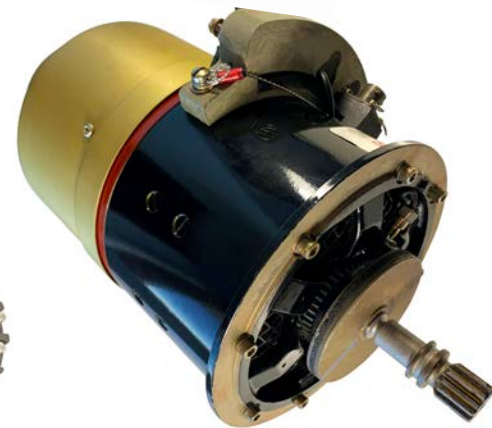
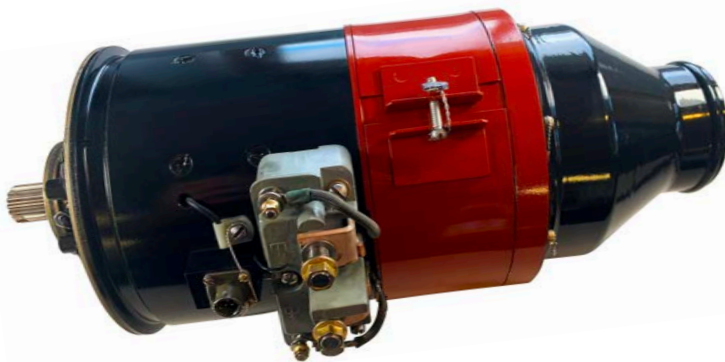




**ETR-20™ and ETR-25™
STARTER GENERATOR
IMPROVEMENT PROGRAMS
1,000 HOUR BRUSH LIFE GUARANTEE**





ETR-20™

ETR-25 Mercury Mod™ **Starter Generator Application List**

Helicopter Sector

Since 1984 NAASCO has served the helicopter sector and we proudly support the following markets:

- **Aerial Photography / Observation**
- **Agriculture**
- **Air Ambulance – Medical Transportation**
- **Air-Taxi / General Transportation**
- **Cargo**
- **Construction**
- **Corporate Aircraft**
- **Federal and Municipal Agencies**
- **Firefighting**
- **Forestry Services**
- **Law Enforcement**
- **Military Operations**
- **News and Media**
- **Off-Shore Support**
- **Search and Rescue**
- **Tourism**
- **Utility Services**



Fitted to the following helicopter OEM's:

- **Augusta - Leonardo**
- **Airbus**
- **Bell**
- **Enstrom**
- **MD Helicopter**
- **Schweizer Helicopter**
- **Sikorsky**



ETR-20™

ETR-25 Mercury Mod™
Starter Generator Application List

Fixed Wing Turboprop Sector

Since 1984 NAASCO has served the turboprop sector and we proudly support and have applications fitted for following aircraft OEM's:



- Air Tractor
- Arava 102
- AT400; 400A; AT502; AT503
- ATR42; ATR72
- Ayres
- Beech 1900
- Beech 99
- Beech 99A
- Beech RC-12
- Beech RU-21
- Beech U-21
- Beech; Y-12
- Beechcraft T-34
- Bombardier DHC-7
- Bombardier DHC-8
- C580 (APU)
- C600 (APU)
- Canadair CL215T
- CASA C101
- CASA C212
- Cessna
- Cessna 421 TURBO
- Cessna 441
- Cessna Caravan 208
- Cheyenne
- Cheyenne 400 LS
- Cheyenne I; II; III
- Conquest 441
- DC 3 Turbo Express
- DC 6
- DC-3 Turbine
- DeHavilland
- DHC Dash-8
- DHC-6 Twin Otter
- DHC-7
- DHC-8
- DHC-8-100; -200; -300
- Dornier
- Dornier 228
- Dornier DO-128-6
- Eclipse
- Embraer 110
- Embraer EMB 120
- Embraer EMB121
- Fairchild
- Fairchild C-26
- Fairchild F-27; FH-227
- Fairchild Metro
- Gulfstream 690
- Jetstream
- Jetstream 31; 32
- King Air 200; 300; 350
- King Air A100; 99 BCH
- King Air B100
- King Air Beech 90; 99; A100
- Laser 300
- Merlin
- Merlin IIIB
- Merlin IIID
- Merlin IVA
- Metro III
- Mitsubishi MU-2
- MU-2B
- PC6 Porter
- PC7
- Piaggio Aerospace
- Pilatus PC-12
- Piper
- Piper Cheyenne I; II; II
- Piper Meridian
- Q400 DHC-8
- SAAB
- SAAB 340
- SD3-60
- Shorts 360
- SIAI Marchetti SM211B
- Skyvan SC7, PC6
- Superking B200 BCH
- T-34C
- TBM 700
- Thrush AG-CAT
- Turbo Beaver
- YS-11

