

19P & 19T Series Pistol Grip Screwdrivers



19P Series



19T Series

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 19P and 19T series tools.
- serves as a reference guide for technical data, service intervals and spare parts ordering.
- provides information on optional equipment.

Identification text:

19P / 19T represents all models of the pistol grip pneumatic screwdrivers 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

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	19	X	X	A	XX	Q
<u>Tool Series</u> 19						
<u>Handle</u> P = Pistol Grip P-Handle T = Pistol Grip T-Handle						
<u>Tool Type</u> C = Combination (Trigger/Push-To-Start) T = Trigger						
<u>Clutch</u> A = Clecomatic Clutch						
<u>Maximum Torque</u> 02 = 2.1 Nm 06 = 5.1 Nm 03 = 2.9 Nm 07 = 6.8 Nm 04 = 4.5 Nm 09 = 8.9 Nm 05 = 5.1 Nm 15 = 14.7 Nm						
<u>Output Drive</u> Q = Quick Change Chuck						

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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 19P/19T and apply the 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 19P/19T tools. The 19P/19T 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 19P/19T are designed exclusively for fastening and releasing threaded fasteners.

The 19P/19T 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 19P/19T, 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 ≤ 79 dB(A) free speed (without load) according to ISO 12100: 2011

Vibration values < 2.5 m/s² 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 19P or 19T
- 1 PL12-1012EN instruction manual
- 1 Declaration of Conformity
- 1 Lubrication sheet
- 1 Warranty statement

2.2 Transport

Transport and store the 19P/19T 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 19P/19T in a location on the workbench to avoid accidental depression of the trigger.
or
- Suspend the 19P/19T from a suitable balancer or tool positioner.

For storage longer than 2 hours:

- Disconnect the air supply from the 19P/19T

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

3 Product description

3.1 General description

- Pistol grip or “T” handle pneumatic powered screwdriver
- Trigger actuated
- Clockwise/counterclockwise rotation
- 19PCA and 19TCA models: trigger allowed push-to-start with adjustable Clecomatic clutch
19PTA and 19TTA models: trigger start with adjustable Clecomatic clutch
- Low vibration level

3.2 Operation and functional elements

This section describes the operational and functional elements of the 19P/19T.



Ref.	Description
1	Air Inlet
2	Adjustable Reversing Lever
3	Trigger
4	Two Interchangeable soft-touch grip sizes
5	Clecomatic Clutch
6	Motor and Gearing
7	Quick Change Chuck

4 Accessories



Suspension Bail
Part Number: 931962



Torque Signal Kit
Clecomatic clutch models only
Part Number: 302020PT



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



Small Handle
Part Number: 207595PT

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.

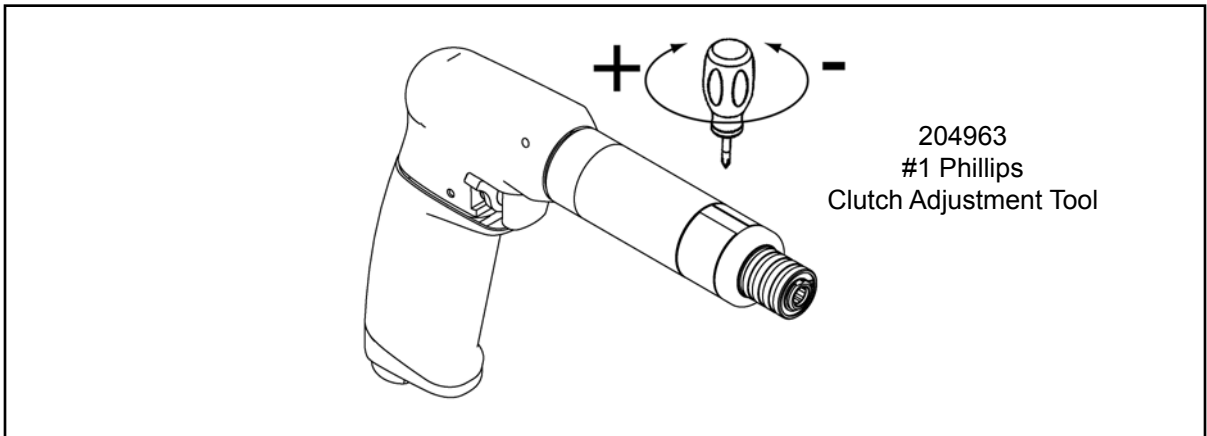
5.4.1 Setting the torque

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 lever is in the correct position.
- Place the socket or bit on the application and depress the trigger to start the rundown.
- When the tool shuts off after reaching the set torque, release the trigger.
- 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 lever out of position	→ Make sure the reversing lever 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"> → Visual inspection of air supply hose and connections → Inspect airline filter, regulator and lubricator for proper operation → Check the tool for excessive vibration or unusual noises → Visual inspection of all external components of the tool
W1	100,000	<ul style="list-style-type: none"> → Inspect the air hose for damage or wear → inspect the square drive output spindle for damage or wear → Inspect the air inlet adapter for a secure fit → Check the maximum free speed
W2	500,000	<ul style="list-style-type: none"> → Check individual parts and replace if necessary → Replace O-rings and seals → Clean bronze mufflers
W3	1,000,000	<ul style="list-style-type: none"> → Check individual parts and replace if necessary → Throttle valve → Motor → Gearing → Clutch → Quick change chuck

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
V	V1 = 100,000 V2 = 500,000 V3 = 1,000,000	Number of rundowns after a maintenance measure is prescribed by Apex Tool Group.
T1	1.8 seconds	Specific rundown time, measured in life and endurance tests.
T2	2 seconds	Actual rundown time, depending on the hardness of the joint.
S	1; 2; 3	Number of shifts per day.
VS	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

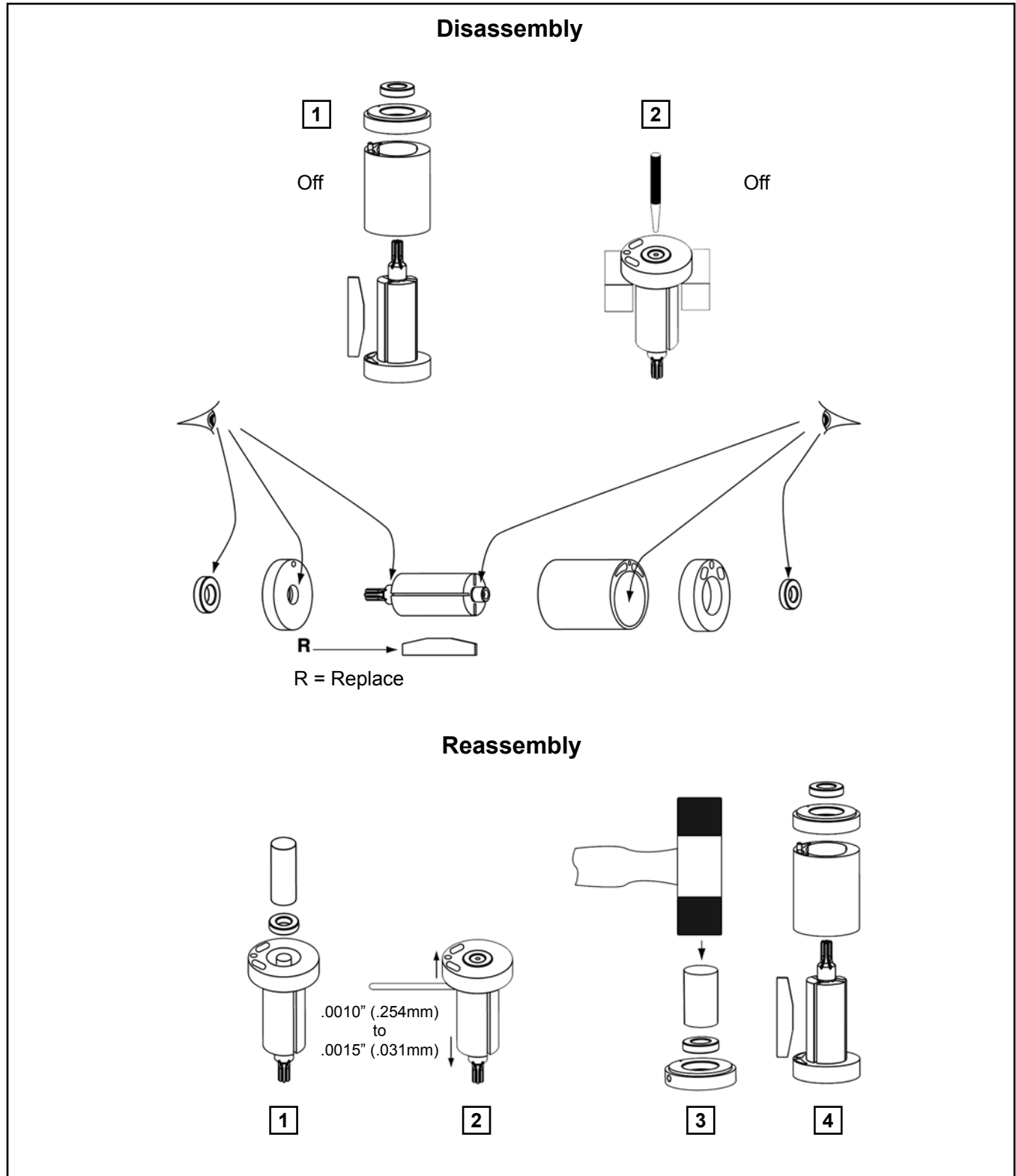
For proper function and long service life, use of the correct grease is essential.

