

J9613-59: 77-79

1. Compression Test: Leak down (over 80) / Cranking
 Cranking pressure range (typical):
 AA5/AA5A: 125-130 AA5B: 130-135

2. Cowling & Nose Gear Boot

- Check: • Engine Alignment (Remove cowling/boot as required)
 • Missing fasteners
 • Damage/cracks/debonding

3. Ignition

Mags (oil leaks), Harness & Connections (Condition)

- Timing Left **Note:** Check timing each 100 hrs. (Before / After)
 • Timing Right Inspect Mag each 500 hrs. (Before / After)

Spark Plugs --- Gap: 0.016 to 0.018 inch; Torque: 35 ft-lbs

4. Check General Condition of ...

- Baffles and Baffle Seals
 Breather Tube / Air-Oil Separator
 Crankcase and Crankshaft seal (leaks), Cylinders (heat)
 Engine Mount and Vibration Isolators
 Electrical Connections, Wire Routing
Hoses: • Oil Cooler/Oil Pressure (replace each 5 years)
 • Fuel / Fuel Pressure (replace each 5 years)
 • Manifold Absolute Pressure (replace each 5 years)
 Other: Firewall, valves, rockers, etc.
SCAT: • Muffler to Cabin Heat
 • Muffler to Carb Heat
 Vacuum Pump: TT: 63.10 (replace each 600 hrs)

	02/18/11	02/15/12	02/15/13	04/10/14	05/08/15
#1	68 (1) (1a)	70 (1) (1a)	69 (1) (1a)	70 (1) (1a)	23-32 (1c)
#2	75 (1) (1a)	75 (1) (1a)	73 (1) (1a)	68 (1) (1a)	61 (1c)
#3	75 (1) (1a)	76 (1) (1a)	74 (1) (1a)	75 (1) (1a)	58 (1c)
#4	68 (1) (1a)	72 (1) (1a)	74 (1) (1a)	75 (1) (1a)	75 (1c)
#5					
#6					
Firing Order: 1-3-2-4 (1-4-5-2-3-6) Timing: 25° BTDC 1 degree of crank rotation equals approx 3.0 mm on the spinner					
	(2)	(2)	(2a)	X	X
	25 / 25	25/25 (11)	--/25	28/26	26/26
	25 / 25	25 / 25	--/25	26/26	26/26
	(3)(3a)(3b)	(3a)	(3a)	(3a)	(3a)
	(4)	(4)	(4)	(4)	(4a)
	X	X	X	X	X
	(5)	(5)(5a)	(5)(5a)(5b)	(5)(5a)(5b)	(5c)
	X	(12)	(12)	(12)(12a)	(12b)
	(6)	(6)	(6)(6a)	(6)(6a)	(6b)
	(7)(8)(10)	(7)(8)(10)	(10)(14)	(10)	(8a)
	(9)(10)	(9)(10)	(10)(14)	(10)	(9a)(10a)
	---	---	---	---	(6b)
	---	---	---	---	(18)
	X	X	Rough	(16)	New
	X	X	Rough	(15)	New
	X	(13)	(13)	(13a)	(13a)

Engine Group (page 1)

- (1) Compression as much as 10 psi lower just after top dead center. There is little or no choke left in the cylinders.
 (1A) Lots of blow-by past the rings. (1b) Leaking at rings and past exhaust valve. (1c) New cylinders installed.
 (2) Leads on top plugs stretched to fit. Routed so as to not have much slack. Some fraying at bends. (2a) New harness.
 (3) Plugs are very rusty. Worn. #3 bottom plug: lotsa lead (3A) Plugs cleaned and gapped (3B) Plugs sand blasted, primed & painted.
 (4) Baffles are installed wrong. Lots of gaps. (4a) New baffles and seals. All holes closed up. Baffles powder coated.
 (5) There is a lot of oil on the bottom of the sump. It looks like the sump gasket is leaking. (5A) Lots of oil at the forward engine case split line behind the alternator. (5B) Checked bolts. They're tight. Gasket is squeezed out and cracked in a couple of places.
 (5c) Block cleaned and inspected with cylinders off. No obvious leaks.
 (6) There are wires hanging all over the engine. (6A) All of the wires on the left side of the engine were rerouted out of the way.
 (6b) Completely rerouted all wiring Firewall Forward.
 (7) All hoses and wires appear to have been intentionally routed to make servicing and general maintenance as difficult as possible.
 (7a) Installed new fuel line hoses, new fuel pressure hose, new oil pressure hose, new MAP hose
 (8) Oil cooler hoses plumbed wrong. (8a) These hoses need to be changed.
 (9) Aluminum fittings used on transducer and T to fuel pressure. Should be steel. (9a) New steel fittings with EDM 900.
 (10) Hoses dated IQ1997; Change at engine overhaul. (10a) New fuel hoses.
 (11) Right leads by less than 1/2 degree
 (12) Upper left mount has some weather cracking. Bottom Left and Bottom right are weather cracked.
 (12a) Engine mount repaired @ 1881 Tach time on 10/10/2013 (12b) Replaced the bottom mounts with good used mounts.
(13) Vacuum Pump has 664.24 hours on it. Time to change. (13A) 801.3 hrs. Time to change it. (13a) New at 3350.7 TTAF
 (14) The oil hoses had to be removed to remove the left mag. Fuel hoses had to be removed to remove right Mag. Hoses were reinstalled correctly. I couldn't take it any longer. I eliminated 2 hoses and a fitting.
 (15) A little worse for wear. Change at engine overhaul.
 (16) Fletcher replaced the SCAT at 1881 Tach time on 10/10/2013
 (17) Dent, lower left cowling.
 (18) Cleaned up firewall, powder coated rocker covers, intake tubes, push rod tubes