

# McCULLOCH RACING ENGINES



## MC101A/A

This is the latest version of the engine that keeps the kart world buzzing. BEFORE improvements, it went screaming to a new world land speed record at Bonneville (as a straight gasser).

But you don't have to stick with gas any more. The MC101A/A comes stock with a brand new carburetor that also burns alcohol, nitro blend or any wild mixture you want to use. There's nothing to tuning the carburetor, either. It's got a single throat (so no balancing problems). Plus a high capacity fuel pump integral to the carburetor that meets the demand when needed. The pump's designed to produce a minimum pressure of 5 psi, even at maximum speed!

In addition: the MC101A/A has new external spline con rod screws (it can't strip when torqued); glass shot-peened crankshaft; twin fuel/air boost ports; balanced exhaust and transfer port timing; increased lamination thickness; improved coil; a thicker top cylinder fin; plus a start-stop switch wire.

The MC101A/A: before improvements — the world record holder. So just imagine what it's like now!

## MC91B/1

This is the improved version of the engine that blasted through the traps for a class world land speed record at Bonneville. We've added a glass shot-peened crankshaft that's super-strong; a thick top cylinder fin for better heat dissipation and rigidity; a permanently riveted spark plug cover; and a thermo-couple pad that complies with the box stock classes "no metal cutting" rule.

We also added a start-stop switch wire. And an improved coil lamination assembly to produce a hotter spark, with higher voltage and less plug fouling. Plus 'space-age' bonding.

All in all, it adds up to making the best... just a little better!

## MC49E

We improved the fastest engine in its class. We added a new sloper manifold for cooler running. Then we redesigned the carburetor with a pre-calibrated, high speed, fixed main jet for constant fuel-flow. This keeps the engine running cooler and cleaner. Its new low profile makes it a natural to fit mini-bikes, mini-cycles, and mini-buggies, too. We added new power-tuned reed valves for longer life and sure-fire starts. Plus 'space-age' adhesive bonding which insulates the coil from engine heat and protects it from vibrating loose. And we added a start-stop switch wire for safety. Tougher, smoother, safer and longer lasting: the MC49E.

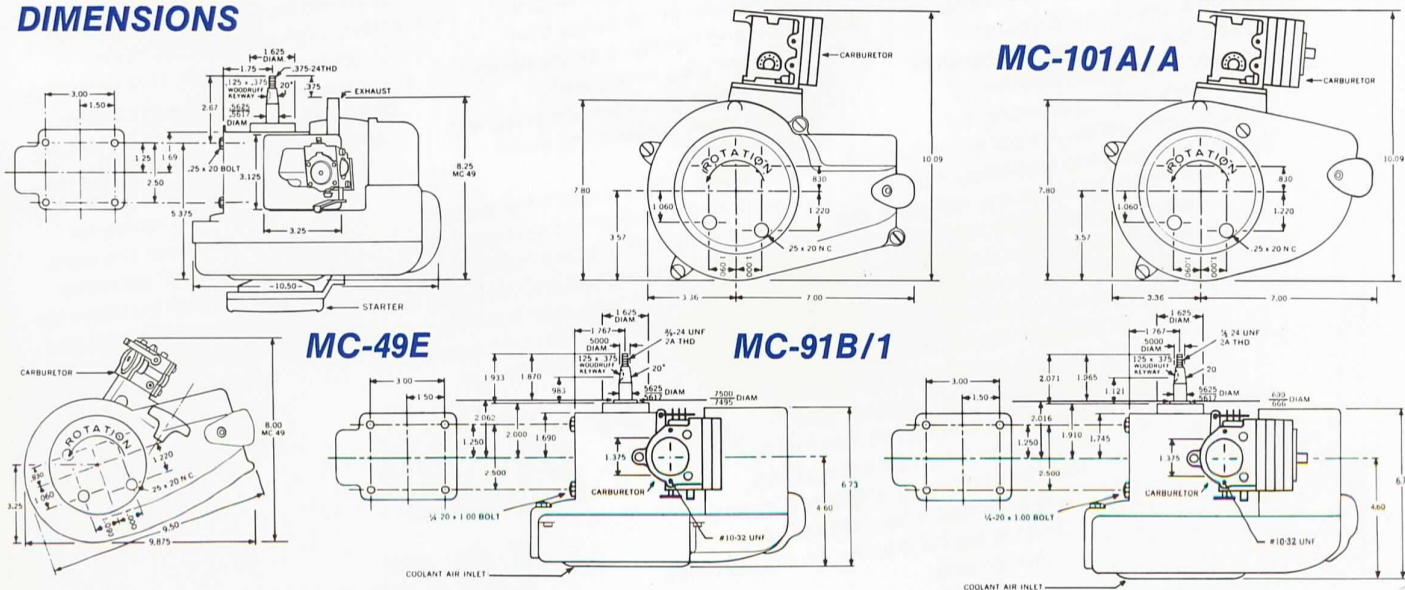
# "The Winners"



