

# GENUINE VOLVO PENTA PROPELLERS

Features, benefits and specifications





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**Note!** For installation instructions, refer to the operators manual and additional information when it is supplied with the propeller or hardware. Read the instructions and safety information carefully before starting work. The illustrations in this publication are for illustrative purposes only.



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# The art of performance

Volvo Penta propellers are an engineering art form. Behind the slightest curve, smoothest contour and tightest angle is a state-of-the-art design process based on years of experience.

We know propellers. And what is more, we know how to convert the power of your driveline into real performance that you can feel on the water. It is this performance that leads to greater boating pleasure and at the same time contributes to the long-term health of your driveline.

#### We know propellers

Our experience is reflected in a broad range of propellers for different applications including; IPS, single and Duoprop propellers for Aquamatic sterndrive plus folding and fixed propellers for S-Drive. We even have folding propellers for shaft installations.

#### The only way forward

We design, manufacture and test propellers as part of a complete propulsion system. It's the only way. Whether you have a powerboat or sailboat, there is a genuine Volvo Penta propeller for your needs. Simply contact your local Volvo Penta dealer for assistance.



Type J - Aluminum duoprop for our classic drives.





#### Double your warranty

Genuine Volvo Penta propellers are covered by our standard 12 month warranty. Have them supplied and installed by an authorized Volvo Penta dealer and we'll extend your warranty to 24 months — including the labor. Consult your nearest dealer for more details.

#### Find your dealer

Go to volvopenta.com/dealerlocator to search among our 3,500 dealers worldwide. You can also download our app – Volvo Penta Dealer Locator.



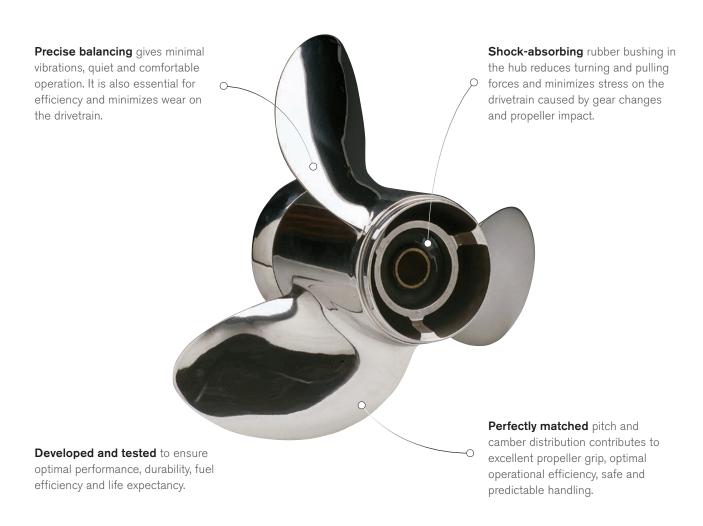


# Single propellers for Aquamatic sterndrives

# Fifty years of performance

Volvo Penta launched the first single propeller sterndrive over half a century ago. A lot has changed since 1959. The march of technology continues, but one factor remains the same – real performance comes from a propeller and driveline that are perfectly matched.

Genuine Volvo Penta single propellers for Aquamatic Sterndrives must be developed exclusively for their drive, matching both engine power and torque. The result is a proven design that ensures optimal performance, fuel economy and comfort along with the peace of mind you expect from Volvo Penta.

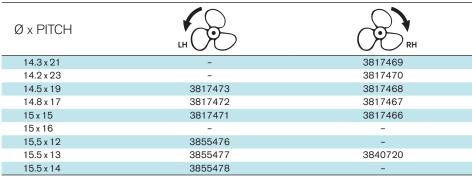


### **SX Drives**

#### 3-blade aluminum propeller

With its wide and efficient blade design this propeller offers excellent acceleration and top speed. The state-of-the-art squeeze casting process together with special high-strength aluminum alloy makes it stronger and more durable than traditional die-cast propellers. Four layers of paint ensure excellent anti-corrosion performance.

- Strong and durable high-performance 3-blade aluminum propeller.
- Wide and efficient blade design providing excellent acceleration and top speed.
- Shock-absorbing rubber bushing reduces vibrations and stress on the drivetrain.
- · Four layers of paint ensure excellent anti-corrosion performance.

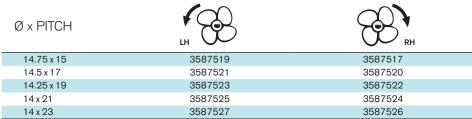




#### 4-blade aluminum propeller

The four-blade propeller features the same strength and durability as the three-blade propeller. Four blades provide increased torque for heavy loads and maneuverability together with great stern lifting and mid-range performance. Four layers of paint ensure excellent anti-corrosion performance.

- Strong and durable high-performance 4-blade aluminum propeller.
- Increased thrust for heavy loads and maneuverability.
- Shock-absorbing rubber bushing reduces vibrations and stress on the drivetrain.
- Four layers of paint ensure excellent anti-corrosion performance.



Installation hardware, see next page.





# **SX Drives**

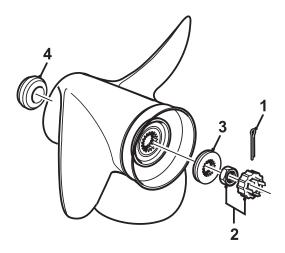
#### 3-blade stainless steel propeller

This performance provider enhances top speed, acceleration and durability versus a comparable aluminum propeller. The blade configuration and through-hub exhaust design are important factors for high efficiency and performance. This high-strength stainless steel propeller really push the limits and makes it a perfect choice for high-power engines and fast boats.

- Enhances acceleration and top speed versus a comparable aluminum propeller.
- Excellent strength, durability and corrosion resistance.
- Shock-absorbing rubber bushing reduces vibrations and stress on the drivetrain.

Ø x PITCH	LH	RH
14.75 x 17	3860714	3862462
14.75 x 19	3860715	3860708
14.75 x 21	3860716	3860709
14.25 x 23	3860717	3860710





#### Installation hardware, 3 and 4-blade propellers for the SX drive

Pos	Part No	Item	Pos	Part No	Item
1	3852056	Split pin	3	3852350	Spacer
2	3850984	Propeller nut	4	3852020	Thrust washer

# 200, 250, 270, 275, 280, 285, 290, SP Drives

#### Aluminum propeller with long hub - High-speed series

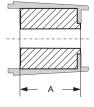
The High-speed propeller with long hub is developed from the standard propeller and features more blade area. In a fast boat this not only means increased speed, but also that a heavily loaded boat will plane more quickly and enjoy better fuel economy. The increased blade area also provides faster and safer quayside maneuvering.

- Made of durable aluminum alloy developed to withstand salt water and cavitation damage.
- Painted with epoxy powder extremely hard and resistant to abrasion.
- Long hub design with shock-absorbing rubber bushing.

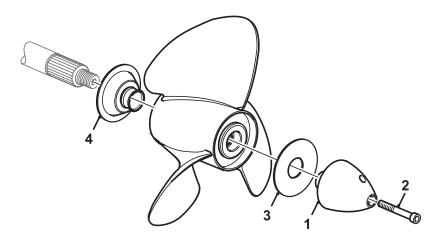
Note! Always use long hub propeller for V6, V8, AQD40, AQAD31/40/41 engines.

