



80170632
Edition 4
July 2006

QA33 Air Angle Wrench

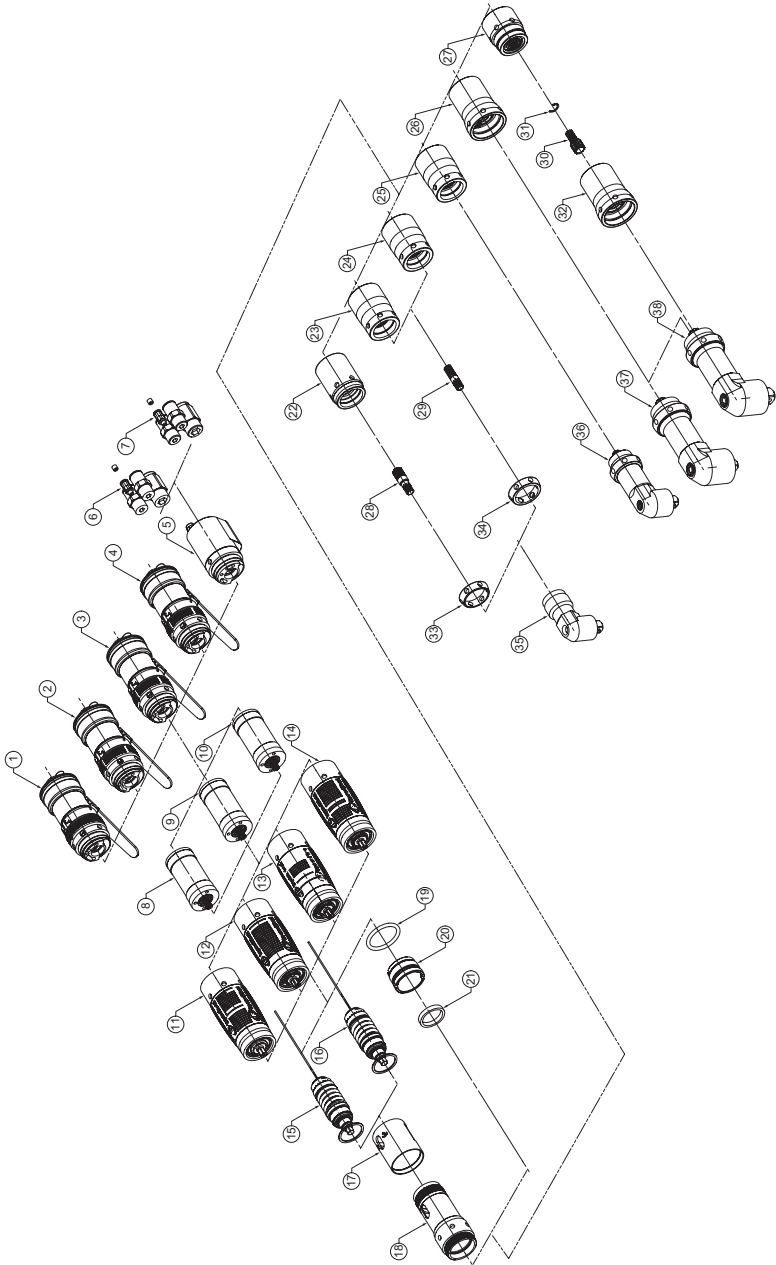
Parts Information



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 **Ingersoll Rand**

Module Diagram

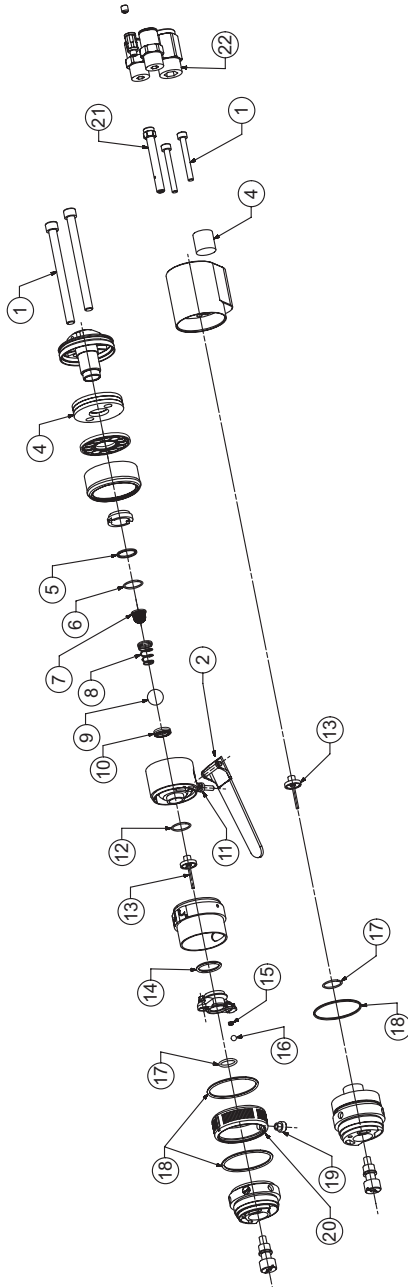


(Dwg. 16586125)

Module Parts List

ID	Module	Description	Part Number	ID	Module	Description	Part Number
1	Housing	NPT / Direct Drive	131981	22	Second Stage	011 Angle	131927
2	Housing	NPT / ASO	131975	23	Second Stage	015 Angle	131984
3	Housing	BSP / Direct Drive	QA4-DBSP-A40	24	Second Stage	020 Angle	131982
4	Housing	BSP / ASO	131859	25	Second Stage	030 Angle	131980
5	Housing	Remote	131946	26	Second Stage	040 Angle	131983
6	Housing	Inch Inlet Kit	QA4-RN-K465	27	Second Stage	055 Angle	131985
7	Housing	Metric Inlet Kit	QA4-RB-K465	28	Adaptor	011 Angle	131802
8	Motor	Nine Teeth	131334	29	Adaptor	015, 020 Angle	131804
9	Motor	Ten Teeth	131026	30	Adaptor	055 Angle (Adaptor)	131939
10	Motor	Eleven Teeth	131916	31	Adaptor	055 Angle (Snapping)	127604
11	First Stage	011, 040 Angle / 027 In-line	131876	32	Third Stage	055 Angle	131934
12	First Stage	030 Angle / 015 In-line	131869	33	Coupling	011 Angle	131976
13	First Stage	020 Angle	131878	34	Coupling	015, 020 Angle	131965
14	First Stage	015, 055 Angle / 012, 020, 046 In-line	131918	35	Anglehead	25 Size	131966
15	Clutch	ASO (Blue Spring)	131909	36	Anglehead	28 Size	131961
16	Clutch	ASO (Brown Spring)	80158942	37	Anglehead	35 Size / 06 Drive Size	131970
17	Clutch	ASO (Cover)	QA4-415	38	Anglehead	35 Size / 08 Drive Size	QA4-35-A550
