

# Häggglunds Drive Systems

Reliable high quality products for improved performance.



# The drive to deliver

The Hägglunds direct drive systems from Bosch Rexroth stand for quality and reliability beyond the ordinary. But more than that, our solutions are a response to our customers' challenges, and their purpose is to deliver performance. Our people will always work hard to ensure our drive systems are worthy of your trust. We put a great deal of effort into building relationships and sharing knowledge in order to deliver a service beyond the ordinary. Your needs are always the starting point for designing a Hägglunds drive system. We listen carefully in order to gain a deep understanding. Then we work quickly and responsively to achieve the right solution. It's all about performance, flexibility and reliability – delivered with simplicity.

# Drive systems



**From the bitter cold of Siberia to the blistering heat of Africa, Hägglunds direct drive systems withstand the challenges of any environment and any type of industry. The drive units can be supplied in a wide range of power levels and configurations, and are function-tested before delivery.**

A Hägglunds direct drive system consists of a motor, a drive unit, and a control and monitoring system. The motor provides dependable power for any application and under the most demanding conditions. The driving force behind it is the drive unit, featuring fast-acting hydraulic pumps that bring total reliability to your drive system. The brains behind

the brawn is the control and monitoring system. Flexible and easy to install, it puts essential functionality and information at your fingertips. We also offer a broad range of valves that increase flexibility and add functionality to your drive system, as well as the accessories you need to complete the package. We give you high power under full control.

# From challenge to performance



We realize that customers don't actually want to buy a product: they simply want the best solution to a challenge. So we start by listening carefully, then draw on our long experience to understand the nature of that challenge. More often than not some inventive thinking is required.

## **A different kind of strength**

Demanding industries require tough and reliable products. But is that enough? We don't think so. Of course products are important, but they are not the whole story. We offer a different kind of strength, which comes from our focus on people. That's what makes us drives different.

## **The experience**

Your business is our business, and we live in your reality every day. Our focus is on trust, peace of mind and simplicity. You'll feel it in the way we listen, understand and support you every step of the way. In the quality of our systems. In our expertise and commitment to delivering a superior solution. And in our promise to secure your performance.

Every product is part of something bigger - a solution created by people, for people. And the purpose of that solution is to deliver performance. That's what we stand for. Achieving performance requires the right product in the right context, with the right support. It takes understanding, commitment and expertise.

## **The journey:**

Challenge

Understanding

Expertise

Systems



### **The power of certainty**

We can provide you with everything that is necessary to optimize system performance and give you full peace of mind through a wide range of service options such as original Hägglunds spare parts, field service with our highly skilled service engineers, as well as repair and overhaul to the highest factory standard.

We provide the support you require for your specific needs and offer a range of customized maintenance agreements, called performance agreements. They are all designed for you to get the most out of your system solution by choosing from different levels of support and services that ensure maximum performance from your equipment.

A wide range of service options is available. Together with our representative you can tailor a performance agreement that suits your drive and is optimized to meet your challenges.

Support

Performance



# Power in a compact solution

The Hägglunds CA is a compact hydraulic motor for applications where size and weight are significant issues.

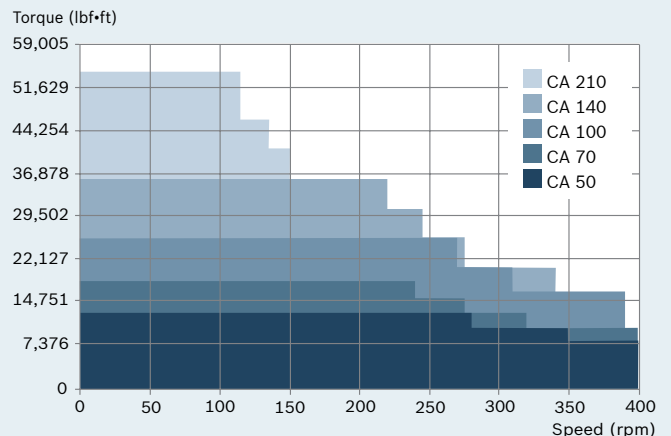


The Hägglunds CA motor was developed for a very specific purpose: to provide a tough and powerful solution for heavy-duty applications where size and weight are significant issues. The result is a really compact hydraulic drive with the same durability, excellent performance and reliability as other Hägglunds motors from Rexroth. With its small envelope size and lightweight, the Hägglunds CA has an excellent power to weight ratio.

Popular features of the Hägglunds CA motor are for example the numerous mounting options, the very useful through hole and the insensitivity to shock loads. When matched to your needs Hägglunds CA provides real competitive advantages in your plant operations. The benefits of using a Hägglunds CA motor are many.

## Wide operating range

Max intermittent torque and speed.



## Motor data, Häggblunds CA

Motor type*	Full Displacement					Max. pressure *** (psi)	Displacement Shift				Ratio
	Displace- ment (in³/rev)	Specific torque (lbf·ft/ 1000 psi)	Rated speed ** (rev/ min)	Max. speed (rev/ min)	Displace- ment (in³/rev)		Specific torque (lbf·ft/ 1000 psi)	Rated speed ** (rev/ min)	Max. speed (rev/ min)		
CA 50 20	76.6	1017	400	400	5000	Not recommended to be used in reduced displacement					
CA 50 25	95.8	1271	350	400	5000						
CA 50 32	122.6	1627	280	400	5000						
CA 50 40	153.3	2034	230	350	5000						
CA 50	191.6	2543	200	280	5000	95.8	1271	200	280	1:2	
CA 70 40	153.3	2034	270	400	5000						
CA 70 50	191.6	2543	225	320	5000	95.8	1271	225	320	1:2	
CA 70 60	230.1	3051	195	275	5000	115.1	1526	195	275	1:2	
CA 70	268.5	3560	180	240	5000	134.3	1780	180	240	1:2	
CA 100 40	153.3	2034	390	400	5000						
CA 100 50	191.6	2543	320	400	5000						
CA 100 64	245.3	3254	260	390	5000						
CA 100 80	306.6	4068	220	310	5000	153.3	2034	220	310	1:2	
CA 100	383.2	5085	190	270	5000	191.6	2543	190	270	1:2	
CA 140 80	306.6	4068	245	340	5000						
CA 140 100	383.2	5085	205	275	5000	191.6	2543	205	275	1:2	
CA 140 120	460.3	6102	180	245	5000	230.1	3050	180	245	1:2	
CA 140	537.0	7119	170	220	5000	268.5	3560	170	220	1:2	
CA 210 160	613.2	8136	105	150	5000	306.7	4068	105	150	1:2	
CA 210 180	690.4	9154	100	135	5000	345.2	4577	100	135	1:2	
CA 210	805.5	10678	85	115	5000	402.8	5339	85	115	1:2	

\*) All motor types can be tandem mounted.

\*\*) Special considerations regarding charge pressure, cooling and choice of hydraulic system for speeds above rated.

\*\*\*) The motors are designed according to DNV-rules. Test pressure 420 bar/6000 psi. Peak/transient pressure 420 bar/6000 psi maximum, allowed to occur 10 000 times.

More options with different torques and speeds are available. This data covers the main sizes of our Häggblunds CA motors.

