

Parts Manual
PL70-1068EN
01/20/2014

Cleco®

OMEGA TECHNOLOGIES

22 Series Double Reduction Three Stage Rotary Vane Power Motors



For additional product information visit our website at:
<https://dotcotool.com/product-category/cleco-tools/cleco-air-motors/cleco-22-series-reversible-rotary-vane-air-motors/>

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Nomenclature

Model Number	Maximum Allowable RPM		Stall Torque		Weight		Overall Length		Air Consumption		Gear Ratio	Exhaust
	@ Max. HP	Free Speed	ft. lbs.	Nm	lbs.	kg	in.	mm	cfm	m3/min		
Round Housing - Reversible - 1/2" Diameter Keyed Spindle (only)												
22-5070-50	165	330	28.4	38.48	2.75	1.25	7.88	200	29	0.82	50.4:1	Side
Flange and Base Mounting - Reversible - 1/2" Diameter Keyed Spindle (only)												
22M5070-50	165	330	28.4	38.48	3.06	1.39	7.88	200	29	0.82	50.4:1	Side
22M5071-50	250	500	19.6	26.56	3.06	1.39	7.88	200	29	0.82	3.48:1	Side
22M5072-50	350	700	13.5	18.29	3.06	1.39	7.88	200	29	0.82	24:1	Side

Termination Options Models:

- 01 Series 200 Collet Chuck (for milling and routing)
- 38 0"-1/4" Capacity Drill Chuck
- 51 1/16"-3/8" Capacity Drill Chuck
- 53 5/64"-1/2" Capacity Drill Chuck
- 60 1/2"-20 Threaded Spindle
- 62 Series "K" Collet Chuck (for milling and routing)

The original language of this manual is English.

Product Safety Information:

Intended Use:

This pneumatic power motor is to be used only as a power source to be integrated into an application or machine.

For additional product safety information refer to Apex Tool Group, LLC or Apex Tool Group GmbH & Co. OHG document CE-2005, General Safety Instructions Air Motors.



The power motor must not be modified in any manner unless approved in writing by Apex Tool Group, LLC or Apex Tool Group GmbH & Co. OHG. All safety devices must be properly installed and maintained in good working order.

EC Declaration of Conformity:

No data available on this equipment.

Noise and Vibration:

No data available on this equipment.

Air Line Lubrication:

Use Apex Tool Group, LLC or Apex Tool Group GmbH & Co. OHG's lightweight air tool oil 500021 (available in quantities shown in the following chart) or an SAE-5 lightweight spindle oil.

Part No.	Packaged	Designation
540397	1 Quart (0.94 liter)	Airlube 10W/NR-420LB DR
533485	1 US Gallon (3.78 liter)	Airlube 10W/NR-420LB DR

Air Supply Line:

Parameter	Description
Air Hose	Air inlet: 1/4" (6,4 mm) 5/16" I.D. Air Hose: Maximum length run of 10.0' (3 m) 3/8" I.D. Air Hose: Runs over 10.0' (3 m)
Working pressure range	60 to 100 psi (414 to 689 kPa) Recommended: 90 psi (620 kPa)
Compressed air	Air quality according to ISO 8573-1, quality class 2.4.3 The compressed air must be clean and dry.

Service and Repair:

Tool service and repair should be performed by an authorized Apex Tool Group, LLC or Apex Tool Group GmbH & Co. OHG Center. Refer to the last page of this manual for locations.

Disposal:

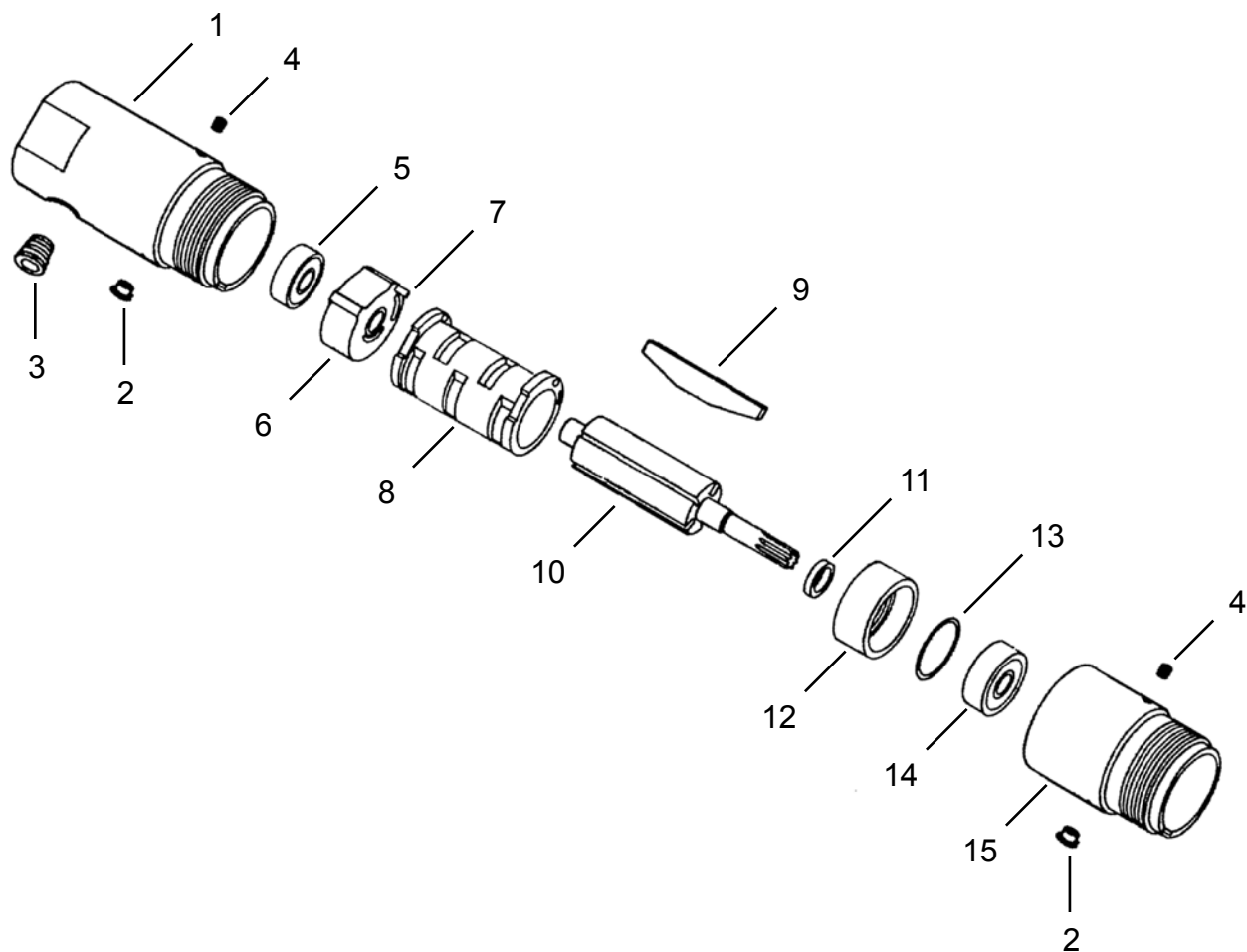


Observe local disposal guidelines for all components of this tool and its packaging.

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“A”



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Motor Assembly

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Illustration "A": Motor Assembly