18	Clutch	ASO (Housing)	QA4-580				
19	Direct Drive	Direct Drive (Housing)	131928				
20	Direct Drive	Direct Drive (O-Ring)	115538				
21	Direct Drive	Direct Drive (Spacer)	131929				

QA33 Housing Module Exploded Diagram

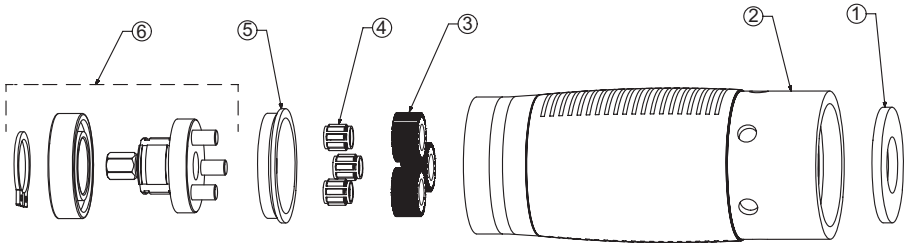


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QA33 Housing Module Parts List

ID	Description	131981	131975	131859	QA4-DBSP-A40	131946	131946
		Part Number	Part Number	Part Number	Part Number	Part Number	Part Number
1	Screw (2)	131687	131687	131687	131687	127809	127809
2	Lever Kit	131613	131613	131613	131613		
3	Housing Tune-up Kit	QA4-1-K40	QA4-1-K40	QA4-1-K40	QA4-1-K40	QA4-2-K40	QA4-2-K40
4	Muffler (3)	---	---	---	---		
4	Muffler (2)					---	---
5	Washer	---	---	---	---		
6	O-ring (13.0 ID x 1.0)	---	---	---	---		
7	Screen	---	---	---	---		
8	Spring	---	---	---	---		
9	Ball	---	---	---	---		
10	Valve Seat	---	---	---	---		
11	O-ring (13.4 ID x 1.9)	---	---	---	---		
12	O-ring (13.0 ID x 1.0)	---	---	---	---		
13	Shutoff Valve		---	---	---	---	---
13	Pin	---			---		
14	O-ring (15.60 ID x 1.8)	---	---	---	---		
15	Spring	---	---	---	---		
16	Ball	---	---	---	---		
17	O-ring (11.0 ID x 1.5)	---	---	---	---	---	---
18	O-ring (35.7 ID x 1.8) (2)	---	---	---	---		
18	O-ring (35.7 ID x 1.8)					---	---
18	Screw (not shown)	---	---	---	---		
19	Screw	131069	131069	131069	131069		
20	Reverse Ring	131064	131064	131064	131064		
21	Screw					131704	131704
22	Connector Kit (inch)					QA4-RN-K465	
22	Connector Kit (metric)						QA4-RB-K465

