

Parts Manual
PL70-1086EN
10/20/2014

Cleco®

22M-2327
Double Reduction Rotary Vane Power Motor



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Cleco®
Specifications

| 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 | | |
| Flange and Base Mounting - Reversible - 5/64"-12" Capacity Drill Chuck | | | | | | | | | | | | |
| 22M-2327 | 250 | 500 | 19.6 | 26.56 | 3.06 | 1.39 | 7.88 | 200 | 29 | 0.82 | 3.48:1 | Side |

The original language of this manual is English.

Product Safety Information:

Intended Use:

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

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



The 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.

Declaration of Incorporation:

We affirm that this machine complies with the basic requirements of the following directives (2006/42/EC) and is intended for installation / assembly in a / with other machine(s). Commissioning of the incomplete machine is prohibited until such time that the incomplete machine has been incorporated in a machine that complies with the EC Machinery Directive 2006/42/EC and for which there is an EC Declaration of Conformity in accordance with Appendix II A. We furthermore declare that the special technical documentation for the incomplete machine is in accordance with Appendix VII Part B. We undertake to have it passed on to the market surveillance body upon request by our representative for the compilation of technical documentation. The following Sections of Appendix I of Directive 2006/42/EC have been fulfilled: 1.1.2, 1.1.3, 1.1.5, 1.3.2, 1.3.4, 1.5. Applied harmonized standards are ISO 12100-1: 2004-04, ISO 12100-2:2004-04.

The name, job function and address of the person authorized to compile the technical file.

Mr. Vishnu Irigreddy
Director of Global R&D- Mechanical Engineering
Apex Tool Group
670 Industrial Drive
Lexington, SC 29072

Signature: Vishnu Irigreddy
Date: October 10, 2014

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 |

Recommended Grease:

| Part No. | Packaged | Designation |
|----------|------------------|-------------------------------|
| A123771 | 16 oz. (04.5 kg) | Shell Alvania ® EP 00 |
| 540450 | 16 oz. (04.5 kg) | Chevron Black Pearl ® EP NLgl |

Air Supply Line:

| Parameter | Description |
|------------------------|---|
| Air Hose | Minimum inside diameter: 5/16" (7.9mm) I.D. Max. length 10' (3m) 3/8" (9.5mm) I.D. Length over 10' (3m) |
| Working pressure range | 60-100 psi (414-689 kPa) Performance rated at: 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:



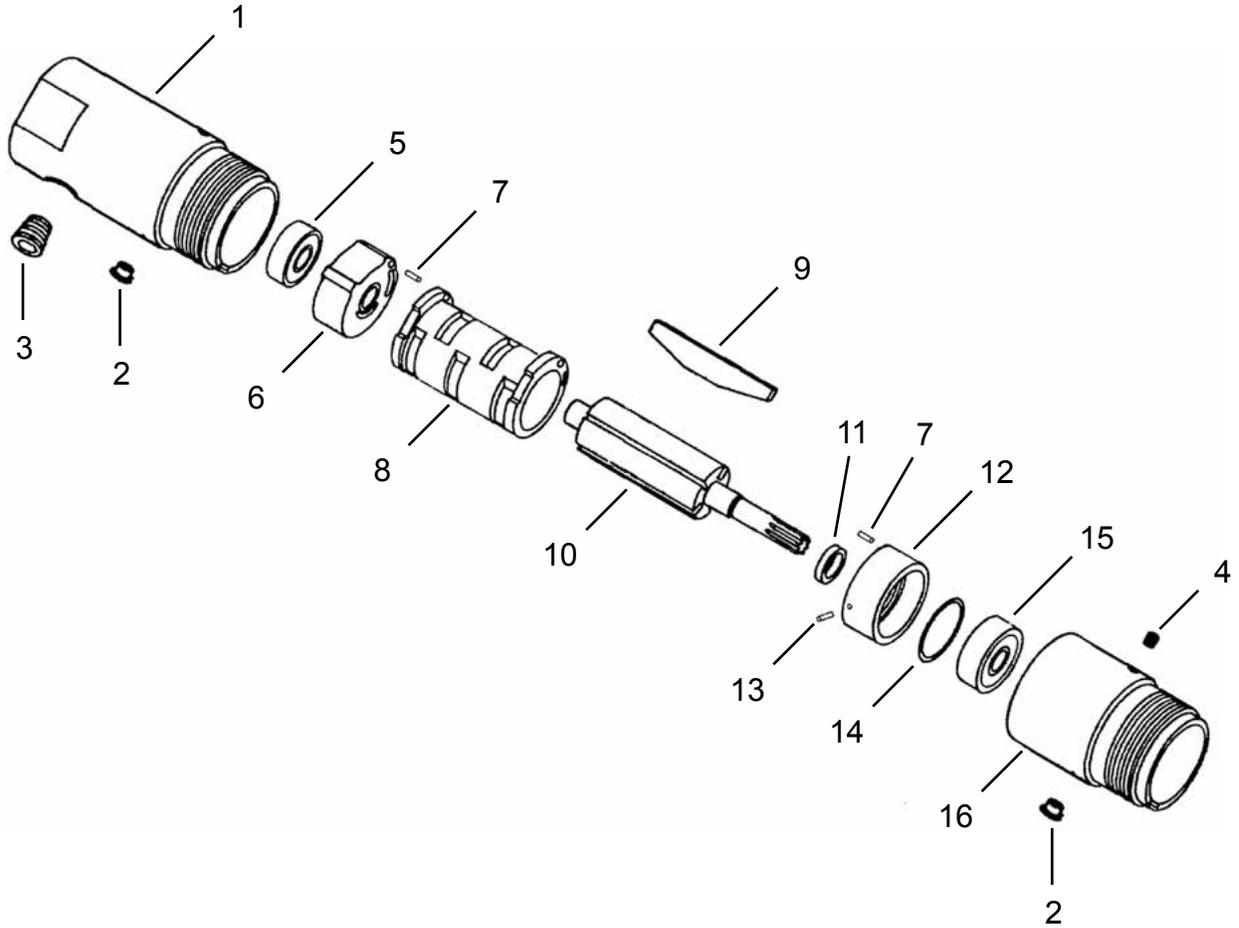
Observe local disposal guidelines for all components of this tool and its packaging.

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Cleco® Motor Assembly

“A”



Cleco®
Motor Assembly

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Illustration "A": Motor Assembly

