

# HOW TO INSTALL YOUR THROTTLE ADDICTION SPORTSTER HARDTAIL



# 1982-2003 Instructions

# The Deluxe Evolution Sportster Hardtail Kit 1982-2003

**Made in the USA**



## **Tools Needed**

Square/Straightedge, Tape Measure, Marker/Scribe, Cardstock, Cutting Tool, Grinder, Center Punch, Drill, 3/8" Bit, Barrel/Drum Sander, Dissassembly Tools, Service Manual, 230V Welder

## **Important Stuff**

Before you begin this installation, read all of the instructions completely and carefully. This installation requires welding and the use of power tools.

All welding must be performed by a certified welding professional.  
All welding must be done using equipment powered by a 230V power source or larger to allow for sufficient weld penetration.

Prior to final assembly chase all threaded holes (Axle adjuster, sissy bar mount, oil tank mount, etc.) and any chrome hardware or axle adjusters.

Always use the proper protective equipment during installation.

Throttle Addiction assumes no liability for damage to property or personal injury caused during installation or because of misuse.

# Hardware included with the Deluxe Hardtail Kit



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**Battery Tie-down  
Strap & Hardware**  
4 pieces

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**Fender Spacer  
Long & Short**  
2 pieces

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**Colony Axle Adjusters  
and Nuts**  
4 pieces

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**Rear Caliper Mount  
1982-1999**  
3 pieces

— — — — — or — — — — —

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**Rear Caliper Mount  
2000-2003**  
5 pieces

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# Video install instructions



