

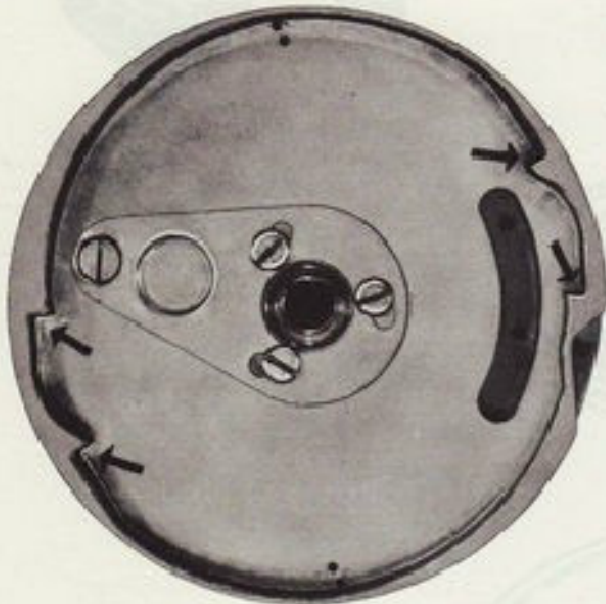
EXTENDED VIEW — STARTER ASSEMBLY USING THE ELLIPTICAL PULLEY
Models CD-13, AD-10, QD-17, FD-10 Up and RD-10 through RD-19.



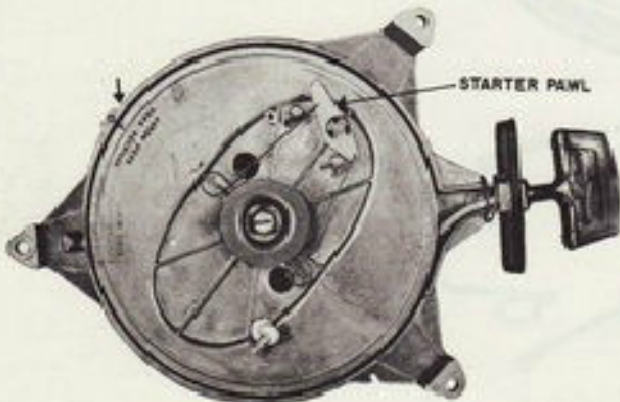
STARTER ASSEMBLY — CORD INSTALLATION

MODELS JW-12, CD-13, AD-10, QD-17, FD-10,
RX, RD AND RK SERIES

On detaching the starter heads (above models) it will be noted the starter cord is coiled on an "oval" pulley, rather than round as heretofore and that the familiar ratchet and pawl assembly has been replaced by a ratchet arrangement cast into the flywheel and a single pawl of nylon. Changed for simplicity and "smoother" cranking. The cord is of dacron (core) overwoven with nylon — dacron for not stretching and nylon for its wearing qualities. The bronze anchor has been replaced by a knot — same as '55 but a new simply manipulated "grip" anchor has been provided on the cranking end.



Flywheel — Showing ratchets cast in to the flywheel (indicated by arrows) and breaker point inspection cover.

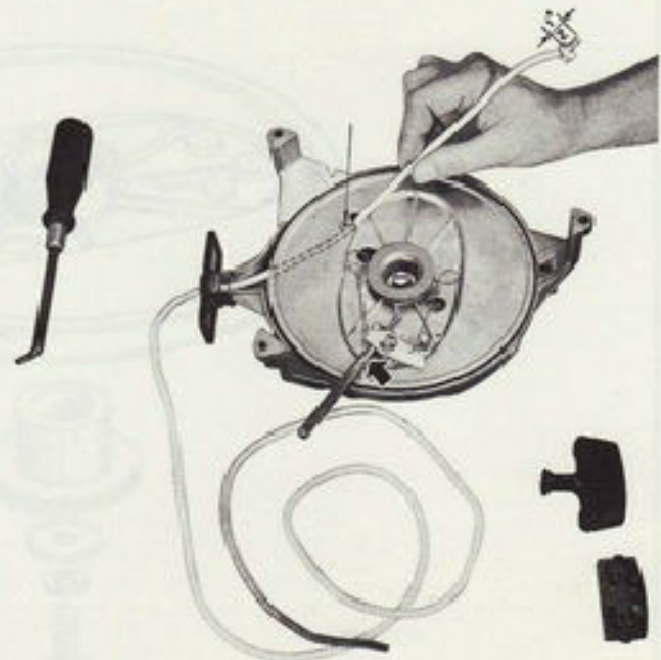


Under side of Starter head — Showing nylon pawl, letter "J" and aligning arrow.

