Guidelines for Volvo 110S Saildrive legs

We offer several engine adaption kits suitable for fitting to Volvo, Yanmar and Bukh saildrive legs - to replacing the old worn out engines. If the old saildrive leg is in very good condition these adaption kits can save potential customers money by not buying a new saildrive leg. The customer has to look at his options and judge what he believes to be reasonable solution and saving / expenditure.

We also offer a complete saildrive engine package with a new SeaProp 60 leg unit if you wish to completely replace the old unit. The idea is that these can just 'drop into' your existing GRP hull moulding. You also get a full warranty and peace of mind.

Each saildrive installation is usually different; boats / yachts have different hull lengths and different laden weights. Please look carefully at the different options available when deciding upon a replacement engine or complete saildrive unit.

If you decide to fit our new engine to your Volvo leg, remember that you still have a 20 or 30 year old leg, with no warranty on the leg and there will be some costs when servicing the leg and possibly replacing the propeller. We therefore recommend that if you wish to consider reusing your old saildrive leg, you have it carefully inspected and if in good condition /suitable, have it fully serviced.

Volvo Saildrive Leg Data

Model	*Leg*	*Ratio*	*BHP*	*RPM*	*Weight Kg*
MD5A	110S	2.15:1	7.5	2500	128
MD5B	110S	2.15:1	7.5	2500	128
MD5C	120S	2.2:1	9.5	3000	119
MD6A	100S	1.66:1	10	2400	180
MD6B	100S	1.66:1	10	2400	185
MD7A	110S	1.66:1	13	2600	192
MD7B	120S	2.2:1	17	3000	181
MD11C	100S	1.66:1	23	2500	245
MD11C	110S	1.66:1	23	2500	247
MD11D	120S	2.2:1	25	3000	238
MD17C	110S	1.66:1	35	2500	317
MD17D	120S	2.2:1	36	3000	308

IMPORTANT - You can see from the above data that some of the older Volvo engines run at a maximum engine speed of 2,500 rev/min and the corresponding saildrive reduction ratio can be as low as 1.66:1. Therefore the Volvo with 2,500 rev/min means the propeller is only turning at 1,500 rev/min; whilst if the Volvo is replaced with a small Beta engine at 3,600 rev/min and a 1.66:1 reduction ratio this means the propeller is turning at 2,170 rev/min, and propeller specialists say that this is too fast and difficult for a Volvo folding or even fixed propellers to work.

The Volvo 120S legs generally have a 2.34 or 2.2:1 reduction ratio, and the Volvo 130S has a 2.47:1 reduction ratio. These reduction ratios are more suitable for current engines that have higher running speeds that can be up to 3,600 rev/min.

If you wish to use your existing Volvo leg you must locate the technical information and establish if it has a 2.34:1 or a 1.66:1 reduction ratio. With the details of your boat/yacht - water line length, and total laden weight, plus the engine and leg data, you will need to/must contact a propeller specialist and obtain a specific propeller calculation for your boat / yacht.

The propeller specialist will confirm which propeller will be suitable. Sometimes with the 110S leg and a 1.66: reduction, re-using the original Volvo folding propeller may not be possible without limiting the engine speed.

Volvo MD7A, MD11C and MD17C

When selecting a suitable replacement engine for a saildrive leg with a 1.66:1 reduction, you should consider matching engine capacity for engine capacity, so that the new engine offers the same power at the same engine speed, this would mean that customers can keep the old propeller, and the performance will be almost identical. (If we do this, we should also limit the Beta engine speed to match that of the old Volvo engine - this can be done by setting the adjustment bolts and locking them with a lock nut).

When you review your options the most cost effective solution could be a larger engine, or it could be replacing the folding propeller with a different fixed blade propeller. Alternatively you may consider a new SeaProp 60 leg.