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

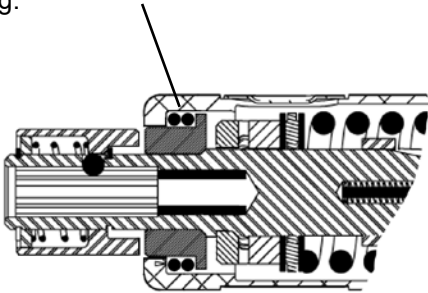
9.1 Motor disassembly and reassembly



9.2 Trip rod sizing

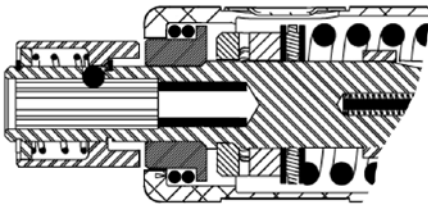
Step 1: (Kit 301409)

Assemble (2) 863009 O-Rings on the Spindle Bushing.



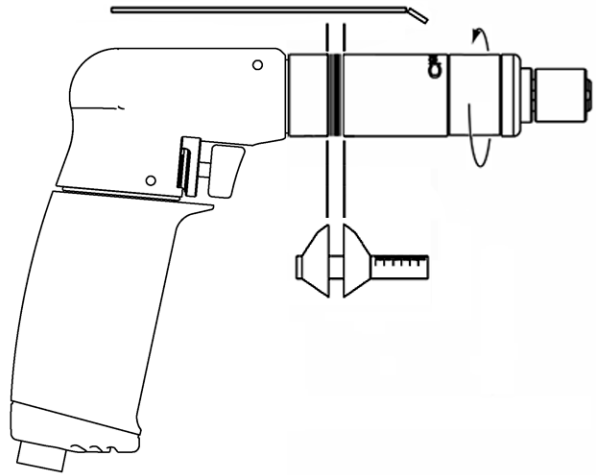
Step 3: (19PCA & 19TCA models)

Remove 863009 O-Rings.



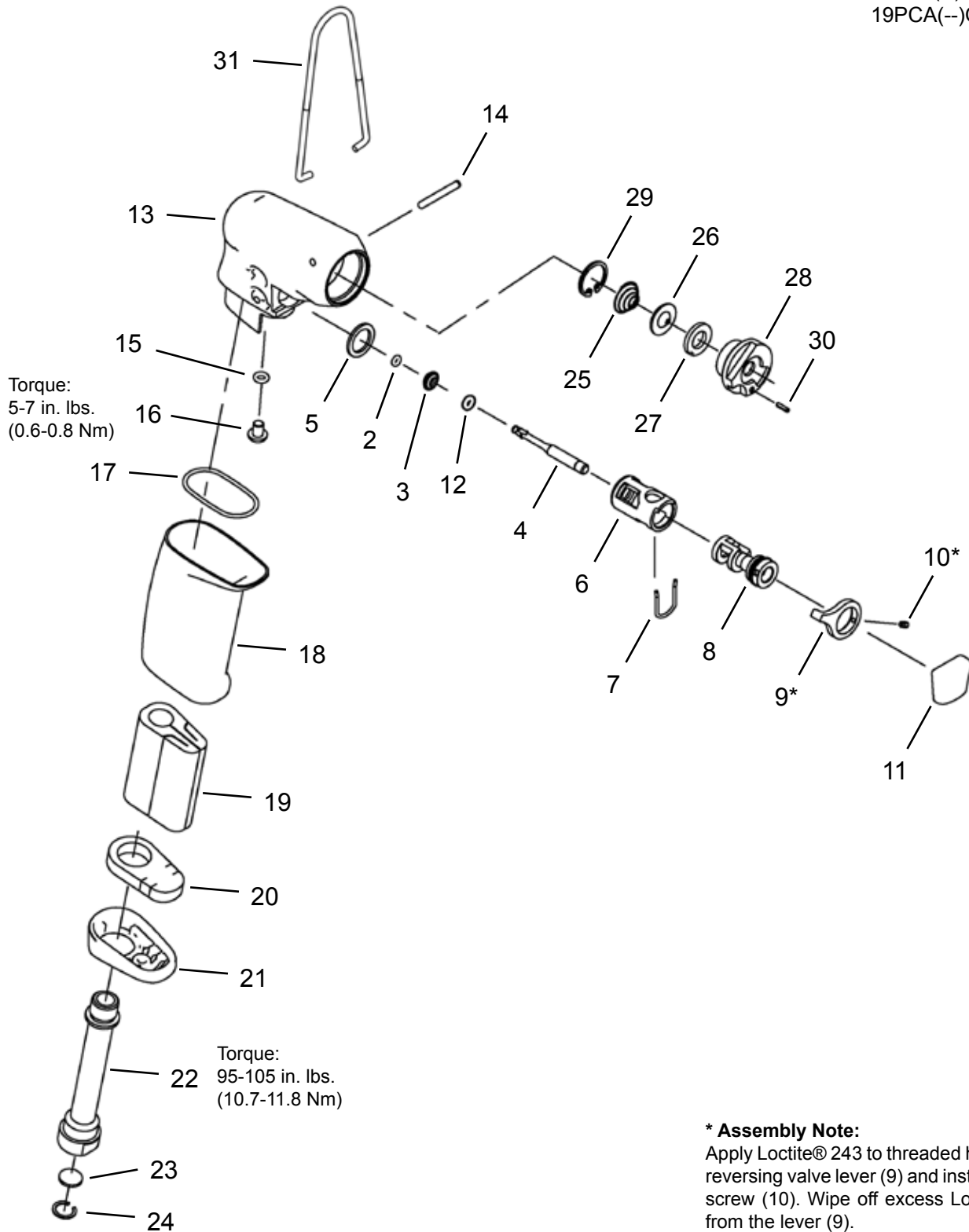
Step 2:

Shorten the Trip Rod until the tool just begins to start with one (1) turn remaining on the Clutch Housing.



10.1 19P Series Screwdriver

Models
19PTA(--Q)
19PCA(--Q)



10.1 19P Series Screwdriver

Ref	Number	#	X	EN
				Description
1	301963PT	1		Reversing Valve Assembly (includes Ref. 2 thru 12)
2	541528	1	3	O-Ring
3	207611PT	1		Tapered Throttle Valve
4	207612PT	1		Valve Stem
5	70193900	1		Washer
6	70191800	1		Reversing Valve Bushing
7	80047400	1	1	Spring Clip
8	207574PT	1		Reversing Valve
9	207597PT	1		Reversing Valve Lever
10	207598PT	1	2	Socket Head Set Screw
11	1110038	1	1	Trigger
12	93040033	1	3	O-Ring
13	207570PT	1		Pistol Grip Housing
14	847031	1	2	Dowel Pin
15	844302	1	3	O-Ring
16	812962	1	3	Screw
17	867926	1	3	O-Ring
18	207601PT	1		Large Pistol Grip Handle (Standard Equipment)
	207595PT *	1		Small Pistol Grip Handle (Option)
19	203563	1	3	Muffler Pad
20	866400PT	1	3	Muffler
21	207587PT	1		Muffler Cap
22	207602PT	1		Inlet Adapter - Large Handle (Standard Equipment)
	207588PT *	1		Inlet Adapter - Small Handle (Option)
23	905031 *	1	3	Screen
24	905599 *	1	3	Retaining Ring
25	203525	1	3	Shut-Off Valve Spring
26	203529	1		Shut-Off Valve
27	847675	1	3	Valve Seal
28	207594PT	1		Valve Manifold (includes Ref. 30)
29	847033	1	2	Retaining Ring
30	847548	1	2	Pin
31	931962	1	2	Suspension Bail

