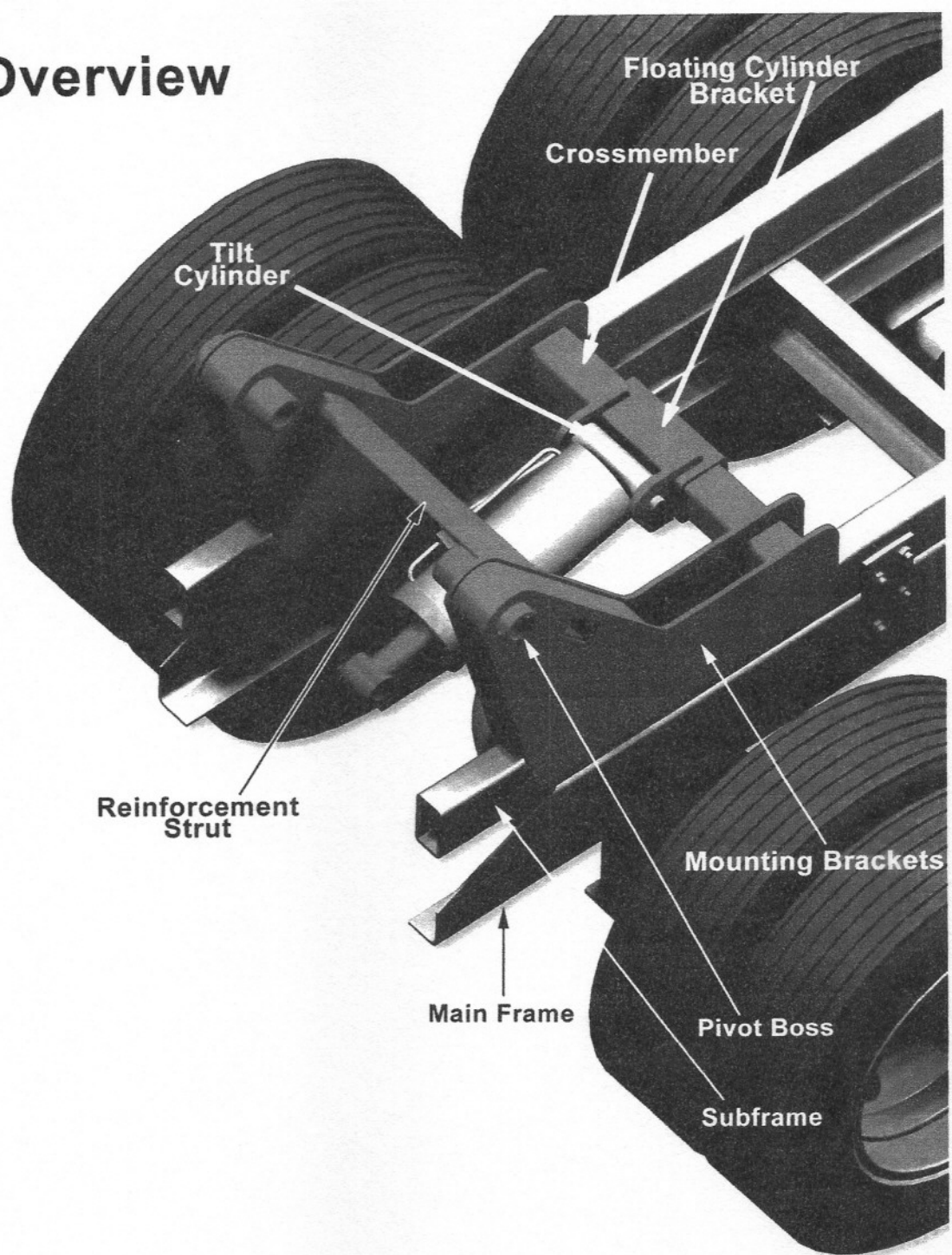


Installation Overview



- A. Ideal installation of a Zacklift is as close to the rear axle as possible. Be sure to allow enough room for clearances.
- B. The factory advises that all chassis have a subframe in addition to a mainframe, an inadequate subframe should be replaced with at least 4" x 6" x 3/8" rectangular steel tubing.
- C. If your truck frame is aluminum all attachments must be bolted. Make sure all bolts are of adequate strength.
- D. Before installation of your Zacklift you will need to box the mainframe and subframe of your truck.
- E. Tack-weld or bolt all mounting parts temporarily (to check for proper function and clearance) before final welding or bolting.
