting area, using vacuum or brush. Do not use bare hands.

Periodically clean and lubricate the cutting die blade edge with machine tool oil.

9.1 Additional servicing

Any additional servicing should be performed by authorized service personnel.

10.0 Optional accessories for WSHR-3017

Table 2

Part No.	Description
28990	Wilton SHR™ Power Pack, 30 Ton, 10,000 psi
28930	Wilton SHR™ Standard Blade Set (1-5/8" x 1-5/8" & 13/16" x 1-5/8")
28931	Wilton SHR™ Blade Set B-Line 4D21 (1-1/16" x 2-1/8")
28932	Wilton SHR™ Blade Set B-Line 4D22 (2-1/8" x 2-1/8")
28933	Wilton SHR™ Threaded Rod Blade Set (1/4"-20, 3/8"-16, 1/2"-13, 5/8"-11)
28934	Wilton SHR™ Blade Set Back to Back Strut (1-5/8" x 3-1/4")
28935	Wilton SHR™ Blade Set Deep Only (1-5/8" x 1-5/8")

All blade sets include fixed die and moving die.

11.0 Compatibility chart

Table 3

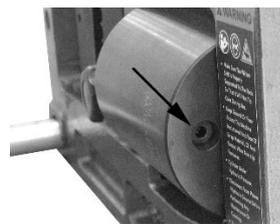
The Wilton Strut and Threaded Rod Shear is compatible with the following products.

Wilton blade set	Brand	Compatible strut
28930 (standard)	Unistrut®	P1000, P1100, P1000T, P1000SL, P1000HS, P1000H3, P2000 & P4520, P4000, P4100, P4100, P4100T, P4100SL, P4100HS
	B-Line®	B-Line B22, B24, B26 & B52, B54, B56 B22, B22SH, B22S, B22H17/8, B22TH, B22S58, B24, B24SH, B24S, B24H17/8, B24TH, B24S58, B52, B52SH, B52S, B52H17/8, B52TH, B52S58, B54, B54SH, B54S, B54H17/8, B54TH, B54S58
	Powerstrut®	PS200, PS210 & PS560, PS500, PS520
	Superstrut®	A1200, A1400 & B-1200, B1400
28931	B-Line®	4D21
28932	B-Line®	4D22
28933		All mild steel rod
28934 (back-to-back)	Unistrut®	P1001, P1101, P2001
	B-Line®	B22A, B24A, B26A
	Powerstrut®	PS 200 2T3, PS 210 2T3
	Superstrut®	A-1202
28935 (deep only)	Unistrut®	P1100, P1000T, P1000SL, P1000HS, P1000H3, P2000
	B-Line®	B-Line B22, B24, B26
	Powerstrut®	PS200, PS210
	Superstrut®	A1200, A1400

12.0 Troubleshooting WSHR-3017

Table 4

Problem	Possible cause	Remedy
Irregular cut.	Stock rest not adjusted properly.	Adjust stock rest so that strut is perpendicular to cutting die surface. Ensure that knobs are tightened down on guide bars.
	Locking knobs which hold die in frame of main unit have loosened (possibly from vibration over long-term use).	Check tightness of locking knobs after about every 100 cuts.
Hydraulic ram won't move, or produces insufficient pressure.	Error with hydraulic source.	Consult hydraulic pump manufacturer's documentation to troubleshoot.
Shear blade won't return to rest position.	Hydraulic dump valve not functioning.	Inspect and correct dump valve function on hydraulic system.
	Blade movement blocked by obstruction.	Clean debris from blade area.
Strut will insert through fixed die, but won't go through cutting die.	Cutting die is too far forward.	Turn adjustment screw on cylinder to move the start position of cutting die, until strut can enter. (5mm hex wrench required.)
	Strut is slightly curved or deformed. (Back-to-back strut is sometimes more susceptible to this.)	



