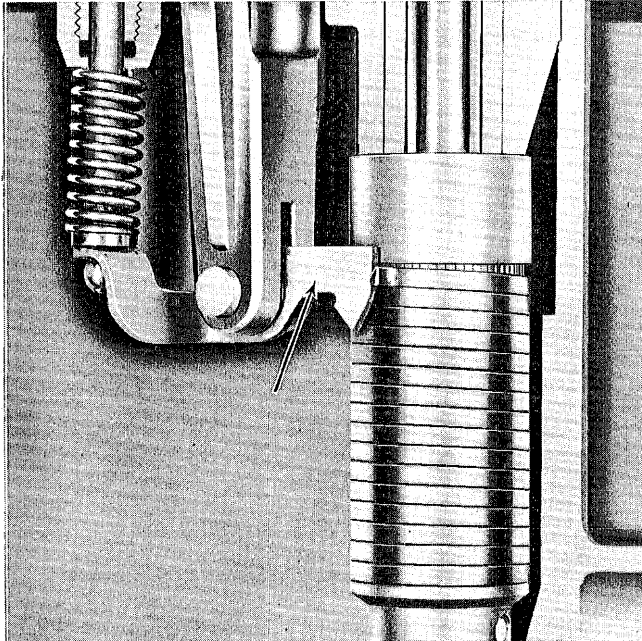




set for "running," the quadrant clears the cam to permit free movement of the speed control lever—the motor in this case, may be operated throughout its entire speed range.

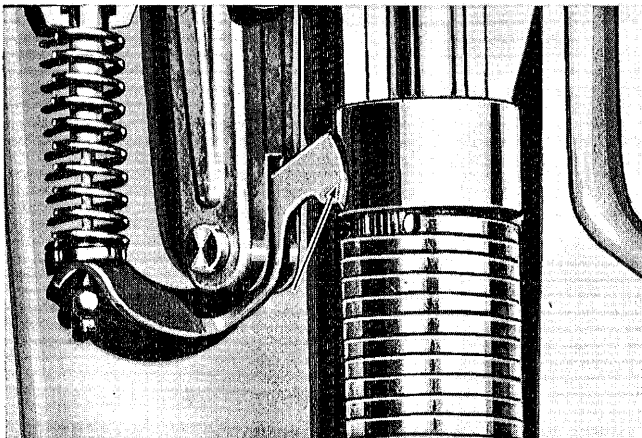
The neutral clutch consists of steel bushing keyed to the lower driveshaft, an accurately ground steel sleeve driven by the upper driveshaft and a spring which is coiled around both the steel sleeve and the bushing.

Propeller drive is thus accomplished by gripping effect of the clutch spring on the sleeve and bushing created during operation of the motor.



View of Clutch Assembly—Latch Down—"Neutral"

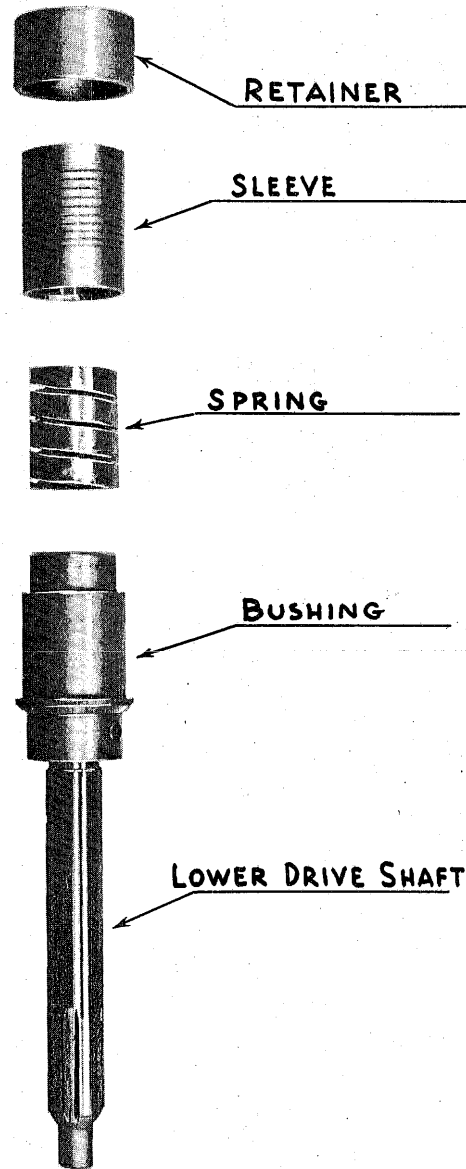
When set for neutral operation, the latch is lowered by movement of the neutral control lever to obstruct rotation of the clutch spring. This action causes the spring to unwind and to subsequently release its grip on the steel sleeve and bushing to permit "slippage" between the upper and lower driveshafts—neutral. When operating "in gear,"



View of Clutch Assembly Showing Latch Up—Running

the latch is lifted by moving the neutral control lever to running position to resume rotation of the clutch spring and its grip on both the steel sleeve and bushing. Rotation causes the spring to "wind up" to increase its grip as motor speeds up.