**Cutting OEM frame and  
welding the hardtail**

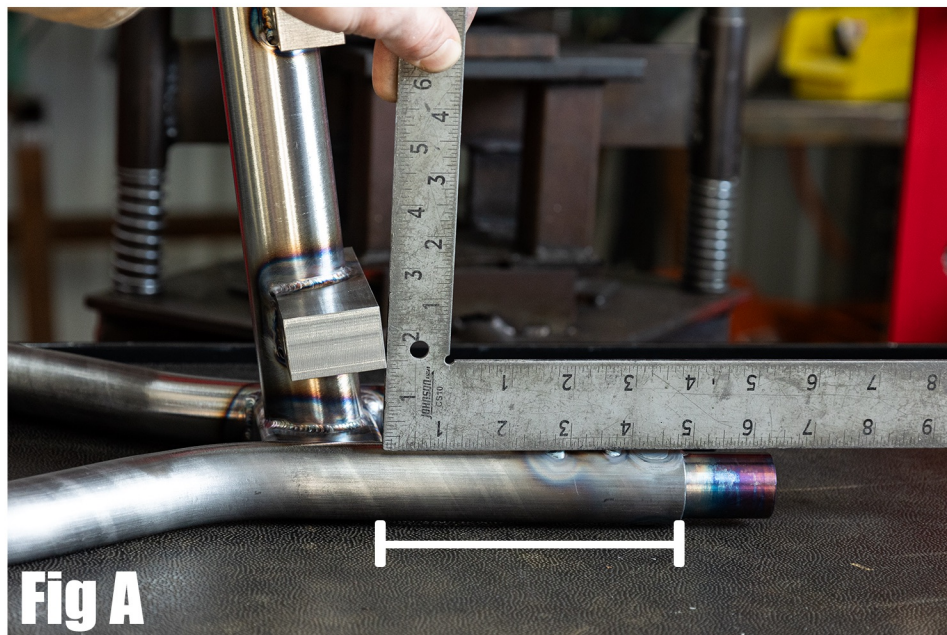
**+**

**Full disassembly, assembly,  
and final result**

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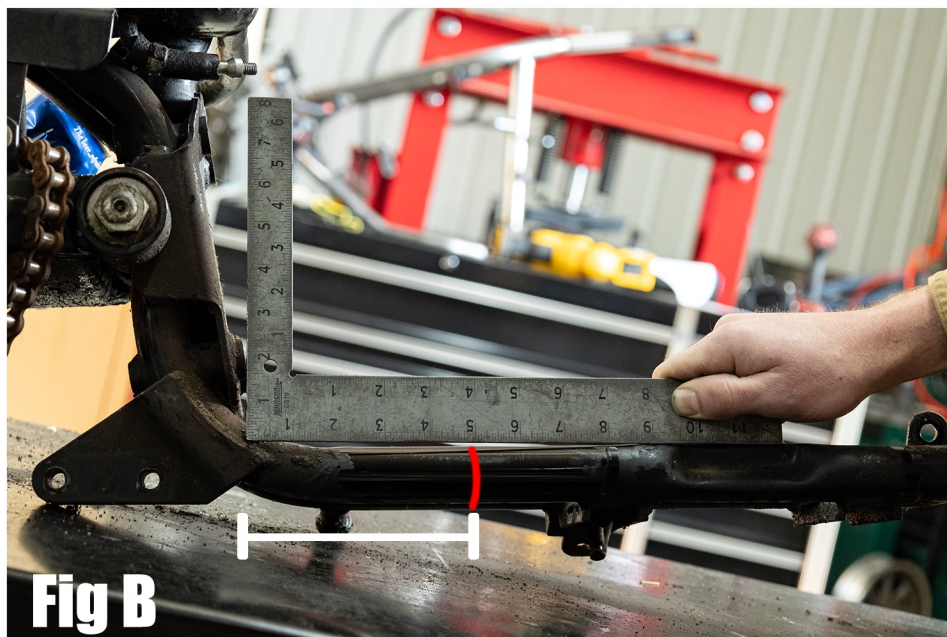


**Measure 16" from the front  
of the neck down the backbone.  
Mark for cut.**



**Fig A**

**Measure hardtail from bottom motor mount to the end of the frame - not the end of the slug.**



**Fig B**

**Using the measurement from Figure A, measure and mark the frame from the bottom motor mount on the stock frame. Mark for cut.**

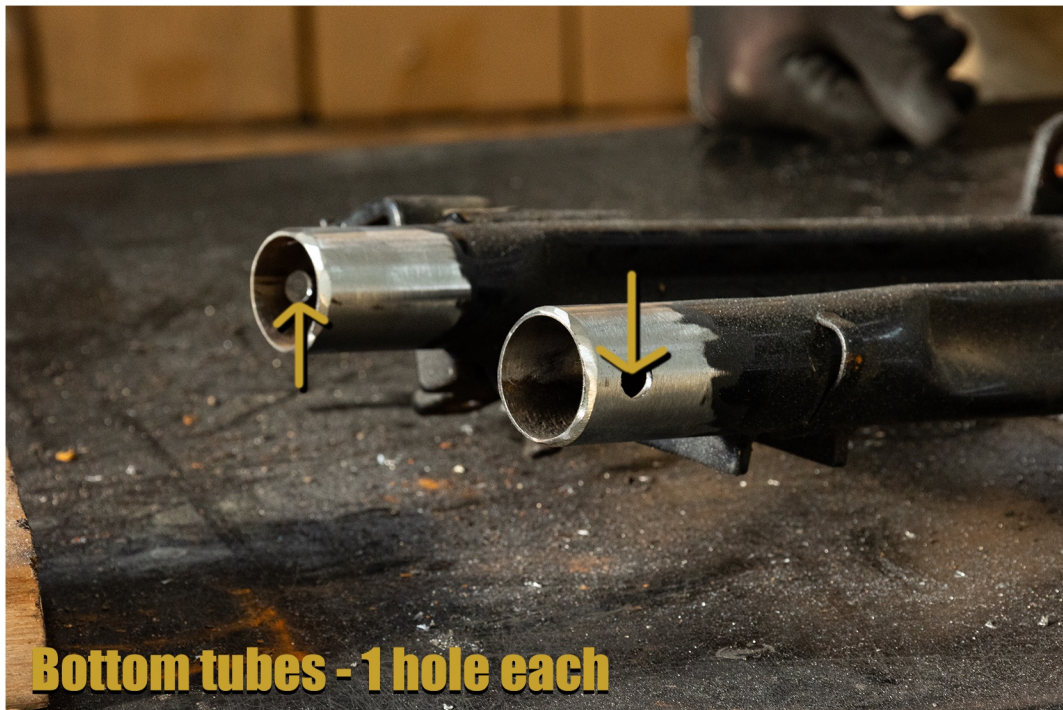
**Use cardstock with square edges and wrap the tube to ensure a square cut line.**



