

Operating, Servicing, and Safety Manual Model 3000 52" Foot Shear



CAUTION: Read and Understand

These Operating, Servicing, and
Safety Instructions, Before Using
This Machine.

1-800-467-2464

10 Cooperative Way Wright City, MO 63390

P.O. Box 110 Foristell, MO 63348

1-636-745-7757 Fax 1-636-745-2874

www.mittlerbros.com

SAFETY

The purpose of the safety section of this manual is to inform operators and maintenance personnel of the precautions to be taken while operating or servicing the machine. The following are a few basic guidelines to follow, but as with any type of machinery good judgment and a safe attitude should be applied at all times.

1. Always wear safety clothing, including eye protection and protective footwear, while operating or servicing the machine.
2. Keep all body parts and any foreign objects away from the shear blade assembly while in operation.
3. All guards and covers must be in place before operating the machine.
4. Keep the work area around the foot shear clear and clean to avoid slipping or tripping.
5. Do not operate the machine if it has been damaged or is not operating properly.
6. Do not wear jewelry (watches, rings, necklaces, etc.), or loose fitting clothing while operating or servicing the machine.
7. The machine should only be operated or serviced by properly trained, authorized personnel.
8. Replacement parts should have the same specification and operation as the original parts on the machine.
9. Before operating the machine, be sure it is set up properly.
11. Do not operate or service any machine while under the influence of drugs or alcohol.

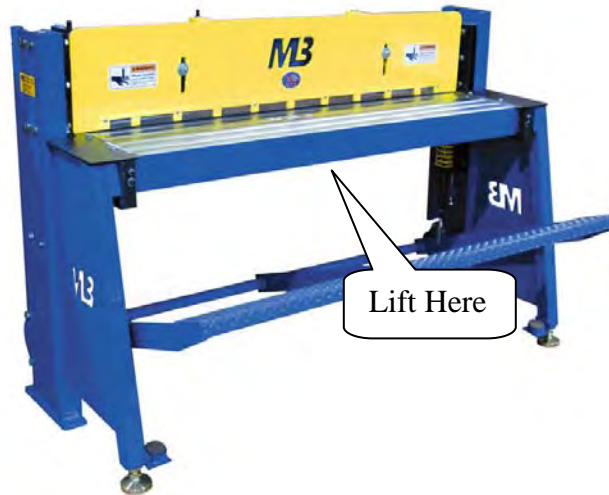
NOTE: THESE SAFETY RULES ARE FOR YOUR BENEFIT TO HELP PREVENT INJURY TO YOURSELF AND/OR YOUR CO-WORKERS. REVIEW ALL SETUP AND OPERATING PROCEDURES, WHETHER COVERED OR NOT, IN THIS MANUAL TO HELP INSURE SAFE OPERATION OF THE MACHINE.

INSTALLATION

UNPACKING

Use caution in handling and moving the foot shear. The foot shear weighs 875 pounds and is top-heavy. Handling should be performed with proper equipment such as a fork lift.

- Insert forks **UNDER** main table to lift and move.



INSTALLATION

Locate the brake in a well-lighted area on a solid level floor.
NOTE: The Foot Shear is provided fully assembled.

BEFORE USING!!!

Machine should be set up on as FLAT of surface as possible.

Use Levelling Foot Pad Screw to bring side plates to exactly 90°. This will bring the sides to parallel and insure that the Upper Blade Holder moves up and down smoothly. Lock the jam-nut on the foot pad. Check the action of the shear by carefully depressing the treadle and checking for binding.



- Place Smart Tool, Level, / Angle Finder on vertical frame and resting on edge guide plate – see photo.
- Adjust Leveling Mount on each front frame leg until each side reads 90-degrees to parallel frame, so upper blade holder moves up & down smoothly.
- Tighten jam nut on Leveling Mount.
- Carefully depress the shear foot treadle to check for binding.



SHEAR BLADE CLEARANCE

CAUTION: CHECK SHEAR BLADE CLEARANCE BEFORE OPERATING FOOT SHEAR

- Depress Foot Treadle and hold on floor.
- Place 0.003" feeler gauge between the upper & lower shear blades – approach blades from machine rear.
- Check Blade Clearance at: 6" from left end / center / 6" from right end.
- **NOTE: Blade Clearance is factory set at 0.003".**

GENERAL RULE - BLADE CLEARANCE = 5% - 10% OF MATERIAL THICKNESS.

Aluminum = 5% of material thickness.

Mild steel = 10% of material thickness.

CAUTION: Too Narrow or Too Wide shear blade clearance can cause blade and/or machine damage.

OPERATION

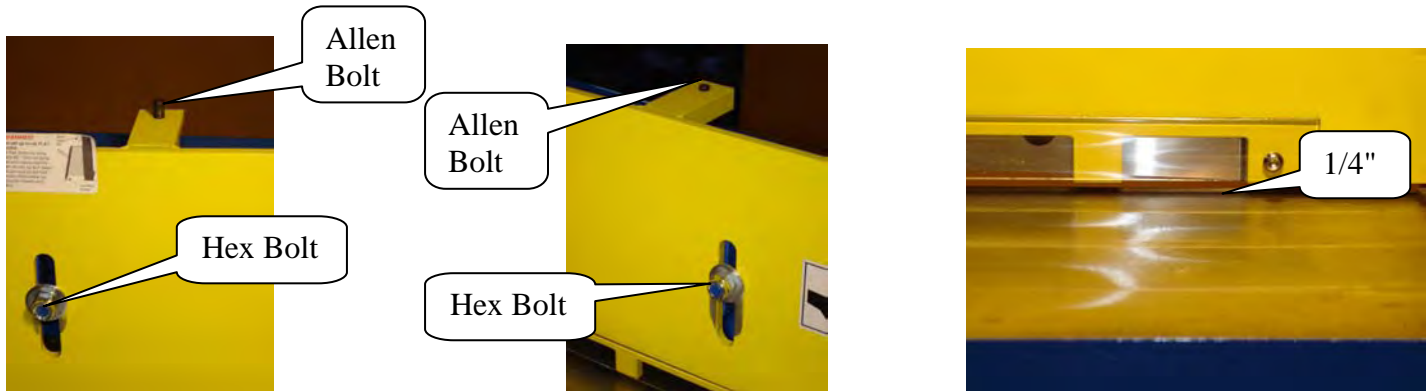
- Place Metal on table and align with Edge Guide Plate on left side or right side.
- Align metal with edge guide plate scale or marks on metal where metal is to be cut – Align Both Sides.
- **NOTE:** Look between infeed guard and Upper Blade Holder Assembly to align marks on metal with lower shear blade edge.



- Push Foot Treadle down to lower Upper Shear Blade Assembly to cut metal.
NOTE: Push Foot Treadle to floor to insure entire metal width has been cut.
- Release Foot Treadle – Spring Loaded Upper Shear Blade Assembly will move upward to home position.

