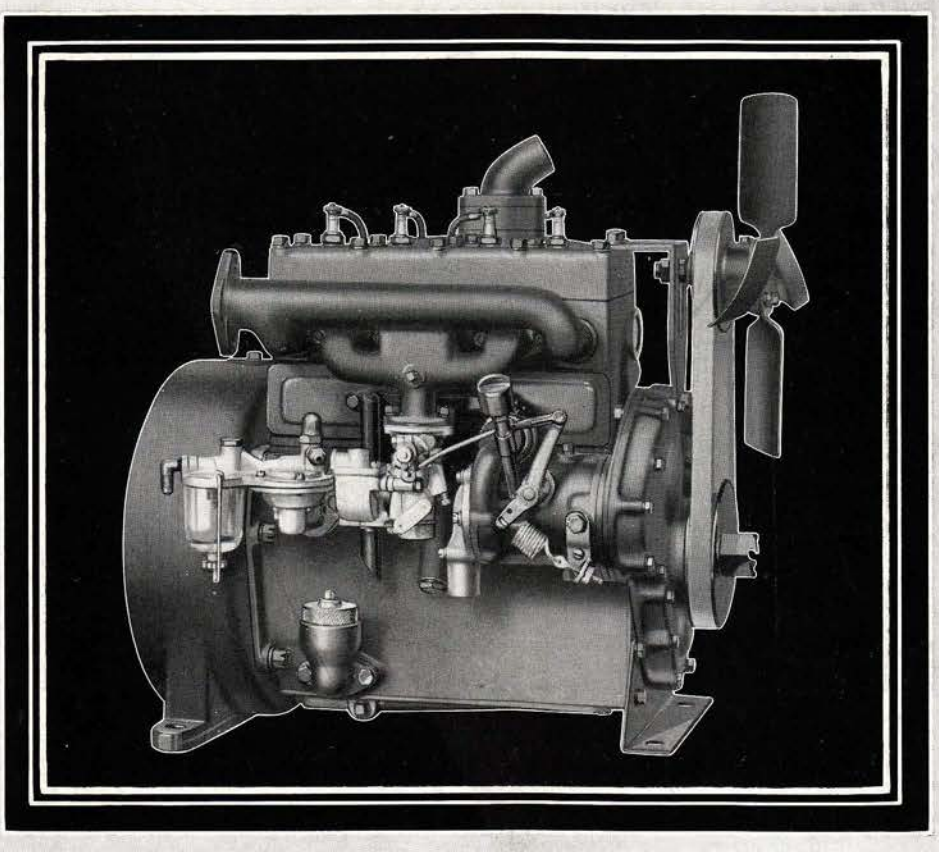
No. 1125-A

2954

Childs

THE "IC" SERIES



FOUR-CYLINDER

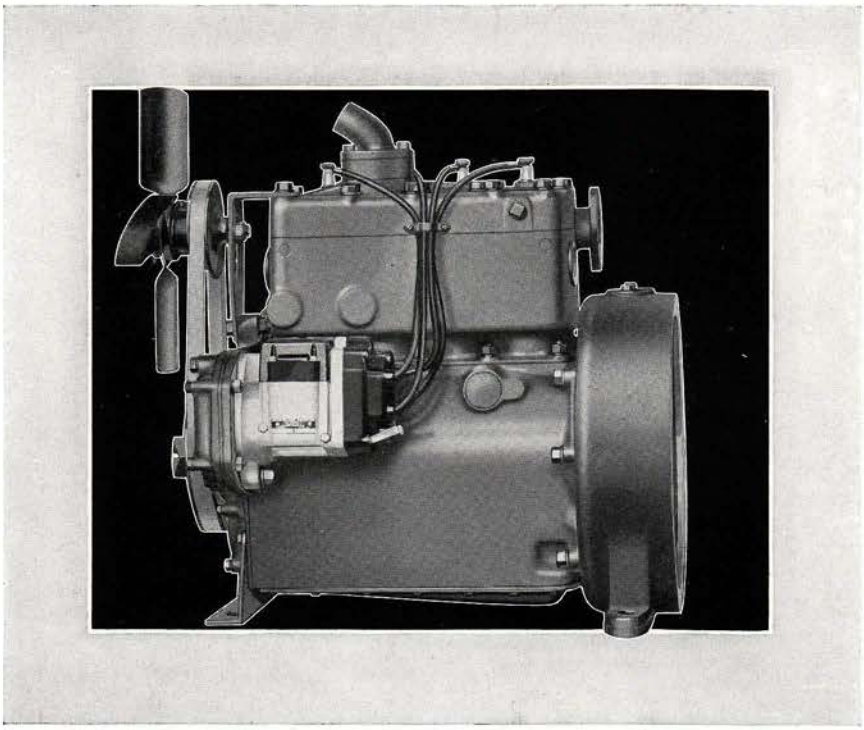
...WAUKESHA ENGINES...

