

# MODEL A FORD



Installing rivets in the frame and body

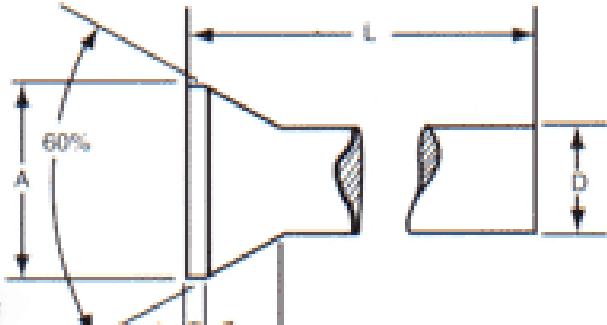
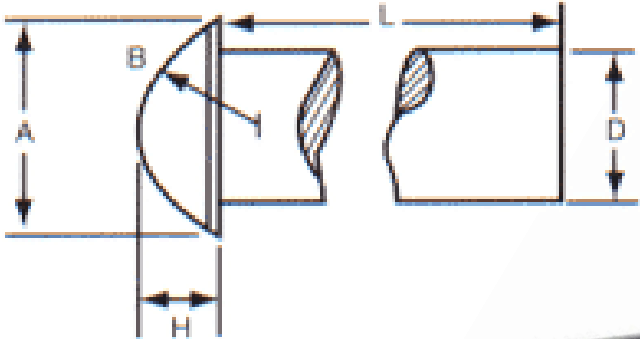
Stan Johnson and Tom Quigley  
George Washington Model A Ford Club

# AVAILABLE RIVETS FOR AUTOMOTIVE USE



**OVAL HEAD**

**COUNTERSUNK HEAD**



**SPLIT RIVETS**



**BLIND POP RIVETS**





# BRATTON'S

## ANTIQUE AUTO PARTS



STANDARD FRONT  
CROSS MEMBER  
RIVETS

Part #: 36640  
\$5.50 /set



OVERSIZED FRONT  
CROSS MEMBER  
RIVETS

Part #: 36641  
\$7.25 /set



RUNNING BOARD  
BRACKET RIVETS

Part #: 36650  
\$5.50 /set



REAR CROSS  
MEMBER RIVETS

Part #: 36660  
\$9.00 /set



RIVETS FOR DATA  
PLATE

Part #: 26770  
\$2.40 /set



DRIVE-IN RIVETS

Part #: 26780  
\$1.50 /set



SUB RAIL EXTENSION  
RIVETS

Part #: 36340  
\$3.25 /set



FLOOR PAN RIVETS

Part #: 36620  
\$2.00 /set



FRAME AND BODY  
CHANNEL RIVETS

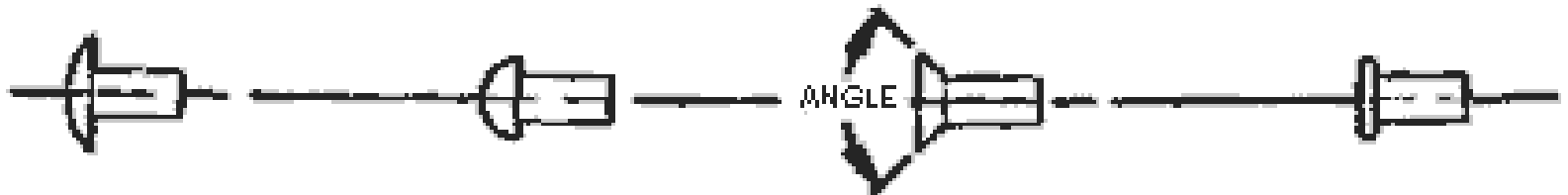
Part #: 36630  
\$2.75 /set

# ANOTHER SOURCE OF RIVETS OF ALL KINDS

**Big Flats Rivet**  
Authentic Rivets for Vintage Cars  
PO Box 100 - Big Flats, NY 14814

**Jim Dix**

BRAZIER HEAD    ROUND HEAD    COUNTERSUNK HEAD    FLAT HEAD



## PNEUMATIC HAMMERS TO COMPRESS AND SHAPE RIVETS



With the proper bit in the tool -

The end of the bit is placed on the end of the rivet  
A bucking bar is placed on the other end of the rivet.  
Pressure is applied to the tool during riveting.

