

HMS HUBS, INC. - HUB INDEX BY MANUFACTURER

CHRYSLER, FORCE AND SEA KING OUTBOARD			OAL	Spline cnt.	HMS	MICH	DURO	RING
Chrysler, Sea King 6-10 hp	6-10 hp Sailor Sailor 180-250	1966-1984, Non thru exhaust, w/ pin hole. 1979-1984	2 3/4"	14 spline	VS-06	164	70	none
Force, Chrysler 25 hp	25 hp	1995-1998, 3 cycle, Thru hub 1 7/16" cavity 1 3/4" cavity	3 13/16" 3 3/8"	10 spline 10 spline	VS-03 VS-42	308 447	70 70	none none
Chrysler, Sea King 20-60 hp	20-25 hp 30 hp 35 hp 40 hp 45 hp 50 hp 55-60 hp 55-60 hp	1979-1981, Non thru exhaust, w/pin hole. 1966-1982 1966-1991 1992-1994 1966-1984 1982-1994 1966-1984, 2 piece lower unit. 1974-1979, 1 piece lower unit.	2 3/4"	14 spline	VS-06	164	70	none
Chrysler 55-65 hp	55, 60, 65 hp	1978, 1981 and newer, 1 piece lower unit. Thru hub exhaust.	2 13/16"	13 spline	VS-34	205	70	VSR-98
Force 40-75 hp	40, 50 hp 70 hp 75 hp	1995-1998, Thru hub exhaust. 1991-1995 1996-1998	3 1/2" 3 1/2"	13 spline 13 spline	VS-15 VS-15-80	264	70 80	VSR-98 VSR-98
Chrysler 70-140 hp Single Exhaust	70 hp 75 hp 85 hp 90 hp 100,105,115,120,135 hp 125 hp 140 hp	1977-1989, Non thru hub exhaust. 1980-1984, 1 piece lower unit. 1978-1987, 1 piece lower unit. 1984-1987, Charger. 1977-1988, 1 piece lower unit. 1985-1987, 1 piece lower unit. 1978 and newer, 1 piece lower unit.	3 11/16" 3 11/16"	15 spline 15 spline	VS-13 VS-08	376 441	70 80	none none
Force 85-150 hp Dual Exhaust Units	85, 125 hp 90, 120 hp 90 hp L-DRIVE 120 hp L-DRIVE 150 hp 150 hp L-DRIVE	1988-1989, Thru hub exhaust. 1990-1994 1989-1991 1989-1991 1989-1994 1991 only	3 11/16" 3 11/16"	15 spline 15 spline	VS-13 VS-08	262 442	70 80	VSR-99 VSR-99
Force 75-150 hp Using Mercury Gearcase	75 hp 90 hp L-DRIVE 90, 120 hp 120 hp L-DRIVE 150 hp 150 hp L-DRIVE	1999 and newer, Thru hub exhaust. 1990-1991 1995-1998 1990-1991 1989-1994 1991 only	4 5/8" 4 5/8" 4 5/8"	15 spline 15 spline 15 spline	VS-27* VS-12* VS-37*	444 445	70 80 90	VSR-99 VSR-99 VSR-99
*Castellated, Aft insert								
OMC/JOHNSON / EVINRUDE OUTBOARD								
Johnson-Evinrude 4-8 hp	4 hp 4.5 hp 6, 7.5, 8 hp	1980-1983, Non thru exhaust. 1986-1995 1980 and newer.	2"	Pin drive	VS-58	298		none
Johnson-Evinrude 6-15 hp	6 hp 9.5 hp 10 hp 10-14 hp Commercial 8-15 hp	1966-1979, Non thru exhaust. 1964-1973 1958-1963 1982-1994 2000 and newer.	1 3/4"	Pin drive	VS-18*	098	75	none
*Use a VS-20 if not pin drive and thru hub exhaust.								
Johnson-Evinrude 9.9-15 hp	9.9-15 hp 8, 9.9, 15 hp	1974 and newer. Thru hub exhaust. 1995 and newer, 4-stroke models only	2 5/16"	13 spline	VS-20	234	60	none
Johnson-Evinrude 10-25 hp	10 hp 15 hp 18 hp 20 hp 25 hp	1951-1957, Non thru exhaust, Pin Drive. 1953-1956 1957-1973 1969-1973 1969-1977	2 1/8"	Pin drive	VS-10	079	75	none
Johnson-Evinrude 14-28 hp	14 hp 25 hp 25 hp Commercial 28 hp	1989, Non thru exhaust, Spline Drive. 1978-1984 1978-1991 1986-1996	2 1/8"	13 spline	VS-21	281	75	none
Johnson-Evinrude 20-35 hp	20 hp 25 hp Commercial 25 hp 28 hp 30 hp 35 hp	1984-1997, 2 cycle, Thru hub exhaust. 1993 and newer. 1984 and newer, 2 & 3 cycle. 1984 and newer. 1984 and newer, 2 cycle. 1976 and newer, 2 & 3 cycle.	2 7/8" 2 7/8"	14 spline 14 spline	VS-26 VS-26-70	251	60 70	none none
Johnson-Evinrude 25-30 hp (4-stroke)	25, 30 hp	2004 and newer, 4-stroke models. Thru hub exhaust	3 1/4"	10 spline	VS-43	339	70	none
Johnson-Evinrude- Gale 25-40 hp	25 hp 28 hp 30 hp 33 hp 35 hp 40 hp 40 hp Commercial	1951-1955, Non thru exhaust. 1962-1964 1956 only 1965-1970 1957-1959 1960-1976 1978-1985	2 5/8"	Pin drive	VS-09	126	70	none

HMS part numbers in **bold print** are for stainless applications.

