

Parts Manual
PL70-1040EN
07/11/2012

Cleco®

A8R-2209
Reversible Axial Piston Power Motor



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Language Version:

This Parts Manual is the **“Original Instructions”** intended for all persons who will use or repair these tools.

Product Identification:

Refer to the “Specifications” page in this document.

Noise and Vibration:

Refer to documents CE-1005DC and CE-1005TD.

General Description:

Air powered reversible axial piston motors.

Intended Use:

These pneumatic motors are intended to be a power source for other equipment. Use only for their designated purpose. Do not use in an improper manner that can cause motor damage and operator injury.

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Cleco® Specifications

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Model	Maximum Allowable RPM		Stall Torque		Starting Torque		Weight		Gear Ratio	Max. Overhung Load @ Stall*	
	@ Max. hp	Free Speed	ft. lbs.	Nm	ft. lbs.	Nm	lbs.	kg		lbs.	kg
A8R-2209	225	450	110.0	149.0	82.0	111.0	38	17.5	5.8:1	1000	454

* Note: All models assume overhung load located at 2.25" (57.15mm) from face of motor.

Air Supply:

Minimum Hose I.D.: 3/8"
Air Inlet Thread: 3/8" NPTF

Lubrication:

Recommended Grease: A123771

Motor Housing:

Grease Capacity: 6 ounces
10 Hours of operation: add 2 ounces

CAUTION: Excessive grease will cause a loss in motor performance. Inadequate grease can cause premature motor failure.

Gear Case:

Grease Capacity: 2 ounces
200 Hours of operation: add 0.5 ounce

CAUTION: Excessive grease will force the seal out of the front housing.



