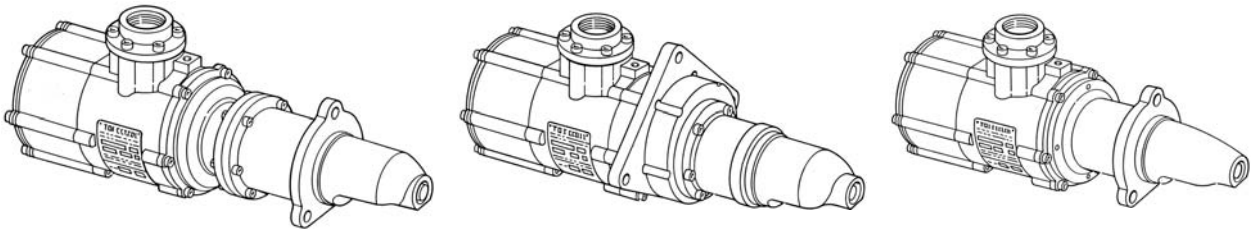


ILLUSTRATED PARTS BREAKDOWN
for TURBOTWIN ENGINE STARTERS
MODELS: T112B/T121B, T112D/T121D, T106F/T112F
EFFECTIVE S/N: 9611-192



IMPORTANT NOTE

The purpose of this illustrated parts breakdown is to provide part number identification of the various components of the listed starters. Only those parts which may be disassembled at the field or repair shop level are broken out and identified. Certain parts or components are "factory only" assemblies, and should not be disassembled below the level shown in this document. Do not disassemble or reassemble the starter without referring to the proper TDI TURBOTWIN service manual. The use of improper procedures, non-authorized replacement parts or incorrect tools, may result in a faulty operating starter which could affect its performance or create a hazardous condition.

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| Key No. | Description | Part Number | Overhaul Kits | | |
|---------|---|----------------|---------------|---|---|
| | | | B | D | F |
| 1 | Screw (6) | 11F- 25020-072 | ✓ | ✓ | ✓ |
| 2 | Screen Support Ring | Use 2-28175 | | | |
| 3 | Screen | 2-28175 | | | |
| 4 | Screw | 19F- 25028-012 | ✓ | ✓ | ✓ |
| 5 | Washer | 9-93047 | | | |
| 6 | Rotor 2 | 2-26604 | | | |
| 7 | Woodruff Key | 9-90211-006 | | | |
| 8 | Seal Spacer (3) | 9-93083-001 | ✓ | ✓ | ✓ |
| 9 | Seal, Lip (2) | 2-26719 | ✓ | ✓ | ✓ |
| 10 | Bearing (2) | 9-91224 | ✓ | ✓ | ✓ |
| 11 | O-ring | 9-90001-027 | ✓ | ✓ | ✓ |
| 12 | Wave Spring Washer | 9-90439 | ✓ | ✓ | ✓ |
| 13i | Nozzle 2/Containment Ring R.H. | 2-27333-00R | | | |
| 13ii | Nozzle 2/Containment Ring L.H. | 2-27333-00L | | | |
| 14 | O-ring (2) | 9-90001-050 | ✓ | ✓ | ✓ |
| 15 | Rotor 1 | 2-26603 | | | |
| 16 | Woodruff Key | 9-90211-009 | | | |
| 17 | Lip Seal (See Service Bulletin 96 & 97) | 2-22376 | ✓ | ✓ | ✓ |
| 18 | Screw (14) | 14F-19024-008 | ✓ | ✓ | ✓ |
| 19i | Nozzle 1, R.H. 21 Noz | 2-26718-21R | | | |
| 19ii | Nozzle 1, L.H. 21 Noz | 2-26718-21L | | | |
| 19iii | Nozzle 1, R.H. 12 Noz | 2-26718-12R | | | |
| 19iv | Nozzle 1, L.H. 12 Noz | 2-26718-12L | | | |
| 19v | Nozzle 1, R.H. 6 Noz | 2-26718-06R | | | |
| 19vi | Nozzle 1, L.H. 6 Noz | 2-26718-06L | | | |
| 20 | Pipe Plug | 9-93556-004 | | | |
| 21 | O-ring | 9-90001-034 | ✓ | ✓ | ✓ |
| 22 | Screw (6) or (12 for T112D/T121D std) | 14F-31218-016 | ✓ | ✓ | ✓ |

