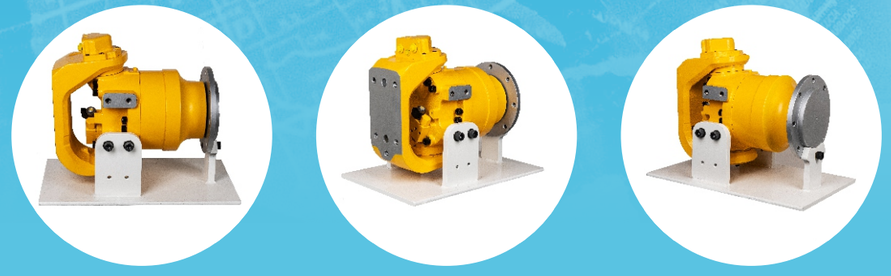
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内曲线径向柱塞液压马达
Hydraulic Piston Motor





宁波欧士杰液压传动有限公司
地址：宁波市镇海区九龙湖镇长石三星工业区
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传真：0574-86520542
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宁波欧士杰液压传动有限公司
NINGBO OUSHIJIE HYDRAULIC TRANSMISSION CO.,LTD.

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公司简介

宁波欧士杰液压传动有限公司位于风景秀丽、人杰地灵的海滨城市——宁波。著名的杭州湾大桥、深水良港北仑港，为我们提供了便捷的交通条件，并将我们融入大都市上海经济圈。

我公司专业设计生产液压马达，液压成套系统及成套液压设备。在多年的专研，创新和探索中，具备了独立研发、生产的能力。公司拥有现代化的标准厂房和一大批高精度、先进的加工设备，并拥有一批强大的创新研发专业设计人才。本公司产品在市场上赢得了客户的广泛认同和良好信誉。

精益求精，开拓创新不仅仅是一个口号，是每个员工烙在心里的信念和追求。在优胜劣汰的市场竞争中，质量是重中之重，公司将以执着的信念，不遗余力追求客户称心的产品。

OUR COMPANY

Ningbo Oushijie Hydraulic Transmission Co., Ltd. is located in Ningbo, a coastal city with beautiful scenery and outstanding people. The famous Hangzhou Bay Bridge and Beilun Port, a good port in deep water, provide us with convenient traffic conditions and integrate us into the metropolis Shanghai Economic Circle.

Our company specializes in designing and producing hydraulic motors, complete sets of hydraulic systems and complete sets of hydraulic equipment. In years of specialized research, innovation and exploration, we have the ability of independent research and development and production. It has modern standard factory buildings and a large number of high-precision and advanced processing equipment, and has a group of powerful innovative research and development professional design talents. Our products have won wide recognition and good reputation from customers in the market.

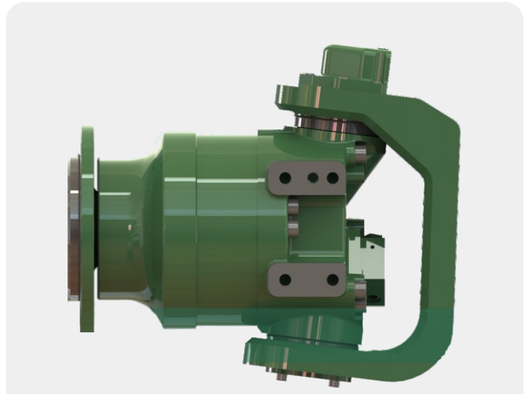
Striving for perfection, pioneering and innovating is not only a slogan, but also the belief and pursuit of every employee. In the survival of the fittest market competition, quality is the most important, the company will be persistent faith, spare no effort to pursue customer satisfaction products.

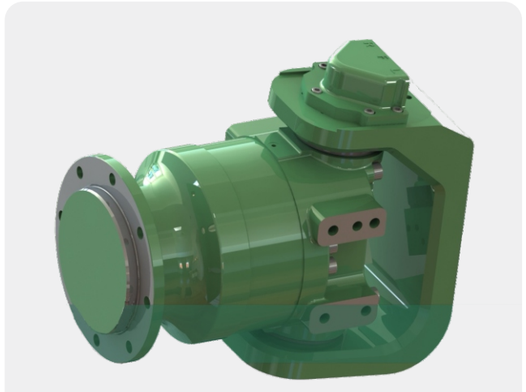


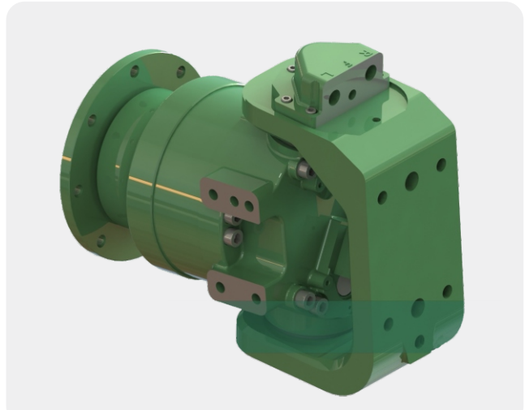






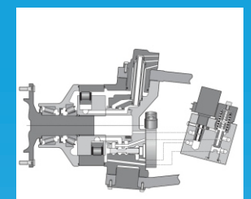






目录 Contents

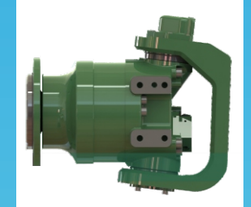
OMG轮边马达说明
OMG Description of wheel motor
P 01–02



