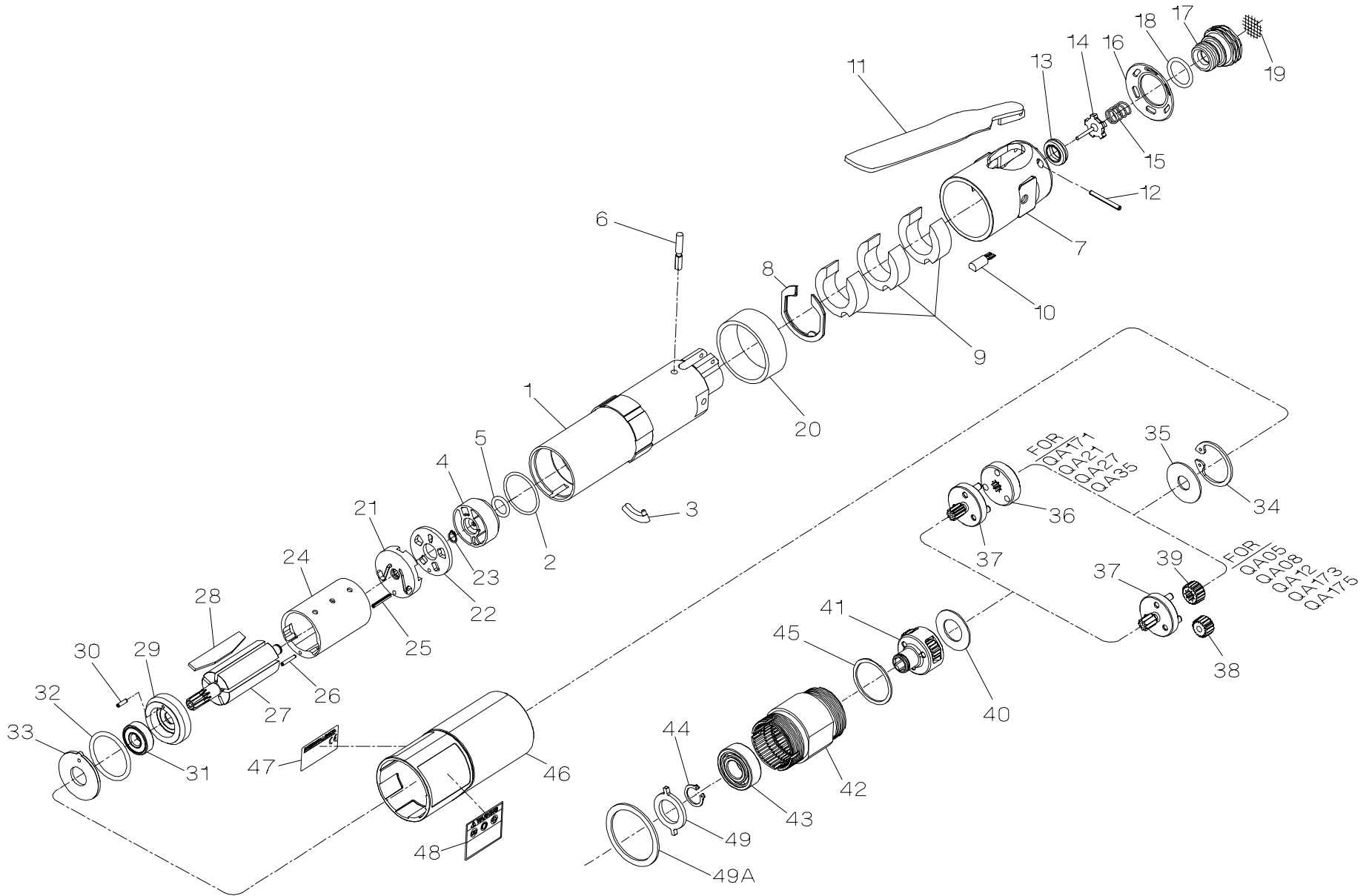


MOTOR AND GEARING FOR SERIES QA ANGLE DRILLS





MOTOR AND GEARING FOR SERIES QA ANGLE DRILLS

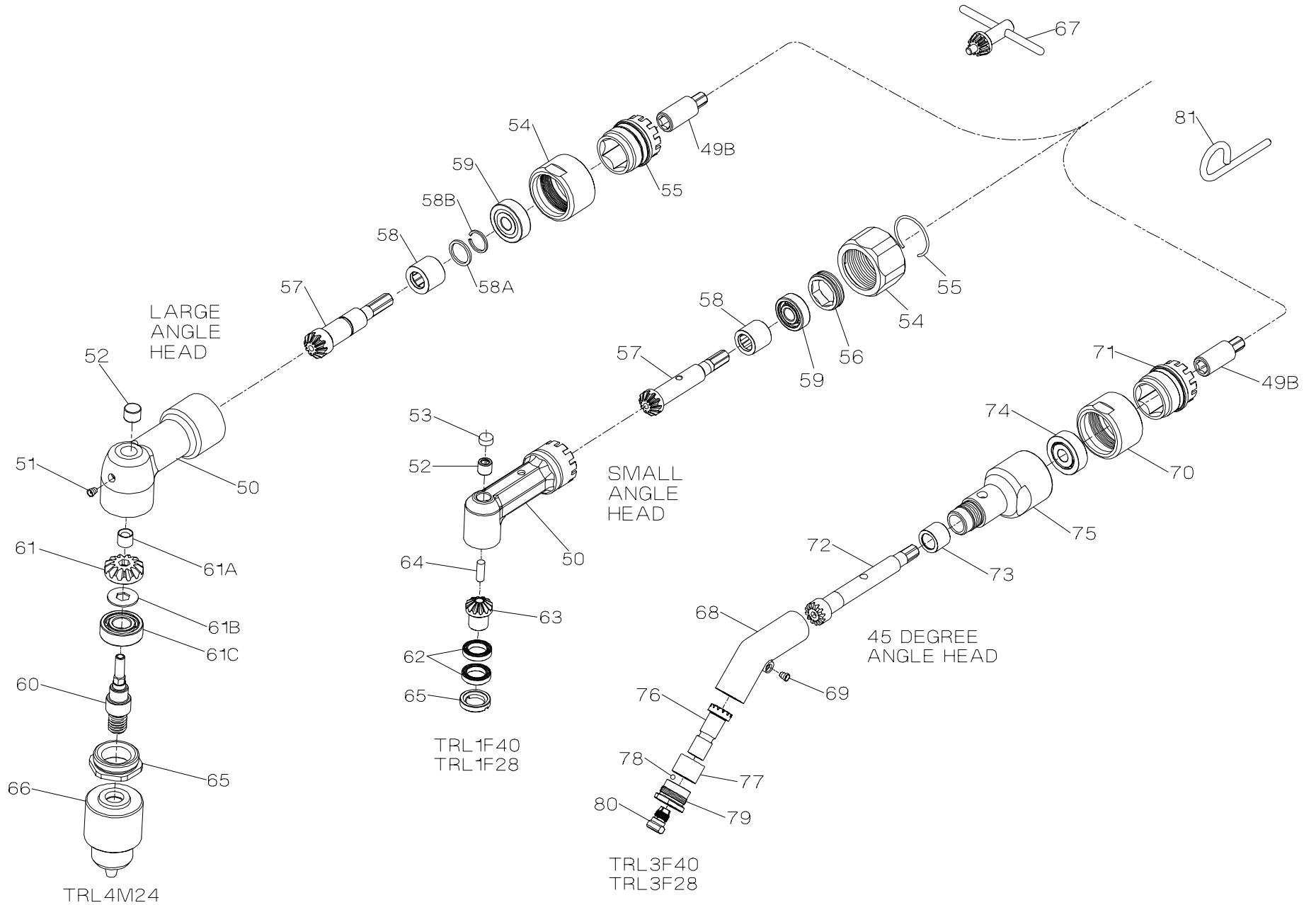
PART NUMBER FOR ORDERING

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1	Motor Housing	TRL-40	32	Motor Seal	TRH-211
2	Housing O-ring	TRH-104	33	Motor Clamp Washer	TRH-207
3	Housing Plug	TRD-982	34	Gear Retainer	TRH-28
4	Reverse Valve Assembly	TRH-A3291	35	Gear Head Spacer	TRH-81
5	Reverse Valve Seal	R1A-159	36	Planet Gear Head Drive Plate (for Series QA171 QA21, QA27 and QA35)	TRH-17
6	Throttle Plunger	TRL-302	37	Planet Gear Head Assembly (includes gear shafts)	
7	Back Cap	TRL-231		for Series QA053, QA055, QA083, QA085, QA171, QA21, QA273, QA275 and QA351	TRH-A2169-16
8	Back Cap Gasket	TRL-A283		for Series QA123 and QA125	TRH-A216-15
9	Muffler Element (3)	TRL-311		for Series QA081	TRH-A21612-12
10	Memory Chip (only for models ending in D having a memory chip)	TRH-800		for Series QA051, QA271, QA353 and QA355	TRH-A216-12
11	Throttle Lever	TRL-273		for Series QA121, QA173 and QA175 ..	TRH-A2169-10
12	Throttle Lever Pin	TRL-98	38	Planet Gear (3 for each Gear Head)	
13	Throttle Valve Seat	TRH-303		for Series QA05, QA083 and QA085 ...	TRH-10-16