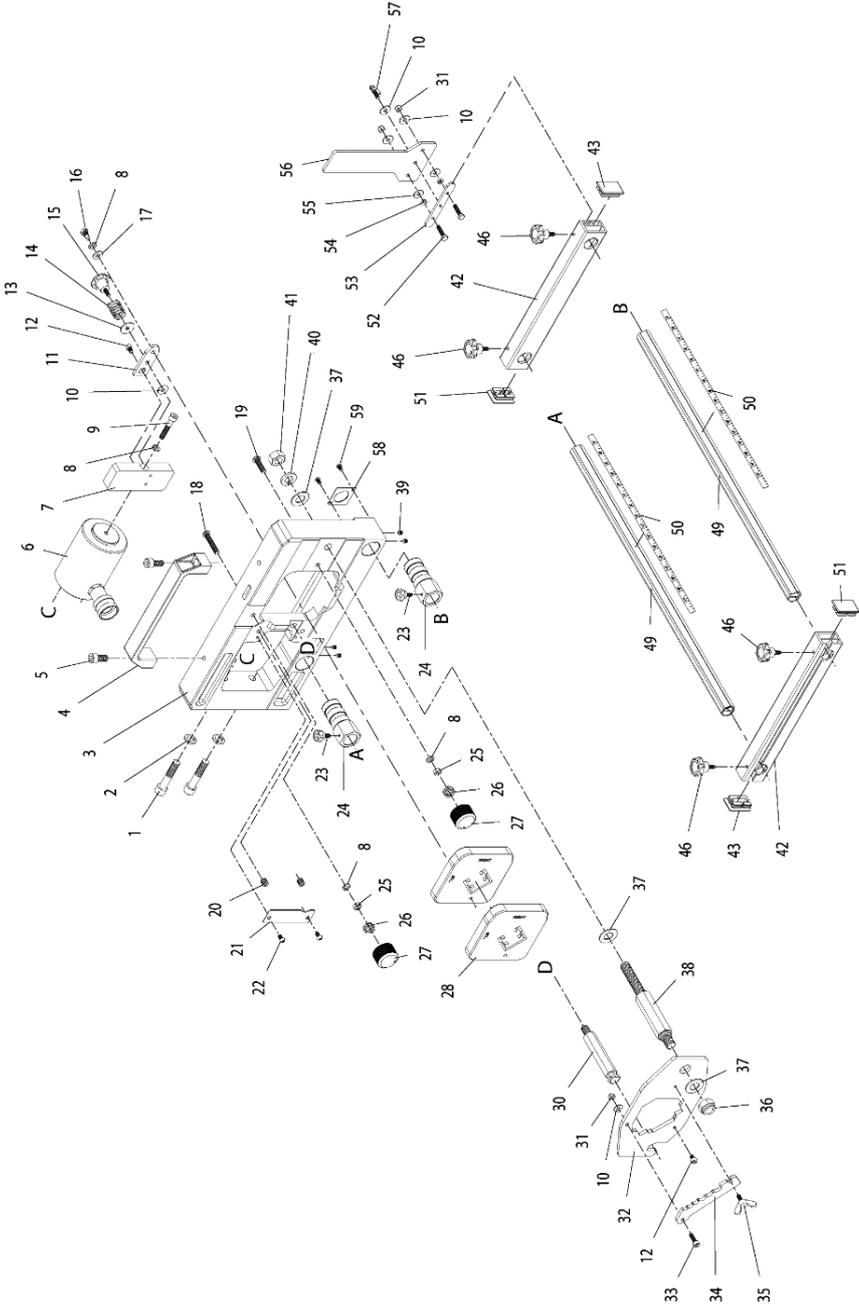
13.0 Replacement Parts

To order parts or reach our service department, call 1-800-373-8206 Monday through Friday, 8AM to 5PM CST. Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

Some parts are shown for reference only, and may not be available individually.

Non-proprietary parts, such as fasteners, can usually be found at local hardware stores or may be ordered from Wilton.

