

RESERVEDLSINFORMATION / PARTS INFORMATION

# QA6 och QA8 - Reservdelsinformation

Ingersoll Rand QA8ASRS180BF41S08 · QA8ASRS115BF41S08 ·  
QA8ASRS090BF41S08 · QA8ASRS070BF41S08 · QA8ASRS055BF41S08 ·  
QA8ASRS040BF41S06 · +34

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## Service · Kalibrering · Originalreservdelar

Service · Calibration · Genuine spare parts



**16601072**

Edition 4

May 2009

# **Air Angle Wrench and Nut Runner**

**QA6 and QA8 Series**

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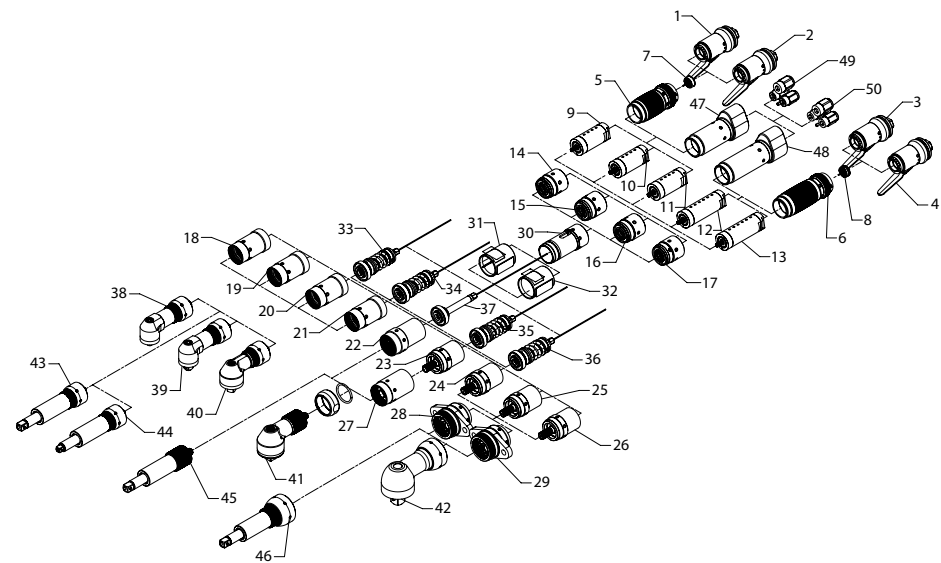
## **Parts Information**



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Module Exploded Diagram



(Dwg. 45503877)

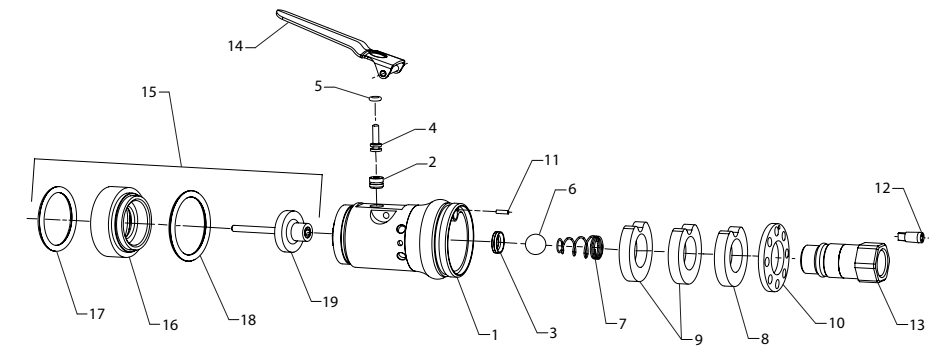
Module Parts List

| Item | Part Description | Model Identification (Description)                                                                                                                                                           | Part Number  |
|------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| 1    | Throttle Housing | QA6AAL{ } N { }, QA6ASL{ } N { }                                                                                                                                                             | QA6-NPT-A231 |
| 2    | Throttle Housing | QA6AAL{ } B { }, QA6ASL{ } B { }                                                                                                                                                             | QA6-BSP-A231 |
| 3    | Throttle Housing | QA8AAL{ } N { }, QA8ASL{ } N { }                                                                                                                                                             | QA8-NPT-A231 |
| 4    | Throttle Housing | QA8AAL{ } B { }, QA8ASL{ } B { }                                                                                                                                                             | QA8-BSP-A231 |
| 5    | Motor Housing    | QA6 { } L { }                                                                                                                                                                                | QA6-A40      |
| 6    | Motor Housing    | QA8 { } L { }                                                                                                                                                                                | QA8-A40      |
| 7    | Valve            | QA6 { } L { }                                                                                                                                                                                | QA6-A159     |
| 8    | Valve            | QA8 { } L { }                                                                                                                                                                                | QA8-A159     |
| 9    | Motor            | QA6AA { } 090 { }, QA6AS { } 055 { }                                                                                                                                                         | QA6-A53-8    |
| 10   | Motor            | QA6AA { } 055 { }, QA6AA { } 070 { }, QA6AS { } 030 { }, QA6AS { } 040 { }                                                                                                                   | QA6-A53-10   |
| 11   | Motor            | QA6AA { } 030 { }, QA6AA { } 040 { }, QA6AS { } 025 { }                                                                                                                                      | QA6-A53-11   |
| 12   | Motor            | QA8AA { } 090 { }, QA8AA { } 115 { }, QA8AA { } 150 { }, QA8AA { } 225 { }, QA8AS { } 040 { }, QA8AS { } 070 { }, QA8AS { } 090 { }, QA8AS { } 115 { }, QA8AS { } 180 { }                    | QA8-A53-10   |
| 13   | Motor            | QA8AA { } 040 { }, QA8AA { } 055 { }, QA8AA { } 070 { }, QA8AA { } 200 { }, QA8AS { } 055 { }, QA8AS { } 150 { }                                                                             | QA8-A53-11   |
| 14   | 1st Stage Gear   | QA6AA { } 090 { }, QA6AS { } 055 { }                                                                                                                                                         | 132023       |
| 15   | 1st Stage Gear   | QA6AA { } 030 { }, QA6AA { } 040 { }, QA6AS { } 025 { }, QA8AA { } 040 { }, QA8AA { } 055 { }, QA8AA { } 070 { }, QA8AA { } 200 { }, QA8AS { } 055 { }, QA8AS { } 150 { }                    | 132022       |
| 16   | 1st Stage Gear   | QA6AA { } 055 { }, QA6AA { } 070 { }, QA6AS { } 030 { }, QA6AS { } 040 { }, QA8AA { } 090 { }, QA8AA { } 115 { }, QA8AA { } 225 { }, QA8AS { } 040 { }, QA8AS { } 070 { }, QA8AS { } 180 { } | 132020       |
| 17   | 1st Stage Gear   | QA8AA { } 150 { }, QA8AS { } 090 { }, QA8AS { } 115 { }                                                                                                                                      | 132021       |
| 18   | 2nd Stage Gear   | QA6AA { } 030 { }, QA6AS { } 025 { }, QA6AS { } 030 { }, QA8AA { } 040 { }, QA8AS { } 040 { }                                                                                                | QA6-M37-3P33 |
| 19   | 2nd Stage Gear   | QA6AA { } 040 { }, QA6AS { } 040 { }, QA8AA { } 055 { }, QA8AA { } 090 { }                                                                                                                   | QA6-M37-4P50 |
| 20   | 2nd Stage Gear   | QA6AA { } 055 { }, QA6AA { } 070 { }, QA6AA { } 090 { }, QA6AS { } 055 { }, QA8AS { } 055 { }                                                                                                | QA6-M37-5P08 |
| 21   | 2nd Stage Gear   | QA8AA { } 070 { }                                                                                                                                                                            | QA6-M37-4P27 |

