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**Johnson®/Evinrude®**





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# Section 1

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## Johnson / Evinrude Gearcase

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# Johnson / Evinrude

## 2 & 3-CYL. LOOPCHARGED SMALL GEARCASE IDENTIFICATION

### Small Gearcase "Old" Style (1975-1988)

#### Physical Characteristics:

15-1/2" tall.

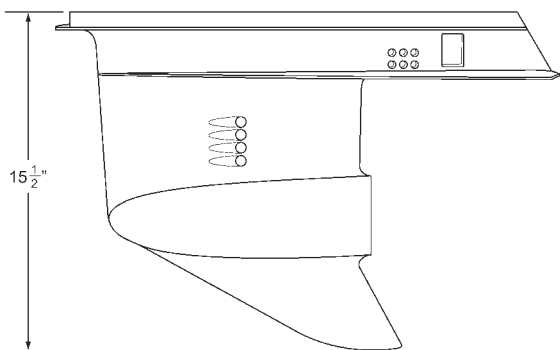
Straight at the trailing end of the gear housing and the fin.

Pointed at the trailing end of the cavitation plate.

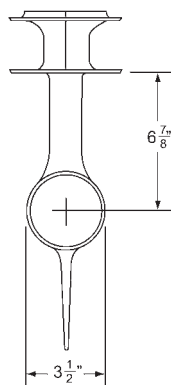
Six holes above the cavitation plate.

Internal water intake screens (four holes).

No speedo pitot.



Side View



Rear View



Top View

### Small Gearcase "New" Style (1989-2005)

#### Physical Characteristics:

15-3/4" tall.

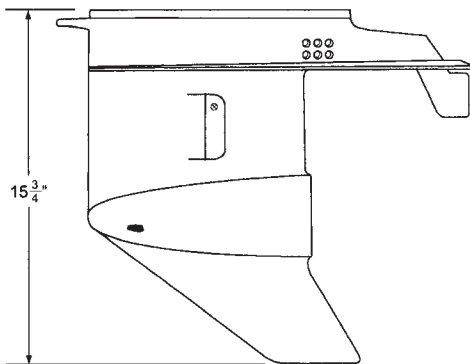
Straight at the trailing end of the gear housing and the fin.

Pointed at the trailing end of the cavitation plate.

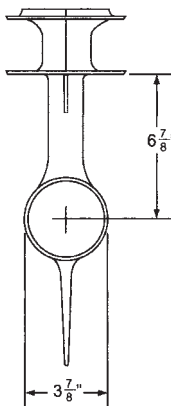
Six holes above the cavitation plate.

External water intake screens.

Includes speedo pitot.



Side View



Rear View



Top View

# Johnson / Evinrude

## 2 & 3-CYL. LOOPCHARGED LARGE GEARCASE IDENTIFICATION

### Large Gearcase (1975-2006)

#### Physical Characteristics:

17-7/16" tall.

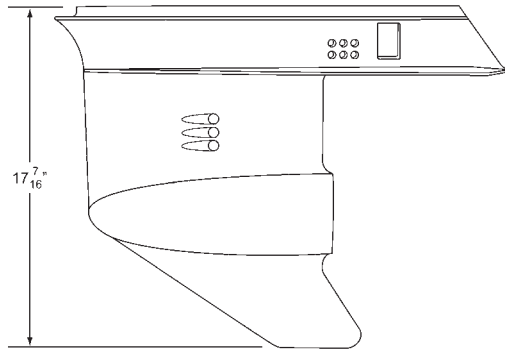
Straight at the trailing end of the gear housing and the fin.

Pointed at the trailing end of the cavitation plate.

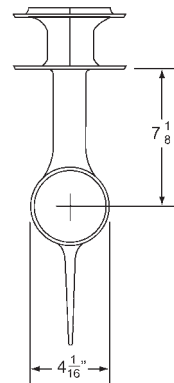
Six holes above the cavitation plate.

Internal water intake screens (three holes).

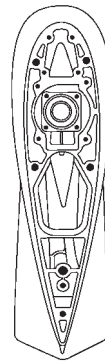
No speedo pitot.



Side View



Rear View



Top View

## V4 60° & V4 90° SMALL GEARCASE IDENTIFICATION

### Small Gearcase V4 90° (1978-1998)

#### Physical Characteristics:

18-3/16" tall.

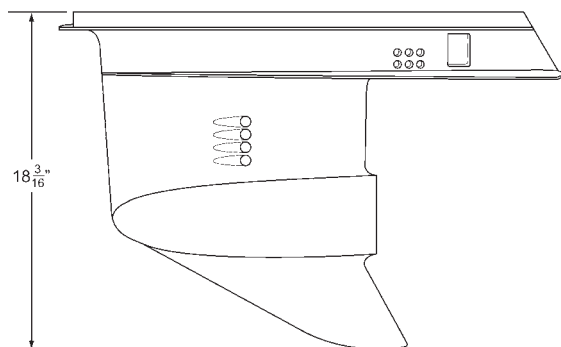
Straight at the trailing end of the gear housing and the fin.

Pointed at the trailing end of the cavitation plate.

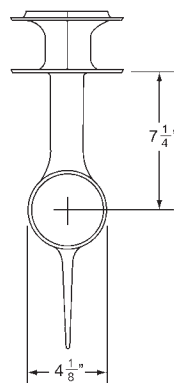
Six holes above the cavitation plate.

Internal water intake screens (four holes).

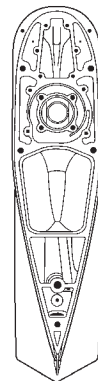
No pitot.



Side View



Rear View



Top View

# Johnson / Evinrude

## V4 60° & V4 90° SMALL GEARCASE IDENTIFICATION

### Small Gearcase V4 60° (1995-2006)

#### Physical Characteristics:

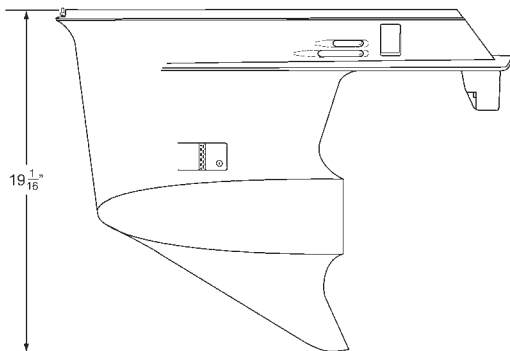
19-1/6" tall.

Curved at the trailing end of the gear housing and the fin.

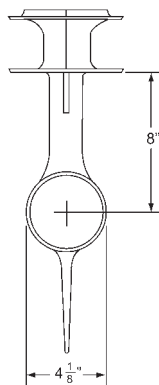
Flat at the trailing end of the cavitation plate.

Two slots above the cavitation plate.

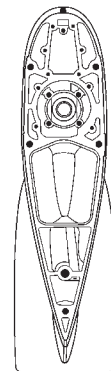
External water intake screens.



Side View



Rear View



Top View

## V4/V6 LARGE GEARCASE IDENTIFICATION

### Large Gearcase "O" Type V4 & V6 (1979-2006)

#### Physical Characteristics:

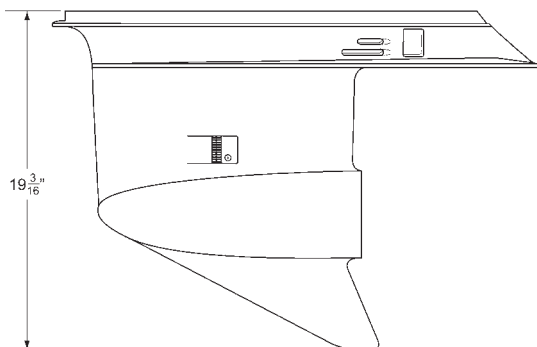
19-3/16" tall.

Straight at the trailing end of the gear housing and the fin.

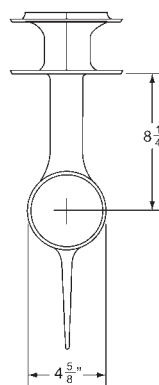
Pointed at the trailing end of the cavitation plate.

Two slots above the cavitation plate.

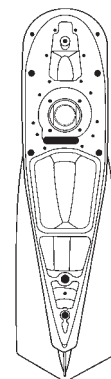
External water intake screens.



Side View



Rear View



Top View



# Johnson / Evinrude

## V4/V6 LARGE GEARCASE IDENTIFICATION

### Large Gearcase "M" Type V4 & V6 (2002-2006)

#### Physical Characteristics:

19-3/16" tall.

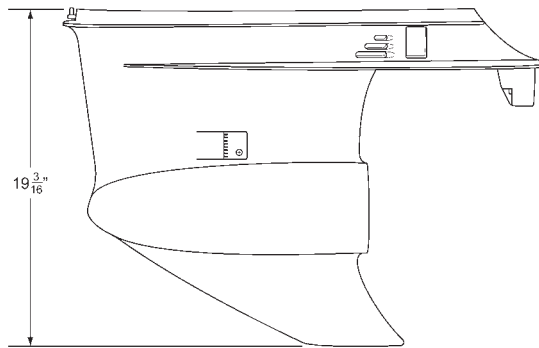
Curved at the trailing end of the gear housing and the fin.

Flat at the trailing end of the cavitation plate.

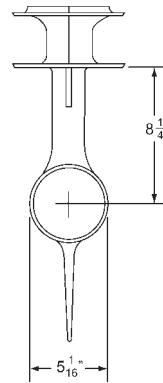
Three slots above the cavitation plate.

External water intake screens.

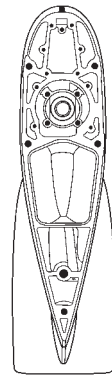
Includes speedo pitot.



Side View



Rear View



Top View

### Large Gearcase "M2" Type 150-200 HP 60° V6 (25") & 200-300 HP 90° V6 (20" & 25")

#### Physical Characteristics:

19-3/16" tall.

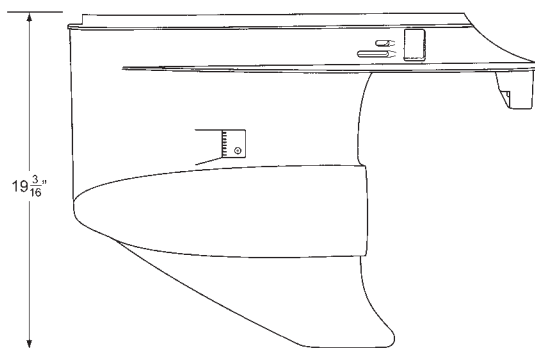
Curved at the trailing end of the gear housing and the fin.

Flat at the trailing end of the cavitation plate.

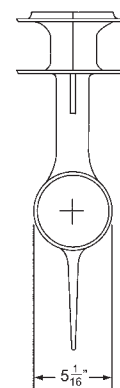
Two slots above the cavitation plate.

External water intake screens.

Includes speedo pitot.



Side View



Rear View

# Johnson / Evinrude

## V4 60° & V4 90° COMPLETE GEARCASE ASSEMBLY

### V4 60° (1995-Up)

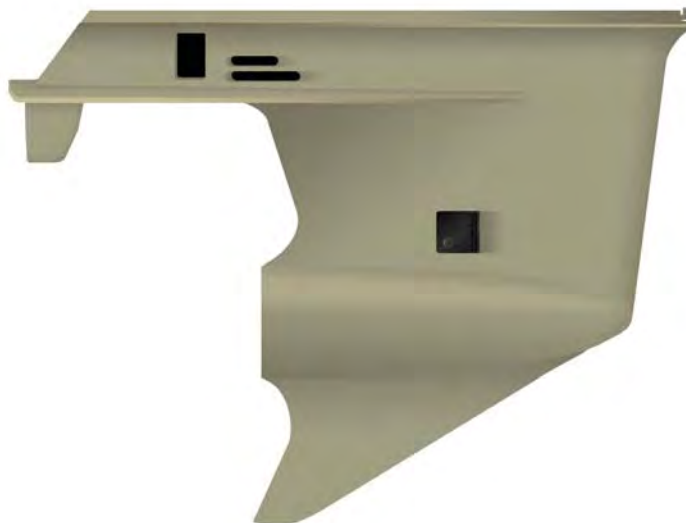
#### **No. 28510**

COMPLETE GEARCASE  
OEM: 5004632  
GLM Gear Set No. 22630

#### **No. 28500**

EMPTY GEARCASE  
OEM: 5004767

For V4 60° w/ 20" shaft (1995-2005)  
For 75 & 80 HP Inline 3-Cyl. E-Tec  
w/ 20" shaft (2004-2006)



### V4 90° (1978-1998)

#### **No. 28210**

COMPLETE GEARCASE  
OEM: 5000356  
GLM Gear Set No. 22630

#### **No. 28200**

EMPTY GEARCASE  
OEM: 0431642

For V4 90° (1978-1998)



Must use Bearing Carrier  
GLM No. 11388 with  
this empty gearcase

#### **No. 11388**

BEARING CARRIER  
OEM: N/A



# Johnson / Evinrude

## V4/V6 COMPLETE GEARCASE ASSEMBLY - "O" TYPE

### "O" Type V4 & V6 (1978-Up)

#### **No. 28880**

COMPLETE GEARCASE  
W/OUT SPEEDO  
OEM: 5004639  
GLM Gear Set No. 22650

V4 Gear Ratio: 2.25:1 (.44), 12:27



#### **No. 28800**

EMPTY GEARCASE  
W/OUT SPEEDO  
OEM: 0439972  
EMPTY GEARCASE  
W/OUT SPEEDO  
OEM: 0438048

For V4 (1978-2006)  
Crossflow 1983-1996  
60° Loopcharged 1995-1998  
90° Loopcharged 1985-1998

#### **No. 28810**

COMPLETE GEARCASE  
W/OUT SPEEDO  
OEM: 5005401  
GLM Gear Set No. 22666

V6 Gear Ratio: 1.83:1 (.55), 12:22 Heavy Duty



#### **No. 28800**

EMPTY GEARCASE  
W/OUT SPEEDO  
OEM: 0439972  
EMPTY GEARCASE  
W/OUT SPEEDO  
OEM: 0438048

For V6 (1978-2006)  
Crossflow (1979-1992)  
60° Loopcharged (1991-2005)  
90° Loopcharged (1986-2005)

#### **No. 28710**

COMPLETE GEARCASE  
W/ SPEEDO  
OEM: 5004635  
GLM Gear Set No. 22666

V6 Gear Ratio: 1.83:1 (.55), 12:22 Heavy Duty



#### **No. 28700**

EMPTY GEARCASE  
W/ SPEEDO  
OEM: 0439973

For V6 (1978-2006)  
Crossflow (1979-1992)  
60° Loopcharged (1991-2001)  
90° Loopcharged (1986-2001)

# Johnson / Evinrude

## GEARCASE ASSEMBLY APPLICATIONS

Motor	Year	Complete	Housing	Motor	Year	Complete	Housing
V4 Crossflow 20"	1988-98	28210	28200	V6 Crossflow 20" & 90° Loopcharged	88-91	28710	28700
V4 Crossflow 25"	1988-91	28210	28200	V6 Crossflow 25" & 90° Loopcharged	88-91	28710	28700
65 Jet (90 hp)	All	Not Serviced	-	V6 Crossflow 20" & 90° Loopcharged C/R	88-91	-	28700
100 WPL 20"	1999	28880	28800	V6 90° Loopcharged 20" w/ Internal Screens	92-99	28710	28700
100 WPX 25"	1999	28880	28800	V6 90° Loopcharged 20" w/ External Screens	92-99	28810	28800
100 Comm. 20" Small	1992-97	28210	28200	V6 90° Loopcharged 25"	92-99	28810	28800
100 Comm. 20" Large	1988-97	28880	28800	V6 90° Loopcharged 25" C/R	92-99	-	28800
100 Comm. 25" Large	1988-97	28880	28800	V6 90° Loopcharged 30"	93-99	28810	28800
100 WQL 20"	1998	28510	28500	V6 90° Loopcharged 30" C/R	93-99	-	28800
100 WQX, 105 WEX 25"	1998	28880	28800	200 Comm. 20"	93-99	28810	28800
105 Comm. WPL 20"	2000-01	28880	28800	200 Comm. 25"	93-99	28810	28800
105 Comm. WPX 25"	2000-01	28880	28800	V8 20"	88-98	-	-
105 Comm. WEL 20"	2000-01	28880	28800	V8 25"	88-98	-	-
105 WEL 20"	1998	28880	28800	V8 30"	93-96	-	-
105 WRL 20"	1997-98	28880	28800	V8 20" C/R	90-96	-	-
105 WRX 25"	1997-98	28880	28800	V8 25" C/R	88-98	-	-
105 RWL 20"	1998	28880	28800	V8 30" C/R	93-96	-	-
105 RWY 22.5"	1998	28880	28800				
105 RWX 25"	1998	28880	28800				
115 FPL/FSL 20"	1999-05	28510	28500				
115 FPX/FX 25"	2000-01	28880	28800				
80 Jet (115 hp)	All	Not Serviced	-				
120/140 20"	1988-94	28210	28200				
120 25"	1988-94	28210	28200				
125 RWL 20"	1995-97	28880	28800				
125 RWY 22.5"	1995-98	28880	28800				
125 WTPL 20"	1992-98	28880	28800				
125 WTPX 25"	1988-98	28880	28800				
125 ESX	1989-91	28210	28200				
125 ESX Club Nautico	1992-94	28210	28200				
130 20"	1995-98	28880	28800				
130 25"	1995-98	28880	28800				
130 25" C/R	1995-97	-	28800				
135 FPL/FL 20"	2000-01	28710	28700				
135 FSL/FS 20"	2000-01	28810	28800				
135 FPX/FX 25"	2000-01	28810	28800				
140 25"	1988-94	28880	28800				
140 25" C/R	1988-94	-	28700				
V4 60° Loopcharged 20" GL W/ Pitot Hole	1995-06	28510	28500				
V4 60° Loopcharged 20" (Use Pitot Style)	1995-06	28510	28500				
V4 60° Loopcharged 25"	1995-06	28880	28800				
V6 60° Loopcharged 20" W/ External Screens	1995-00	28810	28800				
V6 60° Loopcharged 25" W/ External Screens	1991-99	28810	28800				
V6 60° Loopcharged 25" C/R	1992-99	-	28800				
105 Jet (150 HP)	All	Not Serviced	-				
150 Comm. 20"	1993-99	28810	28800				
150 Comm. 25"	1993-99	28810	28800				
155 Comm. 20"	1988-92	28810	28800				
155 Comm. 25"	1988-92	28810	28800				





## Section 2

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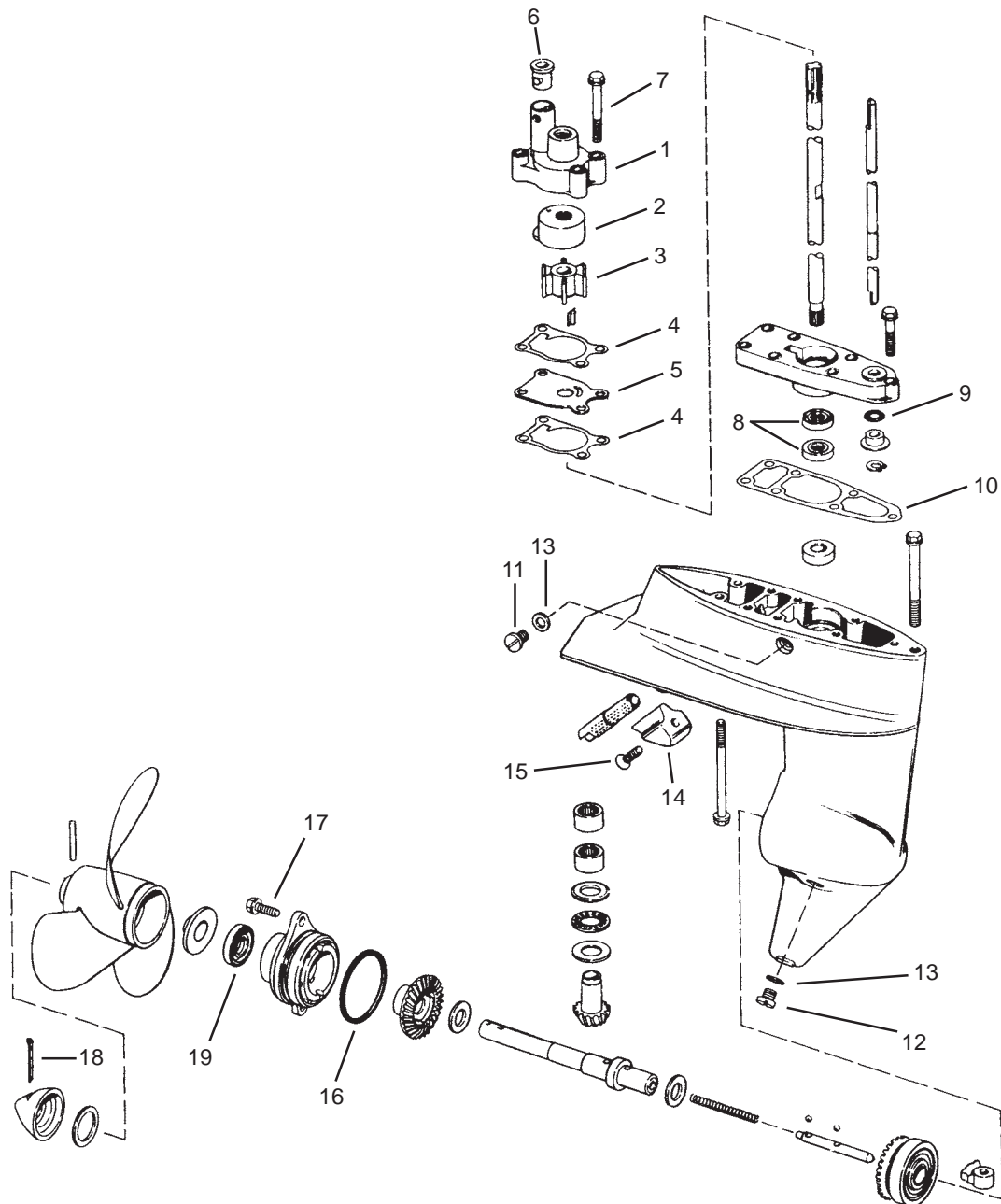
### Johnson / Evinrude Gearcase Exploded Views

<i>Gearcase Components - 4, 4.5, 5, 6, 7.5, 8 HP (1980 &amp; Up) ...</i>	<i>14-15</i>
<i>Gearcase Components - 9.9-15 HP (1974 &amp; Up) .....</i>	<i>16-17</i>
<i>Gearcase Components - 20-35 HP - Thru-Prop Exhaust .....</i>	<i>18-19</i>
<i>Gearcase Components - Crossflow - Thru-Cavitation Plate Exhaust ..</i>	<i>20-21</i>
<i>Gearcase Components - Loopcharged - Small Gearcase .....</i>	<i>22-25</i>
<i>Gearcase Components - Loopcharged - Large Gearcase .....</i>	<i>26-27</i>
<i>Gearcase Components - V4 60° (1995-2005) .....</i>	<i>28-29</i>
<i>Gearcase Components - V4 90° (1978-1998) .....</i>	<i>30-31</i>
<i>Gearcase Components - V4/V6 "O" Type (1979-2006) .....</i>	<i>32-33</i>
<i>Gearcase Components - V4/V6 "M" Type (2002-2006) .....</i>	<i>34-35</i>
<i>Gearcase Components - V6 "M2" Type .....</i>	<i>36-37</i>

# Johnson / Evinrude

## GEARCASE COMPONENTS - 4, 4.5, 5, 6, 7.5, 8 HP (1980 & UP)

2-Stroke



# Johnson / Evinrude

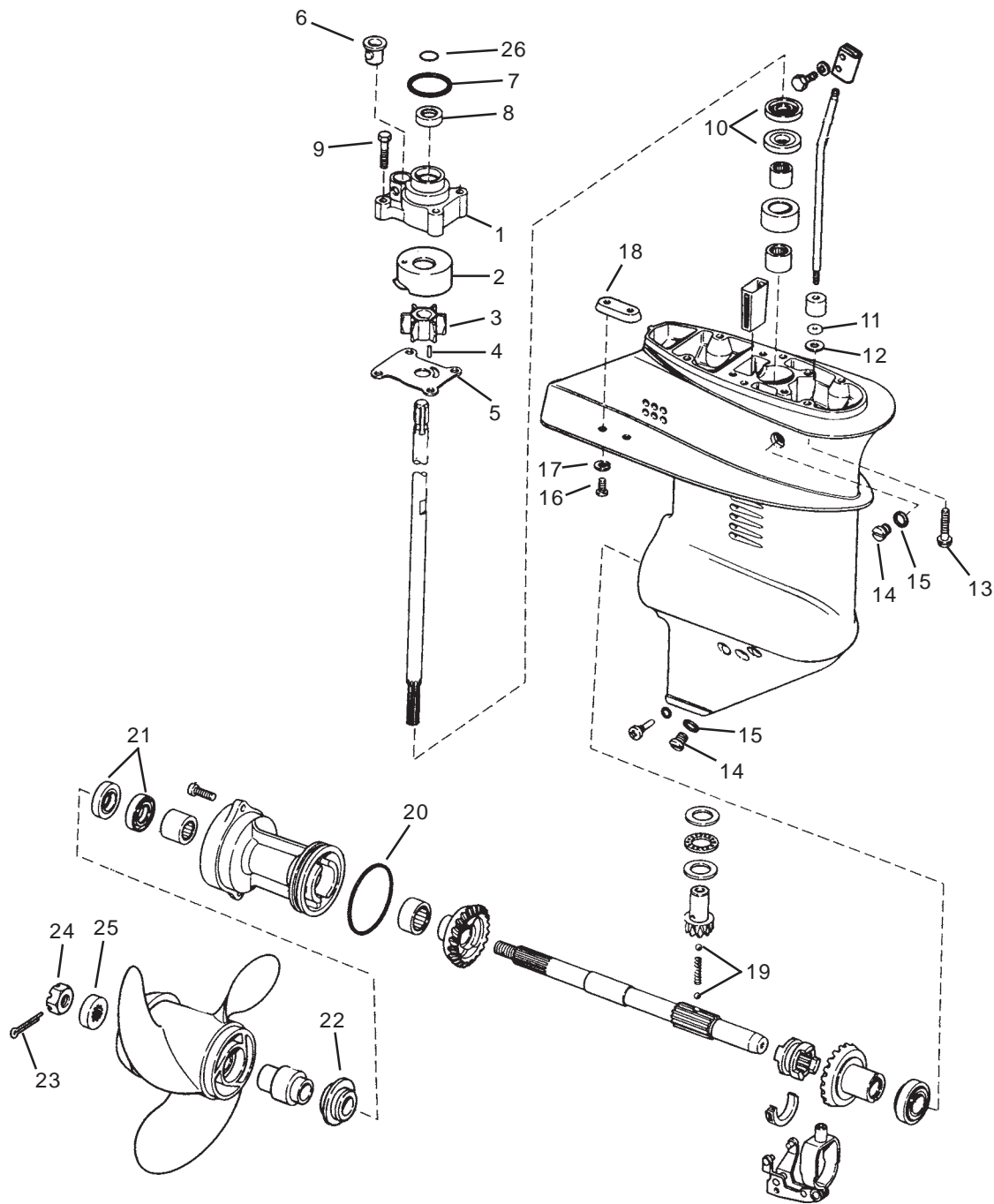
## GEARCASE COMPONENTS 4, 4.5, 5, 6, 7.5, 8 HP (1980 & UP)

[illegible]

# Johnson / Evinrude

## GEARCASE COMPONENTS - 9.9-15 HP (1974 & UP)

2-Cyl. 2-Stroke Thru-Prop Exhaust





# Johnson / Evinrude

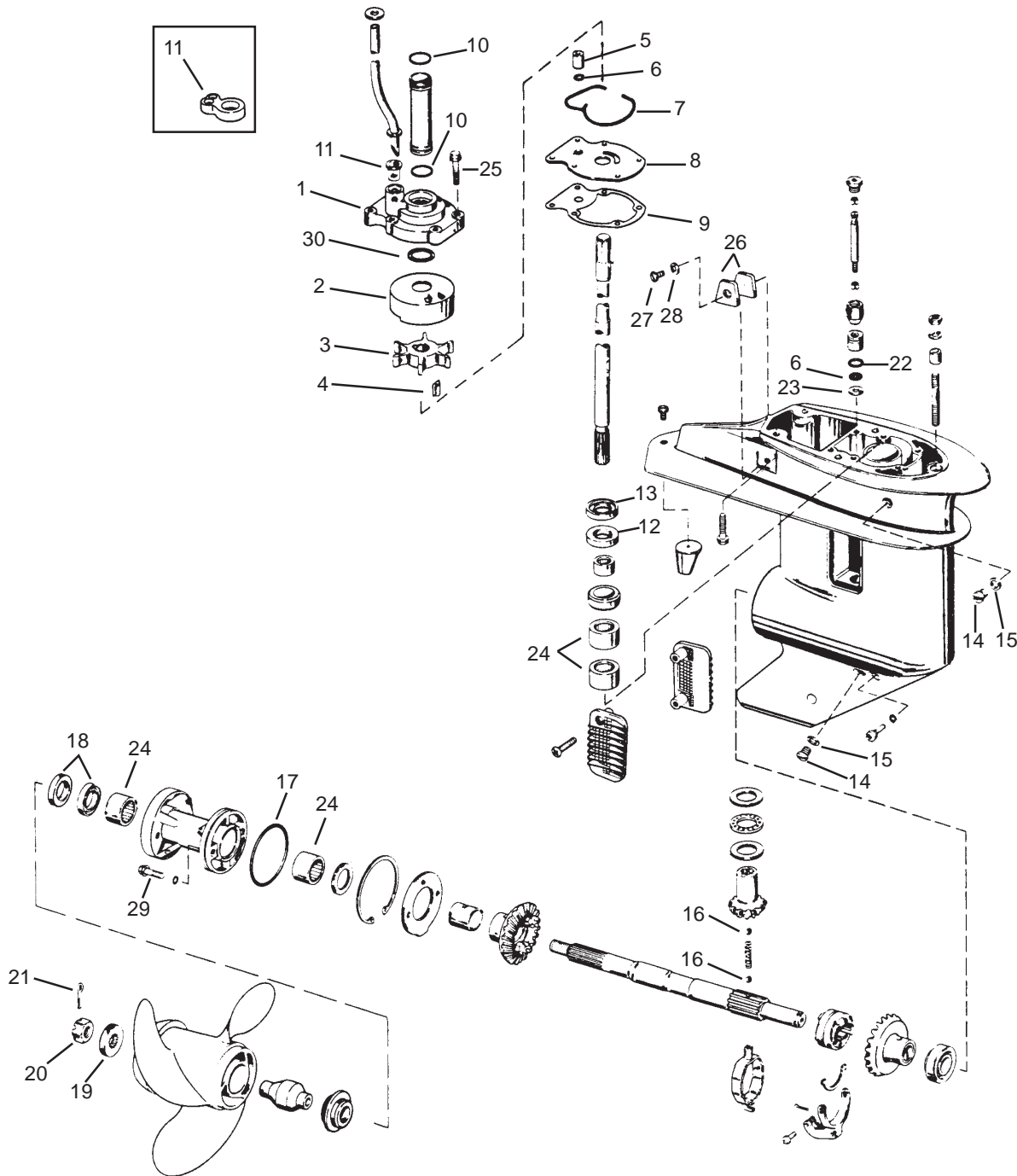
## GEARCASE COMPONENTS - 9.9-15 HP (1974 & UP)

[illegible]

# Johnson / Evinrude

## GEARCASE COMPONENTS - 20-35 HP - THRU-PROP EXHAUST

20-35 HP 2-Cyl. Crossflow (1980-2005)  
25, 30, 35 HP 3-Cyl. Loopcharged (1996-2001)



# Johnson / Evinrude

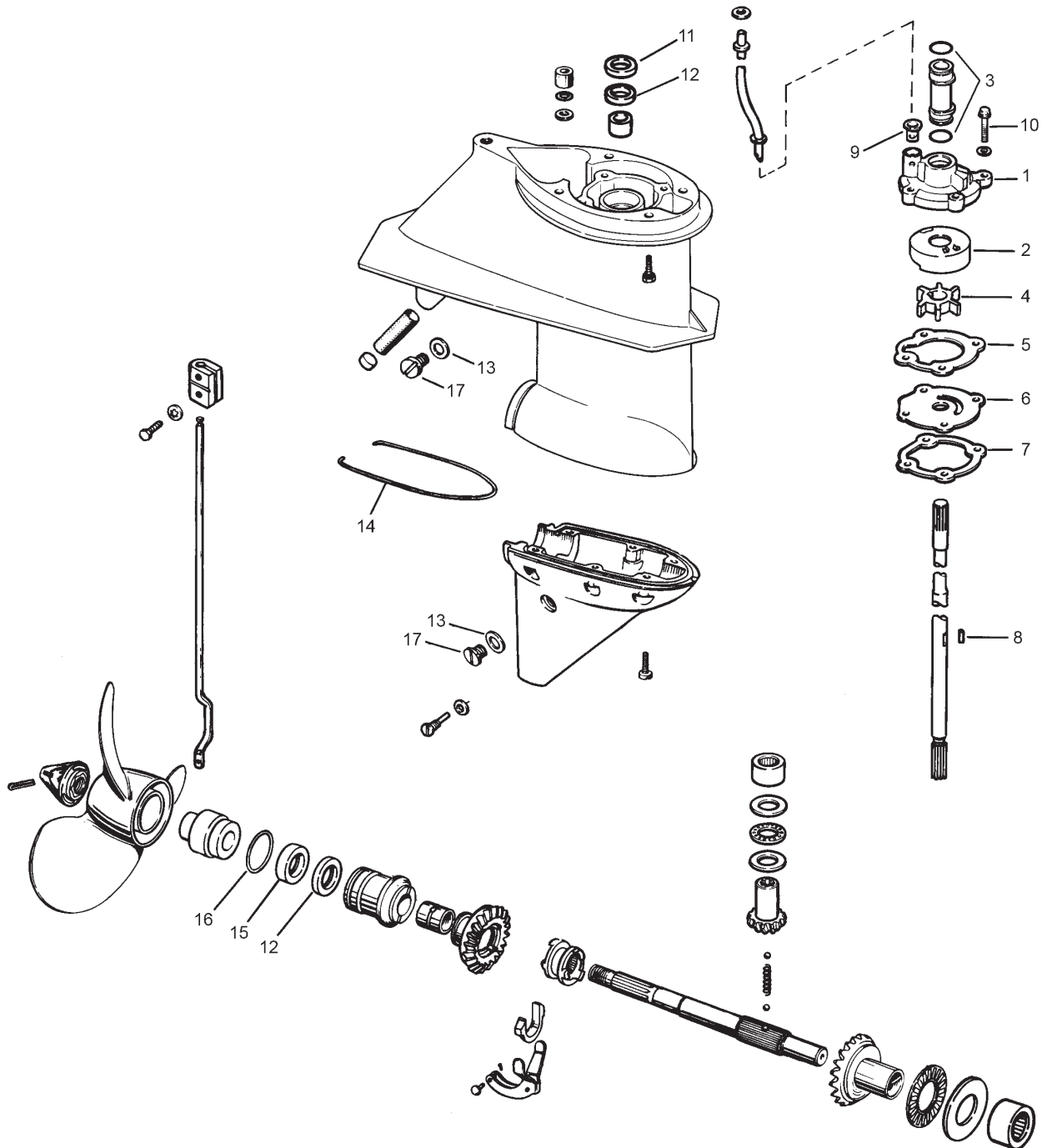
## GEARCASE COMPONENTS - 20-35 HP - THRU-PROP EXHAUST

[illegible]

# Johnson / Evinrude

## GEARCASE COMPONENTS - CROSSFLOW - THRU-CAVITATION PLATE EXHAUST

25-28 HP, 2-Cyl. Crossflow (1978-1997)





# Johnson / Evinrude

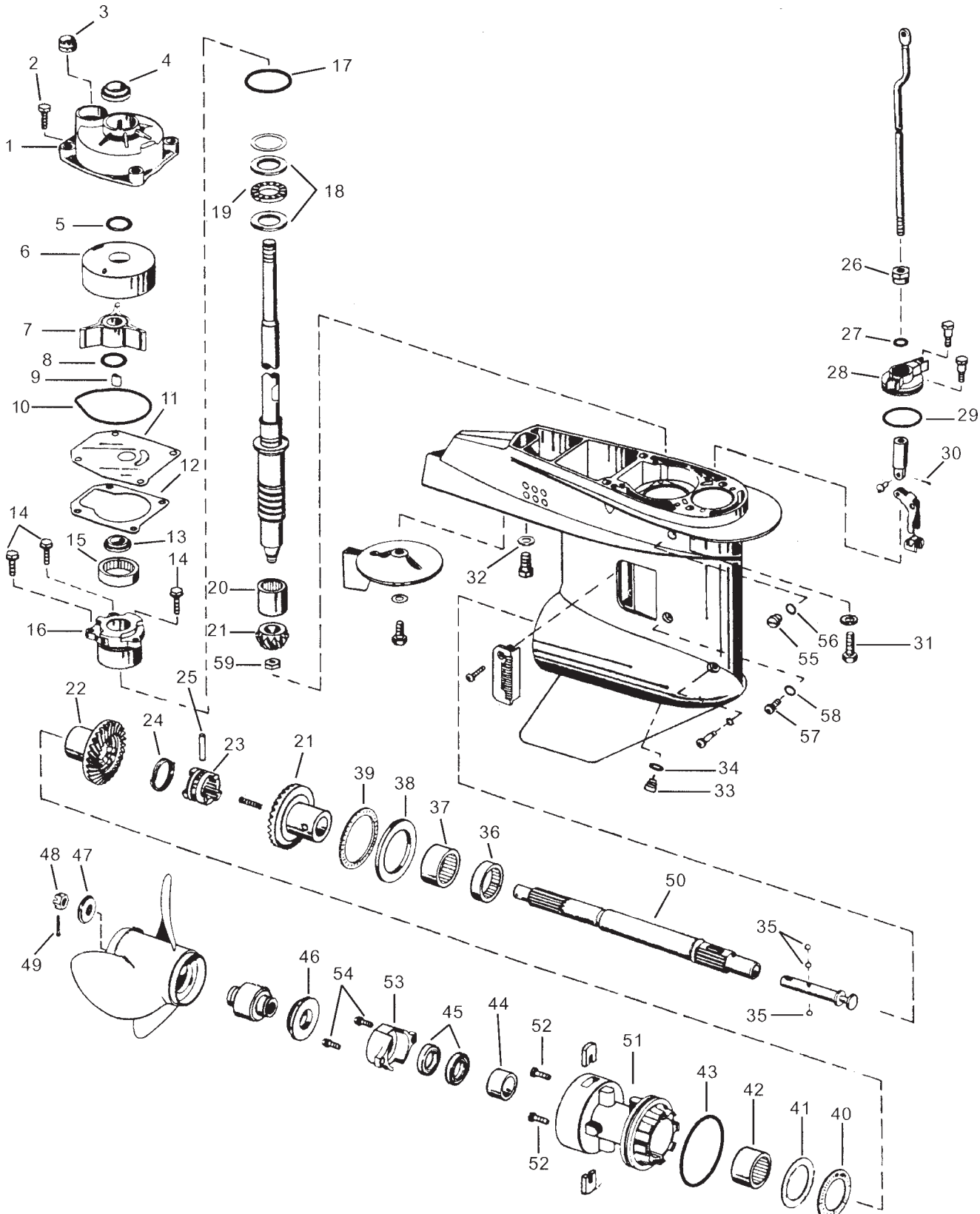
## GEARCASE COMPONENTS - CROSSFLOW - THRU-CAVITATION PLATE EXHAUST

[illegible]

# Johnson / Evinrude

## GEARCASE COMPONENTS - LOOPCHARGED - SMALL

2-Cyl. Loopcharged 40-50 HP (1989-2005)



# Johnson / Evinrude

## GEARCASE COMPONENTS - LOOPCHARGED - SMALL

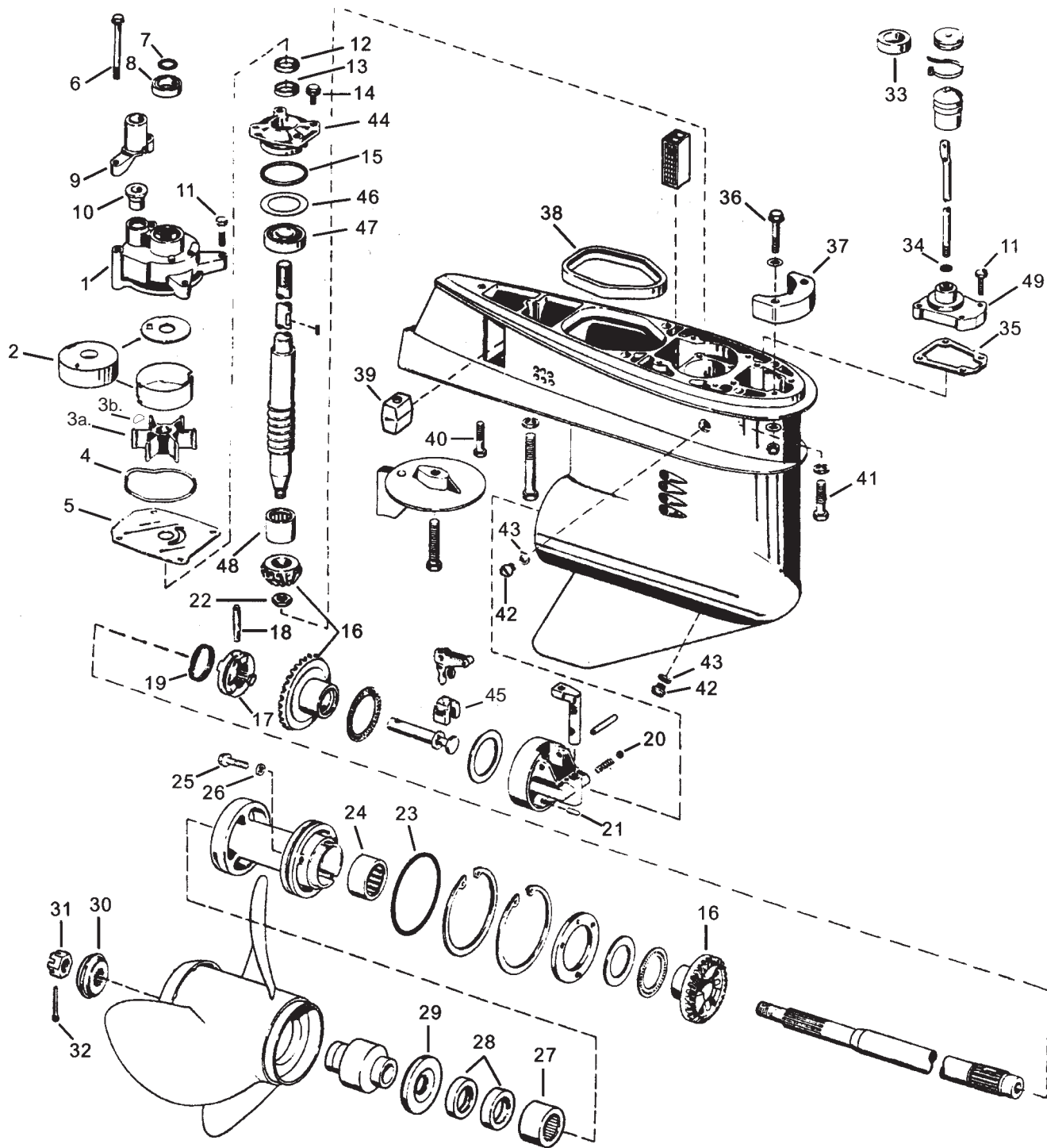
GLM No.	Ref No.	OEM No.	Description	JML No.	Ref No.	OEM No.	Description
12480	1	0438544	Pump Housing (1989-98)	11416	51	0432276	Bearing Carrier
12482	1	0438545	Pump Hsg. (1995-01) (2004-05)	22395	52	0328744	Screw
22360	2	0302325	Screw	12742	53	0398873	Anode
86497	3	0333758	Grommet	22392	54	0328694	Screw
86491	4	0341732	Grommet	22393	55	0309243	Screw
82100	5	0310584	O-ring	45290	56	0336982	O-ring
12815	6	0340619	Pump Cup	22394	57	0324852	Screw
89790	7	0432941	Impeller (1989-1994)	80100	58	0305739	Seal
89460	7	0437059	Impeller (1995-2002)	11192	59	0313339	Pinion Nut
81250	8	0331188	O-ring				
89592	9	0334897	Key				
86570	10	0324981	Seal				
12551	11	0341038	Wear Plate				
33150	12	0336530	Gasket				
86013	13	0342786	Oil Seal				
22362	14	0317624	Screw				
11422	15	0398874	Bearing				
27790	16	0435274	Bearing Housing Assembly				
82250	17	0310327	O-ring				
21649	18	0333771	Thrust Washer				
16370	19	0398901	Thrust Bearing				
11430	20	0382343	Bearing				
22661	21	0397627	Gear Set				
22662	22	0332489	Reverse Gear				
22663	23	0332491	Clutch Dog				
11051	24	0320311	Spring				
21133	25	0320310	Cross Pin				
27942	26	0333780	Bushing				
45200	27	0318372	O-ring				
27940	28	0434588	Cover & Bushing Assembly				
82230	29	0913921	O-ring				
22145	30	0306376	Cotter Pin				
22329	31	0305282	Screw				
21674	32	0330265	Washer				
21731	33	0318544	Draining Screw				
31171	34	0311598	Gasket				
22490	35	0316506	Ball				
22940	36	0432264	Bearing				
22870	37	0382407	Bearing				
21648	38	0333725	Thrust Washer				
16360	39	0397538	Thrust Bearing				
16350	40	0397537	Thrust Bearing				
21647	41	0332514	Thrust Washer				
22890	42	0386764	Bearing				
82360	43	0553126	O-ring				
22900	44	0386765	Bearing				
86060	45	0321467	Oil Seal				
22240	46	0320305	Thrust Washer				
22250	47	0315810	Prop Spacer				
22150	48	0314503	Prop Nut				
22120	49	0314502	Cotter Pin				
22421	50	0439138	Prop Shaft				

