

## FULLER &amp; JOHNSON ENGINES

## AN OPEN LETTER

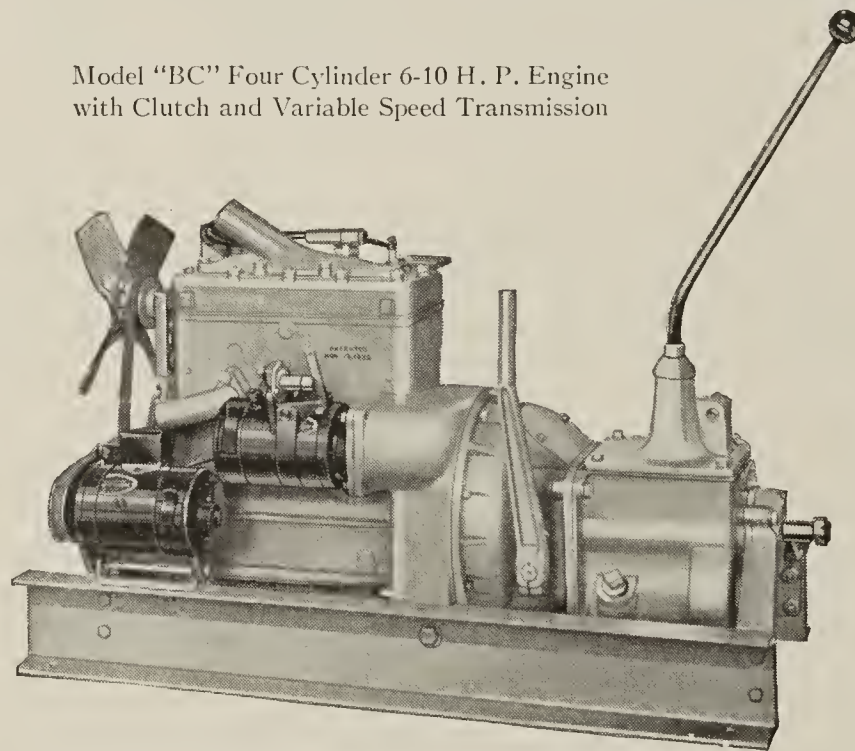
In building Engines for industrial and agricultural purposes, we are called upon to serve a variety of requirements. We believe these requirements can be served best by providing a style and type that is built for the job it has to do.

The building of high grade engines that can be depended upon to render satisfactory service over a period of years while operating under considerably less than ideal conditions, is a highly technical problem requiring both skill and a thorough knowledge of good engineering practice. In both our Production and Engineering Departments, the various operations are performed under the supervision of men specially trained in their particular phase of gasoline engine design or production and as a result we are particularly well fitted to build engines that will best serve the requirements that engines are called upon to meet.

Our Engineering staff is at the disposal of any who wish to consult with us. As specialists in the manufacture of small single and multi-cylinder engines, we are well equipped to handle practically any power requirement.

Fuller & Johnson Mfg. Co.

Model "BC" Four Cylinder 6-10 H. P. Engine  
with Clutch and Variable Speed Transmission



Delco-Remy  
Electric  
Starter  
and  
Ignition  
System  
Also  
Furnishes  
Lights  
on the  
Machine

Borg & Beck  
Fully  
Enclosed  
Dry Disc Type  
Clutch.  
Can be  
Equipped  
with  
Hand Lever  
or  
Foot Pedal

### Three Speeds Forward and One Reverse

Here it is! A Fuller & Johnson four cylinder Model "BC," 6-10 H. P. Industrial Power Unit with variable speed transmission—three speeds forward and one reverse. The fully enclosed dry disc type clutch is mounted on the main shaft operated at engine speed. Cut shows unit with metal house removed.

This unit is ideal for operating industrial trucks, small excavating machines, conveyors, small tractors, and other jobs where

variable speed is essential. The transmission is sturdily built and permits continuous operation in first and second gear without undue strain or wear on the working parts.

This Model "BC" Engine can be equipped with a smaller transmission for use where continuous operation in first or second gear is not required.

This Power Unit can be equipped with an Electric Starter of the automotive type.

The illustration shows the

compact assembly of the generator and starting motor. The generator charges the 6-volt battery which supplies current for the starting motor and also for lights on the machine.

The Fuller & Johnson two cylinder, Model "BB" 3-5 H. P., the Fuller & Johnson Four Cylinder, Model "AX" 20-25 H. P., and Model "ANK" 25-30 H. P., Power Units can be furnished with variable speed transmission and electric starter.

*"Known Everywhere as the Finest"*

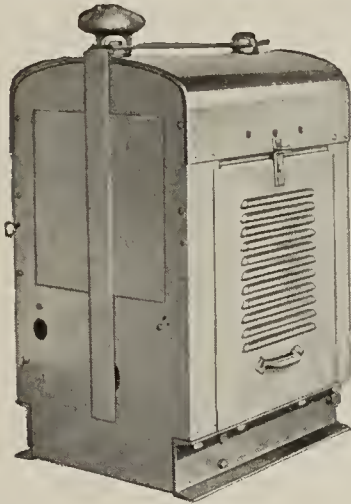
FULLER & JOHNSON ENGINES

Model "BB" 3-5 H. P. Two Cylinder Engine

Model "BC" 6-10 H.P. Four Cylinder Engine

THE RICARDO HEAD

Gives Maximum Power

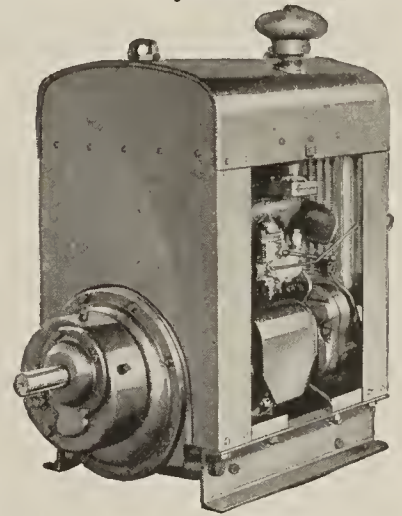


Model "BB" 3-5 H. P. Two Cylinder Engine with house. Note radiator, guard and fuel tank lock.

The design of the Fuller & Johnson Model "BB" 2-cylinder and "BC" 4-cylinder Engines follow closely the high compression automotive power units, which are so outstanding today. The use of the famous Ricardo Head, introduced to America five years ago, insures greater economy and added power. Engines equipped with the Ricardo Head show a saving of as much as 10 per cent on fuel consumption at full load, and at part loads greater economy may be obtained.

In the Ricardo combustion chamber the compact form, the central location of the spark plug, the rapid swirling of the main body of the charge produced by the piston forcing the gas up into the chamber, all combine to scatter the flame rapidly throughout the mixture, thereby securing maximum power.

A large radiator is furnished as regular equipment. The over-size four-blade fan carried on hub mounted on ball bearings can be lubricated while engine is running. The metal house gives ample protection to the motor and is designed for convenience and accessibility.



Model "BB" 3-5 H. P. Two Cylinder Engine with 2:1 Gear Reduction. Wide inspection doors on each side of house.

For protection when not in use, a combination radiator guard, fuel cap and radiator cover lock can be furnished at a small additional cost.

Power can be taken off directly from the main shaft at engine speed or the engine can be furnished with speed reductions to reduce the speed of power take-off at ratios of 2 to 1 and also of 8 to 1. The 2 to 1 ratio can be furnished with either right or left hand direction of rotation. Should other reductions be required, further information concerning them will be gladly given on request.

