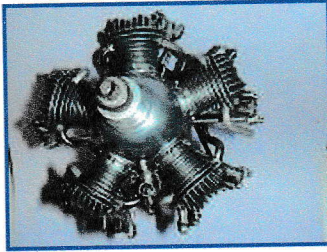


Morton M5



Name	Morton M5	Designer	Glen R Morton
Type	4 stroke ignition radial	Capacity	0.92 cuin
Production run	1440 (approx)	Country of Origin	USA
Photo by	Ron C, of Model Museum engine	Year of manufacture	1940's

Notes:

The Morton M5 cylinder radial (arrangement), was designed by 1940's and was Later, versions Burgess Battery and others (the totally separate available from SIC several year sibling engines ECJ volumes 1 in the eye of etc, and personally, I think the resemblance between the LaBlond and the Morton in very tenuous. Incidentally, LaBlond also made fine lathes and Glen Morton's company also made light planes and machinery.

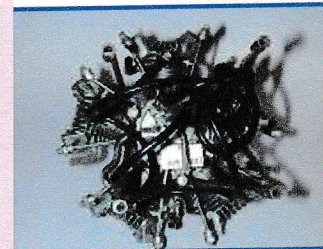
For Library

All materials pertain to Morton M-5 model airplane engine (designed by Scheeler from Bartlesville). Please give all items same call#.

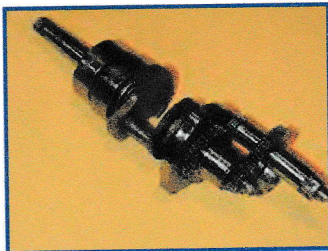
BOB SCHEELER
(Source: Bobbie Brown)

ACCESS# 2007.38

Nancy 4/19/12



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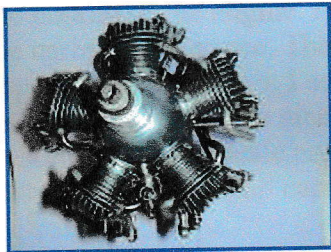


One unusual feature of this engine is the cam design. Normal practice for a five cylinder radial would be to provide two five-lobe cam disks, connected together and rotating in the same direction as the crankshaft at one half the crankshaft speed. One actuates the exhaust valves, the other the inlet. The M5 (and presumably the LaBlond) achieves the same result with a single cam that has three lobes, revolving in the same direction as the crankshaft at one sixth engine speed. The photo here shows how this is achieved: a pin on the aft crankshaft engages in a hole in the master crankpin. The gear on the aft end of this shaft drives an idler shaft at one half engine speed. This is used as the points cam and to drive the distributor arm. A gear on the inner end drives the valve timing cam through a further 3:1 reduction. This cam and its drive gear are attached to a bronze bushing that actually rides on the aft shaft. The large bearing area aft of the cam drive gear rides in a bronze bushing in the rear engine casting, so we have a shaft riding inside a shaft, axial with the crankshaft. This results in a more compact design that places all valve push rods in the same plane. I've never understood why it is not more widely employed.



This M5 was photographed in the San Diego Air and Space Museum, located in

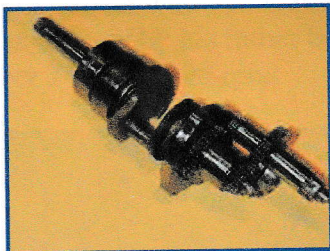
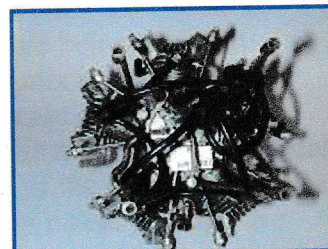
Morton M5



Name	Morton M5	Designer	Glen R Morton
Type	4 stroke ignition radial	Capacity	0.92 cuin
Production run	1440 (approx)	Country of Origin	USA
Photo by	Ron C, of Model Museum engine	Year of manufacture	1940's

Notes:

The Morton M5 is four stroke, spark ignition, five cylinder radial engine (using the usual master/slave rod arrangement), based on the full size LaBlond radial. It was designed by Glen Morton of Morton Aviation in the 1940's and was sold both as a production engine and a kit. Later, versions were made from original parts by the Burgess Battery Corporation as the "Burgess Morton M5" and others (the full story is very complex). It has also been the subject of at least two totally separate fully built [reproductions](#). Reproduction investment castings are still available from Bruce Satra who documented the lost wax mould making process in SIC several years ago. A meticulously researched account of the M5, it's designer, sibling engines and everything else was researched by Bob Knudson and published in ECJ volumes 13 and 14. Some think the LaBlond was an ugly engine. Well beauty is in the eye of etc, and personally, I think the resemblance between the LaBlond and the Morton is very tenuous. Incidentally, LaBlond also made fine lathes and Glen Morton's company also made light planes and machinery.



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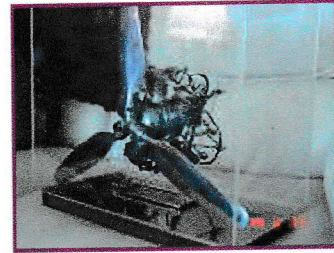
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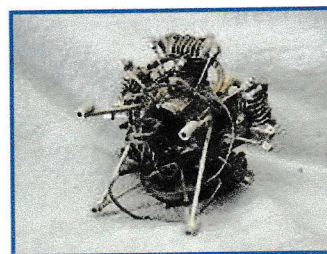
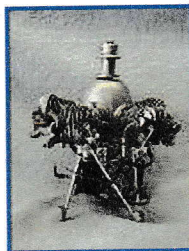
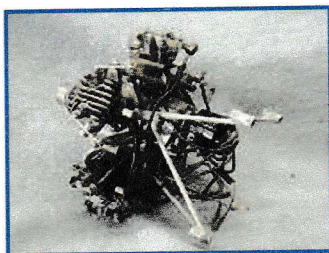
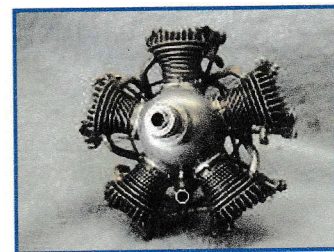
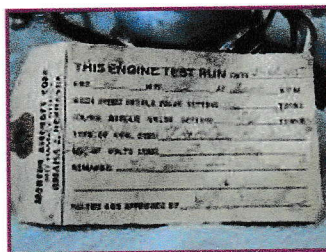
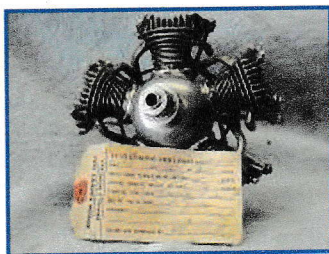
This M5 was photographed in the San Diego Air and Space Museum, located in

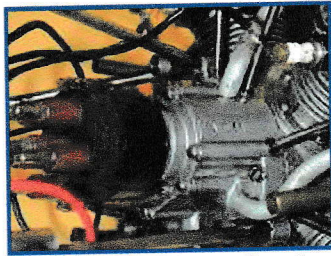
Balboa Park, SD CA. The front 3/4 view shows the engine as displayed, but it has been mounted rotated 90 degrees counter-clockwise -- the carburettor should be at the bottom of the engine. Perhaps the curator mounted it this way to make details of the carby easier to see. The exhaust stub pipes are missing and the induction pipes appear to be a mixture: I see one plated one and one (very beat-up) un-plated one. The second shot shows the nicely made, original motor mount. Very similar to what would be found on a full scale engine of this type in a light plane of the 30's. Note the plaque that claims a 0.94 cuin capacity -- I think this may be wrong.

