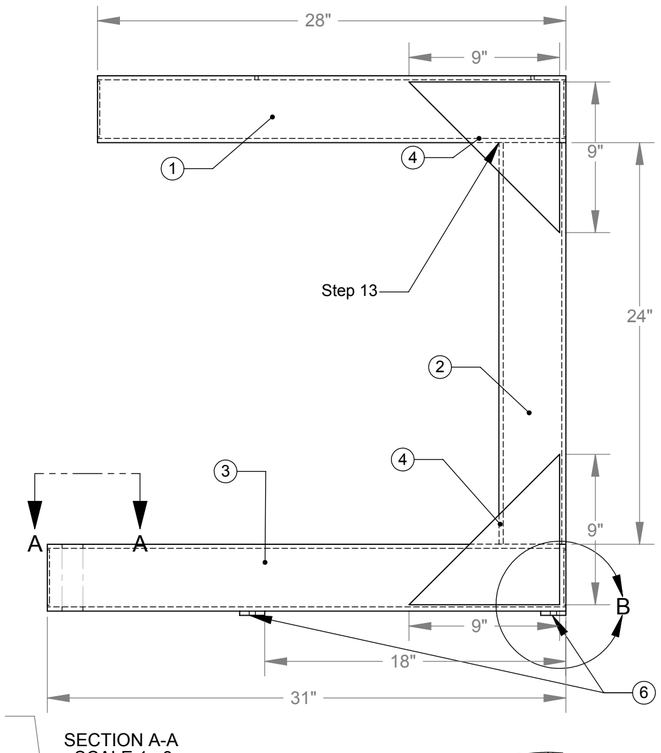
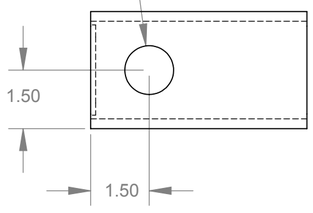
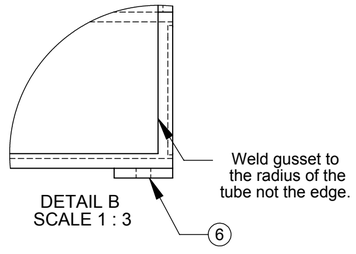
ITEM NO.	PART NUMBER	DESCRIPTION	FINISH LENGTH	QTY.
1	2900-017	3" x 3" x 1/4" Tubing	28" Long	1
2	2900-015	3" x 3" x 1/4" Tubing	24" Long	1
3	2900-016	3" x 3" x 1/4" Tubing	31" Long	1
4	2900-013	3/16" Sheet Metal	9" x 9" Gusset	4
5	2900-014	Tube End Cap	2-5/16" sq.	4
6	2900-018	Mounting Plates	6.750	2

