

ROY A. GOOD

MODELS: Good (Pigman, Reed, American Flyers, Rearwin), 8090, 8125,
8135 (Army UC-102A), 8135T

T.C. NUMBER: 711

I - MODEL 809, 2 PCLM (Approved 10/17/39)

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|------------------|--|
| Engine | LeBlond 90 5 F (See item 209(a)) |
| Fuel | 65 minimum octane aviation gasoline |
| Engine limits | For all operations, 2250 rpm (90 hp) |
| Airspeed limits | Level flight or climb - 127 mph True Ind. Glide or dive - 152 mph True Ind. |
| Propeller limits | Static rpm at maximum permissible throttle setting - Not more than 2150 - Not less than 2000 Diameter - Not more than 96 inches - Not less than 76 inches |
| C.G. range | (+13.0) to (+17.5) |
| Maximum weight | 1635 lbs. |
| No. seats | 2 at (+22) |
| Maximum baggage | 50 lbs. (+44) |

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|--------------------------|--|
| Fuel capacity | 34 gallons (+19) |
| Oil capacity | 2-1/4 gallons (-21) |
| Control surface movement | Elevator - Up 30 degrees; down 33 degrees Rudder - Right and left 20.5 degrees from centerline Ailerons - Up 20.75 degrees; down 21.75 degrees |
| Serial numbers eligible | 101, 801 and up per NOTE A (See also NOTE 2) |
| Required equipment | Items 101, 102, 103, 104, 105(a) and 106 |

II - MODEL 8125, 2 PCLM (Approved 10/17/39)

(Same as 3090 except engine installation)

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|--------------------------|--|
| Engine | Ken Royce 7F (See Item 208(b)) |
| Fuel | 73 minimum octane aviation gasoline |
| Engine limits | For all operations, 2225 rpm (120 hp) |
| Airspeed limits | Level flight or climb - 127 mph True Ind. Glide or dive - 170 mph True Ind. |
| Propeller limits | Static rpm at maximum permissible throttle setting - Not more than 2100 - Not less than 1950 Diameter - Not more than 86 inches - Not less than 76 inches |
| C.G. range | (+11.6) to (+15.9) |
| Maximum weight | 1800 lbs. |
| No. seats | 2 at (+22) |
| Maximum baggage | 50 lbs. maximum (+44) |
| Fuel capacity | 34 gallons (+19) |
| Oil capacity | 3 gallons (-21) |
| Control surface movement | Elevators - Up 30 degrees; down 33 degrees Rudder - Right and left 20.5 degrees from centerline Ailerons - Up 20.75 degrees; down 21.75 degrees |
| Serial numbers eligible | 101, 801 and up per NOTE A (see also NOTE 2) |
| Required equipment | Items 101, 102, 103, 104, 105(a) and 106 |

III - Model 8135 (JC-102A), 3 PCLM (Approved 2/27/40)

(Same as 8125 except interior arrangement and minor structural changes)

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|--------------------------|---|
| Engine | Ken Royce 7F (See Item 208(b)) |
| Fuel | 73 minimum octane aviation gasoline |
| Engine limits | For all operations, 2225 rpm (120 hp) |
| Airspeed limits | Level flight or climb - 127 mph True Ind. Glide or dive - 170 mph True Ind. |
| Propeller limits | Static rpm at maximum permissible throttle setting - Not more than 2100 - Not less than 1950 Diameter - Not more than 88 inches - Not less than 76 inches |
| C.G. range | (+10.9) to (+17.9) |
| Maximum weight | 1800 lbs. (See NOTE 3) |
| No. seats | 3 (2 at +20 and 1 at +44) |
| Maximum baggage | 20 lbs. (+44) may be increased as follows, to 190 lbs. when rear seat is not occupied (see NOTE 6): (a) Serial numbers 809 and 811 - 50 lbs. on rear compartment floor, remainder on rear seat. (b) Serial numbers 812 and up - 100 lbs. on rear compartment floor, remainder on rear seat. |
| Fuel capacity | 34 gallons (+19) |
| Oil capacity | 3 gallons (-26.5) (See NOTE 4) |
| Control surface movement | Elevators - Up 30.5 degrees; down 31.5 degrees Elevator tab - Up 12.5 degrees; down 26.5 degrees Rudder - Right and left 18.5 degrees from centerline Ailerons - Up 20 degrees; down 20 degrees |
| Serial numbers eligible | 809 and up per NOTE A and all AAF numbers (see also NOTE 3) |
| Required equipment | Items 101, 102, 103(b), 104, 105(b) and 106 |