# HAMMER HEADS TO COMPRESS AND SHAPE RIVETS



Various rivets

# THE AIR HAMMER HEAD/TOOL FOR RIVETS



**BRATTON'S**  
ANTIQUÉ AUTO PARTS



[3/16" RIVET TOOL](#)

PART #: 36680

\$19.20 /ea



[1/4" RIVET TOOL](#)

Part #: 36690

\$15.95 /ea



[5/16" RIVET TOOL](#)

Part #: 36700

\$25.60 /ea



[WAFFLE TOOL](#)

Part #: 36710

\$28.90 /ea

## COMMERCIAL AIR POWERED RIVETER & DE-RIVETER







**Rivet Bucking Bar**  
**Item #20139 Brand: Aircraft Tool Supply**

**\$25.99**



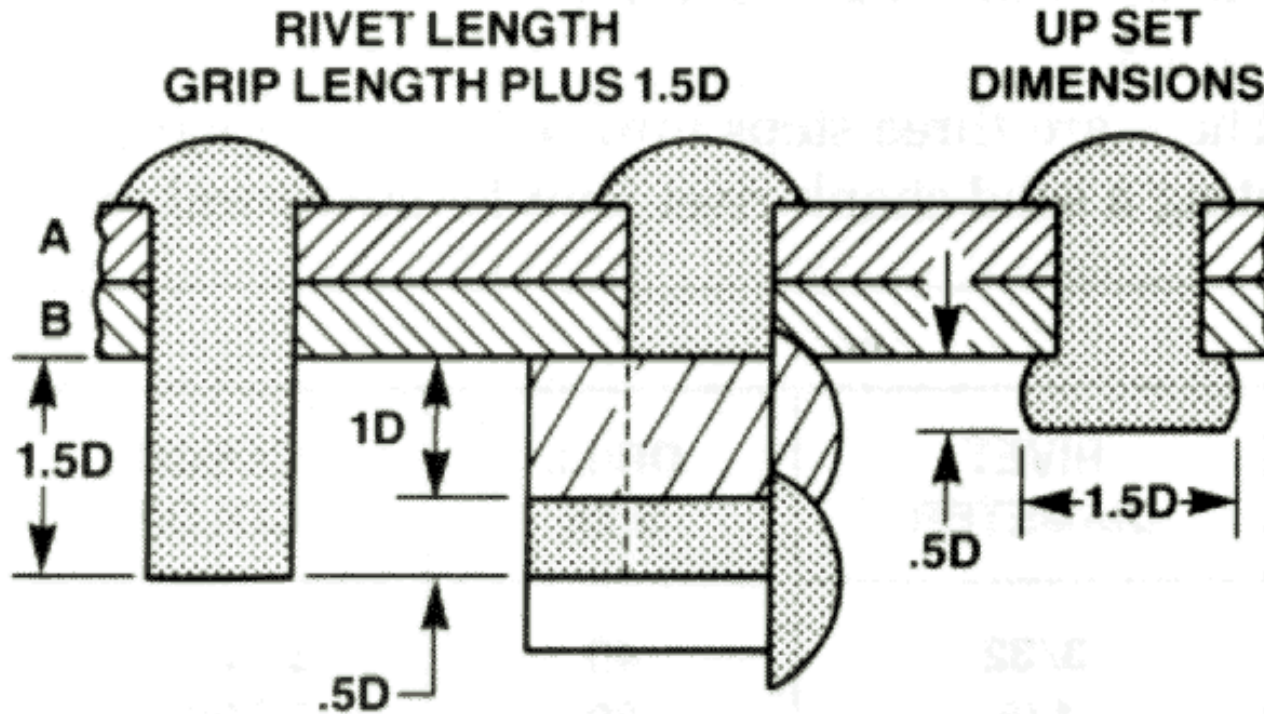
**Aircraft Tool Supply 11PC Bucking Bar 11-Piece Set**  
**Price: \$165.95**



