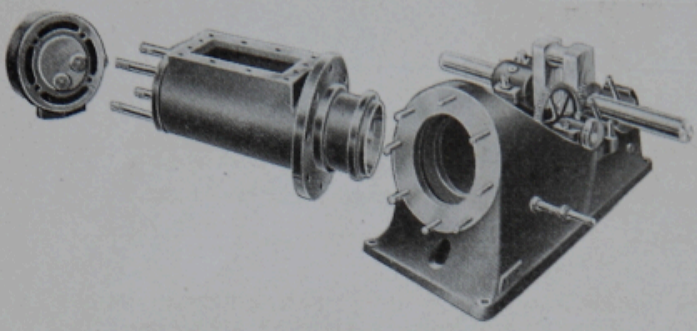
"Rock Island" Engines



Cylinder Head, Cylinder and Base

"Rock Island" Gasoline Engines are built for general use the world over. They are made to use under all conditions, by people more or less unfamiliar with gasoline engines. They are the product of a high-class engine factory.

As illustrated, we cast our base, cylinder and water jacket separately, as this is the most satisfactory way to build an engine. The machine shop takes these separate parts, carefully machines them and then joins them firmly together by plenty of serviceable studs and bolts.

Cylinder is held to base with double collar bearing and plenty of extra strong studs and bolts. This is an exclusive feature that is unexcelled.

Bearings are cast at an angle of 30 degrees, so that the thrust of engine is against bed and not against bolts holding crank boxes.

The cylinder is made of the best material for the purpose. It is made of uniform thickness to allow for an even expansion when under high temperature.

PISTON AND RINGS

The piston is the simple "trunk type" and of sufficient length to provide ample wearing surface on cylinder. Both piston and rings are made of very fine grained iron and very carefully ground to exact size by special machinery, insuring an exact fit. Three, four or five rings are used, according to the size of the engine. Rings are made with lap joints, as this construction maintains the compression.

The bearings receive special consideration in "Rock Island" Engines. Castings are carefully machined to receive bearing material. Bearings are made of best anti-friction metal known, and will not run hot.

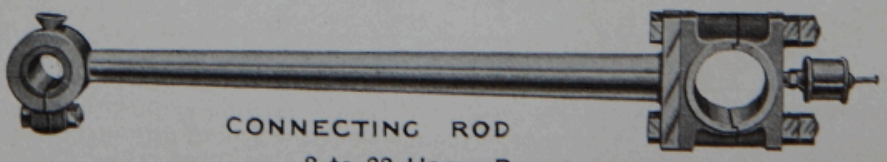
OILING

Proper lubrication is essential to best results. Sight feed lubricators are used for oiling piston. Spring compression grease cups are placed on connecting rods and plain grease cups on the main bearings.

CONNECTING RODS

Connecting rods are of ample size, correctly proportioned, and with adjustable crank bearings.

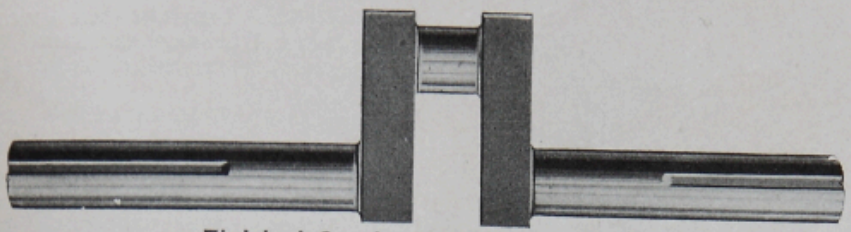
On 1 to 6 H. P. engines, connecting rods are made of drop forgings, I-beam in shape. On 8 to 22 H. P., connecting rods are made from mild steel steam hammered forgings, which are drawn from the solid billet and machined and polished.



CONNECTING ROD

8 to 22 Horse Power

"Rock Island" Engines—Continued



Finished Crank—8 to 22 Horse Power

The crank pin ends of the smaller rods are lined with genuine copper hardened babbitt. The crank pin bearing of the larger rods is of a marine type. Both parts of this box are made of phosphor bronze and are adjustable.

Connecting rod end is fitted with a separate phosphor bronze bushing and is adjustable by means of a bolt in the head.

The piston is oiled by sight feed lubricator of liberal size, through a tube in the piston. The crank end is oiled by a large spring compression grease cup of approved design.

CRANK SHAFTS

The crank shafts are unusually large. The crank itself must be amply strong, for the entire power falls directly on the crank.

Every shaft is hammer-forged steel made from one solid piece.

