



THE CHAMPION

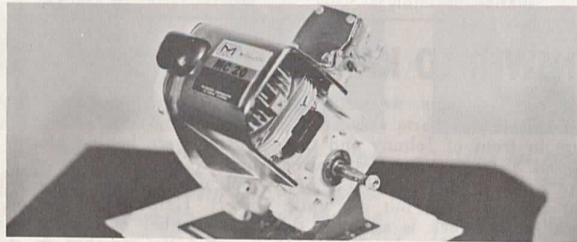
OFFICIAL MONTHLY PUBLICATION OF THE
McCULLOCH KART OWNERS' ASSOCIATION

VOLUME 1 NUMBER 2

AUGUST-SEPTEMBER 1961

McCULLOCH KARTS & ENGINES WIN MANY TROPHIES AT NATIONAL RACES

"HOPPING UP" YOUR MC-20



Mac Karters everywhere, and particularly those who want to collect the trophies, are inevitably faced with the question of "to hop up or not to hop up." Officially, the MKOA takes the position that this is a matter for individual decision—with ONE RESERVATION. "Hopping Up" McCulloch MC-6, MC-10 or MC-20 engines should be undertaken only by karters highly experienced in competition racing. All "Factory stock" McCulloch's are more than fast enough to take just about everything in sight. Recognizing, however, that we do have many experienced Mac Karters who are competing against other-than-stock engines, the factory service department has compiled some modification information on our units. In the interest of Mac Karters, we are covering the MC-20 in this issue.

(It should be understood that this information is offered strictly on its own value and as a service to mature McCulloch Karters. McCulloch Corporation specifically makes no recommendations as to its applications whatsoever, nor should such be implied. Further, McCulloch assumes no warranty or liability for engine performance, endurance, failure, destruction, or any other condition, in part or in whole, incurred as a result of any individual or group following these listed procedures.)

MC-20 "HOP-UP"

1. Remove fan housing, shroud, carburetor and manifold, magneto coil and lamination, cylinder head, and crankcase bottom.
Do not remove crank, piston and rod, or side cover at this time.
2. Turn crank until piston is at bottom dead center.
3. Paint Dykem around cylinder liner above transfer ports (approximately 1/4 to 3/8-inch) and let dry.

(continued on Page 2)

Mac Performance Outstanding At GKCA, TWIKA, and NAKA

Since the last issue of the CHAMPION, McCulloch karters have been racking up some respectable victories at 1961's big national events of the major karting clubs.

At Go Kart Club of America's Nationals, held August 18th and 19 in Mansfield, Ohio, McCulloch engines captured 23 out of 35 of the first five main event positions in the seven classes of races. McCulloch grabbed off all five positions in Class A-Super and C-Super, plus the first four in B-Super. Additionally, McCulloch engines turned in the best qualifying times. The Mansfield Nationals were probably one of the best attended events yet held in the sport of Karting. Some 2500 spectators paid \$2.50 each to witness each day's exciting competition at the spankin' new \$50,000 track. Altogether some 435 vehicles were entered, and the entire affair highlighted the coming of age of Karting in the United States.

Second of the big affairs was the Rose Stakes races of The World's International Karting Association, held at Cape Girardeau, Missouri August 27th. In this "Karting's Greatest World Championships" McCulloch engines won 23 out of 27 first three places in nine classes. McCulloch engines took nine of ten places in the Sportsman Overall A class, and seven out of ten in the Overall World Champ class. And it was here that McCulloch KARTS won their biggest successes of the season — four FIRST-PLACE trophies.

Most recent "Nationals" were the North American Karting Association's Grand National Road Races, at Dousman, Wisconsin September 10th. At these McCulloch engine repeated exactly their record at Mansfield, winning 23 out of 35 of the first five place winners. McCulloch mills snatched all five positions in Classes A-Super and B-Super, in addition to four out of five in AJ and C-Super. Yes sir, McCulloch Karters were mighty proud of their rigs and mills in these events and are looking forward eagerly to the Internationals!

