# NOVO HEAVY DUTY TWO-CYLINDER ENGINES

## Radiator and Hopper Cooled

**10 and 12 H. P.—With small mounting dimensions for Horse Power Capacity**

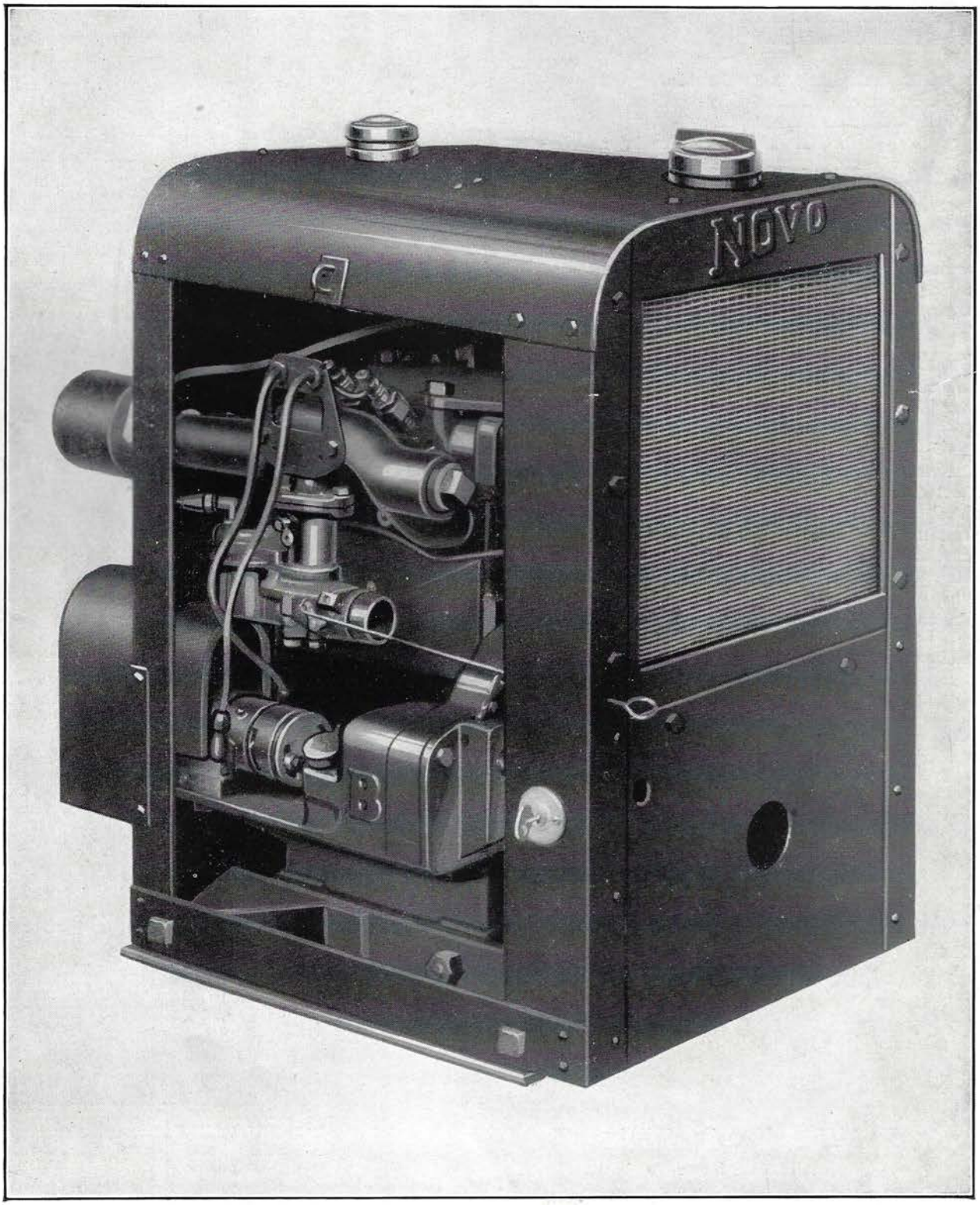



Fig. 1563-B Standard Novo Two Cylinder Radiator Cooled Engine 10 or 12 H. P.

