

# The Shop

## MAGIC TOOLBOX

By Dale Boller

● Inside the *Cycle* magazine shop is a giant red rollaway full of every tool you can imagine. Nearby are four motorcycle shops which between them can supply just about anything we need to keep the test bikes healthy. But what if we're thrashing a dirt bike far from the shop and its tools? A bolt can vibrate loose. A crash can put an awful kink in the brake lever. A frayed wire can short circuit the ignition system. We could lose a whole day's work for want of a certain wrench or an otherwise insignificant 10mm bolt.

To avoid being stopped by mechanical failure or the consequences of rider error, we decided to conjure up a Magic Toolbox. It was designed to contain all the tools and basic replacement parts needed for minor maintenance in the field and

still be one-person portable. The resultant collection of tools and accessories (accumulated over two years) has lived up to its name on several occasions: its selection of hose clamps has been used to patch together the exhaust system of a Bultaco Alpina; its pencil magnet has retrieved a nut deep in the recesses of a Rokon belt drive; its jumper wires have bypassed electrical shorts isolated with its circuit tracer; its fiberglass repair kit has sealed a leaking gas tank; its film-can of grease has supplied lubricant to squeaking wheel bearing seals and lever pivots; once a few chants and the wave of a long cactus spine almost produced a welding torch. Our Magic Toolbox is not really magic, but it has produced near-miracles on many occasions.

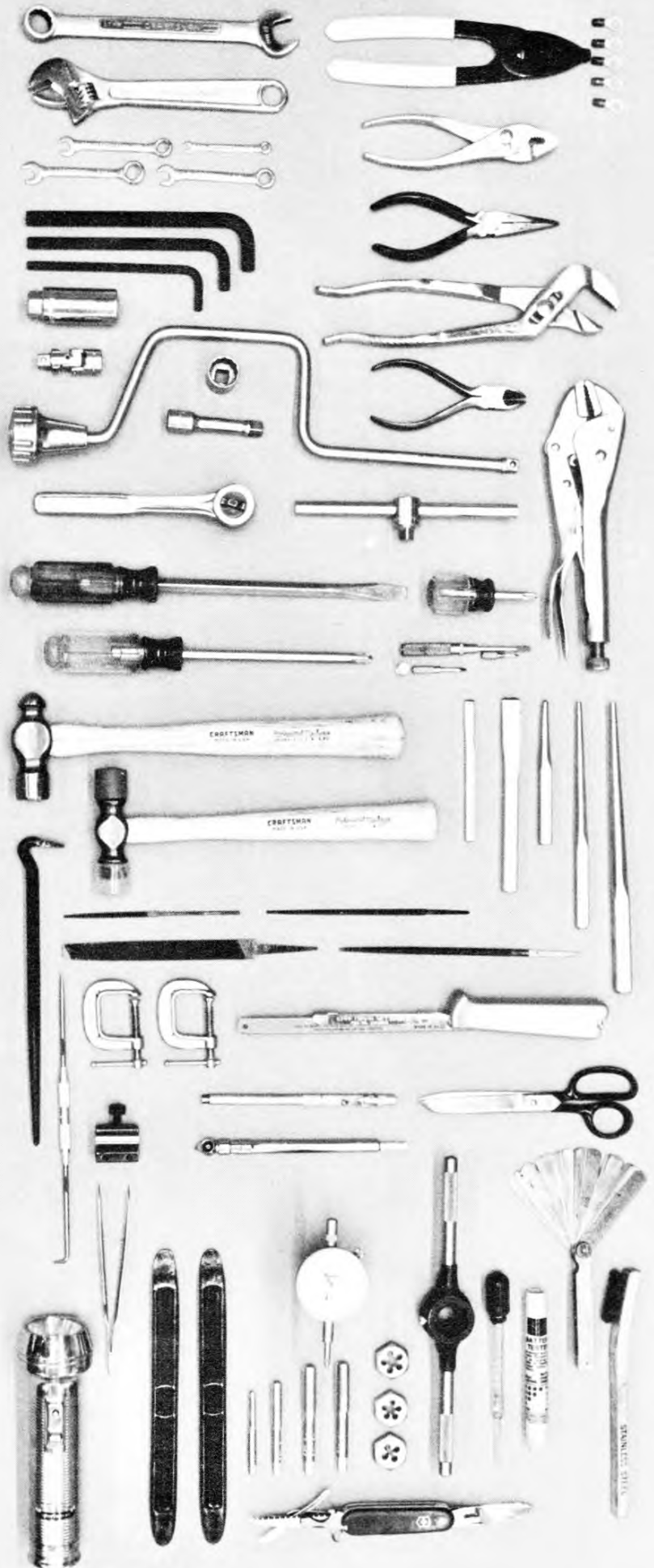
Here's what you find inside the toolbox that's supposed to have everything:

