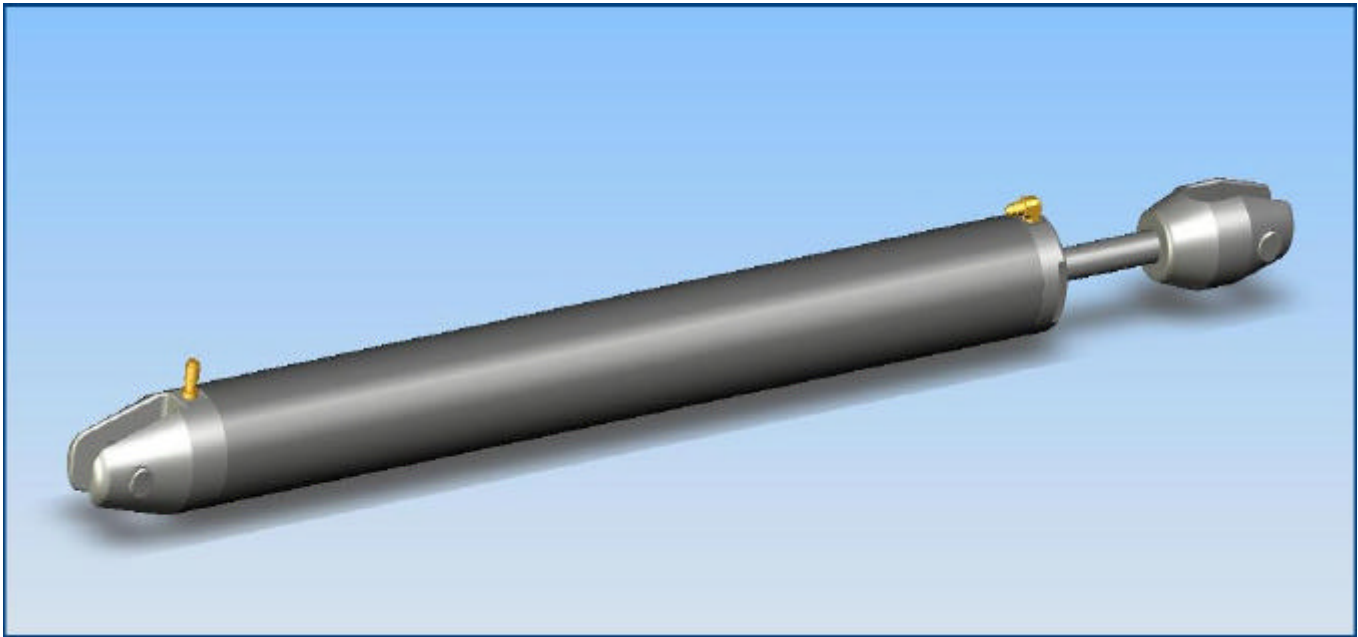


AMH Cylinder Specifications

High Quality Hydraulic Cylinders for Marine applications.



