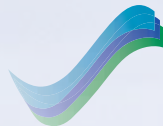


- DECK MACHINERY
- OFFSHORE POWER
- COMPRESSORS
- STEERING GEAR
- FLEET SUPPORT



HATLAPA
MARINE EQUIPMENT

ALL IN ONE



DECK MACHINERY

OFFSHORE POWER

COMPRESSORS

STEERING GEAR

FLEET SUPPORT





Experience

MADE BY **HATLAPA**

We have always been and will always be dedicated to the shipbuilding industry. All our products, such as deck machinery, offshore equipment, compressors and steering gear, derive from our activities in the marine field. For over 90 years this has been our “home market”, which demonstrates that we also know our way around shipbuilding and ship operation.

As an independent company with highly motivated staff who can make decisions quickly, we take pride in our products and foresee a bright future. This is because reliable quality, excellent service and expert product development make HATLAPA unique in the market.

Powerful Machinery



Winches with frequency inverter-controlled A.C. motor for stepless speed control.



Combined anchor-mooring winches, anchor capstans and windlasses for chains of 20-132 mm and with a mooring capacity of between 30 and 500 kN.



Mooring winches and capstans, single or double drum design, split and non-split designs. Auto-tension for all winches.

Deck machinery with:

- Low-pressure hydraulic drive
- Medium-pressure hydraulic drive
- High-pressure hydraulic drive
- A.C. electric drive (pole changing)
- Variable frequency drive (VFD)



Powerful Machinery

Deck machinery has to be extremely reliable. With this in mind, HATLAPA's equipment is designed for long life and high reliability. Its superb quality is proven on modern test benches.



Towing winches: single, double and triple drum in waterfall design, and tailor-made to customer requirements.



Low-pressure hydraulic motors: for mooring, towing and offshore winches, and other purposes.



Capstans: with a capacity up to 150 kN and warping head diameter up to 560 mm.

Research winches: for all special requirements and purposes, they are also available with HATLAPA's patent protected spooling system for universal reeling of wires, cables, and hoses with different diameters.



Roller chain stoppers, roller blocks, hydraulic chain stoppers.



Experience

Offshore power:

- Low-pressure hydraulic drive
- Medium-pressure hydraulic drive
- High-pressure hydraulic drive
- A.C. electric drive (pole changing)
- Variable frequency drive (VFD)

HPH winch



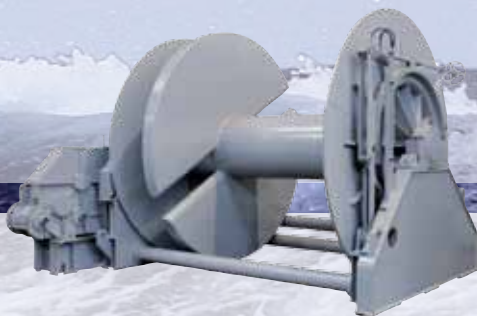
HPH winch



SECONDARY WINCH 1700 LPH



SECONDARY WINCH 1300 E

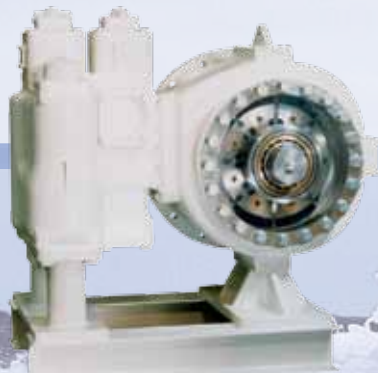


Strongest Power

HATLAPA is one of two low-pressure hydraulic suppliers in the world. This drive system has been proven successful for decades on merchant fleet and offshore vessels.

On the AHT winches we use up to 6 low-pressure hydraulic motors, each offering up to 440 kW powered by modern pump technology all "Made in Germany".

HLP440



		HLP110	HLP180	HLP440
Displacement	l/rev	16	21	60
Max. flow rate	l/min	1700	2670	5400
Max. working pressure	bar	50	50	64
Max. rpm	1/min	140	140	170
Max. torque	Nm	11400	15000	49050

Our AHT winches are available with 2 or 3 drums, in waterfall or reverse-waterfall design and with all kinds of hydraulic or electric drives. Line pulls from 40 tons to 600 tons are available with equivalent rope and chain diameters.

