

# Dimension drawings to fabricate an Integral Sleeve Hitch

John Deere Part Number: **AM31668**

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Drawings prepared by: **Kenneth Dortch**

Reviewed and edited by: Kent Ortman

**2007**

This Sleeve Hitch will fit John Deere 120, 140, 300, 312, 314, 316 Kohler and 317 Lawn and Garden tractors and gear driven 110 and 112 1968 -1974 and 200, 208, 210, 212, 214 and 216 from 1975-1987 Lawn and Garden tractors.

## Legend



Machining required. Refer to schedule on sheet 9 of 9 for more information.



Material required. Refer to schedule on sheet 9 of 9 for more information.



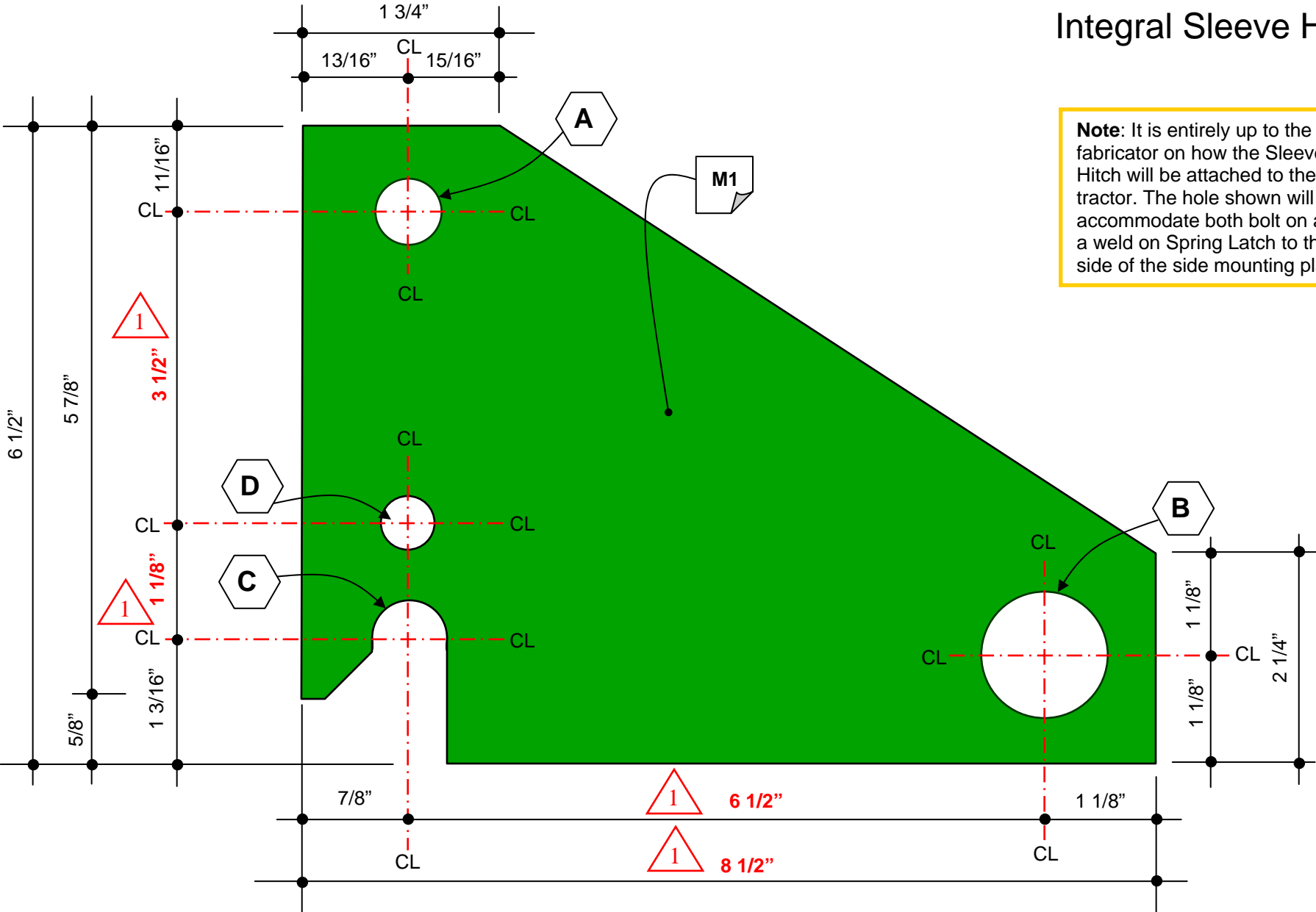
Drawing Addenda or changes and modifications to the drawings.