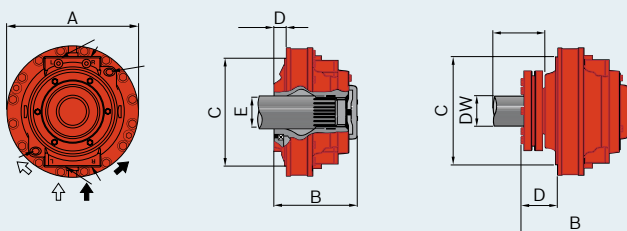
## Dimensions, motors with splines

Motor Type	A (in)	B (in)	C (in)	D (in)	E (mm)	Weight (lbs)	Main Conn.	Drain Conn.
CA 50	18.3	12.3	15.4	1.8	N120x5x30x22x9H	385.7	SAE 1 1/4"	BSP 3/4"
CA 70	19.5	12.3	17.1	1.8	N120x5x30x22x9H	451.8	SAE 1 1/4"	BSP 3/4"
CA 100	22.1	15.7	18.5	5.3	N140x5x30x26x9H	584.1	SAE 1 1/4"	BSP 3/4"
CA 140	23.6	15.7	20.1	5.3	N140x5x30x26x9H	672.2	SAE 1 1/4"	BSP 3/4"
CA 210	23.6	19.7	20.1	6.2	N150x5x30x28x9H	870.6	SAE 1 1/4"	BSP 3/4"

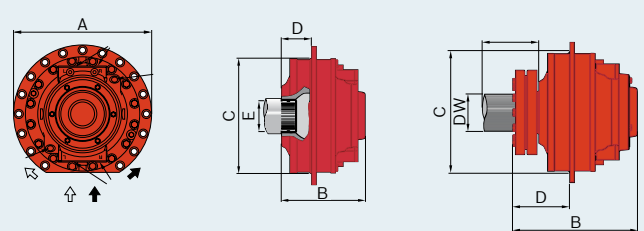
## Dimensions, motors with shrink disc coupling

Motor Type	A (in)	B (in)	C (in)	D (in)	DW (in)	Weight (lbs)	Main Conn.	Drain Conn.
CA 50	18.3	15.9	15.4	5.4	4.7	447.4	SAE 1 1/4"	BSP 3/4"
CA 70	19.5	15.9	17.1	5.4	4.7	511.3	SAE 1 1/4"	BSP 3/4"
CA 100	22.1	19.8	185	9.5	5.5	683.2	SAE 1 1/4"	BSP 3/4"
CA 140	23.6	19.8	20.1	9.5	5.5	764.8	SAE 1 1/4"	BSP 3/4"
CA 210	23.6	25.4	20.1	11.8	6.3	1005	SAE 1 1/4"	BSP 3/4"

## Häggblunds CA 50, CA 70



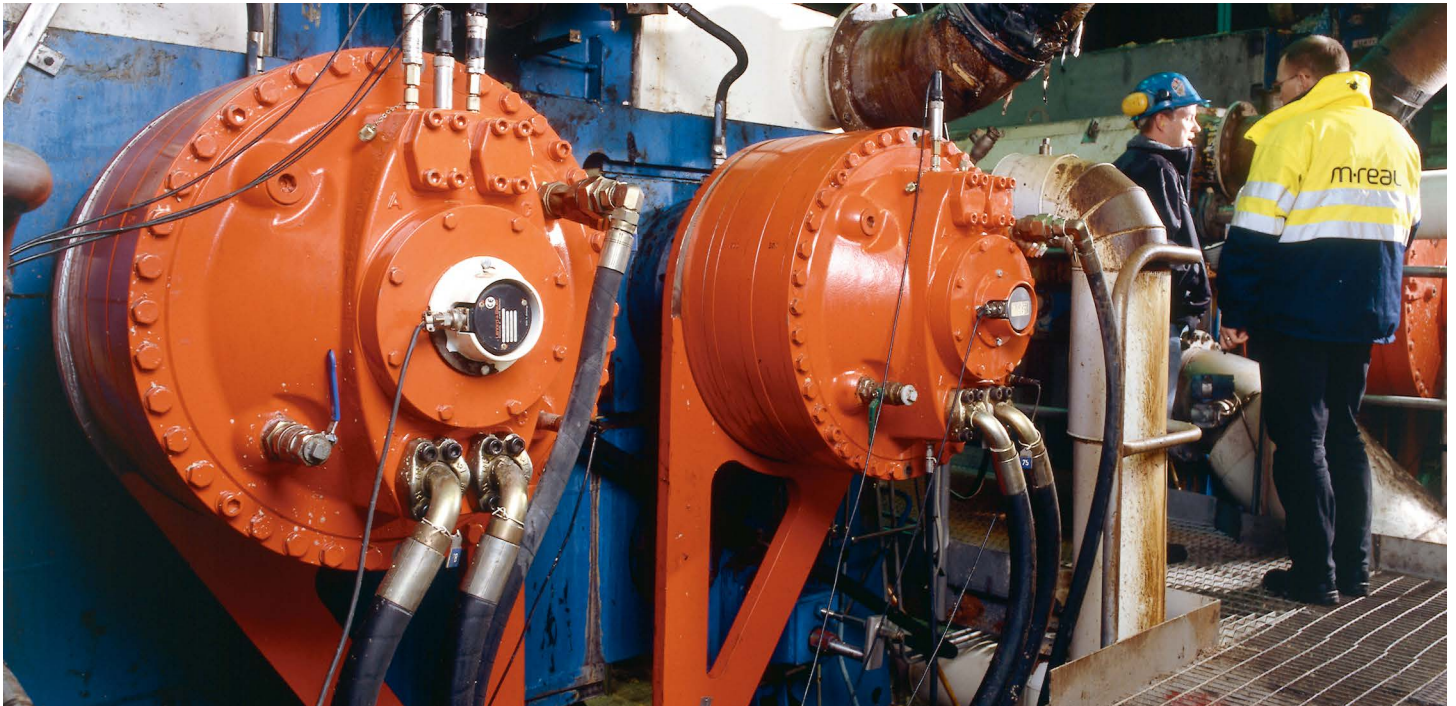
## Häggblunds CA 100, CA 140, CA 210





# More power – smaller package

More power built into a smaller package has resulted in a truly compact drive solution for a wide range of heavy-duty applications.



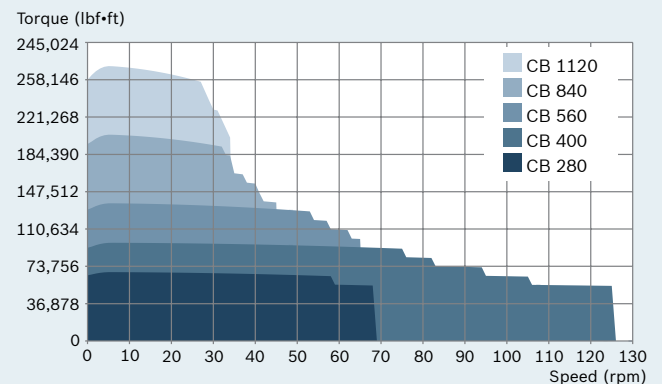
The Hägglunds CB range is suitable for many heavy-duty applications such as shredders, feeders and roll mills. Some of its many benefits are the space saving design and the versatile mounting possibilities.

The wide range of sizes and displacements enables optimisation of the drive system when selecting the motor and the hydraulic pump combinations. The hole through the motor is another advantage, which can be very useful in some applications, for instance in drilling and boring.

The motor reacts quickly and the heavy duty design can take shock loads and stop instantly when required. Hägglunds CB is truly a tough, economical and reliable drive.

## Wide operating range

Max intermittent torque and speed.



Valid at high pressure 5000 psi and charge pressure 218 psi.