# Johnson / Evinrude

## GEARCASE COMPONENTS - LOOPCHARGED - SMALL

2-Cyl. Loopcharged 40-60 HP (1975-1988)

3-Cyl. Loopcharged 60-75 HP (1975-1988)





# Johnson / Evinrude

## GEARCASE COMPONENTS - LOOPCHARGED - SMALL

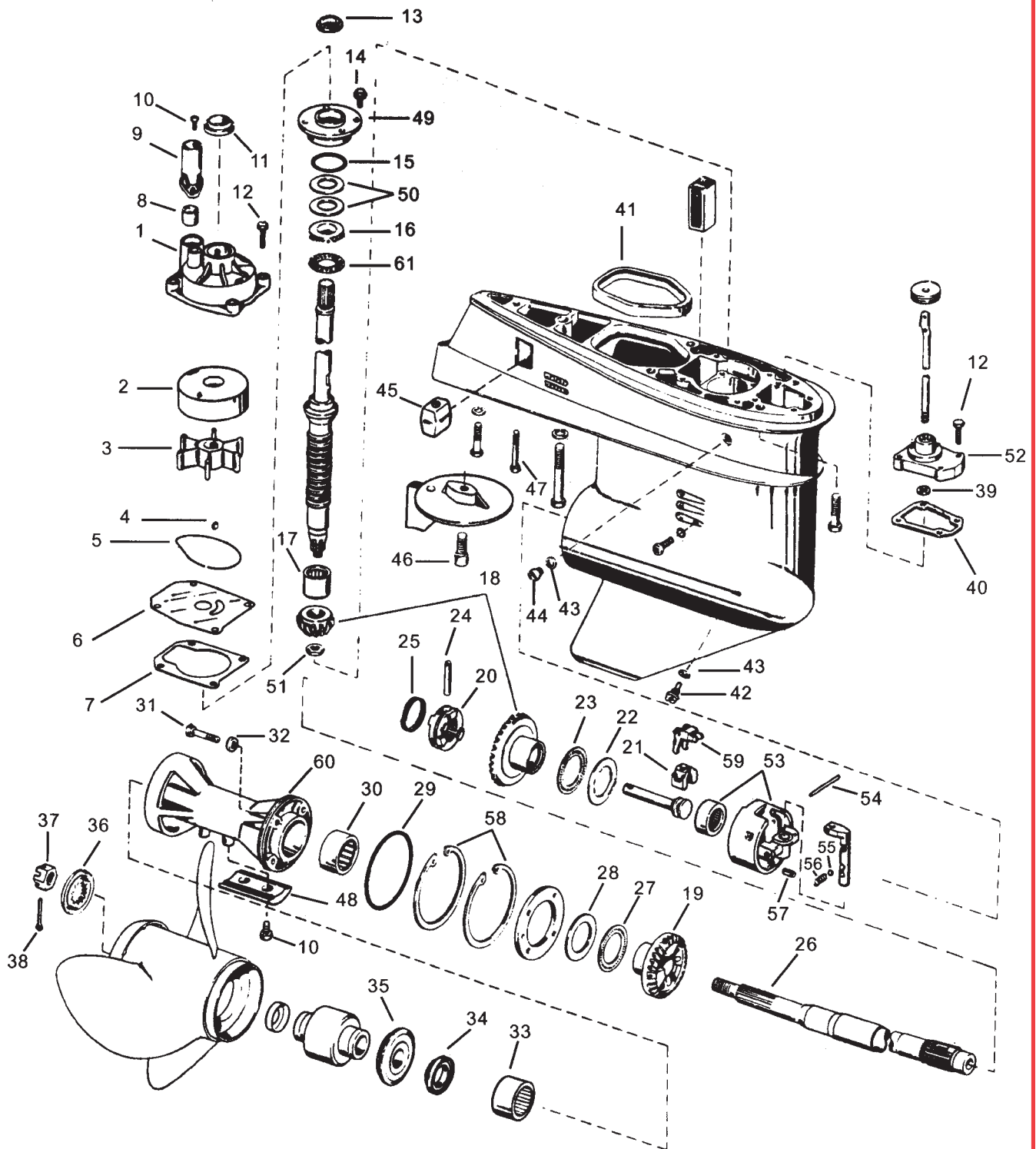
JML No.	Ref No.	OEM No.	Description	JML No.	Ref No.	OEM No.	Description
12450	1	0384087	Pump Housing	21511	47	0385175	Bearing
12814	2	320775-6	Pump Cup	11423	48	0386766	Pinion Bearing
89660	3a.	0377230	Impeller (1975-1978)	27756	49	0387336	Cover & Seal Assembly
89595	3b.	0308928	Key (1975-1978)				
89780	3a.	0396809	Impeller (1979-1988)				
89591	3b.	0331901	Key, White (1979-1988)				
89593	3b.	0344470	Key, Black (1979-1988)				
86580	4	0315788	Seal				
12620	5	0320981	Wear Plate				
22324	6	0331980	Screw				
81120	7	0303059	O-ring				
86491	8	0341732	Grommet				
12940	9	0315838	Tube Guide				
86494	10	0315837	Grommet				
22360	11	0302325	Screw				
86460	12	0332205	Oil Seal				
86160	13	0321466	Oil Seal				
86013	12,13	0342786	Oil Seal (one piece)				
22327	14	0909386	Screw				
82240	15	0302588	O-ring				
22681	16	0433570	Gear Set				
22683	17	0319895	Clutch Dog				
22044	18	0320310	Cross Pin				
11051	19	0320311	Spring				
22491	20	0160084	Detent Ball				
21138	21	0331880	Pin				
11192	22	0313339	Pinion Nut				
82320	23	0320303	O-ring				
22890	24	0386764	Bearing				
22400	25	0320041	Screw				
80100	26	0332584	O-ring				
22900	27	0386765	Bearing				
86060	28	0321467	Oil Seal				
22240	29	0320305	Thrust Washer				
22250	30	0315810	Prop Spacer				
22150	31	0314503	Prop Nut				
22120	32	0314502	Cotter Pin				
86140	33	0305762	Grommet				
45200	34	0318372	O-ring				
33420	35	0314082	Gasket				
22322	36	0324430	Screw				
12738	37	0392462	Anode				
86210	38	0324937	Seal				
12776	39	0436745	Anode				
22366	40	0328096	Screw				
22329	41	0305282	Screw				
22420	42	0307551	Screw				
31171	43	0311598	Gasket				
22728	44	0387067	Bearing Housing & Seal				
27730	45	0334163	Cradle				
23530	46	0320166	Shim .003				
23540	46	0320167	Shim .004				
23550	46	0320168	Shim .005				

# Johnson / Evinrude

## GEARCASE COMPONENTS - LOOPCHARGED - LARGE

2-Cyl. Loopcharged 40-60 HP (1975-2006)

3-Cyl. Loopcharged 60-75 HP (1975-2001)



# Johnson / Evinrude

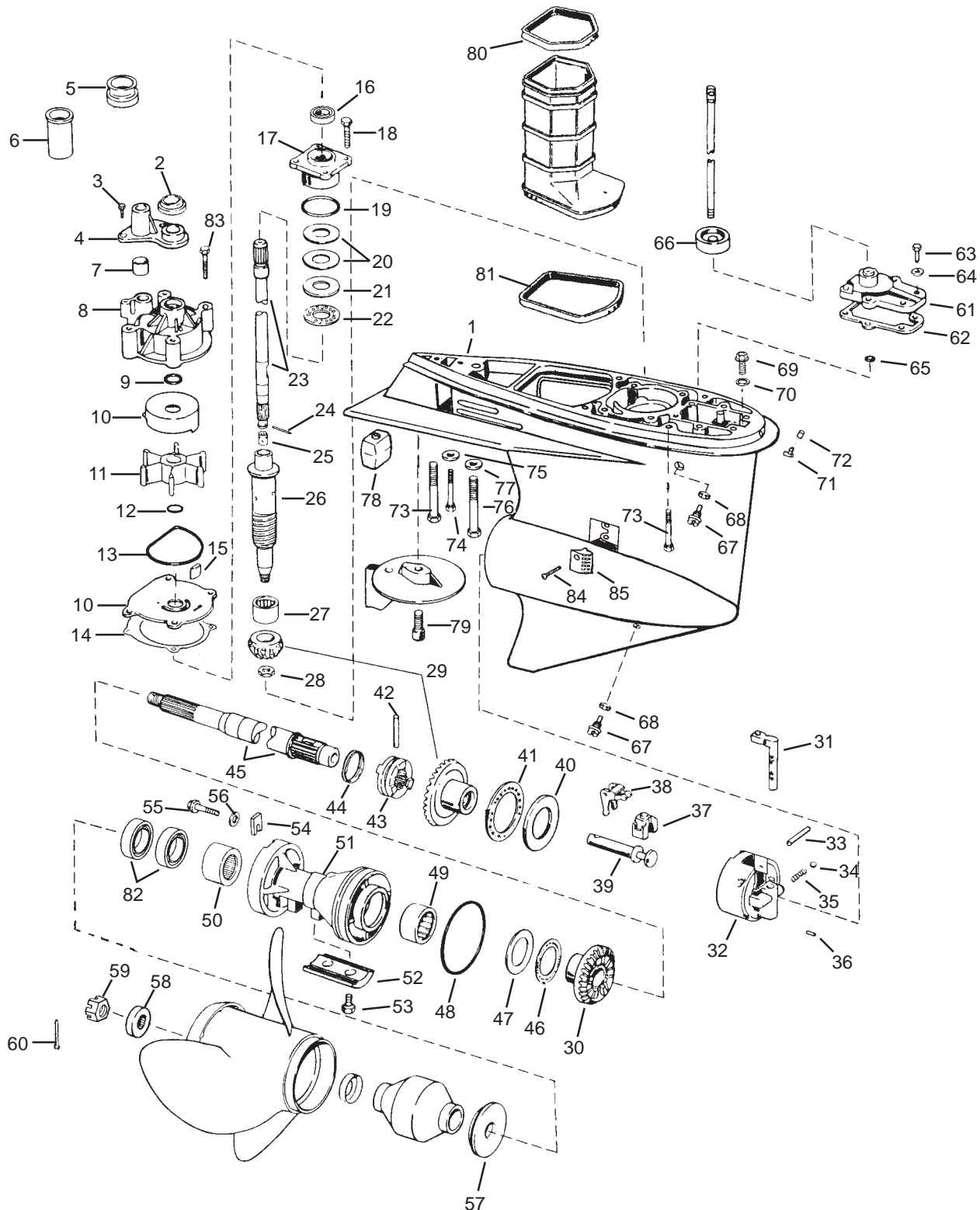
## GEARCASE COMPONENTS - LOOPCHARGED - LARGE

JML No.	Ref No.	OEM No.	Description	JML No.	Ref No.	OEM No.	Description
12400	1	0438543	Pump Housing	22722	49	0385087	Bearing Housing & Seal
12815	2	0340619	Pump Cup	22726	49	0435519	Bearing Housing & Seal
89940	3	0382547	Impeller (1975-1978)	23600	50	0323889	Shim .003
89710	3	0396725	Impeller (1979-2006)	23610	50	0323890	Shim .004
89595	4	0308928	Key (1975-1978)	23620	50	0317232	Shim .005
89591	4	0331901	Key, White (1979-2006)	11192	51	0313339	Pinion Nut
89592	4	0334897	Key, Black (1979-2006)	27754	52	0388651	Cover & Seal Assembly
34330	5	0319586	Gasket (1975-1978)	27702	53	0391365	Housing & Bearing Assembly
86570	5	0324981	Seal (1979-2006)	21105	54	0320145	Pin
12551	6	0341038	Wear Plate	22493	55	0327345	Detent Ball
33150	7	0336530	Gasket	11039	56	0911961	Spring
86490	8	0314008	Grommet	21138	57	0331880	Pin
12950	9	0319276	Tube Guide	21774	58	0313445	Retaining ing
22320	10	0908158	Screw	27741	59	0324037	Lever
86491	11	0341732	Grommet	11390	60	0434391	Bearing Carrier
22360	12	0302325	Screw	16320	61	0385068	Thrust Bearing
86013	13	0342786	Oil Seal				
22327	14	0909386	Screw				
81340	15	0313754	O-ring				
21643	16	0317230	Thrust Washer				
11430	17	0382343	Bearing				
22671	18	0397338	Gear Set				
22672	19	0318304	Reverse Gear				
22673	20	0318303	Clutch Dog				
27730	21	0334163	Cradle				
21644	22	0324766	Thrust Washer				
16310	23	0385043	Thrust Bearing				
21135	24	0313448	Cross Pin				
11052	25	0324369	Spring				
22418	26	0439185	Prop Shaft				
16300	27	0382408	Thrust Bearing				
21641	28	0313447	Thrust Washer				
82370	29	0313446	O-ring				
22870	30	0382407	Bearing				
22400	31	0320041	Screw				
81100	32	0332584	O-ring				
22860	33	0379504	Bearing				
86030	34	0330137	Oil Seal				
22230	35	0127084	Thrust Washer				
22250	36	0315810	Prop Spacer				
22150	37	0314503	Prop Nut				
22120	38	0314502	Cotter Pin				
45200	39	0318372	O-ring				
33420	40	0314082	Gasket				
86210	41	0324937	Seal				
21731	42	0318544	Draining Screw				
31170	43	0311598	Gasket				
22420	44	0307551	Screw				
12776	45	0436745	Anode				
22368	46	0313715	Screw				
22366	47	0328096	Screw				
12737	48	0431708	Anode				

# Johnson / Evinrude

## GEARCASE COMPONENTS - V4 60° (1995-2006)

2.00:1 (.50) Gear Ratio



# Johnson / Evinrude

## GEARCASE COMPONENTS - V4 60° (1995-2006)

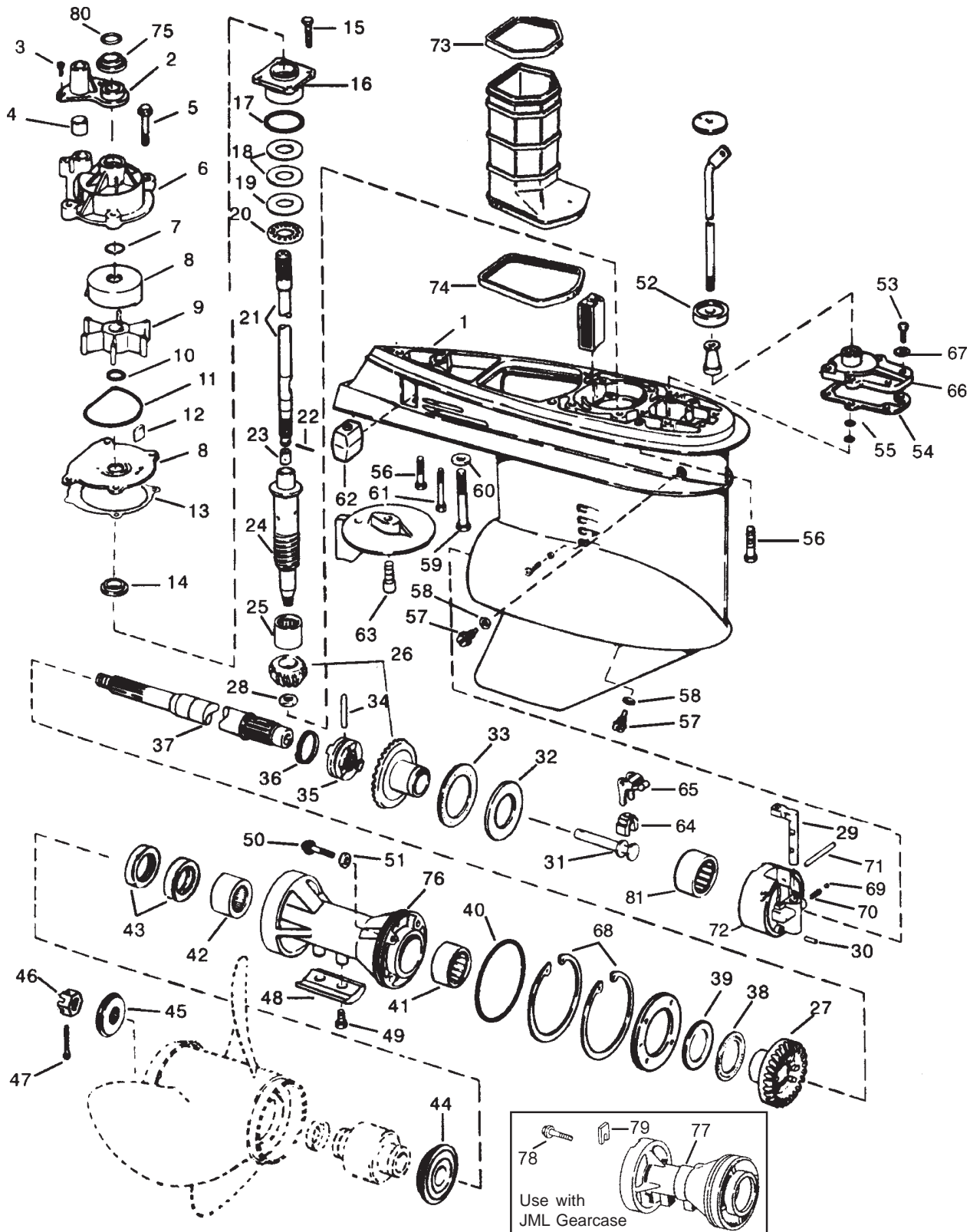
JML No.	Ref No.	OEM No.	Description	JML No.	Ref No.	OEM No.	Description
28500	1	5004767	Gearcase Assembly	82370	48	0313446	O-ring
86480	2	0320943	Grommet	22870	49	0382407	Bearing
22370	3	0306643	Screw	22860	50	0379504	Bearing
12570	4	0338893	Tube Guide	11398	51	5000440	Bearing Carrier
86495	5	0338601	Grommet	12737	52	0431708	Anode
12827	6	0338636	Tube Spacer (Short)	22320	53	0908158	Screw
86490	7	0314008	Grommet	27850	54	0333957	Tab
12430	8	0435959	Pump Housing (25" Transom)	22373	55	0350271	Screw
				21659	56	0328743	Washer
12395	8	0435990	Pump Housing (20" Transom)	22230	57	0127084	Thrust Washer (3-Blade)
				22250	58	0315810	Spacer
81250	9	0331188	O-ring	22150	59	0314503	Prop Nut
12880	10	0435027	Cup & Plate Assembly	22120	60	0314502	Cotter Pin
89570	11	0435821	Impeller	27752	61	5006241	Cover & Seal Assembly
82120	12	0302035	O-ring	33020	62	0324670	Gasket
86660	13	0331353	Seal	22360	63	0302325	Screw
33730	14	0338484	Gasket	21678	64	0328702	Washer
89590	15	0331107	Key	45200	65	0318372	O-ring
86011	16	0341280	Oil Seal	86500	66	0321008	Grommet
22720	17	0439476	Bearing Housing & Seal	21731	67	0318544	Draining Screw
22362	18	0317624	Screw	31171	68	0311598	Gasket
81380	19	0314728	O-ring	22374	69	0341220	Screw
23590	20	0323362	Shim .003	21677	70	0437330	Seal Washer
23580	20	0323361	Shim .004	28352	71	0336535	Nipple
23510	20	0314745	Shim .005	28353	72	0305749	Cap
21645	21	0327656	Thrust Washer	22371	73	0331999	Screw
16330	22	0387656	Thrust Bearing	22327	74	0909386	Screw
22435	23	5000615	Drive Shaft	21763	75	0307161	Lockwasher
21139	24	0311538	Pin	22458	76	0331998	Screw
28351	25	0338504	Retainer	21674	77	0330265	Washer
22405	26	0346004	Lower Drive Shaft	12776	78	0436745	Anode
22880	27	0384195	Pinion Bearing	22368	79	0313715	Screw
11190	28	0314730	Nut	85830	80	0320936	Seal
22631	29	0436746	P / Forward Gear Set	85840	81	0320961	Seal
22632	30	0345992	Reverse Gear	86030	82	0330137	Oil Seal
27720	31	0915954	Detent	22360	83	0302325	Screw
27702	32	0391365	Housing & Bearing Assembly	22363	84	0337061	Screw
21105	33	0320145	Pin	21885	85	0337778	Screen
22493	34	0327345	Detent Ball				
11039	35	0911961	Spring				
21138	36	0331880	Pin				
27730	37	0334163	Cradle				
27741	38	0324037	Lever				
27710	39	0322941	Shaft				
21644	40	0324766	Thrust Washer				
16310	41	0385043	Thrust Bearing				
21135	42	0313448	Pin				
22633	43	0323664	Clutch Dog				
11052	44	0324369	Spring				
22419	45	0436834	Prop Shaft				
16300	46	0382408	Thrust Bearing				
21642	47	0314731	Thrust Washer				



# Johnson / Evinrude

## GEARCASE COMPONENTS - V4 90° (1978-1998)

2.00:1 (.50) Gear Ratio



# Johnson / Evinrude

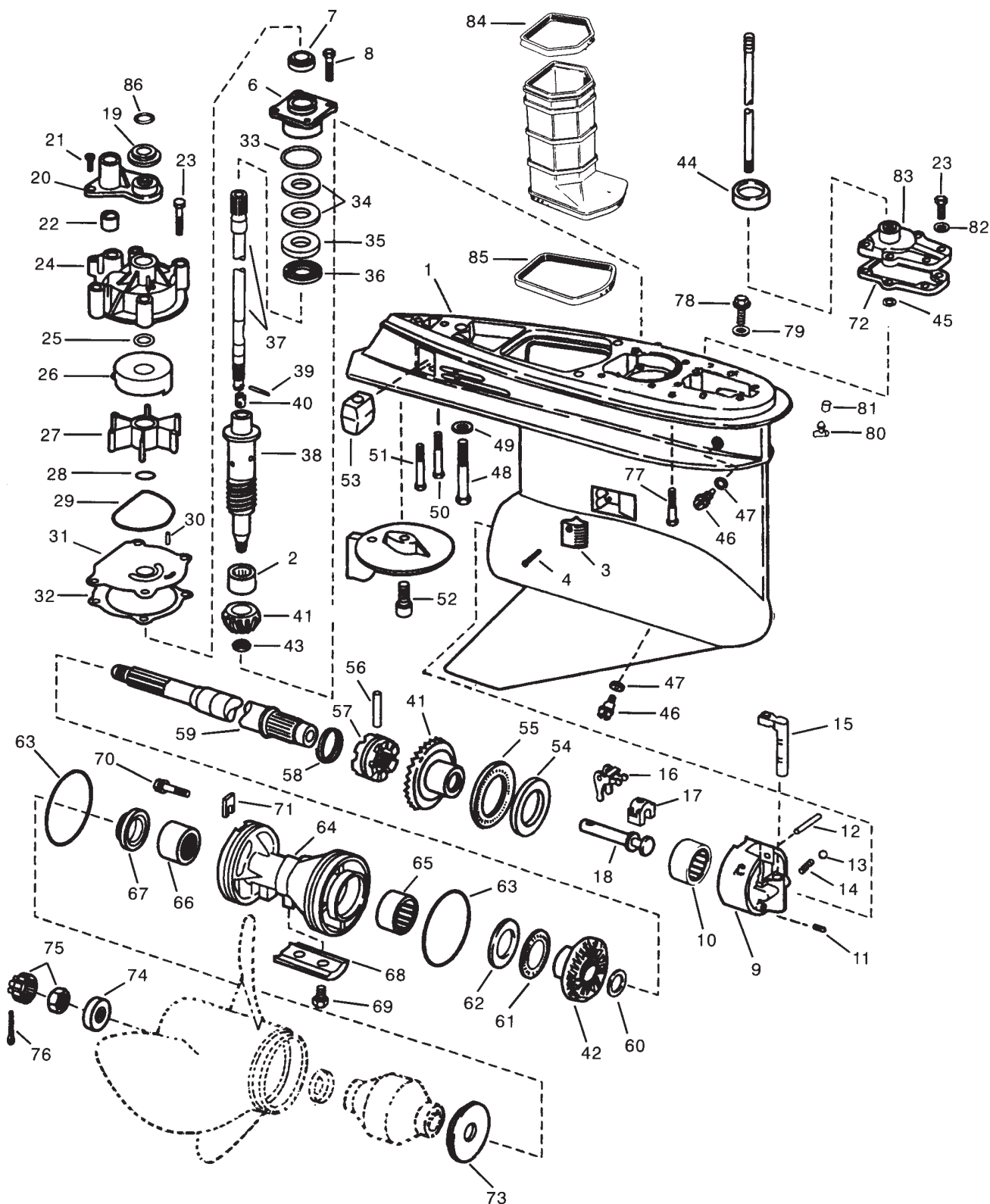
## GEARCASE COMPONENTS - V4 90° (1978-1998)

JML No.	Ref No.	OEM No.	Description	JML No.	Ref No.	OEM No.	Description
28200	1	0431642	Gearcase Assembly	22250	45	0315810	Spacer
12570	2	0338893	Tube Guide	22150	46	0314503	Nut
22370	3	0306643	Screw	22120	47	0314502	Cotter Pin
86490	4	0314088	Grommet	12737	48	0431708	Anode
22360	5	0302325	Screw	22320	49	0908158	Screw
12430	6	0435959	Pump Housing (25" Transom)	22300	50	0316563	Screw & Seal
				86640	51	0332583	Seal
12395	6	0435990	Pump Housing (20" Transom)	86500	52	0321008	Grommet
				22360	53	0302325	Screw
81250	7	0331188	O-ring	33020	54	0324670	Gasket
12880	8	0435027	Cup & Plate Assembly	45200	55	0318372	O-ring
89570	9	5001593	Impeller	22371	56	0331999	Screw
82120	10	0302035	O-ring	21731	57	0318544	Draining Screw
86660	11	0331353	Seal	31171	58	0311598	Gasket
89590	12	0331107	Key	22365	59	0331998	Screw
33730	13	0338484	Gasket	21674	60	0330265	Washer
86011	14	0341280	Oil Seal	22366	61	0328096	Screw
22362	15	0317624	Screw	12776	62	0436745	Anode
22720	16	0439476	Bearing Housing & Seal	22368	63	0313715	Screw
81380	17	0314728	O-ring	27730	64	0334163	Cradle
23590	18	0323362	Shim .003	27741	65	0324037	Lever
23580	18	0323361	Shim .004	27752	66	5006241	Cover & Seal Assembly
23510	18	0314745	Shim .005	21678	67	0328702	Washer
21645	19	0327656	Thrust Washer	21774	68	0313445	Retaining Ring
16330	20	0387656	Thrust Bearing	22493	69	0327345	Detent Ball
22431	21	5000618	Drive Shaft (L)	11039	70	0911961	Spring
22433	21	5000614	Drive Shaft (L)	21105	71	0320145	Pin
22432	21	5000626	Drive Shaft (XL)	27702	72	0391365	Housing & Bearing Assembly
22434	21	5000623	Drive Shaft (XL)	85830	73	0320936	Seal
21139	22	0311538	Pin	85840	74	0320961	Seal
28351	23	0338504	Retainer	86480	75	0320943	Grommet
22409	24	0346006	Lower Drive Shaft	11392	76	0397087	Bearing Carrier
22880	25	0384195	Pinion Bearing	11388	77	N/A	Bearing Carrier
22631	26	0436746	P / Forward Gear Set	22373	78	0350271	Screw
22632	27	0340490	Reverse Gear	27850	79	0333957	Tab
11190	28	0314730	Nut	81165	80	0310585	O-ring
27720	29	0915954	Detent	22870	81	0382407	Bearing
21138	30	0331880	Pin				
27710	31	0322941	Shaft				
21644	32	0324766	Thrust Washer				
16310	33	0385043	Thrust Bearing				
21135	34	0313448	Cross Pin				
22633	35	0323664	Clutch Dog				
11052	36	0324369	Spring				
22416	37	0436888	Prop Shaft				
16300	38	0382408	Thrust Bearing				
21642	39	0314731	Thrust Washer				
82370	40	0313446	O-ring				
22870	41	0382407	Bearing				
22860	42	0379504	Bearing				
86030	43	0330137	Oil Seal				
22230	44	0127084	Thrust Washer				

# Johnson / Evinrude

## GEARCASE COMPONENTS - V4/V6 "O" TYPE (1979-2006)

V4 2.25:1 (.44) Gear Ratio - V6 1.86:1 (.54) Gear Ratio



# Johnson / Evinrude

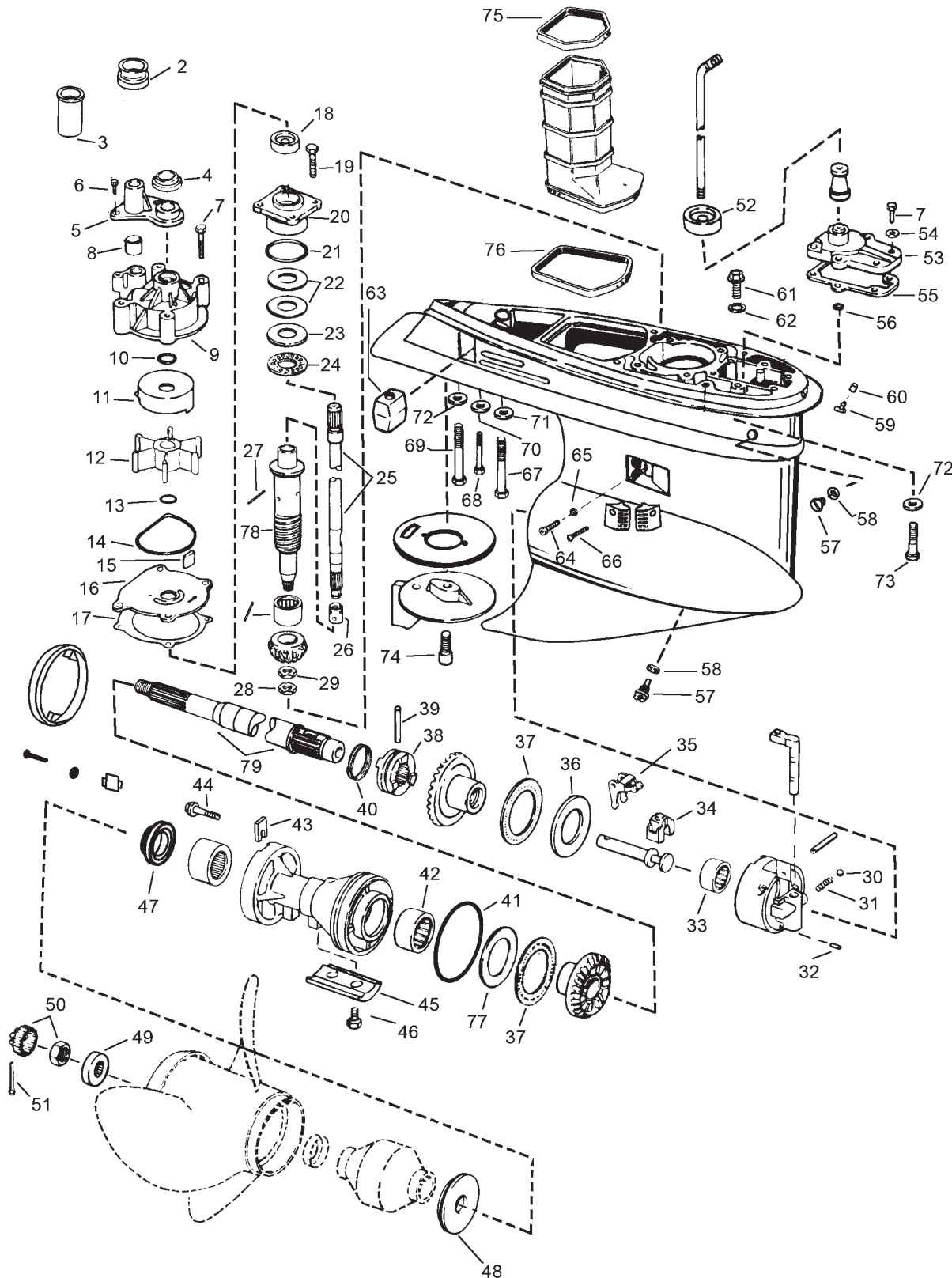
## GEARCASE COMPONENTS - V4/V6 "O" TYPE (1979-2006)

JML No.	Ref No.	OEM No.	Description	JML No.	Ref No.	OEM No.	Description
28700	1	0439973	Gearcase Assembly / Tube	11190	43	0314730	Nut
28800	1	0439972	Gearcase Assembly	86500	44	0321008	Grommet
21610	2	0387817	Pinion Bearing	45200	45	0318372	O-ring
21885	3	0337778	Screen	21731	46	0318544	Draining Screw
22363	4	0337061	Screw	31171	47	0311598	Gasket
85840	5	0320961	Seal	22365	48	0331998	Screw
22720	6	0439476	Bearing Housing & Seal	21674	49	0330265	Washer
86011	7	0341280	Oil Seal	22366	50	0328096	Screw
22362	8	0317624	Screw	22367	51	0330263	Screw
27700	9	0389455	Housing & Bearing Assembly	22368	52	0313715	Screw
22910	10	0389039	Bearing	12776	53	0436745	Anode
21138	11	0331880	Pin	21646	54	0327669	Thrust Washer
21137	12	0328825	Pin	16340	55	0389042	Thrust Bearing
22491	13	0160084	Detent Ball	21135	56	0313448	Cross Pin
11055	14	0911962	Spring	22625	57	0337774	Clutch Dog
27720	15	0915954	Detent	11052	58	0324369	Spring
27740	16	0322938	Lever	22414	59	0395209	Prop Shaft (1-3/16") V6
27730	17	0334163	Cradle	22417	59	5004765	Prop Shaft (1-1/4") V4/V6
27710	18	0322941	Shaft	21651	60	0336565	Thrust Washer
86480	19	0320943	Grommet	16300	61	0382408	Thrust Bearing
12570	20	0338893	Tube Guide	21642	62	0314731	Thrust Washer
22370	21	0306643	Screw	82400	63	0305123	O-ring
86490	22	0314008	Grommet	11406	64	5000074	Bearing Carrier (1-3/16")
22360	23	0302325	Screw	11408	64	5004257	Bearing Carrier (1-1/4")
12430	24	0435959	Pump Housing (25" Transom)	22870	65	0382407	Bearing
12395	24	0435990	Pump Housing (20" Transom)	11410	66	0387247	Bearing (Inside ø 1-3/16")
81250	25	0331188	O-ring	22950	66	0434467	Bearing (Inside ø 1-1/4")
12811	26	0338486	Pump Cup	86012	67	0341281	Oil Seal (1-1/4") 1 pc.
89570	27	5001593	Impeller	85130	67	0320862	Oil Seal (1-3/16") 2 pcs.
82120	28	0302035	O-ring	12737	68	0431708	Anode
86660	29	0331353	Seal	22320	69	0908158	Screw
89590	30	0331107	Key	22373	70	0350271	Screw
12580	31	0338485	Wear Plate	27850	71	0333957	Tab
33730	32	0338484	Gasket	33020	72	0324670	Gasket
81380	33	0314728	O-ring	22221	73	0126870	Thrust Washer
23590	34	0323362	Shim .003	22190	74	0320570	Spacer
23580	34	0323361	Shim .004	22185	75	0398042	Nut & Keeper
23510	34	0314745	Shim .005	22142	76	0306394	Cotter Pin
21645	35	0327656	Thrust Washer	22371	77	0331999	Screw
16330	36	0387656	Thrust Bearing	22374	78	0341220	Screw
22435	37	5000615	Drive Shaft (Long)	21677	79	0437330	Seal Washer
22436	37	5000624	Drive Shaft (XL)	28352	80	0336535	Nipple
22407	38	0345905	Lower Drive Shaft	28353	81	0305749	Cap
21139	39	0311538	Pin	21678	82	0328702	Washer
28351	40	0338504	Retainer	27752	83	5006241	Cover & Seal Assembly
22651	41	0435123	P / Forward Gear Set V4	85830	84	0320936	Seal
22623	41	5004938	P / Forward Gear Set V6	85840	85	0320961	Seal
22653	42	0336574	Reverse Gear V4	81165	86	0310585	O-ring
22624	42	0910994	Reverse Gear V6				
22666	41+42	N/A	Gear Set (Heavy Duty)				

# Johnson / Evinrude

## GEARCASE COMPONENTS - V4/V6 "M" TYPE (2002-2006)

V4 2.25:1 (.44) Gear Ratio - V6 1.86:1 (.54) Gear Ratio



# Johnson / Evinrude

## GEARCASE COMPONENTS - V4/V6 "M" TYPE (2002-2006)

JML No.	Ref No.	OEM No.	Description	JML No.	Ref No.	OEM No.	Description
21610	1	0387817	Pinion Bearing	22190	49	0320570	Spacer
86495	2	0338601	Grommet	22185	50	0398042	Nut & Keeper
12827	3	0338636	Tube Spacer	22142	51	0306394	Cotter Pin
86480	4	0320943	Grommet	86500	52	0321008	Grommet
12570	5	0338893	Tube Guide	27752	53	5006241	Cover & Seal Assembly
22370	6	0306643	Screw	21678	54	0328702	Washer
22360	7	0302325	Screw	33020	55	0352165	Gasket
86490	8	0314008	Grommet	45200	56	0318372	O-ring
12430	9	0435959	Pump Housing	21731	57	0318544	Draining Screw
81250	10	0331188	O-ring	31171	58	0311598	Gasket
12811	11	0338486	Pump Cup	28352	59	0336535	Nipple
89570	12	5001593	Impeller	28353	60	0305749	Cap
82120	13	0302035	O-ring	22374	61	0341220	Screw
86660	14	0331353	Seal	21677	62	0437330	Seal Washer
89590	15	0331107	Key	12776	63	0436745	Anode
12580	16	0338485	Wear Plate	22394	64	0324852	Screw
33730	17	0338484	Gasket	80100	65	0305739	Seal
86011	18	0341280	Oil Seal	22363	66	0337061	Screw
22362	19	0317624	Screw	22365	67	0331998	Screw
22720	20	0439476	Bearing Housing & Seal	22327	68	0909386	Screw
81380	21	0314728	O-ring	22367	69	0330263	Screw
23590	22	0323362	Shim .003	21763	70	0307161	Lockwasher
23580	22	0323361	Shim .004	21674	71	0330265	Washer
23510	22	0314745	Shim .005	21762	72	0330266	Lockwasher
21645	23	0327656	Thrust Washer	22371	73	0331999	Screw
16330	24	0387656	Thrust Bearing	22368	74	0313715	Screw
22433	25	5000614	Drive Shaft 20" L	85830	75	0320936	Seal
22434	25	5000623	Drive Shaft 25" L	85840	76	0320961	Seal
22436	25	5000624	Drive Shaft 25" L	21654	77	0349193	Thrust Washer
28351	26	0338504	Retainer	22403	78	0347371	Lower Drive Shaft
21139	27	0311538	Pin	22417	79	5004765	Prop shaft
11190	28	0314730	Nut				
32800	29	0350038	Washer				
22491	30	0160084	Detent Ball				
11055	31	0911962	Spring				
21138	32	0331880	Pin				
22910	33	0389039	Bearing				
27730	34	0334163	Cradle				
27740	35	0322938	Lever				
21646	36	0327669	Thrust Washer				
16340	37	0389042	Thrust Bearing				
22625	38	0337774	Clutch Dog				
21135	39	0313448	Cross Pin				
11052	40	0324369	Spring				
82440	41	0326849	O-ring				
22870	42	0382407	Bearing				
27850	43	0333957	Tab				
22373	44	0350271	Screw				
12737	45	0431708	Anode				
22320	46	0908158	Screw				
86012	47	0341281	Oil Seal - 1 pc.				
22221	48	0126870	Thrust Washer				



# Johnson / Evinrude

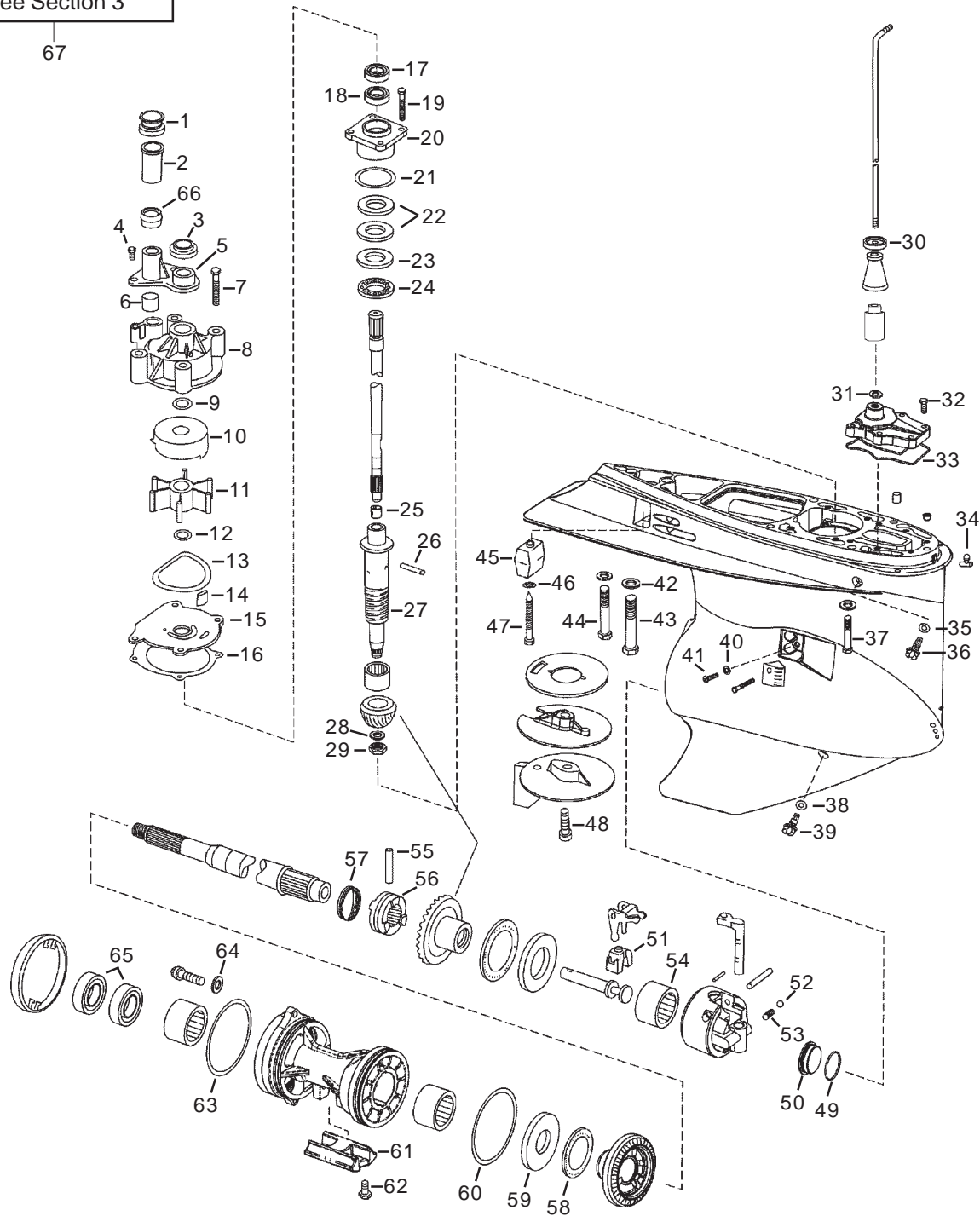
## GEARCASE COMPONENTS - "M2" TYPE, 60° V6 150-200 HP & 90° V6 200-300 HP