AMH Part Number	Pulling Force at 5000psi (tonne)	Pulling Force at 250 bar (tonne)	Breaking Strength (tonne)	Clevis Gap mm	Clevis Pin mm	Edge Dist mm	Throat mm	Short Stroke mm	Medium Stroke mm	Long Stroke mm
AMHC 2.4 T -12	3.31	2.40	6.60	16.67	15.88	23.81	35.72	250	500	1000
AMHC 3.4 T -17	4.76	3.45	8.80	16.67	15.88	23.81	35.72	250	500	1000
AMHC 4.4 T -22	6.12	4.44	11.83	20.00	19.05	28.58	42.86	250	500	1000
AMHC 7.1 T -30	9.77	7.08	19.25	23.34	22.23	33.34	50.01	250	500	1000
AMHC 10 T -40	14.25	10.33	26.62	26.67	25.40	38.10	57.15	250	500	1000
AMHC 12 T -48	16.56	12.00	33.00	30.00	28.58	42.86	64.29	250	500	1000
AMHC 14 T -60	19.03	13.80	37.81	33.34	31.75	47.63	71.44	250	500	1000
AMHC 16 T -76	22.26	16.14	44.28	36.67	34.93	52.39	78.58	250	500	1000
AMHC 18 T -91	25.13	18.22	50.05	36.67	34.93	52.39	78.58	250	500	1000
AMHC 23 T -115	32.06	23.24	63.80	40.01	38.10	57.15	85.73	250	500	1000
AMHC 28 T -150	39.07	28.33	79.39	46.67	44.45	66.68	100.01	250	500	1000
AMHC 35 T -170	48.42	35.10	96.25	53.34	50.80	76.20	114.30	250	500	1000
AMHC 41 T -195	56.99	41.32	113.58	56.67	53.98	80.96	121.44	250	500	1000
AMHC 48 T -220	66.70	48.34	132.00	63.34	60.33	90.50	135.70	250	500	1000
AMHC 57 T -260	78.30	56.73	156.00	66.68	63.50	95.30	142.90	250	500	1000
AMHC 74 T -320	102.80	74.57	203.50	80.01	76.20	114.30	171.50	250	500	1000
AMHC 92 T -360	128.20	92.97	253.00	86.68	82.55	123.80	185.70	250	500	1000
AMHC 105 T -430	144.70	104.90	286.00	93.35	88.90	133.40	200.00	250	500	1000
AMHC 117 T -540	162.10	117.50	320.40	96.68	92.08	138.10	207.20	250	500	1000

APPLIED MARINE HARDWARE

Applied Engineering Services Limited (Incl. Applied Marine Hardware)

Registered trademarks: AES™ NZ Reg TM 316921, AMH™ NZ Reg TM 316920

Consulting Engineers specialising in marine design, masts and rigging

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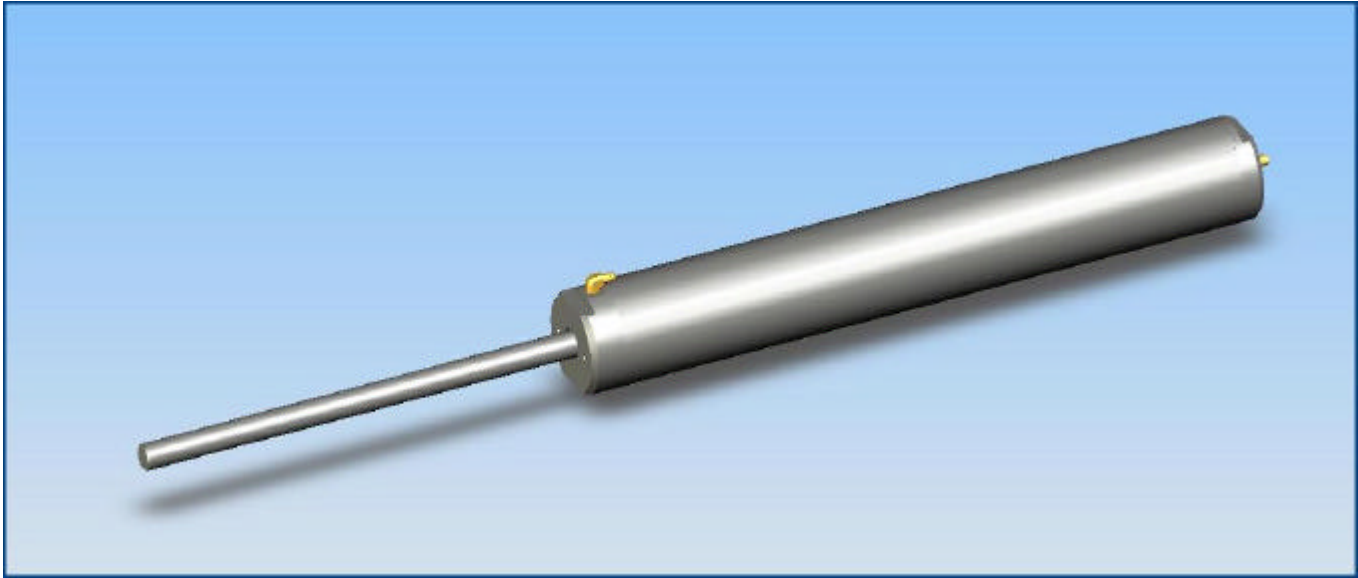
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14-Nov-08

AMH Outhaul Cylinders

High Quality Hydraulic Cylinders for Marine applications.



