



Form 16572877
Edition 1
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Air Drill

30, R44 and R44SE

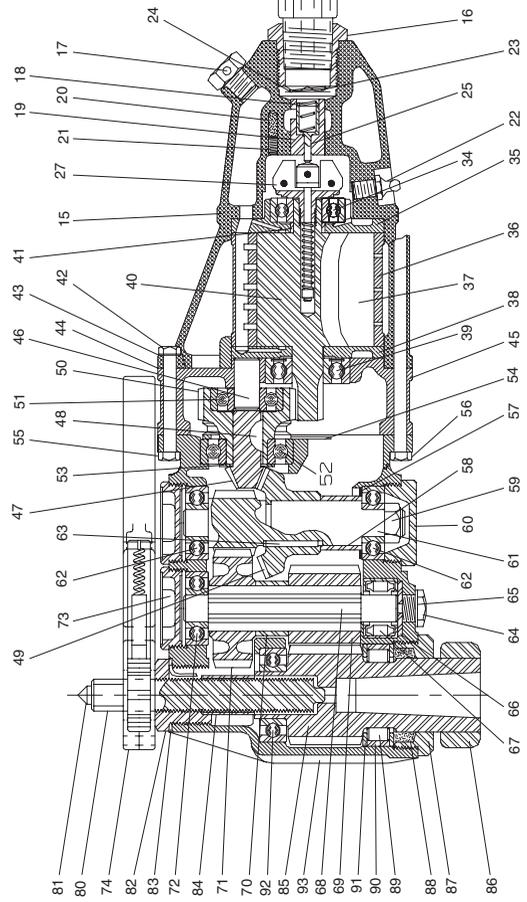
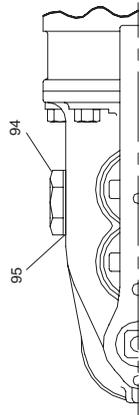
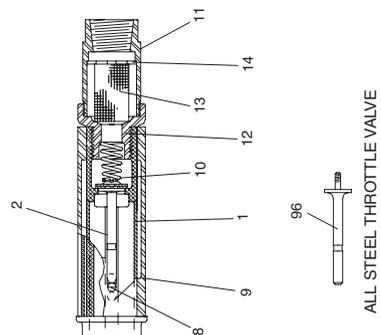
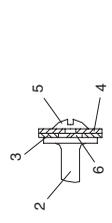
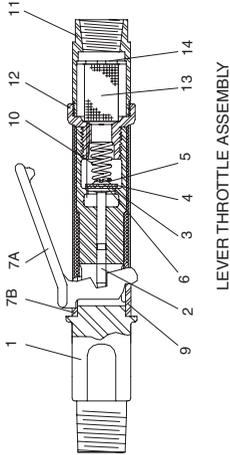
Parts Information



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30 Air Drill Exploded Diagram



(Dwg. TPA320-3)