60° V6 (25") & 90° V6 (20" & 25"), Standard Rotation

### Gearcase Seal Kit

**No. 87623**

See Section 3



# Johnson / Evinrude

## GEARCASE COMPONENTS - "M2" TYPE, 60° V6 150-200 HP & 90° V6 200-300 HP

JML No.	Ref No.	OEM No.	Description	JML No.	Ref No.	OEM No.	Description
86495	1	0338601	Grommet	27730	51	0334163	Cradle
12827	2	0354580	Tube Spacer (Short)	22491	52	0160084	Detent Ball
86480	3	0354580	Grommet	11055	53	0911962	Spring
22370	4	0306643	Screw	22910	54	0389039	Bearing
12570	5	0338893	Tube Guide	21135	55	0313448	E-ring (Pin)
86490	6	0314008	Grommet	22625	56	0337774	Clutch Dog
22360	7	0302325	Screw	11052	57	0324369	Spring
12395	8	0435959	Pump Housing	16300	58	0382408	Thrust Bearing
81250	9	0322501	O-ring	21641	59	0313447	Thrust Washer
12811	10	0338486	Pump Cup	82430	60	0911700	O-ring
89570	11	5001593	Impeller Kit	12737	61	0431708	Aluminum Anode
82120	12	0302035	O-ring	22320	62	0908158	Screw
86660	13	0331353	Plate Seal	82430	63	0911700	O-ring
89590	14	0331107	Key	21659	64	0328743	Washer
12580	15	0338485	Wear Plate	86810	65	0334950	Oil Seal
33730	16	0338484	Gasket	86489	66	0349354	Grommet (20" models)
86240	17	0329922	Oil Seal	87623	67	5007700	Gearcase Seal Kit
86250	18	0329923	Oil Seal				
22362	19	0317624	Screw				
22720	20	0439476	Bearing Housing & Seal				
81380	21	0354731	O-ring				
23590	22	0323362	Shim .003				
23580	22	0323361	Shim .004				
23510	22	0314745	Shim .005				
21645	23	0327656	Thrust Washer				
16330	24	0387656	Thrust Bearing				
28351	25	0338504	Retainer				
21139	26	0311538	Pin				
22403	27	0347371	Lower Drive Shaft				
32800	28	0350038	Washer				
11190	29	0314730	Pinion Nut				
86500	30	0321008	Grommet				
45200	31	0318372	O-ring				
22351	32	0328725	Screw				
86642	33	0353162	Seal				
28352	34	0336535	Pilot Tube				
31171	35	0311598	Gasket				
21731	36	0318544	Draining Screw Set				
22371	37	0331999	Screw				
31171	38	0311598	Gasket				
21731	39	0318544	Draining Screw Set				
86659	40	0332584	Seal				
22394	41	0324852	Screw				
21674	42	0330265	Washer				
22365	43	0914535	Screw				
22367	44	0330263	Screw				
12776	45	0436745	Aluminum Anode				
21763	46	0307161	Lockwasher				
22327	47	0341219	Screw				
22368	48	0313715	Screw				
81380	49	0354731	O-ring				
27731	50	5007386	Plug				



## Section 3

### Johnson / Evinrude Gearcase Kits

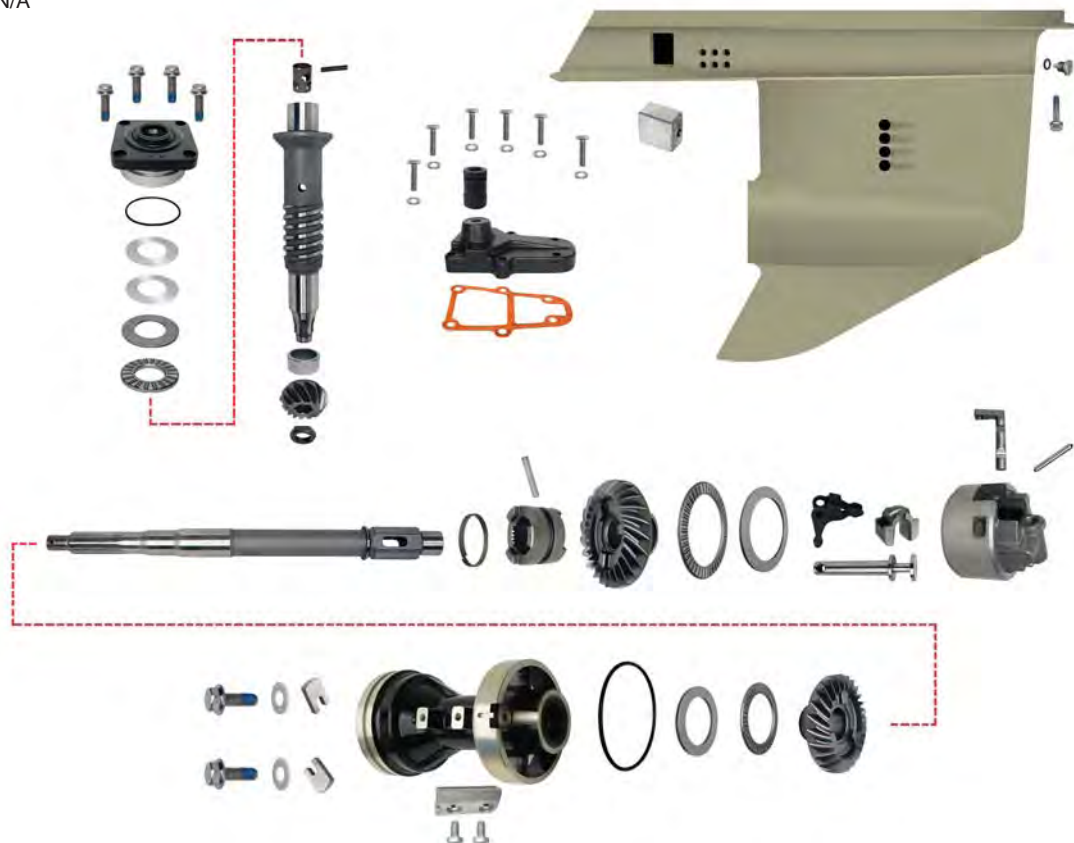
<i>Complete Small Gearcase Assembly Kits - V4 90° .....</i>	<i>40</i>
<i>Rebuild Kits - Small Gearcase - V4 90° .....</i>	<i>40</i>
<i>Complete Small Gearcase Assembly Kits - V4 60° .....</i>	<i>41</i>
<i>Rebuild Kits - Small Gearcase - V4 60° .....</i>	<i>41</i>
<i>Complete Gearcase Assembly Kits - V4/V6 "O" Type .....</i>	<i>42</i>
<i>Gearcase Rebuild Kits - V4/V6 "O" Type .....</i>	<i>42</i>
<i>Gearcase Seal Kits .....</i>	<i>43</i>
<i>Gearcase Seal Kits - Mechanical Shift Thru-Prop Exhaust .....</i>	<i>44</i>
<i>Gearcase Seal Kits - Electric Shift w/ Cavitation Plate Exhaust ...</i>	<i>45</i>
<i>Gearcase Seal Kits - Electric/Hydraulic Shift Thru-Prop Exhaust</i>	<i>45</i>
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<i>Gearcase Seal Kits Applications .....</i>	<i>47</i>

# Johnson / Evinrude

## COMPLETE SMALL GEARCASE ASSEMBLY KITS - V4 90°

**No. 28220**

OEM: N/A



## REBUILD KITS - SMALL GEARCASE - V4 90°

**No. 28240**

OEM: N/A

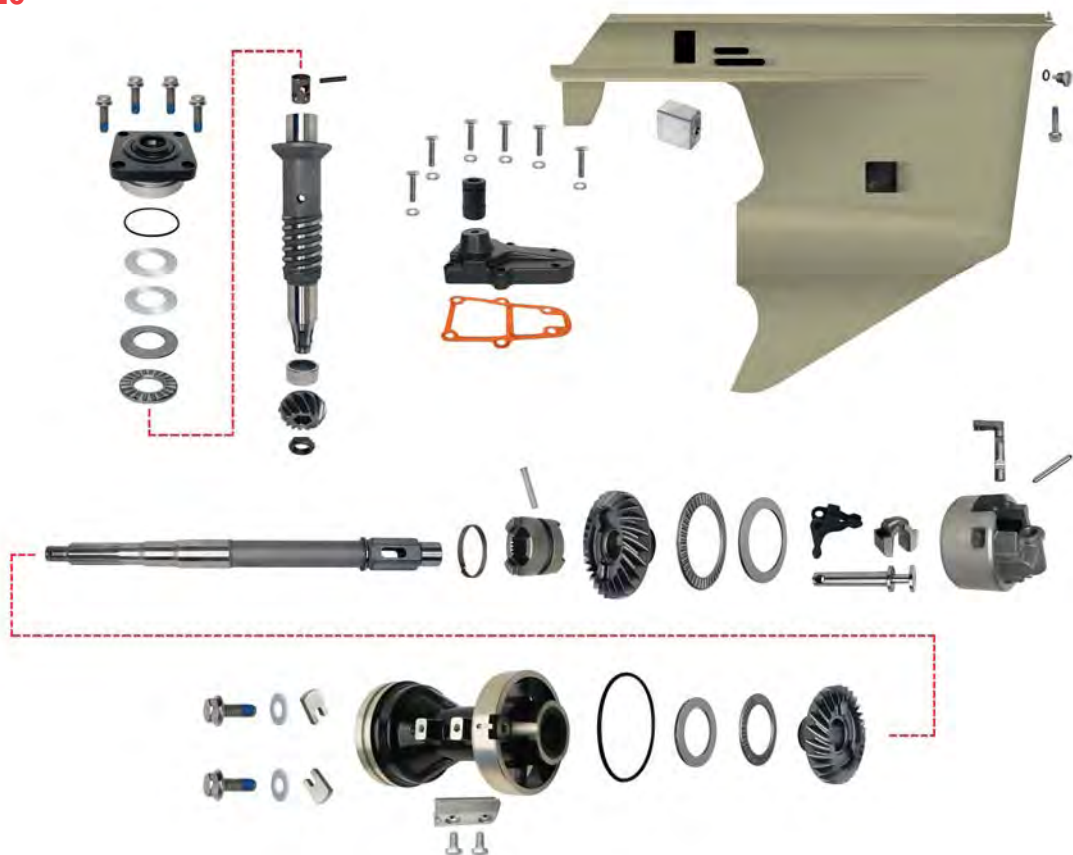


# Johnson / Evinrude

## COMPLETE SMALL GEARCASE ASSEMBLY KITS - V4 60°

**No. 28520**

OEM: N/A



## REBUILD KITS - SMALL GEARCASE - V4 60°

**No. 28540**

OEM: N/A





# Johnson / Evinrude

## COMPLETE GEARCASE ASSEMBLY KITS - V4/V6 "O" TYPE

### No. 28720

OEM: N/A  
0.54 Ratio, Pitot Tube  
Speedometer Pick-up  
For V6

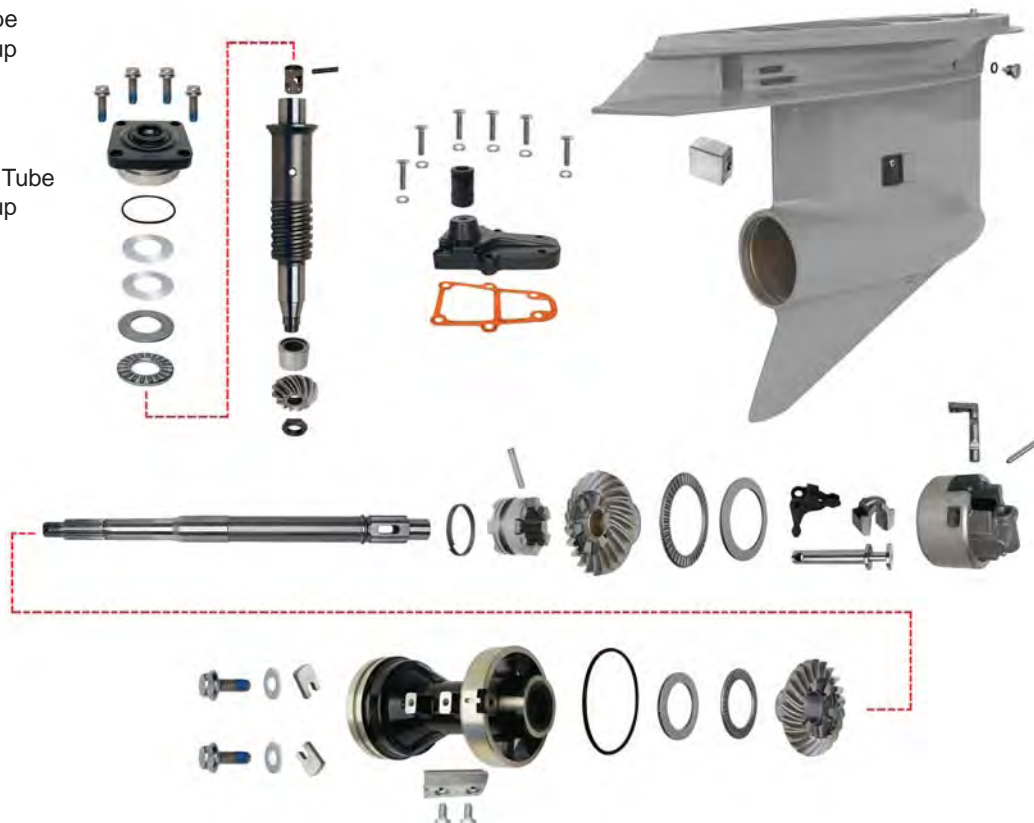
### No. 28840

OEM: N/A  
0.54 Ratio, No Pitot Tube  
Speedometer Pick-up  
For V6

### No. 28882

OEM: N/A  
0.44 Ratio  
For V4

All Prop Shafts  $\varnothing$  1-1/4"  
V6 comes with JML No. 22666 HD Gear Set



## GEARCASE REBUILD KITS - V4/V6 "O" TYPE (1991 & Up)

### No. 28850

OEM: N/A  
0.54 Ratio  
For V6

### No. 28885

OEM: N/A  
0.44 Ratio  
For V4

All Prop Shafts  $\varnothing$  1-1/4"  
V6 comes with JML No. 22666 HD Gear Set



# Johnson / Evinrude

## GEARCASE SEAL KITS

### No. 87600

OEM: 5006373



**Fits All V4/V6/V8 (1978-2006) Outboard Engines with a Mechanical Shift Gearcase**

#### Kit Contains:

GLM	OEM	ITEM
86030 (2)	0330137	Prop Shaft Seal V4
85130 (2)	0320862	Prop Shaft Seal V4, V6 1-3/16" shaft
86012	0341281	Prop Shaft Seal V4, V6 1-1/4" shaft
85120 (2)	0321453	Drive Shaft Seal (1985 & Before)
86011	0341280	Drive Shaft Seal
86240	0329922	Drive Shaft Oil Seal
86250	0329923	Drive Shaft Oil Seal
81165	0310585	Drive Shaft to Crankcase O-ring
82370	0313446	Prop Shaft Carrier O-ring V4 90° Gearcase
82440 (3)	0326849	Prop Shaft Carrier O-ring V6 60° Gearcase
82400 (2)	0305123	Prop Shaft Carrier O-ring "O" & "M" Type Gearcase
81380	0314728	Drive Shaft Carrier O-ring
45200 (2)	0318372	Shift Cover O-ring
33020	0324670	Shift Cover Gasket
33730	0338484	Water Pump Gasket
21677	0437330	Pitot Hole Plug Sealing Washer
21731 (2)	0318544	Drain Plug and Gasket
*22300 (4)	0316563	Prop Shaft Carrier Screw and Seal

### No. 87623

OEM: 5007700



**"M2" Type 150-200 HP 60° V6 (25"), 200-300 HP 90° V6 (20" & 25") & 150-300 E-TEC SLE (2008-AB)**

#### Kit Contains:

GLM	OEM	ITEM
27731	5007386	Plug
31171 (2)	0311598	Gasket
33730	0338484	Gasket
45200	0318372	O-ring
81386	0314728	O-ring
86240	0329922	Oil Seal
86250	0329923	Oil Seal
86642	0353162	Seal
86810 (2)	0334950	Oil Seal

## See the Difference!

**\*GLM's Carrier Screws No. 22300 and No. 22400 come with ND Plastisol™ Treatment**

### Their Screws

Q or O-ring screws are difficult to seat properly. They tear and lose integrity with vibration.



O-ring screws

**Good.**



ND Plastisol™ screws

### GLM Screws

ND Plastisol™ treatment screws provide a positive seal that eliminates leaks. They cushion, insulate, control noise and reduce vibration.

**Better!**

# Johnson / Evinrude

## GEARCASE SEAL KITS

### Mechanical Shift Thru-Prop Exhaust

**No. 87602**

OEM: 0396350



9.9, 15 HP (1974-Thru)  
9.9, 15 HP 4-Stroke (1974-Thru)

**No. 87681**

OEM: 5007987



15, 25, 30 HP  
E-TEC (2009-AA)

**No. 87680**

OEM: 0396351



2-Cyl. Crossflow 20, 25, 30, 35 HP  
Thru-Prop Exhaust

**No. 87614**

OEM: 0433550



Small Housing  
40, 48, 50 HP, 2-Cyl. Loopcharged (1989-2005)

**No. 87603**

OEM: 0396355



Small Housing  
2-Cyl. Loopcharged 40-60 (1975-1988)  
3-Cyl. Loopcharged 60-75 (1975-1988)

**No. 87601**

OEM: 5000309



Large Housing  
2-Cyl. Loopcharged 40-60 HP (1975-2006)  
3-Cyl. Loopcharged 60-75 HP (1975-2001)

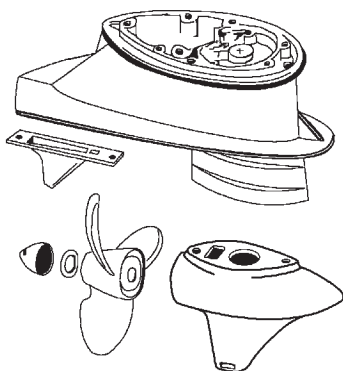


# Johnson / Evinrude

## GEARCASE SEAL KITS

### Electric Shift with Cavitation Plate Exhaust

Use JML Seal Kits  
No. 87608, No. 87621 for these  
electric shift gearcases.



#### No. 87608

OEM: N/A



V4 Electric Shift  
(1962-1968)

#### No. 87621

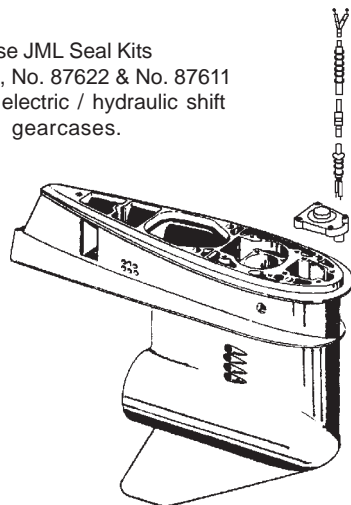
OEM: N/A



40 HP Electric Shift  
(1962-1970)

### Electric / Hydraulic Shift Thru-Prop-Exhaust

Use JML Seal Kits  
No. 87609, No. 87622 & No. 87611  
for these electric / hydraulic shift  
gearcases.



#### No. 87609

OEM: N/A



3-Cyl., 60 HP Loopcharged  
(1970-1971)

#### No. 87622

OEM: N/A



2-Cyl. Loopcharged  
(1971-1974)

#### No. 87611

OEM: N/A



55, 100, 125 HP V4 Crossflow  
(1971-1972)

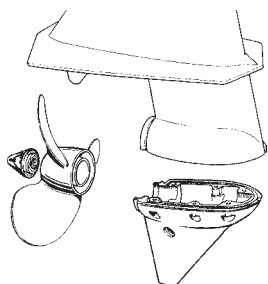
# Johnson / Evinrude

## GEARCASE SEAL KITS

### Two-Piece Gearcase with Cavitation Plate Exhaust

Use JML Seal Kits

No. 87604, No. 87605, No. 87606, No. 87607  
No. 87616, No. 87617, No. 87618, No. 87619  
& No. 87690 for these two-piece gearcases.



#### No. 87604

OEM: N/A



5.5, 6 HP  
Two-Piece Gearcase Cavitation Plate Exhaust  
(1955-1967)

#### No. 87605

OEM: N/A



10 HP  
Two-Piece Gearcase Cavitation Plate Exhaust  
(1958-1967)

#### No. 87606

OEM: N/A



18 HP  
Two-Piece Gearcase Cavitation Plate Exhaust  
(1958-1965)

#### No. 87607

OEM: N/A



25, 28, 30, 33-35, 40 HP, Manual Shift  
Two-Piece Gearcase Cavitation Plate Exhaust  
(1955-1973)

#### No. 87616

OEM: N/A



6 HP  
Two-Piece Gearcase Cavitation Plate Exhaust  
(1967-1968)

#### No. 87617

OEM: N/A



6 HP  
Two-Piece Gearcase Cavitation Plate Exhaust  
(1968-1979)

#### No. 87619

OEM: N/A



20HP, 25 HP  
Two-Piece Gearcase  
Cavitation Plate Exhaust  
(1979-1982)

#### No. 87690

OEM: 0396352



25, 28 HP  
Two-Piece Gearcase  
Cavitation Plate Exhaust  
(1985-Up)

#### No. 87618

OEM: N/A



9.5 HP  
Two-Piece Gearcase Cavitation Plate Exhaust  
(1967-1973)



# Johnson / Evinrude

## GEARCASE SEAL KITS APPLICATIONS

Models	Year	Seal Kit	Models	Year	Seal Kit
5.5	1955-67	87604	90 Elect.	1964-65	87608
6	1955-67	87604	90 V4	1973-83	87600
6	1967-68	87616	90	1985-Up	87600
6	1968-79	87617	100 Large Prop Shaft	1971-72	87611
7.5	1955-67	87604	100 V4	1973-83	87600
9.5 M Suffix	1958-67	87605	100 Comm.	1984-95	87600
9.5 B Suffix	1967-73	87618	100	1991-01	87600
9.9/15	1974-Up	87602	110 V4	1973-83	87600
15 / 25 / 30 E-TEC®	2009-AA	87681	110	1985-Up	87600
10	1958-67	87605	115 Small Prop Shaft	1969-71	87609
18	1958-65	87606	115 V4	1973-83	87600
20	1966-73	87606	115	1985-Up	87600
20	1981-82	87619	120	1985-92	87600
20	1985-Up	87680	120	1993-Up	87600
25	1955-59	87607	125 Large Prop Shaft	1971-72	87611
25	1969-78	87606	125	1991-98	87600
25	1979-82	87619	125 Comm.	1991-93	87600
25	1984	87690	135 V4	1973-83	87600
25	1985-Up	87680	140 V4	1973-83	87600
25	1990-95	87614	140	1985-94	87600
25 Comm.	1985-Up	87690	150 V6	1978-86	87600
28	1962-70	87607	150	1991-95	87600
28	1985-Up	87690	150 60° V6 (25 inch)	-	87623
30	1955-59	87607	155 Comm.	1984-93	87600
30	1976-95	87680	175 V6	1977-86	87600
33	1962-70	87607	175	1991-Up	87600
35	1955-59	87607	185	1991-93	87600
35	1977-92	87680	200 V6	1976-86	87600
40 Manual Shift	1960-73	87607	200	1991-Up	87600
40 Elect. Shift	1962-70	87621	200 60° V6 (25 inch)	-	87623
40	1976-88	87603	200 90° V6 (20 & 25 inch)	-	87623
40	1989-Up	87614	V6	1979-92	87600
48	1976-88	87603	225	1991-95	87600
48	1989,92-93	87614	235 V6	1977-86	87600
50	1971-74	87622	V8	1985-91	87600
50	1976-88	87603	250 V8	1991-95	87600
50	1989-Up	87614	300 90° V6 (20 & 25 inch)	-	87623
55	1968-69	87609	300 V8	1991-95	87600
55	1976-88	87603	150 thru 300 Evinrude E-TEC SLE	2008-AB	87623
60 Elect.	1960-68	87608			
60	1970-71	87609			
60 2-Cyl.	1976-88	87603			
60 3-Cyl.	1978-01	87601			
65 Elect.	1960-68	87608	<b>OMC SEA DRIVE</b>		
65	1978-01	87601			
70	1978-01	87601	<b>Model</b>	<b>Year</b>	<b>Seal Kit</b>
75 Elect.	1960-68	87608	1.6 L	1985-90	87600
75	1978-01	87601	1.8 L	1987	87600
75 Small Gearcase	1976-88	87603	2.0 L	1988-90	87600
V4	1978-84	87600	2.5 L	1984-85	87600
85 Elect.	1968	87608	2.6 L	1984-86	87600
85 Small Prop Shaft	1969-71	87609	2.7 L	1987	87600
85 Large Prop Shaft	1971-72	87611	3.0 L	1988-90	87600
85 V4	1973-83	87600	3.6 L	1987	87600
85	1991-95	87600	4.0 L	1989-90	87600
88	1985-Up	87600			





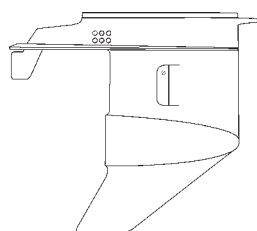
## Section 4

### Johnson / Evinrude Gears and Clutch Dogs

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<i>Lower Gear Housing Gears - 2 &amp; 3 -Cyl. Loopcharged .....</i>	<i>51-52</i>
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# Johnson / Evinrude

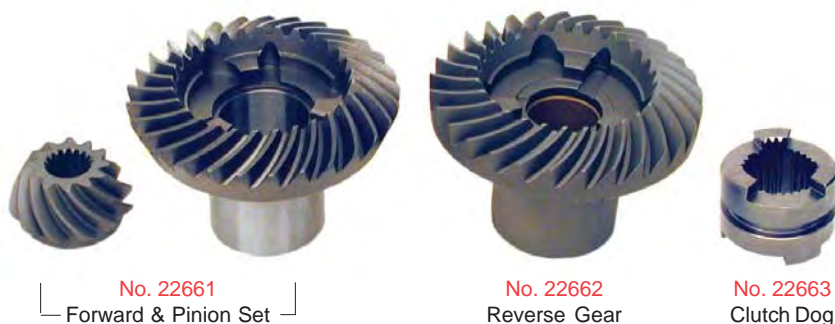
## LOWER GEAR HOUSING GEARS - 2-CYLINDER LOOPCHARGED



### 2-Cylinder Loopcharged 40-50 HP (1989-2005) with Small\* Gear Housing - "New" Style

\* The 2-Cylinder loopcharged engines were available with a large or small gear housing.

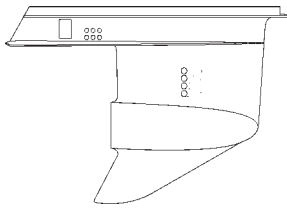
2.42:1 Ratio  
.41 Ratio



<b>COMPLETE GEAR SET</b> - Forward/Pinion/Reverse - 12/29 teeth - Comes with the JML No. 22663 clutch	<b>JML No. 22660</b>	OEM No. N/A
<b>FORWARD &amp; PINION SET</b> - 12/29 teeth	<b>JML No. 22661</b>	OEM No. 0397627
<b>REVERSE GEAR</b> - 29 teeth	<b>JML No. 22662</b>	OEM No. 0332489
<b>CLUTCH</b>	<b>JML No. 22663</b>	OEM No. 0332491

# Johnson / Evinrude

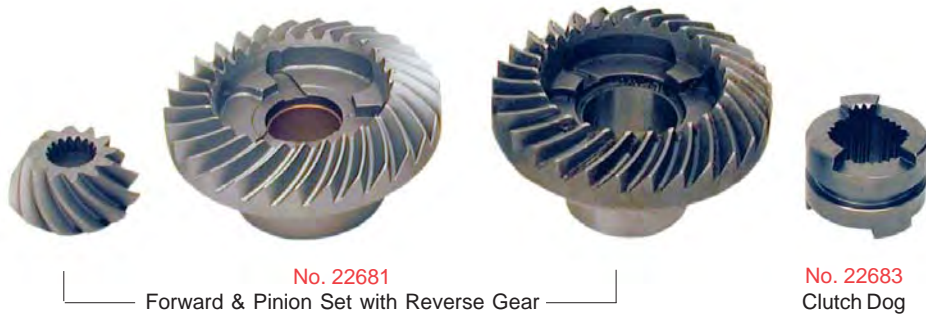
## LOWER GEAR HOUSING GEARS - 2 & 3-CYLINDER LOOPCHARGED



**2-Cyl. Loopcharged 40-60 HP (1975-1988)**  
**3-Cyl. Loopcharged 60-75 HP (1975-1988)**  
**with Small\* Gear Housing - “Old” Style**

\* The 2-Cylinder and 3-Cylinder loopcharged engines were available with a large or small gear housing.

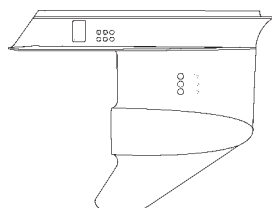
2.42:1 Ratio  
.41 Ratio



<b>COMPLETE GEAR SET</b> <ul style="list-style-type: none"><li>- Forward/Pinion/Reverse</li><li>- 12/29 teeth</li><li>- Comes with the JML No. 22683 clutch</li></ul>	<b>JML No. 22680</b>	OEM No. N/A
<b>FORWARD &amp; PINION SET with REVERSE GEAR</b> <ul style="list-style-type: none"><li>- 12/29 teeth</li></ul>	<b>JML No. 22681</b>	OEM No. 0433570
<b>CLUTCH</b>	<b>JML No. 22683</b>	OEM No. 0319895

# Johnson / Evinrude

## LOWER GEAR HOUSING GEARS - 2 & 3-CYLINDER LOOPCHARGED



**2-Cyl. Loopcharged 40-60 HP (1986-2006)**  
**3-Cyl. Loopcharged 60-75 HP (1975-2001)**  
**with the Large\* Gear Housing**

\* The 2-Cylinder and 3-Cylinder loopcharged engines were available with a large or small gear housing.

2.42:1 Ratio  
 .41 Ratio



No. 22671  
 Forward & Pinion Set



No. 22672  
 Reverse Gear

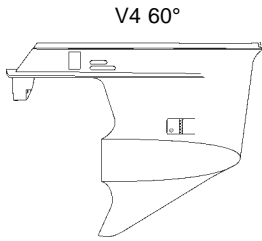


No. 22673  
 Clutch Dog

<b>COMPLETE GEAR SET</b> - Forward/Pinion/Reverse - 12/29 teeth - Comes with the JML No. 22673 clutch	<b>JML No. 22670</b>	OEM No. N/A
<b>FORWARD &amp; PINION SET</b> - 12/29 teeth	<b>JML No. 22671</b>	OEM No. 0397338
<b>REVERSE GEAR</b> - 29 teeth	<b>JML No. 22672</b>	OEM No. 0318304
<b>CLUTCH</b>	<b>JML No. 22673</b>	OEM No. 0318303

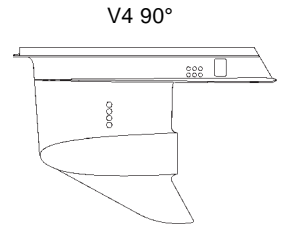
# Johnson / Evinrude

## LOWER GEAR HOUSING GEARS - V4 60° & V4 90°



V4 60°

### V4 60° & V4 90° Replacement Gears for the Small\* Gear Housing



V4 90°

These gear sets are an exact copy of the gears used in the 1978-2006 V4 Johnson / Evinrude Outboards with the small gear housing.

\* The V4 engines were available with a large or small gear housing.

2:1 Ratio  
.50 Ratio



No. 22631  
Forward & Pinion Set

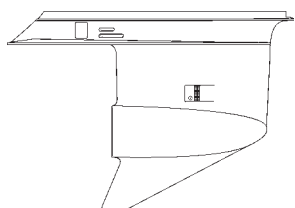
No. 22632  
Reverse Gear

No. 22633  
Clutch Dog

<b>COMPLETE GEAR SET</b> - Forward/Pinion/Reverse - 13/26 teeth - Comes with the JML No. 22633 clutch	<b>JML No. 22630</b>	OEM No. N/A
<b>FORWARD &amp; PINION SET</b> - May be used with OMC reverse gear - 13/26 teeth	<b>JML No. 22631</b>	OEM No. 0436746
<b>REVERSE GEAR</b> - May be used with OMC forward and pinion gears - 26 teeth	<b>JML No. 22632</b>	OEM No. 0345992
<b>CLUTCH</b>	<b>JML No. 22633</b>	OEM No. 0323664

# Johnson / Evinrude

## LOWER GEAR HOUSING GEARS - V4 90° "O" TYPE



### V4 90° Replacement Gears for the Large\* "O" Type Gear Housing

These gear sets are an exact copy of the gears used in the 1978-2006 V4 Johnson / Evinrude Outboards with the large "O" type gear housing.

\* The V4 engines were available with a large or small gear housing.

2.25:1 Ratio  
.44 Ratio

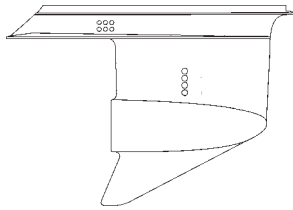


<b>COMPLETE GEAR SET</b> - Forward/Pinion/Reverse - 12/27 teeth - Comes with the JML No. 22625 clutch	<b>JML No. 22650</b>	OEM No. N/A
<b>FORWARD &amp; PINION SET</b> - 12/27 teeth	<b>JML No. 22651</b>	OEM No. 0435123
<b>REVERSE GEAR</b> - 27 teeth	<b>JML No. 22653</b>	OEM No. 0336574
<b>CLUTCH</b>	<b>JML No. 22625</b>	OEM No. 0337774 OEM No. 0914716



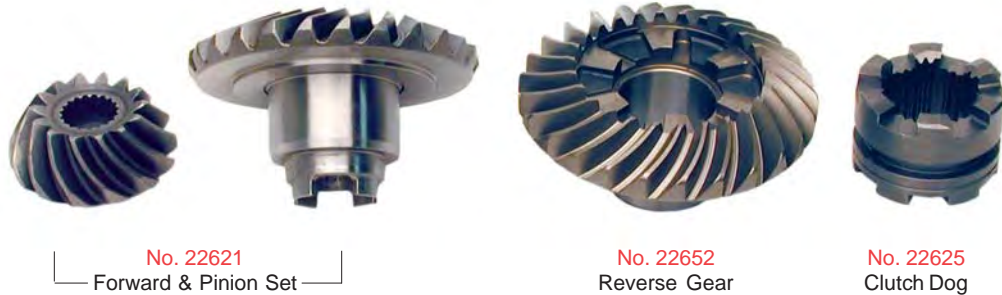
# Johnson / Evinrude

## LOWER GEAR HOUSING GEARS - V6 MECHANICAL/HYDRAULIC SHIFT



### V6 Mechanical/Hydraulic Shift 200 HP (1976) 175, 200 HP (1977) 150, 175, 200, 235 HP (1978)

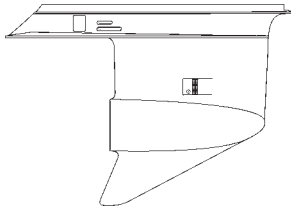
These gear sets are an exact copy of the gears used in the first V6 Johnson / Evinrude Outboards gear housings.  
Forward gear drives a hydraulic pump.



<b>COMPLETE GEAR SET</b> <ul style="list-style-type: none"><li>- Forward/Pinion/Reverse</li><li>- 14/26 teeth</li><li>- Comes with the JML No. 22625 clutch</li></ul>	<b>JML No. 22620</b>	OEM No. N/A
<b>FORWARD &amp; PINION SET</b> <ul style="list-style-type: none"><li>- 14/26 teeth</li></ul>	<b>JML No. 22621</b>	OEM No. 5004941
<b>REVERSE GEAR &amp; CLUTCH</b> <ul style="list-style-type: none"><li>- 26 teeth</li></ul>	<b>JML No. 22652</b>	OEM No. 0437297
<b>CLUTCH</b>	<b>JML No. 22625</b>	OEM No. 0337774 OEM No. 0914716 OEM No. 0915272

# Johnson / Evinrude

## LOWER GEAR HOUSING GEARS - V6 90° "O" TYPE



### V6 90° Replacement Gears for the "O" Type Gear Housing

These gear sets are an exact copy of the gears used in the 1978-2006 V6 Johnson / Evinrude Outboards with the large "O" type gear housing.

1.86:1 Ratio  
.54 Ratio



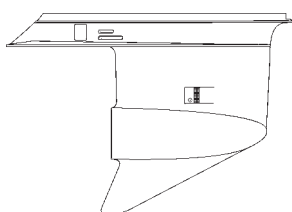
<b>COMPLETE GEAR SET</b> - Forward/Pinion/Reverse - 14/26 teeth - Comes with the JML No. 22625 clutch	<b>JML No. 22622</b>	OEM No. 5004218
<b>FORWARD &amp; PINION SET</b> - May be used with OMC reverse gear - 14/26 teeth	<b>JML No. 22623</b>	OEM No. 0435020 OEM No. 5004216 OEM No. 5004938
<b>REVERSE GEAR</b> - May be used with OMC forward and pinion gears - 26 teeth - Includes thrust washer No. 21651*	<b>JML No. 22624</b>	OEM No. 0336561 OEM No. 0910994
<b>CLUTCH</b>	<b>JML No. 22625</b>	OEM No. 0337774

\* For model year 1991 Johnson / Evinrude increased the prop shaft diameter at the carrier needle bearing (not the prop splines) from 1-3/16" to 1-1/4". Some older gearcases may be fitted with the new large diameter prop shaft. The large diameter prop shaft utilizes a thrust washer (included with this gear set) between the prop shaft and reverse gear. Discard the thrust washer when using the small diameter prop shaft.



# Johnson / Evinrude

## LOWER GEAR HOUSING GEARS - V6 90° HEAVY DUTY



### V6 90° HEAVY DUTY Replacement Gears for the “O” Type Gear Housing

When all three gears need to be replaced in your V6 Johnson / Evinrude Outboard the installation of the new JML No. 22666 heavy-duty gear set is highly recommended. The heavy-duty gear sets can be used with all V6 outboards from 1979-2006 with the “O” type gear housings. It is recommended that the new clutch JML No. 22625 also be installed with the heavy-duty gears.



**Gear Set JML No. 22666**

#### **IMPORTANT NOTE:**

*The new heavy-duty JML No. 22666 gears will not interchange with the standard gears. For individual gear replacement, you must use the standard duty JML No. 22623 pinion and forward gears or the JML No. 22624 reverse gear.*

#### ✓ **STRONGER**

OEM gear sets are machined from 8620 forged steel. The JML gear set is machined from a higher alloy forged steel. The stronger teeth and higher alloy steel results in a gear that is 50% stronger than any other comparable gear set. These durable gears are capable of operating with up to 300 horsepower.

#### ✓ **MORE DURABLE**

The new JML gear set has fewer, larger, and stronger teeth. The pinion gear has 12 teeth and the forward and reverse gears have 22 teeth. The original OEM gear set has 14 teeth on the pinion and 26 teeth on the forward and reverse gears.

#### ✓ **QUIETER**

During the gear machining process, an additional pass is made over each tooth for a finer surface. This makes the gear operation especially quiet.

# Johnson / Evinrude

## GEAR SET APPLICATIONS 2 & 3-CYL. & V4

HP	Year	Complete Gear Set w/ Clutch	Forward & Pinion	Reverse Gear	Clutch
<b>2 &amp; 3-Cyl. Loopcharged</b>					
25D Small Gearcase	1989-95	22660	22661	22662	22663
35 (AR, AE & AT Only) Small Gearcase	1987	22680	22681	22681	22683
40 Small Gearcase	1984-88	22680	22681	22681	22683
40 Small Gearcase	1989-97	22660	22661	22662	22663
48 Small Gearcase	1987-88	22680	22681	22681	22683
48 Small Gearcase	1989-96	22660	22661	22662	22663
50 Small Gearcase	1979-88	22680	22681	22681	22683
50 Small Gearcase	1989-97	22660	22661	22662	22663
50 (S CYD Model) Large Gearcase	1995-97	22670	22671	22672	22673
55 Electric Start Small Gearcase	1979-81	22680	22681	22681	22683
60 Electric Start Small Gearcase	1980-85	22680	22681	22681	22683
60 (3-Cyl. 20" Model) Large Gearcase	1986-97	22670	22671	22672	22673
65 Comm. Large Gearcase	1984-97	22670	22671	22672	22673
70 E Model Large Gearcase	1975	22670	22671	22672	22673
70 20" Model Large Gearcase	1976-97	22670	22671	22672	22673
75 20" Model Large Gearcase	1975-88	22670	22671	22672	22673
<b>V4</b>					
85	1977	-	-	22632	22633
85	1978-80, 1991-95	22630	22631	22632	22633
88	1987-96	22630	22631	22632	22633
90	1981-97	22630	22631	22632	22633
90 V4 60° 2.25:1 "O" Gearcase	1995-99	22650	22651	22653	22625
100	1979-80	22630	22631	22632	22633
100	1989-90	22630	22631	22632	22633
100 2.25:1 "O" Gearcase	1991	22650	22651	22653	22625
100 Comm. (S Prefix Only)	1989-90	22630	22631	22632	22633
100 Comm. 2.25:1 "O" Gearcase	1987, 92, 93	22650	22651	22653	22625
100 Comm. D 2.25:1 "O" Gearcase	1994-99	22650	22651	22653	22615
100 Comm. (E J Models) 2.25:1 "O" Grcs.	1989	22650	22651	22653	22625
100 Comm. (2 Pcs. D/Shaft) 2.25:1 "O" Grcs.	1990	22650	22651	22653	22625
110	1986-89	22630	22631	22632	22633
112	1994-96	22630	22631	22632	22633
115	1977	22630	22631	22632	22633
115	1990-97	22630	22631	22632	22633
115 V4 60° 2.25:1 "O" Gearcase	1995-99	22650	22651	22653	22625
120	1986-92	22630	22631	22632	22633
120 2.25:1 "O" Gearcase	1990	22650	22651	22653	22625
120 TL, TX	1993	22630	22631	22632	22633
120 TX 2.25:1 "O" Gearcase	1993	22650	22651	22653	22625
125 Comm. (ESX Prefix Only)	1989-90	22630	22631	22632	22633
125 Comm. 2.25:1 "O" Gearcase	1989-92	22650	22651	22653	22625
125 Comm. E, R 2.25:1 "O" Gearcase	1993-96	22650	22651	22653	22625
125 ESX (F Suffix) 2.25:1 "O" Gearcase	1993	22650	22651	22653	22625
125 ESX (S Suffix Only)	1993	22630	22631	22632	22633
130 2.25:1 "O" Gearcase	1997	22650	22651	22653	22625
140	1978-84	22630	22631	22632	22633
140	1986-87	22630	22631	22632	22633
140 TL	1988-94	22630	22631	22632	22633
140 TX 2.25:1 "O" Gearcase	1988-90, 92, 93	22650	22651	22653	22625



# Johnson / Evinrude

## GEAR SET APPLICATIONS V6

HP	Year	Complete Gear Set w/ Clutch	Forward & Pinion	Reverse Gear	Clutch
<b>V6</b>					
150 Mechanical/Hydraulic Shift	1978	22620	22621	22652	22625
150	1979-87	22622	22623	22624	22625
150	1979-87	-	22666 Heavy Duty Gears		22625
150	1988-90	22622	22623	22624	22625
150	1988-90	-	22666 Heavy Duty Gears		22625
150	1991-97	22622	22623	22624	22625
150	1991-97	-	22666 Heavy Duty Gears		22625
150 Comm.	1993-95	22622	22623	22624	22625
150 Comm.	1993-95	-	22666 Heavy Duty Gears		22625
150 Comm.	1989-90	22622	22623	22624	22625
150 Comm.	1989-90	-	22666 Heavy Duty Gears		22625
155 Comm. WTA	1989	22650	22651	22653	22625
155 Comm. WTP	1989	22622	22633	22624	22625
155 Comm. WTP	1989	-	22666 Heavy Duty Gears		22625
175 Mechanical/Hydraulic Shift	1977-78	22620	22621	22652	22625
175	1979-87	22622	22623	22624	22625
175	1979-87	-	22666 Heavy Duty Gears		22625
175	1988-90	22622	22633	22624	22625
175	1988-90	-	22666 Heavy Duty Gears		22625
175	1991-97	22622	22623	22624	22625
175	1991-97	-	22666 Heavy Duty Gears		22625
185	1984-85	22622	22623	22624	22625
185	1984-85	-	22666 Heavy Duty Gears		22625
185	1990	22622	22623	22624	22625
185	1990	-	22666 Heavy Duty Gears		22625
185	1991-94	22622	22623	22624	22625
185	1991-94	-	22666 Heavy Duty Gears		22625
200 Mechanical/Hydraulic Shift	1976-78	22620	22621	22652	22625
200	1979-83	22622	22623	22624	22625
200	1979-83	-	22666 Heavy Duty Gears		22625
200	1986-87	22622	22633	22624	22625
200	1986-87	-	22666 Heavy Duty Gears		22625
200	1988-90	22622	22623	22624	22625
200	1988-90	-	22666 Heavy Duty Gears		22625
200	1991-97	22622	22623	22624	22625
200	1991-97	-	22666 Heavy Duty Gears		22625
200 Comm.	1990-91	22622	22623	22624	22625
200 Comm.	1990-91	-	22666 Heavy Duty Gears		22625
225	1986-87	22622	22623	22624	22625
225	1986-87	-	22666 Heavy Duty Gears		22625
225	1988-90	22622	22623	22624	22625
225	1988-90	-	22666 Heavy Duty Gears		22625
225	1991-97	22622	22623	22624	22625
225	1991-97	-	22666 Heavy Duty Gears		22625
235 Mechanical/Hydraulic Shift	1978	22620	22621	22652	22625
235	1979-85	22622	22623	22624	22625
235	1979-85	-	22666 Heavy Duty Gears		22625
1.6L Comm.	1988	22650	22651	22653	22625





## Section 5

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### Johnson / Evinrude Gearcase Shift Components

