



DATA SHEET

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1. The **WHEEL PULLER** allows axle shafts to be pressed from wheels mounted on them. It can also be used for making adjustments of wheel gauge in those situations where the wheel is separate to the axle. In addition to this it can be used where items pass through a plate shaped article.

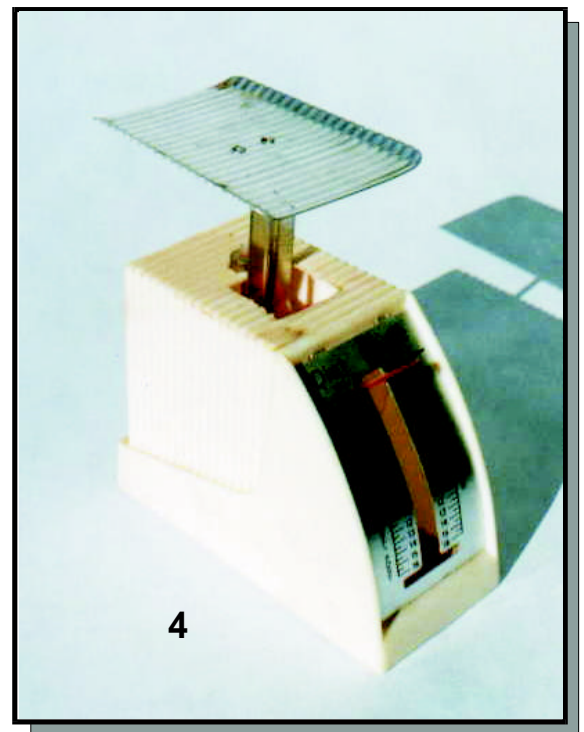
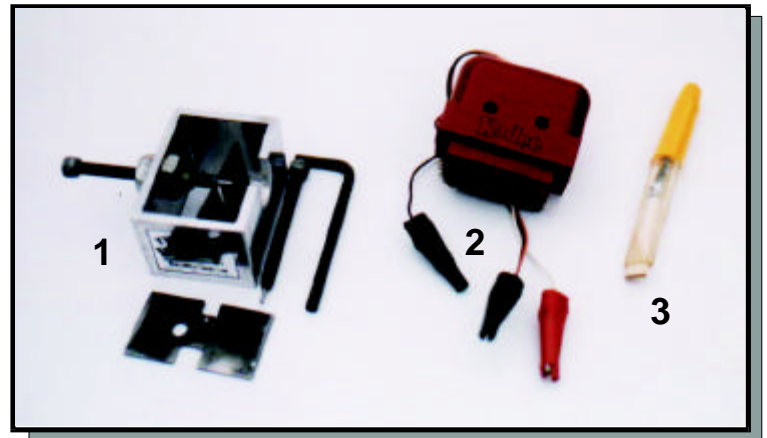
2. The **ELECTRIC WHEEL CLEANER** is used to clean and polish the wheel treads of powered wheel sets. It is attached to a regulated power source compatible with the locomotive whose wheels are to be cleaned and the brass cleaning bristles held lightly against the wheel tread. Care must be taken to ensure that this tool will accommodate wheels of your chosen modeling scale.

3. A **FIBERGLASS ERASER** can be used to clean a spinning or stationary surface. As the tip wears from use it can be advanced forward from the sheath. Care must be taken not to touch the tip head-on as the fiberglass can pierce the skin. The eraser tip should be kept sheathed between uses for this reason. Because of the small tip size it can reach into many confined spaces without the fear of conducting electrical current.

4. The **POSTAL OR DIET SCALE** is used to determine weights of light items up to usually one pound. Capacities can vary as can price, however a reasonably priced scale can be obtained from a department store. More accurate and hobby orientated scales are available from tool suppliers as are digital scales if the work to be done needs this level of control. This tool is very useful when weighting rolling stock to within recommended guidelines.

5. **THE DRIVER QUARTERER** (*not illustrated*) is a specialty tool used to obtain the correct relationship between the crank pins of wheels located on a common driver of steam or other locomotives that transfer power between drivers using side rods. While the use of this tool will not be a common occurrence for many hobbyist, those that regularly perform driveline improvements and tune ups will obtain optimum results via its use.

