

Service Manual  
PL12-1013EN  
10/16/2014

# Cleco®

**OMEGA TECHNOLOGIES**

## 19BPA, 19SCA & 19SPA Series Inline Screwdrivers



**19SPA**



**19SCA**

For additional product information visit our website at:  
<https://dotcotool.com/product-category/cleco-tools/cleco-pneumatic-screwdrivers/cleco-pneumatic-inline-screwdrivers/cleco-19-series-inline-screwdrivers/>

## For this Instruction Manual

This Instruction Manual is the Original Instruction Manual intended for all persons who will operate and maintain these tools.

This Instruction Manual

- provides important notes for the safe and efficient use of these tools.
- describes the function and operation of the 19B and 19S series tools.
- serves as a reference guide for technical data, service intervals and spare parts ordering.
- provides information on optional equipment.

### Identification text:

19B / 19S represents all models of the inline pneumatic screwdriver as described in this manual

→ indicates a required action

• indicates a list

<.> indicates a reference number from the exploded parts drawings

**Arial** indicates an important feature or instruction written in **Arial Bold**

### Identification graphic:

→ indicates a directional movement

↓ indicates a function or force

### Copyright protection:

Apex Tool Group, LLC reserves the right to modify, supplement or improve this document or the product without prior notice. This document may not be reproduced in any way, shape or form, in full or parts thereof, or copied to another natural or machine readable language or to a data carrier, whether electronic, mechanical, optical or otherwise without the express permission of Apex Tool Group, LLC.

	<b>19</b>	<b>S</b>	<b>X</b>	<b>A</b>	<b>XX</b>	<b>X</b>
Tool Series	<b>19</b>					
Tool Style						
<ul style="list-style-type: none"> <li><b>B</b> = Pushbutton Reverse</li> <li><b>S</b> = Reversing Ring Screwdriver</li> </ul>						
Handle						
<ul style="list-style-type: none"> <li><b>C</b> = Inline Combination (Lever/Push-to-Start)</li> <li><b>P</b> = Inline (Push-to-Start)</li> </ul>						
Torque Control Mechanism						
<b>A</b> = Clecomatic Clutch						
Maximum Torque						
<b>19SCA/19SPA</b>						
<b>19BPA</b>						
<b>02</b> = 2.1 Nm						
<b>03</b> = 2.9 Nm						
<b>04</b> = 4.5 Nm						
<b>05</b> = 5.1 Nm						
<b>06</b> = 6.1 Nm						
<b>02</b> = 1.6 Nm						
<b>03</b> = 2.1 Nm						
<b>04</b> = 3.7 Nm						
<b>05</b> = 5.1 Nm						
<b>06</b> = 5.1 Nm						
Output Drive						
<b>B</b> = Bit and Finder						
<b>Q</b> = Quick Change						

<b>1</b>	<b>Safety</b>	<b>6</b>
1.1	Warning and notes.....	6
1.2	Basic requirements for safe working practices .....	7
1.3	Operator training.....	7
1.4	Personal protective equipment .....	7
1.5	Designated use.....	8
1.6	Codes and standards .....	8
1.7	Noise and vibration.....	8
<b>2</b>	<b>Scope of supply, transport and storage</b>	<b>9</b>
2.1	Items supplied .....	9
2.2	Transport .....	9
2.3	Storage.....	9
<b>3</b>	<b>Product description</b>	<b>10</b>
3.1	General description .....	10
3.2	Operation and functional elements.....	10
<b>4</b>	<b>Accessories</b>	<b>11</b>
<b>5</b>	<b>Before initial operation</b>	<b>12</b>
5.1	Ambient conditions .....	12
5.2	Air supply.....	12
5.3	Connecting the air supply to the tool .....	12
5.4	Tool set up .....	13
5.4.1	Setting the torque .....	13
<b>6</b>	<b>First operation</b>	<b>14</b>
6.1	Putting into use.....	14
<b>7</b>	<b>Troubleshooting</b>	<b>15</b>
<b>8</b>	<b>Maintenance</b>	<b>16</b>
8.1	Service schedule .....	16
8.1.1	Calculating a customer specific maintenance plan.....	17
8.2	Lubricants .....	17
<b>9</b>	<b>Repair instructions</b>	<b>18</b>
9.1	Motor disassembly and reassembly .....	18
9.2	Trip rod sizing .....	19
9.3	Combination to lever conversion .....	19
9.4	Optional Assembly.....	19

<b>10</b>	<b>Spare parts</b>	
10.1	19SPA series screwdriver .....	20
10.2	19SCA series screwdriver .....	22
10.3	19BPA series screwdriver .....	24
10.4	Motor assembly .....	26
10.5	301967PT Gearing assembly .....	28
10.6	301086 Gearing assembly .....	28
10.7	301968PT Gearing assembly .....	30
10.8	301969PT Gearing assembly .....	30
10.9	301970PT Gearing assembly .....	32
10.10	301979PT Clecomatic clutch assembly .....	34
	301991PT Clecomatic clutch assembly .....	34
10.11	301982PT Clecomatic clutch assembly .....	36
	301992PT Clecomatic clutch assembly .....	36
<b>11</b>	<b>Technical data</b>	<b>38</b>
11.1	19BPA Specifications .....	38
11.2	19SCA Specifications .....	38
11.3	19SPA Specifications .....	39
<b>12</b>	<b>Service</b>	<b>40</b>
12.1	Replacement parts .....	40
12.2	Tool repairs .....	40
12.3	Warranty repairs .....	40
<b>13</b>	<b>Disposal</b>	<b>41</b>

# 1 Safety

## 1.1 Warnings and notes

Warning notes are identified by a signal word and a pictogram.

- The signal word indicates the severity and probability of the impending danger.
- The pictogram indicates the type of danger.

WARNING!



-----  
**WARNING** identifies a potentially **hazardous** situation which, if not avoided, may result in serious injury.  
-----

CAUTION!



-----  
**CAUTION** identifies a potentially **hazardous** situation which, if not avoided, may result in minor or moderate injury or property and environmental damage.  
-----

NOTE



-----  
**NOTE** identifies general information which may include application tips or useful information but no hazardous situations.  
-----



-----  
Important information that must be read and understood by all personnel installing, operating or maintaining this equipment.  
-----

## 1.2 Basic requirements for safe working practices



All personnel involved with the installation, operation or maintenance of these tools must read and understand all safety instructions contained in this manual. Failure to comply with these instructions could result in serious injury or property damage.

These safety instructions are not intended to be all inclusive. Study and comply with all applicable National, State and Local regulations.

---

### CAUTION! Work Area:



- Ensure there is enough space in the work area.
- Keep the work area clean.
- Keep the work area well ventilated.

### Personnel Safety:

- Inspect the air supply hoses and fittings. Do not use damaged, frayed or deteriorated hoses.
- Make sure the air supply hose is securely attached to the tool.
- Ensure a secure standing position and maintain balance.
- Make sure the throttle is positioned relative to the head so the throttle will not become wedged against an adjacent object in the ON position due to torque reaction.
- If the tool is to be reversed, locate the throttle in a neutral position to prevent entrapment.
- Keep the tool clean and dry to provide the best possible grip.
- Firmly grasp the handle of the 19B/19S and apply the socket or bit to the application before starting.
- Be prepared for high short-term reaction torques.

### Safety working with and around fastening tools:

- Use only power tool sockets and bits available from Apex Tool Group.
  - Inspect socket or bit for visible damage and cracks. Replace damaged items immediately.
  - Disconnect the air supply before installing or replacing the socket or bit.
  - Do not attach the socket or bit at a slant.
  - Make sure the socket or bit is fully assembled on the drive and locked in position.
- 

## 1.3 Operator training

All personnel must be properly trained before operating the 19B/19S tools. The 19B/19S tools are to be repaired by fully trained personnel only.

## 1.4 Personal protective equipment

When working



- Wear eye protection to protect against flying metal splinters.
- Wear hearing protection

Danger of injury by being caught by moving equipment.



- Wear a hairnet
- Wear close fitting clothing
- Do not wear jewelry

### **1.5 Designated use**

The 19B/19S are designed exclusively for fastening and releasing threaded fasteners.

The 19B/19S series screwdrivers are equipped with an adjustable Clecomatic clutch. The tool will shut off the instant the clutch reaches its adjustable preset torque. This action provides an accurate method of controlling torque without sacrificing tool speed.

- Do not modify the 19B/19S, any guard or accessory.
- Use only with accessory parts which are approved by the manufacturer.
- Do not use as a hammer, pry-bar or any other improper usage.

### **1.6 Codes and standards**

It is mandatory that all national, state and local codes and standards be followed.

### **1.7 Noise and vibration**

Noise level  $\leq 70$  dB(A) free speed (without load) according to ISO 12100: 2011

Vibration values  $< 2.5$  m/s<sup>2</sup> according to ISO 12100: 2011



Scope of Supply, Transport and Storage

**2 Scope of supply, transport and storage**

**2.1 Items supplied**

Check shipment for transit damage and ensure that all items have been supplied:

- 1 19B/19RS
- 1 PL12-1013EN instruction manual
- 1 Declaration of Conformity
- 1 Lubrication sheet
- 1 Warranty statement

**2.2 Transport**

Transport and store the 19B/19S in the original packaging. The packaging is recyclable.

**2.3 Storage**

For short term storage (less than 2 hours) and protection against damage:

- ➔ Place the 19B/19S in a location on the workbench to avoid accidental depression of the lever.  
or
- ➔ Suspend the 19B/19S from a suitable balancer or tool positioner.

For storage longer than 2 hours:

- ➔ Disconnect the air supply from the 19B/19S

Object	Time Period	Storage Temperature
19B or 19S without air supply	No guideline	-13°F to 104°F (-25°C to 40°C)

### 3 Product description

#### 3.1 General description

- Inline pneumatic powered screwdriver
- Lever push-to-start (19SCA), push-to-start (19BPA, 19SPA)
- Clockwise/counterclockwise rotation
- Adjustable Clecomatic clutch
- Low vibration level


#### 3.2 Operation and functional elements

This section describes the operational and functional elements of the 19B/19S.




Ref.	Description
1	Air Inlet
2	Reversing Mechanism
3	Throttle Lever (Lever Push-to-Start Models)
4	Motor and Gearing
5	Clecomatic Clutch
6	Output Drive (Quick Change Chuck or Bit and Finder)


**4 Accessories**



Non-Reversible Kit  
Part Number: 207030



Torque Signal Kit  
19SCA Clecomatic clutch models only  
Part Number: 301106



Exhaust Overhose  
Part Number: 207019



TVP-100 Series Torque Verifier  
Part Number:  
TVP-110-15-U (115VAC) EN  
TVP-110-30-U (230 VAC) EN

## 5 Before initial operation

### 5.1 Ambient conditions

Ambient temperature: 41°F (5°C) to a maximum of 104°F (40°C)

Acceptable relative humidity: 25% to 90%, non-condensing

### 5.2 Air supply

Parameter	Description
Air Hose	Minimum inside diameter: 3/16" (4,7 mm) Maximum length: 16.4' (5 m)
Working pressure range	58 to 101.5 psi (400 to 700 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.

