

## Cylinders for Offshore Applications (without Fire Fighting Cylinders for Tug Boats)

Reference list since 1998



Customer	Country	Application	Quantity	Dimensions (mm) piston/rod/stroke	Rod coating / Material	Delivery date
Hydralift ASA	Norway	Riser tensioner offshore cylinders	24	∅ 560 /230/ 15.240	Ceraplate	1998 - 2000
Hydralift ASA	Norway	Piston rod for riser tensioner system	3	∅ /230/ 15.240	Ultraplate	2002
Vosper Thronycroft	UK	Piston rod for keel lift cylinder of a sailing yacht	1	∅ 320 / 190 / 6000	Ultraplate	2002
Seacore Ltd.	UK	Cylinders for walking platform Seawalker	29	∅ 320 / 160 / 3000	Ceraplate	2002
Jafo GmbH	Germany	Cylinder for oil fighting boat	2	∅ 220 / 160 / 1.450	Ultraplate	2004
Powertech Ltd.	China	Cylinder for piling barge operation	1	∅ 900 / 540 / 11.470	Ceraplate	2004
Menck GmbH	Germany	Piston accumulator for sub-sea unit	7	∅ 240 outside diam. / 1.870	Ultraplate	2004

Powertech Ltd.	China	Cylinder for piling barge operation	1	Ø1.000 / 650 / 12.870	Ceraplate	2004
Mohnsen Hydraulik	Germany	Drain gate cylinder for old ship lock in Brunsbüttel	11	Ø 140 / 100 / 3.600	Ultraplate	2004
I.P. Huse AS	Norway	Offshore winch cylinder rods	4	Ø 240 / 4.216	Ultraplate	2005
I.P. Huse AS	Norway	Offshore winch cylinder rods	4	Ø 240 / 4.216	Ultraplate	2005
I.P. Huse AS	Norway	Offshore winch cylinder rods	2	Ø 240 / 4.316	Ultraplate	2005
Powertech Ltd.	China	Cylinder for piling barge operation	1	Ø800 / 500 / 9.500	Ceraplate	2005
I.P. Huse AS	Norway	Offshore winch cylinder rods	4	Ø 240 / 4.216	Ultraplate	2006
I.P. Huse AS	Norway	Offshore winch cylinder rods	4	Ø 240 / 4.216	Ultraplate	2006
National Oilwell Varco	Norway	Offshore crane cylinders	8 8	Ø 450 / 340 / 5080 Ø 380 / 260 / 3800	Ultraplate & hard chrome	2006
National Oilwell Varco	Norway	Offshore crane cylinders	4 4	Ø 450 / 320 / 5080 Ø 380 / 250 / 3800	Ultraplate & hard chrome	2006
National Oilwell Varco	Norway	Offshore crane cylinders	6 6	Ø 420 / 320 / 5080 Ø 380 / 250 / 3845	Ultraplate & hard chrome	2006
Powertech Ltd.	China	Cylinder for piling barge operation	1	Ø1.000 / 650 / 12.870	Ceraplate	2006
Powertech Ltd.	China	Cylinder for piling barge operation	1	Ø 900 / 540 / 11.470	Ceraplate	2007
National Oilwell Varco	Norway	Offshore crane cylinders	16 16	Ø 420 / 320 / 5080 Ø 380 / 250 / 3845	Ultraplate & hard chrome	2007

National Oilwell Varco	Norway	Offshore crane cylinders	8	∅ 450 / 340 / 5080	Ultraplate & hard chrome	2007
			8	∅ 380 / 260 / 3800		
National Oilwell Varco	Norway	Offshore crane cylinders	18	∅ 470 / 360 / 5080 ∅	Ultraplate & hard chrome	2007
			18	380 / 250 / 3845		
Powertech Ltd.	China	Cylinder for piling barge operation	1	∅ 900 / 540 / 11.470	Ceraplate	2007
I.P. Huse AS	Norway	Offshore winch cylinder rods	4	∅ 240 / 4.316	Ultraplate	2007
National Oilwell Varco	Norway	Offshore crane cylinders	8	∅ 420 / 320 / 5080	Ultraplate & hard chrome	2008
			8	∅ 380 / 250 / 3845		
National Oilwell Varco	Norway	Offshore crane cylinders	20	∅ 470 / 360 / 5080	Ultraplate & hard chrome	2008
			20	∅ 380 / 250 / 3845		
National Oilwell Varco	Norway	Offshore crane cylinders	24	∅ 450 / 340 / 5080	Ultraplate & hard chrome	2008
			24	∅ 380 / 260 / 3800		
Powertech Ltd.	China	Cylinder for piling barge operation	1	∅1.000 / 650 / 12.870	Ceraplate	2008
I.P. Huse AS	Norway	Offshore winch cylinder rods	4	∅ 240 / 4.316	Ultraplate	2008
National Oilwell Varco	Norway	Riser tensioner offshore cylinders	12	∅ 560 / 230 / 15.240	Ultraplate	2008
De Beers	South Africa	Offshore heave compensating cylinders	2	∅ 280 / 125 / 9.500	Ultraplate	2009
National Oilwell Varco	Norway	Offshore crane cylinders	7	∅ 420 / 320 / 5080	Ultraplate & hard chrome	2009
			7	∅ 380 / 250 / 3845		
National Oilwell Varco	Norway	Offshore crane cylinders	40	∅ 450 / 340 / 5080	Ultraplate & hard chrome	2009
			40	∅ 380 / 260 / 3800		

