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## Air Drill

5L and 5RL

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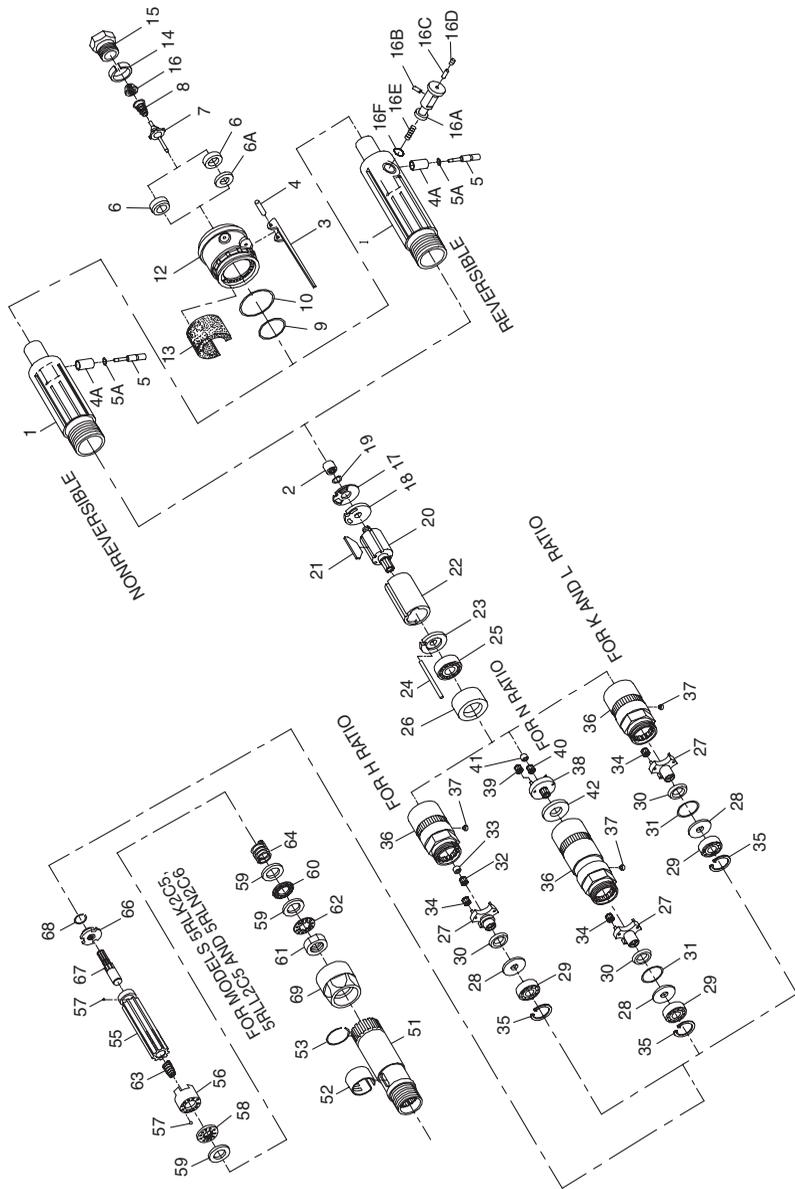
# Parts Information



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 **Ingersoll Rand**<sup>®</sup>

5L and 5RL Air Drill Exploded Diagram



(Dwg. TPA887-5)