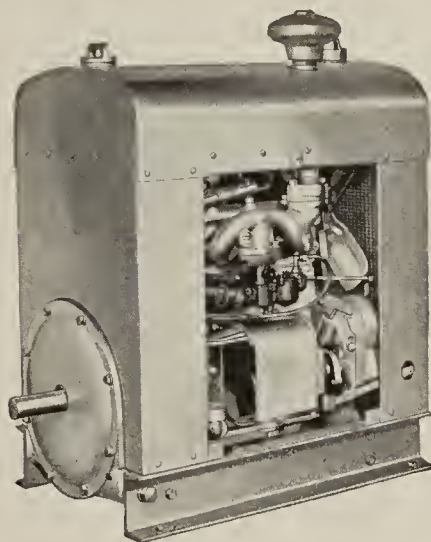
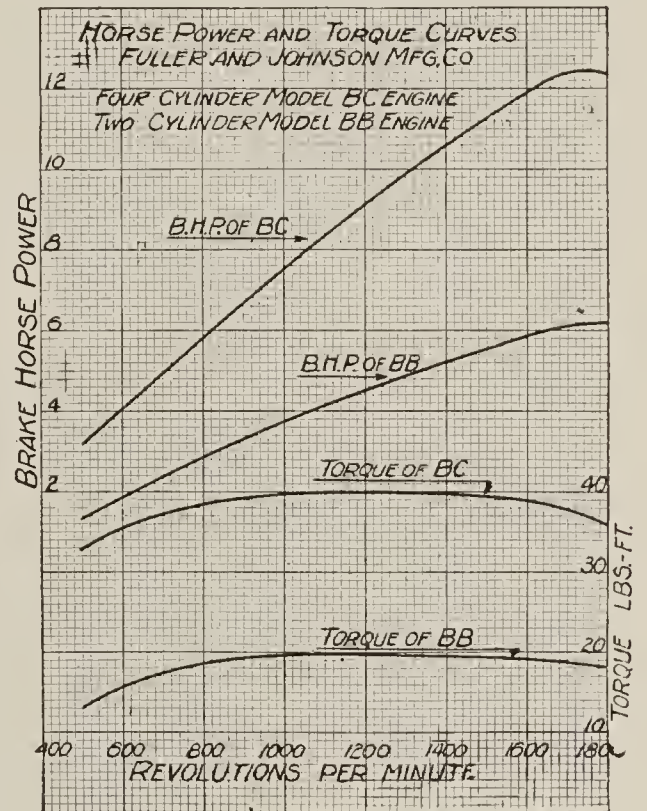
Where the 2:1 speed reduction gears are used, the case carrying the drive shaft may be attached in any one of six positions determined by rotating it around the crank shaft at center before fastening it in place. This permits considerable latitude in determining the most compact and accessible mounting in each combination.

The Model "BC" four-cylinder engine can be supplied with the accessories, namely magneto, carburetor, etc., either on the right or the left hand side of the motor. The Model "BB" two cylinder engine is equipped with accessories on the left side of motor (see illustration above.)

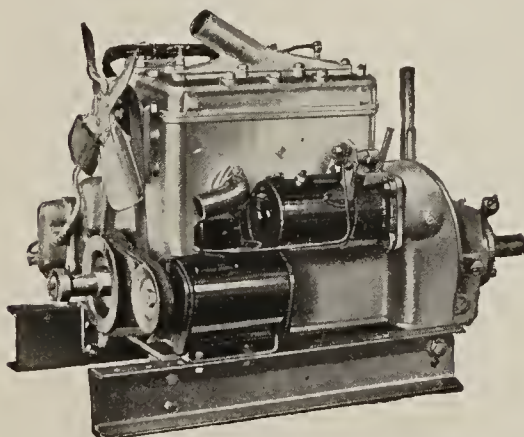
Right hand cranking, regardless of direction of rotation of the power take-off is one of the many outstanding features of these units.

The high compression combustion chamber, positive drive magneto of the rotary high tension type make for easy starting. The gear driven fly ball governor gives close speed regulation. A special speed control lever can be furnished which can be set where you want it, always under governor control.

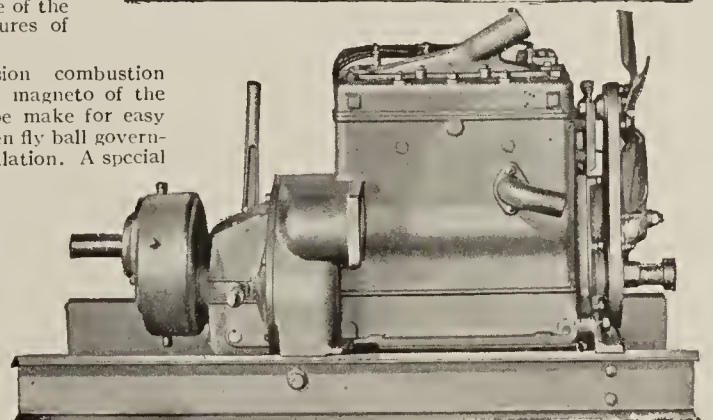
The Model "BC" Engine can be equipped with or without clutch. The clutch illustrated below is fitted with ball bearing on the power take-off end and is fully enclosed.



Showing "BC" Engine with Direct Drive. Wide inspection doors on each side of house.



Four Cylinder Model "BC" 6-10 H. P. Engine equipped with 6-volt generator and electric starter.



Model "BC" 6-10 H. P. Four Cylinder Engine with Clutch and 2:1 Gear Reduction showing side opposite Accessories. Note simplicity and well balanced construction.

"Known Everywhere as the Finest"

FULLER & JOHNSON ENGINES

Specifications of Model "BB" and "BC" Engines

**Motor**—"BB" two cylinder. "BC" four cylinder.  
**Power**—"BB" 3-5 H. P.; "BC" 6-10 H. P.  
**Speed**—900-1400 R. P. M.  
**Bore**—2<sup>3</sup>/<sub>8</sub>"  
**Stroke**—3<sup>1</sup>/<sub>4</sub>"  
**Rotation**—Right hand (clockwise when facing the radiator end).  
**Cylinder**—Honed (polished) to insure a perfectly round, smooth, straight bore.  
**Piston**—Trunk type, grey iron with 4 rings; 3 compression and 1 oil control ring.  
**Connecting Rod**—Drop forged steel I-beam construction.  
**Crankshaft**—Carefully balanced, heavy, rugged, mounted on anti-friction bearings.  
**Flywheel**—Heavy, accurately balanced, insuring smooth running, easy starting.  
**Camshaft**—Cams forged integral with shaft.  
**Tappets**—Flat foot type valve lifters  
**Ignition**—High tension rotary magneto.  
**Lubrication**—Circulating splash system, consisting of constant level splash troughs for each connecting rod, fed by a plunger pump driven by an eccentric on the camshaft. This pump also supplies oil to the valve tappet chamber from whence it is fed by gravity through drilled openings, to the camshaft bearings, timing gears and governor.  
**Cranking**—Right hand, regardless of direction of power take-off.  
**Cooling**—Radiator with ample capacity for full load operation. Oversized 4-blade fan with hub mounted on ball bearings and hollow shaft which can be lubricated while engine is running. Large water openings in block and between each cylinder and full length of cylinder, especially around the valves.  
**Manifold**—Hot spot. Promotes perfect carburetion under all loads.  
**Oil Gauge**—Bayonette type.  
**Clutch**—Fully enclosed dry disc type, mounted on main shaft operated at engine speed.

**Speed Reduction Gears**—Furnished for 2 to 1 and 8 to 1 reduction. Information regarding other reductions on request. Gears are of alloy steel, heat-treated and hardened. Special tooth designs and anti-friction bearings provide quiet running, and long life.  
**Governor**—Gear driven—fly ball throttling type, enclosed, runs in oil and gives close speed regulation.  
**Fuel Tank**—Liberal size, made of heavy, lead coated terne plate (anti-rusting). Securely mounted in top of house. Fuel Pump or Vacuum Tank can be furnished.  
**House**—Of heavy gauge steel. Wide doors on both sides. Can be equipped with radiator shield and fuel tank lock.  
**Dimensions**—Length of house, on "BB" Engine, 20", width 17", height 29". On "BC" Engine, length 25", width 17", height 29".  
**Regular Equipment**—Consists of engine, magneto, carburetor, air cleaner, radiator, fan, fuel tank, fuel cleaner and metal house mounted on steel channels all ready to operate.  
**Extras**—Clutch, reduction gears, radiator guard, fuel pump, etc.; can be furnished according to purpose for which engine is to be used.  
**Lever Speed Changer**—Permitting instant and convenient variation of governed speed of engine furnished on special order.  
**Slow Down Idling Device**—Can be furnished for reducing speed of engine when running without load.  
**Electric Equipment**—Separate 6-volt starting motor with Bendix drive on flywheel. Separate unit 6-volt generator and ignition system. This equipment also permits use of electric lights on the machine operated.  
 Any 6-volt automobile starting battery of a capacity greater than 75 ampere hours may be used on this engine and cables of suitable length for connecting battery to engine may be purchased at any automobile supply store or from Fuller & Johnson Mfg. Co., when length specifications are furnished.

