

Universal Atomic Four Engine Parts & Suppliers (Revised 8 -23-98)

GENERAL INFORMATION:

Oil: 4-5 Qts SAE 30 (SAE 20W recommended in cold climates)
change every 40 -50 hours

Oil Pressure: At idle, Engine cold, 50 psi
At idle, engine warm, 1/2 of normal at cruising rpm
At cruising rpm, engine warm 40 psi.

Oil Pressure Gauge take off: 1.8: NPT to 3/32" Compression fitting,
3/32" copper line to Oil P. Gauge

Temperature: 150-165 degrees w/raw water cooling.
180-190 degrees w/ fresh water cooling.

Exhaust Pipe: 1 1/4" exhaust fitting & Iron pipe Size.

Adjust Valves every 300 -350 hours

Valve Clearance	WARM:	Exhaust	0.010	Intake	0.008
	COLD:	"	0.012	"	0.010

Don Moyers recommends MARVEL MYSTERY OIL about 4 oz/10 gallons of fuel normal, up to 8oz/10gal (or until it starts smoking) for sticky valves or other problems. Add about one quart in the crankcase to replace one quart of regular lubricating oil, to keep compression rings from sticking.

Compression should be about 100 to 110 PSI (variation within 5psi is desirable).

SUPPLIERS:

Call to find local Universal part dealer; Westerbeke, Avon, Massachusetts, (508) 588-7700. Westerbeke has a small (65 page) "Atomic 4 Operation and Maintenance Manual", Part # 200156.
<http://www.iwol.com/IWW/Customers/WESTERBEKE/page5.htm>

Service and Repair Manual and some parts available from Seacraft Publications, LTD. \$26.95 postage paid anywhere. 135 George Street South, Suite 902, Toronto, Ontario M5A 4E8 Canada (416) 360-6006 voice (416) 360-6788 I previously recieved email from Seacraft via "equity.greendragonpress@sympatico.ca (Patricia Staton)"

Don Moyer, Moyer Marine, Inc.,
3000 Derry Street, Harrisburg, PA 17111,
Tel: (717) 564-5748 Fax: (717) 564-5760

You can subscribe to an Atomic Four newsletter (\$25) from Don Moyer (ask for back issues too [\$30 for overhaul series]). He also rebuilds & sells rebuilt Atomic Fours engines (rebuilds run around \$3,000 to \$4,000).

Don Moyer has turned over his parts sales to Featherman Connection, John Featherman Ph/Fax(717) 432-0601 eMail: A4parts@epix.net including the Sendure fresh water cooling systems.

Indigo Electronics (<http://www.atomic4.com>) IndigoAT4@aol.com, sells electronic ignition, fresh -water cooling and other kits for the Atomic 4. Indigo's fresh -water cooling system powers the extra pump off of the existing fan belt (with a larger belt). Indigo Electronics, Inc., Tom Stevens, 1 -800-428-8569, 10 Wayfin Circle Newport News, VA 236061138

Used Atomic Four parts, engines available
Posted by John Barber on May 12, 1998 at Cruising World Message Board
For me its been feast or famine on Atomic four parts. I now have more engines, parts, blocks then I could ever use. I intend to install the fresh water kept 74 into my boat this winter. I will swap it out replacing the rebuilt 67. This will leave me with numerous parts, a rebuildable 74, a paragon reduction gear, a rebuilt 67, and not much room left in the g arage. If anyone is interested in these engines or parts you could contact via E -Mail or at 850 -785-0551.

FUEL SYSTEM:

Fuel Filter: Varies with boat:
1975 Pearson 28' has Fram Marine: Model FBM 1110PLM, cartridge C -1110, \$9.95 from West Mari ne

New zenith 68 Series Carberator and Electric Fuel Pumps: Foley's Industrial Engines (\$\$\$), 200 Summer St. Worcester, MA 01604 508/ 753 -2979 <http://www.foleyengines.com>, Foley's claims that replacement mechanical fuel pumps are no longer avail able, and sells an electric model.

V.E.Peterson, Ohio 419/838 -5911 also sells the Zenith 68 Series Carberator & elec. pump.

Qshicks recommends: Specs for the carb built by Zenith /Facet the part #013355 the mod#68 -7 the universal #288482 and the f acet repair kit #k2169 and the replacement carb #0-12522 suggest that you call Facet Fuel Systems Inc., 1048 Industrial Park, Bristol Virginia 24201 phone 703 -669 5555 and ask them for a distruber or dealer

Facet makes the Carberator #01522, (? Replacement carb # is 12522 ?) Phone 1-607-737-8011 (or 703 -669-5555 or 607 -737-8243). To overhaul it the Facet parts Numbers are: Gasket set # C181 -329 Needle and seat #C81 -66-25

A4 Carb parts call BISCO at 1800 -767-2950 or <http://www.neca.com/biscokid> tell them Qshick sent you

NAPA Carb Kit: Needle and seat size 30 and carb calls for a size 25, ph. 703 -669-5555 or 607 -737-8243

Carberator float dimensions: I had two different dimensions for the float level adjustment. The one that s eems to have come with my Atomic Four owners manual made no sense. However, the numbers I got in the instructions for the kit from Don Moyer 1.25 -1.31" (top of housing to top of float) made complete sense and I adjusted the floats to these specs and th ey were perfectly level. (Which is the goal when the upper carb housing is held with the floats facing upward)

Mechanical fuel pump (Facet #477 -060 replacements and rebuild kits: Old Lyme Marina Inc., 34 Neck Road, Old Lyme, Conneticut, 06371 Tel. 203-434-1272

Fax 303-434-3068

Repair kits also available from Vosbury Marine for \$58.00 Vosbury Marine,
Annapolis, Maryland 410-268-2522

Electric fuel Pumps: aprox. \$58.00, Facet #480 -513 (1.75-2.50psi)
Available from V.E.Peterson, Ohio 419-838-5911
NAPA also makes a similar pump.