**Motor data, Hägglands CB**

Motor type	Displacement (in <sup>3</sup> /rev)	Specific torque (lbf•ft/1000 psi)	Rated speed *(rev/min)	Max. speed (rev/min)	Max. pressure **(psi)	Max. torque *** (lbf•ft)
CB 280-240	920	12200	53	68	5000	57000
CB 280	1070	14200	44	58	5000	67000
CB 400-240	920	12200	94	125	5000	57000
CB 400-280	1070	14200	73	105	5000	67000
CB 400-320	1230	16300	71	94	5000	76000
CB 400-360	1380	18300	59	82	5000	86000
CB 400	1530	20300	58	75	5000	95000
CB 560-440	1690	22400	49	65	5000	100000
CB 560-480	1840	24400	48	62	5000	110000
CB 560-520	1990	26400	41	57	5000	120000
CB 560	2150	28500	40	53	5000	130000
CB 840-600	2300	30500	30	45	5000	140000
CB 840-640	2450	32500	28	41	5000	150000
CB 840-680	2610	34600	27	40	5000	160000
CB 840-720	2760	36600	25	37	5000	170000
CB 840-760	2910	38700	23	34	5000	180000
CB 840-800	3070	40700	23	34	5000	190000
CB 840	3220	42700	21	32	5000	200000
CB 1120-880	3370	44700	25	34	5000	210000
CB 1120-920	3520	46700	24	33	5000	220000
CB 1120-960	3680	48800	24	32	5000	230000
CB 1120-1000	3830	50800	22	31	5000	240000
CB 1120-1040	3980	52800	21	29	5000	250000
CB 1120-1080	4140	54900	20	28	5000	260000
CB 1120	4290	56900	20	27	5000	270000

\*) Special considerations regarding charge pressure, cooling and choice of hydraulic system for speed above rated.

\*\*) The motors are designed according to DNV-rules. Test pressure 420 bar/6000 psi. Peak/transient pressure 420 bar/6000 psi maximum, allowed to occur 10 000 times.

\*\*\* Calculated as

$$T = T_s \times (5000-218) \times 0.98.$$

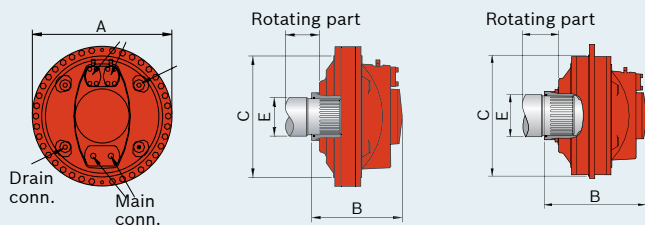
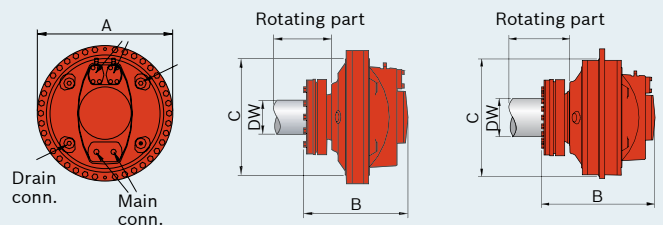
More options with different torques and speeds are available. This data covers the main sizes of our Hägglands CB motors.

**Dimensions, motors with splines**

Motor Type	A (in)	B (in)	C (in)	E (mm)	Weight (lbs)	Main Conn.	Drain Conn.
CB 280	30.8	19.7	26.8	N200x5x30x38x9H	1554	SAE 1 1/4" and 1 1/2"	BSP 1 1/4"
CB 400	30.8	24.4	26.8	N200x5x30x38x9H	2336	SAE 1 1/4" and 1 1/2"	BSP 1 1/4"
CB 560	37	26.3	31.5	N260x5x30x50x9H	2457	SAE 1 1/4" and 1 1/2"	BSP 1 1/4"
CB 840	37	31.0	31.5	N260x5x30x50x9H	3185	SAE 1 1/4" and 1 1/2"	BSP 1 1/4"
CB 1120	37	35.6	31.5	N260x5x30x50x9H	3901	SAE 1 1/4" and 1 1/2"	BSP 1 1/4"

**Dimensions, motors with hollow shaft, shrink disc coupling**

Motor Type	A (in)	B (in)	C (in)	DW (mm)	Weight (lbs)	Main Conn.	Drain Conn.
CB 280	30.8	24.1	26.8	180	1763	SAE 1 1/4" and 1 1/2"	BSP 1 1/4"
CB 400	30.8	29.1	26.8	200	2557	SAE 1 1/4" and 1 1/2"	BSP 1 1/4"
CB 560	37	30.2	31.5	260	2843	SAE 1 1/4" and 1 1/2"	BSP 1 1/4"
CB 840	37	34.8	31.5	260	3570	SAE 1 1/4" and 1 1/2"	BSP 1 1/4"

**Hägglands CB, splines****Hägglands CB, shrink disc coupling**

# Empowering possibilities

The Hägglunds CBM does more with less – and lets you do the same



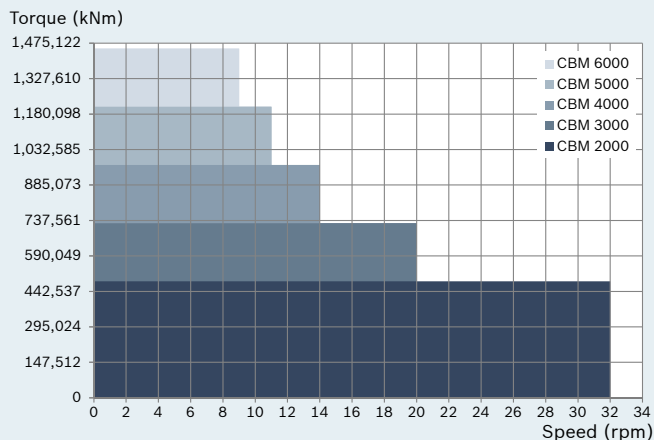
When it comes to production, everyone wants more. But these days there's less of everything else: from available time to the energy and resources for the job. With the Hägglunds CBM direct drive from Bosch Rexroth, the equation is easier to solve.

The Hägglunds CBM packs 50 % more torque into a motor that's smaller and 50 % lighter than its predecessor. That gives it the world's highest torque-to-weight ratio. Even so, it has all the advantages you'd expect from a direct drive. Full torque from zero, protection from shock loads and four-quadrant operation are part of the same small package.

Put simply, the Hägglunds CBM does more with less – and lets you do the same. From industry to offshore, you can handle more work with less space, less energy and less weight on the driven shaft.

That means greater productivity with a smaller footprint. And that's an ingenious solution.

## Wide operating range



**Motor data, Hägglands CBM**

Motor type	Displacement (in <sup>3</sup> /rev)	Specific torque (lbf·ft/1000 psi)	Max. speed (rev/min)	Max. pressure *(psi)	Max. torque **(lbf·ft)
CBM 2000-1200	4628	61024	58	5000	290543
CBM 2000-1400	5388	71194	48	5000	338967
CBM 2000-1600	6149	81365	41	5000	387391
CBM 2000-1800	6941	91536	36	5000	435815
CBM 2000	7733	101706	32	5000	484239
CBM 3000-2200	8463	111877	29	5000	532663
CBM 3000-2400	9224	122047	26	5000	581087
CBM 3000-2600	10016	132218	24	5000	629511
CBM 3000-2800	10808	142389	22	5000	677935
CBM 3000	11600	152559	20	5000	726359
CBM 4000-3200	12299	162730	18	5000	774783
CBM 4000-3400	13091	172901	17	5000	823206
CBM 4000-3600	13883	183071	16	5000	871630
CBM 4000-3800	14675	193242	15	5000	920054
CBM 4000	15467	203412	14	5000	968478
CBM 5000-4600	17749	233924	12	5000	1113750
CBM 5000	19333	254266	11	5000	1210598
CBM 6000-5600	21616	284777	9	5000	1355870
CBM 6000	23200	305119	9	5000	1452717

\*) The motors are designed according to DNV-rules. Test pressure 420 bar/6 000 psi. Peak/transient pressure 420 bar/6 000 psi maximum, allowed to occur 10 000 times.

