



**45609799**  
Edition 4  
May 2012

## **DC Electric Tool**

**QE2 Series**

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# **Parts Information**

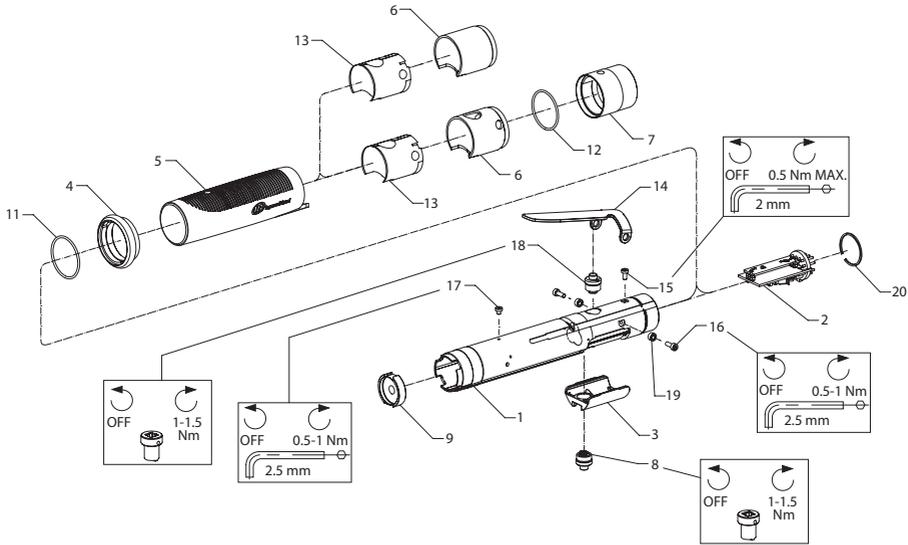


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 **Ingersoll Rand**

## QE2 Motor Housing Assembly, Back End Exploded Diagram

For Inline and Angle Tools



(Dwg. 45609732)

## QE2 Motor Housing Assembly, Back End Parts List

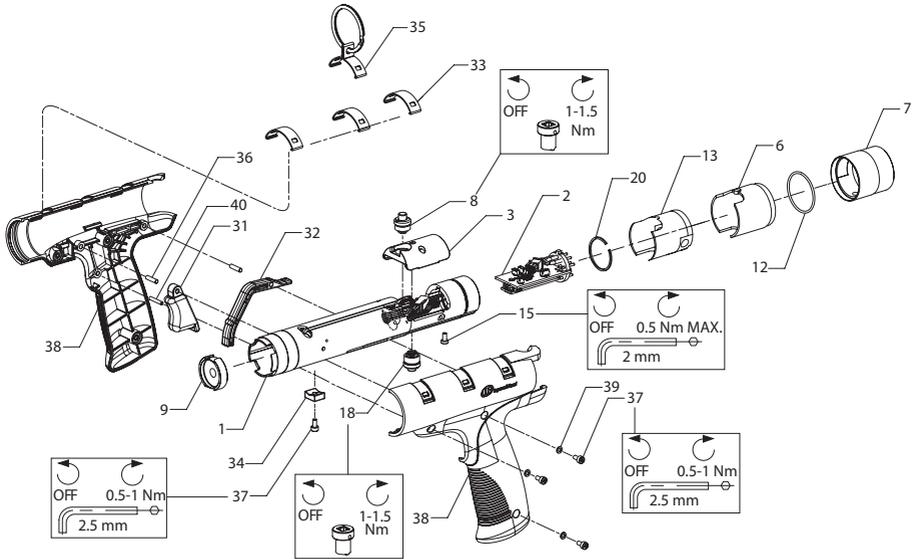
Table 1:

Item	Part Description	Part Number	
		QE2[A/S][L/P]{ }	QE2[A/S/T][S/C]{ }
1	Motor Housing Assembly	CPS2-D53	CPS2-D53
2	Main Board Assembly	CPS2-B499	CPS2-B499
3	Access Cover	CPS2-600	CPS2-600
4	Hand Flange	CPS2-135-1*	CPS2-135-1*
5	Main Cover	CPS2-135	CPS2-135
6	Lens Cover	CPS2-144	CPS2-144-1
7	Suspension Nut	CPS2-27-135	CPS2-27-135
8	Reverse Button	CPS2-A410	CPS2-A410
9	Transducer Assembly	CPS2-A756	CPS2-A756
11	O-Ring	CPS2-367	CPS2-367
12	O-Ring	CPS2-360-1	CPS2-360-1
13	Label	CPS2-300	CPS2-300-1
14	Lever	CPS2-422	---
15	Low Head Cap Screw, M3 x 0.5 x 6	CPS2-667-735	CPS2-667-735
16	Socket Head Cap Screw, M3 x 0.5 x 8 (2)	CPS2-422-78	---
17	Socket Head Cap Screw, M3 x 0.5 x 4	CPS2-667-135	CPS2-667-135
18	Lever Button	CPS2-A410-2	---
19	Spacer (2)	CPS2-591	---
20	Retainer	GEA40-2309-104	GEA40-2309-104