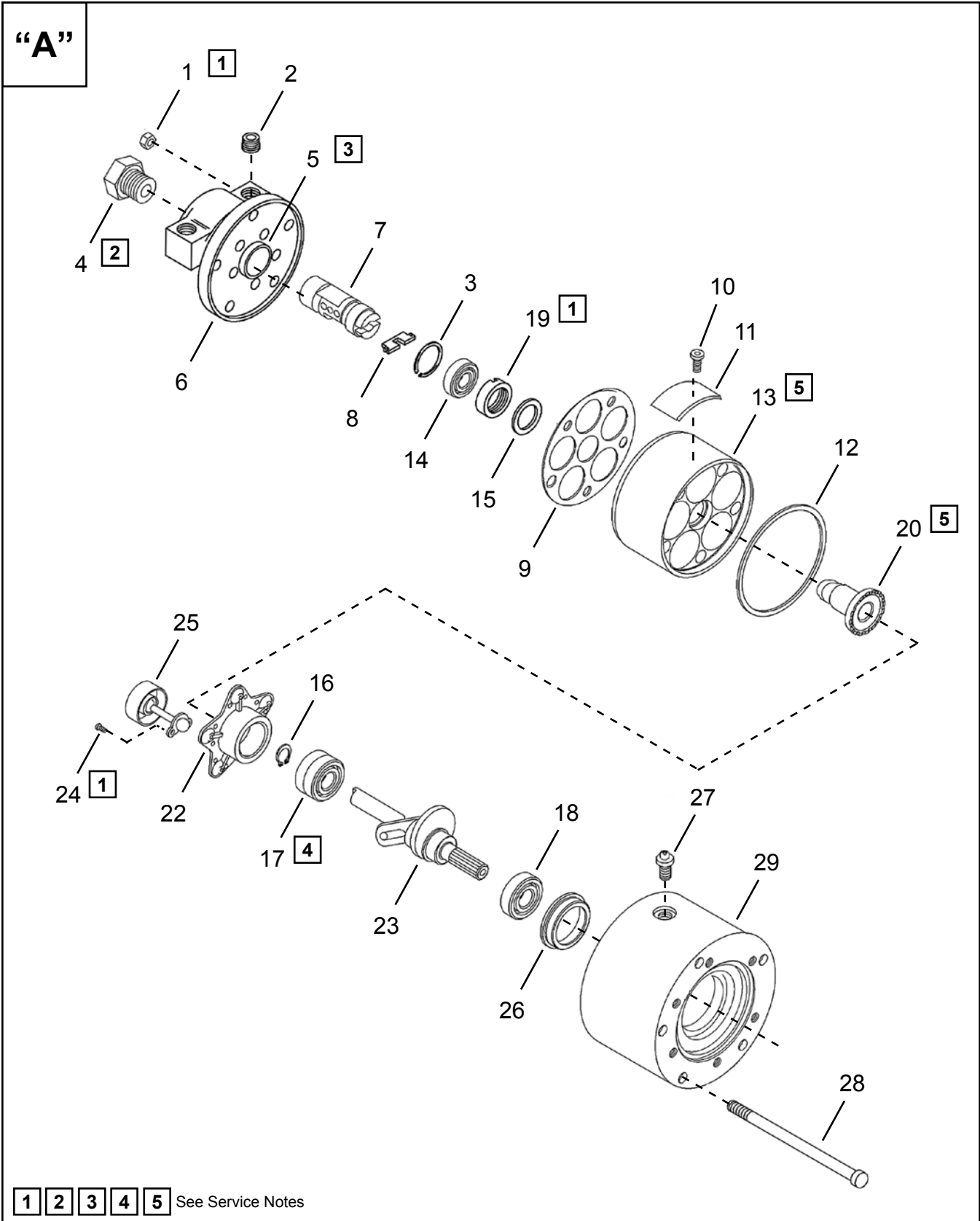


Illustration "A"

