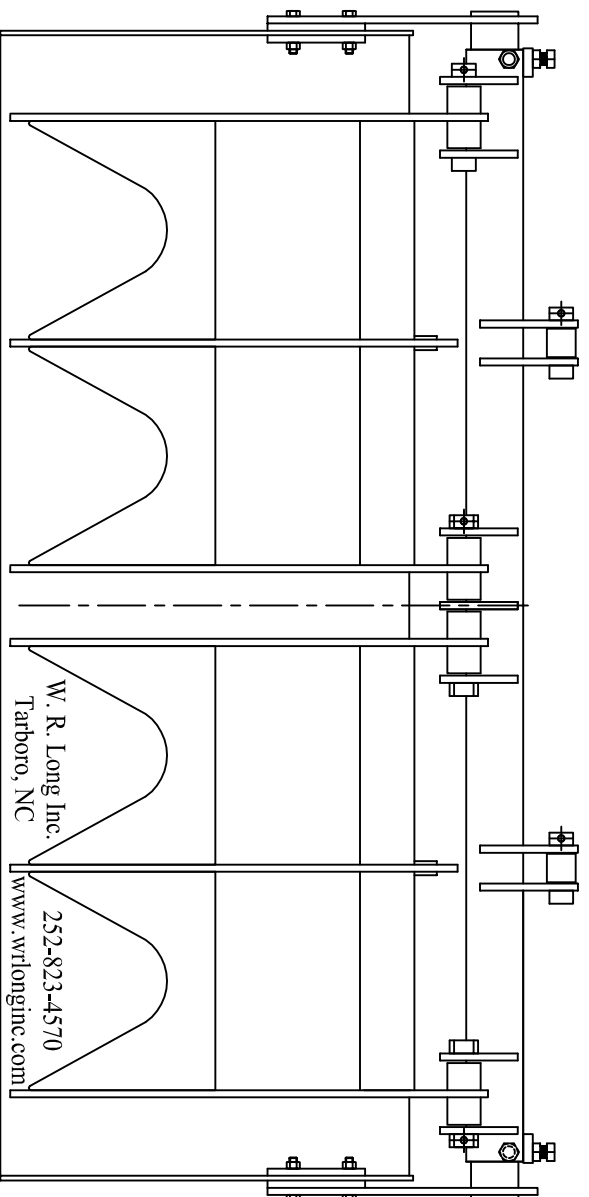


W. R. Long Bolt On Grapple Installation Instructions

The Bolt On Grapple is designed to be a universal type attachment so that it will fit may different size buckets. The Dual bolt on grapple is designed to fit buckets with widths from 60" to 72" and the Single bolt on grapple is designed to fit buckets with widths from 48" to 60".

- 1.) Slide the mounting brackets into each end of the bolt on grapple. The mounting bracket is offset so that it can be moved to the opposite side to better fit your bucket if necessary.
- 2.) Some buckets either have a dimple on the end plate or an additional stiffener on the front edge of the bucket. If your bucket has the dimple or stiffener then use the spacer plate provided between the bolt on grapple mounting bracket and your bucket end plate. A portion of the spacer plate may need to be cut off to fit your bucket.
- 3.) Using a clamp attach the bolt on grapple by locating the bottom hole of the end bracket so that it is 15" from the front cutting edge of the bucket and also 15" from the bottom of the bucket as indicated in the drawing below.
- 4.) Extend the cylinders of the bolt on grapple all the way manually. DO NOT ATTACH the hydraulics to the bolt on grapple until it is completely installed.
- 5.) Rotate the Bolt On Grapple, while keeping the 15" and 15" dimension so that the bottom of the tines are approximately 1" from the bottom of the bucket as shown in the drawing below.
- 6.) Using the four holes on the bracket as a template mark your bucket so that you will know where to drill the four holes on each end plate. Remove the clamp and bolt on grapple. Drill four $\frac{17}{32}$ " diameter holes as marked in each end plate.
- 7.) Using the bolts, nuts, and washers provided with your bolt on grapple install the grapple as shown. The backing plate is used to give additional strength to the end plate of your bucket.
- 8.) Center the bolt on grapple left to right on your bucket and tighten the four $\frac{5}{8}$ "-11 bolts and then tighten the 4 nuts to lock the bolts into position.



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