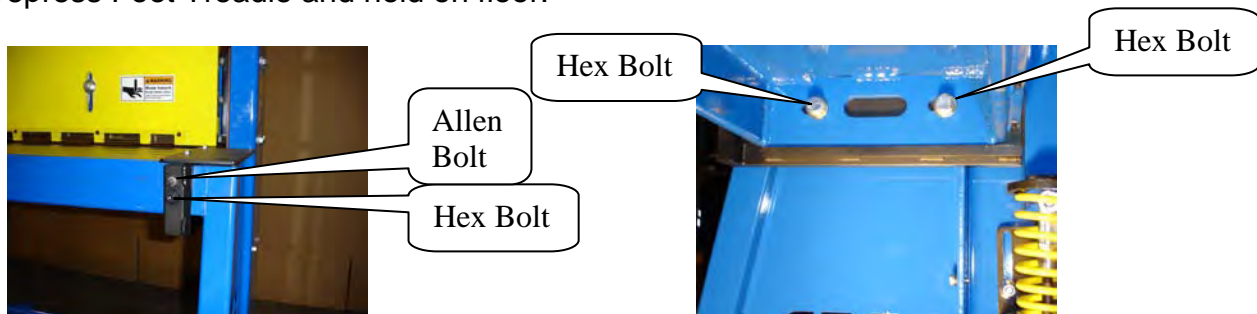
MAINTENANCE

INFEED GUARD ADJUSTMENT



SHEAR BLADE ADJUSTMENT

- Loosen four (4) hex head bolts (2 bolts each side) on table underside.
- Loosen jam nut (2) on each side of table front.
- Depress Foot Treadle and hold on floor.



Open Shear Blade Clearance:

- Turn Allen screw counterclockwise several revolutions to move away from table front.
- Turn hex head jackbolt counterclockwise to move table back and separate upper/lower shear blades until desired clearance is achieved across shear blades.
- Place desired thickness feeler gauge between the upper & lower shear blades – approach blades from machine rear.
- Check Blade Clearance at: 6" from left end / center / 6" from right end.
- Turn Allen screws on each side (2) clockwise until screw contacts table front – holds table in secure position.
- Tighten jam nuts on each side (2).

Close Shear Blade Clearance:

- Turn hex head bolt counterclockwise several revolutions.
- Turn allen screw clockwise to move table forward and close clearance between upper/lower shear blades until desired clearance is achieved.
- Place desired thickness feeler gauge between the upper & lower shear blades – approach blades from machine rear.
- Check Blade Clearance at: 6" from left end / center / 6" from right end.
- Tighten jam nuts on each side (2) when desired blade clearance is achieved.
- Turn hex head bolts on each side (2) clockwise until bolt contacts table front.

SHEAR BLADE REPLACEMENT:

NOTE: Four (4) 24" long Shear Blades are mounted on machine: 2 Upper Blades / 2 Lower Blades. Each 24" long Shear Blade has four (4) cutting surfaces. All Shear Blades are interchangeable.



Jack Bolt

SHEAR BLADE REMOVAL:

CAUTION: SHARP EDGES ON ALL SIDE OF SHEAR BLADE

- Remove five (5) Allen flat head screws to remove 24" long shear blade (1/2 of upper or lower shear blade).
- Repeat for remaining Shear Blade segments.

SHEAR BLADE INSTALLATION:

Upper Shear Blade:



Welded Stop

CAUTION: SHARP EDGES ON ALL SIDE OF SHEAR BLADE

- Place 24" long Shear Blade against welded stop on Upper Shear Holder Assembly.
- Install five (5) Allen flat head screws to install 24" long shear blade (1/2 of upper shear blade).
- Tighten Allen flat head screws – five (5).
- Repeat for remaining Shear Blade segment.

Lower Shear Blade:



CAUTION: SHARP EDGES ON ALL SIDE OF SHEAR BLADE

- Place 24" long Shear Blade against back side of Table.
- Install five (5) Allen flat head screws to install 24" long shear blade (1/2 of lower shear blade).
- Repeat for remaining Shear Blade segment.
- Align Shear Blade Top with Table Top.
- Adjust Shear Blade height with jack bolts under blade.
- Tighten Allen flat head screws – nine (9).
- Tighten jack bolt(s) jam nut -- if adjustment was necessary.

SPRING TENSION – FOOT TREADLE



Spring Height Adjustment:

Removal:

- Remove cotter pin from foot treadle arm to spring rod.
- Lift Foot Treadle to maximum height.
- Remove Pin that holds spring rod to foot treadle arm.
- Loosen two (2) hex head bolts & nuts holding lower spring bracket to frame.
- Turn jack bolt (under spring bracket) counterclockwise to lower spring bracket and release spring tension.
- Remove hex head bolts & nuts holding lower spring bracket to frame.
- Remove lower spring bracket and spring.

Installation:

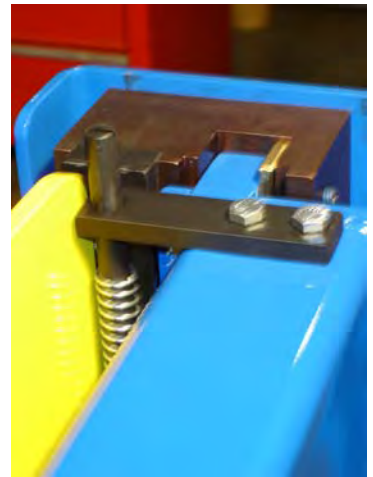
- Install lower spring bracket and spring with spring rod through spring & bracket.
- Install hex head bolts & nuts holding lower spring bracket to frame -- DONOT tighten.
- Turn jack bolt (under spring bracket) clockwise to raise spring bracket and apply spring tension.
Left Spring Height = 5-1/2"
Right Spring Height = 6-3/4"
NOTE: Measurement between bottom of upper flat bracket to top of lower flat bracket.
- Tighten two (2) hex head bolts & nuts holding lower spring bracket to frame.
- Lift Foot Treadle to maximum height.
- Install Pin that holds spring rod to foot treadle arm.
- Install cotter pin into pin holding foot treadle arm to spring rod.

LUBRICATION

Lubricate foot treadle arm bearings once per month with good grade grease.