| Key No. | Description | Part Number | B | D | F |
|---------|------------------------------|---------------|---|---|---|
| 23 | Inlet Flange | 1-18967 | | | |
| 24 | O-ring | 9-90001-037 | ✓ | ✓ | ✓ |
| 25 | Set Screw (See Note 1) | 52F-50013-016 | | | |
| 26 | Turbine Housing (See Note 1) | 2-27045 | | | |
| 27 | Screw (6) | 14F-25020-016 | ✓ | | ✓ |
| 28 | Pipe Plug | 9-93501-004 | | | |
| 29 | Ring Gear (See Note 1) | 1-18780 | | | |
| 30 | Bearing Spacer | 9-93091-001 | | | |
| 31 | Screw (4) | 14F-25020-008 | | | ✓ |
| 32 | Clamping Plate | 2-26750 | | | |
| 33 | Turbine Shaft | 2-26554 | | | |
| 34 | Retainer Ring (3) | 9-92001-001 | | | |
| 35 | Planet Gear Carrier Shaft | 2P-20156-006 | | | |
| 36 | Washer (6) | 9-93004 | | | |
| 37 | Planet Gear (3) | 1-19441 | | | |
| 38 | Needle Roller Bearing (3) | 9-91004-001 | ✓ | ✓ | ✓ |
| 39 | Planet Shaft (3) | 2P-20182 | | | |
| 40 | Woodruff Key (2) | 9-90211-019 | | | |
| 41 | Bearing (2) | 9-91351 | ✓ | | |
| 42 | Wave Spring Washer | 9-90402-025 | | | |
| 43 | Bearing Spacer | 9-93007 | | | |
| 44 | Gearbox Housing | 2-22226 | | | |
| 45 | Screw (6) | 14F-25020-028 | | ✓ | |
| 46 | Retainer Plate | 1-18817 | | | |
| 47 | Lockwasher | 9-93061-007 | | | |
| 48 | Retainer Nut | 9-92127-007 | | | |
| 49 | Drive Housing | 2-22301 | | | |
| 50i | Inertia Drive Assembly, R.H. | 2-22795 | | | |
| 50ii | Inertia Drive Assembly, L.H. | 2-22796 | | | |

| Key No. | Description | Part Number | B | D | F |
|---------|------------------------------|-----------------------------|---|---|---|
| 51 | Retaining Ring | Included with item 50 or 57 | | | |
| 52 | Spring | Included with item 50 or 57 | | | |
| 53 | Set Screw | Included with item 50 or 57 | | | |
| 54 | Needle Bearing | 9-91393 | | | |
| 55 | Adapter Plate | 2-22794 | | | |
| 56 | Screw | 14F-31218-020 | | ✓ | |
| 57i | Inertia Drive Assembly, R.H. | 1-18828 | | | |
| 57ii | Inertia Drive Assembly, L.H. | 1-19083 | | | |
| 58 | Gearbox Housing | 1-18810 | | | |
| 59 | Lock Nut (6) | 9-92107-015 | ✓ | | |
| 60 | Screw (6) | 11F-31218-024 | ✓ | | |
| 61 | Drive Housing | 1-18822 | | | |
| 62 | Needle Bearing | 9-91005 | ✓ | ✓ | |
| 63 | Carrier Shaft | 3P-20858-006 | | | |
| 64 | Retainer Plate | 2-20855 | | | |
| 65 | Bearing | 9-91356 | | | ✓ |
| 66 | Snap Ring | 9-92001-006 | | | |
| 67 | Lock Nut | 9-92105-008 | | | |
| 68i | Inertia Drive Assembly, R.H. | 2-22147 | | | |
| 68ii | Inertia Drive Assembly, L.H. | 2-22148 | | | |
| 69 | Drive Housing | 2-20826 | | | |
| 70 | Needle Bearing | 9-91380 | | | ✓ |

Note 1: These parts are recommended factory only assembled.