| Item | Part Description                  | Model Identification (Description)                                                                                                                                                                                                                            | Part Number               |
|------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| 22   | 2nd Stage Gear                    | QA8AA {} 115 {}, QA8AS {} 070 {}                                                                                                                                                                                                                              | QA8-M37-5P64              |
| 23   | 2nd Stage Gear                    | QA8AA {} 150 {}, QA8AS {} 090 {}                                                                                                                                                                                                                              | QA8-M37-3P68              |
| 24   | 2nd Stage Gear                    | QA8AA {} 200 {}                                                                                                                                                                                                                                               | QA8-M37-3P32-1            |
| 25   | 2nd Stage Gear                    | QA8AA {} 225 {}, QA8AS {} 150 {}, QA8AS {} 180 {}                                                                                                                                                                                                             | QA8-M37-3P32-2            |
| 26   | 2nd Stage Gear                    | QA8AS {} 115 {}                                                                                                                                                                                                                                               | QA8-M37-4P64              |
| 27   | 3rd Stage Gear                    | QA8AA {} 150 {}, QA8AS {} 090 {}                                                                                                                                                                                                                              | QA8-M37-4P29-1            |
| 28   | 3rd Stage Gear                    | QA8AA {} 225 {}, QA8AS {} 150 {}, QA8AS {} 180 {}                                                                                                                                                                                                             | QA8-M37-4P29-2            |
| 29   | 3rd Stage Gear                    | QA8AA {} 200 {}, QA8AS {} 115 {}                                                                                                                                                                                                                              | QA8-M37-4P067             |
| 30   | Clutch Housing                    | QA6 {}, QA8 {}                                                                                                                                                                                                                                                | QA6-580                   |
| 31   | Clutch Cover                      | QA6 {}                                                                                                                                                                                                                                                        | QA6-A415                  |
| 32   | Clutch Cover                      | QA8 {}                                                                                                                                                                                                                                                        | QA8-A415                  |
| 33   | Clutch (Yellow)                   | QA6AA {} 090 {}, QA6AS {} 055 {}, QA8AA {} 040 {}, QA8AA {} 055 {}, QA8AA {} 070 {}, QA8AA {} 200 {}, QA8AS {} 055 {}, QA8AS {} 150 {},                                                                                                                       | QA8L-A579                 |
| 34   | Clutch (Green)                    | QA6AA {} 055 {}, QA6AA {} 070 {}, QA6AS {} 030 {}, QA6AS {} 040 {}                                                                                                                                                                                            | QA6H-A579                 |
| 35   | Clutch (Blue)                     | QA6AA {} 030 {}, QA6AA {} 040 {}, QA6AS {} 025 {}, QA8AA {} 150 {}, QA8AS {} 090 {}, QA8AS {} 115 {}                                                                                                                                                          | 132015                    |
| 36   | Clutch (Red)                      | QA8AA {} 090 {}, QA8AA {} 115 {}, QA8AA {} 225 {}, QA8AS {} 040 {}, QA8AS {} 070 {}, QA8AS {} 180 {}                                                                                                                                                          | QA8H-A579                 |
| 37   | Direct Drive                      | QA6A {} D {}, QA8A {} D {}                                                                                                                                                                                                                                    | QA6D-A579                 |
| 38   | Anglehead                         | QA6AA {} 030 {}, QA6AA {} 040 {}, QA8AA {} 040 {}                                                                                                                                                                                                             | QA6-R35S06-A550           |
| 39   | Anglehead                         | QA6AA {} 040 {}, QA6AA {} 055 {}, QA8AA {} 040 {}, QA8AA {} 055 {}                                                                                                                                                                                            | QA6-R35S08-A550           |
| 40   | Anglehead                         | QA6AA {} 070 {}, QA6AA {} 090 {}, QA8AA {} 070 {}, QA8AA {} 090 {}                                                                                                                                                                                            | QA6-R43S08-A550           |
| 41   | Anglehead                         | QA8AA {} 115 {}, QA8AA {} 150 {}                                                                                                                                                                                                                              | GAA658                    |
| 42   | Anglehead                         | QA8AA {} 200 {}, QA8AA {} 225 {}                                                                                                                                                                                                                              | AA16512                   |
| 43   | Spindle                           | QA6AS {} 025 {}, QA6AS {} 030 {}, QA6AS {} 040 {}, QA8AS {} 040 {}                                                                                                                                                                                            | QA6456                    |
| 44   | Spindle                           | QA6AS {} 055 {}, QA8AS {} 040 {}, QA8AS {} 055 {}                                                                                                                                                                                                             | QA6458, QA6658, QA6858    |
| 45   | Spindle                           | QA8AS {} 070 {}, QA8AS {} 090 {}                                                                                                                                                                                                                              | GE458, GE658, GE858       |
| 46   | Spindle                           | QA8AS {} 115 {}, QA8AS {} 150 {}, QA8AS {} 180 {}                                                                                                                                                                                                             | 160E458, 160E658, 160E858 |
| 47   | Remote Housing                    | QA6ASR {}                                                                                                                                                                                                                                                     | QA6-R-A40                 |
| 48   | Remote Housing                    | QA8ASR {}                                                                                                                                                                                                                                                     | QA8-R-A40                 |
| 49   | Remote Housing Inlet Kit (Inch)   | QA6ASR {}, QA8ASR {}                                                                                                                                                                                                                                          | QA6-RB-K465               |
| 50   | Remote Housing Inlet Kit (Metric) | QA6ASR {}, QA8ASR {}                                                                                                                                                                                                                                          | QA6-RN-K465               |
| 51   | Coupling Nut                      | QA8AA {} 115 {}, QA8AA {} 150 {}, QA8AS {} 70 {}, QA8AS {} 90 {}                                                                                                                                                                                              | DAA4-27                   |
| 52   | Retaining Ring                    | QA8AA {} 115 {}, QA8AA {} 150 {}, QA8AS {} 70 {}, QA8AS {} 90 {}                                                                                                                                                                                              | DAA4-29                   |
| 53   | Flange                            | QA6AA {} 030 {}, QA6AA {} 040 {}, QA6AA {} 055 {}, QA6AA {} 070 {}, QA6AA {} 090 {}, QA8AA {} 040 {}, QA8AA {} 055 {}, QA8AA {} 070 {}, QA8AA {} 090 {}, QA6AS {} 025 {}, QA6AS {} 030 {}, QA6AS {} 040 {}, QA6AS {} 055 {}, QA8AS {} 040 {}, QA8AS {} 055 {} | 15E4-K48                  |
| 54   | Flange                            | QA8AA {} 115 {}, QA8AA {} 150 {}, QA8AS {} 70 {}, QA8AS {} 90 {}                                                                                                                                                                                              | GEM120-K48                |
| 55   | Spacer                            | QA8AS {} 115 {}, QA8AS {} 150 {}, QA8AS {} 180 {}                                                                                                                                                                                                             | QA8S-442                  |
| ≠ 56 | Spacer                            | QA8AA {} 200 {}, QA8AA {} 225 {}                                                                                                                                                                                                                              | QA8A-442                  |

≠ Item not illustrated.

Throttle Housing Module Exploded Diagram



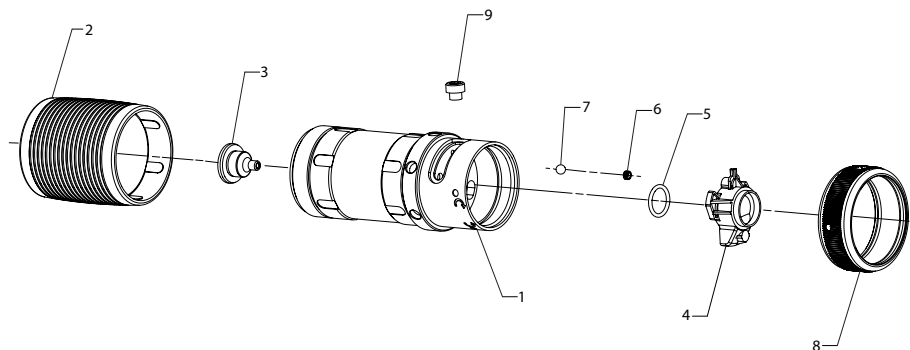
(Dwg. 16589228)