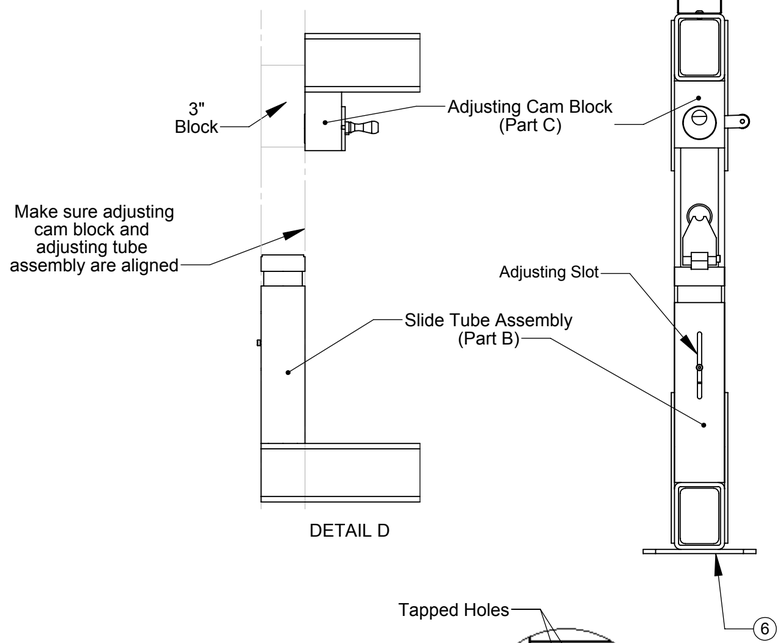


SECTION A-A
SCALE 1 : 3

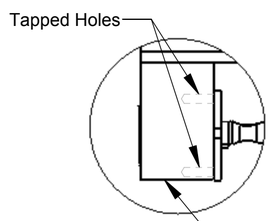




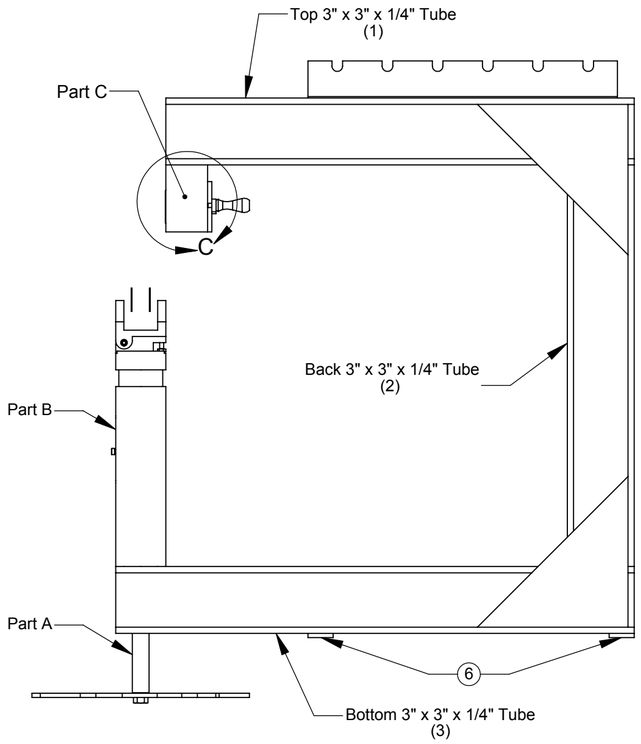
DETAIL B
SCALE 1 : 3



DETAIL D



DETAIL C
SCALE 1 : 4



FRAME WELDMENT INSTRUCTIONS

1.) Cut 3”x 3”x ¼” tubing and 3/16” thick gussets to dimensions shown in chart above.
2.) Drill a 1-1/4” ID hole in tube #3 (see inset A-A).
3.) Layout 3 lengths of 3”x 3” x ¼” tubing on a **flat level surface** as shown in drawing.
Item #1 = TOP 3" x 3" x 1/4" Tube @ 28” long
Item #2 = BACK 3" x 3" x 1/4" @ 24” long
Item #3 = BOTTOM 3" x 3" x 1/4" @ 31” long
NOTE: The 1-1/4” ID hole in tube #3 must be to the front and facing the top tube.
4.) Align the 3 tubes and use a good framing square or machinist square to square tubes.
5.) **Tack Weld** tubes together on both sides of tube assembly. Tube radius provides cavity for weld joint.
6.) **Recheck tubes for square.**
7.) Weld the 3 tubes together starting with the back and the top. Turn the frame over and weld the bottom.
NOTE: **DO NOT WELD** the inside joints until later in the assembly.
8.) Grind or sand weld joint, if necessary, to allow gussets to lay flat on tubes.
9.) Align 9”x 9”x 3/16” gussets edges to the radius of the tubes. (see inset B)
10.) Tack weld gussets to tubes.
11.) Check for gusset to tube alignment.
12.) Weld gussets to tubes - Use alternating welds from one side to other side.
13.) Weld the tube inside corners.

ENGLISH WHEEL ASSEMBLY INSTRUCTIONS

1.) Lay welded frame on a flat level surface. Make sure the two gussets hang off the surface to insure that the frame is flat. Clamp the frame to the bench.
2.) Screw adjusting shaft (Part A) through the Slide Tube Assembly (Part B) about half way.
