



VOLVO PENTA / TWIN DISC

MATCHING LIST 2020

Rating definitions & comparisons:

All engine ratings shown are matched with Twin Disc marine transmissions based on the use of a torsional input coupling.

VOLVO PENTA

TWIN DISC

R5-Rating	=	Pleasure Craft	[PC]
R4-Rating	=	(Pleasure Craft + Light Duty) / 2	(([PC]+[LD]) / 2
R3-Rating	=	(Light Duty + Intermediate Duty) / 2	([LD]+[ID]) / 2
R2-Rating	=	Intermediate Duty	[ID]
R1-Rating	=	Medium Duty	[MD]

Please read attached Twin Disc service classification definitions and important notice for details.

Important Notes:

- Contact Twin Disc for marine transmission selection if the actual operating conditions do not correspond with above rating definitions.
Please see next page for Twin Disc service classification definitions.
- Suitable flexible couplings are selected by Volvo Penta.

TWIN DISC SERVICE CLASSIFICATION DEFINITIONS

PLEASURE CRAFT [PC]:

Up to 500 hours/year, low load factor usage planning hull vessels where typical full engine throttle operation is less than 10% of total time. The balance of operation at 80% of full engine throttle or less. Marine transmissions for use in long range pleasure cruisers, sportfish charter boats/patrol boats do not qualify for Pleasure Craft Service.

Note: Some revenue producing applications such as Planning Hull Bristol Bay Gillnetter do qualify under Pleasure Craft rating definition.

LIGHT DUTY [LD]:

Relatively low hour usage (less than 1500 hours/year) where full throttle operation is 2 hours out of 12. Typical applications include planning hull vessels such as fire boats, sportfish charter boats, and patrol/custom boats. This rating is also applicable to some bow and stern thruster applications.

INTERMEDIATE DUTY [ID]:

Hour usage of up to 2000 hours/year (for models MG-5114 and smaller) and up to 3000 hours/year (for models larger than MG-5114) with 50% of the operating time at full engine rating.

Typical applications include planning hull vessels such as ferries, fishing boats, some crew boats, and some displacement hull yachts as well as some bow and stern thruster applications.

MEDIUM DUTY [MD]:

Hour usage of up to 4000 hours/year with up to 80% of operating time at full engine power. This duty classification is for usage where some variations in engine speed/power occur as part of normal vessel operation.

Typical vessels include mid-water trawlers, crew/supply boats, ferries, and some inland water tow boats.

CONTINUOUS DUTY [CD]:

For use in continuous operation with little or no variation in engine speed/power setting.

Typical vessels include fishing trawlers, tow/tug boats and ocean going vessels.

IMPORTANT NOTICE:

Torsional Vibration: Disregarding propulsion system torsional compatibility could cause damage to components in the drive train resulting in loss of mobility. At minimum, system incompatibility could result in gear clatter at low speeds.

The responsibility for ensuring that the torsional compatibility of the propulsion system is satisfactory rest with the assembler of the drive and driven equipment.

Torsional vibration analysis can be made by the engine builder, marine survey societies, independent consultants and others. Twin Disc is prepared to assist in finding solutions to potential torsional problems that relate to the marine transmission.

Twin Disc, Incorporated reminds users of these products that their safe operation depends on use in compliance with engineering information provided in this bulletin. User are also reminded that safe operation depends on proper installation, operation and routine maintenance and inspection under prevailing condition. It is the responsibility of the user (and not Twin Disc, Incorporated) to provide and install guards or safety devices which may be required by recognized safety standards or by the Occupational Safety and Health Act of 1970 and its subsequent provision.

