

# ANNOUNCEMENT

OF THE NEW

## *Fronty Model A-F 16 Valve Dual Exhaust and Intake Cylinder Head for Model A Ford*

DESIGNED AND BUILT BY  
ART. CHEVROLET

This cylinder head designed after an intensive study of racing motors and special cylinder heads, lends itself admirably to all kinds of racing work, due to the fact that it embodies the patented features brought out by Mr. A. Chevrolet in the valve arrangement in the cylinder head. This valve arrangement and cooling of cylinder head and spark plugs allows the use of much higher compressions than it has been possible to use in other cylinder heads heretofore and consequently more power is developed.

This valve arrangement (patented) is as follows:

The two exhaust valves in each cylinder are on opposite sides of the cylinder head, allowing a large water cooled space between them. The exhaust valve seats are entirely surrounded by water, except the portion which is adjacent to the intake valve seat, which is, of course, cooled by the incoming mixture which is very cold at all times, thus insuring adequate cooling of exhaust valves at all times, at any speed and doing away with any hot spots or any cracked cylinder heads. This also eliminates the most common cause of pre-ignition, namely, hot spots in the head which cannot be cooled properly and we believe this cylinder head to be the best that has ever been brought out by us or anyone else for racing purposes.

This is borne out by the fact that the first head we built was put on a Fronty chassis and entered in the 1931 500 mile race at the last minute. The work on the motor was hardly completed on the last day of elimination trials. The motor was run about 20 miles at slow speed, then immediately qualified, 4 laps, 10 miles, at an average speed of 108.39 miles per hour. The average for the last lap was 109.37 proving that the motor was just limbering up—as it proved to be during the race when this car was timed repeatedly making laps at an average of 112 to 114 miles per hour on an oily track and

congested traffic. In order to make this average speed the car must show a straightaway speed of 135 to 140 miles per hour. This, we believe, is making good with a Bang on a new product.

All racing drivers that saw this new cylinder head in action are unanimous in declaring that it is the FASTEST cylinder head for Fords that has ever been built and we guarantee that it is the most reliable and durable head we ever built.

### Specifications

Cylinder Head Casting—High-grade nickel iron.

Camshafts—Two, 5 bearings on each shaft.  
Valve lift  $\frac{3}{8}$  inch.

Valves—Exhaust,  $1\frac{5}{8}$  inch; intake,  $1\frac{5}{8}$  inch, made of best steel obtainable.

Valve operation through steel cups.

Double valve springs.

Drive from crankshaft through Diamond Triple Chain and 3 gears to camshafts. All shafts in drive mounted on ball bearings.

Exhaust Ports—3 on each side,  $1\frac{5}{8}$  inches in diameter.

Intake Ports—2 on each side,  $1\frac{5}{8}$  inches in diameter.

Model A-F-1000—Complete with 2 exhaust and 2 intake manifolds, 2 carburetors, all studs, gaskets and bolts with instructions for installation. Price .....\$650.00

Model A-F-1000-A—Same as above but without any manifolds or carburetors.....\$550.00

Note: A deposit of 25 per cent required with order as these cylinder heads are built to order only.

## THE NEW A-F FRONTY RACING MOTOR

### Speedway Type

This is the same motor that was entered and run in the 1931 500 mile race at Indianapolis, May 30, 1931. This motor was qualified at an average speed of 108.39 miles per hour after running only 2 laps at speed, and showed laps during the race at an average of 112 to 114 miles per hour on an oily track and very congested traffic. The car was put out of the race at the 116th lap due to a broken spindle, but the motor was running better then than when it started.

### Specifications

Cylinder Head—Model A-F-1000 (See Head Specifications).

Cylinder Block—Ford Model A; 5 main bearings bored for oversized shaft.

Crankshaft—5 main bearings,  $1\frac{1}{8}$  inches in diameter;  $1\frac{1}{8}$  inch crank pins.

Connecting Rods—Tubular of heat treated Chrome Vanadium Steel.