IV - MODEL 8135T, 2 PCLM (Approved 6/18/41)

(Same as 8136 except for seating arrangement, control system, fuel system and minor structural changes)

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|------------------|--|
| Engine | Ken Royce 7G (See Item 208(c)) |
| Fuel | 73 minimum octane aviation gasoline |
| Engine limits | For all operations, 2225 rpm (120 hp) |
| Airspeed limits | Level flight or climb - 127 mph True Ind. Glide or dive - 170 mph True Ind. |
| Propeller limits | Static rpm at maximum permissible throttle setting - Not more than 2100 |

- Not less than 1950
Diameter
- Not more than 31 inches
- Not less than 76 inches
C.G. range (+10.9) to (+17.4)
Maximum weight 1900 lbs.
No. seats 2 (one at -11 and one at +43)
Maximum baggage None
Fuel capacity 34 gallons (+19)
Oil capacity 3 gallons (-27)
Control surface movements Elevators - up 30.6 degrees; down 31.5 degrees
Elevator tab - up 12.5 degrees; down 26.5 degrees
Rudder - right and left 18.5 degrees from centerline
Ailerons - up 20 degrees; down 20 degrees
Serial numbers eligible 877 and up per NOTE A
Required equipment Items 101, 102, 103, 104, 105(c) and (d) and 106

SPECIFICATIONS PERTINENT TO ALL MODELS:

Datum Wing leading edge

Leveling means is provided by a spirit level on left door frame accessible through fuel tank outlet inspection zipper on serial numbers 802 and up. Serial numbers 101 and 801 may be leveled by spirit level on propeller hub nut.

Certification basis Type Certificate No. 711 (CAR 4a)
Production basis None (See NOTE A)
Export eligibility Eligible for export as follows, subject to provisions as follows, subject to provisions of MOP 2-4:
(a) Canada
- Landplane - eligible.
- Skiplane - not eligible.
(b) All other countries except New Zealand.

Equipment:
A plus (+) or minus (-) sign preceding the weight of an optional item indicated the net weight change between that item and the equivalent required item.

| | | 8090 | 8125 | 8135 | 8135T |
|---|---|---------|------------------|--------|--------|
| Propeller and Propeller Accessories | | | | | |
| 101. | Propeller - wood (fixed pitch) | 21 lbs. | (-48) | (-53) | (-53) |
| Engine and Engine Accessories - Fuel and Oil System | | | | | |
| 102. | Engine ring cowl (NACA) | 20 lbs. | (-38) | (-43) | (-39) |
| 106. | Carburetor heater | 3 lbs. | (-40) | (-45) | (-45) |
| 202. | Starter | | | | |
| | (a) (Eclipse Y-150) | 19 lbs. | (-25) | (-30) | -- |
| | (b) (Eclipse Model 4, Type 635) | 17 lbs. | (-25) | (-30) | -- |
| | (c) (Champion Model 100) | 19 lbs. | (-25) | (-30) | -- |
| 208. | Engine | | | | |
| | (a) Model 8090 (LeBlond 90 5G) | +4 lbs. | (-40) | -- | -- |
| | (b) Models 8125 and 8135 (Ken Royce 7G) | +3 lbs. | (-40) | (-45) | -- |
| | (c) Model 8135T (Ken Royce 7F) | -3 lbs. | -- | -- | (-45) |
| 211. | Engine shielding and bonding | 2 lbs. | (-40) | (-45) | (-45) |
| 212. | Vacuum pump installation (Pesco Type D) | 16 lbs. | -- | -- | (-21) |
| 214. | Oil purulator (does not apply to Model 8090) | 3 lbs. | (-23) | (-23) | (-23) |
| 302. | Logged oil tank and lines | 2 lbs. | (-21) | (-27) | (-27) |
| 309. | Engine cowl (Drawing 812R147) (Models 8125, 8135 and 8135T only) | | No weight change | | |
| Landing Gear and Floats | | | | | |
| 103. | 3-inch wheels (Goodyear 3LNBM) with | | | | |
| | (a) 18x8-3 4-ply tires or H.D. tires (wheels must be placarded for 4-ply tires) | 29 lbs. | (-6) | (-6) | (-6) |
| 104. | 8-inch streamline tail wheel and tire (Drawing 84-023) | 9 lbs. | (-189) | (+189) | (+189) |
| 205. | Wheel streamlines (Drawing 74-006) | 12 lbs. | (-6) | (-6) | (-6) |