OMC/JOHNSON / EVINRUDE OUTBOARD CONT.			OAL	Spline cnt.	HMS	MICH	DURO	RING
Johnson-Evinrude 40-50 hp, 4-stroke	40 hp 50 hp	1999 and newer, 4-stroke models. 1999 and newer, 4-stroke models.	2 13/16"	13 spline	VS-34	205	70	VSR-98
Johnson-Evinrude 40-75 hp (Small Gearcase Models)	40hp 48 hp 50 hp 55 hp 60 hp 75 hp Sprint Formula E	1984 and newer, 2 cycle, Thru hub exhaust. 1987-1996 1975 and newer, 2 cycle. 1976-1979, 2 cycle. 1980-1985, 2 cycle. 1975-1985, 3 cycle. 1986-1992 1986-1992	3 3/8"	13 spline	VS-25	241	70	none
Johnson-Evinrude 40-70 hp (Large Gearcase Models)	40 hp (E-TEC) 45 hp Commercial 50 hp (E-TEC) 50 hp Commercial 50 hp 50 hp 55 hp Commercial 55 hp 60 hp 60 hp (E-TEC) 60 hp 65 hp Commercial 65 hp 70 hp 70 hp 75 hp 75 hp (E-TEC)	2004 and newer, Thru hub exhaust. 1986 and newer, 2 cycle. 2004 and newer. 1977-1979, 2 cycle. 1971-1974, 2 cycle. 1994 and newer, 3 cycle. 1980 and newer, 2 cycle. 1968-1969, 3 cycle. 1970-71,1986 and newer, 3 cycle. 2004 and newer. 1998 and newer, 4-stroke. 1984 and newer, 3 cycle. 1972-1973, 3 cycle. 1974 and newer, 3 cycle. 1998 and newer, 4-stroke. 1975-1984, 3 cycle. 2004 and newer.	3 11/16"	13 spline	VS-05	172	70	VSR-99
Johnson-Evinrude 85-140 hp V4 Gearcase Models V4 Raker	85 hp 88 hp 90 hp 90 hp (E-TEC) 100 hp 110 hp 112 hp 115 hp 115 hp (E-TEC) 120 hp 125 hp 130 hp (E-TEC) 135 hp 140 hp	1969-80,1991-95, Thru hub exhaust. 1981-1996 1981 and newer. 2004 and newer, std. length. 1979-80,1988-93 1986-1989 1994-1996 1973-85, 1990 and newer. 2004 and newer. 1986-1994, Thru hub exhaust. 1971-1972 2004 and newer. 1973-1976 1977-1994						
Johnson-Evinrude 100 hp	100 hp	1966-1968, Non thru exhaust. Aluminum or Stainless application.	4 1/4"	Pin drive	VS-24	156	75	none
Johnson-Evinrude 90-140 hp (4-stroke Models)	90 hp 115 hp 140 hp	2003 and newer, Thru hub exhaust. 2003 and newer. 2003 and newer.	3 11/16" 3 11/16"	15 spline 15 spline	VS-13 VS-08	376 441	70 80	VSR-99 VSR-99
Johnson-Evinrude 90-300 hp V6 Gearcase Models V6 Raker	90 hp V4 90 hp (E-TEC), extra long 100 hp V4 Commercial 115 hp V4 120-140 hp V4 130 hp V4 140 (25") hp V4 150 hp Commercial 150 hp V6 GT, XP 150 V6 155 hp V8, Comm. 175 hp V8 175 hp V6 GT, XP 175 V6 185 hp V6 200 hp V8 200 hp V6 GT, XP 200 V6 225 hp V8 235 hp V6 250 hp V8 275 hp V8 300 hp V8 GT, XP, 300 V8 2.6 L 3.6 L	1995 and newer, Thru hub exhaust. 2004 and newer. 1984-1990, 1991 and newer. 1995 and newer. 1985 only 1995 and newer. 1989-1994 1993 and newer. 1978 -1990, 1991 and newer. 1986 and newer. 1978 -1990, 1991 and newer. 1977-1990 1991 and newer. 1989 and newer. 1984-1985 1976-1990 1991 and newer. 1986 and newer. 1986-1990, 1991 and newer. 1978-1985 1991 and newer. 1986-1988 1986-1990, 1991-1995 1986 and newer. 1984-1985 1986-1987	4 9/16" 4 9/16" 4 9/16"	15 spline 15 spline 15 spline	VS-11* VS-11-80* VS-36**	254	70 80 75	VSR-99 VSR-99 VSR-99

*For use in a 2 1/2" hub cavity.

** Fits OMC Shooter, Renegade and Michigan Hole Shot 4- blade; also, Current Production OEM and Aftermarket Aluminum props.
** Forward installs in 2 1/4" hub cavity.

Special Note:
Can use a VT-11 centering ring on a VS-11 to prevent tipping during installation.