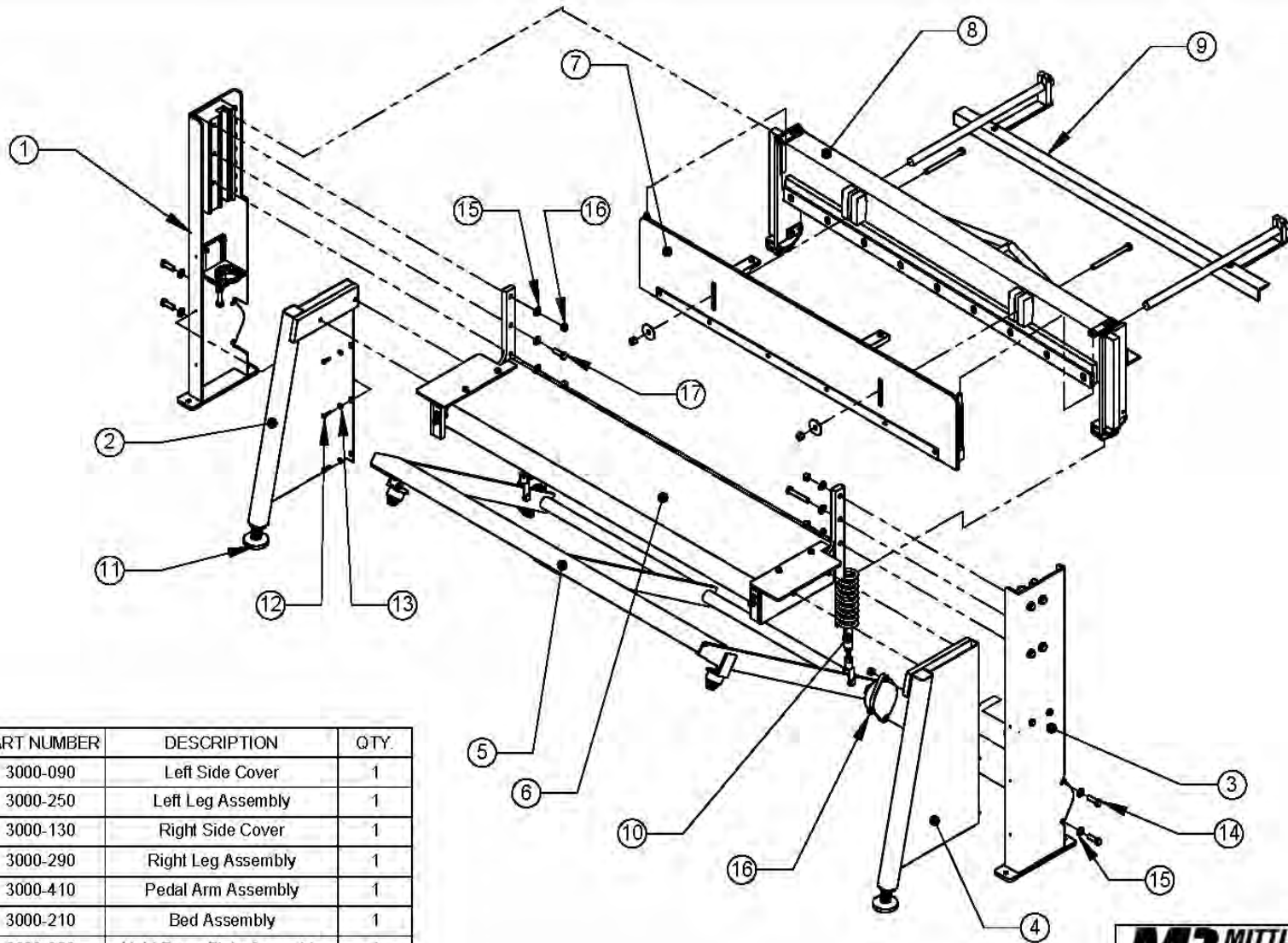


Lubricate upper shear blade slide assembly once per month with good grade grease.



Lubricate spring rod pin to foot treadle arm with oil once per month





ITEM	PART NUMBER	DESCRIPTION	QTY.
1	3000-090	Left Side Cover	1
2	3000-250	Left Leg Assembly	1
3	3000-130	Right Side Cover	1
4	3000-290	Right Leg Assembly	1
5	3000-410	Pedal Arm Assembly	1
6	3000-210	Bed Assembly	1
7	3000-050	Hold Down Plate Assembly	1
8	3000-010	Upper Blade Holder Assembly	1
9	3000-52-200	Back Gauge Kit - Optional	1
10	3000-430	Pedal Blade Linkage	2
11	3000-505	Leveling Mount 3/4-10 x 3-1/2	2
12	1/4" x 1"	SHCS	6
13	1/4"	SAE Flat Washer	6

ITEM	PART NUMBER	DESCRIPTION	QTY.
14	1/2" x 1-1/2"	Hex Machine Bolt	4
15	1/2"	SAE Flat Washer	10
16	1/2"	Hex Nut	8
17	1/2" x 1-1/2"	Hex Machine Bolt	2

REV 3/11/2010

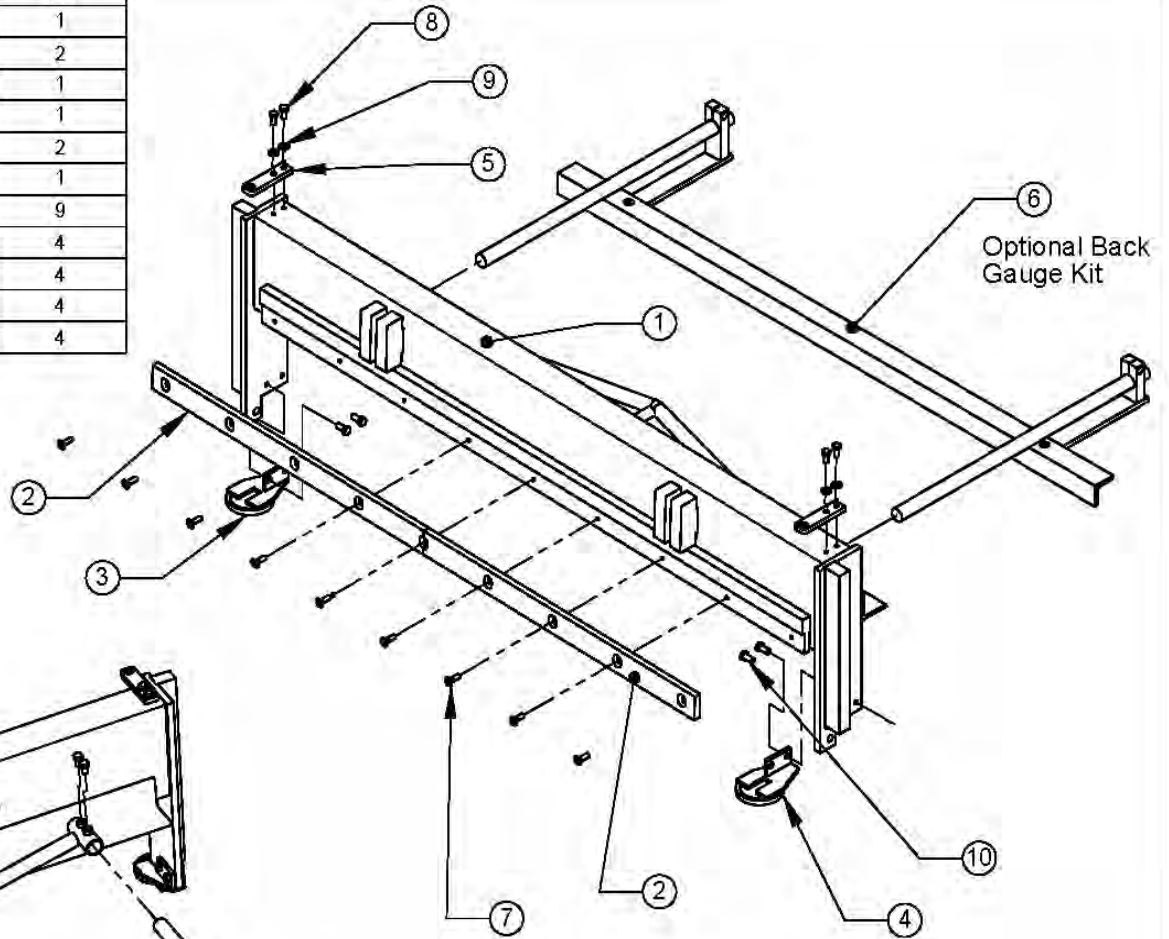
MB MITTLER BROS.
MACHINE & TOOL
 10 Cooperative Way, Wright City, MO. 63390
 (636)745-7757 Fax (636)745-2874