30 Air Drill Parts List

Item	Part Description	Part Number	Item	Part Description	Part Number
	Self-Closing Roll Throttle Assembly	R3H-A417	45	Gear Case Cover	R30-640
*	Rotation Label	R2H-100	46	Intermediate Gear Bearing Stud	R3H-502
** 1	Throttle Body	R3H-401	47	Bevel Pinion	R30-205A
+ 2	Rubber-Faced Throttle Valve	R3H-402	48	Bevel Pinion Key	TB-18
* 3	Throttle Valve Face	8000-159A	49	Bevel Gear	R30-206A
4	Throttle Valve Face Cap	8000-157	50	Intermediate Gear	R30-82
5	Throttle Valve Face Retaining Screw	R4-158	* 51	Intermediate Gear Bearing	TB-394
6	Retaining Screw Lock Washer	H54U-352	* 52	Bevel Pinion Bearing	G7-24
7	Throttle Cam	T01-317A	53	Bevel Pinion Spacer	R30-645
8	Throttle Valve Lift Pin	TCC-306A	54	Bevel Pinion Bearing Retainer	R30-628
9	Throttle Sleeve	TCL-305	55	Housing Short Bolt (2)	R30-638
10	Throttle Valve Spring	TAA-418	56	Housing Long Bolt (4)	R30-636
	Air Strainer Assembly	R3H-A565	57	Bevel Gear Bearing Shim	R30-627
11	Air Strainer Body	R3H-565	58	Bevel Gear Shaft Bearing Spacer	R30-528
12	Air Strainer Cap	R3H-566	59	Bevel Gear Shaft Nut	D02-418A
13	Air Strainer Screen	R3H-61	60	Bevel Gear Lower Bearing Cap	R30-531
14	Air Strainer Screen Support	R3H-567	61	Bevel Gear Shaft	R30-525
15	Motor Housing		62	Bevel Gear Shaft Bearing (2)	TB-394
	for models ending in -EU	R30-EU-40	63	Bevel Gear Key	J5-754
	for all other models	R30-40	64	Drive Shaft Cap	R40-629
16	Inlet Bushing	R30-644A	65	Drive Shaft Cap Washer	R40-630
17	Oil Chamber Plug	P25-227	66	Drive Shaft Lower Bearing Bottom Plate	R30-523
18	Governor Valve Retaining Spring	R2-281A	* 67	Drive Shaft Lower Bearing (Pitchlign Bearing No. ES17173 or its equivalent)	R30-521
19	Governor Valve Bushing	503-429			
20	Oiler Felt (4)	JA4-75	68	Drive Shaft	R30-516
21	Oiler Felt Retaining Screw	R40-72	69	Drive Shaft Pinion	W80-524
22	Grease Fitting	23-188	70	Drive Shaft Gear Spacer	R30-520
*	Oiler Adjusting Screw	JA4-71	71	Drive Shaft Gear	R30-519
23	Inlet Screen	D02-889	* 72	Drive Shaft Upper Bearing	TB-394
24	Governor Valve Spring	R2-431A	73	Upper Bearing Cap (2)	R30-518
25	Governor Valve	R2-425A	74	Ratchet Handle	R30-48
*	Nameplate			Feed Screw Assembly	W80-A502
	for models ending in -EU	R2H-EU-99	80	Feed Screw	W80-502
	for all other models	R2H-99	81	Feed Screw Center	W9-244
*	Warning Label		82	Feed Screw Nut	W80-503
	for models ending in -EU	EU-99	83	Spring Washer	W80-504
	for all other models	WARNING-8-99	84	Feed Screw Sleeve	W80-505
27	Governor Assembly	R3H-A424	85	Spindle	W80-508A
* 34	Rear Rotor Bearing	R3H-22	86	Spindle Ring	W80-515
* 35	Rear End Plate	R30-12	87	Spindle Packing Nut	W80-514
* 36	Cylinder	R3H-3	* 88	Spindle Packing	W80-513
* 37	Vane Packet (Set of 4)	R3H-42-4	89	Spindle Lower Bearing Roller	W9-512
* 38	Front End Plate	R30-11	90	Spindle Lower Bearing Race	W80-510A
* 39	Front Rotor Bearing	R3H-24	91	Spindle Lower Bearing Retaining Plate (2)	W80-511
*	Cylinder Dowel	R3H-98	92	Spindle Upper Bearing	G7-24
40	Rotor	R30-53A	93	Gear Case	R30-500
41	Rotor Bearing Spacer	R3H-65	94	Grease Plug	R40-95
42	Housing Bolt Nut (6)	G7-139	95	Grease Plug Gasket	D01-946
43	Housing Bolt Lock Washer (6)	T11-58	96	All Steel Throttle Valve	T01-302
* 44	Housing Gasket	R30-641			

