

### MERCURY OUTBOARDS

# service bulletin

No. 97-23

#### Propeller Selection - 200 thru 250 (3 Litre)

#### Mercury/Mariner 200 - 250 HP 3.0L Models Serial Number - 0D280813 & up

Some engines experience sub-optimal performance because of incorrect propeller selection. Many issues, such as wide open throttle performance, acceleration and handling can change dramatically through the use of a different propeller. These recommendations may change according to boat type and year of the engine. The following is a list of propellers Mercury Marine has found to perform the best in most 3.0L applications.

Propeller selection is the responsibility of the dealer/ boatbuilder. Propeller changes to improve performance are not covered by warranty

# Light, Single Application, Above 60 MPH (1994-1996 Models)

**Small Hub Trophy -** Good acceleration. Good top end. Available in 21p - 26p

**Small Hub Laser -** Good acceleration. Good top end. Available in 20p - 26p

**Mirage Plus -** Fair acceleration. Good mid-range. Holds without ventilation in heavy sea conditions. Good top speed. Available in 23p - 27p.

**Tempest -** Good acceleration. Good top end. Available in 23p - 27p

**Large Hub Laser -** Good acceleration. Fair top end. Available in 19p - 27p (May require vent plugs #19220A4)

**Vengeance -** Good acceleration. Fair top end. Available in 15p - 25p

# Light, Single Application, Above 60 MPH (1997 and Later Models)

**Tempest -** Good acceleration. Good top end. Available in 23p - 27p (latest Tempest has 7/16" vent holes).

**Large Hub Laser -** Good acceleration. Good top end. Available 19p - 27p (May require vent plugs #19220A4)

**Mirage Plus -** Fair acceleration. Good mid-range. Holds without ventilation in heavy sea conditions. Good top speed. Available in 23p - 27p.

**Vengeance -** Good acceleration. Fair top end. Available in 15p - 25p

## Heavy, Single Application, Below 60 MPH

**Offshore -** Good acceleration. Good mid range. Smooth running through all RPM ranges. Good top end. Available in 17p - 21p

**Vengeance -** Good acceleration. Good top end. Ventilation occurs when engine is trimmed out on heavy boats. Available in 15p - 25p

**Mirage Plus -** Fair acceleration. Good mid range, ability to hold without ventilation in heavy sea conditions. Good top end. Available in 13p - 27p

**High Five -** Good acceleration. Top end is less than Offshore or Mirage Plus. Available in 17p - 25p

**Black Max (Aluminum) -** Fair acceleration. Fair top end. Available in 11p - 25p

#### Light, Dual Application, Above 60 MPH

**Large Hub Laser -** Good acceleration. Good cruise. Good top end. Available in 19p - 27p (May require vent plugs, #19220A4-RH, #816318A4-LH)

**Offshore -** Good acceleration. Good cruise. Good top end. Available in 19p - 23p

**Mirage Plus -** Fair acceleration. Good cruise. Good top end. Available in 15p - 27p

**Vengeance -** Good acceleration. Fair top end. Available in 15p - 27p

## Heavy, Dual Application, Below 60 MPH

**Large Hub Laser -** Good acceleration. Good mid range. Good top end. Available in 19p - 27p (May require vent plugs, #19220A4-RH, #816318A4-LH)

**Offshore -** Good acceleration. Good top end. Excellent performance on extended transom with higher engine height settings. Available in 19p - 21p

**Vengeance -** Good acceleration. Good top end. Available in 17p - 23p

**Mirage Plus -** Fair acceleration. Good cruise. Good top end. Available in 13p - 27p

**Black Max (Aluminum) -** Fair acceleration. Fair top end. Available in 11p - 25p (Standard rotation only)

#### **Engine Mounting Height**

Performance and engine durability are affected by the engine mounting height.

Refer to the appropriate installation instructions for mounting height recommendations. Engines mounted too high may experience propeller hub and bearing carrier seal burn out. Engines mounted too low may have acceleration problems.