An email from Dario Brisighella who's owned a number of M5's notes that the Achilles' heel of the M5 is loss of crankcase seal through the front bearing. There are two ball races supporting the shaft, separated a short distance by a spacer. Both are "sealed" type bearings, but the rear seal of the front bearing and the front seal of the rear bearings are removed and the volume between the bearings packed with grease before assembly at the factory. When the engine is running, the crankcase acts as a plenum chamber with pressure below ambient allowing the updraft carburator to draw in fuel air mix. This mix is drawn into cylinders through the inlet pipes positioned around the gear case cover on piston downstrokes in the normal 4 cycle way. Ballbearing dust seals are just that: dust seals, so the reduced pressure in the case assists gradual migration of the grease into the case over time. Eventually, enough grease is lost so that air readily passes through the bearing seals, reducing the pressure differential between the crankcase interior and the outside, resulting in less suction through the carburator, giving a leaner mixture. Performance eventually drops off to the point where the engine will no longer start. At this point, many owners took their engine apart with no idea of what was wrong, or of the critical setup of gear positions required to get the timing correct. The three-blade prop on Dario's engine was a factory option (a two-blader was also offered). Note how closely it resembles the Hamilton-Standard ground-adjustable pitch props of the 1930's. Beautiful.



Next we have some excellent pictures of a very original condition Morton M5 sent by a gentleman who had done a web search and found this page. This engine had been bought new by his father back in 1945. Note the duration stated for factory running: over 2 hrs at 3000 rpm!





This M5, serial number A511, is now in my own collection (and to think, I started out as an engine builder, with no interest in collecting). The "A" prefix denotes a "premium" engine, meaning that when factory tested, the engine started and ran particularly well. This must have made other owners feel rather second-class! The photo here is pretty much as received, though the Morton 2 blade prop was not fitted and I had to make some rather special tools to remove the "flying" prop hub. I also suspect that the distributor cap and wiring are not original, although the clips retaining the cap may be. The cap has been nicely fabricated from phenolic material and uses (I think) pins from early 8-pin valves on the distributor leads, plugging into valve socket receptors in the cap. The serial number is a relatively early Morton factory one (visible on the gear case) and the spark plug clips are neat, but not of any type researched by Knudson in his ECJ series. There is no advance/retard facility; again, an indication of an early, Morton manufactured engine.

It can be a fun exercise to trace the distributor leads from cap to cylinder as this gives some indication of how much the owner knows about the engine. The firing order on all conventional radials is: all odd number cylinders, followed by all evens. Coincidentally, this is what gives "round" engines their characteristic exhaust sound--remembering it will take two crankshaft revolutions to fire all cylinders. Conventionally, the cylinder poking up at top is cylinder #1. Normal rotation on most full-size radials and the M5 is counter-clockwise when viewed from the front. The cylinders number sequentially, in the direction of prop rotation. So, viewed from the rear and moving clockwise we, see 1-2-3-4-5. The distributor cap numbers for the Morton represent the firing order, but number counter-clockwise because the rotor arm is rotating in opposite direction to the prop. The firing order required is 1-3-5-2-4, so to time the engine, place the crankshaft so the "top" cylinder has both valves closed and the piston at TDC. Wherever the rotor arm is now is the #1 cylinder firing position. Now select the next counter-clockwise distributor flylead and connect it to the #3 cylinder counted clockwise from cylinder #1, viewed from the back. Flylead #3 goes to cylinder #5, #4 to #2 and last, #5 to cylinder #4. Got it? Have a look at the rear photo of Tim's engine. His engine is wired up correctly.

I've been asked by a number of people where they can get Morton parts today. Now, you must realize we are talking serious rocking-horse droppings here. The original Morton and Burgess parts dried up long ago, but in recent memory (early 1990's), a talented tool and die maker named Bruce Satra embarked on the ambitious task of reproducing the dies to make Morton parts. This process was well chronicled in the first volumes of SIC magazine. Bruce's dies are used to produce parts through "lost wax" casting and the detail as seen here is superb. Can they be used as replacement parts? Probably, but as their finish is different and detail *better* than original, they will stand out on an original engine. Bruce's company now supplies many parts for the M5, as well as an exact 1/6 scale Pratt and Whitney Wasp Junior; a 9 cylinder radial. Ask Bruce for his latest catalog by writing to:



Vernal Engineering Co
2277 So., 1500 West
Vernal, Utah 84078-4654

(435) 789-6052

Together with the A511 engine, I acquired a partially machined set of original castings

for an original M5 (Morton offered "kits" to schools and amateur engine builders). The standard of work already carried out can charitably be described as adequate to poor, although the worst mistakes appear to be salvagable. The engine is missing castings for the rocker arms, pistons, master and slave rods, and carburetor. All these can be made from stock, if I can't locate replacements. I'm keeping the [M5 construction log](#) separate from this information page as I expect progress to be slooow...



[Home](#)

This page designed to look best when using anything but IE! Please submit all questions and comments to enquiries@modelengineneews.org

MORTON AIRCRAFT CORP.
3227 HARNEY STREET
OMAHA 2, NEBRASKA

THIS ENGINE TEST RUN DATE 5-4-45

HRS. 2 MIN. 15 AT 3000 R.P.M.

HIGH SPEED NEEDLE VALVE SETTING 1 TURNS

IDLING NEEDLE VALVE SETTING 3/4 TURNS

TYPE OF COIL USED Prestolite

NO. OF VOLTS USED 22

REMARKS: No. 1 coil for running

TESTED AND APPROVED BY W. H. H. H.



06-FEB-2001

Five Morton M5 engines - count 'em !

This is a good picture of model builder George Hellmer from Taylor, MI, with his lineup of Morton M5 radials. Each model displayed, represents a different 'era' in the life of the Morton engines.