QA33 First Stage Exploded Diagram

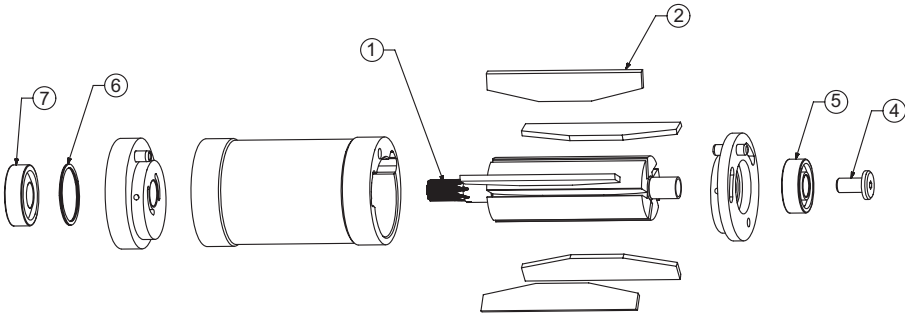


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QA33 First Stage Parts List

ID	Description	131876	131918	131878	131869
		Part Number	Part Number	Part Number	Part Number
1	Washer	131143	131143	131143	131143
2	Housing	131373	131380	131380	131283
3	Planet Gear (3)	131374	131247	131396	131246
4	Needle Bearing (3)	122836	128057	128057	122836
5	Spacer	131121	131121	131121	131121
6	Gearhead Assembly	QA4-1-K216	QA4-2-K216	QA4-3-K216	QA4-4-K216

QA33 Motor Module Exploded Diagram



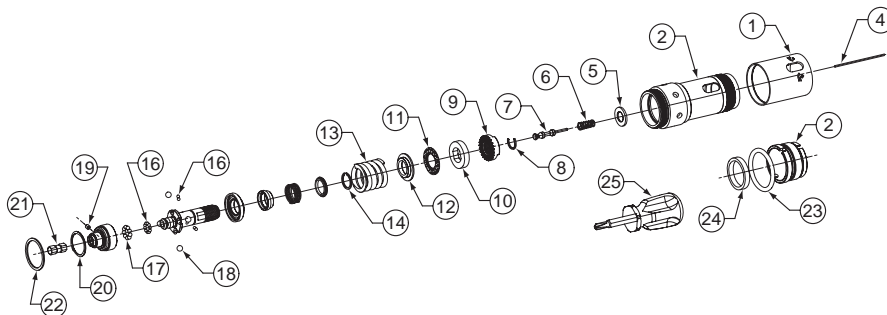
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QA33 Motor Module Parts List

ID	Description	131916	131334	131026
		Part Number	Part Number	Part Number
1	Rotor	131917	131337	131298
2	Vane Pack (5 per set)	QA4-5-K42	QA4-5-K42	QA4-5-K42
* 3	Motor Kit	QA4-1-K53	QA4-1-K53	QA4-1-K53
4	Screw	---	---	---
5	Bearing	---	---	---
6	Wave Washer (2)	---	---	---
7	Bearing	---	---	---

* Not illustrated.