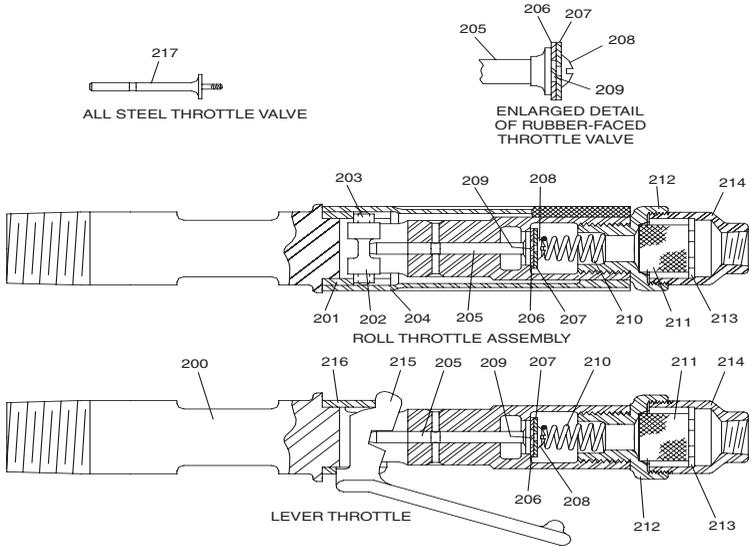
* Not illustrated.

* 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.

** If ordered as a replacement for a Throttle Body equipped with an All Steel Throttle Valve also order the Rubber-Faced Throttle Valve (2) The Throttle Body for use with the All Steel Throttle Valve is discontinued.

+ Cannot be used as a replacement for All Steel Throttle Valve (96).

30 Air Drill Throttle Assembly Exploded Diagram



(Dwg. TPC226)

30 Air Drill Throttle Assembly Parts List

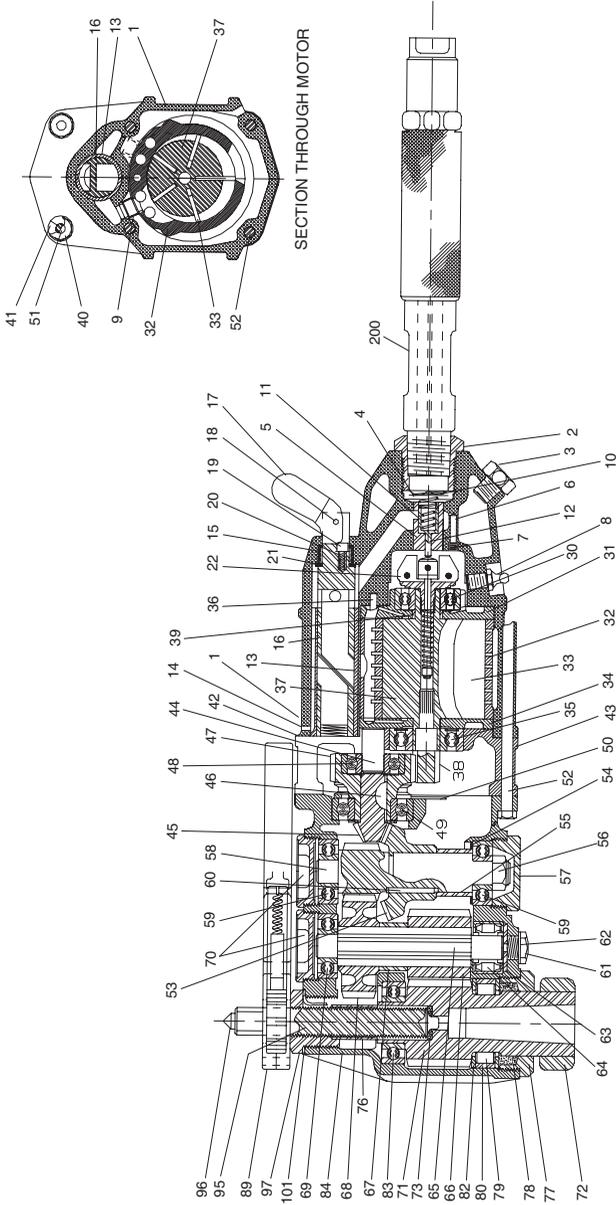
Item	Part Description	Manual-Closing Roll Throttle***	Self-Closing Roll Throttle	Lever Throttle
	Throttle Assembly	R4H-A401***	R4H-A417	R4H-AL401
** 200	Throttle Body	R4H-401	R4H-401	R4H-401
201	Throttle Cam	R4H-307***	R4H-317	---