OMG11轮边马达
OMG11 Wheel motor
P 03–06



OMG21轮边马达
OMG21 Wheel motor
P 07–10

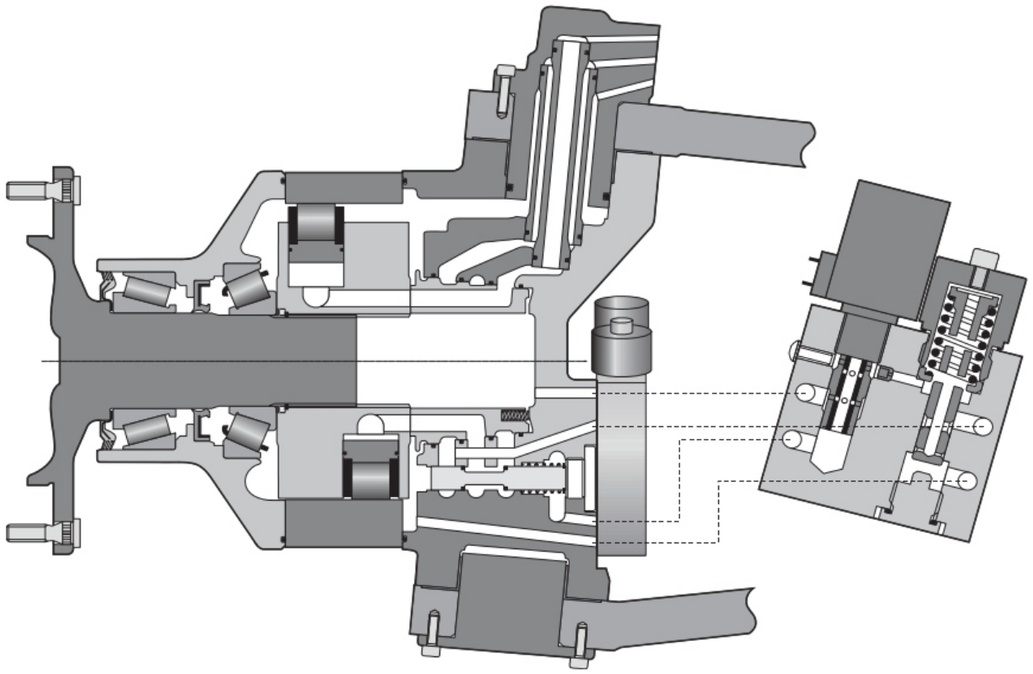


OMG产品详细介绍
OMG Detailed introduction of products
P 11–12



马达结构示意图 Schematic diagram of motor structure

OMG系列低速大扭矩液压马达是内曲线多作用径向柱塞马达，如下图:
OMG Series Low Speed and High Torque Hydraulic Motors are internal curve multi-action radial plunger motors,as shown in the following figure:



应用领域 Application field

OMG型马达已形成了8个系列80多种规格，排量范围376-10019mL/r，可广泛应用于工程机械，建筑机械、矿山机械、起重运输设备、重型冶金机械、地质钻探等设备、特别适用于履带、车轮行车机构的驱动和各种绞车、液压回转装置。

OMG motor has formed 8 series and more than 80 specifications with a displacement range of 376-10019mL/r. It can be widely used in construction machinery, construction machinery, mining machinery, lifting and transportation equipment, heavy metallurgical machinery, geological drilling and other equipment, especially for driving crawler and wheel driving mechanism, winches and hydraulic rotary devices.

选用原则 Selection principle

1.马达长期工作压力低于额定压力。
2.马达实际输出功率小于样本上所标的马达最大的功率。
3.为使马达长期可靠地工作，最好将马达的工况选定在高效区(见样本特性曲线)，并注意马达的启动效率比额定工况下的效率要低。
4.马达的排量应尽量选用各基型中的0组排量。

1. The long-term working pressure of the motor is lower than the rated pressure.
2. The actual output power of the motor is less than the maximum power of the motor marked on the sample.
3. In order to make the motor work reliably for a long time, ti is best to select the condition of the motor in the high efficiency area (see the sample characteristic curve), and pay attention to the low starting efficiency of the motor compared with the rated condition.
4. The displacement of the motor should try to choose the 0 group displacement in each basic type.

安装要求 Installation requirements

1.液压马达可以任意安装，安装马达的支架必须有足够的刚性，安装时应保证液压马达所联接的传动轴与输出轴同心。
2.泄露：泄油口应单独直接回油箱，一般情况下壳体允许最大压力为0.05Mpa，如用户有自由轮工况要求时，向本公司咨询，特殊订购。
3.液压马达首次启动前，必须向马达壳体内注满液压油，以防损坏马达，同时泄油管的最高水平位置应高于马达壳体的最高水平位置，以防马达内的油液排空。