For Combine Harvesters, Material Mixers, Pumps,
Agricultural and General Industrial Machinery

"ICK"

WAUKESHA MOTOR COMPANY
WAUKESHA « « « « « « « « WISCONSIN

Eastern Sales Office: Eight W. 40th Street, New York City
Mid-Continent Office: 313 East 2nd Street, Tulsa, Okla.
Pacific Coast Office: 939 Santa Fe Ave., Los Angeles, Calif.



←← Ignition side of engine showing standard industrial type demountable bell housing and pad for distributor ignition mounting. Flange mounted magneto, ignition cables, spark plugs, fan bracket, fan and belt are extra equipment.

Front cover illustration shows industrial type engine with blue flame manifold, built-in governor, centrifugal water pump, and crankcase ventilator. Carburetor, fuel pump, fan bracket, fan and belt, as well as spark plugs are all extra equipment.

THE METEOR FOUR

A New Size The Meteor Four is a new addition to the Waukesha engine line. It serves a power range of 10 to 18 horsepower, being especially well suited for use as a mechanical starting motor for large engines and power units, or for driving high-speed generators, contractors' equipment and irrigation pumps, etc. Exceptionally smooth and responsive, the Meteor Four has been proved by laboratory test and in actual service to have great stamina and high fuel economy.

Light Weight Careful engineering of each detail, plus the use of light box-type crankcase, makes the Meteor Four highly portable and low in weight without any sacrifice of structural ruggedness. This engine weighs only two-thirds to three-quarters as much as many other makes of equal horsepower. It is ideally suited to those jobs where size, limited weight, and a wide range of fittings and application fixtures are important factors.

Rigid Design A strictly Waukesha industrial design, the Meteor Four is necessarily rugged, built to withstand the shocks and abuses of this exacting service. The crankcase is an iron casting of special construction and great strength. The cylinder block is of alloy cast iron, separate from the case, and built with extreme rigidity. The head is likewise a separate casting, and both the head and the block may be removed from the crankcase with a minimum of effort for overhaul or adjustment. Connecting rods and crankshaft are of high carbon steel, heat treated to insure long life, and fitted with precision-type steel-backed bearings. The piston pin bearing is a bronze bushing. Main bearings are deep grooved, single row, ball bearings of high capacity, insuring long life. Piston pins are the floating type.

Positive Cooling A gear-driven centrifugal pump, most unusual in an engine as small as this, has been incorporated in the design to insure adequate cooling under all conditions of temperature and duty. The porting and baffling in the cylinder block and head insure an adequate volume as well as velocity of the coolant at the sensitive valve seat and combustion chamber spots to scour the surfaces and prevent overheating.

Pressure Oiling The Meteor Four oiling system is also specially designed. Full pressure by a positive gear-driven pump forces oil to the camshaft, auxiliary shafts, and timing gears. And the camshaft distributes oil under pressure to connecting rod crankpin jets, drilled in the crankcase,

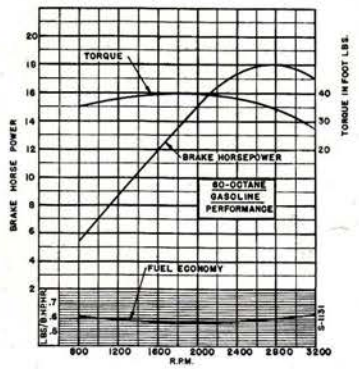
Form 623-P—20M—12-38

which direct intermittent oil streams into countersunk feed holes drilled in the large end of each connecting rod. Oil mist lubricates the main bearings, pistons, and cylinders. Pressure adjustment is from the outside.