- F. It is advised to work on solid level ground during the entire installation. Make sure the truck frame and or wrecker body is level before starting installation.

Mounting Subframe to existing frame.

Factory recommends Subframe be assembled from 4 x 6 x 3/8" rectangular tubing or material of equal strength.

Subframe should extend the entire length from rear to most forward point behind cab.

4" wide section is positioned on truck frame.

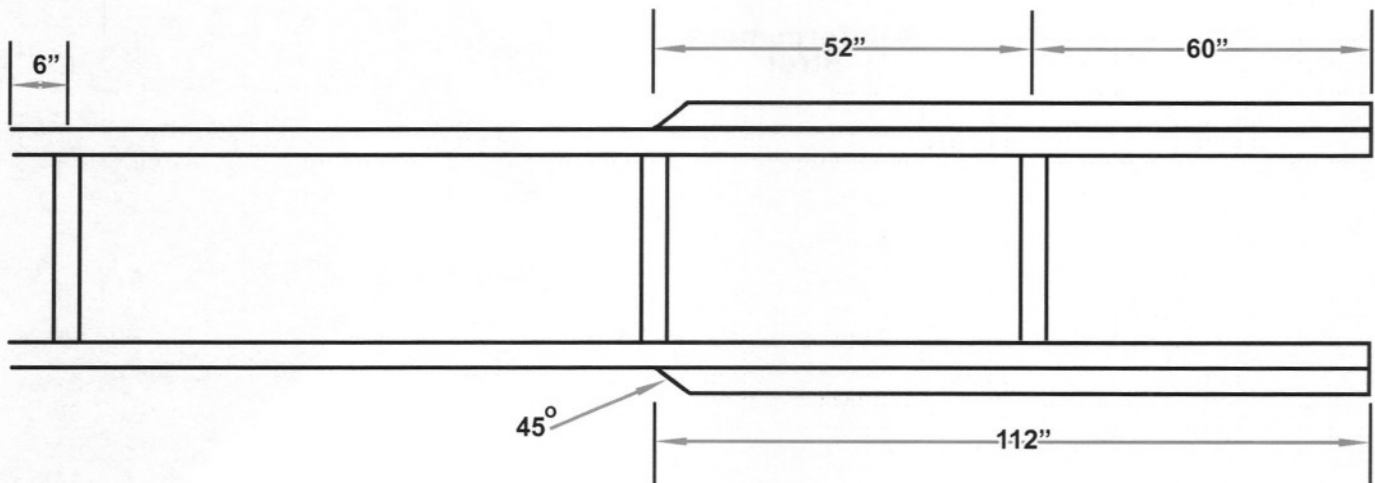
6" section extends above.

Measure length of existing frame rail and cut two, 4 x 6 x 3/8 tubes to length

Additionally, 4 x 6 x 3/8" tube will be used for 3 cross member sections and for the outside reinforcing section which extends beyond springs.

Construction of the Subframe can best be accomplished on a stable flat work area.