Kodak DC265

1/30s f/2.8 at 8.0mm with Flash full exif

www.pbase.com/

THE BURGESS M-5

THIS month, Air Trails presents the most unusual model airplane engine the field has to offer. When originally produced, Morton Bros. of Omaha, Nebraska, manufactured it. At present, however, Burgess Battery Company, of Chicago, Ill., is putting it out.

This little job is a scaled-down version of the famous Le Blond series 510 radial, air-cooled engine. The parent engine is 33¼" in diameter and weighs 219 lbs. Burgess' little engine is 5¾" in diameter and weighs but 22 oz. The M5 develops ½hp at 3,500 r.p.m. as compared to the Le Blond's 85 hp at 2,125 r.p.m. which gives the smaller engine a slightly higher power-to-weight ratio.

The Burgess to our knowledge is the only miniature four-cycle five-cylinder radial engine made today, which makes our model engine game most intriguing. Perhaps the easiest way to explain the motor would be to break down the radial engine principle. Suppose we compare it to a five-spoked wagon wheel. Picture in your mind the spokes' being the connecting rods and the hub the crankshaft.

One spoke (rod) is mounted independently of the other spokes or rods and fastens to a main assembly on the crank throw called the rod journal. The other four spokes (rods) meet this journal and connect by means of four wrist pins. The crank throw naturally is offset as in I cylinder engines, whether it be two- or four-cycle.

As the shaft rotates the spokes (rods) move along with it, thus moving the pistons up and down. We know it isn't very clear but it's not as complicated as we make it.

Now to get down to the actual parts and material of the engine itself. The offspring of the Le Blond is copied almost directly as far as design and materials are concerned. To get an actual idea we will compare the two.

The Le Blond has a heat-treated aluminum crankcase of which the intake manifold is an integral part. It is ring-style and encircles the case. Intake tubes connect the cylinders to this ring by means of smaller tubing formed to meet the openings.

The crankshaft is of ¾" diameter steel and closely ground to meet the two ball bearings in which it is suspended. These ball bearings are fitted into the front end of the crankcase. One bearing takes the thrust load. The master rod including the journal and the four other rods (which are aluminum die cast) fit into the crank throw. The cam is driven by a lead gear shaft, made of steel and heat-treated. The gear shaft resembles a crankshaft in design. The throw on the lead shaft fits inside the hollow crank throw. When put together they are end to end or directly opposite each other.

The rear section of the case holds the lead shaft, cam, and the distributor lobe.

The distributor is typical automobile system but very much smaller in design. The case and cap is bakelite in construction. Upon removing the cap and the rotor, the points are accessible for cleaning and adjustment.

The M5 has hardened, ground-steel sleeves cast into the aluminum cylinders. The sleeves themselves are ground very accurately and finished smoothly.

Pistons are cast aluminum and fitted closely to the sleeves. Two oil rings of ⅙" radius are cut into the pistons to provide ample lubrication. The upper wrist pin is machined smoothly of drill rod and is ⅝" in diameter and approximately one-half inch long. Pads are used in the piston pin at each end to prevent scoring of the cylinder walls. Each cylinder assembly is held to the crankcase by 6 #2-56 machine screws.

Cam followers, something we don't find in any two-cycle engines, operate the push rods and valves. These followers are constructed of drill rod and are hollowed to meet the push rods.

Push rods are made from ⅜" drill rods and have ball ends. One end is received in the cam follower while the other end goes into the adjusting screw on the rocker arm. The rocker arm itself is cast of 17ST. aluminum. There are two rocker arms for each cylinder, thus making ten in all. The arms upon pressure from the push rods, forces the valves open at the proper time. Each cylinder has two push rods, rockers, and valves. One valve is an intake and of course the exhaust makes up the pair. These valves incidentally are made of 1130 steel. The exhaust manifold is just plain aluminum tubing. They are pressure-fitted (same as intake tubes) and may be bent to any shape desired. Personally, we like them as they are.

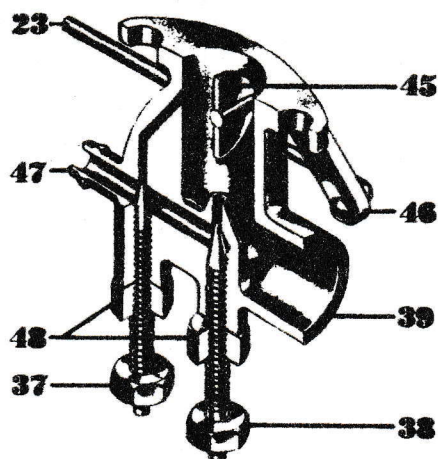
The carburetor is mounted between #3 and #4 cylinders. Looking from the front, this is directly between the two bottom cylinders. The air intake faces forward catching the prop blast. The "pot" has two adjustments, one for high speed running. These jets are set at the factory when the engine is first checked. Occasionally the settings have to be changed slightly due to various altitudes.

A throttle control is an additional feature of the M5. It may be operated by either a third line when flying U-control or a solenoid mounted in the ship and activated by a battery carried by the pilot. Spot landings and other realistic maneuvers may be made by using the throttle. For example, the pilot may land and take off again without leaving the center of the circle or touching the ship. In a large field, he walks along with the ship in a taxi run. When ready, he flips the solenoid, the engine revs up, and the plane takes off.

The only ticklish thing we find in the carburetor assembly is the method of keeping the engine fuel mixture rich when it is cold. One must keep his finger over the carburetor opening while the engine is perking. Just imagine a 16" aluminum prop chomping in front of you and your finger close by. We figure that with a wee bit of thought, a hand-choking system can be hooked up.

The M5 is lubricated differently from its father, "Le Moteur Le Blond." The parent has an oil sump and pump. Neither is practical on the model because of added weight and cost. To build a miniature pump and arrange the two bottom cylinders so they would not foul with excessive oil would boost the cost of the engine far out of reach of the average model builder. Such a pump would be built like a watch and would cost about as much. Another difference in the two motors is the electrical or ignition set-up. The Le Blond has a magneto and two spark plugs for each cylinder. The M5 has the typical coil and condenser deal but only one plug for each cylinder. Five more spark plugs would only add extra weight and would not add to the performance of the engine. Other changes were made in order to save as much weight as possible, but these are not apparent without a careful study of both engines, and in no way do they detract from the scale proportions of the Burgess. In rough language, we could say it's a spitting image.

The fuel mixture, we should have said before is the conventional 3-to-1 mixture. The engine is broken in though on 2½ to 1.



