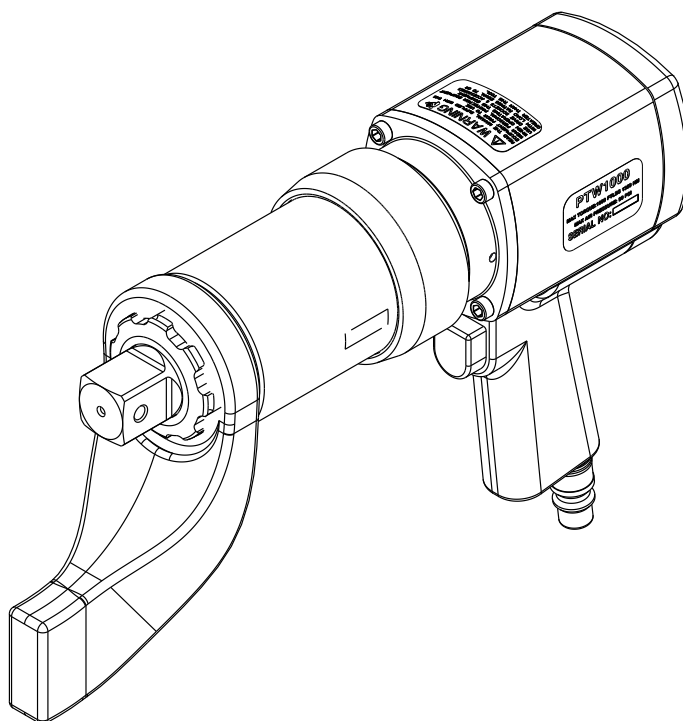


| Document Number | Document Revision | Document Revision Date | Product Date Code Beginning With |
|-----------------|-------------------|------------------------|----------------------------------|
| L4081           | F                 | 04/2017                | A                                |

**NOTICE:**

Enerpac recommends that all parts included in a service assembly or repair kit be installed to ensure optimum performance of the repaired product.