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Source Material:	"How to Work with Tools & Wood," Stanley Tool Works; "Tools," Bluebook Series, Model Railroader, Jan. 1956
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SPECIALTY TOOLS - continued

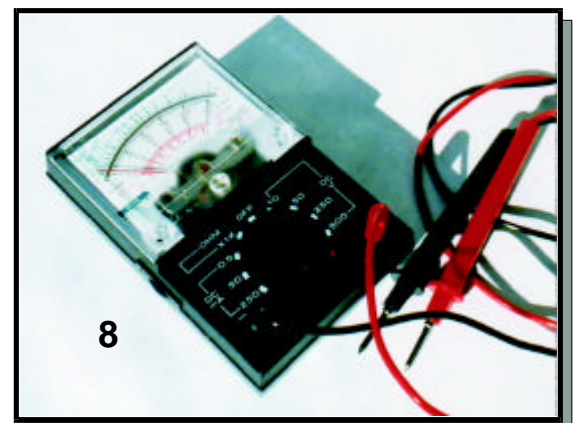
6. THE FINE WET HONING STONE is a convenient low cost method of refinishing the cutting surfaces of higher quality blades or tools. They are available in various sizes from pocket on upwards, as well as in various grits. Their use will allow extended life of scalpel blades, utility blades, scribers, light knives, shears, etc. Custom contours can also be worked onto blades and chisel faces to produce unique results. In most cases the fineness of the honing stone can be enhanced by lubricating the stone with water.



7. LUBRICANTS are usually considered to be outside of the scope of tools but can be considered if a tool is to be lubricated to achieve and maintain resistance to wear, oxidization, and excessive temperatures. Also, if a tool is to be used as a storage and/or applicator for lubricants, the capacity, grade of lubricant, and delivery of the lubricant must be considered.



8. ELECTRICAL MULTI-METER is a most useful tool as it allows a voltmeter, current meter, and ohmmeter to be combined into a single unit. Obviously the many model railroad applications that can be listed are well beyond the scope of this article. As projects such as locomotive testing and remotoring, circuit resistance, current flow, and line voltage become more of an interest or necessity within the hobby for you, the purchase of such an instrument will become more of a priority.





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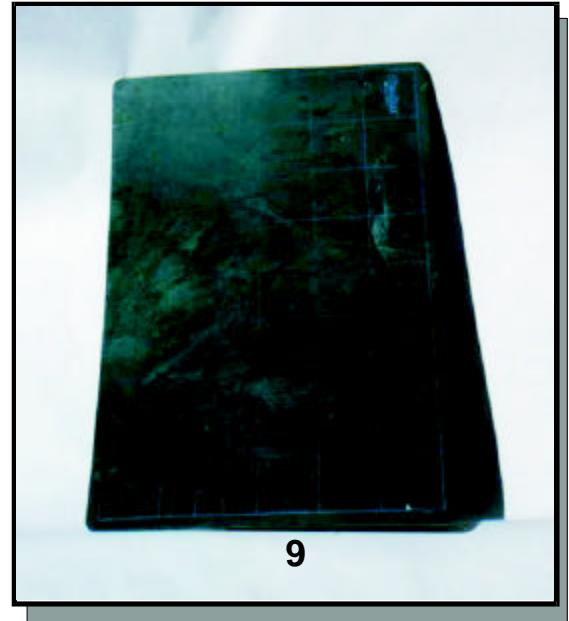
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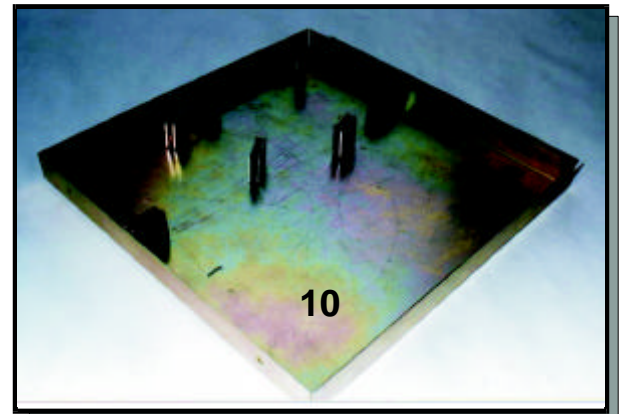
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SPECIALTY TOOLS - continued

9. The **SELF HEALING CUTTING MAT** allows material to be cut without the blade being affected by a grain or density difference of the material supporting the work to be cut. It also protects the underlying desk top or other surface that you work on. The surface of the cutting mat recloses the wound made by the knife or scalpel blade. It is not meant to be used in conjunction with saws as this would ruin the mat. Many come with grid lines for rough set up of work. Larger sizes can be cut to smaller sizes if the work surface is limited in size.