# SPECIFICATIONS

## Novo Two-Cylinder
## RU 10 H. P. Rollr Engine

| | |
|---|---|
| H. P. | 10 |
| Bore | 3¼" |
| Stroke | 5" |
| R. P. M. | 1200—range 750 to 1800 |
| Displacement | 82.95 cu. in. |
| Fuel tank capacity | 5 U. S. gallons |
| Oil capacity | 4 pints |
| Cooling | Hopper or radiator |
| Valve diameter clear. | 1 7/16" |
| Connecting rod bearings | 1⅞" dia. x 1¾" long |
| Main bearings—two | Timken roller bearings |
| Timing gears | Spur—10 pitch, ¾" face |
| Piston | Special analysis cast iron |
| Piston rings per piston | 2 compression, 1 oil regulating |
| Piston ring width | 3/16" |
| Piston pin | ⅞" dia., hardened, ground and lapped, full floating type |
| Ignition | High tension magneto with automatic impulse starter |
| Crankshaft | S. A. E. 1035 steel heat treated |
| Cylinder block | Novite—Chrome nickel content alloy |
| Carburetor | Float feed, fixed high speed jet |
| Fan diameter (Radiator cooled only) | 11" |
| Flywheel diameter | 14" |
| Clutch | Own make |
| *Approx. net weight, lbs. | 475 |
| *Approx. shipping weight, lbs. | 535 |
| Code, hopper cooled less house | NECAT |
| Code, hopper cooled with house | NEBUD |
| Code, radiator cooled with house | NEBON |

*On radiator cooled engines.

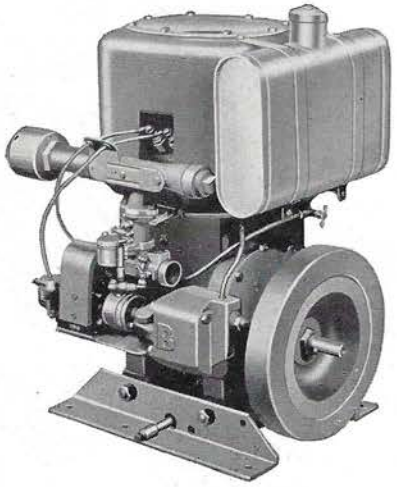
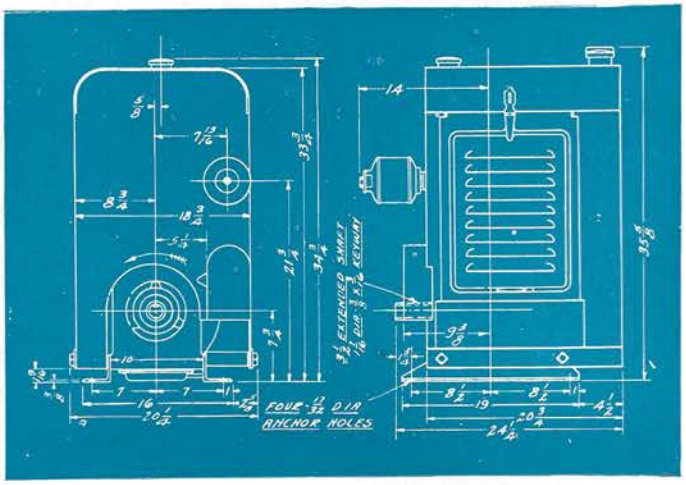
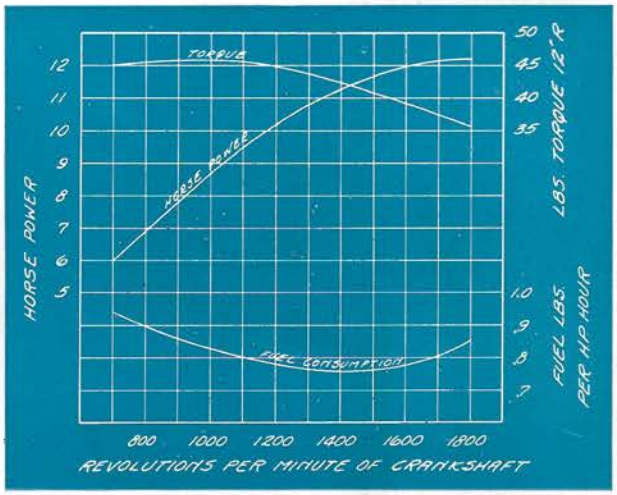


