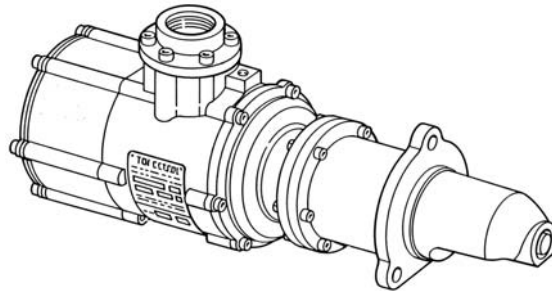


## ILLUSTRATED PARTS BREAKDOWN for **TURBOTWIN** ENGINE STARTERS



**MODELS: T109B, T112B, T115B, & T121B**  
**(9.0:1 Gear Ratio)**

**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.

**RJ Mann & Associates Inc.**  
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**TOP ASSEMBLY PART NUMBERS COVERED IN THIS PUBLICATION**

MODEL NUMBER	PART NUMBER	PRESSURE RANGE (PSIG)	NO. OF NOZZLES (ITEM 19)	DIRECTION OF ROTATION	TDI DRIVE PART NUMBER
T109B	T109-60022-B1R-1	60-150	9	R.H.	1-18828
T109B	T109-60022-B2L-1	60-150	9	L.H.	1-19083
T112B	T112-60022-B1R-1	60-120	12	R.H.	1-18828
T112B	T112-60022-B2L-1	60-120	12	L.H.	1-19083
T115B	T115-60022-B1R-1	30-90	15	R.H.	1-18828
T115B	T115-60022-B2L-1	30-90	15	L.H.	1-19083
T121B	T121-60022-B1R-1	30-60	21	R.H.	1-18828
T121B	T121-60022-B2L-1	30-60	21	L.H.	1-19083

**TURBOTWIN ENGINE STARTER REPAIR PARTS LIST**

KEY NO.	DESCRIPTION	PART NUMBER
1	Screw (6)	11F- 25020-072
2	Screen Support Ring (See Note1)	2-20831
3	Screen (See Note 1)	2-26148
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 (1)	9-90001-027
12	Wave Spring Washer	9-90439
13	Nozzle 2/Containment Ring R.H.	2-27333-00R
13	Nozzle 2/Containment Ring L.H.	2-27333-00L
14	O-ring	9-90001-050
15	Rotor 1	2-26603
16	Woodruff Key	9-90211-009
17	Lip Seal	2-22376
18	Screw (14)	14F-19024-008
19	Nozzle 1, R.H., 21 Nozzles	2-26718-21R
19	Nozzle 1, L.H., 21 Nozzles	2-26718-21L
19	Nozzle 1, R.H., 15 Nozzles	2-26718-15R
19	Nozzle 1, L.H., 15 Nozzles	2-26718-15L
19	Nozzle 1, L.H., 12 Nozzles	2-26718-12R
19	Nozzle 1, L.H., 12 Nozzles	2-26718-12L
19	Nozzle 1, R.H., 9 Nozzles	2-26718-09R
19	Nozzle 1, L.H., 9 Nozzles	2-26718-09L