# RIVET CHARACTERISTICS

- Rivets are soft steel
- The diameter of a rivet is the measurement of the body of the rivet, not the head
- Do not confuse a flat head rivet with a countersunk head rivet.
- Ford body rivets were primarily brazier head with some round head in non-visible locations.
- When sizing the length of a rivet; add the thickness of the metal to be joined, then add 1 1/2 times the diameter of the rivet to the length to allow sufficient metal to form a regular round head.

# RIVET SIZE CALCULATIONS

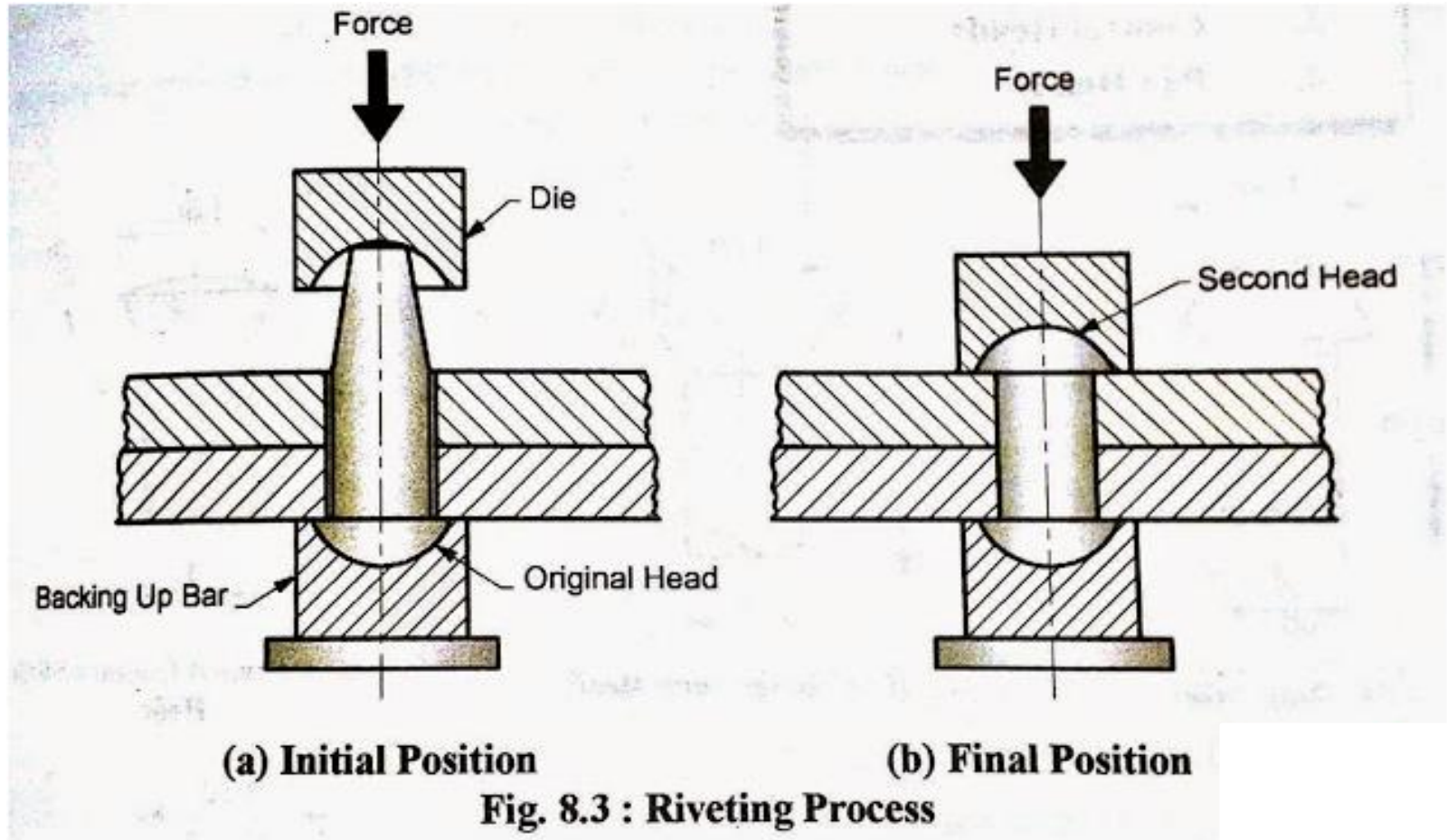


**A RIVET IS DRIVEN 1.5D WIDE AND .5D HIGH.  
IT MUST EXTEND THROUGH THE GRIP LENGTH  
PLUS 1.5 DIA. A + B EQUALS GRIP LENGTH.**

# RIVET INSTALLATION GUIDELINES

- Body rivets are usually installed cold with a "waffle" tool.
- Frame rivets are installed hot. Waffle tools are not used on frame rivets.
- If a rivet is too long, cut it with a saw, if you grind it and quench it. It will harden and you won't be able to install it properly.
- It is a good idea to anneal a solid rivet before you start working with it.
  - If the rivet is dirty and flakey it was probably factory annealed.
  - If it's shiny and bright it was not. Heat it up red hot and let it cool, it'll be easier to work. Don't quench it.
- Air Pressure: When you are setting either a round head rivet or a semi tubular rivet or a rivet with a waffle tool, start with the air pressure set at about 40 psi.
  - If you need to add more pressure you can, but more is not always better!
- Rivet diameters: rivets will expand slightly when installed.
  - If the hole is more than 1/32 larger than the rivet to be used, the hole should be
    - welded and redrilled or
    - a larger rivet should be used.
- Do not quench an air tool or bucking bar in water to cool it off! Allow it to air cool.

