



**16606097**  
Edition 4  
February 2023

## **Air Drill**

**551 Series**

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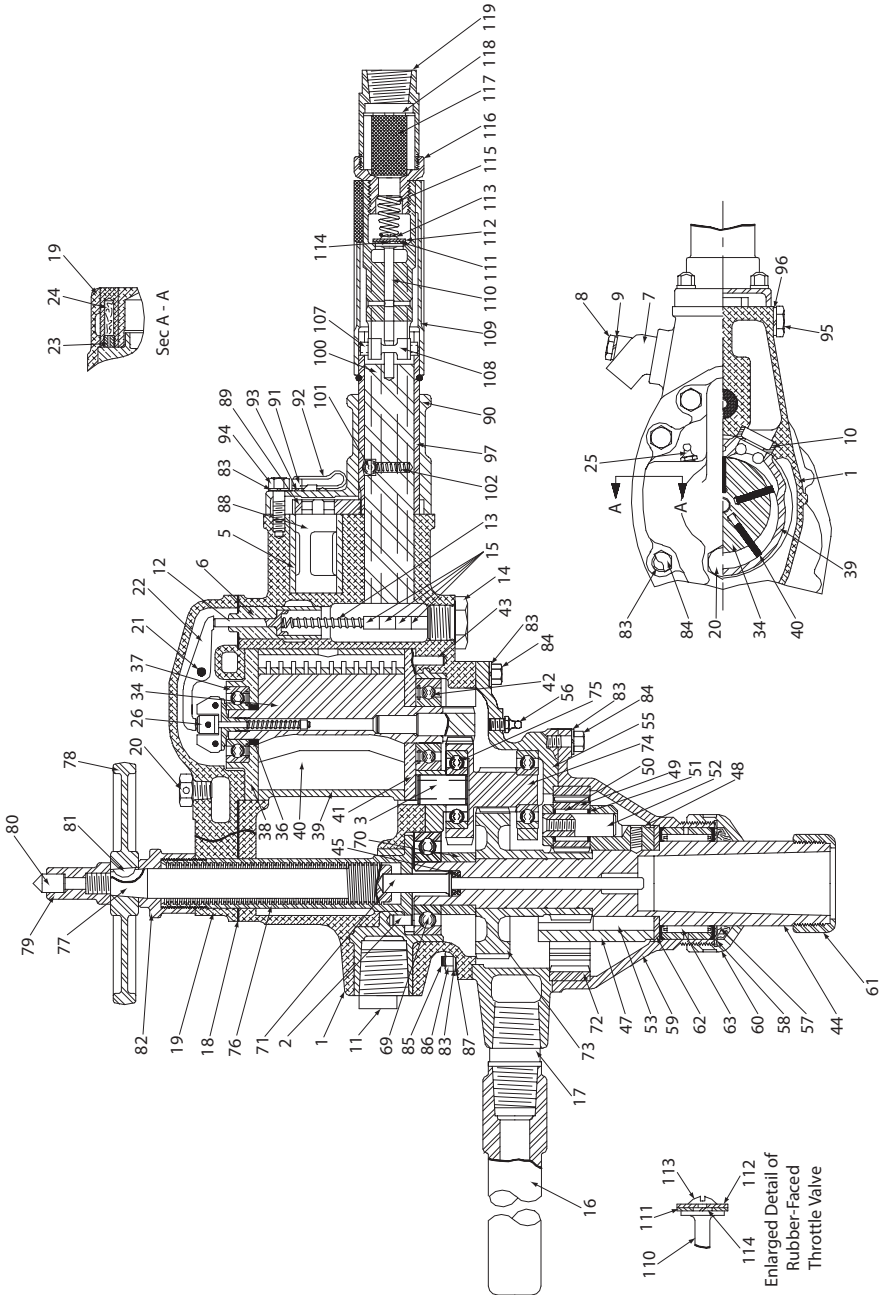
# **Parts Information**



**Save These Instructions**



551 Series, Air Drill - Exploded View



(Dwg. TPA300-3)