Ø x PITCH	LH	RH
14 x 17	854977	854992
14 x 19	854978	854993
14 x 21	854979	854994
14 x 23	854980	854995
15 x 15	854981	854996
15 x 17	854982	854997
15 x 19	854983	854998
15 x 21	854984	854999
16 x 9	854985	_
16 x 13	854986	872000
16 x 15	854987	872001
16 x 17	854988	872002
16 x 19	854989	872003
16 x 21	854990	872004
16 x 23	854991	872005





Long hub bushing A = 93 mm (3.661)"



#### Installation hardware, long hub propeller

The propeller cone locking requires that the drive has an internally threaded propeller shaft intended for the locking screw (2), which was introduced on late production 270 and 280 drives but included as standard on newer drives. In some cases, older drives have been updated using retrofit drilling and threading.

Pos	Part No	Item
1	854045	Propeller cone
2	850889	Locking screw
3	850888	Plastic washer
4	832965	Line cutter / Thrust washer, 200

Pos		Part No	Item
	4	839534	Line cutter / Thrust washer, 250, 270, 275
	4	839423	Line cutter / Thrust washer, 280, 285, 290, SP-A
	4	872082	Line cutter / Thrust washer, SP-A1, A2, C, C1, E
		873058	Tool

# 200, 250, 270, 275, 280, 285, 290, SP Drives

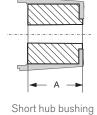
#### Aluminum propeller with short hub - High-speed and standard series

The High-speed propeller features more blade area than the standard propeller. In a fast boat this does not only mean increased speed, it also means that a heavily loaded boat will plane more quickly, enjoying better fuel economy and increased cruising speed. The increased blade area also provides faster and safer quayside maneuvering.

- · Made of durable aluminum alloy developed to withstand salt water and cavitation damage.
- Painted with epoxy powder extremely hard and resistant to abrasion.
- Short hub design with shock-absorbing rubber bushing.

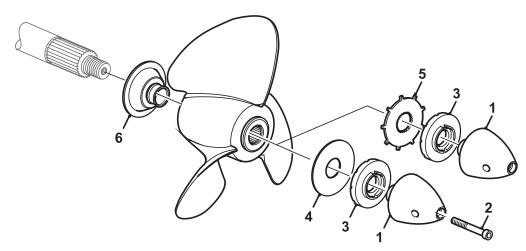
Note! Always use long hub propeller for V6, V8, AQD40, AQAD31/40/41 engines.

Ø x PITCH	LH	RH
14 x 13	813284 STD	813285 STD
14 x 15	814626 HS	814631 HS
14 x 17	814627 HS	814632 HS
14 x 19	814628 HS	814633 HS
15 x 11	813296 STD	813297 STD
15 x 13	813316 STD	813317 STD
15 x 15	814611 HS	814615 HS
15 x 17	814612 HS	814616 HS



A = 78 mm (3.071")

HS = High-speed propeller, short hub STD = Standard propeller, short hub



#### Installation hardware, short-hub propeller

The propeller cone is locked in different ways depending on the propeller shaft design. Use the locking screw (2) on newer drives that use an internally threaded propeller shaft. On drives without an internally threaded propeller shaft, use the tab washer (5).

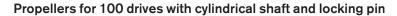
Pos	Part No	Item
1	854045	Propeller cone
2	850889	Locking screw
3	854047	Spacer ring
4	850888	Plastic washer
5	897367	Tab washer

Pos	Part No	item
6	832965	Line cutter / Thrust washer, 200
6	839534	Line cutter / Thrust washer, 250, 270, 275
6	839423	Line cutter / Thrust washer, 280, 285, 290, SP-A
6	872082	Line cutter / Thrust washer, SP-A1, A2, C, C1, E
	873058	Tool

## 100 Drives

#### Aluminum propeller - Standard and High-speed series

Standard and High-speed propellers are made from a special, durable aluminium alloy developed to withstand salt water and cavitation damage. Painted black with a special epoxy powder which is extremely hard and resistant to abrasion, the High-speed propeller features more blade area for increased performance.

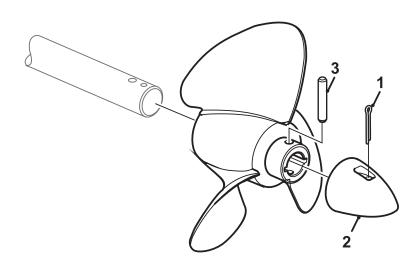


Ø x PITCH	LH	RH
13 x 13	813224 STD	813233 STD
13 x 15	839186 HS	
14 x 11	813227 STD	
14 x 13	813229 STD	
14 x 15	832992 STD	



#### Propellers for 100 drives with splines (13/16")

Ø x PITCH	LH C	RH
14 x 11	804449	_

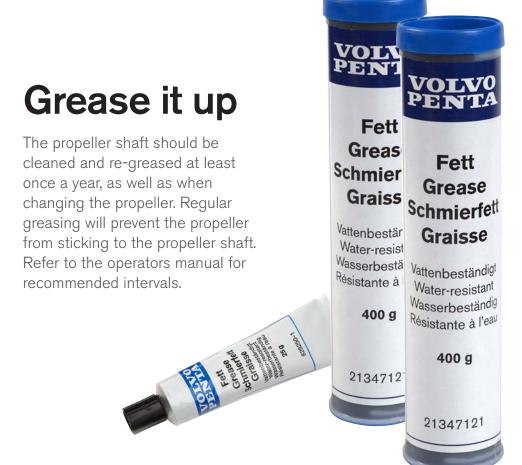


#### Installation hardware, 100 drives with cylindrical shaft and locking pin

Pos	Part No	Item	Pos	Part No	Item
1	907881	Split pin	3	806661	Shear pin
2	806660	Propeller cone			



# Grease for propeller components



**Volvo Penta water-resistant grease** is designed to provide excellent adhesion, water resistance and load-carrying properties, as well as long-term protection against corrosion. It is a multi-purpose premium grease and is highly recommended for greasing propeller shafts, folding propellers and all other propeller components.

- Highly adhesive and cohesive structure.
- Superb resistance to water washout.
- Excellent corrosion protection and lubrication endurance.

Description	Quantity	Grade	Color	Part No	_
Tube	25g	NLGI 2	Blue	828250	_
Cartridge	400g	NLGI 2	Blue	21347121	



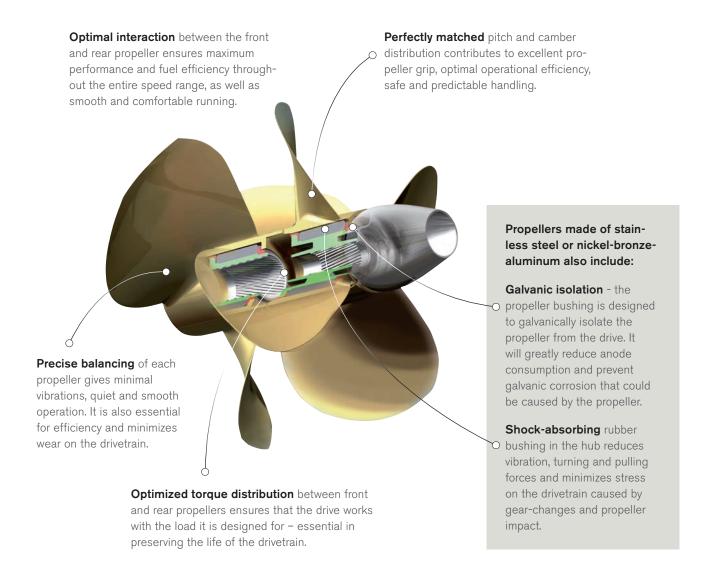
# **Duoprop propellers for Aquamatic Sterndrives**

# Two propellers. One superior thrust.

Launched in 1982, Volvo Penta showed the marine industry that twin counter-rotating propellers could produce unparalleled thrust, straight and true tracking along with faster acceleration – a completely new boating experience.

The duoprop propellers are designed to form a vital part of the driveline, providing highly efficient and predictable handling, together with excellent onboard comfort and fuel efficiency.