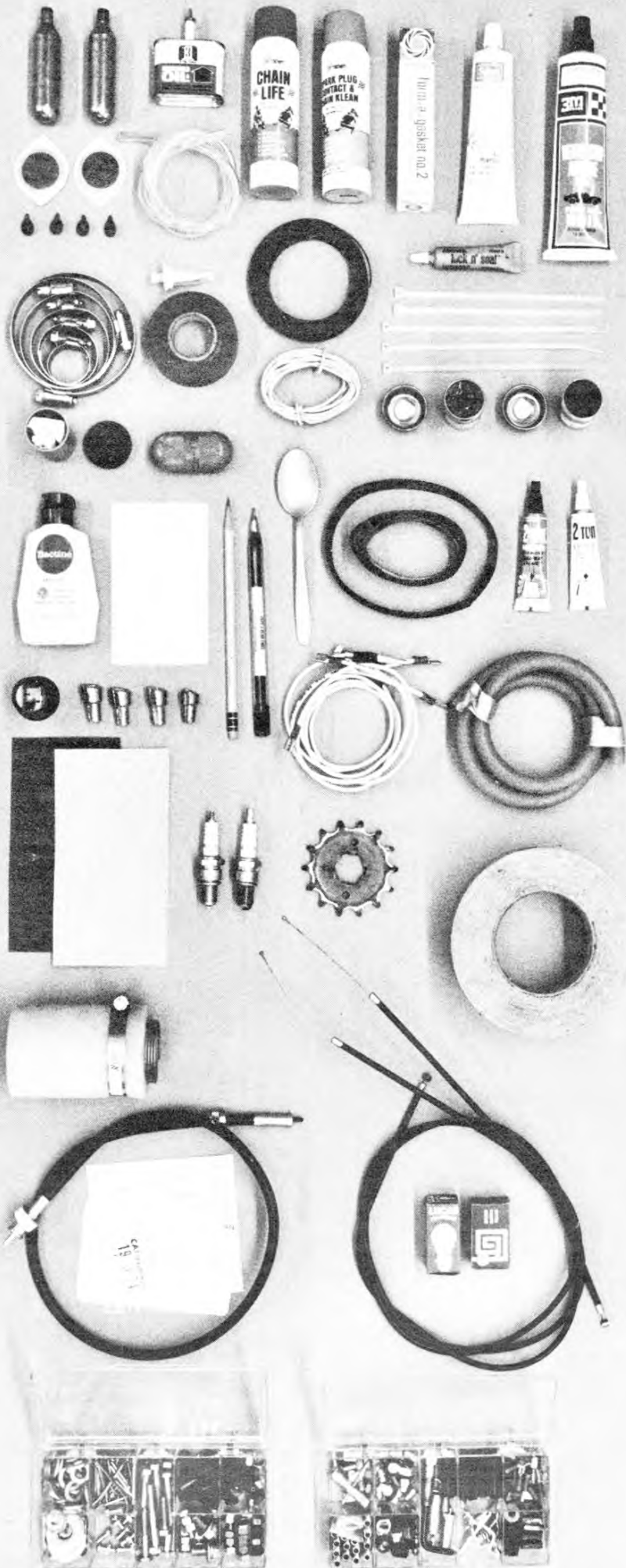
(Every item listed, obscure as it may seem, has been needed by us at least once. All exact prices are from the Sears catalog for Craftsman tools. Any tools or accessories not available through Sears are listed with approximate prices rounded off to the nearest half dollar. The entire wrench collection is in metric sizes. If you anticipate working on a Harley-Davidson, Rokon or certain Triumphs, you'd better include a set of inch-size wrenches, sockets, allen keys and fasteners. Don't forget to carry a tow rope on your bike so someone can haul you back to the toolbox, which should be chained to the inside of a locked vehicle to frustrate poachers. (Continued)

