



**47140496**  
Edition 2  
May 2014

## **Air Drill**

**2X and 22 Series**

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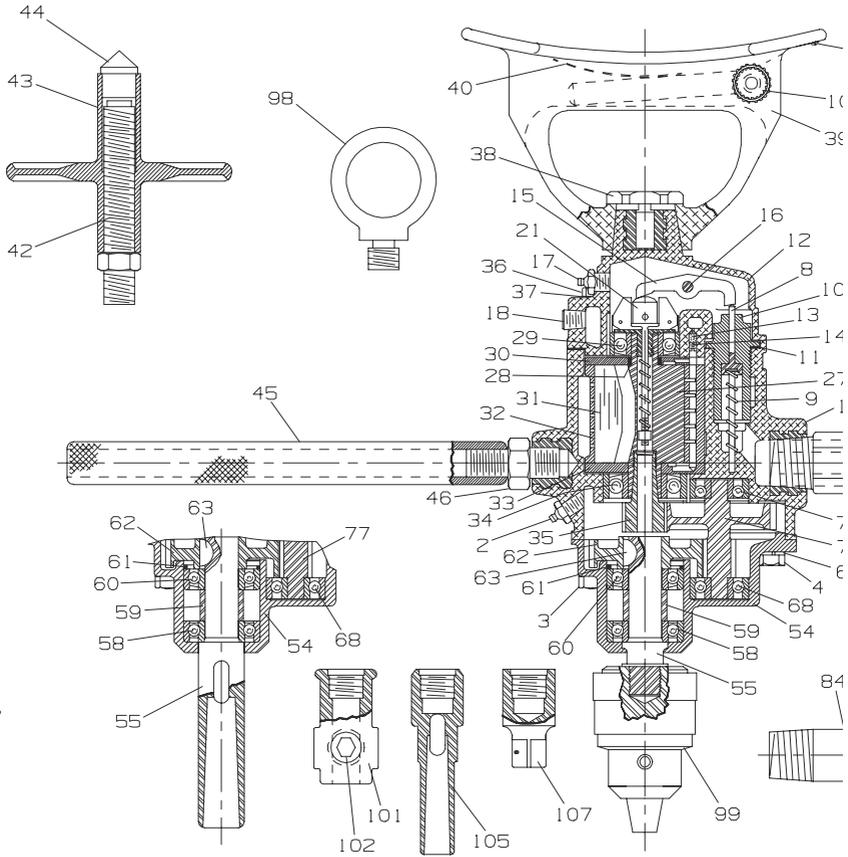
# **Parts Information**



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2X Series (Non-Reversible) Air Drill Exploded Diagram



(Dwg. TPA121-2)

## 2X Series (Non-Reversible) Air Drill Parts List

Item	Part Description	Part Number	
		2XJ, 2XK and 2XM	22J, 22K, 22M, 22N and 22KW
1	Motor Housing		
	for 22N models	---	R22N-40
	for models ending in -EU	R2XH-EU-40	R22H-EU-K40
	for all other models	R2XH-40	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) (4)		R2N-133
---	Housing Long Cap Screw (for all others) (4)		R22H-68
‡ 4	Housing Short Cap Screw (2)		R3-7
5	Stud Nut (1 for each stud)		T06-139
6	Lock Washer (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 (1 for 2X Series and 2 for 22 Series)		R22H-210
• 11	Backhead Gasket		R22H-283
12	Backhead		R22H-102
13	Oiler Felt (2)		R1-75
14	Oiler Adjusting Screw (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	R2J-12	R22H-12
• 31	Vane Packet (set of 5 Vanes)		R2-42B-5
32	Cylinder	R2J-3	R22H-3
*	Cylinder Dowel		R22H-98
• 33	Front End Plate		R2J-11
• 34	Front Rotor Bearing	R2-24A	R22H-11
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 (6)		R22H-68
37	Backhead Cap Screw Lock Washer (6)		8U-58
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

Item	Part Description	Part Number	
		2XJ, 2XK and 2XM	22J, 22K, 22M, 22N and 22KW
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	---	5UT-759
51	Sector Cover	---	TCC-429A
52	Sector Cover Screw (4)	---	TCC-430
53	Sector Cover Screw Lock Washer (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	R2H-99	
	0 to 1/2" capacity	T05-99A	
	5/64" to 1/2" capacity		DE-99C
100	Drill Chuck Wrench		
	for 1/8" to 5/8" chuck	T05-J253	
	for 0 to 1/2" chuck	T05-J253	
	for 5/64" to 1/2" capacity		R1T-J253
101	Wood Bit Chuck	R2H-151	R22W-151
102	Wood Bit Chuck Screw (1 for R2H-51; 2 for R22W-151)	R33W-150	R33W-150
103	Chuck Screw Retainer		R33W-149
---	Wood Bit Chuck Wrench (5/16" x 6" long hex wrench)	K-27	K-27
104	Chuck Nut	---	DE-347A
105	Use-Em-Up Socket (No. 2 Morse Taper Socket)	T05-294-2	---
106	Morse Taper Socket		
	No. 1 Morse Taper Socket	T05-323-1	DE-323A-1
	No. 2 Morse Taper Socket	T05-323-2	DE-323A-2
	No. 3 Morse Taper Socket	T05-323-3	DE-323A-3
• 107	Socket Adapter (1/2" square drive) (Pin-Type Retainer)	R2J-212B	---
*	Socket Retaining Plunger	804-716	---
*	Retaining Plunger Spring	5UHD-718	---
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	