OMC/JOHNSON / EVINRUDE OUTBOARD CONT.			OAL	Spline cnt.	HMS	MICH	DURO	RING
Johnson-Evinrude 175-200 hp	Aftermarket applications.		4 5/8"	15 spline	VS-31*		80	VSR-99
			*For use in 2 1/2" hub cavity					
Mercury V6 Prop Conversion	For use on OMC V6 & V8 OB and IO, 1 1/4" spline length to fit OMC prop shaft. Short spline , Aft insert, Castellated.		4 5/8"	15 spline	VS-29		80	VSR-99
MERCURY, MARINER OUTBOARD								
Mercury Mark 75-110 7.5-10 hp	7.5, 9.8 hp 110 6, 9, 15 hp 20 hp Model 40 Model 45	1968-1985, Thru hub exhaust. 1968-1979 1993-1994 Pre-1981 1973-1975 1973-1981	2 3/16"	8 spline	VS-49*	185	65	none
			*Note: for use in 1" hub cavity					
Mariner 8 hp	8 hp	1976-1984	1 3/4"	Pin drive	VS-18	098	75	none
Mercury 6-15 hp*	6, 8, 9.9 hp* 9.9 hp * 10 hp* 10, 15 hp* Sea Pro/Marathon 15 hp*	1986 and newer, 2-stroke, Thru hub exhaust. 2002 1995 and newer. 1995 and newer. 1989 and newer, 2 & 4 Stroke.	2 3/16"	8 spline	VS-55*	429	60	none
* Does not include Bigfoot Models.			*Note: for use in 1 11/64" hub cavity					
Mariner 9.9-15 hp	9.9-15 hp	Early Japanese Production Models.	3 1/16"	8 spline	VS-51	359	70	none
Mercury 9.9-25 hp	9.9, 15 hp Bigfoot 18 hp Mercury 20 hp Mercury 25 hp	1999 and newer, 4-stroke, Thru hub exhaust. 1980-1985 1986 and newer. 1980 and newer, not 4-stroke.	3 13/16"	10 spline	VS-03*	308	70	none
Mariner 25 hp	25 hp Mariner 25 hp Sea Pro/Marathon	1985 and newer, 2-stroke.	3 3/8"	10 spline	VS-42**	447	70	none
			**Use in 1 3/4" hub cavity (Both the VS-03 and VS-42 replace the original hub w/hex nut on end)					
Mercury 20 hp	28, 28A, 200, 250 (lh) 20 hp (rh)	1963-1981, Thru hub exhaust. Splined almost the entire length of hub.	2 1/8"	8 spline	VS-01	101	70	none
Mariner 15-25 hp	15 hp 15A W15 20 hp 25 hp	1976-1981, Non thru hub exhaust, Pin drive. 1979-1982 1977-1985 1976-1979 1977-1979	2 1/8"	Pin Drive	VS-10	079	75	none
Mariner 25-30 hp Thru Hub Exhaust	25 hp 28 hp 30 hp	1980-1984, Thru hub exhaust. 1976-1979 1979-1990	2 15/16"	10 spline	VS-44	265	70	none
Mercury, Mariner 25-80 hp	Model 402-500-700 25 hp Bigfoot 30 hp 30 hp Sea Pro/Marathon 35 hp 40 hp 40 hp 40 hp Sea Pro/Marathon 45 hp 48 hp Mariner 50 hp 50 hp 55 hp Sea Pro/Marathon 60 hp 60 hp 60 hp 70 hp	1977-1984, Aft insert, Thru hub exhaust. 1999 and newer, 4-stroke. 1994 and newer, 2 & 4 stroke. 1994 and newer 1984-1989, 2 cycle, In-line. 1977-1983, 2 cycle In-line, not a Bigfoot. 1990 and newer, 4 cycle In-line, not a Bigfoot. 1977 and newer, not a Bigfoot, 2 & 4 stroke. 1986-1989, 4 cycle, In line. All Years 1977-1985 4 cycle In-line. 1986 and newer, 3 cycle In-line, not a Bigfoot. 1995 and newer. 1978 and newer, not a Bigfoot or Sea Pro. 1984 and newer, not a Bigfoot or Sea Pro. 1978 and newer, 2-stroke. Thru 1983, 3 cycle. In-line.	3 1/2" 3 1/2"	13 spline 13 spline	VS-15 VS-15-80	264	70 80	VSR-98 VSR-98
Models 300-500	300, 350, 400, 450, 500	1962-1969, Thru hub exhaust.	2 13/16"	11 spline	VS-02	135	70	VSR-98
Models 400-650	400, 402, 500 402-500 650	1970-1973, Thru hub exhaust. 1974-1976 1972-1976	2 13/16"	13 spline	VS-34	205	70	VSR-98
Mariner 60 hp	60 hp	1976 only						
3 Cyl., 4 & 6 In-line Cyl. Thru 1977	650 4 cyl. 650 2 & 3 cyl.	1961-1970, 4 cylinder, Thru hub exhaust. Thru 1971, 2 & 3 cylinder.	3 11/16" 3 11/16"	15 spline 15 spline	VS-13 VS-08	376 441	70 80	VSR-99 VSR-99
Mercury Outboards Models 650-1500	800-850 6 cyl. 800-850 4-cyl. 900-1500 Models	Thru 1972, 6 cylinder. 1972-1977, 4 cylinder. Thru 1977						
Mariner 80 hp	80 hp	1977 only.						