**CARBURETOR
DETAIL**

Burgess wants the model builder to use a third grade gasoline in order to make the engine start more easily and run more smoothly. Hi-Test gas should not be used, either in the M5 or any other small gas engine. It will not start any more easily nor develop more power. As a matter of fact, Hi-Test gas will make the engine sputter and miss as soon as it is warmed up.

The gas tank capacity is up to the owner as far as running time is concerned. We don't know how long the Le Blond ran on a gallon of gas, but we do know that the little job runs ten minutes on two ounces of fuel. That, in our estimation, is pretty good economy.

The mounting is radial, as in larger radial aircraft engines, and the same type of mounts are used. They are tubular steel and are adapted to most class "C" ships.

The M5 is not just an ordinary engine to be used for flying model planes. It is a real miniature powerplant that is an almost perfect replica of the engine from which it is scaled. While it is true that many parts of a full scale engine are more complicated than those of the M5, the basic system is identical.

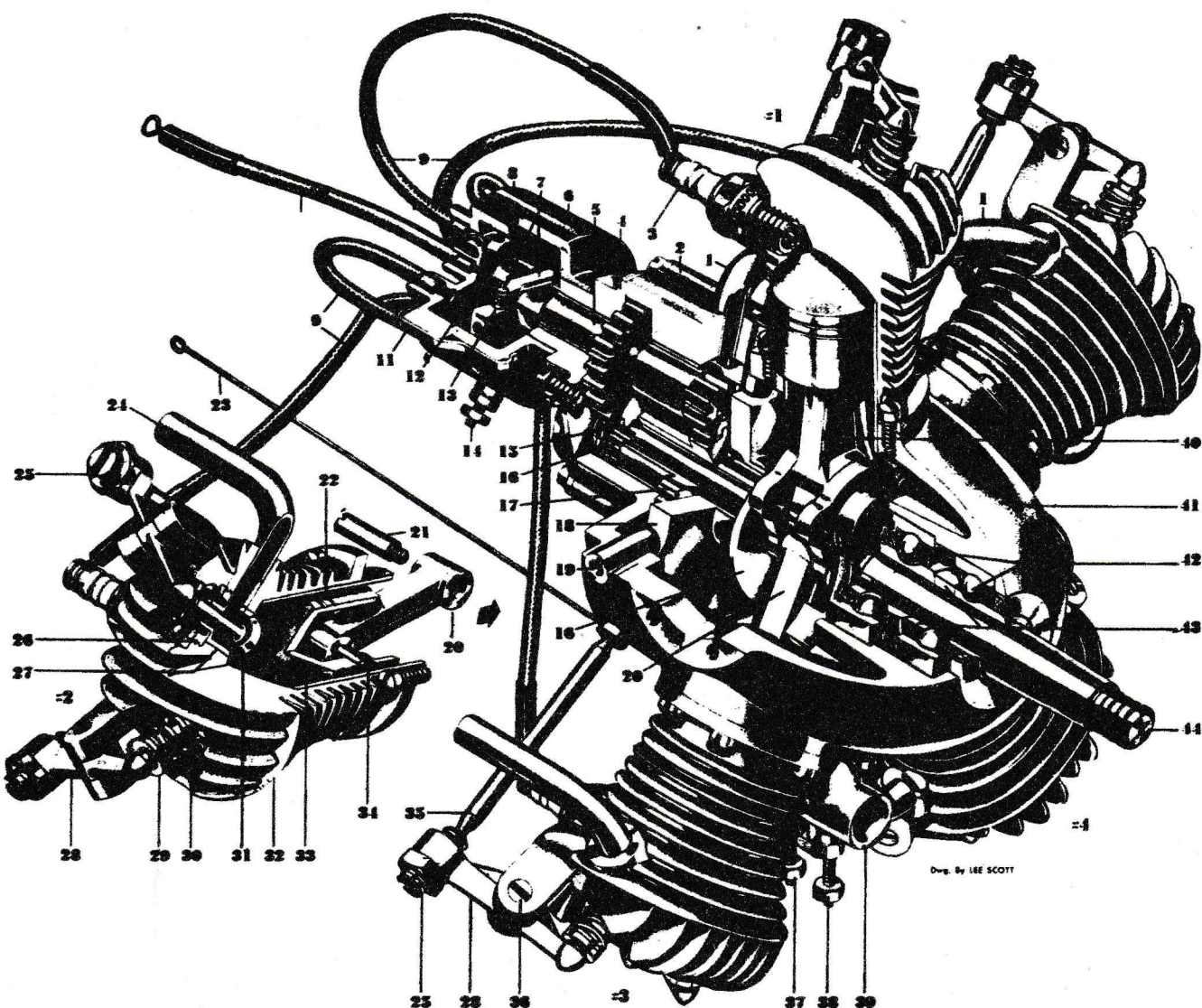
The exhaust sound and speed as far as r.p.m. is concerned is much lower than the conventional two-cycle engine. While the horsepower in a two-cycle job is reached at high r.p.m., the M5 delivers its maximum output at approximately 3500.

The only other disadvantage we find besides the choking method, is the fact that the pistons are cast aluminum. Even with plenty of lubrication, aluminum is soft and has a tendency to wear quickly. But don't get us wrong. We heard of M5's that have run for 275 hours, and are still going.

You may get a completely assembled, factory tested and guaranteed engine, less coil, condenser, fuel tank and prop, ~~complete~~ ~~assembly~~. If you really want the "works," you may get the engine, tank, coil, condenser, two-bladed aluminum prop, battery, and switch all mounted and ready to go.

Brief specifications are—

Five-cylinder, four-cycle, radial aircooled model aircraft engine. The bore of .632 and the stroke of .600 brings the displacement up to .97 cubic inches. The over-all diameter is 5 3/8" and it develops approximately 1/2 hp at 3500. Its bare weight is only 22 ounces.



Des. By LEE SCOTT

- | | | | |
|-------------------------------|-------------------------------|---------------------------|---------------------------|
| 1. INTAKE TUBE (5 REQ.) | 13. STATIONARY TIMER POINT | 25. ADJUSTING SCREW & NUT | 37. IDLING VALVE |
| 2. GEAR CASE | 14. COIL CONNECTING POST | 26. VALVE LOCKNUT | 38. HIGH SPEED VALVE |
| 3. SPARK PLUG V-3 (5 REQ.) | 15. BALL BEARING | 27. VALVE CAGE | 39. CARBURETOR INTAKE |
| 4. GEAR CASE COVER | 16. LEAD GEAR | 28. ROCKER ARM | 40. MASTER CONNECTING ROD |
| 5. GEARED TIMER CAM SHAFT | 17. CAM GEAR | 29. VALVE CAP | 41. CRANKCASE |
| 6. DISTRIBUTOR CASE | 18. CAM | 30. VALVE SPRING | 42. BALL BEARINGS |
| 7. CAM FOLLOWER & TIMER POINT | 19. CAM FOLLOWER | 31. VALVE | 43. SPACER |
| 8. DISTRIBUTOR CAP | 20. AUXILIARY CONNECTING RODS | 32. CYLINDER | 44. CRANKSHAFT |
| 9. HIGH TENSION WIRES | 21. AUXILIARY ROD BEARING | 33. PISTON | 45. BUTTERFLY VALVE |
| 10. LEAD TO COIL | 22. CYLINDER SLEEVE | 34. Wrist PIN | 46. THROTTLE ARM |
| 11. SPRING CLIP | 23. THROTTLE | 35. PUSH ROD | 47. FUEL INLET |
| 12. ROTOR | 24. EXHAUST TUBE | 36. ROCKER ARM PIN | 48. LOCKNUTS |