3.) Slide the exposed portion of the Adjusting shaft into the 1-1/4” hole in the 3” x 3” x 1/4” bottom square tube.
4.) Make sure the adjusting tube is centered on the 1 ¼” hole and square with the bottom tube(item 3). Put a machinist square or framing square along the slide tube assemlby and 3" x 3" x 1/4" tube.
5.) Place a 1 ½” tall block on the table along side the outside of the Adjusting tube. Align the slide tube slot with the edge of the block. one half of the slot will be exposed. One half will be covered by the 1 1/2" block
NOTE: VERY IMPORTANT: The slide tube slot MUST BE in front of tube and centered to insure lower anvils will be square with the upper wheel. Check by assembling lower tube and upper wheel. (Use the flat roll to check.) Once the anvil holder assembly is inside the Slide Tube rotate it until you can install the shoulder bolt that you removed from the Anvil Holder earlier.
6.) Tack weld slide tube assembly to the bottom tube item three(Item 3).
7.) Place the adjusting cam block (Part C) (as shown in Detail C) against the upper 3” x 3” x 1/4” square tube as shown.
Make sure the tapped holes face the inside of the frame and are vertical. (The Edge closest to a tapped hole is the bottom edge.)
8.) To insure that the slide tube assembly and the adjusting cam block are alligned, place a 3" block against the out side of the cam block and place a flat edge or framing square against the block and align the center of the slide tube slot (The 1 1/2" block still in place along side the slide tube assemlby will help align the framing square to the adjusting slot.)**(See Detail D)**
9.) With everything aligned tack weld the adjusting cam block to the upper tube.
10.) Weld the Adjusting tube to the bottom tube and the cam block to the upper tube.