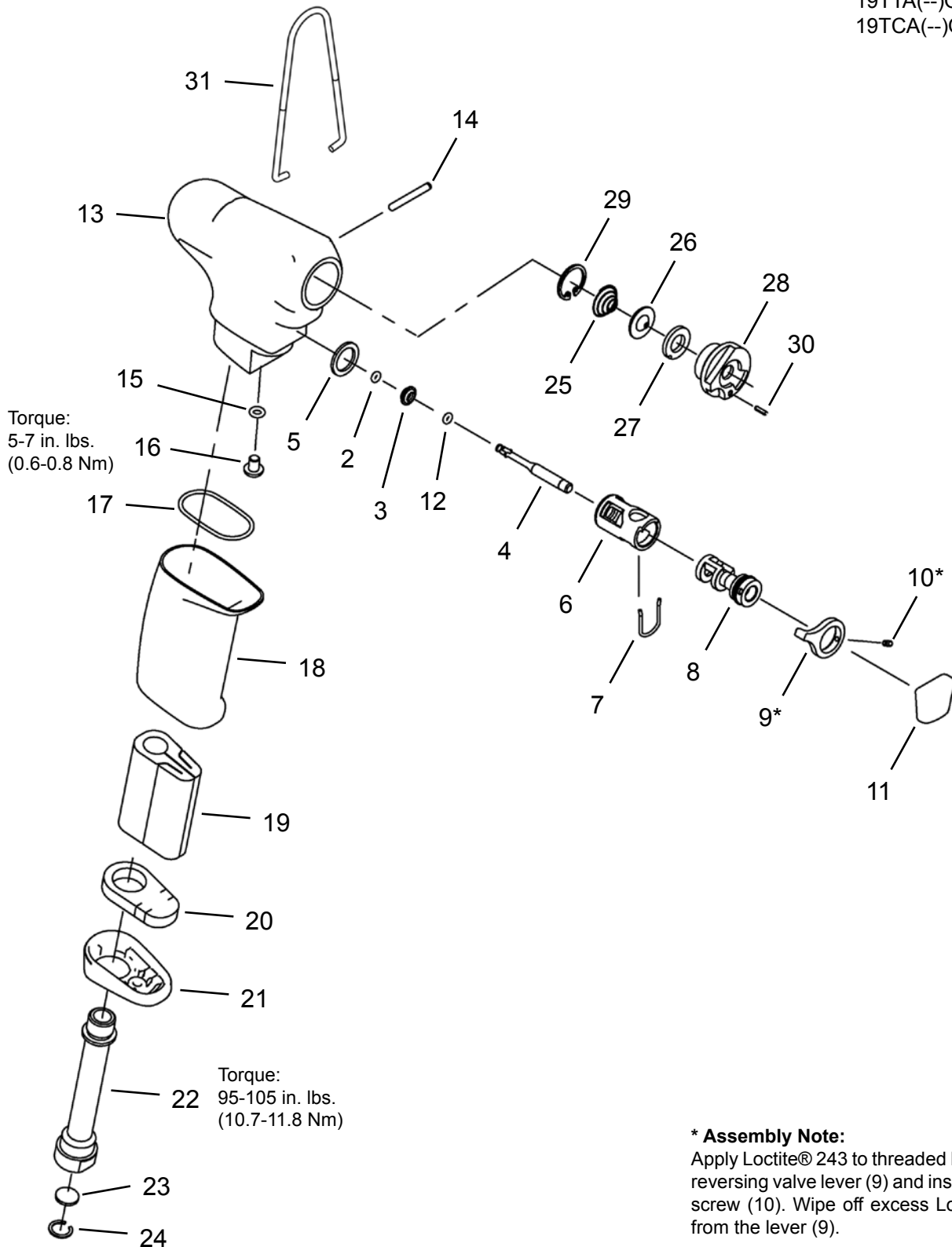
(#) Quantity

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

* Note: Parts included in 302020PT small Pistol Grip handle kit

10.2 19T Series Screwdriver

Models
19TTA(--)Q
19TCA(--)Q



10.2 19T Series Screwdriver

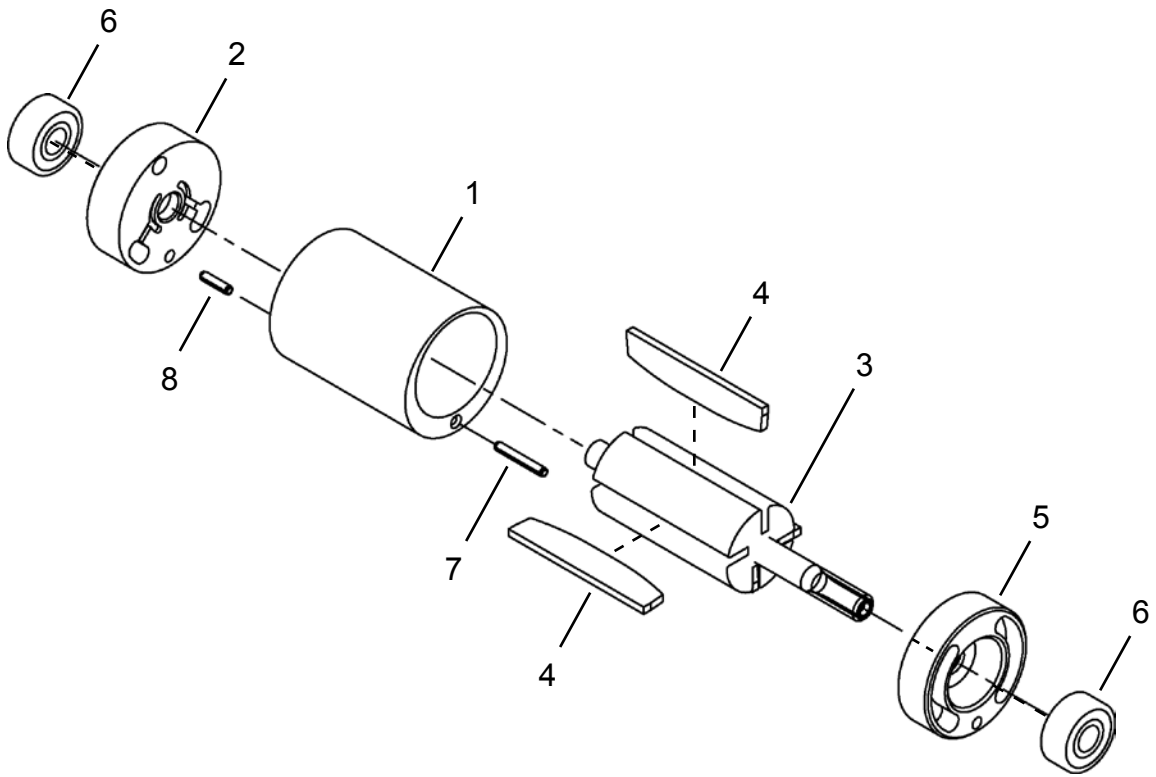
Ref	Number	#	X	EN
				Description
1	301963PT	1		Reversing Valve Assembly (includes Ref. 2 thru 12)
2	541528	1	3	O-Ring
3	207611PT	1		Tapered Throttle Valve
4	207612PT	1		Valve Stem
5	70193900	1		Washer
6	70191800	1		Reversing Valve Bushing
7	80047400	1	1	Spring Clip
8	207574PT	1		Reversing Valve
9	207597PT	1		Reversing Valve Lever
10	207598PT	1	2	Socket Head Set Screw
11	1110038	1	1	Trigger
12	93040033	1	3	O-Ring
13	207572PT	1		Pistol Grip Housing
14	847031	1	2	Dowel Pin
15	844302	1	3	O-Ring
16	812962	1	3	Screw
17	867926	1	3	O-Ring
18	207601PT	1		Large Pistol Grip Handle (Standard Equipment)
	207595PT *	1		Small Pistol Grip Handle (Option)
19	203563	1	3	Muffler Pad
20	866400PT	1	3	Muffler
21	207587PT	1		Muffler Cap
22	207602PT	1		Inlet Adapter - Large Handle (Standard Equipment)
	207588PT *	1		Inlet Adapter - Small Handle (Option)
23	905031 *	1	3	Screen
24	905599 *	1	3	Retaining Ring
25	203525	1	3	Shut-Off Valve Spring
26	203529	1		Shut-Off Valve
27	847675	1	3	Valve Seal
28	207594PT	1		Valve Manifold (includes Ref. 30)
29	847033	1	2	Retaining Ring
30	847548	1	2	Pin
31	931962	1	2	Suspension Bail

(#) Quantity

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

* Note: Parts included in 302020PT small Pistol Grip handle kit

10.3 Motor Assembly



10.3 Motor Assembly

Ref	Number	#	X	EN
				Description
--	Table 10.3	1		Motor Assembly
1	203504	1		Cylinder
2	205960	1		Rear Bearing Plate
3	Table 10.3	1		Rotor
4	203615PT	4	12	Rotor Blade
5	203641	1		Front Bearing Plate
6	842768	2	4	Ball Bearing
7	844897	1	2	Front Cylinder Pin
8	847548	1	2	Rear Cylinder Pin