Throttle Housing Module Parts List

| Item | Part Description        | Part Number  |              |              |              |
|------|-------------------------|--------------|--------------|--------------|--------------|
|      |                         | QA6-NPT-A231 | QA6-BSP-A231 | QA8-NPT-A231 | QA8-BSP-A231 |
|      | Throttle Housing Module | ---          | ---          | ---          | ---          |
| 1    | Throttle Housing        | ---          | ---          | ---          | ---          |
| 2    | Throttle Bushing        | ---          | ---          | ---          | ---          |
| 3*   | Ball Seat 12 mm         | ---          | ---          | ---          | ---          |
| 4*   | Throttle Pin            | ---          | ---          | ---          | ---          |
| 5*   | O-Ring 3.4 mm           | ---          | ---          | ---          | ---          |
| 6*   | Ball 12 mm              | ---          | ---          | ---          | ---          |
| 7*   | Ball Spring             | ---          | ---          | ---          | ---          |
| 8*   | Muffler Black           | QA8-311 (1)  | QA8-311 (1)  | QA8-311 (2)  | QA8-311 (2)  |
| 9*   | Muffler White           | QA6-311 (2)  | QA6-311 (2)  |              |              |
| 10*  | Diffuser Plate          | ---          | ---          | ---          | ---          |
| 11*  | Pin 2 mm                | ---          | ---          | ---          | ---          |
| 12** | Chip Holder Assembly    | QA4-A528     | QA4-A528     | QA4-A528     | QA4-A528     |
| ‡    | Memory Chip             | ---          | ---          | ---          | ---          |
| ‡    | Chip Holder             | ---          | ---          | ---          | ---          |
|      | Inlet Bushing Assembly  | QA6-NPT-A465 | QA6-BSP-A465 | QA6-NPT-A465 | QA6-BSP-A465 |
| 13   | Inlet Bushing           | ---          | ---          | ---          | ---          |
| ‡ *  | O-Ring 11 mm            | ---          | ---          | ---          | ---          |
| ‡ *  | Screen                  | ---          | ---          | ---          | ---          |
|      | Lever Assembly          | QA6-A93      | QA6-A93      | QA6-A93      | QA6-A93      |
| 14   | Lever                   | ---          | ---          | ---          | ---          |
| ‡ *  | Pin 3.5 mm              | ---          | ---          | ---          | ---          |
| 15   | Valve Assembly          | QA6-A159     | QA6-A159     | QA8-A159     | QA8-A159     |
| 16   | Valve Seat              | ---          | ---          | ---          | ---          |
| 17*  | O-Ring 15.6 mm          | ---          | ---          | ---          | ---          |
| 18*  | O-Ring 17.17 mm         | ---          | ---          | ---          | ---          |
| 19*  | Shut Off Valve          | 131128       | 131128       | 131128       | 131128       |

‡ Item not illustrated.  
Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1).  
\* Part of Housing Tune Up kit # QA6-1-K40  
\*\* Optional

Motor Housing Module Exploded Diagram



(Dwg. 45504602)

Motor Housing Module Parts List

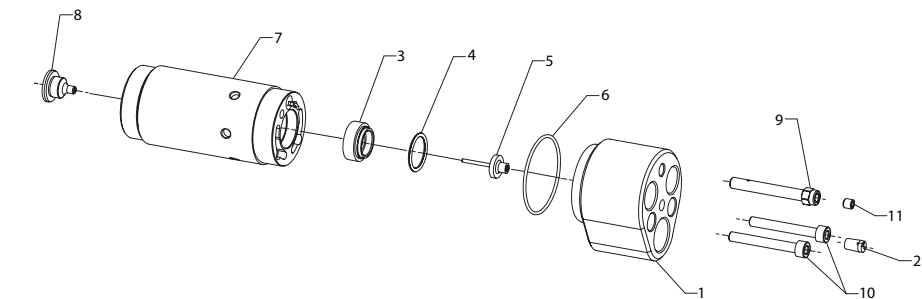
| Item | Part Description       | Part Number |          |
|------|------------------------|-------------|----------|
|      |                        | QA6-A40     | QA8-A40  |
|      | Motor Housing Assembly |             |          |
| 1    | Motor Housing          | ---         | ---      |
| 2    | Grip                   | QA6-145     | QA8-145  |
| 3    | Valve Guide            | ---         | ---      |
| 4    | Reverse Valve          | QA6-329     | QA6-329  |
| 5*   | O-Ring 14.8 mm         | ---         | ---      |
| 6*   | Spring 3.6 mm          | ---         | ---      |
| 7*   | Ball                   | ---         | ---      |
|      | Reverse Ring Assembly  | QA6-A273    | QA6-A273 |
| 8    | Reverse Ring           | ---         | ---      |
| ‡ *  | O-Ring 38 mm           | --- (2)     | --- (2)  |
| 9    | Reverse Screw M8       | 131069      | 131069   |

‡ Item not illustrated.

Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1).

\* Part of Housing Tune Up kit # QA6-1-K40

Remote Housing Module Exploded Diagram



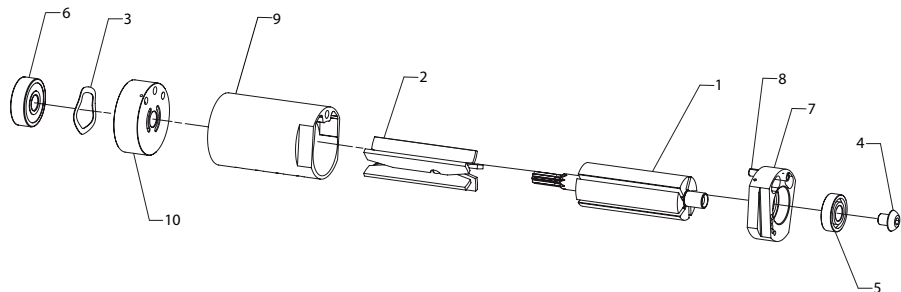
(Dwg. 45500816)

Remote Housing Module Parts List

| Item | Part Description           | Part Number   |               |
|------|----------------------------|---------------|---------------|
|      |                            | QA6-R-A40     | QA8-R-A40     |
|      | Remote Housing Assembly    |               |               |
| 1    | Remote Start Housing       | ---           | ---           |
| 2**  | Chip Holder Assembly       | QA4-A528      | QA4-A528      |
| ‡    | Memory Chip                | ---           | ---           |
| ‡    | Chip Holder                | ---           | ---           |
| 3    | Valve Seat                 | ---           | ---           |
|      | Remote Housing Tune Up kit | QA6-1R-K40    | QA8-1-K40     |
| 4*   | O-Ring 15.6 mm             | ---           | ---           |
| 5*   | Shut Off Valve             | 131128        | 131128        |
| 6*   | O-Ring 40 mm               | ---           | ---           |
| 7    | Remote Motor Housing       | ---           | ---           |
| 8    | Valve Guide                | ---           | ---           |
| 9    | Remote Screw M6            | QA6-439       | QA6-439       |
| 10   | Screw M5                   | QA6-439-1 (2) | QA6-439-1 (2) |
| 11   | Set Screw M5               | ---           | ---           |

‡ Item not illustrated  
Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1).  
\* Part of Remote Housing Tune Up kit # QA6-1R-K40  
\*\* Optional

Motor Module Exploded Diagram



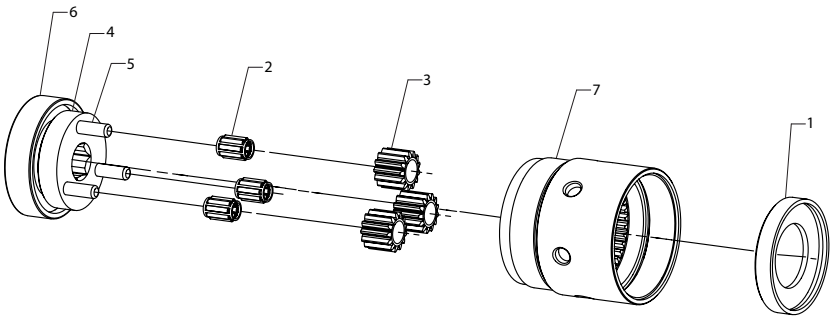
(Dwg. 80221583)

Motor Module Parts List

| Item | Part Description         | Part Number |            |            |            |            |
|------|--------------------------|-------------|------------|------------|------------|------------|
|      |                          | QA6-A53-8   | QA6-A53-10 | QA6-A53-11 | QA8-A53-10 | QA8-A53-11 |
|      | Motor Assembly           |             |            |            |            |            |
| 1    | Rotor                    | QA6-53-8    | QA6-53-10  | QA6-53-11  | QA8-53-10  | QA8-53-11  |
|      | Vane Pack                | QA6-42-5    | QA6-42-5   | QA6-42-5   | QA8-42-5   | QA8-42-5   |
| 2    | Vane                     | --- (5)     | --- (5)    | --- (5)    | --- (5)    | --- (5)    |
|      | Motor Kit                | QA6-1-K53   | QA6-1-K53  | QA6-1-K53  | QA6-1-K53  | QA6-1-K53  |
| 3    | Wave Washer              | ---         | ---        | ---        | ---        | ---        |
| 4    | Adjustment Screw M5      | ---         | ---        | ---        | ---        | ---        |
| 5    | Rear End Bearing 17x7x5  | ---         | ---        | ---        | ---        | ---        |
| 6    | Front End Bearing 22x7x7 | ---         | ---        | ---        | ---        | ---        |
|      | Rear Endplate Assembly   | QA6-A12     | QA6-A12    | QA6-A12    | QA6-A12    | QA6-A12    |
| 7    | Rear Endplate            | ---         | ---        | ---        | ---        | ---        |
| 8    | Roll Pin 19 mm           | Y178-41     | Y178-41    | Y178-41    | Y178-41    | Y178-41    |
|      | Cylinder Assembly        | QA6-A3      | QA6-A3     | QA6-A3     | QA8-A3     | QA8-A3     |
| 9    | Cylinder                 | ---         | ---        | ---        | ---        | ---        |
| †    | Roll Pin                 | Y178-191    | Y178-191   | Y178-191   | Y178-191   | Y178-191   |
| 10   | Front Endplate           | QA6-11      | QA6-11     | QA6-11     | QA6-11     | QA6-11     |