		UNLESS OTHERWISE SPECIFIED:		NAME	DATE
		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± .015 ONE PLACE DECIMAL ±.015 TWO PLACE DECIMAL ±.010 THREE PLACE DECIMAL ±.005 ANGULAR ± 1°	DRAWN		
			CHECKED		
			ENG APPR.		
			MFG APPR.		
		QUANTITY	Q.A.		
		MATERIAL	MFG APPR.		
NEXT ASSY	USED ON	FINISH			
APPLICATION		DO NOT SCALE DRAWING			

MITTLER BROS. MACHINE & TOOL
10 Cooperative Way, Wright City, MO. 63390
(636)745-7757 Fax (636)745-2874

TITLE: English Wheel

SIZE	DWG. NO.	REV
C	2900-A	

SCALE: 1:8	WEIGHT:	SHEET 1 OF 1

NTMA PRECISION

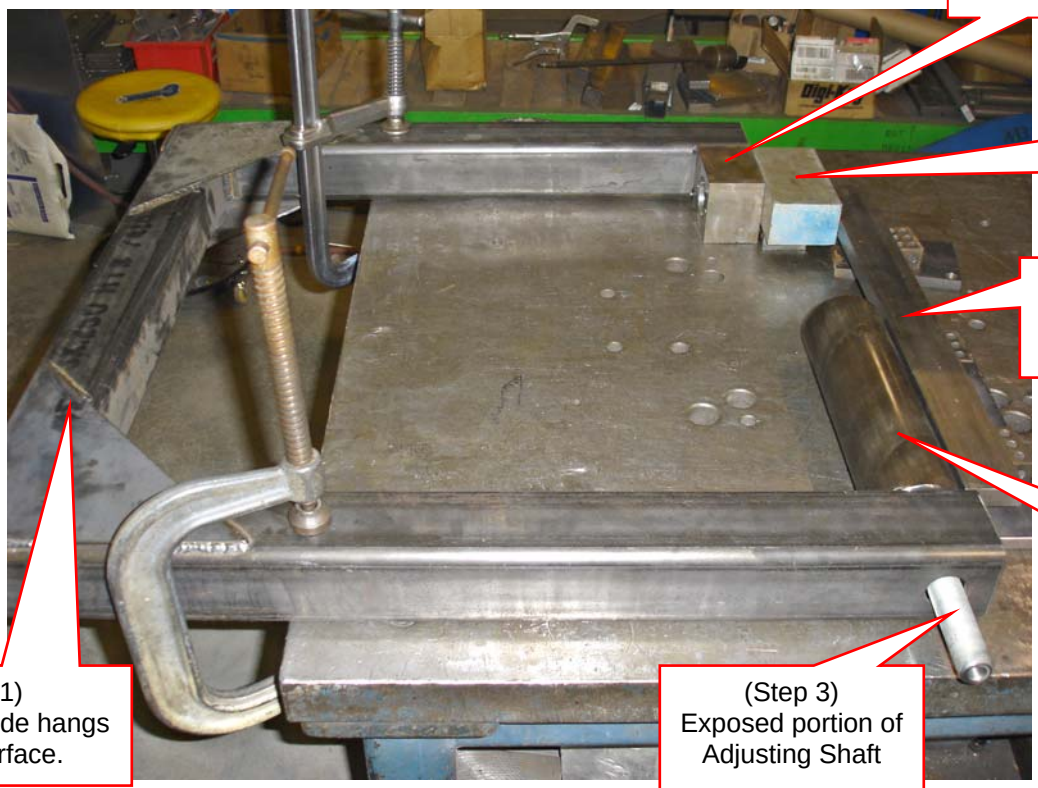
MITTLER BROS. MACHINE & TOOL

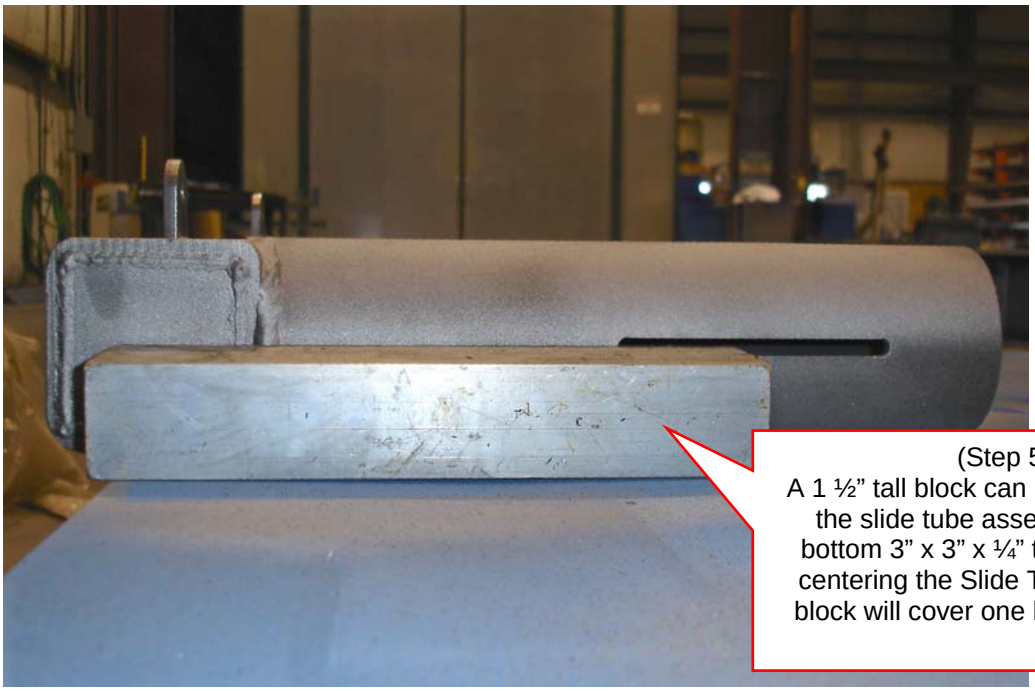
(636) 745-7757
Fax: (636) 745-2874

Division of Mittler Corp.
P.O. Box 110 Foristell, Missouri 63348
10 Cooperative Way Wright City, MO 63390

