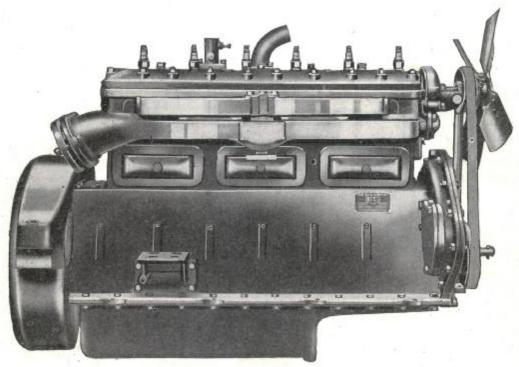


# Model HS-6

Bore 3% inches Stroke 4½ inches 

## Distinctive Features

MODEL HS-6

Demountable bell housing for economical replacement.

Cylinder head designed to give maximum power and economy.

Engine arranged for both battery and magneto ignition.

Water pump in front of block and integral with fan assembly, driven by "V" fan belt.

Swan "high turbulence" manifold, insuring uniform distribution of fuel.

Specially designed self-centering type of crankshaft, assuring smooth operation of engine throughout the speed range. Opening for timing engine on forward side of bell housing where it is accessible.

All main and connecting rod bearings of same diameter.

Connecting rods of special open hearth steel, rifle drilled for pressure lubrication to piston pins.

Piston pins of extra large diameter, retained by expanding alloy steel ring at ends to prevent scoring of cylinder walls.

Extra wide, helically cut timing gears.

Oil pan drain plug on side of engine where it is accessible.

Flywheel equipped with forged steel ring gear for starting motor.

# THE BUDA COMPANY HARVEY (SHISAGO) ILLINOIS

NEW YORK

TULSA. OKL

SAN FRANCISCO LONDON, N. 4



## SPECIFICATIONS Model HS-6

TYPE-Vertical, en bloc, "L" head, four cycle, six cylinders.

SIZE

Bore (85.725 mm.), 3\% in. Stroke (114.3 mm.), 4\% in.

PISTON DISPLACEMENT-241.6 cu. in.

241.6 cu. in.

POWER

S.A.E. rating, 27.3 B.H.P. at 1000 R.P.M., 28 B.H.P. at peak, 57

R.P.M. at peak of B.H.P., 2500 Torque in foot lbs. at peak, 150 R.P.M. at peak of torque, 900

SUSPENSION

Points, 3

IGNITION

Standard, (Battery; Magneto) optional.

SPARK PLUGS

S.A.E. Standard, 7/8 in .- 18

CARBURETOR FLANGE

S.A.E., 11/4 in.

CONSTRUCTION

Height from center of crankshaft to center of water outlet pipe, 20 % in.

Distance from center of crankshaft to bottom of engine,  $9_3^{\tau_3}$  in.

Distance from center of front support to center of supporting arms, 371/4 in.

Drop of front support bracket—standard (optional 21/2 in.), 31/2 in.

Width of rear supporting arms between Bolt Hole Centers, 241/2 in.

LUBRICATION (Patented)

Force feed pressure to all crankshaft, camshaft, and connecting rod bearings, through a seamless steel distributing pipe cast in the crankcase.

Oil pump is gear driven from the camshaft. Regulation is by an adjustable spring relief valve in pump.

Sump capacity, 2 Gal.

COOLING

Centrifugal Pump integral with fan operated by V type fan pulley.

CRANKSHAFT

Special open hearth steel, self centering type with unusually heavy cheeks and throws. Number of bearings, 4.

CRANKCASE

Cast iron, divided horizontally 2% inches below the crankshaft center.

CYLINDERS

Grey iron, cast en bloc. Removable cylinder

CAM SHAFT

Open hearth steel, gear driven. Number or bearings, 5.

CONNECTING ROD

Special open hearth steel, "I" beam construction.

Length, center to center, 93/4 in.

Diameter and number of connecting rod bolts per rod,  $\frac{7}{10}$  in. diam.—2

Phosphor bronze bushings at wrist pin end. Spun in babbitt on large end.

PISTONS

Grey iron Length, 3% in.

PISTON RINGS
Three rings above the wrist pin; one oil con-

trol ring below

Open hearth steel Diameter, 11/8 in.

VALVES

Diameter, 1½ in. Exhausts Silchrome No. 1 Alloy steel springs

VALVE PUSH RODS

Mushroom type, steel with chilled iron face on exhausts

CRANKSHAFT BEARINGS

Bronze shell babbitt lined

Diameter

Front (60.325 mm.), 2% in. First intermediate (60.325 mm.), 2% in. Second intermediate (60.325 mm.), 2% in. Rear (60.325 mm.), 2% in.