[Contact Sales for Full List](#)

NAASCO, 222 Grand Ave. Brookhaven Airport, Shirley, NY 11967

Tel: 631-399-2244 • www.naasco.com • Fax: 631-399-2275

FAA Repair Station No. FD1R135K / EASA.145.4687



ETR-20™

ETR-25 Mercury Mod™ **Starter Generator Application List**

Light Jet Sector

Since 1984 NAASCO has served the light jet sector and we proudly support and have applications fitted for following aircraft OEM's:



- 65A Sabreliner
- BeechJet 400
- Cessna
- Cessna Citation
- Cessna Citation 500
- Cessna Citation 525
- Cessna Citation 550
- Cessna Citation 560
- Cessna Citation 560 Ultra
- Cessna Citation 650
- Cessna Citation Bravo
- Cessna Citation II
- Cessna Citation III
- Cessna Citation III (650)
- Cessna Citation V
- Cessna Citation XL
- Eclipse



- Embraer EMB 145
- Falcon 10
- Falcon 2000
- Falcon 20-5
- Falcon 50
- Falcon 50EX
- Falcon 900
- Falcon 900EX
- Gulfstream GII
- Hawker
- Hawker 400
- Hawker 700
- Hawker 800
- Jetstar 731
- Jetstar I
- Jetstar II



- Lear 23
- Lear 24
- Lear 25
- Lear 28
- Lear 29
- Lear 31
- Lear 40
- Lear 45
- Lear 75
- Lear Jet
- Learjet 60
- Rockwell DASA JPATS
- T-1
- UC-35
- Westwind 1125

[Contact Sales for Full List](#)



NAASCO, 222 Grand Ave. Brookhaven Airport, Shirley, NY 11967

Tel: 631-399-2244 • www.naasco.com • Fax: 631-399-2275

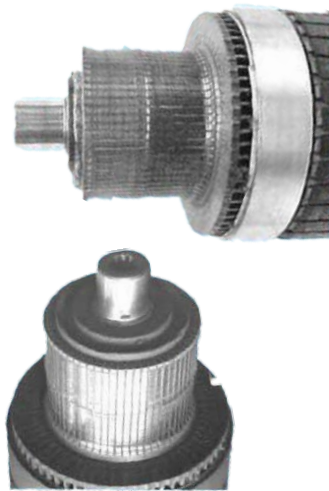
FAA Repair Station No. FD1R135K / EASA.145.4687

ETR-20™ PRODUCT APPLICATIONS GUIDE

1,000 HOUR BRUSH LIFE GUARANTEE!

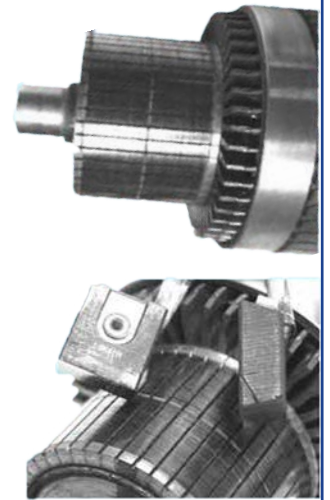
WITHOUT ETR™

Example of armature as removed from unit with 898.0 hours of service. After 3 brush changes, the commutator measured .047" wear.



WITH ETR™

Example of armature as removed from unit with over 1,000 hours of uninterrupted service. The commutator measured .003" wear.



SEEING IS BELIEVING

Maximize your return on investment with NAASCO's ETR™ technology. By eliminating the need for untimely brush changes, our ETR™ improvements increase starter generator reliability, reduce armature commutator wear and extend armature life.

STARTER GENERATORS

NAASCO'S advanced ETR-20™ improvements have been fitted to the most popular starter generators offered. Our proprietary overhaul techniques coupled with exclusive brush grades ensures you the most reliable service offered in the industry. That is why we offer the industry's most comprehensive brush life guarantee!