AMH Part Number			Pulling Force at 5000psi (tonne)	Pulling Force at 250 bar (tonne)	Breaking Strength (tonne)	Stroke mm	piston rod diam mm						
AMHO 2.4 T	-12		3.31	2.40	6.60	300	16.00						
AMHO 3.4 T	-17		4.76	3.45	8.80	360	16.00						
AMHO 4.4 T	-22		6.12	4.44	11.83	360	19.05						
AMHO 7.1 T	-30		9.77	7.08	19.25	420	22.23						
AMHO 10 T	-40		14.25	10.33	26.62	550	25.40						
AMHO 12 T	-48		16.56	12.00	33.00	600	25.40						
AMHO 14 T	-60		19.03	13.80	37.81	750	31.75						
AMHO 16 T	-76		22.26	16.14	44.28	750	31.75						
AMHO 18 T	-91		25.13	18.22	50.05	750	31.75						
AMHO 23 T	-115		32.06	23.24	63.80	750	38.10						
AMHO 28 T	-150		39.07	28.33	79.39	750	44.45						
AMHO 35 T	-170		48.42	35.10	96.25	750	44.45						
AMHO 41 T	-195		56.99	41.32	113.58	750	50.80						
AMHO 48 T	-220		66.70	48.34	132.00	750	50.80						
AMHO 57 T	-260		78.30	56.73	156.00	750	57.15						
AMHO 74 T	-320		102.80	74.57	203.50	750	63.50						
AMHO 92 T	-360		128.20	92.97	253.00	750	76.20						
AMHO 105 T	-430		144.70	104.90	286.00	750	76.20						
AMHO 117 T	-540		162.10	117.50	320.40	750	76.20						

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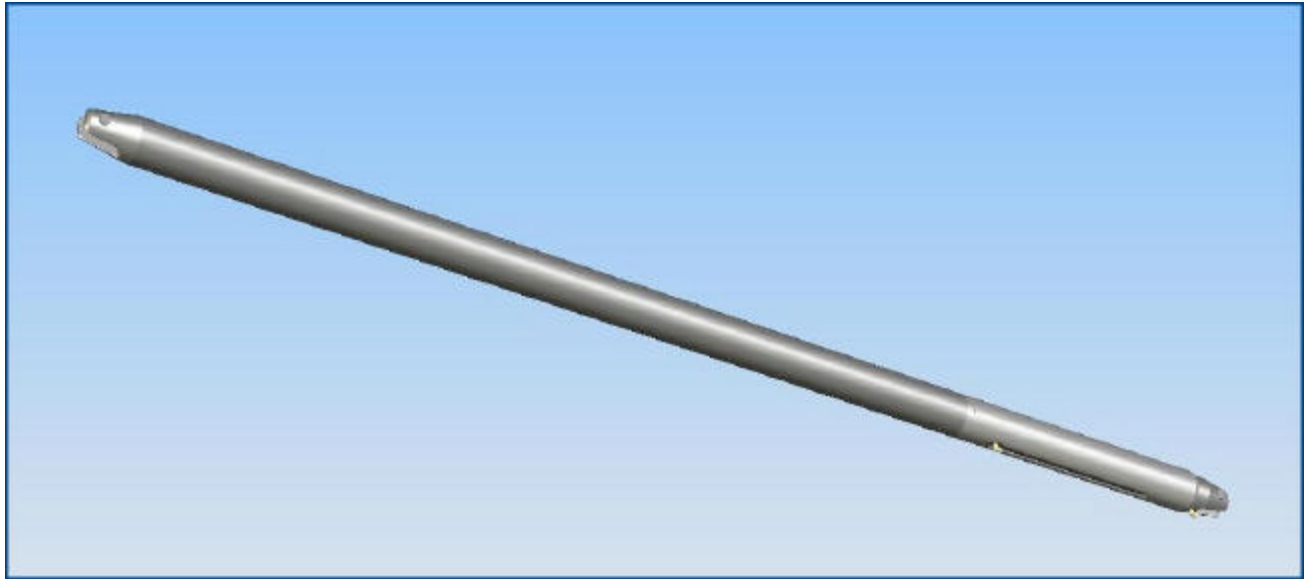
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AMH Vang Cylinders

High Quality Hydraulic Cylinders for Marine applications.



