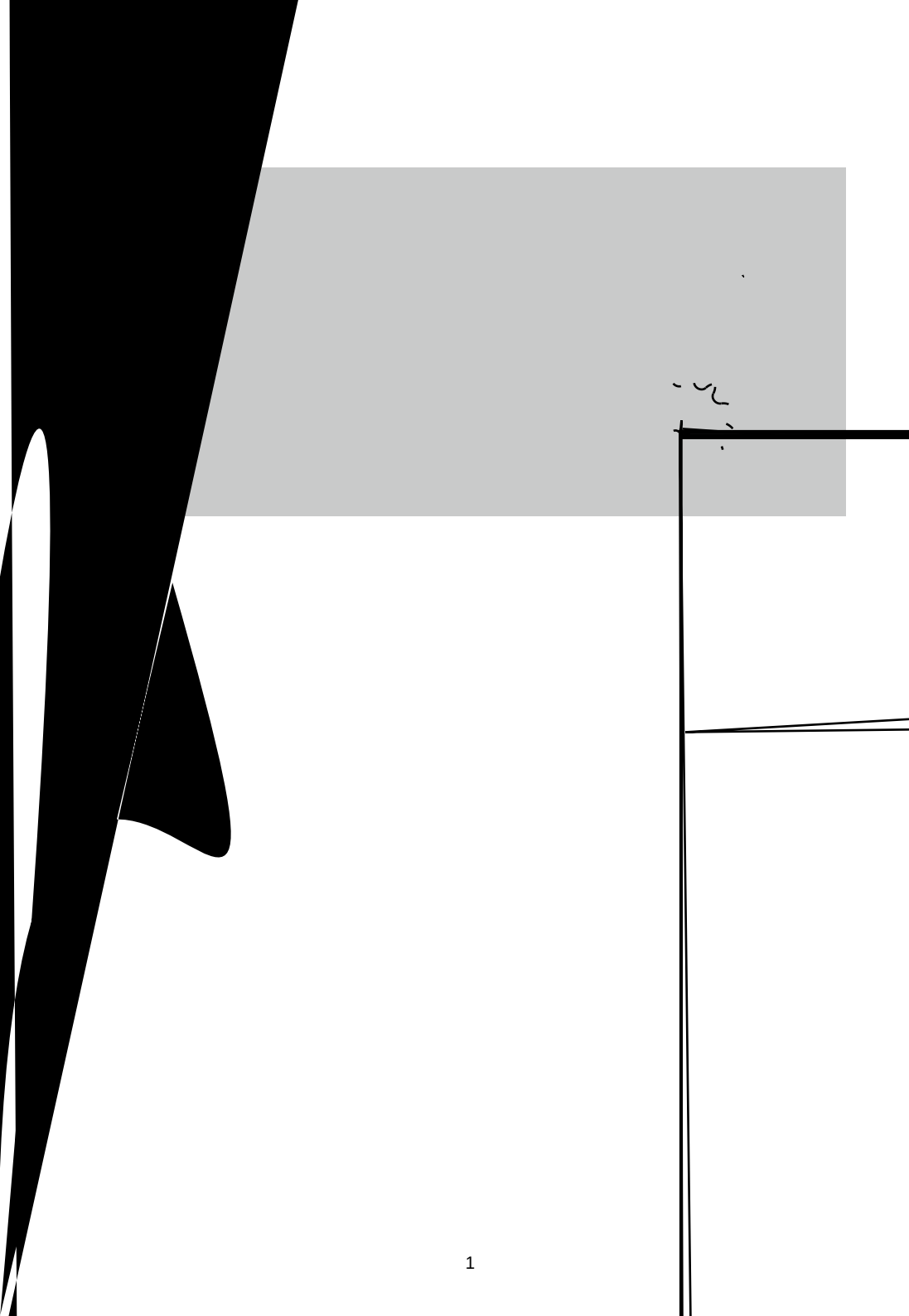


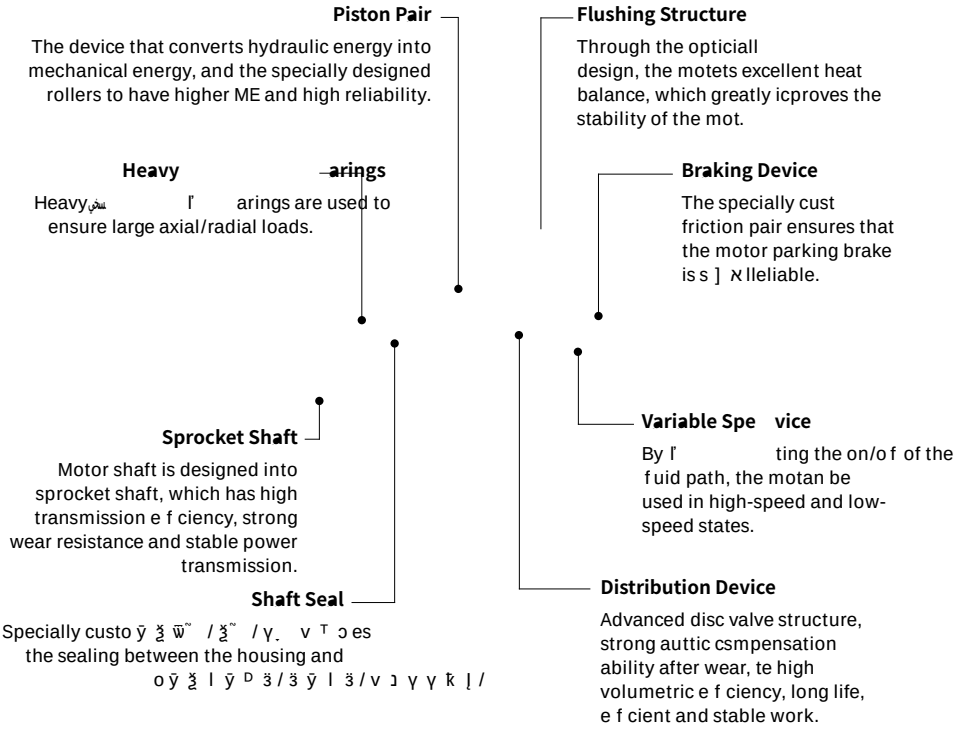
Overview

The HRP5A series radial piston hydraulic motor, is a kind of low speed high torque hydraulic motor, disc valve structure, with high pressure, good stability at low speed, high volumetric efficiency and mechanical e f ciency, the motor can be equipped with a variety of functional modules.

Advantages

· Using tapered roller bearing structure, can support larger axial and radial load.
· Advanced disc valve structure, strong automatic compensation ability after wear, to ensure high volumetric e f ciency, long life, high e f ciency and stable work.
· Various function modules can be selected, such as f ushing valve, brake, variable speed valve, speed sensor, etc., are available to meet the needs of users in various f elds.

Standard structure



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Specification

Series				HRP5A
Motor performance				
Displacement			cm^3/rev.	565
Variable Displacement			cm^3/rev.	310
Max.torque			N·m	4047
Min.stable speed			rpm	5
Max.speed	Displacement		rpm	320
	Variable displacement		rpm	385
Pressure	Max.differential pressure		bar	400
Max.power			kW	35
Wight	Two-speed	With brake	kg	60
		Without brake	kg	49
Brake				
Static braking torque			N·m	2200
Release pressure			bar	11 15
Maximum pressure at brake port Z			bar	30
Oil volume to operate brake			cm^3	23

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· Make sure the motor is full of oil before use.

· During motor running-in(at least 20 hours), it should not be operated without load at greater than 100rpm.

· The filtration standard of ISO 4406 cleaning standard 20/18/15 is recommended.

· High quality anti-wear hydraulic fuids are recommended.

· When the temperature is 50° , the minimum viscosity of the oil is recommended to be 20mm^2/s.

· The recommended maximum operating temperature is 85° C.

Ordering information

HRP5A	2	11	M6	S4	N	A2	B	AA

Radial Piston Series

	Incurve multiple-action radial piston motor	HRP5A

Single and Two Speed

	Two speed, gear ratio 2	2

Displacement cm^3/rev.