**NOTE**



To attain consistent results, maintain a constant working pressure using a suitable air line unit consisting of a filter, regulator and lubricator.

- The inside diameter of the air hose must be free of residue, clean if necessary.
- Spray a few drops of light air tool oil into the air inlet adapter.
- Adjust the lubricator to a minimum setting to reduce the amount of excess oil in the exhaust air.

#### Oil identification

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

### 5.3 Connecting the air supply to the tool

**WARNING!**



The air hose can disconnect from the tool by itself and whip around uncontrollably.

- Turn off the compressed air before connecting to the tool.
- Securely connect the air hose to the tool.
- Turn on the compressed air.

## 5.4 Tool set up

The tool must be configured for the application.

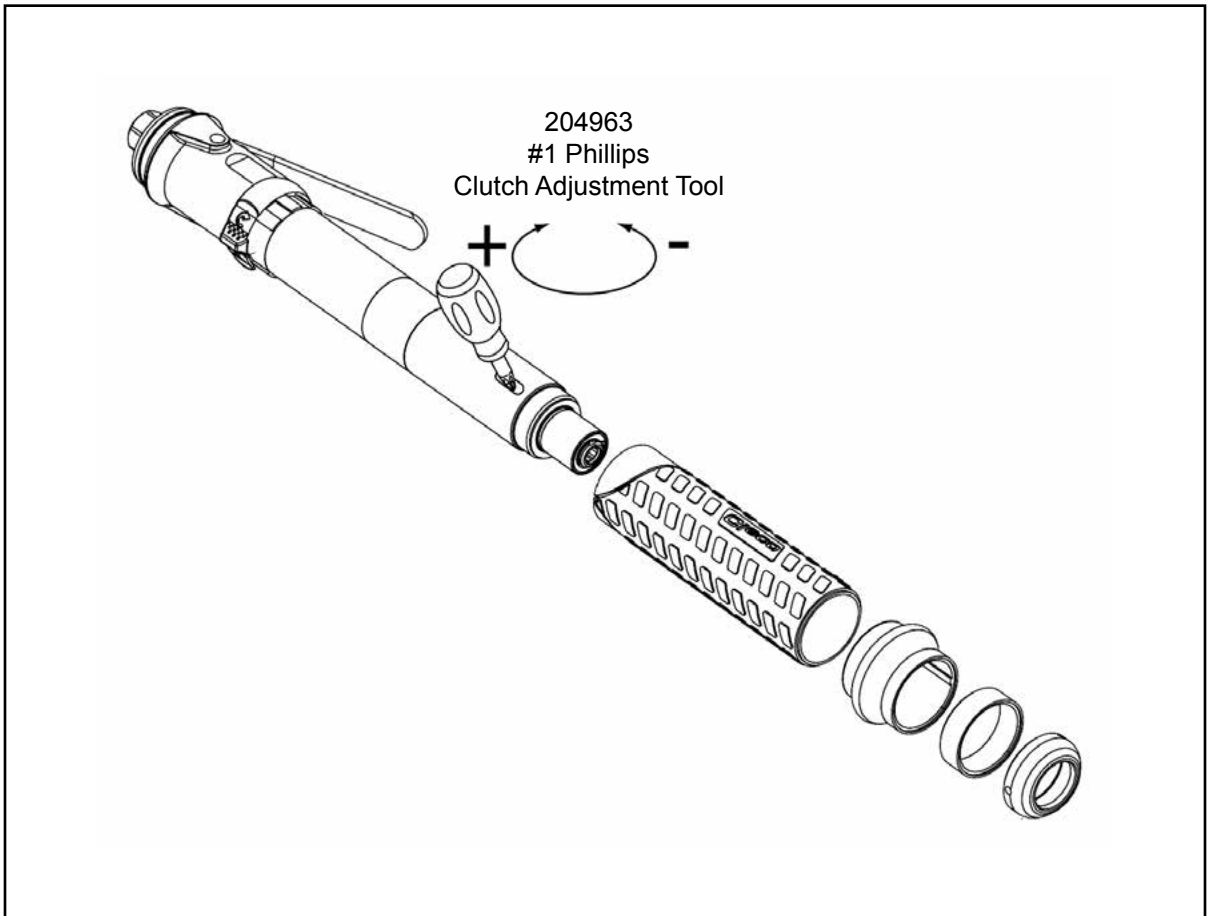
### 5.4.1 Setting the torque

**CAUTION!**



Danger of injury from accidental start up.  
Turn off the compressed air before adjusting the clutch.

→ Using the clutch adjustment tool provided, turn clockwise for maximum torque or counter-clockwise for minimum torque.



Note: For best results, start from minimum torque and adjust in the maximum direction until desired torque is achieved.

## **6 First operation**

### **6.1 Putting into use**

- Make sure the air supply is securely attached and the compressor is turned on.
- Make sure the reverse ring or button is in the correct position.
- Place the socket or bit on the application and depress push the tool to start the rundown
- When the tool shuts off after reaching the set torque, release the pressure on the tool.
- Remove the tool from the application.

## 7 Troubleshooting

Malfunction	Possible causes	Remedy
Tool does not start	No or low air pressure	→ Make sure there is adequate air pressure at the tool air inlet
	Reversing ring out of position	→ Make sure the reversing ring is in the clockwise or counterclockwise position
	Trip rod spring out of position	→ Tool disassembly required
	Broken gears	→ Tool disassembly required (parts replacement)
Tool does not shut off	Torque set to high	→ Reduce the torque setting
	Working pressure < 58 psi (400 kPa)	→ Increase the working air pressure
Unable to adjust torque	Teeth on adjusting wrench worn or broken	→ Replace adjusting wrench
	Teeth on adjustment nut worn or broken	→ Clutch disassembly required (parts replacement)
Tool loses power	Reduced air pressure	→ Check air supply line for any obstructions
	Lack of lubrication	→ Check the air line lubricator to make sure it is full of lubricant and is working properly
	Motor exhaust air is obstructed	→ Clean or replace bronze mufflers
	Swollen rotor blades from excessive moisture	→ Check the air line filter, empty reservoir if necessary
	Worn rotor blades	→ Tool disassembly required (parts replacement)
	Worn gears or bearings	→ Tool disassembly required (parts replacement)
Air leak at inlet adapter	Loose inlet adapter	→ Tighten inlet adapter
	Worn o-ring on inlet adapter	→ Replace o-ring

## 8 Maintenance

CAUTION!



Danger of injury from accidental start up.  
Turn off the compressed air before performing any maintenance.

### 8.1 Service schedule

Only qualified and trained personnel are permitted to perform maintenance on these tools.

Regular maintenance reduces operating faults, repair costs and downtime. In addition to the following service schedule, implement a safety related maintenance program that takes the local regulations for repair and maintenance for all operating phases of the tool into account.

Maintenance Interval	Rundowns	Designation
Daily	Daily	<ul style="list-style-type: none"> <li>→ Visual inspection of air supply hose and connections</li> <li>→ Inspect airline filter, regulator and lubricator for proper operation</li> <li>→ Check the tool excessive vibration or unusual noises</li> <li>→ Visual inspection of all external components of the tool</li> </ul>
W1	100,000	<ul style="list-style-type: none"> <li>→ Inspect the air hose for damage or wear</li> <li>→ inspect the square drive output spindle for damage or wear</li> <li>→ Inspect the air inlet adapter for a secure fit</li> <li>→ Check the maximum free speed</li> </ul>
W2	500,000	<ul style="list-style-type: none"> <li>→ Check individual parts and replace if necessary</li> <li>→ Replace O-rings and seals</li> <li>→ Clean bronze mufflers</li> </ul>
W3	1,000,000	<ul style="list-style-type: none"> <li>→ Check individual parts and replace if necessary</li> <li>→ Throttle valve</li> <li>→ Motor</li> <li>→ Gearing</li> <li>→ Clutch</li> </ul>

This maintenance schedule uses values that are valid for most applications. For a specific maintenance interval, refer to 8.1.1 Calculating a customer-specific maintenance plan.



### 8.1.1 Calculating a customer specific maintenance plan

A service interval W(1, 2, 3) depends on the following factors:

Factor	Value assumed in "Service Schedule"	Description
<b>V</b>	V1 = 100,000 V2 = 500,000 V3 = 1,000,000	Number of rundowns after a maintenance measure is prescribed by Apex Tool Group.
<b>T1</b>	1.8 seconds	Specific rundown time, measured in life and endurance tests.
<b>T2</b>	2 seconds	Actual rundown time, depending on the hardness of the joint.
<b>S</b>	1; 2; 3	Number of shifts per day.
<b>VS</b>	750	Number of rundowns per shift.

T2, S and VS are variable factors and can differ depending on the specific application.

Example for service interval W2:



After 500,000 rundowns (V),  
a specific rundown time of 1.8 seconds (T1)  
with an actual fastening time of 3 seconds (soft joint) and  
3 completed shifts per day and 750 rundowns per shift.

$$W(1, 2, 3) = \frac{V \times T1}{T2 \times S \times VS} \qquad W2 = \frac{500000 \times 1.8}{3 \times 3 \times 750} = 133 \text{ (days)}$$

You will need to perform the maintenance indicated as W2 after an operating time of 133 days.)