AMH Part Number	Pulling Force at 5000psi (tonne)	Pulling Force at 250 bar (tonne)	Breaking Strength (tonne)	Clevis Gap mm	Clevis Pin mm	Edge Dist mm	Throat mm	Stroke mm	PCLC max mm	
AMHV 2.4 T	-12	3.31	2.40	6.60	16.67	15.88	23.81	35.72	224	
AMHV 3.4 T	-17	4.76	3.45	8.80	16.67	15.88	23.81	35.72	234	
AMHV 4.4 T	-22	6.12	4.44	11.83	20.00	19.05	28.58	42.86	244	
AMHV 7.1 T	-30	9.77	7.08	19.25	23.34	22.23	33.34	50.01	260	
AMHV 10 T	-40	14.25	10.33	26.62	26.67	25.40	38.10	57.15	280	
AMHV 12 T	-48	16.56	12.00	33.00	30.00	28.58	42.86	64.29	296	
AMHV 14 T	-60	19.03	13.80	37.81	33.34	31.75	47.63	71.44	320	
AMHV 16 T	-76	22.26	16.14	44.28	36.67	34.93	52.39	78.58	352	
AMHV 18 T	-91	25.13	18.22	50.05	36.67	34.93	52.39	78.58	382	
AMHV 23 T	-115	32.06	23.24	63.80	40.01	38.10	57.15	85.73	430	
AMHV 28 T	-150	39.07	28.33	79.39	46.67	44.45	66.68	100.01	450	
AMHV 35 T	-170	48.42	35.10	96.25	53.34	50.80	76.20	114.30	450	
AMHV 41 T	-195	56.99	41.32	113.58	56.67	53.98	80.96	121.44	450	
AMHV 48 T	-220	66.70	48.34	132.00	63.34	60.33	90.50	135.70	450	
AMHV 57 T	-260	78.30	56.73	156.00	66.68	63.50	95.30	142.90	450	
AMHV 74 T	-320	102.80	74.57	203.50	80.01	76.20	114.30	171.50	450	
AMHV 92 T	-360	128.20	92.97	253.00	86.68	82.55	123.80	185.70	450	
AMHV 105 T	-430	144.70	104.90	286.00	93.35	88.90	133.40	200.00	450	
AMHV 117 T	-540	162.10	117.50	320.40	96.68	92.08	138.10	207.20	450	

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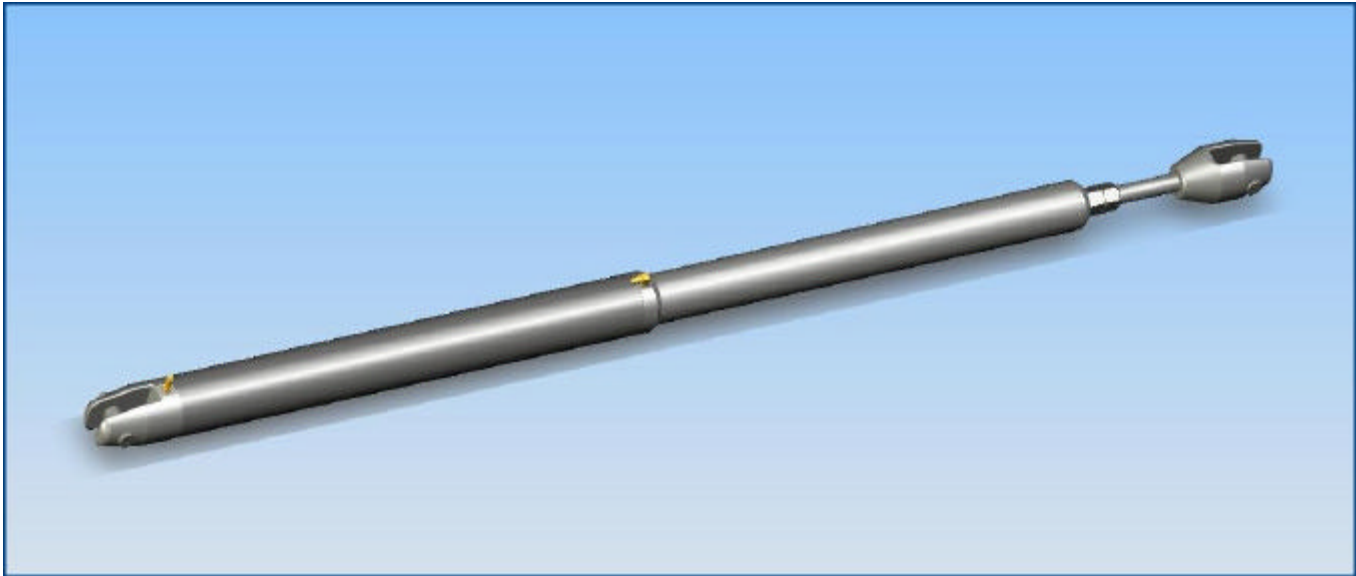
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AMH Mechanical Lock Cylinders