(#) Quantity

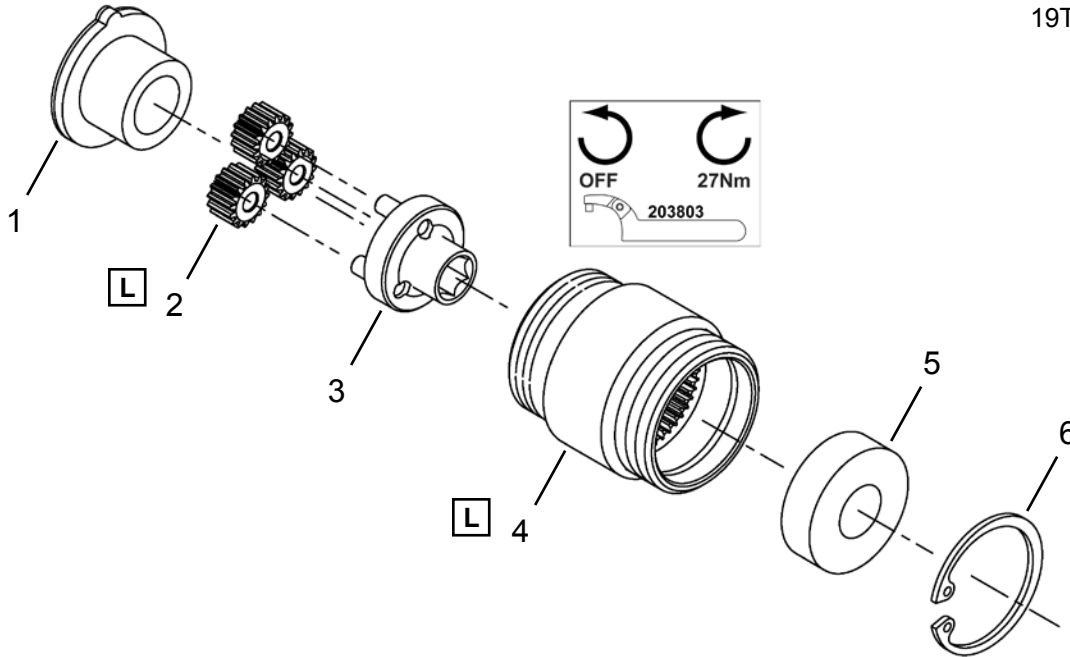
(X) Recommended Spare Parts (quantity shown based on 1-5 tools in operation)

Table 10.3

Ref.	Description	#	19(--) A02Q 19(--) A05Q 19(--) A07Q	#	19(--) A03Q 19(--) A09Q	#	19(--) A04Q 19(--) A06Q 19(--) A15Q
--	Motor Assembly	1	301972PT	1	301973PT	1	301974PT
3	Rotor	1	203545	1	203547	1	203546

10.4 301967PT Gearing Assembly

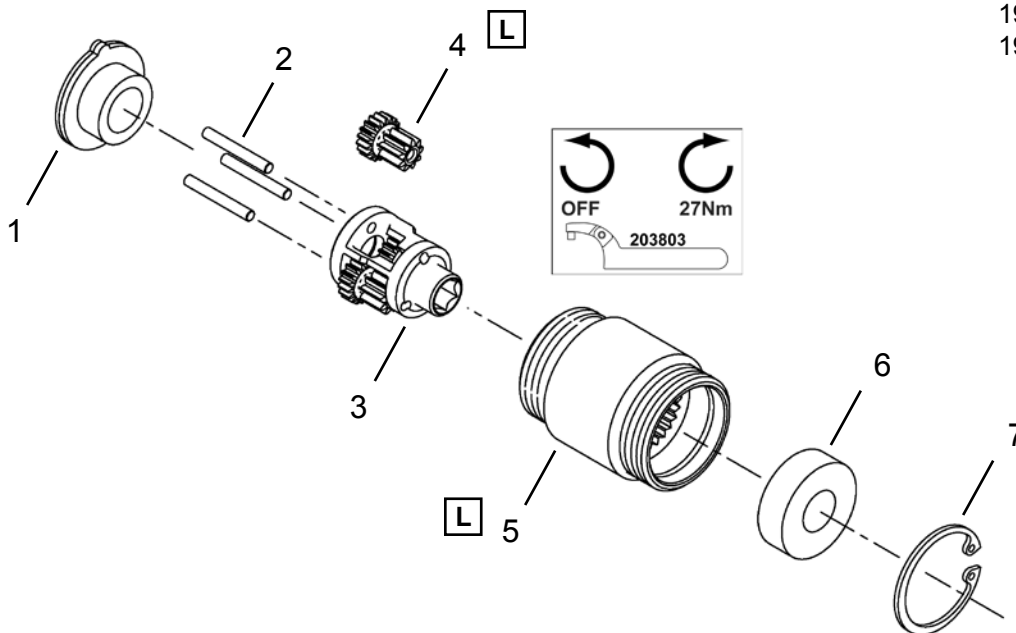
Models
19PCA02Q
19PTA02Q
19TCA02Q
19TTA02Q



L Lubricate with 540450 Grease (18 oz. can)

10.5 301086 Gearing Assembly

Models
19PCA03Q
19PTA03Q
19TCA03Q
19TTA03Q



L Lubricate with 540450 Grease (18 oz. can)

10.4 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

10.5 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

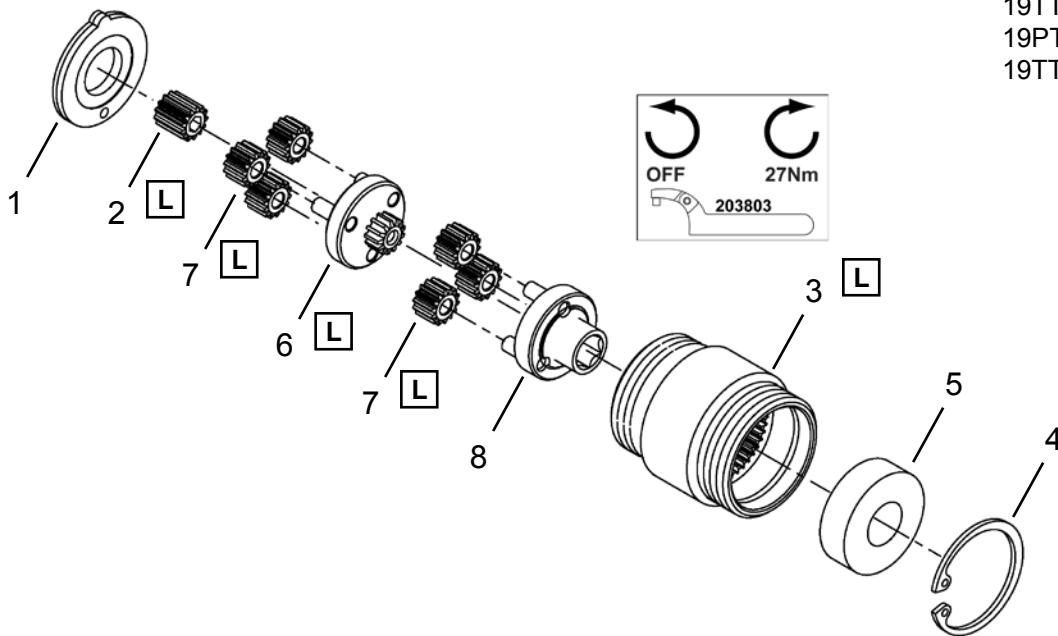
(#) Quantity

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

(T) Teeth

10.6 301968PT Gearing Assembly

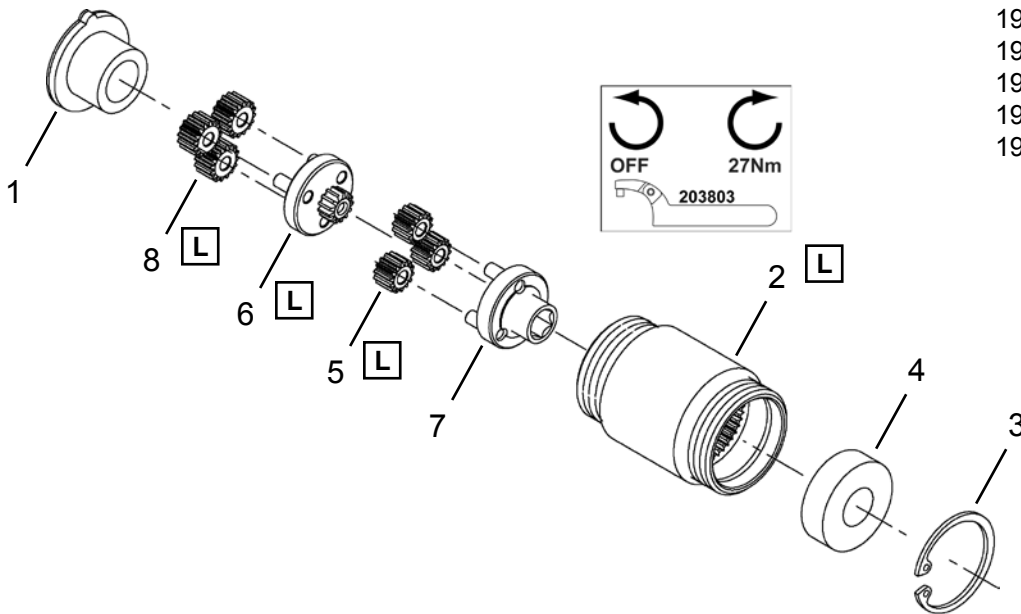
Models
19PCA04Q
19PTA04Q
19TCA04Q
19TTA04Q
19PTA15Q
19TTA15Q