<i>Shift Components - 2-Cyl. Loopcharged (1989-2005) - Small Gearcase .....</i>	<i>62</i>
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<i>Shift Components - 2 &amp; 3-Cyl. Loopcharged (1975-2006) - Large Gearcase ..</i>	<i>63</i>
<i>Shift Components - V4 60° &amp; V4 90° Loopcharged - Small Gearcase .....</i>	<i>63</i>
<i>Shift Components - V4/V6/V8 "O" Type - Large Gearcase .....</i>	<i>64</i>
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<i>Gearcase Shift Components .....</i>	<i>65</i>

# Johnson / Evinrude

## SHIFT COMPONENTS - 2-CYL. LOOPCHARGED (1989-2005)

### Small Gearcase "New"

**No. 11051** **No. 21133**  
 SPRING CROSS PIN  
 OEM: 0320311 OEM: 0320310



**No. 22663**  
 CLUTCH DOG  
 OEM: 0332491



**No. N/A**  
 SPRING  
 OEM: 0332484



**No. N/A**  
 SHAFT  
 OEM: 0332503



**No. 27940**  
 CVR. & SEAL ASSY.  
 OEM: 0434588



**No. 22490**  
 DETENT BALLS  
 OEM: 0316506



**No. 82230**  
 O-RING  
 OEM: 0913921



## SHIFT COMPONENTS - 2 & 3-CYL. LOOPCHARGED (1975-1988)

### Small Gearcase "Old"

**No. 11051** **No. 21133**  
 SPRING CROSS PIN  
 OEM: 0320311 OEM: 0320310



**No. 22683**  
 CLUTCH DOG  
 OEM: 0319895



**No. 27712**  
 SHAFT  
 OEM: 0320172



**No. 27756**  
 CVR. & SEAL ASSY.  
 OEM: 0387336



**No. 27704**  
 HSG. & BEARING ASSY.  
 OEM: 0389637



**No. 21105**  
 PIN  
 OEM: 0320145



**No. 27742**  
 LEVER  
 OEM: 0320120



**No. 27723**  
 DETENT  
 OEM: 0322636



**No. 33420**  
 OEM: 0314082



**No. 21138**  
 PIN  
 OEM: 0331880



**No. 27730**  
 CRADLE  
 OEM: 0334163



**No. 22493**  
 DETENT BALL  
 OEM: 0327345



**No. 11039**  
 SPRING  
 OEM: 0312870



**No. 28485**  
 SHAFT & BEARING  
 HSG. KIT  
 OEM: N/A



# Johnson / Evinrude

## SHIFT COMPONENTS - 2 & 3-CYL. LOOPCHARGED (1975-2006)

### Large Gearcase

#### No. 11052 No. 21135

SPRING CROSS PIN  
OEM: 0324369 OEM: 0313448



#### No. 27702

HSG. & BEARING  
ASSY.  
OEM: 0391365

Includes Bearing  
No. 22870



NEW

#### No. 21105

PIN  
OEM: 0320145



#### No. 21138

PIN  
OEM: 0331880



#### No. 22673 No. 27711

CLUTCH DOG SHAFT  
OEM: 0318303 OEM: 0326668



#### No. 27741

LEVER  
OEM: 0324037



#### No. 27722

DETENT  
OEM: 0326670



#### No. 27754

CVR. & SEAL ASSY.  
OEM: 0388651



#### No. 33420

SEAL  
OEM: 0314082



#### No. 27730

CRADLE  
OEM: 0334163



#### No. 22493

DETENT BALL  
OEM: 0327345



#### No. 11039

SPRING  
OEM: 0911961



#### No. 28484

SHAFT & BEARING  
HSG. KIT  
OEM: N/A



## SHIFT COMPONENTS - V4 60° & V4 90° LOOPCHARGED

### Small Gearcase

#### No. 11052 No. 21135

SPRING CROSS PIN  
OEM: 0324369 OEM: 0313448



#### No. 27702

HSG. & BEARING  
ASSY.  
OEM: 0391365

Includes Bearing  
No. 22870



#### No. 21105

PIN  
OEM: 0320145



#### No. 21138

PIN  
OEM: 0331880



#### No. 22633 No. 27710

CLUTCH DOG SHAFT  
OEM: 0912607 OEM: 0322941



#### No. 27741

LEVER  
OEM: 0324037



#### No. 27720

DETENT  
OEM: 0915954



#### No. 27752

CVR. & SEAL ASSY.  
OEM: 5006241



#### No. 33020

SEAL  
OEM: 0324670  
OEM: 0352165



#### No. 27730

CRADLE  
OEM: 0334163



#### No. 22493

DETENT BALL  
OEM: 0327345



#### No. 11039

SPRING  
OEM: 0911961



#### No. 28482

SHAFT & BEARING  
HSG. KIT  
OEM: N/A



# Johnson / Evinrude

## SHIFT COMPONENTS - V4/V6/V8 "O" TYPE

### Large Gearcase

#### No. 11052 No. 21135

SPRING CROSS PIN  
OEM: 0324369 OEM: 0313448



#### No. 27700

HSG. & BEARING ASSY.  
OEM: 0389455

Includes No. 22910  
Bearing



#### No. 21137

PIN  
OEM: 0328825



#### No. 21138

PIN  
OEM: 0331880



#### No. 22625 No. 27710

CLUTCH DOG SHAFT  
OEM: 0337774 OEM: 0322941



#### No. 27740

LEVER  
OEM: 0322938



#### No. 27720

DETENT  
OEM: 0915954



#### No. 27752

CVR. & SEAL ASSY.  
OEM: 5006241



#### No. 33020

SEAL  
OEM: 0324670  
OEM: 0352165



#### No. 27730

CRADLE  
OEM: 0982422



#### No. 22491

DETENT BALL  
OEM: 0160084



#### No. 11055

SPRING  
OEM: 0911962



#### No. 28481

SHAFT & BEARING  
HSG. KIT  
OEM: N/A



## SHIFT COMPONENTS - V4/V6/V8 "M" TYPE

### Large Gearcase

#### No. 11052 No. 21135

SPRING CROSS PIN  
OEM: 0324369 OEM: 0313448



#### No. N/A

HSG. & BEARING ASSY.  
OEM: 5001601



#### No. N/A

PIN  
OEM: 0317274



#### No. 21138

PIN  
OEM: 0331880



#### No. 22625 No. N/A

CLUTCH DOG SHAFT  
OEM: 0337774 OEM: 0348483



#### No. 27740

LEVER  
OEM: 0322938



#### No. N/A

DETENT  
OEM: 0347377



#### No. 27752

CVR. & SEAL ASSY.  
OEM: 5006241



#### No. 33020

SEAL  
OEM: 0324670  
OEM: 0352165



#### No. 27730

CRADLE  
OEM: 0334163



#### No. 22491

DETENT BALL  
OEM: 0160084



#### No. 11055

SPRING  
OEM: 0911962



# Johnson / Evinrude

## GEARCASE SHIFT COMPONENTS

### Gearcase Gaskets

**No. 34120**

SHIFT ROD  
OEM: 0304764



**No. 33200**

SHIFT ROD  
OEM: 0305512



**No. 34410**

SHIFT ROD WASHER  
OEM: 0321738



**No. 33220**

SHIFT ROD COVER  
OEM: 0304023



**No. 33980**

SHIFT COVER  
OEM: 0912388



**No. 33450**

V4 SOLENOID COVER  
OEM: 0314876



**No. 33511**

LOWER GEARCASE  
OEM: 0324449



**No. 33550**

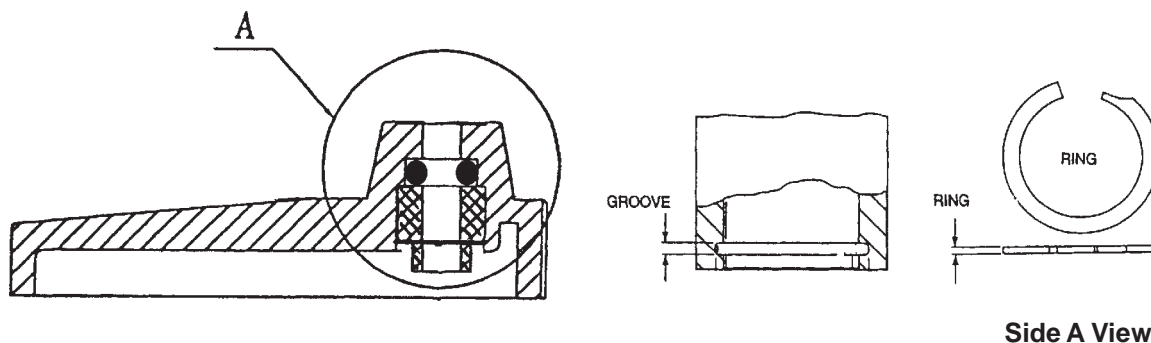
LOWER GEARCASE  
OEM: 0307099



## JML'S RE-DESIGN OF THE COVER & SEAL ASSEMBLY

JML proudly uses Smalley\* internal snap ring for holding the sealing bushing unlike the OEMs which locks it dead. No special tools are required for replacing the seal and a service job can be finished in seconds!

\*Smalley Steel Ring Co. is a GM vender







## Section 6

### Johnson / Evinrude Drive Shaft and Propeller Shaft Components

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# Johnson / Evinrude

## DRIVE SHAFT COMPONENTS - 2 & 3-CYL. LOOPCHARGED

Small "Old" Style	Small "New" Style	Large Gearcase
<p>Small Gearcase 40-60 HP 2-Cyl. Loopcharged (1975-1988) 60-75 HP 3-Cyl. Loopcharged (1975-1988)</p>	<p>Small Gearcase 40-50 HP 2-Cyl. Loopcharged (1989-2006)</p>	<p>Large Gearcase 40-60 HP 2-Cyl. Loopcharged (1986-2006) 60-75 HP 3-Cyl. Loopcharged (1975-2001)</p>
<p><b>No. 86013</b> OIL SEAL - 1 PC. OEM: 0342786</p> 	<p><b>No. 86013</b> OIL SEAL, D.S. OEM: 0342786</p> 	<p><b>No. 86460</b> OIL SEAL - TOP OEM: 0332205 <b>No. 86160</b> OIL SEAL - BOTTOM OEM: 0321466</p>  
<p><b>No. 22327</b> SCREW OEM: 0909386</p> 	<p><b>No. 11422</b> BEARING, D.S. OEM: 0398874</p> 	<p><b>No. 86013</b> OIL SEAL, D.S. OEM: 0342786</p> 
<p><b>No. 22728</b> BEARING HSG. ASSY. OEM: 0387067</p> 	<p><b>No. 22362</b> SCREW OEM: 0317624</p> 	<p><b>No. 22327</b> SCREW OEM: 0909386</p> 
<p><b>No. 82240</b> O-RING OEM: 0302588</p> 	<p><b>No. 27790</b> BEARING HSG. ASSY. OEM: 0435274</p> 	<p><b>No. 22722</b> BEARING HSG. ASSY. OEM: 0385087 <b>No. 22726</b> BEARING HSG. ASSY. OEM: 0435519</p> 
<p><b>No. 23530</b> SHIM 0.003" OEM: 0320166</p> 	<p><b>No. 82250</b> O-RING OEM: 0310324</p> 	<p><b>No. 81340</b> O-RING OEM: 0313754</p> 
<p><b>No. 23540</b> SHIM 0.004" OEM: 0320167</p> 	<p><b>No. 21649</b> THRUST WASHER OEM: 0333771</p> 	<p><b>No. 23600</b> SHIM 0.003" OEM: 0323889 <b>No. 23610</b> SHIM 0.004" OEM: 0323890 <b>No. 23620</b> SHIM 0.005" OEM: 0317232</p> 
<p><b>No. 23550</b> SHIM 0.005" OEM: 0320168</p> 	<p><b>No. 16370</b> THRUST BEARING OEM: 0398901</p> 	<p><b>No. 21643</b> THRUST WASHER OEM: 0317230</p> 
<p><b>No. 21511</b> DRIVE SHAFT BEARING OEM: 0385175</p> 	<p><b>No. 21649</b> THRUST WASHER OEM: 0333771</p> 	<p><b>No. 16320</b> THRUST BEARING OEM: 0385068</p> 
<p><b>No. 11423</b> PINION BEARING OEM: 0386766</p> 	<p><b>No. 11430</b> PINION BEARING OEM: 0382343</p> 	<p><b>No. 11430</b> PINION BEARING OEM: 0382343</p> 
<p>See Section 4 for Gear Sets</p> 	<p>See Section 4 for Gear Sets</p> 	<p>See Section 4 for Gear Sets</p> 
<p><b>No. 11192</b> PINION NUT OEM: 0313339</p> 	<p><b>No. 11192</b> PINION NUT OEM: 0313339</p> 	<p><b>No. 11192</b> PINION NUT OEM: 0313339</p> 

# Johnson / Evinrude

## DRIVE SHAFT COMPONENTS - V4 & V6

V4 60° & V4 90°				V4 & V6 "O" & "M" Type			
Small Gearcase V4 60° (1995-2006) V4 90° (1978-1998)				Large Gearcase "O" Type (1978-2006) "M" Type (2002-2006)			
<b>No. 86011</b> OIL SEAL OEM: 0341280			<b>No. 22405</b> LOWER D.S.-V4 60° OEM: 0346004	<b>No. 86011</b> OIL SEAL OEM: 0341280			<b>No. 22407</b> LOWER D.S. "O" TYPE OEM: 0345905
<b>No. 22362</b> SCREW OEM: 0317624			<b>No. 22409</b> LOWER D.S. - V4 90° OEM: 0346006	<b>No. 22362</b> SCREW OEM: 0317624			<b>No. 22403</b> LOWER D.S. "M" TYPE OEM: 0347371
<b>No. 22720</b> BEARING HSG. & SEAL OEM: 0439476			<b>No. 22720</b> BEARING HSG. & SEAL OEM: 0439476	<b>No. 22720</b> BEARING HSG. & SEAL OEM: 0439476			<b>No. 22403</b> LOWER D.S. "M" TYPE OEM: 0347371
<b>No. 81380</b> O-RING, LOWER OEM: 0314728				<b>No. 81380</b> O-RING, LOWER OEM: 0314728			
<b>No. 23590</b> SHIM 0.003" OEM: 0323362			<b>No. 22880</b> PINION BEARING OEM: 0384195	<b>No. 23590</b> SHIM 0.003" OEM: 0323362			<b>No. 21610</b> PINION BEARING OEM: 0387817
<b>No. 23580</b> SHIM 0.004" OEM: 0323361			See Section 4 for Gear Sets0	<b>No. 23580</b> SHIM 0.004" OEM: 0323361			See Section 4 for Gear Sets
<b>No. 23510</b> SHIM 0.005" OEM: 0314745				<b>No. 23510</b> SHIM 0.005" OEM: 0314745			<b>No. 32800</b> WASHER "M" TYPE OEM: 0350038
<b>No. 21645</b> THRUST WASHER OEM: 0327656			<b>No. 11190</b> PINION NUT OEM: 0314730	<b>No. 21645</b> THRUST WASHER OEM: 0327656			<b>No. 11190</b> PINION NUT OEM: 0314730
<b>No. 16330</b> THRUST BEARING OEM: 0387656				<b>No. 16330</b> THRUST BEARING OEM: 0387656			
<b>No. 28351</b> RETAINER OEM: 0338504				<b>No. 28351</b> RETAINER OEM: 0338504			
<b>No. 21139</b> PIN OEM: 0311538				<b>No. 21139</b> PIN OEM: 0311538			

# Johnson / Evinrude

## PROP SHAFT COMPONENTS - 2-CYL. LOOPCHARGED (1989-2006)

### 40-50 HP Small Gearcase

<b>No. 22900</b>	<b>No. 22890</b>	<b>No. 21647</b>	<b>No. 16350</b>	<b>No. 16360</b>	<b>No. 21648</b>	<b>No. 22870</b>	<b>No. 22940</b>
PROP SHAFT BEARING	REVERSE GEAR BEARING	THRUST WASHER REVERSE GEAR	THRUST BEARING REVERSE GEAR	THRUST BEARING FORWARD GEAR	THRUST WASHER FORWARD GEAR	FORWARD GEAR BEARING	FORWARD GEAR BEARING
OEM: 0386765	OEM: 0386764	OEM: 0332514	OEM: 0397537	OEM: 0397538	OEM: 0333725	OEM: 0382407	OEM: 0432264



See Section 4 for Gears



### No. 86060

PROP SHAFT SEAL  
OEM: 0321467



### No. 11416

BEARING CARRIER W/ BEARINGS & SEALS  
OEM: 0432276



### No. 82360

O-RING FOR BEARING CARRIER  
OEM: 0553126



### No. 22421

PROP SHAFT  
OEM: 0439138



## PROP SHAFT COMPONENTS - 2 & 3-CYL. LOOPCHARGED (1975-1988)

### Small Gearcase

<b>No. 22900</b>	<b>No. 22890</b>	<b>No. N/A</b>	<b>No. N/A</b>		<b>No. N/A</b>	<b>No. N/A</b>	<b>No. N/A</b>
PROP SHAFT BEARING	REVERSE GEAR BEARING	THRUST WASHER REVERSE GEAR	THRUST BEARING REVERSE GEAR	See Section 4 for Gears	THRUST BEARING FORWARD GEAR	THRUST WASHER FORWARD GEAR	FORWARD GEAR BEARING
OEM: 0386765	OEM: 0386764	OEM: 0320115	OEM: 0386719		OEM: 0389297	OEM: 0323845	OEM: N/A



### No. 86060

PROP SHAFT SEAL  
OEM: 0321467



### No. N/A

BEARING CARRIER  
OEM: 0386920



### No. 82320

O-RING FOR BEARING CARRIER  
OEM: 0320303



### No. N/A

PROP SHAFT  
OEM: 0386659



# Johnson / Evinrude

## PROP SHAFT COMPONENTS - 2 & 3-CYL. LOOPCHARGED (1975-2006)

### Large Gearcase

<b>No. 22860</b> PROP SHAFT BEARING OEM: 0379504	<b>No. 22870</b> REVERSE GEAR BEARING OEM: 0382407	<b>No. 21641</b> THRUST WASHER REVERSE GEAR OEM: 0313447	<b>No. 16300</b> THRUST BEARING REVERSE GEAR OEM: 0382408	See Section 4 for Gears	<b>No. 16310</b> THRUST BEARING FORWARD GEAR OEM: 0385043	<b>No. 21644</b> THRUST WASHER FORWARD GEAR OEM: 0324766	<b>No. 22870</b> FORWARD GEAR BEARING OEM: 0382407
							
<b>No. 22400</b> SCREW OEM: 0320041	<b>No. 81100</b> O-RING OEM: 0332584	<b>No. 86030</b> PROP SHAFT SEAL OEM: 0330137			<b>No. 82320</b> O-RING FOR BEARING CARRIER OEM: 0320303	<b>No. 21774</b> RETAINING RING OEM: 0313445	
							
<b>No. 22418</b> PROP SHAFT OEM: 0439185							

## PROP SHAFT COMPONENTS - V4 90° (1978-1998)

### Small Gearcase

<b>No. 22860</b> PROP SHAFT BEARING OEM: 0379504	<b>No. 22870</b> REVERSE GEAR BEARING OEM: 0382407	<b>No. 21642</b> THRUST WASHER REVERSE GEAR OEM: 0314731	<b>No. 16300</b> THRUST BEARING REVERSE GEAR OEM: 0382408	See Section 4 for Gears	<b>No. 16310</b> THRUST BEARING FORWARD GEAR OEM: 0385043	<b>No. 21644</b> THRUST WASHER FORWARD GEAR OEM: 0324766	<b>No. 22870</b> FORWARD GEAR BEARING OEM: 0382407
							
<b>No. 22300</b> SCREW OEM: 0316563	<b>No. 86640</b> SEAL OEM: 0332583	<b>No. 86030</b> PROP SHAFT SEAL OEM: 0330137	<b>No. 11392</b> OEM: 0397087 BEARING CARRIER W/ BEARINGS & SEALS		<b>No. 82370</b> O-RING FOR BEARING CARRIER OEM: 0313446	<b>No. 21774</b> RETAINING RING OEM: 0313445	
							
<b>No. 22416</b> PROP SHAFT OEM: 0436888							



# Johnson / Evinrude

## PROP SHAFT COMPONENTS - V4 60° (1995-2006)

### Small Gearcase "New" Style

<b>No. 22860</b> PROP SHAFT BEARING OEM: 0379504	<b>No. 22870</b> REVERSE GEAR BEARING OEM: 0382407	<b>No. 21642</b> THRUST WASHER REVERSE GEAR OEM: 0314731	<b>No. 16300</b> THRUST BEARING REVERSE GEAR OEM: 0382408	See Section 4 for Gears	<b>No. 16310</b> THRUST BEARING FORWARD GEAR OEM: 0385043	<b>No. 21644</b> THRUST WASHER FORWARD GEAR OEM: 0324766	<b>No. 22870</b> FORWARD GEAR BEARING OEM: 0382407
							
<b>No. 22373</b> SCREW OEM: 0350271	<b>No. 27850</b> TAB OEM: 0333957	<b>No. 86030</b> PROP SHAFT SEAL OEM: 0330137	<b>No. 11398</b> BEARING CARRIER W/ BEARINGS & SEALS OEM: 5000440	<b>No. 82370</b> O-RING FOR BEARING CARRIER OEM: 0313446			
							
<b>No. 22419</b> PROP SHAFT OEM: 5006310							

## PROP SHAFT COMPONENTS - V4/V6/V8 - "M" Type (2002-2006)

### Large Gearcase "New" Style

<b>No. N/A</b> PROP SHAFT BEARING OEM: 0436752	<b>No. 22870</b> REVERSE GEAR BEARING OEM: 0382407	<b>No. 21654</b> THRUST WASHER REVERSE GEAR OEM: 0349193	<b>No. 16340</b> THRUST BEARING REVERSE GEAR OEM: 0389042	See Section 4 for Gears	<b>No. 16340</b> THRUST BEARING FORWARD GEAR OEM: 0389042	<b>No. 21646</b> THRUST WASHER FORWARD GEAR OEM: 0327669	<b>No. 22910</b> FORWARD GEAR BEARING OEM: 0389039
							
<b>No. 22373</b> SCREW OEM: 0350271	<b>No. 27850</b> TAB OEM: 0333957	<b>No. 86810</b> PROP SHAFT SEAL - 2 PCS. OEM: 0334950	<b>No. 86012</b> PROP SHAFT SEAL - 1 PC. OEM: 0341281	<b>No. N/A</b> BEARING CARRIER OEM: 5001587	<b>No. 82440</b> O-RING FOR BEARING CARRIER OEM: 0326849		
							
<b>No. 22417</b> PROP SHAFT OEM: 5004765 ø 1-1/4" (1991-2006)							





# Johnson / Evinrude

## PROP SHAFT COMPONENTS - V4/V6/V8 - "O" Type (1979-1990)

### Large Gearcase

<b>No. 11410</b> PROP SHAFT BEARING OEM: 0387247	<b>No. 22870</b> REVERSE GEAR BEARING OEM: 0382407	<b>No. 21642</b> THRUST WASHER REVERSE GEAR OEM: 0314731	<b>No. 16300</b> THRUST BEARING REVERSE GEAR OEM: 0382408	See Section 4 for Gears	<b>No. 16340</b> THRUST BEARING FORWARD GEAR OEM: 0389042	<b>No. 21646</b> THRUST WASHER FORWARD GEAR OEM: 0327669	<b>No. 22910</b> FORWARD GEAR BEARING OEM: 0389039
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<b>No. 22373</b> SCREW OEM: 0350271	<b>No. 27850</b> TAB OEM: 0333957	<b>No. 85130</b> PROP SHAFT SEAL OEM: 0320862	<b>No. 11406</b> BEARING CARRIER W/ BEARINGS & SEALS FOR 1991-UP GEARCASE OEM: 0438039	<b>No. 82400</b> O-RING FOR BEARING CARRIER OEM: 0305123
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<b>No. 22414</b> PROP SHAFT OEM: 0395209 ø 1-3/16" (1979-1990)	
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## PROP SHAFT COMPONENTS - V4/V6/V8 - "O" Type (1991-2006)

### Large Gearcase

<b>No. 22950</b> PROP SHAFT BEARING OEM: 0434467	<b>No. 22870</b> REVERSE GEAR BEARING OEM: 0382407	<b>No. 21642</b> THRUST WASHER REVERSE GEAR OEM: 0314731	<b>No. 16300</b> THRUST BEARING REVERSE GEAR OEM: 0382408	See Section 4 for Gears	<b>No. 16340</b> THRUST BEARING FORWARD GEAR OEM: 0389042	<b>No. 21646</b> THRUST WASHER FORWARD GEAR OEM: 0327669	<b>No. 22910</b> FORWARD GEAR BEARING OEM: 0389039
---	---	---	--	----------------------------	--	---	---









<b>No. 22373</b> SCREW OEM: 0350271	<b>No. 27850</b> TAB OEM: 0333957	<b>No. 86810</b> PROP SHAFT SEAL OEM: 0334950	<b>No. 11408</b> BEARING CARRIER W/ KEY BEARINGS & SEALS FOR 1991-UP GEARCASE OEM: 5000363	<b>No. 82400</b> O-RING FOR BEARING CARRIER OEM: 0305123
---	---	--	--	---







<b>No. 21651</b> THRUST WASHER OEM: 0336565	<b>No. 22417</b> PROP SHAFT OEM: 5004765 ø 1-1/4" (1991-2006)
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# Johnson / Evinrude

## LOWER HOUSING BEARINGS APPLICATIONS

HP / Gcs. Type	Year	Drive Shaft Brg./Race	Pinion Bearing	P.Shaft Needle Bearing	Roller Bearing Reverse	Roller Bearing Forward	Roller Bearing Forward	Thrust Brg./Race Reverse	Thrust Brg./Race Forward
<b>2-Cylinder Loopcharged (1975-1985) 40-60 HP</b>									
40 All	1984-1985	21511	11423	22900	22890	-	-	-	-
50 All	1975-1985	21511	11423	22900	22890	-	-	-	-
55 All	1976-1985	21511	11423	22900	22890	-	-	-	-
60 All	1980-1985	21511	11423	22900	22890	-	-	-	-
<b>2-Cylinder Loopcharged (1986-2005) 40-60 HP</b>									
40 Small Old	1986-1988	21511	11423	22900	22890	-	-	-	-
40 Small New	1989-2000	16370/21649	11430	22900	22890	22870	22940	16350/21647	16360/21648
45 Small New	1989-1997	16370/21649	11430	22900	22890	22870	-	16350/21647	16360/21648
45 Large	1987-1997	16320/21643	11430	22860	22870	22870	-	16300/21641	16310/21644
48 Small New	1989-1996	16370/21649	11430	22900	22890	22870	22940	16350/21647	16360/21648
48 Large	1987-1996	16320/21643	11430	22860	22870	22870	-	16300/21641	16310/21644
50 Small Old	1986-1988	21511	11423	22900	22890	-	-	-	-
50 Small New	1989-2005	16370/21649	11430	22900	22890	22870	22940	16350/21647	16360/21648
50 Large	1986-2005	16320/21643	11430	22860	22870	22870	-	16300/21641	16310/21644
55 Small Old	1986-1988	21511	11423	22900	22890	-	-	-	-
55 Small New	1989-2005	16370/21649	11430	22900	22890	22870	-	16350/21647	16360/21648
55 Large	1986-2005	16320/21643	11430	22860	22870	22870	-	16300/21641	16310/21644
60 Small Old	1986-1988	21511	11423	22900	22890	-	-	-	-
60 Large	1986-1988	16320/21643	11430	22860	22870	22870	-	16300/21641	16310/21644
<b>3-Cylinder Loopcharged (1973-2001) 65-75 HP</b>									
65 Large	1973	16320/21643	11430	22860	22870	22870	-	16300/21641	16310/21644
65 Large	1984-2001	16320/21643	11430	22860	22870	22870	-	16300/21641	16310/21644
70 Small	1974-2001	21511	11423	22900	22890	-	-	-	-
75 Small	1979-1985	21511	11423	22900	22890	-	-	-	-
75 Large	1975-1988	16320/21643	11430	22860	22870	22870	-	16300/21641	16310/21644
<b>V4 Gearcase (1978-1983)</b>									
85 All	1978-1980	16330/21645	22880	22860	22870	22870	-	16300/21642	16310/21644
90 All	1981-1983	16330/21645	22880	22860	22870	22870	-	16300/21642	16310/21644
100 All	1980	16330/21645	22880	22860	22870	22870	-	16300/21642	16310/21644
115 All	1978-1983	16330/21645	22880	22860	22870	22870	-	16300/21642	16310/21644
<b>V4 Gearcase (1984-Up)</b>									
80 Small	1991-1999	16330/21645	22880	22860	22870	22870	-	16300/21642	16310/21644
80 "O" Type	1991-1999	16330/21645	21610	22950	22870	22910	-	16300/21642	16340/21646
90 Small	1984-2003	16330/21645	22880	22860	22870	22870	-	16300/21642	16310/21644
90 "O" Type	1984-1990	16330/21645	21610	11410	22870	22910	-	16300/21642	16340/21646
90 "O" Type	1991-2003	16330/21645	21610	22950	22870	22910	-	16300/21642	16340/21646
100 Small	1984-2005	16330/21645	22880	22860	22870	22870	-	16300/21642	16310/21644
100 "O" Type	1984-1990	16330/21645	21610	11410	22870	22910	-	16300/21642	16340/21646
100 "O" Type	1991-2005	16330/21645	21610	22950	22870	22910	-	16300/21642	16340/21646
115 Small	1984-Up	16330/21645	22880	22860	22870	22870	-	16300/21642	16310/21644
115 "O" Type	1984-1990	16330/21645	21610	11410	22870	22910	-	16300/21642	16340/21646
115 "O" Type	1991-Up	16330/21645	21610	22950	22870	22910	-	16300/21642	16340/21646
120 "O" Type	1985-1990	16330/21645	21610	11410	22870	22910	-	16300/21642	16340/21646
120 "O" Type	1991-1994	16330/21645	21610	22950	22870	22910	-	16300/21642	16340/21646
125 "O" Type	1989-1990	16330/21645	21610	11410	22870	22910	-	16300/21642	16340/21646



# Johnson / Evinrude

## LOWER HOUSING BEARINGS APPLICATIONS

[illegible]

# Johnson / Evinrude

## OIL SEALS APPLICATIONS

HP	Year	Prop Shaft	Qty. Req.	Drive Shaft	Qty. Req.	HP	Year	Prop Shaft	Qty. Req.	Drive Shaft	Qty. Req.
1.5, 2, 2.5, 3	1958-1968	-	1	86450	1	40	1984-1985	86060	2	86160	2
1.5, 2	1968-1990	86450	1	86450	1	40 (AR, AE, AT)	1988	86030	1	86270 / 86150	1
2.5, 4	1973-1980	86450	1	86450	2	40	1986-1989	86060	2	86460 / 86150	1
2.5	1987	86510	2	86450	2	45 C	1985	86030	2	86270 / 86150	1
2.5, 4	1981-1995	-	1	86450	2	45 C	1986	86030	2	86460 / 86150	1
3 Weedless	1958-1968	86450	1	-	1	45 C	1987	86030	2	86270 / 86150	1
3, 4, 6 Weedless	1968-1982	86400	1	86400	1	45 C	1988-1994	86030	2	86270 / 86150	1
4	1981-90	86510	2	-	1	45 C	1995	86030	2	86460 / 86160	1
4	1984, 1986-95	-	1	86510	2	48	1988-1995	86060	2	86460 / 86160	1
4.5, 7.5	1980-1987	-	1	86510	1	50 (Manual)	1971-1974	86030	2	86150	2
5, 5.5, 6, 7.5	1957-1964	86360	1	86360	1	50	1975	86060	2	86160	1
5, 6, 8	1980-1987	-	1	86510	2	50	1979	86030	2	86150	2
6	1965-1967	-	1	86390	1	50	1980	86030	2	86160	1
6	1968-1979	86390	1	86400	1	50/60 (Pull Start)	1981-1983	86030	2	86150	1
9.5	1964-1973	86360	1	86360	1	50/60 (Electric)	1981-1983	86060	2	86160	1
9.9	1974-1983	86180	1	86170	1	50/60	1984-1985	86060	2	86160	1
9.9	1984-1995	86180	1	86170	1	50/60 (Small)	1986-1987	86060	2	86460 / 86160	1
10	1957-1958	86410	1	86430	1	50/60 (Large)	1986-1987	86030	2	86460 / 86160	1
10	1959-1963	86360	1	86360	1	50/60	1988-1989	86030	2	86460 / 86160	1
10	1981	86390 (inner)	1	-	1	50	1990-1995	86060	2	86460 / 86160	1
10	1989	86190 / 86150	1	86270 / 86150	1	55	1968-1969	85110	2	86160	2
14	1988-1990	86190 / 86150	1	86270 / 86150	1	55	1976-1977	86060	2	86160	2
15	1974-1983	86180	2	86170	1	55	1978	86160	1	86160	2
15	1984-1995	86180	2	86170	1	55	1979-1983	86030	2	86150	1
18	1957	86410	1	86430	1	55 (Electric)	1980-1983	85110	2	86150	2
18	1958-1973	86410	1	86430	1	55 C	1984	86030	2	86270 / 86150	1
20	1981-1982	86190 / 86420	1	86420	1	55 C	1985	86030	2	86270	1
20	1983	86190 / 86420	1	86150 / 86420	1	55 C	1986	86030	2	86460 / 86160	1
20	1984	86120 / 86150	1	86270 / 86420	1	55 C	1987-1994	86030	2	86270 / 86160	1
20	1985-1986	85120	1	86200	1	55 C	1995	86030	2	86460 / 86770	1
20	1987-1995	85120	1	86200 / 86520	1	60 (Manual)	1964-1968	86740	1	86750	1
25	1969-1976	86410	1	86430	1	60	1970	85110	1	86160	2
25	1977-1978	86410	1	86430	1	60 (3-Cyl.)	1971	86030	2	86160	2
25	1979-1982	86190 / 86420	1	86420	1	60 (Pull Start)	1980-1983	86030	2	86150	2
25	1983	86190 / 86420	1	86150 / 86420	1	60 (Electric)	1980-1983	86030	2	86160	2
25	1984	86190 / 86150	1	86270 / 86420	1	60	1970	85110	1	86160	2
25	1985-1986	85120	1	86200	2	60 SST	1989	86060	2	86460 / 86160	1
25	1987-1995	85120	1	86270 / 86420	1	60 SST	1990	86060	1	286460 / 86160	1
25 C	1982	86420	1	86420	1	60 (3-Cyl.)	1987-1995	86030	2	86460 / 86160	1
25 C	1983	86190 / 86150	1	86150 / 86420	1	65 (Manual)	1968	86740	1	86750	1
25 C	1984-1990	86190 / 86150	1	86270 / 86150	1	65 (3-Cyl.)	1972-1973	86030	2	86160	2
28	1962-1964	86350	1	86410	1	65 C	1984-1985	86030	2	86160	2
28	1987-1990	86190 / 86150	1	86270 / 86150	1	65 C	1986-1989	86030	2	86460 / 86160	1
30	1984-1986	85120	1	86200	1	70 (Large)	1974-1985	86030	2	86160	2
30	1987-1995	85120	1	86200 (inner)	1	70 (Large)	1986-1995	86030	2	86460 / 86160	1
33	1965-1976	86350	1	86410	1	70 (Small)	1977-1985	86060	2	86160	2
35	1957-1959	86350	1	86410	1	75 (Manual)	1960-1962	86740	1	86750	1
35	1976	85120	1	86150	2	75 (Large)	1975-1984	86030	2	86160	2
35	1977-1986	85120	2	86200	2	75 (Large)	1986-1987	86030	2	86460 / 86160	1
35	1987-1990	85120	2	86200 (inner)	1	75 (Small)	1975-1984	86060	2	86160	2
40	1960-1961	86350	1	86410	1	80	1966-1968	86740	1	86750	1
40	1962-1973	86350	1	86410	1	85	1969-1970	85110	2	86160	2
40	1974-1976	86350	1	86180	1	85	1971-1972	86030	2	86160	2
40 C	1981-1986	86350	1	86180	2	85	1973-1980	86030	2	85120	2



# Johnson / Evinrude

## OIL SEALS APPLICATIONS CONTINUED

HP	Year	Prop Shaft	Qty. Req.	Drive Shaft	Qty. Req.
88	1987-1994	86030	2	86240 / 86250	1
90	1981-1983	86030	2	85120	2
90	1984-1994	86030	2	86240 / 86250	1
90 Seadrive	1985-1990	86030	2	86240 / 86250	1
100	1971-1972	86030	2	86160	2
100	1979-1980	86030	2	85120	2
100 C	1984-1990	85130	2	86240 / 86250	1
110	1986-1988	86030	2	86240 / 86250	1
115	1969-1970	85110	2	86160	2
115	1973-1983	86030	2	85120	2
115	1984-1985	86030	2	86240 / 86250	1
115	1990-1994	86030	2	86240 / 86250	1
120	1985	85130	2	86240 / 86250	1
120	1986-1988	86030	2	86240 / 86250	1
120	1989	85130	2	86240 / 86250	1
120	1990-1994	86030	2	86240 / 86250	1
125	1971-1972	86030	2	86160	2
125 C	1989	85130	2	86240 / 86250	1
125 C (ESX)	1989	86030	2	86240	1
135	1973-1976	86030	2	85120	2
140	1977-1983	86030	2	85120	2
140	1984	86030	2	85120	2
140	1985	85130	2	86240 / 86250	1
140	1986-1994	86030	2	86240 / 86250	1
140 TX	1989	85130	1	86240 / 86250	1
150	1978-1983	85130	2	85120	2
150	1984	85130	2	86240 / 86250	1
155 C	1984-1985	85130	2	86240 / 86250	1
155 C	1986-1990	85130	2	86240 / 86250	1
175	1977-1985	85130	2	85120	2
175	1986-1990	85130	2	86240 / 86250	1
185	1984-1985	85160	2	86240 / 86250	1
185	1990	85130	2	86240 / 86250	1
200	1976-1983	85130	2	85120	2
200	1984-1985	85130	2	86240 / 86250	1
200, 225	1986-1990	85130	2	86240 / 86250	1
235	1978-1983	85130	2	85120	2
235	1984-1985	85130	2	86240 / 86250	1
275	1985-1988	85130	2	86240 / 86250	1
3.6L, 300	1985-1990	85130	2	86240 / 86250	1

## DRIVE SHAFT HOUSING OIL SEALS APPLICATIONS

HP	Year	Oil Seal	Qty.	Application
5, 6, 6.5, 8	1982-2001	86510	1	Driveshaft to Exhaust Housing
25, 40, 45, 50, 55	1987-1994	86270	1	Exhaust Housing to Adapter
50	1958-1968	86060	1	Pivot Shaft
60	1958-1968	86060	1	Pivot Shaft
65	1958-1968	86060	1	Pivot Shaft
75	1961-1968	86060	1	Pivot Shaft
80	1961-1968	86060	1	Pivot Shaft
85	1961-1968	86060	1	Pivot Shaft
90	1964-1968	86060	1	Pivot Shaft
100	1964-1968	86060	1	Pivot Shaft

# Johnson / Evinrude

## LOWER DRIVE SHAFT IDENTIFICATION

### No. 22405

OEM: 0346004  
V4 60°  
Small Gearcase  
**Length:** 9-7/16"  
**Pinion Bearing Journal ø:** 1-1/8"  
**Pinion Gear Splines:** 6

### No. 22409

OEM: 0346006  
V4 90°  
Small Gearcase  
**Length:** 8-3/4"  
**Pinion Bearing Journal ø:** 1-1/8"  
**Pinion Gear Splines:** 6

### No. 22407

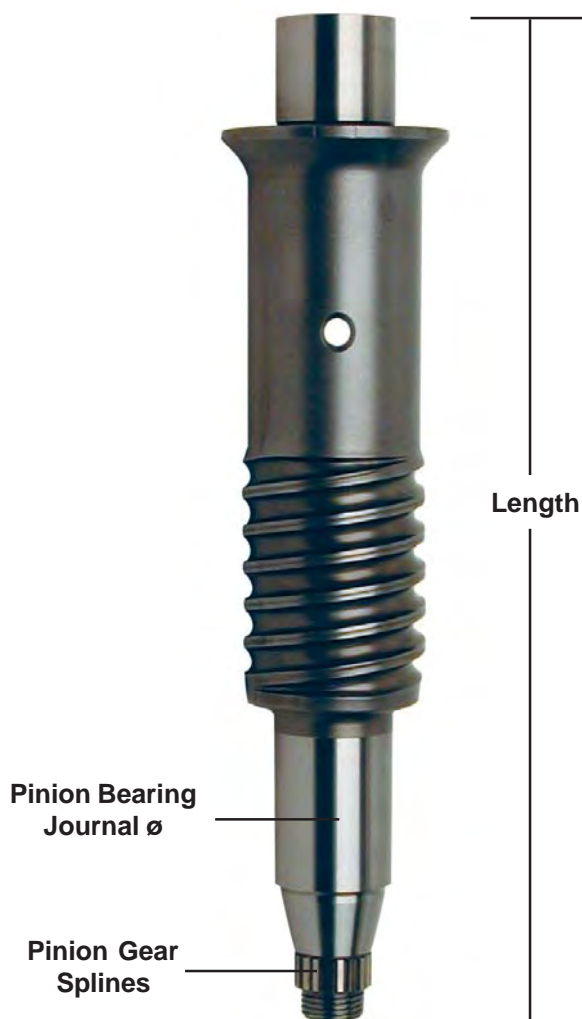
OEM: 0345905  
"O" Type  
Large Gearcase  
**Length:** 9-1/2"  
**Pinion Bearing Journal ø:** 1-1/8"  
**Pinion Gear Splines:** 19

### No. 22403

OEM: 0347371  
"M" Type  
Large Gearcase  
**Length:** 9-1/2"  
**Pinion Bearing Journal ø:** 1-1/8"  
**Pinion Gear Splines:** 20

### No. 22408

OEM: 0335679  
V8  
Large Gearcase  
**Length:** 10"  
**Pinion Bearing Journal ø:** 1-9/32"  
**Pinion Gear Splines:** 19



## V4/V6 TWO-PIECE DRIVE SHAFT APPLICATIONS - LOWER SHAFT

Model	Year	Gearcase Type	Drive Shaft JML No.	Drive Shaft OEM No.
V4 All Crossflow	1978-1997	Small (V4 90°)	22409	0346006
V4 All Crossflow	1984-1997	"O" Type	22407	0345905
V4 90° Loopcharged	1985-1998	"O" Type	22407	0345905
V4 60°	1995-2006	Small (V4 60°)	22405	0346004
V4 60°	1995-2006	"O" Type	22407	0345905
V6 90°	1978-2006	"O" Type	22407	0345905
V6 60°	1991-2006	"O" Type	22407	0345905
V6	2002-2006	"M" Type	22403	0347371





# Johnson / Evinrude

## UPPER DRIVE SHAFT IDENTIFICATION

### No. 22431

OEM: 5000618  
Length: 25-1/4"

### No. 22432

OEM: 5000626  
Length: 30-1/4"

### No. 22433

OEM: 5000614  
Length: 25-11/16"

### No. 22434

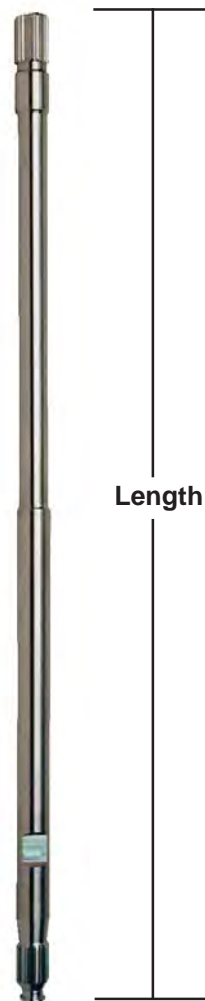
OEM: 5000623  
Length: 30-11/16"

### No. 22435

OEM: 5000615  
Length: 24-3/4"

### No. 22436

OEM: 5000624  
Length: 29-3/4"



## V4/V6 TWO-PIECE DRIVE SHAFT APPLICATIONS - UPPER SHAFT

Model	Year	20" Standard Transom			25" Long Transom		
		JML No.	JML No.	Length	JML No.	JML No.	Length
V4 All	1978-1991	22431	5000618	25-1/4"	22432	5000626	30-1/4"
V4 90°	1992-1998	22433	5000614	25-11/16"	22434	5000623	30-11/16"
V4 60°	1995-2006	22435	5000615	24-3/4"	22436	5000624	29-3/4"
V6 All	1976-1991	22431	5000618	25-1/4"	22432	5000626	30-1/4"
V6 90°	1992-2006	22433	5000614	25-11/16"	22434	5000623	30-11/16"
V6 60°	1991-2006	22435	5000615	24-3/4"	22436	5000624	29-3/4"

# Johnson / Evinrude

## PROP SHAFT IDENTIFICATION

### No. 22421

OEM: 0439138  
2-Cyl. Loopcharged (1989-2005) Small Gearcase  
**Length:** 13-13/32"  
**Carrier Needle Bearing Journal ø:** 1.0"  
**Prop Splines:** 13  
**Prop Thrust Washer:** No. 22240

### No. 22419

OEM: 0436834  
V4 60° (1995-2006) Small Gearcase  
**Length:** 16-9/16"  
**Carrier Needle Bearing Journal ø:** 1-1/8"  
**Prop Splines:** 13  
**Prop Thrust Washer:** No. 22230

### No. N/A

OEM: 0386659  
2 & 3-Cyl. Loopcharged (1975-1988) Small Gearcase  
**Length:** N/A  
**Carrier Needle Bearing Journal ø:** 1.0"  
**Prop Splines:** 13  
**Prop Thrust Washer:** No. 22240

### No. 22414

OEM: 0395209  
"O" Type (1979-1990) Large Gearcase  
**Length:** 17-27/32"  
**Carrier Needle Bearing Journal ø:** 1-3/16"  
**Prop Splines:** 15  
**Prop Thrust Washer:** No. 22220

### No. 22418

OEM: 0439185  
2 & 3-Cyl. Loopcharged (1975-2006) Large Gearcase  
**Length:** 14-29/64"  
**Carrier Needle Bearing Journal ø:** 1-1/8"  
**Prop Splines:** 13  
**Prop Thrust Washer:** No. 22230

### No. 22417

OEM: 5004765  
"O" Type (1991-2006), "M" Type (2001-2006) Large Gearcase  
**Length:** 17-7/8"  
**Carrier Needle Bearing Journal ø:** 1-1/4"  
**Prop Splines:** 15  
**Prop Thrust Washer:** No. 22221

### No. 22416

OEM: 0436888  
V4 90° (1978-1998) Small Gearcase  
**Length:** 15-7/16"  
**Carrier Needle Bearing Journal ø:** 1-1/8"  
**Prop Splines:** 13  
**Prop Thrust Washer:** No. 22230

Carrier  
Needle Bearing  
Journal ø



Prop. Splines

Prop.  
Thrust Washer



Length

## PROP SHAFT APPLICATIONS

Model	Year	Gearcase Type	Prop Shaft JML No.	Prop Shaft OEM No.
2 & 3-Cyl. Loopcharged	1975-1988	Small	-	0386659
2-Cyl. Loopcharged	1989-2006	Small	22421	0439138
2 & 3-Cyl. Loopcharged	1975-2006	Large	22418	0439185
V4 All Crossflow	1978-1998	Small (V4 90°)	22416	0436888
V4 90° All	1984-1990	"O" Type	22414	0395209
V4 90° All	1991-1998	"O" Type	22417	5004765
V4 60°	1995-2006	Small (V4 60°)	22419	0436834
V4 60°	1995-2006	"O" Type	22417	5004765
V6 90°	1978-1990	"O" Type	22414	0395209
V6 90°	1991-2006	"O" Type	22417	5004765
V6 60°	1991-2006	"O" Type	22417	5004765
V6	2002-2006	"M" Type	22417	5004765



## Section 7

### Johnson / Evinrude Water Pumps

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# Johnson / Evinrude

## WATER PUMP IMPELLER & KEY IDENTIFICATION

### Water Pump Impellers & Keys

For Johnson / Evinrude

4-Stroke, 2-Stroke, Crossflow & LoopCharged Models

These water pump impellers can be divided into two distinct groups.