Addendum No.	Description:	Date Issued:
1	Dimension changes to side mounting panel. Refer to Sleeve Hitch drawings.	03/20/07
2	Refer to Lift Link drawings. Additional information provided for Lift Link angle.	10/16/08

These drawings are provided as a service to all who would like to fabricate such items. However, ALL contents herein should be clarified before fabrication as to accuracy by the FABRICATOR. The names shown on these documents CANNOT be held responsible for fabrication malfunctions of ANY kind due to drawing inaccuracies.

# Integral Sleeve Hitch

**Note:** It is entirely up to the fabricator on how the Sleeve Hitch will be attached to the tractor. The hole shown will accommodate both bolt on and a weld on Spring Latch to the side of the side mounting plate.



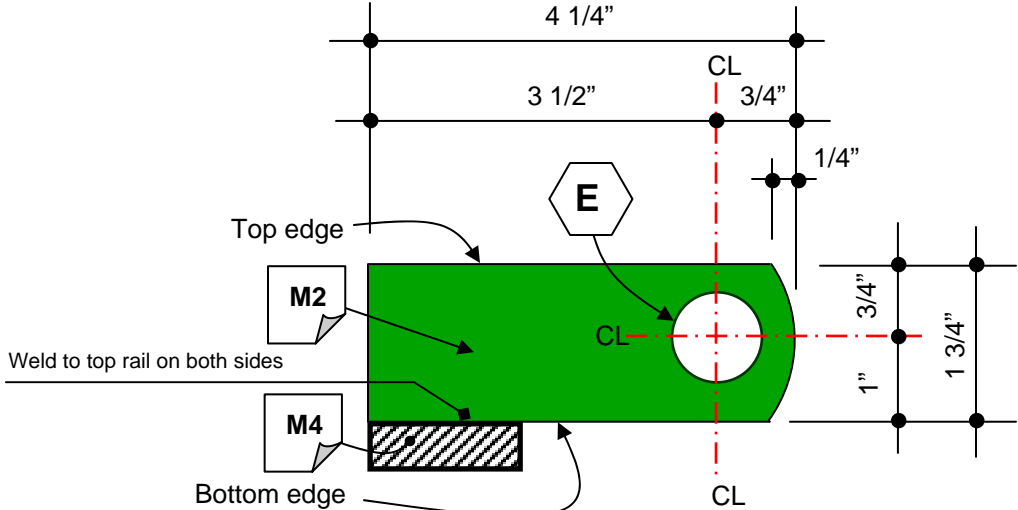
Side View @ Mounting Plate

**2 Required**

Do NOT Scale – not to scale

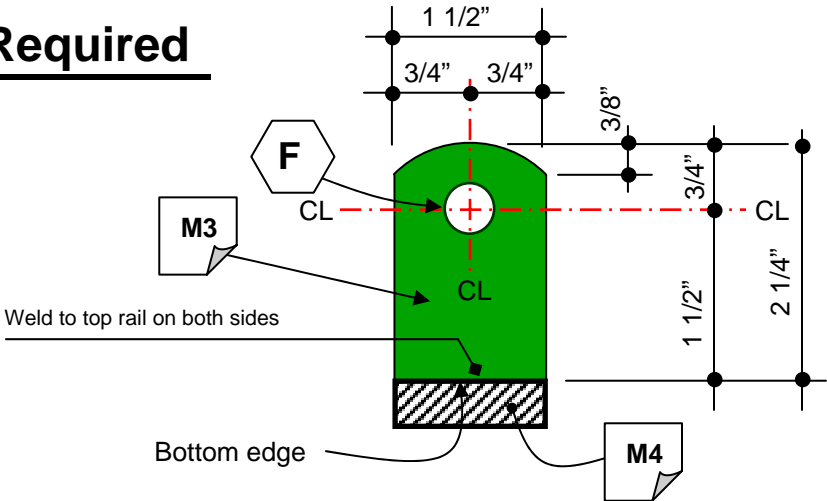
These drawings are for reference **ONLY** and are **NOT** to be scaled as to the actual size.