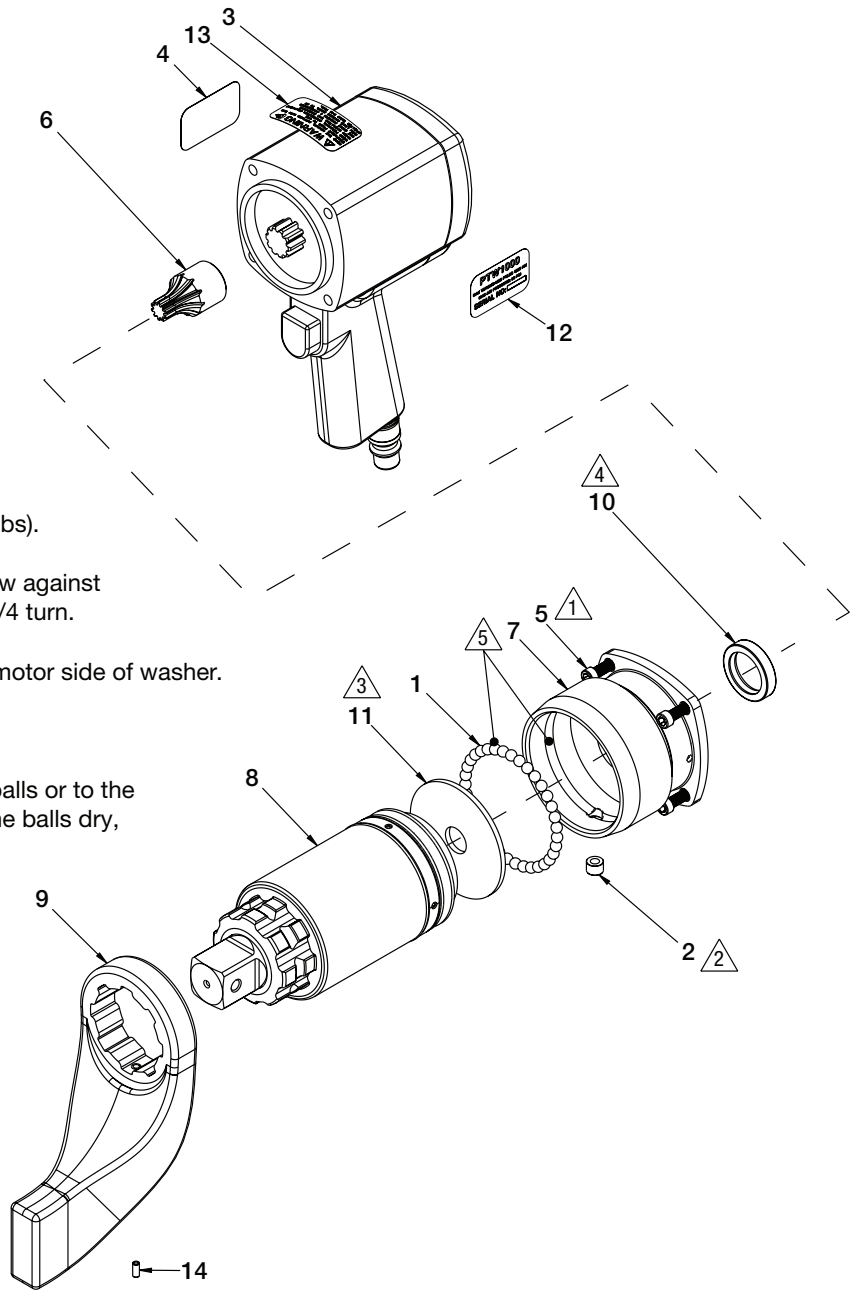


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**⚠ WARNING** Disconnect tool from air supply before beginning any maintenance or repairs. Appropriate shop safety procedures are to be followed during disassembly and reassembly to minimize any possibility of injury.

**Fig. 1, Main Assembly**



**Notes:**

- ① Torque to 8,0 to 8,9 Nm (70.8 - 78.8 in-lbs).
- ② Apply Loctite 242 to threads, snug screw against ball race between balls, then back off 1/4 turn.
- ③ Apply a thin coat of Moly grease to air motor side of washer.
- ④ Fill cavity of seal lip with Moly grease.
- ⑤ **Note:** DO NOT apply lubricants to the balls or to the ball groove during reassembly. Install the balls dry, without applying any oil or grease.

**Repair Parts List, Fig. 1**

**L4081**

| Item | Part Number    | Qty. | Description           | Item | Part Number     | Qty. | Description  |
|------|----------------|------|-----------------------|------|-----------------|------|--|
| 1    | ☆ B1007016     | 35   | Ball, 1/4" Diameter   | 9    | * ◆ DD5340900SR | 1    | Reaction Arm (standard)                              |
| 2    | ☆ BF3804027A   | 1    | Set Screw, Cup Point  | 10   | ☆ DD5344476     | 1    | Seal, Radial Lip                                     |
| 3    | ‡ (See Fig. 2) | 1    | Assembly, Air Motor   | 11   | ☆ DD5356108     | 1    | Washer, Delrin                                       |
| 4    | ‡ DD4500026    | 1    | Decal, Brand PTW      | 12   | ‡ DD5383026     | 1    | Decal, PTW1000                                       |
| 5    | ☆ DD4608028    | 4    | SHCS, M6 x 1 - 14, SS | 13   | ‡ DD5496026     | 1    | Decal, Warning                                       |
| 6    | DD5168229SR    | 1    | Pinion, Input, PTW    | 14   | * ◆ DD5448600SR | 1    | Set Screw, Reaction Arm                              |
| 7    | DD5169101SR    | 1    | Plate, Adaptor PTW    | -    | ☼ DD5587600SR   | A/R  | Grease, Moly, 16 oz, 454 g (A/R = Order as required) |
| 8    | ◆ (See Fig. 3) | 1    | Assembly, Gear Box    |      |                 |      |  |

◆ Included in service assembly TW1000RSR, Gearbox Assembly with Reaction Arm.

\* Included in service assembly RATWS, Standard Reaction Arm.

☆ Included in service assembly DD5356108SR, Swivel Hardware Kit.