### 8.2 Lubricants

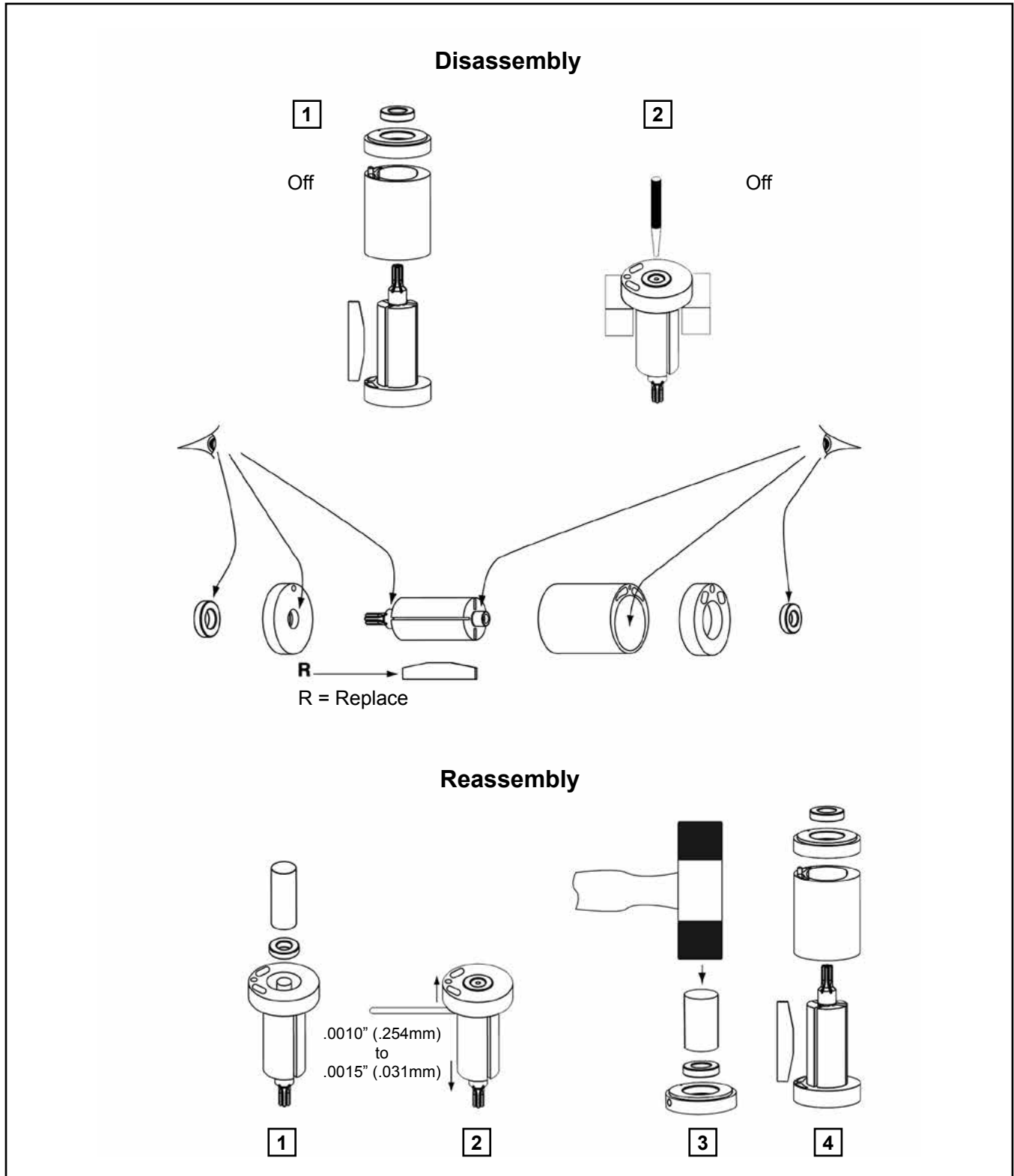
For proper function and long service life, use of the correct grease is essential.

**Grease lubricants recommended for this tool.**

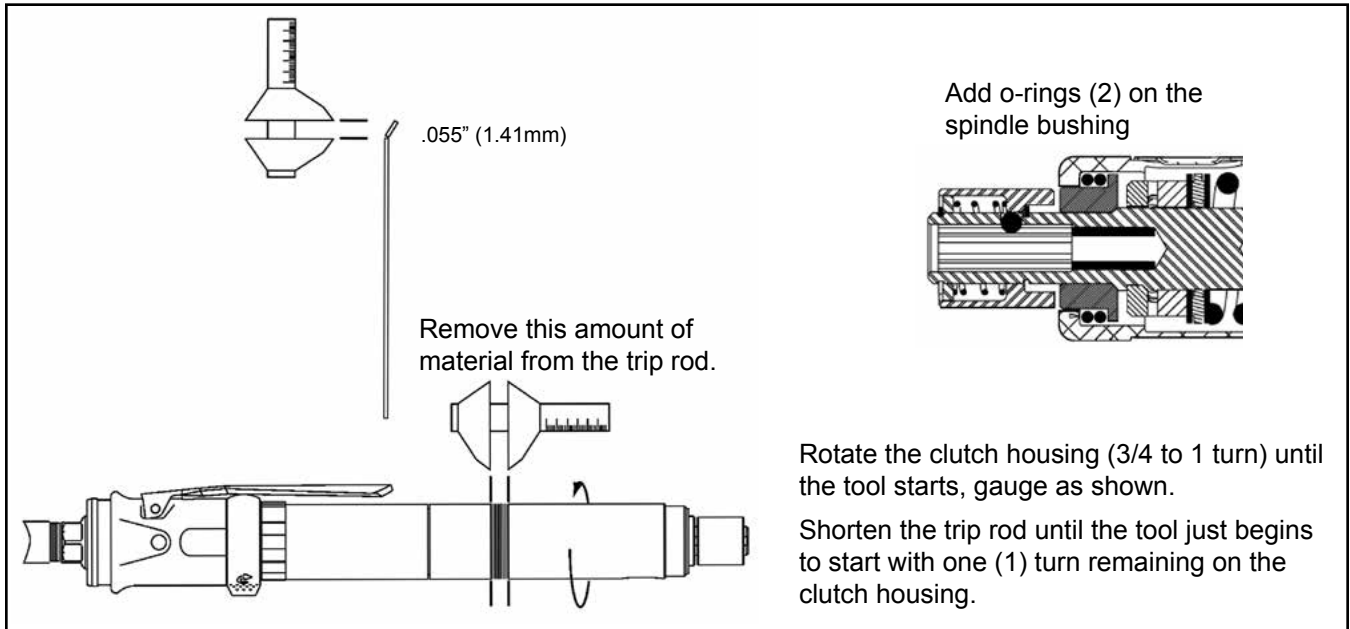
Part No.	Packaged	Designation	Vendor
540450	18 oz. (0.51 kg)	Black Pearl EP-NLGI-0	Chevron
540395	2 oz. (0.06 kg)	Magnalube-G	Carleton-Stuart Corp.
513156	16 oz. (0.45 kg)	Magnalube-G	Carleton-Stuart Corp.
541444	2 oz. (0.06 kg)	Rheolube 363AX-1	Nye Lubricants, Inc.
541445	16 oz. (0.45 kg)	Rheolube 363AX-1	Nye Lubricants, Inc.

## 9 Repair instructions

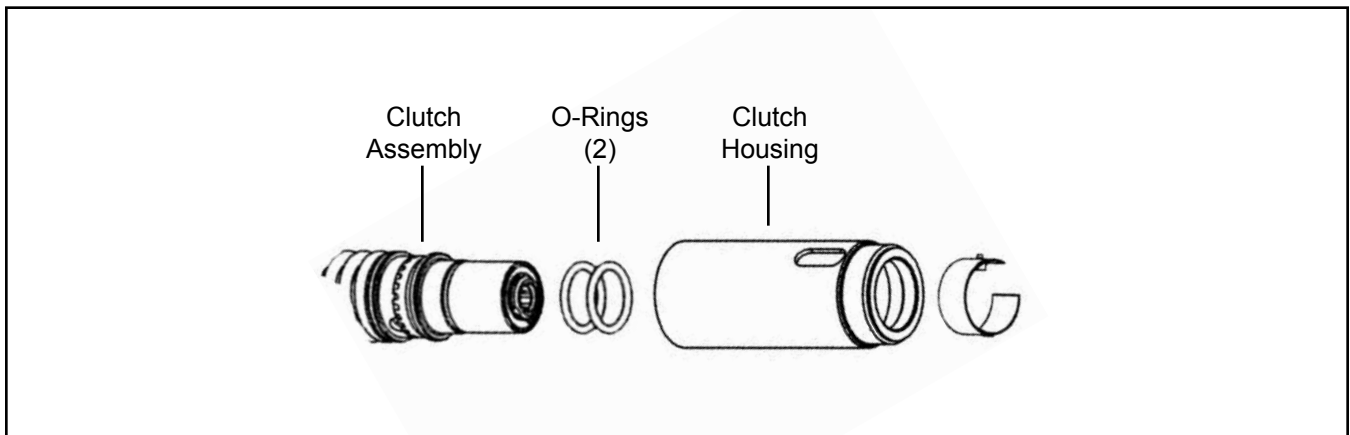
### 9.1 Motor disassembly and reassembly



