



47140496
Edition 4
January 2021

Air Drill

22 Series

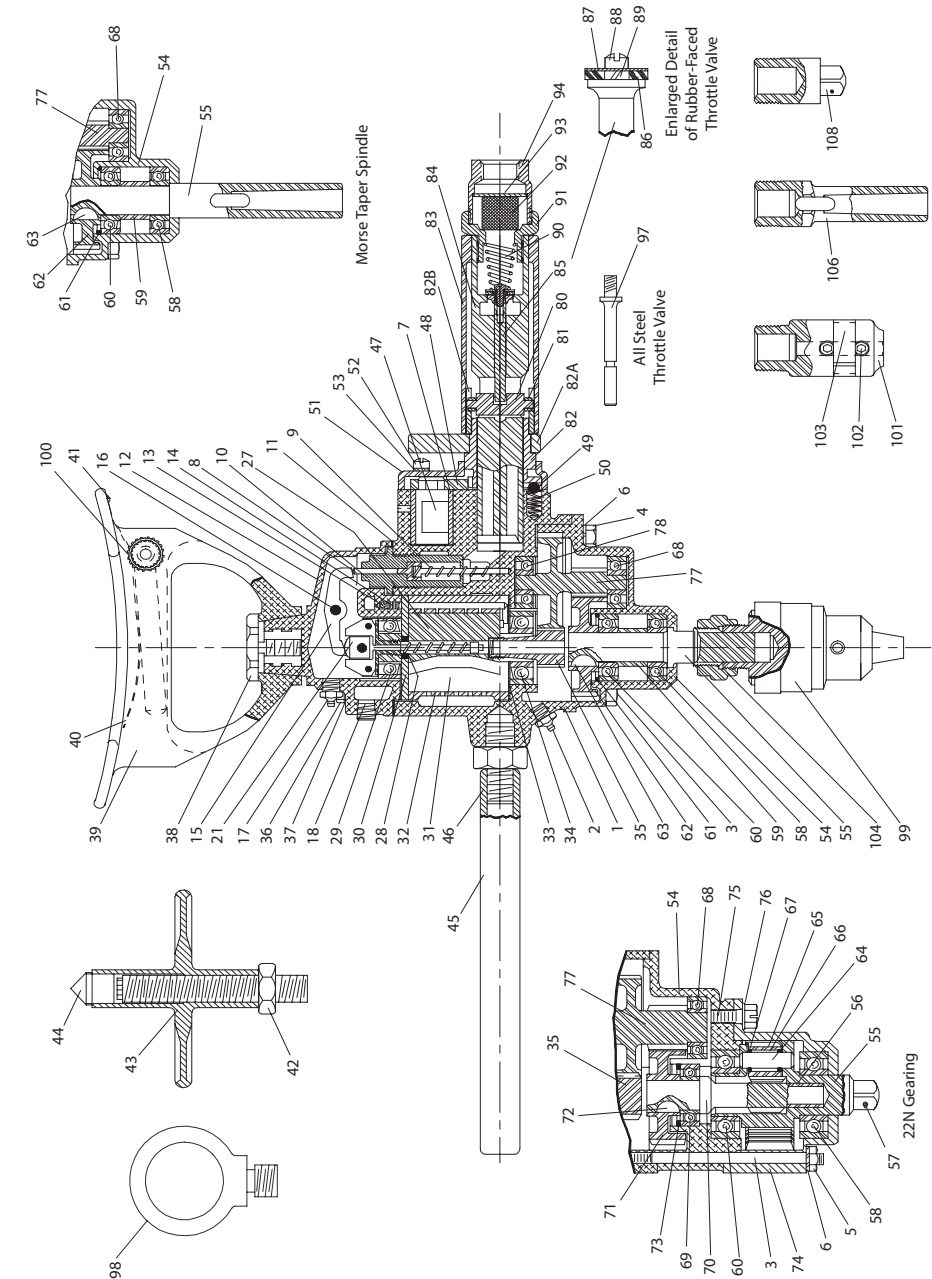
Parts Information



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 **Ingersoll Rand®**

22 Series Air Dill - Sectional View



(Dwg. TPA121-2)