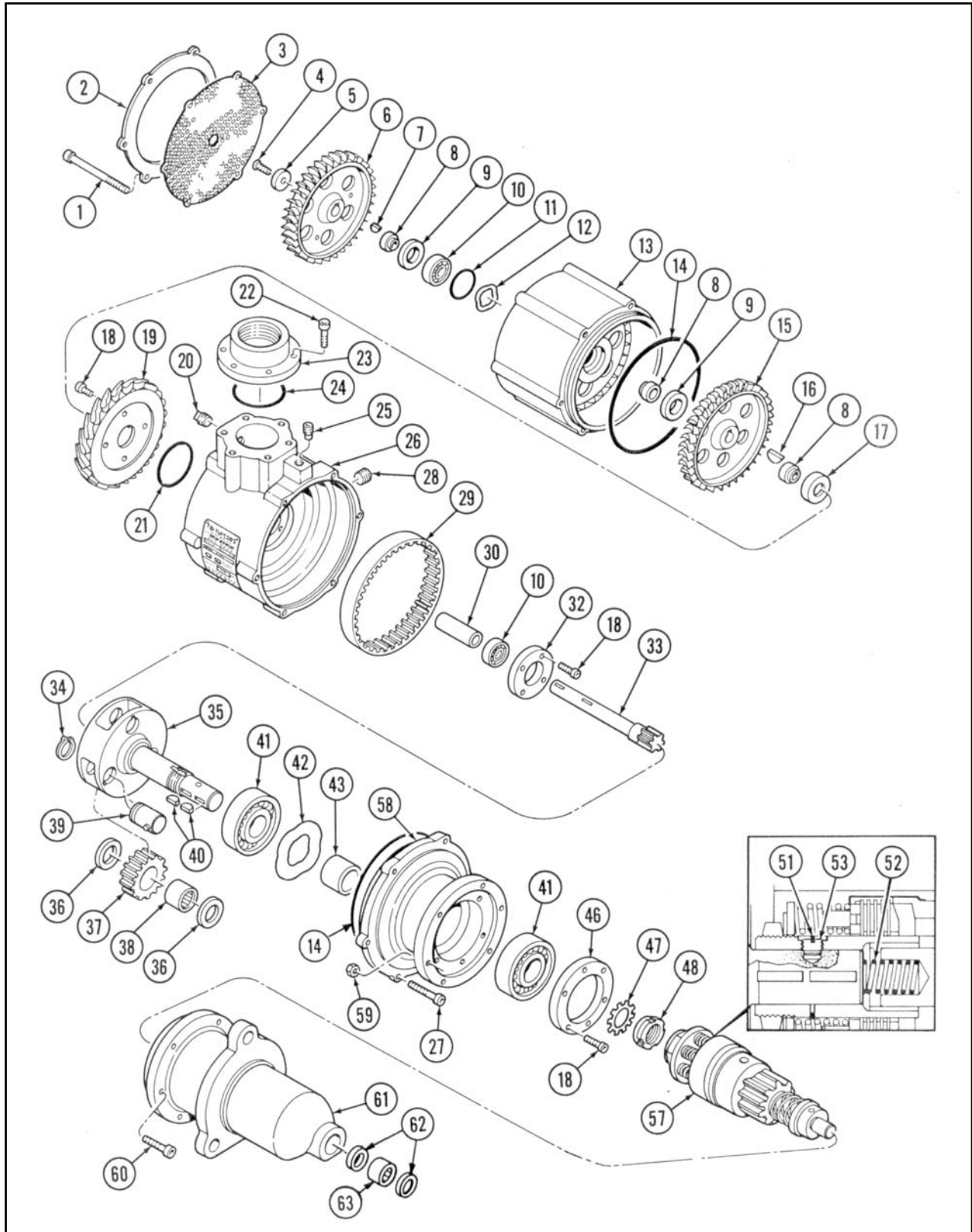
KEY NO.	DESCRIPTION	PART NUMBER
20	Pipe Plug	9-93556-004
21	O-ring	9-90001-034
22	Screw (6) or (12 for T112D/T121D std)	14F-31218-016
23	Inlet Flange	1-18967
24	O-ring	9-90001-037
25	Set Screw (See Note 2)	52F-50013-016
26	Turbine Housing (See Note 2)	2-27045
27	Screw (6)	14F-25020-016
28	Pipe Plug	9-93501-004
29	Ring Gear (See Note 2)	1-18780
30	Bearing Spacer	9-93091-001
31	Screw (4)	14F-25020-008
32	Clamping Plate	2-26750
33	Turbine Shaft	2-27238
34	Retainer Ring (3)	9-92001-001
35	Planet Gear Carrier Shaft	2P-20156-007
36	Washer (6)	9-93004
37	Planet Gear (3)	1-18779
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	Lock washer	9-93061-007

KEY NO.	DESCRIPTION	PART NUMBER
48	Retainer Nut	9-92127-007
49	Drive Housing	2-22301
50	Inertia Drive Assembly, R.H.	2-22795
50	Inertia Drive Assembly, L.H.	2-22796
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
57	Inertia Drive Assembly, R.H.	1-18828
57	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	Seal, Lip (2)	2-22685
63	Needle Bearing	9-91005

Notes:

1. The Support Ring and Screen is replaced by the Exhaust Screen Guard (P/N: 2-28175).
2. These parts are recommended factory only assembled.

**TDI TURBOTWIN™**  
FROM TECH DEVELOPMENT



Exploded View of **TURBOTWIN** Air Starter (9.0:1 Ratio), Models: T109B, T112B, T115B, & T121B