## 5L and 5RL Air Drill Parts List

Item	Part Description	Part Number	Item	Part Description	Part Number
	Motor Housing Assembly			for Angle Wrenches/ Angle Screwdrivers	7RAK-302
	for 90° Angle Drill models ending in -EU	5LK2C-EU-A40	† 8	Throttle Valve Spring	7L-51
	for all other 90° Angle Drill models	5LK2C-A40	† 9	Silencer Seal Ring	WWW100A1-43
	for 45° Angle Drill models ending in -EU	5L1B-EU-A40	†* 10	Exhaust Deflector Seal	6AH-103
	for all other 45° Angle Drill models	5L1B-A40	† 12	Rear Muffler Assembly	6WS-A23
	for nonreversible Angle Wrench or Angle Screwdriver models ending in -EU	5LK2D-EU-A40	13	Muffler Element	3RA-310
	for all other nonreversible Angle Wrench or Angle Screwdriver models	5LK2D-A40	14	Inlet Bushing Spacer	7AH-65
	for reversible Angle Wrench or Angle Screwdriver models ending in -EU	5RLK2C-EU-A40	15	Inlet Bushing	7L-565
	for all other reversible Angle Wrench or Angle Screwdriver models	5RLK2C-A40	† 16	Air Strainer Screen	ROA2-61
1	Motor Housing		16A	Reverse Valve (for reversible models only)	55RP-329
	for 5L1UB-EU-A40	5L1B-EU-B40	16B	Reverse Valve Lock Pin (for reversible models only)	SPA102R-668
	for 5L1UB-A40	5L1B-B40	16C	Lock Pin Retainer (for reversible models only)	7RL-56
	for 5LK2C-EU-A40 or 5LK2D-EU-A40	5LK2C-EU-B40	16D	Retainer Setscrew (for reversible models only)	7RL-669
	for 5LK2C-A40 or 5LK2D-A40	5LK2C-B40	16E	Reverse Valve Spring (for reversible models only)	55RP-515
	for 5RLK2C-EU-A40	5RLK2C-EU-B40	16F	Reverse Valve Bushing Seal (for reversible models only)	6WRS-290
	for 5RLK2C-A40	5RLK2C-B40	†* 17	Rear End Plate Gasket	5RLK-739
			18	Rear End Plate	5RLK-12
			† 19	End Plate Retainer	5RLK-118
† 2	Rear Rotor Bearing		20	Rotor	
	for nonreversible models	5LK2C-24		for K ratio (8 teeth)	5RLK-53
	for reversible models	5R-24		for H, L or N ratio (6 teeth)	5RLL-53
*	Warning Label		† 21	Vane Packet	R1401-42-5
	for models ending in -EU	EU-99	22	Cylinder	
	for all other models	WARNING-7-99		for nonreversible models	5LK-3
3	Throttle Lever	7L-273		for reversible models	5RLK-3
4	Throttle Lever Pin	7L-120	23	Front End Plate	106-11
4A	Throttle Plunger Bushing		24	Cylinder Dowel	106-98
	for 45° Angle Drills and all other nonreversible models	7L-91	†* 25	Front Rotor Bearing	WWA100-97
	for reversible models	5RLK2C-91	26	Front Rotor Bearing Support	106-13
5	Throttle Plunger Assembly			Spindle Assembly	
	for nonreversible models	5LK2C-A94		for H ratio	5LH2A-A8
	for reversible models	5RLK2C-A94A		for K or L ratio	5LK2C-A8
5A	Throttle Plunger Seal			for N ratio	5LN2C-A8
	for nonreversible models	6LL-259	27	Spindle	
	for reversible models	8SL-259		for H ratio (marked H)	5LH2A-8
† 6	Throttle Valve Seat			for K or L ratio (marked K)	5LK2C-8
	for Angle Drills	7AH-303		for N ratio (marked N)	5LN2C-8
	for Angle Wrenches/Angle Screwdrivers	7RAK-303	28	Grease Shield	5R-701
6A	Throttle Valve Seat Support		29	Spindle Bearing	R1L-24
	for Angle Wrenches/Angle Screwdrivers	7RAK-304	30	Seal Support	5RAK-5
			†* 31	Seal (for N ratio only)	182A53-610
† 7	Throttle Valve		32	Rotor Pinion (for H ratio) (15 teeth)	5RAN-17
	for Angle Drills	7AH-302	33	Rotor Pinion Spacer (for H ratio)	5RAN-18

\* Not illustrated.