**Cut your tubes a little longer than  
your marks.**

**Then sand down to the marks  
to ensure a flat mating surface.**



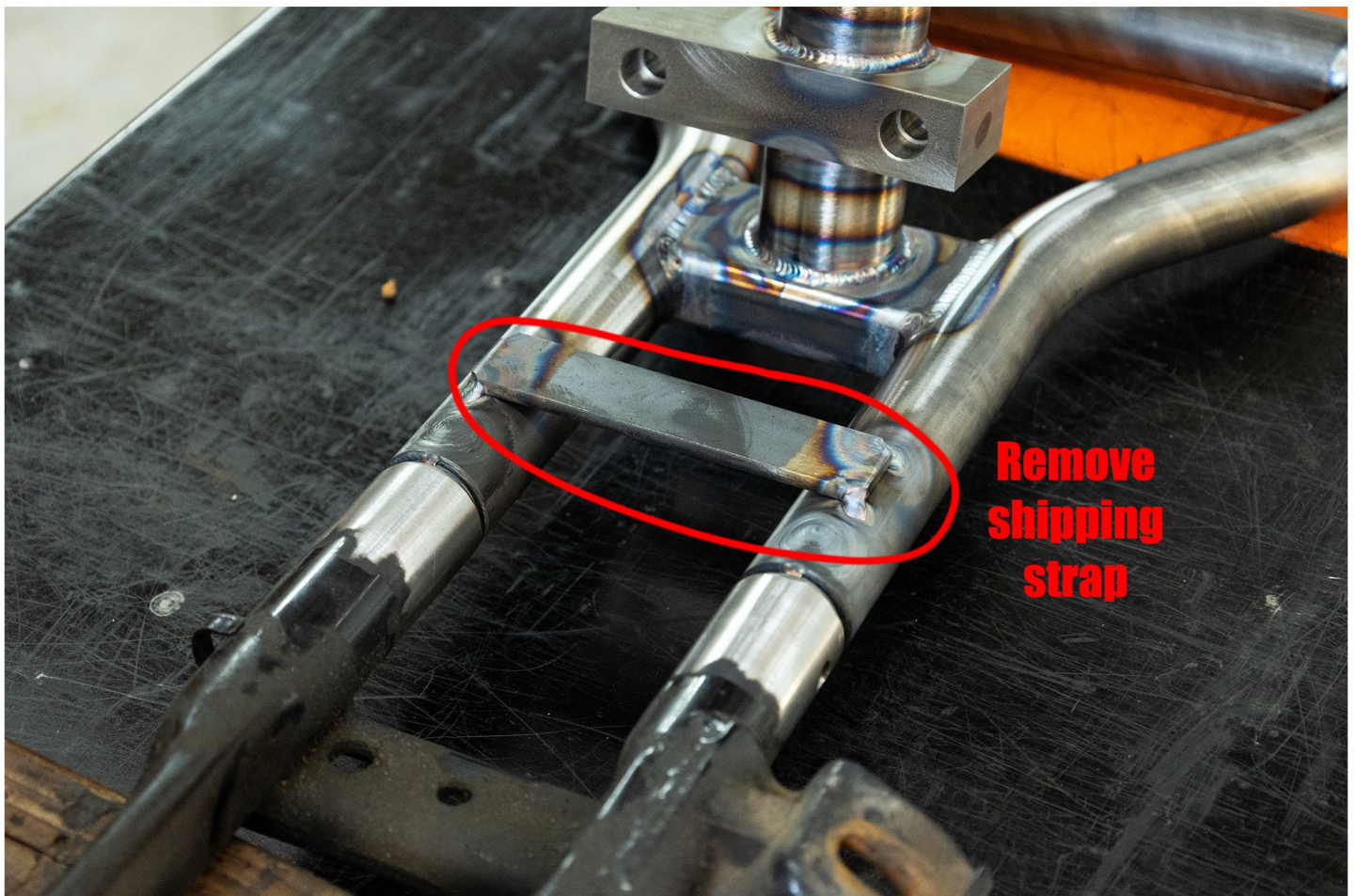


**Drill 3/8" holes for plug welds  
1/2" in from end of tube.  
Bevel ends of tubing and barrel  
sand inner area.**

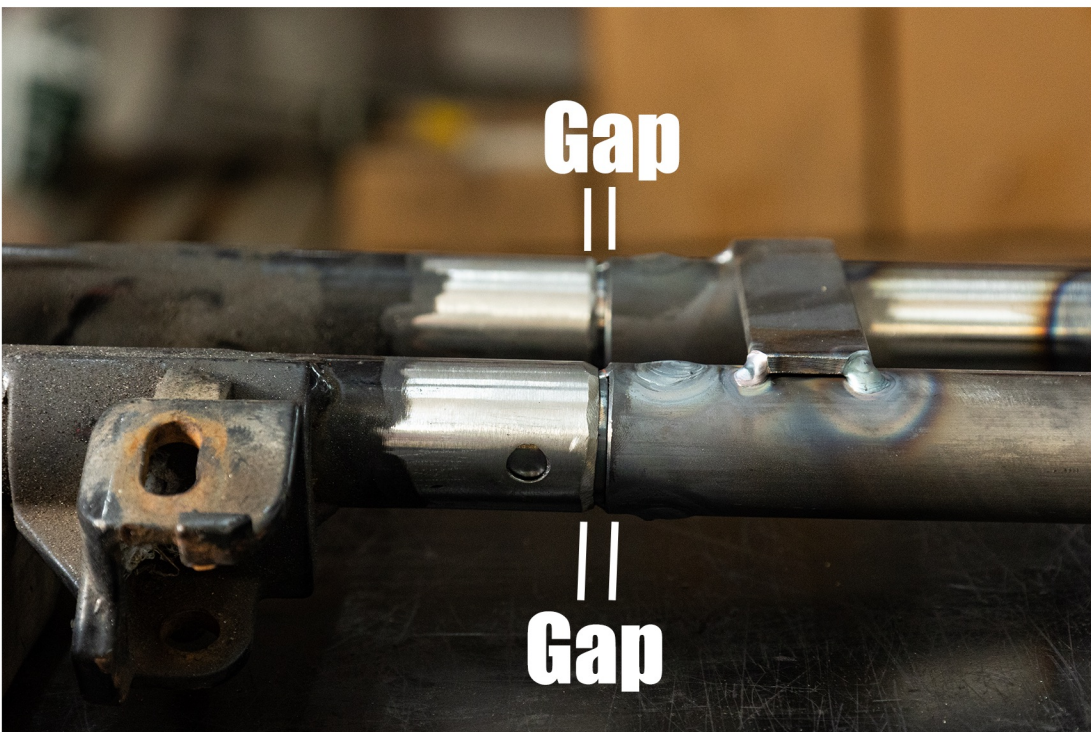




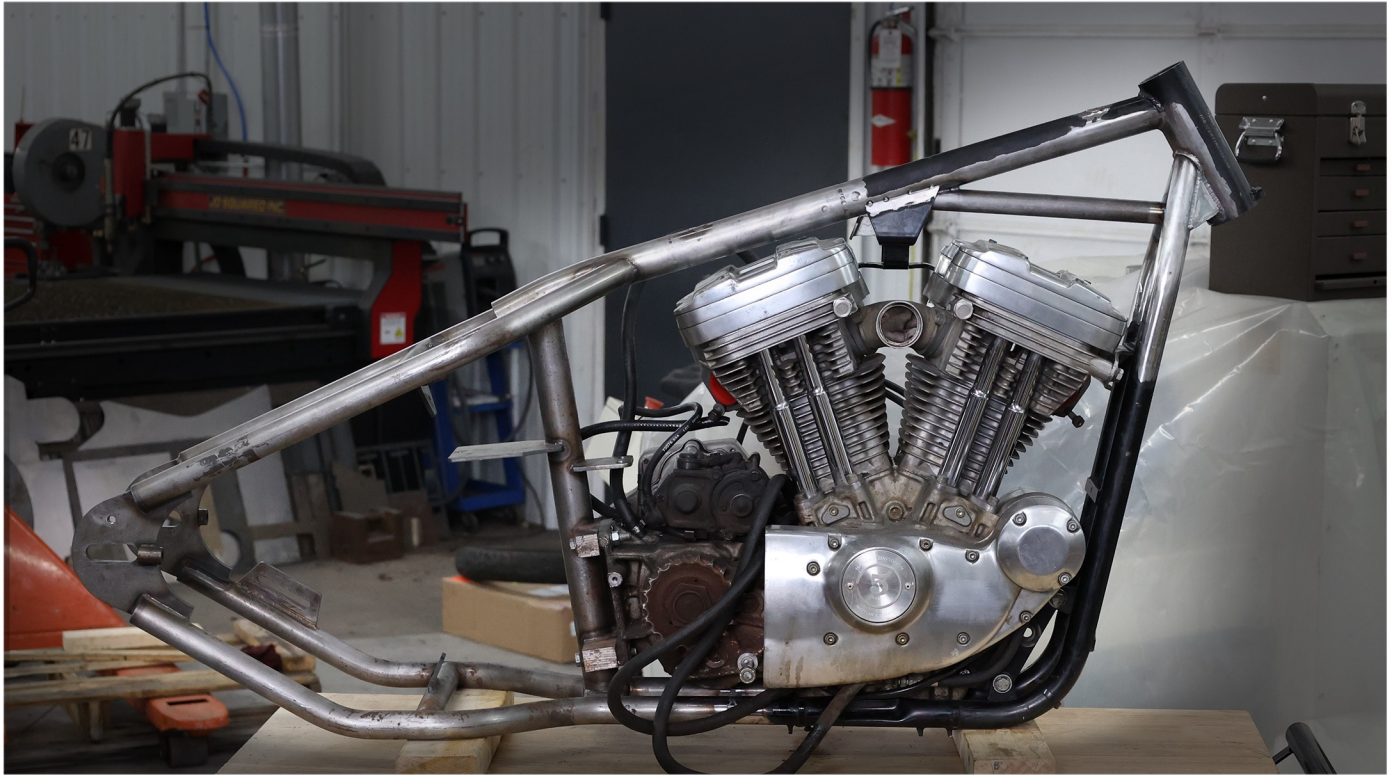
**Insert the hardtail into the  
OEM frame section.  
Ratchet straps may be needed to pull the  
two halves together.**



**Cut off the shipping strap.**



**We ship the hardtail with small tack welds on the slug to keep a small gap between frame and hardtail. This is to ensure your welds penetrate the slug and both sides of the tube.**



- 1. Install the motor into the frame.**
- 2. Tighten rear motor mounts first.  
ENSURE LOWER MOTOR MOUNT  
DOWELLS ARE FULLY SEATED.**
- 3. Install remaining motor mounts  
and hardware loosely**

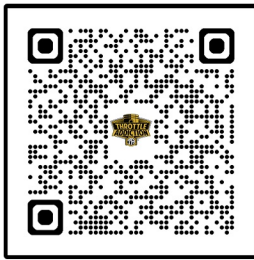


- 1. With a straight edge on the backbone, adjust the backbone gap until straight edge lays flat on the backbone.**
- 2. Go back and tighten all motor mounts**
- 3. Weld top and bottom as much as you can with the motor in, including slug welds.**
- 4. Remove motor and finish welding.**
- 5. Sand to desired smoothness.**