## 551 Series, Air Drill - Parts List

Item	Part Description	Part Number
1	Motor Housing	
	for models ending in - EU	R551H-EU-40
	for all other models	R551H-40
*	Warning Label	
	for models ending in - EU	EU-99
	for all other models	WARNING-8-99
2	Feed Screw Dowel	R3H-527
3	Intermediate Gear Bearing Stud	R5H-502
5	Reverse Valve Bushing	R551H-330
6	Governor Valve Bushing	R551H-429
7	Exhaust Deflector	R55H-23
*	Muffler Screen	R551H-311
8	Exhaust Deflector Screw	R55H-312B
9	Deflector Screw Lock Washer	T11-58
10	Air Port Gasket (2 required)	R44H-210A
11	1" Pipe Plug	TA-464
12	Governor Valve	R551H-425
13	Governor Valve Spring	K4U-863
14	Governor Valve Cap	R4H-433
15	Governor Valve Spring Spacer (4 required)	R5H-435
16	Dead Handle	TAAC-48
17	Dead Handle Stud	T15E-364
• 18	Backhead Gasket	R5H-283
19	Backhead	R5H-102
20	Oil Chamber Plug	P25-227
21	Governor Lever Pin	N00-15
22	Governor Lever	R5H-436
23	Oiler Adjusting Screw (2 required)	JA4-71
24	Oiler Felt (4 required)	JA4-75
25	Grease Fitting	23-188
26	Governor Assembly	R5H-A424B
34	Rotor and Pinion	
	for model 551SMA (10 teeth)	9BM-K53
	for model 551S0A (9 teeth)	R55L-53
36	Rotor Bearing Spacer	R5H-65
37	Rear Rotor Bearing	R5H-22
38	Rear End Plate	R55H-12
39	Cylinder	
	for maximum power in the forward direction of rotation (standard for Drills; optional for Motors)	R551H-3
	for equal power in the forward direction of rotation (standard for Motors; optional for Drills)	588-3
	for maximum power in reverse direction of rotation (optional for Drills or Motors)	R55H-203
• 40	Vane Packet (set of 5 vanes)	R5H-42-5
• 41	Front End Plate	R55H-11
• 42	Front Rotor Bearing	R5H-24
43	Cylinder Dowel	R5H-98
	Spindle Assembly	R55M-B108
44	Spindle	R55M-108
45	Ejecting Pin Packing	R55M-408
	Planet Gear Frame Assembly	R55M-A367
47	Planet Gear Frame	R55M-367
48	Planet Gear Frame Setscrew (3 required)	R4SM-574
*	Planet Gear Shaft Setscrew (3 required)	551AMP56-561
49	Planet Gear (3 required)	R55M-10
50	Planet Gear Roller (69 required)	R55M-152
51	Roller Retaining Plate (6 required)	R55M-468
52	Planet Gear Shaft (3 required)	R55M-191
53	Planet Gear Frame Key	R55M-410

Item	Part Description	Part Number
55	Gear Case	R55M-37
56	Grease Fitting	23-188
57	Spindle Packing (1 for 551H, 551J, 551K or 551L; 2 for others)	R55M-14
58	Spindle Packing Ring	R55M-202
59	Gear Case Cover	R55M-378
60	Spindle Packing Nut	R55M-15
61	Protection Nut	T15E-43
62	Spindle Thrust Plate	R55M-80
• 63	Spindle Bearing	R55M-510
• 69	Spindle Thrust Bearing	TA-105
70	Spindle Thrust Bearing Spacer	R55M-100
71	Drill Ejecting Pin	R55M-114
72	Internal Gear	R55M-406
73	Spindle Gear	
	for model 5515M	R55M-9
	for model 55150	R550-9
74	Intermediate Gear	
	for model 5515M	R55M-82
	for model 55150	R550-82
75	Intermediate Gear Bearing (2 required)	D04-366
76	Outer Feed Screw	R5H-290
	Feed Screw Assembly	TA-A291
77	Inner Feed Screw	TA-291
78	Feed Handle	TB-2
79	Feed Handle Locknut	TB-388A
80	Feed Screw Center	TB-244
81	Feed Handle Key	TC-18
82	Feed Screw Cap	TA-392
83	Lock Washer (18 required)	T11-58
84	Backhead Cap Screw (9 required)	B8-240
85	Gear Case Bolt	
	Short (3 required)	R55M-103A
	Long	R551P58-103
86	Gear Case Bolt Nut (1 for each bolt)	D02-428
87	Gear Case Bolt Seal Washer (copper) (8 required)	D01-504
88	Reverse Valve	R551H-329
89	Reverse Valve Sector	R55H-488
90	Sector Cover	R55H-1489
91	Reverse Stop	R44H-568A
92	Reverse Stop Lever	R44H-569
93	Reverse Stop Washer	R44H-572A
94	Sector Cover Screw (5 required)	R44H-490A
95	Throttle Body Setscrew	R551H-593
96	Throttle Body Setscrew Lock Washer	D02-537