Every set of duoprop propellers is designed, tested and manufactured together to ensure not only a high top speed, but the best overall performance – all this while securing the service life of your drive.



#### **DPS Drives**

#### Type I and IH - Aluminum Duoprop propellers

The patented blade geometry and large active propeller diameter provide optimal performance and fuel efficiency over the entire speed range as well as smooth running, excellent grip and maneuverability. Squeeze casting and special high-strength aluminum alloy makes them stronger and more durable than traditional die-cast propellers. Four layers of paint ensure excellent anti-corrosion performance. Type I has straight splines, type IH has helical splines.

- Engineered to optimize performance, durability and comfort.
- Patented blade geometry, large active propeller diameter.
- Strong and durable high-strength aluminum alloy.
- Three-blade front propeller and four-blade rear propeller.

**Note!** Always use type F or FH stainless steel propellers in engines exceeding 240 hp or capable of speeds above 38 knots (45 mph). See next page.



#### Type I for DPS, DPS-A (straight splines)

DIM	Set	Front	Rear	DIM	Set	Front	Rear
12	21258482	21260642	21657162	17	21258487	21260647	21657167
13	21258483	21260643	21657163	18	21258488	21260648	21657168
14	21258484	21260644	21657164	19	21258489	21260649	21657169
15	21258485	21260645	21657165	I 10	21258490	21260650	21657170
16	21258486	21260646	21657166				

Installation hardware, see next page.

#### Type IH for DPS-B (helical/spiral splines)

DIM	Set	Front	Rear	DIM	Set	Front	Rear
IH 2	21661942	21661902	21661922	IH 7	21661947	21661907	21661927
IH3	21661943	21661903	21661923	IH 8	21661948	21661908	21661928
IH 4	21661944	21661904	21661924	IH9	21661949	21661909	21661929
IH 5	21661945	21661905	21661925	IH 10	21661950	21661910	21661930
IH 6	21661946	21661906	21661926				

Installation hardware, see next page.

#### Upgrade from type D propellers to type I propellers

To ensure the best performance for your boat, consult your Volvo Penta dealer for advice on the right propeller size for your drive and engine. **Note!** Do not mix D and I propellers on the same drive. Always use propellers of the same type and size on the drive (or on both drives in twin installations).

#### Type D - Aluminium Duoprop propellers for DPS, DPS-A (helical/spiral splines)

Type D propeller sets are replaced by type I propeller sets. However, Type D propellers (front and rear) are sold individually as spare parts.

DIM	Front	Rear	DIM	Front	Rear
D 0	3851420	3851440	D 5	3856345	3856355
D 1	3851421	3851441	D 6	3856346	3856356
D 2	3851422	3851442	D 7	3856347	3856357
D3	3851423	3851443			





## **DPS Drives**

#### Type F and FH - Stainless-steel Duoprop propellers

This is the perfect upgrade for enhanced performance, strength and durability. It provides better acceleration and higher top speed due to greater strength and thinner blades - versus a comparable aluminum propeller. The high-strength stainless steel adds excellent durability and corrosion resistance. Complete with shock-absorbing rubber bushing and galvanic isolation makes it perfectly matched for the DPS-drive and the ultimate choice for demanding boaters.

- Enhanced acceleration and top speed versus a comparable aluminum propeller.
- Excellent strength, durability and corrosion resistance.
- Galvanic isolation protects the drive from corrosion caused by the propellers.
- Shock-absorbing rubber bushing reduces vibrations and stress on the drivetrain.
- Three-blade front propeller and three-blade rear propeller.
- Type F has straight splines, type FH has helical (spiral) splines.

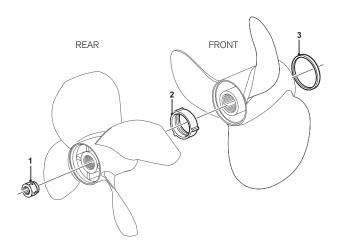


#### Type F for DPS, DPS-A (straight splines)

DIM	Set	Front	Rear	DIM	Set	Front	Rear
F2	3857563	3857557	3857558	F6	3851496	3851466	3851476
F3	3857564	3857559	3857560	F 7	3851497	3851467	3851477
F4	3851494	3851464	3851474	F8	3851498	3851468	3851478
F 5	3851495	3851465	3851475	F9	3851499	3851469	3851479

#### Type FH for DPS-B (helical/spiral splines)

DIM	Set	Front	Rear	DIM	Set	Front	Rear
FH 2	3885838	3885846	3885847	FH 6	3885842	3885854	3885855
FH3	3885839	3885848	3885849	FH 7	3885843	3885857	3885859
FH 4	3885840	3885850	3885851	FH 8	3885844	3885860	3885861
FH 5	3885841	3885852	3885853	FH 9	3885845	3885862	3885863



#### Installation hardware, type D, I, IH, F, FH

Pos	Part No	Item
1 21631162		Propeller nut, rear
2	3851569	Propeller nut, front
3	3851600	Ring (for F7, F8, F9, FH7, FH8, FH9)

Pos	Part No	Item
	3862797	Tool, front
	3862808	Tool, rear
	3855516	Tool, front and rear propeller nut

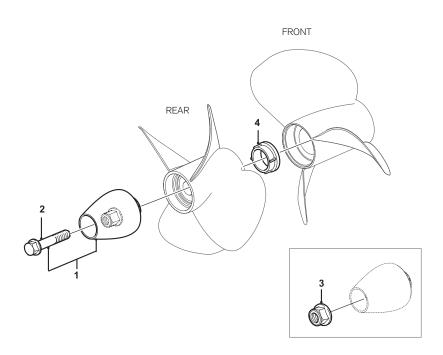
#### **DPH Drives**

#### Type G - Nibral Duoprop propellers

Designed to capture the tremendous torque from the D4 and D6 engines, the patented blade geometry provides optimal interaction between front and rear propellers for outstanding efficiency and smooth and comfortable operation. The large blade area and great strength ensure maximum grip and maneuverability. The extremely strong nibral (nickel-bronze-aluminum) alloy ensures minimum growth and excellent durability. Complete with shockabsorbing rubber bushing and galvanic isolation makes it perfectly matched for the DPH-drive.

- · Patented blade geometry, outstanding efficiency and comfort.
- Excellent durability, minimal marine growth.
- Extremely strong nibral (nickel-bronze-aluminum) alloy.
- Galvanic isolation protects the drive from corrosion caused by the propellers.
- Shock-absorbing rubber bushing reduces vibrations and stress on the drivetrain.
- Three-blade front propeller and four-blade rear propeller.

DIM	Set	Front	Rear	DIM	Set	Front	Rear
G2	3587375	3587386	3587388	G7	3587382	3587398	3587399
G3	3587378	3587389	3587390	G8	3587383	3587400	3587401
G4	3587379	3587391	3587392	G9	3587384	3587402	3587403
G5	3587380	3587393	3587394	G10	3587385	3587404	3587405
G6	3587381	3587395	3587397				



#### Installation hardware, type G

The propeller cone (1) has an integrated rear propeller nut and replaces previous propeller cone with separate rear propeller nut.

Pos	Part No	Item	Pos	Part No	Item
1	21829326	Propeller cone kit*	4	3863211	Propeller nut, front
2	991609	Lock bolt M12**		21318669	Tool
3	3863213	Propeller nut, rear***			

<sup>\*</sup> Propeller cone kit including propeller cone with integrated rear propeller nut and lock bolt (2).

<sup>\*\*</sup> For newer drives with internal threaded propeller shaft intended for lock bolt (from SN 302029042).

<sup>\*\*\*</sup> For previous version of propeller cone with separate rear propeller nut.