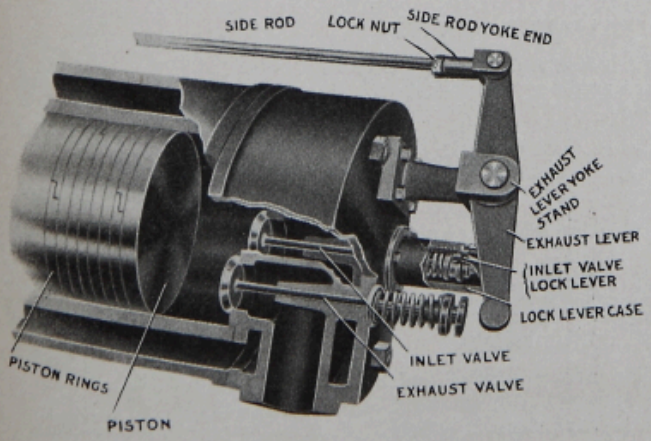
The crank shafts for 1 to 6 H. P. engines are without welds of any kind, giving at least twice the strength of bent crank shafts usually found on small engines.

The crank shafts on the 8 to 22 H. P. engines are steam hammered from open hearth steel billets, free from welds, and machined to perfect gauge.

All "Rock Island" crank shafts are made and finished as perfect as tools, machinery and skilled labor can make them.

CYLINDER HEAD AND VALVES

Only one cam performs the function of operating the single side rod, both valves, pump, igniter and valve lock. When the engine is on the idle stroke, the valves, igniter and pump are not in operation. This saves electric current and wear on the working parts.



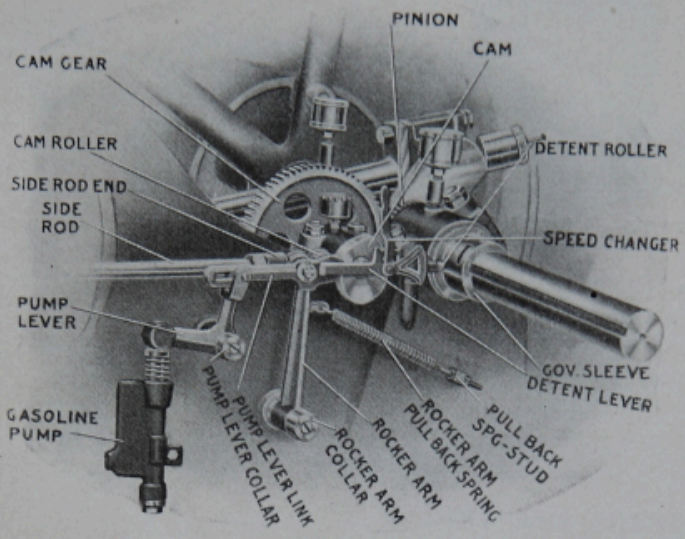
Cylinder Head and Valves

The valves are of the "poppet" type, and have extra long bearings. It is a very easy matter to grind them to the valve seat by use of emery dust.

The ample size of the valves guarantees the full rate of horse power.

The working parts are few in number and each is carefully machined to perfection of detail, and every part is easy of access in case of any attention being required.

"Rock Island" Engines—Continued



Governor End

The bearings are very liberal in size and have the most approved oiling device.

THE MIXER

This is an important point which has been carefully considered in Rock Island engines. The vaporizing process is most efficient and will give splendid satisfaction. It is very carefully made to allow the very finest adjustment.

The gasoline and air are introduced directly into the explosion chamber by the rush of air through the suction pipe. This is drawn into the cylinder by the suction of the piston at the first stroke.

A small amount of gasoline is drawn from the nozzle, which is immediately vaporized. It then enters directly into the explosion chamber and the entire force is shot directly against the head of the piston. This eliminates all valves and auxiliary chambers.

In this manner we simplify the entire operation and produce the maximum amount of power with the minimum fuel consumption.

GASOLINE PUMP

On the 8 to 22 H. P. engines, we provide a very simple pump, without stuffing boxes, packing, etc. No pump is necessary on the smaller sizes.

This pump is positive and simple in action, and maintains an even and positive supply of fuel in the reservoir.

Should any foreign substance gather in the pump, it is a very simple matter to clean it out, because of the easy access to the ball check valves.

A RELIABLE IGNITER

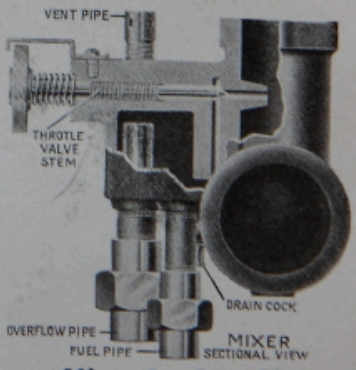
The igniter is of the "make and break" type. This has been proven superior to all other types, especially for engines of moderate speed. It can be depended upon for long continued service.