2900 English Wheel

English Wheel Frame Assembly Instructions





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2900 English Wheel

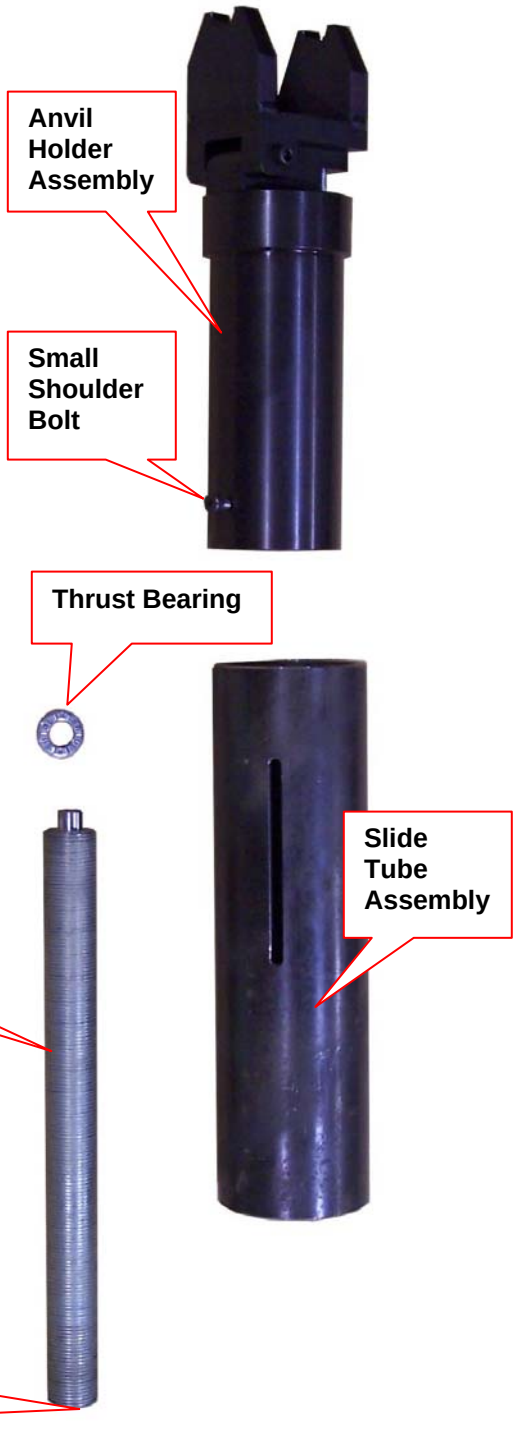
Anvil Holder / Slide Tube Assembly

1. Thread the Adjuster Shaft into the Slide Tube assembly. Be sure the small machined stub end is inserted first. Thread the Adjuster Shaft up most of the way until you can set the small thrust bearing over the machined stub.

2. Remove the small shoulder bolt from the side of the Anvil Holder Assembly. After the Thrust Bearing is installed on the Adjuster Shaft, back the shaft out until the Anvil Holder Assembly will slide into the Slide Tube assembly and allow you to install the shoulder bolt through the slot. Be sure that the Thrust Bearing is installed on the stub end of the Adjuster Shaft

3. Once the Anvil Holder assembly is inside the Slide Tube rotate it until you can install the shoulder bolt that you removed from the Anvil Holder earlier.

4. The lower Kick Wheel is simply bolted to the bottom of the shaft with the hex head bolt and a lock washer.



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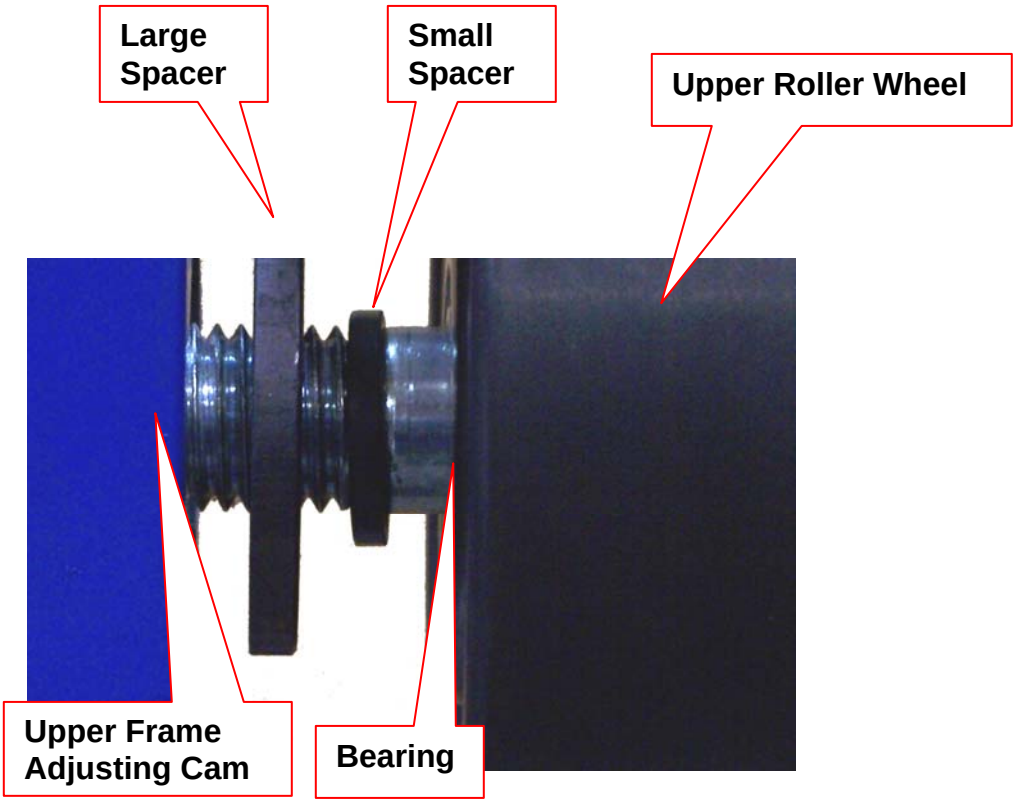
2900 English Wheel

Upper Wheel Installation

1. When bolting the upper wheel onto the upper frame adjusting cam be sure to install the spacers as shown below. Large spacer to frame and small spacer to wheel bearing.

2. Tighten bolt with spacers as shown.



3. The lower kick wheel is simply bolted to the bottom of the shaft with the hex head bolt and lock washer. Use loc-tite on bolt.