\* Used on QE2[S/T][L/P/S]{ }

## QE2 Motor Housing Assembly, Back End Exploded Diagram

For Pistol Tools



(Dwg. 45609773)

## QE2 Motor Housing Assembly, Back End Parts List

Table 2:

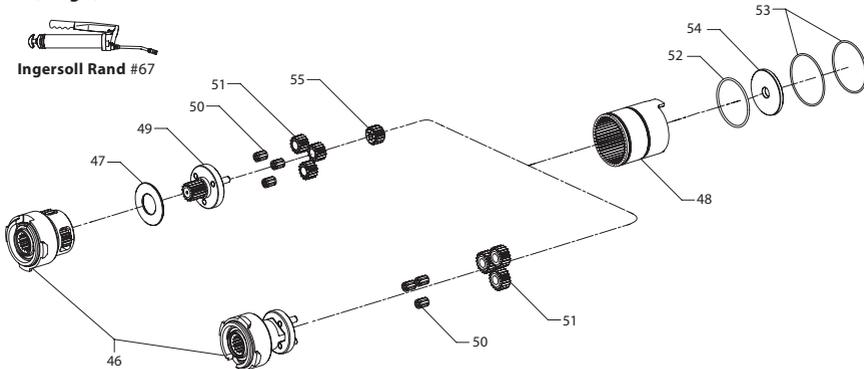
Item	Part Description	Part Number	Item	Part Description	Part Number
		QE2P[T/P/S]{ }			QE2P[T/P/S]{ }
1	Motor Housing Assembly	CPS2-D53	20	Retainer	GEA40-2309-104
2	Main Board Assembly	CPS2-B499	31	Trigger	CPS2-93
3	Access Cover	CPS2-600	32	Trigger Lever	CPS2-273
6	Lens Cover	CPS2-144-2	33	Housing Clip (3)	CPS2-57
7	Suspension Nut	CPS2-27-135	34	Key For Pistol Housing	CPS2-70
8	Reverse Button	CPS2-A410	35	Assembly, Hanger Clip	CPS2-A57-1
9	Transducer Assembly	CPS2-A756	36	Pivot Pin (2)	17M13B159
12	O-Ring	CPS2-360-1	37	Socket Head Cap Screw, M3 x 0.5 x 6 (4)	119M2A95B
13	Label	CPS2-300-2	38	Pistol Handle Set*	CPS2-59
15	Low Head Cap Screw, M3 x 0.5 x 6	CPS2-667-735	39	Flat Washer	508A5NY01
18	Lever Button	CPS2-A410-2	40	Pin, Locking**	CPS2-553

\* Includes item 37 (3 Nos.) and item 39 (3 Nos.).

\*\* Used on QE2PS{} only.

## QE2 Gear Pack Assembly and Components Exploded Diagram

For Inline, Angle, Fixtured and Pistol Tools



(Dwg. 45609633)

## QE2 Gear Pack Assembly and Components Parts List

Table 3:

Item	Part Description	Part Number		
		---	QE2AL005PA3{}	---
		---	QE2AL004PA2{}	QE2AL007PA3{}
		---	QE2AL003PA1S04	QE2AL006PA2{}
		QE2[S/P/T]{}002P{}	QE2[S/P/T]{}003P{}	QE2[S/P/T]{}005P{}
	Gear Case Assembly	CPS2-M37-7P71	CPS2-M37-15P5	CPS2-M37-22P4
46	Spindle Assembly	CPS2-A8-7*	CPS2-A8-16	CPS2-A8-10
47	Washer (0.75 mm thick)	---	CPS2-80-1	CPS2-80-1
48	Ring Gear	CPS2-406	CPS2-406	CPS2-406
49	Gear Head Assembly	---	CPS2-A216-16B	CPS2-A216-10B
50	Bearing (Ø4.5 x Ø3 x 6) (3)	CPS2-97	CPS2-97	CPS2-97
51	Planet Gear (3)	CPS2-10-19	CPS2-10-15	CPS2-10-15
52	O-Ring for Ring Gear (Internal)	CPS2-65-2	CPS2-65-2	CPS2-65-2
53	O-Ring for Ring Gear (External) (2)	CPS2-65-1	CPS2-65-1	CPS2-65-1
54	Washer (2 mm thick)	CPS2-80-2	CPS2-80-2	CPS2-80-2
55	Sun Gear	---	CPS2-7-16	CPS2-7-16