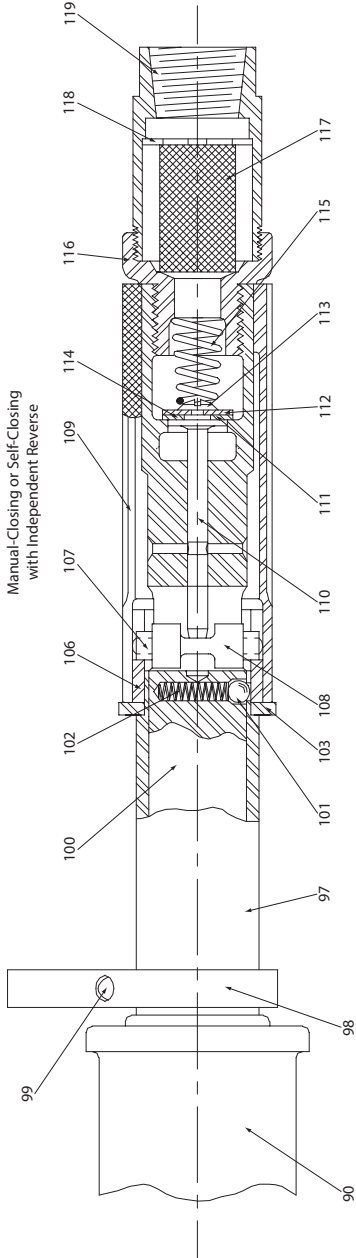
\* Indicates not Illustrated.

- 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.

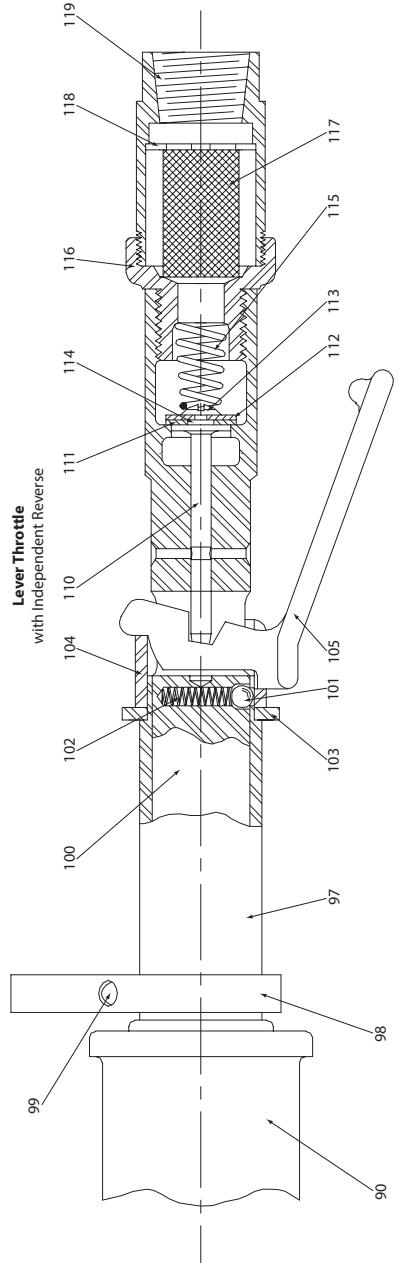
Note: Item numbers from 97 to 119 are Throttle Assembly parts which are shown on page 6.