TITLE: **Foot Shear**

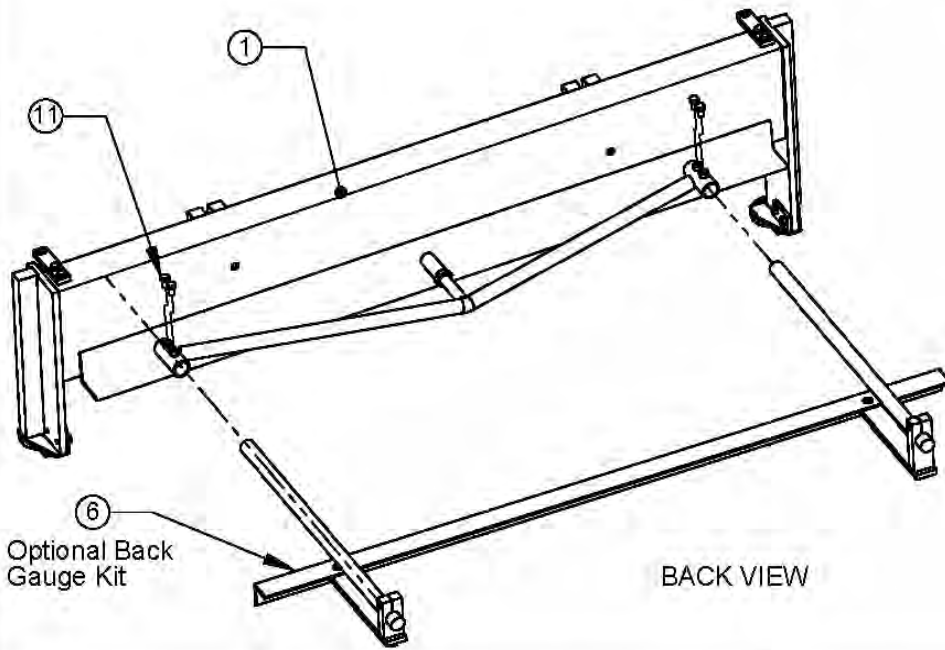
SIZE	DWG. NO.	REV
A	3000-000	

SCALE: 1:18 WEIGHT: 744.154 SHEET 1 OF 1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	3000-010	Upper Blade Holder Assembly	1
2	3000-019	Shear Blade	2
3	3000-017	Spring Cap Assembly, Left	1
4	3000-018	Spring Cap Assembly, Right	1
5	3000-016	Hold-Down Guide Rod Retainer	2
6	3000-52-200	Back Gauge Kit - Optional	1
7	5/16-18 x 1"	FHCS	9
8	5/16 x 3/4"	Hex Machine Bolt	4
9	5/16"	SAE Flat Washer	4
10	3/8 x 3/4"	Hex Machine Bolt	4
11	3/8 x 3/4"	HHCS	4



FRONT VIEW



BACK VIEW

MB MITTLER BROS. MACHINE & TOOL		
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TITLE: Upper Blade Holder		
SIZE: A	DWG. NO.: 3000-010-A	REV:
SCALE: 1:12	WEIGHT:	SHEET 1