MERCURY, MARINER OUTBOARD CONT.			OAL	Spline cnt.	HMS	MICH	DURO	RING
3 Cyl., 4 & 6 In-line Cyl.	40, 50 hp Bigfoot	All Years, 4-stroke, Thru hub exhaust.	4 5/8"	15 spline	VS-27*	444	70	VSR-99
	1978 and newer, Aft Insert, In-line	60 hp Bigfoot 60 hp Sea Pro/Marathon 70 hp	1995 and newer, Sea Pro Only, not a 4-stroke. 1995 and newer. 1987-1989			* For All Aluminum applications, Aft insert.		
Mercury, Mariner 40-140 hp	75 hp 4 In-line	Thru 1986			VS-12**	445	80	VSR-99
	75 hp 3 cyl.	1987 and newer.			**For Stainless applications up to 225 hp.			
	75 hp	1984 and newer, 2 & 4 stroke.						
	75 hp Sea Pro/Marathon	All Years						
	80 hp	1978-1989						
	80 hp 4 In-line	1978-1983						
	90 hp	1978 and newer, 2 & 4 stroke.						
	90 hp 6 In-line	Thru 1985						
	90 hp 3 cyl.	1987 and newer						
	100 hp 4 In-line	1988 and newer						
	115 hp 6 In-line	1978 and newer						
	115 hp 4 In-line	1989 and newer						
	115 hp	2001 and newer, 4-stroke.						
	125 hp	1994 and newer						
140 hp	1978-81, includes Sea Pro & Offshore.							
Mercruiser O/B, Michigan, Mercury SS Chopper	V6 & V8 O/B	1978 and newer, In-line motors.	4 5/8"	15 spline	VS-23	Alum bush.	90	VSR-99
	135 hp and up 250+ hp	1983 and newer	4 5/8"	15 spline	VS-37	Brass bush.	90	VSR-99
Stainless 250+ hp, Aftermarket applications								
Mercury 135-300 hp	135 hp	1987 and newer, Thru hub exhaust.	3 15/16"	15 spline	VS-16-70	322	70	VSR-99
	150 hp V6	1978 and newer.	3 15/16"	15 spline	VS-16	443	80	VSR-99
V6 Gearcase Models	175 hp V6	1978-81, 1985 and newer.	4"	15 spline	VS-17*		80	VSR-99
	200 hp V6	1978 and newer.						
Merc Laser	200 hp XRI	1987 and newer.						
	220 hp V6	1987-1988						
	225 hp V6	1980 and newer.						
Sea Pro/Marathon	225 hp V6	All Years.						
Mercury 135-300 hp V6 Gearcase Models	250 hp	1994 and newer.						
	275 hp	1990-1994						
	300 hp V6 3.4 L	1983, 1999 and newer. 1984-1986						
Includes DFI, EFI, Magnum, Offshore, Optimax, Sea Pro and XRI, also, Michigan Black Max, Rapture and Mirage.								
TOHATSU, NISSAN OUTBOARD								
Tohatsu, Nissan 9.9-18 hp	9.9 hp	1984 and newer, Thru hub exhaust.	3 1/4"	14 spline	VS-46	369	70	none
	9.9 hp	2000 and newer, 4-stroke.						
	12 hp	1985-1988						
	15 hp	2000 and newer, 4-stroke.						
	15-18 hp	1985 and newer.						
Tohatsu, Nissan 25-30 hp	18 hp	2001 and newer, 4-stroke.						
	25 hp	1986 and newer, Thru hub exhaust.	3 1/8"	10 spline	VS-54	370	75	none
Tohatsu, Nissan 35-50 hp	30 hp	1985 and newer.						
	35 hp (35B only)	Thru 1984, Thru hub exhaust.	2 13/16"	13 spline	VS-34	205	70	VSR-98
	40 hp	1984 and newer.						
Tohatsu, Nissan 50-70 hp	50 hp (50D only)	1991 only.						
	50 hp	1992 and newer.						
	50 hp (50C only)	1987-1991, Thru hub exhaust.	3 3/8"	13 spline	VS-25	241	70	none
	55 hp	1981-1988						
Tohatsu, Nissan 60-140 hp	60A	1986 and newer.						
	70A & 70B	1981 and newer.						
	60C	Thru 1999, Large Gearcase, Thru hub exhaust.	3 11/16"	15 spline	VS-13	376	70	VSR-99
	70C	All Years, Large Gearcase.	3 11/16"	15 spline	VS-08	441	80	VSR-99
	90 hp*	1987 and newer.	3 11/16"	15 spline	VS-14*	321	80	VSR-99
	115 hp*	1992 and newer.						
	120*, 140 hp*	1988 and newer.						
* SS only Thick brass walled hub. V6 applications only.								
PRECISION TURBO PROPELLERS & OTHER AFTERMARKET PROPS								
Mercury V6 and In-Line	Turbo propellers.		4 5/8"	15 spline	VS-12T		80	VSR-99
Suzuki V6			4 1/4"	15 spline	VS-35	342	80	VSR-99
OMC I/O	Use VS-31 for other after market applications, 1/8" longer than VS-31T.		4 1/2"	15 spline	VS-31T		80	VSR-99
Evinrude V6 Outboard								
Suzuki V4 and OMC V4			3 5/8"	13 spline	VS-05T		70	VSR-99
OMC Model 400 Sterndrive								