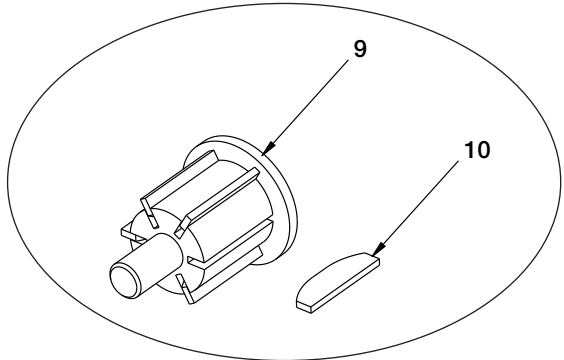
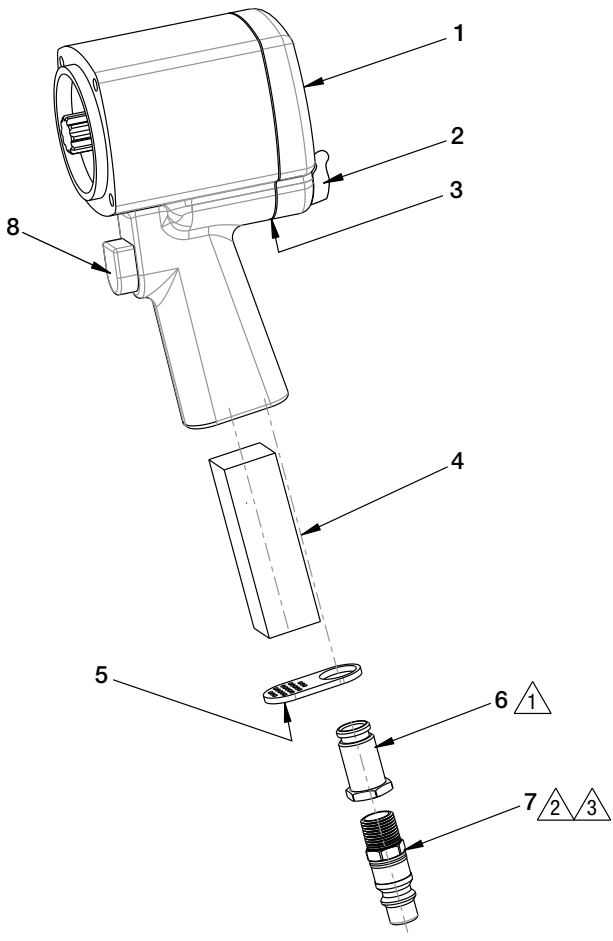
‡ Included in service assembly DD3237900SR, Air Motor Assembly Kit.

☼ Apply Moly grease as described in Fig. 1.