Whitford Marine 1/860 -536 -3832, has some rebuilt Mechanical fuel pumps in
stock. There is an after market kit available to rebuild the pump.

Fuel pump was made by AC #model B4059

Parts Numbers:

pump bail ass #ac-fp-1
pump bowl metal #ac-pf-11
bowl gasket #ac-fg-1

COOLING SYSTEM:

Water Inlets: 3/8" - 18 N.P.T. Bronze thru hull intake scoop, 1/2" NPT

Water Pumps: There has been [2] Jabsco [1] Sherwood [1] Oberdorfer pump
installed on the A/4 over the years and they all use different impellers.

Raw-water-cooled engines, most recent (and replacement older models) =
Oberdorfer M202 -3. Water pump impeller (for Oberdorfer M202 -3):

Oberdorfer #B6593 Barco #815 Sherwood #295628

Oberdorfer Water pump impeller: The impeller is 2" diameter, 7/8" wide, w/ a
1/2" dia. single flat drive.

West Marine has a long life (can run dry) Niprene impeller replacement made
by Globe: Globe #815, for \$15.00, West Marine #241044 (some quality control
problems have been reported).

DEPCO pump Co in Clearwater FL at 1-800-445-1656. \$118.00 for a brand new
unit, their model 202M -7 which is an Oberdorfer unit. Rebuild kits \$20 for
the impeller, two seals and the gasket

Featherman Connection, John Featherman Ph/Fax(717) 432-0601 eMail
A4parts@epix.net

Hanson Marine in Marblehead MA at 800-343-0480
(Westerbeke/Universal Distributor) also has all the new parts available.

Water pump gasket should be changed at every inspection, you can reuse if you
put a little grease on gasket when you first install. Note do not use gasket
glue or form a gasket only the paper shim gasket which is .010 thick for
proper spacing against the sides of the impeller.

Pencil Zinc Kit: Sen-Dure Co. Ft. Lauderdale, FL, phone# 954-973-1260,
Sen-Dure part #5140 to 5149 depending on the size of the hose they go in.
Because of space requirements on A4 just install in intake water inlet line.
NOTE: do not forget the ground wire.

BELTS: Alternator belt is 3/8" wide and approx. 12" long when flattened.
Drive King 3L250 "Fractional Horsepower V -belt"
Gates HC-3VX-250 or #7250
NAPA Belts 25 -06353
BFG Maxipower 3V250 57 ORS -M

MISC:

Starter Motors: Late Models - Delco Early Models - Prestolite

Choke Cables: Covey Marine 410/255 -4345 or 255 -9123; 3 meter #818 -478, 7
meter #825 -764

IGNITION PARTS:

Spark plugs: Gap: 0.035 Champion Normal RJ8C (Stock #871)
Hotter RJ12C (Stock# 592)
AC #R45 or #M45
Autolight 295
NGK B6S or BR6S

Spark Plug Wires: Belden 700708 (kit, put on your own ends)
Belden 700999 (custom wire set at Annapolis NAPA store)
Carol 32570 (82 Datsun)
Cooper Automotive "PowerPath" #700705 (longest wire is a slight stretch).
Pep Boys Auto Parts #1924 (for all 1974 Volvo 4 cyl. engines)

DISTRIBUTORS: The older engines (serial numbers 71000 through 170507)
had a Prestolite distributor same as that used in a circa 1944 Willys Jeep.
Newer engines (serial numbers 170508 and up) came with a Delco distributor.
Delco Distributor Prestolite Distributor
(newer) (older)

Dist. Cap: Standard Motor Prod. DR -437 Standard Motor Prod. AL -25
Borg Warner C167 Echlin AL91
Delco D322R
GM 1962446
GP DR93
Echlin RR181

get the delco marine cap witch has copper post you got the automotive cap (alum
posts) just junk it and get the marine cap qshick

Rotor: Standard Motor Prod. DR-314-X Standard Motor Prod. AL -102
Delco 423R Echlin AL-58
GM 800056
GP DR106 <--some problems reported (short in length)
Borg Warner D152
Echlin RR182R

Condensor: Standard (Blue Streak) DR-90X Standard (Blue Streak) AL -36
Borg Warner G126 Standard (Blue Streak) AL -106

Delco D203
GM 1928111
GP DRC3S
Echlin RR176

Echlin AL-38

Points:	Delco Distributor (newer)	Prestolite Distributor (older)
	Gap: 0.025	0.018 - 0.020
	Idle = 600 -1,000 RPM	
	Dwell = 31 - 34 degrees	38 degrees
	Standard (Blue Streak) DR -2240X	Standard (Blue Streak) AL5661X
	Delco D108P	Echlin CS-709
	GM 1954557	
	Borg Warner A109V	
	GP DR695	
	Echlin CS788P	

Adjust Point gap first, then Timing: just starting to open at TDC, 17degree advance at 1600 rpm (Cruising RPM's should be 2,000 RPM (80% of Maximum attainable speed))

Coil: Testing the coil. Don Moyer suggests a test across the connections of the coil with an ohmeter. Expect about 3 -4 ohms on a coil with an external(?) resistor and 1 -2 for a coil with an internal resistion (generally clearly marked on the outside of the coil).