

ES4000 Series

Service Parts List



Large Frame Belt Driven

REPLACEMENT LIST:

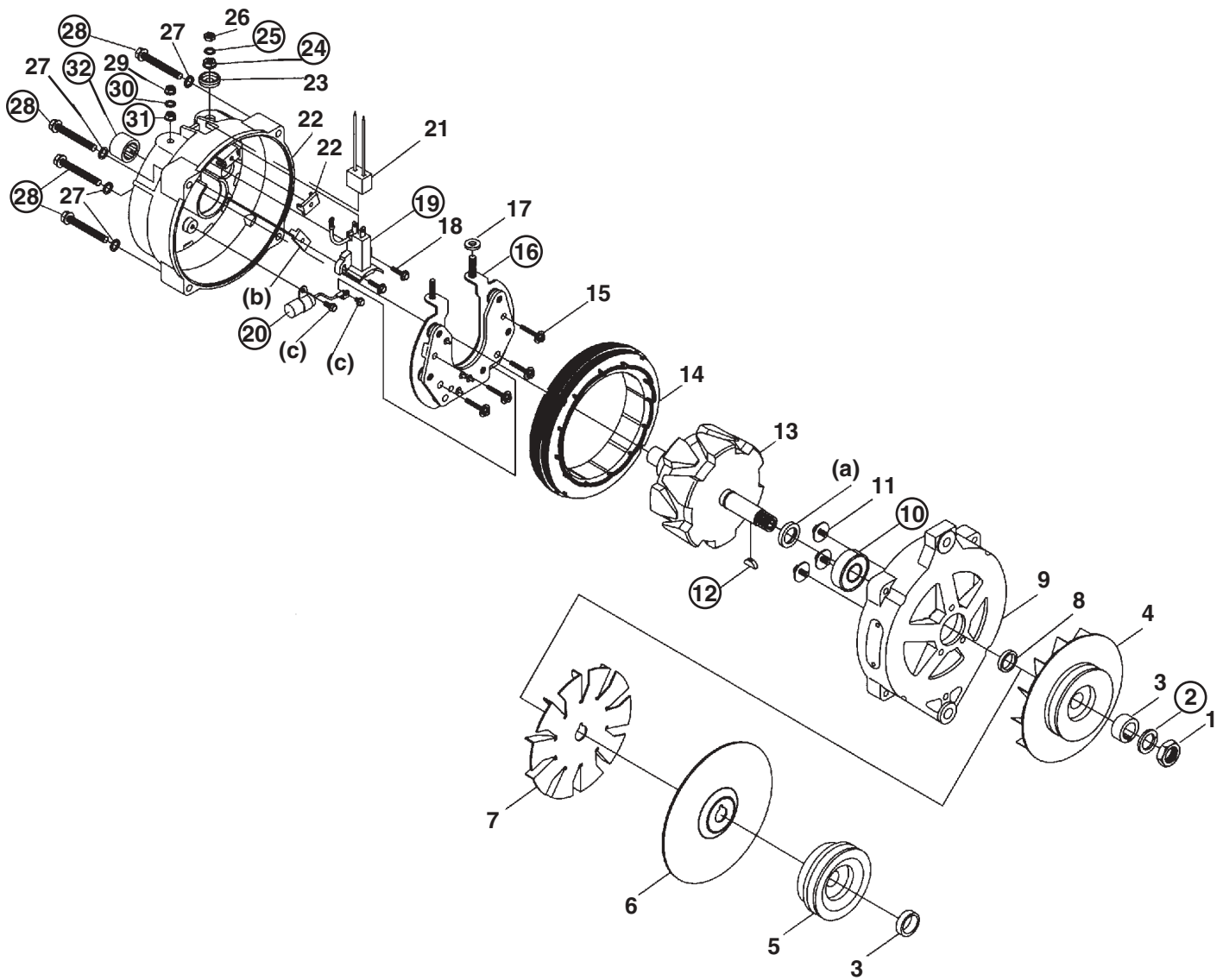
Original Equip. Alternator Part Number	Replaced By	Current Alternator Part Number	Factory Overhaul Alternator Part Number	Engine/Airframe Application
ES4003	Use	ES4003	ES4003R	Piper
ES4003LS*	Use	ES4003LS	ES4003RS	
ES4011	Use	ES4011	ES4011R	
ES4011LS	Use	ES4011LS	ES4011RS	
ES4011-1*	Use	ES4011-1	ES4011-1R	Lycoming & Mooney
ES4011-1LS*	Use	ES4011-1LS	ES4011-1RS	
ES4014*	Use	ES4014	ES4014R	Piper
ES4016*	Use	ES4016	ES4016R	
ES4019*	Use	ES4019	ES4019R	Lycoming
ES4019LS	Use	ES4019LS	ES4019RS	
ES4019-2LS*	Use	ES4019-2LS	ES4019-2RS	
ES4022*	Use	ES4022	ES4022R	

* Only available through the Engine or Airframe Manufacturer.