PAL-PULL



Anchor handling on AHT vessel



Platform under tow



AHT Winches

HATLAPA stepless AHT winches with electric frequency-controlled drives:

- 30 % less installed power
- 30 % less power consumption

Compared to hydraulic drives:

- Less fuel consumption
- Fewer emissions
- Smaller diesel generators on board and lower costs at shipbuilding

ECO - PULL 1000

ECO - PULL 2000

ECO - PULL 3000

ECO - PULL 4000

ECO - PULL 5000

ECO - PULL 5000 ex





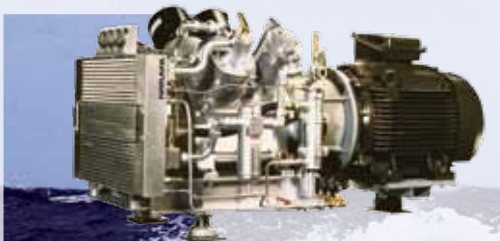
At the heart of every ship

Water- and air-cooled compressors for starting air, service air and control air.

When it comes to the providing a vital air supply, HATLAPA reduces the risk of failure. Every compressor is put through its paces on a modern test bench, and all well known classification societies are present on a regular basis to carry out testing procedures.

Compressors L-Series
Air-cooled 2 and 3 stage compressors of compact design with 2 to 4 cylinders and a capacities up to 411 m³/h and final pressure up to 40 bar.

Type L270, L350



Type L20, L35



Compressors L-Series

Type	Cylinders	Stages	Speed rpm	F.A.D m ³ /h	Power kW	Weight incl. e-motor approx. kg	Dimensions - mm L W H
L9	2	2	1150	6.6	1.7	120	820 540 540
			1450	8.7	2.3	120	820 540 540
			1750	10.5	2.8	120	820 540 540
L14	2	2	1150	10.5	2.7	140	840 540 540
			1450	14	3.5	140	840 540 540
			1750	17	4.2	140	840 540 540
L20	2	2	1150	16.5	3.9	180	950 540 570
			1450	20.5	5.3	180	950 540 570
			1750	25	6.3	180	950 540 570
L35	2	2	1150	24	5.0	200	975 590 530
			1450	31	6.6	200	975 590 530
			1750	38	8.2	200	975 590 530
L50	3	2	1150	37.5	8	350	1210 800 850
			1450	48.5	10.3	350	1210 800 850
			1750	59	12.5	350	1210 800 850
L80II	4	2	1150	57.5	12	330	1270 655 800
			1450	72.5	15.5	380	1300 655 800
			1750	85.5	19	380	1300 655 800
L90	3	3	1150	71	13.5	650	1500 1150 950
			1450	93	18.5	650	1500 1150 950
			1750	116	24	650	1500 1150 950
L140	3	3	1150	100	19.5	700	1500 1150 950
			1450	127	26.8	700	1500 1150 950
			1750	154	33.5	700	1500 1150 950
L160	3	3	1150	118	23	750	1640 1150 1050
			1450	151	30	750	1640 1150 1050
			1750	185	40	850	1640 1150 1050
L190	3	3	1150	135	25	750	1640 1150 1050
			1450	175	34.5	850	1640 1150 1050
			1750	215	46.5	900	1640 1150 1050
L220	4	3	1150	169	31	1000	1960 1050 1200
			1450	214	41	1000	1960 1050 1200
			1750	259	52.5	1000	1960 1050 1200
L270	4	3	1150	205	37	1000	1960 1050 1200
			1450	256	49.5	1000	1960 1050 1200
			1750	301	63.5	1000	1960 1050 1200
L350	4	3	1150	271	49.5	1300	1960 1050 1200
			1450	338	63	1300	1960 1050 1200
			1750	411	84	1300	1960 1050 1200

Compressors

Compressors V-Series

Water-cooled 2 stage compressors of vee construction with 2 cylinders and capacities up to 375 m³/h and final pressure up to 30 bar.