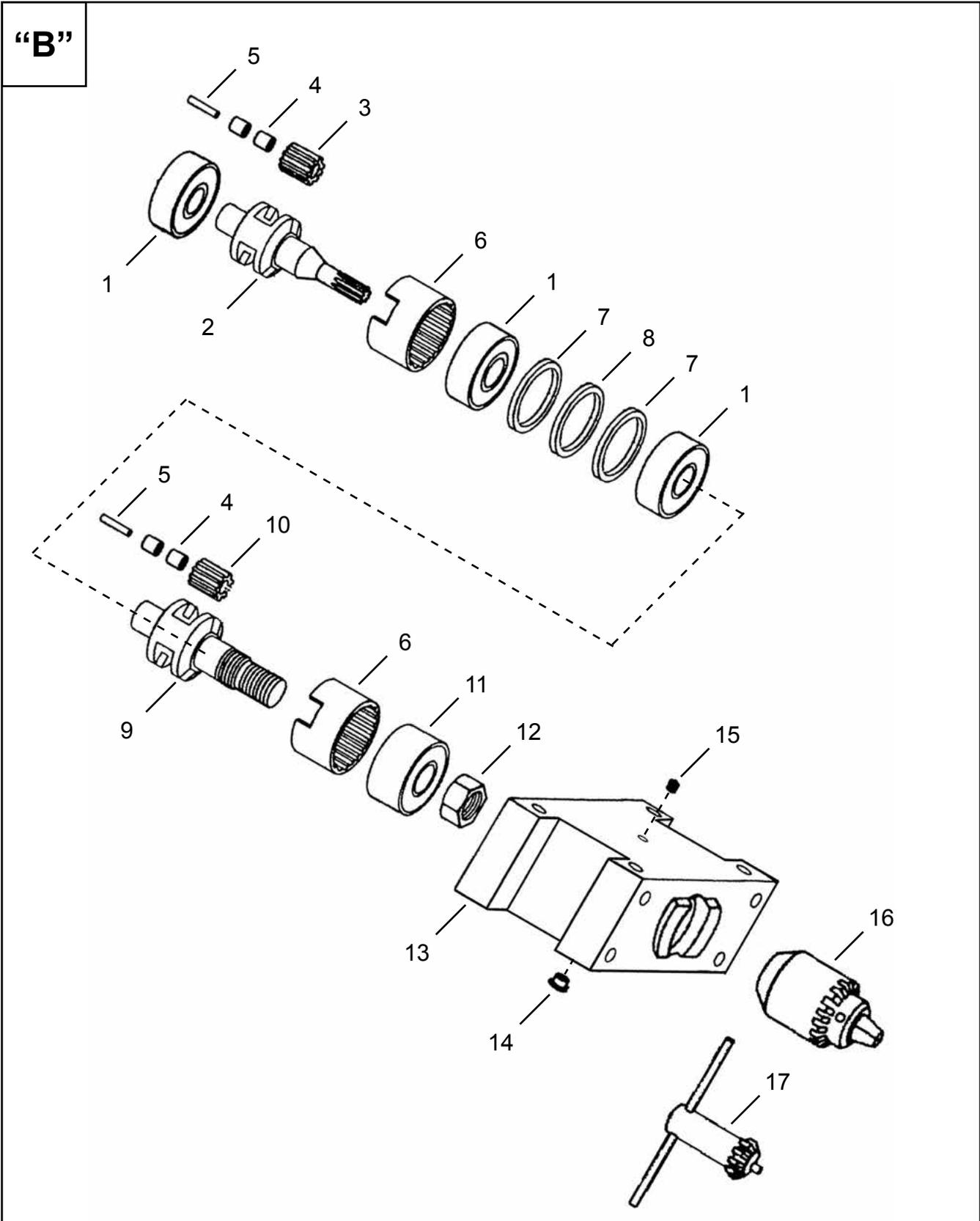
| Ref | Number | # | X | EN |
|-----|---------|---|---|---|
| | | | | Description |
| 1 | 02-7131 | 1 | | Motor Housing (includes 1 Ref. 2) |
| 2 | 1664 | 2 | 4 | Grease Fitting |
| 3 | 2957 | 2 | 4 | Pipe Plug (1/4-18 NPTF) |
| 4 | 2831 | 1 | 2 | Set Screw (#10-32) |
| 5 | 538PT | 1 | 2 | Ball Bearing |
| 6 | 7061PT | 1 | | Bearing Plate (includes 1 Ref. 7) |
| 7 | 1041 | 2 | 4 | 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 (includes 1 Ref. 7 and Ref. 13) |
| 13 | 2964 | 1 | 2 | Pin |
| 14 | 2488PT | 1 | 2 | Shim Packet |
| 15 | 500PT | 1 | 2 | Ball Bearing |
| 16 | 2720PT | 1 | | Center Housing (includes 1 Ref. 2) |

(#) Quantity

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



Cleco® Gearing Assembly



Cleco®
Gearing Assembly

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Illustration "B": Gearing Assembly

| Ref | Number | # | X | EN |
|-----|----------|---|----|---|
| | | | | Description |
| 1 | 556 | 3 | 6 | Ball Bearing |
| 2 | 2848 | 1 | | Planetary Gear Carrier |
| 3 | 2809PT | 2 | 4 | Planetary Gear (17T) (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 | 208542PT | 1 | | Shim (1.56 x 1.21 x .005) |
| 9 | 02-7134 | 1 | | Planetary Gear Carrier |
| 10 | 2956 | 2 | 4 | Planetary Gear (15T) (includes 2 Ref. 4) |
| 11 | 557 | 1 | 2 | Double Ball Bearing |
| 12 | 2958 | 1 | 1 | Lock Nut |
| 13 | 2819PT | 1 | | Flange and Base Mounting Planetary Housing (includes Ref. 14) |
| 14 | 1664 | 1 | 2 | Grease Fitting |
| 15 | 2831 | 1 | 2 | Set Screw |
| 16 | 14-2547B | 1 | 1 | 1/2" Drill Chuck (includes Ref. 17) |
| 17 | 14-2549 | 1 | 2 | Chuck Key |

(#) Quantity

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

(T) Teeth



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.