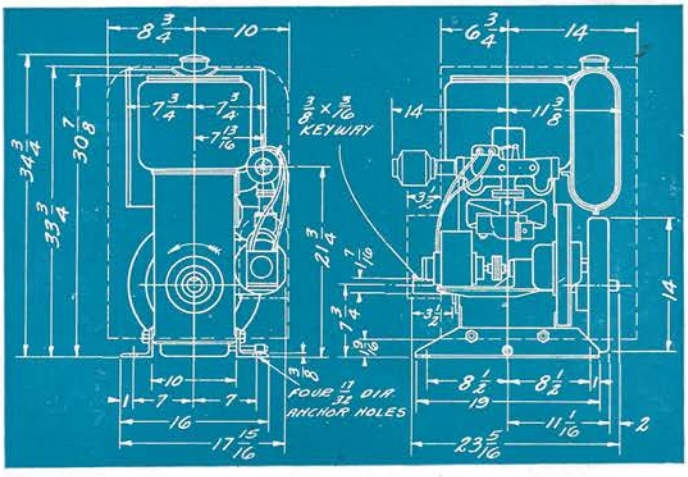
Fig. 1475-A. Novo Two-Cylinder RU 10 H. P. Rollr Engine, hopper cooled, less house




Dimensions of the RU 10 H. P. two-cylinder engine radiator cooled with house, crankshaft drive, B position




Performance curves of the RU 10 H. P. two-cylinder engine. Ratings are obtained from engine with all power consuming accessories in operation

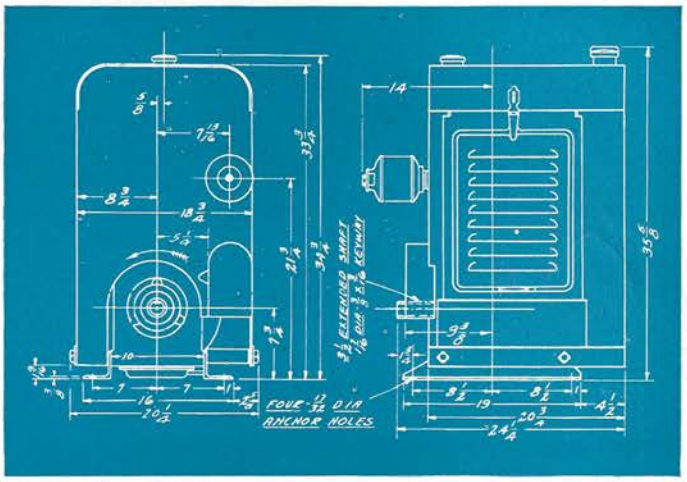



Dimensions of the RU 10 H. P. two-cylinder engine hopper cooled with house, crankshaft drive, B position