# McCULLOCH AMERICAN RACING ENGINES

	<b>MC49E \$102.48</b>	<b>MC91B/1 \$122.98</b>	<b>MC101A/A \$153.72</b>
<b>Displacement</b>	4.9 cu. in. (80.3 cc)	6.05 cu. in. (99.3 cc)	7.5 cu. in. (123 cc)
<b>Bore</b>	2.125" (54 mm)	2.165" (55 mm)	2.280" (58 mm)
<b>Stroke</b>	1.375" (35 mm)	1.635" (41.5 mm)	1.835" @ (46.6 mm)
<b>Compression Ratio</b>	6:1	9.4:1	9.4:1
<b>Weight</b>	12 lbs. (5.5 kg)	11 lbs. 9 oz. (5.2 kg)	12 lbs. 4 oz. (5.7 kg)
<b>Inlet Valve</b>	Dual petal, high flow reeds and 3rd port.	Dual petal, high flow reeds on Vee block for full power at all speeds, and sensitivity towards inlet and exhaust tuning.	
<b>Carburetor</b>	McCulloch special racing diaphragm type. Consistent metering in any position. 3/4" (19 mm) adjustable for idle and midrange mixture, quick change fixed high speed. Butterfly throttle and choke. Integral fuel pump.	The famous McCulloch BDC 14. 1 1/8" (35 mm) bore with 1 1/2" (29 mm) venturi assures high flow air delivery. Adjustable high and low mixture needles. Optional choke kit for air filter installations. Integral fuel pump and filter screen. Optional twin stage fuel pump kit, also for previous MAC big bore carbs.	The all new BDC 16. Optimized bore and venturi dimensions (same as BDC 14) with twin stage integral fuel pump; maximum volume inlet needle, seat and passages. Wide range high and low mixture needles (gasoline, alky, and beyond). Choke kit optional for air filter installation. Integral large area fuel filter screen.
<b>Air Filter</b>	Low restriction, washable element air filter kit optional.	Conventional types adaptable.	
<b>Piston</b>	Heat Resistant Aluminum Alloy Oversize available: .010", .020", .030"	Oversize available: .005", .010", .020", .030"	Oversize available: .010", .020", .030" and .050"
<b>Piston Rings</b>	Two narrow steel racing type with chrome plated wear face for quick sealing, low friction and long life. Unpinned	Pinned	Pinned
<b>Bearings</b>	<b>Conn Rod</b> <b>Wrist Pin</b> <b>Main</b>	Full Complement M-50 Tool Steel needle rollers, hardened shaft and rod ends. Two needle roller bearings in the piston. 1 ball bearing. 1 needle roller.	Extra length for additional lubrication and cooling. Caged ball bearing (1) Caged needle roller (1)
<b>Connecting Rod</b>	Hot forged, hardened and ground alloy steel with removable cap and integral race. Wrist pin pressed in place.	Hot forged, hardened and ground alloy steel with removable cap and integral race. Oil slot in cap. Wrist pin pressed in place.	
<b>Crankshaft</b>	All engines counter-balanced, hot forged steel, carburized, hardened and ground.	Extensively glass bead shot peened.	Extensively glass bead shot peened, and tungsten counterweights.
<b>Engine</b>	All engines single cylinder, two-cycle, air-cooled. Loop scavenged.		
<b>Cylinder-Crankcase</b>	Die cast aluminum alloy w/precision honed cast iron liner. Deep finned integral head.	Die cast aluminum alloy w/precision honed cast iron liner. Deep finned detachable head.	
<b>Direction of Rotation</b>	All engines clockwise (facing power take off shaft).		
<b>Ignition</b>	Waterproof high tension magneto. Advanced magnetic timing system. Moisture-proof coil bonded to special high rev lamination.		
<b>Spark Plug</b>	Champion J8J	Champion L-78	Champion L-78
<b>Fuel Oil Mixture</b>	All engines 20:1 w/McCulloch oil and automotive regular grade gasoline.		
<b>Flywheel</b>	High pressure die cast aluminum alloy w/integral magneto magnets, steel hub.		
<b>Starter</b>	McCulloch Automatic rewind.	McCulloch automatic rewind available.	McCulloch automatic rewind available.
<b>Clutch</b>	McCulloch automatic centrifugal available. Conventional types adaptable.		
<b>Mounting</b>	Four bolt holes provided on bottom of crankcase. Engine operates in any position.		

## DIMENSIONS



Test drive McCulloch American Racing Engines at your McCulloch dealer. He's listed in the Yellow Pages under "saws" or "karts." Or write:

**McCULLOCH**   
**AMERICAN RACING ENGINES**

McCulloch Corporation, 6101 West Century Blvd., Los Angeles, Calif. 90045 • Lake Havasu City, Arizona  
Malton, Ontario, Canada • Mechelen, Belgium  
Singapore, • Seven Hills, N.S.W., Australia • São Paulo, Brazil

Prices and specifications subject to change without notice

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