High volume water pumps use long vane impellers.

High pressure water pumps use short vane impellers.

#### High Volume / Long Vane Impellers

##### No. 89790

OEM: 0432941  
See Water Pumps  
Application Guide for Models  
**Outside ø:** 3.600"  
**Inside ø:** .750"

Impeller includes:  
No. 81250 O-ring



##### No. 89592

KEY - BLACK  
OEM: 0334897



##### No. 89710

OEM: 0396725  
See Water Pumps  
Application Guide for Models  
**Outside ø:** 3.600"  
**Inside ø:** .750"



##### No. 89591

KEY - WHITE  
OEM: 0331901



##### No. 89592

KEY - BLACK  
OEM: 0334897



##### No. 89660

OEM: 0777213  
See Water Pumps  
Application Guide  
for Models  
**Outside ø:** 2.750"  
**Inside ø:** .625"  
**Height:** .875"



##### No. 89595

KEY  
OEM: 0308928



##### No. 89680

OEM: 0777212  
See Water Pumps  
Application Guide  
for Models  
**Outside ø:** 3.500"  
**Inside ø:** .875"



##### No. 89595

KEY  
OEM: 0308928



##### No. 89570

OEM: 5001593  
See Water Pumps  
Application Guide for Models  
**Outside ø:** 3.50"  
**Inside ø:** .875"



##### No. 89590

KEY  
OEM: 0331107



Impeller Kit includes:  
No. 81160 - O-ring  
No. 82129 - O-ring  
No. 86660 - Seal  
No. 89590 - Key



# Johnson / Evinrude

## WATER PUMP IMPELLER & KEY IDENTIFICATION

### No. 89780

OEM: 0396809  
See Water Pumps  
Application Guide for Models  
**Outside ø: 2.750"**  
**Inside ø: .625"**



### No. 89593

KEY  
OEM: 0344470



### No. 89940

OEM: 0765431  
See Water Pumps  
Application Guide for Models  
**Outside ø: 3.600"**  
**Inside ø: .750"**



### No. 89595

KEY  
OEM: 0308928



## High Pressure / Short Vane Impellers

### No. 89515

OEM: 0433935  
See Water Pumps  
Application Guide for Models  
**Outside ø: 1.1875"**  
**Inside ø: .4375"**



### No. N/A

KEY  
OEM: 0335956



### No. 89500

OEM: 0389576, 0436137  
See Water Pumps  
Application Guide for Models  
**Outside ø: 1.50"**  
**Inside ø: .440"**



### No. 89594

KEY  
OEM: 0300611



### No. 89516

OEM: 5030188  
See Water Pumps  
Application Guide for Models  
**Outside ø: 1.625"**  
**Inside ø: .4375"**



### No. N/A

KEY  
OEM: 5030137



### No. 89770

OEM: 0386084  
See Water Pumps  
Application Guide for Models  
**Outside ø: 1.50"**  
**Inside ø: .500"**



### No. 89594

KEY  
OEM: 0300611



### No. 89647

OEM: 5033112  
See Water Pumps  
Application Guide for Models  
**Outside ø: 1.5625"**  
**Inside ø: .50"**



### No. 89579

KEY  
OEM: 5033113



### No. 89750

OEM: 0395289  
See Water Pumps  
Application Guide for Models  
**Outside ø: 1.975"**  
**Inside ø: .625"**



### No. 89593

KEY  
OEM: 0344470



### No. 89990

OEM: 0390286  
See Water Pumps  
Application Guide for Models  
**Outside ø: 2.00"**  
**Inside ø: .690"**



### No. 89595

KEY  
OEM: 0308928



**JML**  
www.jmlmarine.com



# Johnson / Evinrude

## WATER PUMP KITS - 3, 3.5, 4, 4.5, 5, 6, 7.5, 8, 9.9 & 15 HP

### Water Pump Repair Kits Complete

**No. 12065**

OEM: N/A



**No. 12137**

OEM: N/A



**No. 12050**

OEM: 0394711



### Water Pump Repair Kits w/o Housing

**No. 12255**

OEM: 0396644



**No. 12316**

OEM: 5034323



**No. 12256**

OEM: 0436737



**No. 12152**

OEM: 5033106



### Water Pump Housings

**No. 12436**

OEM: 0389577



**No. 12460**

OEM: 0435390



### Impeller Kits

**No. 89515**

OEM: 0433935



**No. 89516**

OEM: 5030188



**No. 89647**

OEM: 5033112



**No. 89500**

OEM: 0389576



**No. 89770**

OEM: 0386084



**JML**  
www.jmlmarine.com





# Johnson / Evinrude

## WATER PUMP KITS - 20, 25, 28, 30, 35 HP & (15, 25, 30 HP E-TEC)

### Water Pump Repair Kits Complete

**No. 12049**

OEM: 5008972



**No. 12070**

OEM: 393630



**No. 12060**

OEM: 0395270



**No. 12233**

OEM: 0437907



### Water Pump Housings

**No. 12470**

OEM: 0393632



**No. 12440**

OEM: 0330560



**No. 12472**

OEM: 0393632



### Impeller Kit

**No. 89750**

OEM: 0395289



# Johnson / Evinrude

## WATER PUMP KITS - 40, 45, 48, 50 & 55 HP

### Water Pump Repair Kits Complete

**No. 12247**

OEM: 0391741



**No. 12245**

OEM: 0438592



**No. 12210**

OEM: 0439077



**No. 12235**

OEM: 5000308



### Water Pump Housings

**No. 12474**

OEM: 0390613



**No. 12450**

OEM: 0384087



**No. 89990**

OEM: 0390286



**No. 89790**

OEM: 0765350



**No. 12480**

OEM: 0438544



**No. 12482**

OEM: 0438545



**No. 89780**

OEM: 0777214



**No. 89710**

OEM: 0396725



# Johnson / Evinrude

## WATER PUMP KITS - 50, 55, 60, 65, 70, 75 HP & (40, 50, 60 HP E-TEC)

### Water Pump Repair Kits Complete

#### No. 12232

OEM: 0389133



#### No. 12235

OEM: 5000308



#### No. 12210

OEM: 0439077



#### No. 12244

OEM: 0438579



#### No. 12240

OEM: 0438602



### Water Pump Housings

#### No. 12450

OEM: 0384087



#### No. 12482

OEM: 0438545



### Impeller Kits

#### No. 89660

OEM: 0777213



#### No. 89710

OEM: 0396725



#### No. 12400

OEM: 0438543



#### No. 89780

OEM: 0777214



#### No. 89940

OEM: 0765431





# Johnson / Evinrude

## WATER PUMP KITS - 60, 65, 70, 85, 90, 100, 105, 115 HP & (115 HP E-TEC)

## Water Pump Repair Kits Complete

**No. 12246**

OEM: 0432955



**No. 12101**

OEM: 0395073



No. 12102

OEM: 5001594



No. 12000

OEM: 5001595



## Water Pump Housings

**No. 12103**

OEM: 0395072



## Impeller Kits

**No. 89710**

OEM: 0396725



No. 89680

OEM: 0777212



**No. 12400**

OEM: 0438543



**No. 12395**

OEM: 0435959



**No. 89570**

OEM: 5001593



# Johnson / Evinrude

## WATER PUMP KITS - 90, 115, 120, 135, 140, 150, 175, 200, 235 HP & (115, 130 E-TEC)

## Water Pump Repair Kits Complete

**No. 12181**

OEM: 5007556



No. 12101

OEM: 0395073



**No. 12102**

OEM: 5001594



**No. 12000**

OEM: 5001595



## Water Pump Housings

No. 12103

OEM: 0395072



## Impeller Kits

**No. 89680**

OEM: 0777212



No. 12399

OEM: 5007554



**No. 12430**

OEM: 0435990



No. 12395

OEM: 0435959



No. 89570

OEM: 5001593



# Johnson / Evinrude

## WATER PUMP KITS - 200, 225, 250 HP & (150, 175, 200, 225, 250 HP E-TEC)

### Water Pump Repair Kits Complete

#### No. 12000

OEM: 5001595



#### No. 12102

OEM: 5001594



#### No. 12136

OEM: 5007972



### Water Pump Housings

### Impeller Kit

#### No. 12395

OEM: 0435959



#### No. 89570

OEM: 5001593



#### No. 12430

OEM: 0435990





# Johnson / Evinrude

WATER PUMP KITS APPLICATIONS					
HP	Year(s)	Impeller Kits	Water Pump Repair Kits w/o Housing	Water Pump Repair Kits Complete	Water Pump Housings
1.5 / 2	1968-1990	-	-	-	-
Ultra, Excel 4	1987-1988	89515	-	-	-
2 / 2.3 / 3.3	1991-2001	-	-	-	-
3	1952-1968	-	-	-	-
3	1991-2001	89515	-	-	-
3.5	2002-2006	89515	-	-	-
4	1969-1972	-	-	-	-
4 (90o)	1973-1980	-	-	-	-
4 (90o)	1981-1990	-	-	-	-
4	1991-2001	89515	-	-	-
4 (110o)	1973-1982	-	-	-	-
4.5	1980-1984	89500	12255	12065	12436
4 Deluxe	1985-1988	89500	12255	12065	12436
4 Deluxe	1989-1996	89515	12256	12137	12436
4 / 5, 4-Stroke (138cc)	2003-2004	89516	12316	-	-
4 / 5 / 6, 4-Stroke	2005	89516	12316	-	-
5	1965-1968	-	-	-	-
5 / 6 / 8	1986-2005	89500	12255	-	12436
5.5 / 6	1954-1979	-	-	-	-
5 / 6, 4-Stroke (128cc)	1998-2004	89500	12255	-	12436
7.5	1954-1958	-	-	-	-
8, 4-Stroke (211cc)	1995-2004	89770	-	12050	12460
6 / 7.5 / 8	1980-1985	89500	12255	-	12436
6 Commercial	1981	-	-	-	-
9 Commercial	1978-1980	-	-	-	-
9.5	1964-1973	-	-	-	-
9.9 / 15	1974-2006	89770	-	12050	12460
9.9 / 15, 4-Stroke (305cc)	1995-2001	89770	-	12050	12460
9.9 / 14, 4-Stroke (302cc)	2002-2005	89647	12152	-	-
10	1951-1952	-	-	-	-
10	1953-1957	-	-	-	-
10	1958-1963	-	-	-	-
15	1953-1956	-	-	-	-
15 / 25 / 30 Evinrude® E-TEC®	2011 & Up	89750	-	12049	12470
18 / 20	1957-1973	-	-	-	-
20 / 25	1985-2005	89750	-	12070	12470
25 Commercial	1998-2001	89750	-	12070	12470
25	1955	-	-	-	-
25	1969-1978	-	-	-	-
25	1979-1984	89750	-	12060	12440
25 Commercial / 28 / 114 Commercial	1985-1997	89750	-	12060	12440
25 / 35, 3-Cylinder	1995-2001	89750	-	12233	12472
25 / 30, 4-Stroke	2004-2005	-	-	-	-
28 / 30 / 33	1956-1970	-	-	-	-
35	1957-1958	-	-	-	-
35 with Thermostat	1958-1959	-	-	-	-
35	1976-1977	-	-	-	-
35	1978-1979	89750	-	-	-
30 / 35	1980-1982	89750	-	12070	12470
30 / 35, 2-Cylinder	1983-2005	89750	-	12070	12470
40	1960-1966	-	-	-	-
40 Electric Shift	1967-1970	-	-	-	-

# Johnson / Evinrude

## WATER PUMP KITS APPLICATIONS

HP	Year(s)	Impeller Kits	Water Pump Repair Kits w/o Housing	Water Pump Repair Kits Complete	Water Pump Housings
40 Manual Shift	1967-1970	-	-	-	-
40	1971-1973	-	-	-	-
40	1974-1976	89990	-	12247	12474
40 Commercial	1981-1987	89990	-	12247	12474
40 Commercial (RS)	1991-2001	89790	-	-	-
40 Commercial (RS)	1995-2001	89790	-	12245	-
40 Recreational	1984-1985	89780	-	12210	12450
40 / 50	1986-1988	89780	-	12210	12450
40 / 48 / 50	1989-2005	89790	-	12245	12480
40 Commercial (RP, RW)	1993-1994	89780	-	12210	12450
45 / 55 Commercial	1986-1994	89780	-	12210	12450
40 Commercial (RP, RW)	1995-2001	89710	-	12235	12482
45 / 55 Commercial	1995-2001	89710	-	12235	12482
48	1987-1988	89780	-	12210	12450
50	1958-1959	-	-	-	-
50	1971-1978	89660	-	12232	12450
40 / 50, 4-Stroke	1999-2005	-	-	-	-
40 / 50 Evinrude® E-TEC®	2004-2005	89710	-	12235	12482
60 Evinrude® E-TEC®	2005	89710	-	12235	12482
40 / 50 / 60 Evinrude® E-TEC®	2006-2011	89710	-	12235	12482
50	1979-1985	89780	-	12210	12450
55	1968-1969	-	-	-	-
55 Recreational	1976-1978	89660	-	12232	12450
55 Recreational & Commercial	1979-1985	89780	-	12210	12450
60	1964-1967	-	-	-	-
60	1970-1971	-	-	-	-
60	1980-1985	89780	-	12210	12450
65	1972-1973	-	-	-	-
60 / 70, 4-Stroke	1998-2005	-	-	-	-
75	1960-1965	-	-	-	-
70 / 75	1974-1978	89940	-	12244	12400
60	1986-1988	89710	-	12240	12400
65 Commercial	1986-1987	89710	-	12240	12400
70 / 65 Commercial	1979-1985	89710	-	12240	12400
75	1979-1988	89710	-	12240	12400
75 / 90 Evinrude® E-TEC®	2004-2011	-	-	-	-
60	1989-1994	89710	-	12246	12400
65 Commercial	1988-1994	89710	-	12246	12400
70	1986-1994	89710	-	12246	12400
60 / 65 Commercial / 70	1995-2001	89710	-	12246	12400
80 / 85 / 90	1964-1968	-	-	-	-
85	1969-1972	-	-	-	-
85 / 20"	1973-1977	-	-	-	-
85 / 25"	1977	89680	-	12101	12103
85	1978	89680	-	12101	12103
85 / 90	1979-1981	89570	-	12102	12103
100	1971-1972	-	-	-	-
100	1979-1980	89570	-	12102	12103
105 Commercial	1998-2001	89570	-	12000	-
115	1969-1970	-	-	-	-
115 / 20"	1973-1977	-	-	-	-
115 / 25"	1977	89680	-	12101	12103



# Johnson / Evinrude

## WATER PUMP KITS APPLICATIONS

HP	Year(s)	Impeller Kits	Water Pump Repair Kits w/o Housing	Water Pump Repair Kits Complete	Water Pump Housings
115	1978	89680	-	12101	12103
115	1979-1981	89570	-	12102	12103
115 Evinrude® E-TEC®	2007-2009	89570	-	12000	12395
115 Evinrude® E-TEC®	2010	89570	-	12181	12399
115 HO / 130 Evinrude® E-TEC®	2009-2011	89570	-	12181	12399
125	1971-1972	-	-	-	-
135	1973-1976	-	-	-	-
140	1977-1978	89680	-	12101	12103
140	1979-1981	89570	-	12102	12103
150 / 175 / 200 / 235	1976-1978	89680	-	12101	12103
150 / 175 / 200 / 235	1979-1981	89570	-	12102	12103
V4 / V6 / V8 OB	1982-1992	89570	-	12102	12103
20" & 25" V4 Crossflow	1993-1998	89570	-	12102	12430
90 / 115 Loopcharged (except SL)	1995-2006	89570	-	12102	12430
90 / 115 SL	1995-2006	89570	-	12000	12395
90 / 115 DI	1999-2006	89570	-	12000	12395
120 / 140	1985-1992	89570	-	12102	12430
20" 120 / 140 "S" suffix	1993	89570	-	12102	12430
25" 120 "S" suffix	1993	89570	-	12102	12430
25" 120 / 140 "F" suffix	1993	89570	-	12000	12395
20" 120 / 130 / 140	1994-2000	89570	-	12102	12430
25" 120 / 130 / 140	1994-2000	89570	-	12000	12395
20" 135 V4	2001	89570	-	12102	12430
25" 135 V4	2001	89570	-	12000	12395
20" 150 / 175 6V6	1993	89570	-	12102	12430
25" 150 / 175 6V6	1993-2006	89570	-	12000	12395
20" 150 / 175 "SL" models	1994-1995	89570	-	12000	12395
20" 150 / 175 "SL" & "EL"	1996-1998	89570	-	12000	12395
20" 150 / 175 "GL" "PL" & "SPL"	1996-1999	89570	-	12102	12430
150 / 175 6V6	2000-2006	89570	-	12000	12395
135 / 150 / 175 DI	1997-2006	89570	-	12000	12395
150 / 175 / 200 Evinrude® E-TEC®	2007-2011	89570	-	12000	12395
200 / 225	1986-1992	89570	-	12102	12430
20" 200 / 225	1993-1997	89570	-	12102	12430
25" & 30" 200 / 225	1993-1997	89570	-	12000	12395
20" 200 / 225 "GL" "SL" & "STL"	1998	89570	-	12102	12430
25" & 30" 200 / 225 / 250 V6 & "TL"	1998	89570	-	12000	12395
20" 200 / 225	1999	89570	-	12102	12430
25" 20 / 225 / 250 V6	1999	89570	-	12000	12395
200 / 225 "HG" & "HGL"	2000	89570	-	12102	12430
200 / 225 / 250 V6	2000-2001	89570	-	12000	12395
20" 200 / 225 DI	1999	89570	-	12102	12430
25" 200 / 225 DI	1999	89570	-	12000	12395
200 / 225 / 250 DI	2000-2005	89570	-	12000	12395
200 / 225, 4-Stroke	2004-2005	-	-	-	-
200 / 225 / 250 Evinrude® E-TEC® 3.3L	2005-2010	89570	-	12000	12395
250 HO / 300 3.4L "C" or "S" suffix	2009	89570	-	12000	12395
250 HO / 300 3.4L "F" suffix	2009	89570	-	12136	12395
250 HO / 300 3.4L	2010-2011	89570	-	12136	12395



## Section 8

### Johnson / Evinrude Prop Hardware, Anodes, Tools

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# Johnson / Evinrude

## PROP HARDWARE - MOST 2 & 3-CYL. (1972-UP) - SMALL GEARCASE

(See Application Guide)

### No. 22120

COTTER PIN  
OEM: 0314502



### No. 22150

PROP NUT  
OEM: 0314503



### No. 22250

13 SPLINE WASHER  
OEM: 0315810



### No. 22240

THRUST WASHER  
OEM: 0320305



### No. 22340

KIT W/O THRUST WASHER  
OEM: 0175267



### No. 22245

KIT W/ THRUST WASHER  
OEM: 0386866



## PROP HARDWARE - 2 & 3-CYL. (1975-UP) - LARGE GEARCASE

## PROP HARDWARE - V4 (1973-UP) - SMALL GEARCASE

### No. 22120

COTTER PIN  
OEM: 0314502



### No. 22150

PROP NUT  
OEM: 0314503



### No. 22250

13 SPLINE WASHER  
OEM: 0315810



### No. 22230

THRUST WASHER  
OEM: 0127084



### No. 22340

KIT W/O THRUST WASHER  
OEM: 0175267



### No. 22235

KIT W/ THRUST WASHER  
OEM: 5005034





# Johnson / Evinrude

## PROP HARDWARE - V4/V6 "O" TYPE (1976-1990) - LARGE GEARCASE

### No. 22142

COTTER PIN  
OEM: 03852056



### No. 22185

PROP NUT KIT  
OEM: 0398042  
Comes w/ pin No. 22142



### No. 22190

15 SPLINE WASHER  
OEM: 0320570



### No. 22220

THRUST WASHER  
OEM: 0333592



### No. 22200

KIT W/O THRUST WASHER  
OEM: 0175266



### No. 22225

KIT W/ THRUST WASHER  
OEM: 0434153



## PROP HARDWARE - V4/V6/V8 "O" TYPE (1991-UP) - LARGE GEARCASE

### No. 22142

COTTER PIN  
OEM: 03852056



### No. 22185

PROP NUT KIT  
OEM: 0398042  
Comes w/ pin No. 22142



### No. 22190

15 SPLINE WASHER  
OEM: 0320570



### No. 22221

THRUST WASHER  
OEM: 03852020



### No. 22200

KIT W/O THRUST WASHER  
OEM: 0175266



### No. 22186

KIT W/ THRUST WASHER  
OEM: N/A



# Johnson / Evinrude

## PROPELLER HARDWARE

### Prop Kits w/o Prop Thrust Washers

#### No. 22222

OEM: 0175269

#### Kit Contains:

JML	OEM	ITEM
22255	0323942	Spline Washer 13-S
22160	0318971	Nut - 7/16" NC 14
22140	0328522	Pin



9.9-15 HP

#### No. 22350

OEM: 0175268

For 2-Cyl. Crossflow

#### Kit Contains:

JML	OEM	ITEM
22260	0323943	Spline Washer 14-S
22170	0319891	Nut - 1/2" NC 13
22130	0320785	Pin



20-35 HP (1980-05)  
Thru-Prop Exhaust

### Prop Thrust Washers

#### No. 22270

OEM: 0319890

3/8" Thick  
Outside ø 1-3/4"



2-Cyl. Crossflow, 20-35 HP

#### No. 22240

OEM: 0320305

15/32" Thick  
Outside ø 2-1/8"



#### No. 22241

OEM: 0318966

1/2" Thick  
Outside ø 1-1/2"



9.9-15 HP (1974-1988)

#### No. 22220

OEM: 0333592

17/32" Thick  
Outside ø 2-7/8"



"O" Type (1969-1990)

#### No. 22230

OEM: 0127084

19/32" Thick  
Outside ø 2-9/16"



#### No. 22242

OEM: 0334590

5/8" Thick  
Outside ø 1-1/2"



9.9-15 HP (1989-Up)

#### No. 22221

OEM: 0126870

3/4" Thick  
Outside ø 2-7/8"



"O" & "M" Type (1991-Up)

### Prop Spline Washers

#### No. 22255

OEM: 0323942

13 Spline  
ø 5/8" Shaft



#### No. 22260

OEM: 0323943

14 Spline  
ø 13/16" Shaft



#### No. 22250

OEM: 0315810

13 Spline  
ø 7/8" Shaft



#### No. 22190

OEM: 0320570

15 Spline  
ø 1" Shaft



### Prop Nuts

#### No. 22160

OEM: 0318971  
7/16" NC 14

#### No. 22150

OEM: 0314503  
5/8" NC 11

#### No. 22170

OEM: 0319891  
1/2" NC 13

#### No. 22185

OEM: 0398042  
3/4" NF 16



### Cotter Pins

#### No. 22100

OEM: 0302804

#### No. 22142

OEM: 0306394

#### No. 22110

OEM: 0309955

#### No. 22120

OEM: 0314502

#### No. 22130

OEM: 0320785

#### No. 22140

OEM: 0552906



## PROPELLER KITS & HARDWARE APPLICATIONS

Model	Year	Thrust Washer	Spline Washer	Nut	Pin	Kit w/o T. Washer	Kit w/ T. Washer
9.9-15	1974-1988	22241	22255	22160	22140	22222	N/A
9.9-15	1989 & Up	22242	22255	22160	22140	22222	N/A
2-Cyl. Crossflow, 20-35 HP, Thru-Prop Exhaust	1980-2005	22270	22260	22170	22130	22350	-
2-Cyl. Loopcharged, 40-60 HP	1972-1985	22240	22250	22150	22120	22340	22245
2-Cyl. Loopcharged, 40-60 HP, w/ Small Grcs.	1986-1988	22240	22250	22150	22120	22340	22245
2-Cyl. Loopcharged, 40-60 HP, w/ Large Grcs.	1986-1988	22230	22250	22150	22120	22340	22235
2-Cyl. Loopcharged, 40-50 HP	1989-2005	22240	22250	22150	22120	22340	22245
2-Cyl. Loopcharged, 55 HP	1989-2005	22230	22250	22150	22120	22340	22235
3-Cyl., 65 + 70 HP	1972-1974	22240	22250	22150	22120	22340	22245
3-Cyl., 65, 70, 75 HP w/ Small Gearcase	1975-1988	22240	22250	22150	22120	22340	22245
3-Cyl., 65, 70, 75 HP w/ Large Gearcase	1975-1988	22230	22250	22150	22120	22340	22235
3-Cyl., 60, 65, 70 HP	1989-2001	22230	22250	22150	22120	22340	22235
3-Cyl., 25, 30, 35 HP	1996-2001	-	22260	22170	22130	-	-
V4, ø 7/8" 13-Spline Prop Shaft	1973 & Up	22230	22250	22150	22120	22340	22235
V4, ø 1" 15-Spline Prop Shaft	1984-1990	22220	22190	22185	22142	22200	22225
V4, ø 1" 15-Spline Prop Shaft	1991 & Up	22221	22190	22185	22142	22200	22186
V6/V8	1976-1990	22220	22190	22185	22142	22200	22225
V6/V8	1991 & Up	22221	22190	22185	22142	22200	22186



# Johnson / Evinrude

## PROPELLER KITS & HARDWARE APPLICATIONS

HP	Year	Washer	Spacer	Nut	Pin	Kit
9.9/15	1974-78	22241	22255	22160	22140	22222
9.9/15	1989 & Up	22242	22255	22160	22140	22222
20	1985 & Up	22270	22260	22170	22130	22350
25	1985 & Up	22270	22260	22170	22130	22350
30	1985 & Up	22270	22260	22170	22130	22350
35	1976 & Up	22270	22260	22170	22130	22350
40	1984 & Up	22240	22250	22150	22120	22340
45	1985 & Up	22240	22250	22150	22120	22340
48	1987 & Up	22240	22250	22150	22120	22340
50	1972-74	22230	22250	22150	22120	22340
50	1975-76	22240	22250	22150	22120	22340
50	1979	22240	22250	22150	22120	22340
50	1981	22240	22250	22150	22120	22340
50	1982 & Up	22240	22250	22150	22120	22340
55	1977-79	22230	22250	22150	22120	22340
55	1981	22240	22250	22150	22120	22340
55	1983	22230	22250	22150	22120	22340
55	1985 & Up	22230	22250	22150	22120	22340
60	1971	22230	22250	22150	22120	22340
60	1980 & Up	22240	22250	22150	22120	22340
65	1972-73	22230	22250	22150	22120	22340
65 Comm.	1984 & Up	22230	22250	22150	22120	22340
70 (15")	1979-85	22240	22250	22150	22120	22340
70 (20")	1974-94	22230	22250	22150	22120	22340
75 (15")	1975-88	22240	22250	22150	22120	22340
75 (20")	1975-87	22230	22250	22150	22120	22340
85	1971-80	22230	22250	22150	22120	22340
88	1987-94	22230	22250	22150	22120	22340
90	1981-94	22230	22250	22150	22120	22340
100	1971-72	22230	22250	22150	22120	22340
100	1979-94	22230	22250	22150	22120	22340
100 Comm.	1984 & Up	22220	22190	22180/22185	22141	22200
110	1987-94	22230	22250	22150	22120	22340
115	1973-94	22230	22250	22150	22120	22340
120	1985	22220	22190	22180/22185	22141	22200
120	1986-94	22230	22250	22150	22120	22340
125	1971-72	22230	22250	22150	22120	22340
135	1973-76	22230	22250	22150	22120	22340
140	1977-84	22230	22250	22150	22120	22340
140	1985	22220	22190	22180/22185	22141	22200
140	1986-94	22230	22250	22150	22120	22340
150	1978-90	22220	22190	22180/22185	22141	22200
150	1991 & Up	22221	22190	22180/22185	22141	22200
155 Comm.	1984-90	22220	22190	22180/22185	22141	22200
155 Comm.	1991 & Up	22221	22190	22180/22185	22141	22200
175	1977-90	22220	22190	22180/22185	22141	22200
175	1991 & Up	22221	22190	22180/22185	22141	22200
185	1984-90	22220	22190	22180/22185	22141	22200
185	1991 & Up	22221	22190	22180/22185	22141	22200
200	1986-90	22220	22190	22180/22185	22141	22200
200	1991 & Up	22221	22190	22180/22185	22141	22200
225	1986-90	22220	22190	22180/22185	22141	22200
225	1991 & Up	22221	22190	22180/22185	22141	22200
235	1976-90	22220	22190	22180/22185	22141	22200
275	1985-90	22220	22190	22180/22185	22141	22200
275	1991 & Up	22221	22190	22180/22185	22141	22200
3.6 L	1985-90	22220	22190	22180/22185	22141	22200
300	1991 & Up	22221	22190	22180/22185	22141	22200
1.6 Seadrive	1982-90	22230	22250	22150	22120	22340
2.5 L Seadrive	1984-90	22220	22190	22180/22185	22141	22200
2.6 L Seadrive	1982-90	22220	22190	22180/22185	22141	22200

# Johnson / Evinrude

## ALUMINUM ANODES AND ANODE KITS

### No. 12761

ALUMINUM ANODE  
OEM: 0432397



4, 6, 8 HP (1985-1990)

### No. 12762

ALUMINUM ANODE  
OEM: 0338635



4-Stroke 9.9-15 HP (1995-2001)

### No. 12697

ALUMINUM ANODE KIT  
OEM: 0434029



20-35 HP (1991-Up)

### No. 12737

ALUMINUM ANODE  
OEM: 0431708



40 HP-V8 (1988-1991)

### No. 12742

ALUMINUM ANODE  
OEM: 0398873



40-50 HP (1989-Up)

### No. 12763

ALUMINUM ANODE  
OEM: 5031705



4-Stroke 40-50 HP (2004 & Up)

### No. 12695

ALUMINUM  
ANODE KIT  
OEM: 0392461



50-75 HP (1982-1984) except 55/56 comm.

### No. 12738

ALUMINUM ANODE  
OEM: 0392462



55-75 HP (1985-2001)

### No. 12857

ALUMINUM ANODE  
OEM: 5030907



4-Stroke 60, 70, 90, 115, 140 HP  
(2004 & Up)

### No. 12683

ALUMINUM ANODE  
OEM: 0397768



155 HP (1987-1990), 250 HP (1991-1998)

### No. 12696

ALUMINUM  
ANODE KIT  
OEM: 0392160



V4 & V6 (1982-1986)

### No. 12733

ALUMINUM ANODE  
OEM: 0392133



V4 & V6 (1982-1986)

### No. 12776

ALUMINUM  
ANODE  
OEM: 043674



V4 & V6 (1982-Up)

### No. 12739

ALUMINUM  
ANODE  
OEM: 0433580



3-Cyl.-V6 (1991-Up)

### No. 12736

ALUMINUM  
ANODE  
OEM: 0433458



Midsection for 3-Cyl.-V8  
(1985-Up)

### No. 12730

ALUMINUM  
ANODE  
OEM: 0173029



All Outboards

## ALUMINUM PROP NUT ANODE KITS AND REPLACEMENT ANODES

Prop Nut Anode Kits			Aluminum	Replacement Anodes			Aluminum
JML No.	Shaft Size	Thread Size		JML No.	For Kit No.	Anode Size	
<b>12727</b>	3/4"	1/2" NC 13		<b>12728</b>	12727	ø 1-1/4" x 1-1/2"L	
<b>12706</b>	7/8"	5/8" NC 11		<b>12705</b>	12706	ø 1-5/8" x 2"L	
<b>12718</b>	1-1/8"	3/4" NF 16		<b>12707</b>	12718	ø 2" x 2-5/8"L	

**JML's Aluminum Anodes to Replace Zinc Anodes!**



# Johnson / Evinrude

## PROP WRENCHES

### No. 90061

PROP WRENCH  
OEM: 91-859046M4

1-1/16"

Color Coded:  
**Blue**



With Built-In  
Tab Bender



### No. 90062

PROP WRENCH  
OEM: 91-859046M3

15/16"

Color Coded:  
**Red**



### No. 90063

PROP WRENCH  
OEM: 91-859046M2

13/16"

Color Coded:  
**Yellow**



### No. 90064

PROP WRENCH  
OEM: 91-859046M1

9/16"

Color Coded:  
**Purple**



## MARINE SERVICE TOOLS

### No. 90150

UNIVERSAL PULLER PLATE  
OEM: 91-37241



Pulls gears & bearings.

### No. 90095

PROP & BEARING CARRIER PULLER  
OEM: N/A



TOES IN  
For prop & old  
style bearing  
carrier.



TOES OUT  
For new style  
bearing carrier.



Capacity:  
5 Tons (min)

For All Style Bearing Carrier and Most Prop.



# Johnson / Evinrude

## MARINE SERVICE TOOLS

**The JML Shimming Tool No. 90330 makes rebuilding a lower gearcase so simple anyone can do it!**

### **No. 90330**

SHIMMING TOOL  
OEM: N/A

**For use with OMC Stringer and Cobra V6 Outboards with "O" Type or "M" Type Gearcases.**

**Not for use with Magnum Gearcases.**



**Unlike the factory shimming tool, it requires no mathematical calculations to determine pinion height/shim thickness. The measurement for shim thickness is determined with a simple feeler gauge!**

When rebuilding a Johnson / Evinrude outboard gearcase, the correct pinion gear height must be adjusted with shims of varying thickness. The amount of shims needed is determined with a shim tool.

The drive shaft assembly and pinion gear are installed into the JML shimming tool. A shim finder is mounted on the top of the pinion gear (small magnets installed in the shim finder hold it in place). The gap between the bottom of the shim finder and the base of the tool is determined with a feeler gauge. When the drive shaft and pinion gear are installed into the gearcase, shims equaling the thickness of the feeler gauge measurement are installed between the upper thrust bearing washer and the upper bearing carrier.

### **No. 90340**

PINION NUT ADAPTOR KIT  
OEM: N/A



JML design to hold 5/8" pinion nut when removing pinion gear and drive shaft on OMC sterndrive and O/B comes with No. 90350

### **No. 90350**

DRIVE SHAFT ADAPTOR  
OEM: 0314438





## Section 9

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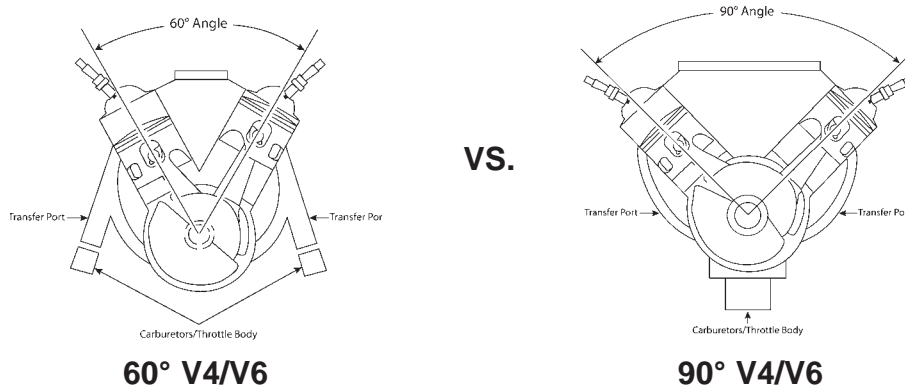
### Johnson / Evinrude Pistons

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# Johnson / Evinrude

## ENGINE DESIGNS (60° vs. 90°) V4/V6

Johnson / Evinrude outboards were the first to break away from the inline cylinder engine concept. In 1958 they introduced a V4 outboard to the marine industry. This outboard had the cylinder walls configured into a 90 degree V shape. In 1976 two more cylinders were added and the 90 degree V6 was born. As casting techniques improved a more compact 60 degree V6 engine was introduced in 1991 followed by the 60 degree V4 in 1995. Other than a narrower profile the difference between an older 90 degree engine and a newer 60 degree engine is the location of the carburetors/throttle bodies. A 90 degree V4/V6 engine will have the carburetors/throttle bodies located in the front of the crankcase directly over the crankshaft. A 60 degree V4/V6 engine will have the carburetors/throttle bodies located on the side of the crankcase, directly over the transfer ports.



## JML'S EXCLUSIVE MARINE PISTONS

- Fully Machined Hypereutectic Pistons
- Featuring a Hard Anodizing Coating on Top
- Resisting Temperatures up to 1560°F
- Hardness: HV280-400
- Pistons are T-6 Heat Treated

### OEM CAST vs. FORGED

(99% of OEM Pistons are Cast)

	CASTING	FORGING
Pros	Low expansion rate Lighter weight Longer life Lower costs	Greater Strength
Cons	Less strength but compensated by strong mold process	Heavier weight High expansion rate Shorter life Higher costs
Verdict	For Recreational For General use	High Performance Purposes

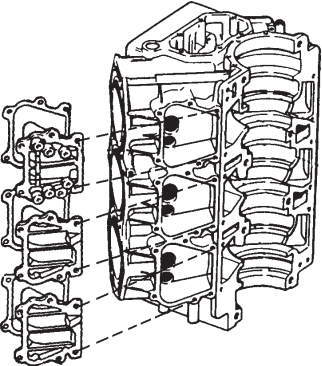

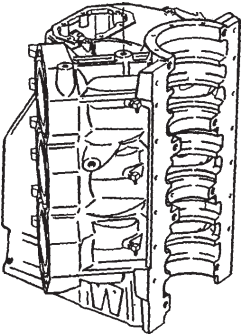



**JML PISTONS ARE 100% CAST**



# Johnson / Evinrude

## PISTON DESIGNS

There are three basic piston designs used in Johnson / Evinrude outboard engines; Crossflow, Loopcharged and Four-Stroke.