# Integral Sleeve Hitch



**Side View @ Lift Link tab - A 1 Required**

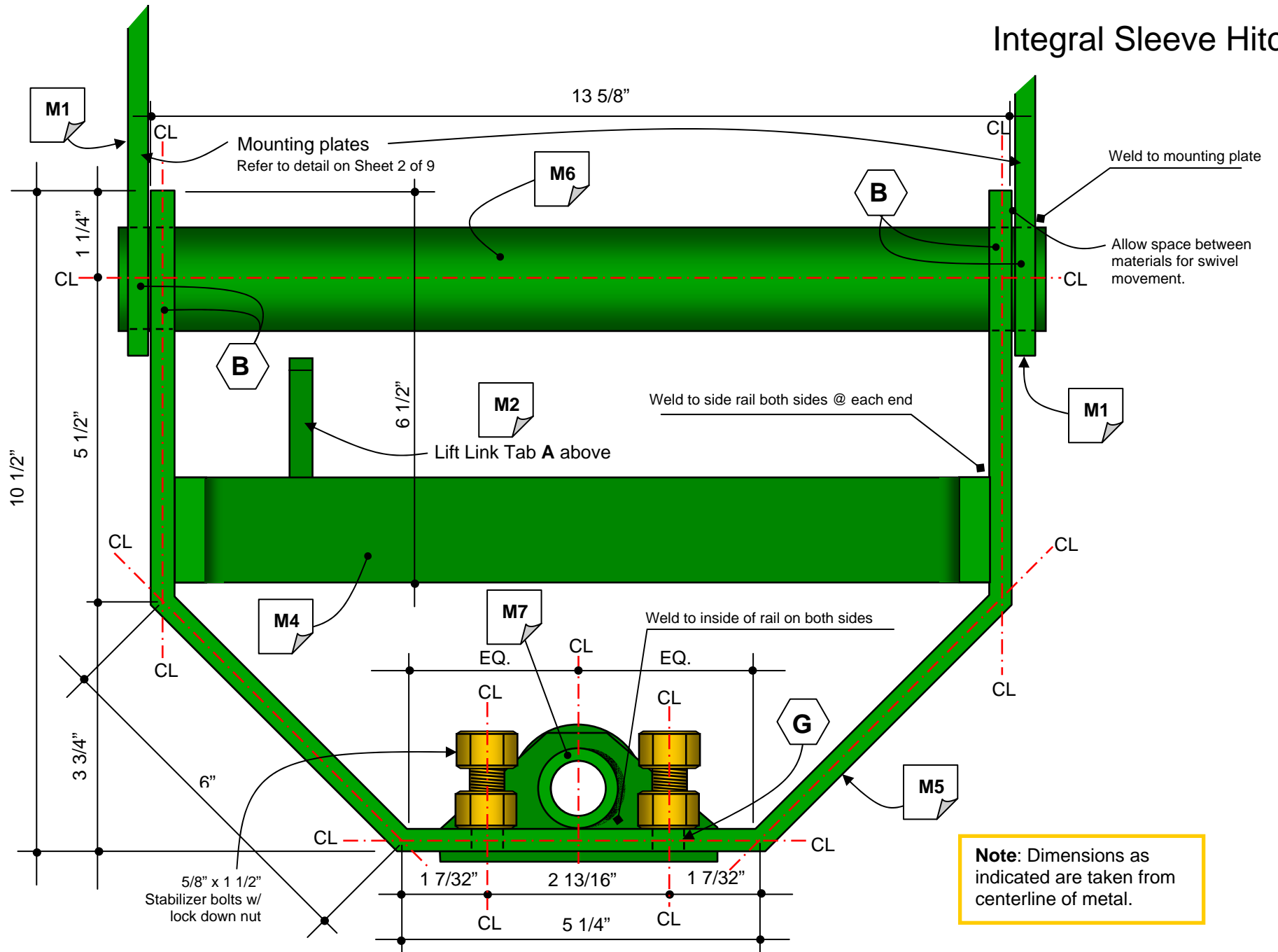
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**Side View @ Lift Link tab - B 1 Required**

