

Parts Manual  
45-8195EN  
PL31-1514-1  
07/30/2015

**DOTCO<sup>®</sup>**

**15L14 and 15S14 Series**  
Right Angle Drills



For additional product information visit our website at <http://www.apextoolgroup.com>

**Dotco®**  
Nomenclature

<b>15</b>	<b>L</b>	<b>1</b>	<b>4</b>	<b>XX</b>	<b>-</b>	<b>XX</b>	<b>XX</b>
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Tool Series

**15** = Drill

Throttle Type

**L** = Locking Lever

**Note:** "S" and "L" models are the same

Motor Size

**1** = 0.3 hp

Handle Style

**4** = Right Angle

Speed Options (RPM)

**87** = 1,500

**88** = 2,400

**89** = 3,600

**90** = 800

**91** = 500

Termination Code: Angle Head Type

**31** = #10-32 Internal Thread Spindle

**32** = 1/4-28 Internal Thread Spindle

**34** = 5/16-24 Internal Thread Spindle

**35** = 3/8-24 Internal Thread Spindle

**36** = 300 Series 1/4" Capacity Collet Chuck

**37** = 0-5/32" Capacity Drill Chuck (# 0B)

**38** = 0-1/4" Capacity Drill Chuck (# 1B)

**40** = 3/8-24 External Thread Spindle

**45** = Universal 1/4" Capacity Collet Chuck

**51** = 1/16"-3/8" Capacity Drill Chuck (# 31BA)

**61** = 1/4-20 External Thread Spindle

Overhose Option (Extra Cost)

**OH** = Overhose

The original language of this manual is English.

**Product Safety Information:**

Intended Use:

These pneumatic drills are to be used only for removing material by utilizing appropriate material removal cutting devices.

For additional product safety information refer to Apex Tool Group, LLC or Apex Tool Group GmbH & Co. OHG document CE-2006, General Safety Portable Drills.



These drills 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:**

We affirm that this machine is in accordance with the following EC regulations (2006/42/EC). Applied harmonized standards are ISO 12100:2010-11.

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: July 23, 2015

**Noise and Vibration:**

15L14 Series Noise Level: 82 dB(A)

15S14 Series Noise Level: 82 dB(A)

15L14 Series Vibration Level: < 2.5 m/s<sup>2</sup>

15S14 Series Vibration Level: < 2.5 m/s<sup>2</sup>

**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
45-0980	2 oz. (0.06 kg)	Angle Head: Moly-XL SAE 250
540395	2 oz. (0.06 kg)	Planetary: Magnalube-G
513156	16 oz. (0.45 kg)	Planetary: Magnalube-G

**Air Supply Line:**

Parameter	Description
Air Hose	Minimum inside diameter: 1/4" (6,4 mm) Maximum length: 8.0' (2,4 m)
Air Pressure	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:**