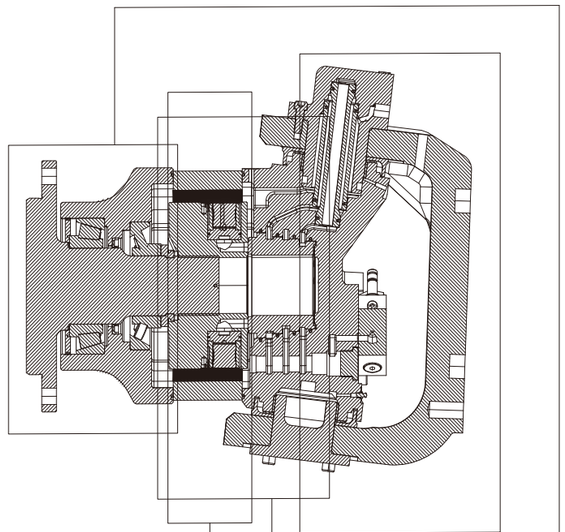
1. The hydraulic motor can be installed at will. The bracket for installing the motor must have enough rigidity. When installing, it should ensure that the transmission shaft connected by the hydraulic motor is concentric with the output shaft.
2. Leakage: The oil drain port should be directly returned to the oil tank separately. Under normal circumstances, the maximum allowable pressure of the shell is 0.05 Mpa. If the user has the requirement of free wheel condition, consult our company for special order.
3. Before starting the hydraulic motor for the first time, hydraulic oil must be filled into the motor housing to prevent damage to the motor. The highest horizontal position of the oil drain pipe should be higher than the highest horizontal position of the motor housing to prevent the oil in the motor from being emptied.

马达特点 Motor characteristics

1.模块化设计
整体结构按模块化设计，片式叠装，分机械输出装置，液压功能装置，因此能方便与各种主机优化配套。
2.效率高
采用多作用平面配流技术，对压力和温度敏感度低，自动补偿配流摩擦副间的磨损，从而长时期保证马达很高的容积效率，同时采用滚柱，柱塞结构，传力简单，摩擦副少，提高了机械效率。
3.工作压力高，低速性能好，具备自由轮工况
最高压力可达40Mpa，由于传力机构惯量小，柱塞副由柱塞环密封，因而启动效率高，低速性能好，最低稳定转速≤0.5rpm。
4.可承受径向和轴向负荷
采用独立设置机械输出装置，轴承和输出轴的直径尺寸都很大，并且液压功能装置径向力平衡是由纯扭矩输出，因而马达可承受较大的轴向力和径向力，可以是直接齿轮输出或直接布置在车辆驱动轮上。

1. Modular design
The whole structure is modularized and stacked, which is divided into three parts: mechanical output device, hydraulic function device, so it is convenient to optimize and match with various mainframes.
2. Efficiency
The multi-action plane flow distribution technology is adopted, which has low sensitivity to pressure and temperature, and automatically compensates the wear between flow distribution friction pairs, thus ensuring high volumetric efficiency of the motor for a long time. The roller and plunger structure is adopted, which makes the force transmission simple, has few friction pairs, and improves the mechanical efficiency.
3. High working pressure, good low speed performance and free wheel condition
The maximum pressure can reach 4oMpa. Because the inertia of the force transmission mechanism is small and the plunger pair is sealed by the plunger ring, the starting efficiency is high, the low-speed performance is good, and the minimum stable speed is ≤0.5rpm.
4. Able to withstand radial and axial loads
With independent mechanical output devices, the diameter dimensions of bearings and output shafts are very large, and the radial force balance of hydraulic functional devices is output by pure torque, so the motor can bear larger axial force and radial force, which can be directly output by gears or directly arranged on the driving wheels of vehicles.

马达编号



O	M	G	1	1	—	C	—	D	D	—	F	1	0	1	—	P	1	9	0	—	S					

C 配流体 valving

单排量配流体 1-displacement valving		R
双排量配流体 2-displacement valvin	顺时针方向 Clockwise	D 排量比(Ratio) 2 E 排量比(Ratio)<2 F 排量比(Ratio)>2
双排量配流体 2-displacement valvin	逆时针方向 Counterclockwise	G 排量比(Ratio) 2 H 排量比(Ratio)<2 J 排量比(Ratio)>2

D 对称曲线滚道 Cams with equal lobes

型号 model	序号 Serial Number	排量 ml/r Displacement 全排量 Full displacement	半排量 Half displacement
OMG11	8	837 ml/r	419 ml/r
	9	943 ml/r	472 ml/r
	0	1048 ml/r	524 ml/r
	1	1147 ml/r	574 ml/r
	2	1259 ml/r	630 ml/r

F 液压连接油口 Hydraulic connection oil port

ISO 11926-1 连接(Connections)	A
ISO 6149-1 连接(Connections)	8
UNF ISO 8434-3 连接(Connections)	A
UNF-ISO 8434-3 连接(Connections)	8

1 带C型机座 With C-Frame

0 马达横轴 Crossing motor axis

1 无附件 Without attachments

P 标准轴支撑 Standard bearing support

8 x M20 x 1.5，Ø275	9
8 x M20 x 1.5，Ø275*	7
P16*驻车制动器 P16*Parking brake	N

S 待研发 Pending Development

氟化橡胶密封	Fluorinated rubber seal	1
已安装速度传感器	Speed sensor installed	2
泄油口	Oil drain port	5
工业轴承支撑	Industrial bearing support	6
Diamond™		7
预留速度传感器位置	Predisposition for speed sensor	8
恶劣工况	Bad condition	C
特殊喷漆或无喷漆	Special paint or no paint	D
加强轴封	Reinforced sealing	E
高效率	High efficiency	H
加强轴肩	Reinforced shaft shoulder	J