REV 3/11/2010

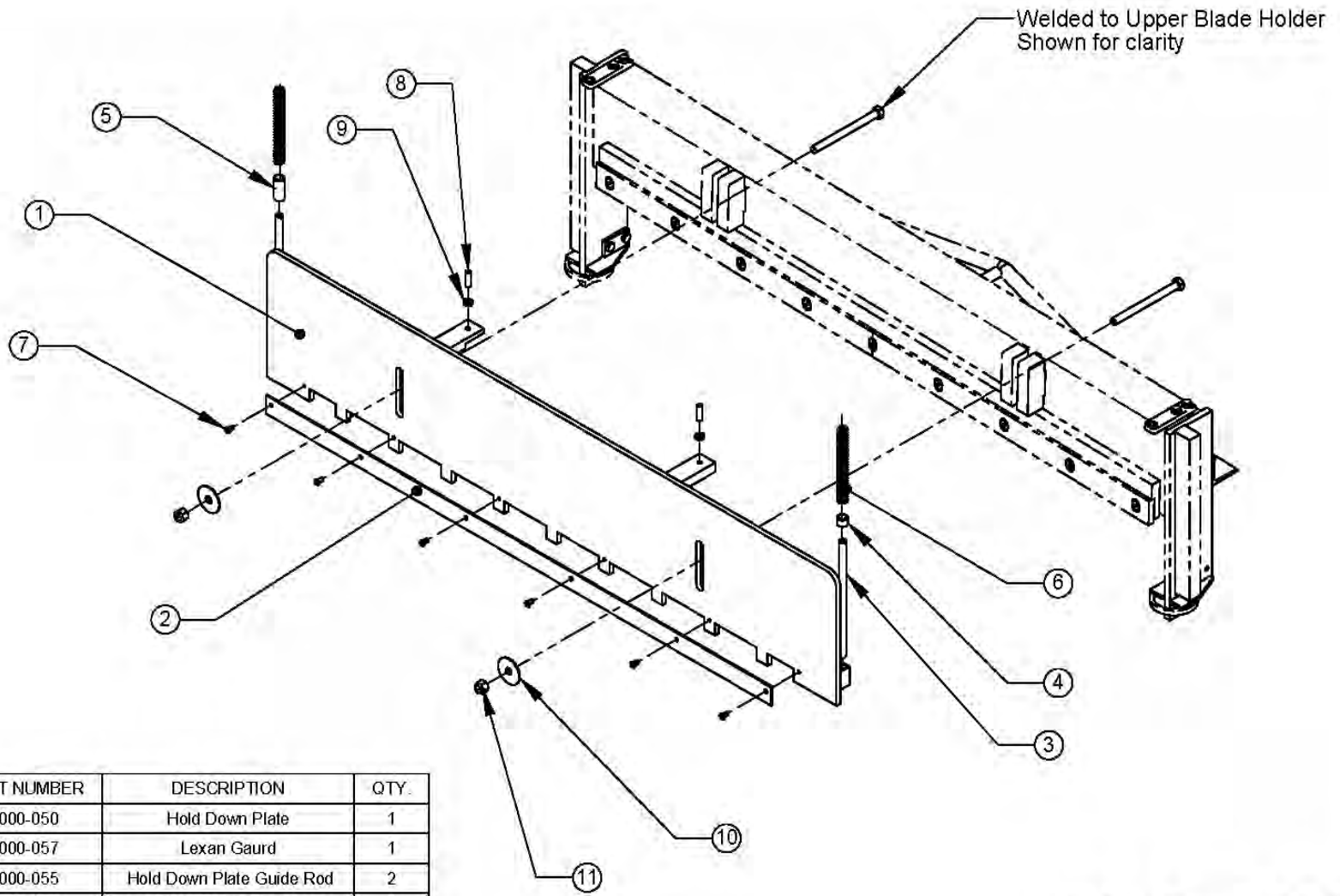
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ITEM	PART NUMBER	DESCRIPTION	QTY.
1	3000-050	Hold Down Plate	1
2	3000-057	Lexan Gaurd	1
3	3000-055	Hold Down Plate Guide Rod	2
4	3000-058	Right Spring Spacer	1
5	3000-056	Left Spring Spacer	1
6	3000-510	6" Spring, .543 Inner Diam	2
7	1/4-20 x 1/2"	Buttonhead	6
8	3/8" x 2"	Socket Set Screw	2
9	3/8" - 16	Hex Jam Nut	2
10	1/2" - 13	Fender Washer	2
11	1/2" - 13	Nylock Nut	2

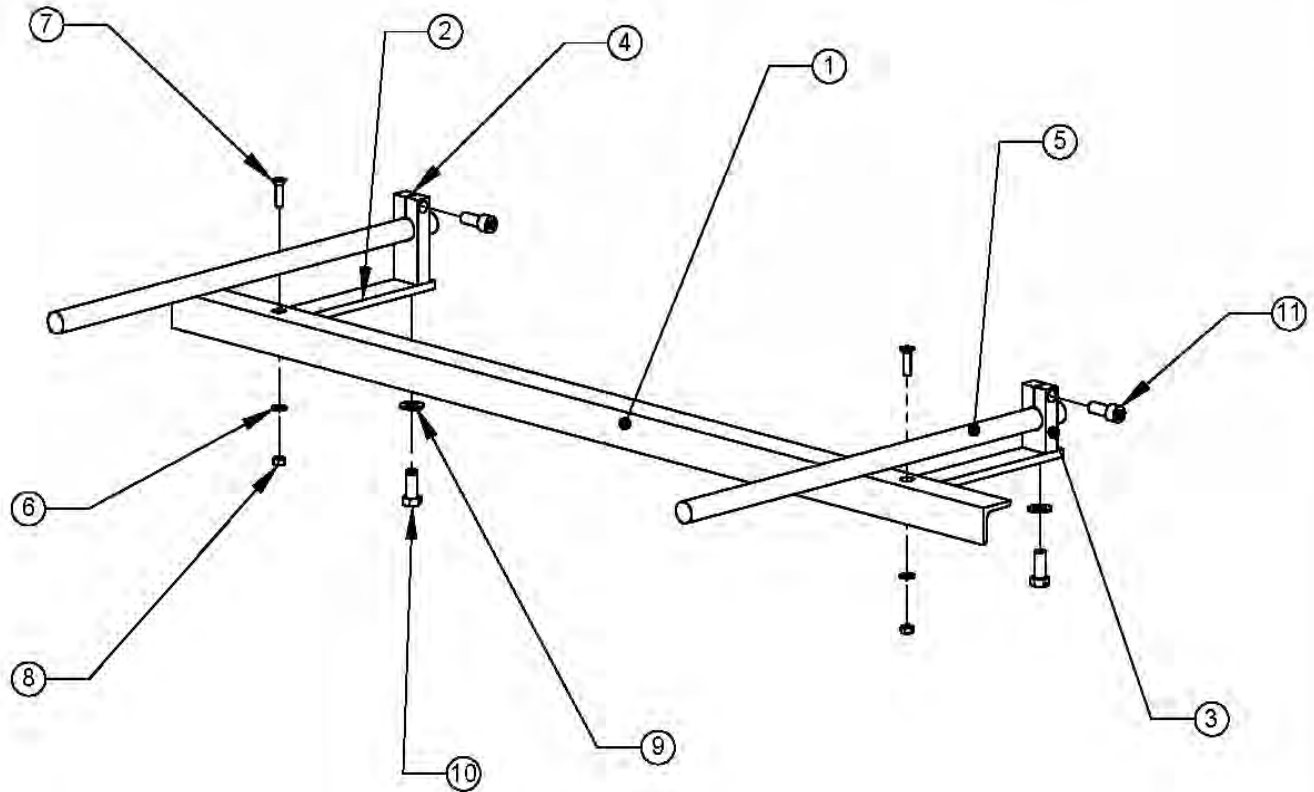
M3 MITTLER BROS. MACHINE & TOOL
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 (636)745-7757 Fax (636)745-2874

TITLE:
Hold Down Plate

SIZE A	DWG. NO. 3000-050-A	REV
SCALE: 1:10	WEIGHT:	SHEET 1 OF 1

REV 3/11/2010

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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	3000-453	Back Gage	1
2	3000-454	Back Gage Bars	2
3	3000-451	Back Gage Adjuster, Right	1
4	3000-452	Back Gage Adjuster, Left	1
5	3000-455	Back Gage Rods	2
6	5/16"	SAE Flat Washer	2
7	5/16-18 x 1.25	FHCS	2
8	5/16"	HEX NUT	2
9	1/2"	SAE Flat Washer	2
10	1/2 x 1.25"	Hex Machine Bolt	2
11	1/2-13 x 1.25	SHCS	2