(COMPLETE RACE RESULTS ON PAGE 4)

"HOPPING UP" MC-20

(continued from Page 1)

4. Measure and mark .038/.040-inch above top of transfer ports. Turn crank until TOP of piston is flush with mark, and then scribe light (not deep), but visible line above transfer ports. NOTE: This line is a reference mark for port modification. Port timing is to be raised to 65° BTC.
5. Using small, high-speed rotary file, elongate transfer ports (both sides) until top(s) just touch the scribe reference line. This work should be carefully performed in order to maintain the individual angle of each port opening.
6. Break sharp edges of ports, and blend smoothly into casting.
7. Square exhaust ports.
 - A. Do not change port timing.
 - B. Square inside half of two outer ports.
 - C. Narrow bridges between ports to approximately .030-inch.
 - D. Radius corners approximately .031-inch.
8. Cut out reed stops. Optionally, remove only top $\frac{3}{4}$ section, leaving approximately 1-inch of each stop to tie together upper and lower case section.
 - A. If lower sections are left in, they should be shaped for maximum air flow.
9. Gully-cut third port.
 - A. Do not change port timing.
 - B. Leave sufficient portion of the two center bridges to retain bottom piston ring (to avoid ring snagging).
10. Break all sharp corners inside of case (to provide maximum air flow with minimum turbulence).
11. After completion of modification work, hone cylinder.
 - A. Measure piston diameter at lower (bottom) ring. Cylinder should then be honed to provide .010-inch maximum clearance, piston-to-wall. (.005 on each side.) NOTE: Allow cylinder to cool (room temperature) after honing - before measuring.
 - B. If maximum displacement (6.1 cubic inches/100 cc.) is desired .050-inch oversize pistons are available.
12. Thoroughly wash cylinder after honing (do not use gasoline) to remove fines and metal dust.
 - A. For maximum removal of dirt from bore (liner), wash cylinder in hot water and ample detergent. Use bristle brush and scrub liner thoroughly.
 - B. Flush cylinder with running, hot water. Blow, or shake off excess water and dry cylinder under moderate heat.
 - C. If oxidation shows on liner (when dry), clean with krosus cloth (not emery or steel wool). Use a clean, well-oiled rag to wipe out bore after clean-up.
13. Fit-up (selective fit) piston to cylinder bore. A minimum end gap of .007/.010-inch is recommended.
14. Reassemble engine.
15. Compression Ratio.
 - A. 8:1: Use Mc-20 cylinder head (P/N 48903 and .016 gasket (P/N 48742).
 - B. 10.5:1: Use Mc-6 cylinder head (P/N 55146A) and .016 gasket (P/N 48742).
16. Time engine to fire at 25° BTC. (The use of a degree wheel is highly recommended.)
17. If single-carburetor induction system is used, a Van Tech manifold is recommended.
 - A. Dual carburetor has advantages if correctly adjusted. However, due to the many types available, no recommendation is made relative to dual-carburetor installations.
18. Spark Plug
 - A. The HO-3 (Champion) has gained wide acceptance. However, the CORRECT spark plug is the one that gives best performance for the individual.
 - A1. A plug that is too cold can cause burned pistons and sticking, if the carburetor is set TOO lean in an effort to avoid plug fouling.
 - A2. A plug that is too hot will also burn pistons if it causes pre-ignition and/or detonation.
19. Pre-Ignition/Detonation
 - A. Sparkplugs of incorrect heat range (too hot) and advanced timing (plus high compression ratio) are major causes of pre-ignition and/or detonation.
 - B. Use of the Mc-6 head (P/N 55146A) and .016 head gasket (P/N 48742), with 25° BTC timing, may result in pre-ignition under some conditions. If pre-ignition does occur,

and spark plug color (tan to light brown) indicates correct heat range, retard timing in one degree increments until pre-ignition is controlled.

20. Maverick Spark

Simply, Maverick spark is a high-energy discharge (across the spark plug electrodes) that can occur when the breaker points float (hold open at high engine RPM), and is the result of (A) the difference between the mechanical setting of the breaker points in conjunction with (2) the peak energy output of the magneto coil. The difference (advance in timing that is gained-approximate) is measured by crankpin (crankshaft throw) position, in degrees BTC.

For reference purposes it can be assumed that maximum magneto output occurs when the center of the magnetic field (fly-wheel) is directly under the coil center (centerline of middle leg of lamination). Thus, minimum maverick spark adjustment may be controlled (static setting) by shifting the coil lamination. (Clockwise: Advance.)