† Item not illustrated  
Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1)

First Stage Exploded Diagram



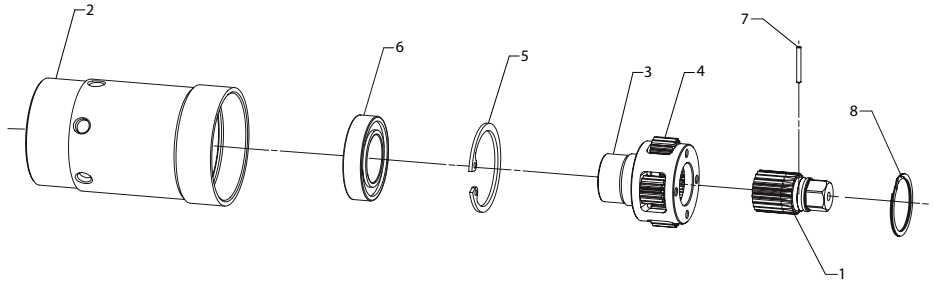
(Dwg. 53449310)

First Stage Parts List

| Item | Part Description          | Part Number |             |             |             |
|------|---------------------------|-------------|-------------|-------------|-------------|
|      |                           | 132023      | 132022      | 132020      | 132021      |
|      | 1st Stage Gear Assembly   | 132004      | 132004      | 132004      | 132004      |
|      | Needle Roller Bearing Kit | QA6-1-K24   | QA6-1-K24   | QA6-1-K24   | QA6-1-K24   |
| 2    | Needle Roller Bearing     | --- (3)     | --- (3)     | --- (3)     | --- (3)     |
|      | Planet Gear Kit           | QA6-K10-29  | QA6-K10-25  | QA8-K10-29  | QA8-K10-13  |
| 3    | Planet Gear               | --- (3)     | --- (3)     | --- (3)     | --- (3)     |
|      | Spindle Assembly          | QA6-A8-9P50 | QA6-A8-6P54 | QA6-A8-7P80 | QA8-A8-3P86 |
| 4    | Carrier                   | ---         | ---         | ---         | ---         |
| 5    | Gear Pins                 | --- (3)     | --- (3)     | --- (3)     | --- (3)     |
| 6    | Bearing 37x20x9           | 119277      | 119277      | 119277      | 119277      |
| #    | Circlip                   | 126293      | 126293      | 126293      | 126293      |
| 7    | Gear Case                 | 132011      | 132013      | 132011      | 132011      |
| 8    | Pinion                    |             |             |             | QA6-17-14   |

# Item not illustrated.  
Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1).

## Second Stage Exploded Diagram



(Dwg. 80221716)

## Second Stage Parts List

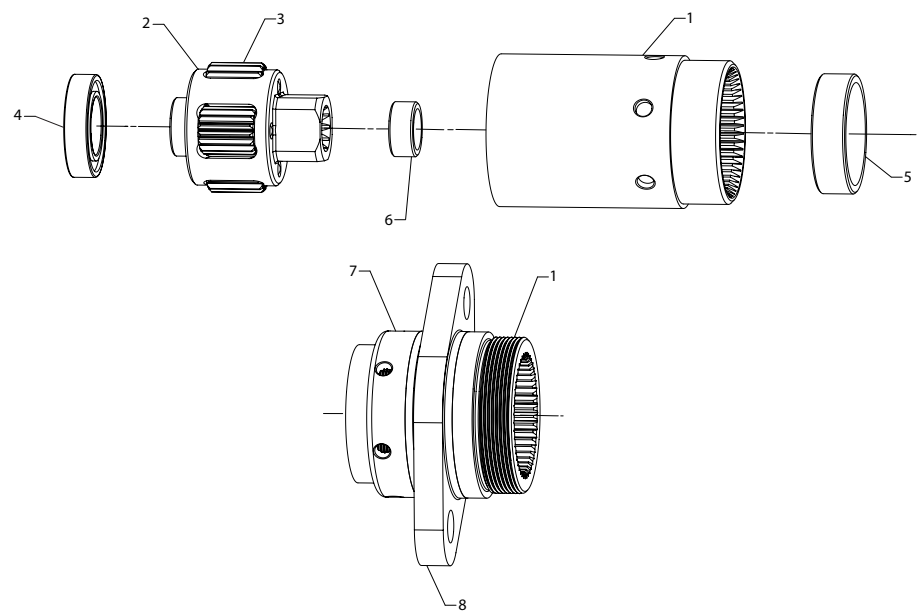
| Item | Part Description        | Part Number  |              |              |              |              |
|------|-------------------------|--------------|--------------|--------------|--------------|--------------|
|      | 2nd Stage Gear Assembly | QA6-M37-3P33 | QA6-M37-4P50 | QA6-M37-5P08 | QA6-M37-4P27 | QA8-M37-5P64 |
| 1    | Sun                     | QA6-17-3P33  | QA6-17-4P50  | QA6-17-5P08  | QA6-17-4P27  | QA8-17-5P64  |
| 2    | Gear Case               | QA6-1-37     | QA6-1-37     | QA6-1-37     | QA6-1-37     | QA8-22-37    |
|      | Spindle Assembly        | QA6-A8-3P33  | QA6-A8-4P50  | QA6-A8-5P08  | QA6-A8-4P27  | QA8-A8-5P64  |
| 3    | Carrier                 | ---          | ---          | ---          | ---          | ---          |
| 4    | Planet                  | --- (4)      | --- (4)      | --- (4)      | --- (4)      | --- (3)      |
| ‡    | Bearing                 | --- (4)      | --- (4)      | --- (4)      | --- (4)      | --- (6)      |
| ‡    | Planet Pin              | --- (4)      | --- (4)      | --- (4)      | --- (4)      | --- (3)      |
| 5    | Snap Ring               | 161M13N30    | 161M13N30    | 161M13N30    | 161M13N30    |              |
| 6    | Bearing                 | R1602-510    | R1602-510    | R1602-510    | R1602-510    | R38P-606     |
| 7    | Pin                     | QA6-15       | QA6-15       | QA6-15       | QA6-15       | QA6-15       |
| 8    | Retaining Ring          | QA8-701      | QA8-701      | QA8-701      | QA8-701      | QA8-701      |
| 9    | Spacer                  |              |              |              |              |              |

| Item | Part Description        | Part Number  |                 |                 |                 |
|------|-------------------------|--------------|-----------------|-----------------|-----------------|
|      | 2nd Stage Gear Assembly | QA8-M37-3P68 | QA8-M37-3P32-1  | QA8-M37-3P32-2  | QA8-M37-4P64    |
| 1    | Sun                     | QA8-17-3P68  | QA6-17-5P08     | QA6-17-5P08     | QA6-17-5P08     |
| 2    | Gear Case               | QA8-22-37    | QA8-22-37       | QA8-22-37       | QA8-22-37       |
|      | Spindle Assembly        | GEA240-A216  | QA8-3P32-32-216 | QA8-3P32-31-216 | QA8-4P64-32-216 |
| 3    | Carrier                 | ---          | ---             | ---             | ---             |
| 4    | Planet                  | --- (3)      | --- (3)         | --- (3)         | --- (3)         |
| ‡    | Bearing                 | --- (6)      | --- (6)         | --- (6)         | --- (6)         |
| ‡    | Planet Pin              | --- (3)      | --- (3)         | --- (3)         | --- (3)         |
| 5    | Snap Ring               |              |                 |                 |                 |
| 6    | Bearing                 |              |                 |                 |                 |
| 7    | Pin                     | QA6-15       | QA6-15          | QA6-15          | QA6-15          |
| 8    | Retaining Ring          | QA8-701      | QA8-701         | QA8-701         | QA8-701         |
| 9    | Spacer                  | GEA240-80    | GEA240-80       | GEA240-80       | GEA240-80       |

‡ Item not illustrated.

Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1).

Third Stage Exploded Diagram



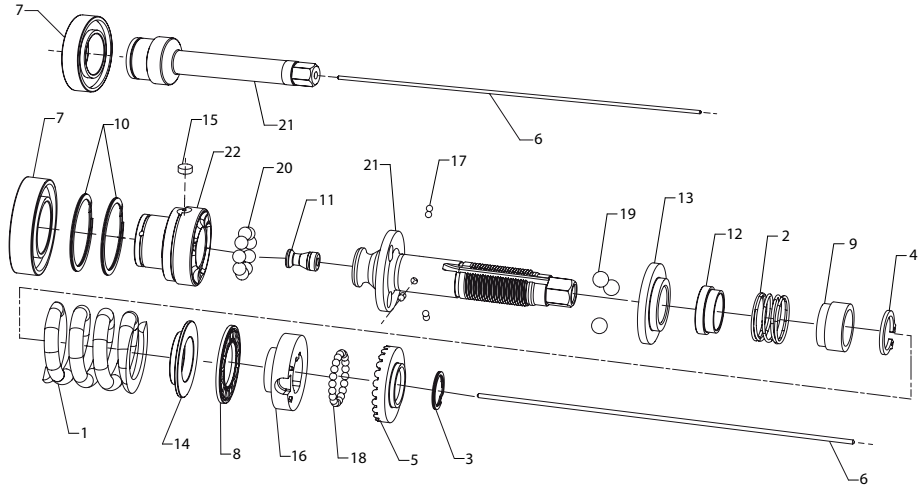
(Dwg. 80223340)

Third Stage Parts List

| Item | Part Description        | Part Number    |                |               |
|------|-------------------------|----------------|----------------|---------------|
|      | 3rd Stage Gear Assembly | QA8-M37-4P29-1 | QA8-M37-4P29-2 | QA8-M37-4P067 |
| 1    | Gear Case               | QA8-31-37      | QA8-32-37      | QA8-32-37     |
|      | Spindle Assembly        | QA8-A8-4P29-1  | QA8-A8-4P29-2  | QA8-A8-4P067  |
| 2    | Carrier                 | ---            | ---            | ---           |
| 3    | Planet                  | --- (4)        | --- (4)        | --- (4)       |
| ‡    | Bearing                 | --- (136)      | --- (136)      | --- (136)     |
| ‡    | Planet Pin              | --- (4)        | --- (4)        | --- (4)       |
| ‡    | Spacer                  | --- (12)       | --- (12)       | --- (12)      |
| 4    | Bearing                 | R1602-510      | R1602-510      | R1602-510     |
| 5    | Spacer                  | QA8-208        |                |               |
| 6    | Spacer                  | QA8-442        |                |               |
| 7    | Coupling Nut            |                | QA8-47         | QA8-47        |
| 8    | Flange                  |                | QA8-48         | QA8-48        |

‡ Item not illustrated.  
Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1).

## Clutch & Direct Drive Assembly Exploded Diagram



(Dwg. 80227549)

## Clutch & Direct Drive Assembly Parts List

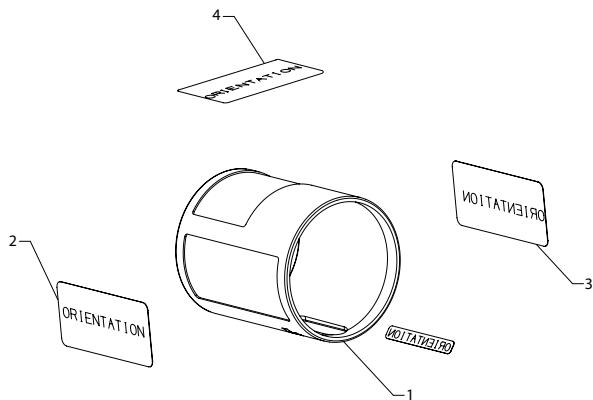
| Item | Part Description     | Part Number        |                    |                    |                    |              |
|------|----------------------|--------------------|--------------------|--------------------|--------------------|--------------|
|      | Clutch Assembly      | QA8H-A579 ++       | QA8L-A579 ++       | QA6H-A579 ++       | 132015 ++          | QA6D-A579 ++ |
| 1    | Clutch Spring        | QA8-H-583          | QA8-L-583          | QA6-H-583          | QA6-L-583          |              |
| 2    | Collar Spring        | 132066             | 132066             | 132066             | 132066             |              |
| 3    | Retaining Ring       | 182A13-CXRSN50     | 182A13-CXRSN50     | 182A13-CXRSN50     | 182A13-CXRSN50     |              |
| 4    | Retaining Ring       | Y142-20            | Y142-20            | Y142-20            | Y142-20            |              |
| 5    | Adjustment Nut       | 132074             | 132074             | 132074             | 132074             |              |
| 6    | Push Rod             | 132017             | 132017             | 132017             | 132017             | 132017       |
| 7    | Bearing              | 119277             | 119277             | 119277             | 119277             | 119277       |
| 8    | Bearing              | 132059             | 132059             | 132059             | 132059             |              |
| 9    | Spring Guide         | 132063             | 132063             | 132063             | 132063             |              |
| 10   | Circlip              | 181A13-CXRS106 (2) | 181A13-CXRS106 (2) | 181A13-CXRS106 (2) | 181A13-CXRS106 (2) |              |
| 11   | Plunger              | 132061             | 132061             | 132061             | 132061             |              |
| 12   | Shutoff Collar       | 132062             | 132062             | 132062             | 132062             |              |
| 13   | Lower Jaw            | 132057             | 132057             | 132057             | 132057             |              |
| 14   | Spring Guide         | 132060             | 132060             | 132060             | 132060             |              |
| 15   | Plug                 | 126297             | 126297             | 126297             | 126297             |              |
| 16   | Nut Lock Washer      | 132058             | 132058             | 132058             | 132058             |              |
|      | Ball Kit             | QA6-1-K581         | QA6-1-K581         | QA6-1-K581         | QA6-1-K581         |              |
| 17   | Plunger Ball 2.38 mm | --- (6)            | --- (6)            | --- (6)            | --- (6)            |              |
| 18   | Ball 2.78 mm         | --- (21)           | --- (21)           | --- (21)           | --- (21)           |              |
| 19   | Clutch Ball 6 mm     | --- (3)            | --- (3)            | --- (3)            | --- (3)            |              |
| 20   | Ball 5 mm            | --- (10)           | --- (10)           | --- (10)           | --- (10)           |              |
|      | Driver Assembly      | QA6-A581           | QA6-A581           | QA6-A581           | QA6-A581           |              |
| 20   | Ball 5 mm            | --- (10)           | --- (10)           | --- (10)           | --- (10)           |              |
| 21   | Driver Shaft         | QA6-581*           | QA6-581*           | QA6-581*           | QA6-581*           | QA6-590      |
| 22   | Upper Driven Jaw     | QA6-586*           | QA6-586*           | QA6-586*           | QA6-586*           |              |

Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1).

\* If tool serial number is before W109F....., order Driver Assembly P/N QA6-A581.

++ Recommend replacing Pin P/N QA6-15 and Retaining Ring P/N QA8-701 when ordering clutch assembly or direct drive module.

Clutch Cover Assembly Exploded Diagram



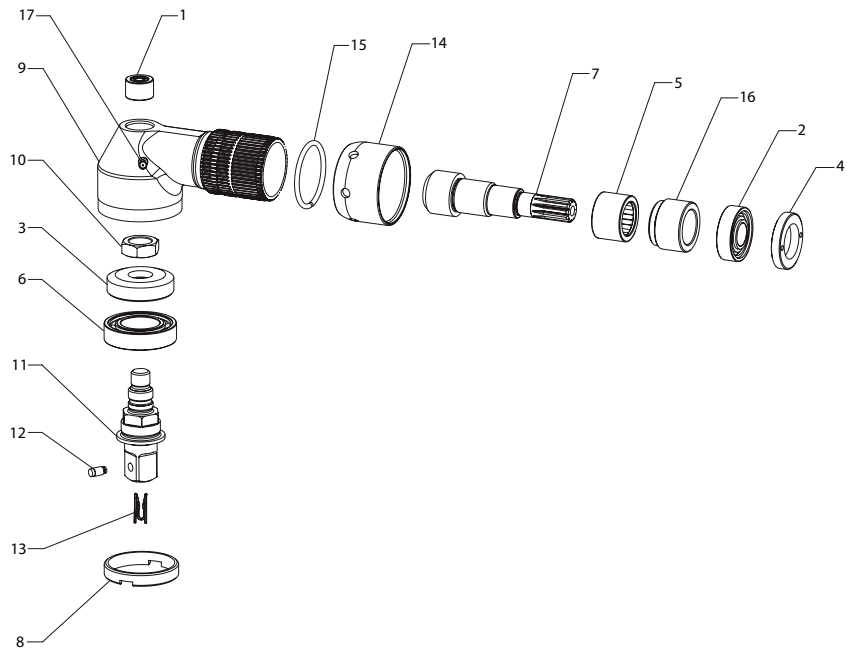
(Dwg. 45504644)

Clutch Cover Assembly Exploded Diagram

| Item | Part Description      | Part Number   |               |
|------|-----------------------|---------------|---------------|
|      |                       | QA6-A415      | QA8-A415      |
|      | Clutch Cover Assembly |               |               |
| 1    | Clutch Cover          | ---           | ---           |
| 2    | Nameplate             | QA6-301       | QA6-301       |
| 3    | Information Label     | QA6-299       | QA8-299       |
| 4    | Warning Label         | Warning-27-99 | Warning-27-99 |

Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1).