NOTE:

The "R" at the end of an "Original Equipment Alternator Part Number" now signifies Factory Overhauled. See parts list for alternator being serviced when component parts are required.

ES4000 Series (Exploded Parts View of Typical Large Frame Belt Driven Alt.)



NOTE:

Circled items represent mandatory replacement parts required at each overhaul.

No.	Part	ES4003	ES4003LS	ES4011	ES4011LS	ES4011-1	ES4011-1LS
1	Nut-Shaft	2A41435A04	2A41435A04	2A41435A04	2A41435A04	2A41435A04	2A41435A04
②	Lockwasher-Shaft	04A41436A06	04A41436A06	04A41436A06	04A41436A06	04A41436A06	04A41436A06
3	Spacer-Outer	ES4186	(NA)	ES4186	(NA)	ES4186-1	(NA)
4	Fan & Pulley Assembly	ES4249	(NA)	ES4249	(NA)	(NA)	(NA)
5	Pulley	(NA)	(NA)	(NA)	(NA)	ES40082	(NA)
6	Backplate Fan	(NA)	(NA)	(NA)	(NA)	PU-604B	(NA)
7	Fan	(NA)	(NA)	(NA)	(NA)	PU-605A	(NA)
8	Spacer-Fan	ES4185	(NA)	ES4185	(NA)	ES4220	ES4220
9	Front Housing	ES4204	ES4204	ES4204	ES4204	ES4204	ES4204
⑩	Front Bearing	X-4612	X-4612	X-4612	X-4612	X-4612	X-4612
11	Bearing Retainer Screw	ES4192	ES4192	ES4192	ES4192	ES4192	ES4192
⑪	Woodruff Key	ES4224	ES4224	ES4224	ES4224	ES4224	ES4224
13	Rotor Assembly	ES4199 (a)	ES4199 (a)	ES4200 (a)	ES4200 (a)	ES4200 (a)	ES4200 (a)
14	Stator Assembly	ES4194	ES4194	ES4194	ES4194	ES4194	ES4194
15	Screw & Washer-Rectifier	ES4191	ES4191	ES4191	ES4191	ES4191	ES4191
⑬	Rectifier Assembly	ES4203 (b)	ES4203 (b)	ES4203 (b)	ES4203 (b)	ES4203 (b)	ES4203 (b)
17	Battery Insulator-Inner	ES4115	ES4115	ES4115	ES4115	ES4115	ES4115
18	Screw-Brush Holder	ES4190	ES4190	ES4190	ES4190	ES4190	ES4190
⑮	Brush Holder	ES4201 (c)	ES4201 (c)	ES4201 (c)	ES4201 (c)	ES4201 (c)	ES4201 (c)
⑯	Capacitor	ES4202 (d)	ES4202 (d)	ES4202 (d)	ES4202 (d)	ES4202 (d)	ES4202 (d)
21	Adapter Harness	ES40024	ES40024	ES40024	ES40024	ES40024	ES40024
22	Rear Housing	ES4193	ES4193	ES4193	ES4193	ES4193	ES4193
23	Battery Insulator-Outer	ES4124	ES4124	ES4124	ES4124	ES4124	ES4124
⑳	Nut & Washer Assembly-Battery	ES4125	ES4125	ES4125	ES4125	ES4125	ES4125
㉑	Lockwasher-Battery	ES4208	ES4208	ES4208	ES4208	ES4208	ES4208
26	Nut-Battery	ES4210	ES4210	ES4210	ES4210	ES4210	ES4210
27	Lockwasher	12X-3074	12X-3074	12X-3074	12X-3074	12X-3074	12X-3074
28	Thru-bolt Package	ES4188	ES4188	ES4188	ES4188	ES4188	ES4188
29	Nut-Field & Ground	ES4209	ES4209	ES4209	ES4209	ES4209	ES4209
⑳	Lockwasher-Field & Ground	ES4207	ES4207	ES4207	ES4207	ES4207	ES4207
㉑	Nut & Washer Assy.-Ground/Field	ES4129	ES4129	ES4129	ES4129	ES4129	ES4129
㉒	Rear Bearing	X-4130	X-4130	X-4130	X-4130	X-4130	X-4130
X	Screw-Cooling Shroud Attach	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
X	Cooling Shroud	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
33	Repair Kit	90-3055	90-3055	90-3055	90-3055	90-3055	90-3055

Notes:

- (a) ES4107 Rotor Stop also available.
- (b) ES4184 Rectangle Rectifier Insulator also available.
- (c) Springs & Brushes included.
- (d) ES4187 Capacitor Terminal Screw & ES4189 Capacitor Attaching Screw also available.
- (NA) Not Applicable.
- Circled items represent mandatory replacement items and are available for repair kits from Hartzell Engine Technologies.
- X Part not shown on drawing.