High Quality Hydraulic Cylinders for Marine applications.



AMH Part Number	Pulling Force at 5000psi (tonne)	Pulling Force at 250 bar (tonne)	Breaking Strength (tonne)	Clevis Gap mm	Clevis Pin mm	Edge Dist mm	Throat mm	Short Stroke mm	Medium Stroke mm	Long Stroke mm
AMHL 2.4 T -12	3.31	2.40	6.60	16.67	15.88	23.81	35.72	250	500	1000
AMHL 3.4 T -17	4.76	3.45	8.80	16.67	15.88	23.81	35.72	250	500	1000
AMHL 4.4 T -22	6.12	4.44	11.83	20.00	19.05	28.58	42.86	250	500	1000
AMHL 7.1 T -30	9.77	7.08	19.25	23.34	22.23	33.34	50.01	250	500	1000
AMHL 10 T -40	14.25	10.33	26.62	26.67	25.40	38.10	57.15	250	500	1000
AMHL 12 T -48	16.56	12.00	33.00	30.00	28.58	42.86	64.29	250	500	1000
AMHL 14 T -60	19.03	13.80	37.81	33.34	31.75	47.63	71.44	250	500	1000
AMHL 16 T -76	22.26	16.14	44.28	36.67	34.93	52.39	78.58	250	500	1000
AMHL 18 T -91	25.13	18.22	50.05	36.67	34.93	52.39	78.58	250	500	1000
AMHL 23 T -115	32.06	23.24	63.80	40.01	38.10	57.15	85.73	250	500	1000
AMHL 28 T -150	39.07	28.33	79.39	46.67	44.45	66.68	100.01	250	500	1000
AMHL 35 T -170	48.42	35.10	96.25	53.34	50.80	76.20	114.30	250	500	1000
AMHL 41 T -195	56.99	41.32	113.58	56.67	53.98	80.96	121.44	250	500	1000
AMHL 48 T -220	66.70	48.34	132.00	63.34	60.33	90.50	135.70	250	500	1000
AMHL 57 T -260	78.30	56.73	156.00	66.68	63.50	95.30	142.90	250	500	1000
AMHL 74 T -320	102.80	74.57	203.50	80.01	76.20	114.30	171.50	250	500	1000
AMHL 92 T -360	128.20	92.97	253.00	86.68	82.55	123.80	185.70	250	500	1000
AMHL 105 T -430	144.70	104.90	286.00	93.35	88.90	133.40	200.00	250	500	1000
AMHL 117 T -540	162.10	117.50	320.40	96.68	92.08	138.10	207.20	250	500	1000