Angle Head Assembly Exploded Diagram



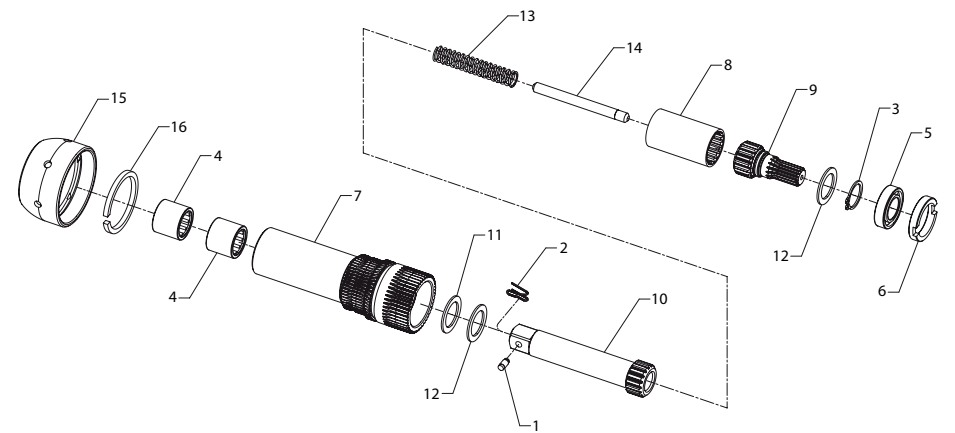
(Dwg. 80223589)

Angle Head Assembly Parts List

| Item | Part Description      | Part Number     |                 |                 |          |         |
|------|-----------------------|-----------------|-----------------|-----------------|----------|---------|
|      |                       | QA6-R35S06-A550 | QA6-R35S08-A550 | QA6-R43S08-A550 | GAA6S8   | AA16S12 |
| 1    | Needle Bearing        | ---             | ---             | ---             | ---      | ---     |
| ‡    | Washer                | ---             | ---             | ---             | ---      | ---     |
| 2    | Bearing               | ---             | ---             | ---             | ---      | ---     |
| 3    | Bevel Gear            | ---             | ---             | ---             | ---      | ---     |
| 4    | Nut                   | ---             | ---             | ---             | ---      | ---     |
| ‡    | Washer                | ---             | ---             | ---             | ---      | ---     |
| 5    | Needle Bearing        | ---             | ---             | ---             | ---      | ---     |
| 6    | Bearing               | ---             | ---             | ---             | ---      | ---     |
| 7    | Pinion                | ---             | ---             | ---             | ---      | ---     |
| 8    | Retaining Nut         | ---             | ---             | ---             | ---      | ---     |
| 9    | Angle Housing         | ---             | ---             | ---             | ---      | ---     |
| 10   | Clamp Nut             | ---             | ---             | ---             | ---      | ---     |
| 11   | Spindle               | ---             | ---             | ---             | ---      | ---     |
| 12   | Pin                   | 131617          | 132048          | 804-716         | 804-716  | ---     |
| 13   | Spring                | 124491          | 124492          | 5UHD-718        | 5UHD-718 | ---     |
| 14   | Coupling Nut          | 15E2-27         | 15E2-27         | 15E2-27         | DAA4-27  | ---     |
| 15   | Coupling Nut Retainer | GEA2-29         | GEA2-29         | GEA2-29         | DAA4-29  | ---     |
| 16   | Spacer                | ---             | ---             | ---             | ---      | ---     |
| 17   | Grease Fitting        | ---             | ---             | ---             | ---      | ---     |

‡ Item not illustrated.  
Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1).

Float Spindle Assembly Exploded Diagram



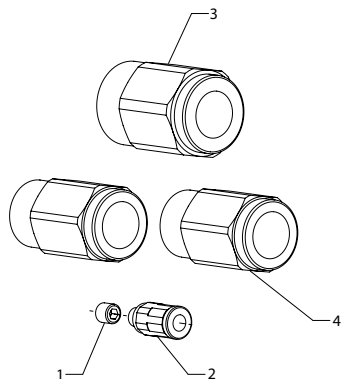
(Dwg. 80123888)

Float Spindle Assembly Parts List

| Item | Part Description      | Part Number                                       |                                                                                                                                                               |                                                                                                                                                            |                                                                                                                                                                  |
|------|-----------------------|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      | Spindle Assembly      | <b>QA64S6</b><br>(3/8" Sq. Drive & 4" Long Shank) | <b>QA64S8</b><br>(1/2" Sq. Drive & 4" Long Shank),<br><b>QA66S8</b><br>(1/2" Sq. Drive & 6" Long Shank),<br><b>QA68S8</b><br>(1/2" Sq. Drive & 8" Long Shank) | <b>GE4S8</b><br>(1/2" Sq. Drive & 4" Long Shank),<br><b>GE6S8</b><br>(1/2" Sq. Drive & 6" Long Shank),<br><b>GE8S8</b><br>(1/2" Sq. Drive & 8" Long Shank) | <b>160E4S8</b><br>(1/2" Sq. Drive & 4" Long Shank),<br><b>160E6S8</b><br>(1/2" Sq. Drive & 6" Long Shank),<br><b>160E8S8</b><br>(1/2" Sq. Drive & 8" Long Shank) |
| 1    | Retainer              | 5020-716                                          | 804-716                                                                                                                                                       | 804-716                                                                                                                                                    | 804-716                                                                                                                                                          |
| 2    | Spring                | 401-718                                           | 5UHD-718                                                                                                                                                      | 5UHD-718                                                                                                                                                   | 5UHD-718                                                                                                                                                         |
| 3    | Retaining Ring        | ---                                               | ---                                                                                                                                                           | ---                                                                                                                                                        | ---                                                                                                                                                              |
| 4    | Needle Bearing        | --- (2)                                           | --- (2)                                                                                                                                                       | --- (2)                                                                                                                                                    | --- (2)                                                                                                                                                          |
| 5    | Bearing               | ---                                               | ---                                                                                                                                                           | ---                                                                                                                                                        | ---                                                                                                                                                              |
| 6    | Retaining Nut         | ---                                               | ---                                                                                                                                                           | ---                                                                                                                                                        | ---                                                                                                                                                              |
| 7    | Spindle Housing       | ---                                               | ---                                                                                                                                                           | ---                                                                                                                                                        | ---                                                                                                                                                              |
| 8    | Coupler               | ---                                               | ---                                                                                                                                                           | ---                                                                                                                                                        | ---                                                                                                                                                              |
| 9    | Drive Spindle         | ---                                               | ---                                                                                                                                                           | ---                                                                                                                                                        | ---                                                                                                                                                              |
| 10   | Spindle               | ---                                               | ---                                                                                                                                                           | ---                                                                                                                                                        | ---                                                                                                                                                              |
| 11   | Washer                | ---                                               | ---                                                                                                                                                           | ---                                                                                                                                                        | ---                                                                                                                                                              |
| 12   | Washer                | --- (2)                                           | --- (2)                                                                                                                                                       | --- (2)                                                                                                                                                    | --- (2)                                                                                                                                                          |
| 13   | Spring                | ---                                               | ---                                                                                                                                                           | ---                                                                                                                                                        | ---                                                                                                                                                              |
| 14   | Pin                   | ---                                               | ---                                                                                                                                                           | ---                                                                                                                                                        | ---                                                                                                                                                              |
| 15   | Coupling Nut          | 15E2-27                                           | 15E2-27                                                                                                                                                       | DAA4-27                                                                                                                                                    | GEA240-27                                                                                                                                                        |
| 16   | Coupling Nut Retainer | GEA2-29                                           | GEA2-29                                                                                                                                                       | DAA4-29                                                                                                                                                    | 160E4-29                                                                                                                                                         |

Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1).