ORDER THE ENGINE TO SUIT YOUR REQUIREMENTS  
 REFER TO OUTFIT NUMBER LISTED BELOW

Outfit No.	MODEL BBL 2 CYLINDER 3-5 H. P. ENGINE With Standard Combinations	R. P. M. of Take-off Shaft	Net Weight Pounds	Approx. Ship- ping Weight Pounds	Code Word
301	Less Power take-off.....	900-1400	321	354	Lona
301B	Direct Drive, stub shaft.....	900-1400	332	369	Lome
301D	Direct Drive, outboard bearing.....	900-1400	332	369	Luan
301F	Direct Drive, with clutch.....	900-1400	403	441	Loto
301H	2:1 gear reduction, take-off, engine rotation, with clutch.....	450- 700	421	466	Liso
301J	2:1 gear reduction, take-off shaft, anti-engine rotation; with clutch.....	450- 700	421	466	Linz
301L	2:1 gear reduction, take-off shaft, engine rotation, less clutch.....	450- 700	366	406	Lart
301N	2:1 gear reduction, take-off shaft, anti-engine rotation, less clutch.....	450- 700	366	406	Lent
301R	8:1 gear reduction, take-off shaft, anti-engine rotation, position "A", with clutch.....	112- 175	436	486	Lace
301T	8:1 gear reduction, take-off shaft, anti-engine rotation, position "B," with clutch.....	112- 175	444	491	Leon
301W	8:1 gear reduction, take-off shaft, anti-engine rotation, position "C," with clutch.....	112- 175	436	486	Lull

Unless otherwise ordered, engine governor will be set for 1200 R. P. M.

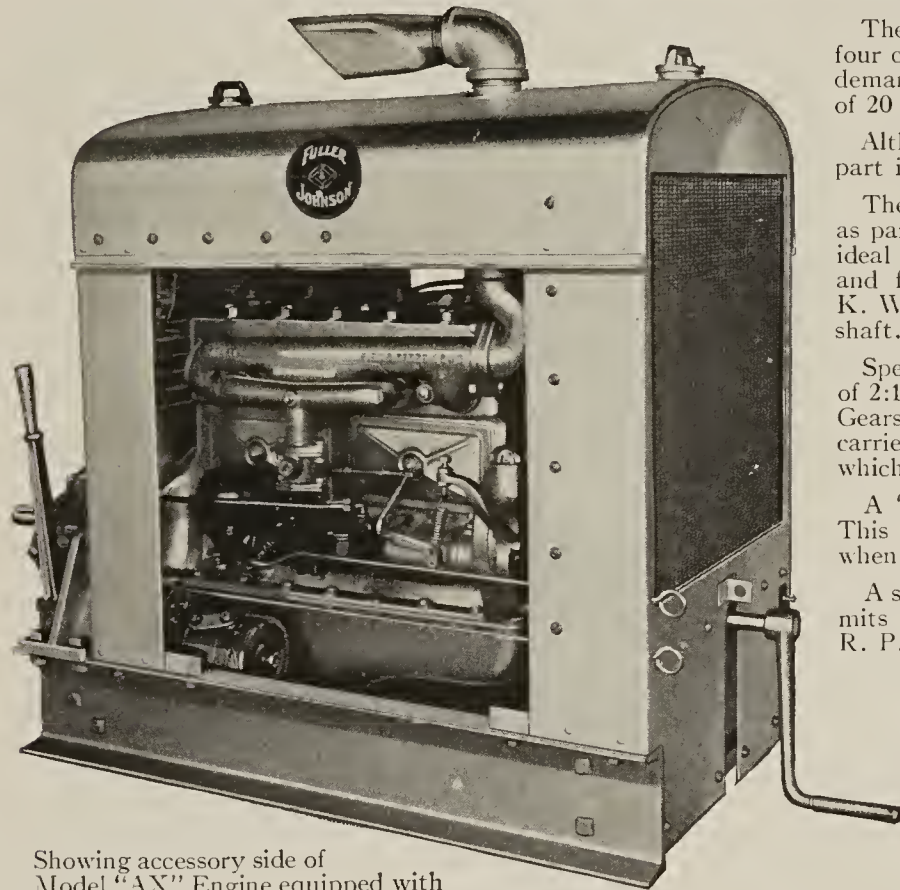
Outfit No.	MODEL BC 4 CYLINDER 6-10 H. P. ENGINE With Standard Combinations	R. P. M. of Take-off Shaft	Net Weight Pounds	Approx. Ship- ping Weight Pounds	Code Word
302AM	Right hand accessories, less power take-off.....	900-1400	421	465	Bale
302AR	Left hand accessories, less power take-off.....	900-1400	421	465	Bowl
302C	Right hand accessories, direct drive.....	900-1400	432	477	Bans
302D	Left hand accessories, direct drive.....	900-1400	432	477	Bafe
302E	Right hand accessories, direct drive, outboard bearing.....	900-1400	444	489	Batz
302F	Left hand accessories, direct drive, outboard bearing.....	900-1400	444	489	Blet
302G	Right hand accessories, direct drive, clutch.....	900-1400	504	539	Bete
302H	Left hand accessories, direct drive, clutch.....	900-1400	504	539	Bavo
302I	Right hand accessories, clutch, 2:1 gear reduction, take-off shaft engine rotation.....	450- 700	522	559	Beno
302J	Left hand accessories, clutch, 2:1 gear reduction, take-off shaft engine rotation.....	450- 700	522	559	Boem
302K	Right hand accessories, clutch, 2:1 gear reduction, take-off shaft anti-engine rotation.....	450- 700	522	559	Bick
302L	Left hand accessories, clutch, 2:1 gear reduction, take-off shaft anti-engine rotation.....	450- 700	522	559	Bism
302M	Right hand accessories, 2:1 gear reduction, take-off shaft engine rotation.....	450- 700	467	517	Bizo
302N	Left hand accessories, 2:1 gear reduction, take-off shaft engine rotation.....	450- 700	467	517	Bien
302P	Right hand accessories, 2:1 gear reduction, take-off shaft anti-engine rotation.....	450- 700	467	517	Bilt
302R	Left hand accessories, 2:1 gear reduction, take-off shaft anti-engine rotation.....	450- 700	467	517	Blow
302Y	Right hand accessories, 8:1 gear reduction, clutch, take-off shaft anti-engine rotation, position "A".....	112- 175	537	593	Bloe
302Z	Left hand accessories 8:1 gear reduction, clutch take-off shaft anti-engine rotation, position "A".....	112- 175	537	593	Bogo
302AC	Right hand accessories, 8:1 gear reduction, clutch, take-off shaft anti-engine rotation, position "B".....	112- 175	545	601	Buhe
302AD	Left hand accessories, 8:1 gear reduction, clutch, take-off shaft anti-engine rotation, position "B".....	112- 175	545	601	Befo
302AF	Right hand accessories, 8:1 gear reduction, clutch, take-off shaft anti-engine rotation, position "C".....	112- 175	537	593	Blam
302AG	Left hand accessories, 8:1 gear reduction, clutch, take-off shaft anti-engine rotation, position "C".....	112- 175	537	593	Bias

Unless otherwise ordered, engine governor will be set for 1200 R. P. M.

"Known Everywhere as the Finest"

FULLER & JOHNSON ENGINES

Four Cylinder Model "AX" 20-25 H. P. and Model "AXK" 25-30 H. P.