HONDA OUTBOARD									
Honda 7.5-10 hp	BF 7.5	1978-1987, Non thru hub exhaust.	2 1/8"	Pin Drive	VS-10	079	75	none	
	BF 8	1987-1999							
	BF100 (10 hp)	All Years							
Honda 8-15 hp	BF 8	2000 and newer, Thru hub exhaust.	3 1/16"	8 spline	VS-51	359	70	none	
	BF 9.9	1988 and newer.							
	BF 15	All Years							
Honda 25-30 hp	BF 25	All Years, Thru hub exhaust.	3 1/4"	10 spline	VS-50	448	70	none	
	BF 30	All Years							
Honda 35-50 hp	BF 35	1991-1994, Thru hub exhaust.	2 13/16"	13 spline	VS-34	205	70	VSR-98	
	BF 40	1995 and newer.							
	BF 45	1991-1994							
	BF 50/50A	1995 and newer.							
Honda 50 hp	50 hp	1995 and newer, Thru hub exhaust.	2 13/16"	13 spline	VS-32*		80	VSR-98	
*Aftermarket SS applications, Aft insert.									
HONDA OUTBOARD CONT.									
			OAL	Spline cnt.	HMS	MICH	DURO	RING	
Honda 75-130 hp	BF 75	1995 and newer, Thru hub exhaust.	4 5/8"	15 spline	VS-27	444	70	VSR-99	
	BF 90	1995 and newer.	4 5/8"	15 spline	VS-12	445	80	VSR-99	
	BF115	1998 and newer.	4 5/8"	15 spline	VS-37*		90	VSR-99	
	BF 130	1998 and newer.	4 5/8"	15 spline	VS-23**		90	VSR-99	
* High Performance Application									
**High Performance SS with an Aluminum spindle.									
Honda 135-225 hp	BF 135	2004 and newer, Thru hub exhaust.	3 15/16"	15 spline	VS-16-70	322	70	VSR-99	
	BF 150	2004 and newer.	3 15/16"	15 spline	VS-16*	443	80	VSR-99	
	BF 200	2003 and newer.			VS-65,	Weld-In hub available,			
	BF 225	2003 and newer.				1 1/4" Prop shaft			
SUZUKI OUTBOARD									
Suzuki 9.9-15 hp	DT 9.9	1983-1987, Thru hub exhaust.	2 1/8"	10 spline	VS-56	364	75	none	
	DF 9.9	1997 and newer, 4-stroke.							
	DT 15	1983-1988							
	DT 15C	1989-1997							
	DF 15	1997 and newer, 4-stroke.							
Suzuki 20-30 hp	DT 25C	1989 and newer, Thru hub exhaust.	3 1/4"	10 spline	VS-43	339	70	none	
	DT 20, 25	1987-1988							
	DT 30, 30C	1987-1997							
	DF 25	2000 and newer, 4-stroke.							
	DF 30	2000 and newer, 4-stroke.							
Suzuki 35-65 hp	DT 35C	1987-1990	2 13/16"	13 spline	VS-34	205	70	VSR-98	
	DT 40	1983 and newer.							
	DF 40	1999 and newer, 4-stroke.							
	DF 50	1999 and newer, 4-stroke.							
	DT 50, 50M	1983-1984							
	DT 55	1985-1996							
	DT 60	1983-1984							
DT 65	1985-1997								
Suzuki 60-140 hp	DF 60, 70	1988 and newer, 4-stroke, Thru hub exhaust.	3 11/16"	13 spline	VS-05	172	70	VSR-99	
	DT 75	1983-1997							
	DT 85	1979 and newer.							
	DT 90	1989-1997							
	DT 100	1989 and newer.							
	DT 115,140	1981 -1991, 1992 and newer.							
Suzuki 90-140 hp	DF 90	2001 and newer, 4-stroke, Thru hub exhaust.	3 11/16"	15 spline	VS-13	262	70	VSR-99	
	DF 115	2001 and newer, 4-stroke.	3 11/16"	15 spline	VS-08	441	80	VSR-99	
	DF 140	2002 and newer, 4-stroke.							
Suzuki 150-250 hp V6 SST	DT 150	1986 and newer, Thru hub exhaust.	4 1/4"	15 spline	VS-35	342	80	VSR-99	
	DT 175	1986-1992							
	DT 200	1986 and newer.							
	DT 225	1990 and newer.							
	DT 250	2004 and newer.							
YAMAHA OUTBOARD									
Yamaha 6-8 hp	6 hp	1986 and newer, Thru hub exhaust.	2 3/4"	7 spline	VS-57	360	75	none	
	8 hp	1986 and newer.							
Yamaha 8 hp	8 hp	1976-1983, Non thru hub exhaust.	1 3/4"	Pin Drive	VS-18	098	75	none	
Yamaha 9.9-15 hp	9.9 hp	1984 and newer, Thru hub exhaust.	3 1/16"	8 spline	VS-51	359	70	none	
	15 hp	1984 and newer.							
Yamaha 15-28 hp	15A,W15	1976 -1983, Non thru hub exhaust.	2 1/8"	Pin Drive	VS-10	079	75	none	
	20 hp	1976-1978							
	25 hp	1977-1979, 2 cycle.							
	28 hp	1976-1978							