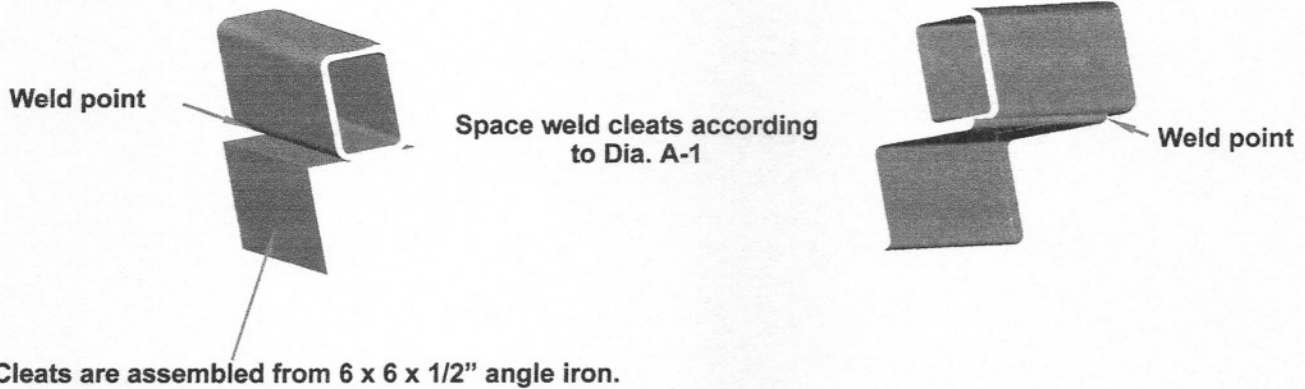
Check carefully for levelness.



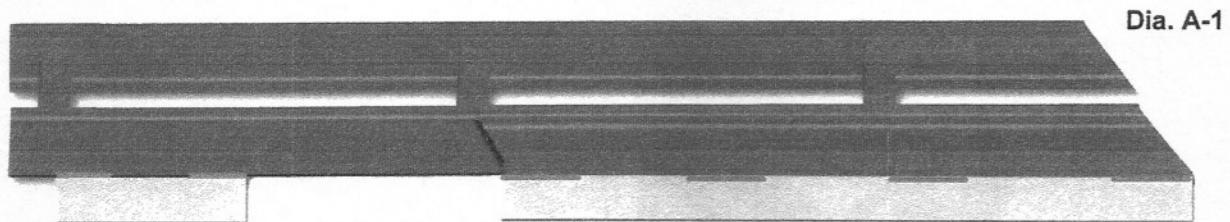
Ideal installation of the Zacklift is as close to the rear axle as possible. Frame may be shortened to the end of rear tires. Subframe length is dependant on measurement from end of frame to forward end behind cab. Subframe rail spacing is the same as truck rails, usually 26" inside.

The first of three cross members is positioned at the bogie point, approximately 60" forward of end. The second rear cross member is positioned approximately 52" forward of center point of first cross member, beyond forward tandem axle point, aligning approximately with front of tire. The third cross member is positioned 6" to center from forward end of Subframe rails.

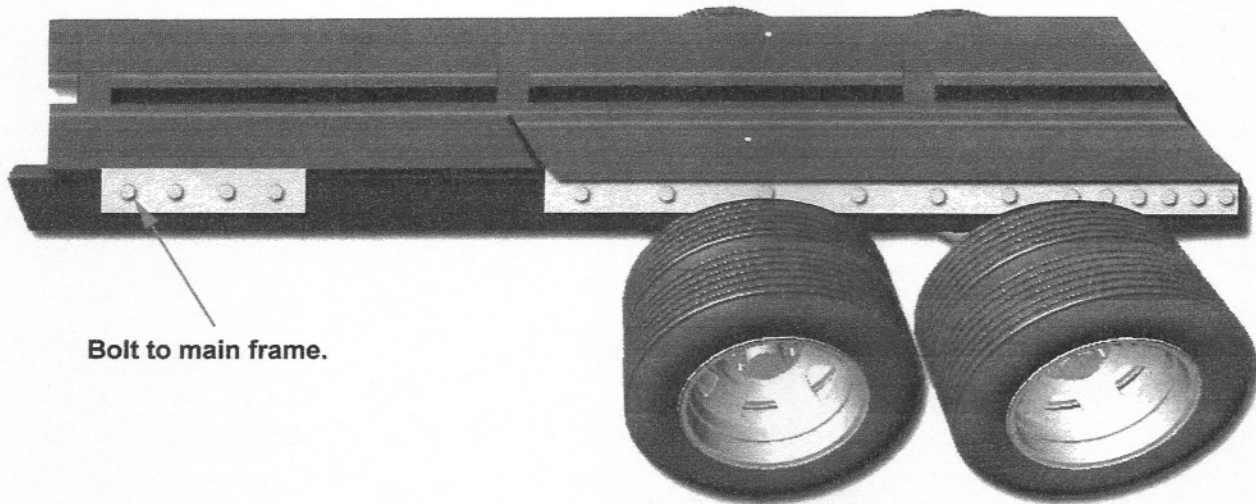
Mounting Subframe to existing frame.