The unusual class of good material in "Rock Island" engines will give positive assurance of long life and entire satisfaction.

The contact is of short duration and makes a big saving on the batteries.

On the idle stroke of the engine, the igniter trip is inactive. This makes a big saving of wear on the movable electrode springs and igniter points.

All "Rock Island" engines are equipped with a speed changing device of approved design and excellent pattern, which gives a variation in speed of about 33%, and it allows the changing of speed while the engine is in motion.



Mixer for 8 to 22 Horse Power Engine

"Rock Island" Engines—Continued

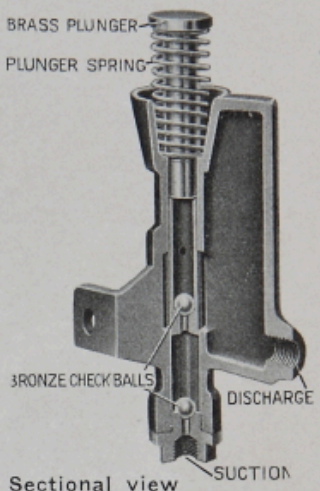
FINISH

We finish "Rock Island" engines in a very handsome "Rock Island" brown, which is a dark, rich yellow, with deep gold and black stripings. This color is not only very pleasing in appearance, but wears well and is not liable to be affected by heat. It is a distinctive color and has proven very popular. The engines are exceptionally well finished in every way, and we are certainly very proud of the appearance, style and finish of all "Rock Island" engines.

All stationary engines are equipped with a gasoline tank separate, so it may be placed outside of the building, if desired.

"Rock Island" engines strictly conform to the rules prescribed by the National Board of Fire Underwriters, which guarantees the utmost safety and are accepted without any change in insurance.

We have paid particular attention to make all "Rock Island" Gasoline Engines very accessible for cleaning, or any other attention required.



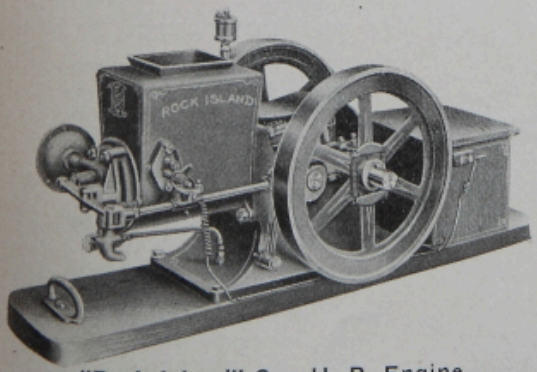
Sectional view
Gasoline Pump

We furnish with every engine a combined instruction book and repair list, showing cuts and descriptions of the different parts, as well as the prices for the various sizes. This book comes packed with the engine and also contains a few necessary, or advisable, suggestions and instructions, so that the user always gets perfect satisfaction with the least possible effort.

It is a very simple matter to start a Rock Island Engine. To anyone familiar with standard engine construction, no directions or suggestions are necessary, but for those not familiar, we send these simple directions with every engine.

(Send for Special Engine Catalog.)

"Rock Island" One Horse Power Engine



"Rock Island" One H. P. Engine

The Rock Island one-horse power engine is built with the same care as our larger engines. It is most suitable for use on all light work.

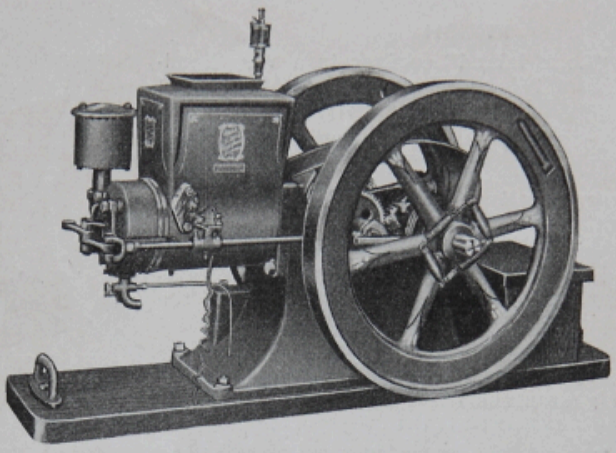
If skidded engine is ordered, the skids are all bored so trucks may be added at any time.

Engines are shipped with all pipe and wire connections made, ready for work. Equipped complete, with speed changer, pulley, muffler, batteries, battery box, wire switch, spark coil, crank shield, oil can, wrench, starting crank, sample can lubricating oil and hard grease, and instruction book.