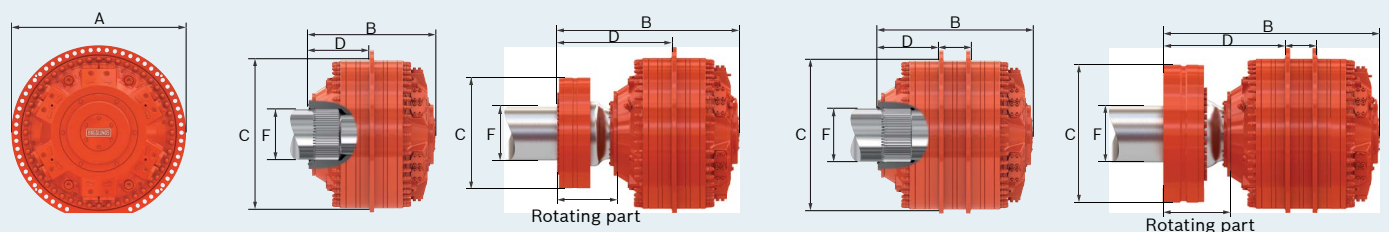
\*\*) Calculated as  
 $T = T_s \times (5000-218) \times 0.98.$

**Dimensions, motors with splines**

Motor type	A (in)	B (in)	C (in)	D (in)	E (in)	F (mm)	Weight (lbs)	Main conn.	Drain conn.
CBM 2000	57.5	34.3	51.2	16.5	-	N360x8x30x44x9H	9036	SAE 2"	BSP 1 1/4" and 2"
CBM 3000	57.5	39.0	51.2	16.5	-	N440x8x30x54x9H	11020	SAE 2"	BSP 1 1/4" and 2"
CBM 4000	57.5	43.6	51.2	21.1	-	N440x8x30x54x9H	12783	SAE 2"	BSP 1 1/4" and 2"
CBM 5000	57.5	48.2	51.2	21.1	10.6	N460x8x30x56x9H	14767	SAE 2"	BSP 1 1/4" and 2"
CBM 6000	57.5	52.8	51.2	21.1	10.6	N460x8x30x56x9H	16530	SAE 2"	BSP 1 1/4" and 2"

**Dimensions, motor with hollow shaft, shaft coupling**

Motor type	A (in)	B (in)	C (in)	D (in)	E (in)	F (in)	Weight (lbs)	Main conn.	Drain conn.
CBM 2000	57.5	48.3	28.3	30.4	-	14.1	10689	2"	BSP 1 1/4" and 2"
CBM 3000	57.5	56.5	37.4	34.0	-	18.1	14546	2"	BSP 1 1/4" and 2"
CBM 4000	57.5	61.1	37.4	38.6	-	18.1	16420	2"	BSP 1 1/4" and 2"
CBM 5000	57.5	67.7	46.5	40.5	10.6	18.9	21379	2"	BSP 1 1/4" and 2"
CBM 6000	57.5	72.4	46.5	40.5	10.6	18.9	23142	2"	BSP 1 1/4" and 2"

**CBM 2000-6000****CBM 2000, 3000, 4000****CBM 5000, 6000**



# Powerful opportunities

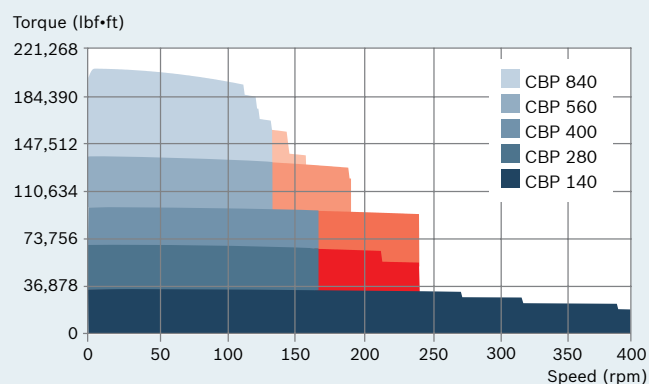
The Hägglunds CBP motor range is part of the Hägglunds Gemini drive system concept, bringing new possibilities and higher power.



The Hägglunds CBP motor series is a truly powerful motor range. It has all the attractive characteristics of the Hägglunds direct drive hydraulic motors. It is compact, with low weight and immensely powerful. In fact, the most powerful Hägglunds motor (power per kilo) ever. This motor can operate continuously at high power. It can be flange-mounted or torque arm mounted and all of the motors are fitted with splines and have through-holes. This motor range opens new opportunities for drive solutions in new applications, because this motor can drive at higher speeds with increased efficiency.

## Wide operating range

Max intermittent torque and speed.



■ Shaft seal is limiting max continuous speed. Valid at high pressure 5000 psi and charge pressure 218 psi.

**Motor data, Häggblunds CBP**

Motor type*	Displacement (in <sup>3</sup> /rev)	Specific torque (lbf·ft/ 1000 psi)	Rated speed (rev/min)	Max. speed (rev/min)	Max. pressure (psi)
CBP 140 80	306.6	4068	320	400	5000
CBP 140 100	383.2	5085	270	390	5000
CBP 140 120	460.3	6102	230	320	5000
CBP 140	537	7119	210	275	5000
CBP 280 160	610	8100	170	170	5000
CBP 280 200	760	10200	170	170	5000
CBP 280 240	920	12200	170	170	5000
CBP 280	1070	14200	150	170	5000
CBP 400 240	920	12200	170	170	5000
CBP 400 280	1070	14200	170	170	5000
CBP 400 320	1230	16300	170	170	5000
CBP 400 360	1380	18300	170	170	5000
CBP 400	1530	20300	170	170	5000
CBP 560 440	1690	22400	135	135	5000
CBP 560 480	1840	24400	135	135	5000
CBP 560 520	1990	26400	135	135	5000
CBP 560	2150	28500	135	135	5000
CBP 840 600	2300	30500	110	135	5000
CBP 840 640	2450	32500	100	135	5000
CBP 840 680	2610	34600	100	135	5000
CBP 840 720	2760	36600	95	135	5000
CBP 840 760	2910	38700	90	125	5000
CBP 840 800	3070	40700	85	120	5000
CBP 840	3220	42700	80	115	5000

\*) Tandem mounting possible. Contact your local sales representative for more information.

**Dimensions, motors with splines for front mounting**

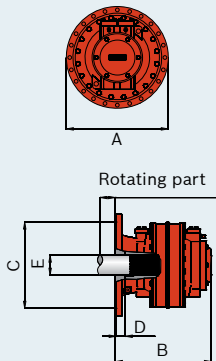
Motor Type	A (in)	B (in)	C (in)	D (in)	E
CBP 140	23.6	22.4	20	2.1	N120x5x30x22x9H
CBP 280	30.8	33.9	26.8	0.46	N200x5x30x38x9H
CBP 400	30.8	38.5	26.8	0.46	N200x5x30x38x9H
CBP 560	37	40.8	31.5	2.6	N260x5x30x50x9H

**Dimensions, motors with splines for center mounting**

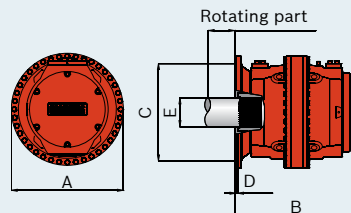
Motor Type	A (in)	B (in)	C (in)	D (in)	E
CBP 140	23.6	20.1	20	9.7	N120x5x30x22x9H
CBP 400	37	37.8	31.5	18	N200x5x30x38x9H
CBP 560	37	40.8	31.5	21	N260x5x30x50x9H
CBP 840	37	45.5	31.5	21	N260x5x30x50x9H