10. The **SQUARE UP TRAY** is used in conjunction with small magnets that attach to its metal surface allowing work or kit pieces to be clamped in any position. Because the corners are accurate 90 degree bends it lends itself extremely well to forming right angle clamping surfaces against which the work can be held while adhesive is applied and allowed to cure. Many other uses can be found such as holding steel rules to the surface allowing a graduated fence to be formed. With time, the user will find many other uses for this unique tool.



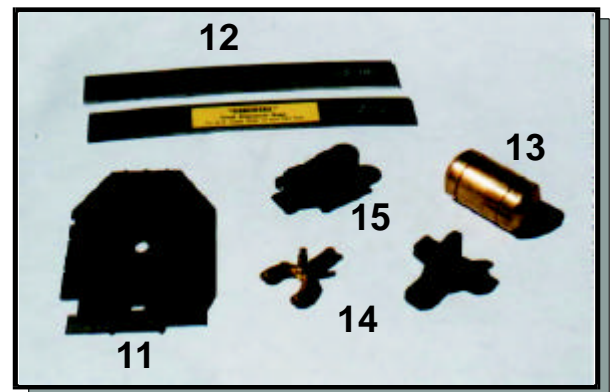
TRACK LAYING TOOLS AND GAUGES are many and varied.

11. One of the most important and useful is the **NMRA TRACK GAUGE** which serves multiple functions. It is available in all the popular scales.

12. **METAL RADIUS GAUGES** are available in a variety of radii for most scales. They ensure trackage is laid to a constant radius throughout a curve.

13. A **ROLLER TRACK GAUGE** can be purchased or fabricated to ensure the correct track gauge is maintained.

14. **THREE POINT GAUGES** are very useful in maintaining gauge when laying track especially on curves. All metal gauges can also be used as heat sinks to protect adjacent solder work when soldering nearby track.





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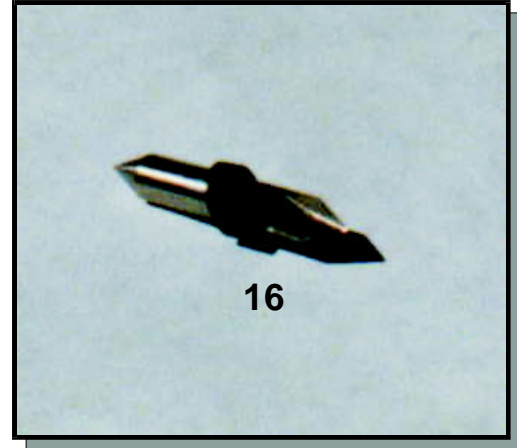
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SPECIALTY TOOLS - continued

15. COUPLER HEIGHT GAUGES are useful in setting coupler and trip pin heights for automatic couplers. They can also do double duty as a track gauge in a pinch.

16. TRUCK SIDE FRAME BEARING REAMER is used to restore or achieve the correct taper and back to back distance between truck side frames to enhance axle rotation. It is a fluted reamer at one end while the other provides a centered tail stock. The enlarged center section permits the fore fingers to provide the rotation required.



17. Today, the prices and availability of major shop tools have reached the point where they are reasonably attainable to most families. While primarily purchased for uses around the home other than model railroading, many can be suitable for model railroad applications. Some of the items to consider are: table saw, drill press, x-y clamp table, heavy vice, grinding and polishing wheel, air compressor, sander, power drill, and jig saw. Many of the popular electric power tools are now available in battery pack powered versions for those that find working with cords limiting or awkward. Again, the need to have these tools is governed only by your desire, requirements, and space limitations.