- Pistons—Special A-F Model.
- Piston Pins—Special A-F Model.
- Carburetors—2 Winfields, 1½ inch.
- Magneto—Bosch F. H. 4.
- Water Pump and Magneto Bracket—Special Fronty.
- Oil Pump—Special Fronty.
- Fly Wheel—Model A Ford, lightened and balanced.
- Clutch—Model A Ford Special.
- Transmission—Model A Ford.
- Model A-F-2000**—Speedway type. Complete ready to set in chassis, tested and tuned up .....\$1750.00

## A-F FRONTY RACING MOTOR

### Junior Dirt Track Type

This is practically the same as the Speedway Type except that it is equipped with a 3-Bearing Crankshaft instead of 5-bearing and stock model A Ford connecting rods, remachined and balanced instead of tubular connecting rods.

### Specifications

Cylinder Head—Model A-F-1000 (See head specifications).

Cylinder Block—Model A Ford 3-Main Bearings, bored out for oversize shaft.

Connecting Rods—Model A Ford, bored out and balanced.

Pistons—Special Fronty.

Piston Pins—Model A Ford.

Carburetors—2 Winfields or Zeniths, 1½ inch.

Magneto—Bosch D-U-4.

Water Pump and Magneto Bracket—Special Fronty.

Oil Pump—Special Fronty.

Fly Wheel—Model A lightened and balanced.

Clutch—Model A Special.

Transmission—Model A Ford.

**Model A-F-2000-A**—Dirt Track Junior Type, complete ready to set in chassis, tested and tuned up .....\$1500.00

Same as above with stock Model A Ford crankshaft and rods .....\$1425.00

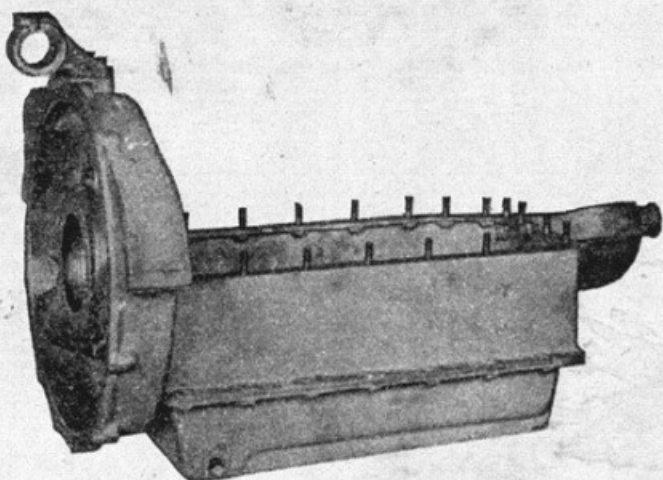
A price reduction of \$100.00 will be made on all models if purchased without fly wheel, clutch, bell housing and transmission.

Note: A deposit of 25 per cent required on all orders for complete motors as they are built to order only. Delivery approximately 4 weeks after receipt of order.