Built-In Governor A major feature of the Meteor Four is the Waukesha centrifugal governor. It is built-in, entirely enclosed, sealed, and lubricated by the engine oiling system. It has big parts, hardened and ground bearings, all running in oil, which provide long life and close regulation.

Other Sizes The Waukesha line includes fours and sixes in a wide range of sizes, and for use with gasoline, artificial, or natural gas, diesel oil, or distillates. They serve a power range from 10 hp. to over 300 hp. Your particular requirements will be best served by writing to the Waukesha Motor Company Sales Department. Their recommendations will gladly be made without obligation.

Performance Characteristics "ICK"



I. C. E. I. "Standard Net Stripped Engine" Curve

The manufacturer guarantees that production engines, after a run to reduce the friction to the same as that on the laboratory standard, will develop 95% of the horsepower shown above. Curves are corrected to 29.92" of mercury, (sea level, barometer reading), and a temperature of 60 degrees F.

CONTINUOUS SERVICE — For continuous full load service, use a load factor of not more than 80 per cent of the power shown on the curve.

DIMENSIONS

	Model "ICK"
Bore and stroke	2½ x 3⅛
Displacement, cubic inches	61
Valve diameter, clear, intake	1
Valve diameter, clear, exhaust	13/16
Connecting rod bearing, dia. x lgth.	1⅞ x 1¼
Main ball bearing, front, New Departure, No.	7207-XL
Main ball bearing, rear, New Departure, No.	7207-XL
Piston pin, floating, dia. x lgth.	⅝ x 2⅛
Connecting rod length, c. to c.	6
Timing gears, face	⅝
Number piston rings	3
Width, piston rings	5/32
Exhaust flange	1⅜
Carburetor flange, S.A.E., size	⅝
Flywheel diameter	10
Flywheel housing, S.A.E., size	6
Spark plugs, S.A.E., size	14mm
Water connection, inlet	1
Water connection, outlet	1½
Fan diameter (extra equipment)	12
Approximate weight, pounds	143

NOTE — All dimensions are given in inches unless otherwise specified.

Horsepower shown was obtained with following equipment: Carburetor — Zenith-⅝. Ignition—Distributor. Cooling —Water Pump. Muffler—None. Fan — None. Air Cleaner — None. Generator—None.

Permissible Speeds — Governors will be set to carry full load at 2000 rpm maximum for continuous stationary duty. No load settings will be 2400 rpm maximum for intermittent stationary duty, and for automotive and tractor service.

Consult the Waukesha Motor Company regarding advisable speed for your service.

SPECIFICATIONS

Crankshaft—High carbon steel, S.A.E. 1045, heat treated.

Crankcase—Aluminum—very deep, rigid section.

Connecting Rods—Heat treated, S.A.E. 1045 steel with steel-backed, babbit-lined precision bushings.

Main Bearings—New Departure No. 7207-XL, deep groove ball bearings.

Valves—Intake, nickel steel; exhaust, chrome silicon.

Push Rods—Barrel type, case-hardened and ground, lock-nut adjustment.

Cylinder Heads—Detachable Waukesha Ricardo type combustion chambers.

Cylinders — Removable, cast in block. Bored and ground to size.

Pistons—Aluminum alloy—with floating piston pins.

Exhaust Manifold—Either front or rear outlet exhaust manifolds are optional. Purchaser should specify which on his order.

Timing Gears—Helical, mild steel and cast iron.

Governor—Waukesha centrifugal governor, self-lubricated, and non-hunting.