**Häggblunds CBP 140**

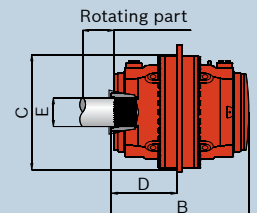
Front Mounted

**Häggblunds CBP 280, 400**

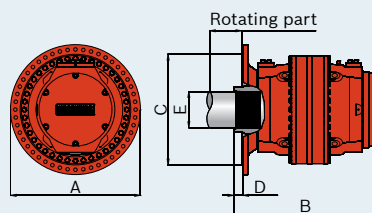
Front Mounted



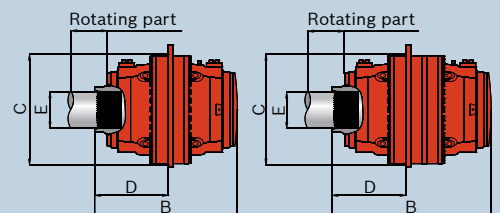
Center Mounted

**Häggblunds CBP 560, 840**

Front Mounted

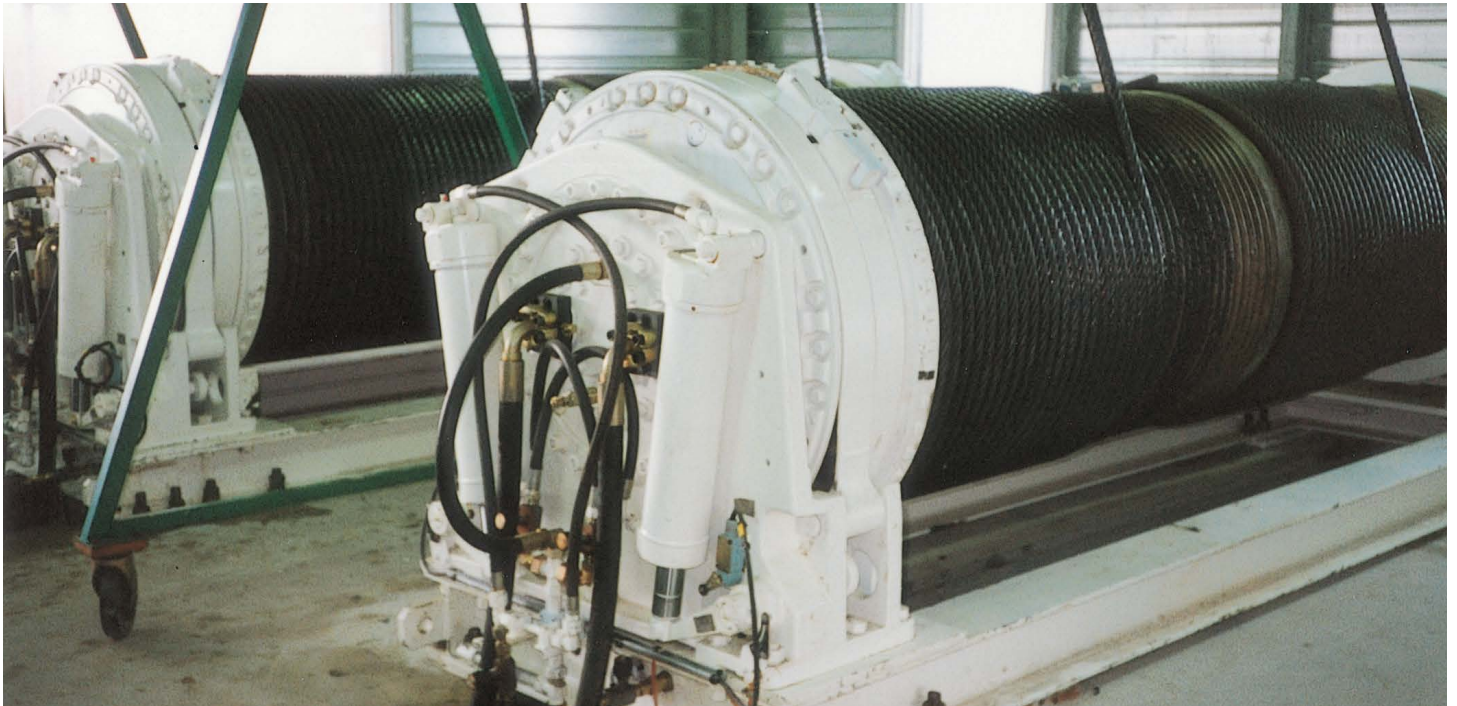


Center Mounted



# Intelligent power

The Hägglunds VI was originally engineered to bring unparalleled performance, reliability and control to marine applications.

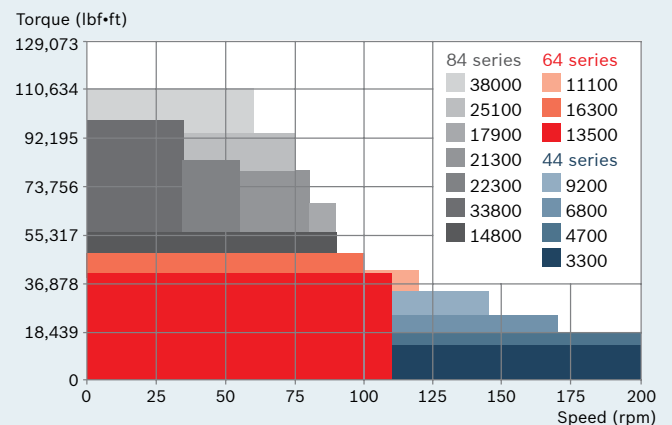


The Hägglunds VI was the first Hägglunds hydraulic motor to leave the assembly line. It was originally designed to bring performance, reliability and control to marine applications. The same features have however also proven valuable in the industrial field; e.g. Pulp & Paper and the Mining Industry.

In marine applications, particularly with tough winches, the Hägglunds VI motor is known to provide the best available control of torque (line pull) regardless of speed. This reduces maintenance costs and increases productivity by reducing the risk of snagging or equipment breakdowns. True free-wheeling and a very low moment of inertia are some other features that has made the Hägglunds VI so popular in even the most demanding environments.

## Wide operating range

Max intermittent torque and speed.





## Motor data, Häggglunds VI

Motor type*	Full Displacement				Max. pressure *** (psi)	Displacement Shift				Ratio
	Displacement (in <sup>3</sup> /rev)	Specific torque (lbf·ft/ 1000 psi)	Rated speed **(rev/ min)	Max. speed (rev/ min)		Displacement (in <sup>3</sup> /rev)	Specific torque (lbf·ft/ 1000 psi)	Rated speed **(rev/ min)	Max. speed (rev/ min)	
44-03300	203	2695	100	200	4650	101	1347	100	200	1:2
44-04700	287	3841	100	200	4650	144	1907	100	200	1:2
44-06800	414	5492	90	170	4650	207	2746	90	170	1:2
44-09200	564	7475	80	145	4650	282	3738	80	145	1:2
64-11100	676	8971	70	120	4650	338	4485	70	120	1:2
64-13500	823	10935	60	110	3600	411	5467	60	110	1:2
64-16300	997	13227	50	100	3600	499	6613	50	100	1:2
84-14800	906	12017	55	90	4650					
84-17900	1096	14546	55	85	4650					
84-21300	1304	17292	55	80	4650					
84-25100	1531	20306	55	75	4650					
84-38000	2320	30756	40	60	3600					
84-22300	1361	18048	55	55	4650	680	9024	60	85	1:2
84-33800	2061	27339	35	35	3600	1031	13669	50	70	1:2
84-25100	1531	20306	40	55	3600	510	6769	45	75	1:3
84-38000	2319	30756	25	35	3600	773	10252	35	60	1:3
84-25100	1531	20306	40	55	3600	1021	13537	45	75	2:3
84-38000	2319	30756	25	35	3600	1546	20504	35	60	2:3

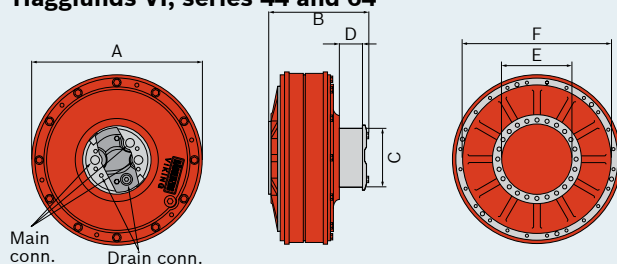
\*) Special considerations regarding charge pressure, cooling and choice of hydraulic systems for speed above rated.