## SPEED EQUIPMENT FOR THE NEW A-F 1000 CYLINDER HEAD AND MOTOR

A-F-1	Cylinder Block, 5 main bearings, bored out and babbited, Speedway type .....	\$100.00
A-F-2	Crankshaft, 5 main bearings, 1 $\frac{1}{8}$ inch mains, 1 $\frac{1}{8}$ crank pins, fully counter balanced, made of Chrome Nickel Molybdenum Steel, Speedway type .....	\$375.00
A-F-3	Tubular Connecting Rods, made of Chrome Vanadium Steel, set of 4.....	\$120.00
A-F-4	Special Pistons (Speedway type) per set of 4 .....	\$ 36.00
A-F-5	Special Pistons (Dirt Track Junior type) per set of 4 .....	\$ 30.00
A-F-6	Special Piston Pins, each.....	\$ 1.00
A-F-7	Crankshaft, 3 main bearings, 1 $\frac{1}{8}$ mains, 1 $\frac{1}{8}$ inch crank pins, fully counter balanced, made of Chrome Nickel Molybdenum Steel, Dirt Track Junior type .....	\$185.00
A-F-8	Cylinder Block, 3 main bearings, bored out and babbited, Dirt Track Junior type .....	\$ 60.00
A-F-9	Model A Ford Connecting Rods, bored out to 1 $\frac{1}{8}$ inch, babbited, burnished and balanced, per set of 4.....	\$ 40.00
A-F-10	Exhaust Manifold, each .....	\$ 20.00
A-F-11	Intake Manifold, each.....	\$ 20.00
A-F-12	Water Pump and Magneto Bracket.....	\$ 65.00
A-F-13	Oil Pump (pressure) .....	\$ 10.00
A-F-14	Oil Pump (scavenger) 1 $\frac{1}{4}$ inch face.....	\$ 12.00
A-F-15	Complete set of steel oil lines for dry sump .....	\$ 20.00
A-F-16	Complete set of steel oil lines for wet sump .....	\$ 15.00
A-F-17	Oil Junction Block and By-Pass.....	\$ 10.00
A-F-18	Valve Chamber Aluminum Cover.....	\$ 12.50
A-F-19	Aluminum Crankcase .....	\$ 25.00
A-F-20	Fly Wheel, lightened and balanced.....	\$ 18.00
A-F-21	Special Clutch and Spring.....	\$ 20.00
A-F-22	Robert Bosch Magneto, Mod. F-H-4.....	\$100.00
A-F-23	Robert Bosch Magneto, Model D-U-4.....	\$ 50.00
A-F-24	Winfield Carburetors (Prices on application)	
A-F-25	Zenith Universal Carburetor, with proper setting for A-F-1000 cylinder head 1 $\frac{1}{2}$ inch size, each.....	\$ 25.00
	1 $\frac{3}{4}$ inch size, each .....	\$ 30.00
A-F-26	Tachometer, complete with driving cable and attachment for camshaft.....	\$ 30.00
A-F-28	Steel Camshaft Gear .....	\$ 7.50
A-F-29	Hand Pressure Pump	
	Nickel .....	\$ 10.00
	Brass .....	\$ 9.00
A-F-30	Tank Filler Cap (nickel) .....	\$ 5.00
A-F-31	Oil Gauges, specify 75 or 150 lbs.....	\$ 3.00
A-F-32	Air Gauges up to 10 lbs. ....	\$ 3.00
A-F-34	Racing Wheels..... (Prices on application)	

## Price List of Parts for Crankcase



Part No.	Name	No. Req'd.	Price Each	Code
703	Crankcase, upper .....	1	\$45.00	
704	Crankcase, lower .....	1	20.00	
705	Fly wheel housing.....	1	45.00	
706	Oil deflector ring .....	1	10.00	
707	Crankshaft extension....	1	7.50	
708	Crankcase trunnion.....	1	15.00	
709	Steering gear bracket..	1	4.00	
710	Fly wheel housing bracket .....	2	4.00	
711	Crankcase to cylinder block studs .....	8	.40	
712	Trunnion studs .....	4	.20	
713	Lower crankcase studs..	20	.15	
714	Upper crankcase studs..	14	.20	
715	Fly wheel housing studs .....	11	.20	
716	Oil ring studs .....	6	.20	
717	Fly wheel studs .....	4	.50	
718	Steering gear bracket studs .....	4	.20	
719	Steering gear bracket clamp studs .....	2	.20	

All other parts to complete assembly No. 702 are standard model "A" Ford and will be supplied at regular Ford list prices, plus 15%.

### TO REMEMBER WHEN ORDERING.

When ordering, to avoid errors, give both part number and name, as shown in list of parts required. Specify method of shipment. Send 25% of purchase price with order, balance C. O. D. This will save time and delays.

A handling charge of 10% will be made on all merchandise returned for credit. Do not return any material without our consent.

**ARTHUR CHEVROLET  
AVIATION MOTORS CORPORATION  
410 West Tenth Street**

*Formerly*



**INDIANAPOLIS, IND**