PHOTOGRAPHY: DALE BOLLER



Combination wrenches .....	\$21.67
6,7,8,9,10,11,12,13,14,17,19mm	
Adjustable wrenches .....	19.12
4,6,10,12-inch	
Ignition wrench set .....	5.99
Allen wrench set .....	2.09
Plug wrench .....	2.00
$\frac{3}{8}$ -inch-drive socket attachments	
Ratchet .....	7.98
3-inch extension .....	.98
6-inch extension .....	1.28
T-handle .....	2.21
Speeder handle .....	2.83
Universal joint .....	2.73
Sockets .....	13.20
8,9,10,11,12,13,14,17,19,21,22mm	
Pliers	
Regular .....	2.09
Needlenose .....	4.38
Water pump .....	2.72
Wire cutters .....	3.95
Wire stripper/terminal crimper .....	6.95
(Comes in kit with a selection of terminals and connectors)	
Vise grip type (10-inch) .....	2.89
Screwdrivers	
Standard type (4 piece set) .....	4.35
Phillips No. 1,2,3,4 .....	7.33
Stubby phillips No. 1,2 .....	3.00
Brass telescoping .....	3.00
(A small standard screwdriver with three jeweler's size screwdrivers inside)	
Impact driver kit .....	12.87
Hammers	
8-ounce ball peen .....	3.89
6-ounce plastic tip .....	4.09
Chisels	
$\frac{3}{8}$ -inch edge .....	1.05
$\frac{1}{2}$ -inch edge .....	1.25
Drifts	
7-inch .....	1.45
9-inch .....	1.75
Files	
6-inch mill .....	.87
6-inch round .....	.97
6-inch triangular .....	1.00
Ignition points file .....	.47
Close-quarter hacksaw .....	2.90
Centerpunch .....	.95
Lady's foot (rolling wedge bar) .....	2.00
(For prying off countershaft sprockets)	
Double pointed scriber .....	1.59
Two C-clamps 2 $\frac{1}{2}$ -inch .....	6.38
(For clamping wire pointers to true wheels)	
Cable luber .....	4.50
Scissors .....	3.00
Pencil magnet .....	1.69
Feeler gauge 25-leaf .....	1.98
Toothbrush size wire brush .....	1.00
Flashlight .....	4.00
Tire pressure gauge .....	3.00
Two tire irons .....	3.50
Tweezers .....	.99
Circuit tracer .....	6.00
(Get the kind with the built-in battery and indicator light)	
Dial indicator .....	26.99
(To set timing on two-strokes)	
Swiss Army knife .....	15.00





Thread restorer, metric .....	13.00
(Consists of appropriate metric tap and die sizes for your bike)	
Hydrometer .....	1.69
(For checking batteries)	
Webco tire patch kit.....	5.95
(Includes two air bottles)	
Can of 3-in-1 oil.....	.50
Can of Chain Life 4 oz. ....	1.50
Can of Contact Klean 4 oz. ....	1.50
Tube of Permatex No. 2 gasket sealer..	1.50
Tube of Silicone Seal .....	2.00
Tube of 3M Weatherstrip cement .....	1.85
Tube of Loctite.....	1.60
An in-line fuel filter .....	1.00
Two feet of fuel line.....	1.00
Selection of nywraps .....	1.00
Selection of hose clamps .....	5.00
Roll of electrical tape.....	1.00
Roll of duct tape .....	5.00
Five feet of electrical wire.....	1.00
Five feet of safety wire.....	1.00
Selection of gasket paper .....	1.00
A sheet of 3/16-inch foam rubber .....	1.00
Film-can of cup grease .....	.25
Film-can of wheel bearing grease .....	.25
Film-can of small change .....	3.00
Film-can of smelling salts .....	.50
Snake bite kit .....	3.00
Plastic bottle of Bactine.....	1.65
Selection of bandages .....	2.00
3 x 5 cards .....	.25
Pen and pencil .....	1.00
Fork and spoon .....	1.00
Siphon tube .....	2.00
Selection of cut-innertube rubber bands.....	.00
Two compartmentalized plastic storage trays for nuts, washers, etc.....	3.00
Magnifying glass to read spark plugs..	2.00
Selection of sand paper and emery cloth .....	1.00
Selection of tire weights .....	1.00
3-foot length of wire with alligator clips on each end for jumping shorts .....	1.00
Selection of springs .....	4.00
Selection of valve stem cores and caps.....	1.00
A spark plug cap .....	1.00
Selection of wire connectors/terminals .....	2.00
Selection of flat and lock washers .....	1.00
Selection of cotter pins .....	1.00
Specific spares for your bike:	
Selection of carburetor jets	
Selection of spark plugs	
Selection of various sized nuts and bolts	
Countershaft sprockets for lower and higher gears	
Chain repair kit	
Three fuses	
Throttle, clutch and brake cables	
Xerox of your pink slip and registration	
As for the container for all this material, a Sears "Portable Two Drawer Competition Chest" at \$23.99 will hold it all. Weight of the total package is 48 pounds. Approximate total cost is \$365. It will really be a miracle if you never have to use it, and pure magic if you do.	