202	Throttle Valve Lift Pin	R4H-306	R4H-306	---
203	Lift Pin Roller (2)	TAA-426	TAA-426	---
204	Throttle Sleeve	R4H-305	R4H-305	---
+ 205	Rubber-Faced Throttle Valve	R4H-402	R4H-402	R411-402
206	Throttle Valve Face	R4H-159	R4H-159	R4H-159
207	Throttle Valve Face Cap	R4H-157	R4H-157	R4H-157
208	Throttle Valve Face Retaining Screw	R4-158	R4-158	R4-158
209	Retaining Screw Lock Washer	H54U-352	H54U-352	H54U-352
210	Throttle Valve Spring	T01-308	TAA-418	T01-308
	Air Strainer Assembly	R3H-A565	R3H-A565	R54H-A565
211	Air Strainer Screen	R3H-61	R3H61	R3H-61
212	Air Strainer Cap	R4H-566	R4H-566	R4H-566
213	Air Strainer Screen Support	R3H-567	R3H-567	R3H-567
214	Air Strainer Body	R3H-565	R3H-565	R3H-565
215	Throttle Lever	---	---	R4H-273
216	Throttle Lever Spacer	---	---	R4H-270
217	All Steel Throttle Valve	R4H-302	R4H-302	R4H-302