# CREATING THE NEW RIVET HEAD



Rusty Nelson's (Lakeville, MN) riveting setup when no helper is available



# MODEL A BODY ASSEMBLED WITH RIVETS



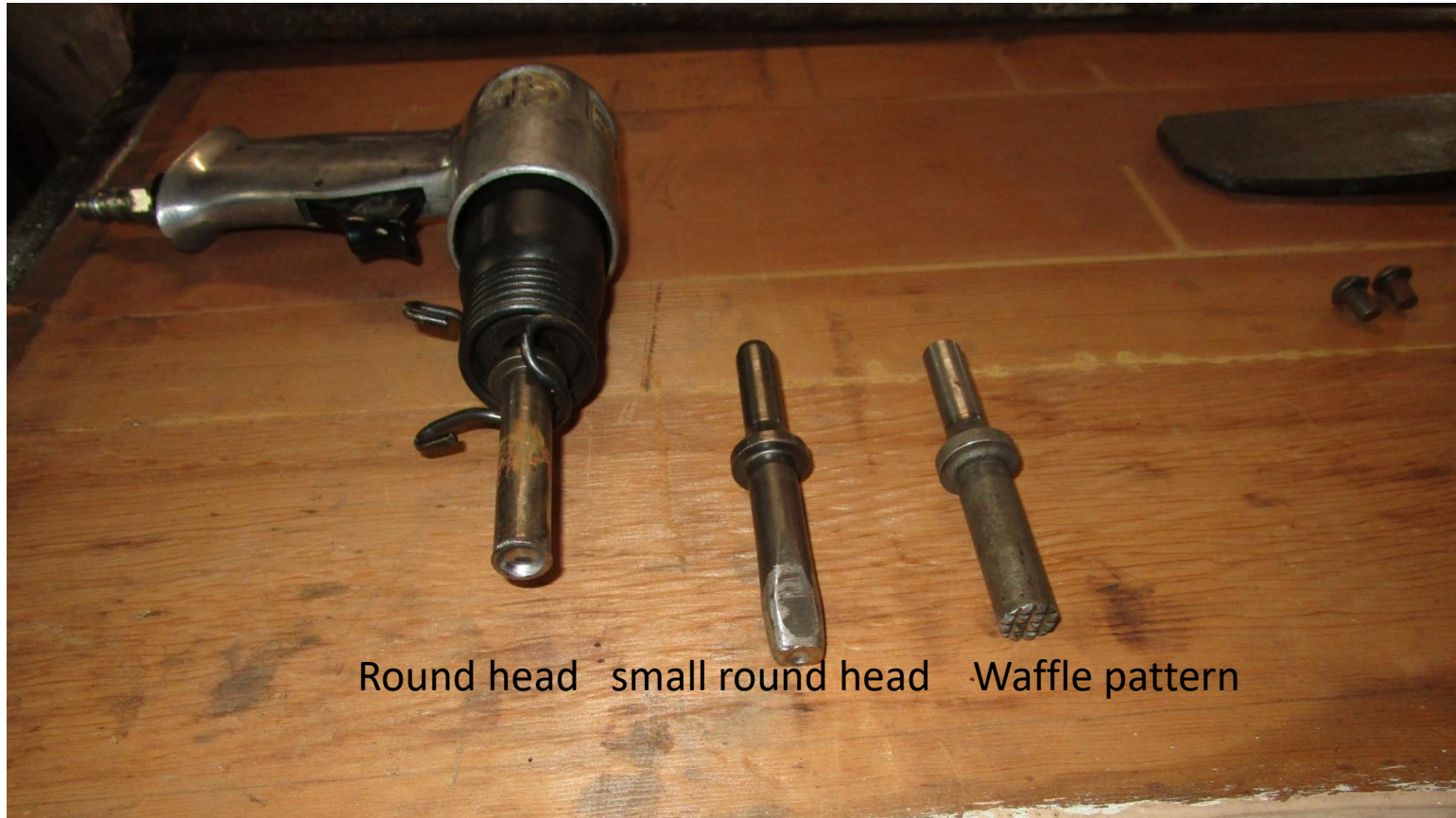
Rivets holding the firewall to the body rails