Length

Front (63.5 mm.), 2½ in.
First intermediate (44.45 mm.), 1¾ in.
Second intermediate (44.45 mm.), 1¾ in.
Rear (74.61 mm.), 2½ in.

CAMSHAFT BEARINGS

Diameter

Front (52.387 mm.),  $2\frac{1}{16}$  in. Second and third (49.21 mm.),  $1\frac{1}{16}$  in. Fourth (49.21 mm.),  $1\frac{1}{16}$  in. Rear (49.21 mm.),  $1\frac{1}{16}$  in.

Length

Front (44.45 mm.), 1¾ in. Second and third (19.05 mm.), ¾ in. Fourth (19.05 mm.), ¾ in. Rear (31.75 mm.), 1¼ in.

CONNECTING ROD BEARINGS

Diameter (60.325 mm.), 2\% in. Length (44.45 mm.), 1\% in.



PISTON PIN BEARING Diameter (28.575 mm.), 11/8 in.

Length (26.99 mm.), 11/4 in.

FAN

Integral with water pump. Diameter, 18 in. Standard.

BELL HOUSING S.A.E. Standard No. 3

TIMING GEARS

Spiral cut teeth, 11/4 in. wide Gear Set-crankshaft, cam and generator gear.

FLYWHEEL

Grey iron.

Alloy steel bolts and nuts, 6

INTAKE AND EXHAUST MANIFOLD

Grey iron, cast separate GEAR CASE COVER

Grey iron, with large trunnion

Breather and Oil Filler equipped with strainer screen

S.A.E. Mounting for Distributer

S.A.E. Mounting No. 2 for Lighting Generator S.A.E. Mounting No. 1 for Starting Motor.

Provision for Governor Drive.

The following accessories can be furnished if

desired:

Starting crank assembly

Magneto bracket

SHIPPING DATA

Net Weight, 730 lbs.

Domestic

Gross shipping weight less carload, 905 lbs. Gross shipping weight carload, 830 lbs.

Number of engines per minimum carload, 29

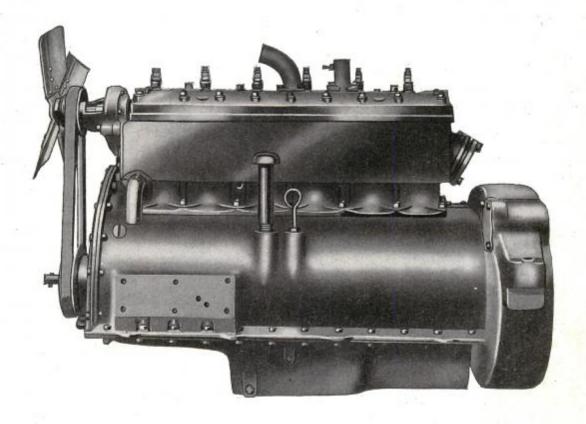
Average gross weight boxed for export, 965 lbs. Approximate dimensions export box:

Length, 49 in.

Width, 32 in.

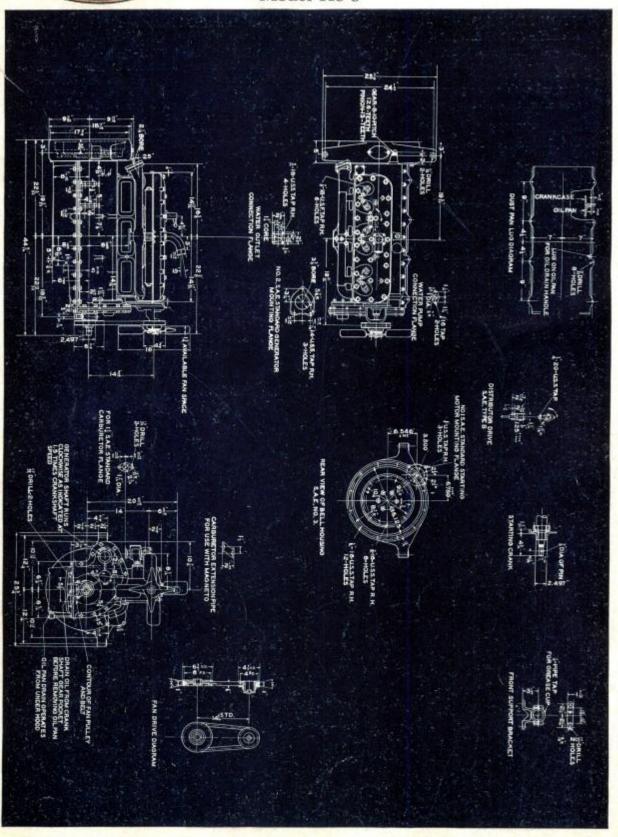
Depth, 34 in.

Number of engines per minimum carload, 26.





## Outline Diagram Model HS-6



Commence of the last of the la