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TITLE:
Back Gauge Kit

SIZE	DWG. NO.	REV
A	3000-52-200-A	
SCALE: 1:8	WEIGHT: 27.527	SHEET 1 OF 1

REV 3/11/2010

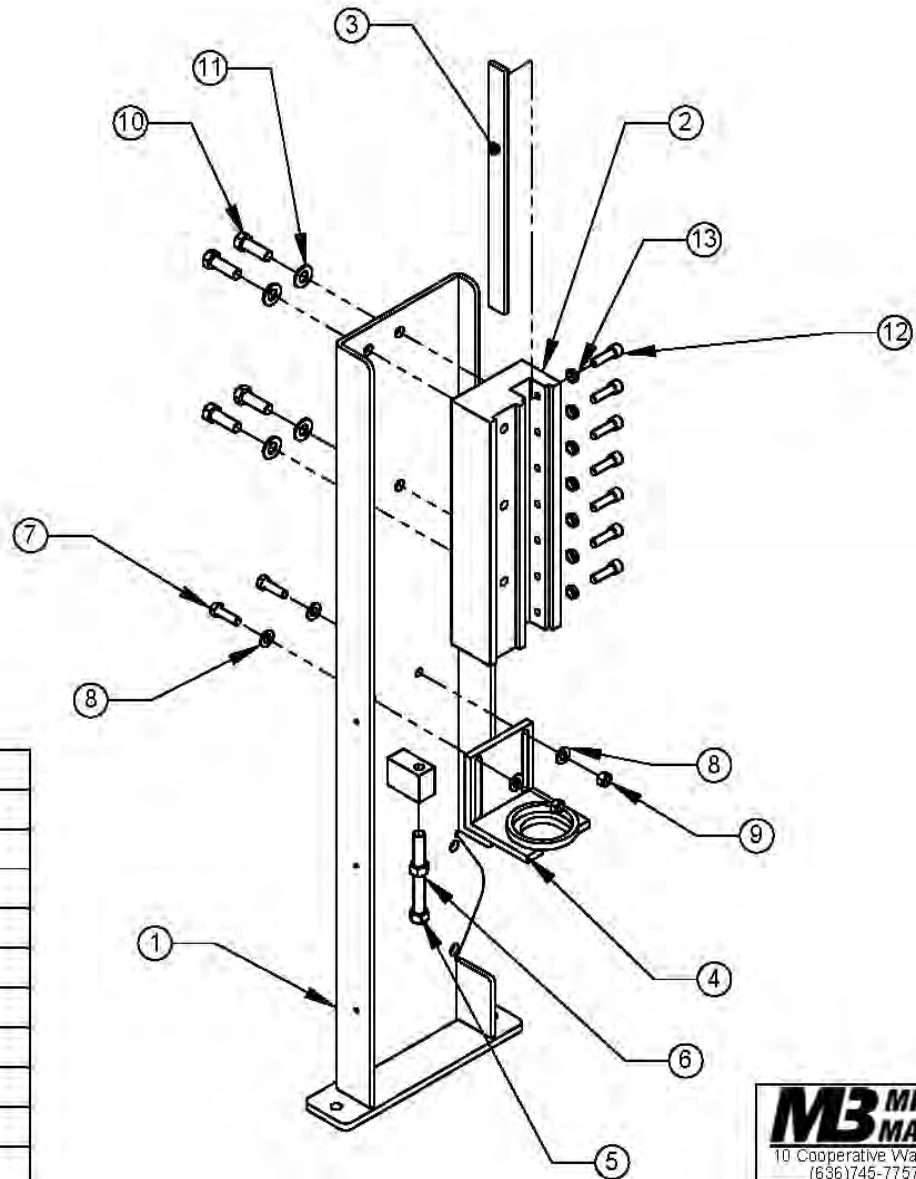
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LEFT SIDE COVER

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	3000-090	Left Side Cover Assembly	1
2	3000-091	Gib Holder - LH	1
3	3000-099	Brass Gib	1
4	3000-097	Spring Holder	1
5	3000-501	Jack Bolt, 1/2-13 x 5"	1
6	1/2"-13	Hex Nut	1
7	3/8" x 1.25"	Hex Machine Bolt	2
8	3/8"	SAE Flat Washer	4
9	3/8"	Hex Nut	2
10	1/2" x 1.5"	Hex Machine Bolt	4
11	1/2"	Lock Washer	4
12	3/8-16 x 1.25"	SHCS	7
13	3/8"	Hex Jam Nut	7

