

Unofficial Seabee Specifications

Editors note: These are notes that came in a box of stuff I got with a Seabee project I bought. Keep in mind that most of these references are for a "stock" Franklin powered Seabee. I can't guarantee accuracy.

Note: R301W = 2024T3

Hull Structure Material List:

Fwd section of deck: .051" 2450 heat treated after stamping.
Middle section of deck: .025" R301W
Z-section Longeron: 1/8" R301W
Keel: 14ST 2024
Aft Deck Section: .051" 2450 subsequently heat treated
Bow Skins: .072" 61SW
First Two Bulkheads: .040 2450 Heat Treated
Side of forebody: .064" R301W
Bottom Skin (FWD): .051 R301W
Tail End Upper Skin: .051" R301W
After End of Bottom Skin: .051" R301W
Second Step Bulkhead: .040 2450, heat treated. Structural fairing here is .051" R301W
Stern Pieces from second step back : .040" R301W
Firewall: Alclad steel
Side skin of cabin: .040" R301W
Cabin Enclosure Frames: .091: 61SW; .040" 61SW skins
Doors: Inner part .032" 61SW; Outer Skin .025 61SW
Keel Length: Forward section 13'-9"; Aft section 100"
First Bottom Skin: 80-81 inches long, 52" wide
First Bulkhead: Sta 55 approx.
Second " : Sta 106
Third " : Sta 134
Forth " : Sta 178

Table of Removable Equipment Weights:

Tail Wheel Shock Absorber Unit (less wheel and axle) – 26.5 lbs.
With wheel and axle – 42 lbs. at +236
Rubber Window Bead: 2.8 ozs./ft.
Window Outline Sizes:
Pilot window – 9 ft.
Copilot window – 8.5 ft.
Left Door – 8.5 ft.
Right Door – 8.5 ft.
Left Rear – 5 ft.
Right Rear – 5 ft.
Roof – 5.5 ft.
Total – 49.5 ft. weight: 139 ozs. (8.5 lbs.)

Side Doors without upholstery – 18 lbs.
Side Doors finished – 25.6 lbs. each
Upholstery – About 8.5 lbs. per door

Generator – 19.3 lbs. (less bracket and bolts)
Alternator – 9.2 lbs.

Weight of Seat Frames:
Rear Seat – 5.5 lbs. (Aluminum); 12.0 lbs. (Steel)
Front Seat – 21.0 lbs. (Aluminum); 27.75 (Steel)

Piston Rings:

Oil Rings – Hastings #258 (5" x 3/16" STD.)

(Two top rings marked 40668P015 Continental Part #40668 that are .015 oversize and then cut for correct end gap in 5.000" bore and are chrome plated.)

Compression Ring – Hastings Dubl-test 205 Compression Ring 5" x .109" is fine after clean up Groove. (Any Continental 5" ring set fits and doesn't burn oil – Fulton Ivy)

Wiring:

Press to test lights:

#1 lead (the one to the center pin) is the hot wire. #3 lead is the "normally" open ground used to activate the test portion of the circuit. #2 lead is the actual actuating ground that operates the light when circuit switch is closed and grounded.

Bulbs – GE #1816 (12V)

Wingtip Bulbs – Grimes #1512 (13V, 21W)

Oil Temp Gauge Head – Piper 75L057

Goodrich Brake Assembly:

7 x 1-1/2 Brake assembly

B21-111 Retracting Spring

B27-250 Brake Blocks

A72-29 Expander Tube Shield

B22-165L Expander Tube Assembly, Left

B22-165R Expander Tube Assembly, Right

Backing Plate Assy - #D-2-540

Brakes: (data from left side)

B.F. Goodrich Co., Akron, Ohio

Assy – NOD-2-5401

Size – 7 x 1-1/2"

Serial Number – G9462819

Expander Tube Brakes

Right side same as left except serial number 347208

Main Wheel Bearings – Timken #13889

Main Wheel Bearing Race – Timken #13830

Tail Wheel Bearings – Bower #03062

Tail Wheel Bearing Race - #03162

Engine:

Gasket thickness –

Stub Shaft Housing to Crankcase - .018"

Stub Shaft Housing to Prop Cylinder - .025"

Identification mark on port side forward engine mount – (Ex.: 17P62004-1)

Engine mounts – Lord Mount Biscuits #352043 Continental Motors set of two.

Control Cable Tension – 20 lbs.

Batteries:

Mitchell 2SM-9, 60 A-hrs, 45 lbs.

Exide 2SM, 53 A-hrs, 39 lbs.

Wisco SU-3SM, 72 A-hrs, 56 lbs. (not approved)

Nick Flynn (old time Seabee guy) says: To reduce vibration, install a 2-bladed propeller horizontal when #1 cylinder is TDC. 3-bladed props install 2 horizontal blade on starboard side with #1 cylinder at TDC.

Fuel Pump Repair Kit - #RA-162, Part #5592077 from AC Delco.

Oillite bushing in -31 magneto needs oil every 100 hours.

Generator Bolts – American Brake Block #26 or Goodyear #FB-36-13

Viton O-rings - -210# for push rod tubes. 1.040" O.D., 0.142" thickness, 0.750" Inside Diameter.

Spark Plug Wires: (From inside magneto ferrule to far end of cigarette deep in plugs)

Magneto Side: #1 – 40", #2 – 57", #3 – 33", #4 – 50", #5 – 26", #6 – 43"

Distributor Side: #1 – 63", #2 – 40", #3 – 56", #4 – 33", #5 – 49", #6 – 26"

Marked "T"

Coil Wire – 2 feet.

Ignition Parts List: (1946 Chrysler 6)

Distributor Cap – Autolite IG-323 (might be 1G-323)

Points – Echlin CS725A or Standard Blue Streak AL4556XP

Condensor – Standard AL-869

Rotor – Standard AL-98

Bushings for Control Surfaces (sintered bronze)

Flanged bushing – 1/2" OD of flange, 1/4" hole, 1/4" thick, 3/8" OD of bushing collar.

Rudder – 4 required

Elevators – 8 required

Flaps – 18 required

Ailerons – Fafnir Miniature Flanged and shielded ball bearings. #AMVF16K24DD

Front Oil Seal – I.D. = 3-1/16", O.D. = 4-1/8" x 9/16" thick.

National – 55155 type 5L or CR 30551

Tail Shaft Oil Seal – 28-X76 stamped on it. 3-3/4" O.D., 2-3/4" I.D., leather lip 1/2" thick.

National 45504 type 5L (silicone rubber)

Rudder Cable Length – 101' (8'-5") from end of ball to end of ball.

Forward Rudder Cable Length – 15' ft.-1/8" and 15' ft.-1-1/4"

Wing Float Displacement – 32 gallons H2O

Landing Gear Axle (Cross Tube) Seals on Hull Sides – Garlock Klosure 63 x 2168

Seals:

Main Gear Cylinder: (all numbers "National" numbers)

Piston Seal – 622729 (1 required)

Piston Rod Seal – 622715 (1 required)

End Plug Seal – 623002 (2 required)

Tail Wheel Bearing Cups – Timken 01362

Bundy Bronze Bushing B.90 for spacer

Valve Push Rod Seals – -210

Induction System "O" rings – -227

Cylinder Base "O" rings – -158

Push Rod Seals (Viton) – -210

Front Engine Seal – 30551 (2 required)

Rear Engine Seal – 455004 (2 required)