## **FWD Drives**



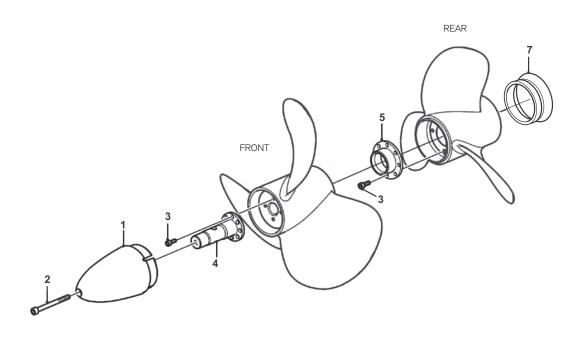
#### Type K - Stainless-steel Duoprop propellers

Specifically designed for the Volvo Penta Forward Drive. These propellers are made of a strong and durable stainless-steel to provide excellent acceleration and top speed. The patented bushing made of a naval brass reduces vibrations, stress on the drivetrain components and prevents corrosion by galvanically isolating the stainless-steel propeller from the aluminum drive casting.

- Specifically designed for the Volvo Penta Forward Drive.
- Strong and durable stainless-steel for excellent acceleration and top speed.
- Patented bushing reduces vibrations and stress on the drivetrain.
- Galvanic isolation protects the drive from corrosion caused by the propellers.
- Patented flow deflector minimizes pressure and wear on the propeller shaft seals.
- Three-blade front propeller and three-blade rear propeller.



DIM	Set	Front	Rear	DIM	Set	Front	Rear
K2	22417005	22414377	22414383	K5	22417008	22414380	22414386
K3	22417006	22414378	22414384	K6	22417009	22414381	22414387
K4	22417007	22414379	22414385	K7	22417010	22414382	22414388



#### Installation hardware, type K

Pos	Part No	Item
1	22592621	Propeller hardware kit*
2	22413546	Propeller cone
3	60111646	Hex socket screw
4	963683	Hex socket screw

*	Propeller	hardwara	Lit	including	itam	0	2	1	5	6
	riopellel	naruware	KIL	including	пеш	۷,	Ο,	4,	υ,	O.

Pos	Part No	Item
5	22477740	Propeller nut, front
6	22477738	Propeller nut, rear
7	22436582	Flow deflector

## **DPR Drives**

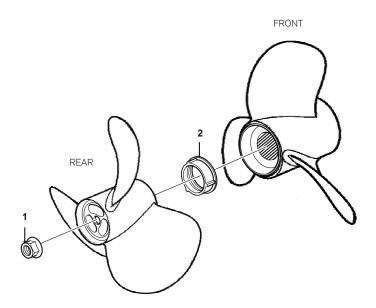
#### Type GR - Stainless-steel Duoprop propellers

Developed for the DPR high-speed drive to maximize performance and efficiency. The high-performance blade geometry and great strength ensure maximum grip and maneuverability. Made of high-strength stainless-steel alloy for excellent durability and corrosion resistance. Shock-absorbing rubber bushing and galvanic isolation makes it perfectly matched for the DPR high-speed drive.

- High-performance blade geometry, great strength, thin blades.
- Excellent durability and corrosion resistance.
- Shock-absorbing rubber bushing reduces vibrations and stress on the drivetrain.
- Galvanic isolation protects the drive from corrosion caused by the propellers.
- Three-blade front propeller and three-blade rear propeller.



DIM	Set	Front	Rear
GR7	3863492	3863501	3863502
GR8	3863493	3863503	3863504
GR9	3863494	3863505	3863506



#### Installation hardware, type GR

Pos	Part No	Item
1	3863213	Propeller nut, rear
2	3863211	Propeller nut, front

Pos	Part No	Item
	21318669	Tool

## **DPX Drives**

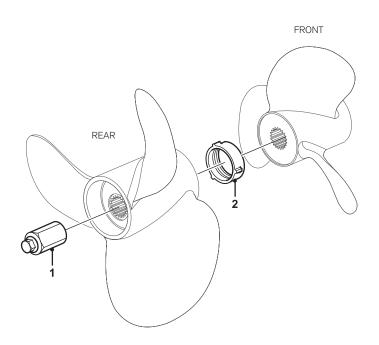
#### Type E - Stainless-steel Duoprop propellers

Developed for the DPX high-speed drive to provide maximum performance and efficiency in speeds up to 75 knots. The high-performance blade geometry and great strength ensure maximum grip and maneuverability. Made of high-strength stainless-steel for excellent durability and corrosion resistance. Shock-absorbing rubber bushing and galvanic isolation makes it perfectly matched for the DPX high-speed drive.

- High-performance blade geometry, great strength, thin blades.
- Excellent durability and corrosion resistance.
- Designed for speeds up to 75 knots.
- Galvanic isolation protects the drive from corrosion caused by the propellers.
- Shock-absorbing rubber bushing reduces vibrations and stress on the drivetrain.
- Three-blade front propeller and three-blade rear propeller.



DIM	Set	Front	Rear
E 2	3860065	872422	3860011
E3	3860066	872423	3860012
E 4	3860067	872424	3860013



#### Installation hardware, type E

Pos	Part No	Item
1	872179	Propeller nut, rear
2	3851335	Propeller nut, front

Pos	Part No	Item	
	885195	Tool	

# 280, 290, DP Drives

# **NEW**

#### Type J - Aluminum Duoprop propellers

A completely modern aluminum propeller designed for our classic Duoprop drives. The patented blade geometry and large propeller diameter provides optimal efficiency as well as quiet and smooth operation. A special high-strength aluminum alloy and squeeze casting process makes the propellers stronger and more durable than traditional die-cast propellers. Four layers of paint ensures excellent corrosion protection performance.

- Patented blade geometry and large active propeller diameter.
- · Strong and durable high-strength aluminum alloy.
- Excellent anti-corrosion performance.
- Three-blade front propeller and four-blade rear propeller.
- Replaces type A and type B propellers (see below for details).

**Note!** Always use type C stainless steel propellers in engines exceeding 240 hp or capable of speeds above 38 knots (45 mph). See next page.



DIM	Set	Front	Rear	DIM	Set	Front	Rear
J2	21924262	21924222	21924242	J 6	21924266	21924226	21924246
13	21924263	21924223	21924243	J 7	21924267	21924227	21924247
J 4	21924264	21924224	21924244	18	21924268	21924228	21924248
J5	21924265	21924225	21924245	19	21924269	21924229	21924249
				J 10	21924270	21924230	21924250

Installation hardware, see next page.

#### Upgrade from type A or type B propellers to type J propellers

To ensure the best performance for your boat, consult your Volvo Penta dealer for advice on the right propeller size for your drive and engine. **Note!** Do not mix A, B and J propellers on the same drive. Always use propellers of the same type and size on the drive (or on both drives in twin installations).

#### Type A - Aluminum Duoprop propellers

Type A propeller sets are replaced by type J propeller sets. However, Type A propellers (front and rear) are sold individually as spare parts. However, complete sets of A0 and A1 are available.

DIM	Set	Front	Rear	DIM	Front	Rear
Α0	872270	872259	872264	A 6	854779	854789
A 1	854764	854774	854784	A 7	854780	854790
A 2		854775	854785	A 8	854781	854791
А3		854776	854786	A 9	854782	854792
A 4		854777	854787	A 10	854783	854793
A 5		854778	854788			



Installation hardware, see next page.

#### Type B - Aluminum Duoprop propellers

Type B propeller sets are replaced by type J propeller sets. However, Type B propellers (front and rear) are sold individually as spare parts.