A 可交换的单排量配流体 1-displacement valving with exchange

1 可交换的双排量配流体 2-displacement valving with exchange

1 无螺栓 Without studs

2 螺栓，螺母 With studs + nuts

3 螺栓 With studs

4 M螺纹孔 M threaded holes

技术性能参数(对称内曲线滚道)

Technical performance parameters(symmetrical inner curved raceway)

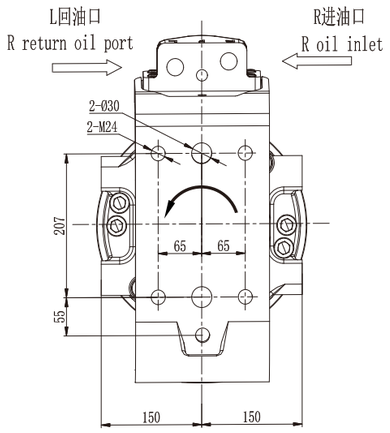
对称曲线滚道 Cams with equal lobes	型号 model	编号 Serial Number	排量 Displacement ml/r	压力/Pressure MPA 额定压力 Rated Pressure	压力/Pressure MPA 尖峰压力 Max.pressure	扭矩/Torque N.m 额定扭矩 Rated Torque	扭矩/Torque N.m 单位扭矩 Unit Torque	转速/Speed r/min 额定转速 Rated Rotational Speed	转速/Speed r/min 转速范围 Rotational Speed Range	最大功率 Max. rated power Kw
	OMG11	8	1674 ml/r，837 ml/r	25	31.5	3325，1662	133，67	60	0-185	44,22
		9	1885 ml/r，943 ml/r	25	31.5	3750，1875	150，76	60	0-180	44,22
		0	1048 ml/r，524 ml/r	25	31.5	3916，1860	167，83	65	0-160	44,22
		1	1147 ml/r，574 ml/r	25	31.5	4286，2035	183，91	60	0-150	44,22
		2	1259 ml/r，630 ml/r	25	31.5	4704，2234	200，100	60	0-150	44,22

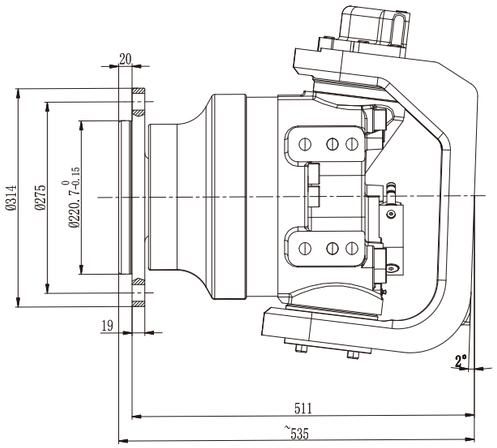
双排量轮边马达

OMG11-X-DA8-101-1920-0000

马达按顺时针方向旋转

The motor rotates clockwise



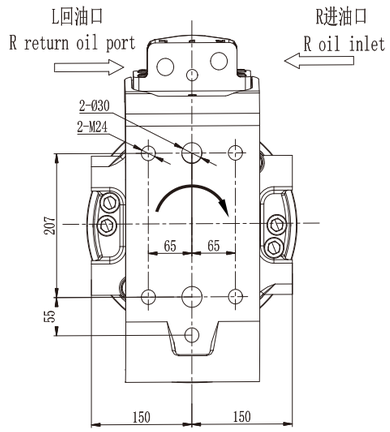


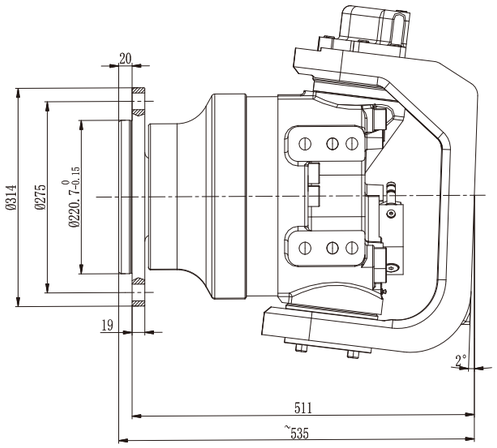
双排量轮边马达

OMG11-X-GA8-101-1920-0000

马达按逆时针方向旋转

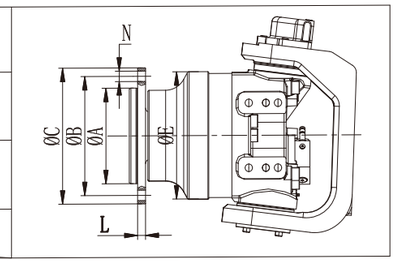
The motor rotates in a counterclockwise direction



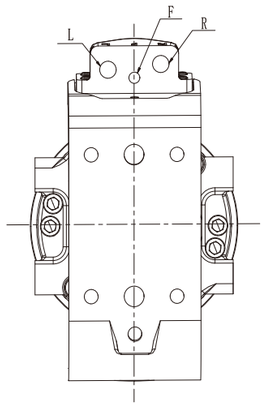


轮边马达轴承支撑 Wheel motor bearing support

轴承支撑类型P Type of bearing support P							
编号 NO.	A	B	C	E	N	轮毂安装 Rim installation	L
1920	Ø220.7	Ø275	Ø314	Ø295	Ø24	8xM22x1.5	19