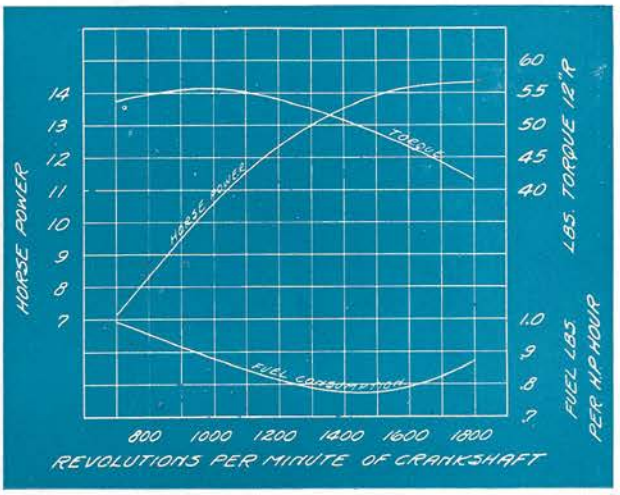
# SPECIFICATIONS

## Novo Two-Cylinder
## YU 12 H. P. Rollr Engine

| | |
|---|---|
| H. P. | 12 |
| Bore | 3¾" |
| Stroke | 5" |
| R. P. M. | 1200—range 750 to 1500 |
| Displacement | 110.45 cu. in. |
| Fuel tank capacity | 5 U. S. gallons |
| Oil capacity | 4 pints |
| Cooling | Radiator only |
| Valve diameter clear. | 1 7/16" |
| Connecting rod bearings | 1⅞" x 1¾" long |
| Main bearings—two | Timken roller bearings |
| Timing gears | Spur—10 pitch, ¾" face |
| Piston | Special analysis cast iron |
| Piston rings per piston | 2 compression, 1 oil regulating |
| Piston ring width | ¼" |
| Piston pin | ⅞" dia., full floating type, hardened, ground and lapped |
| Ignition | High tension magneto with automatic impulse starter |
| Crankshaft | S. A. E. 1035 steel heat treated |
| Cylinder block | Novite—chrome nickel content alloy |
| Carburetor | Float feed, fixed high speed jet |
| Fan diameter | 11" |
| Flywheel diameter | 13" |
| Clutch | Own make |
| Approx. net weight, lbs. | 475 |
| Approx. shipping weight, lbs. | 535 |
| Code, with house, radiator cooled | NEBAL |




Dimensions of the YU 12 H. P. two-cylinder engine radiator cooled with house, crankshaft drive, B position




Performance curves of the YU 12 H. P. two-cylinder engine. Ratings are obtained from engine with all power consuming accessories in operation.

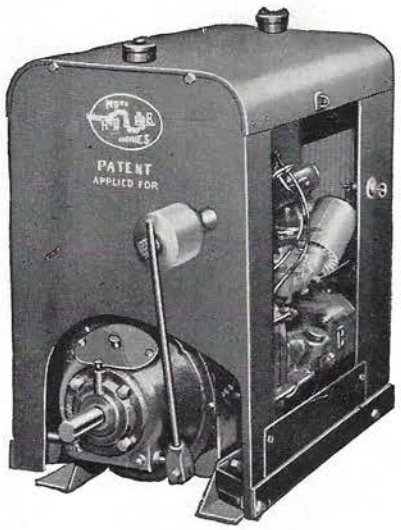
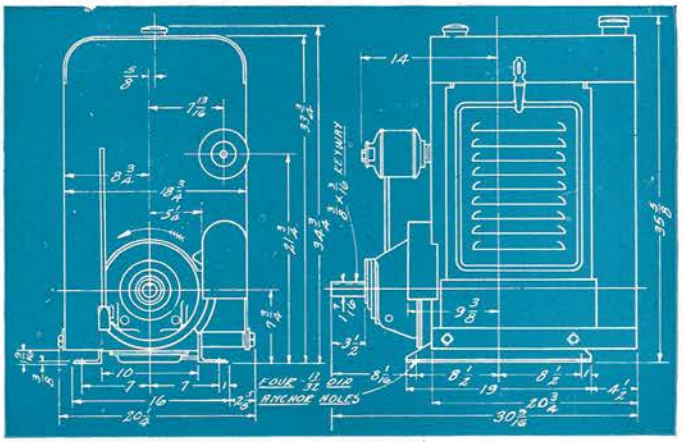