A. Maverick spark may be manually controlled through use of a single-pole, single-throw-normally closed-switch. The switch is inserted, electrically, between the coil terminal and the breaker points. When the switch is closed (normal position), the breaker points serve to open and close the primary circuit. When depressed, the switch cuts out the breaker points.

B. To avoid possible pre-ignition and/or detonation at low engine RPM, adjust the points to open at 20°-22° BTC. (Low-end performance will likely improve, also.)

As engine RPM increases, pressing the switch (opening breaker point circuit) will result in maverick firing (advanced) of the sparkplug. The advance will be approximately 6°-10°, based upon static setting of the coil and lamination assembly.

ANSWER TO KART PROBLEM

In our last issue, we ran a complicated mathematical problem as to how many karts were in a race, when one third of the karts were in front of Johnny and three fourths were behind him. We offered \$5.00 for the first correct answer, and only one of our Mac Karters, Miss Susan Cacioppo, took us up on it. The answer sent in was close, but not quite correct. Here's the right one: Because the track is an oval, the same number of karts are in front of him as are behind. Let "n" equal that number, so that the total karts (with Johnny's) is $n+1$. To find n, you solve this equation: $\frac{1}{2}n + \frac{3}{4}n = n + 1$.

$N = 12$. So there are 13 karts in all!

TWO MONTH ISSUE NECESSARY

MKOA members who are noting that this issue of the CHAMPION is dated for both August and September, please don't think we're short-changing you. This is a MONTHLY publication and will continue to be so for now on. The two-month issue this time was made necessary by vacations and several other circumstances beyond our editorial control. As a result, subscribers will receive one additional issue this year for their original subscription price.

KARTERS KORRESPOND...

McCulloch Kart Owners Association:

In the November issue of KARTING WORLD that we have just received, we understand that we are eligible to receive the CHAMPION. Well, I certainly guess we are. We are the proud owners of 2 karts and 4 Macs and are very proud that our latest addition was the MC-20, which we have now had all year. We are also proud to say that we have really been McCulloch boosters in this area. Last year we had a problem in that they would not let the MC-6 run on asphalt tracks back here, because of so many complaints from the competition. Well, we got busy with a few of our friends and soon had that rule changed! We have never owned anything but a Mac, and we have a lot of trophies to prove it!

Sincerely,
Jim and Wanda Utter,
McCULLOCH KARTERS
Muncie, Kansas

MAC KARTERS PHOTO PAGE



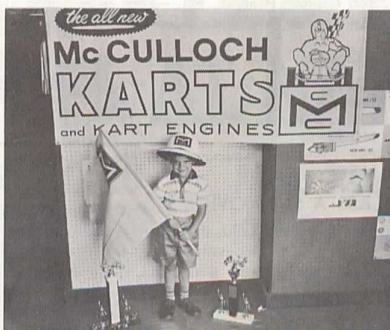
Carl Martin and Jim O'Neill of Tenmile, Oregon proudly display their McCulloch karts, engines - and the terrific collection of trophies they've won with same. Karters in Oregon really take notice when these boys show up at the track!



Proudly holding mammoth trophy is Bob "Corky" Long, proud owner of an R-1 with twin MC-6's. Bob won this behemoth at the Preble County Fair, Eaton, Ohio on August 12th. His victory came in the 25-lap Class B event. 165 karts were at the fair, and 4000 spectators in the grandstands!



These two Mac Karters have just about cleaned up all the races in New England. They're George Ellms (left) and Pete Hooper (right). The trophies they're proudly showing us here were won at the GKCA "easterns." Pete's trophy was won for the fastest qualifying time and George won the Super B race.



Holding his McCulloch race flag and posing among his dad's trophies is an enthusiastic karting fan of the future. He's George Ellm's son, and the determined look on his face seems to say, "When I grow up, I'll have McCulloch karts end engines, too!"



Here are some outstanding Mac Karters who won the Laguna Seca races this summer in California. They are (L to R) Jerry Reed - Winner A-Modified; Bob Sataki - Winner B-Super; and Chuck Wainwright; 2nd - B-Super.



Bill Hurst is a Mac Karter who races in Classes B-Super and C-Super. With his MC-20's, Bill nails the trophy almost every time!



Henry Labelzo races in Classes A-Super and B-Stock with his MC-6. Like his friend Bill, Henry's R-1 is usually first across the finish line!