注：若有其他类型，请咨询本公司工程师
Note: For other types, please consult our engineers for details

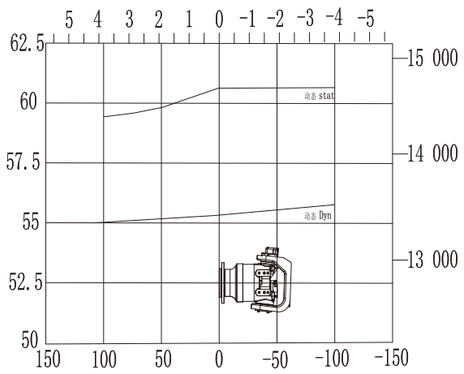


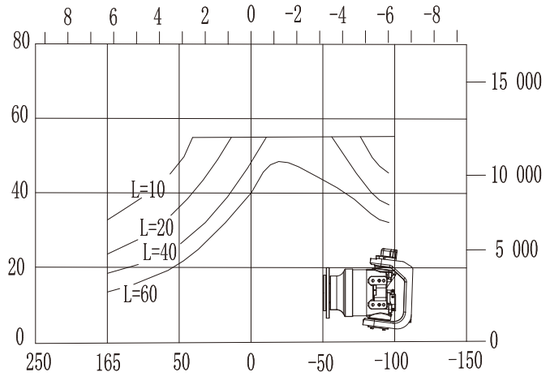
液压连接油口 Hydraulic connection oil port

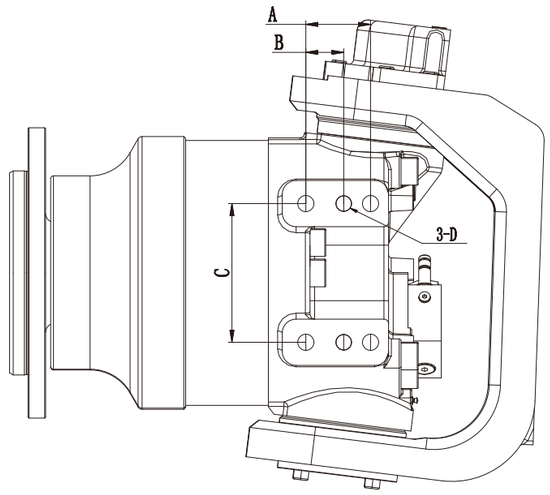
液压连接(连接油口) Hydraulic connection oil port				
编号 NO.	旧标准 Old standard	标准 standard	主油口 Main oil port (L,R)	泄油口 Shell drain port (F)
A	SAE J514	ISO 1926-1	1″1/16-12UNF	3/4″-12UNF
8		ISO 6149-1	M27X2	M18X1.5

负载曲线(续)
Load curves (continued)

