

### WEIGHT AND BALANCE

\*\*\* 27MAY1972 001 \*\*\*

MAKE KITFOX MODEL 1 SERIAL NO. 42 REGISTRATION # N85DD

DATUM IS Leading edge of the wing

LEVELING MEANS underside of aircraft cabin floor

MAIN WHEEL WEIGHING POINT IS (+) 1.87 \* AFT ON DATUM (ARM)

MEASURED DISTANCE FROM DATUM TO THE TAILWHEEL CENTERLINE (+) 149.25 \*

MAXIMUM GROSS WEIGHT IS 1050 POUNDS.

### ACTUAL EMPTY WEIGHT

| WEIGHT POINT | WEIGHT | ARM | MOM          |
|--------------|--------|-----|--------------|
| Wing         | 276    | 0   | 276          |
| Engine       | 267    | 0   | 267          |
| Oil          | 41.5   | 0   | 41.5         |
| <b>TOTAL</b> |        |     | <b>579.5</b> |

### WEIGHT AND BALANCE PERFORMING CONDITIONS

| ITEM         | WEIGHT       | ARM | MOMENT      | WEIGHT       | ARM   | MOMENT       |
|--------------|--------------|-----|-------------|--------------|-------|--------------|
| Empty Weight | 579.5        | 0   | 0           | 579.5        | 11.26 | 6513         |
| Oil          | 175          | 0   | 0           | 175          | 18.5  | 3219         |
| Wing         | 6            | 0   | 0           | 6            | 17    | 102          |
| Engine       | 6            | 0   | 0           | 6            | 17    | 102          |
| Oil          | 0            | 0   | 0           | 0            | 15    | 0            |
| <b>TOTAL</b> | <b>710.5</b> |     | <b>8654</b> | <b>10469</b> |       | <b>11687</b> |

$\frac{8654}{710.5} = 12.18$  \* Most forward CG location  
 $\frac{11687}{10469} = 11.17$  \* Most aft CG location

### PERFORMING CONDITIONS

| CONVERTING NEW CG |        |   |              |
|-------------------|--------|---|--------------|
| ITEM MAKE & MODEL | WEIGHT | X | ARM = MOMENT |
|                   |        |   |              |
|                   |        |   |              |
|                   |        |   |              |
|                   |        |   |              |

$\frac{NEW}{NW} = \dots + \dots = \text{New CG}$