Crossflow	Loopcharged	Four-Stroke
<p>The oldest design, and the one used on all Johnson / Evinrude engines until 1968, is the crossflow piston. As the air / fuel mixture travels through the transfer port and into the cylinder, a deflector, cast into the top of the piston, directs the air / fuel mixture towards the combustion chamber and spark plug tip for maximum efficiency. All engines with deflectors on top of the pistons will be crossflow engines. External inspection of a crossflow engine will reveal removable transfer port covers on the side of the cylinders.</p>  <p>Removeable Transfer Port Cover</p>  <p>Piston with Deflector Top</p>	<p>In 1968 Johnson / Evinrude introduced an outboard engine with loopcharged pistons. This engine was the 55 HP 3-Cylinder. A loopcharged engine has a transfer port cast into the cylinder wall in such a way that it will direct the air / fuel mixture towards the combustion chamber and spark plug tip without the need for a piston deflector. All engines with a flat top or a slight dome on the top of the pistons will be loopcharged. Loopcharged engines will not have removable transfer port covers on the side of the cylinders.</p>  <p>Non-Removeable Transfer Port Cover</p>  <p>Piston with Flat Top</p>	<p>Four-stroke / four-cycle engines are fairly new to the marine industry. They have become the engine design preferred by most marine engine manufacturers to meet government mandated exhaust emission standards. Oil stored in the crankcase of these engines is splashed onto the cylinder walls for piston and ring lubrication. The pistons are equipped with oil control rings to scrap excess oil off of the cylinder walls. Four-stroke / four-cycle pistons are easily identified by a three piece oil control ring in the bottom ring position. The pistons almost always have a flat top or a dished top and never have needle bearings between the wrist pin and connecting rod (like two-stroke engines).</p>   <p>Piston with Flat Top and Oil Ring in the Bottom Position</p>

# Johnson / Evinrude

## 2-CYLINDER CROSSFLOW PISTONS

### Crossflow Pistons for 2-Cylinder 9.9 HP & 15 HP (1981-1992) Johnson / Evinrude Outboards

These engines use  $\varnothing$  2.1875" pistons

9.9 HP	1981-1992
15 HP	1981-1992



#### Pistons for above engines

<u>JML Piston No.</u>	<u>Size</u>	<u>OEM Piston No.</u>
<b>24410</b>	$\varnothing$ 2.1875	5006670
<b>24420</b>	$\varnothing$ 2.1875 +.020	N/A
<b>24430</b>	$\varnothing$ 2.1875 +.030	5006662

*all pistons come with rings, pin and retainers*

#### Rings for above $\varnothing$ 2.1875" pistons

<u>JML Ring No.</u>	<u>Size</u>	<u>OEM Ring No.</u>
<b>23710</b>	$\varnothing$ 2.1875	0386279
<b>23720</b>	$\varnothing$ 2.1875 +.020	N/A
<b>23730</b>	$\varnothing$ 2.1875 +.030	0386280

*all rings come 2 to a set*



# Johnson / Evinrude

## 2-CYLINDER CROSSFLOW PISTONS

### Crossflow Pistons for 2-Cylinder 20 HP, 25 HP, 30 HP, 35 HP (1981-1994) Johnson / Evinrude Outboards

These engines use ø 3.000" pistons

20 HP	1981-1983
25 HP	1986-1994
30 HP	1984-1994



#### Pistons for above engines

<u>JML Piston No.</u>	<u>Size</u>	<u>OEM Piston No.</u>
<b>23910</b>	ø 3.000	5006657
<b>23920</b>	ø 3.000 +.020	N/A
<b>23930</b>	ø 3.000 +.030	5006664

*all pistons come with rings, pin and retainers*

#### Rings for above ø 3.000" pistons

<u>JML Ring No.</u>	<u>Size</u>	<u>OEM Ring No.</u>
<b>24240</b>	ø 3.000	0396377
<b>24260</b>	ø 3.000 +.020	N/A
<b>24280</b>	ø 3.000 +.030	0396379

*all rings come 2 to a set*

# Johnson / Evinrude

## 2-CYLINDER LOOPCHARGED PISTONS

### Loopcharged Pistons for 2-Cylinder 40 HP - 60 HP (1980-1994) Johnson / Evinrude Outboards

**These engines use ø 3.1875" pistons**

40 HP	1984-1994	50 HP	1981-1994
45 HP	1994	55 HP	1994
48 HP	1987-1994	60 HP	1980-1994



#### Pistons for above engines

<u>JML Piston No.</u>	<u>Size</u>	<u>OEM Piston No.</u>
<b>24110</b>	ø 3.1875	5006655
<b>24112</b>	ø 3.1875 +.020	N/A
<b>24130</b>	ø 3.1875 +.030	5006665

*all pistons come with rings, pin and retainers*

#### Rings for above ø 3.625" pistons

<u>JML Ring No.</u>	<u>Size</u>	<u>OEM Ring No.</u>
<b>24310</b>	ø 3.1875	0391170
<b>24320</b>	ø 3.1875 +.020	N/A
<b>24330</b>	ø 3.1875 +.030	0391416

*all rings come 2 to a set*





# Johnson / Evinrude

## 3-CYLINDER LOOPCHARGED PISTONS

Loopcharged Pistons for 3-Cylinder 60 HP, 65 HP, 70 HP, 75 HP (1976-1988)  
Johnson / Evinrude Outboards

These engines use ø 3.000" pistons

60 HP	1986-1988
65 HP	1984-1986
70 HP	1976-1985
75 HP	1976-1985



### Pistons for above engines

<u>JML Piston No.</u>	<u>Size</u>	<u>OEM Piston No.</u>
<b>24040</b>	ø 3.000	5006751
<b>24060</b>	ø 3.000 +.020	N/A
<b>24080</b>	ø 3.000 +.030	5006666

*all pistons come with rings, pin and retainers*

### Rings for above ø 3.000" pistons

<u>JML Ring No.</u>	<u>Size</u>	<u>OEM Ring No.</u>
<b>24240</b>	ø 3.000	0396377
<b>24260</b>	ø 3.000 +.020	0396378
<b>24280</b>	ø 3.000 +.030	0396379

*all rings come 2 to a set*

# Johnson / Evinrude

## 3-CYLINDER LOOPCHARGED PISTONS

### Loopcharged Pistons for 3-Cylinder 60 HP, 65 HP, 70 HP (1986-1994) Johnson / Evinrude Outboards

These engines use  $\varnothing$  3.1875" pistons with  
Keystone (triangular) rings

60 HP	1989-1994
65 HP	1987-1994
70 HP	1986-1994



#### Pistons for above engines

JML Piston No.	Size	OEM Piston No.
<b>23770</b>	$\varnothing$ 3.1875	5006701
<b>23780</b>	$\varnothing$ 3.1875 +.020	N/A
<b>23790</b>	$\varnothing$ 3.1875 +.030	5006702

*all pistons come with rings, pin and retainers*

#### Rings for above $\varnothing$ 3.1875" pistons

Top ring is 2.3 mm thick Bottom ring is 1.6 mm thick

JML Ring No.	Size	OEM Ring No.
<b>24310</b>	$\varnothing$ 3.1875	0391170
<b>24320</b>	$\varnothing$ 3.1875 +.020	N/A
<b>24330</b>	$\varnothing$ 3.1875 +.030	0391416

*all rings come 2 to a set*



# Johnson / Evinrude

## 3-CYLINDER LOOPCHARGED PISTONS

### Loopcharged Pistons for 3-Cylinder 60 HP, 65 HP, 70 HP (1994-2001) Johnson / Evinrude Outboards

These engines use  $\varnothing$  3.1875" pistons with  
traditional (rectangular) rings

60 HP	1994-2001
65 HP	1994-2001
70 HP	1994-2001



#### Pistons for above engines

<u>JML Piston No.</u>	<u>Size</u>	<u>OEM Piston No.</u>
<b>23740</b>	$\varnothing$ 3.1875	5006694
<b>23750</b>	$\varnothing$ 3.1875 +.020	5006707
<b>23760</b>	$\varnothing$ 3.1875 +.030	5006695

*all pistons come with rings, pin and retainers*

#### Rings for above $\varnothing$ 3.1875" pistons

Rings are 2 mm thick

<u>JML Ring No.</u>	<u>Size</u>	<u>OEM Ring No.</u>
<b>24540</b>	$\varnothing$ 3.1875	0436972
<b>24550</b>	$\varnothing$ 3.1875 +.020	N/A
<b>24560</b>	$\varnothing$ 3.1875 +.030	0436973

*all rings come 2 to a set*

# Johnson / Evinrude

## V4 90° & V6 90° CROSSFLOW PISTONS

### Crossflow Pistons for 90 Degree V4 & V6 Johnson / Evinrude Outboards

#### These engines use ø 3.500" pistons

85 HP	90 Degree V4	1979-1980	150 HP	90 Degree V6	1978-1991
88 HP	90 Degree V4	1987-1993	175 HP	90 Degree V6	1977-1985
90 HP	90 Degree V4	1981-1993	185 HP	90 Degree V6	1984-1985
100 HP	90 Degree V4	1984-1994	200 HP	90 Degree V6	1976-1983
110 HP	90 Degree V4	1986-1990	235 HP	90 Degree V6	1978-1979
115 HP	90 Degree V4	1974-Thru			
135 HP	90 Degree V4	1974-1976			
140 HP	90 Degree V4	1977-1984			



#### Pistons for above engines

<u>JML Piston No.</u>	<u>Size</u>	<u>OEM Piston No.</u>
<b>24010</b>	ø 3.500	5006658
<b>24020</b>	ø 3.500 +.020	5006703
<b>24030</b>	ø 3.500 +.030	5006669
<b>24034</b>	ø 3.500 +.040	5006704

*all pistons come with rings, pin and retainers*

#### Rings for above ø 3.500" pistons

<u>JML Ring No.</u>	<u>Size</u>	<u>OEM Ring No.</u>
<b>24210</b>	ø 3.500	0394930
<b>24220</b>	ø 3.500 +.020	0439001
<b>24230</b>	ø 3.500 +.030	0396504
<b>24300</b>	ø 3.500 +.040	0439002

*all rings come 2 to a set*



# Johnson / Evinrude

## V6 90° CROSSFLOW PISTONS

### Crossflow Pistons for 90 Degree V6 Johnson / Evinrude Outboards

#### These engines use ø 3.625" pistons

175 HP	90 Degree V6	1986-1991
235 HP	90 Degree V6	1980-1985



#### Pistons for above engines

<u>JML Piston No.</u>	<u>Size</u>	<u>OEM Piston No.</u>
<b>23940</b>	ø 3.625	5006656
<b>23950</b>	ø 3.625 +.020	N/A
<b>23960</b>	ø 3.625 +.030	5006668

*all pistons come with rings, pin and retainers*

#### Rings for above ø 3.625" pistons

<u>JML Ring No.</u>	<u>Size</u>	<u>OEM Ring No.</u>
<b>24570</b>	ø 3.625	0390509
<b>24580</b>	ø 3.625 +.020	N/A
<b>24590</b>	ø 3.625 +.030	0390510

*all rings come 2 to a set*

# Johnson / Evinrude

## V4 60° & V6 60° LOOPCHARGED PISTONS

### Loopcharged Pistons for 60 Degree V4 & V6 Johnson / Evinrude Outboards with Carburetors

#### These engines use ø 3.600" pistons

90 HP	60 Degree V4	1995-newer with Carburetors
115 HP	60 Degree V4	1995-newer with Carburetors
150 HP	60 Degree V6	1991-newer with Carburetors
175 HP	60 Degree V6	1991-newer with Carburetors



#### Pistons for above engines

<u>JML Piston No.</u>		<u>Size</u>	<u>OEM Piston No.</u>	
Port	Starboard		Port	Starboard
<b>14600</b>	<b>14610</b>	ø 3.600	5006687, 5006681	5006688, 5006682
<b>14620</b>	<b>14630</b>	ø 3.600 +.020	5006708	5006715
<b>14640</b>	<b>14650</b>	ø 3.600 +.030	5006714, 5006679	5006716, 5006680

*all pistons come with rings, pin and retainers*

#### Rings for above ø 3.600" pistons

<u>JML Ring No.</u>	<u>Size</u>	<u>OEM Ring No.</u>
<b>14170</b>	ø 3.600	0436353
<b>14180</b>	ø 3.600 +.020	0439029
<b>14190</b>	ø 3.600 +.030	0436354

*all rings come 2 to a set*





# Johnson / Evinrude

## V4 60° & V6 60° LOOPCHARGED PISTONS

### Loopcharged Pistons for 60 Degree V4 & V6 Johnson / Evinrude Outboards with Fuel Injection

These engines use  $\varnothing$  3.600" with a dish in the piston top

75 HP	60 Degree V4	2000-newer with Fuel Injection
90 HP	60 Degree V4	2000-newer with Fuel Injection
115 HP	60 Degree V4	2000-newer with Fuel Injection
150 HP	60 Degree V6	2000-newer with Fuel Injection
175 HP	60 Degree V6	2000-newer with Fuel Injection



#### Pistons for above engines

<u>JML Piston No.</u>		<u>Size</u>	<u>OEM Piston No.</u>	
Port	Starboard		Port	Starboard
<b>24440</b>	<b>24450</b>	$\varnothing$ 3.600	5006727	5006728
<b>24460</b>	<b>24470</b>	$\varnothing$ 3.600 +.020		
<b>24480</b>	<b>24490</b>	$\varnothing$ 3.600 +.030	5006729	5006730

*all pistons come with rings, pin and retainers*

#### Rings for above $\varnothing$ 3.600" pistons

<u>JML Ring No.</u>	<u>Size</u>	<u>OEM Ring No.</u>
<b>14170</b>	$\varnothing$ 3.600	0436353
<b>14180</b>	$\varnothing$ 3.600 +.020	0439029
<b>14190</b>	$\varnothing$ 3.600 +.030	0436354

*all rings come 2 to a set*

# Johnson / Evinrude

## V4 90° / V6 90° / V8 LOOPCHARGED PISTONS

### Loopcharged Pistons for 90 Degree V4/V6/V8 Johnson / Evinrude Outboards

**These 1985-1987 engines use ø 3.500" pistons**

120 HP	90 Degree V4	1985-1987
140 HP	90 Degree V4	1985-1987
200 HP	90 Degree V6	1986-1987
225 HP	90 Degree V6	1986-1987
275 HP	90 Degree V8	1985-1987
300 HP	90 Degree V8	1985-1987



#### Pistons for above engines

<u>JML Piston No.</u>		<u>Size</u>	<u>OEM Piston No.</u>	
Port	Starboard		Port	Starboard
<b>23800</b>	<b>23810</b>	ø 3.500	5006659	N/A
<b>23820</b>	<b>23830</b>	ø 3.500 +.020	N/A	N/A
<b>23840</b>	<b>23850</b>	ø 3.500 +.030	5006660	N/A

*all pistons come with rings, pin and retainers*

#### Rings for above ø 3.500" pistons

<u>JML Ring No.</u>	<u>Size</u>	<u>OEM Ring No.</u>
<b>24210</b>	ø 3.500	0394930
<b>24220</b>	ø 3.500 +.020	0439001
<b>24230</b>	ø 3.500 +.030	0396504

*all rings come 2 to a set*



# Johnson / Evinrude

## V4 90° / V6 90° / V8 LOOPCHARGED PISTONS

### Loopcharged Pistons for 90 Degree V4/V6/V8 Johnson / Evinrude Outboards

These 1988 and newer engines use ø 3.685" pistons

120 HP	90 Degree V4	1988-1994
140 HP	90 Degree V4	1988-1994
200 HP	90 Degree V6	1988-1992
225 HP	90 Degree V6	1988-1992
250 HP	90 Degree V8	1991-1998
300 HP	90 Degree V8	1988-1995



#### Pistons for above engines

<u>JML Piston No.</u>		<u>Size</u>	<u>OEM Piston No.</u>	
Port	Starboard		Port	Starboard
<b>24050</b>	<b>24100</b>	ø 3.685	5006675, 5006671	5006676, 5006672
<b>24070</b>	<b>24120</b>	ø 3.685 +.020	N/A	N/A
<b>24090</b>	<b>24140</b>	ø 3.685 +.030	5006673, 5006677	5006674, 5006678

*all pistons come with rings, pin and retainers*

#### Rings for above ø 3.685" pistons

<u>JML Ring No.</u>	<u>Size</u>	<u>OEM Ring No.</u>
<b>24250</b>	ø 3.685	0431870
<b>24270</b>	ø 3.685 +.020	N/A
<b>24290</b>	ø 3.685 +.030	0431844

*all rings come 2 to a set*

# Johnson / Evinrude

## V6 90° LOOPCHARGED PISTONS

### Loopcharged Pistons for 90 Degree V6 Johnson / Evinrude Outboards

**These 1993 and newer engines use ø 3.6875" pistons  
with finger ports**

200 HP	90 Degree V6	1993-2001 with carburetors
225 HP	90 Degree V6	1993-2001 with carburetors



#### Pistons for above engines

<u>JML Piston No.</u>		<u>Size</u>	<u>OEM Piston No.</u>	
Port	Starboard		Port	Starboard
<b>24150</b>	<b>24160</b>	ø 3.6875	5006691	5006690
<b>24170</b>	<b>24180</b>	ø 3.6875 +.020	5006706	5006712
<b>24190</b>	<b>24200</b>	ø 3.6875 +.030	5006711	5006713

*all pistons come with rings, pin and retainers*

#### Rings for above ø 3.6875" pistons

<u>JML Ring No.</u>	<u>Size</u>	<u>OEM Ring No.</u>
<b>24340</b>	ø 3.6875	0436254
<b>24350</b>	ø 3.6875 +.020	0439538
<b>24360</b>	ø 3.6875 +.030	0436251

*all rings come 2 to a set*



# Johnson / Evinrude

## 2-CYLINDER FOUR-STROKE PISTONS

### Four-Stroke Pistons for 2-Cylinder 9.9 HP and 15 HP (1995-2002) Johnson Outboards

These engines use  $\varnothing$  65 mm pistons

9.9 HP	1995-2002
15 HP	1995-2002



#### Pistons for above engines

<u>JML Piston No.</u>	<u>Size</u>	<u>OEM Piston No.</u>
<b>24500</b>	$\varnothing$ 65 mm	0437776
<b>24520</b>	$\varnothing$ 65 mm +.030	0437777

*all pistons come with rings, pin and retainers*

#### Rings for above $\varnothing$ 65 mm pistons

<u>JML Ring No.</u>	<u>Size</u>	<u>OEM Ring No.</u>
<b>24370</b>	$\varnothing$ 65 mm	0436289
<b>24390</b>	$\varnothing$ 65 mm +.030	0436290

*all rings come 5 to a set*

# Johnson / Evinrude

## PISTON KITS AND RINGS APPLICATIONS

HP	Year	Standard		.020 Oversize		.030 Oversize		.040 Oversize	
		Piston	Ring	Piston	Ring	Piston	Ring	Piston	Ring
2-Cylinder									
2-Cyl., 9.9, 15 (ø 2.1875)	1981-92	24410	23710	24420	23720	24430	23730	N/A	N/A
9.9, 15 (4 Cycle)	1995-02	24500	24370	N/A	N/A	24520	24390	N/A	N/A
20, 25, 3.0	81-83/86-94	23910	24240	23920	24260	23930	24280	N/A	N/A
30, 3.0	1984-94	23910	24240	23920	24260	23930	24280	N/A	N/A
20, 35	1976-80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Cylinder Loopcharged									
40 (ø 3.1875)	1984-94	24110	24310	24112	24320	24130	24330	N/A	N/A
48	1987-94	24110	24310	24112	24320	24130	24330	N/A	N/A
50	1981-94	24110	24310	24112	24320	24130	24330	N/A	N/A
55	1980-93	24110	24310	24112	24320	24130	24330	N/A	N/A
45, 55	1994	24110	24310	24112	24320	24130	24330	N/A	N/A
60	1980-85	24110	24310	24112	24320	24130	24330	N/A	N/A
3-Cylinder Loopcharged									
50 (ø 3.1875)	1995-98	23740	24540	23750	24550	23760	24560	N/A	N/A
60, 3.0	1986-88	24040	24240	24060	24260	24080	24280	N/A	N/A
60, 65, 70 (ø 3.1875)	1986-94	23770	24310	23780	24320	23790	24330	N/A	N/A
60, 70 (ø 3.1875)	1994-Thru	23740	24540	23750	24550	23760	24560	N/A	N/A
65, 3.0	1984-86	24040	24240	24060	24260	24080	24280	N/A	N/A
70, 3.0	1976-85	24040	24240	24060	24260	24080	24280	N/A	N/A
75, 3.0	1976-85	24040	24240	24060	24260	24080	24280	N/A	N/A
V4 60° Loopcharged									
75, 90, 115, Fuel Inj. V4 60°	2000-Thru	24440 PORT	14170	24460	14180	24480	14190	N/A	N/A
		24450 STBD	14170	24470	14180	24490	14190	N/A	N/A
90, 115, Carburetors V4 60°	1995-Thru	14600 PORT	14170	14620	14180	14640	14190	N/A	N/A
		14610 STBD	14170	14630	14180	14650	14190	N/A	N/A
V4 90° Crossflow									
85 Crossflow	1979-80	24010	24210	24020	24220	24030	24230	24034	24300
88 Crossflow	1987-98	24010	24210	24020	24220	24030	24230	24034	24300
90 Crossflow	1981-98	24010	24210	24020	24220	24030	24230	24034	24300
100 Crossflow	1979-80	24010	24210	24020	24220	24030	24230	24034	24300
100 Crossflow Comm.	1984-Thru	24010	24210	24020	24220	24030	24230	24034	24300
110 Crossflow	1986-88	24010	24210	24020	24220	24030	24230	24034	24300
115 Crossflow	1974-98	24010	24210	24020	24220	24030	24230	24034	24300
135 Crossflow	1974-76	24010	24210	24020	24220	24030	24230	24034	24300
140 Crossflow	1977-84	24010	24210	24020	24220	24030	24230	24034	24300





# Johnson / Evinrude

## PISTON KITS AND RINGS APPLICATIONS (CONTINUED)

HP	Year	Standard		.020 Oversize		.030 Oversize		.040 Oversize	
		Piston	Ring	Piston	Ring	Piston	Ring	Piston	Ring
V4 90° Loopcharged									
120, 140 Loopcharged	1985-87	23800 PORT	24210	23820	24220	23840	24230	N/A	N/A
		23810 STBD	24210	23830	24220	23850	24230	N/A	N/A
120, 130, 140 Loopcharged	1988-94	24050 PORT	24250	24070	24270	24090	24290	N/A	N/A
		24100 STBD	24250	24120	24270	24140	24290	N/A	N/A
V6 90° Crossflow									
150 Crossflow	1978-83	24010	24210	24020	24220	24030	24230	24034	24300
150 Crossflow	1984-91	24010	24210	24020	24220	24030	24230	24034	24300
155 Comm. Crossflow	1985-87	24010	24210	24020	24220	24220	24230	N/A	N/A
175 Crossflow	1977-83	24010	24210	24020	24220	24030	24230	24034	24300
175 Crossflow	1984-85	24010	24210	24020	24220	24220	24230	N/A	N/A
175 Crossflow	1986-91	23940	24570	23950	24580	23960	24590	N/A	N/A
185 Crossflow	1985	24010	24210	24020	24220	24220	24230	N/A	N/A
200 Crossflow	1976-83	24010	24210	24020	24220	24030	24230	24034	24300
235 Crossflow	1978-79	24010	24210	24020	24220	24030	24230	24034	24300
235 Crossflow	1980-85	23940	24570	23950	24580	23960	24590	N/A	N/A
V6 60° Loopcharged									
150, 175 Carburetors V6 60°	1991-Thru	14600 PORT	14170	14620	14180	14640	14190	N/A	N/A
		14610 STBD	14170	14630	14180	14650	14190	N/A	N/A
150, 175 Fuel Inj. V6 60°	2000-Thru	24440 PORT	14170	24460	14180	24480	14190	N/A	N/A
		24450 STBD	14170	24470	14180	24490	14190	N/A	N/A
V6 90° Loopcharged									
200-225 Loopcharged V6 90°	1985-87	23800 PORT	24210	23820	24220	23840	24230	N/A	N/A
		23810 STBD	24210	23830	24220	23850	24230	N/A	N/A
200-225 Loopcharged V6 90°	1988-92	24050 PORT	24250	24070	24270	24090	24290	N/A	N/A
		24100 STBD	24250	24120	24270	24140	24290	N/A	N/A
200-225 Loopcharged V6 90°	1993-01	24150 PORT	24340	24170	24350	24190	24360	N/A	N/A
		24160 STBD	24340	24180	24350	24200	24360	N/A	N/A
V8 Loopcharged									
250 Loopcharged V8	1991-98	24050 PORT	24250	24070	24270	24090	24290	N/A	N/A
		24100 STBD	24250	24120	24270	24140	24290	N/A	N/A
300 Loopcharged V8	1988-95	24050 PORT	24250	24070	24270	24090	24290	N/A	N/A
		24100 STBD	24250	24120	24270	24140	24290	N/A	N/A
275-300 Loopcharged V8	1985-87	23800 PORT	24210	23820	24220	23840	24230	N/A	N/A
		23810 STBD	24210	23830	24220	23850	24230	N/A	N/A



# Section 10

## Johnson / Evinrude Powerhead Bearings & Seals

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# Johnson / Evinrude

## POWERHEAD BEARINGS

### Main Bearings

#### No. 22840

OEM: 0395401

Metal Cage



ø .8125 Journal Size

9.9-15 HP (1974-95)  
9.9-15 HP (1974-83)

#### No. 22920

OEM: 0390900



Most Early & Late Model 45-60 HP  
2-Cyl. and 3-Cyl. Models

#### No. 22930

OEM: 0398529



Many Late Model 45-60 HP  
2-Cyl. and 3-Cyl. Models

#### No. 21860

OEM: 0377139



3-Cyl. Lower Crankshaft  
(1968-94)

### Center Bearings

#### No. 22800

OEM: 0378252

Metal Cage



ø 1.375 Journal Size

40C (1974-Thru), 45-60 HP 2-Cyl., (1971-Thru),  
3-Cyl. All, V4 (1962-78)

#### No. 22810

OEM: 0387041

Metal Cage



ø 2.1875 Journal Size

V4 Crossflow (1979-Thru), V6 Crossflow (1976-Thru)  
All V4-V6 60° Models

### Center Split Sleeve

#### No. 22700

OEM: 0310433



40C (1974-Thru), 45-60 HP 2-Cyl., (1971-Thru),  
3-Cyl. All, V4 (1962-78)

#### No. 22710

OEM: 0320499



V4 Crossflow (1979-Thru), V6 Crossflow (1976-Thru)  
All V4-V6 60° Models

### Center Bearing Kits

#### No. 22755

OEM: N/A

##### Kit Contains:

JML	OEM	ITEM
22800	0378252	Main Bearing
22700	0310433	Center Split Sleeve

ø 1.375  
Journal Size

40C (1974-Thru), 45-60 HP 2-Cyl., (1971-Thru),  
3-Cyl. All, V4 (1962-78)



#### No. 22855

OEM: N/A

##### Kit Contains:

JML	OEM	ITEM
22810	0387041	Main Bearing
22710	0320499	Center Split Sleeve

ø 2.1875  
Journal Size

V4 Crossflow (1979-Thru), V6 Crossflow (1976-Thru)  
All V4-V6 60° Models



# Johnson / Evinrude

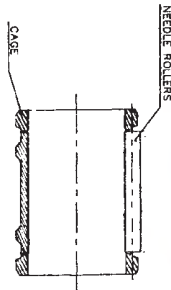
## POWERHEAD BEARINGS

### Connecting Rod Bearings - Small End

#### No. 16240

OEM: 0378251

Meet ISO  
3030 Standard



**HEAVY DUTY CAGE!**



25, 40, 50, 65 & 85 HP (1972-Thru)

#### No. 16220

OEM: 0395627



20-35 HP (1981-95), 45-60 2-Cyl. (1977-95)  
3-Cyl. (1976-Thru), V4 Crossflow (1973-Thru)  
V6 Crossflow (1976-Thru), All 60° V4/V6 Models

#### No. 16230

OEM: 0434844



V4/V6/V8  
90° Loopcharged Models (1985-Up)

### Connecting Rod Bearings - Big End

#### No. 22840

OEM: 0395401

Metal Cage



ø .8125 Journal Size

9.9-15 HP (1974-95), 9.9-15 HP (1974-83)

#### No. 16200

OEM: 0437088

Metal Cage



ø 1.1825 Journal Size - 30mm

20-35 HP (1976-95), 46-60 HP 2-Cyl. (1971-94),  
3-Cyl. (1968-93), V4 (1961-73)

#### No. 22500

REPLACEMENT  
BEARINGS FOR CAGE  
OEM: 0387139, 0387142



#### No. 22820

OEM: 0387787

Metal Cage



ø 1.375 Journal Size

V4 Crossflow (1979-Thru), V6 Crossflow (1976-Thru)  
All V4/V6 60° Models

#### No. 22500

OEM: 0387139, 0387142  
Replacement Bearings  
For Cage



#### No. 22850

OEM: 0396041

Metal Cage



ø 1.500 Journal Size

V4/V6/V8  
90° Loopcharged Models (1985-95)

# Johnson / Evinrude

## BEARING APPLICATIONS

HP	Year	Main Bearing	Center Bearing	Center Split Sleeve Bearing	Center Bearing Kit	Connecting Rod Bearing Small End	Connecting Rod Bearing Big End
9.9	1974-83	-	22840	-	-	-	22840
9.9	1984-97	-	-	-	-	-	22840
10	1981	-	22840	-	-	-	22840
10 Comm.	1989-91	-	-	-	-	-	22840
10 Comm.	1994	-	-	-	-	-	22840
14	1981	-	22840	-	-	-	22840
14 Comm.	1989-91	-	-	-	-	-	22840
15	1974-83	-	22840	-	-	-	22840
15	1984-97	-	-	-	-	-	22840
15 Comm.	1994	-	-	-	-	-	22840
18	1960-68	-	-	-	-	-	-
18	1970-73	-	-	-	-	16240	-
18 Jet	1996-97	-	-	-	-	16220	22840
20	1981-84	-	-	-	-	16220	22840
20	1985-97	-	-	-	-	16220	16200
25	1970-76	-	-	-	-	16240	-
25	1977	-	-	-	-	16240	16200
25	1978-80	-	-	-	-	16240	16200
25	1981-84	-	-	-	-	16220	16200
25	1985-97	-	-	-	-	16220	16200
25 Comm.	1982-84	-	-	-	-	16220	16200
25 Comm.	1985-97	-	-	-	-	16220	16200
28	1962-64	-	-	-	-	-	-
28	1987-97	-	-	-	-	16220	16200
30	1984	-	-	-	-	16220	16200
30	1985-97	-	-	-	-	16220	16200
33	1965-69	-	-	-	-	-	-
33	1970	-	-	-	-	16240	16200
35	1976-80	-	-	-	-	16240	16200
35	1981-84	-	-	-	-	16220	16200
35	1985-97	-	-	-	-	16220	16200
40	1961-70	-	-	-	-	-	-
40	1971-73	-	-	-	-	16240	16200
40	1974-76	-	22800	22700	22755	16240	16200
40	1983	-	22800	22700	22755	16240	16200
40	1984-86	22920	22800	22700	22755	16220	16200
40	1987-97	22930	22800	22700	22755	16220	16200
40 Comm.	1982-83	-	22800	22700	22755	16240	16200
40 Comm.	1984-85	22920	22800	22700	22755	16240	16200
40 Comm.	1989-90	22930	22800	22700	22755	16240	16200
40 Comm.	1994	22930	22800	22700	22755	16220	16200
40 Comm.	1995-00	22930	22800	22700	22755	16220	-
45 Comm.	1987-94	22920	22800	22700	22755	16220	16200
45 Comm.	1995-97	22930	22800	22700	22755	16220	-
45 SS	1987-90	22920	22800	22700	22755	16220	16200
48	1987	22920	22800	22700	22755	16220	16200
48	1988-96	22930	22800	22700	22755	16220	16200
50	1979-83	22920	22800	22700	22755	16220	16200
50	1984-86	22920	22800	22700	22755	16220	16200
50	1987-00	22930	22800	22700	22755	16220	16200
50	1995-00	22930	22800	22700	22755	16220	-
55	1968-69	-	22800	22700	22755	16240	16200
55	1976-81	22920	22800	22700	22755	16220	16200
55 Comm.	1982	22920	22800	22700	22755	16220	16200
55 Comm.	1983-86	22920	22800	22700	22755	16220	16200
55 Comm.	1987-94	22930	22800	22700	22755	16220	16200
55 Comm.	1995-00	22930	22800	22700	22755	16220	-
60	1964-01 / 1970-71	-	22800	22700	22755	16240	16200
60	1980-83	22920	22800	22700	22755	16220	16200
60	1984-85	22920	22800	22700	22755	16220	16200
60	1986-90	22920	22800	22700	22755	16220	16200
60	1991-93	22930	22800	22700	22755	16220	16200
60	1994-01	22930	22800	22700	22755	16220	16200
SST-69	1989-90	22920	22800	22700	22755	16220	-
65	1968	-	22800	22700	22755	16240	16200
65	1972-73	22920	22800	22700	22755	16240	16200





# Johnson / Evinrude

BEARING APPLICATIONS							
HP	Year	Main Bearing	Center Bearing	Center Split Sleeve Bearing	Center Bearing Kit	Connecting Rod Bearing Small End	Connecting Rod Bearing Big End
65 Comm.	1984	22920	22800	22700	22755	16220	16200
65 Comm.	1985-90	22920	22800	22700	22755	16220	16200
65 Comm.	1991-93	22930	22800	22700	22755	16220	16200
65 Comm.	1994-01	22930	22800	22700	22755	16220	-
70	1974-75	22920	22800	22700	22755	16240	16200
70	1976-84	22920	22800	22700	22755	16220	16200
70	1985-90	22920	22800	22700	22755	16220	16200
70	1991-93	22930	22800	22700	22755	16220	16200
70	1994-01	22930	22800	22700	22755	16220	-
75	1960-65	-	22800	22700	22755	16240	16200
75	1975	22920	22800	22700	22755	16240	16200
75	1976-84	22920	22800	22700	22755	16220	16200
75	1985-88	22920	22800	22700	22755	16220	16200
80	1966-67	-	22800	22700	22755	16240	16200
80 Jet	1992-98	-	22810	22710	22855	16220	-
85	1968-72	-	22800	22700	22755	16240	16200
85	1973	-	22800	22700	22755	16220	16200
85	1974-78	-	22800	22700	22755	16220	22820
85	1979-80	-	22810	22710	22855	16220	22820
85	1991-95	-	22810	22710	22855	16220	22820
88	1987-96	-	22810	22710	22855	16220	22820
90	1981-03	-	22810	22710	22855	16220	22820
90	1995-03	-	22810	22710	22855	16220	22820
90 Jet	1994-95	-	22810	22710	22855	16220	22820
100	1966-68	-	22800	22700	22755	16240	16200
100	1971-72	-	22800	22700	22755	16240	16200
100	1979-80	-	22810	22710	22855	16220	22820
100	1990-94	-	22810	22710	22855	16220	22820
100 Comm.	1984-05	-	22810	22710	22855	16220	22820
110	1986-89	-	22810	22710	22855	16220	22820
112	1994-96	-	22810	22710	22855	16220	22820
115	1969-70	-	22800	22700	22755	16240	16200
115	1973	-	22800	22700	22755	16220	16200
115	1974-78	-	22800	22700	22755	16220	22820
115	1979-85	-	22810	22710	22855	16220	22820
115	1990-06	-	22810	22710	22855	16220	22820
115	1995-06	-	22810	22710	22855	22820	22820
115 Jet	1994-06	-	22810	22710	22855	16220	22820
120	1985-94	-	22810	22710	22855	16230	22850
125	1971-72	-	22800	22700	22755	16240	16200
125 Comm.	1989-95	-	22810	22710	22855	16230	22850
125 ESX	1991-94	-	22810	22710	22855	16230	22850
130	1994-00	-	22810	22710	22855	16230	22850
135	1973	-	22800	22700	22755	16220	16200
135	1974-76	-	22800	22700	22755	16220	22820
140	1977-78	-	22800	22700	22755	16220	22820
140	1979-84	-	22810	22710	22855	16220	22820
140	1985-94	-	22810	22710	22855	16230	22850
150	1978-91	-	22810	22710	22855	16220	22820
150	1991-06	-	22810	-	-	16220	22820
150 Comm.	1993-95	-	22810	-	-	16220	22820
155 Comm.	1984-92	-	22810	22710	22855	16220	22820
175	1977-91	-	22810	22710	22855	16220	22820
175	1991-06	-	22810	-	-	16220	22820
185	1984-85	-	22810	22710	22855	16220	22820
185	1990-94	-	22810	22710	22855	16230	22850
200	1976-83	-	22810	22710	22855	16220	22820
200	1986-06	-	22810	22710	22855	16230	22850
200 Comm.	1990, 1994	-	22810	22710	22855	16230	22850
225	1986-06	-	22810	22710	22855	16230	22850
235	1978-85	-	22810	22710	22855	16220	22820
250	1991-95, 1997	-	22810	22710	22855	16230	22850
275	1985-88	-	22810	22710	22855	16230	22850
3.6L	1985-87	-	22810	22710	22855	16230	22850
300	1988-95	-	22810	22710	22855	16230	22850

# Johnson / Evinrude

## CRANKSHAFT SEALS APPLICATIONS

HP	Year	Upper Crankcase	Qty. Req.	Lower Crankcase	Qty. Req.	HP	Year	Upper Crankcase	Qty. Req.	Lower Crankcase	Qty. Req.
9.9	1974-1983	-	-	86760	1	65 (3-Cyl.)	1972-1973	86770	1	86030	1
9.9	1984-1995	-	-	86760 / 86430	1	65 C	1984-1985	86770	1	86030	1
10	1981	-	-	86760	-	65 C	1986-1989	86770	1	86030	1
10	1989	-	-	86760 / 86430	1	70 (Large)	1974-1985	86770	1	86030	1
14	1988-1990	-	-	86760 / 86430	1	70 (Large)	1986-1995	86770	1	-	-
15	1974-1983	-	-	87670	1	70 (Small)	1977-1985	86770	1	-	-
15	1984-1995	-	-	86760 / 86430	1	75 (Large)	1975-1984	86770	1	-	-
18	1957	86060	1	-	-	75 (Large)	1986-1987	86770	1	-	-
18	1958-1973	86380	1	-	-	75 (Small)	1975-1984	86770	1	86030	1
25	1969-1976	86380	1	-	-	85	1969-1970	86440	1	86030	1
40	1960-1961	86380	1	-	-	85	1971-1972	86440	1	86030	1
40	1974-1976	86770	1	86030	1	85	1973-1980	86440	2	86030	1
40 C	1981-1986	86770	1	86030	2	88	1987-1994	86440	2	-	-
40	1984-1985	86770	1	86030	1	90	1981-1983	86440	2	86030	1
40 (AR, AE, AT)	1988	86770	1	-	-	90	1984-1994	86250	1	-	-
40	1986-1989	86770	1	-	-	90 Seadrive	1985-1990	86440	2	86030	1
45 C	1985	86770	1	-	-	100	1971-1972	86440	1	86030	1
45 C	1986	86770	1	-	-	100	1979-1980	86440	2	86030	1
45 C	1987	86770	1	-	-	100 C	1984-1990	86440	2	-	-
45 C	1988-1994	86770	1	-	-	110	1986-1988	86440	2	86030	1
45 C	1995	86770	1	-	-	115	1969-1970	86440	1	86030	1
48	1988-1995	86770	1	86270 (Inner)	1	115	1973-1983	86440	1	86030	1
50	1971-1974	86770	1	86030	1	115	1984-1985	86440	2	86030	1
50	1975	86770	1	86030	1	115	1990-1994	86440	2	-	-
50	1979	86770	1	86030	1	120	1985	86440	2	86470	2
50	1980	86770	1	86030	1	120	1986-1988	86440	2	86470	2
50/60 (Pull Start)	1981-1983	86770	1	86030	1	120	1989	86440	2	86470	2
50/60 (Electric)	1981-1983	86770	1	86030	1	120	1990-1994	86440	2	86470	2
50/60	1984-1985	86770	1	86030	1	125	1971-1972	86440	1	86030	1
50/60 (Small)	1986-1987	86770	1	86030	1	125 C	1989	86440	2	86470	1
50/60 (Large)	1986-1987	86770	1	86030	1	125 C (ESX)	1989	86250	1	86470	1
50/60	1988-1989	86770	1	86030	1	135	1973-1976	86440	2	86030	1
50	1990-1995	86770	1	86270 (Inner)	1	140	1977-1983	86440	2	86030	1
55	1968-1969	86770	1	86030	1	140	1984	86440	2	86030	1
55	1976-1977	86770	1	86030	1	140	1985	86440	2	86470	2
55	1978	86770	1	86030	1	140	1986-1994	86440	2	86470	2
55	1979-1983	86770	1	86030	1	140 TX	1989	86440	2	86470	2
55 (Electric)	1980-1983	86770	1	86030	1	150	1978-1983	86440	2	86470	2
55 C	1984	86770	1	86030	1	150	1984	86440	2	-	-
55 C	1985	86770	1	86030	1	155 C	1984-1985	86440	2	86030	1
55 C	1986	86770	1	-	-	155 C	1986-1990	86440	2	-	-
55 C	1987-1994	86770	1	-	-	175	1977-1985	86440	2	86030	1
55 C	1995	86770	1	-	-	175	1986-1990	86440	2	-	-
60	1970	86770	1	86030	1	185	1984-1985	86440	2	86030	1
60 (3-Cyl.)	1971	86770	1	86030	1	185	1990	86440	2	86470	1
60 (Pull Start)	1980-1983	86770	1	86030	1	200	1976-1983	86440	2	86030	1
60 (Electric)	1980-1983	86770	1	86030	1	200	1984-1985	86440	2	-	-
60	1970	86770	1	86030	1	200, 225	1986-1990	86440	2	86470	2
60 SST	1989	86770	1	86030	1	235	1978-1983	86440	2	86030	1
60 SST	1990	86770	1	-	-	235	1984-1985	86440	2	86030	1
60 (3-Cyl.)	1987-1995	86770	1	-	-	275	1985-1988	86440	2	86470	2
65 (Manual)	1968	86770	1	-	-	3.6L, 300	1985-1990	86440	2	86470	2



# Section 11

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## Johnson / Evinrude Thermostats

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# Johnson / Evinrude

## THERMOSTAT KITS

### No. 13450

OEM: N/A

143°

#### Kit Contains:

JML	OEM	ITEM
13080	0396987	Thermostat
34630	0332108	Gasket
34260	0313416	Gasket



3-Cyl.

### No. 13270

OEM: N/A

143°

#### Kit Contains:

JML	OEM	ITEM
13010 (2)	0434841	Thermostat
46170 (2)	0318395	Valve
46150 (2)	0317245	Spring
86481 (2)	0321692	Grommet
33650 (2)	0332369	Gasket
34440 (2)	0321932	Gasket



V4 Crossflow

### No. 13500

OEM: N/A

143°



#### Kit Contains:

JML	OEM	ITEM
13720	0338632	Therm.Cover
81250	0331188	O-ring
13826	0351145	Spring
33070	0339044	Gasket
13010	5005440	Thermostat

E40-E60 HP (eTEC)

### No. 13345

OEM: N/A

143°



#### Kit Contains:

JML	OEM	ITEM
13760	5008903	Therm.Cover
81250	0331188	O-ring
13826	0351145	Spring
33070	0339044	Gasket
13010	5005440	Thermostat

AB250, 300 (G2), AF200-300 (G2),  
AG200-300 (G2), AH200-300 (G2)

### No. 13325

OEM: N/A

143°



#### Kit Contains:

JML	OEM	ITEM
13750	0344771	Therm.Cover
82220	0301917	O-ring
36970	0339299	Seal
13827	0345171	Spring
13010	0434841	Thermostat

90°V6, 3.3/3.4L, 200-300 HP  
(1999-2012, AA, AB)

### No. 13350

OEM: N/A

143°



#### Kit Contains:

JML	OEM	ITEM
13010	0434841	Thermostat
30610	0310058	Gasket

90° V4/V6, 6-55 HP

### No. 13330

OEM: 0435597

143°



#### Kit Contains:

JML	OEM	ITEM
13720	0338632	Therm.Cover
81250	0331188	O-ring
11058	0337067	Spring
13130	0435491	Thermostat

60° V4/V6

### No. 13290

OEM: N/A

143°



#### Kit Contains:

JML	OEM	ITEM
13720	0338632	Therm.Cover
81250	0331188	O-ring
11058	0337067	Spring
13130	0435491	Thermostat
13251	0343105	Sleeve

60° V4/V6

### No. 13280

OEM: N/A

143°



#### Kit Contains:

JML	OEM	ITEM
13010	0434841	Thermostat
30610	0310058	Seal
33600	0321184	Gasket
46150	0317245	Spring
46100	0320880	Valve Seat
46120	0321222	Valve Diaphragm
46160	0321220	Spring Retainer
46180	0321027	Valve

V6 Crossflow

### No. 13310

OEM: N/A

133°



#### Kit Contains:

JML	OEM	ITEM
13730	0332944	Therm.Cover
81250	0331188	O-ring
11058	0337067	Spring
13110	0437090	Thermostat
33070	0339044	Gasket

90° V6 Offshore Models

### No. 13260

OEM: N/A

133°



#### Kit Contains:

JML	OEM	ITEM
13730	0332944	Therm.Cover
81250	0331188	O-ring
11058	0337067	Spring
13110	0437090	Thermostat
33070	0339044	Gasket
13251	0343105	Sleeve

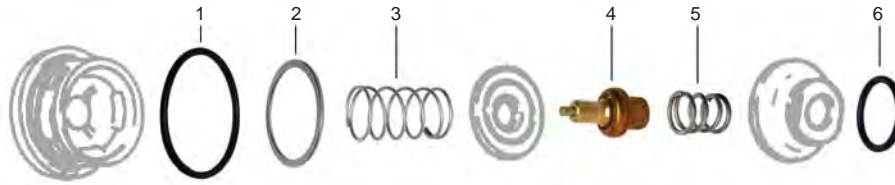
V6 Offshore Models



# Johnson / Evinrude

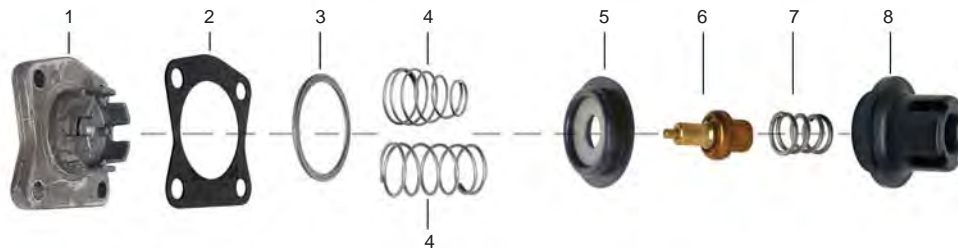
## THERMOSTAT ASSEMBLIES

### 2-Cylinder 25 & 35 HP (1996-2001)



Ref. No.	JML No.	OEM No.	Item	Ref. No.	JML No.	OEM No.	Item
1	81290	0308458	O-ring	4	13150	0436195	Thermostat
2	21658	0336185	Washer	5	11038	0336179	Spring
3	11041	0336211	Spring	6	81170	0301967	O-ring

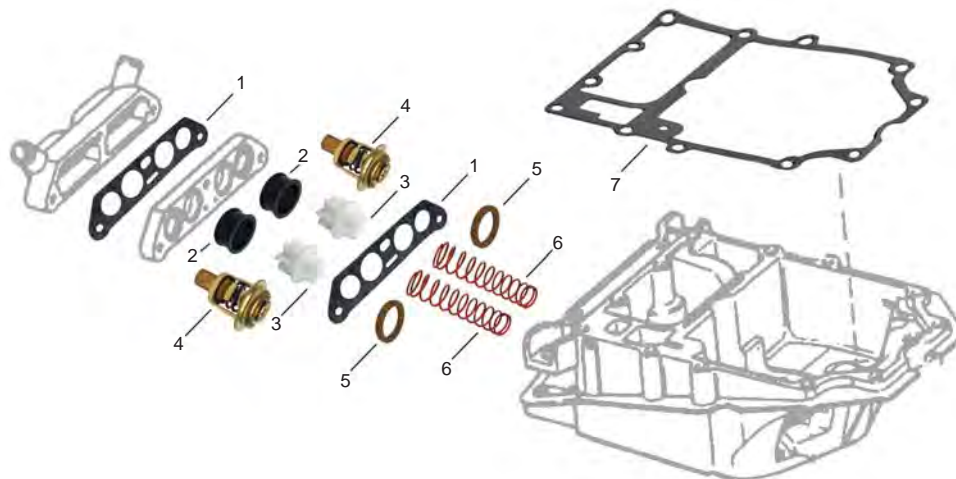
### 2-Cylinder, 3-Cylinder & V4 Loopcharged (1992-2000)



Ref. No.	JML No.	OEM No.	Item	Ref. No.	JML No.	OEM No.	Item
1	13240	0343141	Cover	4	11044	0343020	Spring V4
2	35440	0329830	Gasket	4	11053	0343977	Spring 40-70 HP (1986-01)
3	21658	0336185	Washer	5	46132	0435957	Diaphragm
* 4	11041	0336211	Spring 60-70 HP (1993) & V4	6	13150	0436195	Thermostat
4	11042	0342421	Spring 40-70 HP (1995-96) & V4	7	11038	0336179	Spring
4	11043	0343115	Spring 40-70 HP (1997-98)	8	13570	0336178	Therm. Sleeve

\* Use Spring No. 11041 with Thermostat Cover No. 339207

### V4 Crossflow



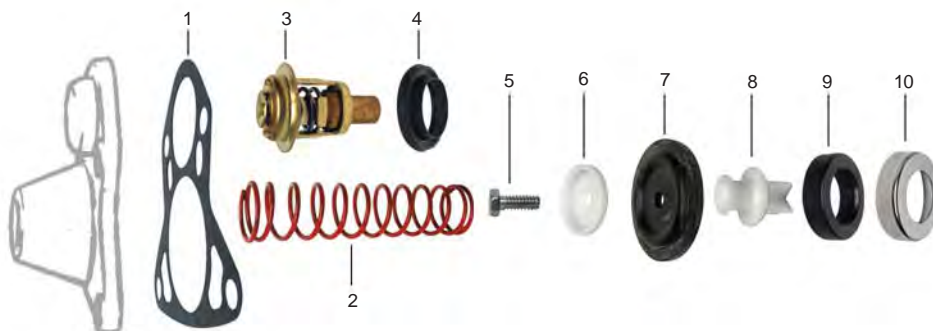
Ref. No.	JML No.	OEM No.	Item	Ref. No.	JML No.	OEM No.	Item
1	33650	0332369	Gasket	5	34440	0321932	Gasket
2	86481	0321692	Grommet	6	46150	0317245	Spring
3	46170	0318395	Valve	7	34880	0318373	Gasket (1973-77)
4	13010	5005440	Thermostat	7	33640	0342513	Gasket (1978-97)



# Johnson / Evinrude

## THERMOSTAT ASSEMBLIES

### V6 Crossflow



Ref. No.	JML No.	OEM No.	Item	Ref. No.	JML No.	OEM No.	Item
1	33600	0321184	Gasket	6	46160	0321220	Spring Retainer
2	46150	0317245	Spring	7	46140	0321221	Diaphragm
3	13010	5005440	Thermostat	8	46180	0321027	Valve
4	30610	0310058	Gasket	9	46100	0320880	Valve Seat
5	22370	0306643	Screw	10	46120	0321222	Valve Cup

## THERMOSTATS

<b>No. 13080</b> OEM: 0396987  3-Cyl. (1985 & before)	<b>No. 13010</b> OEM: 0434841, 5005440  6-55 HP, E40-E60HP, V4, V6 Crossflow	<b>No. 13130</b> OEM: 0435491  60° V4 90-115HP (1995-up) 60° V6 150-175HP (1991-up)	<b>No. 13170</b> OEM: 0434137  3-Cyl. (1986-91) V4 Loopcharged & V8
<b>No. 13150</b> OEM: 0436195  9.9,15,40,48, 50 HP 3-Cyl., V4	<b>No. 13190</b> VERNATHERM OEM: 0394411  65, 85, 100, 115, 135 HP (1971-1990)	<b>No. 13110</b> OEM: 0437090 Lower Flow  90° V6 Offshore Models Stainless Steel	<b>No. 13180</b> OEM: 5001036 Higher Flow  90° V6 200-250 Ficht

## THERMOSTAT COVERS & O-RING

<b>No. 13240</b> OEM: 0343141  50-70 HP (1986-up)	<b>No. 13730</b> OEM: 0332944  2-Cyl. Loopcharged (1997) V6 Offshore Models	<b>No. 13720</b> OEM: 0338632  60° V4, V6	<b>No. 13760</b> OEM: 5008903 <b>NEW</b>  AB 250 & 300 HP (G2), AF/AG/AH 200-300 HP (G2)	<b>No. 13750</b> OEM: 0344771 <b>NEW</b>  90° V6
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# Johnson / Evinrude

## THERMOSTAT & VALVE SPRINGS

<b>No. 11038</b> OEM: 0336179 	<b>No. 11041</b> OEM: 0336211 	<b>No. 11042</b> OEM: 0342421 	<b>No. 11043</b> OEM: 0343115 	<b>No. 13826</b> OEM: 0351145  <b>NEW</b>	<b>No. 13827</b> OEM: 0345171  <b>NEW</b>
<b>No. 11044</b> OEM: 0343020 	<b>No. 11045</b> OEM: 0337067 	<b>No. 11053</b> OEM: 0343977 	<b>No. 11054</b> OEM: 0333858 	<b>No. 11058</b> OEM: 0338174 	<b>No. 46150</b> OEM: 0317245 

## THERMOSTAT HOUSING COMPONENTS













<b>No. 46110</b> VALVE CUP OEM: 0330273  V4/V6 Loopcharged	<b>No. 46120</b> VALVE CUP OEM: 0321222  V6 Crossflow	<b>No. 46132</b> VALVE DIAPHRAGM OEM: 0435957  2-Cyl., 3-Cyl. V4 Loopcharged	<b>No. 46130</b> VALVE DIAPHRAGM OEM: 0394408  V4/V6 Loopcharged	<b>No. 46140</b> VALVE DIAPHRAGM OEM: 0321221  V6 Crossflow
<b>No. 46100</b> VALVE SEAT OEM: 0320880  V6 Crossflow	<b>No. 46170</b> VALVE OEM: 0318395  V4 Crossflow	<b>No. 46180</b> VALVE OEM: 0321027  V6 Crossflow	<b>No. 46160</b> SPRING RETAINER OEM: 0321220  V6 Crossflow	
<b>No. 86481</b> GROMMET OEM: 0321692  V4 Crossflow	<b>No. 13251</b> THERMOSTAT SLEEVE OEM: 0343105  60-70 HP (1988 & Up)	<b>No. 13570</b> THERMOSTAT SLEEVE OEM: 0336178  2-Cyl., 3-Cyl. & V4 Loopcharged	<b>No. 13580</b> THERMOSTAT SLEEVE OEM: 0337533  90° V6 Loopcharged	
<b>No. 21658</b> WASHER OEM: 0336185  2-Cyl., 3-Cyl. V4 Loopcharged	<b>No. 10563</b> ELBOW OEM: 0126776 For 5/16 Hose  60-70 HP (1988 & Up)	<b>No. 10561</b> ELBOW OEM: 0321886 For 1/4 Hose  9.9-15 (1978-95), 20-35 HP (1978-80) 3-Cyl., V4 (1978 & Up), V6 (1978-92) 40-60 2-Cyl. (1978-90), (1978-91)	<b>No. 10562</b> ELBOW OEM: 0331894 For 3/8 Hose  V6 (1987-90) Loopcharged with Power Steering V8 (1986-91) w/ Pwr. Steer.	

