



No. 502-PMD-08

NOTE: This manual insert supersedes Section VII, Posidyne, Size 02, Nos 1 thru 5, Pg. 10.

POSIDYNE PMD 2000, SIZE 02 (SEE FIGURE 11 & DWG. 45-PMD 2000-08)

Disassemble in the sequence of index numbers, noting the following:

1. Remove fan parts (1 thru 5, as applicable) from fan cooled units only.

2. Removal of end housing cap screws (6) will allow the unit to be broken down into its three sub-assemblies (input assembly, output assembly with worm gear reducer and piston housing assembly). The input assembly (27 thru 37), output assembly with worm gear reducer (38 thru 50) with (60 thru 92) and piston housing assembly (8 thru 26). This also permits removal of the clutch and brake drive plates (22) and friction discs (21). Jackscrew holes are provided to aid in separating the housings.

3. Disassemble the input housing assembly as required in the sequence of index numbers noting the following:

a. Use an arbor press to remove input shaft (30) and bearing (33), only if bearing replacement is required.

4. Disassemble the output housing assemble as required in the sequence of index numbers, noting the following:

a. To separate the output housing (51) from the worm gear reducer assembly (83). First remove bearing retainer (41), socket head cap screws (39) and shim (61). Then the keyless shrink disc (60), loosen hex head cap screws in several stages by using approx. 1/2 turns, following either a clock or counterclockwise sequence till shrink disc can be moved. Do not remove hex head cap screws completely. Removal of cap screws (62) will allow the two housings (51 & 83) to be separated.

b. When using an 02 posidyne with a worm gear reducer, the posidyne output shaft (42) is shorter and bearing (45), locknut (44), wear sleeve (43) are not required.

5. Disassemble the piston housing assembly as required in the sequence of index numbers, noting the following:

a. The "S" model piston housing assembly requires jackscrews to remove the piston retainer (11). This allows further disassembly of the piston assembly.

b. Press out thrust plate bearing (20), if replacement is required.

6. Disassemble the worm gear reducer assembly as required in the sequence of index numbers.

a. When reassembling worm gear reducer, note orientation of the worm shaft (89) and extended output shaft (81) to maintain correct shaft locations. However, when a double extended output shaft (81) is used, an additional oil seal (76) and key (82) are required. The freeze plug (77) is used with single extended output shaft only.

NOTES

1. Input shaft-dowl pin assembly, 30 & 31, and output bearing retainer-dowel pin assembly, 41 & 58, are permanent assemblies and should not be dismantled.

2. Optional C-face output (55, 56 & 57) are not available when using a posidyne drive with a worm gear reducer.



"SHIMING WORM GEAR SHAFT #89 AND OUTPUT SHAFT #81"

1. When reassembling the unit the Worm shaft #89 must be shimmed to obtain an end play of .005". Follow the sequence below:

a. Assemble worm shaft #89 with bearing cups #87 and bearing cones #88. Insert this assembly into main housing #83. Bolt bearing retainer #64 along with gasket #65 into place using screws #63 and washers #63A and 63B.

b. Bolt bearing retainer #68 into place with screws #67 and washers #67A leaving out shims #69 and #70 at this time. Tighten screws #67 slowly and evenly while at the same time turning worm shaft #89 by hand. Tighten screws #67 to the point that the worm shaft starts to bind, but not so tight that it can not be turned.

c. This will leave a gap between bearing retainer #68 and main housing #83. Measure this gap with feeler gages and add .005" inches to the measurement. This is the needed shim pack thickness. Remove bearing retainer #68 and assemble shims #69 and #70 to the thickness found above. Apply Copper Coat (K & W Products Inc. stock #1612) to all surfaces of the shims. Place the shim pack under the bearing retainer and bolt in place.

d. Check worm shaft #89 to make sure the end play is .005". Readjust the shim pack under bearing retainer #68 if required.

2. When reassembling the unit the output shaft #81 must also be shimmed to provide an end play of .003" - .005". Follow the sequence below:

a. Assemble the output shaft #81 with bearing cones #78 and bearing cups #79. Press oil seal #76 into one bearing retainer #73 and press freeze plug #77 into the bearing retainer #73.

b. Place the assembled output shaft into the main housing #83. Assemble two sets of shim packs measuring .045" in thickness using shims #74 and #75. Apply Copper Coat (K & W Products Inc. stock #1612) to all surfaces of the shims. Bolt bearing retainers #73, along with one shim pack per side, into place using screws #72 and washers #72A.

c. Check the output shaft to make sure the end play is set at .003" - .005". Readjust the bearing retainer shim packs if necessary, making sure that any shims added or removed are split evenly between the two sides. For example, if .004" more in shims are needed you would add a .002" thick



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INDEX NO.	PART REF. NO.	PART NAME	QTY/UNITS
60	822	Shrink Disc	1
61	870	Shim	1
62	844	H.H.C.S.	4
63	848	S.H.C.S.	6
64	804	Bearing Retainer	1
65	857	Gasket	1
66	824	Oil Seal	1
67	849	S.H.C.S.	4
68	805	Bearing Retainer	1
69	860	Shim	As Required
70	864	Shim	1
71	813	Spacer	1
72	845	H.H.C.S.	12
73	803	Bearing Retainer	2
74	865	Shim	As Required
75	866	Shim	As Required
* * 76	825	Oil Seal	1
* * 77	829	Freeze Plug	1
78	811	Bearing Cone	2
79	810	Bearing Cup	2
80	818	Worm Gear	1
* * 81	820	Extend. (O.P.) Shaft	1
* * 82	840	Key	2
* 83	800	Main Housing	1
84	832	Breather	1
85	835	Pipe Plug C'Sunk	5
* 86	836	90 Deg. St. Elbow	1
87	808	Bearing Cup	2
88	809	Bearing Cone	2
89	816	Worm Shaft	1
* 90	890	Foot Mounting Base	1
* 91	893	H.H.C.S.	4
* 92	895	Lockwashers	4

* Use when main housing requires mtg. surface, some have cast feet.

* * Use with extended & double extended shaft, quantity may change or may not be used.

PMD 2000 GEARBOX ASSEMBLY