L Lubricate with 540450 Grease (18 oz. can)

10.7 301969PT Gearing Assembly

Models
19PCA05Q
19PTA05Q
19TCA05Q
19TTA05Q
19PCA07Q
19PTA07Q
19TCA07Q
19TTA07Q



L Lubricate with 540450 Grease (18 oz. can)

10.6 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

10.7 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)

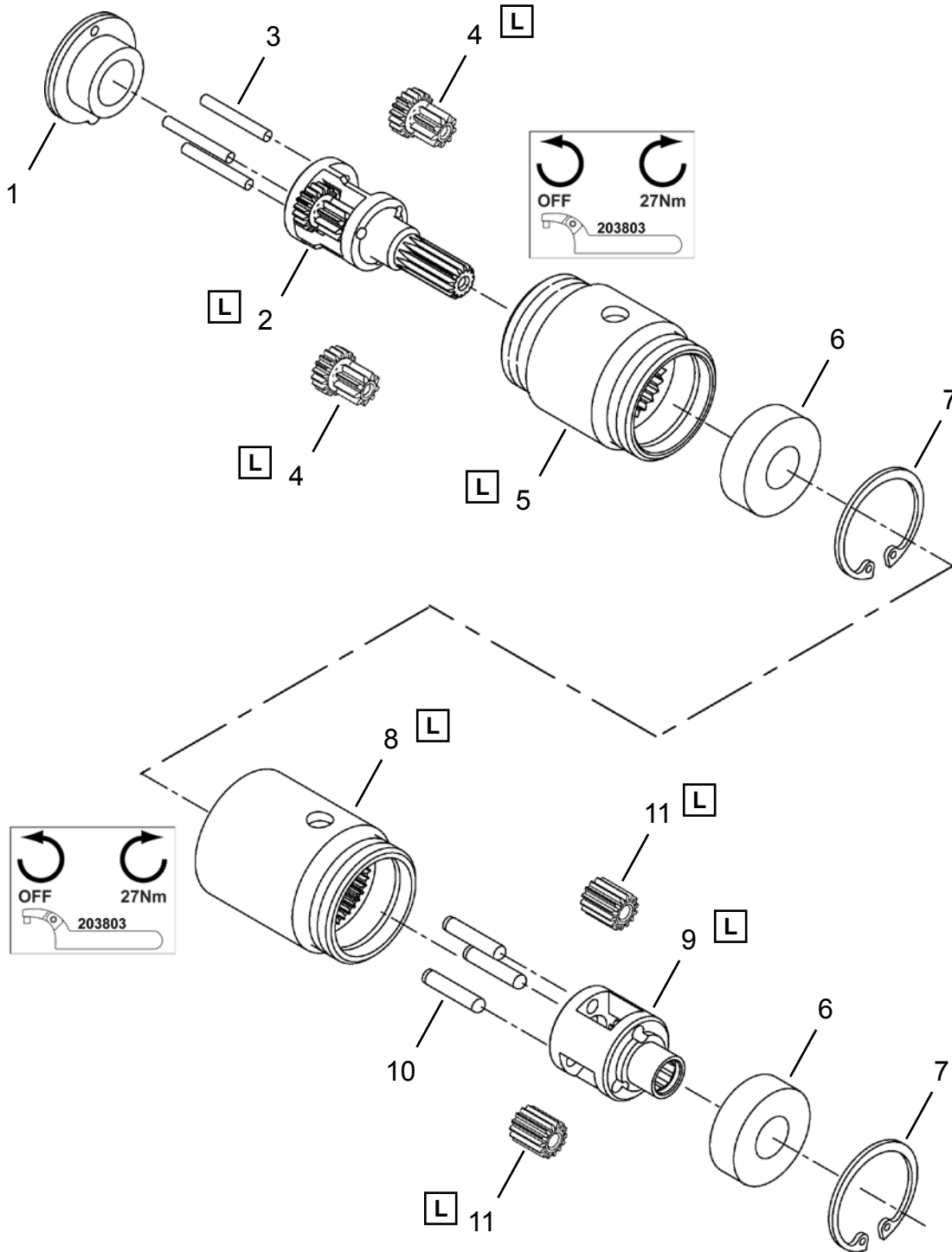
(#) Quantity

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

(T) Teeth

10.8 302016PT Gearing Assembly

Models
19PCA09Q
19PTA09Q
19TCA09Q
19TTA09Q



L Lubricate with 540450 Grease (18 oz. can)

10.8 302016PT Gearing Assembly

Ref	Number	#	X	EN
				Description
--	302016PT	1		Gear Case Assembly (41.538:1)
1	203646	1		End Plate Spacer
2	207701PT	1		Spider
3	833862	3	6	Needle Roller
4	207691PT	3	6	Idler Gear (18T and 9T)
5	205966	1		Gear Case
6	847595	2	4	Ball Bearing
7	619017	2	4	Retaining Ring
8	207702PT	1		Gear Case
9	204282	1		Gear Cage Spider
10	844111	3	6	Dowel Pin
11	203623PT	3	6	Idler Gear (14T)