Volvo Penta Marine Engine Matching List

Volvo Penta R5 Ratings

Engine model	Engine Service Classification	Rating			Housing Size (SAE J617)	Flywheel Size (SAE J620)		Transmission model	Ratio
		kW	mhp	@ rpm					
D1-13	R5	9.0 kW	12.2 mhp	3,200 rpm				MG-340 (TMC40P)	up to 2.60:1
D1-20	R5	13.8 kW	18.8 mhp	3,200 rpm				MG-340 (TMC40P)	up to 2.60:1
D1-30	R5	20.9 kW	28.4 mhp	3,200 rpm				MG-340 (TMC40P)	up to 2.60:1
D2-40	R5	29.1 kW	39.6 mhp	3,200 rpm				MG-360 (TMC60P) TMC60A	up to 2.83:1 up to 2.45:1
D2-50	R5	36.0 kW	49.0 mhp	3,000 rpm				MG-360 (TMC60P) TMC260 TMC60A	up to 2.45:1 up to 2.88:1 up to 2.45:1
D2-60	R5	44.0 kW	60.0 mhp	3,000 rpm				MG-360 (TMC60P) TMC260 MG-5005A (TM345A)	up to 2.00:1 up to 2.88:1 up to 2.47:1
D2-75	R5	55.0 kW	75.0 mhp	3,000 rpm				TMC260 TM345 MG-5005A (TM345A)	up to 2.47:1 up to 2.47:1 up to 2.47:1
D3-110	R5	81 kW	110 mhp	3,000 rpm				TM345 MG-5005A (TM345A) MG-5012SC (TM93) TM93A MG-5025A (TM485A)	up to 2.00:1 up to 2.00:1 up to 2.77:1 up to 2.40:1 up to 2.40:1
D3-150	R5	110 kW	150 mhp	3,000 rpm				MG-5012SC (TM93) TM93A MG-5025A (TM485A)	up to 2.40:1 up to 2.09:1 up to 2.40:1
D3-170	R5	125 kW	170 mhp	4,000 rpm				MG-5012SC (TM93) TM93A MG-5025A (TM485A)	up to 2.40:1 up to 2.40:1 up to 2.40:1
D3-200	R5	147 kW	200 mhp	4,000 rpm				MG-5012SC (TM93) TM93A MG-5025A (TM485A)	up to 2.40:1 up to 2.09:1 up to 2.40:1
D3-220	R5	162 kW	220 mhp	4,000 rpm				MG-5012SC (TM93) TM93A MG-5025A (TM485A)	up to 2.40:1 up to 2.09:1 up to 2.40:1
D4-300	R5	221 kW	300 mhp	3,500 rpm	No. 4	No. 255 (10")		MG-5020SC (TM170) TM170A MG-5055A (TM880A) MG-5050RV	up to 2.50:1 up to 2.60:1 up to 2.60:1 up to 2.50:1
D4-300	R5	235 kW	320 mhp	3,600 rpm	No. 4	No. 255 (10")		MG-5020SC (TM170) TM170A MG-5055A (TM880A) MG-5050RV	up to 2.04:1 up to 2.08:1 up to 2.08:1 up to 2.50:1