No.	Part	ES4014	ES4016	ES4019	ES4019LS	ES4019-2LS	ES4022
1	Nut-Shaft	2A41435A04	2A41435A04	2A41435A04	2A41435A04	2A41435A04	2A41435A04
②	Lockwasher-Shaft	04A41436A06	04A41436A06	04A41436A06	04A41436A06	04A41436A06	04A41436A06
3	Spacer-Outer	(NA)	(NA)	ES4186	(NA)	(NA)	ES4186
4	Fan & Pulley Assembly	(NA)	(NA)	ES4249	(NA)	(NA)	ES4249
5	Pulley	ES4212	ES4212	(NA)	(NA)	(NA)	(NA)
6	Backplate Fan	ES4299-2	ES4299-2	(NA)	(NA)	PU-604B	(NA)
7	Fan	ES4295	ES4295	(NA)	(NA)	PU-605A	(NA)
8	Spacer-Fan	ES4220	ES4220	ES4185	ES4185	ES4220	ES4185
9	Front Housing	ES4204	ES4204	ES4204	ES4204	ES4204	ES4204
⑩	Front Bearing	X-4612	X-4612	X-4612	X-4612	X-4612	X-4612
11	Bearing Retainer Screw	ES4192	ES4192	ES4192	ES4192	ES4192	ES4192
⑫	Woodruff Key	ES4224	ES4224	ES4224	ES4224	ES4224	ES4224
13	Rotor Assembly	ES4200 (a)	ES4199 (a)	ES40048 (a)	ES40048 (a)	ES40048 (a)	ES4199 (a)
14	Stator Assembly	ES4194	ES4194	ES4235	ES4235	ES4235	ES4235
15	Screw & Washer-Rectifier	ES4191	ES4191	ES4191	ES4191	ES4191	ES4191
⑬	Rectifier Assembly	ES4203 (b)	ES4203 (b)	ES4203 (b)	ES4203 (b)	ES4203 (b)	ES4203 (b)
17	Battery Insulator-Inner	ES4115	ES4115	ES4115	ES4115	ES4115	ES4115
18	Screw-Brush Holder	ES4190	ES4190	ES4190	ES4190	ES4190	ES4190
⑭	Brush Holder	ES4201 (c)	ES4201 (c)	ES4201 (c)	ES4201 (c)	ES4201 (c)	ES4201 (c)
⑮	Capacitor	ES4202 (d)	ES4202 (d)	ES4202 (d)	ES4202 (d)	ES4202 (d)	ES4202 (d)
21	Adapter Harness	ES40024	ES40024	ES40024	ES40024	ES40024	ES40024
22	Rear Housing	ES4193	ES4193	ES4193	ES4193	ES4193	ES4193
23	Battery Insulator-Outer	ES4124	ES4124	ES4124	ES4124	ES4124	ES4124
⑯	Nut & Washer Assembly-Battery	ES4125	ES4125	ES4125	ES4125	ES4125	ES4125
⑰	Lockwasher-Battery	ES4208	ES4208	ES4208	ES4208	ES4208	ES4208
26	Nut-Battery	ES4210	ES4210	ES4210	ES4210	ES4210	ES4210
27	Lockwasher	12X-3074	12X-3074	12X-3074	12X-3074	12X-3074	12X-3074
28	Thru-bolt Package	ES4188	ES4188	ES4188	ES4188	ES4188	ES4188
29	Nut-Field & Ground	ES4209	ES4209	ES4209	ES4209	ES4209	ES4209
⑳	Lockwasher-Field & Ground	ES4207	ES4207	ES4207	ES4207	ES4207	ES4207
㉑	Nut & Washer Assy.-Ground/Field	ES4129	ES4129	ES4129	ES4129	ES4129	ES4129
㉒	Rear Bearing	X-4130	X-4130	X-4130	X-4130	X-4130	X-4130
X	Screw-Cooling Shroud Attach	(NA)	(NA)	(NA)	(NA)	ES4106-1	(NA)
X	Cooling Shroud	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
33	Repair Kit	90-3055	90-3055	90-3055	90-3055	90-3055	90-3055

Notes:

- (a) ES4107 Rotor Stop also available.
- (b) ES4184 Rectangle Rectifier Insulator also available.
- (c) Springs & Brushes included.
- (d) ES4187 Capacitor Terminal Screw & ES4189 Capacitor Attaching Screw also available.
- (NA) Not Applicable.
- Circled items represent mandatory replacement items and are available for repair kits from Hartzell Engine Technologies.
- X Part not shown on drawing.