McCulloch karters gather around Free Service Help Center set up by McCulloch distributor Rapid's Distributing Company at regional races of NAKA, held at LaCrosse, Wisconsin. All MKOA members are reminded that they can get the free service they need at these service centers. In fact, they will get VIP treatment all around! Look for the McCulloch service center the next time you need help at the races!



Mary Colworth of Catasauqua, Pennsylvania is one of our great McCulloch Kartettes." Piloting her R-1 with MC-6 power, she has just been waved in a winner for the umpteenth time and gets ready to go to the winner's circle. Mary has never finished back of third place in Dorney Park Kart races.



McCulloch Karter Ken Bryan swings hard into a turn during Buffalo Lakes Road Race near Lubbock, Texas. Ken didn't quite get the big trophy, but he put up a terrific fight, ending a close second.

OK, MAC KARTERS, WE CAN HAVE A PAGE OF PICTURES JUST LIKE THIS IN EVERY ISSUE — STARRING YOU, YOUR KART AND YOUR ENGINES. ALL YOU HAVE TO DO TO GET YOURSELF SUCH WONDERFUL PUBLICITY IS TO SEND IN THE PICTURES AND INFORMATION. WE'LL PRINT EVERYTHING WE CAN GET OUR HANDS ON!

COMPLETE NATIONAL RESULTS

OFFICIAL GKCA RESULTS

MAIN EVENT: A-STANDARD

1. Lou Billo, Mansfield, Ohio—Dart—PP
2. Randy Lader, Gresham, Ore.—Bug—MC-6
3. Carol Hardy, Mentor, Ohio—Bantam—PP
4. Dick Eimers, Escondido, Calif.—Stinger—MC-6
5. Ray Davison, Jr., Tulsa, Oklahoma—Bug—PP

MAIN EVENT: A-SUPER

1. Wendell Shipman, Paramount, Calif.—Bug—MC-10
2. Dave Woods, Findlay, Ohio—Lancer—MC
3. Chuck Gilchrist, Park Forest, Ill.—Dart—MC-10
4. John Burgard, New Orleans, La.—McC.R-1—MC
5. Gary Barrisklow, Sylvania, Ohio—Dart—MC

MAIN EVENT: A UNLIMITED

1. Ernie McGlone, Mansfield, Ohio—Dart—PP
2. Dick Filos, Ft. Wayne, Ind.—Dart—MC
3. Robert Bourdette, Blissfield, Mich.—Hoffco—PP
4. Mike Carlock, Lima, Ohio—Lancer—MC-20
5. Fred Robinson, Canoga, Cal.—Boone—MC

MAIN EVENT: B STANDARD

1. Chuck Florian, Granger, Ind.—Dart—PP
2. Dick Wirges, Princeton, Ill.—Hellcat—MC
3. Ken Burden, Waynesfield, Ohio—Lancer—MC
4. Bob Dill, Redondo B., Calif.—McC. R-1—MC
5. Jim Bechtler, Mansfield, Ohio—Dart—PP

MAIN EVENT: B SUPER

1. Pete Berlif, Huntington, W. Va.—Dart—MC-10
2. Bob Meyers, Findlay, Ohio—Lancer—MC
3. Gary Emick, San Mateo, Cal.—Leecart—MC
4. Jimmy Yamane, N. Hollywood, Cal.—McC. R-1—MC
5. Mickey Rupp, Mansfield, Ohio—Dart—PP

MAIN EVENT: C STANDARD

1. Ernie McGlone, Mansfield, Ohio—Dart—PP
2. David B. Ayres, Redondo Beach, Cal.—McC. R-1—MC
3. Jim Bechtler, Mansfield, Ohio—Dart—PP
4. Bob Myers, Findlay, Ohio—Lancer—PP
5. Bob Nienchick, Wayland, Mich.—Dart—PP

MAIN EVENT: C SUPER

1. James Rose, Park Ridge, Ill.—Dart—MC
2. Ken Burden, Waynesfield, Ohio—Lancer—MC
3. Jerry Oliver, Walnut Creek, Cal.—Hovey Hawk—MC
4. Don Surwall, Skokie, Ill.—Max Torque—MC
5. Duffy Livingston, Azusa, Calif.—GoKart—MC

