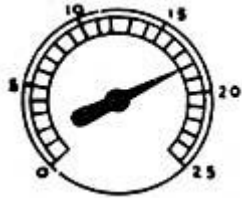


Trouble-shooting with a vacuum gauge!



No. 1. An engine in good condition should have a gauge reading of 17 to 21 and hand should be steady. Also study illustrations Nos. 10 and 11.



No. 2. When opening and closing the throttle quickly the gauge reading on an engine in good condition should drop to 2 and come back to 25.



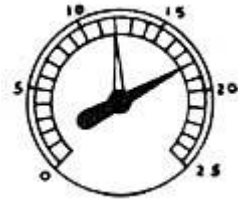
No. 3. A reading lower than normal and with the hand steady indicates that rings are in poor condition.



No. 4. Poor adjustment of the carburetor will cause the needle to float slowly between 12 and 16. See also illustration 12.



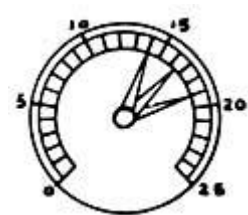
No. 5. When the hand drops occasionally from 3 to 5 points, from the normal reading, it generally indicates a sticking valve.



No. 6. A burned valve will cause the needle to drop back several divisions each time that particular cylinder operates.



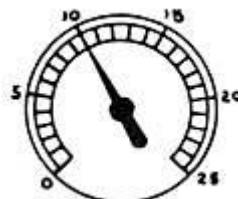
No. 7. Leaking valves also show up on the gauge by the needle dropping back 3 or 4 divisions, whenever that valve opens.



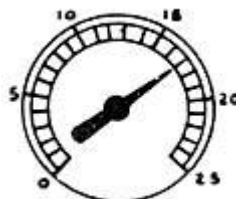
No. 8. When needle has a fast vibration between approximately 14 and 19 it indicates loose valve guides.



No. 9. A steady reading below 5 indicates a leaky manifold, manifold



No. 10. When gauge needle is steady at about 8 to 14 it generally indicates

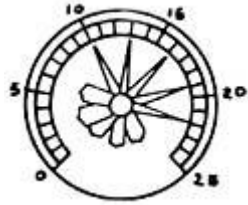


No. 11. A reading of 13 to 16 generally indicates incorrect ignition



No. 12. When needle drifts slowly between 14 and 16 it generally indicates

gasket or carburetor gasket. Also check heat riser.



No. 13. Wide variations of needle increasing with motor speed indicates weak, or broken valve springs.

incorrect valve timing. See also illustrations 3, and 11.



No. 14. Normal reading at start, but gradually drops, indicates choked muffler.

timing. See also illustrations 3, and 10.



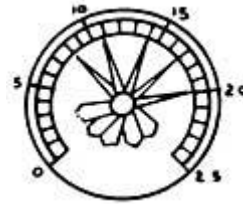
No. 15. Occasional drop as cylinder is firing may denote valve open or plug not firing.

that plug gaps are too close, or breaker points are not properly synchronized.



No. 16. If normal is 20 inches and needle should go to approx 14 check timing. Spark may be retarded.

No. 17. This action usually indicates a leaky head gasket.



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