22 Series Air Drill - Parts List

Item	Part Description	Part Number
		22J, 22K, 22M, 22N and 22KW
1	Motor Housing	
	for 22N models	---
	for models ending in -EU	---
	for all other models	R22H-K40
*	Warning Label	
	for models ending in -EU	EU-99
	for all other models	WARNING-8-99
*	Nameplate	
	for models ending in -EU	R2H-EU-99
	for all other models	R2H-99
2	Grease Fitting	23-188
‡ 3	Housing Stud (for 22N) (QTY. 4)	R2N-133
---	Housing Long Cap Screw (for all others) (QTY. 4)	R22H-68
‡ 4	Housing Short Cap Screw (QTY. 2)	R3-7
5	Stud Nut (1 for each stud)	T06-139
6	Lock Washer (QTY. 6)	8U-58
7	Reverse Valve Bushing	R22H-330
8	Governor Valve	R3H-425
9	Governor Valve Spring	503-431
• 10	Governor Valve Bushing	R22H-429
• *	Air Port Gasket (QTY. 1 for 2X Series and QTY. 2 for 22 Series)	R22H-210
• 11	Backhead Gasket	R22H-283
12	Backhead	R22H-102
13	Oiler Felt (QTY. 2)	R1-75
14	Oiler Adjusting Screw (QTY. 2)	R1-71A
15	Governor Lever	R22H-436
16	Governor Lever Pin	T22-306
17	Grease Fitting	23-188
18	Oil Chamber Plug	R2-227
21	Governor Assembly	R2XJ-A424
27	Rotor	R22H-K53
28	Rotor Bearing Spacer	R2H-65
• 29	Rear Rotor Bearing	R2-22
• 30	Rear End Plate	R22H-12
• 31	Vane Packet (set of 5 Vanes)	R2-42B-5
32	Cylinder	R22H-3
*	Cylinder Dowel	R22H-98
• 33	Front End Plate	R22H-11
• 34	Front Rotor Bearing	R2-24A
35	Rotor Pinion	
	for 2XJ, 2XK, 22J, 22K and 22KW (15 teeth)	R2J-17
	for 2XM and 22M (9 teeth)	R2M-17A
	for 22N (17 teeth)	R2N-17
36	Backhead Cap Screw (QTY. 6)	R22H-68
37	Backhead Cap Screw Lock Washer (QTY. 6)	8U-58

Item	Part Description	Part Number
		22J, 22K, 22M, 22N and 22KW
38	Breast Plate Screw	T15-278
39	Breast Plate	R22H-79
40	Chuck Wrench Clip	R2J-247
41	Clip Screw	R2J-248
	Feed Screw Assembly	T04-A3
42	Feed Screw	T04-3
43	Feed Handle	T05-2A
44	Feed Handle Center	T05-244A
45	Dead Handle	R2K-48
46	Dead Handle Stud	R2K-364A
47	Reverse Valve	R22H-329
48	Reverse Valve Sector	TCC-428
† 49	Stop Pin	R22H-491
† 50	Stop Pin Spring	SUT-759
51	Sector Cover	TCC-429A
52	Sector Cover Screw (QTY. 4)	TCC-430
53	Sector Cover Screw Lock Washer (QTY. 4)	T05-58
*	Throttle Body Set Screw	TCCW-433
*	Throttle Body Set Screw Lock Washer	D02-537
98	Suspension Ring	T05-365
99	Drill Chuck	
	1/8" to 5/8" Capacity	---
	0 to 1/2" Capacity	---
	5/64" to 1/2" Capacity	DE-99C
100	Drill Chuck Wrench	
	for 1/8" to 5/8" Chuck	---
	for 0 to 1/2" Chuck	---
	for 5/64" to 1/2" Capacity	R1T-J253
101	Wood Bit Chuck	R22W-151
102	Wood Bit Chuck Screw (1 for R2H-51; 2 for R22W-151)	R33W-150
103	Chuck Screw Retainer	R33W-149
---	Wood Bit Chuck Wrench (5/16" x 6" long hex wrench)	K-27
104	Chuck Nut	DE-347A
105	Use-Em-Up Socket (No. 2 Morse Taper Socket)	---
106	Morse Taper Socket	
	No. 1 Morse Taper Socket	DE-323A-1
	No. 2 Morse Taper Socket	DE-323A-2
	No. 3 Morse Taper Socket	DE-323A-3
• 107	Socket Adapter (1/2" square drive) (Pin-Type Retainer)	---
*	Socket Retaining Plunger	---
*	Retaining Plunger Spring	---
108	Socket Adapter (overall length 1-3/4")	
	1/2" Square Drive	DE-215A
	5/8" Square Drive	DE-215B
*	Hose Nipple (1/2" hose to 3/8" male pipe)	A01-46