Showing accessory side of Model "AX" Engine equipped with Electric Starter. Note convenient position of starter and choke levers.

The Fuller & Johnson Model "AX" and "AXK" four cylinder power units were designed to meet the demand where a compact self-contained power unit of 20 to 30 H. P. is required.

Although each unit is very compact yet every part is easily accessible.

These power units can be mounted on or built in as part of the machine it is to operate. They are ideal for connecting direct to rotary, centrifugal and force pumps. Electric generators up to 12 K. W. can be direct connected to the main drive shaft.

Speed reduction gears can be furnished in ratios of 2:1, 3:1, and 4:1 for either direction of rotation. Gears are of alloy steel, heat-treated and hardened, carried on shafts mounted on anti-friction bearings which provide for long life.

A "slow down" idling device can be furnished. This permits the engine to operate at idling speed when under no load.

A speed control lever can be furnished which permits instant change of governor speed from 900 R. P. M. to 1500 R. P. M.

Completely Enclosed Governor

Right Hand Cranking regardless of direction of power take - off rotation. Easy to start.

Full Pressure Lubrication

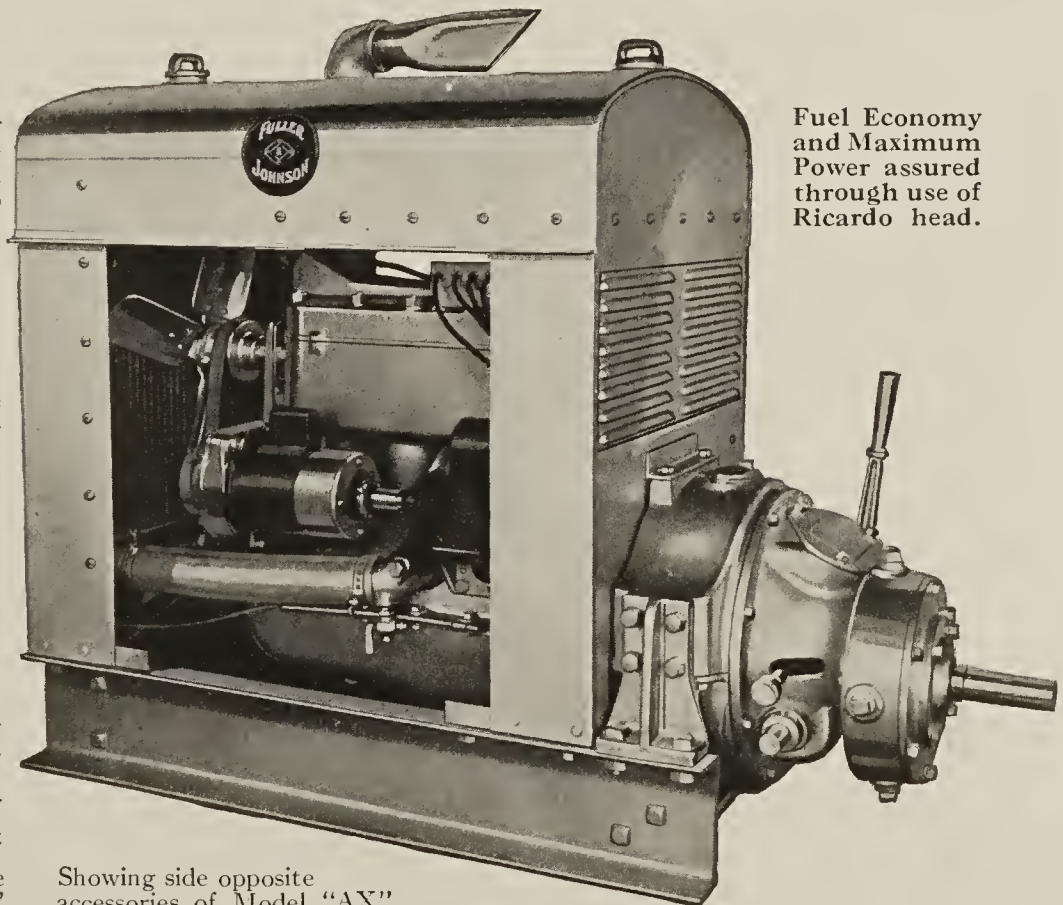
All bearings receive oil under pressure. The bottom pan provides a reservoir for the oil. A screen surrounding the pump strains the oil.

The "AX" and "AXK" engines are cooled by thermo-siphon circulation. A large four-blade fan of 17" diameter is furnished. The radiator of large capacity is rigidly constructed and is securely bolted to the heavy gauge steel house furnished with this unit.

In addition to protecting the engine the steel house also covers the fuel tank which is mounted (bolted) in the top of the house.

A fuel cleaner of the type used on high-grade cars and trucks is furnished as standard equipment and is conveniently located just below the fuel tank.

On special order a starting motor and generator of automotive design can be mounted on the "AX" and "AXK" power units. Note illustration above. This equipment permits use of electric starter, also lights on the machine operated by the "AX" and "AXK" power units.



Fuel Economy and Maximum Power assured through use of Ricardo head.

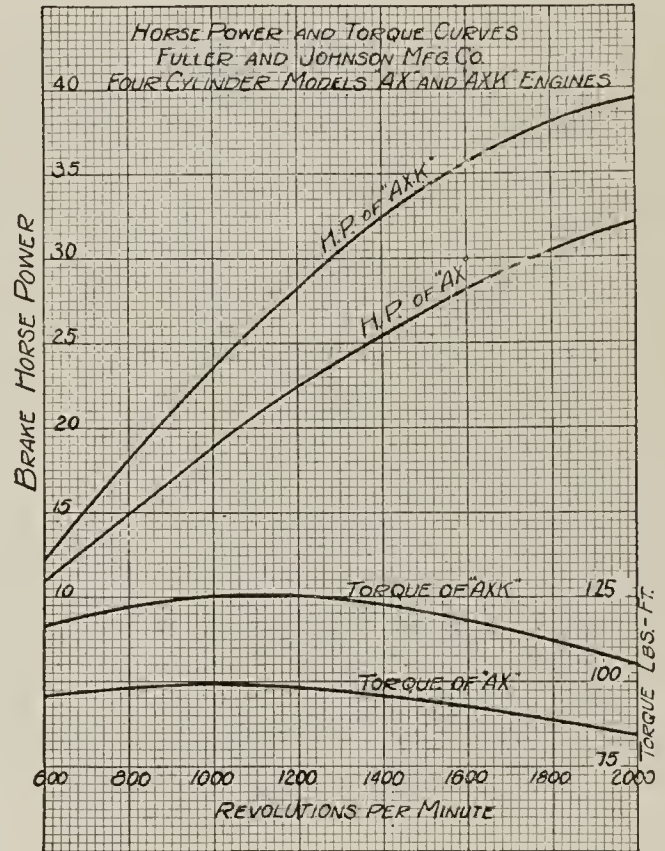
Showing side opposite accessories of Model "AX" Engine equipped with clutch and 2:1 gear reduction.