Two sections of cleats are required on each side. Angle iron cleats extend 118" from rear to 6" beyond outer reinforcing section. A second section of cleats is 40" long and is installed 8" from end (cab) of subframe. Position under subframe, as shown.



Weld cleat to subframe with space-weld pattern of 4" weld, 8" gap to allow for frame flex. Weld both upper and lower angle side.

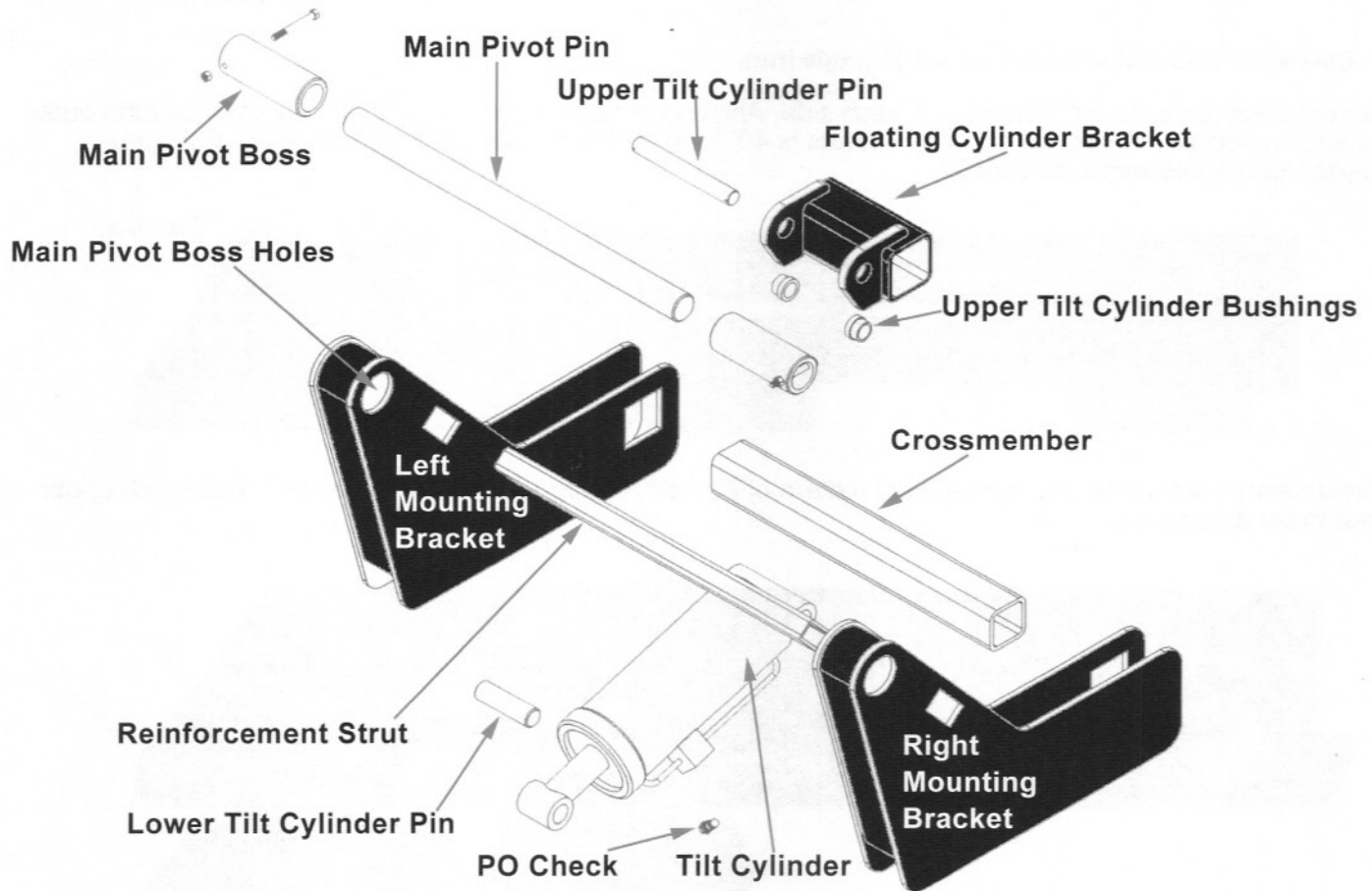


Outer reinforcing section is constructed from same 4 x 6 x 3/8" x 112" material and extends from end of subframe to center of 2nd