Item	Part Description	Part Number			
		22J	22K, 22KW	22M	22N
54	Gear Case				
	for threaded Stub Taper or No. 2 Morse Taper Spindle	RM2J-37			---
	for No. 3 Morse Taper Spindle	---	---	R2M137	---
	for 5/8" Square Drive or Stub Taper Spindle	---	---	---	R2N-37
	Spindle Assembly				
	Threaded Spindle (for Series 2X)	R2J-A8	R2K-A8	R2K-A8	---
	Stub Taper Spindle (for Series 22)	R22J-A8	R22K-A8	R22K-A8	---
	Stub Taper Spindle	---	---	---	R22N-A8
	No. 2 Morse Taper Spindle	R2H-A108	R2M-A108	R2M-A108	---
	No. 3 Morse Taper Spindle	---	---	R2M-A208	---
	5/8" Square Drive Spindle with Pin-Type Retainer	---	---	---	R22N-AP108
	5/8" Square Drive Spindle with Ball-Type Retainer	---	---	---	R22N-AB108
55	Spindle				
	Threaded (703-16 thd.) (for Series 2X)	R2H-8	R2H-8	R2H-8	---
	Stub Taper (for Series 22)	R22H-8	R22H-8	R22H-8	---
	Stub Taper	---	---	---	R22N-8
	No. 2 Morse Taper	R2M-108	R2M-108	R2M-108	---
	No. 3 Morse Taper	---	---	R2M-208	---
	5/8" Square Drive with Pin-Type Retainer	---	---	---	R22N-P108
56	5/8" Square Drive with Ball-Type Retainer	---	---	---	R22N-B108
	Spindle Gear Shaft Bushing	---	---	---	T06-110
	Socket Retaining Plunger (for 5/8" Square Drive Spindle)				
	Pin-Type	---	---	---	808-716
	Ball-Type	---	---	---	8U-715
58	Plunger Retaining Spring (for 5/8" Square Drive Spindle)				
	Spindle Bearing	R2H-510	R2H-510	R2H-510	D01-616
	Spindle Bearing Spacer	R2H-111	R2H-111	R2H-111	---
	Thrust Bearing	R2H-97	R2H-97	R2H-97	G7-24
61	Bearing Retainer	R2H-118	R2H-118	R2H-118	---
62	Spindle Gear	R21-9	R2K-9	R2K-9	---
63	Spindle Gear Key	TC-18	TC-18	TC-18	---
64	Planet Gear Shaft (QTY. 3)	---	---	---	R2N-191
65	Planet Gear (QTY. 3)	---	---	---	R2N-10
66	Planet Gear Roller (QTY. 63)	---	---	---	R2N-152
67	Roller Retaining Plate (QTY. 6)	---	---	---	R2N-655
68	Intermediate Gear Front Bearing	T06-33	T06-33	T06-33	T06-33
69	Spindle Gear Bearing	---	---	---	T06-24
70	Spindle Gear Shaft	---	---	---	R2N-16
71	Spindle Gear	---	---	---	R2J-9
72	Spindle Gear Key	---	---	---	TC-18
73	Bearing Retainer	---	---	---	R2H-1 18
74	Gear Case Cover	---	---	---	R2N-378
75	Gear Case Cover Cap Screw	---	---	---	R2N-103
76	Cover Cap Screw Lock Washer	---	---	---	8U-58
77	Intermediate Gear	---	---	---	---
	for 2XJ and 22J (13/45 teeth)	R2J-82	---	---	---
	for 2XK, 22K and 22KW (10/45 teeth)	---	R2K-82	---	---
	for 2XM and 22M (9/50 teeth)	---	---	R2M-82A	---
78	for 22N (13/43 teeth)	---	---	---	R2N-82
	Intermediate Gear Rear Bearing	R1L-24	R1L-24	R1L-24	R1L-24

* Indicates not illustrated.

‡ Listed Cap Screw can be used as a replacement for the previously used Stud.

• Indicates common-wear parts. Maintain stock to reduce downtime.

† Used only with Manual-Closing Throttles. In compliance with the Williams-Steiger Occupational Safety and Health Act, Manual-Closing Throttle Assemblies and parts used exclusively for Manual-Closing Throttles will be furnished only on international orders.

22 Series Air Drill Throttle Assembly - Part List

Item	Part Description	Part Number
	Throttle Assembly	R22H-A518-2
79	Throttle Cam	---
80	Throttle Valve Lift Pin	R4H-306
81	Throttle Valve Lift Pin Roller (QTY. 2)	TAA-426
82	Throttle Sector	R33P5-1487
82A	Reverse Lever (for reversible models only)	R55H-314
*	Reverse Lever Set Screw (QTY. 2)	R2J-561
82B	Throttle Cam (for reversible models only)	22MA2-317
83	Throttle Sleeve	22B518-409
† 84	Throttle Body	R3H-402
‡ 85	Rubber-Faced Throttle Valve	8000-159A
• 86	Throttle Valve Face	8000-157
87	Throttle Valve Face Cap	R4-158
88	Throttle Valve Face Retaining Screw	H54U-352
89	Retaining Screw Lock Washer	TAA-418
• 90	Throttle Valve Spring	R4H-A565
---	Air Strainer Assembly	R4H-566
91	Air Strainer Cap	R3H-61
92	Air Strainer Screen	R3H-567
93	Air Strainer Screen Support	R3H-565
94	Air Strainer Body	R22H-565
97	All Steel Throttle Valve	T01-302

* Indicates not illustrated.