Clutch Assembly Exploded Diagram

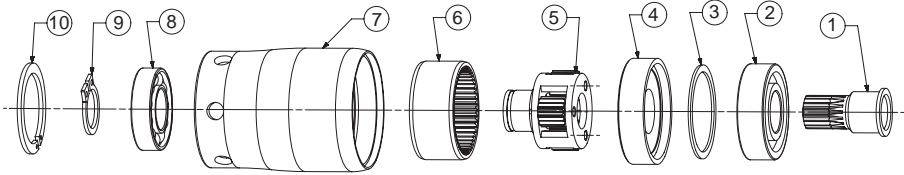


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Clutch Assembly Parts List

ID	Description	131909	80158942	Direct Drive
		Part Number	Part Number	Part Number
1	Clutch Cover	QA4-415	QA4-415	
2	Clutch Housing	QA4-580	QA4-580	131928
3	Clutch Assembly	131909	80158942	
4	Pushrod	131863	131863	
5	Washer	131908	131908	
6	Spring	47709	47709	
7	Shutoff Plunger	10547974	10547974	
8	Snapping	Y110-105	Y110-105	
9	Adjustment Nut	46294	46294	
10	Lock Washer	10547982	10547982	
11	Thrust Bearing	42363	42363	
12	Support	48085	48085	
13	Spring	10549038	48291-1	
14	Retaining Ring	48480-1	48480-1	
15	Ball Kit	QA4-1-K581	QA4-1-K581	
16	Ball (16)	---	---	
17	Ball (9)	---	---	
18	Ball (4)	---	---	
19	Pin	---	---	
20	Retaining Ring	48084	48084	
21	Hex Bit	131906	131906	
22	Laminated Washer	131895	131895	
23	O-ring	---	---	QA4-115538
24	Spacer	---	---	131929
25	Screwdriver	131883	131883	

Second Stage Gear Assembly Exploded Diagram



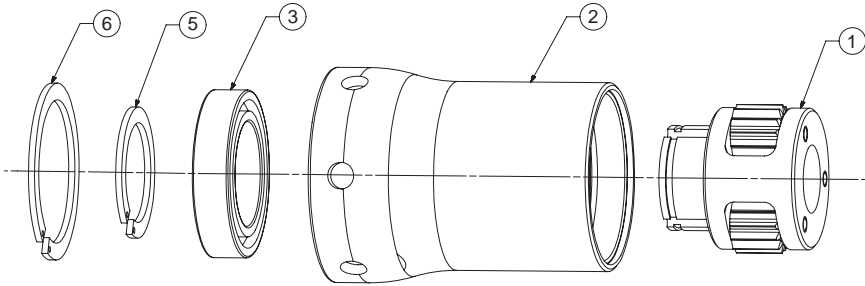
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Second Stage Gear Assembly Parts List

ID	Description	131927	131984	131982
		Part Number	Part Number	Part Number
1	Sun Adaptor	131885	131923	131892
2	Bearing	116874	116874	116874
3	Clutch Spacer	131895	131895	131895
4	Bearing Cap	131889	131861	131889
5	Gearhead Assembly	QA4-5-A216	QA4-6-A216	131451
6	Ring Gear	---	131849	131849
7	Gearcase	131886	131850	131850
8	Bearing	---	QA4-114804	QA4-114804
9	Retaining Clip	---	106275	106275
10	Retaining Clip	---	125433	125433

ID	Description	131980	131983	131985
		Part Number	Part Number	Part Number
1	Sun Adaptor	131864	131872	131923
2	Bearing	116874	116874	116874
3	Clutch Spacer	131895	131895	131895
4	Bearing Cap	131861	131861	131861
5	Gearhead Assembly	131277	131664	QA4-6-A216
6	Ring Gear	131849	---	131849
7	Gearcase	131850	131860	131938
8	Bearing	QA4-114804	---	QA4-114804
9	Retaining Clip	106275	---	106275
10	Retaining Clip	125433	115646	125433

