

# Clinton

CLINTON ENGINES CORPORATION

SERIES  
**414**  
LONG LIFE CAST IRON  
**7.5 HP**

Model	Starter	PTO Shaft	Net Wt.
414-1301	Rope	Roller Thrust Bearing	87 lbs.
414-1361	Rope	6 to 1 Speed Reducer	93 lbs.

## GENERAL SPECIFICATIONS

**Bore:** 2 $\frac{13}{16}$  inches.

**Stroke:** 2 $\frac{1}{2}$  inches.

**Piston Displacement:** 16.3 cubic inches.

**Type:** Single cylinder, L-Head, air-cooled, 4-cycle.

**Air Cooling:** Large capacity, curved vane blower cast integral with flywheel. Air passes through deep fins to maintain correct operating temperature.

**Ignition:** Increased spark at starting speed. Breaker points, condenser, radio shielded stop switch and ground wire terminal mounted in box on outside of crankcase for easy servicing. Advanced design magneto elements using Alnico permanent magnets and waterproof molded coil. Spark advance mechanism assembled on cam gear automatically retards spark at starting speed and advances spark as engine speed increases.

**Spark Plug:** 14 mm.

**Lubrication:** Splash type — oil capacity 3 pints.

**Carburetor:** Concentric float type with idle and high power mixture adjustment.

**Fuel Tank:** Six quarts capacity, with visible gasoline strainer and shut-off valve.

**Air Cleaner:** Oil bath type.

**Governor:** Adjustable mechanical type, running in oil.

**Governor Control:** Fixed speed setting. Variable speed control optional.

**Cylinder and Crankcase:** Close-grained alloy iron cylinder block and crankcase with large amount of cooling area for efficient operation. Reversible oil base.

**Crankcase Breather:** Maintains a vacuum in crankcase and prevents oil leaks.

**Cylinder Head:** Aluminum alloy, with extra deep cooling fins. Removable.

**Main Bearings:** High load capacity tapered roller bearings with thrust as well as radial load ability. Adjustment provision for wear.

**Crankshaft:** Ductile iron. Counterweights and cam drive gear integral with shaft.

**Connecting Rod:** I-Beam, aluminum alloy with extra large bearings.

**Piston:** Aluminum alloy. Clinton-engineered for efficient combustion.

**Piston Rings:** Two compression and one oil control. Treated surfaces.

**Valves:** Forged steel. Exhaust valve provided with heat-resistant alloy head.

**Exhaust Valve Seat:** Alloy insert, replaceable.

**Valve Stem Guides:** Replaceable, inlet and exhaust.

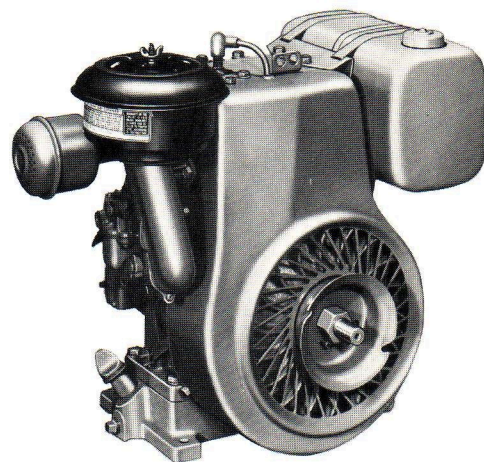
**Valve Tappets:** Hardened and ground.

**Muffler:** Efficient type, low back-pressure.

**Direction of Rotation:** Counterclockwise, viewed from power take-off side.

**Gear Reduction:** Model 414-1361 only has internal reduction gear, 6 to 1 ratio. Rotation, counterclockwise.

**Finish:** Painted in gray heat-resistant enamel. Prime coat finish if desired.





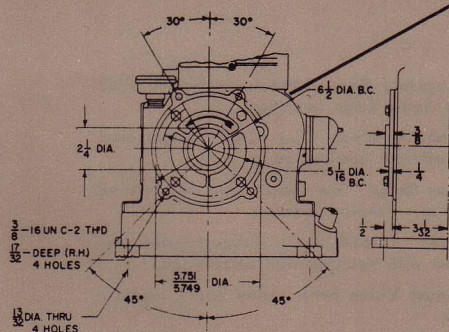
**414-1361**

Technical drawing of a mechanical component, likely a valve or actuator, showing a side view with dimensions. The drawing includes a central shaft with a handle, a large circular end view, and various mounting points. Dimensions are given in fractions of an inch.