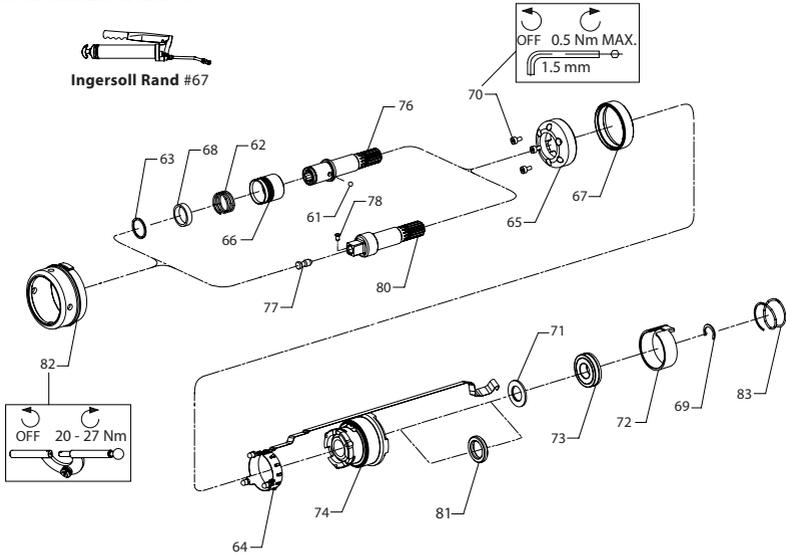
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Item	Part Description	Part Number	
		---	---
		QE2AL010PA3{}	QE2AL015PA3{}
		QE2AL008PA2{}	QE2AL011PA2{}
		QE2[S/P/T]{}007P{}	QE2[S/P/T]{}010P{}
	Gear Case Assembly	CPS2-M37-30P4	CPS2-M37-44P0
46	Spindle Assembly	CPS2-A8-16	CPS2-A8-10
47	Washer (0.75 mm thick)	CPS2-80-1	CPS2-80-1
48	Ring Gear	CPS2-406	CPS2-406
49	Gear Head Assembly	CPS2-A216-16A	CPS2-A216-10A
50	Bearing (Ø4.5 x Ø3 x 6) (3)	CPS2-97	CPS2-97
51	Planet Gear (3)	CPS2-10-19	CPS2-10-19
52	O-Ring for Ring Gear (Internal)	CPS2-65-2	CPS2-65-2
53	O-Ring for Ring Gear (External) (2)	CPS2-65-1	CPS2-65-1
54	Washer (2 mm thick)	CPS2-80-2	CPS2-80-2
55	Sun Gear	---	---

\* Includes item 50 and item 51.

## QE2 Spindle Assembly and Components Exploded Diagram

For Inline Tools with Lever and PTS



(Dwg. 45609583)

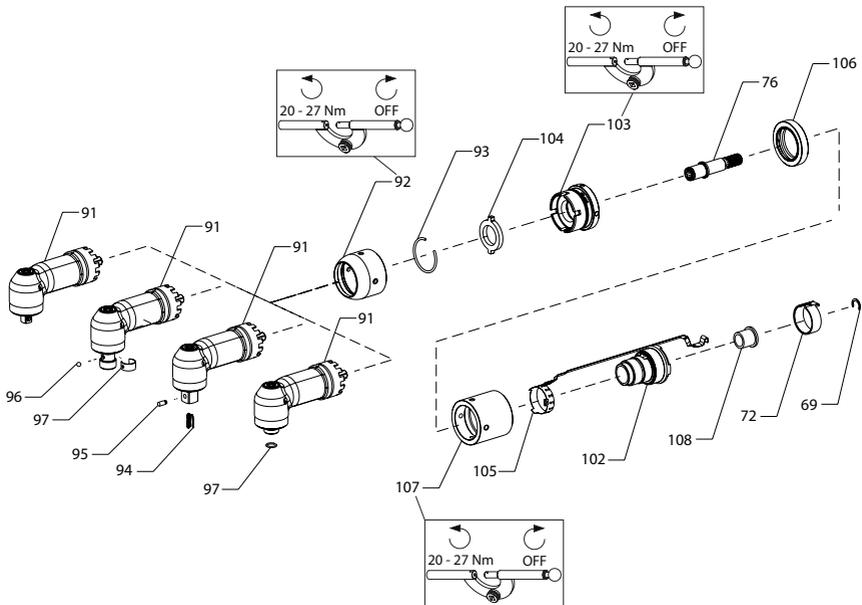
## QE2 Spindle Assembly and Components Parts List