DIM	Front	Rear	DIM	Front	Rear
B 1	854822	854830	B 5	854826	854834
B 2	854823	854831	В6	854827	854835
В3	854824	854832	В7	854828	854836
B 4	854825	854833	B8	854829	854837

Installation hardware, see next page.



# 280, 290, DP Drives

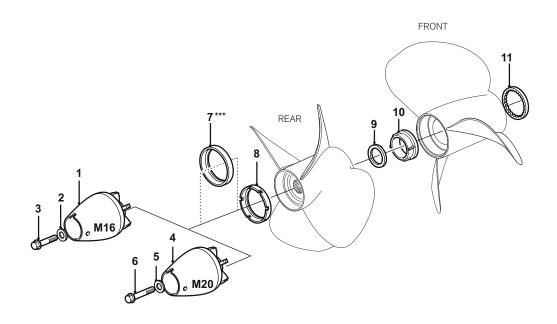
#### Type C - Stainless-steel Duoprop propellers

This is the perfect upgrade for enhanced performance, strength and durability. It provides better acceleration and higher top speed through greater strength and thinner blades versus a comparable aluminum propeller. The stainless-steel material makes the propellers durable and highly resistant to cavitation, damage and corrosion. Complete with shock-absorbing rubber bushing and galvanic isolation in the hub.

- Enhanced acceleration and top speed versus a comprable aluminum propeller.
- Excellent strength, durability and corrosion resistance.
- Shock-absorbing rubber bushing reduces vibrations and stress on the drivetrain.
- Galvanic isolation protects the drive from corrosion caused by the propellers.
- Three-blade front propeller and three-blade rear propeller.



DIM	Set	Front	Rear	DIM	Set	Front	Rear
C 2	3588222	3587864	3587870	C 5	3588225	3587867	3587873
C3	3588223	3587865	3587871	C 6	3588226	3587868	3587874
C 4	3588224	3587866	3587872	C 7	3588227	3587869	3587875



#### Installation hardware, type A, B, C, J

Pos	Part No	Item			
1	872614	Propeller cone kit M16*			
2	941670	Washer M8			
3	852216	Lock screw M8			
4	872549	Propeller cone kit M20**			
5	943194	Washer M12			
6	872546	Lock screw M12			
7	853676	Spacer ring for propeller cone ***			

*	Propeller	cone	kit M1	6	including	item	1.	2.	3.	7.8.	

<sup>\*\*</sup> Propeller cone kit M20 including item 4, 5, 6, 7, 8.

Pos	Part No	Item
8	854294	Plastic washer
9	3858458	Thrust ring
10	3851334	Propeller nut
11	3858457	Thrust ring
	854668	Tool, propeller cone M16
	873058	Tool kit, propeller nut

<sup>\*\*\*</sup> Spacer ring for propeller cone only to be used with type A propellers.

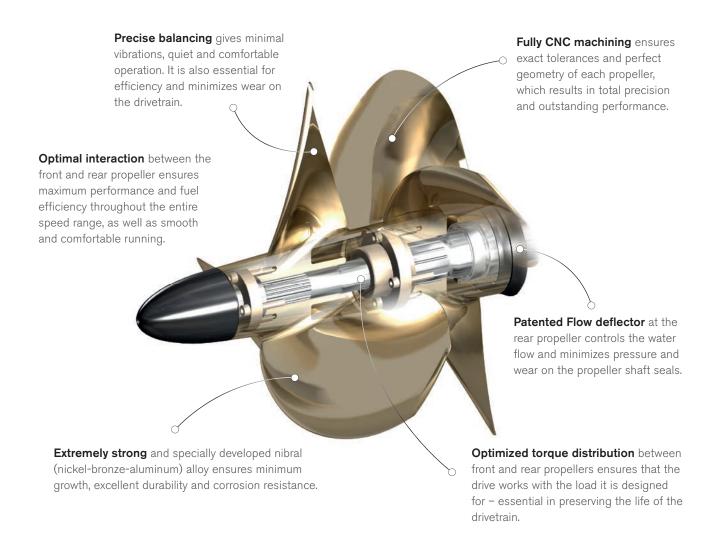


# **Propellers for Volvo Penta IPS**

# Faster, further, cleaner and quieter

When Volvo Penta launched the revolutionary IPS (Inboard Performance System) we set a completely new standard in efficiency, comfort and maneuverability. By turning the propellers around to a forward-facing position, the world of boating changed forever. These twin counterrotating propellers form an important part the hydro-dynamically designed propulsion unit – pulling the boat through the water rather than pushing it.

The state-of-the-art IPS propellers are developed, tested and manufactured with the highest precision. Not only do they contribute to outstanding performance and fuel efficiency, but also handling and onboard comfort – all this while securing the service life of your drive.



#### IPS<sub>1</sub>

#### Type T/TS - Nibral propellers

The state-of-the-art IPS propellers are developed, tested and manufactured with the highest precision to give outstanding efficiency, onboard comfort and maneuverability. The extremely strong and specially developed nibral (nickel-bronze-aluminum) alloy ensures minimum growth, excellent durability and corrosion resistance.

- Outstanding efficiency, maneuverability and comfort.
- Extremely strong nibral (nickel-bronze-aluminum) alloy.
- Excellent durability, minimal marine growth.
- Patented flow deflector minimizes pressure and wear on the propeller shaft seals.
- Three-blade front propeller and four-blade rear propeller.

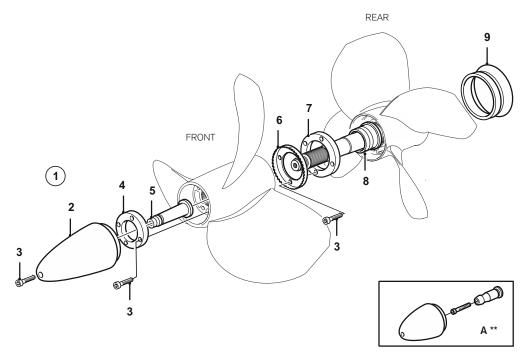


DIM	Set	Front	Rear	DIM	Set	Front	Rear
TS3	21368025	21368026	21368027	T5	3861101	3861102	3861103
TS4	21368016	21368017	21368018	T6	3861104	3861105	3861106
TS5	21258473	21258474	21258475	T7	3861107	3861108	3861109
TS6	21368012	21368013	21368014	T8	3861110	3861111	3861112
T2	3861092	3861093	3861094	Т9	3861113	3861114	3861115
T3	3861095	3861096	3861097	T10	3861116	3861117	3861118
T4	3861098	3861099	3861100				

The type T/TS series covers applications from semi-planing boats with moderate top speeds to planing boats with high top speeds.

TS3 TS4	TS5	TS6	T2	T3	T4	T5	T6	T7	T8	Т9	T10

Moderate top speed High top speed



#### Installation hardware, type T/TS

Pos	Part No	Item
1 22659020		Propeller cone kit*
2	22072153	Propeller cone
3	963699	Hex socket screw
4	3861088	Lock plate
5	21293480	Propeller nut, front

Pos	Part No	Item
6	21686492	Line cutter
7	3861209	Lock ring
8	3861087	Lock nut, rear
9	3862454	Flow deflector

<sup>\*</sup> Propeller cone kit including cone (2), 9 pcs hex socket screw (3), lock plate (4), propeller nut (5), lock ring (7), grease and tool.

<sup>\*\*</sup> IPS1-A, IPS1-B, IPS1-C earlier propeller cone and hardware (A) is replaced by propeller cone kit (1).

## IPS<sub>2</sub>

#### Type P/PS - Nibral propellers

The state-of-the-art IPS propellers are developed, tested and manufactured with the highest precision to give outstanding efficiency, onboard comfort and maneuverability. The extremely strong and specially developed nibral (nickel-bronze-aluminum) alloy ensures minimum growth, excellent durability and corrosion resistance.