THE M-5

This reprint was originally published as an article in the Sept., 1947, issue of the AIR TRAILS PICTORIAL. It is about the only formally produced article concerning the M-5 and is reproduced here from an original BURGESS reprint. Notice the hand inked in notes concerning the M-5 specifications. MORTON AIRCRAFT CORP. originally designed and produced this engine in 1944 - 1946, and then sold to BURGESS in June, 1946. BURGESS made some slight design changes to improve precision in production, and produced engines until about 1949. M & S ENGINEERING CO. then acquired the tooling and M-5 parts inventory from BURGESS and continued to build, service, and repair the engines until 1953 when the company was dissolved. M & S experimented with different carburetor designs and added a distributor spark advance lever to facilitate operation when running.

Although MORTON drawings show the cylinder bore to be .625" I.D., the actual production bore was closer to .632" I.D. and with the stroke of .600", the actual displacement was .94 cu. in. instead of the .92 cu. in. originally listed in the MORTON literature.

Some of the parts names as listed in the cut-a-way illustrations and numerical index in the article are not exactly as listed in the MORTON and BURGESS parts price lists. The corrected terminology and parts numbers are listed in TABLE II. The original MORTON, BURGESS, and M & S parts lists have been consolidated and combined with other M-5 data to form a most comprehensive information list five pages long. Also available are M-5 engineering prints with latest revisions, and operating-maintenance manual repros.

The consolidated parts list also contains current prices for those M-5 spare parts which are still available, altho some parts are in short supply or not in stock. This parts list is available for price of \$1.00 from:

Robert O. Knutson

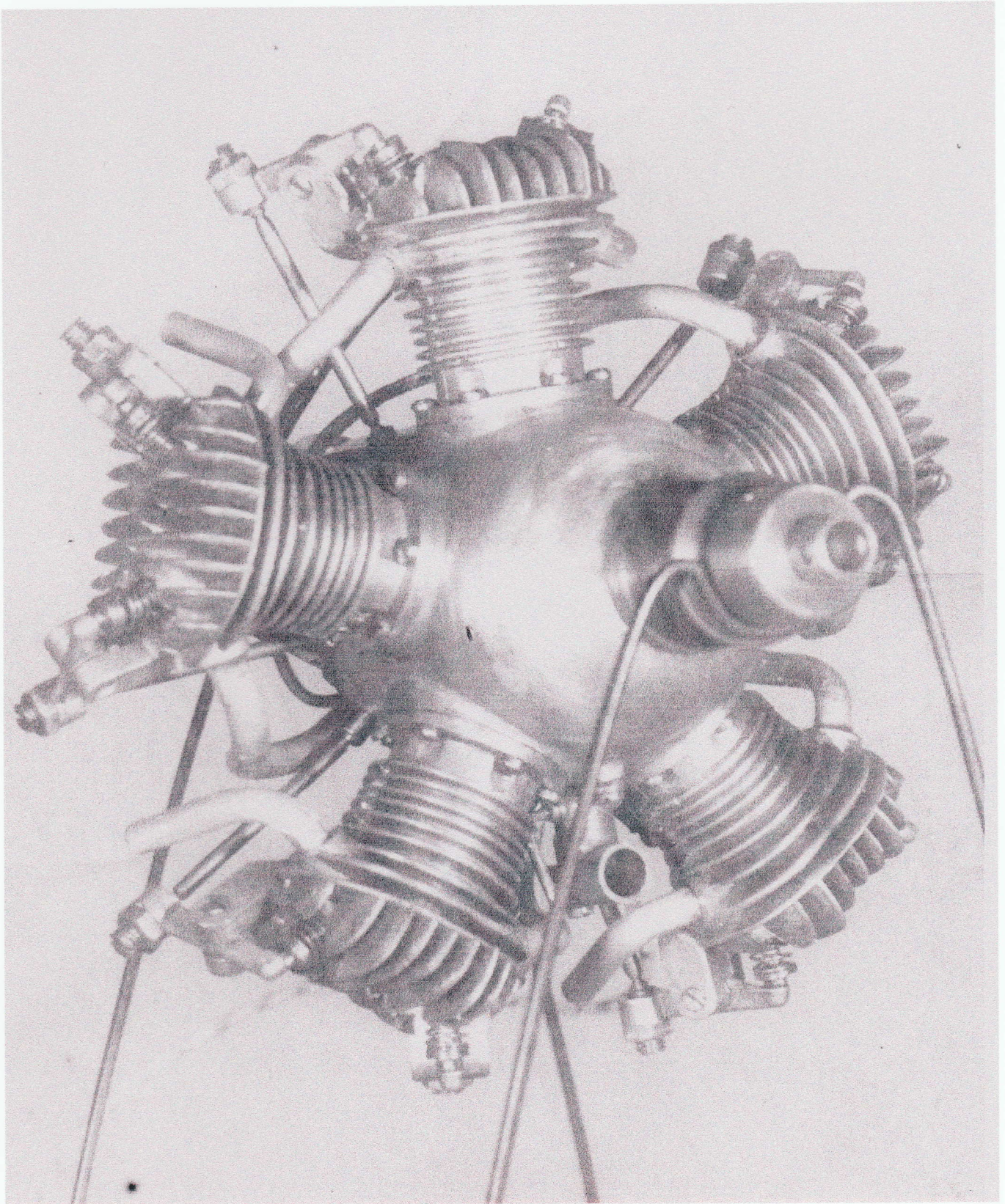
P.O. Box 243

Austin, Minnesota 55912

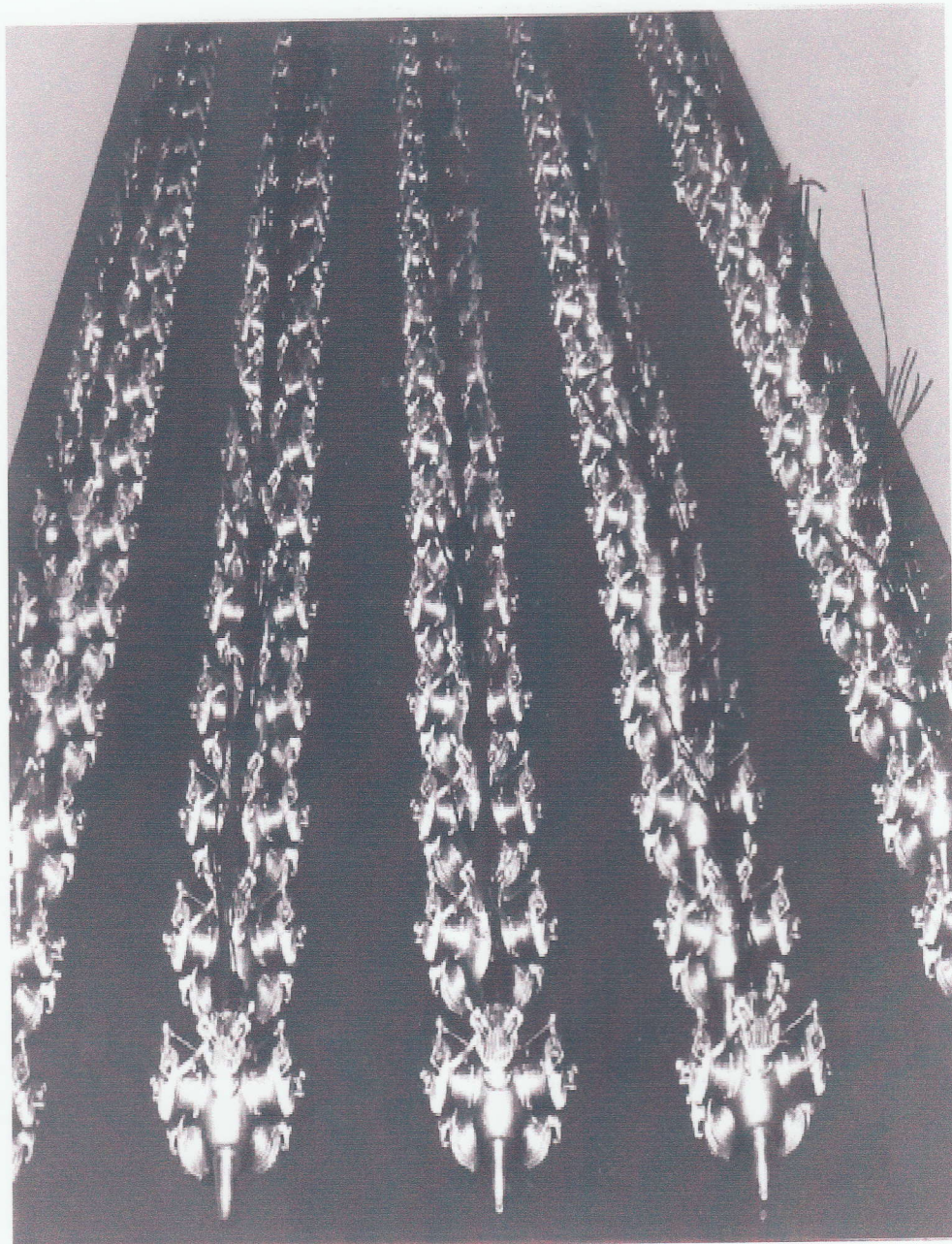
TABLE II.

ILLUSTRATION NUMBER	CORRECT M5 PART NO.	NO. REQ'D	ORIGINAL MORTON/BURGESS PART NAME
1.	M5-9027	5	Intake Tube
2.	M5-3001	1	Gear Case
3.	M5-6000	5	Spark Plug, V-3
4.	M5-3008	1	Gear Case Cover
5.	M5-3007A	1	Distributor Shaft Assy. Including 3007, 3009, 3010
6.	M5-5001	1	Distributor Case
7.	M5-5008	1	Contact Spring, Moving, with Tungsten Point
8.	M5-5005	1	Distributor Cap
9.	M5-5006	5	Ignition Wire with Terminal Ends
10.	M5-5011	1	High Tension Wire with Terminal Ends, Coil
11.	M5-5009	2	Spring Clip, Cap Retainer
12.	M5-5002A	1	Rotor with 5003 Spring
13.	M5-5007	1	Contact Support with Tungsten Point
14.	M5-5014	2	Screw Terminal, #2-56 X 3/8" with 3 ea. #2-56 Hex Nuts
15.	M5-9030	1	Bearing, Ball, Lead Shaft, R-3
16.	M5-3002A	1	Lead Shaft Assy. Including 3002 & 3006
17.	M5-3004	1	Cam Gear, with 3003 Main Bushing
18.	M5-3012	1	Cam
19.	M5-1002	10	Cam Follower
20.	M5-2700	4	Auxiliary Connecting Rod
21.	M5-2402	4	Wrist Pin, Connecting Rod to Master Rod
22.	M5-4002	5	Cylinder Sleeve (cast into 4001 cylinder)
23.	M5-	1	Throttle Wire not an Engine Part
24.	M5-9028	5	Exhaust Tube
25.	M5-4004	10	Rocker Arm Adjusting Screw & Lock Nut
26.	M5-4105	10	Valve Cage Lock Nut, Brass
27.	M5-4106	10	Valve Cage, (Seat)
28.	M5-4003	10	Rocker Arm
29.	M5-4102	10	Valve Cap, Retainer, with Lock Ring 4103
30.	M5-4104	10	Valve Spring
31.	M5-4101	10	Valve
32.	M5-4001	5	Cylinder
33.	M5-2400	5	Piston
34.	M5-2401	5	Wrist Pin with Aluminum Rivets for End Pads, Piston
35.	M5-1001	10	Push Rod
36.	M5-4005	10	Rocker Arm Pin
37.	M5-8004B	1	Needle Valve, Idle, Burgess Style
38.	M5-8004B	1	Needle Valve, High Speed, Burgess Style
39.	M5-8001	1	Carburetor Case, Morton / Burgess Style
40.	M5-2300	1	Master Rod
41.	M5-2100	1	Crankcase
42.	M5-9031	1	Bearing, Ball, Rear, N.D. 8008
42.	M5-9032	1	Bearing, Ball, Front, N.D. 8038
43.	M5-2600	1	Spacer, Main Bearings
44.	M5-2200	1	Crankshaft
45.	M5-8016	1	Throttle Plate similar to Morton 8003
46.	M5-8015	1	Throttle Arm similar to Morton 8002
47.	M5-		Fuel Inlet
48.	M5-8006	2	Needle Valve Lock Nuts, Hex, Brass, #0-80
<u>NOT ILLUSTRATED</u>			
	M5-2900	1	Wood Prop Hub Assy. with Puller, Nut, and Washer
	M5-9002	1	Tubular Engine Mount
	M5-9010	1	Propeller Assy. Two Bladed, Aluminum
	M5-9015	1	Propeller Assy. Three Bladed, Aluminum