• To keep downtime to a minimum, it is desirable to have on hand certain repair parts. We recommend that you stock one (pair or set) of each part indicated by a bullet (•) for every four tools in service.

† Indicates Tune-up Kit part.

## 5L and 5RL Air Drill Parts List

Item	Part Description	Part Number	Item	Part Description	Part Number
* 34	Spindle Planet Gear (3)		62	Adjusting Nut Lock	5C1-588
	for H ratio (13 teeth)	5RAN-9	63	Clutch Engaging Spring	5LK2C-626
	for K ratio (15 teeth)	5RAK-10A	64	Clutch Spring	
	for L ratio (17 teeth)	5RAL-10B		Light (Black)	5C1-L583
	for N ratio (14 teeth)	5RAN-10A		Heavy (Green)	5C1-H583
35	Spindle Bearing Retainer	7L-28		Clutch Driver Assembly	5LK2C-A581
36	Gear Case Assembly		* 66	Clutch Driver	5LK2C-581
	for H or L ratio	5LL2C-A37	67	Clutch Shaft Support	5LK2C-584
	for K ratio	5LK2C-A37	* 68	Clutch Driver Retainer	7AH-118
	for N ratio	5LN2C-A37	69	Coupling Nut	7L-27
37	Grease Fitting	DOF9-879	*	Clutch Sprag Key	5C1-416
38	Gear Head Assembly (for N ratio)	5RAN-A216	*	Suspension Bail	7L-365
* 39	Gear Head Planet Gear (13 teeth) (for N ratio) (3)	5RAN-9	*	Grease Gun	R000A2-228
				Housing Cap Wrench	141A12-26
* 40	Rotor Pinion (for N ratio) (15 teeth)	5RAN-17	*	Thread Retaining Compound	141A12-226
* 41	Rotor Pinion Spacer (for N ratio)	5RAN-18	*	Locking Type Throttle Lever Assembly	
42	Gear Head Spacer (for N ratio)	5R-80		for Model 5LH1A1 and 5LH1A4	5LH1A1-A400
	Cushion Clutch Attachment			for Model 5LH1B1	5LH1B1-A400
	with Light Clutch Spring	5LK2C-AL580		for Model 5LK1A1	5LK1A1-A400
	with Heavy Clutch Spring	5LN2C-AH580		for Model 5LK1B1 and 5LK1B4	5LK1B1-A400
51	Clutch Housing Assembly	5LK2C-B580		for Model 5LL1A1	5LL1A1-A400
52	Adjusting Hole Cover	5C1-415	*	Piped-Away Exhaust Kit	7L-K284
53	Coupling Nut Retainer	5C1-29	*	Vibra-Tite®+ (30.0 cc)	5R-VT30
	Clutch Shaft Assembly		*	Tune-up Kit (for Angle Drills) (Includes illustrated parts 2, 6, 7, 8, 9, 10, 12, 16, 17, 19, 21, 25 and 31)	5L-NS-TK1
	for Light Clutch Spring	5LK2C-AL586			
	for Heavy Clutch Spring	5LN2C-AH586			
55	Clutch Shaft	5LK2C-586			
* 56	Front Clutch Jaw	5C1-589A	*	Tune-up Kit (for Angle Wrenches / Angle Screwdrivers) (Includes illustrated parts 2, 6, 7, 8, 9, 10, 12,16, 17, 19, 21, 25 and 31)	5RL-NS-TK1
* 57	Clutch Ball (24)	RX1-629			
* 58	Clutch Ball Spacer	5C1-401A			
* 59	Clutch Spring Seat (3)	5C1-627			
* 60	Spring Seat Bearing	5C1-105	*	Horizontal Hanger	6WS-366
61	Clutch Adjusting Nut	5C1-582A	*	Retainer	500B-815AX

\* Not illustrated.

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† Indicates Tune-up Kit part.

± Registered trademark of ND Industries.