	565/310, Step piston	11

Port Connection

	1-1/16-12UN(A, B), 3/4-16UNF(L), 3/4-16UNF(F), 9/16-18UNF(X), mounting fange forward 5mm	MH
	1-1/16-12UN(A, B), 3/4-16UNF(L), 3/4-16UNF(F), 9/16-18UNF(X)	M6
	G3/4(A, B), G3/8(L), G1/2(F), G1/4(X)	M5
	1-1/16-12UN(A, B), 3/4-16UNF(L), 3/4-16UNF(F), 9/16-18UNF(X)	MP

Output Shaft

	17 teeth spline DIN5480-W55 × 3 × 17 × 8f	S3
	Double-sprocket 11 teeth, Chain No. 100(ISO 606)	S4
	56 teeth spline ANSIB92.1	SK
	Double-sprocket 10 teeth, Chain No. 16A(ISO606)	SM
	Double-sprocket 9 teeth, 100/20A(ISO606)	S7

Paint Option

	No Paint	N
	Black	B
	Hengli blue	C
	Yellow	Y

Ordering information

Brake

	Static braking torque 2200N·m, port Z 9/16-18UNF	A2
	Static braking torque 2200N·m, port Z G1/4	A4

Flushing Valve

		M5	M6	MP	MH	Code
	No flushing valve	●				A
	There is a flushing valve with a flow rate of 5L/min		●	●	●	B
	There is a flushing valve with a flow rate of 7L/min		●	●	●	C
	There is a flushing valve with a flow rate of 10L/min		●	●	●	D
	There is a flushing valve with a flow rate of 12.5L/min		●	●	●	E
	There is a flushing valve with a flow rate of 13.5L/min		●	●	●	F

Special Features

		M5	M6	MP	MH	Code
	High temperature, FKM	●	●	●	●	V1
	Speed sensor cavity, High temperature, FKM		●	●	●	S4
	Speed sensor, High temperature, FKM		●	●	●	S3

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Note: ● =Available; For the other types of port forms, output forms and brake port orienttations, please contact Hengli's application engineer for consultation.

Ordering information

Speed sensor

·Speed sensor: S3

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Dimensions	Ø10.25 /L=18.4mm
Voltage	8-32VDC
Input Current	<15mA
Sensing distance	0.2~2mm
Power reverse protection Y/N	Yes
Power input overcurrent and overvoltage protection Y/N	Yes
Maximum output current	50mA
Voltage drop	≤ 3VDC
Working frequency	0-20KHz
Output signal	A, B
Operating temperature	-40 ~+125
Protection	IP67/IP69K
Shell material	Copper/plastic
Pressure resistance of measuring surface	10bar
Connector	Cable 0.33m, Injection 4-core DEUTSCH DT04-4P-EP04 plug

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Speed sensor

·Speed sensor: S3

■ OUTPUT SIGNAL

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■ TERMINAL ASSIGNMENT

P - 0274

■ WIRING DIAGRAM

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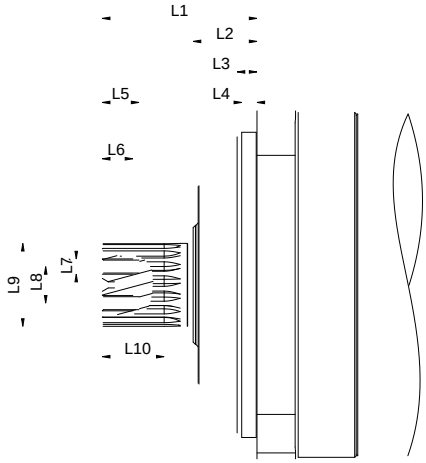
Shaft end dimensions

·Spline Shaft



Hydraulic diagram

·Motor without brakes

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·Motor with parking brake

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·Schematic diagram of a two-speed motor

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·Flushing valve schematic

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Allowable shaft load/bearing curve

As shown in the fgure, when the axial load is 0, the radial allowable load of the output shaft is related to the distance from the flange mounting surface to the load action point.

The solid line shows the allowable radial load of the bearing based on life with 2000hrs. Denote use hydraulic fluids containing anti-wear additives, and rated output torque and motor speed of 50rpm, the differe l' ḍ γ γ

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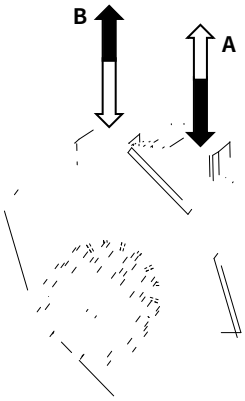
Rotation direction: CW

When facing the motor shaft extension direction, port A is high pressure oil, the output shaft rotates CW; Otherwise, it rotates CCW.



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