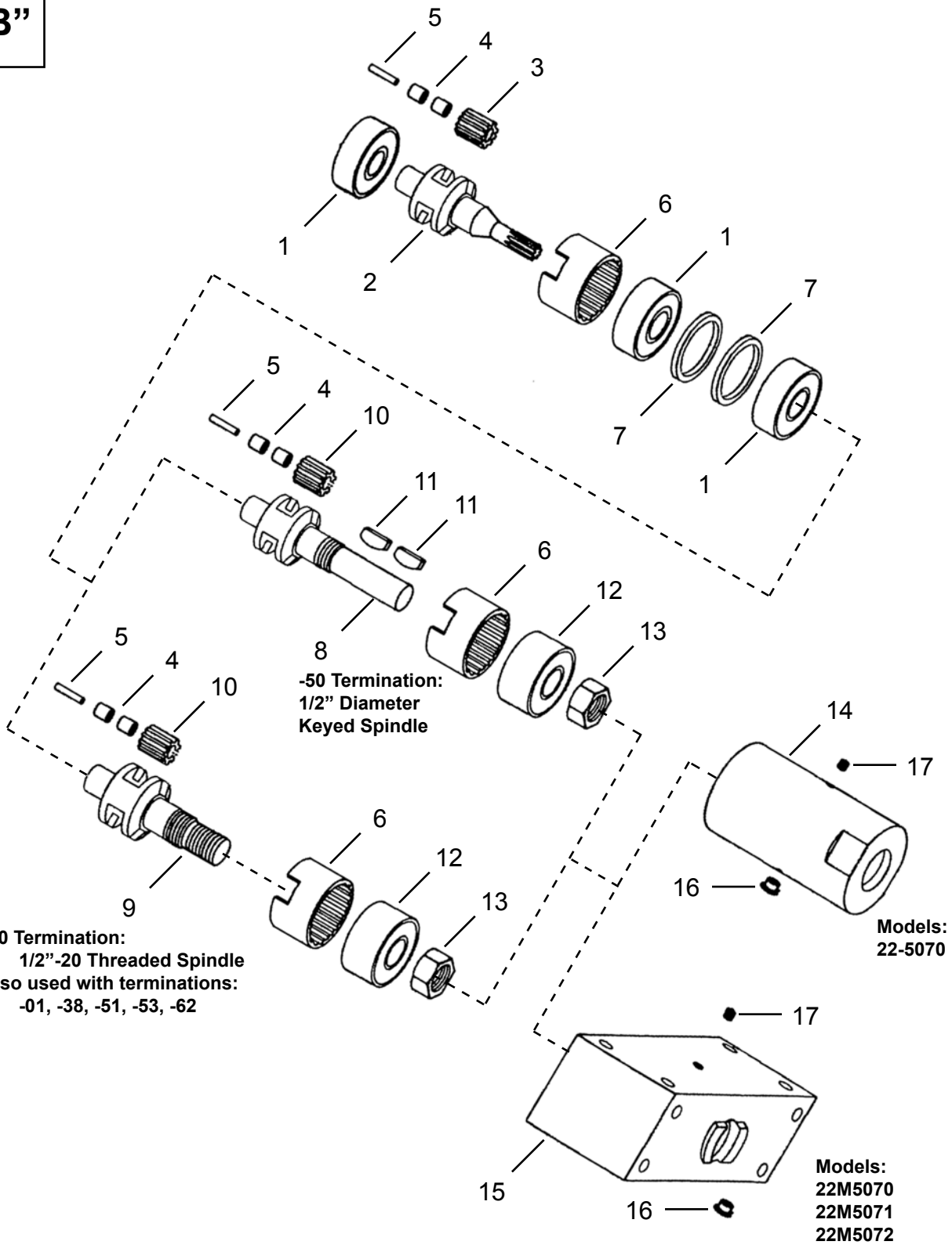
Ref	Number	#	X	EN
				Description
1	02-7131	1		Motor Housing (includes 1 Ref. 2)
2	1664	2	4	Grease Fitting
3	2957	2	4	Pipe Plug (1/4-18 NPTF)
4	2831	2	4	Set Screw (#10-32)
5	538PT	1	2	Ball Bearing
6	7061PT	1		Bearing Plate (includes Ref. 7)
7	1041	1	2	Pin
8	7099PT	1		Cylinder
9	2906	4	8	Rotor Blade
10	7656S	1		Rotor (includes Ref. 11)
11	2017PT	1		Rotor Spacer
12	2959	1		Bearing Plate
13	2488PT	1	2	Shim Packet
14	500PT	1	2	Ball Bearing
15	2720PT	1		Center Housing (includes 1 Ref. 2)

(#) Quantity

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

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Gearing Assembly

"B"



Cleco®
Gearing Assembly

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Illustration "B": Gearing Assembly

Ref	Number	#	X	EN
				Description
1	556	3	6	Ball Bearing
2	Table "B"	1		Planetary Gear Carrier
3	Table "B"	2	4	Planetary Gear (includes 2 Ref. 4)
4	1464	8	16	Planetary Gear Needle Bearing
5	2509PT	4	8	Planetary Gear Shaft
6	2533PT	2		Ring Gear
7	2022PT	2		Bearing Spacer
8	2927	1		Planetary Gear Carrier (-50 Termination)
9	2513PT	1		Planetary Gear Carrier (-01, -62 Terminations)
	2864	1		Planetary Gear Carrier (-38, -51, -53, -60 Terminations)
10	Table "B"	2	4	Planetary Gear (includes 2 Ref. 4)
11	613	2	4	Woodruff Key (-50 Termination)
12	557	1	2	Double Ball Bearing
13	2958	1	1	Lock Nut
14	2893	1		Round Planetary Housing (includes Ref. 16)
15	2819PT	1		Flange and Base Mounting Planetary Housing (includes Ref. 16)
16	1664	1	2	Grease Fitting
17	2831	1	2	Set Screw
Termination 60				
--	14-0812	1	2	Wrench (3/4") (not shown)