Dimensions

Catalog No. of Engine	Horse Power Rating	Speed Rev. per Minute	Size of Pulley	Floor Space	Size of Fly Wheel	Shipping Weight		Telegraph Code
						Skidded	Portable	
101S	1	500	4½"x4¼"	22"x47" Wheel Base 34"	16"x2"	325	---	Gas
101P	1	500	4½"x4¼"		16"x2"	---	400	Gasbath

"Rock Island" Engines—Continued

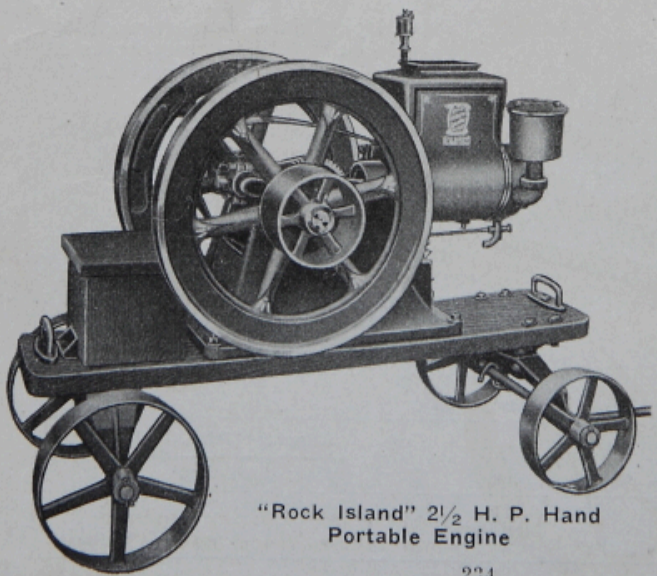


"Rock Island" 2½ H. P. Engine on Skids

This is a very popular size of engine, adaptable to a wide range of uses on the farm; operating pump, separator, churn, washing machine, grindstone, feed mill, and similar machinery.

Engines are shipped all complete—the gasoline is contained in the base and all piped. The battery box is secured to the truck and all wire connections made. They are then carefully crated and are ready for business when you receive them. Simply supply the necessary gasoline, oil and water. They are completely equipped, as shown below.

Catalog No. of Engine	Horse Power Rating	Speed Rev. per Minute	Size of Pulley Dia-Face	Size of Fly Wheel Dia-Face	Floor Space	Shipping Weight	Telegraph Code
102½S	2½	375	8"x4½"	20"x2"	36"	550	Gasline
102½P	2½	375	8"x4½"	26"x2"	40"	650	Gasoline



"Rock Island" 2½ H. P. Hand Portable Engine

PORTABLE

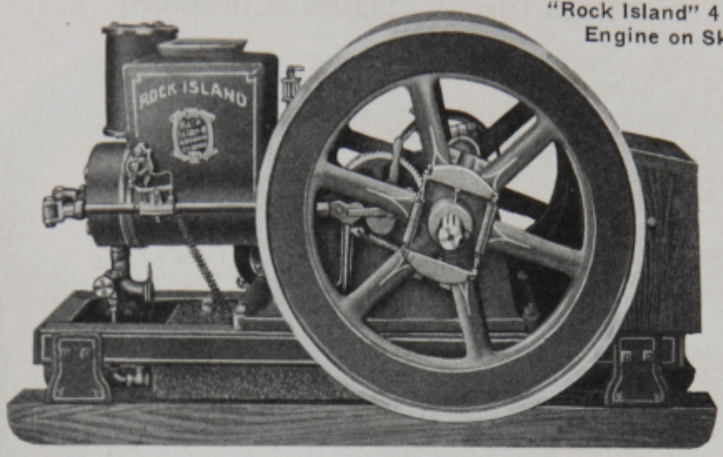
When skidded engine is ordered, skids are bored so it is easily mounted on trucks.

The hand truck is very substantially made, with extra strong iron wheels. Wheels are 12 inches high, with 2-inch tires. The handle hooks on the front axle and is easily removed. Axles are cold rolled steel.

This truck is far superior to the ordinary wood sill truck so commonly used.

Engines are fully equipped and shipped ready for work.