cross member. It is positioned level with subframe. Cut at 45 degree angle, at forward end, as shown. Weld reinforcing sections to angle iron cleats with same space-weld pattern.

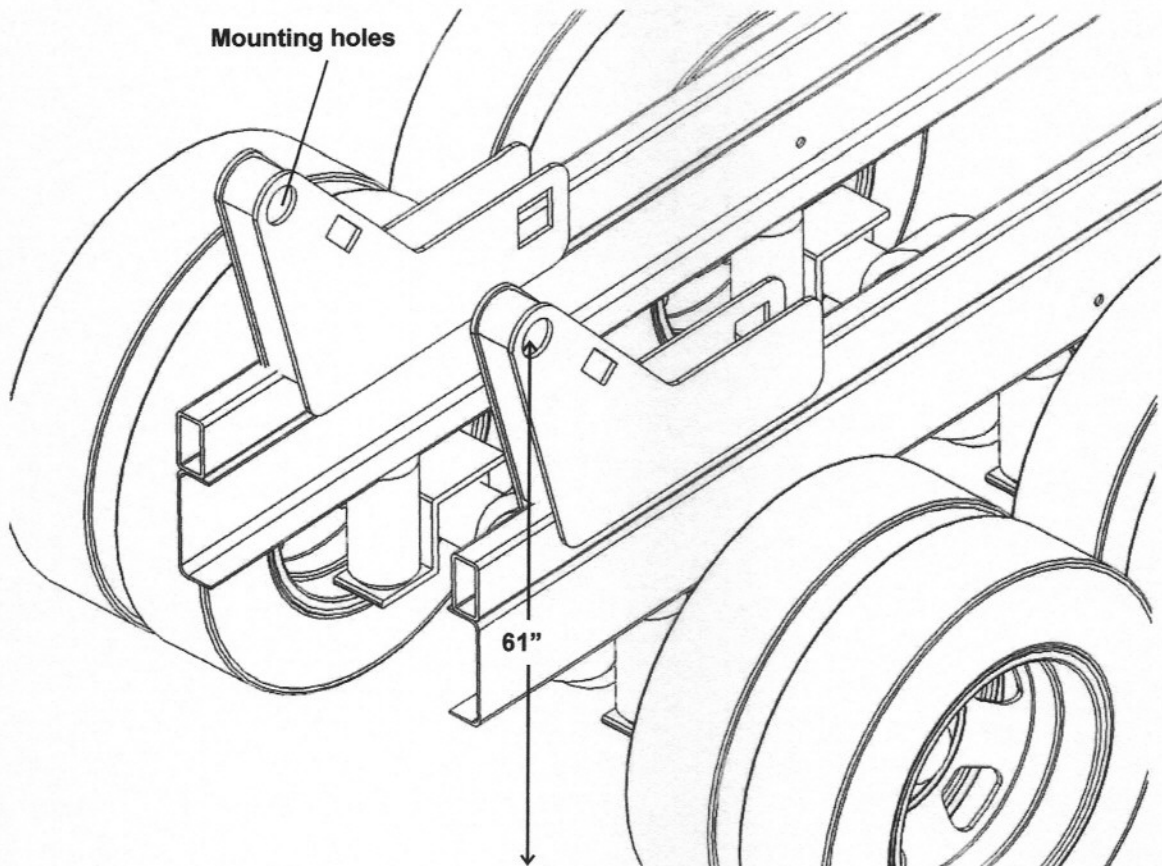
As much as possible, cleats are match drilled or matched punched to truck bolts or existing holes of frame rails. Notch cleats to avoid any manufacturer's brackets. A minimum of 6 bolts per side are necessary in the rear most 18" of subframe. Be sure all bolts are of adequate hardness. Continue installation of Zacklift mounting brackets.