See notes ③ and ④

**Note:** Items included in service assemblies are not sold separately.

**Fig. 2, Air Motor Assembly**

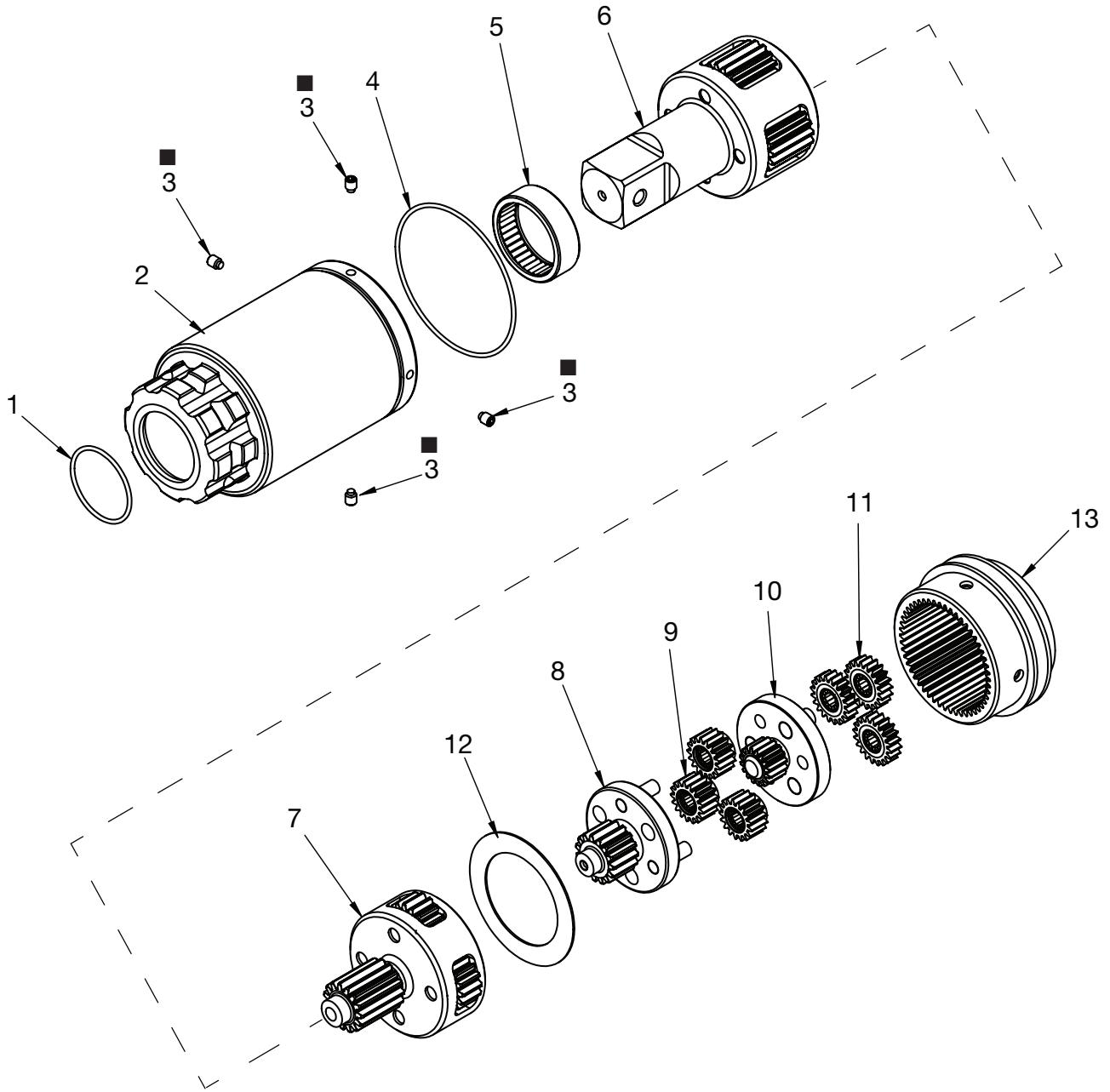


**Notes:**

- ① Install nut (item 6) so that it is snug against exhaust deflector plate (item 5). Torque to 4,1 to 6,7 Nm (3-5 ft-lbs). Note: Plate may crack if nut is tightened excessively.
- ② Apply Loctite 545 to threads of coupling (item 7).
- ③ Torque coupling (item 7) to 33,9 to 61,0 Nm (25 - 45 ft-lbs) while holding nut (item 6) with a wrench, to prevent it from turning.

| Repair Parts List, Fig. 2   |                        |      |  | L4081   |
|---|------------------------|------|--|---|
| Item  | Part Number            | Qty. | Description                                |   |
| 1   | + DD3136259            | 1    | Air Motor                                  |   |
| 2   | DD5858147SR            | 1    | Directional Control Knob                   |   |
| 3   | DD5914037SR            | 1    | Gasket                                     |   |
| 4   | + DD3236116SR          | 1    | Foam, Muffler - Air Motor                  |   |
| 5   | (included with item 1) | 1    | Exhaust Deflector Plate                    |   |
| 6   | (included with item 1) | 1    | Nut, Air Inlet                             |   |
| 7   | + DD4847095SR          | 1    | Coupling, Male 1/2" x 3/8" NPT             |   |
| 8   | DD5855144SR            | 1    | Trigger Kit (includes roll pin)            |   |
| 9   | DD5472600SR            | 1    | Replacement Rotor for Air Motor            |   |
| 10  | DD5820600SR            | 1    | Replacement Vanes for Air Motor (set of 6) |   |
| 11  | ❖ DD5859016SR          | 1    | Detent Service Kit (parts not shown)       |   |
| + Included in service assembly DD3237900SR, Air Motor Assembly Kit.<br>❖ Detent service kit includes ball and spring for directional control spool (not shown). |                        |      |  | <b>Note:</b> Items included in service assemblies and kits are not sold separately. |

**Fig. 3, Gear Box Assembly**



**Note:** During reassembly, be sure that all gear teeth and bearing interfaces are coated with Moly grease. See parts list, item 14.

■ **ITEM 3:** Apply Loctite 242 to setscrew threads. Install setscrew and tighten it until snug. Then, back-off setscrew 1/4 turn.