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# Integral Sleeve Hitch



## Bottom View @ Hitch Frame Structure

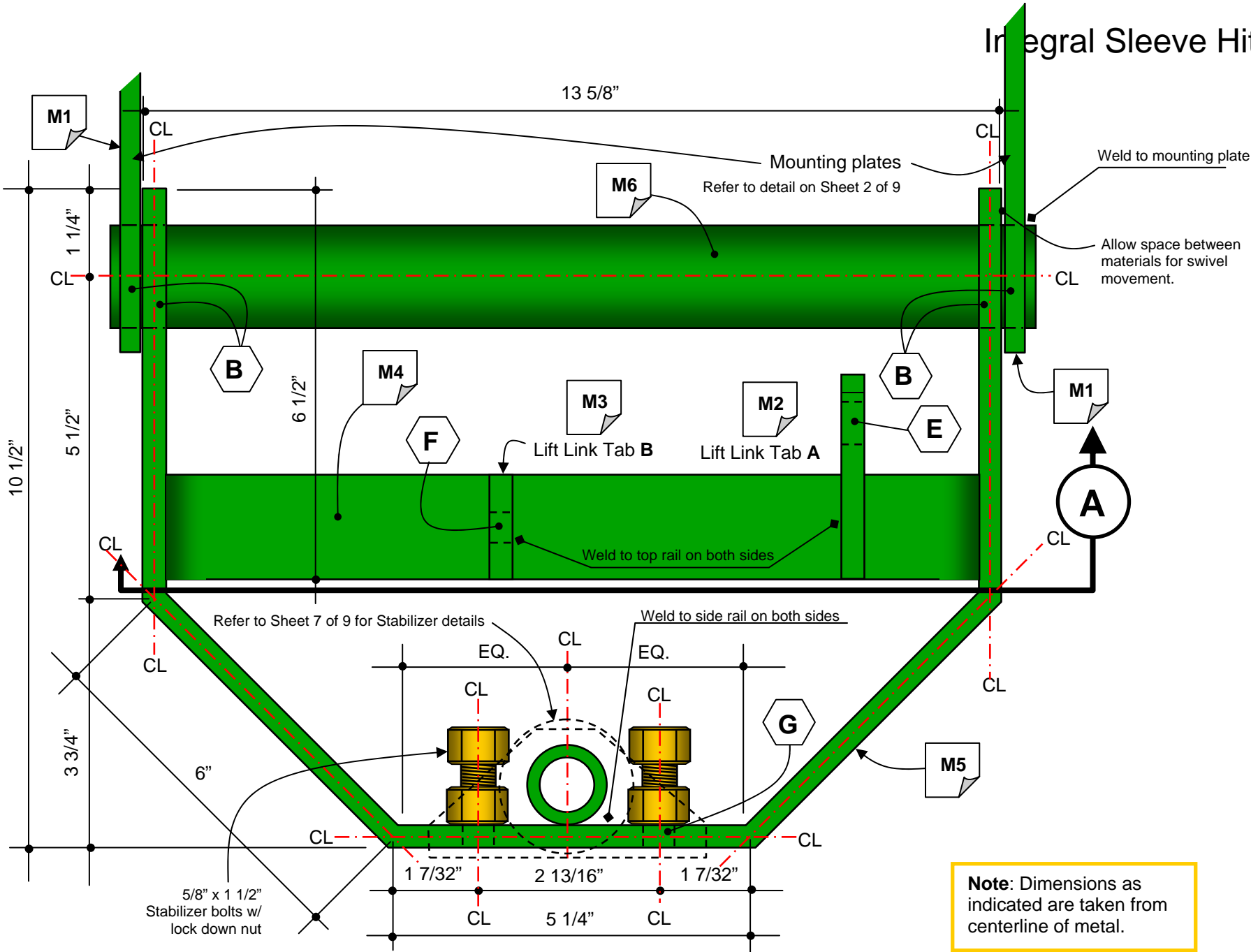
**1 Required**

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Sheet 4 of 9

These drawings are for reference ONLY and are NOT to be scaled as to the actual size.