1	9	1	0
N	7	1	0

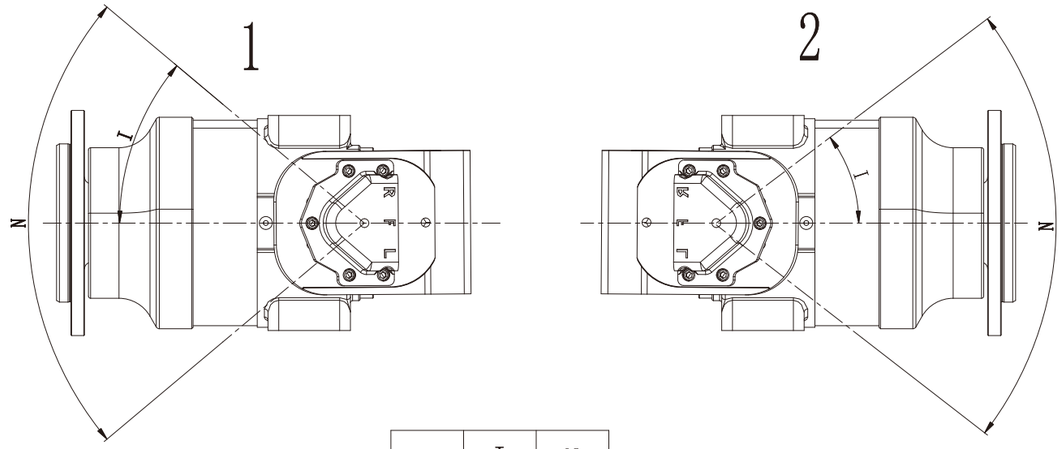






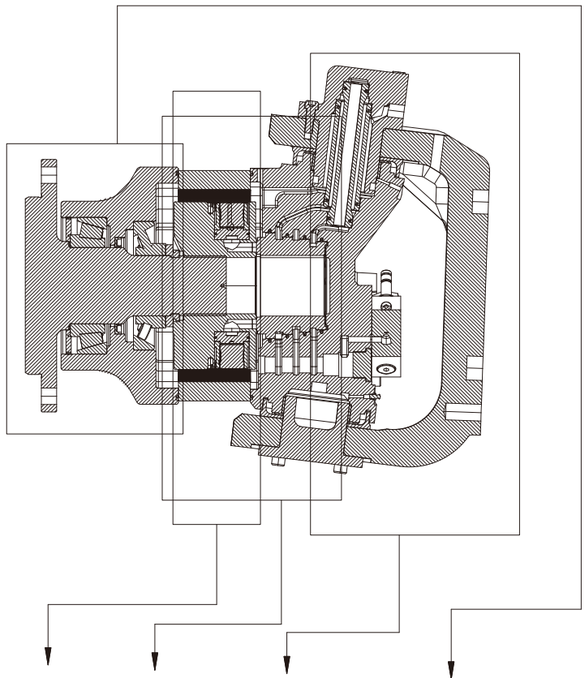
A	B	C	D
70	41	150	3-Ø16

摆动角度 Steering angle



	I	N
1	80°	40°
2	74°	37°

马达编号



C D F P S

O M G 2 1 — □ — □□□ — 1 0 1 — 1 9 □ 0 — □□□□□□

C 配流体 valving

单排量配流体 1-displacement valving		R
双排量配流体 2-displacement valvin	顺时针方向 Clockwise	D 排量比(Ratio) 2 E 排量比(Ratio)<2 F 排量比(Ratio)>2
双排量配流体 2-displacement valvin	逆时针方向 Counterclockwise	G 排量比(Ratio) 2 H 排量比(Ratio)<2 J 排量比(Ratio)>2

对称曲线滚道	型号	序号 Serial Number	排量 ml/r Displacement	
			全排量 Full displacement	半排量 Half displacement
	OMG21	8	1674 ml/r	837 ml/r
		9	1885 ml/r	943 ml/r
		0	2096 ml/r	1048 ml/r
		1	2294 ml/r	1147 ml/r
		2	2519 ml/r	1260 ml/r

D

可交换的单排量配流体 1-displacement valving with exchange	1
可交换的双排量配流体 2-displacement valving with exchange	A

F 液压连接油口 Hydraulic connection oil port

ISO 11926-1 连接(Connections)	A
ISO 6149-1 连接(Connections)	8

101

带C型机座 With C-Frame	1
无附件 Without attachments	0
马达横轴 Crossing motor axis	0

P 19□0

标准轴支撑 Standard bearing support	1
8 x M20 x 1.5 , Ø275	9

S

氟化橡胶密封	Fluorinated rubber seal	1
已安装速度传感器	Speed sensor installed	2
泄油口	Oil drain port	5
工业轴承支撑	Industrial bearing support	6
Diamond™		7
预留速度传感器位置	Predisposition for speed sensor	8
恶劣工况	Bad condition	C
特殊喷漆或无喷漆	Special paint or no paint	D
加强轴封	Reinforced sealing	E
高效率	High efficiency	H
加强轴肩	Reinforced shaft shoulder	J

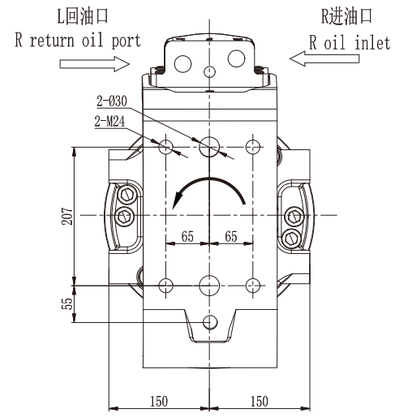
无螺栓 Without studs	1
螺栓，螺母 With studs + nuts	2
螺栓 With studs	3
M螺纹孔 M threaded holes	4

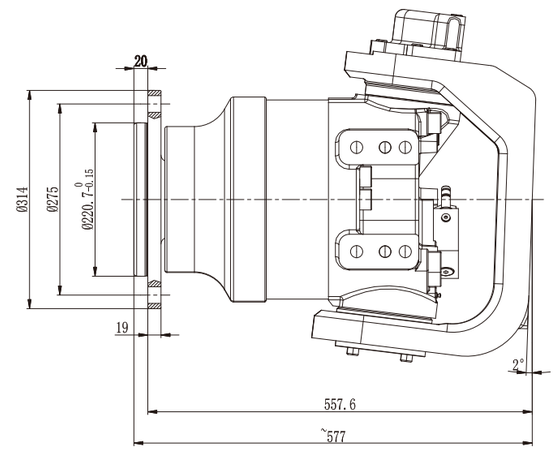
技术性能参数(对称内曲线滚道)
Technical performance parameters(symmetrical inner curved raceway)

对称曲线滚道 Cams with equal lobes	型号 model	编号 Serial Number	排量 Displacement ml/r	压力/Pressure MPA		扭矩/Torque N.m		转速/Speed r/min		最大功率 Max. rated power Kw
				额定压力 Rated Pressure	尖峰压力 Max.pressure	额定扭矩 Rated Torque	单位扭矩 Unit Torque	额定转速 Rated Rotational Speed	转速范围 Rotational Speed Range	
	OMG21	8	1674 ml/r , 837 ml/r	25	31.5	6650, 3375	266, 135	60	0-125	53,71
		9	1885 ml/r , 943 ml/r	25	31.5	7500, 3800	300, 152	60	0-110	53,71
		0	2096 ml/r, 1048 ml/r	25	31.5	7830, 3916	333, 169	65	0-100	53,71
		1	2294 ml/r, 1147 ml/r	25	31.5	8570, 4286	365, 185	60	0-90	53,71
		2	2519 ml/r , 1260 ml/r	25	31.5	9400, 4704	400, 203	60	0-80	53,71