National Oilwell Varco	Norway	Offshore crane cylinders	2	∅ 470 / 360 / 5080	Ultraplate & hard chrome	2009
			2	∅ 380 / 250 / 3845		
JAMSTEC , Yokohama Institute for Earth Sciences	Japan	Riser tensioner offshore cylinder rods	3	∅ 230 / 15.500	Ultraplate	2009
National Oilwell Varco	Norway	Riser tensioner offshore cylinders rods	18	∅ 560 / 230 / 15.240	Ultraplate	2009
Powertech Ltd.	China	Cylinder for piling barge operation	2	∅1.000 / 650 / 12.870	Ceraplate	2009
JAMSTEC , Yokohama Institute for Earth Sciences	Japan	Riser tensioner offshore cylinder rods	3	∅ 230 / 15.500	Ultraplate	2010
National Oilwell Varco	Norway	Offshore crane cylinders	8	∅ 450 / 340 / 5080	Ultraplate & hard chrome	2010
			8	∅ 380 / 260 / 3800		
National Oilwell Varco	Norway	Offshore crane cylinders	1	∅ 470 / 360 / 5080	Ultraplate & hard chrome	2010
			2	∅ 380 / 250 / 3845		
National Oilwell Varco	Norway	Offshore crane cylinders	1	∅ 420 / 320 / 5080	Ultraplate & hard chrome	2010
National Oilwell Varco	Norway	Offshore crane cylinders	23	∅ 450 / 340 / 5080	Ultraplate & hard chrome	2010
			22	∅ 380 / 260 / 3800		
National Oilwell Varco	Norway	Offshore crane cylinders	4	∅ 470 / 360 / 5080	Ultraplate & hard chrome	2010
			4	∅ 380 / 250 / 3845		
Whittaker Engineering	UK	Jacking cylinder rod	1	∅ ... / 203 / 1760	Ultraplate	2010
National Oilwell Varco	Norway	Offshore crane cylinders	24	∅ 450 / 340 / 5080	Ultraplate & hard chrome	2011
			24	∅ 380 / 260 / 3800		

Powertech Ltd.	China	Cylinder for piling barge operation	1	∅ 900 / 540 / 11.470	Ceraplate	2011
Aquamarine	UK	Cylinders for wave power plant	3	∅ 590 / 350 / 4000	Ultraplate	2011
National Oilwell Varco	Norway	Offshore crane cylinders	4	∅ 350 / 280 / 4435	Ultraplate & hard chrome	2011
			4	∅ 280 / 230 / 3450		
National Oilwell Varco	Norway	Offshore crane cylinders	2	∅ 550 / 410 / 5670	Ultraplate & hard chrome	2011
			2	∅ 460 / 360 / 5709		
National Oilwell Varco	Norway	Offshore crane cylinders	4	∅ 550 / 410 / 5565	Ultraplate & hard chrome	2011
			4	∅ 520 / 340 / 4315		
National Oilwell Varco	Norway	250 ton Double Piston Accumulator cylinder	4	∅ 660 / 260 / 2651	Hard chrome	2011
Jangsu Chenguang Sunde	China	Machining of piston rods for offshore application	8	∅ 110 x 7342	Ceraplate	2011
			10	∅ 150 x 7179		
			2	∅ 180 x 7300		
National Oilwell Varco	Norway	Offshore crane cylinders	3	∅ 520 / 410 / 5780	Ultraplate & hard chrome	2011
			2	∅ 520 / 380 / 4400		
National Oilwell Varco	Norway	100 ton Double Piston Accumulator cylinder	3	∅ 540 / 290 / 2056	Hard chrome	2011
National Oilwell Varco	Norway	Offshore crane cylinders	4	∅ 380 / 280 / 3772	Ultraplate & hard chrome	2011
National Oilwell Varco	Norway	Offshore crane cylinders	2	∅ 420 / 320 / 5080	Ultraplate & hard chrome	2011
			2	∅ 380 / 250 / 3845		