| | | | | | |
|--------------------------------|---|--------------|--------|-------------------|-------------------|
| 304. | 3-inch wheel (Goodyear 3LMBM) with brakes | +6 lbs. | (-6) | (-6) | (-6) |
| 305. | Parking brake | 1 lb. | (-10) | (-10) | (-10) |
| 306. | 8-inch streamline tail wheel and tire (Drawing 84-029) | +2 lbs. | (+180) | (+180) | (+180) |
| Electrical and Radio Equipment | | | | | |
| 201. | Battery and box | | | | |
| | (a) (Exide 6-TS-7-1; 12 volt) | 31 lbs. | (-19) | (+62) or (-23) | (+62) -- |
| | (b) (Exide 6-TS-13-1; 12 volt) | 41 lbs. | (-19) | (-23) | -- |
| | (c) (Exide 6-AC-7-1; 12 volt) | 21 lbs. | (-19) | (-23) | -- |
| | (d) (Exide 3-AC-7-1; 6 volt) | 13 lbs. | (-19) | (-23) | -- |
| | (e) (Willard SYR-7-6; 12 volt) | 20 lbs. | -- | (+62) | (+57) or (+62) |
| 203. | Extra instrument or radio on instrument panel | | | | |
| | (a) | 23 lbs. | (0) | (0) | -- |
| | (b) (Front panel) | 36 lbs. | -- | -- | (-7) |
| | (c) (Rear panel) | 60 lbs. | -- | -- | (+29) |
| 209. | Radio variable. Weight and location of items should be shown in weight and balance report. The structure has been substantiated for equipment as follows: | | | | |
| | (a) 11 lbs. under right seat | -- | -- | (+16) | -- |
| | (b) 8 lbs. in cabin under cowling | -- | -- | (-12) | -- |
| | (c) 6 lbs. under instrument panel | -- | -- | (+11) | -- |
| | (d) 2 lbs. in roof | -- | -- | (+19) | -- |
| | (e) 150 lbs. on shelf (See NOTE 5) | -- | -- | (+46.5) | -- |
| | (f) 20 lbs. on dynamotor support | -- | -- | -- | (+35) or (+63) |
| 301. | Landing lights | | | | |
| | (a) Grumes ST-250 (s) | 8 lbs. | (+12) | (+12) | -- |
| | (b) Grimes ST-250 (1) | 4 lbs. | -- | -- | (+12) |
| 307. | Generator - wind driven | | | | |
| | (a) (Champion W-128-12 volt) | 9 lbs. | (+9) | (+9) | -- |
| | (b) (Lear Type 1030-A with Lear Type 913-A regulator 12 volt) | 11 lbs. | (-6) | (-6) | (+9) |
| | (c) (Champion W-612-6volt) | 9 lbs. | (+9) | (+9) | -- |
| | (d) (Champion W-128B-12 volt) | 10 lbs. | (-5) | (-5) | (-5) |
| 308. | Antenna | | | | |
| | (a) (Aeronaut antenna reel) | 5 lbs. | (+21) | (+21) | -- |
| | (b) (Lear - 10 inch loop) | 2 lbs. | -- | -- | (+33) |
| | (c) (Lear fixed antenna) | 2 lbs. | -- | -- | (+35) |
| | (d) (Lear trailing antenna with Lear Junior hand reel INM-603) | 3 lbs. | -- | -- | (+51) |
| | (e) Lear Unihand reel and antenna | 5 lbs. | -- | (+14) | -- |
| | (f) Belly antenna | 2 lbs. | (+30) | (+30) | (+30) |
| Interior Equipment | | | | | |
| 105. | Seat cushions | | | | |
| | (a) | 10 lbs. | (+26) | -- | -- |
| | (b) | 25 lbs. | -- | (+30) | -- |
| | (c) (Front) | 5 lbs. | -- | -- | (+11) |
| | (d) (Rear) | 5 lbs. | -- | -- | (+40) |
| 206. | Parachutes | | | | |
| | (a) (Two) | 20 lbs. each | (+22) | (+20) | -- |
| | (b) (Front) | 20 lbs. | -- | -- | (+11) |
| | (c) (Rear) | 20 lbs. | -- | -- | (+48) |
| 207. | Flares - three 1-1/2 minutes (International) | 16 lbs. | -- | (+42) | -- |
| 210. | Instrument panel - rear | 4 lbs. | -- | -- | (+31) |
| 213. | Blind flying curtain | 2 lbs. | -- | -- | (+38) |
| 303. | Cabin heater (Drawing 86-006 or 86-014) | 2 lbs. | (-28) | (-33) | (-32) |
| 311. | Cabin ventilator | | | | |
| | (a) (Firewall type (Drawing 812B168)) | 2 lbs. | -- | -- | (-30) |
| | (b) (Floor type) | 1 lb. | -- | -- | (+62) |
| | (c) (Roof type - Drawings 812G335 and 812G336) | 1 lb. | -- | -- | (+43) |

