

# service bulletin

☐ WARRANTY INFORMATION	ON 🗹 SEI	RVICE INFORMATIO	ON Bu	Bulletin No. 2002-01 OEM No. 2002-01	
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# 2.33:1 Gear Ratio – 75/90 (4-Stroke)

#### **Models Affected**

Mercury/Mariner 2003 Model Year 75/90 (4-Stroke) S/N 0T599000 and Above

#### **Situation**

For 2003 model year, the gear ratio used on the 75/90 (4-Stroke) models will be changed to a 2.33:1 gear ratio. This new gear ratio is designed to provide quiet operation, maintain durability, and enhance the performance of the 75/90 (4-Stroke) outboard. Prior to the 2003 model year, a 2.07:1 gear ratio was used. The change in gear ratio will require a different pitch propeller to correctly prop a 2003 model year outboard.

IMPORTANT: Boat/outboard combinations using the new 2.33:1 gear ratio would normally use a propeller approximately 2 inches higher in pitch than the previous 2.07:1 gear ratio. Please refer to following propeller information charts for recommendations. Please also keep in mind that as with any propeller selection, the attached charts are a recommendation only, and that appropriate or optimal propeller selection for a particular boat may require a water test of the boat.

IMPORTANT: Applications requiring dual outboard installation must have the same gear ratio.

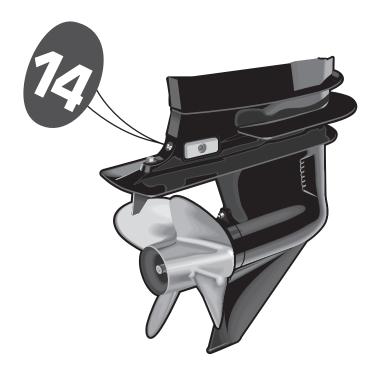
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#### **Gear Ratio Identification**

A gear ratio identification decal is applied to the aft portion of the gear case, near the trim tab bolt location. The decal identifies the number of teeth used on the pinion gear for a given gear ratio.

Decal Number	Gear Teeth Pinion/Forward	Gear Ratio
12	12/28	2.33:1
14	14/29	2.07:1



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## **Propeller Information Chart (2.33:1)**

### Mercury/Mariner 75 (4-Stroke)

Wide Open Throttle RPM: 4500-5500

Recommended Transom Heights: 20", 25"

Right Hand Rotation Standard

Gear Reduction: 2.33:1

Diameter	Pitch	No. of Blades	Material	Approx. Gross Boat Wgt. (lbs.)	Approx. Boat Length	Speed Range (mph)	Propeller Part Number
13-1/2"	26"	3	Steel	Up to 1800	Up to 16'	39-54	48-16996A46
13-1/2"	24"	3	Steel	Up to 2000	Up to 16'	35-49	48-16994A46
12-1/2"	23"	3	Alum	1500-2200	15-17'	33-46	48-77350A45
13-1/2"	22"	3	Steel	1600-2400	16-18'	31-44	48-16992A46
12-3/4"	21"	3	Alum	1700-2600	16-18'	30-41	48-77348A45
13-1/4"	20"	3	Steel	1800-2800	16-19'	28-39	48-16990A46
13"	19"	3	Alum	2000-3000	17-19'	26-36	48-77346A45
13"	18"	3	Steel	2200-3300	18-20'	24-34	48-16988A46
13-1/4"	17"	3	Alum	2400-3600	18-20'	22-32	48-77344A45
13-1/8"	16"	3	Steel	2600-4000	18-21'	21-29	48-16986A46
13-1/4"	16"	3	Alum	2600-4000	18-21'	21-29	48-854360A45
13-3/4"	15"	3	Alum	2600-4500	18-21'	19-27	48-77342A45
13-3/8"	14"	3	Steel	3200-5400	19-22'	17-25	48-17314A46
14"	13"	3	Alum	3500-5700	19-23'	14-22	48-77340A45
14"	12"	3	Steel	4000+	Work Boat	10-20	48-17312A46
14"	11"	3	Alum	4500+	Pontoon/ Work	1-17	48-77338A45

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## **Propeller Information Chart (2.33:1) (continued)**

## Mercury/Mariner 90 (4-Stroke)

Wide Open Throttle RPM: 5000-6000

Recommended Transom Heights: 20", 25"

Right Hand Rotation Standard

Gear Reduction: 2.33:1

Diameter	Pitch	No. of Blades	Material	Approx. Gross Boat Wgt. (lbs.)	Approx. Boat Length	Speed Range (mph)	Propeller Part Number
13-1/2"	26"	3	Steel	Up to 1800	Up to 16'	44-59	48-16996A46
13-1/2"	24"	3	Steel	Up to 2000	Up to 17'	40-53	48-16994A46
12-1/2"	23"	3	Alum	1600-2300	16-17'	38-50	48-77350A45
13-1/2"	22"	3	Steel	1700-2400	16-18'	35-48	48-16992A46
12-3/4"	21"	3	Alum	1800-2600	16-18'	33-45	48-77348A45
13-1/4"	20"	3	Steel	2000-2800	17-19'	31-42	48-16990A46
13"	19"	3	Alum	2100-3100	17-19'	29-40	48-77346A45
13"	18"	3	Steel	2300-3400	18-20'	27-37	48-16988A46
13-1/4"	17"	3	Alum	2500-3800	19-21'	25-34	48-77344A45
13-1/8"	16"	3	Steel	2800-4200	20-22'	23-32	48-16986A46
13-1/4"	16"	3	Alum	2800-4200	20-22'	23-32	48-854360A45
13-3/4"	15"	3	Alum	3100-4600	21-23'	21-30	48-77342A45
13-3/8"	14"	3	Steel	3400-5200	21-24'	19-27	48-17314A46
14"	13"	3	Alum	3800-5900	22-25'	15-24	48-77340A45
14"	12"	3	Steel	5000+	Work Boat	11-20	48-17312A46
14"	11"	3	Alum	5500+	Pontoon/ Work	1-17	48-77338A45

## Warranty

The new 2.33:1 gear ratio is offered as a product improvement and is not covered by warranty to up-grade previous models.

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