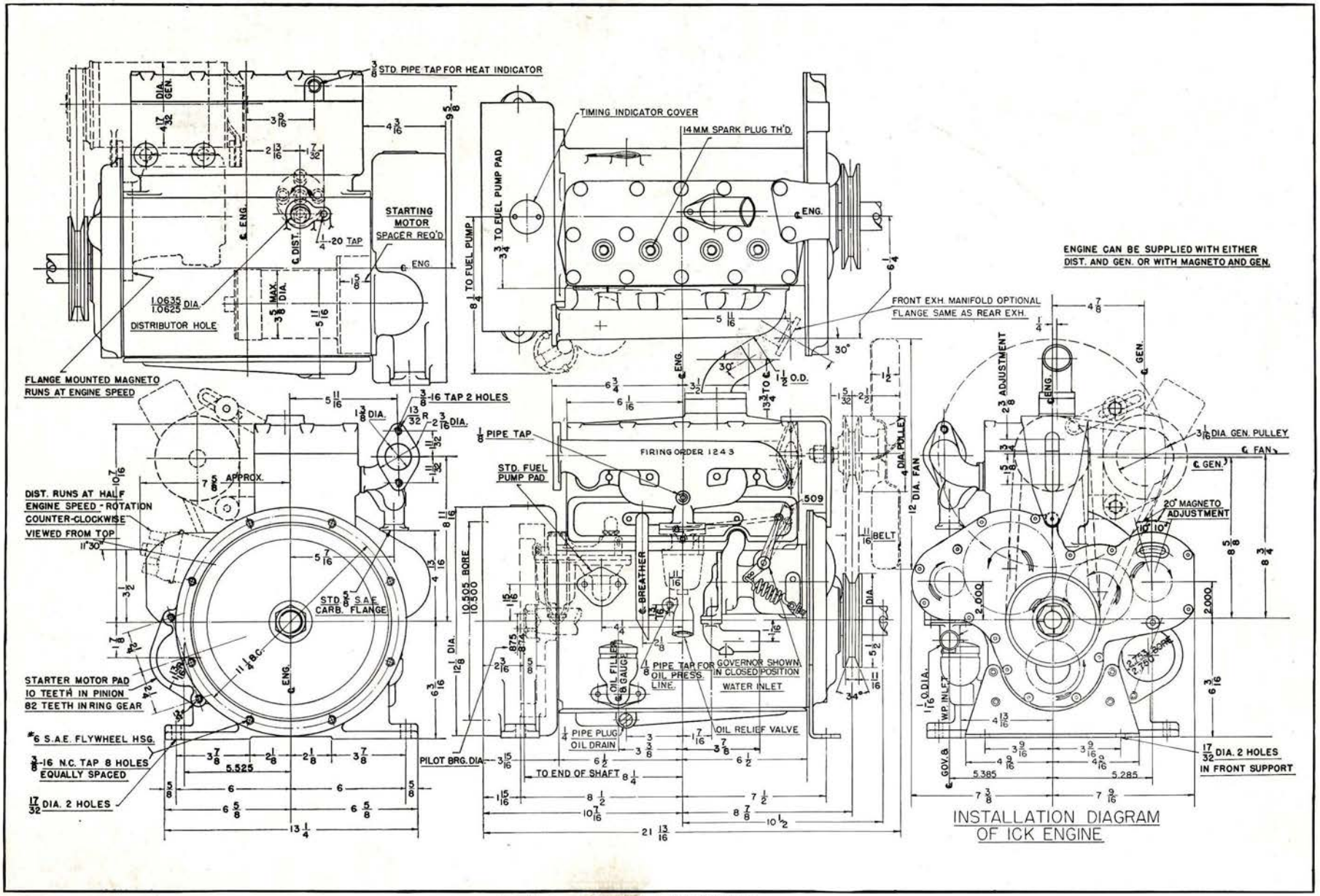
Cooling System—Gear-driven centrifugal pump.

Lubrication—Pressure feed to camshaft and timing gears. Camshaft distributes oil under pressure to connecting rod and crankpin jets. Oil mist lubricates ball bearings, pistons, and cylinders. Outside pressure adjustment.

Flywheel Housing—Flywheel housings are detachable. Foot type, No. 6 S.A.E. is standard. An extra charge will be made for special housings.

Oil Filters (Extra)—Bleeder type, radial flow, for separate mounting.

Electric Equipment (Extra)—Provision for magnetos, distributors, starters, and belt-driven generator.



Installation Diagram Model "ICK" Engine

(Dimensions not guaranteed. Send for certified print for lay-out work)