The propeller shock absorber consists of a comparatively strong spring keyed to the upper driveshaft and inserted tightly into the steel sleeve mentioned above which is actually part of the clutch. Action of the shock absorber is such that in event the propeller strikes an underwater obstruction, the shock absorber spring is caused to "coil" slightly in the steel sleeve to release its grip thereby absorbing shock of sudden impact.

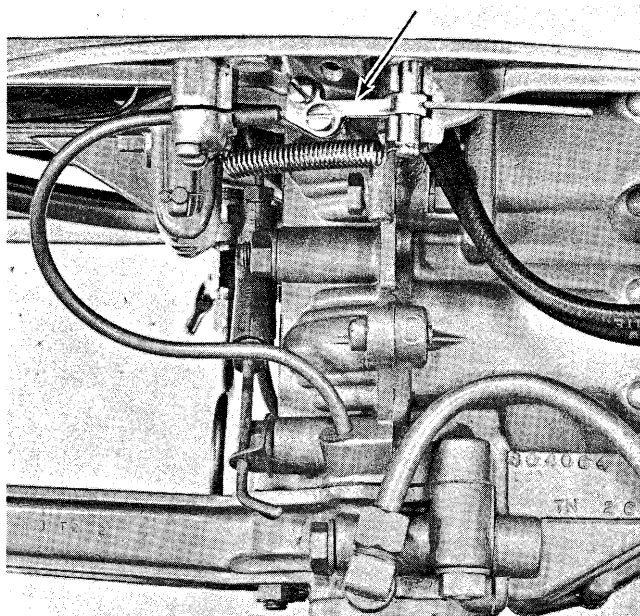


Showing Details of the Shock Absorber Assembly

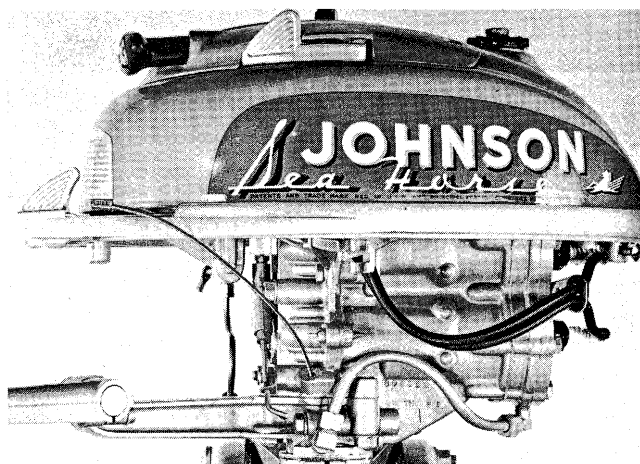
In event it becomes necessary to detach the lower unit from the power head, the neutral clutch cable must be made free of its anchor. Simply loos-



en the two screws holding the anchor fast to the cable. Remove the cable guide tube, then the nuts and screws securing the power head and lower unit.