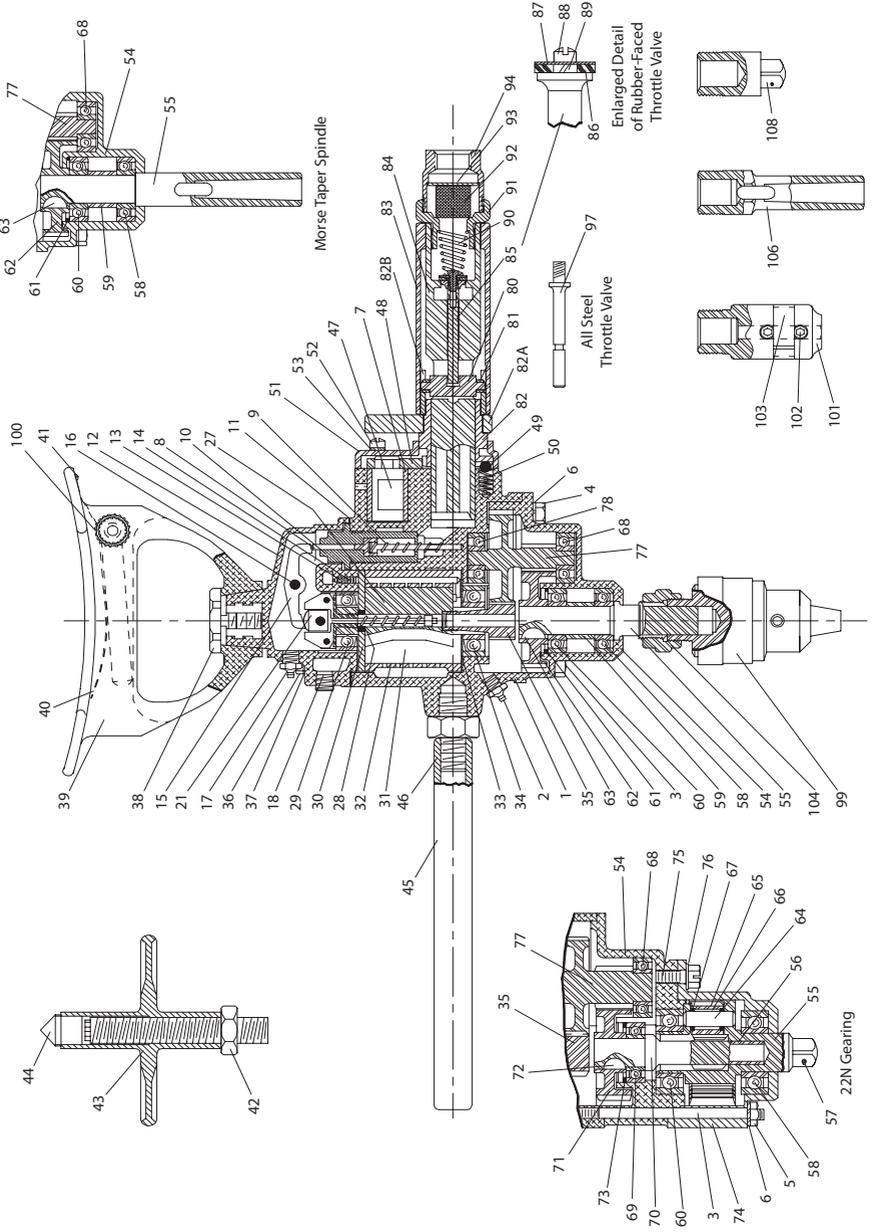
\* Not Illustrated.

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

• 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) or each part indicated by a bullet (•) for every four tools in service.

† 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 (Reversible) Air Drill Exploded Diagram**



(Dwg. TPA122-3)

## 2X Series (Non-Reversible) Air Drill Parts List

Item	Part Description	Part Number			
		2XJ,22J	2XK,22K 22KW	2XM,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
5/8" Square Drive with Ball-Type Retainer	---	---	---	R22N-B108	
56	Spindle Gear Shaft Bushing	---	---	---	T06-110
	Socket Retaining Plunger (for 5/8" Square Drive Spindle)				
	Pin-Type	---	---	---	808-716
	Ball-Type	---	---	---	8U-715
	Plunger Retaining Spring (for 5/8" Square Drive Spindle)	---	---	---	5UHD-718
58	Spindle Bearing	R2H-510	R2H-510	R2H-510	D01-616
59	Spindle Bearing Spacer	R2H-111	R2H-111	R2H-111	---
60	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 (3)	---	---	---	R2N-191
65	Planet Gear (3)	---	---	---	R2N-10
66	Planet Gear Roller (63)	---	---	---	R2N-152
67	Roller Retaining Plate (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	---
	for 22N (13/43 teeth)	---	---	---	R2N-82
78	Intermediate Gear Rear Bearing	R1L-24	R1L-24	R1L-24	R1L-24