**"Known Everywhere as the Finest"**

FULLER & JOHNSON ENGINES

Specifications of Models "AX" 20-25 and "AXK" 25-30 H. P.—4 Cylinder Engines

**Motor**—Four cylinder, four cycle.  
**Power**—AX, 20-25 B. H. P.; AXK, 25-30 B. H. P.  
**Speed**—900-1500 R. P. M.  
**Bore and Stroke**—"AX", 3½" x 4½"; "AXK", 3¾" x 4¾".  
**Rotation**—Clockwise when viewing cranking end.  
**Cylinder**—Honed to insure round smooth bore.  
**Piston**—Trunk type, grey iron with 3 rings.  
**Connecting Rod**—Drop forged, I-beam construction.  
**Crankshaft**—Drop forged steel, carefully balanced, heavy and rugged, mounted on 3 bronze backed babbitted bearings.  
**Flywheel**—Heavy, and accurately balanced, insuring smooth running and easy starting.  
**Camshaft**—Drop forged steel, cams integral, running on three bearings.  
**Ignition**—High tension, rotary magneto equipped with impulse starter.  
**Lubrication**—Full pressure system, oil being fed under pressure to crankshaft, connecting rod and cam shaft bearings.  
**Cranking**—Right hand, regardless of direction of power takeoff rotation.  
**Cooling**—Thermo-siphon circulation, radiator of sufficient capacity for full load operation. 17" diameter, 4-blade, adjustable fan driven by a V-belt.  
**Manifold**—Hot spot, promoting perfect carburetion under all loads and conditions of operation.  
**Oil Gauge**—Bayonette type.  
**Clutch**—Fully enclosed dry disc type. Operates at engine speed.  
**Speed Reduction Gears**—Can be furnished with 2:1, 3:1 and 4:1 reduction ratios in either direction of rotation. Gears are of alloy steel, heat-treated and hardened, carried on shafts mounted on anti-friction bearings providing for long life.  
**Governor**—Enclosed gear driven of fly-ball throttling type, running in oil. Gives close speed regulation.  
**Fuel Tank**—Capacity 8 gallons; made of heavy lead coated anti-rusting terne plate. Securely mounted in top of house.  
**House**—Of heavy gauge sheet steel. Wide doors on both sides provided with horizontal louvers. Can be equipped with radiator shield and fuel tank lock.  
**Dimensions**—Length, 31½"; width, 21¾"; height, 36¾".  
**Regular Equipment**—Consists of engine, carburetor, magneto, radiator, fan, fuel tank, air cleaner, fuel cleaner and metal house mounted on steel channels all ready to operate.  
**Special Equipment**—Clutch, reduction gears, radiator shield, tank lock, etc., can be furnished according to purpose for which engine is to be used.  
**Slow Down Idling Device**—Permits engine to operate at idling speed when under no load. This is manually controlled and can be furnished when specified.  
**Electric Equipment**—Separate unit 6-volt starting motor with Bendix drive on flywheel. Separate unit 6-volt generator and ignition system. This equipment permits use of electric starter, also lights on the machine operated by the "AX" or "AXK" engine.  
 Any 6-volt automobile starting battery of a capacity greater than 85 ampere hours may be used on these engines and cables of suitable length for connecting battery to engine may be purchased at any automobile supply store or from Fuller & Johnson Mfg. Co., when length specifications are furnished.



The horse power shown above was obtained with engine equipped with all standard accessories except fan.

ORDER THE ENGINE TO SUIT YOUR REQUIREMENTS  
 Refer to Outfit Number Listed Below

Outfit Number	MODEL AX 20-25 H. P. 4-CYLINDER ENGINE Standard Combinations	R. P. M. Take-off Shaft	Net Weight	Approx. Shipping Weight	Code Word
272	Less power take-off	900-1500	770	811	Xert
272A	Direct drive, stub shaft take-off	900-1500	774	815	Xasp
272B	Direct drive, outboard bearing	900-1500	800	845	Xexx
272C	Direct drive, with clutch	900-1500	855	900	Xito
272D	2:1 gear reduction, take-off shaft, anti-engine rotation, with clutch	450- 750	935	995	Xeme
272E	3:1 gear reduction, take-off shaft, anti-engine rotation, with clutch	300- 500	935	995	Xeat
272F	4:1 gear reduction, take-off shaft, anti-engine rotation, with clutch	225- 375	935	995	Xist
272G	2:1 gear reduction, take-off shaft, engine rotation, with clutch	450- 750	935	995	Xurn
272H	3:1 gear reduction, take-off shaft, engine rotation, with clutch	300- 500	935	995	Xelk
272I	4:1 gear reduction, take-off shaft, engine rotation, with clutch	225- 375	935	995	Xola
272J	2:1 gear reduction, take-off shaft, anti-engine rotation, no clutch	450- 750	855	915	Xice
272K	3:1 gear reduction, take-off shaft, anti-engine rotation, no clutch	300- 500	855	915	Xcel
272L	4:1 gear reduction, take-off shaft, anti-engine rotation, no clutch	225- 375	855	915	Xape
272M	2:1 gear reduction, take-off shaft, engine rotation, no clutch	450- 750	855	915	Xego
272N	3:1 gear reduction, take-off shaft, engine rotation, no clutch	300- 500	855	915	Xown
272P	4:1 gear reduction, take-off shaft, engine rotation, no clutch	225- 375	855	915	Xpen
Outfit Number	MODEL AXK 25-30 H. P. 4-CYLINDER ENGINE Standard Combinations	R. P. M. Take-off Shaft	Net Weight	Approx. Shipping Weight	Code Word
273	Less power take-off	900-1500	795	836	Karrx
273A	Direct drive, stub shaft take-off	900-1500	799	840	Kanex
273B	Direct drive, outboard bearing	900-1500	825	870	Kinux
273C	Direct drive, with clutch	900-1500	880	925	Konox
273D	2:1 gear reduction, take-off shaft, anti-engine rotation, with clutch	450- 750	960	1020	Kecex
273E	3:1 gear reduction, take-off shaft, anti-engine rotation, with clutch	300- 500	960	1020	Ketzx
273F	4:1 gear reduction, take-off shaft, anti-engine rotation, with clutch	225- 375	960	1020	Kranx
273G	2:1 gear reduction, take-off shaft, engine rotation, with clutch	450- 750	960	1020	Kisax
273H	3:1 gear reduction, take-off shaft, engine rotation, with clutch	300- 500	960	1020	Kumex
273I	4:1 gear reduction, take-off shaft, engine rotation, with clutch	225- 375	960	1020	Korex
273J	2:1 gear reduction, take-off shaft, anti-engine rotation, no clutch	450- 750	880	940	Kentx
273K	3:1 gear reduction, take-off shaft, anti-engine rotation, no clutch	300- 500	880	940	Kultx
273L	4:1 gear reduction, take-off shaft, anti-engine rotation, no clutch	225- 375	880	940	Keanx
273M	2:1 gear reduction, take-off shaft, engine rotation, no clutch	450- 750	880	940	Klesx
273N	3:1 gear reduction, take-off shaft, engine rotation, no clutch	300- 500	880	940	Kuppx
273P	4:1 gear reduction, take-off shaft, engine rotation, no clutch	225- 375	880	940	Klanx

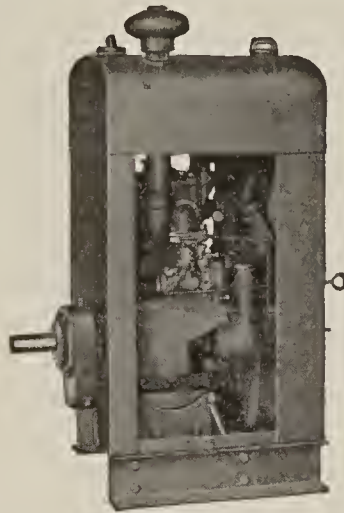
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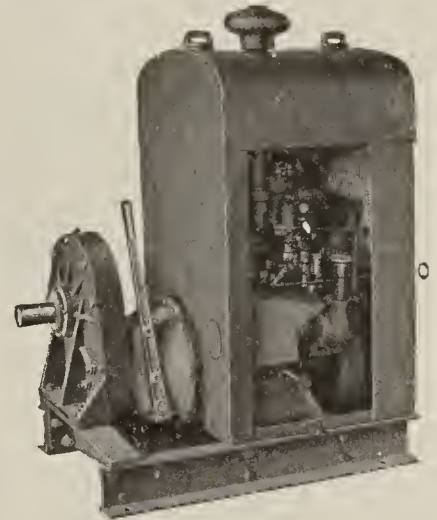
FULLER & JOHNSON ENGINES  
Model "AH" 4-6 H. P. Single Cylinder Industrial Engine



Model "AH" Engine equipped with Radiator Guard, Radiator Cover Lock.



Model "AH" Engine equipped with 2 to 1 gear reduction.



Model "AH" Engine equipped with Enclosed Clutch and 8 to 1 Gear Reduction. Note Compactness.