Table 4:

Item	Part Description	Part Number			
		QE2{ }10Q04	QE2{ }10S04	QE2{ }11Q04	QE2{ }11S04
	Spindle Assembly	CPS2-A570-Q04	CPS2-A570-S04	CPS2-A580-Q04	CPS2-A580-S04
61	Ball	R000B-263	---	R000B-263	---
62	Spring	TRH-931	---	TRH-931	---
63	Spiral Retaining Ring	TRH-118	---	TRH-118	---
64	Flex PCB	CPS2-A499F	CPS2-A499F	CPS2-A499F	CPS2-A499F
65	Spindle Housing	CPS2-580-1	CPS2-580-1	CPS2-580-1	CPS2-580-1
66	Quick Change Collar	CPS2-930	---	CPS2-930	---
67	Lens for Light Ring	CPS2-586-600	CPS2-586-600	CPS2-586-600	CPS2-586-600
68	Quick Change Spacer	CPS2-244	---	CPS2-244	---
69	Retaining Ring	CPS2-118	CPS2-118	CPS2-118	CPS2-118
70	Socket Head Cap Screw, M2 x 0.4 x 4 (3)	CPS2-586-78	CPS2-586-78	CPS2-586-78	CPS2-586-78
71	Thrust Washer	CPS2-246	CPS2-246	CPS2-246	CPS2-246
72	Housing for Hall Sensors	CPS2-442	CPS2-442	CPS2-442	CPS2-442
73	PTS Assembly	CPS2-A111	CPS2-A111	CPS2-A111	CPS2-A111
74	Spindle Sub Assembly	CPS2-A586	CPS2-A586	CPS2-A586	CPS2-A586
76	Bit Holder	CPS2-586-807	---	CPS2-586-807	---
77	Socket Retaining Rubber Insert	---	46749	---	46749
78	Socket Retaining Plunger	---	47028	---	47028
80	Bit Holder, 1/4 Sq. Drive	---	CPS2-586-1	---	CPS2-586-1
81	Spacer	CPS2-246-111	CPS2-246-111	---	---
82	Coupling Nut	CPS2-27	CPS2-27	CPS2-27	CPS2-27
83	Spring	CPS2-626	CPS2-626	CPS2-626	CPS2-626

## QE2 Attachment Components Exploded Diagram

For Angle Heads and Power Units



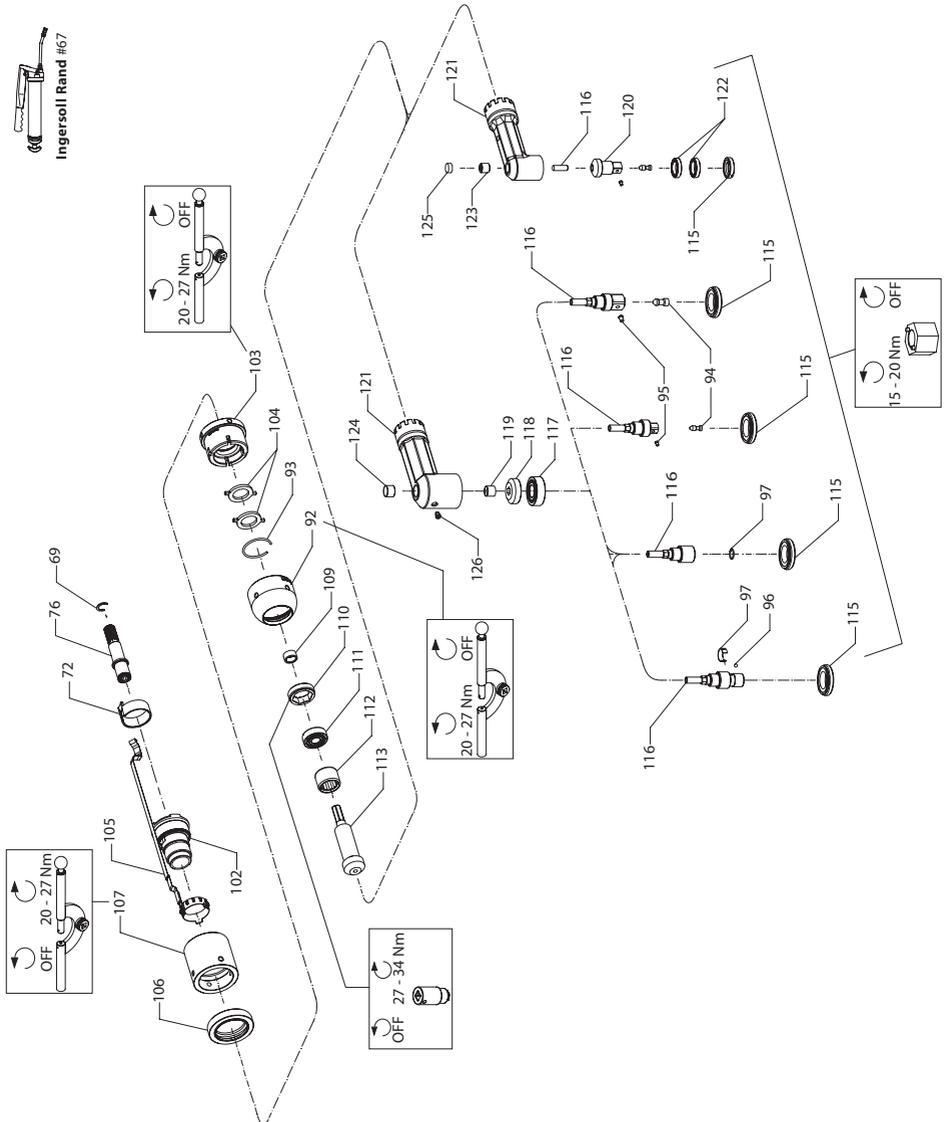
(Dwg. 45608726)