Fig. 1432. Novo Two-Cylinder Rollr Engine with bell housing and clutch




Dimensions of the YU 12 H. P. two-cylinder engine with house, bell housing and clutch. B position

# BALANCED, ANTI-FRICTION, 2-CYLINDER, POWER

## 10 and 12 H. P. Rollr Engines

These Novo Two-Cylinder Rollr Engines are vertical type power units, furnished hopper or radiator cooled (12 H. P. radiator cooled only). The hopper cooled type may be furnished with or without lockable steel house. The house is standard on radiator cooled engines.

The two-cylinder engines are furnished standard for operation at 1200 R. P. M. with a range from 750 to 1800 R. P. M. and with a shaft extension 3½″ long and 1 7/16″ in diameter.

### Vibrationless Operation

The Novo Two-Cylinder Rollr Engines are practically without vibration. This performance is obtained by the use of the opposed throw 180° counterbalanced crankshaft. The crankshaft is in perfect mechanical balance, connecting rods and counterweights are weighed and matched, resulting in a smoothness of operation regardless of speed.

### Timken Roller Bearings

Timken Roller Bearings are used on the crankshaft, adding to the smoothness of operation and the elimination of friction—give long bearing life without adjustment or replacement—carry all radial or thrust loads, and need less lubrication.

### Chrome Nickel Block

The cylinder block contains a high percentage of steel and the proper amount of chromium and nickel to give a close grained metal of high transverse strength and the proper hardness to withstand strain and wear.

The cylinders are bored, reamed and honed. Each cylinder is held to less than .001 of an inch tolerance.

### Carburetor, Magneto and Governor on Either Side

The two-cylinder engines can be furnished with working parts as carburetor, magneto and governor on either the right or left side (facing the flywheel, designed by "A" or "B" position respectively), making it possible to locate these where they will be most easy to reach. "B" position standard unless otherwise specified.

### Hand Holes

Hand holes are provided in the engine block through which adjustment can be made on the connecting rod bearings, etc., with the least possible effort. This quick accessibility makes adjustments possible with practically no loss of time. A bearing can be taken up in a very short time.

### Throttling Governor

These engines have a built-in governor which maintains rated speed at all loads within their capacity. Governor is of rugged construction and is self-oiling. An attachment for variable speed can be supplied which allows change in governed speed while engine is in operation.

### Gear Oiler

All bearings, cams, gears, connecting rods, pistons and other working parts in the crankcase are constantly flooded with oil by the positive gear driven oiling system.

### Quarter Turn Starting

The ignition system includes a high tension magneto and an automotive impulse starter, which automatically retards spark and makes it possible to start these engines with the least possible effort. A quarter right-hand turn of the crank and the engine is started, regardless of temperature.

### Application

Users of industrial power have adopted these power units for a wide range of application and all with the same striking success. This has also been the case in the agricultural field, implement and farm tool manufacturers have adopted the Novo Two-Cylinder Rollr Engine as standard equipment on their finest pieces of machinery.

Some typical industrial applications are:

Concrete mixers, compressors and blowers, pumps of all kinds, light duty hoists, paint sprayers, conveyors, graders, generators, light plants, concrete finishers and saw tables.

In the field of agriculture:

Orchard and crop sprayers, dusters, hay presses, well pumps, transplanters, potato diggers, feed grinders, farm elevators, ensilage cutters and farm shop.

### Standard Engines

**Crankshaft drive—"B" position of accessories—equipped with air cleaner and gasoline filter**

## NOVO ENGINE COMPANY, Lansing, Mich.


**New York**
243 Graybar Bldg.
Ph. Mohawk 4-1050

**Chicago**
3217 E. 92nd St.
Ph. So. Chicago 1683


1500-10-33

ROLLR ENGINES