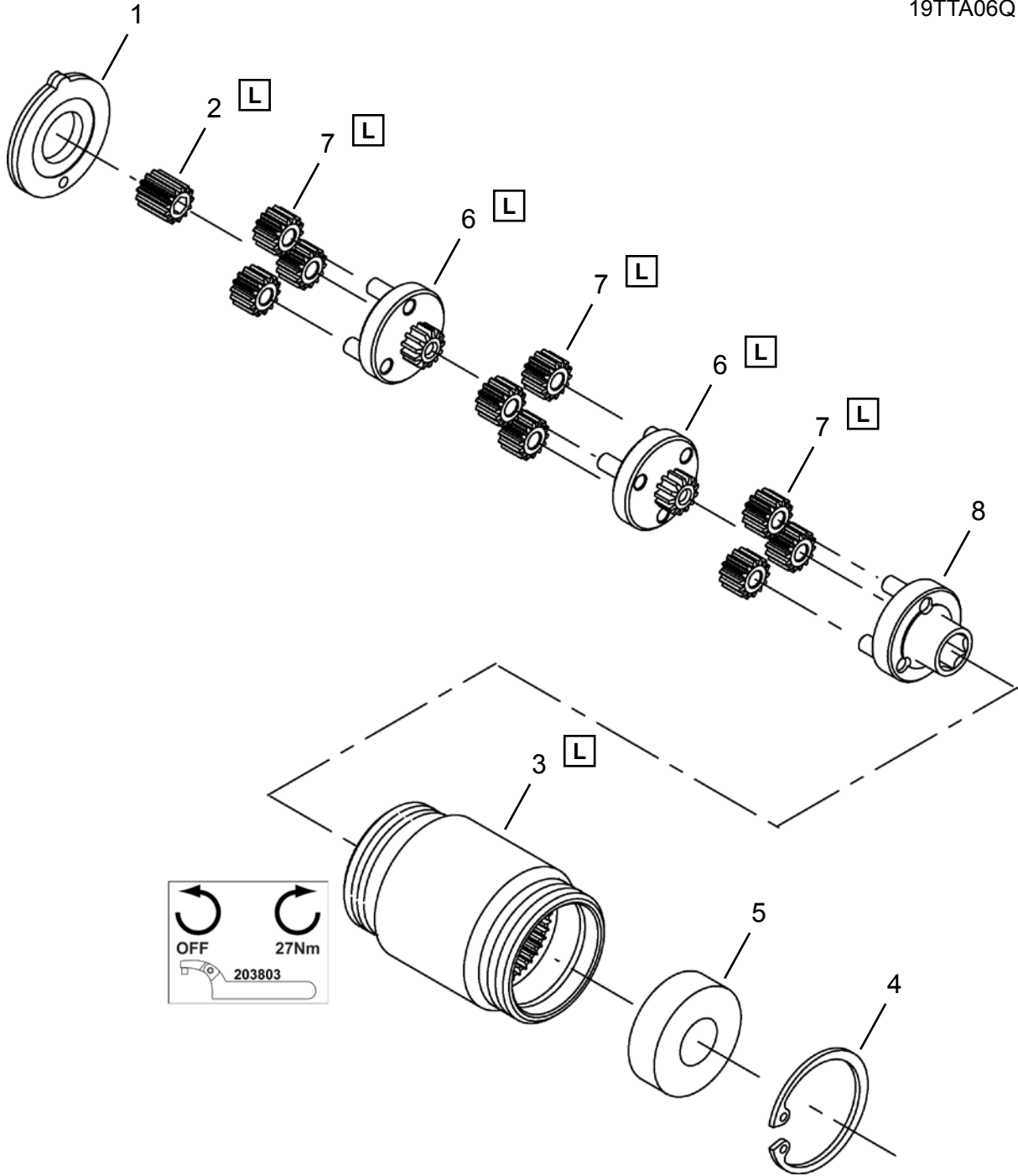
(#) Quantity

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

(T) Teeth

10.9 301970PT Gearing Assembly

Models
19PCA06Q
19PTA06Q
19TCA06Q
19TTA06Q



L Lubricate with 540450 Grease (18 oz. can)

10.9 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

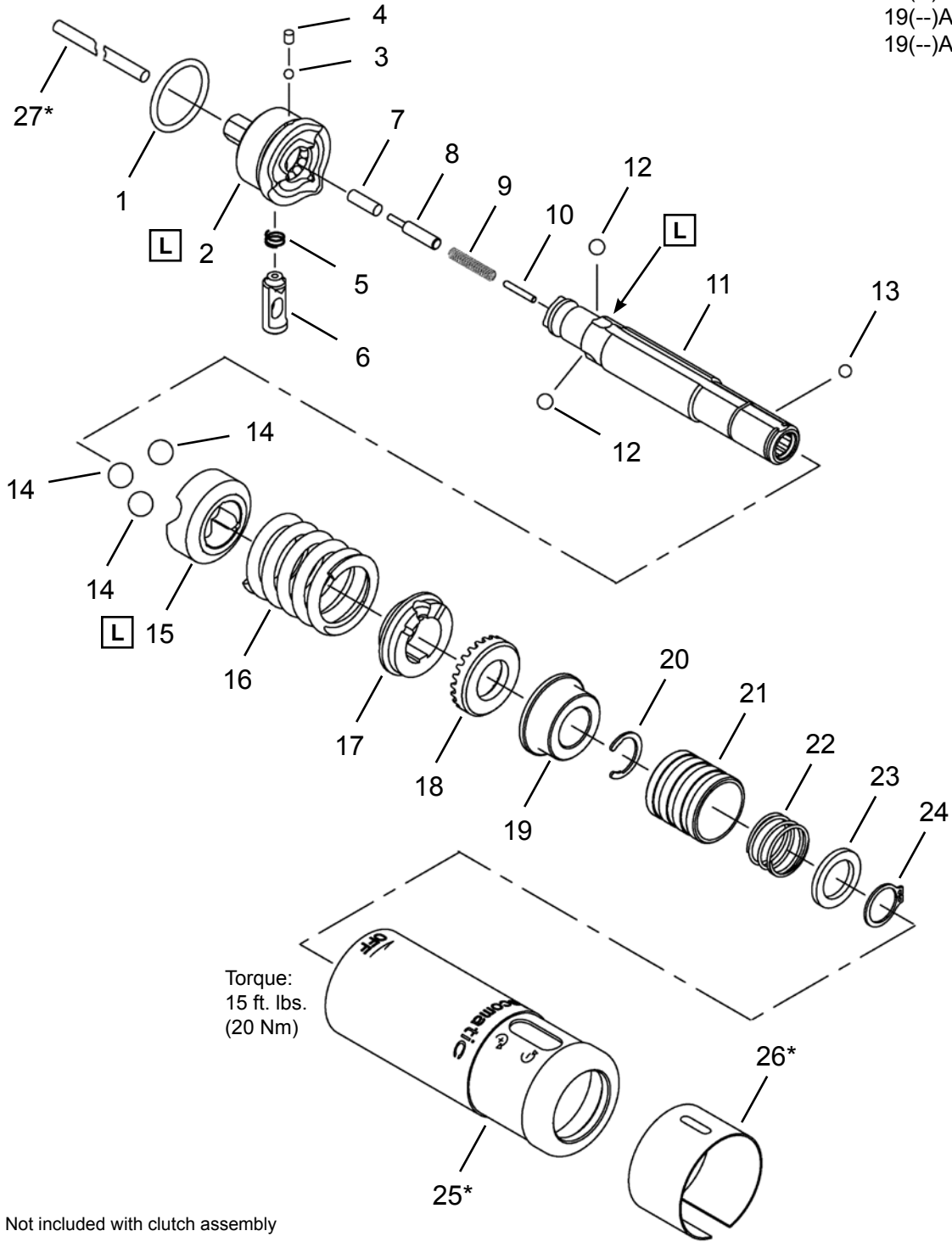
(#) Quantity

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

(T) Teeth

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

Models
19(--)-A02Q
19(--)-A03Q
19(--)-A04Q
19(--)-A05Q
19(--)-A06Q



Torque:
15 ft. lbs.
(20 Nm)

* Note: Not included with clutch assembly

L Lubricate with 540450 Grease (18 oz. can)

10.10 301991PT Clecomatic Clutch Assembly
301979PT 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		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
25	207584PT	1		Clutch Housing (includes Ref. 26) (Not included in Clutch Assembly)
26	203584	1		Adjustment Cover (Not included in Clutch Assembly)
27	203586PT	1	2	Trip Rod (Not included in Clutch Assembly)

(#) Quantity

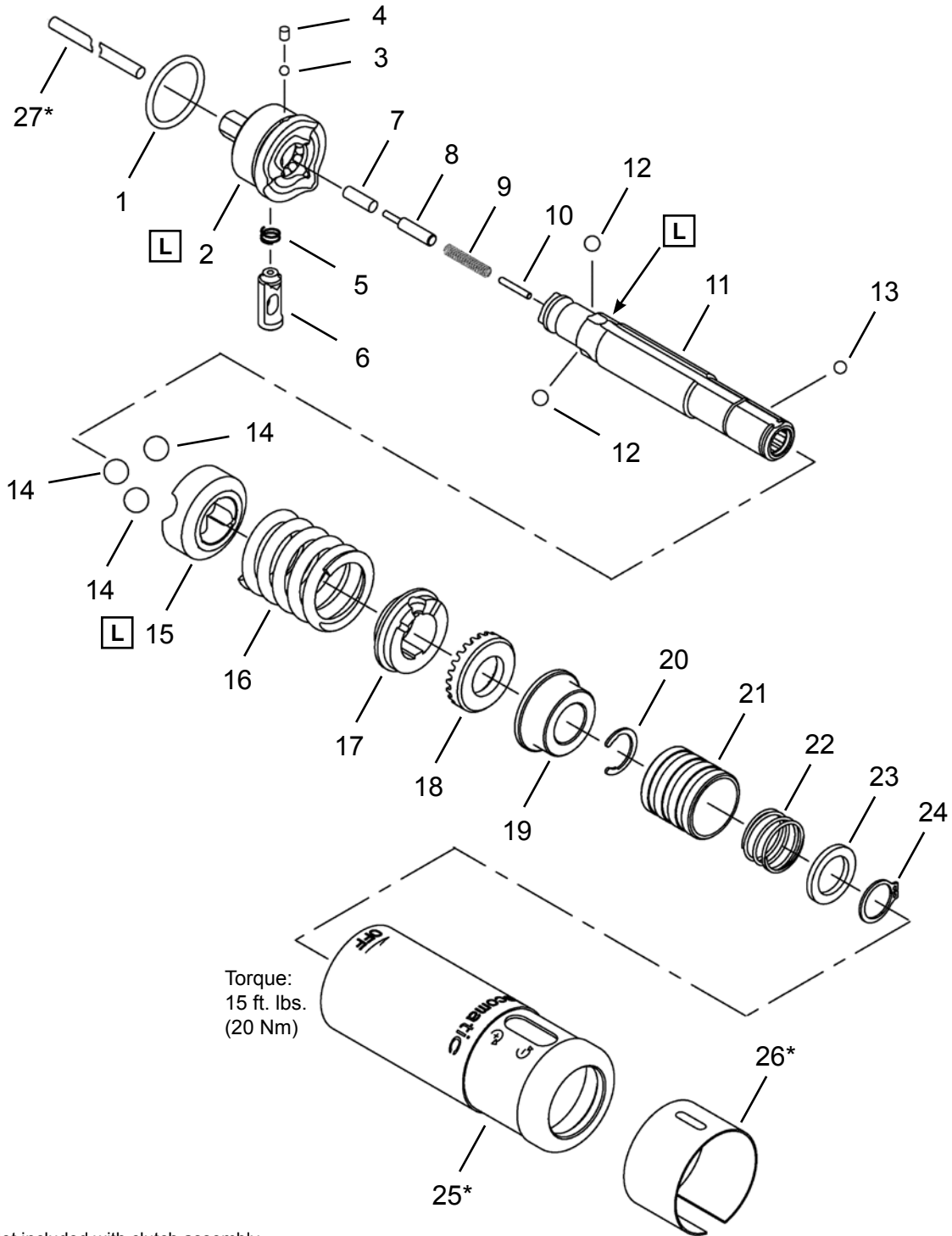
(X) Recommended Spare Parts (quantity shown based on 1-5 tools in operation)