**Repair Parts List, Fig. 3**

**L4081**

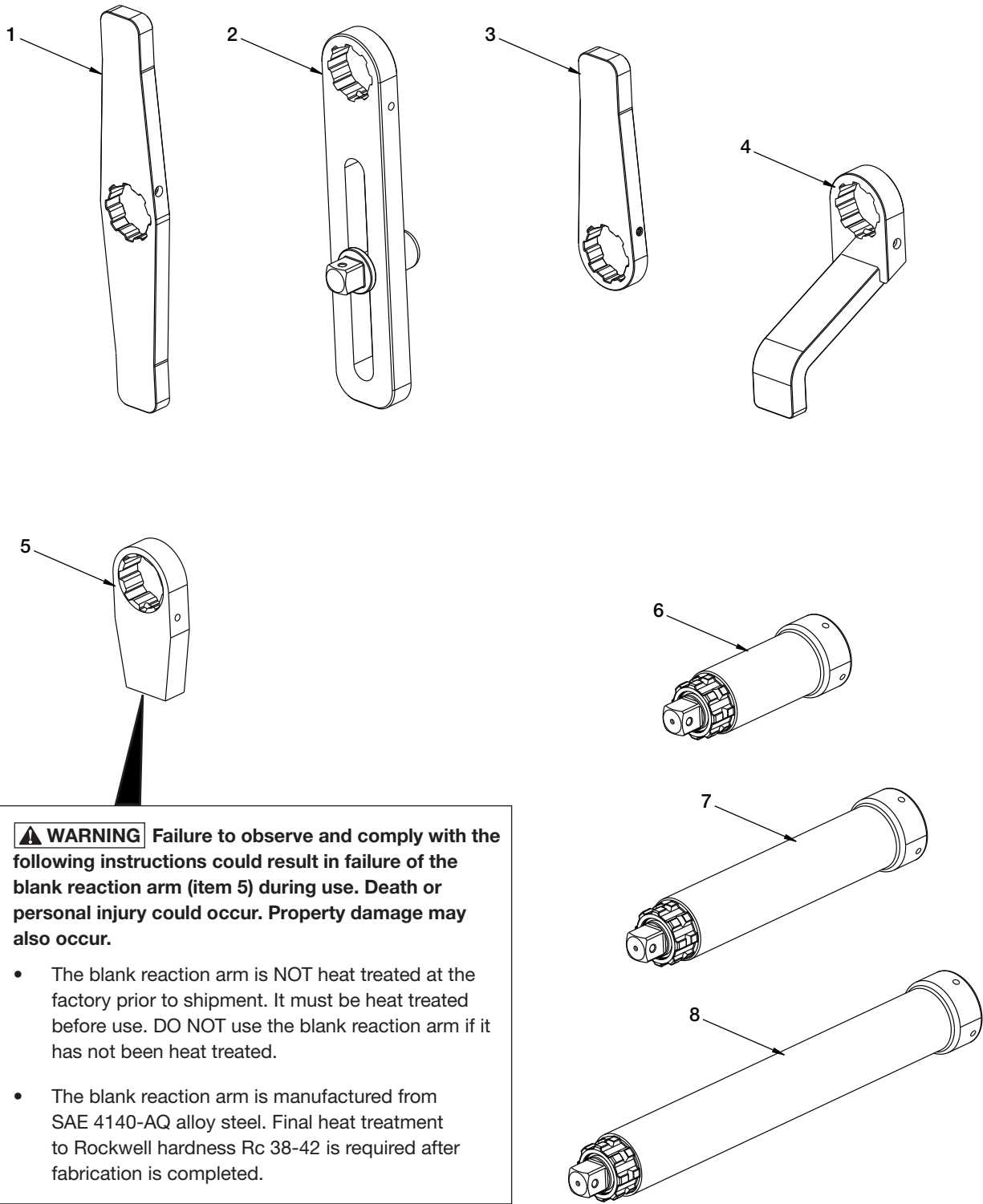
| Item | Part Number               | Qty. | Description                                |
|------|---------------------------|------|--|
| 1    | ❖★◆ (not sold separately) | 1    | O-Ring, Small                              |
| 2    | ★◆ DD5440600SR            | 1    | Gear Housing, TW1000                       |
| 3    | ❖★◆ (not sold separately) | 4    | Set Screw                                  |
| 4    | ❖★◆ (not sold separately) | 1    | O-Ring, Large                              |
| 5    | ★◆ DD5458600SR            | 1    | Needle Roller Bearing, Drive Stage, TW1000 |
| 6    | ★◆ DD5441600SR            | 1    | Assembly, Drive Stage, TW1000              |
| 7    | ★◆ DD5447600SR            | 1    | Gear Carrier, Third Stage, TW1000          |
| 8    | ★◆ DD5445600SR            | 1    | Gear Carrier, Second Stage, TW1000         |
| 9    | ❖★◆ DD5446600SR           | 1    | Planetary Gears, Second Stage, TW1000      |
| 10   | ★◆ DD5443600SR            | 1    | Gear Carrier, First Stage, TW1000          |
| 11   | ❖★◆ DD5444600SR           | 1    | Planetary Gears, First Stage, TW1000       |
| 12   | ❖★◆ (not sold separately) | 1    | Thrust Washer                              |
| 13   | ★◆ DD5442600SR            | 1    | Ring Gear, TW1000                          |
| 14   | ❖ DD5587600SR             | A/R  | Grease, Moly, 16 oz, 454 g                 |

- ❖ Included in MKTW1000K Maintenance Kit.
- ★ Included in service assembly TW1000SR, Replacement Gearbox Assembly.
- ◆ Included in service assembly TW1000RSR, Replacement Gearbox Assembly with Reaction Arm.  
(See Fig. 1 for reaction arm and set screw.)
- ❖ Item includes set of three planetary gears with bearings.
- ❖ During reassembly, be sure that all gear teeth and bearing interfaces are coated with Moly grease.