## HOME-MADE BUCKING BARS



# AIR HAMMER WITH RIVET HEAD TOOLS



Round head   small round head   Waffle pattern

## TYPICAL RIVETS FOR USE IN MODEL A FORD



## CLOSE-UP VIEW OF BUCKING BAR RIVET SUPPORT CAVITIES



Riveting body metal

## JOINING SHEET METAL WITH RIVETS



Set up using two old body panels



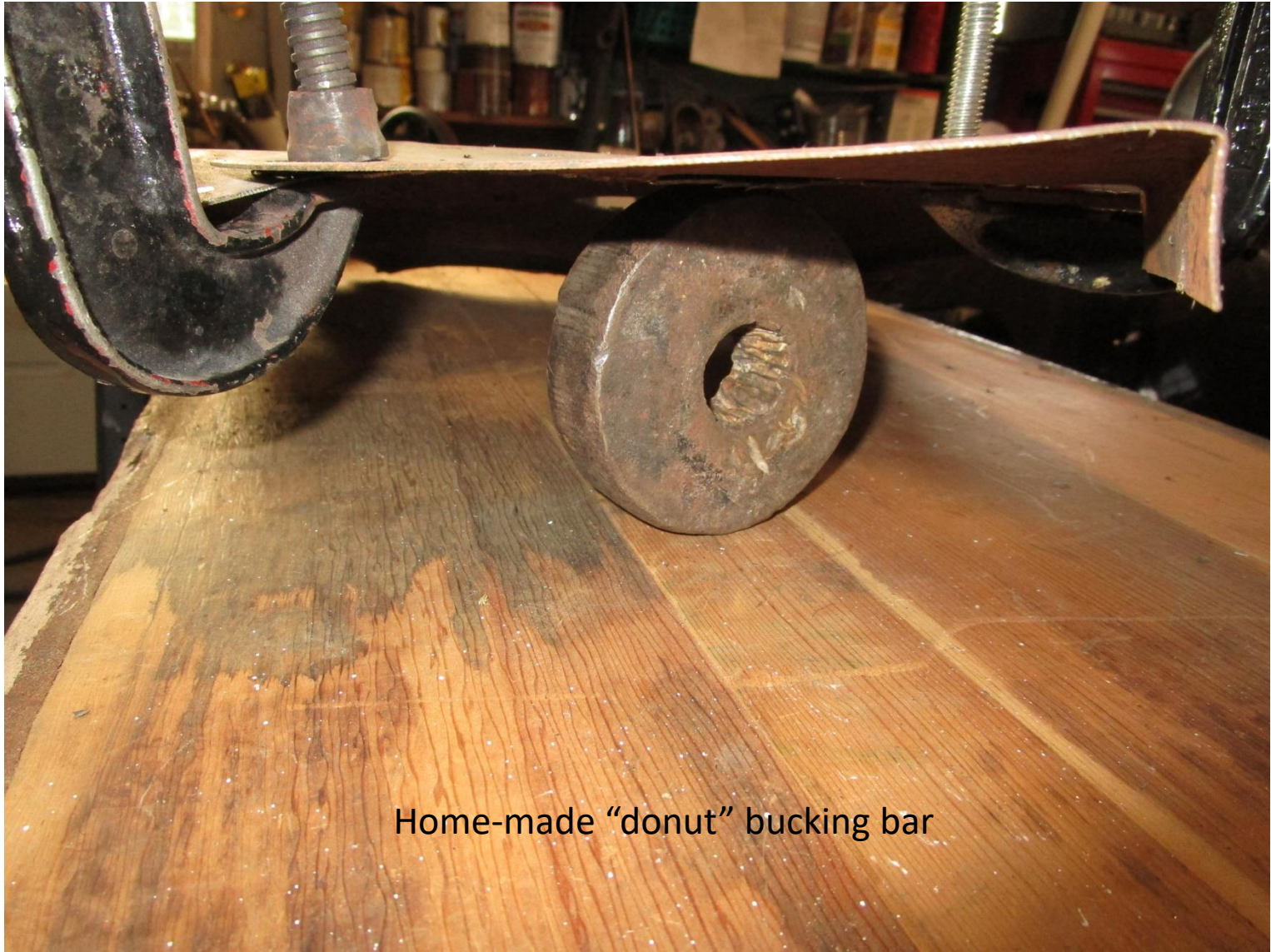
Drill proper size holes for rivets







Insert rivets and support with bucking bar

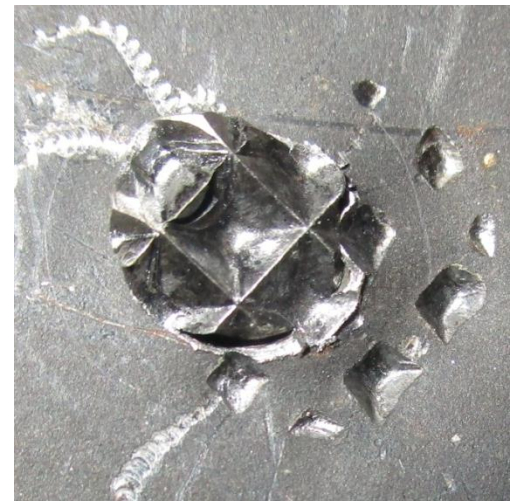


Home-made "donut" bucking bar



Results from the head side

Results from hammer side (excessive air pressure)