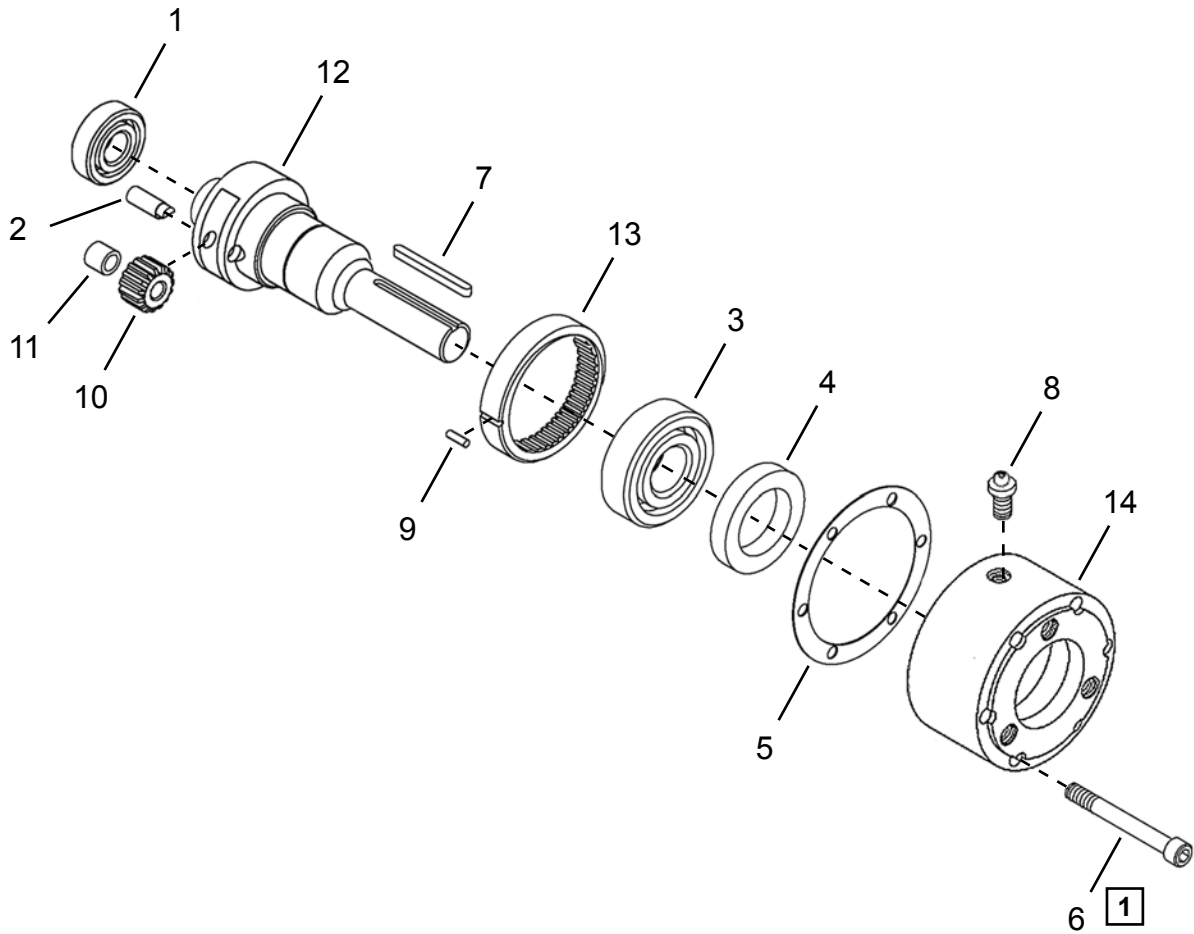
Ref	Number	#	X	EN
				Description
1	C108S	5	10	Nut
2	B110E	2	2	Pipe Plug
3	3V235	1	2	Retaining Ring
4	17749	1	2	Reducer Bushing
5	3VR77	1	2	Bushing
6	A17738	1		Head Assembly (includes Ref. 2-4-5)
7	508321	1		Distributor (includes Ref. 3-8)
8	3V43	1	2	Key
9	10012PT	1	3	Gasket
10	534820	2	2	Drive Screw (not included in 507491 Power Unit)
11	530322	1	1	Nameplate (not included in 507491 Power Unit)
12	10011	1	3	Gasket
13	A3V1	1		Cylinder
14	OG196	1	2	Bearing
15	3V272	1	2	Washer
16	500741	1	3	Retaining Ring
17	507897	1	2	Bearing
18	22G155	1	2	Bearing
19	3V169	1	2	Lock Nut
20	A3V180	1	1	Bevel Gear
21	542241	1		Socket Plate Assembly (includes Ref. 22-24-25)
22	507742	1		Socket Plate
23	508056	1		Driveshaft
24	3V188	10	20	Screw (Piston Assembly)
25	542240	5	5	Piston Assembly
26	18364PT	1	1	Bearing Liner
27	RG78	1	1	Grease Fitting
28	526543	5	5	Stud
29	526546	1		Rear Housing (includes Ref. 26-28)

(#) Quantity

(X) Recommended Spare Parts (quantity shown based on 1-5 tools in operation)

Cleco®
Single Stage Gearing

“B”



1 See Service Notes

Cleco®
Single Stage Gearing

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Illustration "B"

Ref	Number	#	X	EN
				Description
1	525424	1	2	Bearing
2	10032	2	4	Pin
3	18304	1	2	Bearing
4	18307	1	3	Oil Seal
5	10010	1	3	Gasket
6	B119S	6	6	Bolt
7	18326	1	3	Key
8	RG78	1	1	Grease Fitting
9	DP120PT	1	2	Pin
10	540766	2	4	Idler Gear (includes Ref. 11)
11	800160	2	4	Bearing
12	544024	1		Output Spindle (Gear Cage)
13	10019	1		Ring Gear
14	18313	1		Front Housing