# Integral Sleeve Hitch

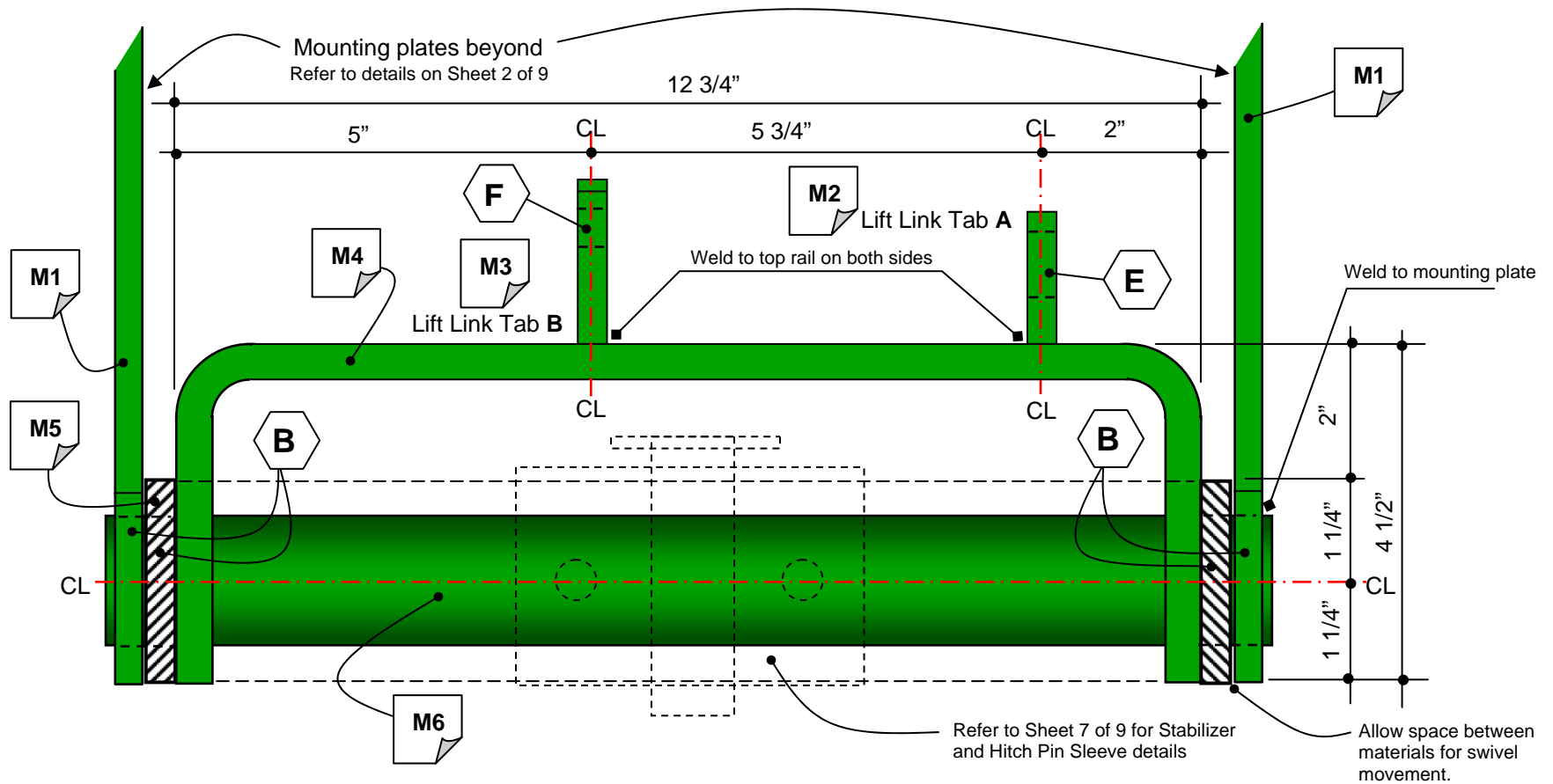


**Plan (Top) View @ Hitch Frame Structure**

Do NOT Scale – not to scale

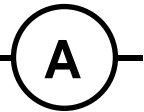
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# Integral Sleeve Hitch