\*\*) The motors are designed according to DNV-rules. Test pressure 70 bar/1000 psi above max. pressure. Peak/transient pressure 70 bar/1000 psi above max. pressure, allowed to occur 10 000 times.

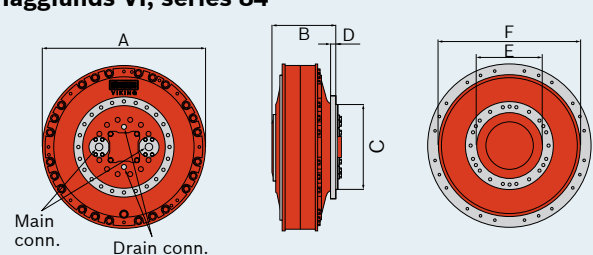
## Dimensions

Motor Type	A (in)	B (in)	C (in)	D (in)	E (in)	F (in)	Weight (lbs)	Main Conn.	Drain Conn.	Mounting
44-series	30.3	17.2	10.2	3.9	12.6	26.6	1146	BSP 1 1/4"	BSP 3/4"	Key joint
64-series	33.8	17.7	10.2	3.9	15.4	30.2	1653	BSP 1 1/4"	BSP 3/4"	Key joint
84-series	43.3	17.7	22	2.8	17.3	37.6	3416	SAE 2"	BSP 1"	Screw/Flange

### Häggglunds VI, series 44 and 64



### Häggglunds VI, series 84



# Few components – many combinations

Wide drive unit range for total reliability.



Our drive units are easy to install and are fully function tested before delivery. With our proven, modularized solutions we give you maximized uptime and quick and easy maintenance. We can also offer you a quick delivery and high delivery precision.

Our monitoring and control system (Spider) brings excellent controllability to the drive system. With a Hägglunds drive unit to match your motors you have the same high quality throughout the entire drive system.

## Combinations of pump and electric motor - Hägglands DU

		Pump SP														
		Single							Tandem							
									125	180	125	250	250	250	355	355
		71	125	180	250	355	500	750	125	180	250	250	355	500	355	500
									125	180	250	250	355	500	355	500
Small (S)	Electric motor (kW)	22	■													
		30	■	■												
		37	■	■												
		45	■	■	■											
		55	■	■	■											
Medium (M)		75		■	■											
		90		■	■	■				■						
		110			■	■	■			■	■	■				
		132			■	■	■	■		■	■	■	■			
		160			■	■	■	■		■	■	■	■	■		
Large (L)	200				■	■	■		■	■	■	■	■	■	■	
	250					■	■	■		■	■	■	■	■	■	
	315						■	■			■	■	■	■	■	
	355						■	■		■	■	■	■	■	■	
	400							■				■	■	■	■	
							■					■	■	■	■	

## Features

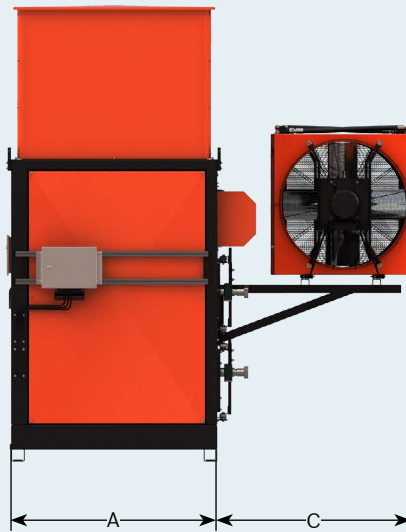
- ▶ Modular system – many possible combinations of oil flow and installed power.
- ▶ Can be positioned close to the machine or in any convenient location.
- ▶ Can easily be equipped with any of Hägglands advanced control systems.
- ▶ Sound insulated cabinet.
- ▶ Small space required.
- ▶ Very easy to install and maintain.

■ Pre-defined combinations

▼ Cabinet with two doors



▼ Cabinet from the side



▼ Cabinet with three doors



## Basic dimensions – Hägglands DU

Type*	DUeS2	DUeS3	DUeM2	DUeM3	DUeL2	DUeL3
Dim (in)						
H ***	87.4-90.5	87.4-90.5	99.2-130	99.2-130	111-165	111-165
B	71.7	107	78.7	118	86.2	137.8
A	48.2	48.2	59	59	59	59
C****	Air-oil	42.4	56.3	42.4	64.5	42.4
	Water-oil	18	18	18	18	18
D**	9.8	9.8	9.8	9.8	9.8	9.8

\*) Cabinet designations ending with a 2, represent a two-door cabinet. Cabinet designations ending with a 3, represent a three-door cabinet. Cabinet designations with an S, represent frame size small, M represent frame size medium and L represent frame size large.

\*\*) The control unit (Spider) can be placed on either side of the cabinet.



## Data – Hägglunds PAC

		Pump SP																Pump HD											
		Single							Tandem									Single											
		40	71	125	180	250	355	500	750	40	71	125	180	250	250	355	250	355	500	500	750	750	HD6S-98	HD7S-119	HD11S-180	HD14S-229	HD24S-403	HD30S-501	
Small (S)	Electric motor (HP)	15	■																										
		20	■	■																									
		25	■	■							■													■		■			
		30	■	■							■	■												■	■	■			
		40	■	■		■					■													■	■	■			
		50	■	■		■					■													■	■	■			
		60	■	■	■						■	■												■	■	■			
		75	■	■	■	■					■	■	■											■	■	■	■		
		100				■	■				■	■	■	■										■	■	■	■	■	■
		125				■	■	■			■	■	■	■		■								■	■	■	■	■	■
150				■	■	■	■			■	■	■	■	■	■								■	■	■	■	■	■	
200					■	■	■	■			■	■	■	■	■	■	■								■	■	■	■	
250						■	■	■	■			■	■	■	■	■	■	■	■						■	■	■	■	
300							■	■	■			■	■	■	■	■	■	■	■	■						■	■	■	
350									■	■			■	■	■	■	■	■	■	■	■						■	■	
400									■	■			■	■	■	■	■	■	■	■	■	■					■	■	
450													■	■	■	■	■	■	■	■	■	■					■	■	
500														■	■	■	■	■	■	■	■	■					■	■	
600														■	■	■	■	■	■	■	■					■	■		
700															■	■	■	■	■	■	■					■	■		
800																	■	■	■	■	■					■	■		

## Features

- Many combination of flow capacity and installed power sizes available
- Can be positioned close to the machine or in any convenient location.
- Can easily be equipped with any of Hägglunds advanced control systems.
- Sound insulated cabinet.
- Small space required.
- Very easy to install and maintain.
- Can be installed outdoor without a need for a building.
- Proven performance and technical support.