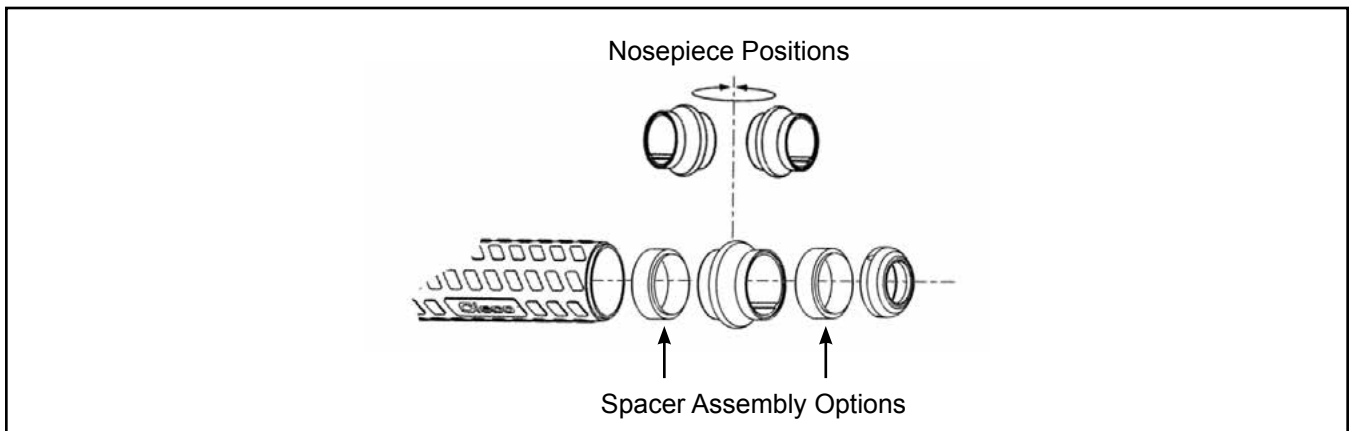
### 9.2 Trip rod sizing



### 9.3 Combination to lever conversion



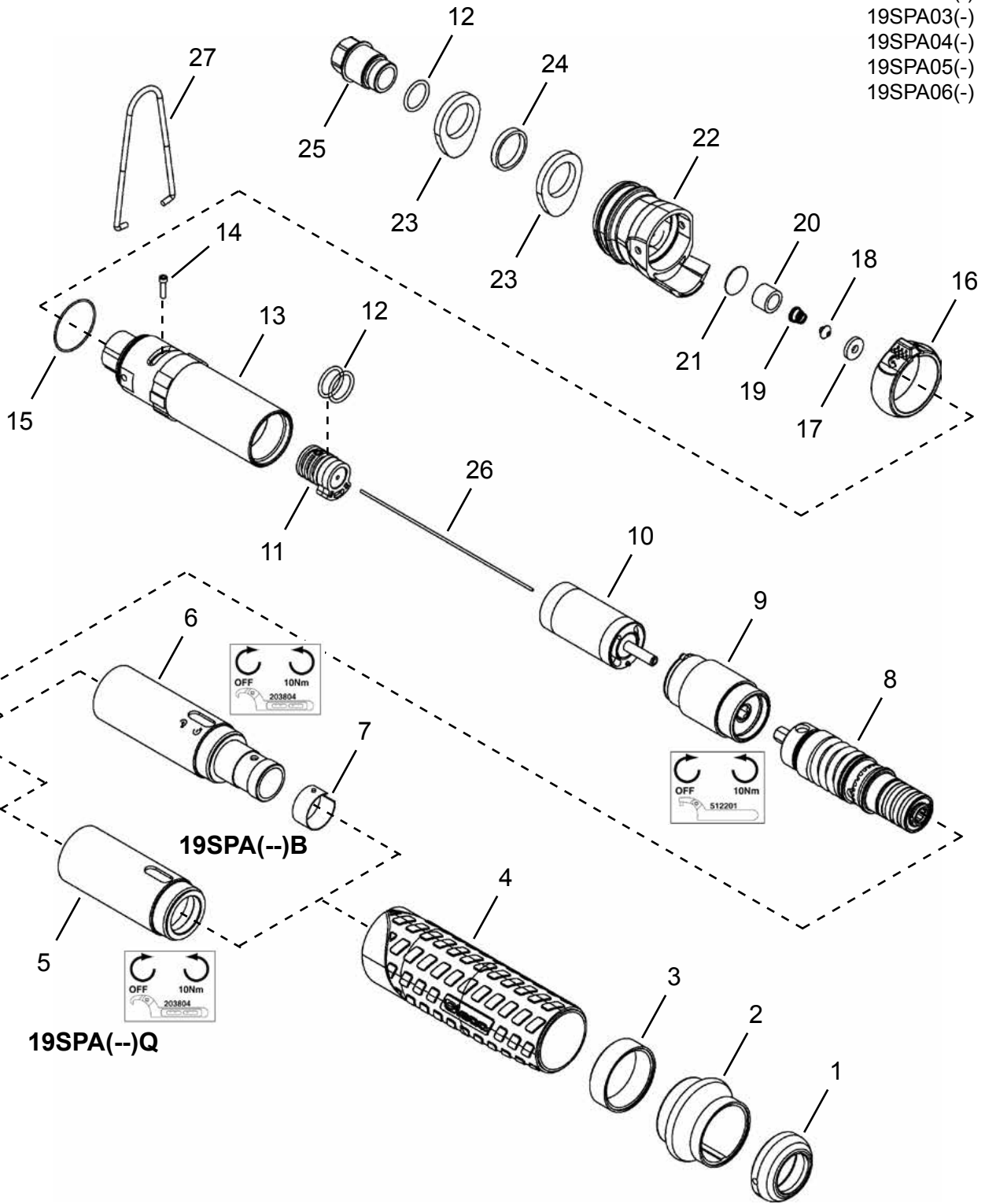
### 9.4 Optional Assembly



**10.1 19SPA Series Screwdriver**

**Models**

- 19SPA02(-)
- 19SPA03(-)
- 19SPA04(-)
- 19SPA05(-)
- 19SPA06(-)



**10.1 19SPA Series Screwdriver**

Ref	Number	#	X	EN	
				Description	
1	207586PT	1			Front Nut
2	205977	1			Nosepiece
3	Table 10.1	1			Spacer
4	207993PT	1			Inline Body
5	207580PT	1			Clutch Housing
6	207581PT	1			Clutch Housing (includes Ref. 7)
7	841284	1	1		Retaining Clip
8	Illustration 10.10	1			Clecomatic Clutch Assembly ("Q" Models)
	Illustration 10.11	1			Clecomatic Clutch Assembly ("B" Models)
9	Illustrations 10-5-9	1			Gear Train Assemblies
10	Illustration 10.4	1			Motor Assembly
11	205984PT	1			Reversing Valve
12	60351	3	9		O-Ring
13	205973	1			Motor Housing
14	B141L	1	2		Socket Head Cap Screw (#2-56 x 3/8")
15	207035	1	3		O-Ring
16	205959	1			Reversing Ring
17	869121	1	3		Valve Seal
18	203556	1	1		Shut-Off Valve
19	869119	1	3		Valve Spring
20	869115	1			Valve Bushing
21	203043	1	3		Screen
22	205979	1			Backhead
23	205981	2	4		Bronze Muffler
24	205996	1			Muffler Spacer
25	205968	1	1		Inlet Adapter
26	203586PT	1	1		Trip Rod
27	931962	1	1		Suspension Bail

(#) Quantity

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

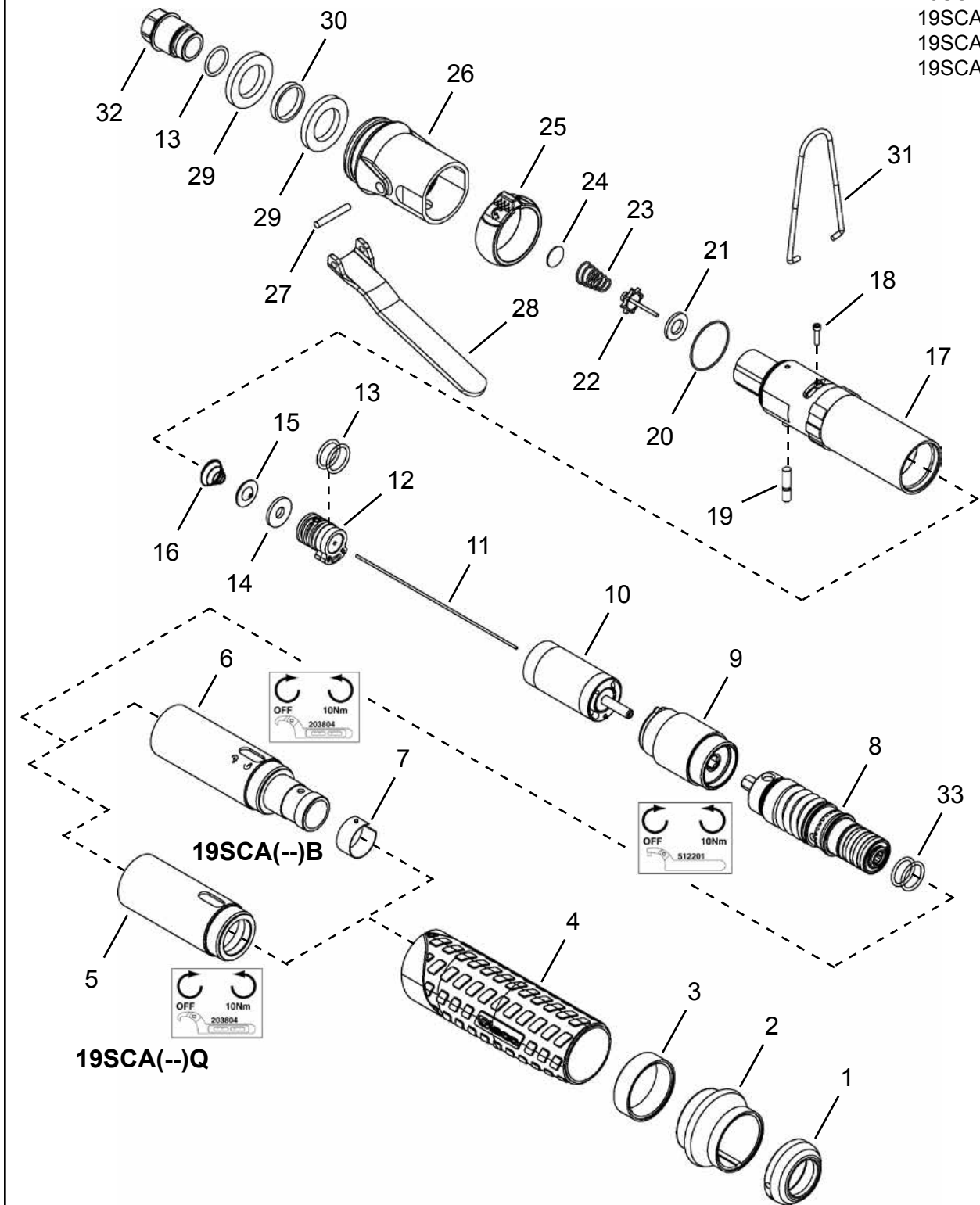
**Table 10.1**

Ref.	Description	#	19SPA02 19SPA04	#	19SPA03	#	19SPA05 19SPA06
3	Spacer		----	1	205975PT	1	205974

**10.2 19SCA Series Screwdriver**

**Models**

- 19SCA02(-)
- 19SCA03(-)
- 19SCA04(-)
- 19SCA05(-)
- 19SCA06(-)



**10.2 19SCA Series Screwdriver**

Ref	Number	#	X	EN	
				Description	
1	207586PT	1			Front Nut
2	205977	1			Nosepiece
3	Table 10.2	1			Spacer
4	207792PT	1			Inline Body
5	207580PT	1			Clutch Housing
6	207581PT	1			Clutch Housing (includes Ref. 7)
7	841284	1	1		Retaining Clip
8	Illustration 10.10	1			Clecomatic Clutch Assembly ("Q" Models)
	Illustration 10.11	1			Clecomatic Clutch Assembly ("B" Models)
9	Illustrations 10.5-9	1			Gear Train Assemblies
10	Illustration 10.4	1			Motor Assembly
11	203586PT	1	1		Trip Rod
12	205984PT	1			Reversing Valve
13	60351	3	9		O-Ring
14	869201	1	3		Valve Seal
15	203529	1	1		Shut-Off Valve
16	203525	1	3		Valve Spring
17	205967	1			Motor Housing
18	B141L	1	2		Socket Head Cap Screw (#2-56 x 3/8")
19	205971	1	1		Actuator Pin
20	207035	1	3		O-Ring
21	847675	1	3		Valve Seal
22	01-2518	1	1		Poppet Valve
23	1001234	1	3		Spring
24	869171	1	3		Screen
25	205959	1			Reversing Ring
26	205970	1			Exhaust Housing
27	844083	1	1		Dowel Pin
28	203528PT	1	1		Lever
29	205969	1	2		Bronze Muffler
30	205996	1			Muffler Spacer
31	931962	1	1		Suspension Bail
32	205968	1	1		Inlet Adapter
33	863009	2	6		O-Ring (Combination to Lever conversion)