Volvo Penta Marine Engine Matching List

Volvo Penta R5 Ratings

Engine model	Engine Service Classification	Rating			Housing Size (SAE J617)	Flywheel Size (SAE J620)		Transmission model	Ratio
		kW	mhp	@ rpm					
D6-440	R5	324 kW	440 mhp	3,700 rpm	No. 4 (not per SAE)	No. 255 (10")		MG-5050SC MG-5050A MG-5050RV MG-5061A	up to 2.45:1 up to 2.04:1 up to 2.04:1 up to 2.47:1
D6-480	R5	353 kW	480 mhp	3,700 rpm				MG-5050SC MG-5050A MG-5050RV MG-5061SC MG-5061A	up to 2.04:1 up to 2.04:1 up to 2.04:1 up to 3.00:1 up to 2.47:1
D8-600	R5	441 kW	600 mhp	3,000 rpm	No. 2	No. 290 (11.5")		MG(X)-5065SC MG(X)-5065A MG(X)-5075SC MG(X)-5075A MG(X)-5075IV	up to 2.43:1 up to 2.43:1 up to 2.88:1 up to 2.88:1 up to 2.46:1
D11-670	R5	493 kW	670 mhp	2,450 rpm	No. 2	No. 290		MG(X)-5095SC MG(X)-5096A MG-5082SC MGX-5086SC MG-5082A MGX-5086A MG(X)-5114IV	up to 2.95:1 up to 2.48:1 up to 2.53:1 up to 2.53:1 up to 2.53:1 up to 2.53:1 up to 2.57:1
D11-725	R5	533 kW	725 mhp	2,500 rpm	No. 2	No. 290		MG(X)-5095SC MG(X)-5096A MG-5082SC MGX-5136RV	up to 2.95:1 up to 2.48:1 up to 2.28:1 up to 2.52:1
								MG-5082A MGX-5086A MG(X)-5114IV	up to 2.28:1 up to 2.28:1 up to 2.57:1
D13-800	R5	588 kW	800 mhp	2,300 rpm	No. 1	No. 355 (14")		MG(X)-5114SC MG(X)-5096A MGX-5086SC MG(X)-5114IV	up to 2.54:1 up to 2.48:1 up to 2.28:1 up to 2.57:1
D13-900	R5	662 kW	900 mhp	2,300 rpm	No. 1	No. 355 (14")		MG(X)-5114SC MG(X)-5096A MG(X)-5126A MG(X)-5114RV MG(X)-5114IV	up to 2.54:1 up to 2.04:1 up to 2.50:1 up to 2.50:1 up to 1.98:1
D13-1000	R5	735 kW	1,000 mhp	2,400 rpm	No. 1	No. 355 (14")		MGX-5126A MGX-5136SC MGX-5136A MGX-5136RV	up to 2.04:1 up to 2.90:1 up to 2.52:1 up to 2.52:1

Volvo Penta Marine Engine Matching List

Volvo Penta R4 Ratings

Engine model	Engine Service Classification	Rating			Housing Size (SAE J617)	Flywheel Size (SAE J620)		Transmission model	Ratio
		kW	mhp	@ rpm					
D4-175	R4	129 kW	175 mhp	2,800 rpm	No. 4 (not per SAE)	No. 255 (10")		MG-5020SC (TM170) TM170A MG-5055A (TM880A)	up to 2.94:1 up to 2.60:1 up to 2.60:1
D4-230	R4	169 kW	230 mhp	3,400 rpm				MG-5020SC (TM170) TM170A MG-5050SC MG-5055A (TM880A) MG-5050RV	up to 2.50:1 up to 2.60:1 up to 3.00:1 up to 2.60:1 up to 2.50:1
D4-270	R4	199 kW	271 mhp	3,500 rpm				MG-5020SC (TM170) TM170A MG-5050SC MG-5055A (TM880A) MG-5050RV	up to 2.50:1 up to 2.60:1 up to 3.00:1 up to 2.60:1 up to 2.50:1
D6-300	R4	221 kW	300 mhp	3,300 rpm	No. 4 (not per SAE)	No. 255 (10")		MG-5020SC (TM170) TM170A MG-5055A (TM880A) MG-5050SC MG-5050A MG-5050RV	up to 2.04:1 up to 2.08:1 up to 2.08:1 up to 3.00:1 up to 2.50:1 up to 2.50:1
D6-340	R4	250 kW	340 mhp	3,400 rpm				MG-5050SC MG-5050A MG-5050RV	up to 3.00:1 up to 2.50:1 up to 2.50:1
D6-380	R4	280 kW	381 mhp	3,500 rpm				MG-5050SC MG-5050A MG-5050RV	up to 2.45:1 up to 2.50:1 up to 2.50:1
D8-510	R4	375 kW	510 mhp	2,850 rpm	No. 2	No. 290 (11.5")		MG(X)-5065SC MG(X)-5065A MG(X)-5075SC MG(X)-5075A MG(X)-5075IV	up to 2.43:1 up to 2.43:1 up to 2.88:1 up to 2.88:1 up to 2.46:1
D8-550	R4	405 kW	550 mhp	2,900 rpm				MG(X)-5065SC MG(X)-5065A MG(X)-5075SC MG(X)-5075A MG(X)-5075IV	up to 2.43:1 up to 2.43:1 up to 2.88:1 up to 2.88:1 up to 2.46:1
D11-625	R4	460 kW	625 mhp	2,400 rpm	No. 2	No. 290 (11.5")		MG(X)-5095SC MG(X)-5114DC MG(X)-5096A MG-5082SC MGX-5086SC MG-5082A MGX-5086A MG(X)-5114IV	up to 2.95:1 up to 4.86:1 up to 2.48:1 up to 2.53:1 up to 2.53:1 up to 2.53:1 up to 2.53:1 up to 2.57:1
D13-800	R4	588 kW	800 mhp	2,300 rpm	No. 1	No. 355 (14")		MG(X)-5096A MG(X)-5114SC MG(X)-5114SC-HD MG(X)-5114DC MG(X)-5126A MG(X)-5114RV MG(X)-5114IV	up to 2.04:1 up to 2.54:1 up to 2.54:1 up to 4.59:1 up to 2.50:1 up to 2.50:1 up to 1.97:1