14	Throttle Valve	TRD-A302		for Series QA081, QA123 and QA125 ..	TRH-10-12
15	Throttle Valve Spring	TRL-51		for Series QA121, QA173 and QA175 ..	TRH-10-10
16	Exhaust Diffuser	TRH-123	39	Gear Head Pinion	
17	Inlet Bushing Assembly	TRH-A465		for Series QA121, QA173 and QA175 ..	TRH-17-21
18	Inlet Bushing Seal	AF120-290		for Series QA081, QA123 and QA125 ..	TRH-17-18
19	Inlet Screen	TRH-61	40	Planet Gear Head Spacer	TRH-82
20	Housing Plug Cover	TRD-981	41	Spindle Assembly (includes all spindle gearing)	
21	Rear End Plate Assembly (includes rear rotor bearing)	TRH-A12-1		for Series QA053, QA055, QA171, QA21, QA273 and QA275	TRH-A8-16
22	Rear End Plate Face Plate	TRH-12-2		for Series QA051, QA081, QA271, QA353 and QA355	TRH-A8-15
23	Rear End Plate Assembly Retainer	8SL-305		for Series QA123 and QA125	TRH-A8-14
24	Cylinder Assembly	TRH-A3-D		for Series QA083, QA085, QA121 and QA351	TRH-A8-12
25	Cylinder Rear Alignment Pin	TRH-98		for Series QA173 and QA175	TRH-A8-10
26	Cylinder Front Alignment Pin	TRH-98-1			
27	Rotor	TRD-53			
28	Vane Packet (set of 5 Vanes)	TRH-42-5			
29	Front End Plate Assembly	TRH-A11			
30	End Plate Alignment Pin	TRH-98-2			
31	Front Rotor Bearing	TRH-24			