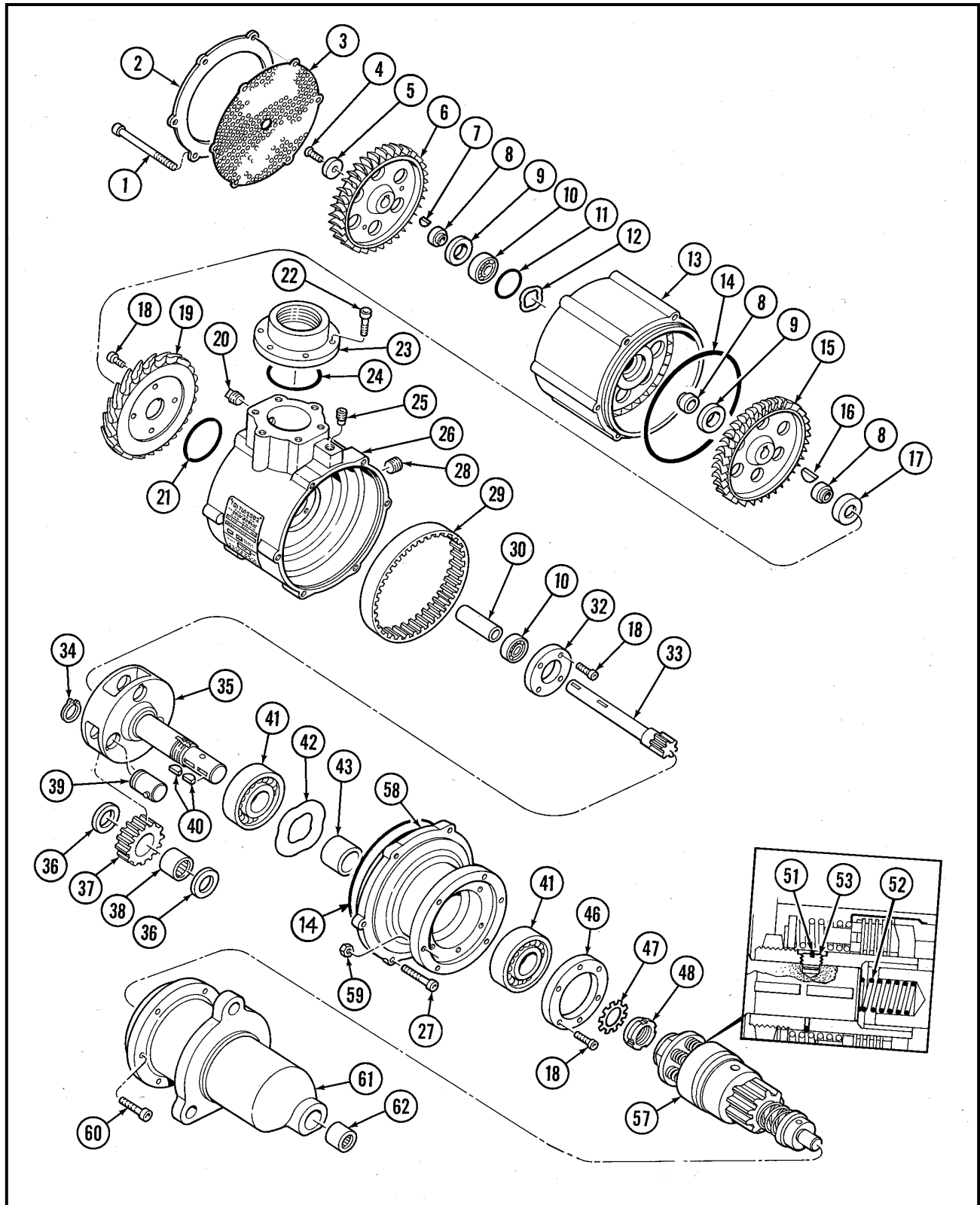


Figure 1. Illustrated Parts Breakdown (T112B/T121B)