Volvo Penta Marine Engine Matching List

Volvo Penta R3 Ratings

Engine model	Engine Service Classification	Rating			Housing Size (SAE J617)	Flywheel Size (SAE J620)		Transmission model	Ratio
		kW	mhp	@ rpm					
D8-450	R3	331 kW	450 mhp	2,700 rpm	No. 2	No. 290 (11.5")		MG(X)-5065SC MG(X)-5065A MG(X)-5075SC MG(X)-5075A MG(X)-5075IV	up to 2.43:1 up to 2.43:1 up to 2.88:1 up to 2.88:1 up to 2.46:1
D11-510	R3	375 kW	510 mhp	2,250 rpm	No. 2	No. 290 (11.5")		MG(X)-5095SC MG(X)-5114DC MG(X)-5096A MG-5082SC MGX-5086SC MG-5082A MGX-5086A MG(X)-5114IV	up to 2.95:1 up to 4.86:1 up to 2.48:1 up to 2.53:1 up to 2.53:1 up to 2.53:1 up to 2.53:1 up to 2.57:1
D13-700	R3	515 kW	700 mhp	2,300 rpm	No. 1	No. 355 (14")		MG(X)-5114SC MG(X)-5114SC-HD MG(X)-5114DC MG(X)-5126A MG(X)-5114RV MG(X)-5114IV	up to 2.54:1 up to 2.54:1 up to 4.17:1 up to 2.50:1 up to 2.50:1 up to 1.97:1

Volvo Penta Marine Engine Matching List

Volvo Penta R2 Ratings

Engine model	Engine Service Classification	Rating			Housing Size (SAE J617)	Flywheel Size (SAE J620)		Transmission model	Ratio
		kW	mhp	@ rpm					
D5A TA	R2	103 kW	140 mhp	1,900 rpm	No. 3	No. 290 (11.5")		MG-5020SC (TM170) MG-5055A (TM880A) MG-5050SC MG-5050A MG-5050RV	up to 2.04:1 up to 2.08:1 up to 3.00:1 up to 2.50:1 up to 2.50:1
	R2	118 kW	160 mhp	2,300 rpm	No. 3	No. 290 (11.5")		MG-5020SC (TM170) MG-5055A (TM880A) MG-5050SC MG-5050A MG-5050RV	up to 2.50:1 up to 2.08:1 up to 3.00:1 up to 2.50:1 up to 2.50:1
D7A TA	R2	153 kW	208 mhp	1,900 rpm	No. 3	No. 290 (11.5")		MG-5061SC MG-5061A	up to 3.00:1 up to 2.47:1
	R2	174 kW	237 mhp	2,300 rpm	No. 3	No. 290 (11.5")		MG-5050SC MG-5050A MG-5050RV MG-5061SC MG-5061A	up to 2.45:1 up to 2.50:1 up to 2.50:1 up to 3.00:1 up to 2.47:1
D7C TA	R2	169 kW	230 mhp	1,900 rpm	No. 3	No. 290 (11.5")		MG-5061SC MG-5061A	up to 3.00:1 up to 2.47:1
	R2	195 kW	265 mhp	2,300 rpm	No. 3	No. 290 (11.5")		MG-5061SC MG-5061A	up to 3.00:1 up to 2.47:1
D8 MH Proj	R2	298 kW	405 mhp	2,100 rpm	No. 1	No. 355 (14")		MG-5082SC MG-5082A MGX-5086SC MGX-5086A MG-5091SC MG-5091DC	up to 2.88:1 up to 2.88:1 up to 2.88:1 up to 2.88:1 up to 3.33:1 up to 5.05:1
D8 MH Proj	R2	298 kW	405 mhp	2,200 rpm	No. 1	No. 355 (14")		MG-5082SC MG-5082A MGX-5086SC MGX-5086A MG-5091SC MG-5091DC	up to 2.88:1 up to 2.88:1 up to 2.88:1 up to 2.88:1 up to 3.33:1 up to 5.05:1
D8 MH	R2	313 kW	425 mhp	2,100 rpm	No. 1	No. 355 (14")		MG-5082SC MG-5082A MGX-5086SC MGX-5086A MG-5091SC MG-5091DC	up to 2.88:1 up to 2.88:1 up to 2.88:1 up to 2.88:1 up to 3.33:1 up to 5.05:1
D8 MH	R2	313 kW	425 mhp	2,200 rpm	No. 1	No. 355 (14")		MG-5082SC MG-5082A MGX-5086SC MGX-5086A MG-5091SC MG-5091DC	up to 2.88:1 up to 2.88:1 up to 2.88:1 up to 2.88:1 up to 3.33:1 up to 5.05:1