## QE2 Attachment Components Parts List

Table 5:

Item	Part Description	Part Number				
		QE2{ }A3S04	QE2{ }A3S06	QE2{ }A3H04	QE2{ }A3Q04	QE2{ }M0
91	Angle Head Assembly	CPS3S4	CPS3S6	CPS3H4	CPS3Q4	---
92	Coupling Nut	CPS3-33	CPS3-33	CPS3-33	CPS3-33	---
93	Coupling Nut Retainer	CPS3-29	CPS3-29	CPS3-29	CPS3-29	---
94	Socket Retaining Spring	---	401-718	---	---	---
95	Socket Retaining Pin	---	5020-716	---	---	---
96	Bit Retaining Ball	---	---	---	AV1-255	---
97	Bit Retaining Spring	---	---	5L2C4-425	102A60-241	---
76	Bit Holder	CPS2-586-807	CPS2-586-807	CPS2-586-807	CPS2-586-807	CPS2-586-807
69	Retaining Ring	CPS2-118	CPS2-118	CPS2-118	CPS2-118	CPS2-118
72	Housing for Hall Sensors	CPS2-442	CPS2-442	CPS2-442	CPS2-442	CPS2-442
102	Angle Head Spindle Housing	CPS2-212	CPS2-212	CPS2-212	CPS2-212	CPS2-212
103	Angle Head Spindle Coupling	CPS3-304-B	CPS3-304-B	CPS3-304-B	CPS3-304-B	CPS3-304-B
104	Lock Spacer	CPS3-682	CPS3-682	CPS3-682	CPS3-682	CPS3-682
105	Flex PCB	CPS2-A499F580	CPS2-A499F580	CPS2-A499F580	CPS2-A499F580	CPS2-A499F580
106	Lens for Light Ring	CPS2-123	CPS2-123	CPS2-123	CPS2-123	CPS2-123
107	Coupling Nut	CPS2-441	CPS2-441	CPS2-441	CPS2-441	CPS2-441
108	Bushing, Bit Holder	---	---	---	---	CPS2-330

# QE2 Attachment Components Exploded Diagram For Angle Heads



(Dwg. 45614427)