Type V150



Compressors V-Series

Type	Cylinders	Stages	Speed	F.A.D	Power	Weight incl. e-motor approx. kg	Dimensions - mm		
			rpm	m³/h	kW		L	W	H
V105	2	2	1000	55	13	620	1315	840	740
			1200	70	15.5		1315	840	740
			1500	85	20		1315	840	740
			1800	105	22		1315	840	740
V150	2	2	1000	80	18	650	1335	840	820
			1200	100	20		1335	840	820
			1500	120	27		1335	840	820
			1800	150	30		1335	840	820
V200	2	2	950	110	19.2	1100	1525	1000	860
			1150	132	23.6		1525	1000	860
			1450	166	31		1525	1000	860
			1750	200	38.7		1525	1000	860
V250	2	2	950	137	25	1100	1525	1000	860
			1150	165	31		1525	1000	860
			1450	206	41		1525	1000	860
			1750	245	50		1525	1000	860
V375	2	2	1000	210	38	1460	1755	1200	1060
			1200	250	49		1755	1200	1060
			1500	310	58		1755	1200	1060
			1800	375	73		1755	1200	1060

Compressors

Module L140



Module V150 / L160



HATLAPA Screw Compressors

Air and water cooled compressors with capacities up to 670 m³/h at pressures from 7 to 13 bar.

Screw compressor HSC 18.5



Compressors HSC-Series									
Model	Motor capacity kW	Pressure bar	F.A.D. m ³ /h	Weight kg	Air connection G	Dimensions - mm			
						L	W	H	
HSC 4	4	7.5 10	31.8 25.2	264	1/2"	695	650	1115	
HSC 5.5	5.5	7.5 10	46.8 39.6	269	1/2"	695	650	1115	
HSC 7.5	7.5	7.5 10	64.2 53.4	270	1/2"	695	650	1115	
HSC 11	11	7.5 10	105.0 88.8	334	1"	690	805	1195	
HSC 15	15	10	124.8	346	1"	690	805	1195	
HSC 18.5	18.5	7.5 10	183.0 155.4	433	1"	740	900	1385	
HSC 22	22	7.5 10	207.0 181.8	466	1"	740	900	1385	
HSC 30	30	7.5 10	279.0 247.2	690	1 1/4"	815	1110	1635	
HSC 37	37	7.5 10	336.0 312.0	710	1 1/4"	815	1110	1635	
HSC 45	45	7.5 10	450.6 391.2	890	1 1/2"	890	1400	1715	
HSC 55	55	7.5 10	529.2 465.6	955	1 1/2"	890	1400	1715	
HSC 75	75	7.5 10	666.0 614.4	1360	1 1/2"	1000	1750	1855	

Steering Gear

HATLAPA steering gear complies with the latest rules and regulations of SOLAS 1974, regulation 29 and 30, and all leading classification societies and authorities.

Rotary vane type steering gear TRITON

Compact rotary vane unit, for torques up to 1,100 kNm, rudder carrier bearing is fully integrated, for rudder angles up to $2 \times 45^\circ$.



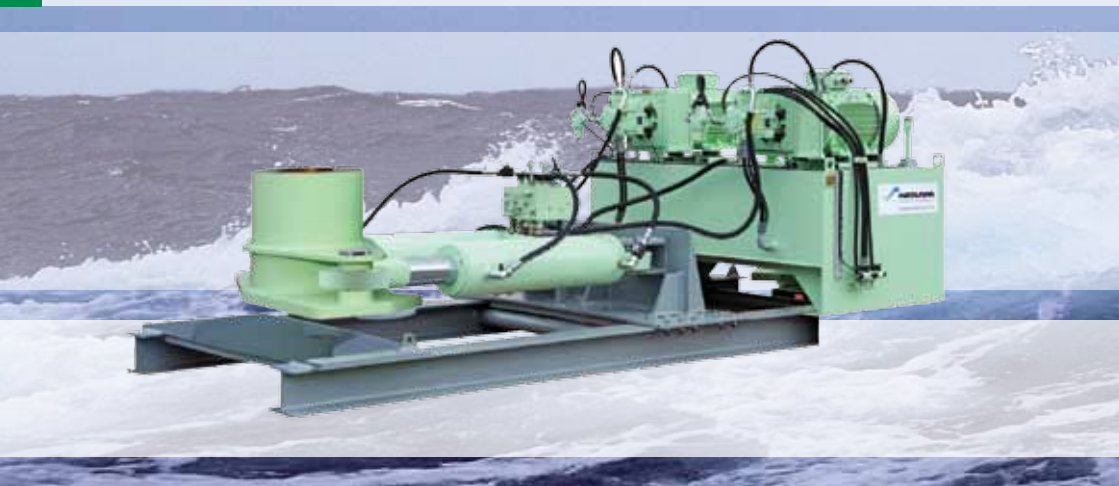
Rotary vane type steering gear TRITON 45°