# Johnson / Evinrude

## THERMOSTAT GASKETS

<b>No. 34130</b> RUBBER GROMMET OEM: 0323582  2-Cyl. Crossflow 9.9-25 HP Thermostat	<b>No. 30610</b> RUBBER GROMMET OEM: 0310058  2-Cyl. Crossflow 90° V6 Crossflow Thermostat	<b>No. 34110</b> RUBBER OEM: 0329319  2-Cyl. Crossflow 8-30 HP Thermostat	<b>No. 34260</b> CORK OEM: 0313416  3-Cyl. Thermostat
<b>No. 36590</b> RUBBER OEM: 0332130  3-Cyl. Thermostat	<b>No. 33070</b> RUBBER OEM: 0339044  60° V4, V6 Thermostat	<b>No. 34440</b> CORK OEM: 0321932  90° V4 Crossflow Thermostat	<b>No. 86213</b> POP OFF SEAT OEM: 0335981  

## THERMOSTAT COVER GASKETS

<b>No. 35410</b> OEM: 0329076  6-8 HP	<b>No. 86215</b> OEM: 0336947  5, 6, 8, 10, 15 HP (1991-2001)	<b>No. 33290</b> OEM: 0308328  2-Cyl. Crossflow	<b>No. 34000</b> OEM: 0311145  2-Cyl. Crossflow
<b>No. 33250</b> OEM: 0305196  2-Cyl. Crossflow	<b>No. 34890</b> OEM: 0318917  2-Cyl. Crossflow	<b>No. 35440</b> OEM: 0329830  2 & 3-Cyl. Loopcharged 90° V4 Loopcharged	<b>No. 34630</b> OEM: 0332108 (1985-1988)  3-Cyl., 49 Cubic Inch
<b>No. 34150</b> OEM: 0305586  90° V4 Crossflow	<b>No. 33650</b> OEM: 0332369  90° V4 Crossflow	<b>No. 33600</b> OEM: 0321184  90° V6 Crossflow	<b>No. 36870</b> OEM: 0337068  90° V6 Loopcharged

## Section 12

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### Johnson / Evinrude Ignition and Electrical

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# Johnson / Evinrude

POINT SETS		CONDENSER	P.T. RELAY	RECTIFIERS	
<b>No. 70070</b> OEM: 0580148	<b>No. 70200</b> OEM: 0581207	<b>No. 70590</b> OEM: 0580256	<b>No. 73010</b> OEM: 0586147, 0586224	<b>No. 72320</b> OEM: 0583408	<b>No. 72350</b> OEM: 0581778
				 3 wire	 4 wire

## POINT SETS & CONDENSER APPLICATION

Model	Year	Point Sets	Condenser	Model	Year	Point Sets	Condenser
1.5, 2	1968-90	70070	-	25	1969-76	70070	-
3	1952-68	70070	-	28	1962-64	70070	-
4	1965-76	70070	-	30	1956	70070	-
4	1981-90	70070	-	33	1965-70	70070	-
4.5	1981	70200	-	35	1958-59	70070	-
5	1965-68	70070	-	35	1976	70070	-
5.5	1954-64	70070	-	40	1960-61	70200	-
6	1965-76	70070	-	40	1962-73	70070	-
7.5	1956-58	70070	-	40	1974-76	70070	-
9.5	1964-73	70070	-	40 C	1981-83	70200	-
10	1954-63	70070	-	45	1958-59	-	70590
15	1956	70200	-	50	1958-59	-	70590
15	1974-76	70070	-	60	1964-67	-	70590
18	1957-61	70070	-	75	1960-65	-	70590
18	1962-73	70070	-	80	1966-67	-	70590
20	1962-73	70070	-	90	1964-75	-	70590
25	1955	70070	-	100	1966	-	70590

## POWER TRIM RELAY APPLICATION

Model	Year	Relay
80	1984-92	73010
SST 60	1989-90	73010
85 (Comm. Models Only)	1985-92	73010
70	1982-92	73010
75	1982-88	73010
85	1991-92	73010
88	1987-92	73010
90	1981	73010
100 w/ Elec. Shift	1984-92	73010
F600cc (13)	1988	73010
110	1986-89	73010
115	1982-92	73010
120	1985-92	73010
125 (Comm. Models Only)	1982-92	73010
140	1982-92	73010
150	1982-92	73010
155 (Comm. Models)	1984-92	73010
2500cc	1988	73010
175	1982-92	73010
185	1984-92	73010
200 (Comm. Models Only)	1982-92	73010
225	1986-92	73010
235	1982-85	73010
250	1991-91	73010
275	1985-88	73010

## RECTIFIER APPLICATION

Model	Year(s)	Rectifier
9.9, 15	1974-92	72320
20	1989-98 (Elec. Start)	72320
25	1977-03 (2-Cyl.) (Elec. Start)	72320
28	1989-96	72320
30	1989-03 (2-Cyl.) (Elec. Start)	72320
35	1976-93 (2-Cyl.) (Elec. Start)	72320
40	1974-76, 1988-92	72320
45	1989-92 (Comm)	72320
45SS	1989-90	72320
48	1989-92	72320
50	1971-75	72350
50	1979-92	72320
55	1976-77	72350
55	1978-81, 1980-92 & Comm	72320
60	1970 (D Models), 1971	72350
60	1980-88	72320
60	1989-91 (EL & TL Models)	72350
SST 60	1989-90	72350
65	1972-73, 1988-91	72350
70	1992-01	72350
75	1975-88	72350
85	1970-80	72350
88	1989-92	72350
90	1981-92	72350
100	1971, 1979-80, 1984-92 (Except 1992 WTLNE & WTXENE)	72350
115	1973-92	72350
125	1971-72	72350
135	1974 (135443, 135483 Models)	72350
135	1973, 1975-76	72350
140	1977-88	72350
150	1979-88	72350
155	1984-88	72350
175	1977-83	72350
185	1984-88	72350
200	1976-83	72350
235	1978-88	72350



## Section 13

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### Johnson / Evinrude Carburetor Kits & Fuel Pumps

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# Johnson / Evinrude

## CARBURETOR SERVICE KITS

### No. 40510

OEM: 0439071  
w/o Float



### No. 40550

OEM: 0439072



### No. 40530

OEM: 0439074, 0439075  
w/o Float & Filter



### No. 40600

OEM: 0439073



### No. 40560

OEM: 0396701



### No. 40580

OEM: 0439078, 0439079  
w/o Float



### No. 40520

OEM: 0437327  
w/o Float



### No. 40540

OEM: 0436959

**LIMITED TO STOCK**



### No. 40570

OEM: 0439076



### No. 40590

OEM: 0438996



## NEEDLES & SEATS

### No. 40720

OEM: 0396522



### No. 40710

OEM: 0396521



### No. 40700

OEM: 0387262



### No. 40730

OEM: 0396520





# Johnson / Evinrude

## CARBURETOR SERVICE KITS / NEEDLES & SEATS APPLICATIONS

HP	Year	Carb. Kit w/o Float	Needle & Seat	HP	Year	Carb. Kit w/o Float	Needle & Seat
1.5	1970-90	40510	40720	60	1964-67	40540	40710
2	1970-90	40510	40720	60	1970-95	40560	40710
3	1952-67	40510	40710	60	1992-93	40560	40710
3	1968	40510	40720	65	1972-95	40560	40710
4	1965-78	40510	40720	65	1992-93	40560	40710
4	1983-89	40550	40720	70	1972-95 (3-Cyl.)	40560	40710
4	1991-93	40550	40720	70	1992-93	40560	40710
4.5	1982-84,87	40550	40720	75	1960-63	40540	40710
5	1965-67	40510	40720	75	1975-88	40560	40710
5	1968	40530	40710	80	1966-67	40540	40710
5	1984-85	40550	40720	85	1968	40540	40710
5.5	1954-67	40510	40720	85	1971-79	40530	40710
6	1954-79	40510	40720	85	1969-70,91-93	40570	40700
6	1968	40530	40710	V-4	1969-79	40570	40700
6	1984-85	40550	40720	V-4	1983-84	40570	40700
6	1986-up	40600	40720	88,90	1985-95	40570	40700
7.5	1955-58	40510	40720	90	1981-82,83	40570	40700
7.5	1982-83	40550	40720	100	1971,1980	40570	40700
8	1984-85	40550	40720	100	1972,1979	N/A	40710
8	1986-up	40600	N/A	100	1985-95	40570	40700
9.9	1974-88	40550	40720	110	1985-90	40570	40700
9.9	1989-up	40600	40720	115	1969,80-95	40570	40700
10	1954-63	40510	40720	115	1970,73-79	N/A	40710
14	1968	40550	40720	V-6	1976-90	40570	40700
15	1955-56	40510	40720	115	1983	40570	40700
15	1974-88	40550	40720	120	1985-90	40580	40720
15	1989-up	40600	40720	120	1985-90,1993	40580	40720
18	1957-68	40510	40720	125	1971-72	N/A	40710
20	1969-73	40560	40710	125	1993	40580	40720
20	1957-68	40510	40720	125 C	1989-95	40580	40720
20	1969-90	40560	40710	130	1995("P" only) -1999	40520	40720
25	1991-95	40560	40710	135	1973-76	N/A	40710
SAIL	1954-55	40530	40710	140	1977,80-83	40570	40700
DR	1978-90	40560	40710	140	1978-79	N/A	40710
25	1969-95	40560	40710	140	1985-91	40580	40720
25	1991-95	40560	40710	140	1993	40580	40720
28	1962-64	40530	40710	150	1979-90	40570	40700
28	1976-95	40560	40710	150	1993	40590	40720
28	1992-93	40560	40710	150	1992-93	40590	40720
30	1956	40530	40710	155	1984-93	40570	40700
30	1976-95	40560	40710	175	1977-91	40570	40700
30	1991-93	40560	40710	175	1992-93	40590	40720
33	1965-70	40530	40710	185	1984	40570	40700
35	1957-59	40530	40710	185	1989-93	40590	40720
35	1959	40530	40710	200	1976-83	40570	40700
35	1976-95	40560	40710	200	1986-90	40580	40720
35	1991-3	40560	40710	200	1992-93	40590	40720
40	1960-63,71	40530	40710	200TX	1996	40520	40720
40	1965-70,72-78	40530	40710	200/225 Loop	1997	40520	40720
40	1971-90,79-92	40560	40710	225	1986-90	40590	40720
40	1993	40560	40710	225	1992-93	40590	40720
45	1971-95	40560	40710	235	1978-84	40570	40700
45	1992	40560	40710	250	1991-93	40590	40720
48	1992-95	40560	40710	250 V6 Loop	1998-1999	40520	40720
50	1958-59	40540	40710	275/3.6 L	1985-88	40590	40720
50	1971-95	40560	40710	300	1988	40590	40720
50	1993	40560	40710	300	1991-93	40590	40720
55	1968-69,71-95	40560	40710	130/200/225/250	2000	40520	40720
55	1992	40560	40710	135/200/225/250	2001	40520	40720

# Johnson / Evinrude

## CARBURETOR PARTS & GASKETS

**No. 23203**

RETAINER  
OEM: 0315232



**No. 32650**

GASKET  
OEM: 0307583



**No. 31174**

PLUG WASHER  
CARB. SCREW  
OEM: 0317477



**No. 37799**

GASKET  
OEM: 0338883



**No. 33100**

GASKET  
OEM: 0338860



**No. 37790**

GASKET  
OEM: 0335070



**No. 37794**

GASKET  
OEM: 0343512



**No. 37760**

GASKET  
OEM: 0338813



**No. 33120**

FLOAT BOWL  
OEM: 0338878



**No. 33130**

FUEL BOWL  
OEM: 0338880



**No. 34090**

FUEL BOWL  
OEM: 0303750



**No. 33140**

CARBURETOR BOWL  
OEM: 0338884



**No. 34831**

NOZZLE & FLOAT  
BOWL GASKET KIT  
OEM: N/A



**No. 33260**

CARBURETOR BODY  
OEM: 0305218



# Johnson / Evinrude

## GASKETS

**No. 37795**  
COVER GASKET  
OEM: 0340616



**No. 37796**  
COVER GASKET  
OEM: 0341501



**No. 37797**  
COVER GASKET  
OEM: 0334043



**No. 37840**  
GASKET  
OEM: 0334353



**No. 37770**  
GASKET  
OEM: 0335648



**No. 37780**  
GASKET  
OEM: 0327223



**No. 37791**  
GASKET  
OEM: 0341085



**No. 37792**  
GASKET  
OEM: 0335115



**No. 37793**  
GASKET  
OEM: 0340657



**No. 37798**  
GASKET  
OEM: 0333348



**No. 34220**  
HOUSING TO TANK GASKET  
OEM: 0125530



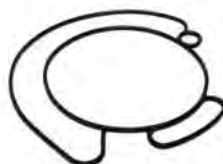
**No. 33210**  
FUEL TANK GASKET  
OEM: 0302557



**No. 86654**  
SEAL  
OEM: 0332253



**No. 86656**  
SEAL  
OEM: 0344046



**No. 86657**  
SEAL  
OEM: 0343613



**No. 86658**  
SEAL  
OEM: 0335076



# Johnson / Evinrude

## FUEL PUMP KITS & APPLICATIONS

### No. 40810

OEM: 0393088



### No. 40820

OEM: 0393103



### No. 40830

OEM: 0398514



### No. 40840

OEM: 0432962



### No. 40850

OEM: 0438616



Model	Year	JML No.	Model	Year	JML No.	Model	Year	JML No.
2.5	1987-88	40810	30, 35	1976-86	40820	65 Comm.	1984	40820
4	1981-Up	40810	35	1958-59	-	65 Comm.	1988-89	40830
4.0 Deluxe	1992-93	40810	40	1960-64	-	70, 75	1982-84	40820
4.5	1981-Up	40810	40	1987	40830	70	1990	40830
5	1985-93	40810	40	1990-Up	40850	75	1960-65	-
6	1977-Up	40810	40	1970-78	40820	80	1966-67	-
6.5	1989-90	40810	40, 50	1988-89	40840	85	1978-83	40820
7.5	1982-83	40810	45	1958-59	-	88	1987	40830
8	1984-93	40810	45, 48, 50	1989	40840	88, 90, 110	1988-89	40830
9.9, 15	1981	40820	45, 48, 50	1990-Up	40850	88, 90, 100, 115	1990	40830
9.9, 15	1982-Up	40810	45, 55	1985-86	40830	88, 100, 125	1990-Up	40850
9.9 Electric & 15	1987-89	40830	45, 55	1987	40830	90	1964-65	-
9.9 Electric & 15	1990-Up	40850	45, 55 Comm.	1989-90	40830	90, 115	1978-83	40820
10/14	1989-90	40810	48	1987	40830	90, 115, 140	1982	40820
14	1988	40810	48	1988	40840	100	1966	-
20/25	1977-86	40820	48, 50	1990	40840	100 Comm.	1989-90	40830
20-30	1990-Up	40850	50	1958-59	-	125 Comm.	1989-90	40830
20, 25, 30	1987	40830	50	1987	40830	V4 140	1978-83	40820
20, 25, 30	1988-89	40840	50, 60	1982-84	40820	150, 175, 200	1982	40820
20, 25, 30 Rope	1990	40840	55	1983	40820	V6 150, 175	1983	40820
20, 30, 35 Remote	1990	40840	55 Comm.	1984	40820	155 Comm.	1989-90	40830
20/35 Rope	1989	40840	55-75	1970-78	40820	V6 235	1983	40820
25 Comm.	1982	40820	60	1964-67	-	2.6	1984	40830
25 Comm.	1988-90	40840	60	1988	40830	3.0	1991-93	40810
28	1962-63	-	65	1985-87	40820			
28	1987	40830	65	1990	40830			

## KITS COMPONENTS

### No. 04095

CHECK VALVE  
OEM: 0335334



### No. 33110

FUEL PUMP  
GASKET  
OEM: 0338876



### No. 34080

FUEL PUMP  
MOUNTING GASKET  
OEM: 0303615



### No. 33370

FUEL PUMP  
GASKET  
OEM: 0338879



### No. 31172

FUEL PUMP  
SCREW GASKET  
OEM: 0303630



Washer Fiber

### No. 04092

DIAPHRAGM  
OEM: 0331307

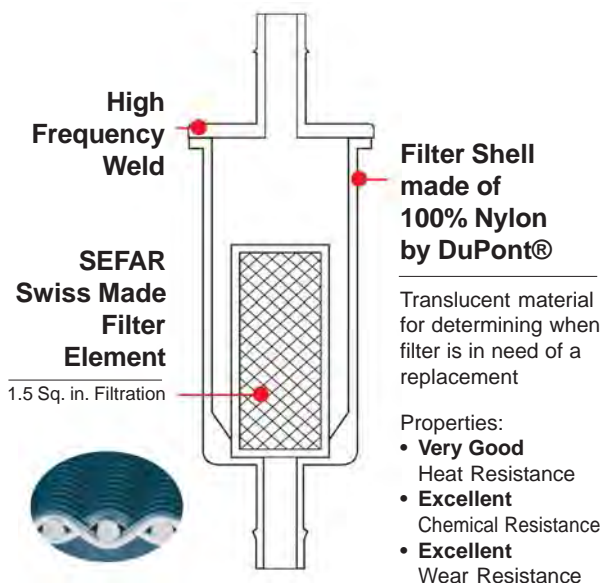




# Johnson / Evinrude

## FUEL FILTERS & KITS

### JML's PLASTIC INLINE FUEL FILTERS



**NEW PACKAGING!**



**Brisk Packaging for Easy Opening**



**No. 40135**

OEM: 0435918  
For  $\varnothing$  5/16" In -  $\varnothing$  3/8" Out



**No. 40145**

OEM: 35-816296Q03  
Use with  $\varnothing$  1/4" Hose



**No. 40155**

OEM: 35-816296Q2  
Use with  $\varnothing$  5/16" Hose



**No. 40165**

OEM: N/A  
Use with  $\varnothing$  3/8" Hose

### JML's Transparent Inline Fuel Filter

Eliminate contaminants such as dust or dirt particles. Acts not only as a blocking device, but is also a gauge to indicate filter replacement. As affordable as disposable in-line fuel filters

**WARNING:**  
**DO NOT USE ON INBOARD ENGINE APPLICATIONS**



**No. 40140** ( $\varnothing$  1/4")

OEM: N/A

**No. 40150** ( $\varnothing$  5/16")

OEM: N/A

**No. 40160** ( $\varnothing$  3/8")

OEM: N/A

Swiss Made Filter Element

**No. 40000**

REPLACEMENT FILTER  
OEM: N/A

For No. 40140,  
40150, 40160



Swiss Made Filter Element

**No. 24820**

CARB. FUEL FILTER  
OEM: 0308239



**No. 24830**

CARB. FUEL FILTER  
OEM: 0305185



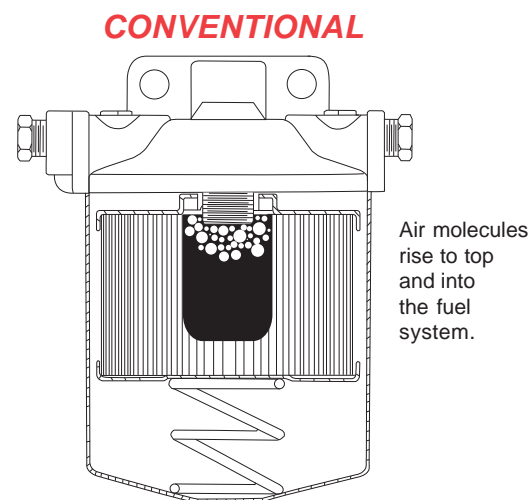
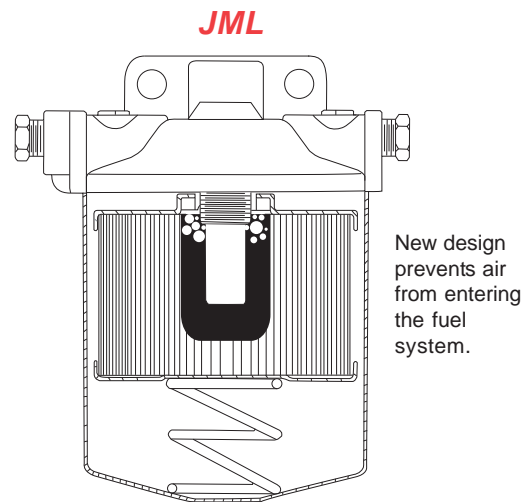
# Johnson / Evinrude

## *ELIMINATE FUEL STARVATION WITH JML'S LOW PICK-UP WATER / FUEL SEPARATOR MOUNTING BRACKET*

Engine compartment temperatures can soar on hot summer days creating high gasoline temperatures. High temps and agitation caused by rough seas can aerate the gasoline in the water/fuel separator filter turning it into foam. A fuel pump can't pull aerated gasoline from the water/fuel separator and deliver it to the carburetor or fuel rail efficiently. The engine will show signs of gasoline starvation (lean) at high speeds, a situation very similar to vapor lock.

Because this aerated gasoline rises to the top of the water/fuel separating filter, JML has introduced a filter mounting bracket with a fuel pick-up extending deeper into the filter. Through extensive research and testing the JML engineers have found the optimum location for the fuel pick-up. The deeper location is low enough to be free of aerated gasoline but high enough to be free of the water in the bottom of the separator.

The deeper fuel pick-up is only found on the new JML water/fuel separator mounting bracket kits. It might solve some of those mysterious fuel delivery problems your engine may be experiencing!



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**\*For trouble free boating always remember to replace your water/fuel separating filter after every 50 hours of engine operation!**

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# Johnson / Evinrude

## HOW TO CHOOSE THE CORRECT WATER/FUEL SEPARATOR

Water/Fuel Separators are categorized by their capacity to filter different sized dirt particles. Rated in Microns, (each micron is one millionth of an inch in diameter) marine filters will normally be available with elements capable of filtering 2 micron particles, 10 micron particles, or 28 micron particles. A marine filter capable of filtering 2 micron particles will clean the fuel more efficiently than a 28 micron filter but will be more restrictive to fuel flow. The 2 micron filter will also become dirty sooner and will need replacement more often.

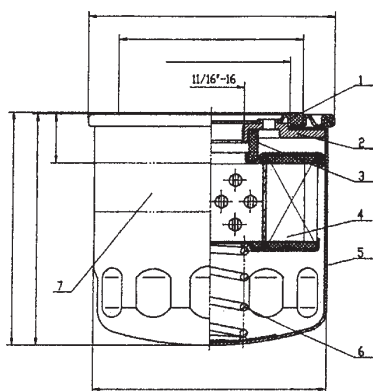
Fuel flow is rated in Gallons Per Hour (GPH). A typical 350/5.7L inboard engine will require 27 GPH at 4,800 rpm, a 454/7.4L inboard engine will require 37 GPH at 4,800 rpm. Selecting a fuel/water separating filter should be based on the amount of fuel the engine requires in GPH at wide open throttle.

A 2 micron fuel filter is generally too restrictive for the average four stroke inboard engine and may separate the

oil from the fuel in two stroke outboard engines. For this reason JML sells only the 10 and 28 micron fuel filters.






The 28 micron filter is the most common size fuel filter in the marine industry and is the standard replacement filter for all two stroke and four stroke marine engines. The JML 28 micron filter exceeds all engine manufacturers' specifications for particulate filtering, water separating and fuel flow.

The JML 10 micron filter will provide exceptional filtering and only moderate fuel pressure loss. When used with sufficient sized fuel lines it will flow enough fuel for inboard engines up to 550 horsepower. It will **not** separate the oil from the gasoline on a two stroke outboard equipped boat. Because a 10 micron filter clogs faster than a 28 micron filter JML recommends replacing the water/fuel separator filter at regular intervals.



### JML Fuel Filter Features

- \* 28 or 10 micron filter paper shaped into 70 pleats total 327 sq. in. filtration. The largest filtering capability in the aftermarket. (4)
- \* BWG #11 heavy duty spring (6).
- \* Gasoline resistant rubber seals (1) (3).
- \* Oxidizing treatment inside powder coated outside for corrosion protection (5).
- \* Minimum 196N.m. torque strength between adapt plate and canister (2).
- \* Will not separate 2 cycle oil from gasoline!

SUS316 Stainless Steel Brackets		Translucent Red Stainless Steel Brackets		Die Cast Aluminum Brackets	
<b>No. 25010</b> w/ 2 brass plugs 2 extension tubes  ø 1/4" NPTF Ports (2 inputs & 2 outputs)	<b>No. 25030</b> w/ 2 brass plugs 2 extension tubes  ø 3/8" NPTF Ports (2 inputs & 2 outputs)	<b>No. 25011</b> w/ 2 brass plugs 2 extension tubes  ø 1/4" NPTF Ports (2 inputs & 2 outputs)	<b>No. 25031</b> w/ 2 brass plugs 2 extension tubes  ø 3/8" NPTF Ports (2 inputs & 2 outputs)	<b>No. 25000</b> w/ 2 brass plugs 2 extension tubes  ø 1/4" NPTF Ports (2 inputs & 2 outputs)	<b>No. 25020</b> w/ 2 brass plugs 2 extension tubes  ø 3/8" NPTF Ports (2 inputs & 2 outputs)
<b>No. 24942</b> WATER SEPARATOR FUEL FILTER OEM: N/A  10 Micron Height 4-7/16"				<b>No. 24940</b> WATER SEPARATOR FUEL FILTER OEM: N/A  28 Micron Height 4-7/16"	

# Johnson / Evinrude

## WATER SEPARATING FUEL FILTER KITS

### With Stainless Steel Bracket

#### No. 24956

(24940+25010)  
OEM: N/A

28 Micron

ø 1/4" NPTF Ports  
Flow: 50 GPH  
with 2 brass plugs & 2 extension tubes



#### No. 24958

(24940+25030)  
OEM: N/A

28 Micron

ø 3/8" NPTF Ports  
Flow: 75 GPH  
with 2 brass plugs & 2 extension tubes



#### No. 24957

(24942+25010)  
OEM: N/A

10 Micron

ø 1/4" NPTF Ports  
Flow: 50 GPH  
with 2 brass plugs & 2 extension tubes



#### No. 24959

(24942+25030)  
OEM: N/A

10 Micron

ø 3/8" NPTF Ports  
Flow: 75 GPH  
with 2 brass plugs & 2 extension tubes



### With Translucent Red Stainless Steel Bracket

#### No. 24960

(24940+25011)  
OEM: N/A

28 Micron

ø 1/4" NPTF Ports  
Flow: 50 GPH  
with 2 brass plugs & 2 extension tubes



#### No. 24962

(24940+25031)  
OEM: N/A

28 Micron

ø 3/8" NPTF Ports  
Flow: 75 GPH  
with 2 brass plugs & 2 extension tubes



### With Die Cast Aluminum Bracket

#### No. 24950

(24940+25000)  
OEM: N/A

28 Micron

ø 1/4" NPTF Ports  
Flow: 50 GPH  
with 2 brass plugs & 2 extension tubes



#### No. 24953

(24940+25020)  
OEM: N/A

28 Micron

ø 3/8" NPTF Ports  
Flow: 75 GPH  
with 2 brass plugs & 2 extension tubes



#### No. 24952

(24942+25000)  
OEM: N/A

10 Micron

ø 1/4" NPTF Ports  
Flow: 50 GPH  
with 2 brass plugs & 2 extension tubes



#### No. 24954

(24942+25020)  
OEM: N/A

10 Micron

ø 3/8" NPTF Ports  
Flow: 75 GPH  
with 2 brass plugs & 2 extension tubes



## Section 14

### Johnson / Evinrude Powerhead Gaskets

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<i>Powerhead Mounting Gaskets .....</i>	<i>156-157</i>
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# Johnson / Evinrude

## 1 & 2-CYLINDER HEAD GASKETS

### No. 33850

OEM: 0313782



2 HP 1-Cyl.  
(1969-1990)

### No. 34010

OEM: 0203130



4 HP 2-Cyl.  
(1968-1980)

### No. 33860

OEM: 0332010



2.5, 3, 4, 4.5 HP 2-Cyl.  
(1987-1998)

### No. 33830

OEM: 0329103



6 HP 2-Cyl.  
(1959-1979)

### No. 36310

OEM: 0325273



6, 7.5, 8 HP 2-Cyl.  
(1980-1998)

### No. 34140

OEM: 0330818



9.9, 15 HP 2-Cyl.  
(1985-1992)

### No. 36020

OEM: 0338222



9.9, 15 HP 2-Cyl.  
(1993-1999)

### No. 35840

OEM: 0319633



25, 35 HP, 2-Cyl.  
(1976-1978)

### No. 34570

OEM: 0329419



20, 25, 28, 30, 35 HP, 2-Cyl.  
(1979-2000)

### No. 35990

OEM: 0307069



40 HP, 2-Cyl., Crossflow  
(1960-1986)

### No. 34250

OEM: 0335359



Large, 2-Cyl. Loopcharged  
(1976-2001)



# Johnson / Evinrude

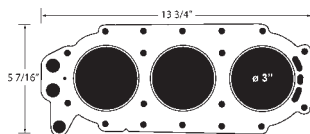
## 3-CYLINDER & V4 HEAD GASKETS

### 3-Cylinder Head Gaskets



**No. 33400**  
OEM: 0313413

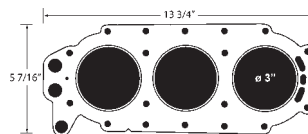
Fits (1968-1989)  
3-Cyl. Loopcharged  
Engines with a  
ø 3.000" Piston



**No. 35830\***  
OEM: 0332816

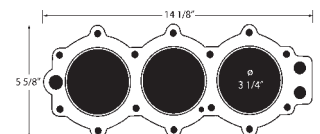
Fits (1968-1989)  
3-Cyl. Loopcharged  
Engines with a  
ø 3.000" Piston

\*Same as No. 33400 except thicker to lower cylinder compression for low octane fuel.



**No. 34280**  
OEM: 0329836

Fits (1986-2001)  
3-Cyl. Loopcharged  
Engines with a  
ø 3.1875" Piston

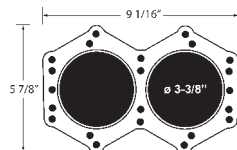


### V4 Head Gaskets



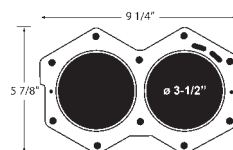
**No. 34030**  
OEM: 0306048

Fits (1968-1972)  
90° V4 Crossflow  
Engines with a  
ø 3.375" Piston



**No. 33540**  
OEM: 0318358

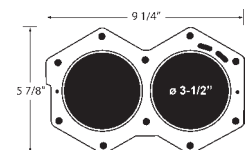
Fits (1973-1994)  
90° V4 Crossflow  
Engines with a  
ø 3.500" Piston



**No. 35820\***  
OEM: 0332819

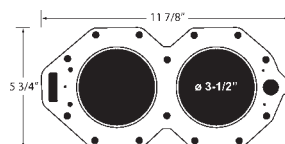
Fits (1973-1994)  
90° V4 Crossflow  
Engines with a  
ø 3.500" Piston

\*Same as No. 33540 except thicker to lower cylinder compression for low octane fuel.



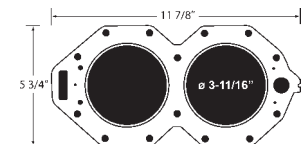
**No. 34400**  
OEM: 0328623

Fits (1985-1987)  
90° V4 Loopcharged Engines  
with a ø 3.500" Piston



**No. 35930**  
OEM: 0340115

Fits (1988-1999)  
90° V4 Loopcharged Engines  
with a ø 3.6875" Piston





# Johnson / Evinrude

## V6 & V8 HEAD GASKETS



**No. 33870**

OEM: 0335360

Fits (1976-1991)  
90° V6 Crossflow Engines  
with a  $\varnothing$  3.500" Piston



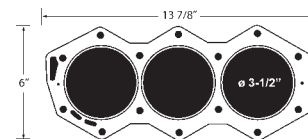
**No. 35940\***

OEM: 0332817

Fits (1976-1991)  
90° V6 Crossflow Engines  
with a  $\varnothing$  3.500" Piston

**Thicker**

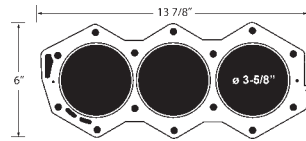
\*Same as No. 33870  
except thicker to lower  
cylinder compression  
for low octane fuel.



**No. 34240**

OEM: 0335361

Fits (1980-1991)  
90° V6 Crossflow Engines  
with a  $\varnothing$  3.625" Piston



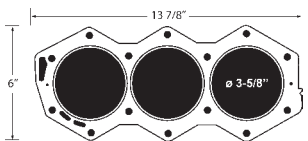
**No. 35960\***

OEM: 0332818

Fits (1980-1991)  
90° V6 Crossflow Engines  
with a  $\varnothing$  3.625" Piston

**Thicker**

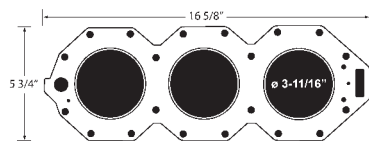
\*Same as No. 34240  
except thicker to lower  
cylinder compression  
for low octane fuel.