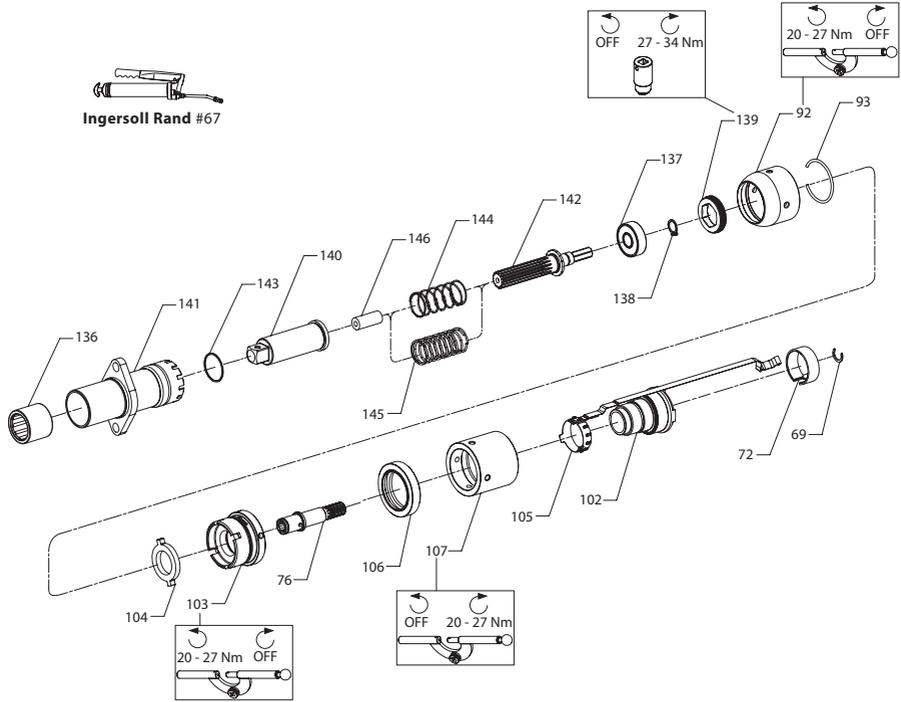
## QE2 Attachment Components Parts List

Table 6:

Item	Part Description	Part Number				
		QE2{ }A2S04	QE2{ }A2S06	QE2{ }A2H04	QE2{ }A2Q04	QE2{ }A1S04
91	Angle Head Assembly	CPS254	CPS256	CPS2H4	CPS2Q4	CPS154
92	Coupling Nut	CPS2-26	CPS2-26	CPS2-26	CPS2-26	CPS2-26
93	Coupling Nut Retainer	TRL-29	TRL-29	TRL-29	TRL-29	TRL-29
94	Rubber insert	46749	30890	---	---	46749
95	Pin-Locking for Socket	47028	30889	---	---	47028
96	Bit Retaining Ball	---	---	---	AV1-255	---
97	Bit Retaining Spring	---	---	5L2C4-425	102A60-241	---
109	Spacer	CPS2-81	CPS2-81	CPS2-81	CPS2-81	CPS2-81
110	Angle Head Plug	TRL1-532	TRL1-532	TRL1-532	TRL1-532	TRL1-532
111	Bearing (Ø3/4" x Ø1/4" x 1/4")	TRL-514	TRL-514	TRL-514	TRL-514	TRL-514
112	Bearing (Ø11/16" x Ø1/2" x 1/2")	H54U-511B	H54U-511B	H54U-511B	H54U-511B	H54U-511B
113	Large Pinion	TRL2-552	TRL2-552	TRL2-552	TRL2-552	TRL1-552
114	Retaining Ring	---	---	38790	---	---
115	Angle Housing Cap	120A4-531	120A4-531	120A4-531	120A4-531	120A4-531
116	Spindle	TRL2-607-54	TRL2-607-56	TRL2-607-H4	TRL2-607-Q4	TRL1-110
117	Bearing (Ø7/8" x Ø3/8" x 1/4")	R00B1-510	R00B1-510	R00B1-510	R00B1-510	---
118	Large Bevel Gear	TRL2-551	TRL2-551	TRL2-551	TRL2-551	---
119	Collar	TRL2-578	TRL2-578	TRL2-578	TRL2-578	---
120	Bevel Gear	---	---	---	---	TRL1-A551-54
121	Angle Housing	TRL2-550	TRL2-550	TRL2-550	TRL2-550	TRL1-550
122	Bearing (Ø9/16" x Ø3/8" x 1/8")	---	---	---	---	TRL1-593
123	Bearing (Ø9/32" x Ø5/32" x 1/4")	---	---	---	---	W22-654
124	Bearing (Ø3/8" x Ø3/16" x 1/4")	TRL2-603	TRL2-603	TRL2-603	TRL2-603	---
125	Plug	---	---	---	---	TRL2-531
126	Grease Fitting	D0F9-879	D0F9-879	D0F9-879	D0F9-879	---
76	Bit Holder	CPS2-586-807	CPS2-586-807	CPS2-586-807	CPS2-586-807	CPS2-586-807
69	Retaining Ring	CPS2-118	CPS2-118	CPS2-118	CPS2-118	CPS2-118
72	Housing for Hall Sensors	CPS2-442	CPS2-442	CPS2-442	CPS2-442	CPS2-442
102	Angle Head Spindle Housing	CPS2-212	CPS2-212	CPS2-212	CPS2-212	CPS2-212
103	Angle Head Spindle Coupling	CPS2-304	CPS2-304	CPS2-304	CPS2-304	CPS2-304
104	Lock Spacer	TRL-682	TRL-682	TRL-682	TRL-682	TRL-682
105	Flex PCB	CPS2-A499F580	CPS2-A499F580	CPS2-A499F580	CPS2-A499F580	CPS2-A499F580
106	Lens for Light Ring	CPS2-123	CPS2-123	CPS2-123	CPS2-123	CPS2-123
107	Coupling Nut	CPS2-441	CPS2-441	CPS2-441	CPS2-441	CPS2-441