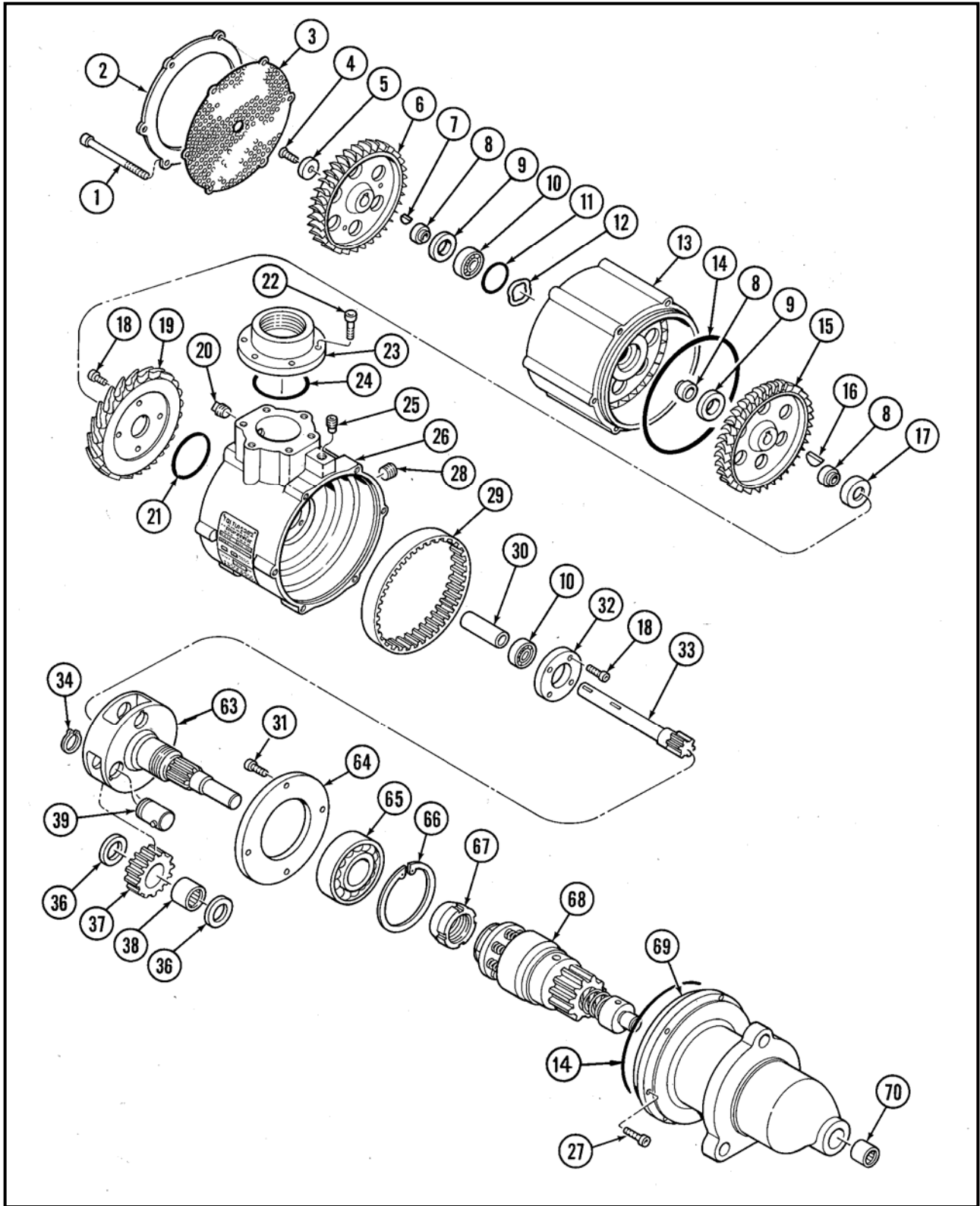


Figure 2. Illustrated Parts Breakdown (T106F/T112F)