Miscellaneous (not listed above)

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|--|--------|--------|--------|-------|
| 204. Fuselage and control system protective covering | 5 lbs. | (+100) | (+100) | - - - |
| 310. Electric heater pitot | 2 lbs. | - - | - - | (-4) |

NOTE A. Each aircraft must, prior to original certification, satisfactorily pass:

- (a) An inspection for workmanship, materials and conformity before any covering; metal priming or final finish is applied. All woodwork maybe varnished.
- (b) A final inspection of the completed aircraft.
- (c) Check of flight characteristics.

NOTE 1. Weight and balance report including list of equipment included in certificated weight empty, and loading instructions when necessary, must be submitted for each aircraft with original inspector's report and each subsequent report covering changes in equipment.

NOTE 2. Serial numbers 302, 803, 804 and 805 are eligible with firewall moved forward 4 inches, short engine mount, altered windshield contour, seat backs moved forward 2 inches and revised baggage compartment structure.

NOTE 3. Serial numbers 819 and up eligible as follows:

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|----------------|--------------------|
| Maximum weight | 1900 lbs. |
| C.G. range | (+10.9) to (+17.4) |

Serial number 818 also eligible with the above weight and C.G. range, provided that a 1-1/2 .065 streamline axle strut is installed instead of a 1-1/2 .058 streamline axle strut.

NOTE 4. "Full Oil" capacity (model 8135) may be reduced to 1-3/4 gallons to provide for increase in disposable load provided oil tank cap and stock gauge is marked accordingly.

NOTE 5. When radio equipment, item 209(e), is installed, weight of baggage and radio equipment must not exceed 190 lbs. Rear seat not to be occupied when this item is installed.