双排量轮边马达
OMG21-X-DA8-101-1920-0000

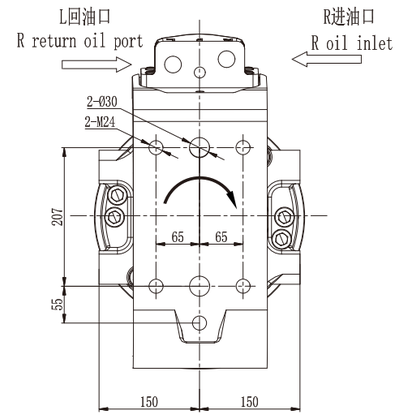
马达按顺时针方向旋转
The motor rotates clockwise

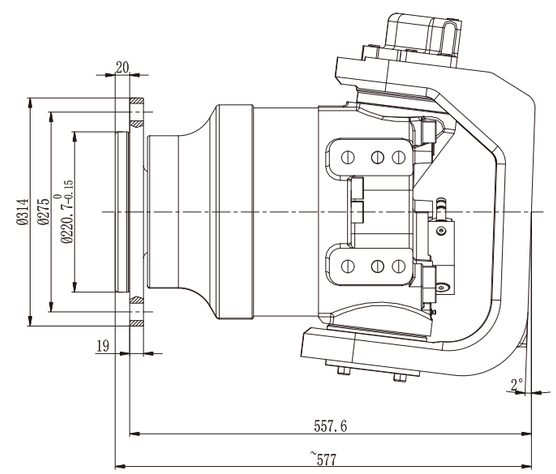




双排量轮边马达
OMG21-X-GA8-101-1920-0000

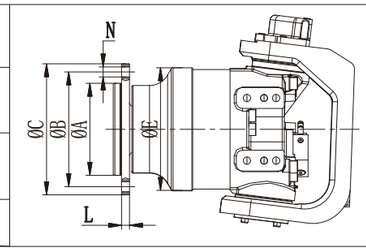
马达按逆时针方向旋转
The motor rotates in a counterclockwise direction



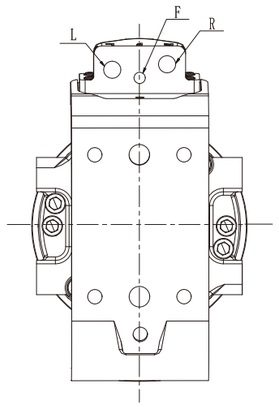


轮边马达轴承支撑 Wheel motor bearing support

轴承支撑类型P Type of bearing support P							
编号 NO.	A	B	C	E	N	轮毂安装 Rim installation	L
1920	Ø220.7	Ø275	Ø314	Ø295	Ø24	8xM22x1.5	19



注：若有其他类型，请咨询本公司工程师
Note: For other types, please consult our engineers for details

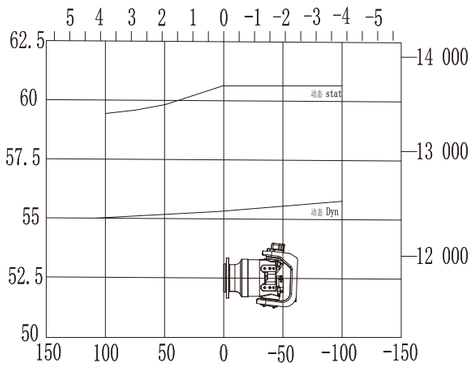


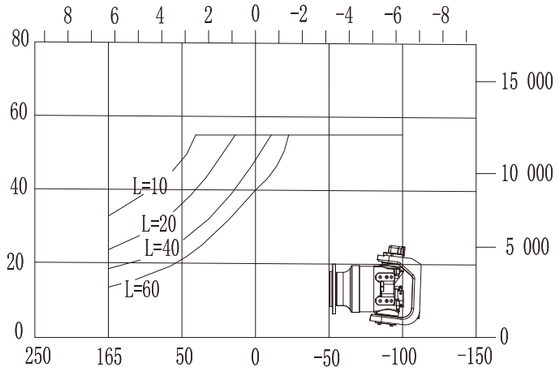
液压连接油口 Hydraulic connection oil port

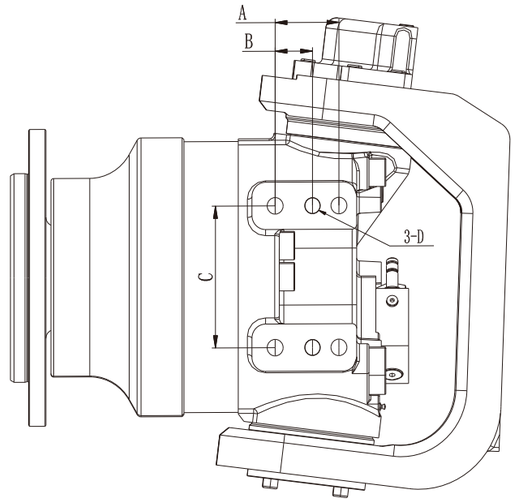
液压连接(连接油口) Hydraulic connection oil port				
编号 NO.	旧标准 Old standard	标准 standard	主油口 Main oil port (L,R)	泄油口 Shell drain port (F)
A	SAE J514	ISO 1926-1	1″1/16-12UNF	3/4″-12UNF
8		ISO 6149-1	M27X2	M18X1.5

