

TO: PARTS MANAGER
SERVICE MANAGER

No. 96-6

Black Max/Alpha I Performance Series Propellers

RPM Implementation Matrix

ATTENTION: BLACK MAX PROPELLER CUSTOMERS

The Mercury Marine Propeller Company is currently introducing three new propellers to replace the existing 17", 19" & 20" pitch Black Max propellers. The old Black Max propellers were characterized by small diameters and rather high pitches with the RPM from pitch to pitch being inconsistent and quite small, I.E. 150 to 250 RPM. The new Black Max props are larger in diameter and the spread between pitches is a consistent 2" or 300 to 400 RPM. This results in the newer propellers not always matching pitch for pitch the RPM of the old Black Max propeller being replaced.

Old P/N	New P/N	Pitch	Old RPM	New RPM
48-78122	48-832832A45	21 Pitch	4200	4300
48-78120	48-832830A45	19 Pitch	4400	4600
48-78118	48-832828A45	17 Pitch	4600	4900

In general, if one is now using a 21" pitch, 48-78122, stay with the new 21" pitch unless running at the very top of the recommended range now.

If you are running a current 19" pitch, 48-78120, and are running in the bottom half of the recommended range, stay with the new 19" pitch Black Max propeller. If you are running in the upper half of the range, move to a new 21" pitch propeller (if RPM range is 4400-4800 and you are running 4700 with the current 19" pitch, you would move to a new 21" pitch Black Max propeller).

The same guidelines for the 19" pitch hold true for the 17" pitch. If you are running in the lower half of the recommended RPM range with a 17" pitch, replace with a new 17" pitch Black Max propeller. If the boat is running from the mid to upper part of the RPM range, replace the 17" pitch with a new 19" pitch Black Max propeller. When switching from a 17" pitch to a 19" pitch, the RPM should remain about the same, acceleration about the same and speed should increase a small amount.

Overall performance with the new Black Max propellers has been very good with some speed increases. Holding is generally improved, with speed and or acceleration improvements in most cases.

ATTENTION: ALPHA I PERFORMANCE SERIES CUSTOMERS

The Alpha I Performance Series propeller line has now been released by the Mercury Marine Propeller Company. This new four blade aluminum propeller comes in 16", 18", and 20" pitches in both right and left hand rotations. The propellers are characterized by having a large diameter and area to help boats achieve better holding, a smoother ride and increased performance. The Alpha I Performance Series propellers were designed to run about the same RPM as the three blade Black Max propellers for ease of replacement.

Black Max	Alpha I P.S.	Black Max RPM	Alpha I P.S. RPM
48-78122 21 Pitch	48-834854A45 20 Pitch	4200	4400
48-78120 19 Pitch	48-832830A45 18 Pitch	4400	4650
48-78118 17 Pitch	48-832828A45 16 Pitch	4600	4900

If your boat is using a 21" pitch Black Max you would replace it with a 20" pitch Alpha I P.S. unless you are running at the top of your recommended RPM range

If your boat is currently running a 19" pitch Black Max and your RPM is in the lower half of the recommended range, you would use a 18" pitch Alpha I P.S. propeller. If you are running in the upper half of the RPM range, you would use the 20" pitch Alpha I P.S. propeller.

If your boat is running a 17" Black Max propeller in the bottom half of the recommended RPM range, use the 16" pitch Bravo I P.S. prop and if the 17" black Max propeller is in the upper half of the RPM range use a 18" pitch Alpha I P.S. propeller.

The new four blade Alpha I Performance Series propeller will provide you with an increase in acceleration, better holding and a more efficient cruising speed over the current Black Max propellers at about the same top speed