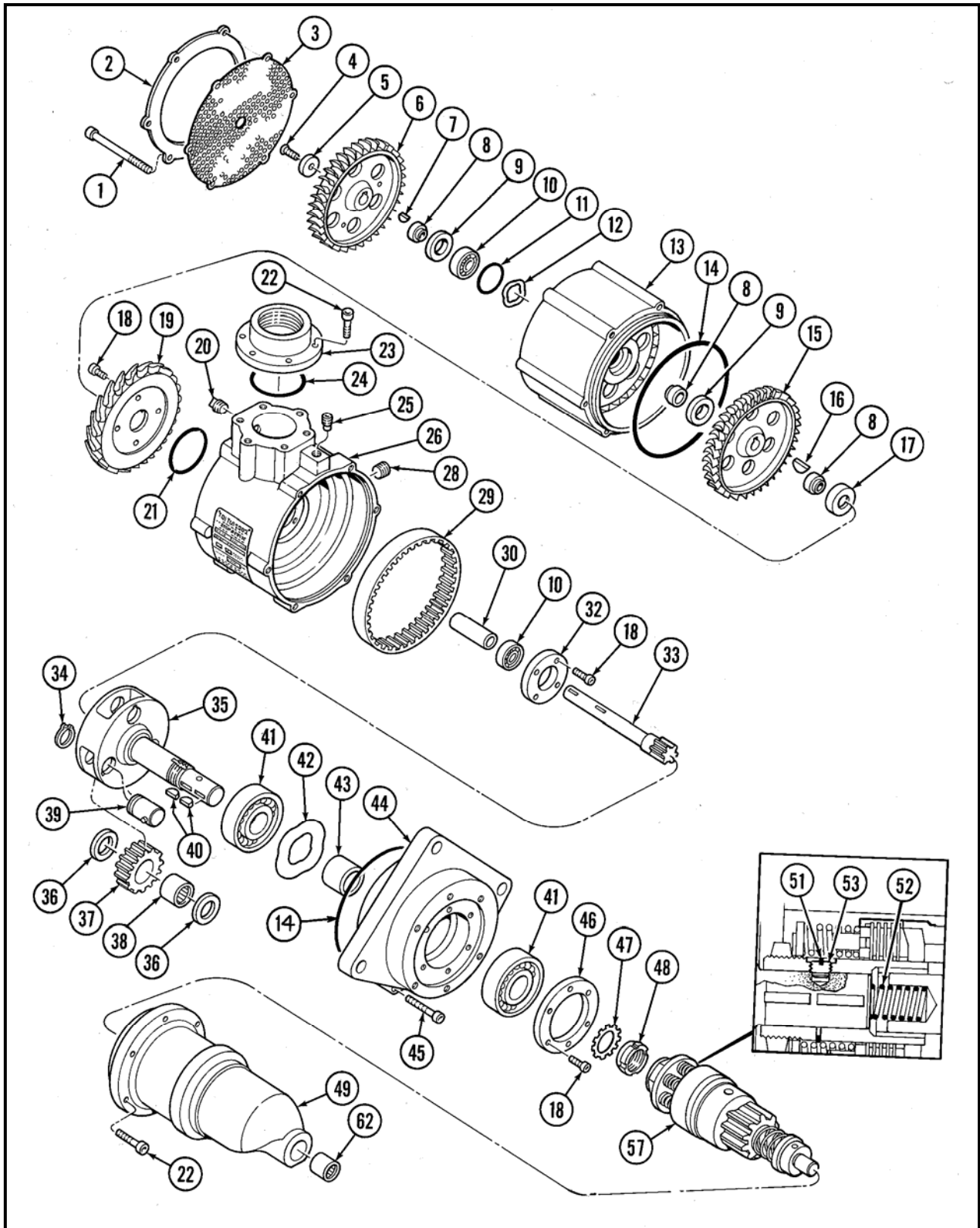


Figure 3. Illustrated Parts Breakdown (T112D/T121D, Standard Mesh)