Volvo Penta Marine Engine Matching List

Volvo Penta R2 Ratings

Engine model	Engine Service Classification	Rating			Housing Size (SAE J617)	Flywheel Size (SAE J620)		Transmission model	Ratio
		kW	mhp	@ rpm					
D13 MH	R2	405 kW	550 mhp	1,900 rpm	No. 1	No. 355 (14")		MG(X)-5114SC MG(X)-5114SC-HD MGX-5136SC MG(X)-5114DC MG(X)-516 MG(X)-5170DC MGX-5136A MGX-5136RV	up to 2.54:1 up to 2.54:1 up to 2.90:1 up to 4.59:1 up to 6.00:1 up to 6.95:1 up to 2.52:1 up to 2.52:1
D13 MH	R2	441 kW	600 mhp	1,900 rpm	No. 1	No. 355 (14")		MG(X)-5114SC MG(X)-5114SC-HD MGX-5136SC MG(X)-5114DC MG(X)-516 MG(X)-5170DC MGX-5136A MGX-5136RV	up to 2.04:1 up to 2.04:1 up to 2.90:1 up to 4.17:1 up to 5.05:1 up to 6.95:1 up to 2.52:1 up to 2.52:1
D16 MH	R2	552 kW	751 mhp	1,900 rpm	No. 1	No. 355 (14")		MGX-5146SC MG(X)-516 MG(X)-5170DC MGX-5146A MGX-5146RV	up to 2.50:1 up to 3.06:1 up to 5.95:1 up to 2.50:1 up to 2.50:1

Volvo Penta Marine Engine Matching List

Volvo Penta R1 Ratings

Engine model	Engine Service Classification	Rating			Housing Size (SAE J617)	Flywheel Size (SAE J620)		Transmission model	Ratio
		kW	mhp	@ rpm					
D5A TA	R1	89 kW	121 mhp	1,900 rpm	No. 3	No. 290 (11.5")		MG-5020SC (TM170) MG-5055A (TM880A) MG-5050SC MG-5050A MG-5050RV	up to 2.04:1 up to 2.08:1 up to 3.00:1 up to 2.50:1 up to 2.50:1
D5A TA	R1	102 kW	139 mhp	2,300 rpm	No. 3	No. 290 (11.5")		MG-5020SC (TM170) MG-5055A (TM880A) MG-5050SC MG-5050A MG-5050RV	up to 2.50:1 up to 2.08:1 up to 3.00:1 up to 2.50:1 up to 2.50:1
D7A TA	R1	130 kW	177 mhp	1,900 rpm	No. 3	No. 290 (11.5")		MG-5061SC MG-5061A	up to 3.00:1 up to 2.47:1
D7A TA	R1	148 kW	201 mhp	2,300 rpm	No. 3	No. 290 (11.5")		MG-5061SC MG-5061A	up to 3.00:1 up to 2.47:1
D7C TA	R1	146 kW	199 mhp	1,900 rpm	No. 3	No. 290 (11.5")		MG(X)-5065SC MG(X)-5065A MG(X)-5075SC MG(X)-5075A MG(X)-5075IV	up to 2.43:1 up to 2.43:1 up to 2.88:1 up to 2.88:1 up to 2.46:1
D7C TA	R1	166 kW	226 mhp	2,300 rpm	No. 3	No. 290 (11.5")		MG-5061SC MG-5061A MG(X)-5065SC MG(X)-5065A MG(X)-5075SC MG(X)-5075A MG(X)-5075IV	up to 2.43:1 up to 2.00:1 up to 2.43:1 up to 2.43:1 up to 2.88:1 up to 2.88:1 up to 2.46:1