97-23 198 **- 2 -**

### **Mercury/Mariner Outboard Propellers**

DIAMETER	PITCH	MATERIAL	BLADES	LH ROTATION	RH ROTATION	MMPC
13-3/8	25	ALUM	3	N/A	48-78126A45	BLACK MAX
13-1/2	23	ALUM	3	N/A	48-832834A45	BLACK MAX
14-1/4	21	ALUM	3	N/A	48-832832A45	BLACK MAX
14-1/2	19	ALUM	3	N/A	48-832830A45	BLACK MAX
15	17	ALUM	3	N/A	48-832828A45	BLACK MAX
15-1/2	15	ALUM	3	N/A	48-78116A45	BLACK MAX
16	13	ALUM	3	N/A	48-78114A45	BLACK MAX
16	11	ALUM	3	78117A40	48-78112A45	BLACK MAX
13-3/8	25	SS	3	N/A	48-16322A45	VENGEANCE
13-1/2	23	SS	3	48-16321A45	48-16320A45	VENGEANCE
13-3/4	21	SS	3	48-16319A45	48-16318A45	VENGEANCE
14	19	SS	3	48-16317A45	48-16316A45	VENGEANCE
14-1/2	17	SS	3	48-16315A45	48-16314A45	VENGEANCE
14-1/2	15	SS	3	N/A	48-16312A45	VENGEANCE
13-3/4	27	SS	3	48-19709A45	48-16552A45	LASER II (LG)
13-3/4	25	SS	3	48-16549A45	48-16550A45	LASER II (LG)
13-3/4	23	SS	3	48-16547A45	48-16548A45	LASER II (LG)
13-7/8	21	SS	3	48-16545A45	48-16546A45	LASER II (LG)
14	19	SS	3	48-16543A45	48-16544A45	LASER II (LG)
14-3/8	27	SS	3	48-18281A45	48-18280A45	MIRAGE PLUS
14	25	SS	3	48-13707A45	48-13706A45	MIRAGE PLUS
14-5/8	23	SS	3	48-13705A45	48-13704A45	MIRAGE PLUS
14-3/4	21	SS	3	48-13703A45	48-13702A45	MIRAGE PLUS
15-1/4	19	SS	3	48-13701A45	48-13700A45	MIRAGE PLUS
15-1/2	17	SS	3	48-90159A45	48-18278A45	MIRAGE PLUS
15-3/4	15	SS	3	48-19841A45	48-19838A45	MIRAGE PLUS
16	13	SS	3	N/A	48-826072A45	MIRAGE PLUS
14-3/4	27	SS	3	N/A	48-825868A45	TEMPEST
14-5/8	25	SS	3	N/A	48-825866A45	TEMPEST
14-3/4	23	SS	3	N/A	48-825864A45	TEMPEST
13-3/4	26	SS	4	N/A	48-825944A45	TROPHY (SM)
13-3/4	25	SS	4	N/A	48-825942A45	TROPHY (SM)
13-3/4	24	SS	4	N/A	48-825940A45	TROPHY (SM)
13-3/4	23	SS	4	N/A	48-825938A45	TROPHY (SM)
13-3/4	21	SS	4	N/A	48-825934A45	TROPHY (SM)
						, ,
13-1/4	25	SS	5	N/A	48-816374A45	HIGHFIVE
13-1/4	23	SS	5	N/A	48-815762A45	HIGHFIVE
13-1/4	21	SS	5	N/A	48-815760A45	HIGHFIVE
13-1/4	19	SS	5	N/A	48-815758A45	HIGHFIVE
13-1/2	17	SS	5	N/A	48-821154A45	HIGHFIVE
14	21	SS	4	48-825903A45	48-825902A45	OFFSHORE P.S.
14	19	SS	4	48-825901A45	48-825900A45	OFFSHORE P.S.
14-1/2	17	SS	4	48-825899A45	48-825898A45	OFFSHORE P.S.

FLO-TORQ II HUB ASSY. KIT - 835257A1 FLO-TORQ II REPLACEMENT DRIVE SLEEVE - 835290A1 THRUST WASHER - 12-835467

- 3 -

97-23 198