Brazil

**Apex Tool Group
Ind. Com. Ferram. Ltda**
Av. Liberdade, 4055
Zona Industrial Iporanga
Sorocaba, São Paulo
CEP# 18087-170
Brazil
Tel: +55 15 3238 3820
Fax: +55 15 3238 3938

Canada

**Apex Tool Group
Sales & Service Center**
7631 Bath Road
Mississauga, Ont. L4T 3T1
Canada
Tel: (866) 691-6212
Tel: (905) 673-4400

China

**Apex Power Tool Trading
(Shanghai) Co., Ltd**
Building A8, No. 38
Dongsheng Road
Pudong, Shanghai
China 201201
Tel: +86-21-60880320
Fax: +86-21-60880298
www.apxpowertools.com.cn

England

**Apex Tool Group
GmbH & Co. OHG**
C/O Spline Gauges
Piccadilly, Tamworth
Staffordshire B78 2ER
United Kingdom
Tel: +44 1827 872 771
Fax: +44 1827 8741 28

France

Apex Tool Group S.N.C.
25 rue Maurice Chevalier
B.P. 28
77831 Ozoir-La-Ferrière
Cedex, France
Tel: +33 1 64 43 22 00
Fax: +33 1 64 43 17 17

Germany

**Apex Tool Group
GmbH & Co. OHG**
Industriestraße 1
73463 Westhausen
Germany
Tel: +49 (0) 73 63 81 0
Fax: +49 (0) 73 63 81 222
www.apxpowertools.eu

Hungary

**Apex Tool Group
Hungaria Kft**
Platánfa u.2
9027 Györ
Hungary
Tel: +36 96 66 1383
Fax: +36 96 66 1135

India

**Apex Power Tools India
Private Limited**
Gala No. 1, Plot No. 5
S. No. 234, 235 & 245
Indialand Global
Industrial Park
Taluka-Mulsi, Phase I
Hinjawadi, Pune 411057
Maharashtra, India
Tel: +91-20-66761111

Mexico

**Apex Tool Group
Manufacturing México**
S. de RL de CV
Vialidad El Pueblito #103
Parque Industrial Querétaro
Querétaro, QRO
CP# 76220
Mexico
Tel: +52 (442) 211-3800
Fax: +52 (800) 685-5560

USA - Detroit, Michigan

**Apex Tool Group
Sales & Service Center**
2630 Superior Court
Auburn Hills, MI 48326
Tel: (248) 393-5640
Fax: (248) 391-6295

USA - Lexington, South Carolina

Apex Tool Group
670 Industrial Drive
Lexington, SC 29072
Tel: (800) 845-5629
Tel: (803) 951-7544
Fax: (803) 358-7681

USA - Los Angeles, California

**Apex Tool Group
Sales & Service Center**
6881 Stanton Avenue
Unit B
Buena Park, CA 90621
Tel: (714) 994-1491
Fax: (714) 994-9576

USA - Seattle, Washington

**Apex Tool Group
Sales & Service Center**
2865 152nd Avenue N.E.
Redmond, WA 98052
Tel: (425) 497-0476
Fax: (425) 497-0496

USA - York, Pennsylvania

**Apex Tool Group
Sales & Service Center**
3990 East Market Street
York, PA 17402
Tel: (717) 755-2933
Fax: (717) 757-5063

Apex Tool Group, LLC
1000 Lufkin Road
Apex, NC 27539
Phone: 919-387-0099
Fax: 919-387-2614
www.apextoolgroup.com

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