13.1 WSHR-3017 exploded view



13.2 WSHR-3017 parts list

Index	Part No.	Description		Qty
1	TS-1506091	Socket Head Cap Screw	M12 x 1.75P x 60L	2
2	TS-2361121	Lock Washer	M12	2
3	WSHR3017-103	Body Frame		1
4	WSHR3017-104	Handle		1
5	TS-1505021	Socket Head Cap Screw	M10 x 1.5P x 20L	2
6	WSHR3017-106	Cylinder		1
7	WSHR3017-107	Push Block		1
8	TS-2361081	Lock Washer	M8	4
9	WSHR3017-109	Socket Head Cap Screw	M8 x 1.25P x 45L (thread length 30L)	1
10	TS-1550041	Flat Washer	6.5 x 16 x 1T	5
11	WSHR3017-111	Linking Plate		1
12	TS-1503011	Socket Head Cap Screw	M6 x 1.0P x 8L	2
13	TS-0680021	Flat Washer	1/4 IN x 25 x 2L	1
14	WSHR3017-114	Compression Spring		1
15	WSHR3017-115	Knob	M6 x 1.0P x 15L	1
16	WSHR3017-116	Index Pin		1
17	TS-1550061	Flat Washer	8 x 18 x 2T	1
18	F009925	Socket Head Button Screw	M8 x 1.25P x 45L	1
19	TS-2248302	Socket Head Button Screw	M8 x 1.25P x 30L	1
20	WSHR3017-120	Ball Plunger	M10 x 1.5P x 20L	2
21	WSHR3017-121	Safety Guard		1
22	TS-1534032	Phillips Pan Hd Machine Screw	M6 x 1.0P x 10L	2
23	WSHR3017-123	Knob Screw	M6 x 1.0P x 13L	2
24	WSHR3017-124	Guide Bushing		2
25	TS-2311081	Hex Nut	M8 x 1.25P	2
26	WSHR3017-126	Compression Spring		2
27	WSHR3017-127	Lock Knob		2
28	28930	Standard Blade Set	1-5/8" x 1-5/8" and 13/16" x 1-5/8"	1
29	TS-2360121	Flat Washer	12 x 23 x 2T	1
30	WSHR3017-130	Stock Rest Support Rod		1
31	TS-1541021	Nylon Lock Hex Nut	M6 x 1.0P	3
32	WSHR3017-132	Stock Rest for Strut		1
33	TS-1503051	Socket Head Cap Screw	M6 x 1.0P x 20L	1
34	WSHR3017-134	Stock Rest for Threaded Rod		1
35	WSHR3017-135	Wing Screw	M6 x 1.0P x 16L	1
36	TS-2342161	Nylon Lock Hex Nut	M16 x 2.0P	1
37	WSHR3017-137	Flat Washer	17 x 33 x 2T	3
38	WSHR3017-138	Stock Rest Pivot Rod		1
39	TS-1523011	Socket Head Set Screw	M6 x 1.0P x 6L	4
40	TS-2361161	Lock Washer	M16	1
41	TS-2311161	Hex Nut	M16 x 2.0P	1
42	WSHR3017-142	Stock Stop Base		2
43	WSHR3017-143	Left Tube Plug		2
44	WSHR3017-144	Special Screw	M8 x 1.25P x 23L	4
45	WSHR3017-145	Compression Spring		4

46	WSHR3017-146	Knob	M6 x 1.0P x 18L	4
49	WSHR3017-149	Stock Stop Sliding Bar with Scale		2
50	WSHR3017-150	Scale		2
51	WSHR3017-151	Right Tube Plug		2
52	TS-1482051	Hex Cap Screw	M6 x 1.0P x 25L	2
53	WSHR3017-153	Stock Stop Holding Bracket		1
54	WSHR3017-154	Spacer		2
55	WSHR3017-155	Nylon Washer		2
56	WSHR3017-156	Stock Stop		1
57	WSHR3017-157	Wing Screw	M6 x 1.0P x 16L	1
58	WSHR3017-158	Scale Pointer		1
59	6290832	Phillips Pan Hd Machine Screw	M5 x 0.8P x 8L	2
	LM000428	Warning Label (not shown)		1
	LM000429	ID Label (not shown)		1
	LM000430	Wilton Nameplate Label (not shown)		1

14.0 Warranty and Service

Wilton® warrants every product they sell against manufacturers' defects. If one of our tools or machines needs service or repair, please contact Technical Service by calling 1-800-373-8206, 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 Wilton branded website.

- Wilton 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.

How to Get Technical Support

Please contact Technical Service by calling 1-800-373-8206. **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. Wilton 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 Wilton website.

More Information

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

How State Law Applies

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

Limitations on This Warranty

WILTON 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.

WILTON 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.

Wilton sells through distributors only. The specifications listed in Wilton printed materials and on official Wilton branded website are given as general information and are not binding. Wilton reserves 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.

Product Listing with Warranty Period

90 Days – Parts; Consumable items, including Blade Sets
1 Year – Wilton SHR™ Strut & Threaded Rod Shear

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



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