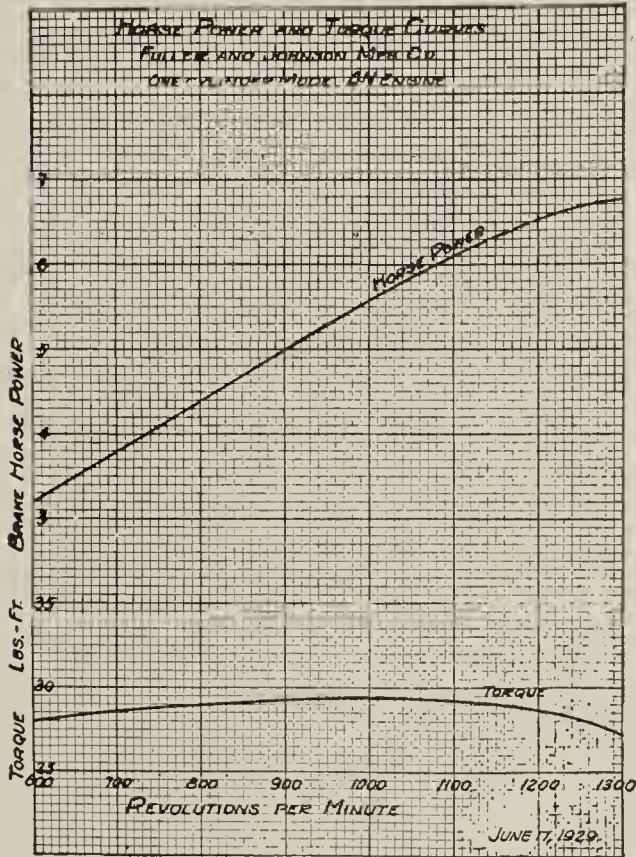
Safe, Sure, Easy to Start

Cranking is **right hand** regardless of the direction of rotation of the power take-off. Cranking is easy because anti-friction Bearings support the crank shaft which reduces friction to the minimum. The high compression Ricardo Head is provided with a convenient priming cup.

It is these features and the hot spark produced by the magneto even at slow cranking speeds that guarantees a sure, quick start at all times.

Specifications of the Fuller & Johnson Model "AH" 4-6 H. P. Single Cylinder Industrial Engine

- Motor—One cylinder, four cycle.
- Power—4 to 6 H. P.
- Speed—900-1300 R. P. M.
- Rotation—Clockwise, facing flywheel of engine.
- Bore and Stroke— $3\frac{3}{4}$ " x  $4\frac{1}{2}$ ".
- Cylinder—Honed (polished) to insure a perfectly round, smooth straight bore.
- Cylinder Head—Removable, Ricardo high compression "L" Type, with priming cup.
- Piston—Cast iron—with 2 compression rings and 1 oil control ring.
- Clutch—Fully enclosed dry disc type, mounted on main shaft, operated at engine speed.
- Connecting Rod—Duralumin (light weight), drop forged.
- Bearings—Upper end bronze bushing, lower end high tin Babbitt, spun in.
- Crank Shaft—Carefully counterbalanced, heavy, rugged, mounted on oversize Timken Roller Bearings.
- Fly Wheel—Heavy, accurately balanced, contributing to smooth running, easy starting.
- Cam Shaft—Cams forged integral with shaft.
- Tappets—Flat foot type valve lifter.
- Ignition—High tension rotary magneto furnished with impulse starter.
- Lubrication—Positive. Oil pump driven from eccentric on cam shaft. Oil supplied to all working parts of engine.
- Cranking—Right Hand, regardless of direction of power take-off.
- Cooling—Radiator with ample capacity for full load operation. Oversize fan with automatic fan belt tightener. Fan blades made of single steel stamping. Fan hub, mounted on ball bearings which can be lubricated while running.
- Manifold—Hot Spot. Promotes perfect carburetion under all loads.
- Oil Gauge—Bayonette type.
- Speed Reduction Gears—Furnished for 2 to 1 and 8 to 1 reductions. Gears are of alloy steel heat treated and hardened. Special tooth designs and anti-friction bearings provide quiet running, and long life.
- Lever Speed Changer—Furnished when ordered. Permits instant and convenient variation of governed speed of engine. A slow-down device for idling Engine at slow speed can also be furnished.
- Governor—Gear driven, fly ball throttling type, enclosed, runs in oil and gives close speed regulation.
- Fuel Tank—Liberal size. Made of heavy, lead coated terne plate (anti-rusting). Securely mounted in top of house.
- House—Of heavy gauge steel. All joints riveted and welded. Wide doors on both sides. Can be equipped with radiator and fuel tank lock.
- Dimensions—Length 17", width 18", height 34".



Order The Engine To Suit Your Requirements

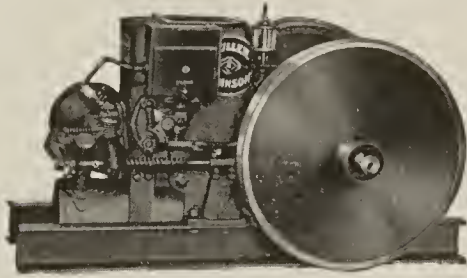
Outfit Number	MODEL AH Standard Combinations	R. P. M. of Take-off Shaft	Net Weight	Approx. Shipping Weight	Code Word
271B	Direct Drive, power taken from crank shaft.	900-1300	420	450	Anch
271G	Direct Drive, with clutch.	900-1300	475	515	Ansa
271K	2:1 gear reduction, engine rotation, with clutch.	450- 650	496	550	Anko
271M	2:1 gear reduction, anti-engine rotation, with clutch.	450- 650	496	550	Apoc
271L	2:1 gear reduction, engine rotation (no clutch).	450- 650	440	480	Anim
271N	2:1 gear reduction, anti-engine rotation (no clutch).	450- 650	440	480	Abna
271F	8:1 gear reduction, anti-engine rotation, Position "AA" with clutch.	112- 168	530	600	Anbe
271P	8:1 gear reduction, anti-engine rotation, Position "CC" with clutch.	112- 168	530	600	Aimo

Unless otherwise ordered Engine Governor will be set for 1,000 R. P. M.

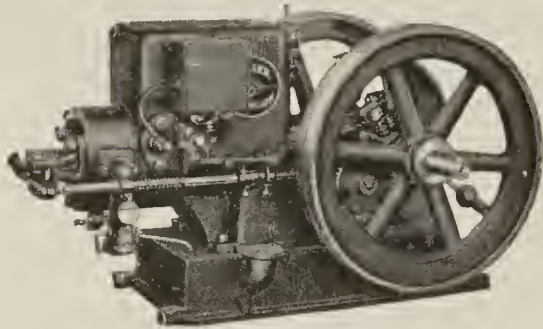
"Known Everywhere as the Finest"

FULLER & JOHNSON ENGINES

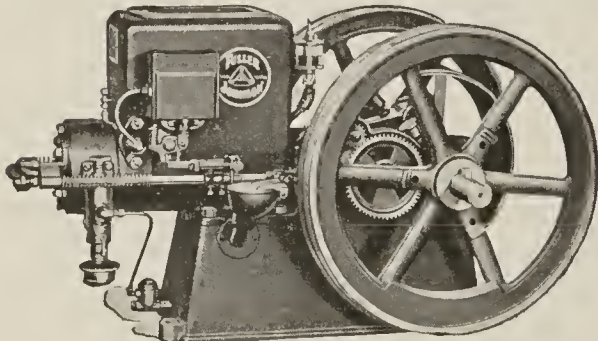
Models "NC" and "NB" Single Cylinder Horizontal Engines



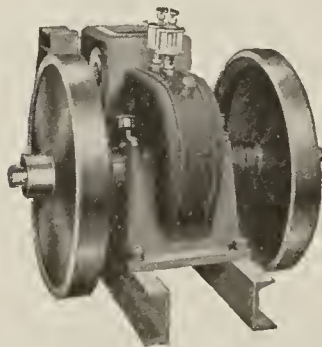
2 and 2½ H. P. on steel channels. Note the disc fly-wheels and key shroud.