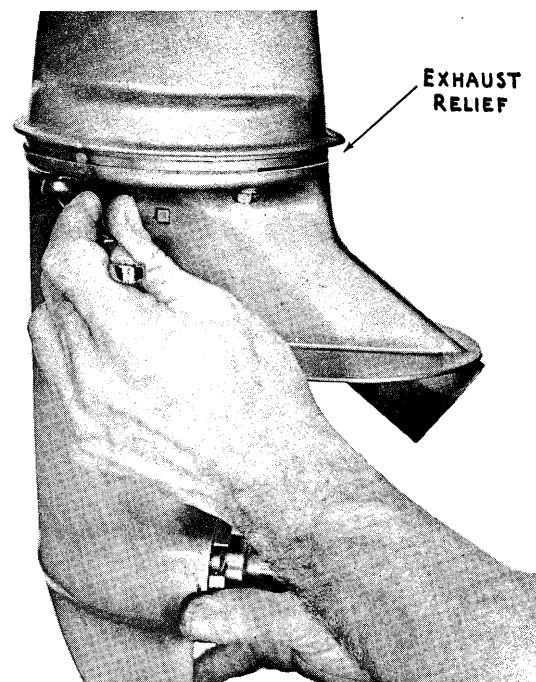


Showing Method of Anchoring the Clutch Control Cable

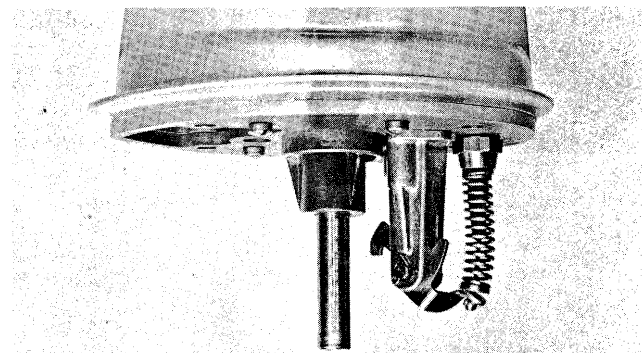


Showing Clutch Cable Detached from Anchor and Guide Tube Removed, Prior to Detaching Power Head from the Lower Unit

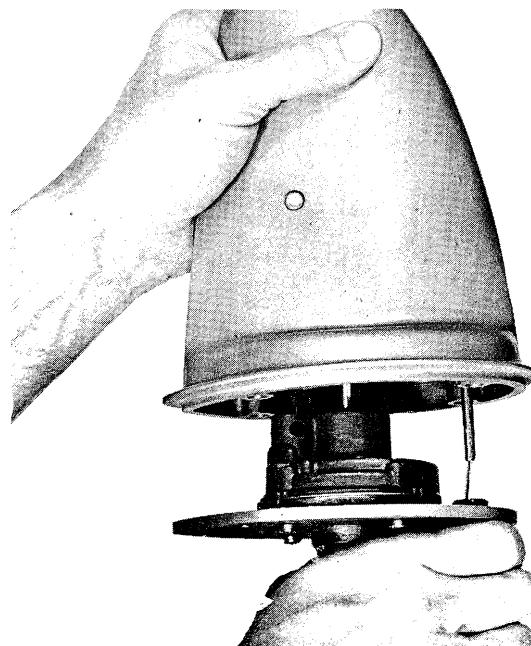
To remove the gearcase proper from the upper gearcase housing, it is necessary merely to remove the screws holding the assembly fast. The gearcase and upper section are easily separated. Note narrow "open slot" between the two sections above the exhaust outlet. Purpose—to provide exhaust relief for starting and slow speed operation.



Removing Gearcase from Lower Unit Assembly



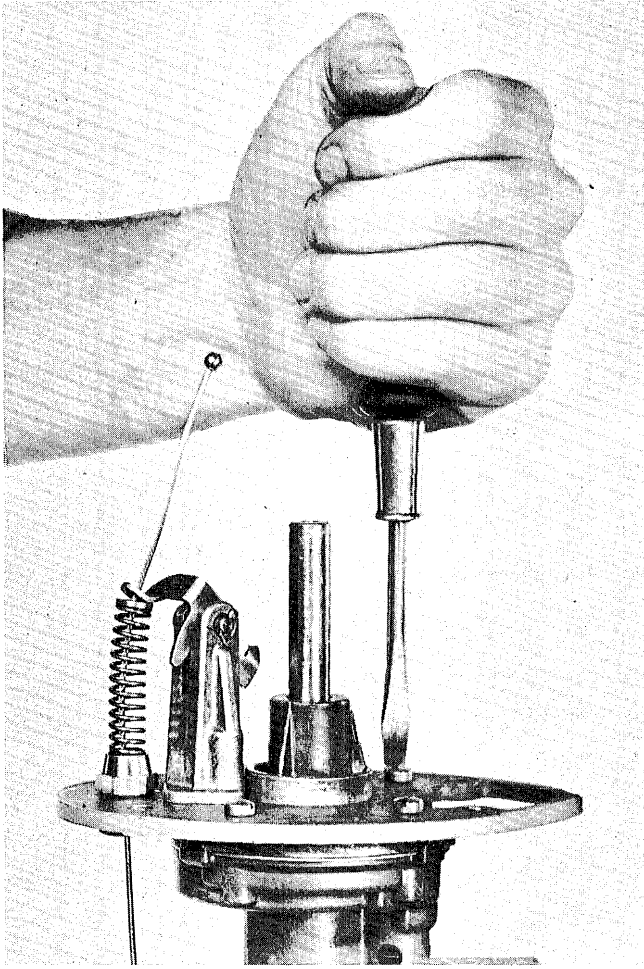
Gearcase Removed, Exposing the Upper Driveshaft and Clutch Control Mechanism