*** 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.

+ Cannot be used as a replacement for All Steel Throttle Valve (217).

** If ordered as a replacement for a Throttle Body equipped with an All Steel Throttle Valve also order the Rubber-Faced Throttle Valve (205) The Throttle Body for use with the All Steel Valve is discontinued.

R44 and R44SE Air Drill Exploded Diagram



(Dwg. TPA319-2)

R44 and R44SE Air Drill Parts List

Item	Part Description	Part Number	Item	Part Description	Part Number
	Housing Assembly		49	Bevel Pinion Bearing	W9-509
	for models ending in -EU	R440-EU-A40	50	Bevel Pinion Bearing Retainer	R40-628
	for all other models	R440-A40	51	Housing Short Bolt (2)	R440-638
1	Housing	R440-40	52	Housing Long Bolt (4)	R440-636
2	Inlet Bushing	R440-644	53	Bevel Gear	R40-206B
3	Oil Chamber Plug	P25-227	54	Bevel Gear Bearing Shim	R40-627
4	Governor Valve Retaining Spring	RC5-281	55	Bevel Gear Shaft Bearing Spacer	R40-528
5	Governor Valve Bushing	P35-429	56	Bevel Gear Shaft Nut	B12-249
6	Oiler Felt (4)	JA4-75	57	Bevel Gear Lower Bearing Cap	R40-531
7	Oiler Felt Retaining Screw	R40-72	58	Bevel Gear Shaft	R40-525A
8	Grease Fitting	23-188	59	Bevel Gear Shaft Bearing(2)	DU-589
*	Oiler Adjusting Screw	JA4-71	60	Bevel Gear Key	R40-610
9	Cylinder Gasket (2)	R44H-210A	61	Drive Shaft Cap	R40-629
10	Inlet Screen	D02-889	62	Drive Shaft Cap Washer	R40-630
11	Governor Valve Spring	R2-431A	63	Drive Shaft Lower Bearing Bottom Plate	R40-523
12	Governor Valve	P35-425	64	Drive Shaft Lower Bearing	R40-521
13	Reverse Valve Bushing	R440-330	65	Drive Shaft	R40-516
14	Reverse Valve Bushing Dowel	J-221A	66	Drive Shaft Pinion	
15	Reverse Valve Gasket	3/4HC-4		for R44 or R44-EU	W9-524
16	Reverse Valve	R440-329		for R44SE or R44SE-EU	W99E-524
17	Reverse Valve Latch	R440-591	67	Drive Shaft Gear Spacer	R40-520
18	Reverse Valve Latch Pin	555-667	68	Drive Shaft Gear	R40-519
19	Reverse Valve Stop Pin	R440-491	69	Drive Shaft Upper Bearing	DU-589
20	Reverse Valve Stop Pin Spring	R440-492	70	Upper Bearing Cap (2)	R40-518
21	Reverse Valve Thrust Washer	R440-642		Spindle Assembly	
*	Rotation Label	R22H-100		for R44 or R44-EU	W9-A508A
*	Nameplate			for R44SE or R44SE-EU	W90SC-A508
	for R440-EU-A40	R2H-EU-99	71	Spindle	
	for R440-A40	R2H-99		for R44 or R44-EU (No. 4 Morse Taper Socket)	W9-508A
*	Warning Label			for R44SE or R44SE-EU (No. 5 Morse Taper Socket)	W90SC-508A
	for R440-EU-A40	EU-99		Spindle Ring	
	for R440-A40	WARNING-8-99			
22	Governor Assembly	R3H-A424	72		
* 30	Rear Rotor Bearing	555-22		for R44 or R44-EU	W9-85
* 31	Rear End Plate	R440-12		for R44SE or R44SE-EU	W90SC-515
* 32	Cylinder	R440-3	73	Feed Screw Packing	
* 33	Vane Packet (set of 5)	555-42-5		(for R44SE or R44SE-EU)	W90SC-506
* 34	Front End Plate	R440-11	74	Spindle Gear (for R44SE or R44SE-EU)	W90SC-584
* 35	Front Rotor Bearing	555-24	75	Spindle Gear Key (for R44SE or R44SE-EU)	W90SC-223
36	Cylinder Dowel	R4H-98	76	Feed Screw Sleeve (for R44 or R44-EU)	W9-505A
37	Rotor	R44H-53	77	Spindle Packing Nut	
38	Rotor Pinion	R4J-17		for R44 or R44-EU	W9-514
39	Rotor Bearing Spacer	555-65		for R44SE on R44SE-EU	W90C-514
40	Housing Bolt Nut (6)	23-697	78	Spindle Packing	
41	Housing Bolt Lock Washer (6)	D02-321		for R44 or R44-EU	W9-513
* 42	Housing Gasket	R440-641		for R44SE or R44SE-EU	W90C-513
43	Gear Case Cover	R440-640	79	Spindle Lower Bearing Roller (22 for R44 or R44-EU and 28 for R44SE or R44SE-EU)	
44	Intermediate Gear Bearing Stud	R4H-502			W9-512
45	Bevel Pinion	R40-205B	80	Spindle Lower Bearing Race (for R44 or R44-EU)	W9-510
46	Bevel Pinion Key	TB-18			
*	Bevel Pinion Shim	R40-662	81	Spindle Lower Bearing Holder (for R44SE or R44SE-EU)	W90C-588
47	Intermediate Gear	R40-82			
48	Intermediate Gear Bearing	DU-589			

* Not illustrated.