Mounting System

1. The mounting system is made up of six main components, two mounting brackets one left one right, the reinforcement strut, the tilt cylinder crossmember, the crossmember gussets, and the main pivot bosses.



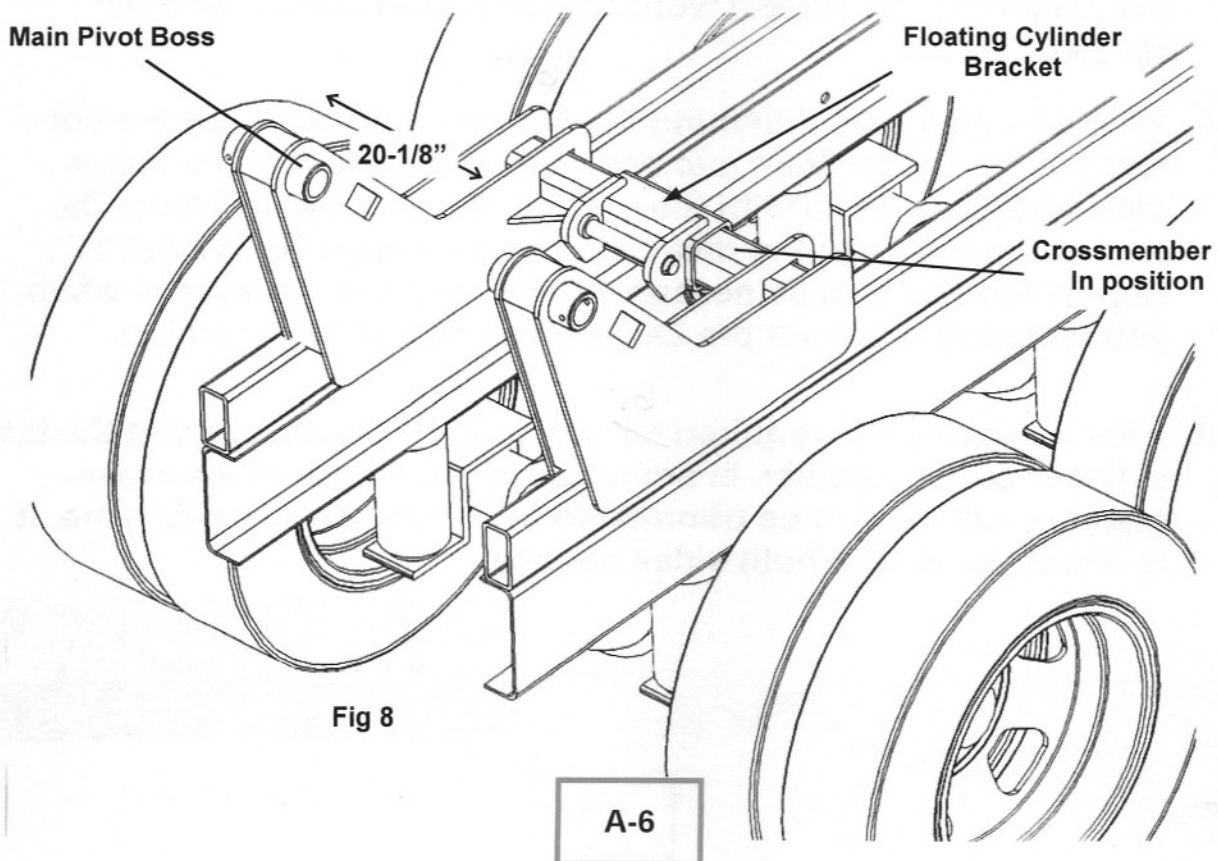
2. Install the first mounting bracket by sliding the bracket over the subframe. The inside plate of the bracket should slide down the inside of the subframe like a saddle. In some cases the space between the plates is too wide and must be shimmed by using various thickness of sheet metal to increase the width of the subframe (not provided). It may be necessary to trim mounting brackets to avoid obstruction. Always trim as little as possible to allow as much "saddle" to remain as possible. It may be necessary to trim the web between the plates of the mounting brackets so as to slip brackets over frame & achieve correct mounting height. Always trim as little as possible.