(#) Quantity

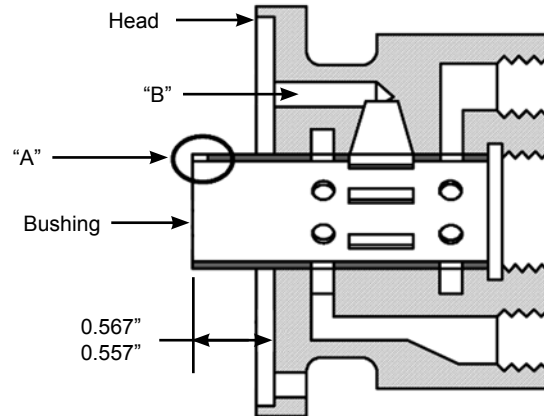
(X) Recommended Spare Parts (quantity shown based on 1-5 tools in operation)



1 Tightening Torque

Illustration	Reference	Tightening torque	
		Ft-Lbs (in-lbs)	Nm
A	1	10-11	13-15
	19	65-70	88-95
	24	9-10	12-13
B	6	18-20	24-27

3 Bushing Assembly



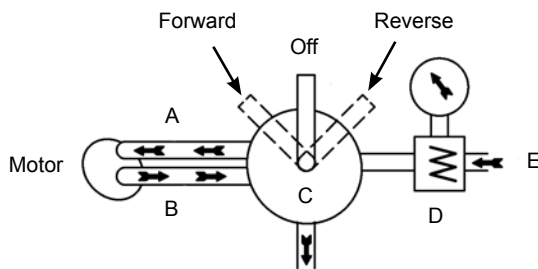
IMPORTANT: Press the new bushing into the head as shown. Notch "A" in the bushing must line up with hole "B" in the head.

2 Motor Valve

If a valve is used, it should have a full flow air passage to utilize full power of the motor.
For quick motor stops, an all-ports closed-in-neutral type valve with a spring return should be used.

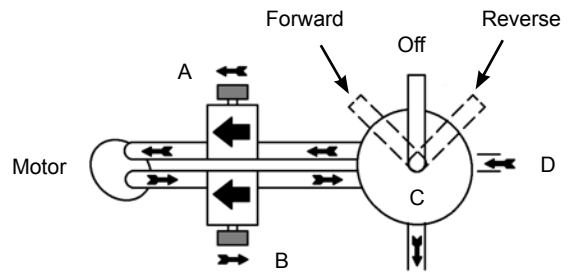
Torque Output Control

- A) When air enters from this side,
- B) it must exhaust without restrictions.
- C) Four-Way Valve
- D) Pressure Regulator
- E) Air Supply

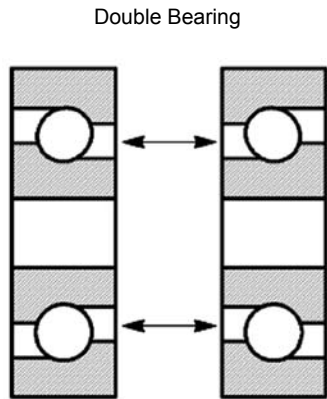


Control Forward and Reverse Speeds

- A) Metered flow control (inlet)
- B) Free (open) flow control (exhaust)
- C) Four-Way Valve
- D) Air Supply

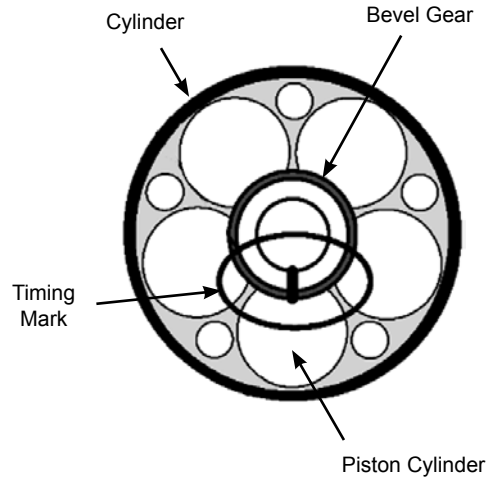


4 Bearing Assembly



IMPORTANT: The small diameters of the bearings must face each other when assembled.

5 Timing Mark



IMPORTANT: Make sure the timing mark on the bevel gear is pointing at the center of a piston cylinder before assembling the driveshaft assembly into the cylinder.



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