# **JOINING THICK METAL FRAME COMPONENTS**

# BOLT-HEAD BUCKING BAR SUPPORTS BOTTOM OF RIVET

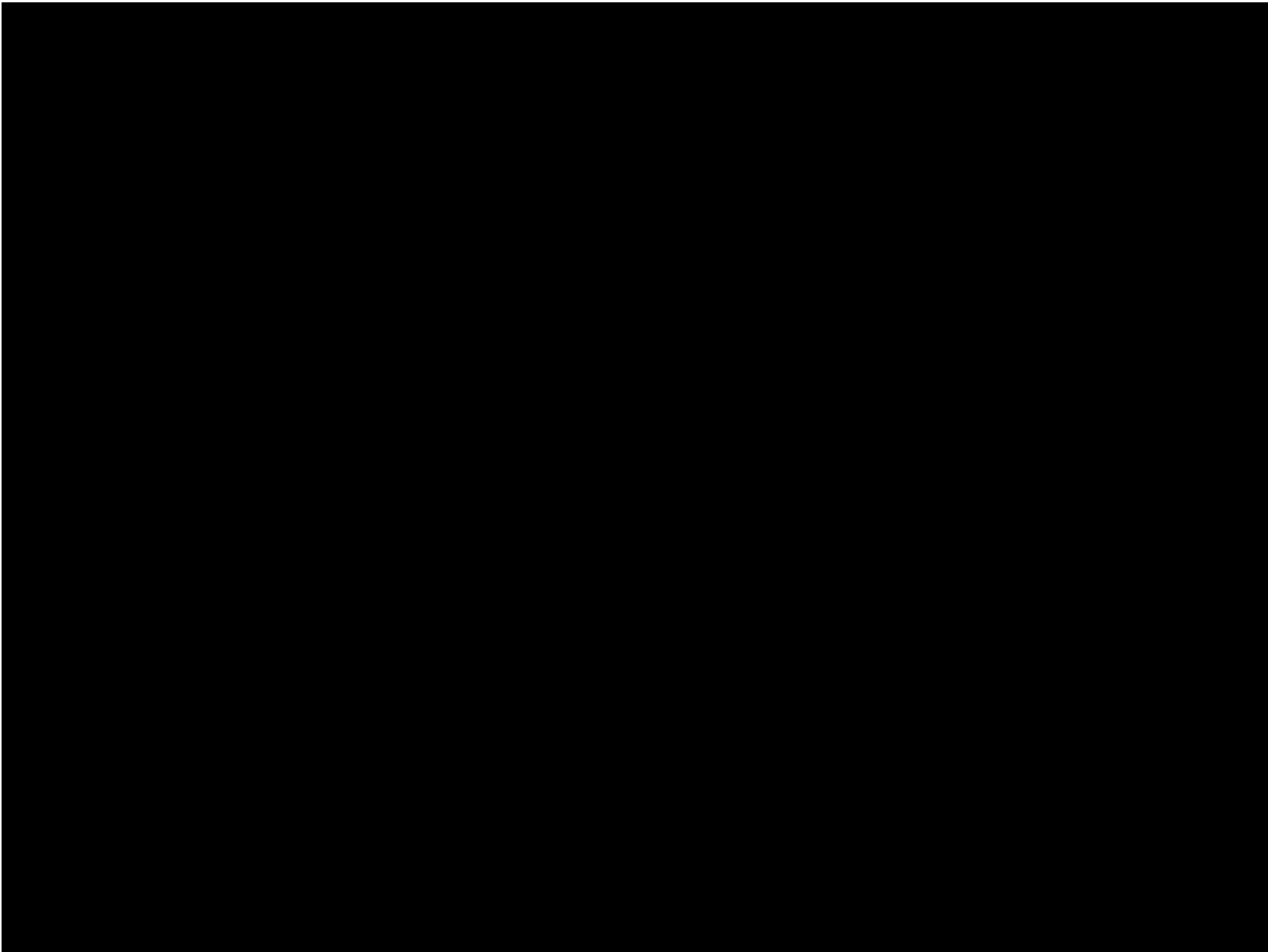


# SHANK OF RIVET PROTRUDES ABOVE FRAME



# **VIDEO OF HOT RIVETTING**





# SHANK OF HOT RIVET MOLDED INTO A SMOOTH HEAD