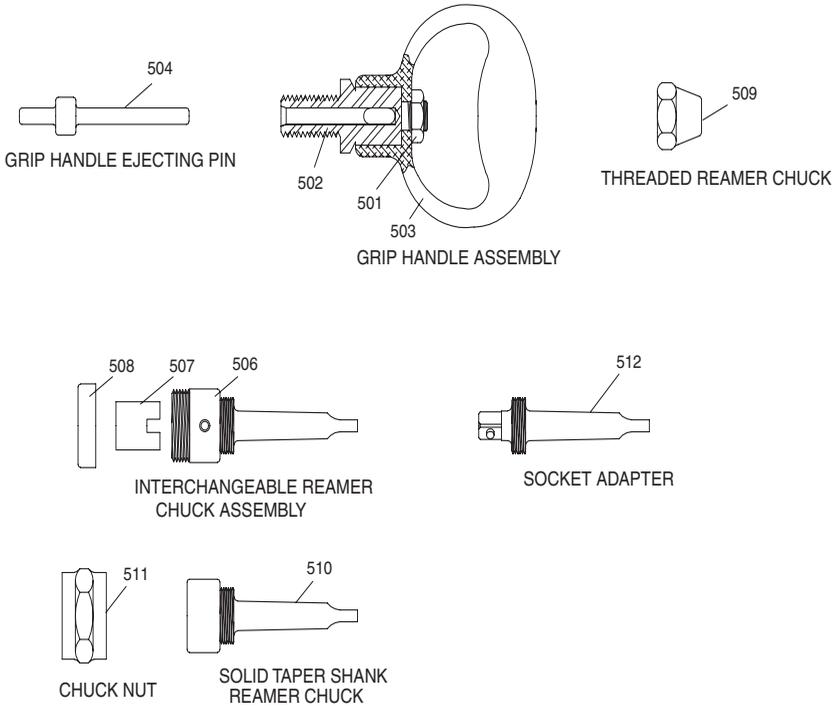
* To keep downtime to a minimum, it is desirable to have on hand certain repair parts. We recommend that you stock one (pair or set) of each part indicated by a bullet (*) for every four tools in service.

R44 and R44SE Air Drill Parts List

Item	Part Description	Part Number	Item	Part Description	Part Number
82	Spindle Lower Bearing Retaining Plate (2) for R44 or R44-EU	W9-511	95	Feed Screw for R44 or R44-EU	W9-502B
	for R44SE or R44SE-EU	W90C-511		for R44SE or R44SE-EU	W90SC-1
83	Spindle Upper Bearing for R44 or R44-EU	W9-509	96	Feed Screw Center	W9-244
	for R44SE or R44SE-EU	W90C-509	97	Feed Screw Nut for R44 or R44-EU	W9-503B
84	Gear Case for R44 or R44-EU	R40-500		for R44SE or R44SE-EU	W90SC-503
	for R44SE or R44SE-EU	R40SE-500	98	Feed Screw Stop Pin (for R44SE or R44SE-EU)	502-669
85	Grease Plug	R40-95	99	Outer Feed Screw (for R44SE or R44SE-EU)	W9-3
*	Grease Plug Gasket	D01-946		Feed Screw Stop Ring (for R44SE or R44SE-EU)	W90SC-586
89	Ratchet Handle	R30-48	100	Spring Washer (for R44 or R44-EU)	W9-504
	Feed Screw Assembly for R44 or R44-EU	W9-A502B	101	Protection Nut (for R44 or R44-EU)	T01-43A
	for R44SE or R44SE-EU	W90SC-A1	*		

* Not illustrated.

30, R44 and R44SE Air Drill Accessories Exploded Diagram



(Dwg. TPB968-1)