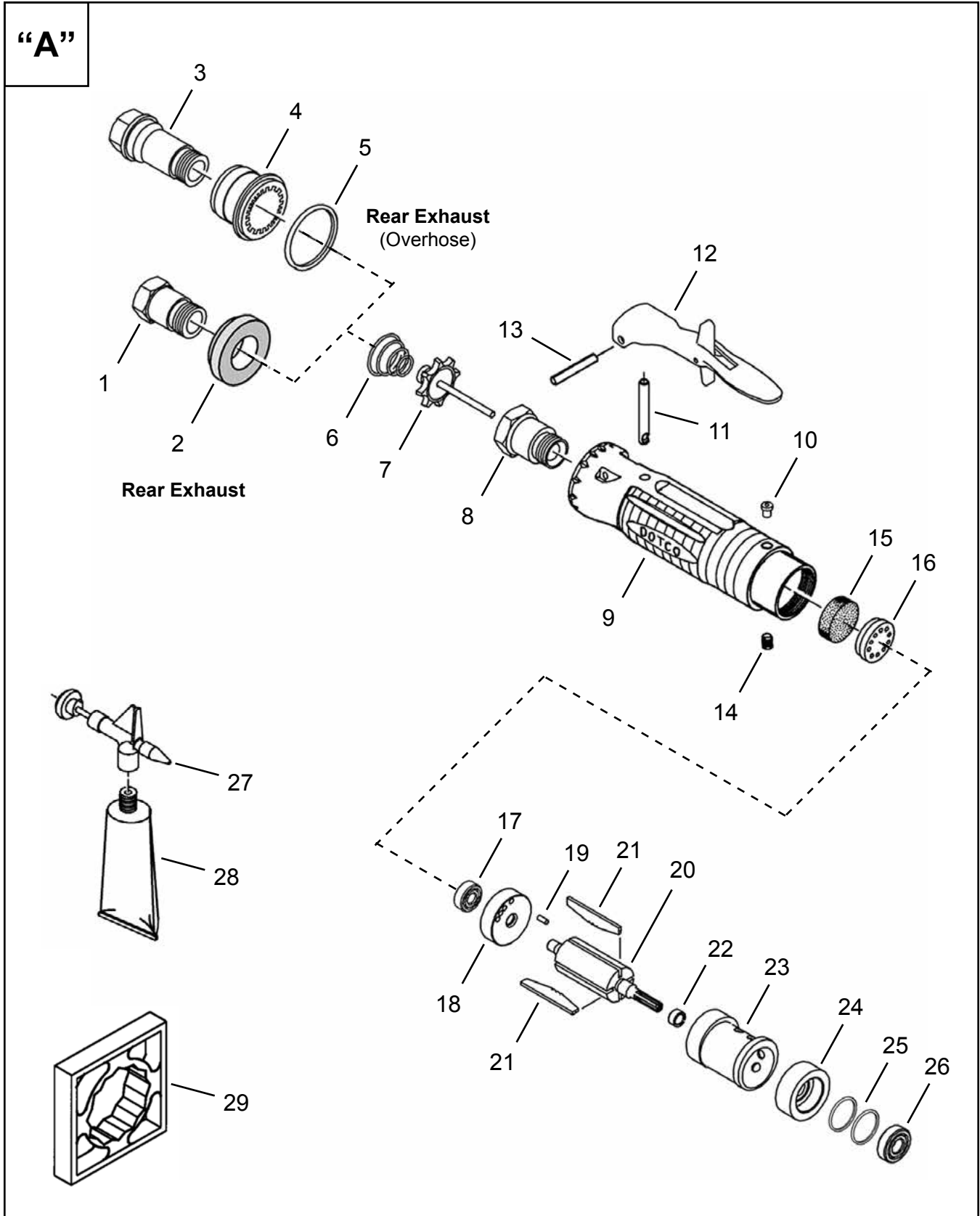


Observe local disposal guidelines for all components of this tool and its packaging.

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**Dotco®**  
Rear Exhaust Housing and Motor Assembly



**Rear Exhaust Housing and Motor Assembly**

**Illustration "A"**

Ref	Number	#	X	EN	
				Description	
1	01-2505	1	1	Air Inlet Adapter (1/4" NPT)	
2	01-2520	1		Diffuser	
3	01-1031	1		Air Inlet Adapter (Overhose)	
4	01-1032	1		Muffler (Overhose)	
5	3036PT	1	3	O-Ring (Overhose)	
6	01-2519	1	3	Valve Spring	
7	01-2518	1		Valve	
8	01-2504	1		Valve Seat	
9	01-1533	1		Motor Housing (includes Ref. 10)	
10	1463PT	1	1	Grease Fitting	
11	01-1017	1		Push Rod	
12	01-1267	1	1	Locking Lever Assembly	
13	1042	1	1	Lever Pin	
14	2831	1	2	Set Screw	
15	01-1046	1	3	Filter	
16	01-1016	1		Filter Retainer	
17	504PT	1	2	Ball Bearing	
18	1203PT	1		Rear Bearing Plate (includes Ref. 19)	
19	1041	1	2	Locating Pin	
20	Table "A"	1		Rotor	
21	1006PT	5	15	Rotor Blade	
22	1017PT	1	1	Rotor Spacer	
23	1002PT	1		Cylinder	
24	1176	1		Front Bearing Plate	
25	1355	1		Shim Packet	
26	538PT	1	2	Ball Bearing	
27	45-1982	1		Grease Gun	
28	45-0980	1	2	Gear Lube	
29	14-0851	1		Housing Wrench (not included with tool)	