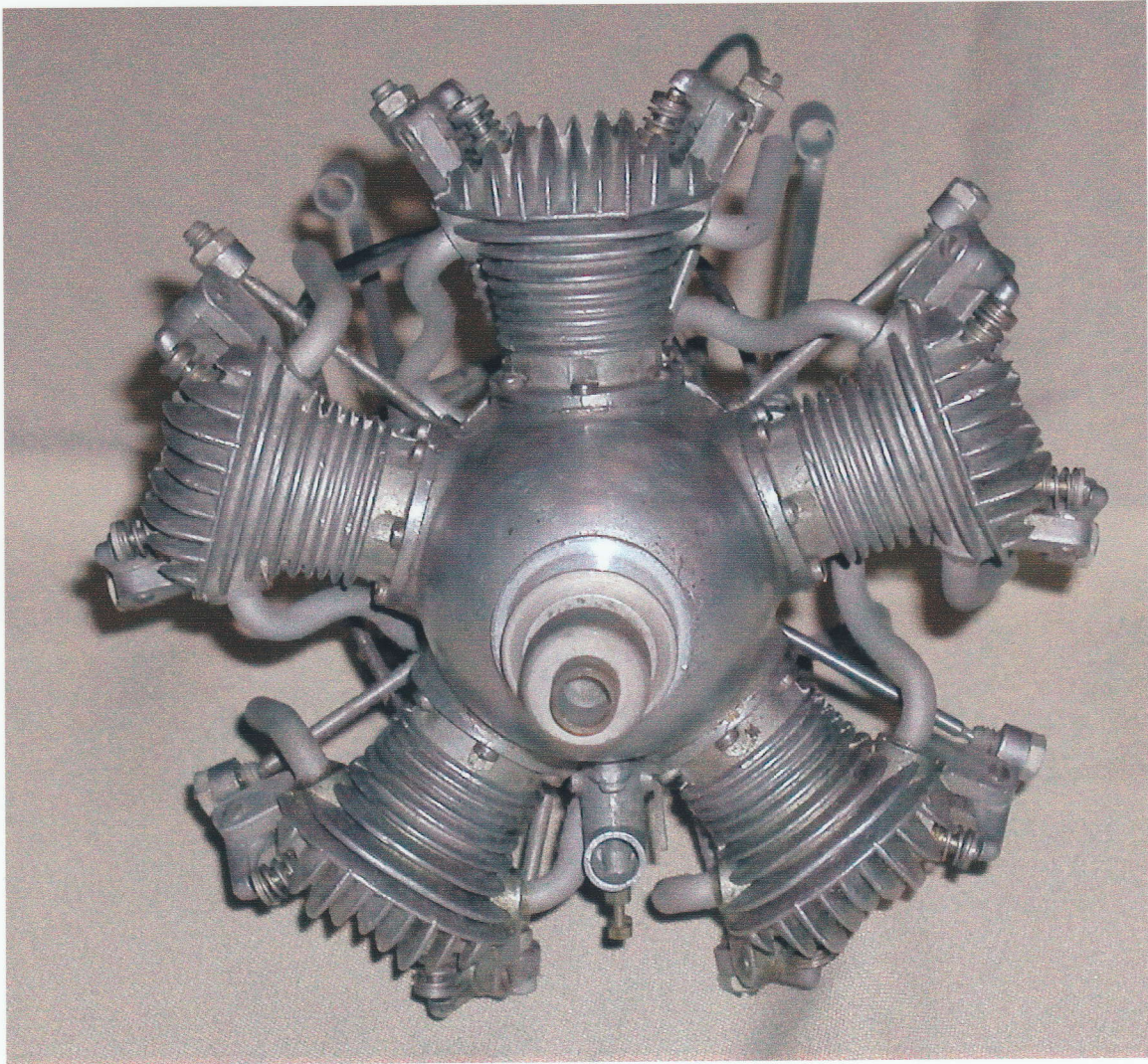
MORTON M5 RADIAL ENGINE - 1944



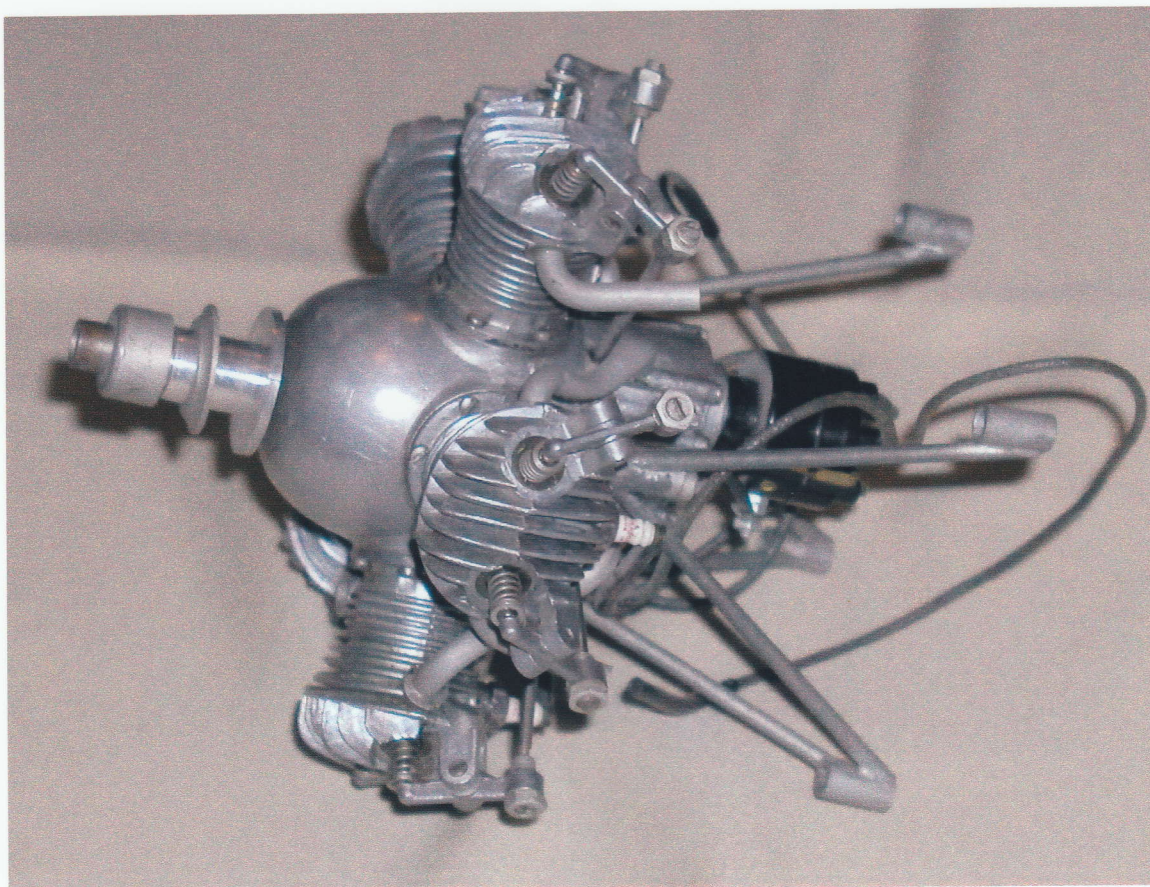
MORTON M5 ENGINE PRODUCTION LINE - 1944



R. C. SCHEELER'S ORIGINAL
MORTON M5 ENGINE, FRONT – 1944 OR 1945



R. C. SCHEELER'S ORIGINAL
MORTON M5 ENGINE – 1944 OR 1945





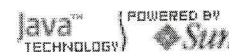
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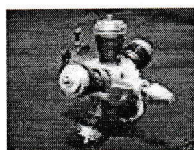
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Morton M-5 Five Cylinder Radial Model Airplane Engine

Item number: 170131921741

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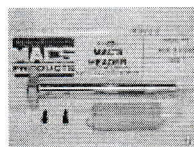
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049 Engine Custom
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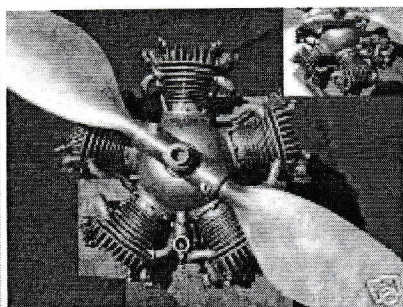
RC Model Airplane
Engine Header Pipe
4 K & B 3.5 NEW

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ENGINE NIB FREE
SHIPPING!!!!

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Ended: **Jul-23-07 20:39:06 PDT**

Shipping costs: Calculate

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Item location: Fairport, New York, United States

History: 20 bids

Winning bidder: 2564bruce (102 ★)

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Description (revised)

Item Specifics - Radio Control Parts & Accessories

Type: **Airplane Parts**
Sub-Type: **Engines, Motors**
Fuel Source: **Gas, Nitro**

Brand: **Morton**
Condition: **Used**

This Morton M-5 engine is a four stroke, spark ignition, five-cylinder engine. It was designed in the 1950s by Glen Morton of Morton Aviation. It is in very good condition and is currently mounted on a wooden frame with a gas tank, condenser and coil. (The latter two items may need to be replaced.) The engine was purchased for use on a model airplane. It was never installed but was run on the wooden frame.

Also included with the engine are:

- Full set of drawings of the various parts
