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Buda
Service Manual

Hivelo Engines

Service Manual

JENSALES.COM
or Call 800-443-0625



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BUDA-S-ENG

BUDA

ENGINES

**INSTRUCTIONS
FOR
CARE AND OPERATION**

**BUDA
"HIVELO" ENGINES**

or Call 800-443-0625

THE BUDA COMPANY

(Established 1881)

**Harvey (CHICAGO) Illinois
SUBURB**

No. 739-E

BUDA-S-ENG

Home of BUDA, *the Engine*

THIS Company has produced gasoline engines since 1910 and in this time has built and sold in quantities; one, two, four, six and eight cylinder engines, all of the four-cycle type. Our manufacturing experience dates back to 1881, and we have been producers of quality products since that time. Many of the most prominent commercial vehicle and industrial manufacturers using the internal combustion engine, both in this country and abroad specify BUDA Engines. Through our years of experience we have built and maintained a production organization of which we are proud and we take further pride in the long list of manufacturers who, by specifying our product, have testified to their confidence in our engines and our business principles. It has always been our endeavor to manufacture one grade of material—the best. We feel that the increasing use of our products throughout the world is an appreciation of **Quality**.

The Buda Company
Harvey (Chicago Suburb) Illinois



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Printed in U. S. A.

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I. Timely Hints

TIME spent on the inspection and care of the engine will be many times repaid in long life and trouble free operation.

Keep the engine in good operating condition. If trouble develops, stop and correct it before it becomes serious.

Keep the engine clean. An operator while cleaning the engine discovers trouble in the making, caused by loose fastenings, leaky connections, etc. Oil should never be allowed to collect on wires or electrical equipment.

Keep the radiator filled with clean water and do not run the engine without water in the cooling system, or add cold water to an overheated engine. If the radiator leaks, have it repaired. Do not use radiator cements that are applied internally, as they hinder the cooling action of the radiator.

Use the carburetor choke no more than necessary, as this allows raw gasoline to enter the cylinders, pass the pistons and dilute the oil.

In starting a cold engine, let it warm up slowly. Never race it.

Use care in breaking in a new engine. Careful breaking in will materially increase its life.

Don't stop the engine immediately after it has been working hard. Allow it to idle a few minutes to allow the water to circulate and carry away the intense heat. Slower and more even temperature changes aid greatly in preventing warping of valves and distortion of cylinder heads and manifold assemblies.

Don't allow the engine to labor at low speed unnecessarily. If the engine knocks, retard the spark until it operates smoothly. It is a poor operator who needlessly strains his engine.

Use a good grade of lubricating oil manufactured by a reliable refinery. See page 14 for oil recommendations.

Cold Weather Hints

A good hot spark and clean, correctly adjusted spark plugs are essential in cold weather. The ignition system should be checked at the start of the season.

Be sure the lubricating oil is correct for the prevailing temperatures.

To start an engine in cold weather, crank one or two revolutions with the choke closed before turning on the ignition switch. Push in the choke half way and turn on the ignition switch to start. This prevents extreme flooding. As soon as possible push the choke in to running position. Do not apply load with the choke closed—wait until the engine warms up.