National Oilwell Varco	Norway	Crown Mounted Compensation System CMC-E:  Main cylinder Accumulator Equalizing cylinder			Ni / Cr	2012
			6	∅ 480 / 320 / 8890		
			3	∅ 610 / 11292		
			6	∅ 280 / 110 / 5100		
National Oilwell Varco	Norway	100 ton Double Piston Accumulator cylinder	12	∅ 540 / 290 / 2056	Hard chrome	2012
National Oilwell Varco	Norway	Double Piston Accumulator cylinder	1	∅ 660 / 260 / 2100	Hard chrome	2012
National Oilwell Varco	Norway	Offshore crane cylinders	2	∅ 450 / 340 / 5080	Ultraplate & hard chrome	2012
			2	∅ 380 / 260 / 3800		
National Oilwell Varco	Norway	Offshore crane cylinders	22	∅ 550 / 410 / 5670	Ultraplate & hard chrome	2012
			22	∅ 460 / 360 / 5709		
National Oilwell Varco	Norway	Offshore crane cylinders	24	∅ 470 / 360 / 5080	Ultraplate & hard chrome	2012
			24	∅ 380 / 280 / 3845		
National Oilwell Varco	Norway	Offshore crane cylinders	2	∅ 470 / 360 / 5080	Ultraplate & hard chrome	2012
			4	∅ 470 / 340 / 5080		
			6	∅ 380 / 260 / 3845		
National Oilwell Varco	Norway	Offshore crane cylinders	2	∅ 470 / 360 / 5080	Ultraplate & hard chrome	2013
			4	∅ 470 / 340 / 5080		
			6	∅ 380 / 260 / 3845		
National Oilwell Varco	Norway	Offshore crane cylinders	10	∅ 550 / 410 / 5670	Ultraplate & hard chrome	2013
			10	∅ 460 / 360 / 5709		

National Oilwell Varco	Norway	Double Piston Accumulator cylinder	15	∅ 540 / 290 / 2056	Hard chrome	2013
National Oilwell Varco	Norway	Double Piston Accumulator cylinder	7	∅ 660 / 260 / 2651	Hard chrome	2013
National Oilwell Varco	Norway	Offshore crane cylinders	14 14	∅ 470 / 360 / 5080 ∅ 380 / 260 / 3845	Ultraplate & hard chrome	2013
National Oilwell Varco	Norway	Offshore crane cylinders	20 20	∅ 550 / 410 / 5670 ∅ 460 / 360 / 5709	Ultraplate & hard chrome	2013
National Oilwell Varco	Norway	Offshore crane cylinders	10 10	∅ 550 / 410 / 5565 ∅ 520 / 340 / 4315	Ultraplate & hard chrome	2013
National Oilwell Varco	Norway	Offshore crane cylinders	6 4	∅ 520 / 410 / 5780 ∅ 520 / 380 / 4400	Ultraplate & hard chrome	2013
National Oilwell Varco	Norway	Offshore crane cylinders	2	∅ 460 / 360 / 5709	Ultraplate & hard chrome	2013
National Oilwell Varco	Norway	Offshore crane cylinders	2 2	∅ 350 / 280 / 4435 ∅ 280 / 230 / 3450	Ultraplate & hard chrome	2013
National Oilwell Varco	Norway	Crown Mounted Compensation System CMC-E: Main cylinder Accumulator Equalizing cylinder	2 1 2	∅ 480 / 320 / 8890 ∅ 610 / 11292 ∅ 280 / 100 / 5100	Ni Cr	2013
National Oilwell Varco	Norway	Double Piston Accumulator cylinder	1	∅ 660 / 260 / 1802	Hard chrome	2013
National Oilwell Varco	Norway	Offshore crane cylinders	6 6	∅ 470 / 360 / 5080 ∅ 380 / 280 / 3845	Ultraplate & hard chrome	2013

National Oilwell Varco	Norway	BOP (Blow out preventer) Lifting Cylinder	1	Stage01 $\varnothing$ 710/ 650 Stage02 $\varnothing$ 540/480 Total stroke: 9250	Ultraplate	2014
National Oilwell Varco	Norway	Double Piston Accumulator cylinder	1	$\varnothing$ 660 / 260 / 2651	Hard chrome	2014
National Oilwell Varco	Norway	Offshore crane cylinders	6 6	$\varnothing$ 550 / 410 / 5565 $\varnothing$ 520 / 340 / 4315	Ultraplate & hard chrome	2014
National Oilwell Varco	Norway	Double Piston Accumulator cylinder	7	$\varnothing$ 540 / 290 / 2056	Hard chrome	2014
National Oilwell Varco	Norway	Offshore crane cylinders	8 6	$\varnothing$ 470 / 360 / 5080 $\varnothing$ 380 / 260 / 3845	Ultraplate & hard chrome	2014
National Oilwell Varco	Norway	Offshore crane cylinders	13 13	$\varnothing$ 550 / 410 / 5670 $\varnothing$ 460 / 360 / 5709	Ultraplate & hard chrome	2014
National Oilwell Varco	Norway	Riser tensioner offshore cylinders rods	2	$\varnothing$ 560 / 230 / 15.850	Ultraplate	2014
National Oilwell Varco	Norway	Offshore crane cylinders	2	$\varnothing$ 380 / 250 / 3845	Ultraplate & hard chrome	2014
National Oilwell Varco	Norway	Crown Mounted Compensation System CMC-E: Main cylinder Accumulator Equalizing cylinder	 2 1 2	 $\varnothing$ 480 / 425 / 8890 $\varnothing$ 610 / 11292 $\varnothing$ 280 / 100 / 5100	Ni Cr	2014