"Rock Island" Engines—Continued



"Rock Island" 4 H. P. Engine on Skids

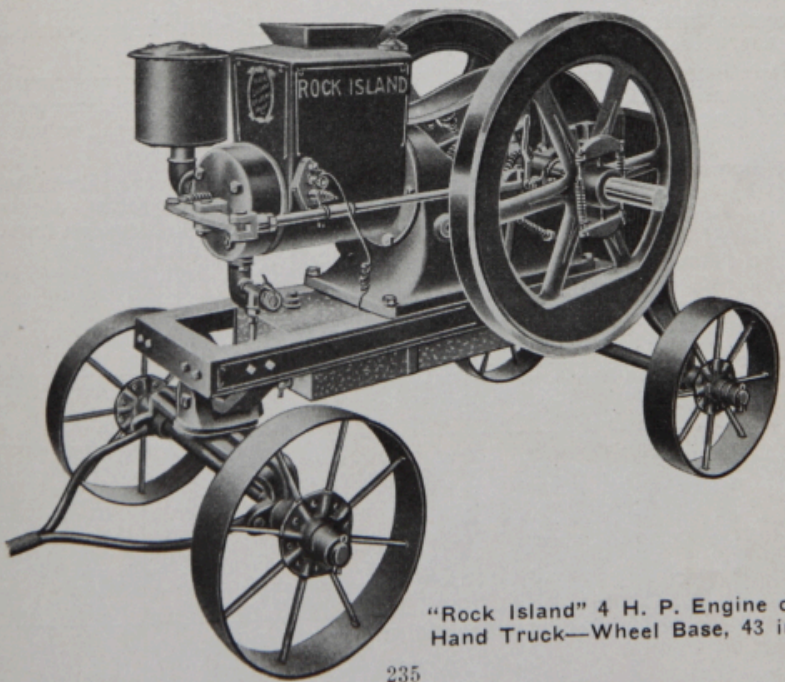
Rock Island 4 and 6 Horse Power Engines

These are the most popular sizes of engines for general farm work. For six horse power Portable Engine see page 238.

Four horse power engine is skidded. The wheels, axles and handle can be added later, if desired, to mount on trucks.

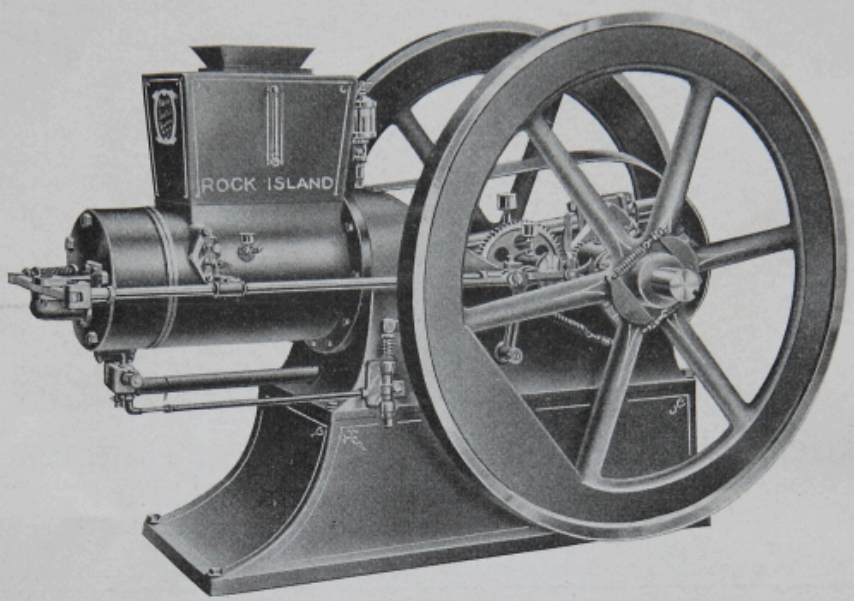
Engines are shipped fully equipped, all ready for work.

Catalog No. of Engine	Horse Power Rating	Speed Rev. per Minute	Size of Pulley Dia-Face	Size of Fly Wheel Dia-Face	Wheel Base and FloorSpace	Shipping Weight	Telegraph Code
104HP	4	385	10″x6″	28″x2″	43″	950	Gassand
104S	4	385	10″x6″	28″x2″	31″x58″	825	Portablegas
106S	6	375	12″x8″	35″x2⅝″	34½″x67″	1100	Gasworks



"Rock Island" 4 H. P. Engine on Hand Truck—Wheel Base, 43 in.

"Rock Island" Engines—Continued



"Rock Island" 4 to 22 H. P. Engine

The cut above shows the Rock Island 4 to 22 Horse Power Engine with hopper. This hopper can be very easily removed, so that it's a very easy matter to change from the hopper-cooled to a closed cylinder engine. This applies to the 8 to 22 horse power only.

Any size from 4 to 22 horse power can be ordered with "hopper-cooled," as shown, but "closed cylinder" type only in 8 to 22 horse power.