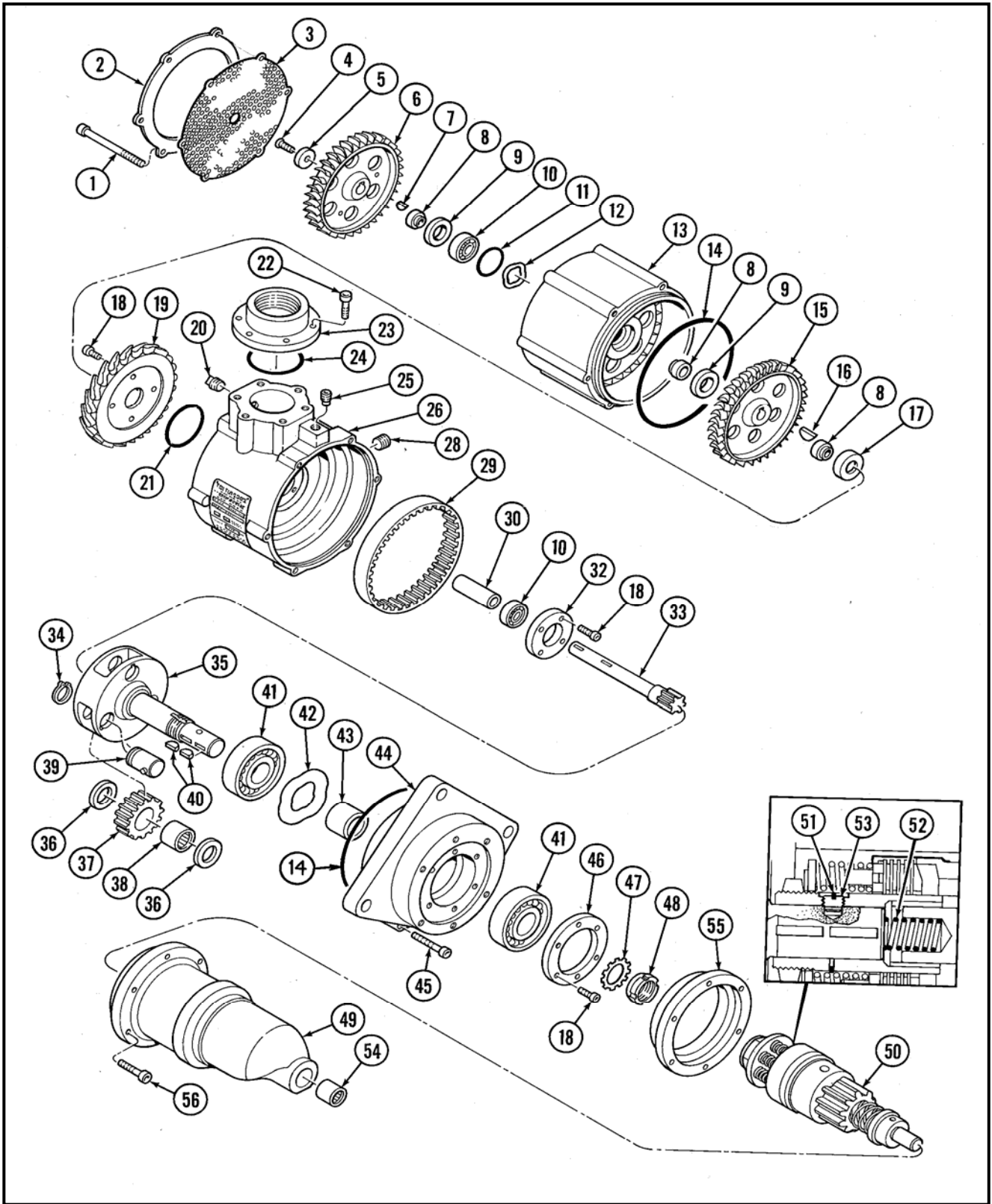


Figure 4. Illustrated Parts Breakdown (T112D/T121D, Long Mesh)

ILLUSTRATED PARTS BREAKDOWN FOR T100 TURBINE ASSEMBLY
Effective S/N: 0109-181

| Key No. | Description | Part Number | B | D | F |
|---------|---------------------------------------|----------------|---|---|---|
| 1 | Screw (6) | 11F- 25020-072 | ✓ | ✓ | ✓ |
| 2 | Screen | 2-28175 | | | |
| 3 | Screw | 19F- 25028-012 | ✓ | ✓ | ✓ |
| 4 | Washer | 9-93047 | | | |
| 5 | Rotor 2 | 2-26604 | | | |
| 6 | Woodruff Key | 9-90211-006 | | | |
| 7 | Bearing Spacer | 9-93091-005 | ✓ | ✓ | ✓ |
| 8 | Bearing (2) | 9-91224 | ✓ | ✓ | ✓ |
| 9 | O-ring | 9-90001-027 | ✓ | ✓ | ✓ |
| 10 | Wave Spring Washer | 9-90439 | ✓ | ✓ | ✓ |
| 11 | Screw (4) | 11A-37516-008 | | | |
| 12i | Nozzle 2/Containment Ring R.H. | 2-27333-00R | | | |
| 12ii | Nozzle 2/Containment Ring L.H. | 2-27333-00L | | | |
| 13 | O-ring | 9-90001-050 | ✓ | ✓ | ✓ |
| 14 | Seal Spacer (2) | 9-93083-001 | ✓ | ✓ | ✓ |
| 15 | Lip Seal (2) | 2-26719 | ✓ | ✓ | ✓ |
| 16 | Rotor 1 | 2-26603 | | | |
| 17 | Woodruff Key | 9-90211-009 | | | |
| 18 | Screw (8) | 14F-19024-008 | ✓ | ✓ | ✓ |
| 19i | Nozzle 1, R.H. 21 Noz | 2-26718-21R | | | |
| 19ii | Nozzle 1, L.H. 21 Noz | 2-26718-21L | | | |
| 19iii | Nozzle 1, R.H. 12 Noz | 2-26718-12R | | | |
| 19iv | Nozzle 1, L.H. 12 Noz | 2-26718-12L | | | |
| 19v | Nozzle 1, R.H. 6 Noz | 2-26718-06R | | | |
| 19vi | Nozzle 1, L.H. 6 Noz | 2-26718-06L | | | |
| 20 | Pipe Plug | 9-93556-004 | | | |
| 21 | O-ring | 9-90001-034 | ✓ | ✓ | ✓ |
| 22 | Screw (6) or (12 for T112D/T121D std) | 14F-31218-016 | ✓ | ✓ | ✓ |