3½ H. P. Model "NC"  
Mounted on iron sub-base, water-cooled cylinder head.



4½-6-8 H. P. Model "NB"  
With full iron base.



Showing crankcase enclosure and wipe oiler for crank pin on 2 H. P. Crankcase enclosure can be furnished on all "NC" and "NB" Engines.

Fuller & Johnson Models "NC" and "NB" Gasoline Engines embody the very latest improvements in gasoline engine construction. They are of the horizontal type, four cycle, hit and miss governor, and hopper cooled.

**Cooling**—Large, straight sided hopper with large waterways the full length of cylinder insures excellent cooling.

**Lubrication**—Main bearing and connecting rod bearings have large grease cups. Cylinder is lubricated by sight feed oil cup.

**Governor**—All Model "NC" and "NB" Engines are equipped with the hit and miss type. The number of explosions or power impulses is regulated by the load placed on the engine, that is, the fuel used is in proportion to the work or load on the engine. This is a very economical means of governing the engine's speed.

**Ignition**—High tension Wico magneto is standard equipment.

**Piston**—Long, light weight, of special grey iron. Machined and ground to exact size. Each piston is individually fitted to its cylinder before being bored for wrist pin, assuring perfect fit and alignment.

**Cylinder**—Semi-steel. Seasoned and ream finished. Carefully fitted with piston and rings and run in thoroughly on testing floor.

**Bearings**—High grade babbitt, line reamed. Fitted with metal shims. Main bearings on angle in the base so that pressure from power impulse on piston comes at bottom of bearing.

**Gears**—Semi-steel, accurately machined and cut to close limits. Timing gears marked to assure replacement in correct time if removed.

**Guarantee**—All Fuller & Johnson Models "NC" and "NB" engines are backed by our regular, published, five-year guarantee.

**Equipment**—The regular equipment consists of gasoline tank, plain pulley, muffler, cylinder oiler, grease cups, magneto, starter crank, and instruction book, all securely packed in one crate.

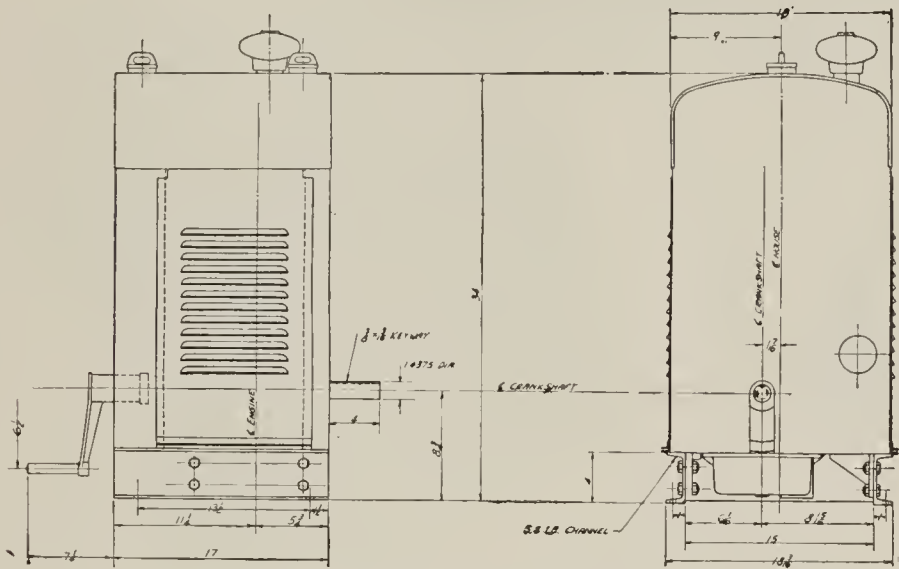
**Rigidly Tested**—After assembly, each engine is thoroughly run in on the test floor. It is then checked by the inspector for compression, ignition, valve setting, bearing adjustment, etc. After passing this test it is then brake tested for power. Each Fuller & Johnson engine must develop full rated horse-power. Finally as an extra protection to the user, just before it is crated for shipment, every engine must pass a final running test by an engine expert. This assures the owner that the engine is not only properly designed and built but, having been thoroughly tested and inspected before shipping, it is ready to put right to work.

H. P.	R.P.M.	Size Pulley	Diam. of Fly-wheels	Capacity of Fuel Tank (gals.)	Floor Space (inches)	Approx. Ship. Weight (Lbs.)	Code Word
2	600	4x4	15½"	.9	27x42	220	Vanao
2½	600	4x4	16½"	1.2	28x47	270	Veaso
3½	550	6x4	18"	2.25	34x36	335	Cepeo

H. P.	R.P.M. Speed	Standard Pulley's Inches	Diam. of Fly-wheels Inches	Capacity Fuel Tank U. S. Gals.	Floor Space Inches	Approx. Ship. Weight Lbs.	Code Word
*4½	525	8x4	22	3	35x43	525	Conao
6	475	12x6	26	5¼	40x52	800	Bateo
8	425	16x8	32	6¼	44x63	1200	Bayao

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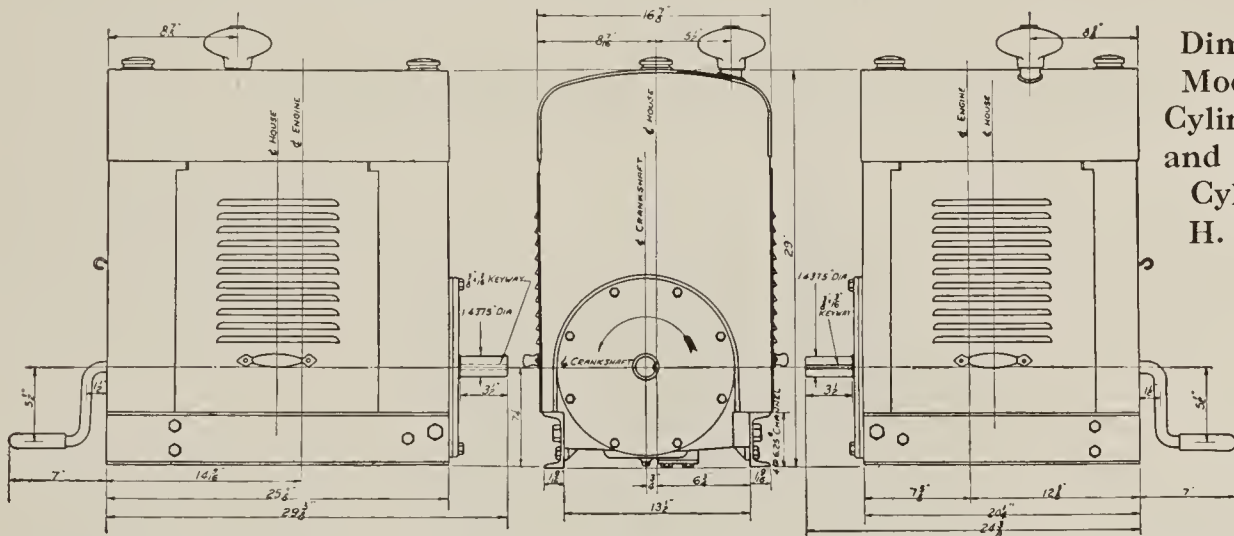
FULLER & JOHNSON ENGINES



Model "AH" Direct Drive Engine

Dimensions of Model "AH"  
4-6 H. P. Single Cylinder  
Vertical Engine

Detail dimensions of the power take-offs available on the Model "AH" Engine and all other sizes and types built will be furnished on request.