## 5L and 5RL Air Drill Parts List

Item	Part Description	7L1A1	7L1A3	7L1A4	7L1B1	7L1B4	7L2A4
	Angle Drill Attachment	7L1A1	7L1A1	7L1A	7L1B	7L1B4	7L2A4
101	Angle Housing Assembly	7L1A-B550	7L1A-B550	7L1A-B550	7L1B-A550	7L1B-B550	7L2A-B550
107	Grease Fitting	D0F9-879	D0F9-879	D0F9-879	D0F9-879	D0F9-879	D0F9-879
* 104	Spindle Upper Bearing	---	---	---	---	---	120A4-603
105	Spindle Upper Bearing	7L1A-603	7L1A-603	7L1A-603	7L1B-A97	7L1B-A97	---
* 106	Upper Bearing Shim Packet (two thicknesses of shims)	7L1A-P448	7L1A-P448	7L1A-P448	---	---	---
* 107	Spindle Gear Set (includes bevel pinion and spindle gear)						
	1/4"-28 female thread	7L1A1-A591	---	---	7L1B1-A591	---	---
	9/32"-40 female thread	---	---	7L1A4-A591	---	7L1B4-A591	---
	5/16"-24 female thread	---	7L1A3-A591	---	---	---	---
* 108	Matched Bevel Gear Set (includes bevel gear and bevel pinion)	---	---	---	---	---	141A12-A552
108A	Spindle (3/8"-24 male thread)	---	---	---	---	---	7L2A4-791
* 109	Bevel Pinion Bearing	7AH-24	7AH-24	7AH-24	7L1B-593	7L1B-593	H54U-511B
110	Bearing Seat Retainer	W22-6	W22-6	W22-6	W22-6	W22-6	1415A12-6
111	Rear Thrust Bearing Seat	7L2A-682	7L2A-682	7L2A-682	7L2A-682	7L2A-682	7L2A-682
112	Bevel Pinion Thrust Bearing	3RL2-105	3RL2-105	3RL2-105	3RL2-105	3RL2-105	161A32-105
113	Front Thrust Bearing Seat	7L1A-683	7L1A-683	7L1A-683	7L1A-683	7L1A-683	141A12-683
114	Pinion Bearing Spacer Retainer	---	---	---	---	---	RXA21-343
116	Bevel Pinion Bearing Spacer	---	---	---	---	---	7L2A-165
* 119	Lower Spindle Bearing	7L1A-593	7L1A-593	7L1A-593	7L1B-593	7L1B-593	120A4-593
119A	Lower Spindle Bearing Retainer	---	---	---	7L1B-28	7L1B-28	---
120	Bevel Gear Retainer	---	---	---	---	---	120A4-578
121	Spindle Bearing Cap	7L1A-531	7L1A-531	7L1A-531	---	---	7L2A4-531
123	Coupling Nut Retainer	5C1-29	5C1-29	5C1-29	5C1-29	5C1-29	5C1-29
124	Coupling Nut	7L-27	7L-27	7L-27	7L-27	7L-27	7L-27
*	Drill Chuck						
	0 to 1/4" capacity	---	---	---	---	---	R0H-99
	0 to 3/8" capacity	---	---	---	---	---	R1M-99
*	Drill Chuck Key						
	for R0H-99	---	---	---	---	---	R1H-J253
	for R1M-99	---	---	---	---	---	R1M-J253
*	Bearing Inserting Tool	7L1A-950	7L1A-950	7L1A-950	7L1B1-955	7L1B1-955	7L2A-950
*	Bevel Pinion Sprag Key	5C1-416	5C1-416	5C1-416	5C1-416	5C1-416	---

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## 5L and 5RL Air Drill Parts List