- Outstanding efficiency, maneuverability and comfort.
- Extremely strong nibral (nickel-bronze-aluminum) alloy.
- Excellent durability, minimal marine growth.
- Patented flow deflector minimizes pressure and wear on the propeller shaft seals.
- Three-blade front propeller and four-blade rear propeller.

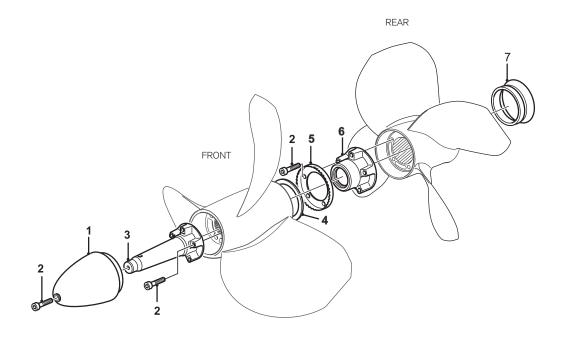


DIM	Set F	ront Cont	Rear	DIM	Set Fr	ont	Rear
PS4	21622828	21622814	21622823	P4	3843962	3843963	3843964
PS5	21622827	21622813	21622822	P5	3843965	3843966	3843967
P1	3843980	3843981	3843982	P6	3843968	3843969	3843970
P2	3843956	3843957	3843958	P7	3843971	3843972	3843973
P3	3843959	3843960	3843961				

The type P/PS series covers applications from semi-planing boats with moderate top speeds to planing boats with high top speeds.

DC 4	DOE	D1	DO.	D2	D4	DE	DG	D7
F34	F30	FI	F2	ro	F4	FS	FO	Γ/

Moderate top speed High top speed



#### Installation hardware, type P/PS

Pos	Part No	Item
1	21154200	Propeller cone
2	963699	Hex socket screw
3	21154206	Propeller nut, front
4	3593639	Felt washer

Pos	Part No	Item
5	21686494	Line cutter
6	21154277	Propeller nut, rear
7	3843992	Flow deflector

## IPS<sub>3</sub>

#### Type Q/QS - Nibral propellers

The state-of-the-art IPS propellers are developed, tested and manufactured with the highest precision to give outstanding efficiency, onboard comfort and maneuverability. The extremely strong and specially developed nibral (nickel-bronze-aluminum) alloy ensures minimum growth, excellent durability and corrosion resistance.

- Outstanding efficiency, maneuverability and comfort.
- Extremely strong nibral (nickel-bronze-aluminum) alloy.
- Excellent durability, minimal marine growth.
- Patented flow deflector minimizes pressure and wear on the propeller shaft seals.
- Three-blade front propeller and four-blade rear propeller.

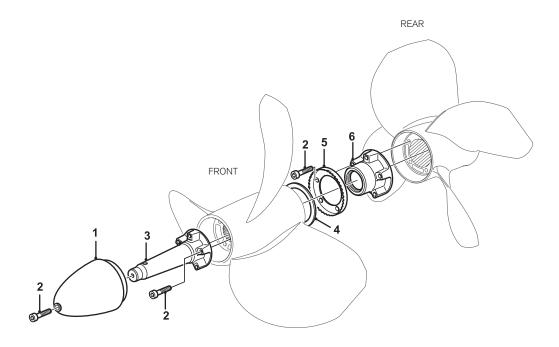


DIM	Set	Front	Rear	DIM	Set Fr	ont	Rear
QS5	21821365	21821255	21821265	Q4	21433624	21433604	21433614
Q1	21433621	21433601	21433611	Q5	21433625	21433605	21433615
Q2	21433622	21433602	21433612	Q6	21433626	21433606	21433616
Q3	21433623	21433603	21433613	Q7	21433627	21433607	21433617

The type Q/QS series covers applications from semi-planing boats with moderate top speeds to planing boats with high top speeds.

QS5	Q1	Q2	Q3	Q4	Q5	Q6	Q7

Moderate top speed High top speed



#### Installation hardware, type Q/QS

Pos	Part No	Item
1 40005165		Propeller cone
2	963699	Hex socket screw
3	40005157	Propeller nut, front

Pos	Part No	Item	
4	21235219	Felt washer	
5	21686496	Line cutter	
6	40005161	Propeller nut, rear	

# Line cutter for IPS

#### Efficient. Sharp. Easy to install.

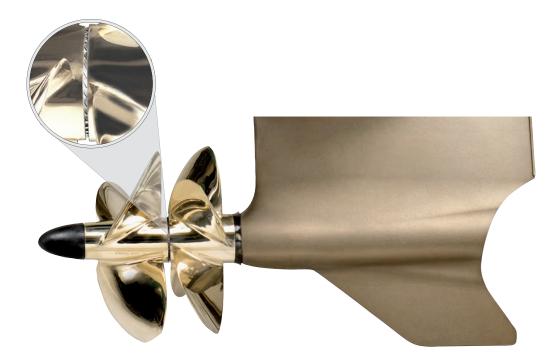
The line cutter is an easy to install accessory that provides additional protection in waters where it may be required. It is designed to cut through ropes, fishing lines, plastic bags and nets before they can enter between the propellers and possibly cause damage to the propeller shaft sealing.

- Cuts up ropes, fishing lines, plastic bags etc.
- Protects propeller shaft sealing.
- Easy to install using existing bolts.
- · Requires no drilling.
- Adds no drag or fuel consumption.

The line cutter is available for all Volvo Penta IPS models.

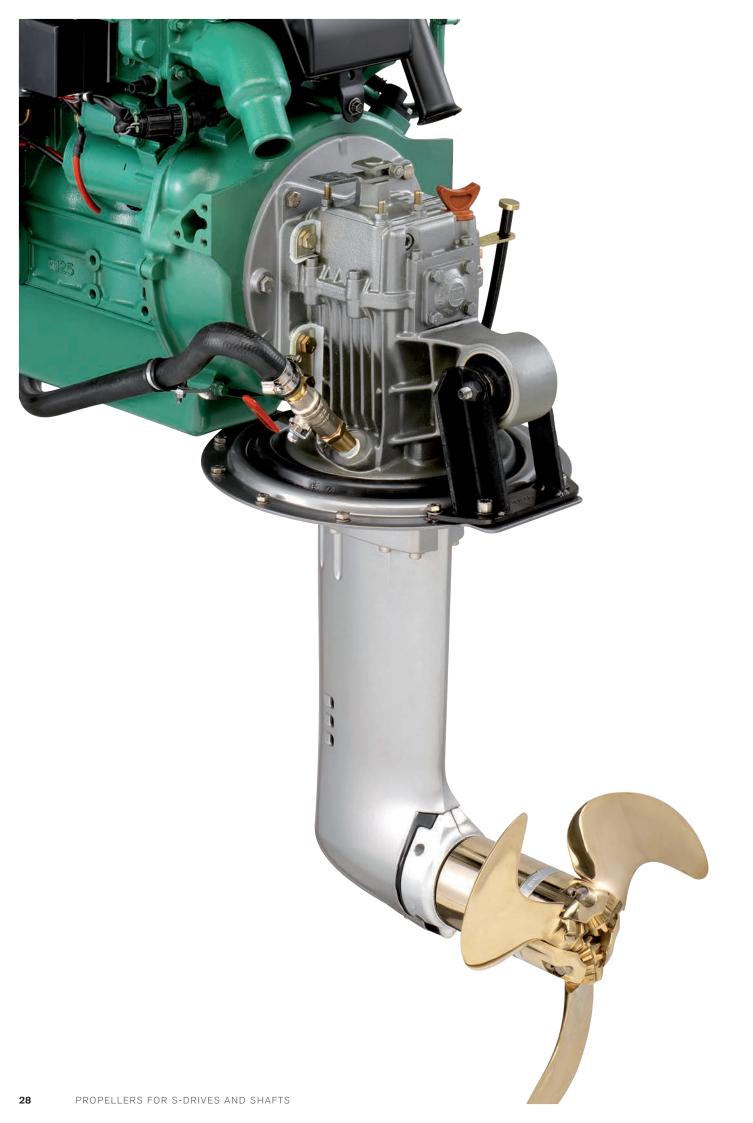
Fits	Part No.	Diameter	Material
IPS1	21686492	95 mm / 3,7"	316 Stainless steel
IPS2	21686494	120 mm / 4,7"	316 Stainless steel
IPS3*	21686496	140 mm / 5,5"	316 Stainless steel

<sup>\*</sup> Included as standard from SN 3950001773.