Remote Housing Inlet Kit Exploded Diagram

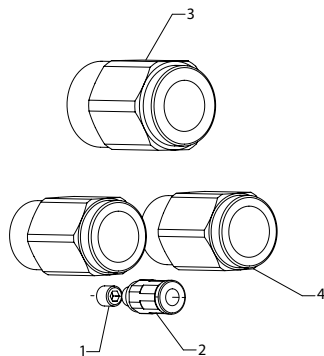


(Dwg. 45500832)

Remote Housing Inlet Kit Parts List

| Item | Parts Description               | Part Number           |
|------|---------------------------------|-----------------------|
|      | <b>Remote Housing Inlet Kit</b> | <b>QA6-RB-K465 ++</b> |
| 1    | Set Screw, M5                   | ---                   |
| 2    | Tube Fitting                    | ---                   |
| 3    | Tube Fitting                    | ---                   |
| 4    | Tube Fitting                    | ---                   |

++ For Models QA6ASR {} NF {}, QA8ASR {} NF {}  
Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1)



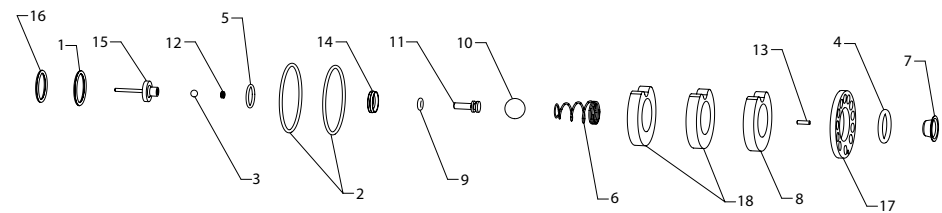
(Dwg. 45500840)

Remote Housing Inlet Kit Parts List

| Item | Parts Description               | Part Number           |
|------|---------------------------------|-----------------------|
|      | <b>Remote Housing Inlet Kit</b> | <b>QA6-RN-K465 ++</b> |
| 1    | Set Screw, M5                   | ---                   |
| 2    | Tube Fitting                    | ---                   |
| 3    | Tube Fitting                    | ---                   |
| 4    | Tube Fitting                    | ---                   |

++ For Models QA6ASR {} BF {}, QA8ASR {} BF {}  
Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is (1).

Housing Tune-up Kit Exploded Diagram



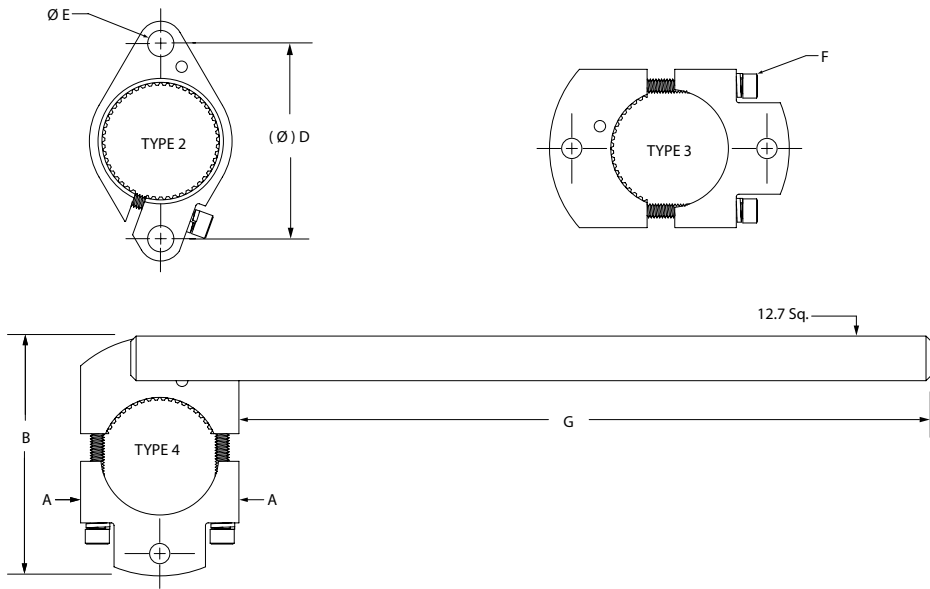
(Dwg. 45514288)

Housing Tune-up Kit Parts List

| Item | Parts Description    | Part Number |              |
|------|----------------------|-------------|--------------|
|      |                      | QA6-1-K40 * | QA8-1-K40 ** |
|      | Housing Tune-up Kit  |             |              |
| 1    | O-Ring 17.17 mm      | ---         | ---          |
| 2    | O-Ring 38.1 mm       | --- (2)     | --- (2)      |
| 3    | Reverse Valve Ball   | ---         | ---          |
| 4    | O-Ring 14.8 mm       | ---         | ---          |
| 5    | O-Ring 11 mm         | ---         | ---          |
| 6    | Ball Spring          | ---         | ---          |
| 7    | Screen               | ---         | ---          |
| 8    | Muffler (Black)      | QA8-311 (1) | QA8-311 (2)  |
| 9    | O-Ring 3.4 mm        | ---         | ---          |
| 10   | Ball 12mm            | ---         | ---          |
| 11   | Throttle Pin         | ---         | ---          |
| 12   | Reverse Valve Spring | ---         | ---          |
| 13   | Pin 2 mm             | ---         | ---          |
| 14   | Ball Seat 12mm       | ---         | ---          |
| 15   | Shut-Off Valve       | 131128      | 131128       |
| 16   | O-Ring 15.6 mm       | ---         | ---          |
| 17   | Diffuser Plate       | ---         | ---          |
| 18   | Muffler (White)      | QA6-311 (2) |              |
| ‡ 19 | O-Ring 40 mm         |             |              |

‡ Item not illustrated.  
Quantity is in parenthesis under "Part Number" list. If not shown, then quantity is {1}.  
\* Kit for model QA6AAL {}, QA6ASL {}  
\*\* Kit for model QA8AAL {}, QA8ASL {}

Flange Mounting Options Diagram



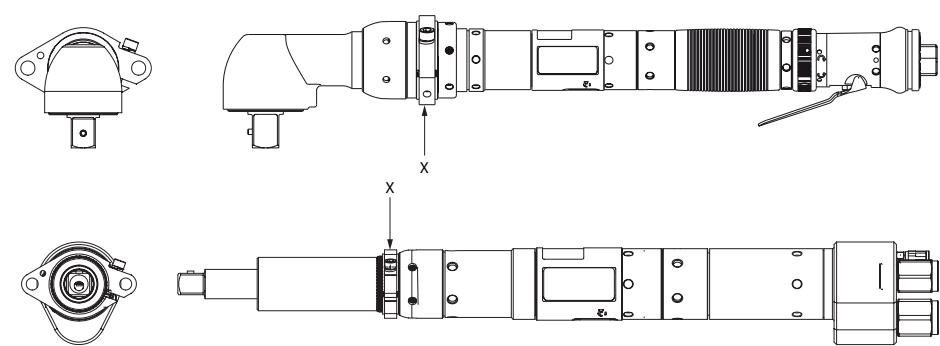
(Dwg. 16585457)

Flange Mounting Options Parts List

| Part Number | Part Description | Flange or Reaction Bar | Mounting Location | For Models                                                                                                                        | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F            | G (mm) |
|-------------|------------------|------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|--------|--------|--------------|--------|
| 15E4-K48    | Full Spline      | 2                      | X                 | QA6 {}<br>QA8AA {} 040 {}<br>QA8AA {} 055 {}<br>QA8AA {} 070 {}<br>QA8AA {} 090 {}<br>QA8AS {} 040 {}<br>QA8AS {} 055 {}          |        | 40.64  |        | 55.58  | 7.14   | 8-32 UNC-2A  | ---    |
| GEA4-K48    | Work Station     | 3                      | X                 | QA6 {}<br>QA8AA {} 040 {}<br>QA8AA {} 055 {}<br>QA8AA {} 070 {}<br>QA8AA {} 090 {}<br>QA8AS {} 040 {}<br>QA8AS {} 055 {}          |        | 68.28  |        | 55.58  | 7.14   | 8-32 UNC-2A  | ---    |
| GEA15-K48   | Reaction Bar     | 4                      | X                 | QA6 {}<br>QA8AAL {} 040 {}<br>QA8AAL {} 055 {}<br>QA8AAL {} 070 {}<br>QA8AAL {} 090 {}<br>QA8ASL {} 040 {}<br>QA8ASL {} 055 {}    |        | 68.28  |        | 55.58  | 7.14   | 8-32 UNC-2A  | 274.0  |
| GEM120-K48  | Full Spline      | 2                      | X                 | QA8AA {} 115 {}<br>QA8AA {} 150 {}<br>QA8AS {} 070 {}<br>QA8AS {} 090 {}<br>QA8AS {} 115 {}<br>QA8AS {} 150 {}<br>QA8AS {} 180 {} | 85.60  | 54.00  | 9.525  | 66.65  | 10.40  | 10-32 UNC-2A | ---    |