Table 10.10

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

10.11 302017PT Clecomatic Clutch Assembly

Models
19(--A07Q
19(--A09Q



* Note: Not included with clutch assembly

L Lubricate with 540450 Grease (18 oz. can)

10.11 302017PT Clecomatic Clutch Assembly

Ref	Number	#	X	EN
				Description
--	302017PT	1		Clutch Assembly
1	847411	1	3	O-Ring
2	207694PT	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	207695PT	1		Driven Cam
16	207696PT	1		Torque Spring (Orange)
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
25	207584PT	1		Clutch Housing (includes Ref. 26) (Not included in Clutch Assembly)
26	203584	1		Adjustment Cover (Not included in Clutch Assembly)
27	Table 10.11	1	2	Trip Rod (Not included in Clutch Assembly)

(#) Quantity

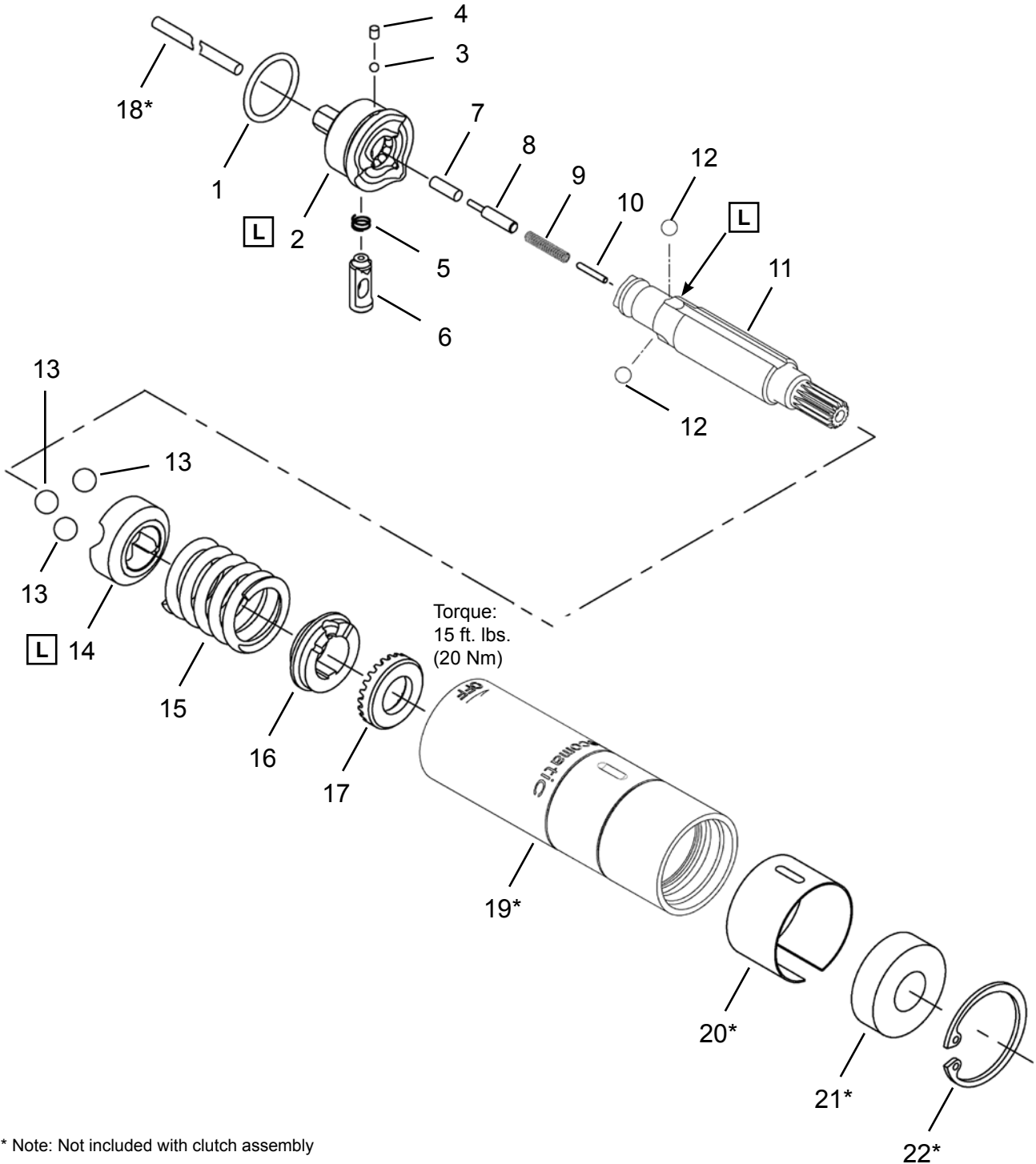
(X) Recommended Spare Parts (quantity shown based on 1-5 tools in operation)

Table 10.11

Ref.	Description	#	19(--) A07Q	#	19(--) A09Q
27	Trip Rod	1	203586PT	1	207704PT

10.12 301981PT Clecomatic Clutch Assembly

Models
19(--)
A15Q



* Note: Not included with clutch assembly

L Lubricate with 540450 Grease (18 oz. can)

10.12 301981PT Clecomatic Clutch Assembly

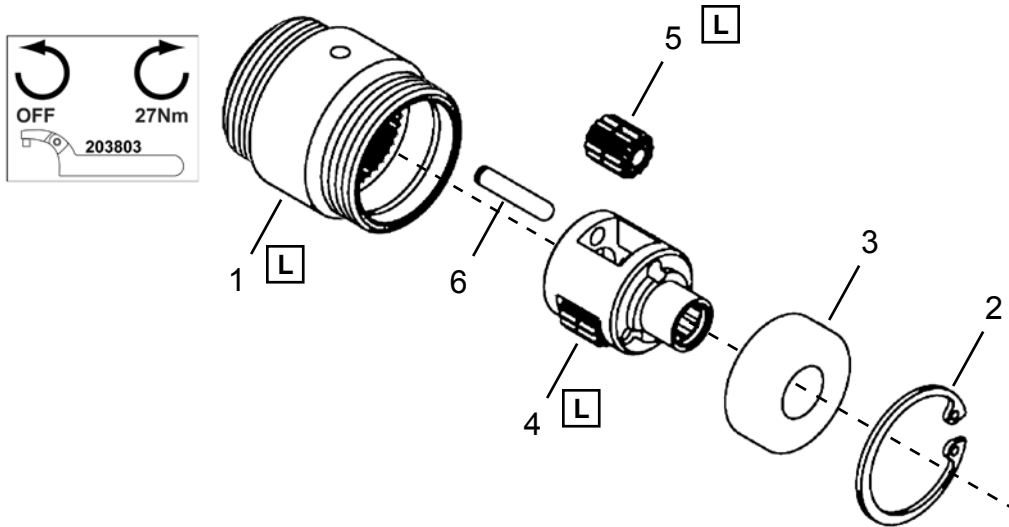
Ref	Number	#	X	EN
				Description
--	301981PT	1		Clutch Assembly
1	847411	1	3	O-Ring
2	207591PT	1		Low Speed Clutch Cam
3	842980	13	26	Steel Ball (.094 diameter)
4	869149	1	3	Ball Retainer Plug
5	203613	1	3	Slide Reset Spring
6	203612	1	1	Trip Slide
7	207651PT	1		Dowel Pin
8	869112	1		Reset Pin
9	203585PT	1	3	Reset Spring
10	869424	1		Reset Pin Stop
11	207592PT	1		Clutch Spindle
12	842274	3	9	Steel Ball (.156 diameter)
13	842162	3	9	Steel Ball (.250 diameter)
14	207589PT	1		Low Speed Driven Cam
15	207596PT	1		Torque Spring (White)
16	207579PT	1		Lock Ring
17	869123	1		Adjustment Nut
18	203586PT	1	2	Trip Rod (Not included in Clutch Assembly)
19	207624PT	1		Clutch Housing (includes Ref. 20) (Not included in Clutch Assembly)
20	203584	1		Adjustment Cover (Not included in Clutch Assembly)
21	847095	1	2	Ball Bearing (Not included in Clutch Assembly)
22	619017	1	2	Retaining Ring (Not included in Clutch Assembly)