## 2X Series (Non-Reversible) Air Drill Parts List

Item	Part Description	Part Number		
		Nonreversible Drills		Reversible Drills
		Roll Throttle	Lever Throttle	Roll Throttle
---	Throttle Assembly	R2XH-A417	R2XH-AL401	R22H-A518-2
79	Throttle Cam	T01-317A	---	---
80	Throttle Valve Lift Pin	TCC-306B	---	R4H-306
81	Throttle Valve Lift Pin Roller (2)	---	---	TAA-426
82	Throttle Sector	---	---	R33P5-1487
82A	Reverse Lever (for reversible models only)	---	---	R55H-314
*	Reverse Lever Set Screw (2)	---	---	R2J-561
82B	Throttle Cam (for reversible models only)	---	---	22MA2-317
83	Throttle Sleeve	TCL-305	R2J-269	22B518-409
† 84	Throttle Body	R3H-401	R3H-401	R3H-402
‡ 85	Rubber-Faced Throttle Valve	R3H-402	R3H-402	8000-159A
• 86	Throttle Valve Face	8000-159A	8000-159A	8000-157
87	Throttle Valve Face Cap	8000-157	8000-157	R4-158
88	Throttle Valve Face Retaining Screw	R4-158	R4-158	H54U-352
89	Retaining Screw Lock Washer	H54U-352	H54U-352	TAA-418
• 90	Throttle Valve Spring	TAA-418	T01-308	R4H-A565
----	Air Strainer Assembly	R22H-A565	R22H-A565	R4H-566
91	Air Strainer Cap	R3H-566	R3H-566	R3H-61
92	Air Strainer Screen	R3H-61	R3H-61	R3H-567
93	Air Strainer Screen Support	R3H-567	R3H-567	R3H-565
94	Air Strainer Body	R22H-565	R22H-565	R22H-565
95	Throttle Lever	---	R2J-273	---
96	Throttle Lever Spacer	---	R2J-270	---
*	Rotational Label	R2H-100	R2H-100	R3H-565
97	All Steel Throttle Valve	T01-302	T01-302	T01-302

\* 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).

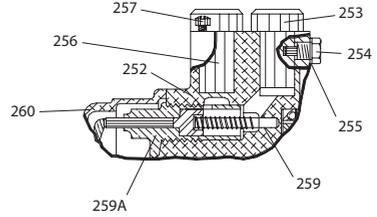
The Throttle Body for use with the All-Steel Throttle Valve is discontinued.

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

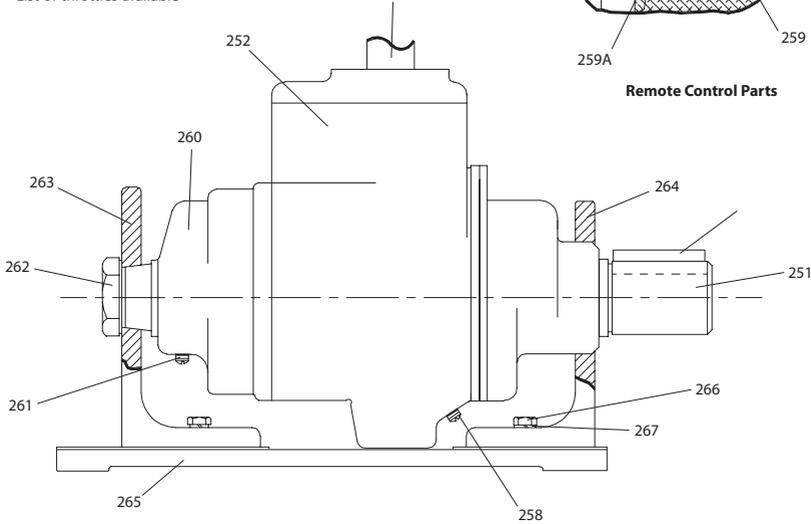
• To keep downtime to a minimum, it is desirable to have on hand certain repair parts. We recommend that you stock one (pair or set) of each part indicated by a bullet (•) for every four tools in service.

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

**NOTE:** See Drill Illustrations and List of throttles available



**Remote Control Parts**



(Dwg. TPB152-2)

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 (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)	R2-227
	(See illustrated part 12)	
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 (4)	D02-506
267	Base Cap Screw Lock Washer (4)	D02-321
269	Spindle Key	R2XH51-768

\* Not illustrated.

‡ See illustration No. 3 for Drills. Order by Part Number shown above.

† See illustration No. 32 for Drills. Order by Part Number shown above.

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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 03523024.

Air Drill Maintenance Information Manual 47140504.

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





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