(#) Quantity

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

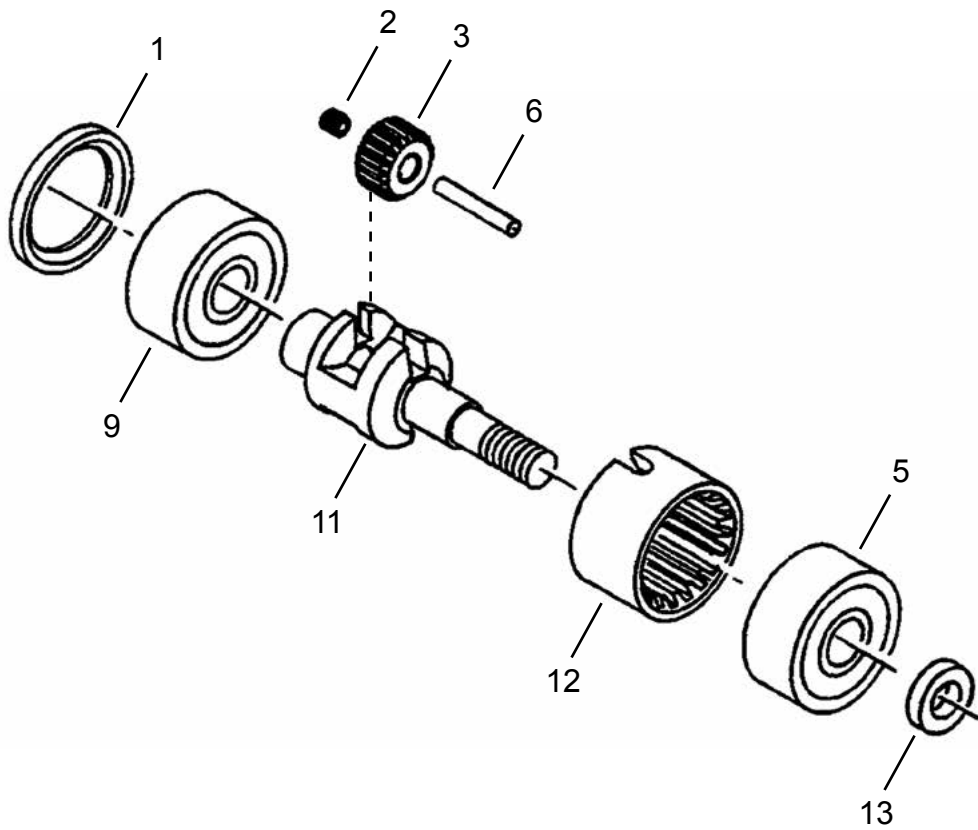
**Table "A"**

Ref.	Description	#	15L1487 15L1488		15L1489 15L1490 15L1491	
			#		#	
20	Rotor	1	2912PT	1	1959S	

**Dotco®**  
Single Reduction Gearing

**“B”**

**Models**  
15L1487  
15L1488  
15L1489



**Dotco®**  
Single Reduction Gearing

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**Illustration "B"**

Ref	Number	#	X	EN
				Description
1	1563PT	1		Bearing Spacer
2	519	2	4	Ball Bearing
3	02-1111	1		Planetary Gear Carrier
4	Table "B"	2	4	Planetary Gear (includes Ref. 5)
5	1464	2	4	Planetary Gear Needle Bearing
6	1526PT	2	4	Planetary Gear Pin
7	1529PT	1		Ring Gear
8	1528PT	1		Bearing Spacer