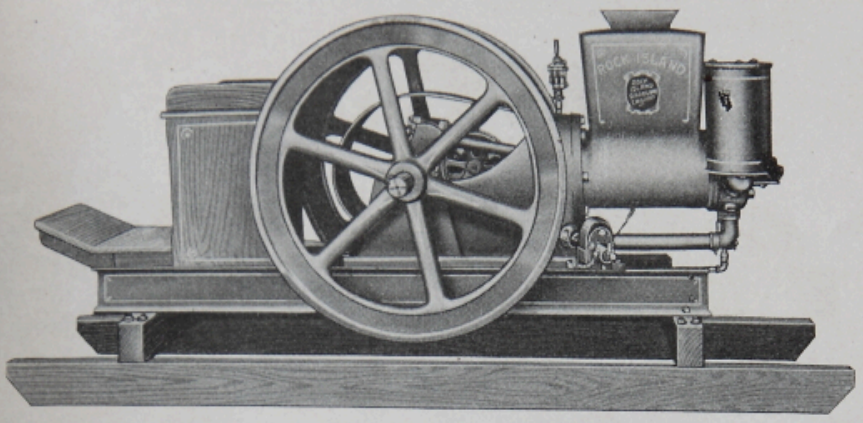
On stationary engines, instead of using an ordinary muffler, we furnish an exhaust pot with sufficient pipe to run the exhaust out of the building, and also a separate gasoline tank, together with necessary pipe fittings, etc., so the tank can be placed outside the building, if desired.

Cut shows engine mounted on Full Base, which is regular. Half Base is without the lower section of base, adaptable for special mounting on trucks. Equipment consists of galvanized gasoline tank, pipe and fittings, so that tank can be placed outside of the building; pulley, exhaust pot and sufficient pipe to run the exhaust outside of the building; battery box, batteries, wire, switch and spark coil, crank shield, sight feed lubricator, grease cups, oil cans, pipe pliers, sample can of lubricating oil and hard grease, and a complete instruction book.

Catalog No. of Engine	Horse Power Rating	Speed Rev. per Minute	Size of Pulley Dia-Face	Size of Fly Wheel Dia-Face	Floor Space	Shipping Weight		Telegraph Code
						Full Base	Half Base	
104	4	385	10″x 6″	28″x2 ″	2′- 9″x4′	1000	900	Gasgun
106	6	375	12″x 8″	35″x2⅝″	2′-11″x4′- 9″	1350	1200	Gasheater
108	8	325	18″x10″	42″x2¾″	3′- 7″x5′-10″	2300	2100	Gasjet
110	10	325	18″x10″	45″x2¾″	3′- 9″x6′	2400	2200	Gaslight
112	12	275	20″x14″	52″x3 ″	4′- 0″x6′-10″	3400	3000	Gaslime
114	14	275	20″x14″	52″x3 ″	4′- 6″x7′	3550	3100	Gasmain
116	16	250	24″x14″	52″x3¾″	5′- x8′- 1″	4800	4300	Gasman
118	18	250	24″x14″	52″x3¾″	5′- x8′- 3″	5000	4500	Gasmeter
122	22	240	30″x14″	60″x3¾″	5′- 2″x8′- 6″	5500	5000	Gasmotor

(Send for Special Engine Catalog.)

"Rock Island" Engines—Continued

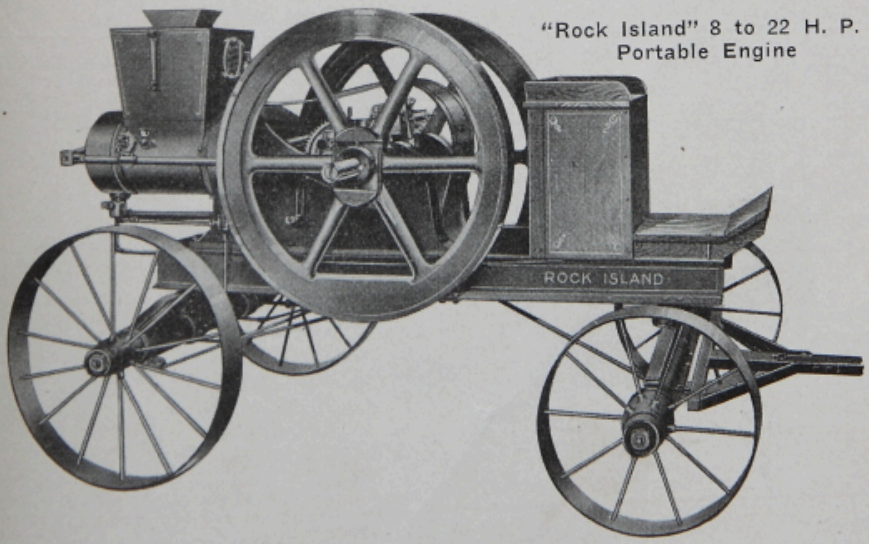


"Rock Island" 6, 8 and 10 H. P. Engine

Above we ilustrate our 6, 8 and 10 H. P. engines, mounted on skids. To make a complete portable outfit the wheels, axles and pole may be added later.

This size engines are for any heavy work, and have no superior. Dimensions of stationary and skidded engines given on preceding page. Dimensions of portable given below.