YAMAHA OUTBOARD (CONT.)			OAL	Spline cnt.	HMS	MICH	DURO	RING
Yamaha 20-30 hp	20 hp	1996-1997, Thru hub exhaust.	2 15/16"	10 spline	VS-44	265	70	none
	25 hp	1980 and newer.						
	25 hp	2001, 4-stroke.						
	30 hp	1979 and newer.						
	30 hp	2001, 4-stroke.						
Yamaha 40-60 hp	40 hp	1984 and newer, Thru hub exhaust.	2 13/16"	13 spline	VS-34	205	70	VSR-99
	48 hp	1995 and newer.	2 13/16"	13 spline	VS-22/32*		70/80	none
	50 hp (not T50)	1984 and newer.				*Aft insert only, VS-32 SS application		
	55 hp	1976-1995				VS-22 Aluminum.		
	60 hp	1976-1991						
	FS 40	1999 and newer, 4-stroke.						
	FS 50	1995 and newer, 4-stroke.						
Yamaha 40-70 hp	40 hp	1979-1983, Thru hub exhaust.	3 1/2"	13 spline	VS-15	264	70	VSR-98
	W48 hp	All Years.	3 1/2"	13 spline	VS-15-80		80	VSR-98
	60 hp	1977-1983						
	70 hp	1978-1983						
Yamaha 50-130 hp	T50 hp	1996 and newer, Thru hub exhaust	3 11/16"	15 spline	VS-13	376	70	VSR-99
	50 hp	1977 only. In-line.	3 11/16"	15 spline	VS-08	441	80	VSR-99
	60 hp	1992 and newer.	3 11/16"	15 spline	VS-33*		80	VSR-99
	70 hp	1984 and newer.				*Alternate choice for SS Large Gearcase.		
	75 hp	1994 and newer.						
	80 hp	1997 only.						
	80 hp	1977 only, In-line.						
	85 hp	1991-1997						
	FS 80	1999 and newer, 4-stroke.						
	90 hp	1984 and newer.						
	FS 100	1999 and newer, 4-stroke.						
	115 hp	1984 and newer.						
	FS 115	2000 and newer, 4-stroke.						
Yamaha 80-140 hp	80, 90, 115 hp	1978-1983, Thru hub exhaust.	4 5/8"	15 spline	VS-27	444	70	VSR-99
	140 hp	1978-1979	4 5/8"	15 spline	VS-12	445	80	VSR-99
			4 5/8"	15 spline	VS-37		90	VSR-99
			4 5/8"	15 spline	VS-23*		90	VSR-99
					*High Performance SS with an Aluminum spindle.			
Yamaha 150-175 hp	150 hp	1979-1983, Thru hub exhaust.	3 15/16"	15 spline	VS-16-70	322	70	VSR-99
	175	1978-1979	3 15/16"	15 spline	VS-16*	443	80	VSR-99
	175 (DI & VMAX)	2001 only			VS-65,	Weld-In hub available, 1 1/4" Prop shaft.		
Yamaha 150-300 hp	150 hp	1986 and newer, Thru hub exhaust.	3 11/16"	15 spline	VS-14*	321	80	VSR-99
	150 hp	2004 and newer, 4-stroke.				*Thick walled hub, V6 applications.		
	175 hp	1984 and newer.						
	200 hp	1984 and newer.						
	200 hp (VMAX)	2001 only.						
	220 hp (Special)	1984-1985						
	225 (Excel)	1987-1988						
	225 hp	1986 and newer.						
	250 hp	1990 and newer.						
	250 hp (VMAX)	2001 only.						
	F200	2002 and newer, 4-stroke.						
	F225	2002 and newer, 4-stroke.						
	300 hp	2003 and newer.						
	300 HPDI	2004 and newer.						
Yamaha 150-250 hp V6 Outboards PRO V, EXCEL Special	150 hp V6**	1984 and newer.	3 11/16"	15 spline	VS-45**		80	none
	V6 Special**	1984-1985				** Alternate choice for SS, Splined on the thick brass end of the hub.		
	PRO V, EXCEL**	1986 and newer.						
	225 hp**	1989 and newer.						
Yamaha V6 Heavy Duty	V6	V6 Heavy Duty Application, Thick walled hub *Splined on the thick brass end of the hub.	3 11/16"	15 spline	VS-45*		80	none
YAMAHA STERN DRIVES								
Yamaha Sterndrive	3.0L (130 hp) EST/PSR	1989-1993	3 11/16"	15 spline	VS-14*	321	80	VSR-99
	4.3 L (205 hp) EST/ YEMS/PRS	1989-1993				*Alternate for SS app., *Thick walled hub, V6 applications.		
	5.0 L (205 hp) EST/ YEMS/PRS	1989-1993	3 11/16"	15 spline	VS-33**		80	VSR-99
	5.7 L (260 hp) EST/ YEMS/PSR	1989-1993				**Alternate for SS applications		
	7.4 L (300 hp) Hydra Drive (EST)	1992-1993						