3. The object of trimming the mounting brackets is to put the center of the main pivot point exactly 61" from ground level. This puts the Zacklift at the correct working height and allows for a full range of motion.
4. After trimming and shimming the mounting brackets for the correct height, clamp them into position. The bottom of the inside plate should be level with the ground and the distance from the rear axle housing to the main pivot point should be at least 11". Reposition and trim as necessary. Recheck the clearances when you temporarily mount the Zacklift and before final welding.
5. After achieving the required 61" pin height, position and fit the tilt cylinder cross member. In some cases the length of the cross-member will have to be trimmed to fit in between the subframe. It is important to trim both sides equally.

IMPORTANT!!!
Check all clearances before final welding!!

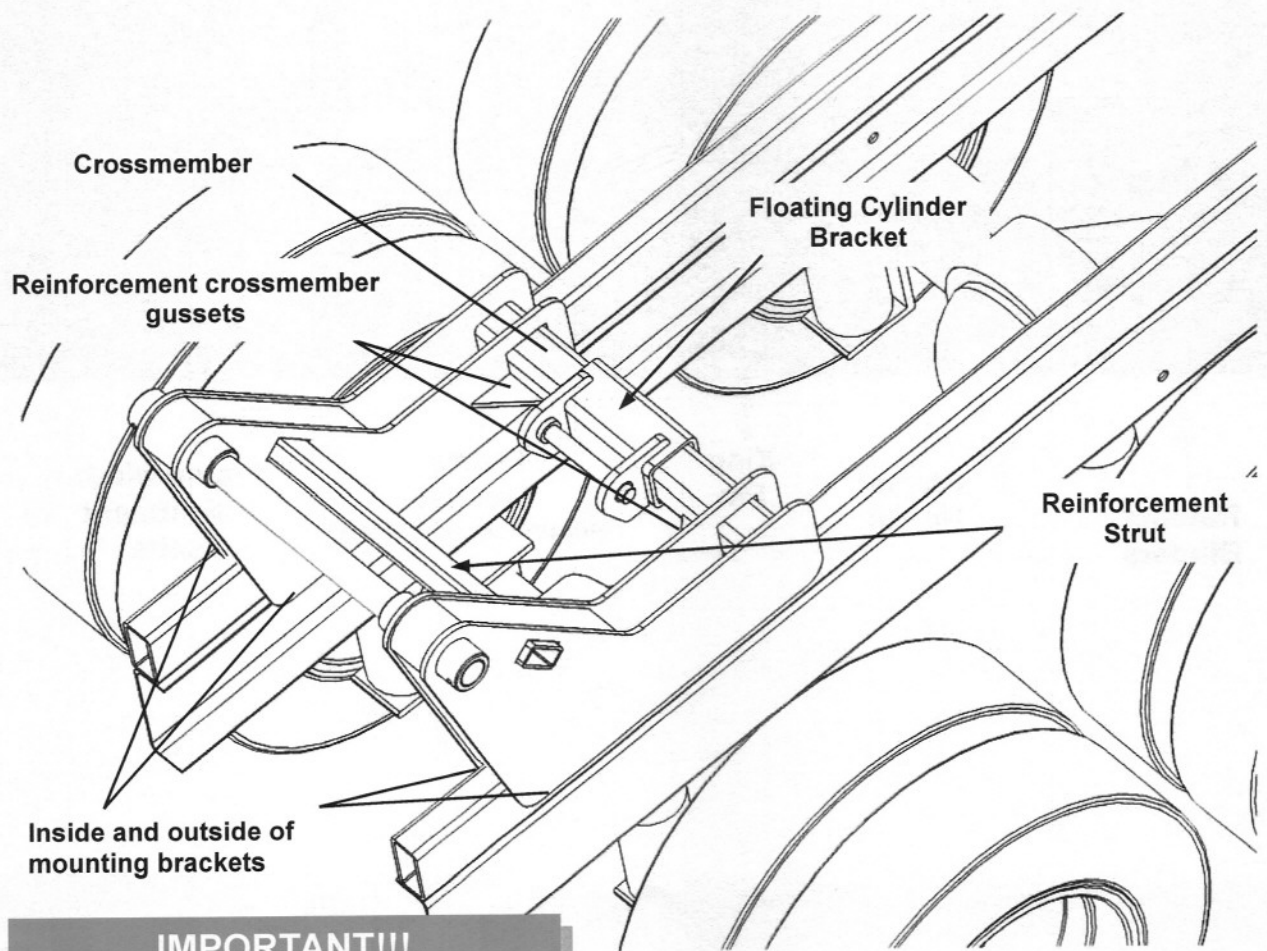
6. In some cases it may be necessary to remove and reposition one or both of the mounting brackets to install the crossmember into the mounting holes. Once the crossmember is in position and the mounting brackets are in place, tack weld the crossmember and mounting brackets to the subframe. Be sure the mounting brackets are secure enough to hold the weight of the Zacklift for temporary mounting.
7. Floating cylinder bracket must not be welded to crossmember. Welding floating cylinder bracket may result in damage to tilt cylinder.
8. Position the main pivot bosses in the mounting bracket pivot holes using the main pivot pin for alignment. There must be 20-1/8" between pivot bosses and they must be centered. Carefully tack weld them in place securely enough to temporarily hold the weight of the Zacklift.
9. Position the reinforcement strut in position on the mounting brackets. Trim to length and tack weld until final welding and assembly.



10. Temporarily mount the Zacklift and the tilt cylinder to the mounting brackets and crossmember. Check for proper clearances. Pay close attention to where the Zacklift is in relation to the rear axle housing, allowing for spring deflection, and where the hydraulic fittings will be located on the outer horizontal. You may want to do more trimming of the tailboard at this time.

11. Remove the Zacklift from the mountings and complete the final welding of the mounting brackets, crossmember, to frame (Not Floating Cylinder Bracket) reinforcement strut. When welding in the main pivot bosses you must keep them aligned. It is helpful to keep the pivot pin in place during this process

12. The crossmember must be securely welded into place. This is critical to support the weight of the vehicle in tow on the crossmember.



IMPORTANT!!!
Do not weld floating cylinder bracket to crossmember!!