(#) Quantity

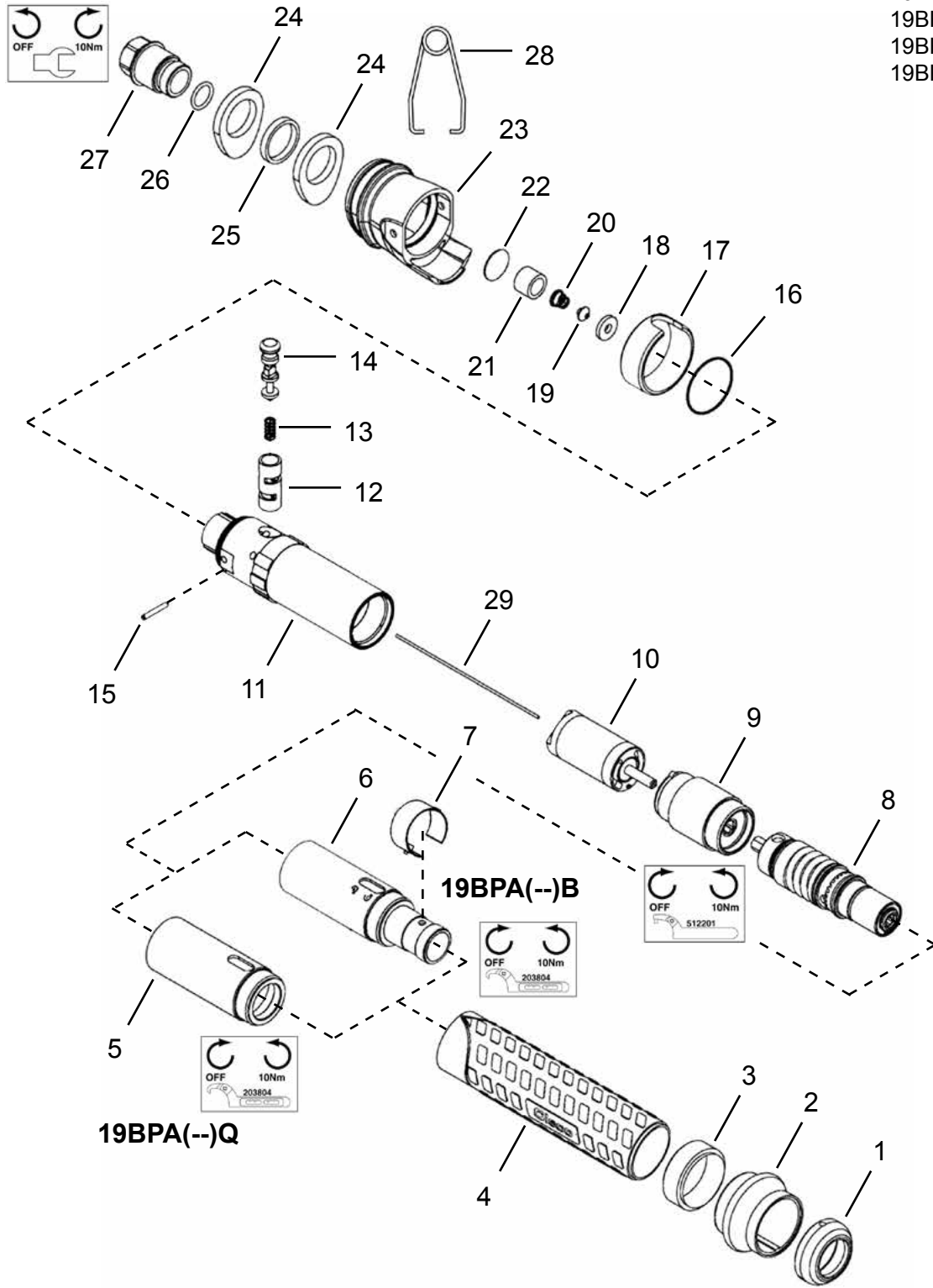
(X) Recommended Spare Parts (quantity shown based on 1-5 tools in operation)

**Table 10.2**

Ref.	Description	#	19SCA02 19SCA04	#	19SCA03	#	19SCA05 19SCA06
3	Spacer		----	1	205975PT	1	205974

**10.3 19BPA Series Screwdriver**

**Models**  
19BPA02(-)  
19BPA03(-)  
19BPA04(-)  
19BPA05(-)  
19BPA06(-)





**10.3 19BPA Series Screwdriver**

Ref	Number	#	X	EN
				Description
1	207586PT	1		Front Nut
2	205977	1		Nosepiece
3	Table 10.3	1		Spacer
4	207993PT	1		Body
5	207580PT	1		Clutch Housing
6	207581PT	1		Clutch Housing (includes Ref. 7)
7	841284	1	1	Retaining Clip
8	Illustration 10.10	1		Clecomatic Clutch Assembly ("Q" Models)
	Illustration 10.11	1		Clecomatic Clutch Assembly ("B" Models)
9	Illustrations 10.5-9	1		Gear Train Assemblies
10	Illustration 10.4	1		Motor Assembly
11	207229	1		Motor Housing
12	869137	1		Bushing
13	863296	1	3	Spring
14	203555	1		Reversing Valve
15	613374	1	1	Pin
16	60351	3	9	O-Ring
17	207230	1		Cover Ring
18	869121	1	3	Valve Seal
19	203556	1	1	Shut-Off Valve
20	869119	1	3	Valve Spring
21	869115	1		Valve Bushing
22	203043	1	3	Screen
23	205979	1		Backhead
24	205981	2	4	Bronze Muffler
25	205996	1		Muffler Spacer
26	207035	1	3	O-Ring
27	205968	1	1	Inlet Adapter
28	931962	1	1	Suspension Bail
29	203586PT	1	1	Trip Rod

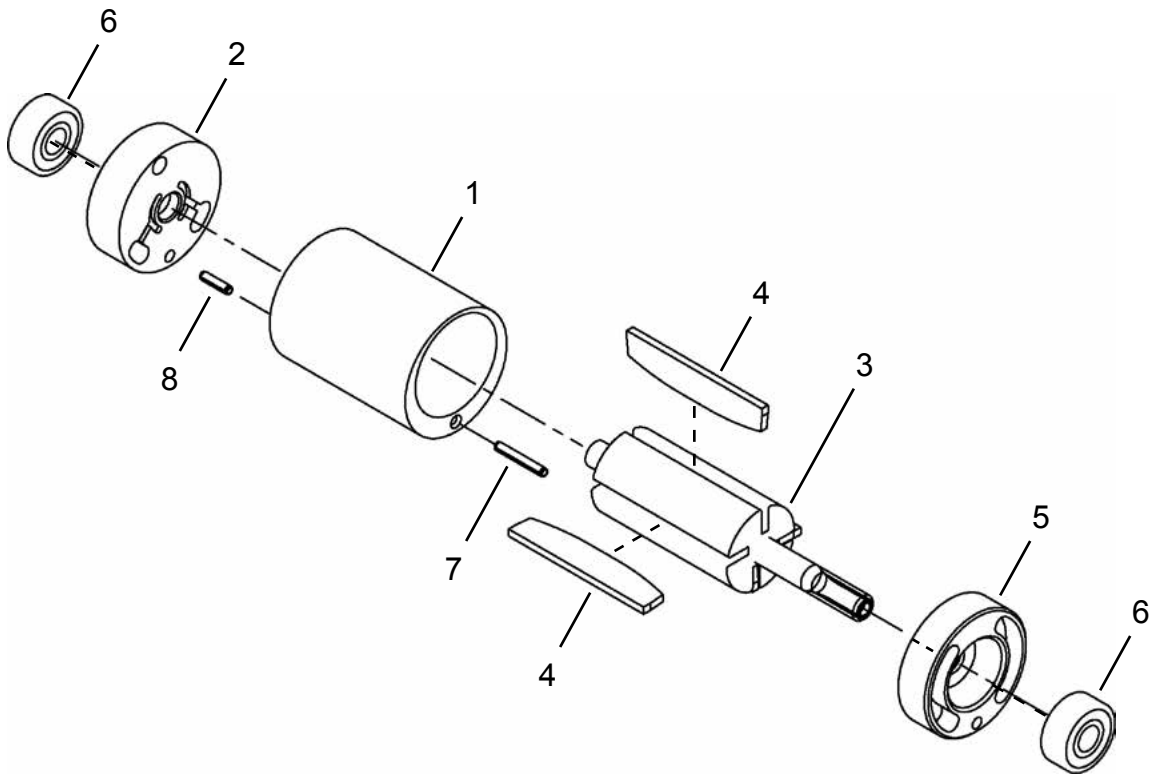
(#) Quantity

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

**Table 10.3**

Ref.	Description	#	19BPA02 19BPA04	#	19BPA03	#	19BPA05 19BPA06
3	Spacer		----	1	205975PT	1	205974

**10.4 Motor Assembly**



### 10.4 Motor Assembly

Ref	Number	#	X	EN	
				Description	
--	Table 10.4	1		Motor Assembly	
1	203504	1		Cylinder	
2	Table 10.4	1		Rear End Plate	
3	Table 10.4	1		Rotor	
4	203615PT	4	12	Rotor Blade	
5	203641	1		Front End Plate	
6	842768	2	4	Ball Bearing	
7	844897	1	2	Front Cylinder Pin	
8	847548	1	2	Rear Cylinder Pin	

(#) Quantity

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

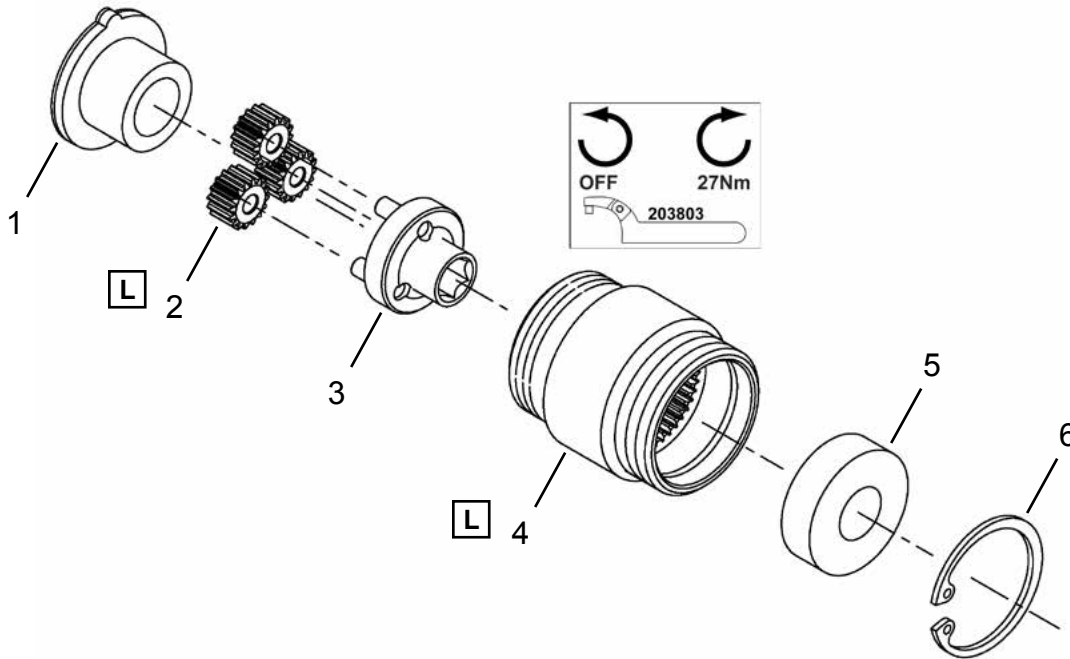
**Table 10.4**

Ref.	Description	#	19S(-)A02 19S(-)A05	#	19S(-)A03	#	19S(-)A04 19S(-)A06
--	Motor Assembly	1	301972PT	1	301973PT	1	301974PT
2	Rear End Plate	1	205960	1	205960	1	205960
3	Rotor	1	203545	1	203547	1	203546

Ref.	Description	#	19B(-)A02 19B(-)A05	#	19B(-)A03	#	19B(-)A04 19B(-)A06
--	Motor Assembly	1	302024PT	1	302025PT	1	302026PT
2	Rear End Plate	1	203721	1	203721	1	203721
3	Rotor	1	203545	1	203547	1	203546