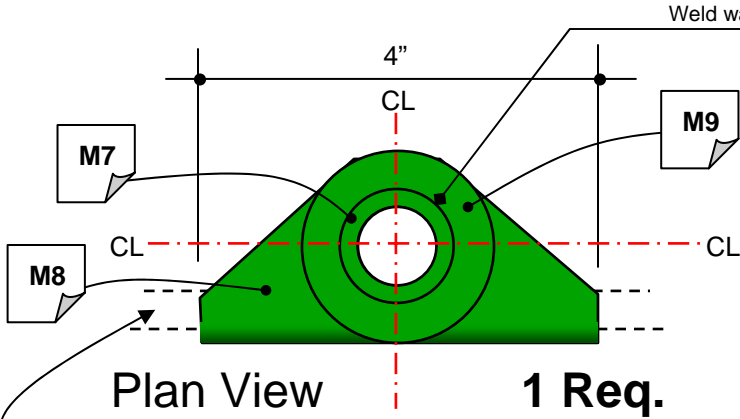


## Cross Section @ Hitch Frame Structure

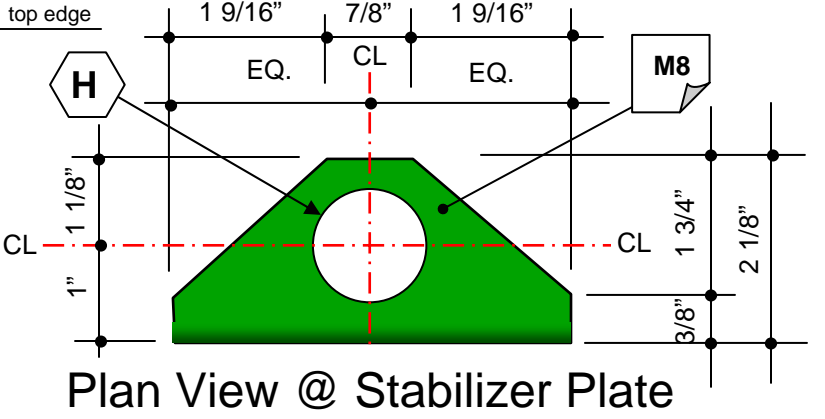
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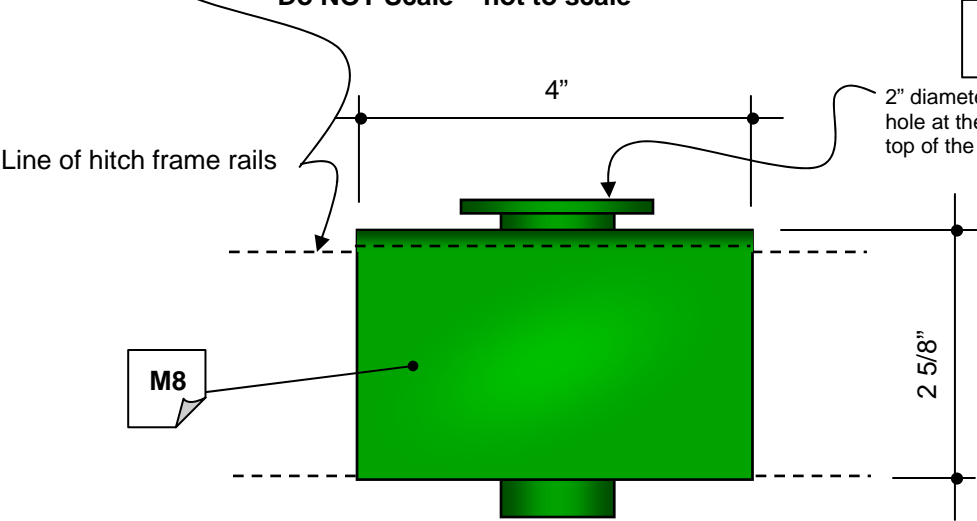
### Stabilizer Plate and Hitch Pin Sleeve