(#) Quantity

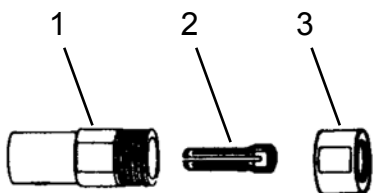
(X) Recommended Spare Parts (quantity shown based on 1-5 tools in operation)

Table "B"

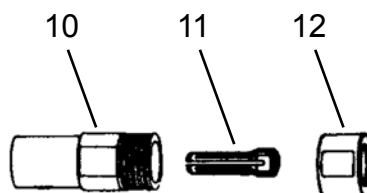
Ref.	Description	#	22-5070 22M5070	#	22M5071	#	22M5072
2	Planetary Gear Carrier	1	2851	1	2848	1	2848
3	Planetary Gear	2	2809PT (17T)	2	2809PT (17T)	2	2956 (15T)
10	Planetary Gear	2	2809PT (17T)	2	2956 (15T)	2	2956 (15T)

(T) Teeth

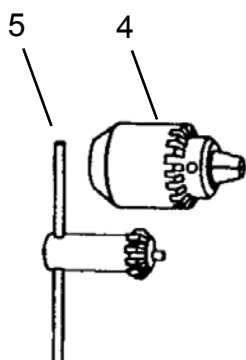
“B”



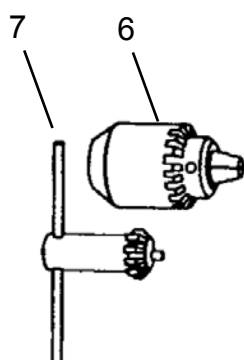
-01 Termination: Series 200 Collet



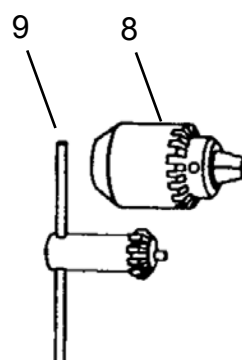
-62 Termination: Series “K” Collet



-38 Termination: 1/4” Drill Chuck



-51 Termination: 3/8” Drill Chuck



-53 Termination: 1/2” Drill Chuck

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Optional Terminations

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Illustration "C": 22 Series Motor Terminations

Ref	Number	#	X	EN
				Description
Termination 01 - Series 200 Collet				
1	2801PT	1	2	Collet Chuck Body
2	208	1	2	1/4" Collet
3	2058PT	1	2	Collet Cap
--	14-0809	1	2	Wrench (9/16") (not shown)
--	14-0812	1	2	Wrench (3/4") (not shown)
Termination 38 - 0"-1/4" Drill Chuck Capacity				
4	14-2545B	1	1	1/4" Chuck
5	14-2548	1	2	Chuck Key
Termination 51 - 1/16"-3/8" Drill Chuck Capacity				
6	14-2546	1	1	3/8" Chuck
7	14-2169	1	2	Chuck Key
Termination 53 - 5/64"-1/2" Drill Chuck Capacity				
8	14-2547	1	1	1/2" Chuck
9	14-2549	1	2	Chuck Key
Termination 62 - Series "K" Collet				
10	14-2254	1	2	Collet Chuck Body
11	124PT	1	2	1/4" Collet
12	4255PT	1	2	Collet Cap
--	14-0814	1	2	Wrench (7/8") (not shown)
--	14-0818	1	2	Wrench (1-1/8") (not shown)

(#) Quantity

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

Sales & Service Centers

Note: All locations may not service all products. Please contact the nearest Sales & Service Center for the appropriate facility to handle your service requirements.

Detroit, Michigan

**Apex Tool Group
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2630 Superior Court
Auburn Hills, MI 48326
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Fax: (248) 391-6295

Houston, Texas

**Apex Tool Group
Sales & Service Center**
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Houston, TX 77041
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Lexington, South Carolina

Apex Tool Group
670 Industrial Drive
Lexington, SC 29072
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Los Angeles, California

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