**10.5 301967PT Gearing Assembly**

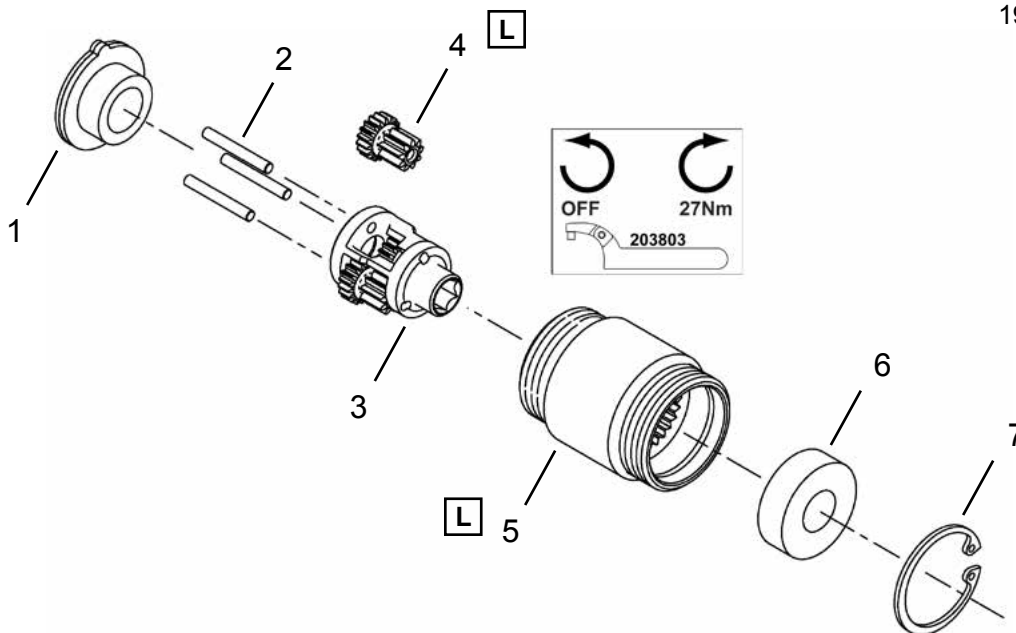
**Models**  
19BPA02(-)  
19SCA02(-)  
19SPA02(-)



**L** Lubricate with 540450 Grease (18 oz. can)

**10.6 301086 Gearing Assembly**

**Models**  
19BPA03(-)  
19SCA03(-)  
19SPA03(-)



**L** Lubricate with 540450 Grease (18 oz. can)

**10.5 301967PT Gearing Assembly**

Ref	Number	#	X	EN
				Description
--	301967PT	1		Gear Case Assembly (6.875:1)
1	204136PT	1		End Plate Spacer
2	207619PT	3	6	Idler Gear (16T)
3	207620PT	1		Open Spider
4	205964	1		Gear Case
5	847595	1	2	Ball Bearing
6	619017	1	2	Retaining Ring

(#) Quantity

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

(T) Teeth

**10.6 301086 Gearing Assembly**

Ref	Number	#	X	EN
				Description
--	301086	1		Gear Case Assembly
1	203646	1		End Plate Spacer
2	833862	3	6	Needle Roller
3	869155	1		Spider
4	869163	3	6	Idler Gear (18/9T)
5	205966	1		Gear Case
6	847595	1	2	Ball Bearing
7	619017	1	2	Retaining Ring

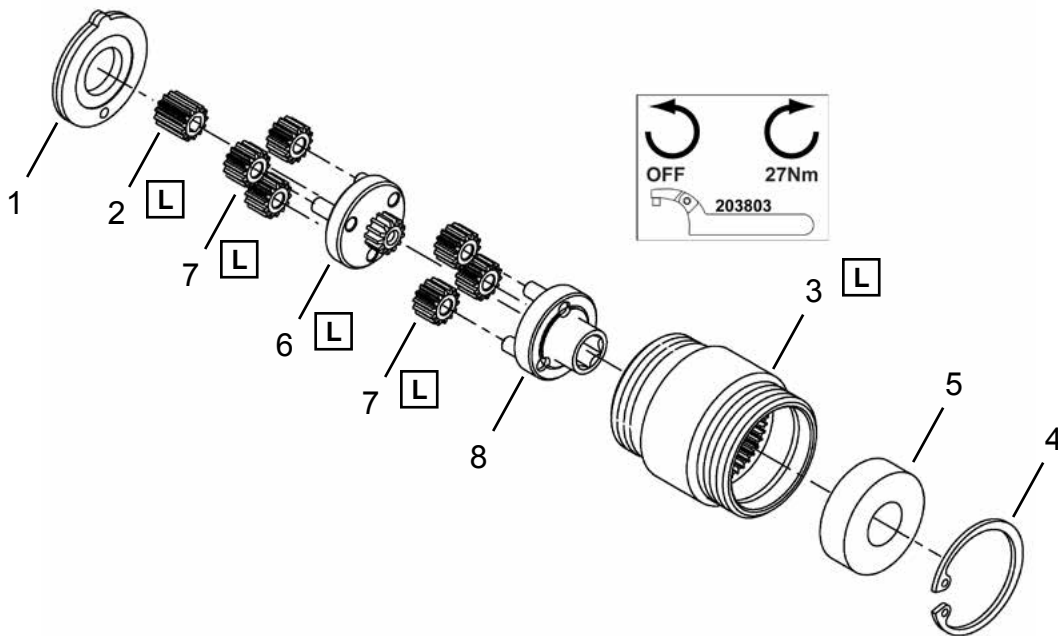
(#) Quantity

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

(T) Teeth

**10.7 301968PT Gearing Assembly**

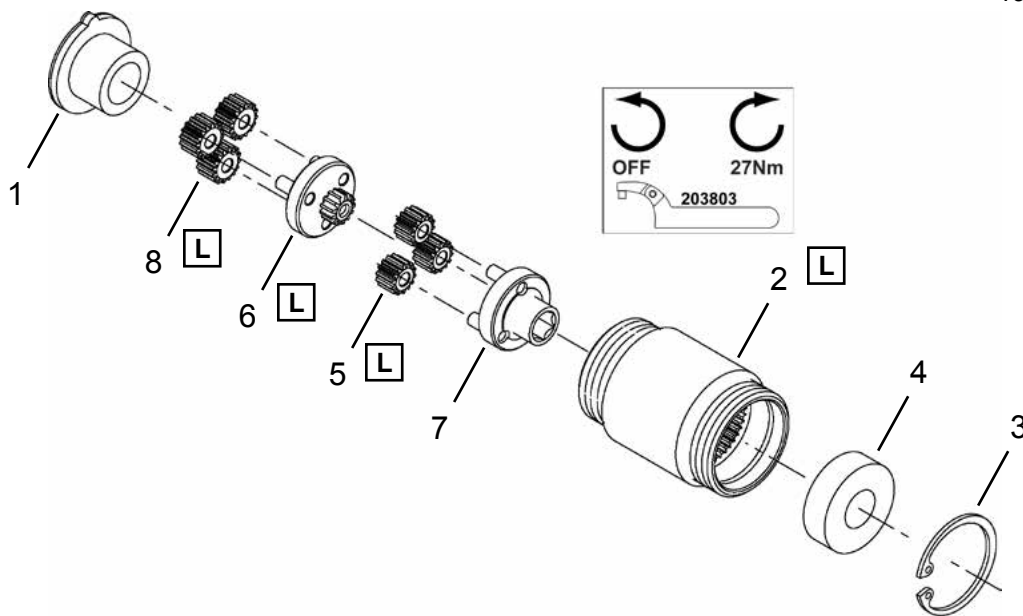
**Models**  
19BPA04(-)  
19SCA04(-)  
19SPA04(-)



**L** Lubricate with 540450 Grease (18 oz. can)

**10.8 301969PT Gearing Assembly**

**Models**  
19BPA05(-)  
19SCA05(-)  
19SPA05(-)



**L** Lubricate with 540450 Grease (18 oz. can)

**10.7 301968PT Gearing Assembly**

Ref	Number	#	X	EN
				Description
--	301968PT	1		Gear Case Assembly (17.256:1)
1	203644PT	1		End Plate Spacer
2	203919	1	2	Pinion Gear
3	205964	1		Gear Case
4	619017	1	2	Retaining Ring
5	847595	1	2	Ball Bearing
6	207615PT	1		Open Spider
7	207616PT	6	12	Idler Gear (14T)
8	207618PT	1		Open Spider

(#) Quantity

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

(T) Teeth

**10.8 301969PT Gearing Assembly**

Ref	Number	#	X	EN
				Description
--	301969PT	1		Gear Case Assembly (28.484:1)
1	204136PT	1		End Plate Spacer
2	205963	1		Gear Case
3	619017	1	2	Retaining Ring
4	847595	1	2	Ball Bearing
5	207616PT	3	6	Idler Gear (14T)
6	207617PT	1		Open Spider
7	207618PT	1		Open Spider
8	207619PT	3	6	Idler Gear (16T)