MERCURY MERCUISER STERN DRIVES								
Mercury Mercruiser (Thru 1982)	110-330 hp		3 11/16"	15 spline	VS-13	441	70	VSR-99
Models 1A, 1B, 1C	Thru 1982		3 11/16"	15 spline	VS-08	441	80	VSR-99
Models 120, 140, 145 DTS & 165			3 11/16"	15 spline	VS-14*	321	80	VSR-99
Models 228, 470, 485, 888, 898, 225S, 233, 255TRS, 260, 280TRS and 330 TRS.								*Forward insert, SS application, V6 Applications.
Mercury Mercruiser 700, 700A, 800A, 850, 900, 1000, 1100, 1250, 1350, 1400, 1500 series.	1977-1982							
Mercury Mercruiser I, Mercruiser 80,90	1962-1963	80, 90, 110 and 140 hp.						
Mercuriser (Thru 1990 Only)								
Mercuriser II-TR, 215E & 215H, TR, Bravo Two	Thru 1990 only, Thru hub exhaust.		4 3/4"	19 spline	VS-04	310	80	none
Mercuriser III			4 3/4"	23 spline	VS-28		80	none
Mercuriser Model C	Thru hub exhaust	60 hp	2 13/16"	11 spline	VS-02	135	70	VSR-98
MERCURY MERCUISER (BLACK MAX 1983 THRU)			3 15/16"	15 spline	VS-16-70	322	70	VSR-99
Mercuriser Alpha One	145-230 hp		3 15/16"	15 spline	VS-16	443	80	VSR-99
3.0 LX (145 hp) Alpha One	1990 and newer.		4"	15 spline	VS-17*		80	VSR-99
3.7 LX (180-190 hp) Alpha One	1986-1989							* Square hub applications
4.3 LX (205 hp) Alpha One	1986 and newer.				*VS-65,			Weld-in hub available, 1 1/4" Prop shaft.
5.0 LX (230 hp) Alpha One	1986 and newer.							
Mercuriser , Alpha One	110-190 hp							
Models 1A, 1B, 1C	1983-1985							
Models 120, 140, 145 DTS	1983-1985							
Models 165, 228, 470, 485, 488, 888, 898	1983-1985							
120-190 hp Mercruiser	1983-1985							
2.5 L (120 hp) Alpha One	1986-1989							
3.0 L (125-140 hp) Alpha One	1986 and newer.							
3.7 L (165-190 hp) Alpha One	1986-1989							
MERCURY MERCUISER STERN DRIVES								
Mercuriser Alpha One, Bravo One, Gen II	200-320 hp		3 15/16"	15 spline	VS-16-70	322	70	VSR-99
Models 228, 898, 225S, 233, 255TRS	1983-1985		3 15/16"	15 spline	VS-16	443	80	VSR-99
Models 260, 280TRS, 330 TRS	1983-1985		4"	15 spline	VS-17*		80	VSR-99
200-260 hp Mercruiser	1983-1985							* Square hub applications
4.3 L (155-210 hp) Alpha One	1986 and newer.				*VS-65,			Weld-in hub available, 1 1/4" Prop shaft.
5.0 L (180-240 hp) Bravo One	1986 and newer.							
5.7 L (210-260 hp) Alpha One	1986 and newer.							
262 Magnum (205 hp) Alpha One	1997 and newer.							
350 Magnum (240-300 hp)	1987 and newer.							
6.2 L MPI (320 hp) Alpha One	2001 only.							
5.0 L (220-240 hp) Alpha One	1998 and newer.							
5.7 L (210-280 hp) Bravo One	1995 and newer.							
Alpha One 1987 and newer	250-365 hp							
5.0 L (250 hp)	1998 and newer.							
5.7 L (250-260 hp)	1995 and newer.							
320 EFI (320 hp)	1987-1989							
454 Magnum (330 hp)	1987 only.							
D 2.8 L Diesel	1997 and newer.							
D 4.2 L Diesel	1990 and newer.							
D 3.6 L Diesel	1990 and newer.							
D 3.0 L Diesel	1990-1996							
D 7.3 L Diesel	1998 and newer.							
Bravo One 1988 and newer	250-365 hp							
5.7 L (250-280 hp)	1995 and newer.							
320 EFI (320 hp)	1988-1989							
350 Magnum (300 hp)	1996 and newer.							
454 Magnum (350-365 hp)	1988 and newer.							
7.4 L (300-330 hp)	1988 and newer.							