(#) Quantity

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

**Table "B"**

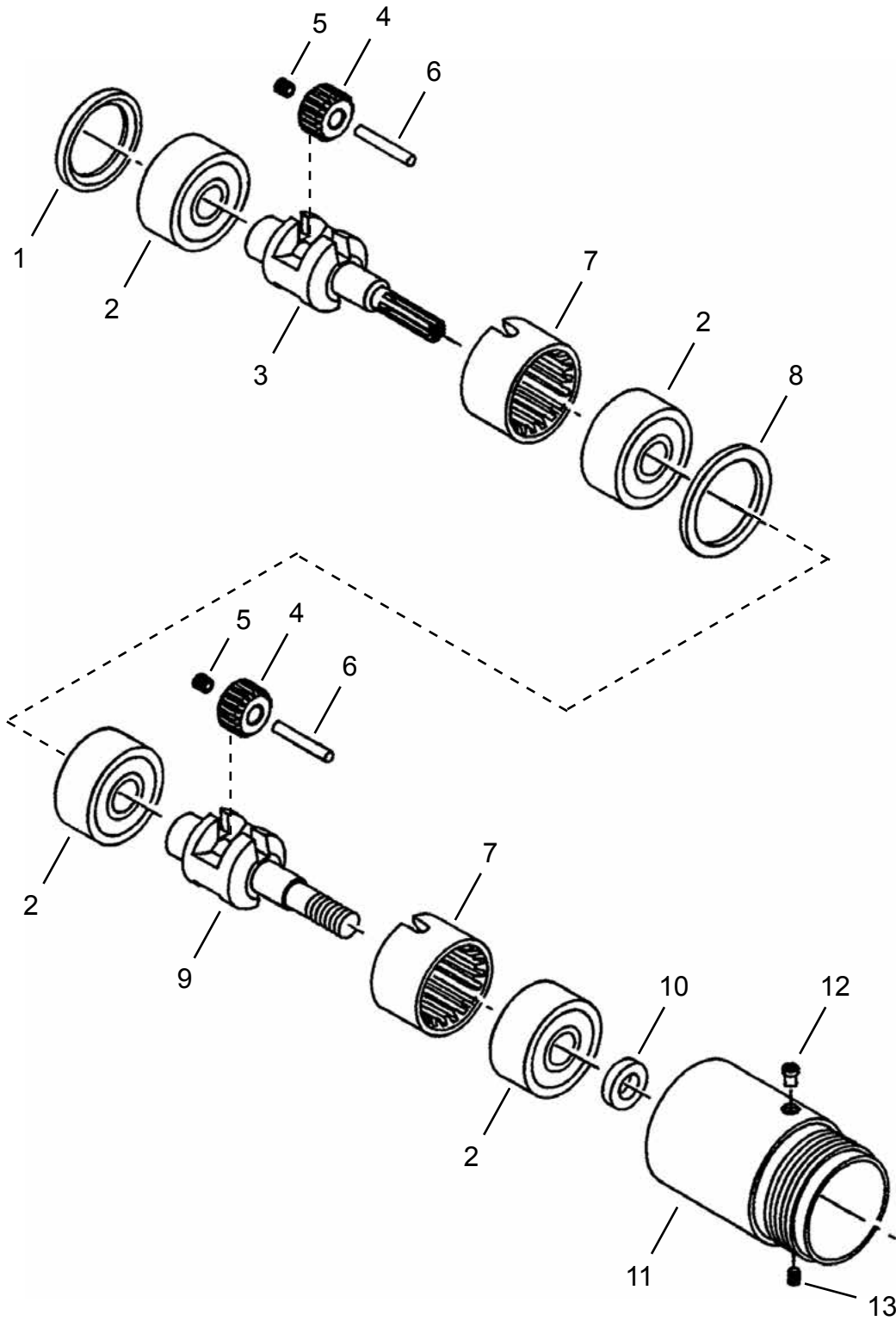
Ref.	Description	#	15L1487	#	15L1489
			15L1488		
4	Planetary Gear	2	1536 (18T)	2	1540PT