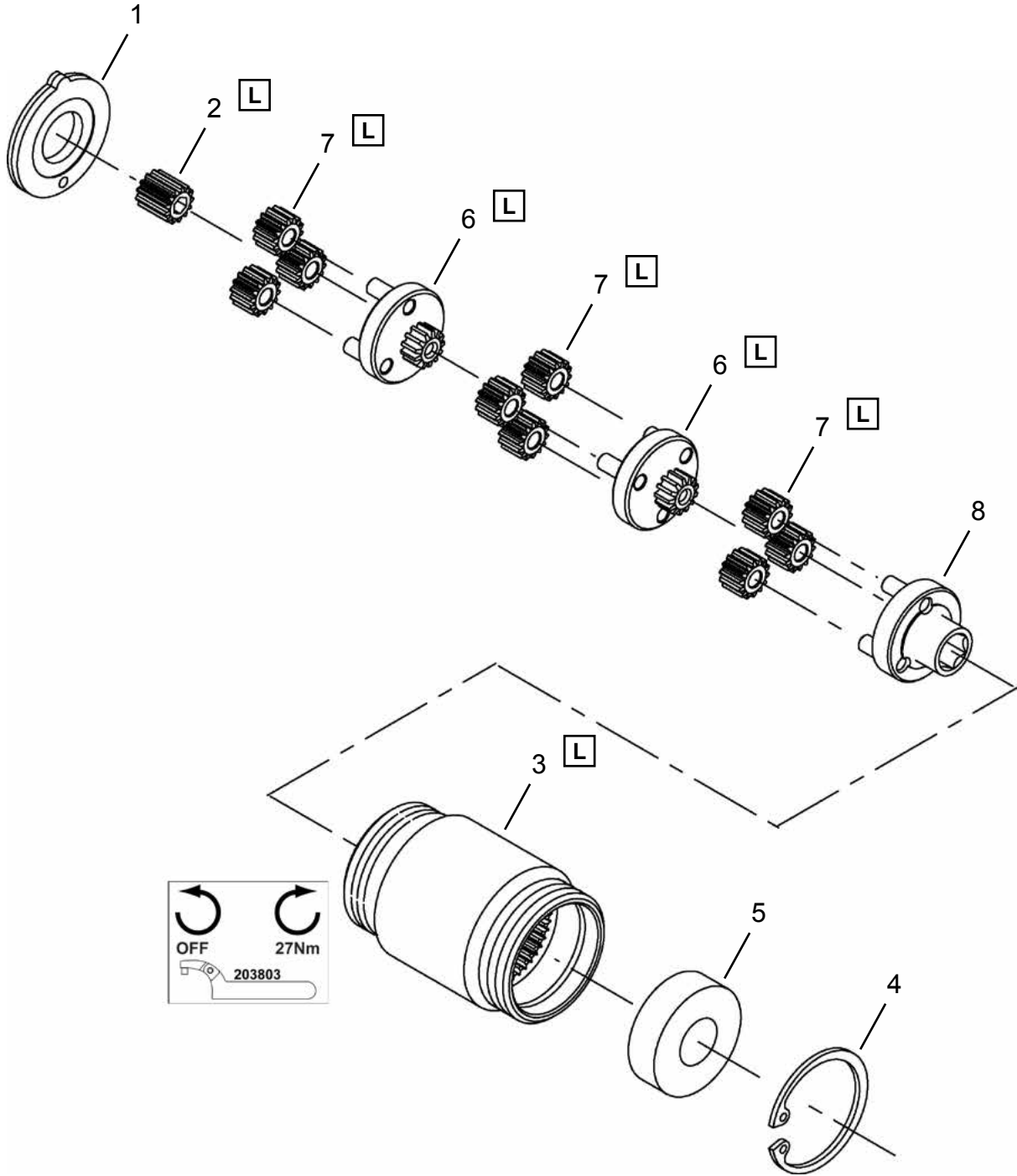
(#) Quantity

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

(T) Teeth

**10.9 301970PT Gearing Assembly**

**Models**  
19BPA06(-)  
19SCA06(-)  
19SPA06(-)



**L** Lubricate with 540450 Grease (18 oz. can)



**10.9 301970PT Gearing Assembly**

Ref	Number	#	X	EN
				Description
--	301970PT	1		Gear Case Assembly (70.680:1)
1	203644PT	1		End Plate Spacer
2	203919	1	2	Pinion Gear
3	205963	1		Gear Case
4	619017	1	2	Retaining Ring
5	847595	1	2	Ball Bearing
6	207615PT	2		Open Spider
7	207616PT	9	18	Idler Gear (14T)
8	207618PT	1		Open Spider

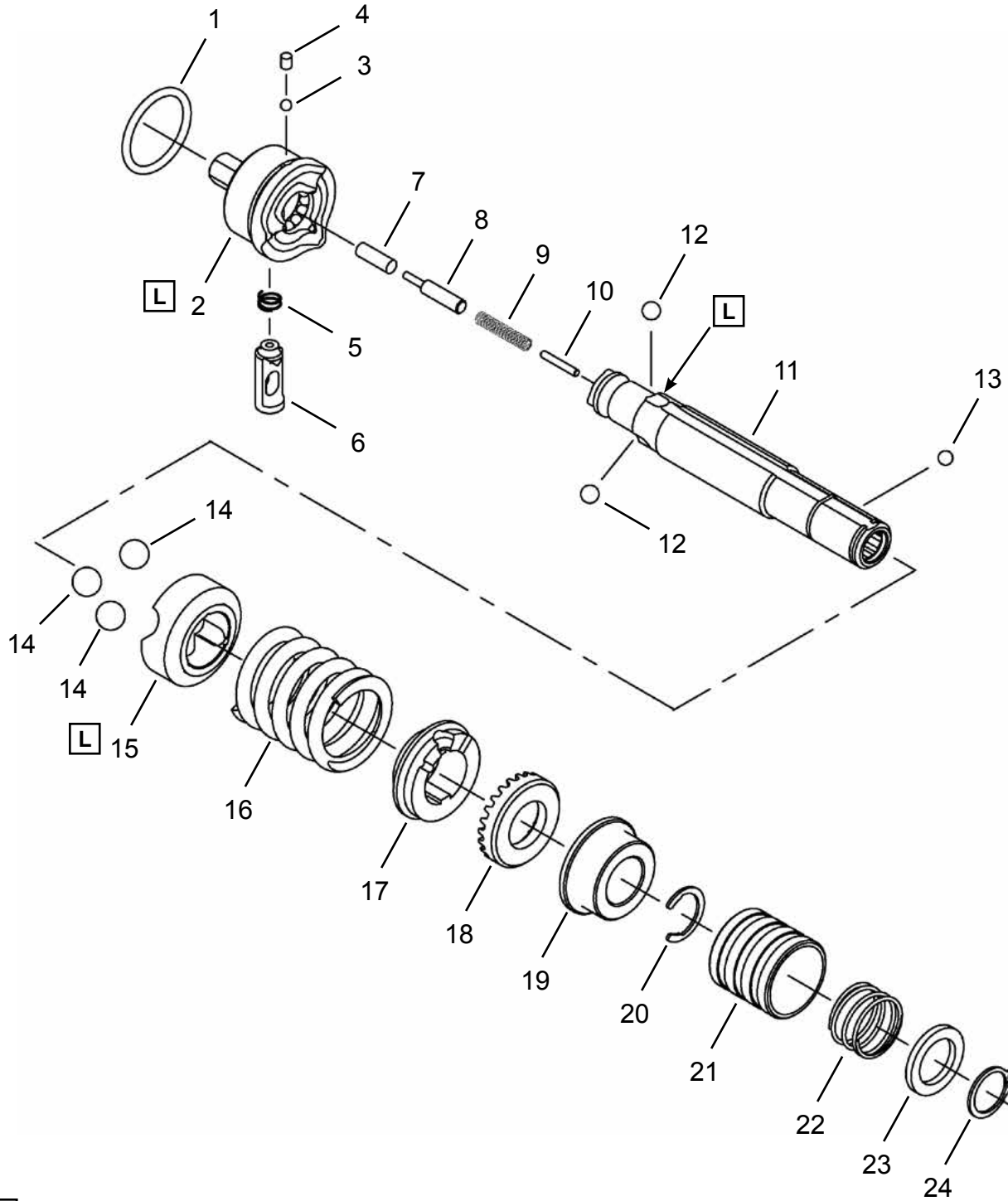
(#) Quantity

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

(T) Teeth

**10.10 301979PT Clecomatic Clutch Assembly  
301991PT Clecomatic Clutch Assembly**

**Models**  
19BPA(--)Q  
19SCA(--)Q  
19SPA(--)Q



**L** Lubricate with 540450 Grease (18 oz. can)

**10.10 301979PT Clecomatic Clutch Assembly**  
**301991PT Clecomatic Clutch Assembly**

Ref	Number	#	X	EN	
				Description	
--	Table 10.10	1		Clutch Assembly	
1	847411	1	3	O-Ring	
2	207591PT	1		Clutch Cam	
3	842980	13	26	Steel Ball (.094 diameter)	
4	869149	1	3	Ball Retainer Plug	
5	203613	1	3	Slide Reset Spring	
6	203612	1	1	Trip Slide	
7	207651PT	1		Dowel Pin	
8	869112	1		Reset Pin	
9	203585PT	1	3	Reset Spring	
10	869424	1		Reset Pin Stop	
11	207590PT	1		Clutch Spindle	
12	842274	3	9	Steel Ball (.156 diameter)	
13	844265	1	3	Steel Ball (.125 diameter)	
14	842162	3	9	Steel Ball (.250 diameter)	
15	207589PT	1		Driven Cam	
16	Table 10.10	1	1	Torque Spring	
17	207579PT	1		Lock Ring	
18	869123	1		Adjustment Nut	
19	203600PT	1		Spindle Bushing	
20	619524	1	3	Retaining Ring	
21	202833PT	1	1	Release Collar	
22	202842PT	1	3	Release Collar Spring	
23	864249	1	1	Release Collar Washer	
24	833688	1	3	Release Collar Retaining Ring	

(#) Quantity

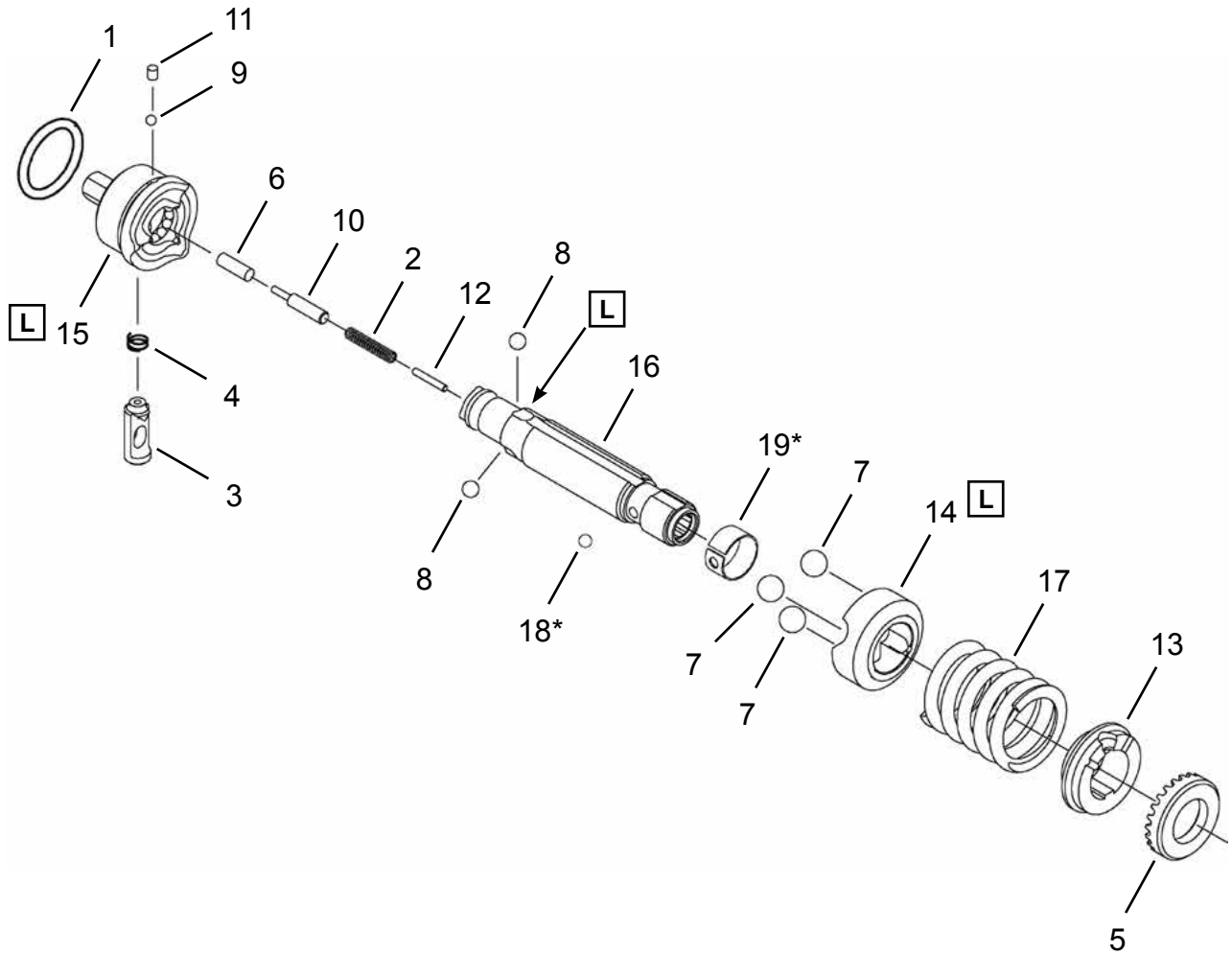
(X) Recommended Spare Parts (quantity shown based on 1-5 tools in operation)

