

# RESISTANCE WELDING ELECTRODE MAINTENANCE



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This Chart shows graphically the importance of Electrode maintenance. This is not only important from the quality of the weld, which is of first importance, also extra load added to the welding machine and equipment. Read the data on the chart, you can then draw your own conclusions.

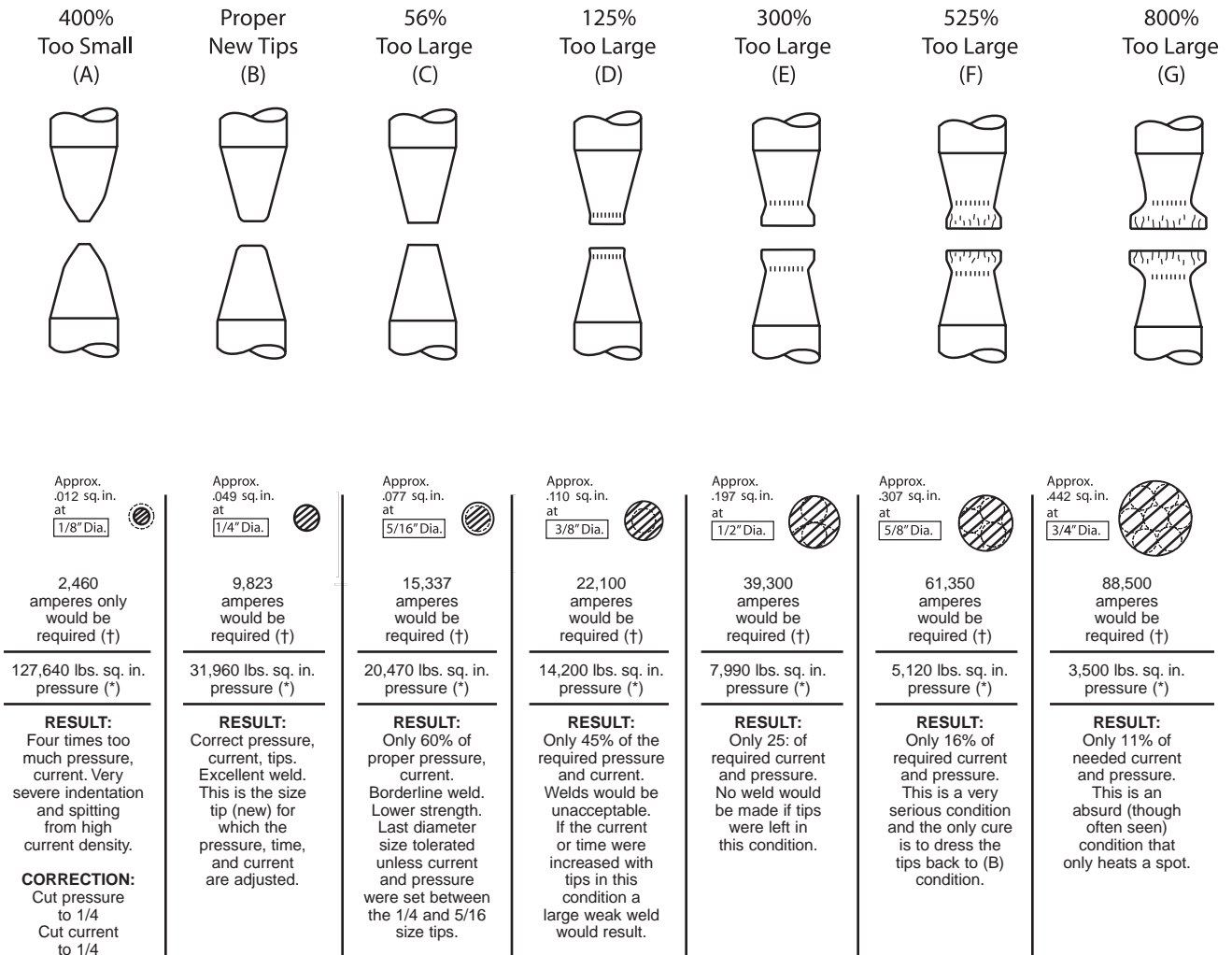
## YOU CAN'T AFFORD TO NEGLECT YOUR ELECTRODES!