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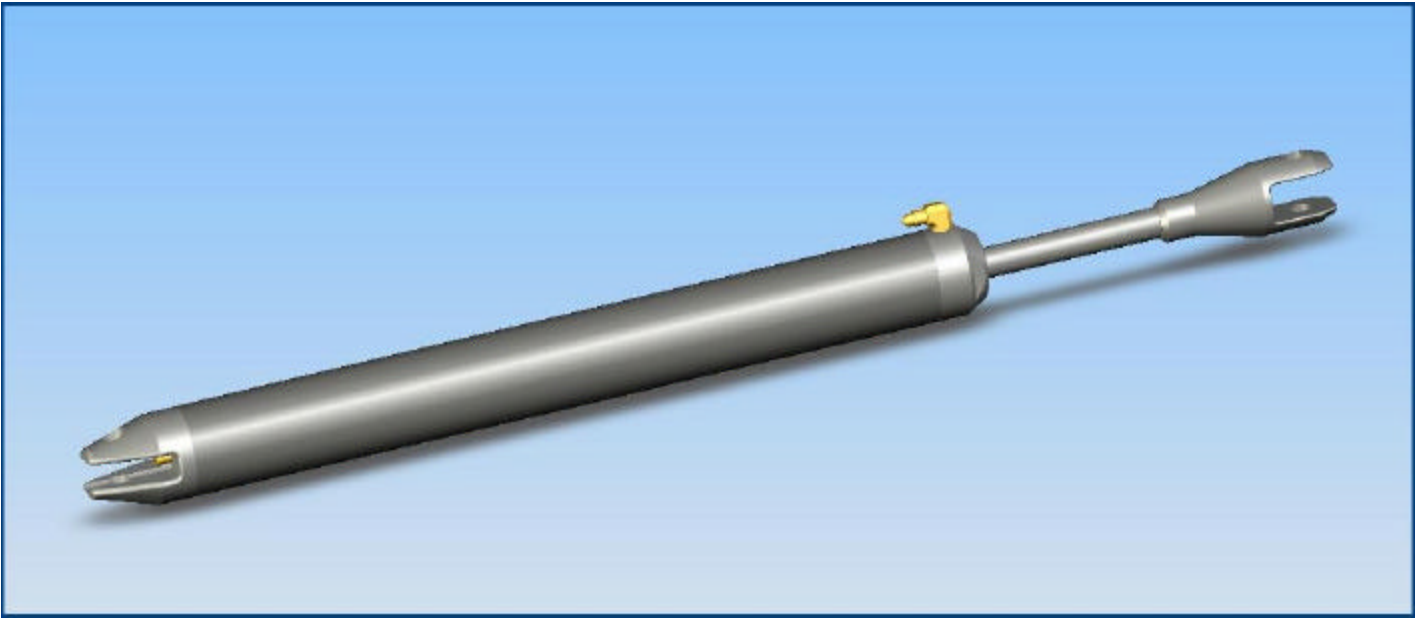
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14-Nov-08

AMH Custom Cylinders

High Quality Hydraulic Cylinders for Marine applications.



AMH cylinders have part numbers which can have various options including:

AMHC regular tension cylinders with Alloy cylinder tubes and stainless steel piston rods.

AMHS stainless steel cylinders

AMHV vang cylinders AMHVP position indicating vangs AMHVS stainless steel vangs

AMHL Mechanical Lock Cylinders AMHLS stainless lock version

AMHO Outhaul cylinder

AMH cylinder Sizes are based on their pulling force. For example a 10t pulls ten tonnes.

Pulling forces are quoted at various pressures. The standard cylinder ranges are designed to operate from 250 bar up to 350 bar or 5000psi.

Single acting gas backed cylinders will pull less than their rated load according to the amount of gas backing used. AMH can provide advice on this to assist in cylinder selection.

The 75 series are designed to operate at up to 7500psi, for example AMHC4t75 is a cylinder which pulls four tonnes at 7500psi. These cylinders use 7075 aluminium tubes with titanium piston rods.

Cylinders are supplied with a label plate and identifying serial number. Seal kits can be despatched for those, and any competent hydraulic engineer can service the cylinders without the need for special tools.

Further, all standard cylinders (and most custom) use off-the-shelf seals not proprietary ones.

Custom cylinders such as those for mainsheets, travellers, pushers, displacement cylinders and/or using non standard materials such as 7075 aluminium or Titanium piston rods need to be priced separately with additional time allowed for manufacture.

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