30, R44 and R44SE Air Drill Accessories Parts List

Item	Part Description	Model 30, 30-EU	Model R44, R44-EU	Model R44SE, R44SE-EU
	Grip Handle Assembly	W80-A41	W90-A41	W90SC-A41
501	Grip Handle	TA-41	TA-41	TA-41
502	Grip Handle Stud	W80-448	W9-448	W90SC-448
503	Grip Handle Stud Nut	B12-249	B12-249	B12-249
504	Grip Handle Ejecting Pin	W80-450	W9-450	W90SC-450
	Interchangeable Reamer Chuck Assembly			
	with Bushing having 5/8" sq drive hole	T02-A45A-5/8	T01-A45A-5/8	---
	with Bushing having 11/16" sq drive hole	T02-A45A-11/16	T01-A45A-11/16	---
	with Bushing having 3/4" sq drive hole	T02-A45A-3/4	T01-A45A-3/4	T1SE-A45A-3/4
	with Bushing having 13/16" sq drive hole	T02-A45A-13/16	---	---
	with Bushing having 7/8" sq drive hole	T02-A45A-7/8	T01-A45A-7/8	---
	with Bushing having 1" sq drive hole	T02-A45A-1	T01-A45A-1	T1SE-A45A-1
	with Bushing having 1-1/16" sq drive hole	---	---	T1SE-A45A-1 1/16
	with Bushing having 1-1/8" sq drive hole	---	---	T1SE-A45A-1 1/8
	with Bushing having 1-3/16" sq drive hole	---	---	T1SE-A45A-1 3/16
	with Bushing having 1-1/4" sq drive hole	---	---	T1SE-A45A-1 1/4
506	Taper Shank Reamer Chuck for Interchangeable Bushings	T02-45A	T01-45A	T1SE-45A-5
507	Interchangeable Reamer Chuck Bushing			
	with 5/8" sq drive hole	T01-38-5/8	T01-38-5/8	---
	with 11/16" sq drive hole	T01-38-11/16	T01-38-11/16	---
	with 3/4" sq drive hole	T01-38-3/4	T01-38-3/4	T1SE-38-3/4
	with 7/8" sq drive hole	T01-38-7/8	T01-38-7/8	---
	with 1" sq drive hole	T01-38-1	T01-38-1	T1SE-38-1
	with 1-1/16" sq drive hole	---	---	T1SE-38-1 1/16
	with 1-1/8" sq drive hole	---	---	T1SE-38-1 1/8
	with 1-3/16" sq drive hole	---	---	T1SE-38-1 3/16
	with 1-1/4" sq drive hole	---	---	T1SE-38-1 1/4
508	Interchangeable Ram Chuck Cap	T01-54	T01-54	T1SE-54
509	Threaded Reamer Chuck (for use on threaded Spindle)			
	with 5/8" sq drive hole	---	T01-342-5/8	---
	with 3/4" sq drive hole	---	T02-342-3/4	---
	with 7/8" sq drive hole	---	T01-342-7/8	---
	with 1" sq drive hole	---	T01-342-1	---
510	Solid Taper Shank Reamer Chuck			
	with 5/8" sq drive hole	T02-255A-5/8	T01-255A-5/8	---
	with 3/4" sq drive hole	T02-255A-3/4	T01-255A-3/4	T1SE-255A-3/4
	with 7/8" sq drive hole	T02-255A-7/8	T01-255A-7/8	T1SE-255A-7/8
	with 13/16" sq drive hole	T02-255A-13/16	---	---
	with 15/16" sq drive hole	T02-255A-15/16	---	---
	with 1"sq drive hole	T02-255A-1	T01-255A-1	T1SE-255A-1
	with 1-1/16" sq drive hole	T02-255A-1 1/16	T01-255A-1 1/16	---
	with 1-1/8" sq drive hole	T02-255A 1 1/8	---	---
	with 1-3/16" sq drive hole	---	---	T1SE-255A-1 3/16
	with 1-1/4" sq drive hole	---	T01-255A-1 1/4	---
	with 1-3/8" sq drive hole	---	T01-255A-1 3/8	---
512	Socket Adapter			
	No.4 Morse Taper to 1" sq drive	---	R40-214	---
*	Hose Nipple (3/4" hose to 1/2" male pipe)	A03-46	A03-46	A03-46

* Not illustrated.

Maintenance Tools

Tool Name	Operation	Tool Number For Ordering
Grease Gun	Lubrication	P25-228
Upper Bearing Cap Wrench (for model 30)	Removing or installing the Upper Bearing Cap.	TC-442
Upper Bearing Cap Wrench (for R44 or R44SE)	Removing or installing the Upper Bearing Cap.	TA-442

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:
Air Drill Product Safety Information Manual 04580353,
Air Drill Product Information Manual 16572232,
Air Drill Maintenance Information Manual 16572562.

Manuals can be downloaded from www.irttools.com.

Notes



www.irtools.com

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