MAIN EVENT: A BUSHING

1. Gary Hartman, Glendale, Calif.—Caretta—WB
2. Francis Conners, Azusa, Calif.—GoKart—WB
3. Chuck Pittinger, Northridge, Cal.—Custom—WB
4. Kenneth Scheffler, Benton Harbor, Mich.—Outlaw—WB
5. Kathy Wiseman, Willoughby, Ohio—Dart—PP

OFFICIAL TWIKA RESULTS

CLASS A AMATEUR LIGHT

1. Darrell Waltripp, Owensboro, Kentucky—Dart-A-Bone—PP
2. Lex Kilgore, Cape Girardeau, Mo.—Dart-A-Bone—MC-6
3. Tom McEndres, West Frankfort, Ill.—McCulloch—MC-6

CLASS A AMATEUR HEAVY

1. Mark Weaver, West Frankfort, Ill.—McCulloch—MC-6
2. Roy DeJarnett, Cairo, Illinois—Lee Cart—MC-6
3. Sam Jansma, Brentwood, Mo.—McCulloch—MC-6

CLASS A EXPERT LIGHT

1. Dave Woods, Findlay, Ohio—Lancer—MC-20
2. Jeff Crumb, Hialeah, Fla.—Fox—MC-10
3. Dick Headburg, Anthony, Kansas—Bug Scorpion—MC-6

CLASS A EXPERT HEAVY

1. Jimmy Dale, Cairo, Ill.—Lee Cart—MC-20
2. Richard May, Austin, Texas—GoKart—MC-20
3. Dale Gosser, Kansas City, Mo.—Crue-Cut—MC-20

CLASS B AMATEUR

1. Paul Jorgenson, Eagle Grove, Iowa—McCulloch—MC-6
2. Don Kremer, Cape Girardeau, Mo.—Hellcat—PP
3. Pat Rush, Zeigler, Ill.—McCulloch—MC-6

CLASS B EXPERT

1. Andy Watson, Kansas City, Mo.—McCulloch—MC-20
2. Jeff Crumb, Hialeah, Fla.—Fox—MC-10
3. Jim Leighty, Wakenda, Mo.—Hustler—MC-20

CLASS C

1. Don Surwall, Chicago, Ill.—Max-Torque—Triple MC
2. Charles Torman, Waynesfield, O.—Lancer—MC-20
3. Bob Chinnery, Independence, Mo.—Sprint Kart—MC-20

CLASS A SUB-NOVICE

1. Ronnie Smith, Paducah, Ky.—Special—PP
2. Dennis Smith, Boonville, Mo.—Sprint—PP
3. Mike Craft, Cape Girardeau, Mo.—Lee Cart—PP

CLASS A NOVICE

1. Robin Erlbacher, Cape Girardeau, Mo.—Special—PP

SPORTSMAN'S OVERALL A CLASS CHAMPIONSHIP

1. Jeff Crumb, Hialeah, Fla.—Fox—MC-10
2. Dave Woods, Waynesfield, O.—Lancer—MC-20
3. Darrell Waltripp, Owensboro, Ky.—Dart-Bone—PP
4. Don Cruzen, St. Louis, Mo.—Dart-Bone—MC-6
5. Lex Kilgore, Cape Girardeau, Mo.—Dart-Bone—MC-6
6. Roy De Jarnett, Cairo, Ill.—Lee Cart—MC-6
7. Mark Weaver, West Frankfort, Ill.—McCulloch—MC-6
8. Don Kremer, Cape Girardeau, Mo.—Simplex—MC-6
9. Dick Day, Hollywood, Calif.—Special—MC-20
10. John Mitchum, Caruthersville, Mo.—McCulloch—MC-6

OVERALL WORLD CHAMPIONSHIP

1. Andy Watson, Kansas City, Mo.—McCulloch—MC-20
2. Dennis Flanders, Des Moines, Iowa—Hellcat—PP
3. Jeff Crumb, Hialeah, Fla.—Fox—MC-10
4. Bob Ice, West Frankfort, Ill.—Trackmaster—MC-Triple
5. Cecil Loftin, Austin, Texas—Go Kart—MC-20
6. Bill Ward, Carrolton, Mo.—McCulloch—MC-20
7. Phil Rea, Evansville, Ind.—Swoopster—PP
8. Paul Jorgenson, Eagle Grove, Iowa—McCulloch—MC-6
9. Harold Lyes, Symsonia, Ky.—Fox—WB
10. Glenn Bopp, Ballwin, Mo.—Special—MC-20