**Throttle Assembly for 551 Series, Air Drill - Exploded View**

**Roll Throttle**  
Manual-Closing or Self-Closing  
with Independent Reverse



**Lever Throttle**  
with Independent Reverse



## Throttle Assembly for 551 Series, Air Drill - Parts List

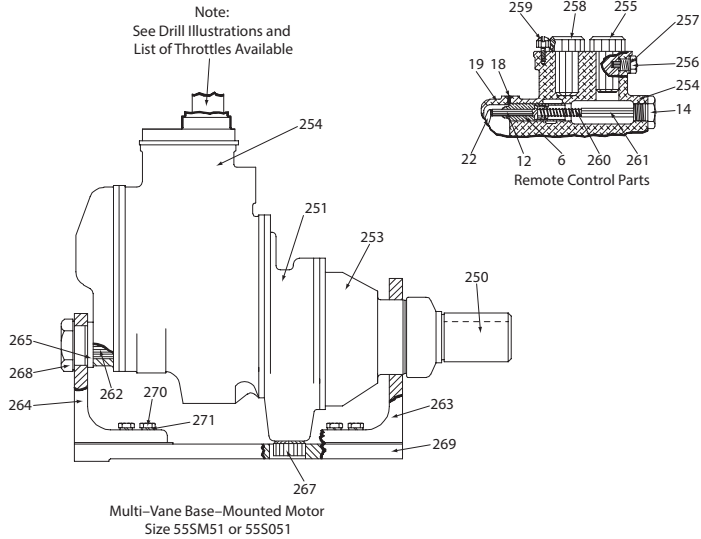
Item	Part Description	Part Number					Lever Throttle with Independent Reverse
		Roll Throttle					
		★ Manual-Closing	★ Self-Closing	★ Manual-Closing with Independent Reverse	Self-Closing with Independent Reverse		
	Throttle Assembly	★ R551H-A419	R551H-A319	★ R551H-B419-2	R551H-B319	R551H-BL419-2	
97	Throttle Sector	★ R551H-587	R551H-597	★ R55H-1487	R55H-1487	R55H-1487	
98	Independent Reverse Lever			R55H-314	R55H-314	R55H-314	
99	Reverse Lever Setscrew (2 required)			R2J-561	R2J-561	R2J-561	
100	Throttle Body	★ R551H-419	R551H-319	R55H-409-2	R55H-409-2	R55H-409-2	
101	Stop Ball	G601-65		G601-65	G601-65	G601-65	
102	Stop Ball Spring	R55H-492		R55H-492	R55H-492	R55H-492	
103	Throttle Sleeve Spacer			R55H-310	R55H-310	R55H-310	
104	Throttle Lever Spacer					R4H-270	
105	Throttle Lever					R55H-273	
106	Throttle Cam			R4H-307	R4H-317		
107	Lift Pin Roller (2 required)	TAA-426	TAA-426	TAA-426	TAA-426		
108	Throttle Valve Lift Pin	R551H-606	R551H-606	R4H-306	R4H-306		
109	Throttle Sleeve	R551H-460	R551H-460	R4H-305	R4H-305		
110	Rubber-Faced Throttle Valve	R551H-602	R551H-602	R4H-402	R4H-402	R4H-402	
• 111	Throttle Valve Face	R551H-259	R551H-259	R4H-159	R4H-159	R4H-159	
112	Throttle Valve Face Cap	R551H-257	R551H-257	R4H-157	R4H-157	R4H-157	
113	Throttle Valve Face Retaining Screw	R4-158	R4-158	R4-158	R4-158	R4-158	
114	Retaining Screw Lock Washer	H54U-352	H54U-352	H54U-352	H54U-352	H54U-352	
115	Throttle Valve Spring	TAA-418	R551H-618	T01-308	TAA-418	T01-308	
	Air Strainer Assembly	R551H-A665	R551H-A665	R551H-A465	R551H-A465	R551H-A465	
116	Air Strainer Cap	R551H-666	R551H-666	R4H-566	R4H-566	R4H-566	
117	Air Strainer Screen	R551H-261	R551H-261	R5H-61	R5H-61	R5H-61	
118	Air Strainer Screen Support	R551H-667	R551H-667	R3H-567	R3H-567	R3H-567	
119	Air Strainer Body	R551H-665	R551H-665	R551H-465	R551H-465	R551H-465	

★ 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.

- 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.

Note: Item number from 90 is shown on page 4.