**The line cutter** is mounted to the rear propeller which creates a very efficient rotating cutting action. It is easy to install using the existing locking bolts and does not increase drag or fuel consumption.





# Propellers for S-drive and shafts

# Streamline your sailing

A Volvo Penta folding propeller offers up to 1.5 knots higher speed under sail compared with a fixed propeller – greatly adding to sailing pleasure. In addition, high thrust under motoring makes our folding propellers stand out from the competition. Thanks to the high performance of the blades, even in reverse, Volvo Penta folding propellers provide excellent close-quarter maneuverability.

The unique, patented blade profile ensures effective, low-noise operation with minimal vibrations. And, what's more, the blades open and close using a

reliable conical teeth mechanism. All Volvo Penta folding propellers are made of a specially developed, corrosion resistant nickel-aluminum-bronze alloy.



# 700 600 500 400 300 200 100 0 2 4 6 8 Knots 2-blade folding 2-blade fixed 3-blade folding 3-blade fixed 4-blade folding

#### Folded for less drag and more speed

The lower drag produced by the Volvo Penta folding propellers can increase sailing speed by up to 1.5 knots. The graph shows how rapidly the propeller drag increases with higher speed. At 8 knots for example, a 3-blade fixed propeller produces more than six times the drag of a 3-blade folding propeller. The test was carried out by SSPA Maritime Consulting. Propellers mounted on S-drives were measured.

#### Choose your propeller

You can choose from 2, 3 and 4 blade folding propellers for both S-drives and shaft installations.

Engine power
5-40 hp
20-60 hp
55-120 hp

# S-Drive and shaft

#### 2-blade folding propeller för 5-40 hp

Available for both sail drive and shaft. Propeller size has to be calculated to match engine and gear ratio, please contact your Volvo Penta dealer. Note! For a complete propeller, order one blade kit and one hub kit.

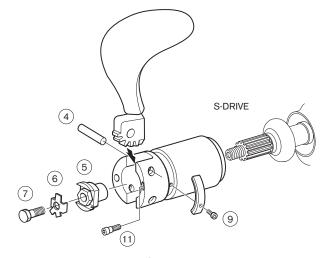


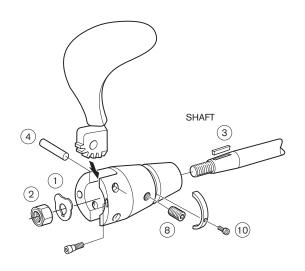
Blade kits*	S-Drive & Shaft	Shaft
Ø x PITCH	LH	RH
14 x 7	21629132	21629136
14 x 8	21629140	21629144
15 x 8	21629147	21629152
15 x 10	21629158	21629167
16 x 10	21629173	21629177
16 x 11	21629182	21629186
17 x 11	21629190	21629194
17 x 12	21629198	21629201
18 x 12	21629205	21629211
19 x 13	21629214	21629218



Hub kits for 2-blade folding propeller *						
S-DRIVE			SHAFT			
S-drive 120/130/5 MS25S, 150S 21630720	<b>Shaft 25 mm</b> Taper 1:10  Key 6 mm 21630721	<b>Shaft 30 mm</b> Taper 1:10 Key 8 mm 21630722	<b>Shaft 1 1/4"</b> Taper 1:16 Key 5/16 21630724	<b>Shaft 1"</b> Taper 1:16 Key 1/4 21630723	<b>HUB KIT</b> Pre-drilled, 21630725	

 $<sup>^{\</sup>star}$  For a complete propeller, order one blade kit and one hub kit.





#### Installation hardware, 2-blade folding

Pos	Part No	Oty	Item
1	873475	1	Tab washer, M16
1	873488	1	Tab washer, M20
2	873473	1	Nut, prop shaft, M16
2	873486	1	Nut, prop shaft, M20
3	873474	1	Key, prop shaft, Ø25mm
3	873487	1	Key, prop shaft, Ø30mm
4	21626924	2	Shaft
5	3584466	1	Propeller nut
6	3851994	1	Lock washer

Pos	Part No	Qty	Item
7	946730	1	Hexagon screw
8	3581246	2	Screw
9	963677	3	Hex. socket screw
10	963675	2	Hex. socket screw
11	3595221	2	Lock screw
	1161053	1	Locking fluid
	828250	1	Lubricating grease 25g
	21347121	1	Grease, propeller shaft 400ml

# S-Drive and shaft

#### 3-blade folding propeller for 20-60 hp

Available for both sail drive and shaft. Propeller size has to be calculated to match engine and gear ratio, please contact your Volvo Penta dealer. Note! For a complete propeller, order one blade kit and one hub kit.

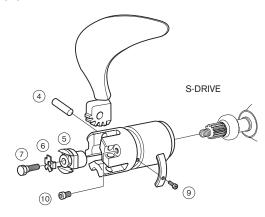
Blade kits*	S-Drive & Shaft	Shaft
Ø x PITCH	LH S	RH
14 x 7	_	3583409
14 x 8	_	3583410
14 x 9	3583382	3583411
15 x 9	3583383	3583412
15 x 10	3583384	3583413
16 x 10	3583385	3583414
16 x 11	3583386	3583415
17 x 11	3583387	3583416
17 x 12	3583388	3583417
18 x 12	3583389	3583418
18 x 13	3583390	3583419
18 x 14	3583391	3583420
18 x 15	3583392	3583421
18 x 16	3584031	3583422
19 x 16	3583393	3583423

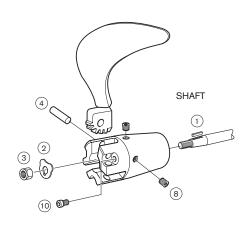




Hub kits for 3-blade folding propeller *						
S-DRIVE			SHAFT			
S-drive 110/S, 120/S, MS25S/SR 3858955	<b>Shaft 25 mm</b> Cone ratio 1:10, Wedge 6 mm, 3583424	Shaft 30 mm Cone ratio 1:10, Wedge 8 mm, 3583425	Shaft 1" Cone ratio 1:16, Wedge 1/4", 3583426	<b>Shaft 11/4"</b> Cone ratio 1:16, Wedge 5/16", 3583427	HUB KIT Pre-drilled, 3583428	

 $<sup>^{\</sup>ast}$  For a complete propeller, order one blade kit and one hub kit.