Type		130	200	300	450	600	800	1000	1250
Working torque	kNm	130	200	300	450	545	725	915	1100
Rudder stock diameter	mm	150 / 160 / 170 / 170 / 180 / 190 / 200 / 210 / 215	190 / 200 / 210 / 220 / 230 / 240 / 250	220 / 230 / 240 / 250 / 260 / 270 / 280	250 / 260 / 270 / 280 / 290 / 300 / 310 / 320	280 / 290 / 300 / 310 / 320 / 330 / 340 / 354	310 / 320 / 330 / 340 / 350 / 360 / 370 / 380 / 390	340 / 350 / 360 / 370 / 380 / 390 / 400 / 410 / 420	370 / 380 / 390 / 400 / 410 / 420 / 430 / 440 / 446
Weight	kg	682	1003	1480	2198	2832	3918	4726	5874
Dimensions (DxH)	mm	640 x 660	740 x 740	830 x 820	940 x 930	1030 x 1000	1130 x 1110	1220 x 1170	1290 x 1260
El. motor output *	kW	2 x 11	2 x 18	2 x 24	2 x 32	2 x 40	2 x 50	2 x 76	2 x 95

* acc. to IEC 92-204: duty S6-25%.

Steering Gear

Piston type steering gear NEPTUNE
Compact dimensions with low height for rudder angles up to $\pm 60^\circ$, working torque up to 950 kNm (at 35°), integrated mechanical stoppers, simple assembly and maintenance.



Piston type steering gear NEPTUNE

Type		25	30	40	50	80	100	130	160	250	300	550	730	850	950
Working torque *	kNm	24	29	39	47	80	98	130	159	248	302	550	730	850	950
Length* (L)	mm	1700	1700	2100	2100	2200	2200	2400	2400	2800	2500	2909	3295	3348	3348
Width (W)	mm	1000	1000	1000	1000	1250	1250	1350	1300	1600	1500	1710	1900	1900	1900
Height (H)	mm	600	600	750	750	800	800	850	850	900	900	1254	1395	1415	1415
El. motor output **	kW	2 x 2.1	2 x 2.6	2 x 3.3	2 x 4.5	2 x 6.2	2 x 7.7	2 x 11.5	2 x 12.2	2 x 23	2 x 23.5	2 x 32.2	2 x 42	2 x 49.5	2 x 53.9
Rudder angle		45°	35°	45°	35°	45°	35°	45°	35°	45°	35°	35°	35°	35°	35°

* at 35° working rudder angle. Working pressures $p_w=100$ bar; design pressure $p_0=125$ bar

** at 50/60 Hz

Steering Gear



Ram type gear POSEIDON

2-ram type with 4 cylinders and incorporated rudder carrier, for rudder stock diameters of 250-500 mm and torques of 161-1,280 kNm, up to 2x45° rudder angle, with hydraulic pumps with constant or variable delivery. Larger POSEIDON ST models have separate rudder carriers.

Ram type steering gear

Type

Working torque* at 35°	
Max. rudder stock diameter (D)	
Weight (approximate)	
Length (L)	
Width (W)	
Height (H1)	
Depth (H2) ***	
El. motor output** at 50/60 cycles	
Oil charge (approximate)	
Admissible axial/radial load on rudder carrier (L)	