OFFICIAL NAKA RESULTS

CLASS A

1. Richard Pittelkow, Minneapolis, Minn.—Bug—MC-6
2. Warren Chandler, Franklin Park, Ill.—McC R-1—MC-5
3. James Naden, Waukegan, Ill.—Dart—PP
4. Al Ragahn, Rockford, Ill.—Fox—PP
5. Don Welcome, Bloomington, Ill.—Homelite—Homelite

CLASS A SUPER

1. Dave Woods, Findlay, O.—Lancer—MC-20
2. Gary Barrisklow, Sylvania, O.—Dart—MC
3. Ken Scheffler, Mellburg, Mich.—Outlaw—MC-20
4. Nick Adams, Janesville, Wis.—Fox—MC-10
5. Jim Hagemann, Mt. Morris, Ill.—McC R-1—MC-20

CLASS AJ

1. Jim Dentice, Milwaukee, Wis.—King—PP
2. Chuck Puckett, Decatur, Ill.—Lee—MC-6
3. James Mann, Brookfield, Wis.—Hellcat—MC-6
4. Larry Anderson, Rockford, Ill.—Fox—MC-6
5. George Itefanek, Joliet, Ill.—Bug—MC-6

CLASS B

1. Chuck Florian, Granger, Ind.—Dart—PP
2. Bill Drew, Ontario, Can.—Kelton—MC-6
3. Don Schoenfeld, Milburg, Mich.—Outlaw—PP
4. Dan Umberger, Racine, Wis.—Hellcat—PP
5. Dick Wirges, Princeton, Ill.—Hellcat—MC-6

CLASS B SUPER

1. Bill Wirges, Neponset, Ill.—Go-Kart—MC-20
2. Bob Erwin, Austin, Minn.—McC R-1—MC
3. Ken Fox, Maywood, Ill.—Fox—MC
4. Perry Ahern, LaCrosse, Ill.—McC R-1—MC-20
5. Junior Lyles, Rock Falls, Ill.—Fox—MC

CLASS C

1. Ernie McGlone, Mansfield, O.—Dart—PP
2. Pete Owen, Rockford, Ill.—Fox—PP
3. Robert Schrot, Gibson City, Ill.—Davis—AH
4. Duane Claussen, Mt. Morris, Ill.—Fox—PP
5. Chuck Torman, Findlay, O.—Lancer—MC

CLASS C SUPER

1. Pete Berlif, Huntington, W. Va.—Dart—PP
2. Jim Rose, Park Ridge, Ill.—Dart—MC-6
3. Don Surwall, Skokie, Ill.—Max Torque—MC
4. Glen Kinkade, Pantaul, Ill.—Evans—MC-6
5. Ken Burden, Waynesfield, O.—Lancer—MC-20

CLASS AC JUNIOR

1. Willie Osborne, Delavan, Wis.—Blackhawk—Clinton
2. Terry Hagen, LaCrosse, Wis.—Fox—Clinton
3. Gary Hackbarth, Janesville, Wis.—Fox—Clinton
4. Jimmie Cullar, Ft. Scott, Kans.—Special—Clinton
5. Bobby Cowling, Evansville, Ind.—McC R-1—PP

CLASS AC SENIOR

1. Maurice Gentry, Evansville, Ind.—Swoopster—PP
2. Bill Osborne, Delavan, Wis.—Blackhawk—Clinton
3. Fred Cook, Leaf River, Ill.—Fox—PP
4. Ray Mead, Byron, Ill.—Fox—PP
5. Zane Garter, Rockford, Ill.—Sensation—PP

CHAMPION

Vol. 1 No. 2 Aug-Sep 1961

Official publication of the McCulloch Kart Owner's Association. Published monthly by the Kart Public Relations Section, McCulloch Corporation, exclusively for owners of McCulloch karts and engines who are represented in MKOA.

Richard A. Graser.....Kart Public Relations Supervisor

Keith McMahanEditor

Editorial Offices:
6101 West Century Blvd.
Los Angeles 45, California