(T) Teeth

**Dotco®**  
Double Reduction Gearing

**Models**  
15L1490  
15L1491

**“C”**





**Dotco®**  
Double Reduction Gearing

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**Illustration "C"**

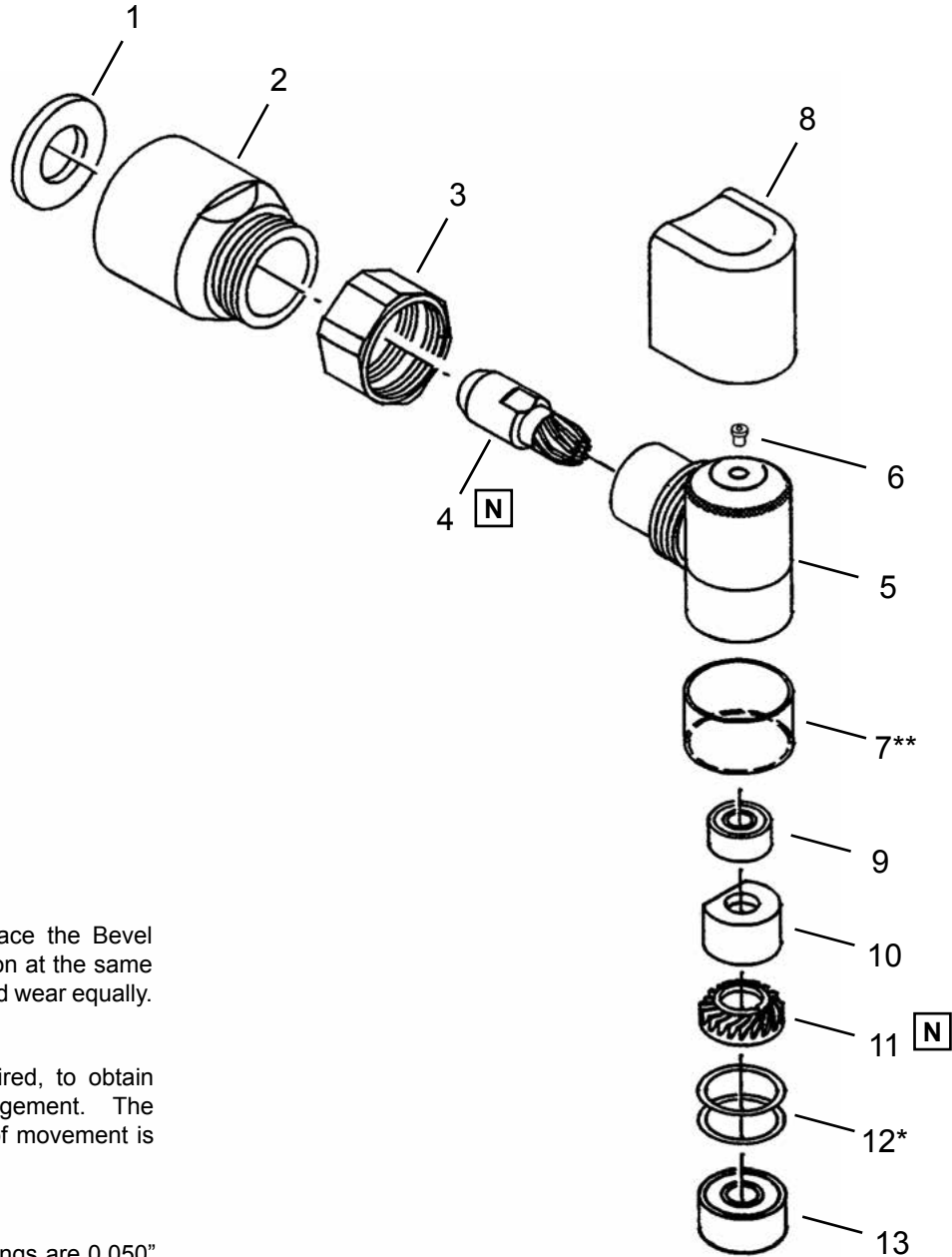
Ref	Number	#	X	EN
				Description
1	1563PT	1		Bearing Spacer
2	519	4	8	Ball Bearing
3	1917PT	1		Planetary Gear Carrier
4	1540PT	4	8	Planetary Gear (16T) (includes Ref. 5)
5	1464	4	8	Planetary Gear Needle Bearing
6	1526PT	4	8	Planetary Gear Pin
7	1529PT	2		Ring Gear
8	1299PT	1		Bearing Spacer
9	02-1111	1		Planetary Gear Carrier
10	1528PT	1		Bearing Spacer
11	1293PT	1		Planetary Gear Housing (includes Ref. 12)
12	1463PT	1	1	Grease Fitting
13	2831	1	2	Set Screw