* at working pressure

** acc. to IEC 92-204: duty

*** lower edge rudder carrier

Carrier POSEIDON										Ram type steering gear POSEIDON ST						
		150	250	400	500	700	900	1300	2000	2500	3000	3500	4000	6000	7000	10000
kNm		161	252	413	525	730	900	1280	2130	2558	3111	3548	4304	6010	6988	8893
mm		250	300	340	380	420	460	500	550	600	650	700	750	850	900	1000
kg	35° 45°	2200 2300	3450 3750	44800 5280	5050 7000	7000 9000	9150 11200	12700 -	17000	19000	22000	30000	30500	41000	45000	50000
mm	35° 45°	2175 2430	2560 2920	2800 3250	2900 3620	3260 4080	3470 4260	3980 -	4700	5100	5320	5430	6060	6550	6950	7330
mm	35° 45°	1020 1050	1110 1110	1300 1350	1400 1500	1500 1650	1580 1715	2280 -	2750	2800	2915	3355	3090	3500	3600	3600
mm	35° 45°	820 780	810 1010	1050 1050	1000 1150	1100 1200	1165 1280	1500 -	1730	1750	2100	2100	2100	2250	2000	1800
mm	35° 45°	225 255	300 300	310 310	350 345	400 360	430 360	385 -	-	-	-	-	-	-	-	-
kW		2 x 9.5	2 x 14	2 x 23	2 x 29	2 x 37	2 x 46	2 x 61	2 x 96	2 x 117	2 x 145	2 x 160	2 x 190	2 x 265	4 x 155	4 x 196
l	35° 45°	110 160	200 240	300 350	340 380	370 480	460 620	250 -	400	480	500	650	700	1000	1100	1250
kN	35° 45°	435/690 435/690	600/990 600/990	750/1150 750/1150	1700/570 1400/1370	1800/620 1780/1540	2015/720 2180/1750	2500/620 -	Separate rudder carrier							

S6-25%. Torques at 35° rudder angle. Reduced torques at 20° to approx. 82%, increased torques at 45° to approx. 134% of the above values. to lower edge cylinder feet

Fleet Support

HATLAPA promotes the safe operation and correct care for all its products and also other manufacturers' equipment. Speak to us today about your maintenance plan.



Pressure measurement

Bearing journal, cylinder head seal

Type L20, L35

COMPREHENSIVE: the compressor management service package

- Just one flat fee per month, no hidden costs.
- Spares ex stock when you need them, without hassle.
- Your vessel's compressors run efficiently and are always on budget.
- Kept in stock for the needs of your specific fleet, to be ready for service at any given time.
- Dedicated service engineers when required.
- Free delivery to any destination, no transportation costs.



Type V150



Moving parts

Mooring Service

HATLAPA offers an annual all-around maintenance plan for winches. The maintenance plan can be tailored to meet your specific needs in addition to a universal plan which is available for all winches.

Mooring Service

- Gearbox inspection
- Checking parts for wear and tear
- Checking and adjusting anchor brakes
- Function testing
- Crew training

In addition, winches will receive the additional checks relevant for their drive.

Electrical winches:

- Inspection of control columns and contactor cabinet
- Checking of autotensity and re-adjustment where necessary

Hydraulic winches:

- Inspection of pump units and safety valve settings

After each inspection, a detailed report will be compiled with details of the inspection, results and further recommendations.

HATLAPA Fleet Support, as easy as 1, 2, 3...

1. Around the world
2. Around the clock
3. Always at your service



Worn brake lining



Painted grease nipple



Non-lubricated bushing

Combined anchor mooring winch

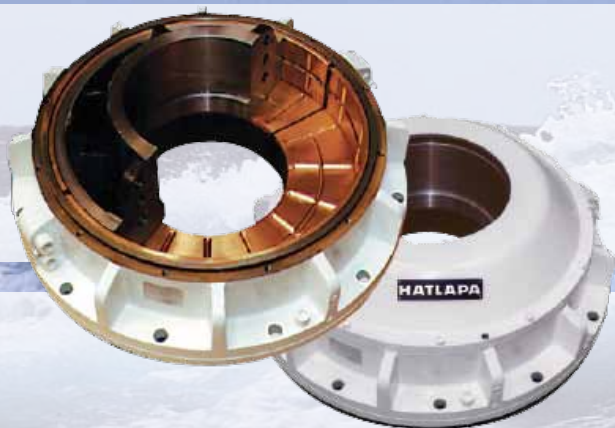


Steering Gear Service

Spare parts and service for:

- HATLAPA
- KGW
- Becker
- other makers

- Various pump types from stock
- Hydraulic parts and sealings on request
- Maintenance
- Repairs
- Conversions
(including special designs)



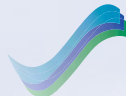
Crane Service

Spare parts and service for:

- HATLAPA
- KGW
- Luezhou
- Triplex
- other makers



DECK MACHINERY
OFFSHORE POWER
COMPRESSORS
STEERING GEAR
FLEET SUPPORT



HATLAPA
MARINE EQUIPMENT

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