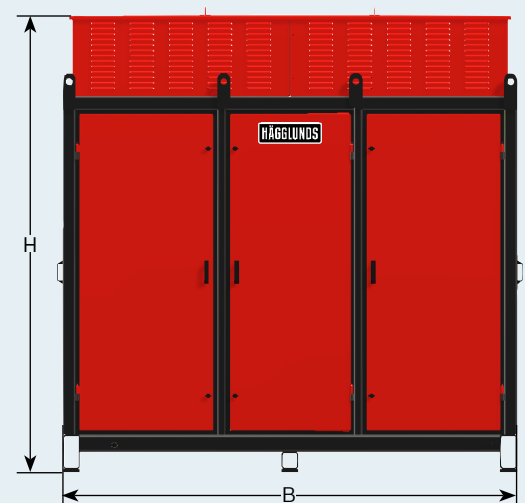
▼ Cabinet with two doors



▼ Cabinet from the side



▼ Cabinet with three doors



## Basic dimensions – Hägglunds PAC

Type*	PAC-202 (S)	PAC-203 (S)	PAC-402 (S)	PAC-602 (M)	PAC-603 (M)	PAC-803 (M)	PAC-1003 (L)	PAC-1203 (L)	PAC-1603 (L)
Dim in									
H	93/ 97	93	106/ 124	116/ 128	106/ 126	118/ 136	118/ 136	125/ 161	125/ 161
B	55	83	66	69	105	122	122	144	144
A	39	39	53	53	53	53	53	72	72
C	15	15	15	15	15	15	15	15	15

\*) Cabinet designations ending with a 2, represent a two-door cabinet. Cabinet designations ending with a 3, represent a three-door cabinet. Cabinet designations with an S, represent frame size small, M represent frame size medium and L represent frame size large.

**Data – Häggblunds PBC**

Type	Max Installed Power (HP)	Max Oil Flow *(gpm)	Max Pressure (psi)	Weight (lbs)
PBC 202	150	108	5000	4300
PBC 203	2x125	2x108**	5000	5700
PBC 402	500	236	5000	6698
PBC 603	2x500	2x236	5000	8598

\* ) 1785 rpm.

\*\* ) Only one set of electric motor/pump is permitted to operate.  
The other set serves as stand by.

Häggblunds Gemini is a modular system for drive units, allowing not only the flexible placement of modules but also flexible expansion. It consists of one or more drive units, oil tank module and a service module.

**Gemini System modules in brief:****Gemini pump unit**

This module is the lower power series of units in which one pump is used. They cater for installed power between 160-500 kW.

**Gemini filter unit**

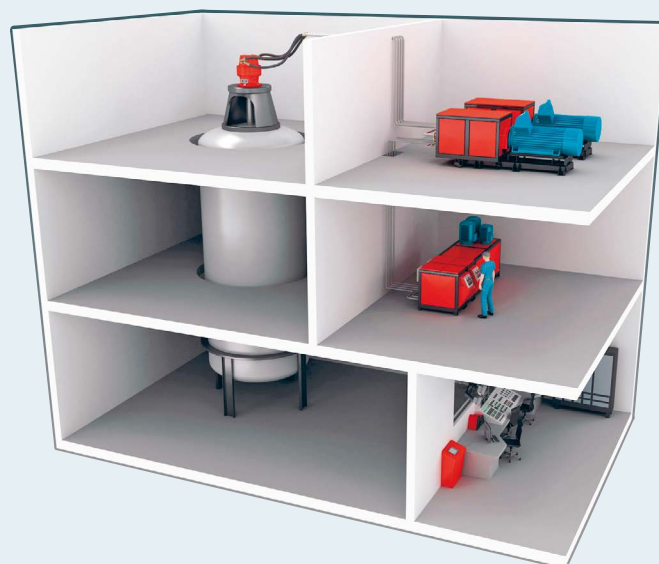
This module includes filters. They filter the fluid for one or more pump units.

**Gemini cooler unit**

The unit includes a water/oil cooler of bolted plate type

**Gemini tank unit**

The tank unit is equipped with a reservoir and instruments and can be placed in the most suitable position for operation and access. Flushing and charge pumps are connected in the end of the reservoir and supply the hydraulic fluid at low pressure.



# Complex controls made simple

The versatile and highly cost-effective Hägglunds Spider control system gives you excellent control of your drive system.

Hägglunds Spider is the control system for the Hägglunds DU drive unit. It can work as a stand-alone control system or be slaved under a factory system and contains drivers for pumps, monitoring of the hydraulic system and functionality for many applications. The configuration of Hägglunds Spider is very flexible and the system can be adopted for various applications needs.

The Spider box can be mounted on the right or the left hand side of the drive unit. It is the connection point for remote interface cabling e.g. to a customer DCS via discrete cabling or via Field bus.



## Features:

- ▶ IP65 Stainless steel enclosure
- ▶ -4...+122°F (-40°F with optional heater)
- ▶ 90-264 V AC or 24 V DC supply
- ▶ 8 supported communication Field busses
- ▶ Independent or common control of 2 driven machine shafts
- ▶ Driver of 4 pumps
- ▶ Monitoring of analog and digital sensors
- ▶ Speed regulation
- ▶ Torque control
- ▶ Power limitation
- ▶ Usage monitoring
- ▶ Configurable for application specific functionalities

The control panel is used for local control of the drive unit. It is normally mounted on the drive unit door, connected via a cable to the Spider box. It can be remotely used via a 4-wire cable with a max cable length of 328 ft.

The control panel is available with one set of buttons and display for a single drive or with two sets of buttons and displays for two driven shafts.

Two display types are available:

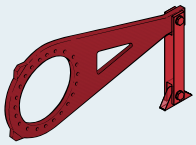
- ▶ LCD with black characters on yellow background for European and Japanese texts.
- ▶ VFD with bright blue characters on black background for European and Chinese texts.

The front of the panel can be protected with a lockable transparent plastic window.

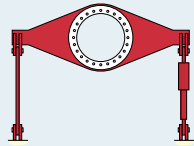


# Häggglunds accessories

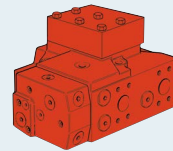
A compact and efficient design can be achieved by means of our standard Häggglunds accessories program.



Häggglunds Torque arms and brackets



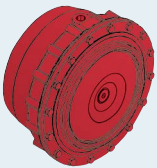
Double ended torque arms



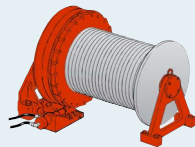
Valves and manifolds for each series of Häggglunds motor



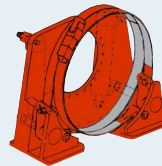
Speed encoders and attachments



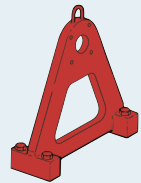
Brakes for Häggglunds CA and Häggglunds CB motors



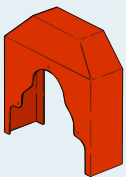
Parking lock unit for Häggglunds VI motors



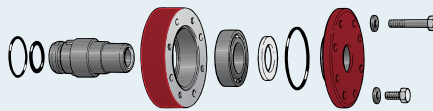
Brake assemblies for Häggglunds VI motors



Bearing brackets for Häggglunds VI motors



Protective cover for Häggglunds VI motors



Through hole kits

These illustrations show some of our Häggglunds accessories. Kits for harsh environment are also available.

# Extended possibilities and high flexibility

Our wide range of Hägglunds valves increases your options or functionality, flexibility and reliability.



We have developed a wide range of valves to ease application and further improve the functionality of Hägglunds drive systems. They can be used for a wide range of drive applications and needs reducing your design time and with added security.

The valves are all of a robust, reliable design and can withstand the toughest environments and many of the valves can also be used in combination. The Hägglunds valves are obviously well matched with our Hägglunds drive systems and provide a neat and efficient way to achieve the control and flexibility you need.