(#) Quantity

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

(T) Teeth

“D”



**N**

**NOTE:** Always replace the Bevel Gear and Bevel Pinion at the same time since they should wear equally.

**\* NOTE:**

Use shims, as required, to obtain proper gear engagement. The acceptable amount of movement is 0.005" or less.

**\*\* NOTE:**

Replacement wear rings are 0.050" undersize and must be expanded using service tool 45-1020 (available from Apex Tool Group) to slip onto the angle housing. *Note: The wear ring is used to protect the housing diameter and must be removed if accessories are mounted onto the housing.*

**Dotco®**  
90° Angle Head

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**Illustration "D"**

Ref	Number	#	X	EN
				Description
1	1527PT	1		Spacer
2	1524	1		Angle Head Adapter
3	1032PT	1		Angle Head Mounting Cap
4	Table "D"	1	1	Bevel Pinion Gear
5	1024PT	1		Angle Housing (includes Ref. 6-7)
6	1463PT	1	1	Grease Fitting
7	1356PT	1	1	Angle Head Wear Ring
8	01-1048	1		Angle Head Cover
9	504PT	1	2	Ball Bearing
10	1755PT	1	2	Lubrication Disc
11	Table "D"	1	1	Spiral Bevel Gear
12	1355	1		Shim Packet
13	538PT	1	2	Ball Bearing

(#) Quantity

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

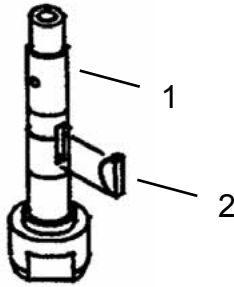
**Table "D"**

Ref.	Description	#	15L1487	#	15L1488
			15L1491		15L1489
4	Bevel Pinion Gear	1	1066	1	1187
11	Spiral Bevel Gear	1	1067	1	1188PT

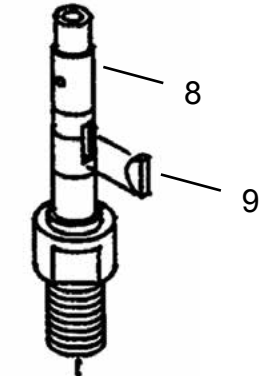
**Dotco®**  
Angle Head Terminations

**“E”**

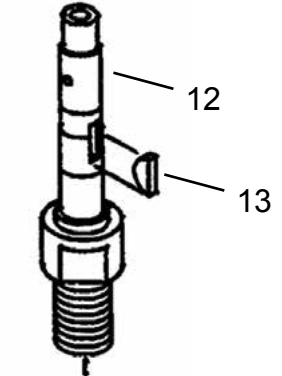
**Terminations  
-31, -32, -34, -35**



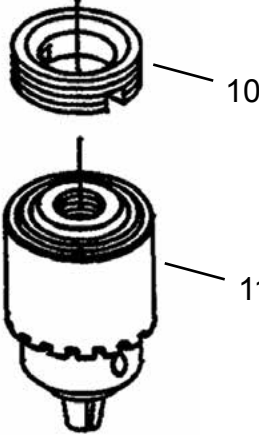
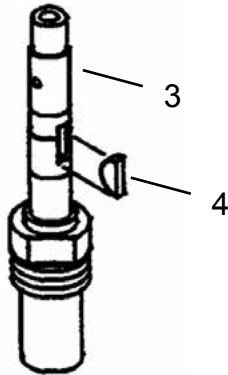
**Terminations  
-37, -38, -51**