负载曲线(续)
Load curves (continued)

1	9	1	0

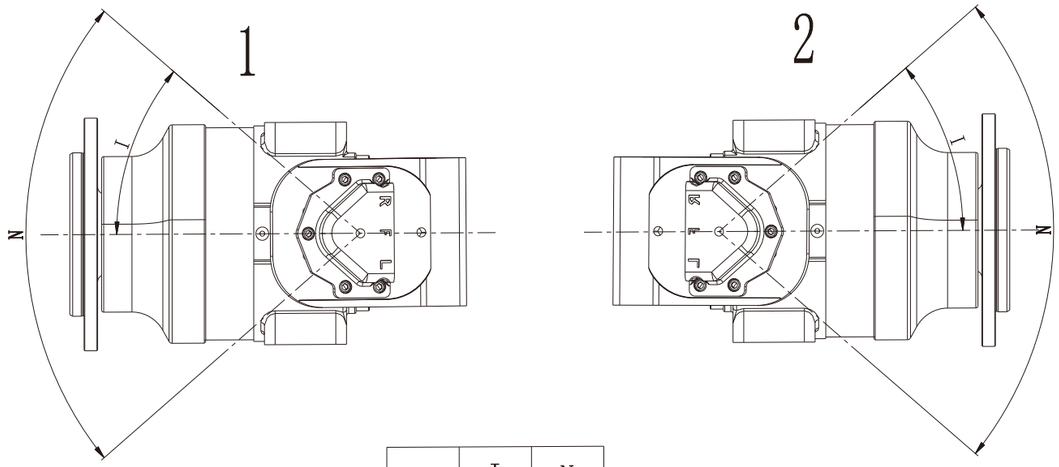






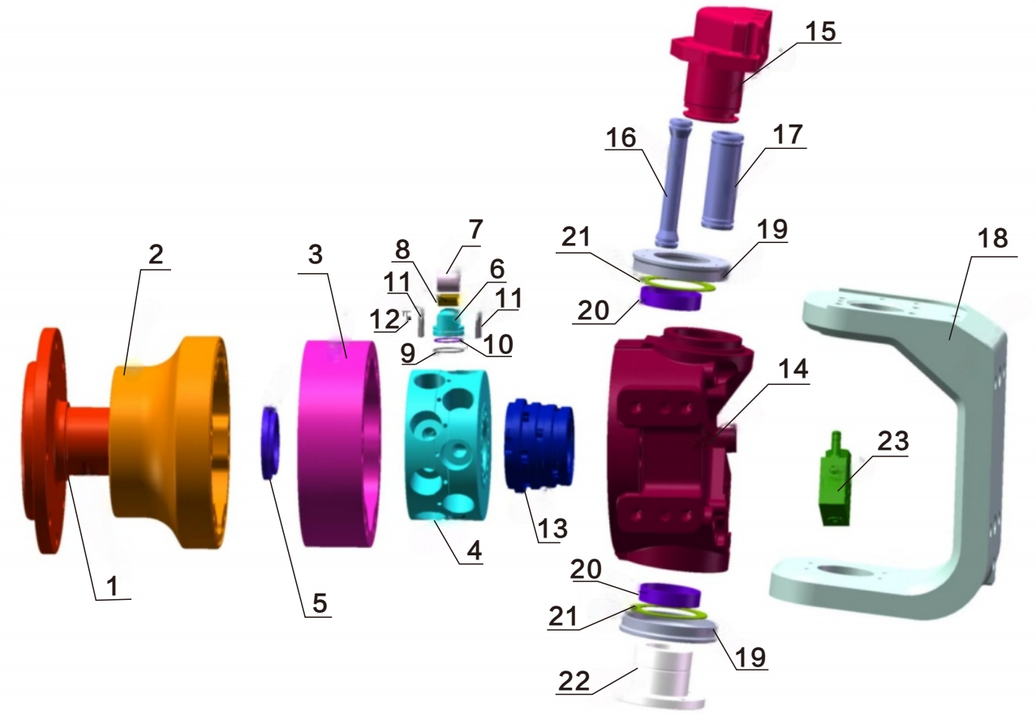
A	B	C	D
70	41	150	3-Ø16

摆动角度 Steering angle



	I	N
1	80°	40°
2	74°	37°

产品详细介绍
Detailed introduction of products



序号 Ltem	部件名称 Description	数量 Quantity
1	输出轴 Output shaft	1
2	车轮前盖 Wheel cover	1
3	定子 Stator	1
4	转子体 Rotor	1
5	卡簧 Circlip	1

序号 Ltem	部件名称 Description	数量 Quantity
6	柱塞 Single section	16
7	滚子 Roller	16
8	无油轴承 Bushing	16
9	活塞环 Piston Ring	16
10	O型圈 O-ring	16
11	塑料挡块 Black cap	32
12	弹簧销 Button	16
13	配油轴 Camshaft	1
14	后盖 Rear Cover	1
15	通油盘 Oil Pan	1
16	通油管 1 Unclog oil pipe 1	1
17	通油管 2 Unclog oil pipe 2	1
18	U型架 U-shaped rack	1
19	防尘盖 Dust cover	1
20	垫圈 Washer	2
21	垫片 Gasket	2
22	端盖 End Cap	2
23	阀块 Valve block	1