Third Stage Gear Assembly Exploded Diagram

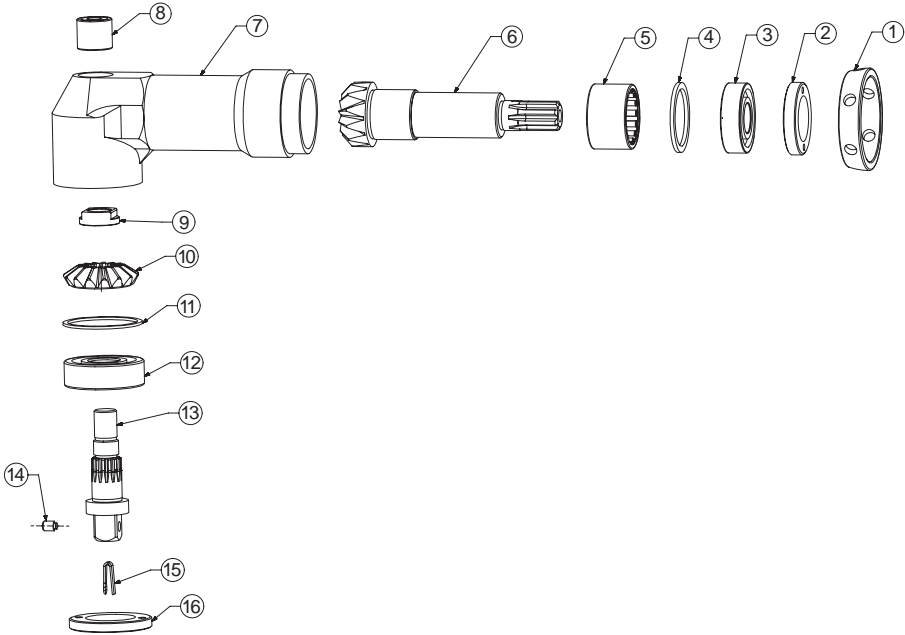


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Third Stage Gear Assembly Parts List

ID	Description	Part Number
1	Spindle Assembly	QA4-7-A216
2	Gearcase	131935
3	Bearing	125682
4	Bearing Spacer	---
5	Snapping	126293
6	Snapping	115646

Anglehead Assembly Exploded Diagram

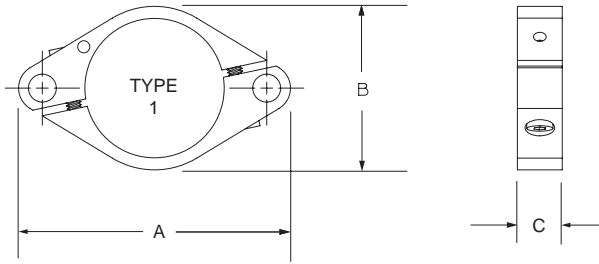


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Anglehead Assembly Parts List

ID	Description	131966	131961	131970	QA4-35-A550
		Part Number	Part Number	Part Number	Part Number
1	Nut	131967 (011)/131965	131965	131974	131974
2	Nut	---	---	---	---
3	Bearing	---	---	---	---
4	Spacer	(Qty. 2)	---	---	---
5	Needle Bearing	---	---	---	---
6	Pinion	---	---	---	---
7	Anglehead	---	---	---	---
8	Needle Bearing	---	---	---	---
9	Nut	---	---	---	---
10	Gear	---	---	---	---
11	Spacer	---	---	---	---
12	Bearing	---	---	---	---
13	Spindle	---	---	---	---
14	Pin	131617	131617	131617	132048
15	Spring Clip	124491	124491	124491	124492
16	Nut	---	---	---	---