- Operating instructions
- Parts list from the manufacturer
- 6 new, unused spark plugs
- 2 original exhaust tubes

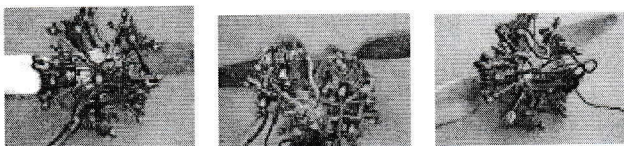
Because this engine has not been used for many years, I cannot guarantee it will start. I have installed five new brass exhaust tubes and I am including two original exhaust tubes.

This engine is being shipped from Cape Cod, Massachusetts, not Fairport, New York. The engine and included parts were taken to UPS – they said shipping weight will be 8 pounds. Shipment will be UPS ground. UPS insures up to \$100. Buyer is responsible to purchase additional insurance to cover purchase price.

The only form of payment that I accept is money order/cashiers check.

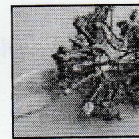
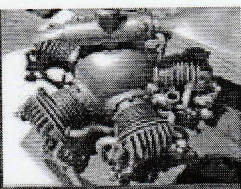
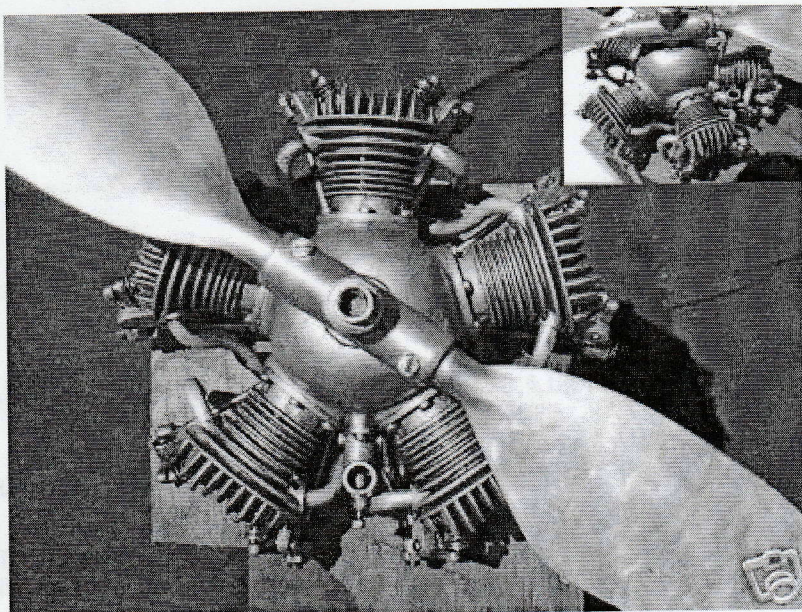
Please email me with any questions you may have. This engine is purchased as is. I do not accept returns.

On Jul-17-07 at 18:59:39 PDT, seller added the following pictures:



Select a picture





01374

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Shipping and handling

Ships to

United States

Country: <input type="text" value="United States"/>		Zip or postal code: <input type="text"/>	<input type="button" value="Update"/>
Shipping and Handling	To	Service	
Enter zip code	United States	UPS Ground 1 to 6 business days*	
Shipping cannot be calculated for your area. You can contact the seller for additional shipping costs and services.			

*Sellers are not responsible for service transit time. This information is provided by the carrier and excludes weekends and holidays. Note that transit times may vary, particularly during peak periods.

Domestic handling time

Will usually ship within 1 business day of receiving cleared payment.

Shipping insurance

Included (in the shipping and handling cost)

Return policy

Return policy not specified.

Read item description for any reference to return policy.