(#) Quantity

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

10.13 301124 Output Gear Assembly

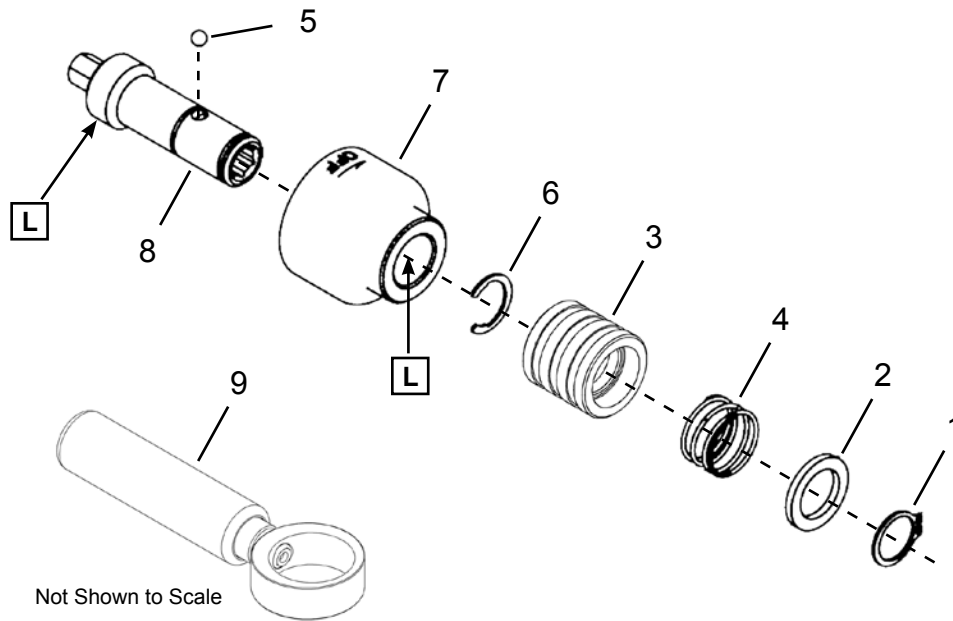
Models
19PTA15Q
19TTA15Q



L Lubricate with 540450 Grease (18 oz. can)

10.14 301122 Output Spindle Assembly

Models
19PTA15Q
19TTA15Q



L Lubricate with 540450 Grease (18 oz. can)

10.13 301124 Output Gear Assembly

Ref	Number	#	X	EN
				Description
1	207109	1		Gear Case
2	619017	1	2	Retaining Ring
3	847595	1	2	Ball Bearing
4	204282	1		Gear Cage
5	203623PT	3	6	Idler Gear (14T)
6	844111	3	6	Dowel Pin

(#) Quantity

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

(T) Teeth

10.14 301122 Output Spindle Assembly

Ref	Number	#	X	EN
				Description
1	833688	1	2	Retaining Ring
2	864249	1	2	Washer
3	202833PT	1		Release Collar
4	202842PT	1	3	Spring
5	844265	1	3	Steel Ball (1/8")
6	619524	1	2	Retaining Ring
7	207104	1		Spindle Housing
8	202847PT	1		Spindle
9	301770 *	1		Dead Handle (Not included in Output Spindle Assembly)

(#) Quantity

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

* Note: 15Q models: Standard Equipment
All other models: Optional Equipment

11 Technical data

11.1 19PCA and 19TCA Specifications

Trigger Allow Push-to-Start Clecomatic Clutch

Model Number		Tool Torque Range		Torque Range and Spring Selection						Free Speed (rpm)	19PC Series				19TC Series			
19PC Series	19TC Series	in-lb	Nm	Green		White		Orange			Length		Weight		Length		Weight	
				in-lb	Nm	in-lb	Nm	in-lb	Nm	in	mm	lbs	kg	in	mm	lbs	kg	
19PCA02Q	19TCA02Q	5-19	0.6-2.1	5-19	0.6-2.1	----	----	----	----	2400	8.1	206	1.41	0.6	8.0	202	1.44	0.7
19PCA03Q	19TCA03Q	5-26	0.6-2.9	5-19	0.6-2.1	----	----	----	----	2100	8.3	211	1.51	0.7	8.2	207	1.54	0.7
19PCA04Q	19TCA04Q	10-40	1.1-4.5	10-19	1.1-2.1	10-38	1.1-4.3	----	----	2100	8.1	206	1.41	0.6	8.0	202	1.54	0.7
19PCA05Q	19TCA05Q	10-45	1.1-5.1	10-19	1.1-2.1	10-38	1.1-4.3	----	----	1600	8.5	216	1.51	0.7	8.4	212	1.54	0.7
19PCA06Q	19TCA06Q	10-45	1.1-5.1	10-19	1.1-2.1	10-38	1.1-4.3	----	----	1500	8.5	216	1.51	0.7	8.4	212	1.54	0.7
19PCA07Q	19TCA07Q	16-60	1.8-6.8	----	----	----	----	24-60	2.7-6.8	1500	8.5	216	1.51	0.7	8.4	212	1.54	0.7
19PCA09Q	19TCA09Q	18-79	2.0-8.9	----	----	----	----	24-38	2.7-4.3	950	9.8	248	1.65	0.7	9.3	235	1.73	0.8

Standard / Installed Spring
Optional / Included Spring

11.2 19PTA and 19TTA Specifications

Trigger Start Clecomatic Clutch

Model Number		Tool Torque Range		Torque Range and Spring Selection						Free Speed (rpm)	19PT Series				19TT Series			
19PT Series	19TT Series	in-lb	Nm	Green		White		Orange			Length		Weight		Length		Weight	
				in-lb	Nm	in-lb	Nm	in-lb	Nm	in	mm	lbs	kg	in	mm	lbs	kg	
19PTA02Q	19TTA02Q	5-19	0.6-2.1	5-19	0.6-2.1	----	----	----	----	2400	8.0	204	1.41	0.6	7.9	199	1.44	0.7
19PTA03Q	19TTA03Q	5-26	0.6-2.9	5-19	0.6-2.1	----	----	----	----	2100	8.2	209	1.51	0.7	8.1	204	1.54	0.7
19PTA04Q	19TTA04Q	15-40	1.7-4.5	10-19	1.1-2.1	10-38	1.1-4.3	----	----	2100	8.0	204	1.41	0.6	7.9	199	1.54	0.7
19PTA05Q	19TTA05Q	15-45	1.7-5.1	10-19	1.1-2.1	10-38	1.1-4.3	----	----	1600	8.4	214	1.51	0.7	8.3	210	1.54	0.7
19PTA06Q	19TTA06Q	15-45	1.7-5.1	10-19	1.1-2.1	10-38	1.1-4.3	----	----	1500	8.4	214	1.51	0.7	8.3	210	1.54	0.7
19PTA07Q	19TTA07Q	16-60	1.8-6.8	----	----	----	----	24-60	2.7-6.8	1500	8.4	214	1.51	0.7	8.3	210	1.54	0.7
19PTA09Q	19TTA09Q	18-79	2.0-8.9	----	----	----	----	24-87	2.7-9.8	950	9.8	248	1.65	0.7	9.3	235	1.73	0.8
19PTA15Q	19TTA15Q	40-130	4.5-14.7	40-75	4.5-8.5	60-130	6.8-14.7	----	----	950	9.7	247	1.81	0.9	9.6	243	1.94	0.9

Standard / Installed Spring
Optional / Included Spring

12 Service

12.1 Replacement parts

NOTE



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.

Detroit, Michigan

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

Houston, Texas

**Apex Tool Group
Sales & Service Center**
6550 West Sam Houston
Parkway North, Suite 200
Houston, TX 77041
Tel: (713) 849-2364
Fax: (713) 849-2047

Lexington, South Carolina

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

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

Seattle, Washington

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

York, Pennsylvania

**Apex Tool Group
Sales & Service Center**
3990 East Market Street
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Brazil

**Apex Tool Group
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Canada

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Maharashtra, India

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