## QE2 Attachment Components Exploded Diagram

For Fixtured Tools



(Dwg. 45610326)

## QE2 Attachment Components Parts List

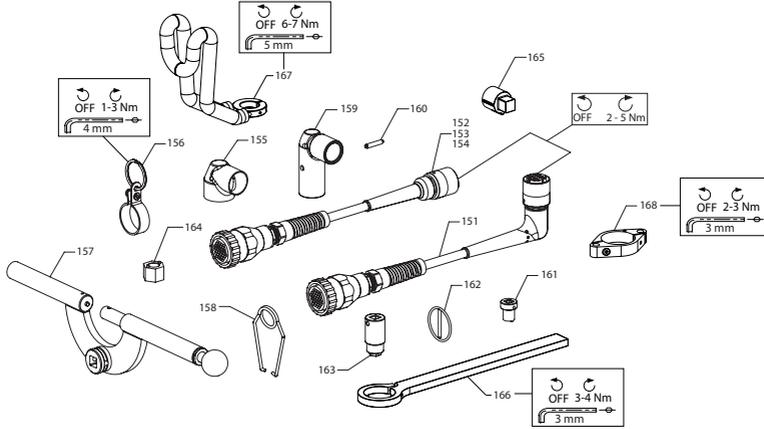
Table 7:

Item	Part Description	Part Number	Item	Part Description	Part Number
	Floating Spindle Assembly	<b>CPS3-A580</b>	144	Spring (1.6N/0.36lbs of preload)	CPS3-626-L
92	Coupling Nut	CPS3-33	76	Bit Holder	CPS2-586-807
93	Coupling Nut Retainer	CPS3-29	69	Retaining Ring	CPS2-118
136	Bearing (Ø7/8" x Ø11/16" x 3/4")	182A53-606	72	Housing for Hall Sensor	CPS2-442
137	Bearing (Ø22 x Ø8 x 7)	AG210-24Z	102	Angle Head Spindle Housing	CPS2-212
138	External Retaining Ring	Y145-8	103	Angle Head Spindle Coupling	CPS3-304-B
139	Retaining Nut	CPS3-532	104	Lock Spacer	CPS3-682
140	Spindle	CPS3-586	105	Flex PCB	CPS2-A499F580
141	Spindle Housing	CPS3-580	106	Lens for Light Ring	CPS2-123
142	Drive Spindle	CPS3-584	107	Coupling Nut	CPS2-441
143	Washer	CPS3-106			

### Optional Equipment

Item	Part Description	Part Number	Item	Part Description	Part Number
145	Spring (6.1N/1.4lbs of preload)	CPS3-626-H	146	Lockout Spacer	502M5A37

## QE2 Accessories Exploded Diagram (Optional)



(Dwg. 45610219)

## QE2 Accessories Parts List

Table 8:

Item	Part Description	Part Number	Item	Part Description	Part Number
151	Power Cord Assembly, 90° (6 Meters)	CPS2-CORD-6M-90	161	Button Housing Socket	CPS2-38-2T
152	Power Cord Assembly (3 Meters)	CPS2-CORD-3M	162	Socket Retainers	refer table below
153	Power Cord Assembly (6 Meters)	CPS2-CORD-6M	163	Hex. Socket	CPS3-532T
154	Power Cord Assembly (10 Meters)	CPS2-CORD-10M	164	Cap Wrench	120A4-531T-30
155	Angle Head Sleeve**	GEA40-170	165	Fixture Plug	CPS2-25F-70
156	Hanger, For Angle Tools	CPS2-A365	166	Pistol Reaction Bar	CPS2-48
157	Spanner Wrench	CPS2-478	167	Bio Brace, QE2 Series	SBB4-QE2
158	Suspension Bail	7L-365	168	Flange for Angle Tool	CPS2-K48
159	Extended Sleeve**	GAA2-170	†	Socket Tray Detents (For A1504 head only)	GEA15-14KIT-5
160	Dowel Pin*	CPS2-478S	†	Socket Tray Detents (For A2506 head only)	GEA15-38KIT-5

\* Used with spanner wrench GEA40-478.