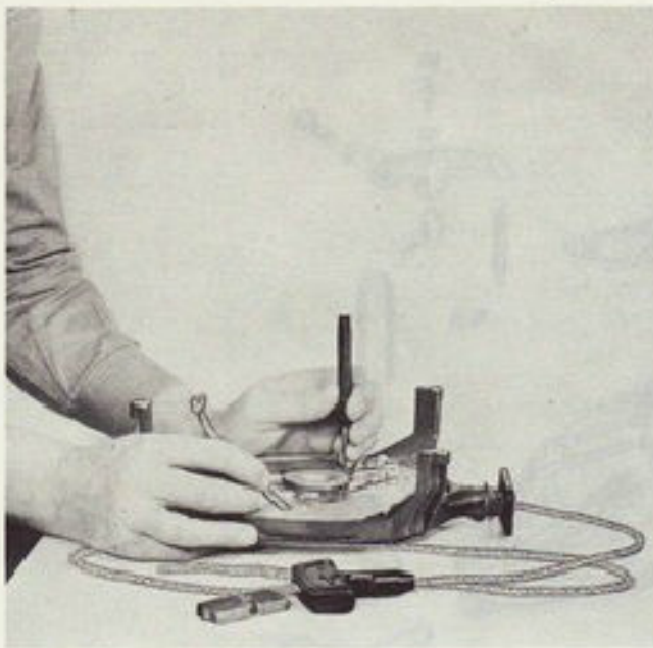
The oval pulley permits "cranking" alternately on a long and short radius — long for more leverage when cranking over compression, short (less leverage) for faster cranking at mid point to smoothen out cranking effort. This feature requires some "timing" during the process of cord installation — accomplished by a cord of specific length for each starter and some minor adjustment in the grip anchor (see below).



Winding Starter spring to full tight. A screwdriver blade tapered down and bent over at the tip as shown below will do nicely for this operation. Remove burrs and sharp edges from the tool to prevent scuffing of the Starter plate.



Release spring tension to a position where the hole provided in the Starter plate for the cord lines up with the "spout" in the Starter cover as shown above. Insert long tapered punch between the Starter pawl lug and cover bracket to hold in this position.



Some starter plate covers are provided with a hole into which a punch may be inserted to hold the plate in desired position for "threading" of the Cord.



Thread opposite end of the cord into the anchor—front side above, rear side below—then pull the grip to seat the anchor. Grasp hold of starter cord, remove punch, gradually release spring tension until grip comes to rest on its seat. Note letter "J" embossed on starter pulley and arrow on edge of starter housing—both should line up reasonably close if the new starter cord is of correct length, the knot tied approximately $\frac{1}{2}$ " from the end and the opposite end properly "laced" in the anchor as shown.

If by any chance the nylon cord is to be severed, singe the area slightly to prevent raveling. See page 292. If required to replace the starter spring, see pages 289 and 290.



Two basic Starter Ropes are available and can be used in place of all other ropes. These ropes are 204085 ($7/32$ " diameter) and 203819 ($5/32$ " diameter), from which all Starter Ropes for the various engine models must be made by cutting them to the required length specified in the following table:

5/32" Diameter Ropes

TO MAKE ROPE NO.	CUT NO. 203819 TO LENGTH SHOWN
203819	71-1/2" (Basic Rope)
203817	68-5/16"
203818	66-3/4"
203820	70"
304097	63-3/4"

7/32" Diameter Ropes

TO MAKE ROPE NO.	CUT NO. 204085 TO LENGTH SHOWN
204085	75-3/4" (Basic Rope)
203821	72-1/4"
203822	70-3/16"
304096	69-3/4"
305000	73-3/4"

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Some starter grips have been provided a longer nipple to aid in noise reduction in the starter head as a result of motor vibration. To thread the nylon cord into position, "dip" end in small container of liquid soap to achieve insertion with a minimum of effort—insert with turning motion.