- | | | |
|------------------------|-----------------------|-----------------------|
| ➤ 150SG Series | ➤ 23032 Series | ➤ 23079 Series |
| ➤ 160SG Series | ➤ 23046 Series | ➤ 23080 Series |
| ➤ 200SG Series | ➤ 23048 Series | ➤ 23081 Series |
| ➤ 200SGL Series | ➤ 23064 Series | ➤ 23085 Series |
| ➤ 250SG Series | ➤ 23065 Series | ➤ 23088 Series |
| ➤ 300SG Series | ➤ 23069 Series | ➤ 23092 Series |
| ➤ 300SGL Series | ➤ 23076 Series | |
| ➤ 400SG Series | ➤ 23078 Series | |
| ➤ 400SG138Q | | |



**Providing the Most
Reliable Starter Generator
in the Industry!**

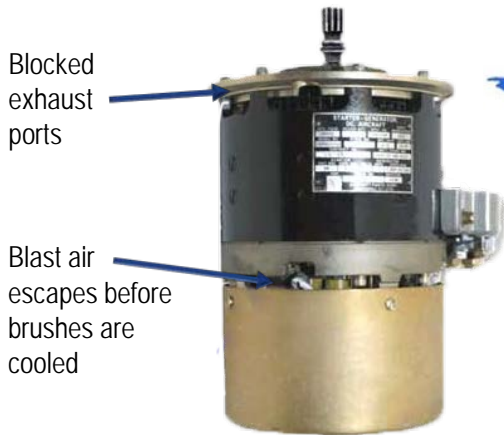
ETR-25 MERCURY MOD™ 1,000 HOUR BRUSH LIFE GUARANTEE

THERE IS A DIFFERENCE!

Compare NAASCO's ETR-25 Mercury Mod with the OEM

Original Safran Power (Lucas) & Skurka Aerospace (APC) Design

NAASCO's Mercury Mod Upgrade of Safran Power & Skurka Units



Blocked exhaust ports

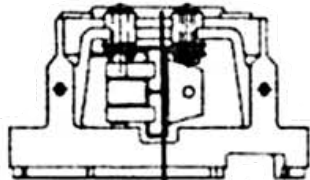
Blast air escapes before brushes are cooled



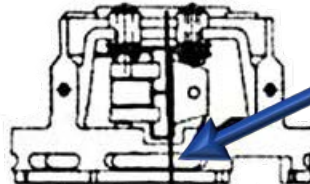
Added exhaust ports

Reconfigured fan cover redirects critical cooling air

**PATENTED NUMBER
US6,232,694 B1**

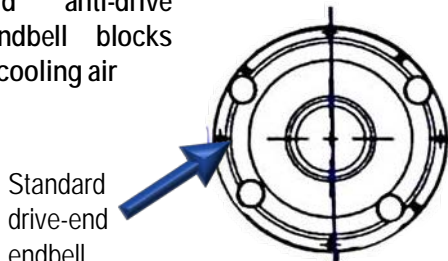


Standard anti-drive end endbell blocks critical cooling air

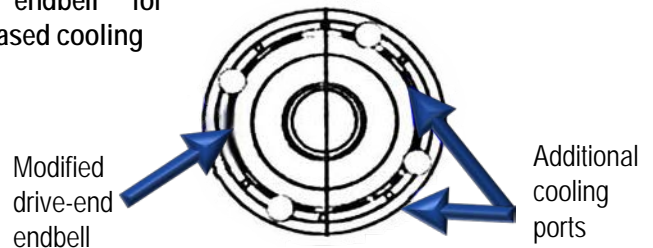


Modified anti-drive end endbell for increased cooling

Exhaust ports



Standard drive-end endbell



Modified drive-end endbell

Additional cooling ports

Models eligible for NAASCO's ETR-25™ "Mercury Mod" include:

- 150SG111Q ➤ 150SG118Q ➤ 150SG123Q ➤ 160SG140Q ➤ 23032-010
- 150SG114Q ➤ 150SG119Q ➤ 150SG125Q ➤ 200SGL115Q-2 ➤ 23032-011
- 150SG115Q ➤ 150SG120Q ➤ 160SG136Q ➤ 200SGL119Q ➤ 23032-018
- 150SG116Q ➤ 150SG121Q ➤ 160SG139Q ➤ 200SGL119Q-2 ➤ 23032-019
- 150SG117Q ➤ 150SG122Q ➤ 160SG139Q-2 ➤ 200SGL144Q

NAASCO, 222 Grand Ave. Brookhaven Airport, Shirley, NY 11967

Tel: 631-399-2244 • www.naasco.com • Fax: 631-399-2275

FAA Repair Station No. FD1R135K / EASA.145.4687