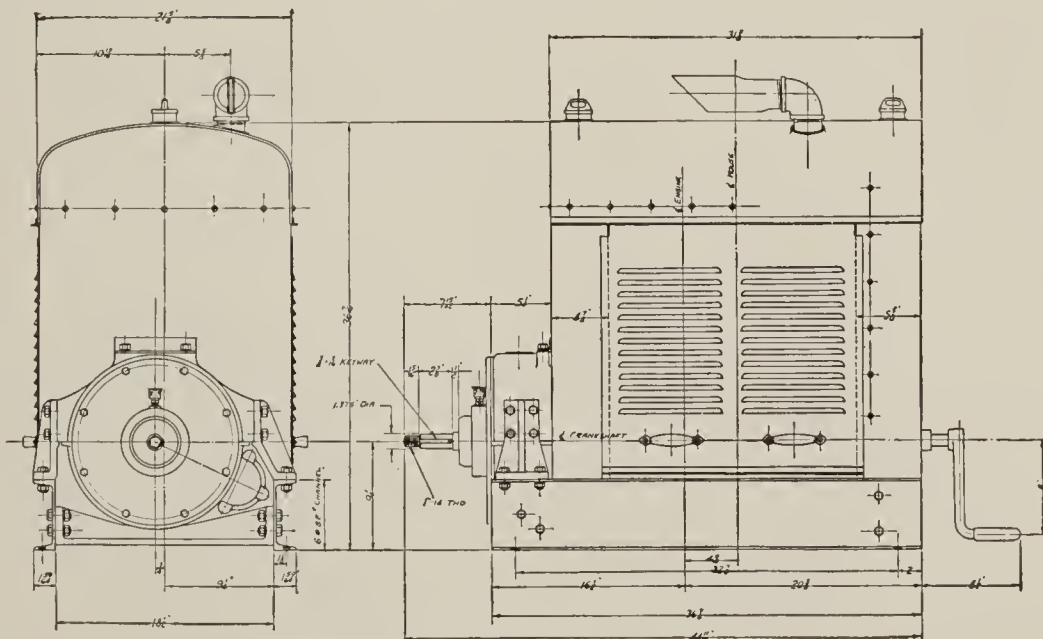
Model "BC"—6-10 H. P., 4-Cylinder Vertical Engine.

End dimensions of house on "BB" and "BCL" Engines are identical.

Model "BB"—3-5 H. P. 2-Cylinder Vertical Engine.

Dimensions of Model "BB" 2 Cylinder 3-5 H. P. and the "BCL" 4 Cylinder 6-10 H. P. Engines

Note — That if "BC" engine has right hand accessories (right hand side when looking at radiator end) then center line of engine will be 3/4" to the right of the center line of house instead of to the left as shown in dimension drawing.



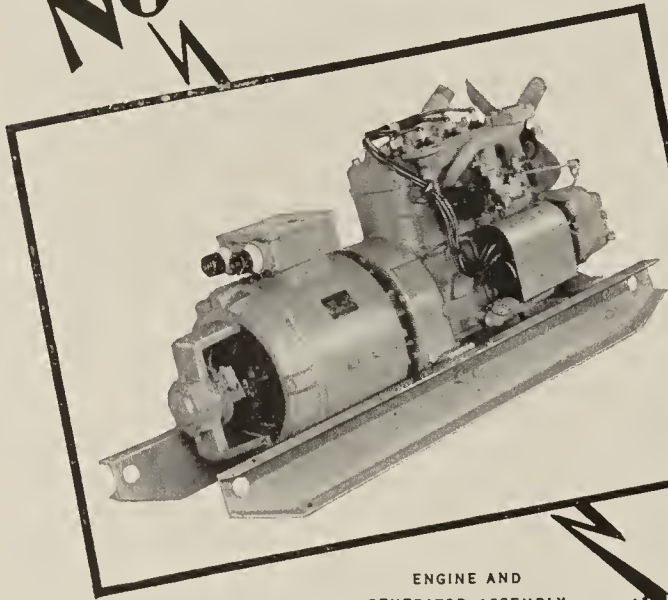
Models "AX" and "AXK" Direct Drive

Dimensions of "AX"  
20-25 H. P. and  
"AXK" 25-30 H. P.  
4 Cylinder Engines

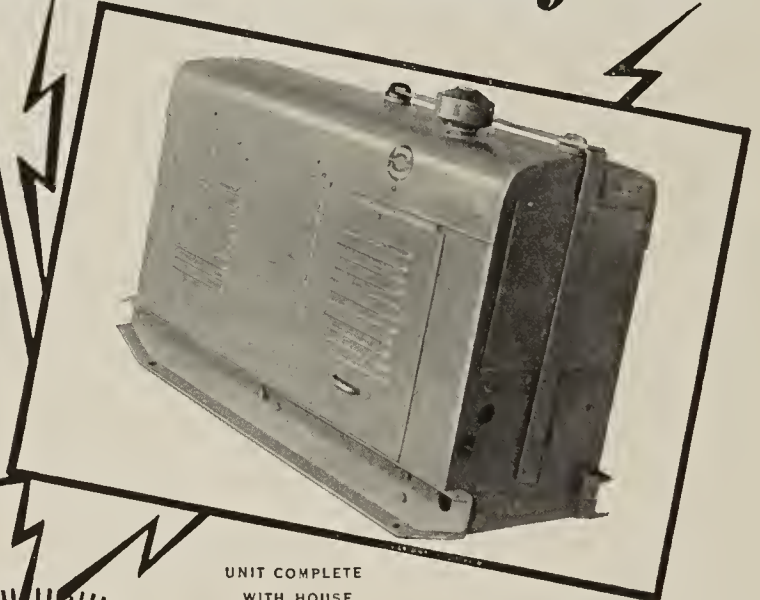
Detail dimensions of the power take-offs available on the Model "AX" and "AXK" Engines will be furnished on request.

## FULLER &amp; JOHNSON ENGINES

**NOW** You can use **ELECTRIC POWER** anywhere



ENGINE AND  
GENERATOR ASSEMBLY



UNIT COMPLETE  
WITH HOUSE

**Take your POWER with you!**

Contractors, as well as telephone, gas and electric utilities, have many applications on new construction or repair jobs where flood lights and portable electric tools can be used to advantage. The same electric tools—drills, reamers, hammers, saws, chisels, etc.—that come in so handy where the city current is available can now be used anywhere.



Unit Mounted on Auto Truck Equipped for  
Flood Lighting

The FULLER & JOHNSON portable electric power units make possible this convenience. They are surprisingly low in price and operating cost, yet built into them is that sturdy construction which for 30 years has characterized FULLER & JOHNSON engines.

The units are available in two standard sizes—1½ K. W. and 3 K. W. Read over the specifications given below.

### 1½ K. W. Unit Specifications

**MOTOR:** Two cylinder, four cycle, 3-5 h. p. Fuller & Johnson.  
**SPEED:** 1200 R. P. M.  
**IGNITION:** High tension rotary magneto.  
**LUBRICATION:** Circulating splash system.  
**CRANKING:** Right hand.  
**COOLING:** Thermo-syphon circulation, large radiator, 4 blade fan.  
**GOVERNOR:** Gear driven, fly-ball throttling type, enclosed.  
**FUEL TANK:** Liberal size, securely mounted in top of house.  
**HOUSE:** Of heavy gauge steel. Wide doors on both sides and rear.  
**GENERATOR:** 1½ K. W. 115 volt D. C., compound wound. Direct connected to engine.  
**DIMENSIONS COMPLETE UNIT:** Height 30"; width 20½"; length 41½".  
**WEIGHT COMPLETE UNIT:** 650 pounds net

### 3 K. W. Unit Specifications

**MOTOR:** Four cylinder, four cycle, 6-10 h. p. Fuller & Johnson.  
**SPEED:** 1500 R. P. M.  
**IGNITION:** High tension rotary magneto.  
**LUBRICATION:** Circulating splash system.  
**CRANKING:** Right hand.  
**COOLING:** Thermo-syphon circulation, large radiator, 4 blade fan.  
**GOVERNOR:** Gear driven, fly-ball throttling type, enclosed.  
**FUEL TANK:** Liberal size, securely mounted in top of house.  
**HOUSE:** Of heavy gauge steel. Wide doors on both sides and rear.  
**GENERATOR:** 3 K. W., 115 volt D. C., compound wound. Direct connected to engine.  
**DIMENSIONS COMPLETE UNIT:** Height 30"; width 20½"; length 49".  
**WEIGHT COMPLETE UNIT:** 735 pounds net.

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