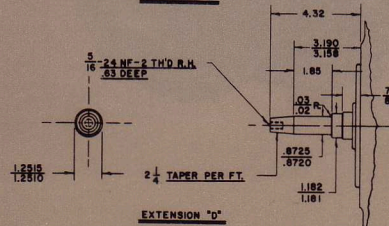
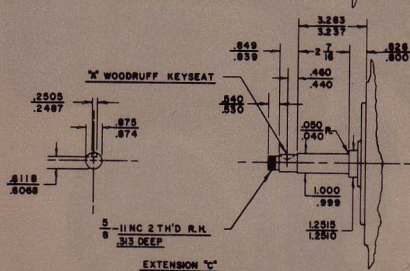
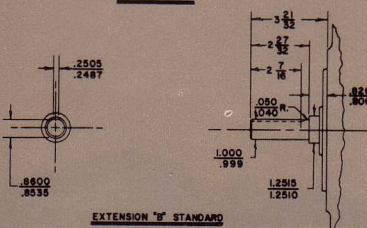
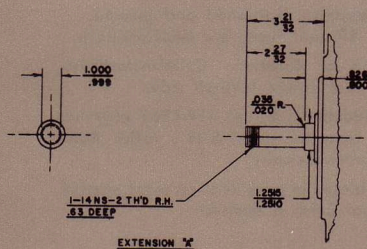
Key dimensions and features:

- Top horizontal dimension:  $4 \frac{3}{16}$  DIA
- Left vertical dimension:  $7 \frac{9}{16}$
- Left vertical dimension: 11
- Left vertical dimension:  $4 \frac{3}{8}$
- Right vertical dimension: 7
- Right vertical dimension: 1
- Right vertical dimension:  $3 \frac{1}{2}$
- Bottom horizontal dimension: 11
- Bottom horizontal dimension:  $5 \frac{9}{16}$
- Bottom right vertical dimension:  $1 \frac{7}{8}$

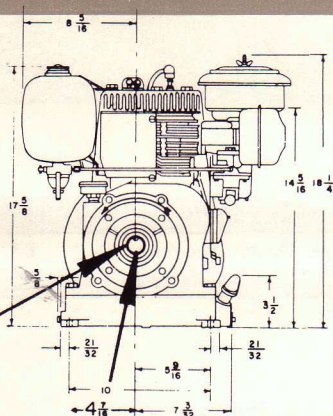
414-1301



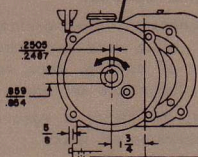
### Flange mounting detail for 414-1301



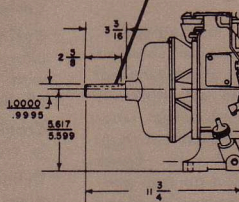
### Crankshaft variations for 414-1301



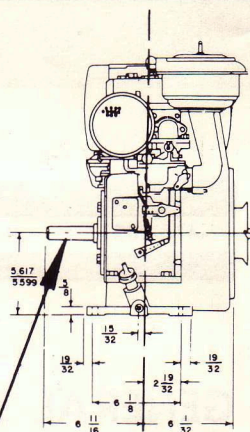
414-1301



### Variation for 414-1361

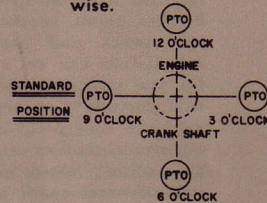


### Variation for 414-1361



414-1301

Rotation — counterclockwise.



414-1361

Allow at least 20% of horsepower for safety factor under continuous operation. Clinton Engines Corporation will supply detailed prints upon request. Specifications and Dimensions are subject to change without notice.



**CLINTON ENGINES CORPORATION • MAQUOKETA, IOWA**

**Cable Address: Engines**

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