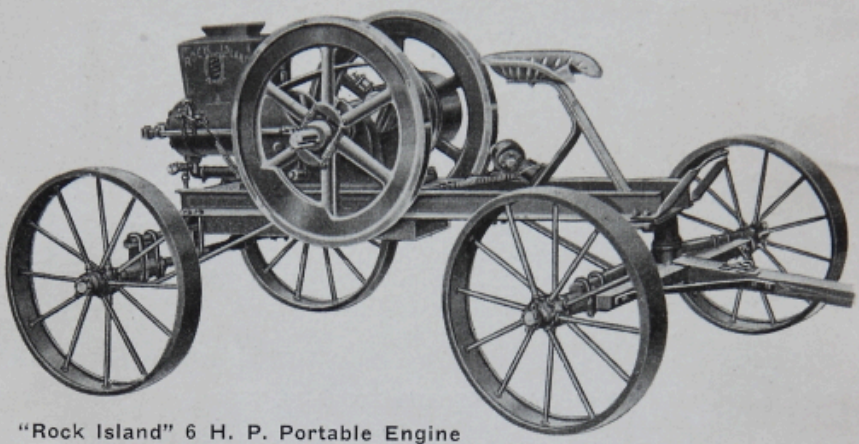
Catalog No. of Engine	Horse Power Rating	Speed Rev. per Minute	Standard Pulley	Clutch Pulley	Size of Fly Wh'l Dia-Face	Size of Truck Wheel	Width of Tire	Shipping Weight	Telegraph Code
106P	6	375	12″x 8″	24″x 8″	35″x2⅝″	29″x32″	4 ″ Tire	1550	Gaspan
108P	8	325	18″x10″	24″x 8″	42″x2¾″	28″x30″	4 ″ Tire	2750	Gasplant
110P	10	325	18″x10″	24″x 8″	45″x2¾″	28″x30″	4 ″ Tire	2850	Gaspore
112P	12	275	20″x14″	28″x 8″	52″x3 ″	26″x34″	5 ″ Tire	3800	Gasport
114P	14	275	20″x14″	28″x 8″	52″x3 ″	26″x34″	5 ″ Tire	3900	Gasrange
116P	16	250	24″x14″	30″x 8″	52″x3¾″	26″x34″	5½″ Tire	5100	Gasring
118P	18	250	24″x14″	30″x 8″	52″x3¾″	26″x34″	5½″ Tire	5300	Gasspurt
122P	22	240	30″x14″	36″x10″	60″x3¾″	26″x34″	5½″ Tire	5800	Gastable



"Rock Island" 8 to 22 H. P. Portable Engine

(Send for Special Engine Catalog.)

"Rock Island" Engines—Continued



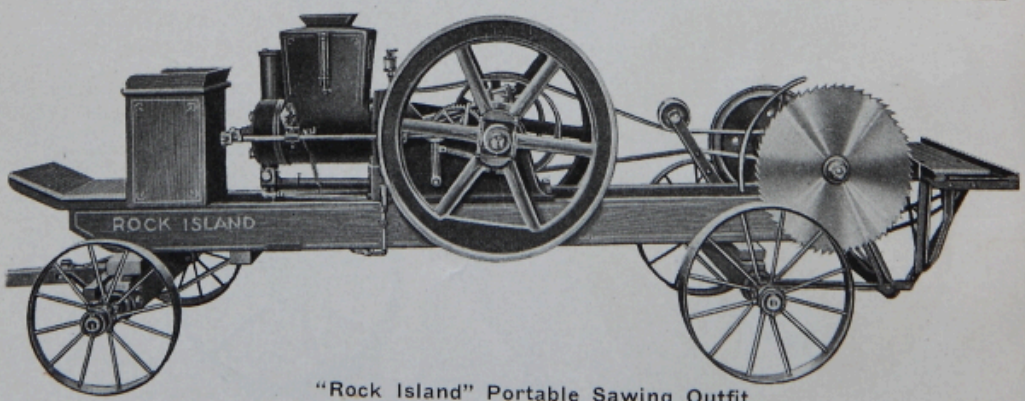
"Rock Island" 6 H. P. Portable Engine

Above is shown the 4 and 6 H. P. engines, as already described, but mounted on portable trucks. These engines are shipped fully equipped and all ready for work. So mounted, these engines are described as follows:

Catalog No. of Engine	Horse Power Rating	Speed Rev. per Minute	Standard Pulley	Clutch Pulley	Size of Fly Wh'l Dia-Face	Size of Truck Wheel	Width of Tire	Shipping Weight	Telegraph Code
104P	4	385	10″x6″	16″x6″	28″x2 ″	29″x32″	4½″	1300	Gastank
106P	6	375	12″x8″	18″x6″	35″x2⅝″	29″x32″	4½″	1550	Gastar

The Rock Island Portable Sawing Outfit is the strongest and most durable outfit of its kind. Frame is carefully selected and well seasoned oak. Wheels are large, heavy steel, staggered spokes. Saw frame is of angle steel. It may be removed, when desired, without bothering engine, making it a portable outfit.