National Oilwell Varco	Norway	Offshore crane cylinders	4	∅ 450 / 340 / 5080	Ultraplate & hard chrome	2014
			3	∅ 380 / 260 / 3800		
National Oilwell Varco	Norway	Offshore crane cylinders	6	∅ 520 / 410 / 5780	Ultraplate & hard chrome	2014
			4	∅ 540 / 380 / 4400		
National Oilwell Varco	Norway	Offshore crane cylinders	8	∅ 420 / 340 / 5080	Ultraplate & hard chrome	2014
			8	∅ 380 / 260 / 3845		
National Oilwell Varco	Norway	Double Piston Accumulator cylinder	2	∅ 540 / 290 / 2056	Hard chrome	2015
National Oilwell Varco	Norway	Offshore crane cylinders	4	∅ 550 / 410 / 5565	Ultraplate & hard chrome	2015
			4	∅ 520 / 340 / 4315		
National Oilwell Varco	Norway	Double Piston Accumulator cylinder	1	∅ 660 / 260 / 1802	Hard chrome	2015
National Oilwell Varco	Norway	Offshore crane cylinders	5	∅ 450 / 340 / 5080	Ultraplate & hard chrome	2015
			6	∅ 380 / 260 / 3800		
National Oilwell Varco	Norway	Offshore crane cylinders	3	∅ 520 / 410 / 5861	Ultraplate & hard chrome	2015
National Oilwell Varco	Norway	Offshore crane cylinders	1	∅ 470 / 360 / 5080	Ultraplate & hard chrome	2015
			1	∅ 380 / 280 / 3845		
Confident	Japan	Offshore excavator cylinder	1	∅ 970 / 660 / 24780 (length)	Ceraplate	2015
Hunger UK / EnerMech	UK	Offshore crane cylinder	1	∅ 100 / 90 / 1689	Hard chrome	2015
National Oilwell Varco	Norway	Offshore crane cylinders	5	∅ 550 / 410 / 5670	Ultraplate & hard chrome	2015
			4	∅ 460 / 360 / 5709		

National Oilwell Varco	Norway	BOP (Blow out preventer) Lifting Cylinder	1	Stage01 Ø 710/ 650 Stage02 Ø 540/480 Total stroke: 9250	Ultraplate	2015
National Oilwell Varco	Norway	Offshore crane cylinders	3 2	Ø 640 / 460 / 6610 Ø 550 / 430 / 6340	Ultraplate & hard chrome	2015
National Oilwell Varco	Norway	Double Piston Accumulator cylinder	1	Ø 540 / 290 / 2056	Hard chrome	2016
National Oilwell Varco	Norway	Offshore crane cylinder	1	Ø 450 / 340 / 5080	Ultraplate & hard chrome	2017
MHWirth	Germany	Offshore heave compensating cylinders	2	Ø 280 / 125 / 9.500	Ultraplate	2017
		Hydraulic damping cylinders	2	Ø 160 / 140 / 300	Ni/Cr	
		Piston accumulator	1	Ø 580 / 4385		
National Oilwell Varco	Norway	Double Piston Accumulator cylinder	1	Ø 540 / 290 / 2056	Hard chrome	2018
Sapura Jade GmbH	Austria	Offshore crane cylinders	1	Ø 520 / 340 / 4315	Ultraplate & hard chrome	2018
Sapura Diamante GmbH	Austria	Offshore crane cylinders	1	Ø 550 / 410 / 5565	Ultraplate & hard chrome	2018
National Oilwell Varco	Norway	Offshore crane cylinders	1 1	Ø 470 / 360 / 5080 Ø 380 / 250 / 3845	Ultraplate & hard chrome	2018

Etesco	Brasil	Offshore crane cylinders	1	∅ 450 / 340 / 5080	Ultraplate & hard chrome	2019
			1	∅ 380 / 260 / 3800		

Offshore special cylinders in total since 1998: 1127

Lohr am Main, Jul 2019