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| ***NRI Flying Club*** | |  | | |  |
|  |  | **N1407U** | | |  |
|  |  | Updated 19-Jun-2022 | | |  |
|  | **General** |  |  | **Speeds** | **KIAS** |
|  | Year | 1976 |  | Vr- Rotate / init climb @ Flaps (Normal) | 55 / 70-80 @ 0 deg |
|  | Type | C-172M |  | Vr- Rotate / init climb @ Flaps (Short Fld) | 55 / 59 @ 0 deg |
|  | Engine | Lyc 0-320-D2J |  | Vr- Rotate / init climb @ Flaps (Soft Fld) | 55 / 55 @ 10 deg |
|  | Propeller | 75" Fixed |  | Normal climb speed | 70 - 80 |
|  | HP @ RPM | 160 @ 2700 |  | Vx - Best Angle of Climb | 64 (62 @ 10,000) |
|  | Fuel Octane Grade Minimum | 100 |  | Vy - Best Rate of Climb | 78 (68 @ 10,000) |
|  | Fuel Usable | 38 |  | Vcc - Best Enroute Climb | 70 - 90 |
|  | Fuel Unusable Gal | 4 |  | Vno - Normal Opperating Speed | 128 |
|  | Fuel Consumption at 75% Power (GPH) | 8.3 |  | Vne - Never Exceed | 160 |
|  | Endurance (75% pwr, less 45' reserve) | 3 hrs, 50 min |  | Va - Manuvering Speed | 97 @ 2300 lbs |
|  | Oil (quarts) Min / Max - Preferred | 5 / 7 - 6 |  |  | 89 @ 1950 lbs |
|  | Air Pressure PSI (Nose / Mains) | 31 / 29 |  |  | 80 @ 1600 lbs |
|  | Positive Load: | + 3.80g @ 2300 lbs |  | Vfe - Flap Extension (1-10 degree) | 85 |
|  |  | + 4.40g @ 2000 lbs |  | Vfe - Flap Extension (11-max deg) | 85 |
|  | Negative Load | - 1.52g @ 2300 lbs |  | Vlo / Vle - Max landing gear op/extend | n/a |
|  |  | - 1.76g @ 2000 lbs |  | Vs - Stall Speed (Clean - 0 deg flaps) | 47 |
|  | **Weights (Lbs)** |  |  | Vso - Stall Speed (Dirty - max flaps) | 41 |
|  | Basic Empty Weight | 1491.1 |  | Normal Approach Downwind | 80 |
|  | Useful Load | 808.9 |  | Normal Approach Base | 60 - 70 |
|  | Full Fuel Weight | 228.00 |  | Normal Approach Final (Full Flaps) | 55 - 65 |
|  | Cabin Load w/ Full Fuel and Oil/ No bags | 580.9 |  | Short Field Approach (Full Flaps) | 60 |
|  | Max Baggage: | 120.00 |  | Best Glide Speed / Engine Out | 65 |
|  | Max Gross Weight: | 2300.00 |  |  |  |
|  | CG (empty) | 38.06 |  |  |  |
|  | Empty moment | 56,755 |  | Max Crosswind | 15 |
|  | Gear retraction moment change | n/a |  | Maximum Open Speed | 160 (window) |
|  | Date of last Weight and Balance | 7-Sep-2018 |  | White Arc (full flap operating range) | 41 - 85 |
|  |  |  |  | Green Arc (normal operating range) | 47 - 128 |
|  |  |  |  | Yellow Arc (caution, only in smooth air) | 128 - 160 |
|  |  |  |  | Red Line (max speed all operations) | 160 |
| These are estimates only. Always check the POH to be sure. | | | | | |

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