### Hägglunds pressure limiting valves

Valve	Size	Short description	Designed for	Max pressure (psi)	Flow capacity (gpm)	Weight (lbs)
COCA 300	20	Protects system main lines from damaging pressures	CA/CB	5000	79.3	17.6
COCB 1000-1	40	Protects system main lines from damaging pressures	CA/CB	5000	264.2	66.1
COCB 1000-3	40	Protects system main lines from damaging pressures includes an integrated purge circuit	CA/CB	5000	264.2	72.7

### Hägglunds load control valves

Valve	Size	Short description	Designed for	Max pressure (psi)	Flow capacity (gpm)	Weight (lbs)
VCBCA 480	32	Controls over running loads provided by a counterbalance function	CA/CB	5000	127	44
VCBCA 1000	50/40	Controls over running loads provided by a counterbalance function	CA/CB	5000	264.2	88.1
CTCA 1000	40/30	Controls winch rope load with a constant tension function	CA/CB	5000	528.3	74.9

### Hägglunds motion control valves

Valve	Size	Short description	Designed for	Max pressure (psi)	Flow capacity (gpm)	Weight (lbs)
VTCA 600	30	Designed to shift displacement of a dual speed motor	CA	5000	158.5	66.1
VFCCA 1000	40	Designed to put the motor in free circulation mode with the pistons running against the cam ring.	CA/CB	5000	264.2	187.3
VFWCB 600	50	Designed to put the motor in free wheeling mode with the pistons retracted from the cam ring.	CA/CB	5000	158.5	88.1
VFW	25	Designed to put a Hägglunds VI motor in free wheeling mode with the pistons retracted from the cam ring.	VI	5000	211.3	123.4
V4WCA 1000	40	A proportional directional control valve with in built counter balance function	CA/CB	5000	264.2	171.9

### Hägglunds integrated valve solutions

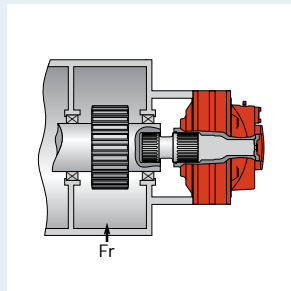
Valve	Size	Short description	Designed for	Max pressure (psi)	Flow capacity (gpm)	Weight (lbs)
V 46-O	25	A integrated winch valve for open hydraulic systems	VI	5000	211.3	220.4
V 46-C	25	A integrated winch valve for closed hydraulic systems	VI	5000	211.3	193.9



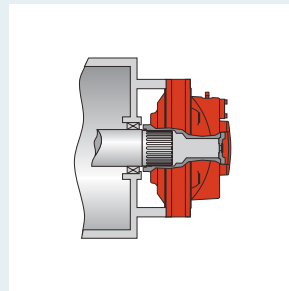
# Installation examples

## Examples for Häggglunds CB motors

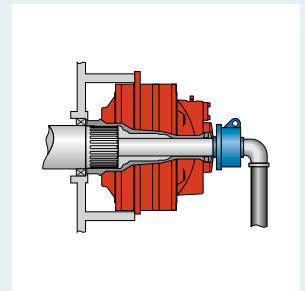
The tough hydraulic motors are weight and space saving and offers versatile mounting possibilities.



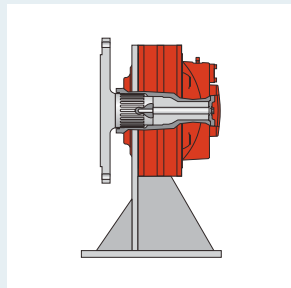
▲ Flange mounted motor with splines and high radial load from driven shaft.



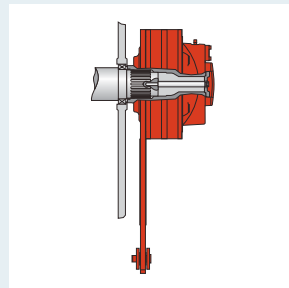
▲ Flange mounted motor with splines and low radial load from driven shaft.



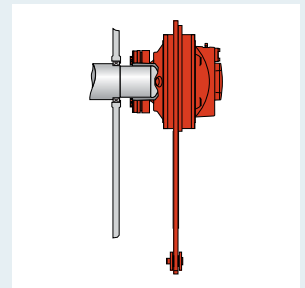
▲ Flange mounted motor with splines and through hole for cooling of driven machine.



▲ Bracket mounted motor with flange adapter.

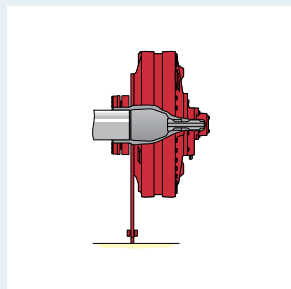


▲ Torque arm mounted motor with splines.

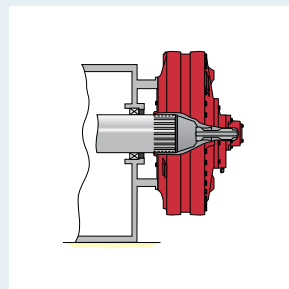


▲ Torque arm mounted motor with shrink disc coupling.

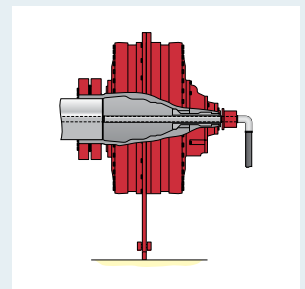
## Examples for Häggglunds MB motors



▲ Shrink disc coupling and torque arm.

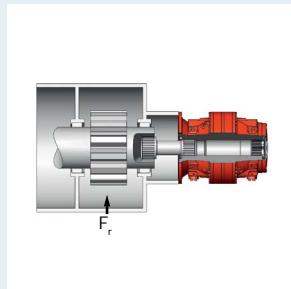


▲ Flange mounted with splines.

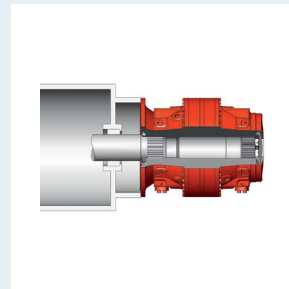


▲ Torque arm mounted motor with through hole for cooling of driven machine.

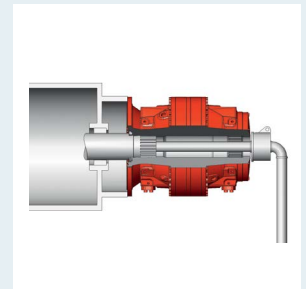
## Examples for Häggglunds CBP motors



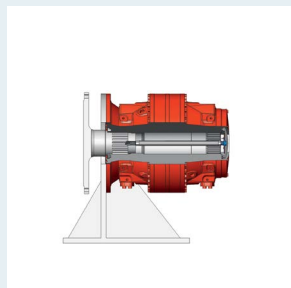
▲ Flange mounted motor with splines and high radial load from driven shaft.



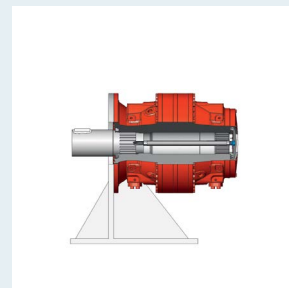
▲ Flange mounted motor with splines and low radial load from driven shaft.



▲ Flange mounted motor with spline and through hole for cooling of driven machine.



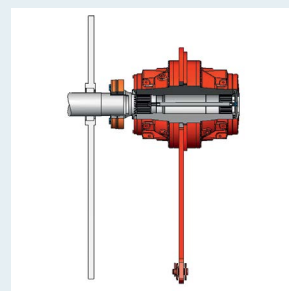
▲ Bracket mounted motor with flange adapter.



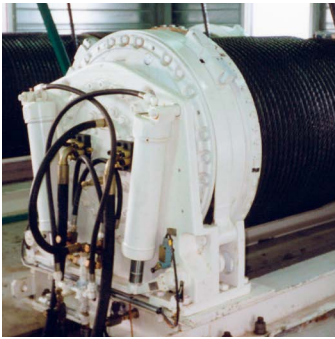
▲ Bracket mounted motor with stub shaft.



▲ Torque arm mounted motor with splines.



▲ Torque arm mounted motor with shaft coupling.







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