Flange Mounting Option Diagram

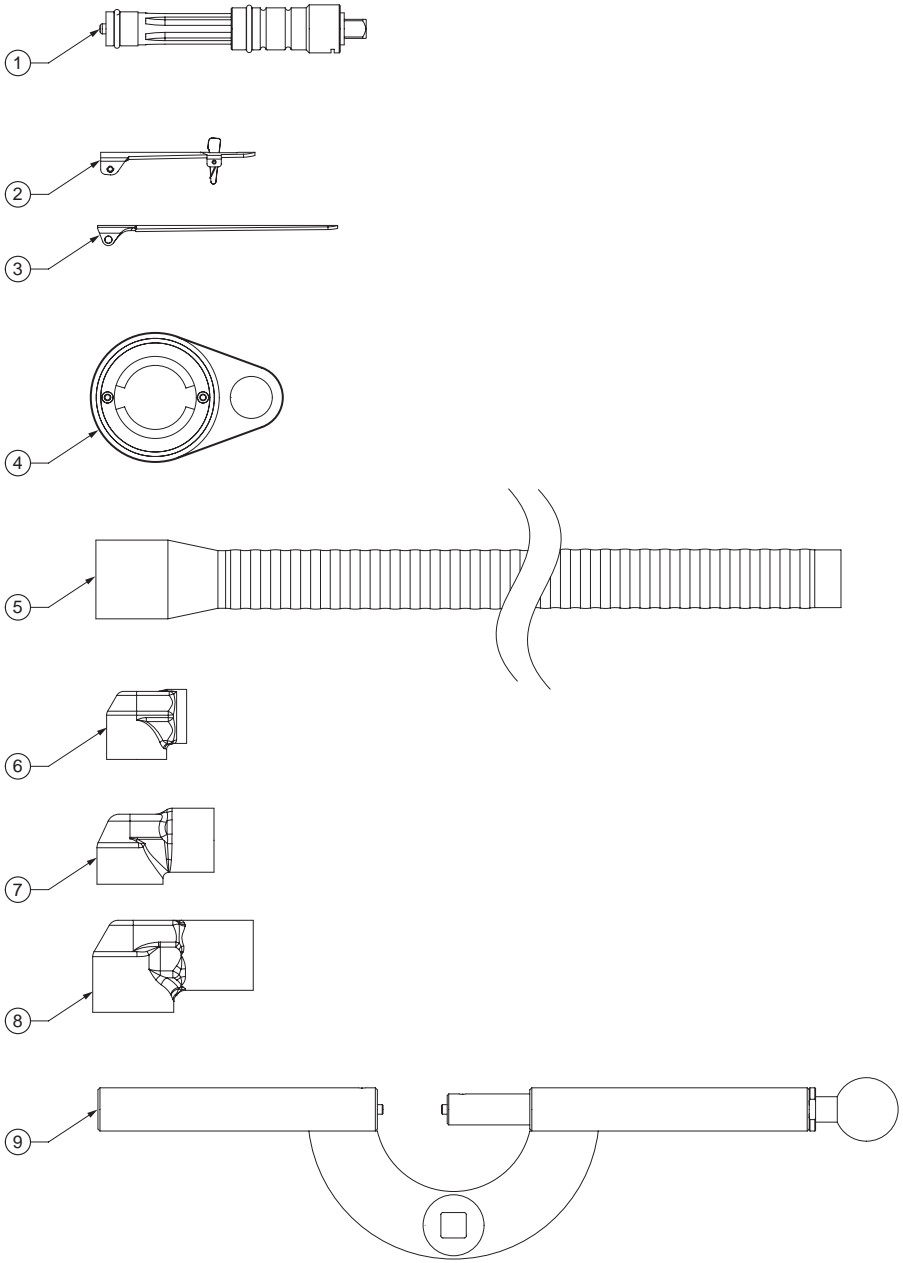


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Flange Mounting Option Parts List

Part Number	Description	Flange or Reaction Bar Type	Mounting Location	For Models	A	B	C	D	E	F	G
QA4 - K48	Smooth Clamp	1	Y, Z	All	72.70	43.7	12.0	60.0	7.14	M4 x 0.7	---

Accessories Diagram

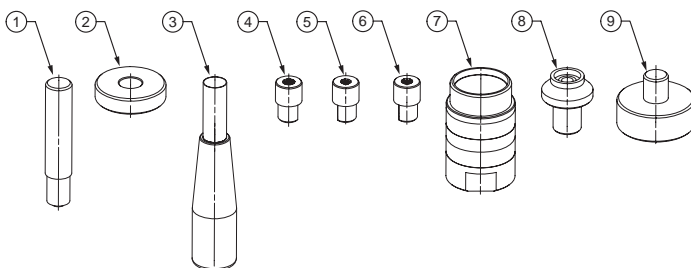


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Accessories Parts List

ID	Description	Part Number	Dimension / Size
1	Floating Socket Extension	131652	119 mm x 9.5 Sq.
2	Locking Lever	131655	77 mm
3	Long Lever	131654	120 mm
4	Swivel Hanger	129851	---
5	Exhaust Kit	QA4-EXH- 989	---
6	Anglehead Boot	131996	25 Size
7	Anglehead Boot	131995	28 Size
8	Anglehead Boot	131997	35 Size
9	Spanner Wrench	GEA40-478	---

Tools and Adaptors Diagram



(Dwg. 16585978)

Tools and Adaptors Parts List

ID	Description	Part Number	Usage
1	Valve Seat Tool	OM127	Housing Valve Seat
2	Pin Assembly Tool	OM186	Housing Lever Assembly
3	Snapping Tool	OM296	Clutch Snapping Assembly
4	Rotor Spline Adaptor	OM83-06	11 Tooth Motor Spacing
5	Rotor Spline Adaptor	OM83-07	9 Tooth Motor Spacing
6	Rotor Spline Adaptor	OM83-04	10 Tooth Motor Spacing
7	Motor Clamp Tool	OM82	Motor Spacing
8	Motor Press Assembly	OM81-02	Motor Back Bearing Press
9	Motor Assembly Tool	OM81-01	Motor front Bearing Press

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 Angle Wrench, Screwdriver or Nut Runner Product Safety Information Manual 04585006.
Air Angle Wrench and Nut Runner Product Information Manual 80170624.

Manuals can be downloaded from www.irtools.com.

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