A/R = Order as required.

**Note:** Items included in service assemblies are not sold separately.

**Fig. 4A, Accessories**



**⚠ WARNING** Failure to observe and comply with the following instructions could result in failure of the blank reaction arm (item 5) during use. Death or personal injury could occur. Property damage may also occur.

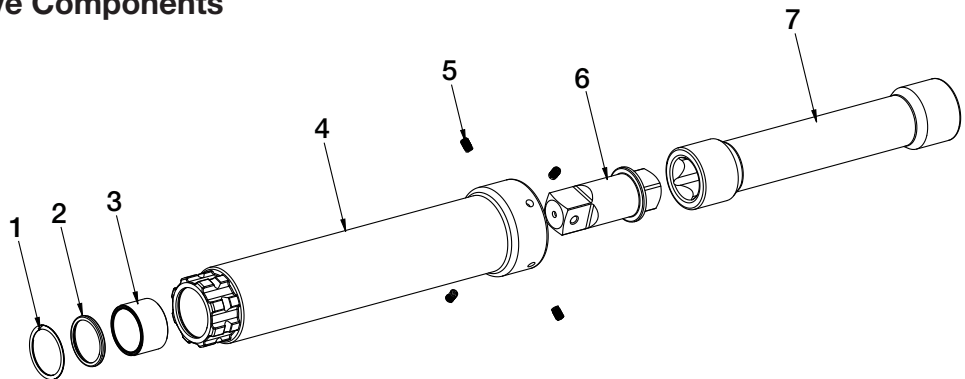
- The blank reaction arm is NOT heat treated at the factory prior to shipment. It must be heat treated before use. DO NOT use the blank reaction arm if it has not been heat treated.
- The blank reaction arm is manufactured from SAE 4140-AQ alloy steel. Final heat treatment to Rockwell hardness Rc 38-42 is required after fabrication is completed.

**NOTICE:** See Fig. 4B for service parts for items 6, 7 and 8.

| Repair Parts List, Fig. 4A |             |      |  | L4081 |
|----------------------------|-------------|------|--|-------|
| Item                       | Part Number | Qty. | Description                            |       |
| 1                          | DSATWS      | 1    | Reaction Arm, Straight, Double         |       |
|                            |             | 1    | Screw, 1/4 - 28 x 2" long              |       |
|                            |             | 1    | Nylon Hex Nut, 1/4 - 28                |       |
| 2                          | SLRATWS     | 1    | Reaction Arm, Sliding                  |       |
|                            |             | 1    | Screw, 1/4 - 28 x 2 - 1/4" long        |       |
|                            |             | 1    | Nylon Hex Nut, 1/4 - 28                |       |
| 3                          | SRATWS      | 1    | Reaction Arm, Straight                 |       |
|                            |             | 1    | Screw, 1/4 - 28 x 2" long              |       |
|                            |             | 1    | Nylon Hex Nut, 1/4 - 28                |       |
| 4                          | ERATWS      | 1    | Reaction Arm, Extended                 |       |
|                            |             | 1    | Screw, 1/4 - 28 x 2" long              |       |
|                            |             | 1    | Nylon Hex Nut, 1/4 - 28                |       |
| 5                          | BLTWS       | 1    | Reaction Arm, Blank                    |       |
|                            |             | 1    | Screw, 1/4 - 28 x 2" long              |       |
|                            |             | 1    | Nylon Hex Nut, 1/4 - 28                |       |
| 6                          | ED6TWS      | 1    | Extended Drive, 6" long (See Fig. 4B)  |       |
|                            |             | 1    | Screw, 1/4 - 28 x 3/8" long            |       |
| 7                          | ED12TWS     | 1    | Extended Drive, 12" long (See Fig. 4B) |       |
|                            |             | 1    | Screw, 1/4 - 28 x 3/8" long            |       |
| 8                          | ED18TWS     | 1    | Extended Drive, 18" long (See Fig. 4B) |       |
|                            |             | 1    | Screw, 1/4 - 28 x 3/8" long            |       |