\*\* For QE2{ }A3{ } models only

† Not Illustrated (5 Pcs., includes Spring and Pin)

## Socket Retainers (One Piece)

Part Number	Drive Size	Inside Diameter	Pin Size	Part Number	Drive Size	Inside Diameter	Pin Size
	in. (mm)	in. (mm)	in. (mm)		in. (mm)	in. (mm)	in. (mm)
RR10001	3/8" (9.5)	0.600 (15.2)	0.110 (2.8)	RR10006	3/8" (9.5)	0.950 (24.1)	0.110 (2.8)
RR10002	3/8" (9.5)	0.670 (17.0)	0.110 (2.8)	RR10011	3/8" (9.5)	0.820 (20.8)	0.110 (2.8)
RR10003	3/8" (9.5)	0.750 (19.1)	0.110 (2.8)	RR10013	3/8" (9.5)	1.100 (28.0)	0.110 (2.8)

## QE2 Packaging Parts List

### For Inline and Angle tools

Table 9-1:

Part Description	Part Number	Part Description	Part Number
Corrugated Box-Inline and Angle	BOX-28	Foam-Inline and Angle	BOX-20X

### For Pistol Tools

Table 9-2:

Part Description	Part Number	Part Description	Part Number
Corrugated Box-Pistol	BOX-261-6	Foam-Pistol	FOAM-261-6

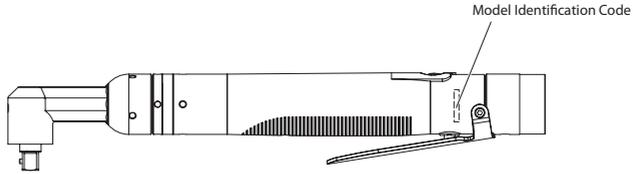
## Greases

Table 10:

Part Description	Grease P/N	Part Description	Grease P/N
#67 Grease, 4oz	67-4T	#67 Grease, 8 lb	67 8 LB
#67 Grease, 1 lb	67-1 LB	Grease Tube Head (For QE Angle Tools. Use with 4oz Grease tube)	GTH-1

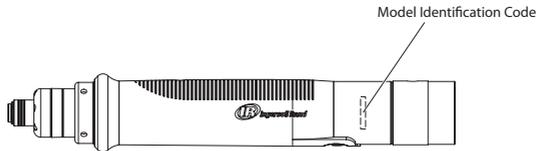
## QE2 Tool Assemblies

### Angles



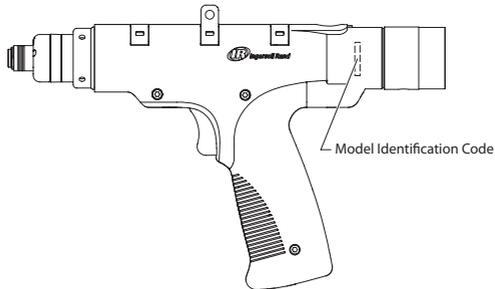
(Dwg. 45594470)

### Inlines



(Dwg. 45540291)

### Pistols



(Dwg. 45608619)

## QE2 Suggested Tools List

Table 11:

Tool Used	Description	Where Used ?
Spanner Wrench	IR Part # CPS2-478 or GEA40-478 with CPS2-478S	Coupling Nut
Button Housing Socket	IR Part # CPS2-38-2T	Reverse Button, Trigger Button
Hex. Socket	IR Part # CPS3-532T	Angle Head Plug
Pin Spanner Wrench	3 mm or 1/8" Pin	Cable
Adjustable Wrench	---	General Use
Torque Wrench	1/2" Sq. Drive, 50 ft.-lb. Capacity	General Use
Metric Allen Key Set	2 - 2.5 mm	General Use
Internal Snap Ring Pliers	---	General Use
Pick	---	O-Rings, Retainers etc.
Needle Nose Pliers	---	Accessing Connectors

## Parts and Maintenance

When the life of the tool has expired, it is recommended that the tool be disassembled, degreased and parts be separated by material so that they can be recycled.

Tool repair and maintenance should only be carried out by an authorized Service Center.

Refer all communications to the nearest **Ingersoll Rand** Office or Distributor.

## Related Documentation

For additional information refer to:

Product Safety Information Manual 16573685.

Product Information Manual 16576951.

Maintenance Information Manual 16609703.

Manuals can be downloaded from [www.ingersollrandproducts.com](http://www.ingersollrandproducts.com).

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