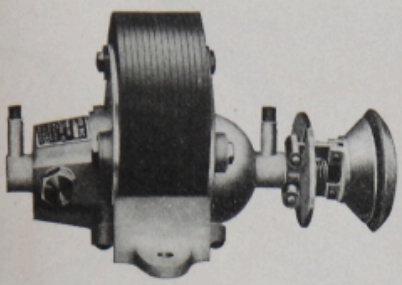
Catalog No. of Engine	Horse Power Rating	Speed Rev. per Minute	Standard Pulley	Clutch Pulley	Size of Fly Wh'l Dia-Face	Size of Truck Wheel	Width of Tire	Shipping Weight	Telegraph Code
104PS	4	385	10″x 6″	16″x6″	28″x2 ″	24″x28″	4″	1800	Gastight
106PS	6	375	12″x 8″	18″x6″	35″x2⅝″	24″x28″	4″	2100	Gastrap
108PS	8	325	18″x10″	24″x8″	42″x2¾″	24″x28″	4″	3000	Gaswater
110PS	10	325	18″x10″	24″x8″	45″x2¾″	24″x28″	4″	3100	Gaswasher



"Rock Island" Portable Sawing Outfit

(Send for Special Engine Catalog.)

"Rock Island" Engines—Continued



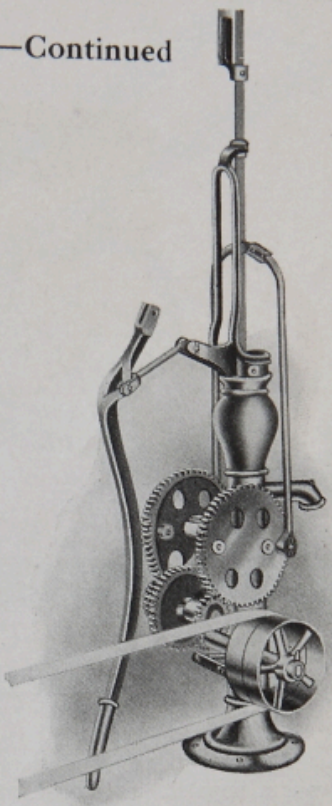
Friction Drive Magneto

We furnish on order, as an extra, either friction or gear drive magneto. The friction magneto may be supplied on any size engine. The gear drive magneto is for 6 horse power or larger.

No. 25—Friction Drive. No. 30—Gear Drive.

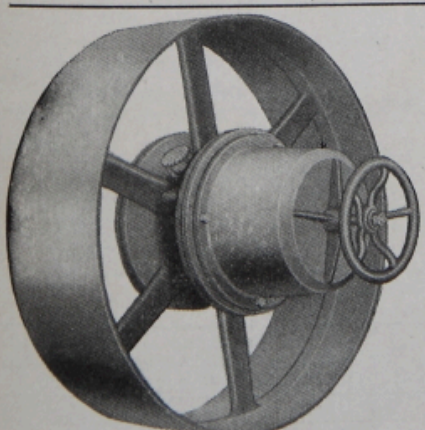
PUMP JACKS

Our pump jacks are made to meet every demand. They are substantially built to insure long life and constant service. We illustrate here our No. 2 and 3 double back geared pump jack.



Nos. 2 and 3 Pump Jack

Number	Size of Pulley	Speed of Pulley	Back Geared	Shipping Weight Pounds	Telegraph Code
1	10 x4	180 to 240	6 to 1	80	Pump
2	7½x2	270 to 360	9 to 1	75	Pumping
3	12 x2	270 to 360	9 to 1	80	Pumped
4	13 x2	120 to 160	4 to 1	80	Pumper
5	13 x2	120 to 160	4 to 1	90	Pumpet



In ordering clutch pulleys give number and horse power of engine.

FRICTION CLUTCH PULLEY

On special order, and at a small additional cost, we can equip any of our engines of 4 horse power and larger sizes with this simple and perfectly reliable friction clutch pulley.

Catalog No.	Used On	Diameter	Face
1	4 to 6 H P	10	6
2	4 to 6 H P	12	6
3	4 to 6 H P	14	6
4	4 to 10 H P	16	6
6	4 to 10 H P	18	6
7	4 to 10 H P	20	6
9	6 to 10 H P	22	6
10	8 to 18 H P	24	8
11	8 to 18 H P	26	8
12	12 to 18 H P	28	8
14	12 to 18 H P	30	8
16	22 H P only	34	10
17	22 H P only	36	10
18	22 H P only	38	10