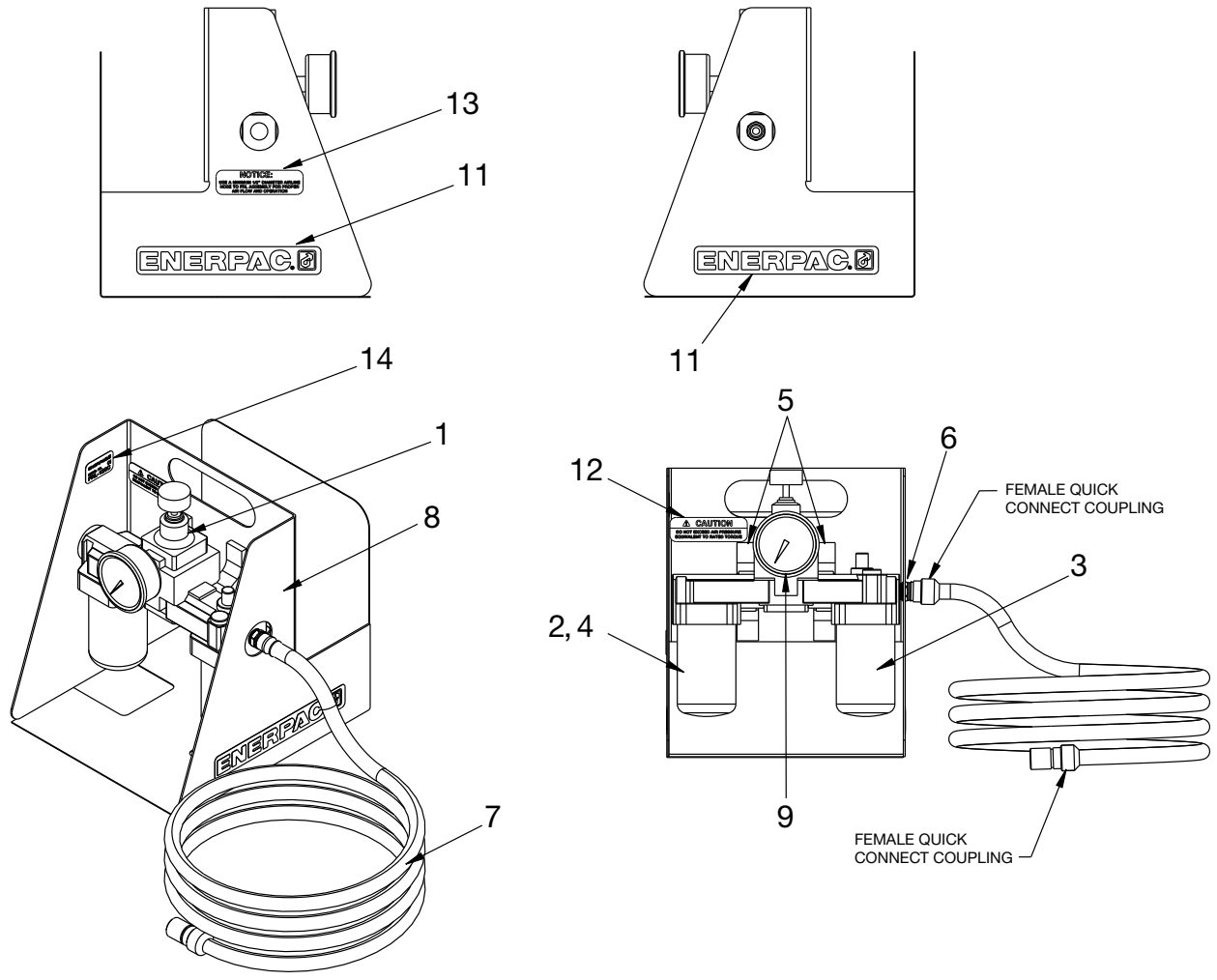
**NOTICE:** Mounting hardware not shown. See Figure 1 for standard reaction arm.