Item	Part Description	5L2C3	5L2C5 or 5L2C6	5L2D5	6L2C6
	Angle Wrench/Angle Screwdriver Attachment				
	1/4" hex recess (for standard bits)	5L2C3	---	---	---
	1/4" square drive	---	5L2C5	5L2D5	---
	3/8" square driver	---	5L2C6	---	6L2D6
201	Angle Housing Assembly	5L2C-A550	5L2C-A550	7L2A-B550	6L2D-B550
202	Grease Fitting	D0F9-879	D0F-879	D0F-879	D0F-879
* 203	Upper Spindle Bearing	120A4-603	120A4-603	120A4-603	120A4-603
* 204	Matched Bevel Gear Set	141A12-A552	141A12-A552	141A12-A552	6L2D-A552
* 205	Bevel Pinion Bearing	H54U-511B	H54U-511B	H54U-511B	H54U-511B
206	Rear Thrust Bearing Seat	---	---	7L2A-682	7L2A-682
207	Bearing Seat Retainer	---	---	1415A12-6	1415A12-6
208	Front Thrust Bearing Seat	---	---	141A12-683	141A12-683
209	Pinion Bearing Spacer	AGS141-165	AGS141-165	7L2A-165	7L2A-165
* 210	Bearing Spacer Retainer	RXA21-343	RXA21-343	RXA21-343	RXA21-343
211	Bevel Pinion Thrust Bearing	120A4-97	120A4-97	161A32-105	161A32-105
* 212	Bearing Retainer	120A4-588	120A4-588	---	---
* 213	Lower Spindle Bearing	120A4-593	120A4-593	120A4-593	6L2D-59
* 214	Bevel Gear Retainer	120A4-578	120A4-578	120A4-578	120A4-578
215	Coupling Nut Retainer	141A12-29	141A12-29	5C1-29	5C1-29
216	Coupling Nut	141A12-27	141A12-27	7L-27	7L-27
217	Socket Adapter Spindle				
	1/4" square drive	---	141A9-A607-1/4	141A9-A607-1/4	---
	3/8" square drive	---	141A12-A607	---	6L2D-A607
*	Socket Retainer (for 1/4" pin type square drive)	---	500B-816A	500-816A	---
*	Socket Retaining Pin (for 3/8" square drive)	---	5020-716	---	5020-716
*	Socket Retaining Spring (for 3/8" square drive)	---	401-718	---	401-718
218	1/4" Hex Bit Holder Spindle (for standard bits)	5L2C3-B586	---	---	---
219	Bit Retaining Ball (for No.5L2C3-B586 Spindle)	AV1-255	---	---	---
220	Bit Retaining Spring for No.5L2C3-B586 Spindle)	102A60-241	---	---	---
221	Angle Housing Cap	120A4-531	120A4-531	120A4-531	6L2D-531
221A	Spindle Seal	---	---	---	6L2D-720
*	Socket Retainer (for 1/4" ball-type square drive)	---	500B-815AX	500B-815AX	---

\* Not illustrated.

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## 5L and 5RL Air Drill Parts List

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Item	Part Description	Part Number
	Spindle	
217	1/4" square drive	141A9-A607-1/4
217	3/8" square drive (for 5L2C5 or 5L2C6)	141A12-A607
	3/8" square drive (for 6L2D6)	6L2D-A607
218	1/4" hex recess (for standard bits)	5L2C3-B586
*	1/4" hex recess (for insert bits)	5L2C4-B386
*	Bit Retainer (for No.5L2C4-B386 Spindle)	5L2C4-425
219	Bit Retaining Ball (for No. 5L2C3-B586)	AV1-255
220	Bit Retaining Spring (for No. 5L2C3-B586)	102A60-241
*	Socket Retainer (for No.141A9-A607-1/4 Spindle)	500B-816A
*	Socket Retaining Spring (for 141A12-A607 Spindle or 6L2D-A607 Spindle)	401-718
*	Socket Retainer Pin (for 141A12-A607 Spindle or 6L2D-A607 Spindle)	5020-716

\* Not illustrated.

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## 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.

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## Related Documentation

For additional information refer to:  
Air Drill Product Safety Information Manual 04580353.  
Air Drill Product Information Manual 16572182.  
Air Drill Maintenance Information Manual 16572620.

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





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