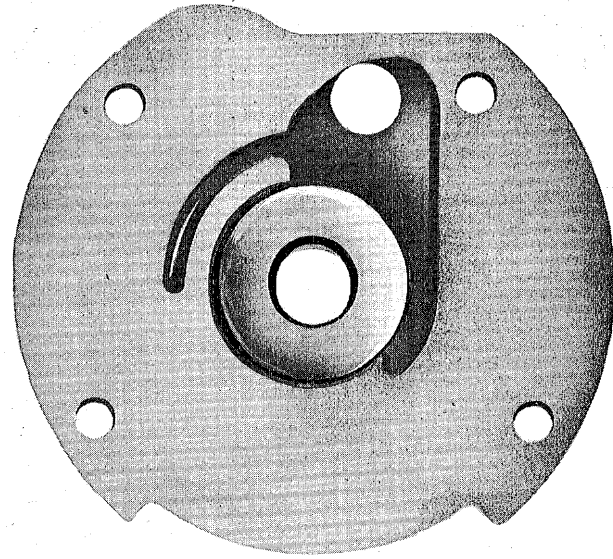
Removing Pump Assembly, Clutch Control Mechanism and Bearing Support from the Lower Unit Assembly



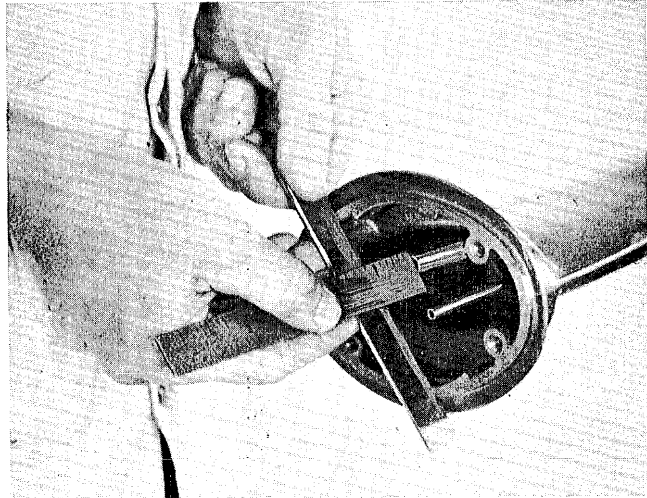
The water pump assembly is installed in the upper gearcase section and is made accessible for inspection or repair on removal from the bearing support plate as shown below.



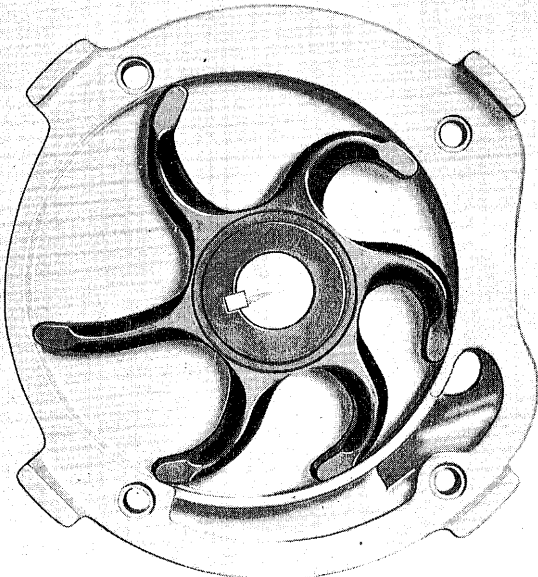
Detaching Bearing Support and Clutch Control Mechanism from the Water Pump Assembly



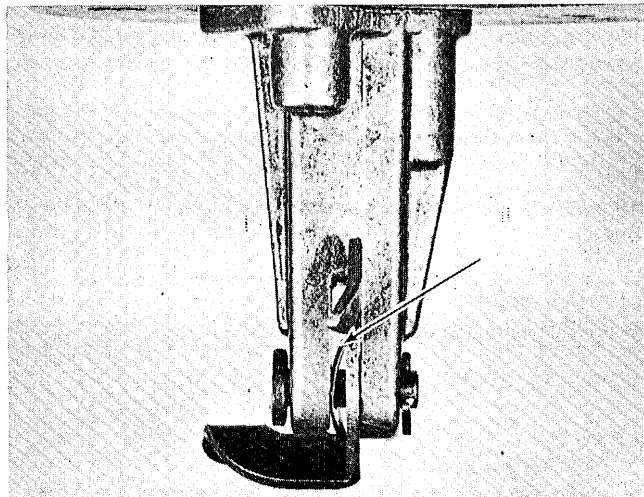
Top Side of Bearing Support Plate Showing the Oil Seal and Water Channel (Intake) for the Water Pump



Correct Procedure for Checking Position of the Water Tube (to Cooling System)—End of the Tube Should Locate $7/8$ " Below Surface of the Housing as Illustrated—IMPORTANT: End of Control Cable Tube Should Protrude $7/8$ "



Showing Position of Impeller in the Water Pump Housing—for Further Explanation of the Pump, see Page 408



Note Correct Position of Spring Washer in Assembly of the Clutch Control Mechanism