**Table 10.10**

Ref.	Description	#	19(--) <b>A02Q</b>		19(--) <b>A04Q</b>	
			19(--) <b>A03Q</b>	#	19(--) <b>A05Q</b>	19(--) <b>A06Q</b>
--	Clutch Assembly	1	301991PT	1	301979PT	
16	Torque Spring (Green)	1	207652PT		-----	
	Torque Spring (White)		-----	1	207596PT	

**10.11 301982PT Clecomatic Clutch Assembly  
301992PT Clecomatic Clutch Assembly**

**Models**  
19BPA(--B)  
19SCA(--B)  
19SPA(--B)



\* Note: Not included in clutch assembly

**L** Lubricate with 540450 Grease (18 oz. can)

**10.11 301982PT Clecomatic Clutch Assembly**  
**301992PT Clecomatic Clutch Assembly**

Ref	Number	#	X	EN	
				Description	
--	Table 10.11	1		Clutch Assembly (includes Ref. 1-17)	
1	847411	1	3	O-Ring	
2	203585PT	1	3	Clutch Reset Spring	
3	203612	1	1	Trip Slide	
4	203613	1	3	Slide Reset Spring	
5	869123	1		Adjustment Nut	
6	207651PT	1		Dowel Pin	
7	842162	3	9	Steel Ball (.250 diameter)	
8	842274	3	9	Steel Ball (.156 diameter)	
9	842980	13	26	Steel Ball (.094 diameter)	
10	869112	1		Reset Pin	
11	869149	1	3	Ball Retainer Plug	
12	869424	1		Reset Pin Stop	
13	207579PT	1		Lock Ring	
14	207589PT	1		Driven Cam	
15	207591PT	1		Clutch Cam	
16	207593PT	1		Clutch Spindle	
17	Table 10.11	1	1	Torque Spring	
18	844265	1	3	Steel Ball (.125 diameter) - <i>not included in clutch assembly</i>	
19	847114	1	2	Ball Retainer Clip - <i>not included in clutch assembly</i>	

(#) Quantity

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

**Table 10.11**

Ref.	Description	#	19(--) <b>A02B</b>		19(--) <b>A04B</b>	
			19(--) <b>A03B</b>	#	19(--) <b>A05B</b>	19(--) <b>A06B</b>
--	Clutch Assembly	1	301992PT	1	301982PT	
17	Torque Spring (Green)	1	207652PT		-----	
	Torque Spring (White)		-----	1	207596PT	

## 11 Technical data

### 11.1 19BPA Specifications

Inline Push-to-Start - Button Reverse

Model Number	Tool Torque Range		Torque Range and Spring Selection								Free Speed (rpm)	Length		Weight	
			Blue		Green		White		Orange			in	mm	lbs	kg
	in-lb	Nm	in-lb	Nm	in-lb	Nm	in-lb	Nm	in-lb	Nm					
<b>Quick Change Chuck</b>															
19BPA02Q	3-19	0.3-2.1	3-8	0.3-0.9	5-19	0.6-2.1	----	----	----	----	2800	9.1	231	1.4	0.6
19BPA03Q	3-26	0.3-2.9	3-8	0.3-0.9	5-19	0.6-2.1	15-26	1.7-2.9	----	----	1900	9.3	236	1.4	0.6
19BPA04Q	3-40	0.3-4.5	3-8	0.3-0.9	10-19	1.1-2.1	15-38	1.7-4.3	21-40	2.4-4.5	1100	9.1	231	1.3	0.6
19BPA05Q	3-45	0.3-5.1	3-8	0.3-0.9	10-19	1.1-2.1	15-38	1.7-4.3	21-45	2.4-5.1	660	9.5	241	1.5	0.7
19BPA06Q	3-45	0.3-5.1	3-8	0.3-0.9	10-19	1.1-2.1	15-38	1.7-4.3	21-45	2.4-5.1	260	9.5	241	1.5	0.7
<b>Bit and Finder</b>															
19BPA02B	3-19	0.3-2.1	3-8	0.3-0.9	5-19	0.6-2.1	----	----	----	----	2800	9.1	231	1.4	0.6
19BPA03B	3-26	0.3-2.9	3-8	0.3-0.9	5-19	0.6-2.1	15-26	1.7-2.9	----	----	1900	9.3	236	1.4	0.6
19BPA04B	3-40	0.3-4.5	3-8	0.3-0.9	10-19	1.1-2.1	15-38	1.7-4.3	21-40	2.4-4.5	1100	9.1	231	1.3	0.6
19BPA05B	3-45	0.3-5.1	3-8	0.3-0.9	10-19	1.1-2.1	15-38	1.7-4.3	21-45	2.4-5.1	660	9.5	241	1.5	0.7
19BPA06B	3-45	0.3-5.1	3-8	0.3-0.9	10-19	1.1-2.1	15-38	1.7-4.3	21-45	2.4-5.1	260	9.5	241	1.5	0.7

	Standard / Installed Spring
	Optional / Included Spring

### 11.2 19SCA Specifications

Inline Lever Push-to-Start - Reversing Ring

Model Number	Tool Torque Range		Torque Range and Spring Selection								Free Speed (rpm)	Length		Weight	
			Blue		Green		White		Orange			in	mm	lbs	kg
	in-lb	Nm	in-lb	Nm	in-lb	Nm	in-lb	Nm	in-lb	Nm					
<b>Quick Change Chuck</b>															
19SCA02Q	3-19	0.3-2.1	3-8	0.3-0.9	5-19	0.6-2.1	----	----	----	----	2800	9.8	249	1.5	0.7
19SCA03Q	3-26	0.3-2.9	3-8	0.3-0.9	5-19	0.6-2.1	15-26	1.7-2.9	----	----	1900	10.0	254	1.5	0.7
19SCA04Q	3-40	0.3-4.5	3-8	0.3-0.9	10-19	1.1-2.1	15-38	1.7-4.3	21-40	2.4-4.5	1100	9.8	249	1.5	0.7
19SCA05Q	3-45	0.3-5.1	3-8	0.3-0.9	10-19	1.1-2.1	15-38	1.7-4.3	21-45	2.4-5.1	660	10.2	259	1.6	0.7
19SCA06Q	3-45	0.3-5.1	3-8	0.3-0.9	10-19	1.1-2.1	15-38	1.7-4.3	21-45	2.4-5.1	260	10.2	259	1.6	0.7
<b>Bit and Finder</b>															
19SCA02B	3-19	0.3-2.1	3-8	0.3-0.9	5-19	0.6-2.1	----	----	----	----	2800	9.8	249	1.5	0.7
19SCA03B	3-26	0.3-2.9	3-8	0.3-0.9	5-19	0.6-2.1	15-26	1.7-2.9	----	----	1900	10.0	254	1.5	0.7
19SCA04B	3-40	0.3-4.5	3-8	0.3-0.9	10-19	1.1-2.1	15-38	1.7-4.3	21-40	2.4-4.5	1100	9.8	249	1.5	0.7
19SCA05B	3-45	0.3-5.1	3-8	0.3-0.9	10-19	1.1-2.1	15-38	1.7-4.3	21-45	2.4-5.1	660	10.2	259	1.6	0.7
19SCA06B	3-45	0.3-5.1	3-8	0.3-0.9	10-19	1.1-2.1	15-38	1.7-4.3	21-45	2.4-5.1	260	10.2	259	1.6	0.7

	Standard / Installed Spring
	Optional / Included Spring

### 11.3 19SPA Specifications

**Inline Push-to-Start - Reversing Ring**

Model Number	Tool Torque Range		Torque Range and Spring Selection								Free Speed (rpm)	Length		Weight	
			Blue		Green		White		Orange			in	mm	lbs	kg
	in-lb	Nm	in-lb	Nm	in-lb	Nm	in-lb	Nm	in-lb	Nm					
<b>Quick Change Chuck</b>															
19SPA02Q	3-19	0.3-2.1	3-8	0.3-0.9	5-19	0.6-2.1	-----	-----	-----	-----	2800	9.1	231	1.4	0.6
19SPA03Q	3-26	0.3-2.9	3-8	0.3-0.9	5-19	0.6-2.1	15-26	1.7-2.9	-----	-----	1900	9.3	236	1.4	0.6
19SPA04Q	3-40	0.3-4.5	3-8	0.3-0.9	10-19	1.1-2.1	15-38	1.7-4.3	21-40	2.4-4.5	1100	9.1	231	1.3	0.6
19SPA05Q	3-45	0.3-5.1	3-8	0.3-0.9	10-19	1.1-2.1	15-38	1.7-4.3	21-45	2.4-5.1	660	9.5	241	1.5	0.7
19SPA06Q	3-45	0.3-5.1	3-8	0.3-0.9	10-19	1.1-2.1	15-38	1.7-4.3	21-45	2.4-5.1	260	9.5	241	1.5	0.7
<b>Bit and Finder</b>															
19SPA02B	3-19	0.3-2.1	3-8	0.3-0.9	5-19	0.6-2.1	-----	-----	-----	-----	2800	9.1	231	1.4	0.6
19SPA03B	3-26	0.3-2.9	3-8	0.3-0.9	5-19	0.6-2.1	15-26	1.7-2.9	-----	-----	1900	9.3	236	1.4	0.6
19SPA04B	3-40	0.3-4.5	3-8	0.3-0.9	10-19	1.1-2.1	15-38	1.7-4.3	21-40	2.4-4.5	1100	9.1	231	1.3	0.6
19SPA05B	3-45	0.3-5.1	3-8	0.3-0.9	10-19	1.1-2.1	15-38	1.7-4.3	21-45	2.4-5.1	660	9.5	241	1.5	0.7
19SPA06B	3-45	0.3-5.1	3-8	0.3-0.9	10-19	1.1-2.1	15-38	1.7-4.3	21-45	2.4-5.1	260	9.5	241	1.5	0.7

	Standard / Installed Spring
	Optional / Included Spring

## **12 Service**

### **12.1 Replacement parts**



Use only original Cleco replacement parts. Failure to comply can result in reduced power and increased service requirements. The tool warranty may be voided if replacement parts are not manufactured or approved by Apex Tool Group.

### **12.2 Tool repairs**

Only qualified and trained personnel are to repair this equipment.

### **12.3 Warranty repairs**

All warranty repairs are to be performed by an authorized Apex Tool Group service center. Contact your local representative for assistance with warranty repair claims.



## 13 Disposal

---

**CAUTION!**

Injuries and environmental damage from improper disposal.



Components and auxiliary materials of the tool pose risks to health and the environment.

- Capture auxiliary materials (oils, greases) when drained and dispose of them properly.
- Separate the packaging components and dispose of them properly.
- Comply with all applicable local regulations.



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

---





## 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

# Cleco®