CARE AND OPERATION

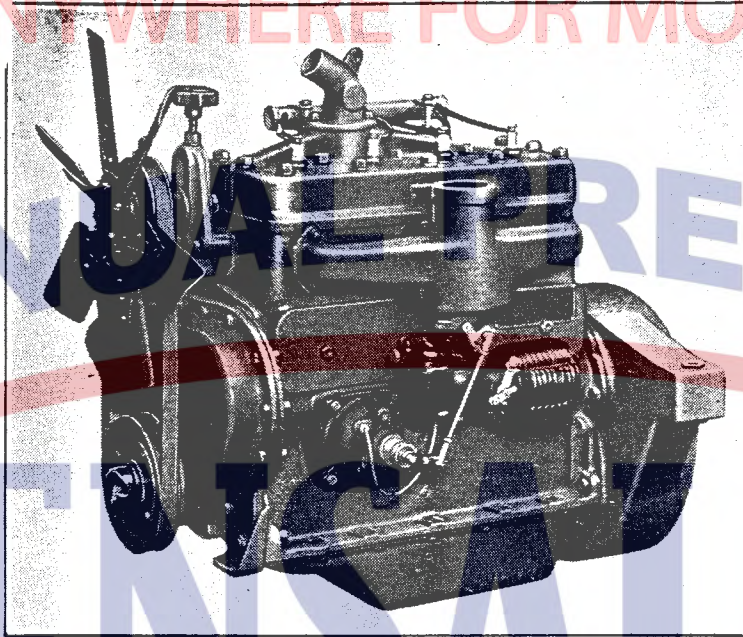


Fig. 1. HP Four Cylinder Series

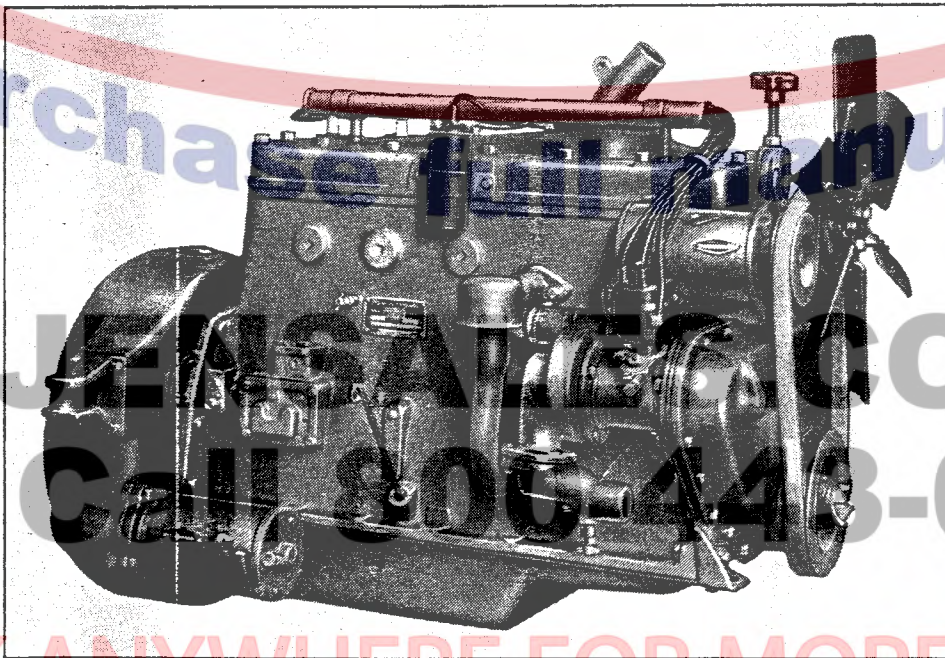


Fig. 2. HP Six Cylinder Series

THE BUDA COMPANY

Rear Bearing Cap.

The rear bearing cap has an oil drain tube in it which leads down below the oil level in order to assist in preventing oil leaks through the rear main bearings. Illustration No. 7 shows a cap with the tube in place.

Rear Bearing Oil Seal.

The rear bearing oil seal consists of a split aluminum disc bolted to the rear end of the crankcase. Two types are used.

One type has a leather insert which contacts the oil slinger on the crankshaft. The second type has a groove to catch the oil thrown from the slinger permitting it to drain back to the pan through the bearing cap.

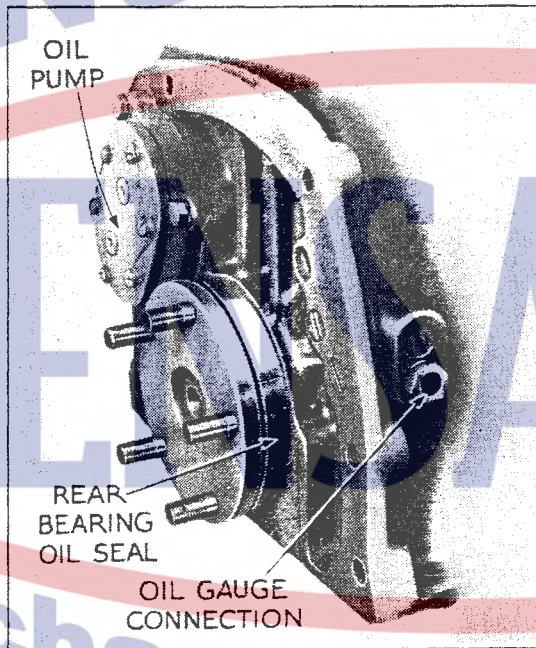


Fig. 8 Crankcase End View

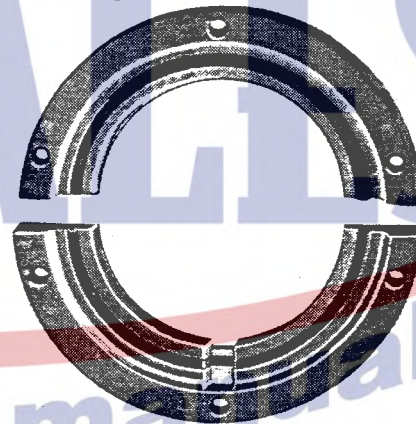


Fig. 9 Rear Oil Seal

Where the leather insert is used, the lower portion of the leather should be trimmed flush with the seal to prevent an air lock. See Figure 9. If necessary to replace the leather wiper, make sure it is securely held in place by shellac or gasket cement. Figure 8 shows the seal in position in the engine.

With both types, the oil thrown off by the slinger on the crankshaft, drains down into a reservoir cast integral in the rear bearing cap and then by means of a tube, to the oil level in the pan. In case of leakage, be sure there is no restriction to this oil return.

Excessive bearing clearances will permit an excess amount of oil to enter this single compartment. Be sure the leather wiper contacts the slinger on the crankshaft. This can be adjusted by means of increasing or decreasing the number of gaskets between oil seal and crankcase, making sure that the same number are used on both upper and lower halves.