| Key No. | Description | Part Number | B | D | F |
|---------|-----------------|-------------|---|---|---|
| 23 | Inlet Flange | 1-18967 | | | |
| 24 | O-ring | 9-90001-037 | ✓ | ✓ | ✓ |
| 25 | Turbine Housing | 2-27869 | | | |
| 26 | Pipe Plug | 9-93501-004 | | | |
| 27 | O-ring (2) | 9-90001-050 | ✓ | ✓ | ✓ |
| 28 | Ring Gear | 2-27870 | | | |
| 29 | Bearing Spacer | 9-93091-001 | | | |
| 30 | Clamping Plate | 2-26750 | | | |
| 31 | Turbine Shaft | 2-26554 | | | |

Note 2: The T100 gearbox and drive assemblies have not been modified.

| Model | Overhaul Kit for S/N's before: 9611-191 | Overhaul Kit for S/N's: 9611- 192 to 0109-180 | Overhaul Kit for S/N's: 0109-181 and after |
|-------|--|--|---|
| B | T10B-27618 | T10B-27634 | T10B-28742 |
| D | T10D-27619 | T10D-27635 | T10D-28743 |
| F | T10F-27617 | T10F-27633 | T10F-28744 |

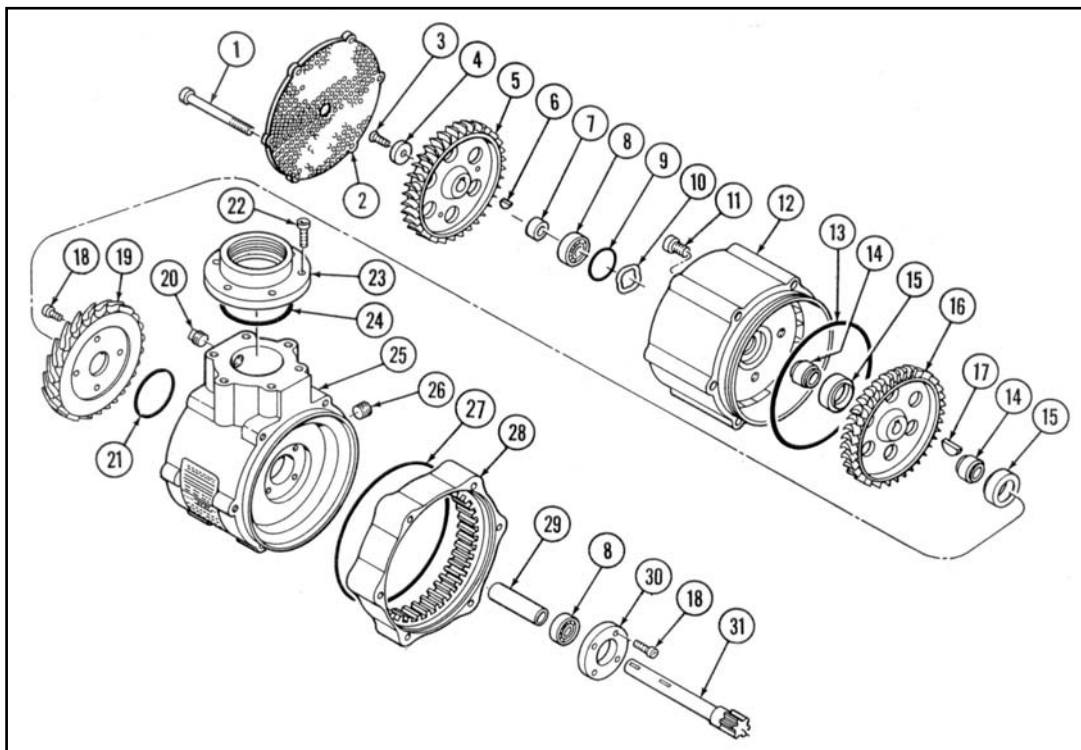


Figure 5. T100 Series Air Starter Turbine Assembly (S/N: 0109-181 and after)