ANGLE HEADS FOR SERIES QA ANGLE DRILLS

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(Dwg. TPA1824)



ANGLE HEADS FOR SERIES QA ANGLE DRILLS

PART NUMBER FOR ORDERING

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42	Gear Case	TAL-37	57	Bevel Pinion	
43	Spindle Bearing	TRH-510		for large angle head	48181-1
44	Spindle Bearing Retaining Ring	4E-6		for small angle head	TRL1-552
45	Spindle Bearing Seat	TRH-208	58	Pinion Front Bearing	
46	Housing Grip	TRH-40-A136		for large angle head	48202-1
47	Nameplate	TRH-301		for small angle head	TRL-654
48	Warning Label	TRH-99	58A	Bearing Spacer (for large angle head)	46742
49	Housing Lock Spacer	TRL-682	58B	Bearing Spacer Retainer (for large angle head)	Y110-5
49A	Grip Spacer	TRL-504	59	Pinion Rear Bearing	
49B	Shaft Coupler (for large and 45° angle heads)	TRL1-213		for large angle head	Y65-8
	90° Angle Head Assembly			for small angle head	TRL-514
	for Models with large angle head and 3/8"-24 male thread for 1/4" drill chuck (Chuck not included in Assembly)	TRL4M24	60	Spindle Assembly (for TRL4M24 only)	48213-1
	for Models with small angle head and 9/32"-40 female thread for 3/16" collet (Collet not included in Assembly)	TRL1F40	61	Bevel Gear	46735
	for Models with small angle head and 1/4"-28 female thread Spindle	TRL1F28	61A	Bevel Gear Retainer	47600
50	Angle Housing		61B	Bevel Gear Spacer	47694
	for large angle head	48203-1	61C	Spindle Lower Bearing	Y65-13
	for small angle head	TRL1-550	62	Spindle Lower Bearing (for small angle heads only) (2)	TRL1-593
51	Grease Fitting (for large angle head only)	35967	63	Spindle	
*	Angle Housing Cover (for large angle head only) ..	48192-1	64	for TRL1F40 Angle Head Assembly	TRL1-551-F40
52	Spindle Upper Bearing		65	for TRL1F28 Angle Head Assembly	TRL1-551-F28
	for large angle head	46750		Spindle Upper Bearing Shaft (for small angle heads only)	TRL1-110
	for small angle head	W22-654	66	Lower Spindle Bearing Cap	
53	Spindle Upper Bearing Cap (for small angle heads only)	TRL2-531	67	for large angle head	48187-1
54	Coupling Nut			for small angle head	TRL1-531
	for large angle head	48185-1		Drill Chuck (1/4" for large angle head only)	R0H-99
	for small angle head	TRL-27		Chuck Key	R1H-J253
55	Coupling Nut Retainer			45° Angle Head Assembly	
	for large angle head	TRL1-305		for Models with small angle head and 9/32"-40 female thread for 3/16" collet (Collet not included in Assembly)	TRL3F40
	for small angle head	TRL-29	68	for Models with small angle head and 1/4"-28 female thread Spindle	TRL3F28
56	Angle Head Plug (for small angle heads only)	TRL1-532	69	Angle Housing	43833-1
				Grease Fitting	35967

* Not illustrated.

PART NUMBER FOR ORDERING



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70	Coupling Nut	48185-1	77	Spindle Lower Bearing	44424
71	Coupling Nut Retainer	TRL1-305	78	Lower Spindle Bearing Cap Ball (11)	Y16-203
72	Bevel Pinion	48836-1	79	Lower Spindle Bearing Cap	48840-1
73	Pinion Front Bearing	46222	80	Collet Insert (for TRL3F40 Angle Head Assembly) .	43497-169
74	Pinion Rear Bearing	Y65-8	81	Wrench Pin	48182-1
75	Pinion Housing	48196-1	*	Suspension Bail	7L-365
76	Spindle		*	Piped-Away Exhaust Kit (optional)	LG1-K284
	for TRL3F40 Angle Head Assembly	48838-1			
	for TRL3F28 Angle Head Assembly	48837-1			

* Not illustrated.