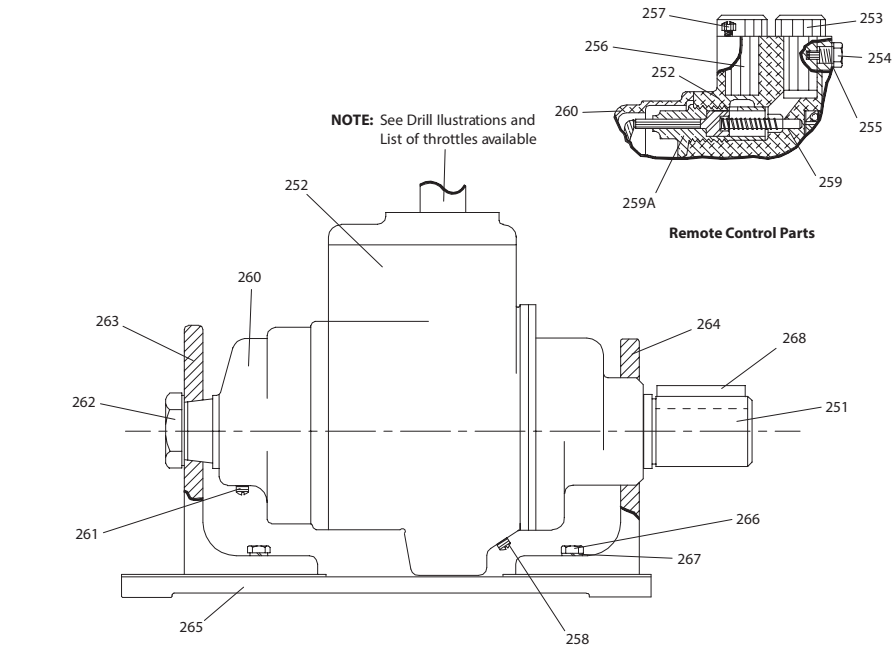
† If ordered as a replacement for a Throttle Body equipped with an All-Steel Throttle Valve also order the Rubber Faced Throttle Valve (85).

The Throttle Body for use with the All-Steel Throttle Valve is discontinued.

‡ Cannot be used as a replacement for the All-Steel Throttle Valve.

• Indicates common-wear parts. Maintain stock to reduce downtime.

Model 22N51-W/RC Base-Mounted MULTI-VANE Motor



Item	Part Description	Part Number
---	Spindle Assembly	R2XN51-A8
251	Spindle (all other parts included in the Spindle Assembly are the same as those included in the Spindle Assembly of Drills.)	E22N-8
252	Motor Housing	
	for models ending in -EU	R22N51-EU-RC40
	for all other models	R22N51-RC40
*	Warning Label	
	for models ending in -EU	EU-99
	for all other models	WARNING-10-99
*	Nameplate	
	for models ending in -EU	R2H-EU-99
	for all other models	R2H-99
253	Forward Inlet Stud	R22H-471
254	Forward Inlet Stud Lock Screw	TCCW-433
255	7/16" Lock Washer	D02-537
256	Reverse Inlet Stud	R22H-472
257	Reverse Inlet Stud Lock Screw	T05-44
258	1/8" Pipe Plug	R2-227
259	Governor Valve Spring	R22F61-431
259A	Governor Valve Bushing	R22F61-429
*	Housing Long Stud (QTY. 4) (all other parts included in the Motor Housing are the same as those included in the Motor Housing of Drills.)	R22N51-133
*	Cylinder	R22H61-3
260	Backhead	R22H-102
261	1/8" Pipe Plug (all other parts included in the Backhead are the same as those included in the Backhead for Drills - see illustrated part 12)	R2-227
262	Motor Mounting Screw	T15-278
263	Rear Motor Mounting Bracket	R22N51-304
264	Front Motor Mounting Bracket	R22N51-303
265	Motor Mounting Base	R22N51-564A
266	Base Cap Screw (QTY. 4)	D02-506
267	Base Cap Screw Lock Washer (QTY. 4)	D02-321
268	Spindle Key	R2XH51-768

* Indicates not illustrated.

Parts and Maintenance

When tool life has expired, it is recommended that the tool be disassembled, degreased and parts separated by material for proper recycling.

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

Manuals can be downloaded from ingersollrand.com

For additional information, refer to:

Product Safety Information Manual 04580353.

Product Information Manual 03523024.

Maintenance Information Manual 47140504.

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