

Testing and Repairing Engine

In addition to knowledge and experience on the part of workshop personnel, testing and repair operations to these engines call for the use of special machine tools, measuring instruments, gages and special mechanical devices as outlined in the following paragraphs.

We therefore recommend that the fullest use be made of our replacement scheme which makes available complete engines or individual component parts, such as crankcases, crankshafts, complete transmission units, oil pumps, water pumps and fuel pumps, carburetors, distributors etc. All parts are repaired in accordance with modern factory practice and their satisfactory performance is thereby ensured.

The handling and installation of all machined parts calls for the observance of scrupulous care and cleanliness. A tiny damaged part on the surface of a ground shaft may result in scoring of the bearings or other damage. It is therefore essential to check all ground and precision parts for transit and handling damage and if necessary to refinish them before installing. It is equally important to observe scrupulous cleanliness when assembling the parts.

Data for the various overhaul stages for cylinder bores, crankshaft and camshaft and bearing dimensions have been standardized for the overhaul of our engines. The figures given in the accompanying tables are binding for all branches of our repair service.

The following table gives a general survey of the specifications for the various overhaul stages.

Overhaul Stages

Overhaul stage	Difference between standard and oversize in mm			
	Crankcase	Crankshaft		Camshaft
	Cylinder bore and piston diameter	Crankshaft bearing bore and crankshaft journal diameter	Connecting rod bearing bore and crankpin diameter	Camshaft bearing bore and journal diameter
Standard size	0	0	0	0
Intermediate stage	0.25	—	—	0.10
1st Overhaul stage	0.50	0.25	0.25	0.25
2nd Overhaul stage	1.00	0.50	0.50	—
3rd Overhaul stage	1.50	0.75	0.75	—
4th Overhaul stage	—	1.00	1.00	—