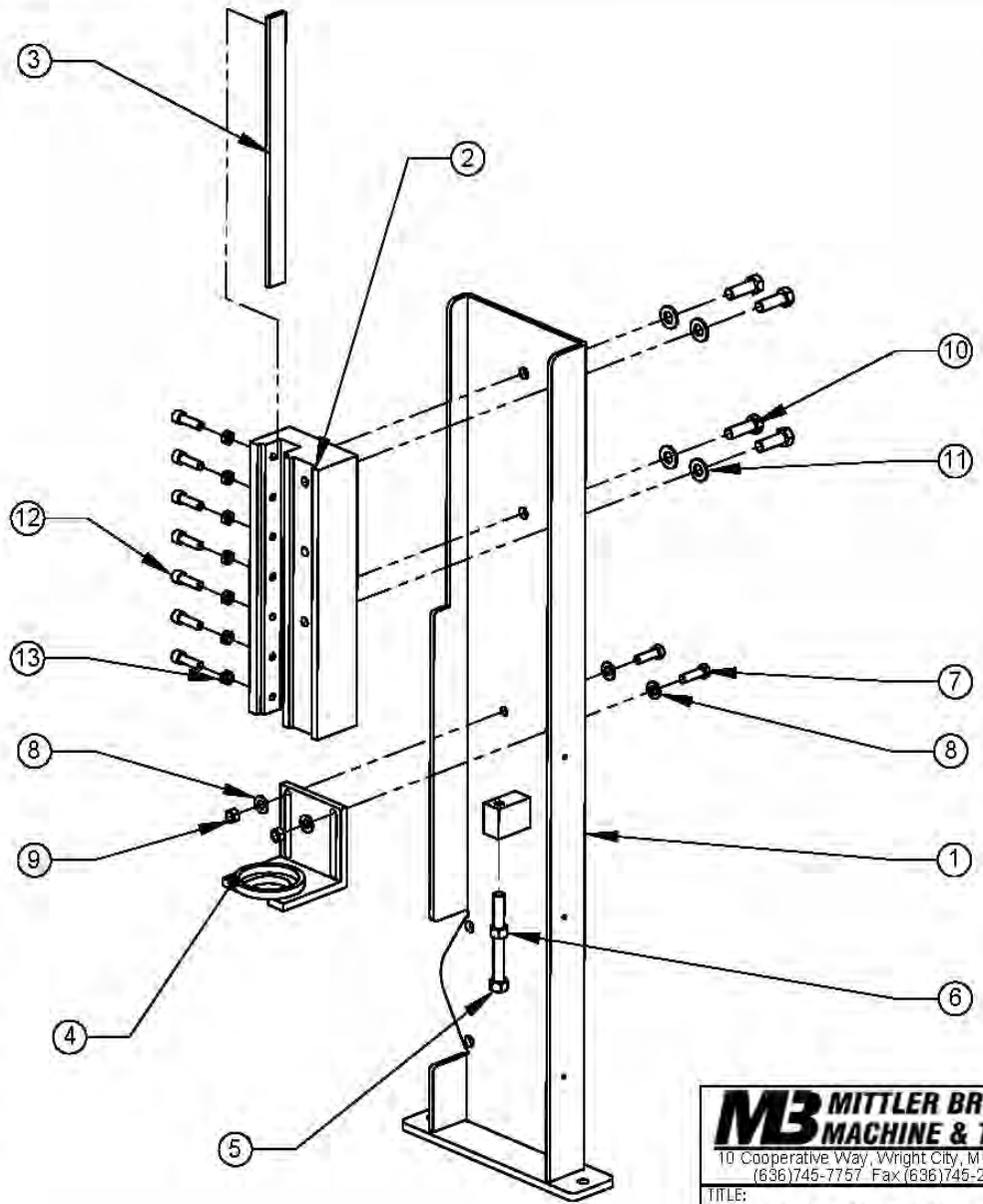
REV 3/11/2010

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TITLE: **Left Side Cover**

SIZE	DWG. NO.	REV
A	3000-090-A	

SCALE: 1:8 WEIGHT: SHEET 1 OF 1



RIGHT SIDE COVER

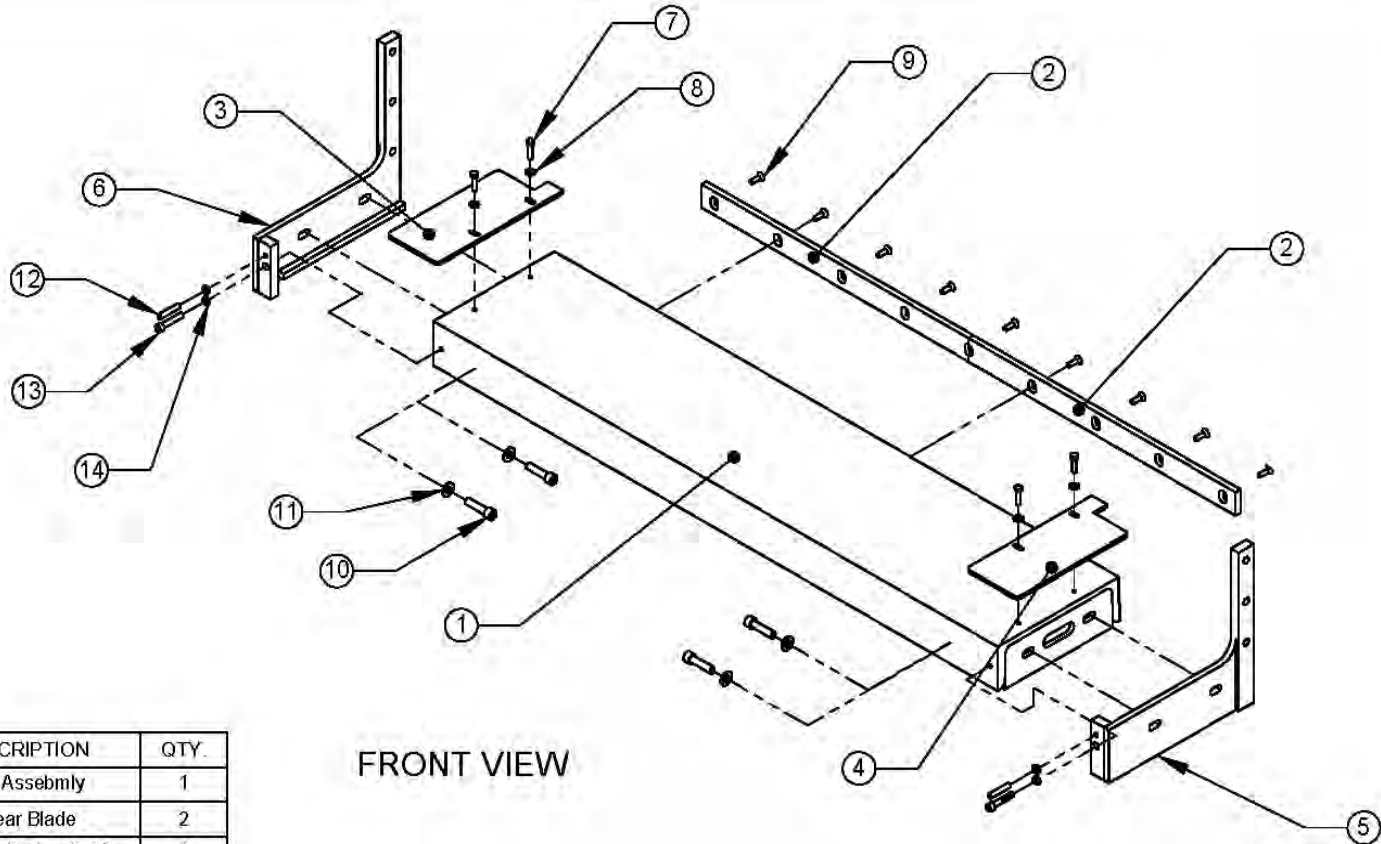
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	3000-130	Rt. Side Cover Assembly	1
2	3000-131	Gib Holder - RH	1
3	3000-099	Brass Gib	1
4	3000-097	Spring Holder	1
5	3000-501	Jack Bolt, 1/2-13 x 5"	1
6	1/2"-13	Hex Nut	1
7	3/8" x 1-1/4"	Hex Machine Bolt	2
8	3/8"	SAE Flat Washer	4
9	3/8"	Hex Nut	2
10	1/2" x 1-1/2"	Hex Machine Bolt	4
11	1/2"	Lock Washer	4
12	3/8-16 x 1-1/4"	SHCS	7
13	3/8"	Hex Jam Nut	7

REV 3/11/2010

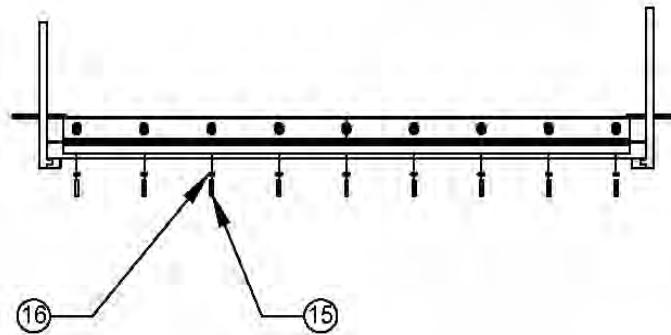
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 10 Cooperative Way, Wright City, MO 63390
 (636)745-7757 Fax (636)745-2874