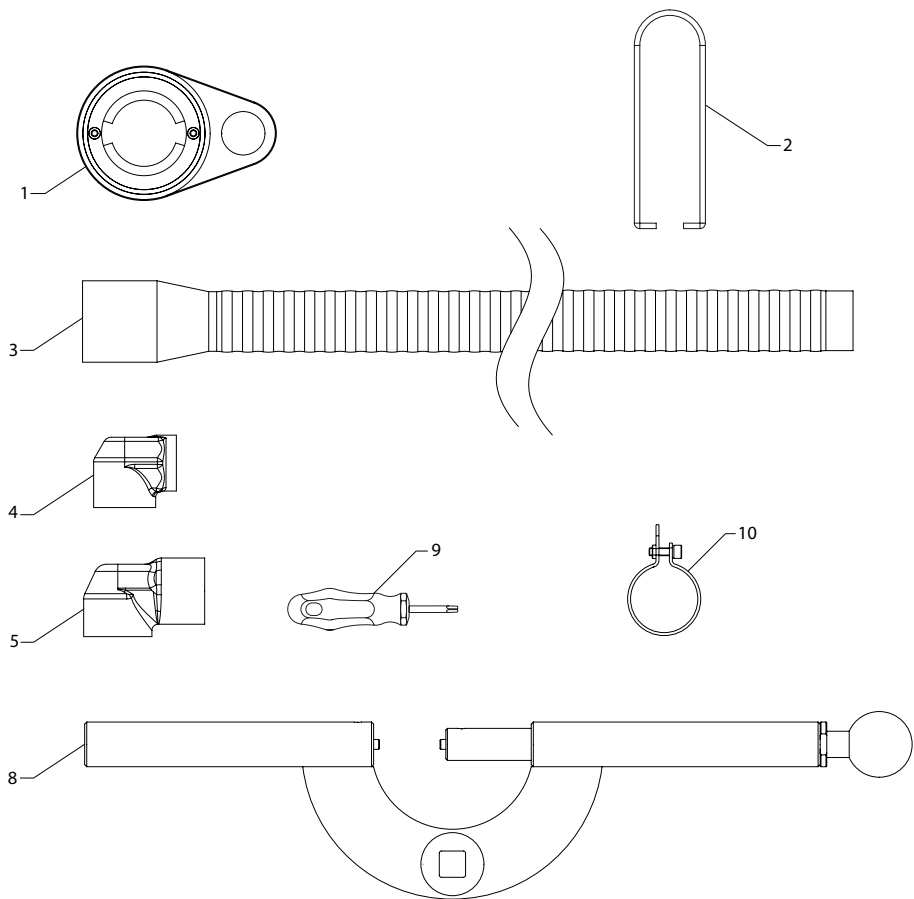
|            |              |   |   |                                                                                                                                          |       |       |      |       |       |              |       |
|------------|--------------|---|---|------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|------|-------|-------|--------------|-------|
| DAM120-K48 | Work Station | 3 | X | QA8AA {} 115 {}<br>QA8AA {} 150 {}<br>QA8AS {} 070 {}<br>QA8AS {} 090 {}<br>QA8AS {} 115 {}<br>QA8AS {} 150 {}<br>QA8AS {} 180 {}        | 54.70 | 69.40 | 9.53 | 64.13 | 10.40 | 10-32 UNC-2A | ---   |
| DEA120-K48 | Reaction Bar | 4 | X | QA8AAL {} 115 {}<br>QA8AAL {} 150 {}<br>QA8ASL {} 070 {}<br>QA8ASL {} 090 {}<br>QA8ASL {} 115 {}<br>QA8ASL {} 150 {}<br>QA8ASL {} 180 {} | 54.70 | 69.40 | 9.53 | 64.13 | 7.14  | 10-32 UNC-2A | 264.4 |

Flange Mounting



(Dwg. 16585465)

Accessories Diagram



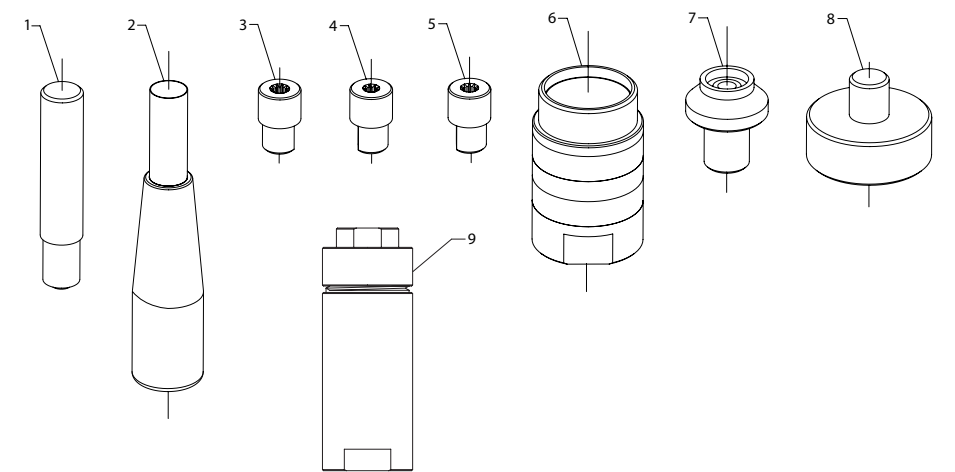
(Dwg. 16585473)

Accessories Parts List

| Item | Part Description | Part Number | Dimension / Size |
|------|------------------|-------------|------------------|
| 1    | Swivel Hanger    | QA6-A365-S  | ---              |
| 2    | Bail             | 131133      | ---              |
| 3    | Exhaust Kit      | QA6-K284    | ---              |
| 4    | Angle head Boot  | 131997      | 35 Size          |
| 5    | Angle head Boot  | GEA40-172   | 43 Size          |
| # 6  | Angle head Boot  | GEA40-173   | 48 Size          |
| # 7  | Angle head Boot  | GEA240-173  | 56 Size          |
| 8    | Spanner Wrench   | GEA40-478   | ---              |
| 9    | Torx Driver      | 125116      | ---              |
| 10   | Hanger Assembly  | QA6-A365-1  | ---              |

# Item not illustrated.

Tools and Adaptors Diagram



(Dwg. 16585978)

Tools and Adaptors Parts List

| Item | Part Description     | Part Number | Usage                          | For Model      |
|------|----------------------|-------------|--------------------------------|----------------|
| 1    | Valve Seat Tool      | OM127       | Housing Valve seat             | QA6 {}, QA8 {} |
| 2    | Retaining Ring Tool  | 80187362    | Clutch retaining ring assembly | QA6 {}, QA8 {} |
| 3    | Rotor Spline Adaptor | 80187396    | 8 Teeth Motor spacing          | QA6 {}         |
| 4    | Rotor Spline Adaptor | 80187404    | 10 Teeth Motor spacing         | QA6 {}, QA8 {} |
| 5    | Rotor Spline Adaptor | 80187412    | 11 Teeth Motor spacing         | QA6 {}, QA8 {} |
| 6    | Motor Clamp Tool     | 80187388    | Motor spacing                  | QA6 {}         |
| 7    | Motor Press Assembly | 80187370    | Motor Back Bearing Press       | QA6 {}, QA8 {} |
| 8    | Motor Assembly Tool  | 80187420    | Motor Front Bearing Press      | QA6 {}, QA8 {} |
| 9    | Motor Clamp Tool     | 16604845    | Motor spacing                  | QA8 {}         |

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

Air Angle Wrench and Nut Runner Product Information Manual 16601064.

Maintenance Information Manual 16601056.

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

**Notes:**

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**Notes:**

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[www.irtools.com](http://www.irtools.com)

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