## Models 551SM51 and 551S051 Base - Mounted Motors for 551 Series, Air Drill - Exploded View



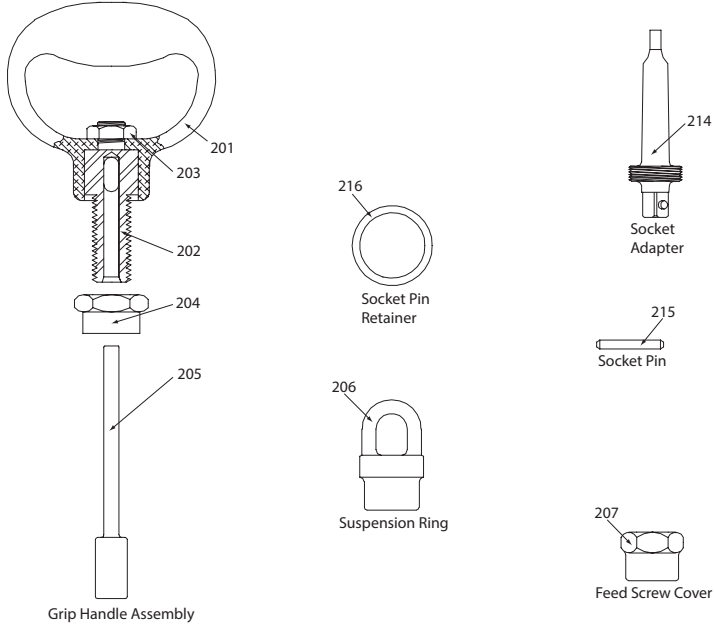
(Dwg. TPB140-1)

## Models 551SM51 and 551S051 Base - Mounted Motors for 551 Series, Air Drill - Parts List

Item	Part Description	Part Number	
		Models 551SM51 and 551S051 with Integral Throttle	Models 551SM51 and 551S051 with Remote Control
250	Spindle	R5SM51-8	R5SM51-8
251	Gear Case	R5SM-37	R5SM-37
253	Gear Case Cover	R5SM51-378	R5SM51-378
254	Motor Housing	R51H51-40	R51H51-RC40
255	Forward Inlet Stud		R5SH-471
256	Forward Inlet Stud Lock Screw		R551H-593
257	7/16" Lock Washer		D02-537
258	Reverse Inlet Stud		R551H-472
259	Reverse Inlet Stud Lock Screw		R55H-473
*	Exhaust Bushing (The Motor Housing also includes illustrated parts 2, 3, 6, 10[2], and 11 for all motors; and illustrated part 5 for all motors with Integral Throttle.)	R44H51-439	R44H51-439
260	Governor Valve Spring	R4H-431	K4U-863
261	Governor Valve Spring (3 for remote control; 1 for others)	R5H-435	R5H-435
262	Motor Mounting Stud (for Base-Mounted Motors)	R5SH52-790	R5SH52-790
262	Backhead Clamp Stud (for Flange Mounted Motors)	R5SH52-790	R5SH52-790
263	Front Motor Mounting Bracket (for Base-Mounted Motors)	R5SM51-303	R5SM51-303
264	Rear Motor Mounting Bracket (for Base-Mounted Motors)	R5SM51-304	R5SM51-304
265	Rear Motor Mounting Bracket Spacer (for Base-Mounted Motors)	R5H51-277	R5H51-277
267	Gear Case Anchor (for Base-Mounted Motors)	R5SM51-364	R5SM51-364
268	Motor Mounting Stud Cap (for Base-Mounted Motors)	R5H51-461	R5H51-461
268	Clamp Stud Cap (for Flange Mounted Motors)	TA-461	TA-461
269	Motor Mounting Base (for Base-Mounted Motors)	R55SM51-564	R55SM51-564
270	Base Cap Screw (8 required) (for Base-Mounted Motors)	215-148	215-148
271	Base Cap Screw Lock Washer (8 required) (for Base-Mounted Motors)	D10-322	D10-322
*	Spindle Key	R5SM51-768	R5SM51-768
*	Male Hose Nipple (1" hose to 3/4" male pipe)		R5H-46

\* Indicates not illustrated.

## Special Equipment for 551 Series, Air Drill - Exploded View



(Dwg. TPB992)

## Special Equipment for 551 Series, Air Drill - Parts List

Item	Part Description	Part Number
200	Grip Handle Assembly	TA-A41
201	Grip Handle	TA-41
202	Grip Handle Stud	TC-448
203	Grip Handle Stud Nut	B12-249
204	Grip Handle Nut	TA-447
205	Grip Handle Ejecting Pin	TA-50A
206	Suspension Ring	TA-365
207	Feed Screw Cover	TA-461
208	Interchangeable Reamer Chuck Assembly	T15E-A45A-1 1/8
214	Socket Adapter (1" square drive)	R55M-214
215	Socket Pin	34U-215A
216	Socket Pin Retainer	34U-216
217	Chuck Nut	T15E-347
*	Male Hose Nipple (1" hose to 1" male pipe)	P35-46

\* 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](http://ingersollrand.com)

For additional information, refer to:

Product Safety Information Manual 04580353

Product Information Manual 03524410

Maintenance Information Manual 16606105



**Notes:**

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