**No. 34590**

OEM: 0333670

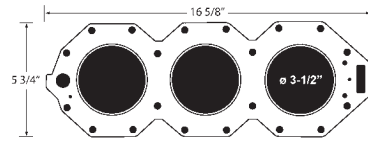
Fits (1988-2001)  
90° V6 Loopcharged Engines  
with a  $\varnothing$  3.685" Piston



**No. 35950**

OEM: 0331211

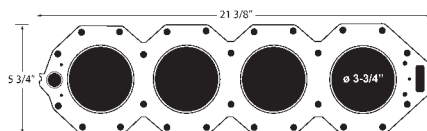
Fits (1985-1987)  
90° V6 Loopcharged Engines  
with a  $\varnothing$  3.500" Piston



**No. 35970**

OEM: 0340116

Fits (1994-1998)  
90° V8 Loopcharged Engines  
with a  $\varnothing$  3.685" Piston





# Johnson / Evinrude

## HEAD GASKETS APPLICATIONS

1974 and Later Models			Fast Moving Gaskets for Older Models		
Model	Year	JML No.	Model	Year	JML No.
2 Colt, Junior ®	1969-90	33850	5, 5.5, 6	1959-73	33830
2.3, 3.3, 3.5	1991-Up	-	9.5	1964-73	-
4	1968-80	34010	33	1965-70	-
2.5, 3, 4, 4.5, Ultra, Excel 4	1981-98	33860	40	1960-73	35990
6 (145cc)	1959-79	33830	50, 60, 65	1958-68	-
6, 7.5, 8 (164cc)	1980-98	36310	55, 60, 65	1968-73	33400
9.9, 15 (216cc)	1974-92	34140	60, 65	1970-73	35830
9.9, 15 (255cc)	1993-99	36020	75, 80, 85, 90, 100, 115	1960-70	34030
25 (361cc)	1974-76	-	125	1971-72	-
25 (521cc)	1977-78	35840	115, 135	1973	33540
35 (521cc)	1976-78	35840			
20, 25, 28, 30, 35 (521cc)	1979-00	34570			
40, 40 Comm. (719cc)	1968-86	35990			
50 (680cc)	1974-75	-			
40, 45, 48, 50, 55, 60 (737cc)	1976-01	34250			
60 3-Cyl. (814cc)	1986-89	33400			
60 3-Cyl. (913cc)	1974-85	33400			
70 3-Cyl. (814cc)	1989-01	34280			
70 3-Cyl. (913cc)	1986-01	34280			
75 3-Cyl. (814cc)	1975-89	33400			
75 3-Cyl. (814cc) Low Octane	1975-78	35830			
85 V4 Crossflow	1974-78	-			
115, 135, 140 V4 Crossflow	1973-78	33540			
85, 88, 90, 100, 110, 115 V4 Crossflow	1978-94	33540			
115 V4 Crossflow	1985	35820			
135, 140 V4 Crossflow	1973-84	35820			
140 V4 Crossflow	1977-84	33540			
120, 140, V4 Loopcharged	1985-87	34400			
120, 130, 140 V4 Loopcharged, 2 L	1988-99	35930			
150, 155, 175, 185, 200 Crossflow	1976-91	33870			
150, 155, 175, 185, 200 Crossflow	1976-91	35940			
175 V6 Crossflow	1986-92	34240			
200, 225 V6 Loopcharged	1986-87	35950			
200, 225 Loopcharged V6, 3 L	1988-93	34590			
200, 225, 250 V6 Loopcharged, 3L	1994-01	34590			
235 V6 Crossflow	1978-79	33870			
235 V6 Crossflow	1980-85	34240			
235 V6 Crossflow	1978-79	35940			
235 V6 Crossflow	1980-85	35960			
2.6 XP-GT V6 Crossflow	1983-85	-			
2.6 XP-GT V6 Crossflow	1983-85	35960			
275, 3.6 L V8 Loopcharged	1985-87	-			
250, 275, 300 V8 Loopcharged, 4 L	1988-93	35970			
300 V8 Loopcharged, 4 L	1993-94	35970			

# Johnson / Evinrude

## POWERHEAD GASKET KITS

### No. 39380

OEM: 0394546



9.9-15 HP  
(1984-1992)

### No. 39353

OEM: 0436358



9.9-15 HP  
(1993-1999)

### No. 39420

OEM: 0433941



20, 25, 30 HP, Crossflow  
(1996-1999)

### No. 39355

OEM: 0390700



40 HP Comm., Crossflow  
(1983-1986)

### No. 39370

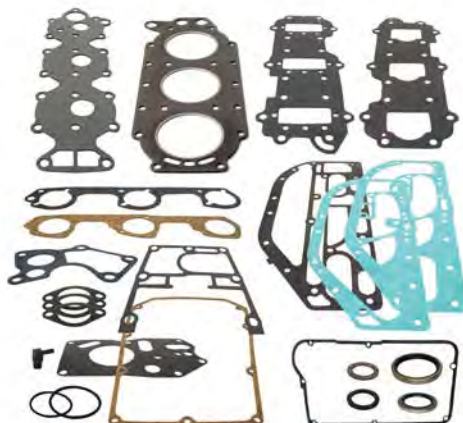
OEM: 0439083



40-60 HP, 2-Cyl. Loopcharged  
(1998-2001)

### No. 39350

OEM: 0390078



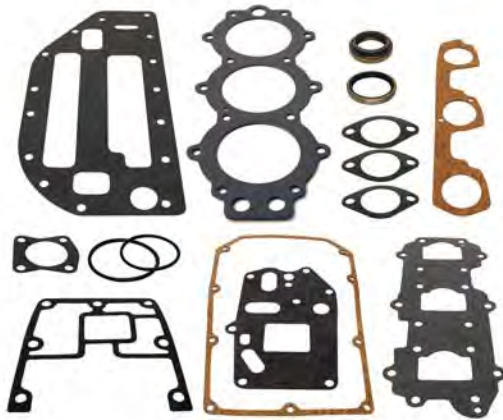
60-70 HP, 3-Cyl.  
(1979-1988)

# Johnson / Evinrude

## POWERHEAD GASKET KITS

**No. 39390**

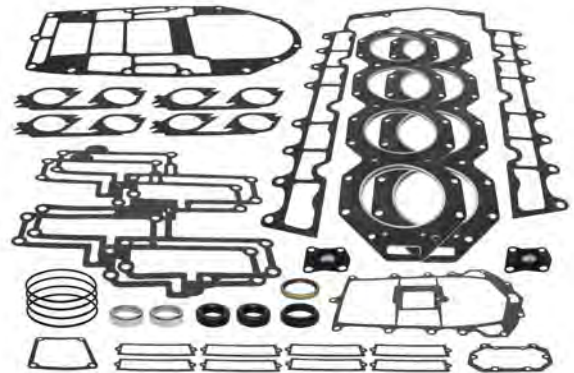
OEM: 0438904



60-70 HP, 3-Cyl.  
(1986-2001)

**No. 39070**

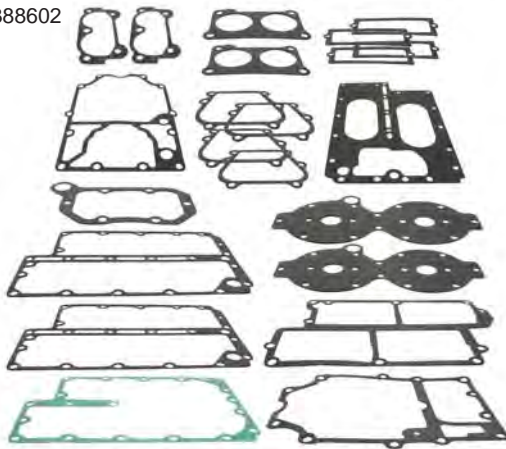
OEM: 0398693



V8 250, 275 HP, 300 Special  
(1994-1998)

**No. 39360**

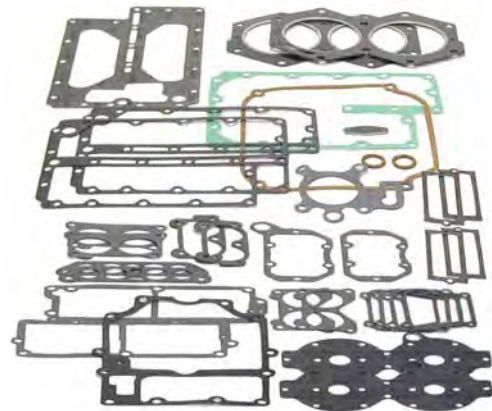
OEM: 0388602



90° V4 Crossflow  
(1973-1977)

**No. 39080**

OEM: 0439085



90° V4 Crossflow  
(1978-1994)

**No. 39354**

OEM: 0396750



90° V4 Loopcharge 120-140 HP  
(1985-1987)

**No. 39400**

OEM: 0432570



90° V4 Loopcharge 120-140 HP  
(1988-1999)



# Johnson / Evinrude

## POWERHEAD GASKET KITS

### No. 39351

OEM: 0439559



60° V4 Loopcharged, Carb., 90-115 HP  
(1995-UP)

### No. 39356

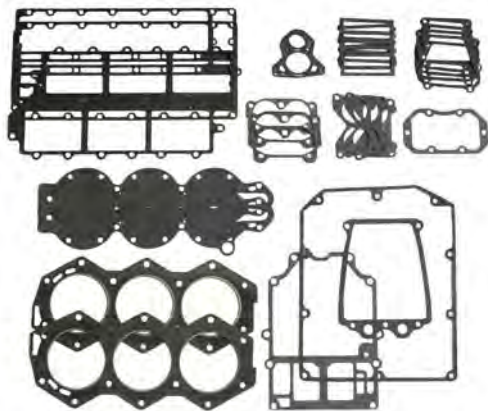
OEM: 5000400



60° V4 Loopcharged, EFI, 90-115 HP  
(1998-UP)

### No. 39090

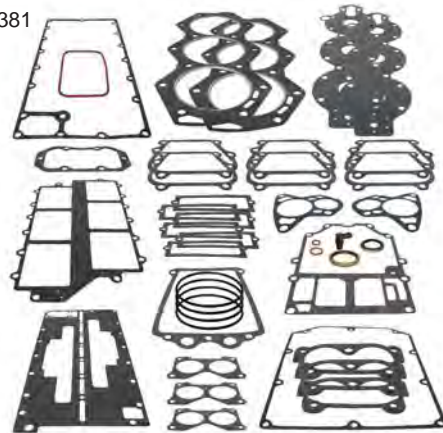
OEM: 0391988



V6 Crossflow All (Except 175-235 HP 1980-1991)  
(1978-1991)

### No. 39430

OEM: 0434381



V6 Crossflow  
175, 235 HP (1980-1991)

### No. 39352

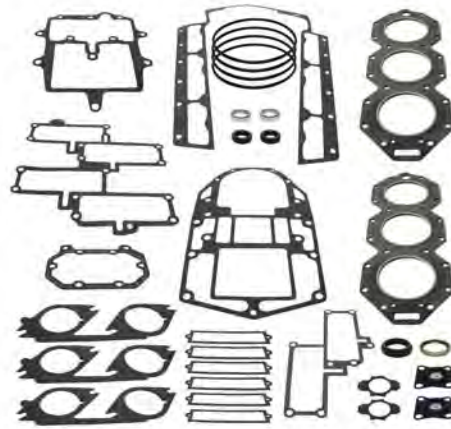
OEM: 0437155



60° V6 Loopcharged, Carb., 150-175 HP  
(1991-1999)

### No. 39930

OEM: 0398172



90° V6 Loopcharged, Carb., 200, 225 HP  
(1986-1987)

# Johnson / Evinrude

## POWERHEAD GASKET KITS

### No. 39410

OEM: 0436891



90° V6 Loopcharged, Carb., 200-225 HP  
(1988-1993)

### No. 39510

OEM: 0437725



90° V6 Loopcharged, Carb., 200, 225, 250 HP  
(1994-2001)

## POWERHEAD GASKET KITS APPLICATIONS

Model	Year	JML No.	Model	Year	JML No.
<b>2-Cylinder</b>			<b>V4 Crossflow</b>		
2 Colt, Junior®	1985-88	-	85	1973-77	<b>39360</b>
2 Colt, Junior®	1989-90	-	115, 135, 140 Use 33540 HD Gskt, Plus P/N	1973-77	<b>39360</b>
4	1978-82	-	85	1978	-
2.5, 4, 4.5, Ultra or Excel 4	1983-87	-	85, 88, 90, 110, 115	1979 & Up	<b>39080</b>
2.5, 4, 4.5, Ultra or Excel 4	1988-90	-	100, 115, 140	1978-84	<b>39080</b>
3, 4	1991 & Up	-	115	1985	<b>39080</b>
5, 6	1984-90	-	<b>V4 90° Loopcharged</b>		
5, 6, 8	1991 & Up	-	120-140	1985-87	<b>39354</b>
6	1972-79	-	120-140	1988-94	<b>39400</b>
6, 7.5	1981-83	-	130	1995	<b>39400</b>
8	1980-83	-	<b>V4 60° Loopcharged</b>		
8	1984-90	-	90-115 V4 60°	1995 & Up	<b>39351</b>
9.9, 15	1974-92	<b>39380</b>	90-115 FFI	1998 & Up	<b>39356</b>
9.9, 15	1993 & Up	<b>39353</b>	<b>V6 90° Crossflow</b>		
18	1970-73	-	150	1978-91	<b>39090</b>
25	1973-76	-	155	1986-91	<b>39090</b>
25	1977-78	-	175	1977-85	<b>39090</b>
20, 25, 28, 30	1979 & Up	<b>39420</b>	185	1984-85	<b>39090</b>
35	1979-86	<b>39420</b>	200	1976-83	<b>39090</b>
40	1970-71	-	235	1978-79	<b>39090</b>
40 Comm.	1987-91	<b>39355</b>	175	1986-91	<b>39430</b>
40, 45, 48, 55	1980 & Up	<b>39370</b>	235	1980-85	<b>39430</b>
50	1971-75	<b>39370</b>	235	1983-85	-
55	1976	<b>39370</b>	<b>V6 60° Loopcharged</b>		
55	1977-79	<b>39370</b>	150-175 V6 60°	1991 & Up	<b>39352</b>
50	1980	<b>39370</b>	150-175 FFI	1997-98	-
55, 60	1980-85	<b>39370</b>	150-175 FFI	2000 & Up	-
<b>3-Cylinder</b>			<b>V6 90° Loopcharged</b>		
50	1995	<b>39390</b>	200, 225	1985-87	<b>39930</b>
60	1986-88	<b>39350</b>	200, 225	1988-1993	<b>39410</b>
60	1989 & Up	<b>39390</b>	200, 225	1994-01	<b>39510</b>
65 Use 33400 HD Gskt, Plus P/N	1972-73	<b>39350</b>	<b>V8</b>		
65	1984-86	<b>39350</b>	275, 3.6 L	1985-87	-
65	1987 & Up	<b>39390</b>	250, 275, 300 Special	1988 & Up	<b>39070</b>
70	1974-85	<b>39350</b>	200-250 FFI	2001	-
70	1986 & Up	<b>39390</b>			

# Johnson / Evinrude

## POWERHEAD MOUNTING GASKETS

**No. 35190**

OEM: 0324717



9.9, 15 HP (1972-1985)

**No. 33080**

OEM: 0325721



9.9, 15 HP (1986-Up)

**No. 33430**

OEM: 0314421



18, 25 HP

**No. 33190**

OEM: 0319348



28, 33, 40 HP

**No. 34350**

OEM: 0319710



25, 35 HP (1976-1978)

**No. 33710**

OEM: 0330621



25, 35 HP (1979-Up)

**No. 35340**

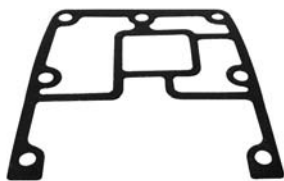
OEM: 0351018



2-Cyl., Loopcharged

**No. 35430**

OEM: 0329828



3-Cyl., 60, 70 HP

**No. 33410**

OEM: 0313763

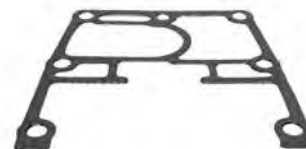


Thin Gasket

3-Cyl.

**No. 34550**

OEM: 0328618



Thick Gasket

3-Cyl.

**No. 34880**

OEM: 0318373



90° V4 Crossflow (1973-1977)

**No. 33640**

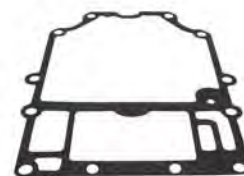
OEM: 0342513



90° V4 Crossflow (1978-1997)

**No. 34460**

OEM: 0323214



90° V6 Crossflow

**No. 35370**

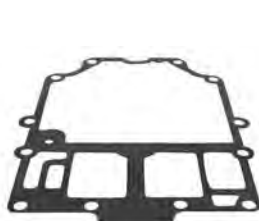
OEM: 0328590



90° V4 Loopcharged

**No. 35790**

OEM: 0335503



90° V6 Loopcharged

**No. 35780**

OEM: 0333879



90° V6 Loopcharged

**No. 35460**

OEM: 0329975



90° V8 Loopcharged





# Johnson / Evinrude

## POWERHEAD MOUNTING GASKETS

**No. 36500**

OEM: 0343853



60° V4 (1997)

**No. 36510**

OEM: 0344386



60° V4 (1998-Up)

**No. 36560**

OEM: 0335419



60° V6

## INTERMEDIATE HOUSING EXHAUST GASKETS

**No. 35360**

OEM: 0351019



2-Cyl., Loopcharged

**No. 35420**

EXHAUST RELIEF COVER  
OEM: 0329826



2-Cyl., Loopcharged  
Exhaust Relief Cover

**No. 34600**

OEM: 0331016



3-Cyl. (1972-1985)

**No. 35810**

OEM: 0336308



3-Cyl., 60, 70 HP (1986-UP)

**No. 34500**

OEM: 0324516



90° V6 Crossflow

**No. 33670**

OEM: 0323292



90° V6 Crossflow

**No. 35680**

OEM: 0331585



90° V6 Crossflow

**No. 34470**

OEM: 0323222



90° V4, V6 Crossflow

**No. 34490**

OEM: 0323459



90° V4 Crossflow

**No. 35770**

OEM: 0343809



90° V6 Loopcharged

**No. 35760**

OEM: 0333564



90° V6 Loopcharged

## SCREW / SEAL

**No. 22301**

OEM: 0317763



For Crankcase  
Cover

## SEALS - EXHAUST HOUSING

**No. 85830**

OEM: 0320936



**No. 85840**

OEM: 0320961



**No. 86210**

OEM: 0324937



# Johnson / Evinrude

## POWERHEAD EXHAUST GASKETS

**No. 33170**

OEM: 0313065



5,5.5,6 HP

**No. 35200**

OEM: 0325211



5, 5.5, 6 HP

**No. 34320**

OEM: 0318925



9.9, 15 HP

**No. 33690**

OEM: 0324323



25, 35 HP

**No. 35330**

OEM: 0326264



2-Cyl. Crossflow

**No. 33230**

OEM: 0304762



2-Cyl. Crossflow

**No. 34800**

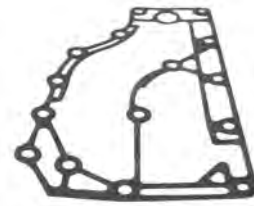
OEM: 0315868



2-Cyl. Loopcharged

**No. 34850**

OEM: 0315869



2-Cyl. Loopcharged

**No. 34610**

OEM: 0331916



3-Cyl.

**No. 34620**

OEM: 0331917



3-Cyl.

**No. 35450**

OEM: 0343863



3-Cyl., 60-70 HP

**No. 34300**

OEM: 0317955



90° V4 Crossflow

**No. 34290**

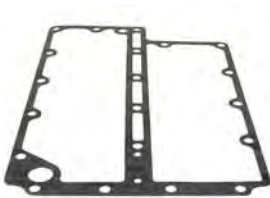
OEM: 0317914



90° V4 Crossflow

**No. 33240**

OEM: 0305176



90° V4 Crossflow

**No. 33680**

OEM: 0323469



90° V4 Crossflow

**No. 33510**

OEM: 0318156



90° V4 Crossflow

**No. 34650**

OEM: 0393561



90° V6 Crossflow, 235 HP

**No. 33620**

OEM: 0321435



90° V6 Crossflow

**No. 33590**

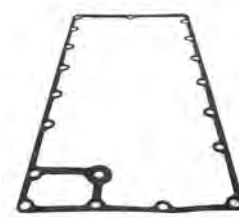
OEM: 0321182



90° V6 Crossflow

**No. 32560**

OEM: 0336430



90° V6 Crossflow



# Johnson / Evinrude

## POWERHEAD WATER PASSAGE COVER GASKETS

**No. 34580**

OEM: 0329920



9.9, 15 HP

**No. 33560**

OEM: 0319665



25, 35 HP

**No. 33700**

OEM: 0327674



25, 35 HP

**No. 34780**

OEM: 0315538



50, 55 HP

**No. 36640**

OEM: 0318962



2-Cyl. Loopcharged

**No. 33530**

OEM: 0318335



V4

**No. 34310**

OEM: 0318609



3-Cyl.

**No. 34370**

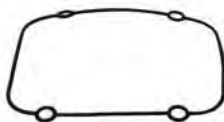
OEM: 0321028



V6

**No. 86214**

REGULATOR MOUNT GASKET  
OEM: 03010036



60° V4/V6 (1997-2000)

**No. 36540**

REGULATOR MOUNT GASKET  
OEM: 0342291



60° V4/V6

**No. 35470**

REGULATOR MOUNT GASKET  
OEM: 0344472



90° V4/V6

**No. 34870**

OEM: 0317951



V4/V6

**No. 34450**

OEM: 0322858



V4/V6

**No. 35760**

OEM: 0333564



90° V6 Loopcharged

## POWERHEAD TRANSFER PORT GASKETS - CROSSFLOW ENGINES

**No. 34990**

OEM: 0319332



9.9, 15 HP

**No. 34340**

OEM: 0319661



25, 35 HP

**No. 36630**

OEM: 0304784



2-Cyl.

**No. 33280**

OEM: 0307133



90° V4

# Johnson / Evinrude

## CARBURETOR TO INTAKE MANIFOLD GASKETS

### No. 33740

CARB. TO MANIFOLD  
GASKET  
OEM: 0325092



### No. 34980

CARB. TO MANIFOLD  
GASKET  
OEM: 0318932



### No. 35750

THROTTLE BODY  
TO MANIFOLD  
OEM: 0332319



### No. 33460

CARB. TO MANIFOLD  
GASKET  
OEM: 0315052



V4

### No. 34540

CARB. TO MANIFOLD  
GASKET  
OEM: 0327707



V4/V6

### No. 34530

CARB. TO MANIFOLD GASKET  
OEM: 0326926



3-Cyl.

### No. 34860

CARB. TO MANIFOLD GASKET  
OEM: 0317305



3-Cyl.

### No. 36620

THROTTLE BODY GASKET  
OEM: 0344526



60° EFI

### No. 86211

PORT INTAKE TO CARB.  
GASKET  
OEM: 0335818



60° V4

### No. 86212

STBD. INTAKE TO CARB.  
GASKET  
OEM: 0335819



60° V4

### No. 86650

PORT INTAKE TO CARB.  
GASKET  
OEM: 0335403



60° V6

### No. 86651

STBD. INTAKE TO CARB.  
GASKET  
OEM: 0335404



60° V6



# Johnson / Evinrude

## INTAKE MANIFOLD GASKETS / REED PLATE GASKETS

### No. 34970

REED PLATE GASKET  
OEM: 0318924



9.9, 15 HP

### No. 35320

REED PLATE GASKET  
OEM: 0325260



9.9, 15 HP

### No. 34390

REED PLATE GASKET  
OEM: 0321479



25, 35 HP

### No. 33090

REED PLATE GASKET  
OEM: 0326260



25, 35 HP

### No. 36660

REEDPLATE  
GASKET  
OEM: 0311364



### No. 36670

REEDPLATE  
GASKET  
OEM: 0311365



### No. 34790

INTAKE MANIFOLD GASKET  
OEM: 0315578



2-Cyl. Loopcharged

### No. 35800

INTAKE MANIFOLD GASKET  
OEM: 0335633



2-Cyl. Loopcharged

### No. 35400

REED BOX GASKET  
OEM: 0328626



90° V4/V6 Loopcharged

### No. 35740

REED BOX GASKET  
OEM: 0332266



90° V4/V6 Loopcharged

### No. 33660

REED BOX GASKET  
OEM: 0321907



90° V4/V6 Crossflow

### No. 36650

REED PLATE  
OEM: 0317254



2-Cyl. Crossflow

### No. 33180

INTAKE MANIFOLD GASKET  
OEM: 0319174



90° V4  
Crossflow

### No. 33610

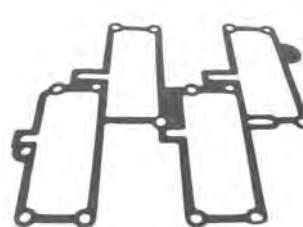
INTAKE MANIFOLD GASKET  
OEM: 0329718



90° V6  
Crossflow

### No. 35390

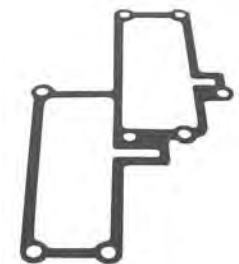
INTAKE MANIFOLD GASKET  
OEM: 0328622



90° V4/V6  
Loopcharged

### No. 35540

INTAKE MANIFOLD GASKET  
OEM: 0331532



90° V6  
Loopcharged

### No. 36520

PORT INTAKE  
MANIFOLD GASKET  
OEM: 0336388



60° V4

### No. 36530

STARBOARD INTAKE  
MANIFOLD GASKET  
OEM: 0336389



60° V4

### No. 36570

PORT INTAKE  
MANIFOLD GASKET  
OEM: 0336226



60° V6

### No. 36580

STARBOARD INTAKE  
MANIFOLD GASKET  
OEM: 0336227



60° V6

# Johnson / Evinrude

## AIR SILENCER GASKETS

### No. 34480

AIR SILENCER GASKET  
OEM: 0323338



25, 35 HP

### No. 36550

AIR SILENCER GASKET  
OEM: 0336821



### No. 37800

AIR SILENCER GASKET  
OEM: 0338882



### No. 33750

AIR SILENCER GASKET  
OEM: 0386573, 0319771



### No. 35180

AIR SILENCER GASKET  
OEM: 0321497



### No. 34420

AIR SILENCER GASKET  
OEM: 0333008



3-Cyl.

### No. 34640

AIR SILENCER GASKET  
OEM: 0314115



70, 75 HP

### No. 35380

AIR SILENCER GASKET  
OEM: 0328604



### No. 35490

AIR SILENCER GASKET  
OEM: 0330909



### No. 35000

AIR SILENCER GASKET  
OEM: 0320679



### No. 35480

AIR SILENCER GASKET  
OEM: 0330698



### No. 34430

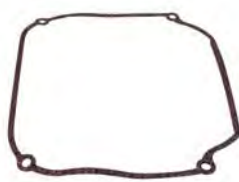
AIR SILENCER GASKET  
OEM: 0321794



3-Cyl.

### No. 33630

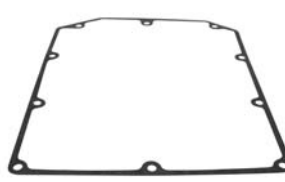
AIR SILENCER GASKET  
OEM: 0321722



V4

### No. 34380

AIR SILENCER GASKET  
OEM: 0321183



V6

### No. 34740

AIR SILENCER GASKET  
OEM: 0314322



70, 75 HP

### No. 35350

COVER TO BASE GASKET  
OEM: 0327236



V6

### No. 35730

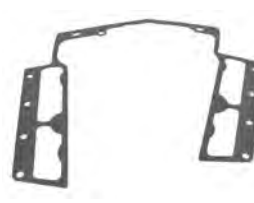
COVER TO BASE GASKET  
OEM: 0331598



V6

### No. 35500

COVER TO BASE GASKET  
OEM: 0331101



V4



# Section 15

## Johnson / Evinrude Oil Seals Shaft & Bore Size, O-Ring Size Chart

<i>Oil Seals Shaft &amp; Bore Size .....</i>	<i>164</i>
<i>O-Ring Size Chart .....</i>	<i>165</i>

# Johnson / Evinrude

## OIL SEALS SHAFT & BORE SIZE

JML	OEM	Shaft Size	Bore Size	JML	OEM	Shaft Size	Bore Size
Table By OEM Numbers							
86530	0302564	0.7813	1.3750	86200	0321928	0.6250	1.3750
86360	0303345	0.5625	1.0000	86510	0324639	0.4375	0.9375
86380	0305987	1.0000	1.3750	86750	0326716	0.7500	1.3750
86370	0309989	1.3750	2.0000	86450	0327031	0.4375	0.8750
85110	0310599	1.0000	1.5000	86240	0329922	0.8750	1.3750
86040	0310649	2.5000	3.0000	86250	0329923	0.8750	1.3750
86390	0313282	0.5540	1.0625	86030	0330137	1.1250	1.6250
86740	0313283	0.8125	1.3125	86270	0330327	0.6250	1.1250
86410	0313284	0.6250	1.1250	86790	0331103	1.1250	1.6250
86050	0313353	1.9375	2.4375	86460	0332205	0.7500	1.1250
85010	0313392	1.1875	1.8750	86520	0332261	0.6250	1.3750
86012	0314281	1.2500	1.6875	86470	0332942	1.6250	2.0625
86400	0314167	0.4219	0.9375	86810	0334950	1.2500	1.6875
86120	0318972	0.5000	0.8750	86440	0339620	1.6250	2.1250
85130	0320862	1.1875	1.6875	86011	0341280	0.8750	1.3750
85120	0321453	0.8750	1.2500	86013	0342786	0.7500	1.1875
86150	0321459	0.6250	1.1250	86590	0908855	0.6250	1.0000
86160	0321466	0.7500	1.1250	86070	0911019	1.0000	2.5000
86060	0321467	1.0000	1.3750	86530	0911685	2.0000	2.5000
86170	0321480	0.5000	1.2500	86550	0911788	1.0000	1.3750
86180	0321481	0.6875	1.2500	86560	0911785	1.3750	2.1875
86420	0321786	0.6250	1.1250	86010	0981195	1.5000	2.1250
86190	0321787	0.6250	1.1250	86080	0981196	1.7500	2.5000
86430	0321788	0.5000	1.0000	86090	0981268	1.6250	2.5000
86760	0321831	0.7500	1.2500	86560	3852548	1.3750	2.1875
86770	0321895	1.6250	1.9219	86610	3853655	0.5000	0.9062
Table By Shaft Size							
86400	0314167	0.4219	0.9375	86011	0341280	0.8750	1.3750
86450	0327031	0.4375	0.8750	86240	0329922	0.8750	1.3750
86510	0324639	0.4375	0.9375	86250	0329923	0.8750	1.3750
86120	0318972	0.5000	0.8750	85110	0310599	1.0000	1.5000
86170	0321480	0.5000	1.2500	86060	0321467	1.0000	1.3750
86430	0321788	0.5000	1.0000	86070	0911019	1.0000	2.5000
86610	3853655	0.5000	0.9062	86380	0305987	1.0000	1.3750
86390	0313282	0.5540	1.0625	86550	0911788	1.0000	1.3750
86360	0303345	0.5625	1.0000	86030	0330137	1.1250	1.6250
86410	0313284	0.6250	1.1250	86790	0331103	1.1250	1.6250
86150	0321459	0.6250	1.1250	85010	0313392	1.1875	1.8750
86190	0321787	0.6250	1.1250	85130	0320862	1.1875	1.6875
86200	0321928	0.6250	1.3750	86012	0314281	1.2500	1.6875
86270	0330327	0.6250	1.1250	86810	0334950	1.2500	1.6875
86420	0321786	0.6250	1.1250	86370	0309989	1.3750	2.0000
86520	0332261	0.6250	1.3750	86560	0911785	1.3750	2.1875
86590	0908855	0.6250	1.0000	86560	3852548	1.3750	2.1875
86180	0321481	0.6875	1.2500	86010	0981195	1.5000	2.1250
86160	0321466	0.7500	1.1250	86090	0981268	1.6250	2.5000
86460	0332205	0.7500	1.1250	86440	0339620	1.6250	2.1250
86013	0342786	0.7500	1.1875	86470	0332942	1.6250	2.0625
86750	0326716	0.7500	1.3750	86770	0321895	1.6250	1.9219
86760	0321831	0.7500	1.2500	86080	0981196	1.7500	2.5000
86530	0302564	0.7813	1.3750	86050	0313353	1.9375	2.4375
86740	0313283	0.8125	1.3125	86530	0911685	2.0000	2.5000
85120	0321453	0.8750	1.2500	86040	0310649	2.5000	3.0000



# Johnson / Evinrude

## O-RING SIZE CHART

JML	OEM	I.D.	O.D.	W.	JML	OEM	I.D.	O.D.	W.	JML	OEM	I.D.	O.D.	W.
Table By OEM Numbers														
80120	0202893	3/8	1/2	1/16	81230	0309731	1 3/16	1 3/8	3/32	81140	0329380	5/8	13/16	3/32
81070	0301824	7/32	13/32	3/32	82250	0310327	1 7/8	2 1/8	1/8	81100	0329381	3/8	9/16	3/32
45230	0301877	31/128	73/128	21/128	82390	0310414	3 5/8	3 7/8	1/8	80100	0332583	1/4	3/8	1/16
81170	0301967	13/16	1	3/32	82100	0310584	3/4	1	1/8	80100	0332584	1/4	3/8	1/16
82260	0302337	2	2 1/4	1/8	81160	0310585	3/4	15/16	3/32	81080	0333572	1/4	7/16	3/32
82170	0302493	1 3/16	1 7/16	1/8	81160	0310967	3/4	15/16	3/32	81540	0335523	3 3/4	3 15/16	3/32
81260	0302537	1 3/8	1 9/16	3/32	80180	0311338	3/4	7/8	1/16	81450	0338518	2 9/16	2 3/4	3/32
82140	0302540	1	1 1/4	1/8	82480	0313175	4 3/4	5	1/8	81300	0338522	1 5/8	1 13/16	3/32
82240	0302588	1 3/4	2	1/8	81310	0313340	1 11/16	1 7/8	3/32	81120	0339543	1/2	11/16	3/32
81100	0303067	3/8	9/16	3/32	82370	0313446	3 3/8	3 5/8	1/8	82360	0553126	3 1/4	3 1/2	1/8
80110	0303191	5/16	7/16	1/16	81340	0313754	1 7/8	2 1/16	3/32	81220	0554545	1 1/8	1 5/16	3/32
81110	0303347	7/16	5/8	3/32	80220	0314491	1	1 1/8	1/16	81550	0908194	4	4 3/16	3/32
82150	0303360	1 1/16	1 5/16	1/8	81380	0314728	2 1/8	2 5/16	3/32	81440	0908383	2 1/2	2 11/16	3/32
80140	0304174	1/2	5/8	1/16	80100	0317178	1/4	3/8	1/16	81140	0909047	5/8	13/16	3/32
82400	0305123	3 3/4	4	1/8	45200	0318372	8 mm	16 mm	4 mm	41120	0909048	1/2	11/16	3/32
82080	0305146	5/8	7/8	1/8	83250	0318717	1 1/2	1 7/8	3/16	42140	0909139	1	1 1/4	1/8
82030	0305242	5/16	9/16	1/8	83200	0319085	1 1/8	1 1/2	3/16	80230	0909140	1 1/16	1 3/16	1/16
82230	0305270	1 5/8	1 7/8	1/8	81330	0319662	1 3/4	1 15/16	3/32	81280	0909316	1 1/2	1 11/16	3/32
80100	0305739	1/4	3/8	1/16	82130	0320140	15/16	1 3/16	1/8	81090	0909747	5/16	1/2	3/32
82310	0307082	2 5/8	2 7/8	1/8	82320	0320303	2 3/4	3	1/8	82520	0910238	5 1/4	5 1/2	1/8
80130	0307450	7/16	9/16	1/16	80080	0321117	3/16	5/16	1/16	82250	0910582	1 7/8	2 1/8	1/8
80090	0307853	7/32	11/32	1/16	81250	0322501	1 5/16	1 1/2	3/32	80100	0911311	1/4	3/8	1/16
82350	0308621	3 1/8	3 3/8	1/8	80090	0322598	7/32	11/32	1/16	82380	0911686	3 1/2	3 3/4	1/8
81290	0308458	1 9/16	1 3/4	3/32	81140	0326649	5/8	13/16	3/32	82430	0911700	4 1/8	4 3/8	1/8
81190	0308624	15/16	1 1/8	3/32	82460	0326741	4 1/2	4 3/4	1/8	81210	0911718	1 1/16	1 1/4	3/32
81270	0308626	1 7/16	1 5/8	3/32	82440	0326849	4 1/4	4 1/2	1/8	81230	0911871	1 3/16	1 3/8	3/32
82280	0308627	2 1/4	2 1/2	1/8	45230	0326956	31/128	73/128	21/128	81180	3852565	7/8	1 1/16	3/32
81400	0308876	2 1/4	2 7/16	3/32	81250	0331188	1 5/16	1 1/2	3/32					
Table By Nominal Size														
80080	0321117	3/16	5/16	1/16	81170	0301967	13/16	1	3/32	82140	0302540	1	1 1/4	1/8
80090	0307853	7/32	11/32	1/16	81180	3852565	7/8	1 1/16	3/32	82150	0303360	1 1/16	1 5/16	1/8
80090	0322598	7/32	11/32	1/16	81190	0308624	15/16	1 1/8	3/32	82170	0302493	1 3/16	1 7/16	1/8
80100	0305739	1/4	3/8	1/16	81210	0911718	1 1/16	1 1/4	3/32	82230	0305270	1 5/8	1 7/8	1/8
80100	0317178	1/4	3/8	1/16	81220	0554545	1 1/8	1 5/16	3/32	82240	0302588	1 3/4	2	1/8
80100	0332583	1/4	3/8	1/16	81230	0309731	1 3/16	1 3/8	3/32	82250	0310327	1 7/8	2 1/8	1/8
80100	0332584	1/4	3/8	1/16	81230	0911871	1 3/16	1 3/8	3/32	82250	0910582	1 7/8	2 1/8	1/8
80100	0911311	1/4	3/8	1/16	81250	0322501	1 5/16	1 1/2	3/32	82260	0302337	2	2 1/4	1/8
80110	0303191	5/16	7/16	1/16	81260	0302537	1 3/8	1 9/16	3/32	82280	0308627	2 1/4	2 1/2	1/8
80120	0202893	3/8	1/2	1/16	81270	0308626	1 7/16	1 5/8	3/32	82310	0307082	2 5/8	2 7/8	1/8
80130	0307450	7/16	9/16	1/16	81280	0909316	1 1/2	1 11/16	3/32	82320	0320303	2 3/4	3	1/8
80140	0304174	1/2	5/8	1/16	81290	0308458	1 9/16	1 3/4	3/32	82350	0308621	3 1/8	3 3/8	1/8
80180	0311338	3/4	7/8	1/16	81300	0338522	1 5/8	1 13/16	3/32	82360	0553126	3 1/4	3 1/2	1/8
80220	0314491	1	1 1/8	1/16	81310	0313340	1 11/16	1 7/8	3/32	82370	0313446	3 3/8	3 5/8	1/8
80230	0909140	1 1/16	1 3/16	1/16	81330	0319662	1 3/4	1 15/16	3/32	82380	0911686	3 1/2	3 3/4	1/8
41120	0909048	1/2	11/16	3/32	81340	0313754	1 7/8	2 1/16	3/32	82390	0310414	3 5/8	3 7/8	1/8
81070	0301824	7/32	13/32	3/32	81380	0314728	2 1/8	2 5/16	3/32	82400	0305123	3 3/4	4	1/8
81080	0333572	1/4	7/16	3/32	81400	0308876	2 1/4	2 7/16	3/32	82430	0911700	4 1/8	4 3/8	1/8
81090	0909747	5/16	1/2	3/32	81440	0908383	2 1/2	2 11/16	3/32	82440	0326849	4 1/4	4 1/2	1/8
81100	0303067	3/8	9/16	3/32	81450	0338518	2 9/16	2 3/4	3/32	82460	0326741	4 1/2	4 3/4	1/8
81100	0329381	3/8	9/16	3/32	81540	0335523	3 3/4	3 15/16	3/32	82480	0313175	4 3/4	5	1/8
81110	0303347	7/16	5/8	3/32	81550	0908194	4	4 3/16	3/32	82520	0910238	5 1/4	5 1/2	1/8
81120	0339543	1/2	11/16	3/32	42140	0909139	1	1 1/4	1/8	45230	0301877	31/128	73/128	21/128
81140	0326649	5/8	13/16	3/32	82030	0305242	5/16	9/16	1/8	45230	0326956	31/128	73/128	21/128
81140	0329380	5/8	13/16	3/32	82080	0305146	5/8	7/8	1/8	83200	0319085	1 1/8	1 1/2	3/16
81140	0909047	5/8	13/16	3/32	82100	0310584	3/4	1	1/8	83250	0318717	1 1/2	1 7/8	3/16
81160	0310585	3/4	15/16	3/32	82130	0320140	15/16	1 3/16	1/8	45200	0318372	8 mm	16 mm	4 mm
81160	0310967	3/4	15/16	3/32	81250	0331188	1 5/16	1 1/2	3/32					

\* Quad Ring

# Johnson / Evinrude

**NOTES:**

[illegible]

# Johnson / Evinrude

**NOTES:**

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

## Limited Warranty of JML Products, Inc.

1. This product of JML Products, Inc. ("JML") is warranted to be free from defects in material and workmanship for a period of two years from the date of purchase for aluminum elbow/manifold and all other JML parts and accessories, three years from the date of purchase for cast iron elbow/manifold. Products used for commercial, rental, or income producing activity are warranted for a period of ninety (90) days. Only a person who has proof of purchase of the JML product will receive warranty service.
2. JML does not warrant or make any representations in respect to installation errors made by a servicing dealer, servicing mechanic, or the individual. This warranty applies to defects in material and workmanship only, it does not apply to the following: alteration, removal of parts, adjustments, tune-ups, normal wear, damages due to accident, improper installation or service, misuse, neglect, lack of maintenance, use of any accessory or part not manufactured or sold by JML, operation with fuels, oils, or lubricants which are not suitable for use with the product, water entering engine cylinder through exhaust system or carburetor, participation in or preparing for racing or other competitive activity or operating with a racing type lower unit. JML's liability under this warranty shall be terminated on any part damaged by flood, fire, storm, or other natural acts or where the model number and other identification has been altered, defaced or removed.
3. JML will not be liable for any labor charges and incidental, consequential (such as loss of business), special or indirect damages resulting from the product or caused by the defect or reasonable delay in correcting the defect are not covered under the warranty.
4. JML reserves the right to inspect and determine whether or not any part has failed due to a defect in material or workmanship. **Do not disassemble any parts including drive units that have been assembled by JML. JML's obligation shall be limited to repairing, replacing or crediting the product determined to be defective, at JML's sole discretion:** JML reserves the right to credit refund your purchase price for the product rather than repair or replace the product, or any part thereof. Any part is covered only for the original warranty period. Once the warranty on the product has expired, the warranty on any replaced or repaired part also expires. JML shall be allowed to keep parts it deems defective under this warranty.
5. **ALL WARRANTIES BY AND FROM JML, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY FOR THE PRODUCT INVOLVED. JML DOES NOT WARRANT, GUARANTEE OR MAKE ANY REPRESENTATIONS REGARDING THE USE OR THE RESULTS OF THE USE OF THE PRODUCT IN TERMS OF ITS CORRECTNESS, RELIABILITY OR OTHERWISE. THE ENTIRE RISK AS TO THE RESULT AND PERFORMANCE OF THE PRODUCT IS ASSUMED BY YOU. IN NO EVENT WILL JML, OR ITS RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES OR AGENTS (COLLECTIVELY, "JML") BE LIABLE TO YOU FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL OR INDIRECT DAMAGES (INCLUDING DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, LOSS OF BUSINESS INFORMATION AND THE LIKE) ARISING OUT OF THE USE OR INABILITY TO USE THE PRODUCT.** JML's liability to you for actual damages from any cause whatsoever, and regardless of the form of the action (whether in contract, tort (including negligence), product liability or otherwise), will be limited to the purchase price paid for the product. No JML dealer, agent or employee is authorized to make any modification or extension to this warranty. Because some states do not allow the exclusion of implied warranties and/or the exclusion or limitation of liability for consequential or incidental damages, the above limitations may not apply to you. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.
6. You are required to notify JML of any defect within the applicable warranty period and immediately obtain from JML or its distributor a warranty application and a JML RGA number. Upon JML's receipt of the completed warranty application and part claimed under this warranty (with the JML RGA number marked on the shipping and packaging of the part), JML will inspect the part for warranty coverage. Only when the defect is covered by the warranty will the part be repaired or replaced, at JML's sole option. If warranty service is required, you must deliver your product, at your expense, with proof-of-purchase (including original purchase invoice and invoice for installation of warranted part) to JML for repair. Service is provided by JML at its corporate headquarters at 705 Los Angeles Avenue, Monrovia, California 91016, Tel: (626) 357-0077, Fax: (626) 357-0600. When repair is completed, JML will ship back to its indicated address. Shipping methods will be determined by JML.
7. This warranty comprises the sole and entire warranty pertaining to the product furnished to you by JML, and JML makes no other warranty, guarantee or representation of any kind whatsoever pertaining to the product. Any other representations, or promises by any person are unauthorized and are not binding upon JML unless in writing.



# Warranty Service Procedure

1. JML will directly and promptly approve and honor legitimate warranty claims on product only under condition that the claim is made through a servicing Dealer. **\*\*Do not disassemble any parts including drive units that have been assembled by JML.\*\***
2. JML will credit or reimburse the Dealer for qualified warranty claims submitted that comply to JML identified warranty policies.

**ANY CLAIM UNDER JML'S WARRANTY (Please see Limited Warranty of JML Products) SHALL BE IN WRITING TO JML PRODUCTS, INC. WITHIN THE WARRANTY PERIOD. TO ASSURE FAST AND EFFICIENT SERVICE PLEASE SHIP ALL WARRANTY PART(S) AND DOCUMENTATION DIRECTLY TO JML. ALL WARRANTY CLAIM PRODUCTS MUST BE SHIPPED FREIGHT PREPAID TO JML FOR WARRANTY INSPECTION. (FREIGHT CHARGES WILL BE REIMBURSED ONLY UPON APPROVAL ON WARRANTY)**

1. All returns must have a JML RGA # assigned (contact JML directly for the Return Goods Authorization #). It is imperative to indicate this number on outside of all boxes and included on all submitted documentation. No returns will be accepted without an RGA #.
2. All returns must accompany a copy of the completed warranty application. (Application is available at [www.jmlmarine.com](http://www.jmlmarine.com), in the back of each JML catalog or through your JML distributor.)
3. **ALL** parts involved in the claim.
4. Copy of invoices as follows:
  - Original purchase invoice from distributor.
  - Original invoice for installation of warranted parts.
  - Proposed invoice/ work-order to JML, if any, for warranty claim.NOTE: JML complies with OEM standard flat hours and rates.  
Copies of all invoices for items in above proposed invoice.

**Send parcel(s) to:**

**JML Products, Inc. - Warranty  
705 Los Angeles Avenue  
Monrovia, CA 91016**

**RGA# \_\_\_\_\_**



## JML Products, Inc. Warranty Claim Application

**Note:** Please fill out all information and send all requested material. Failure to complete this form and supply all requested material will delay your claim. **Do not disassemble units that were assembled by JML.** Other applications that used only JML parts should have just the parts returned to JML not the complete unit.

**RGA #** \_\_\_\_\_  
**Date Called:** \_\_\_\_\_  
**Caller Name:** \_\_\_\_\_  
**Company Name:** \_\_\_\_\_

Contact JML at 626/357-0077 for a **Returned Goods Authorization #**. All returned goods **must** have an RGA # marked on package (s) or they will be refused. No exceptions.

**Ship to: JML Products, Inc.**  
**705 Los Angeles Avenue**  
**Monrovia, CA 91016**

### Distributor Information:

Company: \_\_\_\_\_ Contact: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_

### Dealer Information:

Company: \_\_\_\_\_ Address: \_\_\_\_\_ City: \_\_\_\_\_  
State: \_\_\_\_\_ Zip: \_\_\_\_\_ Tel: \_\_\_\_\_ Fax: \_\_\_\_\_ Contact: \_\_\_\_\_

### Dealer Customer Information:

Name: \_\_\_\_\_ Address: \_\_\_\_\_ City: \_\_\_\_\_  
State: \_\_\_\_\_ Zip: \_\_\_\_\_ Tel: \_\_\_\_\_ Fax: \_\_\_\_\_

### Application Details:

Manufacturer: \_\_\_\_\_ Model: \_\_\_\_\_ Year: \_\_\_\_\_  
Length: \_\_\_\_\_ Beam: \_\_\_\_\_ Engine / Drive: \_\_\_\_\_ Horse Power: \_\_\_\_\_

List any modifications to boat or drive system that were not installed by the original manufacturer:

\_\_\_\_\_

**Details of Return:** Please list all item (s) being returned and describe detailed reason for warranty claim.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If you need more space for this description please continue on back of this sheet.

**Documentation and other items required to process warranty:** Please make sure that all items listed are sent with this application. Failure to do so will delay processing this claim.

1. All parts claimed and listed on this application. This is **all parts** being claimed regardless of manufacturer.
2. Copy of invoices as follows:
  - A. Original purchase invoice from Distributor.
  - B. Proposed invoice to JML from the Dealer for repairs.
  - C. Invoice for installation of warranted parts.
  - D. Invoices for any other items being claimed

**Note:** JML reserves the right to credit the Dealer, via the Distributor, for all JML products involved in this claim.

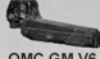


# Superior Marine Manifolds

MerCruiser V6



MerCruiser V8



OMC GM V6



OMC Ford V8



**100% Complete**  
*Conversion Kits*

Gaskets & Hardware  
Included

MerCruiser GM V6

MerCruiser GM V8 S.B.

MerCruiser GM V8 B.B.

OMC / Volvo Ford V8 (Carb.)

OMC / Volvo Ford V8 (EFI)

Volvo GM V6 th 1993

OMC / Volvo GM V6

OMC / Volvo GM V8 S.B.

Volvo GM V8 to 1991

OMC / Volvo GM V8 S.B.



**100% Complete**  
*Manifold Sets*

Gaskets & Hardware  
Included

**4-Cylinder thru V8 B.B.**  
*Manifolds*



MerCruiser  
OMC  
Volvo Penta  
Marine Power  
Indmar  
Barr

Gaskets Included

**Dry Joint Alternative**  
*Manifold-Elbow Set*

MerCruiser V6



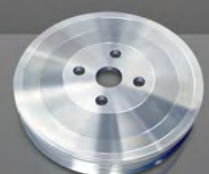
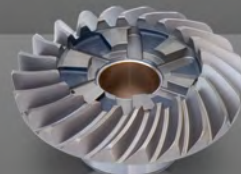
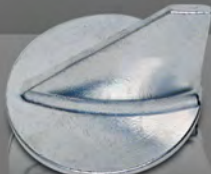
MerCruiser V8



Gaskets & Hardware  
Included

**and much more!**

*Over 4,000 Aftermarket Marine Parts*



[www.jmlmarine.com](http://www.jmlmarine.com)





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***Manifolds***



***MerCruiser***



***Mercury/Mariner/Force***



***OMC/Volvo Penta***



***Johnson/Evinrude***



***Yamaha***



***Anodes***

***JML® a GLM® Company, U.S.A.***



Digital Version:  
**JJE19V7**

**JML Products, Inc.**  
705 Los Angeles Ave., Monrovia, CA 91016  
Tel (626) 357-0077, Fax (626) 357-0600  
info@jmlmarine.com