#### Installation hardware, 3-blade folding

Pos	Part No	Qty	Item
1	873474	1	Key, prop shaft, Ø25mm
1	873487	1	Key, prop shaft, Ø30mm
2	873475	1	Tab washer, M16
2	873488	1	Tab washer, M20
3	873473	1	Nut, prop shaft, M16
3	873486	1	Nut, prop shaft, M20
4	3581243	3	Shaft
5	3584466	1	Propeller nut

Pos	Part No	Qty	Item	
6	3851994	1	Lock washer	
7	946730	1	Hexagon screw	
8	3581246	3	Screw	
9	963677	3	Hex. socket screw	
10	963695	3	Hex. socket screw	
	828250	2	Lubricating grease 25g	
	21347121	1	Grease, prop shaft 400ml	
	1161053	1	Locking fluid 10ml	

# S-Drive and shaft

#### 4-blade folding propeller for 55-120 hp

Available for both sail drive and shaft. Propeller size has to be calculated to match engine and gear ratio, please contact your Volvo Penta dealer. Note! For a complete propeller, order one blade kit and one hub kit.

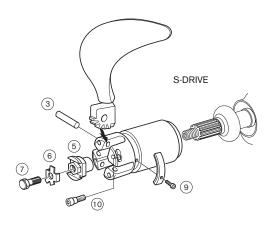
Blade kits*	S-Drive & Shaft	Shaft
Ø x PITCH	LH	RH
20 x 14	3583917	3583918
21 x 15	3583919	3583920
22 x 16	3583921	3583922
22 x 18	3583923	3583924
22 x 20	3583925	3583926

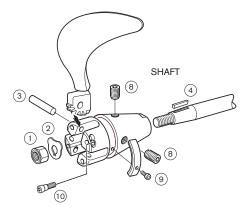




Hub kits for 4-blade folding propeller *						
S-DRIVE			SH	AFT		
<b>S drive 120/S, MS25S</b> 3583927	<b>Shaft 25 mm</b> Taper 1:10, Key 6 mm 3583928	<b>Shaft 30 mm</b> Taper 1:10, Key 8 mm 3583929	<b>Shaft 35 mm</b> Taper 1:10, Key 10 mm 3583930	Shaft 40 mm Taper 1:10, Key 12 mm 3584137	<b>Shaft 1 1/4"</b> Taper 1:16, Key 5/16 3583931	Shaft 1 1/2" Taper 1:16, Key 3/8 3583932

 $<sup>^{\</sup>ast}$  For a complete propeller, order one blade kit and one hub kit.





#### Installation hardware, 4-blade folding

Pos	Part No	Qty	Item
1	873473	1	Nut, prop shaft, M16
1	873486	1	Nut, prop shaft, M20
1	3587422	1	Nut, prop shaft, M24
2	873475	1	Tab washer, M16
2	873488	1	Tab washer, M20
2	873506	1	Tab washer, M24
3	3583951	4	Shaft
4	873474	1	Key, prop shaft, Ø25mm
4	873487	1	Key, prop shaft, Ø30mm

Pos	Part No	Qty	Item
4	873496	1	Key, prop shaft, Ø35mm
4	873505	1	Key, prop shaft, Ø40mm
5	3584466	1	Propeller nut
6	3851994	1	Lock washer
7	946730	1	Hexagon screw
8	3581246	2	Screw
9	963677	3	Hex. socket screw M5x16
10	963695	4	Hex. socket screw M6x14
	828250	2	Lubricating grease 25g
	21347121	1	Grease, prop shaft 400ml

# Fixed propellers for S-Drive

#### **Fixed propellers**

Volvo Penta's fixed propellers for S-drives are manufactured of aluminium alloys, developed to withstand salt water and cavitation damage. The propellers are manufactured to a high and consistent quality under rigid quality controls.

#### 2-blade (S-drives 110S, 120S, 130S and 150S)

Ø x PITCH	
14 x 7	21351239
14 x 8	21351270
14 x 9	21351241
14 x 11	21351275
15 x 11	21351281
16 x 11	21351235
16 x 13	21351240
17 x 14	21351232
17 x 16	21351265
17 x 17	21353570
19 x 17	21351284



#### 3-blade (S-drives 110S, 120S, 130S and 150S)

Ø x PITCH	
14 x 9	21381258
14 x 11	21381260
14 x 12	21381262
15 x 12	21381264
15 x 13	21381265
16 x 11	21381283
17 x 12	21381274
17 x 13	21381275
17 x 14	21401615
17 x 15	21381279
17 x 16	21381280
18 x 16	21381042



#### 2-Blade (S-drives 50S, 100S)

	Ø x PITCH	
MD6A	14 x 8	839514
MB10A, MD11C	16 x11	839191

#### Installation hardware, S-Drive

Part No	Description
22629322	Propeller cone kit
851773	Screw
850888	Plastic washer

Part No	Description	
828250	Lubricating grease 25g	
21347121	Grease, propeller shaft 400ml	

# Anodes for drives and propellers

# Volvo Penta anodes

Anodes are to be sacrificed in order to protect the drive unit and propeller against galvanic corrosion. Volvo Penta anodes are tested and specially produced for Volvo Penta drives and propellers.

The specifications are, in certain cases, more stringent than any other marine materials standards in the world. If 50% or more of the anode has been consumed it must be replaced in order to, once

more, fulfil its vital function. Never jeopardize safety and performance by fitting a non-genuine anode. Remember to never paint over the anodes.

#### Type of water

Find our general recommendation on which type of anode should be used in what water type in below table.

Saltwater - Zinc Brackish water - Aluminum Freshwater - Magnesium

Zinc and aluminum anodes will if left in freshwater become covered with a white oxide which effectively passivate the anode, zinc anodes suffer a similar problem even in brackish water.

If the anode becomes passive, the drive will start to sacrifice itself, this will cause serious damage. Magnesium anodes will wear off much to fast in saltwater.



# Anodes for drives and propellers

	Lower Gear Anode		s	Spray Plate Anode		
	Zinc	Magnesium	Zinc	Magnesium	Aluminium	
Single Aquamatic						
100 drive	875810					
200 - 290 SP drives	875815	876137				
Duoprop Aquamatic						
280 - 290 DP drive	875821	876138				
DPX drive			876638			
SX-A,DPS-A/B/FWD			3888814	3888815	3888813	
SX / DP-S			3855411	3855412	3863193	
DPH drive			3588746	3588750	3588748	
DPR drive			3589875	3589877	3589876	
S-drive						
120S	876286	876604				
130S /150S (2 pice)	3888305	3888306				

	Transom Shield Anode			
	Zinc	Magnesium	Aluminium	
Aquamatic				
280 drive	832598	873179		
290 SP, DP drive	852835	873178		
DPX drive	872139			
SX-A,DPS-A/B/FWD	3888817	3888818	3888816	
SX / DP-S	3854130	3855610	3586461	
DPH drive	3588745	3588768	3588770	
DPR drive	3588745	3588768	3588770	

	Propelle	er Anode
	Zinc	Magnesium
Propellers for S-drive		
Folding propeller - 2 blade	3858399	3858400
Folding propeller - 3 blade	3858399	3858400
Folding propeller - 4 blade	3584442	3584443
Propellers for Shafts		
Folding propeller - 2 blade	3888491	3888493
Folding propeller - 4 blade	3584442	3584443

Fixed propeller	
For 30 mm propeller shaft W3/4	833913
For 35 mm propeller shaft W7/8	833915
For 40 and 45 mm propeller shaft W1	828140
For 25 mm propeller shaft M16	873411
For 30 mm propeller shaft M20	873412
For 35 and 40 mm propeller shaft M24	873413
For 45 mm propeller shaft M30	873415

	Anode
Volvo Penta IPS	
Lower Gear Anode	3593981
Transom Anode	40005875
ACP	21174476

Please contact your local Volvo Penta dealer for further information. Please note that products illustrated may differ from production models. Not all models and accessories are available in all markets, and standard equipment may vary between different markets. Every effort has been made to ensure that facts and figures are correct at the time of publication. However, Volvo Penta reserves the right to make changes without prior notice at any time.



www.volvopenta.com