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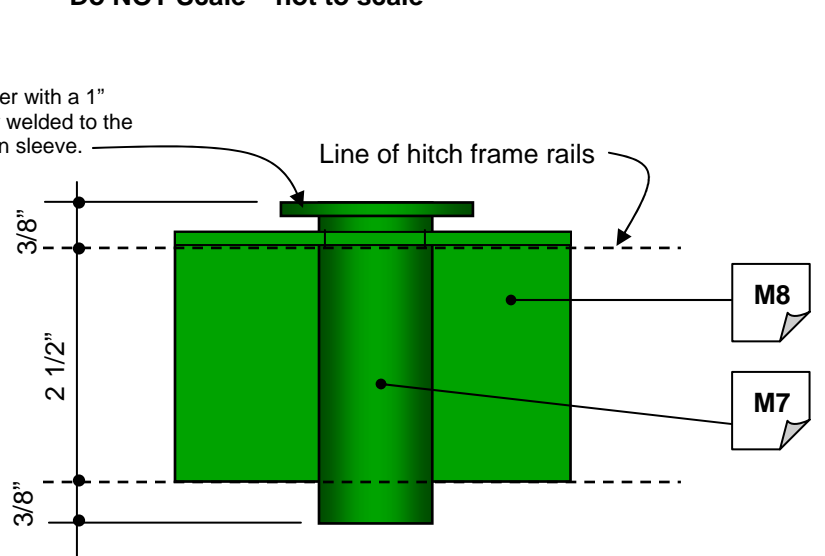