Fig. 4B, Extended Drive Components



| Repair Parts List, Fig. 4B |                           |             |             | L4081 |                             |
|----------------------------|---------------------------|-------------|-------------|-------|-----------------------------|
| Item                       | Drive Model / Part Number |             |             | Qty.  | Description                 |
|                            | ED6TWS                    | ED12TWS     | ED18TWS     |       |                             |
| 1                          | DD6632249SR               | DD6632249SR | DD6632249SR | 1     | Snap Ring                   |
| 2                          | DD6633503SR               | DD6633503SR | DD6633503SR | 1     | O-Ring                      |
| 3                          | DD6636039SR               | DD6636039SR | DD6636039SR | 1     | Bushing                     |
| 4                          | DD6621001SR               | DD6622001SR | DD6623001SR | 1     | Housing                     |
| 5                          | DD6638027SR               | DD6638027SR | DD6638027SR | 1     | Set Screw (package of four) |
| 6                          | DD6560229SR               | DD6560229SR | DD6560229SR | 1     | Square Drive                |
| 7                          | DD6626104SR               | DD6627104SR | DD6628104SR | 1     | Drive Extension             |

**Fig. 5, Filter/Regulator/Lubricator Assembly**



**Repair Parts List, Fig. 5**

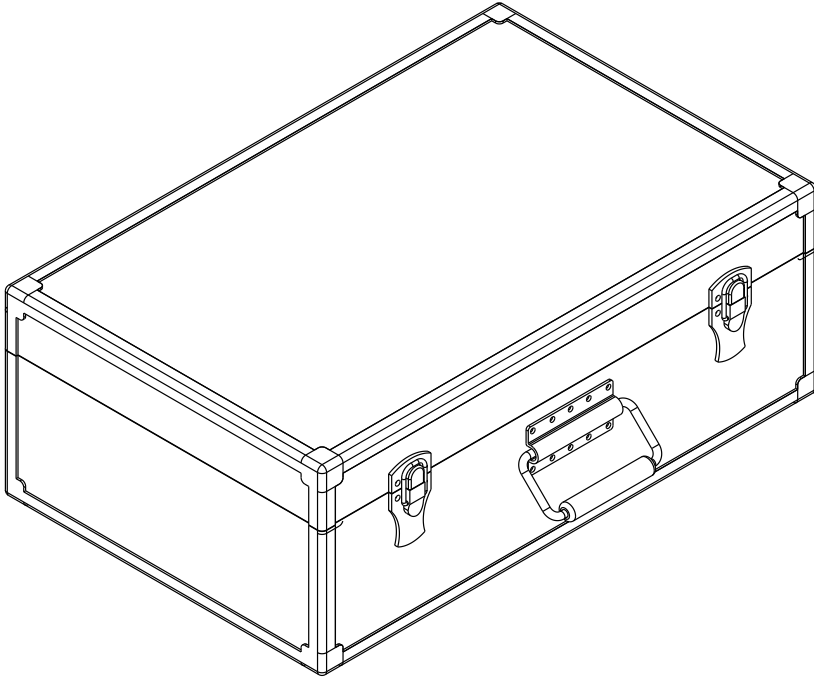
**L4081**

| Item | Part Number | Qty. | Description   |
|------|-------------|------|---|
| 1    | DD5528600SR | 1    | Regulator Assembly                                    |
| 2    | DD5530600SR | 1    | Filter Assembly, Auto Drain                           |
| 3    | DD5529600SR | 1    | Lubricator Unit                                       |
| 4    | DD5531600SR | 1    | Filter Element  |
| 5    | DD5532600SR | 1    | Mounting Bracket                                      |
| 6    | DD5767095SR | 1    | Fitting, 1/2" Male Coupling Plug x 1/2" - 14 NPT      |
| 7    | DD5534600SR | 1    | Hose Assembly, 10 Foot (with quick connect couplings) |
| 8    | DD5533600SR | 1    | Enclosure   |
| 9    | DD5535600SR | 1    | Air Gauge   |
| 10   | DD5536600SR | 1    | Oil, Air System Lubricant (not shown)                 |
| 11   | * DD4870026 | 2    | Decal, Enerpac  |
| 12   | * DD5543026 | 1    | Decal, Caution, Air Pressure                          |
| 13   | * DD5544026 | 1    | Decal, Notice, Air Flow                               |
| 14   | * DD5578026 | 1    | Decal, Product  |

\* Included as part of FRLDECAL Filter/Regulator/Lubricator Decal Set.



**Fig. 6, Protective Storage Case**



| Repair Parts List, Fig. 6 |             |      | L4081   |
|---------------------------|-------------|------|---|
| Item                      | Part Number | Qty. | Description   |
| 1                         | DD4725530SR | 1    | Protective Storage Case, Models PTW1000 and PTW2000 |

NOTES:

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# NOTES:

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