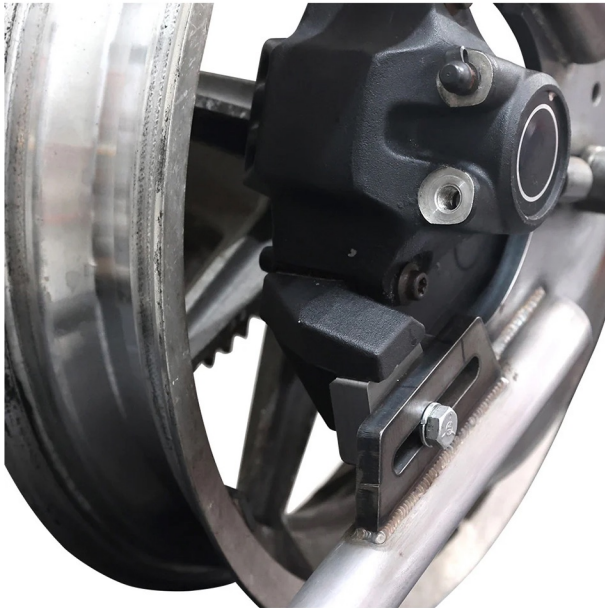
**Additional Assembly  
Resources**

# How to mount OEM brake calipers on the hardtail kit



**Video instructions for brake caliper mount install**  
**Runtime - 11 minutes**

## 1982-1999



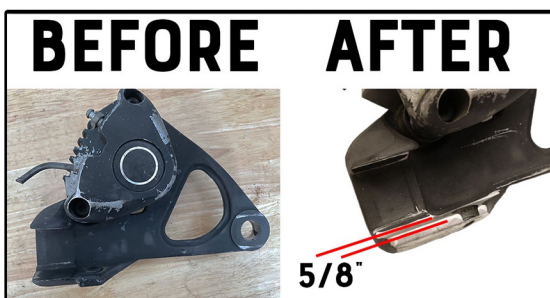
**Caliper modification instructions below**

## 2000-2003

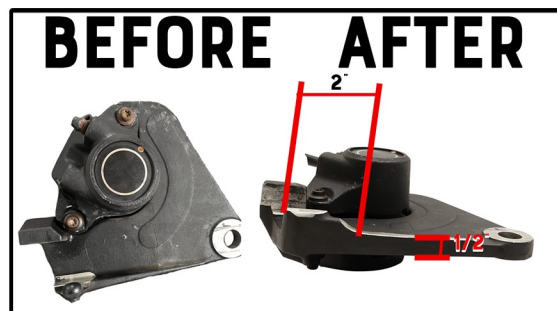


**No caliper modification required**

## 1982-1986



1. Remove rubber bumper
  2. Use a file to open up the channel until the brake stay block slides in
  3. Grind lower web to 5/8" depth
- \*It may be necessary to grind bottom of bracket to reduce contact with frame