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**Front View**

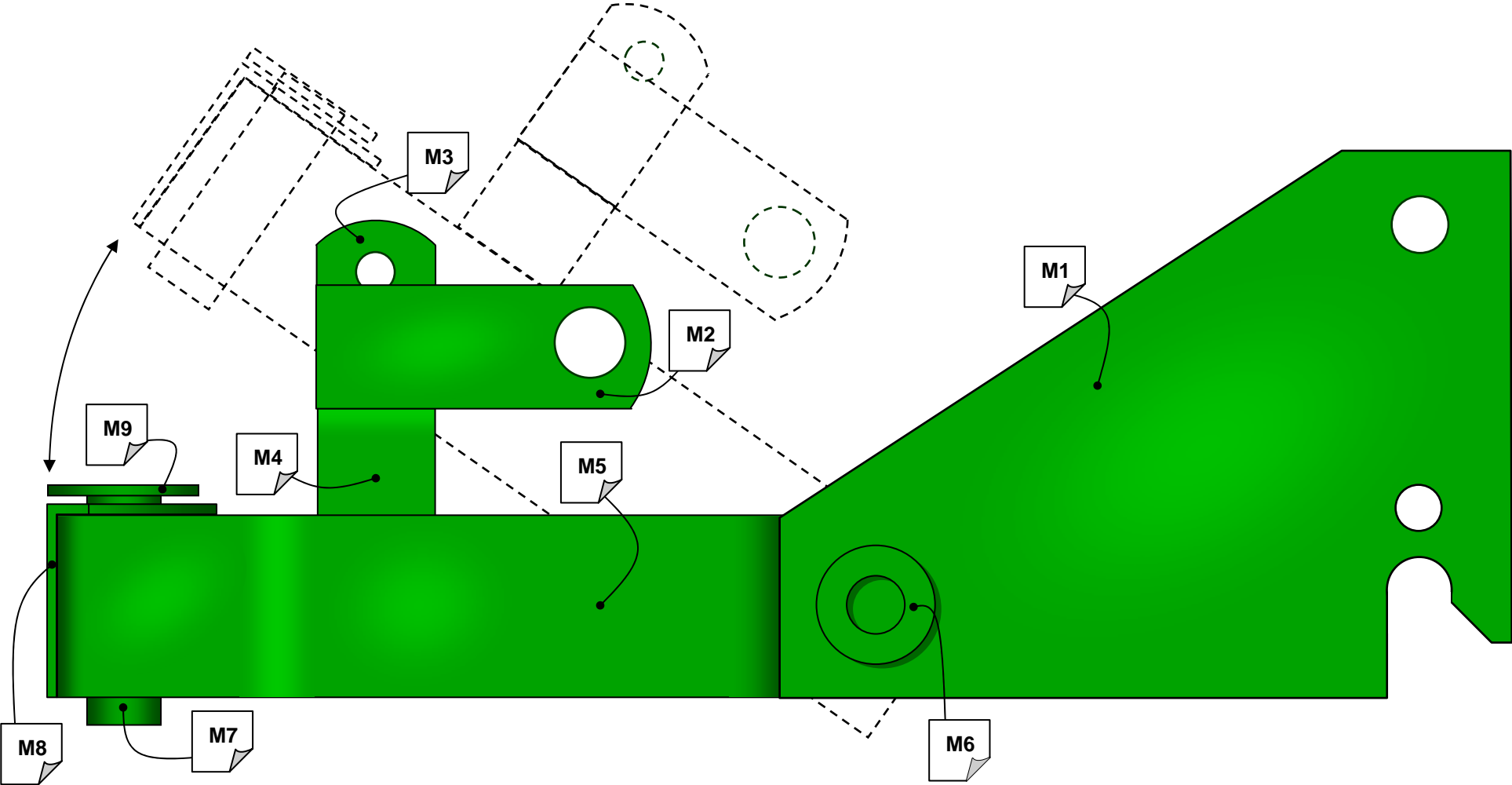
Do NOT Scale – not to scale



**Back View**

Do NOT Scale – not to scale

# Integral Sleeve Hitch



Right Side View @ Integral Sleeve Hitch

Do NOT Scale – not to scale

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# Integral Sleeve Hitch

## Material Requirements

Item:	Quantity:	Thickness:	Size:	Comments:
M1	2	1/4"	6 1/2" x 8 1/2"	Drill for holes "A", "B", "C", and possible "D". Ease all perimeter edges to reduce sharp material cut edges. Refer to Sheet 2 of 9.
M2	1	3/8"	1 3/4' x 4 1/4"	Drill for hole "E". Round off one side of narrow edge. Refer to detail on Sheet 3 of 9. This is Tab designation <b>A</b> .
M3	1	3/8"	1 1/2" x 2 1/4"	Drill for hole "F". Round off one side of narrow edge. Refer to detail on Sheet 3 of 9. This is Tab designation <b>B</b> .
M4	1	1/2"	1 1/2"	Bend two upright verticals to equal 4 1/2" high. Refer to Sheet 6 of 9 for bar configuration.
M5	1	3/8"	2 1/2" x 30 3/4"	Drill for hole "B" at both ends and hole "G". The length dimensions are given at the centerline of the thickness side of the bar. Allow for some length as the metal bends into the sharp required. Refer to Sheets 4, 5, 6, and 8 for details.
M6	1	5/16"	1 5/16" x 14 1/2"	This is the pivot pipe. The side walls of the pipe are 5/16" thick. Weld the side mounting panels on the outside to hold the pipe in place and allow the Hitch Frame Structure to pivot freely. Refer to Sheets 4, 5, 6, and 8 for details.
M7	1	3/16"	1" x 3 1/4"	This is the hitch pin sleeve. The side walls of the sleeve are 3/16" th. and it has a 5/8" dia. hole in the center. Needs to be welded to the Hitch Frame Structure with a 3/8" overhang to the top and bottom. Refer to Sheet 7 of 9 for details.
M8	1	1/8"	2 1/8" x 2 5/8" x 4"	The Stabilizer Plate is an angle. Drill for Hole "H". Refer to Sheet 7 of 9 for details.
M9	1	1/8"	2" diameter	This is the washer that is to be welded to the top of the hitch pin sleeve. Refer to Sheet 7 of 9 for details.

## Hole Machining Requirements

Item:	Quantity:	Size:	Comments:
A	2	5/8" I.D.	These holes are to allow the hitch to be bolted on to the tractor or the fabricator can weld a spring latch to the outside of the plate.
B	4	1 5/16" I.D.	This is to allow the swivel rod to go through the hitch frame rail and the outside of the mounting plates.
C	2	3/4" I.D.	Notch as shown to mount on tractor bushings.
D	2	17/32" I.D.	These holes are for the use of a 43C and/or a 54C center blade. These holes can be added at the discretion of the fabricator.
E	1	5/8" I.D.	For Lift Link tab A
F	1	3/8" I.D.	For Lift Link tab B
G	2	9/16" I.D.	Tapped threaded holes to receive 5/8-20 course thread Stabilizer bolts.
H	1	1 1/8" I.D.	Hole should allow the Stabilizer Plate to move freely to insure that the Stabilizer Plate can be used.