TITLE: **Right Side Cover**

SIZE A	DWG. NO. 3000-130-A	REV
SCALE: 1:8	WEIGHT:	SHEET 1 OF 1



FRONT VIEW



BACK VIEW

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	3000-210	Bed Assembly	1
2	3000-019	Shear Blade	2
3	3000-212-A	Engraved Edge Guide	1
4	3000-212-B	Engraved Edge Guide	1
5	3000-218	Bed Support Plate, Right	1
6	3000-219	Bed Support Plate, Left	1
7	5/16 x 1"	Hex Machine Bolt	4
8	5/16"	SAE Flat Washer	4
9	5/16-18 x 1"	FHCS	9
10	1/2-13 x 2"	SHCS	4
11	1/2"	SAE Flat Washer	4
12	3/8-16 x 2"	Socket Set Screw	2
13	3/8-16 x 2"	SHCS	2
14	3/8"	Jam Nut	4
15	1/4-20 x 1-1/2"	Socket Set Screw	9
16	1/4"	Jam Nut	9

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TITLE:
 Bed Assembly

SIZE	DWG. NO.	REV.
A	3000-210-A	

SCALE: 1:12 WEIGHT: SHEET 1 OF 1

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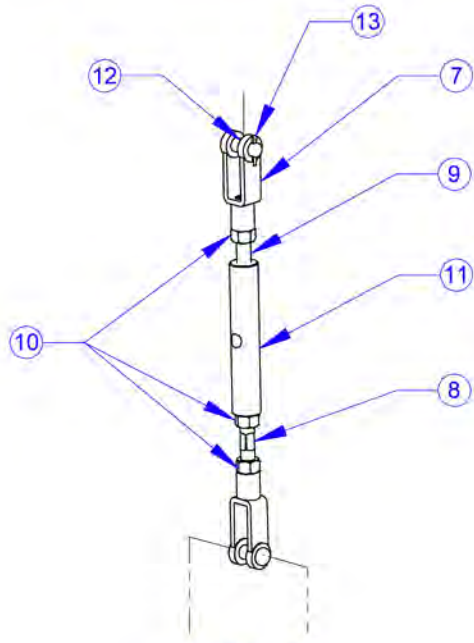
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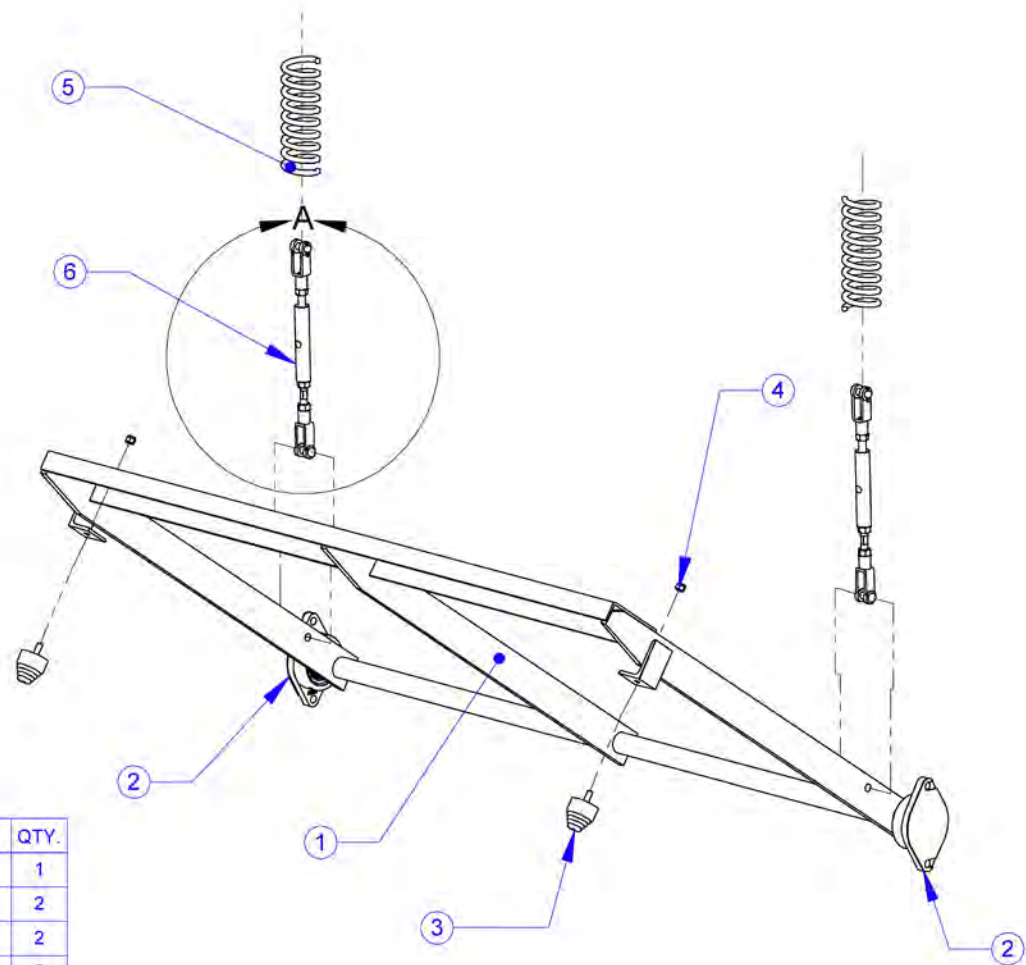
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DETAIL A
SCALE 1 : 6
Pedal-Blade Linkage



Pedal Arm

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	3000-410	Pedal Arm Assembly	1
2	3000-507	Flange Bearing	2
3	3000-509	Travel Stop	2
4	3/8"	Nylock Nut	2
5	3000-506	150 lb Spring 2-3/8" x 8"	2
6	3000-430	Pedal-Blade Linkage	2
7	3000-502	1/2 - 13 Clevis Rod End, Female	2
8	3000-504	1/2-13 x 4" RH, LH Threaded Rod	1
9	3000-503	1/2-13 x 4" RH Threaded Rod	1
10	1/2"-13	Hex Nut	3
11	3000-431	Linkage	1
12	1/2" x 1.5"	Hitch Pin	1
13	1"	Hairpin Cotter Pin	1

REV 3/22/2011

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TITLE: Pedal Arm

SIZE	DWG. NO.	REV
A	3000-410-A	
SCALE: 1:12	WEIGHT:	SHEET 1 OF 1

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