# MAINTENANCE INFORMATION AND ILLUSTRATED PARTS BREAKDOWN

for LANDING GEAR MOTOR
Part Number 50-380114 and 50-810146 used on

# Beechcraft

MODEL 65, 80, and 88 QUEEN AIRS MODEL 50 TWIN BONANZAS MODEL 90 KING AIRS



PUBLISHED BY
PARTS AND SERVICE OPERATIONS BEECH AIRCRAFT CORPORATION WICHITA, KANSAS 67201

with permission of LAMB ELECTRIC A division of AMETEK, INC.

Kent, Ohio

98-33694 OCTOBER 1972

### MOTOR DATA

Rated Voltage - 28 vdc, motor shall operate at 30 vdc maximum and 22 minimum.

Horsepower - .7

Torque - Approximately 15 inch pounds at 3000 rpm.

Weight - 8 pounds, 14 ounces.

Continuous Duty Cycle - One extend - one retract cycle: 10 seconds clockwise, 5 minutes off, 10 seconds counter-clockwise, 5 minutes off.

Type - Series-wound, split field.

Brush replacement - 5/16 inch, new brush length - 11/16 inch.

### MAINTENANCE DATA

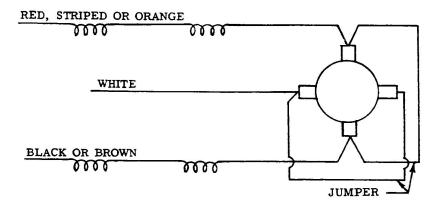
Brushes - The brushes are 11/16 inch long when new, replace them when they have worn to 5/16 inch. Present prior to assembly.

Commutator - A new commutator measures 1-3/4 inch in diameter, redress the commutator every other brush replacement.

Armature - Replace the armature when worn to 1-11/16 inch diameter.

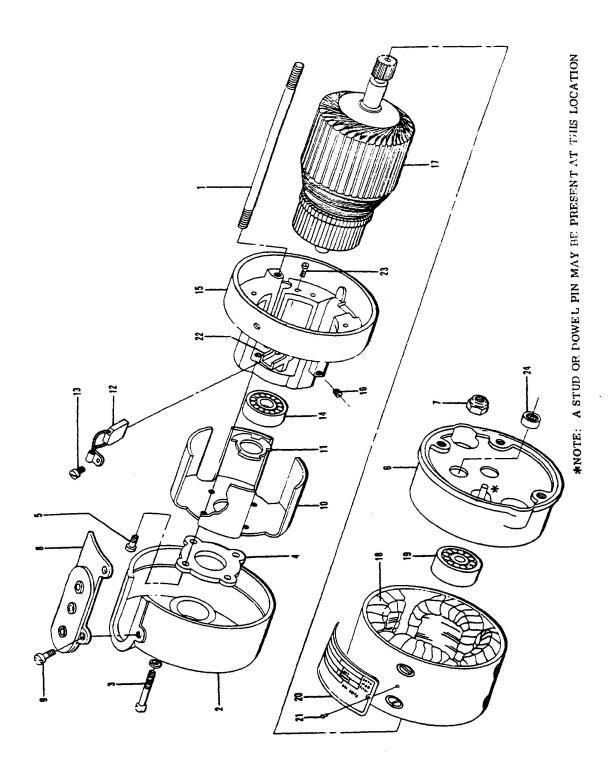
Bearings - Replace the bearings at each disassembly of the motor. Install the bearings with the flush face toward the inside of the motor. Lubricate the bearings with MIL-G-23827 grease.

## ELECTRICAL DATA



# **Electrical Wiring Schematic**

The split field in the series-wound motor allows the motor to drive in either direction. The electric connections for shaft rotation (facing the pinion gear) are: Counter clockwise, red and white leads to the line; clockwise, black and white leads to the line.



| INDEX<br>NUMBER | PART<br>NUMBER |                                              | UNITS PER<br>ASSEMBLY |
|-----------------|----------------|----------------------------------------------|-----------------------|
|                 | 50-380114      | Motor Assy.                                  | 1                     |
|                 | 50-810146      | Motor Assy.                                  | 1                     |
| 1               | 20-7880        | Stud                                         | 3                     |
| 2               | 10-3744        | Cover, End                                   | 1                     |
| 3               | 40-7825        | Screw                                        | 2                     |
|                 | 7817           | Washer, Lock                                 | 2                     |
| 4               | 10-3745        | Cap, Hub                                     | 1                     |
| 5               | 7821           | Screw                                        | 2                     |
| 6               | 22267A         | Bracket Assy.                                | 1                     |
| 7               | 7451           | Nut                                          | 2                     |
| 8               | 20-4046        | Saddle                                       | 2                     |
| 9               | 20-7831        | Screw                                        | 4                     |
| 10              | 0-5459         | Gasket                                       | 1                     |
| 11              | 4465           | Load Spring                                  | 1                     |
| 12              | 10-5906        | Brush                                        | 4                     |
|                 | 0-5849         | Spring, Brush                                | 4                     |
| 13              | AN501AB10-5    | Screw                                        | 4                     |
| 14              | 10-7654        | Bearing                                      | 1                     |
|                 | 77500XIE       | Bearing/Alternate for 10-7654                | 1                     |
| 15              | 22269A         | Bracket Assy, Commutat                       | or 1                  |
| 16              | AN565B1032L3   | Screw, Set                                   | 2                     |
| 17              | IS14394A       | Armature/Supersedes<br>32619A                | 1                     |
| 18              | 315386         | Field/Supersedes 27498A                      | . 1                   |
| 19              | 30-7602        | Bearing                                      | 1                     |
|                 | CWC87013X1E    | Bearing/Alternate For 30-7602                | 1                     |
| 20.             | 20-8057        | Plate Identification<br>(Used On 50-380114)  | 1                     |
|                 | 20-8027        | Plate Identification<br>(Used On 50-810146)  | 1                     |
| 21              | 8058           | Drive Pin                                    | 2                     |
| 22              | 0-5506         | Holder, Brush                                | 4                     |
| 23              | 20-7848        | Screw                                        | 8                     |
| 24              | M471           | Bearing                                      | 1                     |
|                 | 50-810146-2    | Kit, Brush Repair/Brush<br>Springs, & Screws | nes,<br>1             |
|                 | 50-810146-4    | Kit, Motor Overhaul                          | 1                     |