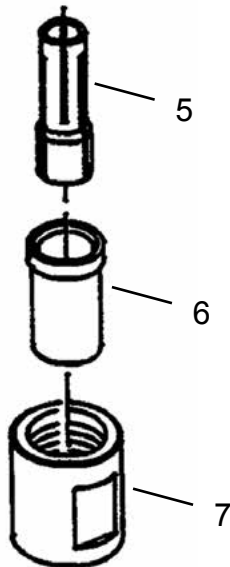
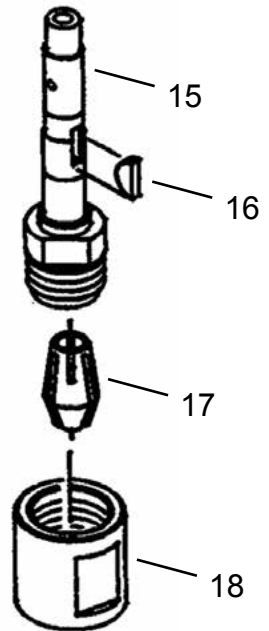
**Terminations  
-40, -61**



**Termination  
-36**



**Termination  
-45**



**Dotco®**  
Angle Head Terminations

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**Illustration "E"**

Ref	Number	#	X	EN
				Description
<b>Terminations -31, -32, -34, -35 (Internal Thread Spindle)</b>				
1	1186	1		Termination -31 Spindle (#10-32 Internal Thread)
	1069	1		Termination -32 Spindle (1/4"-28 Internal Thread)
	1284	1		Termination -34 Spindle (5/16"-24 Internal Thread)
	1250PT	1		Termination -35 Spindle (3/8"-24 Internal Thread)
2	1062PT	1	3	Woodruff Key
<b>Termination -36 (300 Series Collet Chuck)</b>				
3	1029PT	1		Termination -36 Spindle (Collet)
4	1062PT	1	3	Woodruff Key
5	308PT	1	2	Collet
6	1053PT	1	1	Nosepiece
7	1058PT	1	1	Collet Cap
<b>Terminations -37, -38, -51 (Drill Chuck)</b>				
8	1079	1		Termination -37 Spindle (5/16"-24 External Thread)
	1445	1		Termination -38 Spindle (3/8"-24 External Thread)
	1445	1		Termination -51 Spindle (3/8"-24 External Thread)
9	1062PT	1	3	Woodruff Key
10	1025PT	1		Lock Nut
11	1075	1		Termination -37 Drill Chuck (includes 620PT Chuck Key)
	14-1485	1		Termination -38 Drill Chuck (includes 621PT Chuck Key)
	14-1489	1		Termination -51 Drill Chuck (includes 14-2169 Chuck Key)
<b>Terminations -40, -61 (External Thread Spindle)</b>				
12	1445	1		Termination -40 Spindle (3/8"-24 External Thread)
	6109PT	1		Termination -61 Spindle (1/4"-20 External Thread)
13	1062PT	1	3	Woodruff Key
14	1025PT	1		Lock Nut
<b>Termination -45 (Universal Collet Chuck)</b>				
15	7814PT	1		Termination -45 Spindle (Collet)
16	1062PT	1	3	Woodruff Key
17	7808PT	1	2	1/4" Collet
18	7815	1	1	Collet Cap

(#) Quantity

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





# POWER TOOLS SALES & SERVICE CENTERS

Please note that all locations may not service all products.

Contact the nearest Apex Tool Group Sales & Service Center for the appropriate facility to handle your service requirements.

## NORTH AMERICA | SOUTH AMERICA

### Detroit, Michigan

Apex Tool Group  
2630 Superior Court  
Auburn Hills, MI 48236  
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Fax: +1 (248) 391-6295

### Lexington, South Carolina

Apex Tool Group  
670 Industrial Drive  
Lexington, SC 29072  
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Phone: +1 (919) 387-0099  
Fax: +1 (803) 358-7681

### Louisville, Kentucky

Apex Tool Group  
1000 Glengarry Drive  
Suite 150  
Fairdale, KY 40118  
Phone: +1 (502) 708-3400  
[apexpowertools.com/service](http://apexpowertools.com/service)

### Canada

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Fax: (905) 673-4400

### Mexico

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