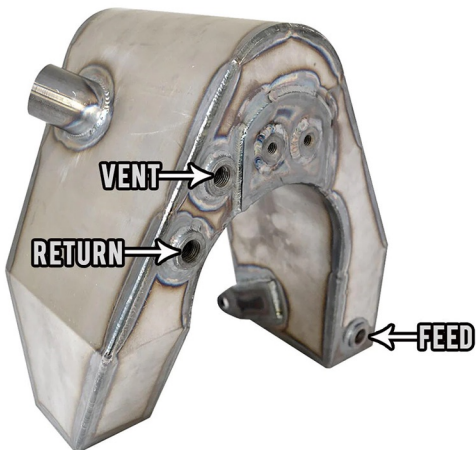
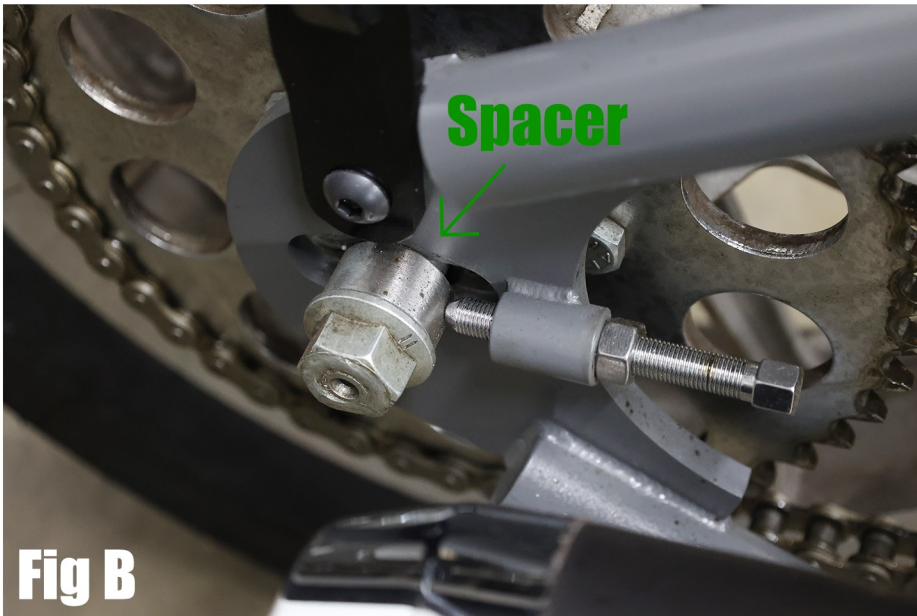
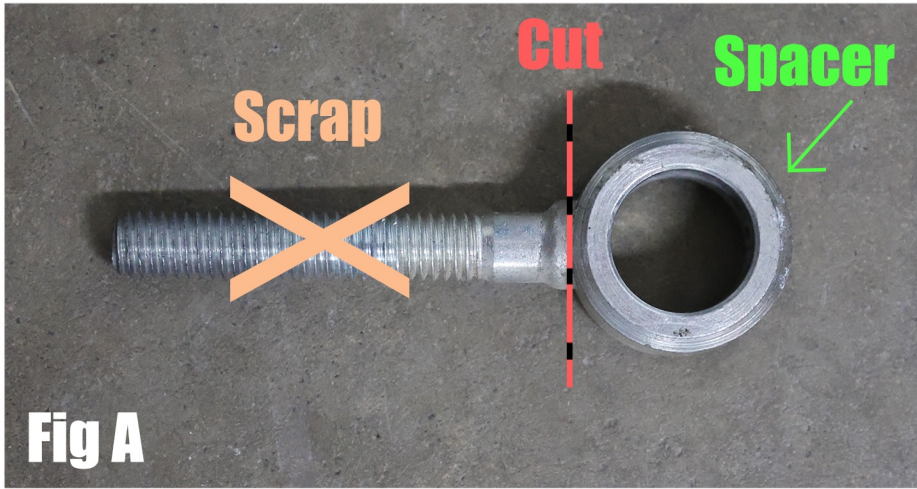


1. Remove rubber bumper and grind off tab
  2. Measure 2" back from end of lower web
  3. Grind lower web to 1/2" thick from mark back
- \*It may be necessary to grind bottom of bracket to reduce contact with frame



**Proper installation of the battery tie down shown above.**

**Cut hoop from stock axle adjuster as shown in Figure A.  
Hoop will be reused as an axle spacer during final assembly. Installation shown in Figure B.**



**Oil line locations**



# HARDWARE LIST FOR THE SPORTSTER HARDTAIL KIT

**KING & QUEEN SEAT MOUNT**  
(1) 5/16"-18 X 1"  
[INCLUDED]

## LEATHER WASHERS

SKU: 2030 - 1" WITH 5/16" CENTER

SKU: 2031 - 1" WITH 3/8" CENTER



**FENDER TO SISSY BAR**  
(2) 5/16"-18 X 3/4"

## OIL TANK MOUNTS

(4) 5/16" 18X 1"

(2) 5/16" 18X NUT

**SISSY BAR MOUNTS**  
(2) 3/8"-16 X 1.25"

## MOTOR MOUNT

(4) 3/8"-24 X 2.5"

(2) 3/8"-24 NUT

**BRAKE STAY**  
(2) 3/8"-16 X .75"  
[INCLUDED]

## FENDER MOUNTS

(2) 3/8"-16 X 1.5"

(2) 3/8"-16 NUT