OMC Model 14 Large Gearcase	100-120 hp 140-170 hp 185-245 hp	1967-1977, Non thru hub exhaust. 1967-1977 1967-1977	4 1/4"	Pin drive	VS-24*	156	75	none
OMC Model 13 Large Gearcase	120 hp 150 hp	1964-1966 1964-1966						*Use in Aluminum or SS Note: Original hub had large tabs protruding toward the Gearcase and a slotted bore. Neither are necessary.
OMC Model 400	2.3 L (120 hp) 2.5 L (120 hp) 3.0 L (140 hp)	Thru 1991, Thru hub exhaust. 1978-1984, In-line 4. Thru 1989	3 11/16"	13 spline	VS-05	172	70	VSR-99
OMC Cobra	2.3 L (128 hp) 2.5 L (120 hp) 3.0 L (130 hp) 3.0 L (140 hp)	1988-1991, In-line 4. 1985-1987, In-line 4. 1988-1989, In-line 4. 1985-1987, In-line 4.						
OMC Model 800 OMC Cobra, OMC King Cobra	3.0 L (130-150 h) 3.2 L (Diesel) 3.8 L (170-185 hp) 4.3 L (175 h) 5.0 L (200 hp) 5.8 L (235 hp Cobra) 5.7 L (260 hp) 5.8 L (King Cobra) 7.4 L (370 hp) 7.5 L (335-340 hp) 8.2 L	1990-1993, Thru hub exhaust. 1992-1993 1978-1985 1985-1993 1978-1993 1989-1993 1978-1993 1992-1994 1990-1993 1987-1990 1992-1993	4 9/16" 4 9/16"	15 spline 15 spline	VS-11* VS-11-80*	254	70 80	VSR-99 VSR-99
								* For 2 1/2" hub cavity. Note: Non SX Drive, Includes H.O. & EFI Models For SX Drive, see Volvo section.
OMC Cobra, Volvo Penta SX, OMC Cobra SX	3.0 L 4.3 L 5.0 L 5.7 L 5.8 L 7.4 L 8.2 L	1994 and newer, Thru hub exhaust. 1994 and newer. 1994 and newer. 1994 and newer 1994-1997 1997 and newer. 1997 only.	4 9/16" 4 5/8"	19 spline 19 spline	VS-47* VS-48**	380	75 80	VSR-99 VSR-99
								*Forward installs in 2 1/2" hub cavity. ** OMC Cobra 1994 and newer, Volvo SX, Aftermarket Apps. ** Aft installs in 2 1/4" cavity.
Sea Drive 4 1/4" Gearcase	1.6 L (115 hp V4) 1.8 L (140 hp V4)	1982 and newer, Thru hub exhaust. 1987 and newer.	3 11/16"	13 spline	VS-05*	172	70	VSR-99
Sea Drive 4 3/4" Gearcase	2.0 L (140 hp V4) 2.5 L (150 hp V6) 2.6 L (205 hp V6) 2.6 L (190 hp V6) 2.7 L (225 hp V6) 3.0 L (225 hp V6) 3.6 L (275 hp V8) 4.0 L (300 hp V8)	1989 and newer, Thru hub exhaust. 1982-1987 1982-1987 1987 and newer. 1987 and newer. 1989 and newer. 1987 and newer. 1989 and newer.	4 9/16" 4 9/16"	15 spline 15 spline	VS-11* VS-11-80*	254	70 80	VSR-99 VSR-99
								* 4 1/4" Gearcase * 4 3/4" Gearcase
VOLVO STERNDRIVE								
Volvo 200, 250, 270, 280, 290 SP (Standard Hub)		Short hub, 1 1/8" diameter shaft Splines extend to "nut" end of spindle. Aluminum spindle.	3 1/16"	17 spline	VS-07*	155	75	VSR-100
Volvo 280, 290 (Long Hub)		Early Michigan Wheel Props Only Stainless (SST SSV-172 series) or Aluminum. Splines are counter bored on both ends of spindle.	3 15/16"	17 spline	VS-30*	295	80	VSR-99
Volvo 280, 290 (Long Hub)		PRESS IN HUB for OEM long hub props These hubs will not retrofit to the earlier style glued -in canister hub propellers, Splines are counter bored on both ends of this aluminum spindle.	3 7/8"	17 spline	VS-40*	425	75	VSR-101
								* Newer OEM and current Michigan Wheel 3 1/4" cavity.
Volvo Duo A,B,C series		FORWARD , large bore, Aluminum spindle.	3 13/16"	27 spline	VS-38		75	VSR-101
Volvo Duo A,B,C series		AFT , small bore, Aluminum spindle.	3 13/16"	19 spline	VS-39		75	VSR-101
Volvo Penta SX, OMC SX Cobra, OMC Cobra	3.0L - 5.7L 5.8L 7.4L 8.2L	1994 and newer, Thru hub exhaust. 1994-1997 1997 and newer 1997 only	4 9/16" 4 5/8"	19 spline 19 spline	VS-47* VS-48**		75 80	VSR-99 VSR-99
								* Forward installs in 2 1/4" cavity **Volvo SX Aftermarket Applications ** Aft installs in 2 1/4" cavity.
Volvo SX series Solas SX		2005 to present, w/ flange, Aftermarket. 2005 to present, w/ flange, Aftermarket.	4 9/16"	19 spline	VS-53*		75	VSR-99
								* Forward installs in 2 1/4" cavity.

Special Notes: VS-65 Stainless Weld-In Conversion Hub

For use in Heavy Duty applications with a 1 1/4" Prop Shaft.
Racing Sport Torque Master Gearcases,
Mercruiser Bravo One XR and XZ Sterndrives.

Generally used as a replacement in VS-16 applications, when converting to a 1 1/4" Propeller Shafts as a Weld-In hub,
for higher horse power motors.

Special Notes: VSP-52 Plastic sleeve, replacement only.

Plastic Sleeve replacement part for drop in hub kits
(Does not come with attaching hardware or drive adapter)

Special Notes : VS-53

New Style Volvo SX Propeller Hub, Fits 2 1/4" hub cavity
For Volvo SX 2005 and newer propellers and
Solas SX 2005 and newer propellers

HMS Thrust Washers Available:

VT-01	Early Mercury Turbo's, V4and V6. Aft installed hub for the VS-12T.
VT-02	OMC Turbo's, 1991 and newer OMC Sterndrive 1991-1993.
VT-03	Renegade and Shooter, Evinrude/Johnson, V6 1991 and newer.
VT-04	Predator V6, Mercury propellers.
VT-05	Predator OMC V6.
VT-11	Centering ring for the VS-11.