Volvo Penta Marine Engine Matching List

Volvo Penta R1 Ratings

Engine model	Engine Service Classification	Rating			Housing Size (SAE J617)	Flywheel Size (SAE J620)		Transmission model	Ratio
		kW	mhp	@ rpm					
D8 MH	R1	154 kW	210 mhp	1,800 rpm	No. 1	No. 355 (14")		MG(X)-5065SC MG(X)-5065A MG(X)-5075SC MG(X)-5075A MG-5091SC MG-5091DC	up to 2.43:1 up to 2.43:1 up to 2.88:1 up to 2.88:1 up to 3.33:1 up to 5.05:1
D8 MH	R1	154 kW	210 mhp	2,200 rpm	No. 1	No. 355 (14")		MG-5061SC MG-5061A MG-5091SC MG-5091DC	up to 3.00:1 up to 2.47:1 up to 3.33:1 up to 5.05:1
D8 MH	R1	169 kW	230 mhp	1,800 rpm	No. 1	No. 355 (14")		MG(X)-5065SC MG(X)-5065A MG(X)-5075SC MG(X)-5075A MG-5091SC MG-5091DC	up to 2.43:1 up to 2.43:1 up to 2.88:1 up to 2.88:1 up to 3.33:1 up to 5.05:1
D8 MH	R1	169 kW	230 mhp	2,200 rpm	No. 1	No. 355 (14")		MG-5061SC MG-5061A MG(X)-5065SC MG(X)-5065A MG(X)-5075SC MG(X)-5075A MG-5091SC MG-5091DC	up to 2.43:1 up to 2.00:1 up to 2.43:1 up to 2.43:1 up to 2.88:1 up to 2.88:1 up to 3.33:1 up to 5.05:1
D8 MH	R1	195 kW	265 mhp	1,800 rpm	No. 1	No. 355 (14")		MG(X)-5065SC MG(X)-5065A MG(X)-5075SC MG(X)-5075A MG(X)-5075IV MG-5091SC MG-5091DC	up to 2.43:1 up to 2.43:1 up to 2.88:1 up to 2.88:1 up to 2.46:1 up to 3.33:1 up to 5.05:1
D8 MH	R1	195 kW	265 mhp	2,200 rpm	No. 1	No. 355 (14")		MG(X)-5065SC MG(X)-5065A MG(X)-5075SC MG(X)-5075A MG(X)-5075IV MG-5091SC MG-5091DC	up to 2.43:1 up to 2.43:1 up to 2.88:1 up to 2.88:1 up to 2.46:1 up to 3.33:1 up to 5.05:1
D8 MH	R1	221 kW	300 mhp	1,800 rpm	No. 1	No. 355 (14")		MG(X)-5065SC MG(X)-5065A MG-5082SC MG-5082A MGX-5086SC MGX-5086A MG-5091SC MG-5091DC	up to 2.04:1 up to 2.04:1 up to 2.88:1 up to 2.88:1 up to 2.88:1 up to 2.88:1 up to 3.33:1 up to 5.05:1