Keep your Electrodes dressed for maximum production and quality welds.

## A TIP DRESSER WILL PAY DIVIDENDS!

We can supply you with hand operated Tip Dressers or Pneumatic Power Driven Dressers. Design or type will depend on your production requirements. Pages 66 & 67.

## RESISTANCE WELDING



(†) Current density required for this gage to be 200,000 amps per sq. in. Setting is 9,900 amps for condition (B)

(\*) Five inch diameter air cylinder A 80 lbs. air pressure—1570 lbs. on ram.

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## DO'S AND DON'TS FOR RESISTANCE WELDING ELECTRODES

DO'S	DON'TS
<ol style="list-style-type: none"> <li>1. Use the proper electrode material for the job you are doing.</li> <li>2. Use standard electrodes wherever possible.</li> <li>3. Use the most suitable tip diameter for the thickness of stock being welded.</li> <li>4. Use open sight drains to observe more readily the water flow through the holders.</li> <li>5. Connect the water inlet hose to the proper holder inlet so that the water flows through the center cooling tube first.</li> <li>6. Internally cool the spot welding tips with cool water flowing at a rate of at least 1/2 gallon per minute through each tip.</li> <li>7. Be sure the internal water cooling tube of the holder projects into the tip water hole to within 1/4" of the tip hole bottom.</li> <li>8. Adjust the internal water cooling tube of the holder to the proper height when changing to a different length tip.</li> <li>9. Be sure top of adjustable water cooling tube in holders is cut at an angle so as to avoid jamming tip down and shutting water off.</li> <li>10. Place a thin film of cup grease on the tip taper prior to inserting in the holder, to make it easier to remove.</li> <li>11. Use ejector type holders for easy removal of tips and to avoid damage to tip tapers.</li> <li>12. Keep the tip taper and holder taper clean, smooth and free of foreign deposits.</li> <li>13. Dress spot welding electrodes frequently to maintain the quality of the welds.</li> <li>14. Dress electrodes in a lathe to their original contour whenever possible.</li> <li>15. Use a rawhide or rubber mallet for striking holder or tips in aligning operations.</li> <li>16. Provide flood cooling on both sides of the seam welding wheel.</li> <li>17. Use properly designed knurling wheels to maintain proper seam welding wheel shape.</li> </ol>	<ol style="list-style-type: none"> <li>1. Never use unidentified electrodes or electrode materials.</li> <li>2. Avoid special, offset or irregular tips when the job can be done with a standard straight tip.</li> <li>3. Don't use small tips on heavy gauge welding jobs or large tips on small work.</li> <li>4. Don't forget to turn on the cooling water full force before starting to weld.</li> <li>5. Never use water hose that will not fit the holder water connection nipples snugly.</li> <li>6. Do not allow water connections to become leaky, clogged or broken.</li> <li>7. Avoid using holders with leaking or deformed tapers.</li> <li>8. Never use electrode holders that do not have an adjustable internal water cooling tube.</li> <li>9. Do not permit adjustable water tube to be "frozen" by accumulation of deposits. A few drops of oil periodically will keep the tube free.</li> <li>10. Do not allow electrodes to remain idle in tapered holder seats for extended periods.</li> <li>11. Don't use pipe wrenches or similar tools in removing electrodes.</li> <li>12. Avoid using white lead or similar compounds to seal a leaking taper.</li> <li>13. Never permit a spot welding tip to mushroom enough to make dressing difficult.</li> <li>14. Never dress electrodes with a coarse file.</li> <li>15. Don't pound on the holder or tip with a steel hammer in aligning the welder arms.</li> <li>16. Avoid the use of seam welder wheels too thin to stand the heat or pressure of your job.</li> <li>17. Do not permit seam welding wheel to run off the corners of the work being welded.</li> </ol>