Volvo Penta Marine Engine Matching List

Volvo Penta R1 Ratings

Engine model	Engine Service Classification	Rating			Housing Size (SAE J617)	Flywheel Size (SAE J620)		Transmission model	Ratio
		kW	mhp	@ rpm					
D8 MH	R1	221 kW	300 mhp	2,200 rpm	No. 1	No. 355 (14")		MG(X)-5065SC MG(X)-5065A MG(X)-5075SC MG(X)-5075A MG(X)-5075IV MG-5091SC MG-5091DC	up to 2.43:1 up to 2.43:1 up to 2.88:1 up to 2.88:1 up to 2.46:1 up to 3.33:1 up to 5.05:1
D8 MH	R1	257 kW	350 mhp	1,800 rpm	No. 1	No. 355 (14")		MG-5082SC MG-5082A MGX-5086SC MGX-5086A MG-5091SC MG-5091DC	up to 2.88:1 up to 2.88:1 up to 2.88:1 up to 2.88:1 up to 3.33:1 up to 5.05:1
D8 MH	R1	257 kW	350 mhp	2,200 rpm	No. 1	No. 355 (14")		MG(X)-5065SC MG(X)-5065A MG-5091SC MG-5091DC	up to 2.43:1 up to 2.43:1 up to 3.33:1 up to 5.05:1
D13 MH	R1	294 kW	400 mhp	1,800 rpm	No. 1	No. 355 (14")		MG(X)-5095SC MG(X)-5114DC MG(X)-5096A MG-5082SC MGX-5086SC MG-5082A MGX-5086A	up to 2.95:1 up to 4.86:1 up to 2.48:1 up to 2.53:1 up to 2.53:1 up to 2.53:1 up to 2.53:1
D13 MH	R1	331 kW	450 mhp	1,800 rpm	No. 1	No. 355 (14")		MG(X)-5095SC MG(X)-5114SC MG(X)-5114SC-HD MG(X)-5114DC MG(X)-516 MG(X)-5170DC MG(X)-5126A	up to 2.46:1 up to 3.00:1 up to 3.00:1 up to 4.86:1 up to 6.00:1 up to 6.95:1 up to 2.50:1
D13 MH	R1	368 kW	500 mhp	1,800 rpm	No. 1	No. 355 (14")		MG(X)-5114SC MG(X)-5114SC-HD MGX-5136SC MG(X)-516 MG(X)-5170DC MGX-5136A MGX-5136RV	up to 2.54:1 up to 2.54:1 up to 2.90:1 up to 6.00:1 up to 6.95:1 up to 2.52:1 up to 2.52:1

Volvo Penta Marine Engine Matching List

Volvo Penta R1 Ratings

Engine model	Engine Service Classification	Rating			Housing Size (SAE J617)	Flywheel Size (SAE J620)		Transmission model	Ratio
		kW	mhp	@ rpm					
D16 MH	R1	368 kW	501 mhp	1,800 rpm	No. 1	No. 355 (14")		MG(X)-5114SC MG(X)-5114SC-HD MGX-5136SC MG(X)-516 MG(X)-5170DC MGX-5136A MGX-5136RV	up to 2.54:1 up to 2.54:1 up to 2.90:1 up to 6.00:1 up to 6.95:1 up to 2.52:1 up to 2.52:1
D16 MH	R1	405 kW	551 mhp	1,800 rpm	No. 1	No. 355 (14")		MGX-5136SC MG(X)-516 MG(X)-5170DC MGX-5136A MGX-5136RV	up to 2.90:1 up to 6.00:1 up to 6.95:1 up to 2.52:1 up to 2.52:1
D16 MH	R1	442 kW	601 mhp	1,800 rpm	No. 1	No. 355 (14")		MGX-5136SC MG(X)-516 MG(X)-5170DC MGX-5136A MGX-5136RV	up to 2.90:1 up to 5.05:1 up to 6.95:1 up to 2.52:1 up to 2.52:1
D16 MH	R1	479 kW	651 mhp	1,800 rpm	No. 1	No. 355 (14")		MGX-5136SC MG(X)-5170DC MGX-5136A MGX-5136RV	up to 2.57:1 up to 5.95:1 up to 2.52:1 up to 2.52:1