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SAIE056CL, SAIE062ACL, SAIE072CL

12423



## Saito 4-Stroke Control Line Engines, FA56CL, FA-62aCL and FA-72CL

Owner's Operating Instruction Manual Addendum



### Warning:

- Do not modify any parts of the engine
- This engine is designed for use with control line model aircraft
- In case of modifications by the customer, Horizon Hobby Inc. shall not bear any responsibility from any damage caused by such modification

## Introduction

Congratulations on purchasing a Saito 4-cycle control line engine. These engines have been equipped with a newly designed control line carburetor/venturi system to ensure efficient and reliable performance of control line model aircraft.

For the basics of engine specifications, safety issues, warranty information, break-in/operation and a complete parts listing of the engine, please refer to the basic "Small-Medium Single Cylinder 4-Stroke Engine Instructions" packaged with the engine.

**Fuel:** We suggest a fuel containing 20–22% synthetic oil and 10–15% nitro-methane. Use of fuels composed entirely of castor oil is not recommended, however, a mix of synthetic/castor oil is acceptable.

**Propeller:** The following bench mark propellers are provided as a point of reference. Specific propeller values will depend on many variables. The main concern is to not run the engine lean nor to exceed 10,000 rpm during the break-in process (see complete break-in information below). The use of a tachometer during engine operation and break-in is highly recommended.

FA-56CL APC 12X6 @ 9,000 with stock venturi; 9,700 rpm with small venturi insert

FA-62ACL APC 13X6 @ 9,100 with stock venturi; 9,700 rpm with small venturi insert

FA-72CL APC 14x6 @ 8,400 with stock venturi; 9,000 rpm with small venturi insert

## Removal/Installation of the Small Venturi (82-1-9)

Tests have shown that the use of the larger venturi bore will increase the engine rpm's by about 600 to 700 rpm. The engine comes with the small venturi installed. If you wish to remove the small venturi please refer to the following photos and steps.

We suggest you make a small mark with a marker on the side of the removeable venturi body (82-1-5) and carburetor body (82-1-1) as shown in the photo to the right. This will help you line the venturi body up again when you reinstall it in the carburetor body.

*Part numbers given as reference and found on exploded view on page 4 of this addendum.*



Using a 1.5mm allen driver, loosen the venturi body guide screw (82-1-7) so the venturi body can be removed.



Using your fingers on the handle on the side of the venturi body, remove the venturi body from the carburetor body.



Use the 1.5mm driver to push the small venturi insert (82-1-9) and remove it. Keep it in a safe place in the event you wish to reinstall it.





Slide the venturi body back into the carburetor body using the marks you made to line it up so the venturi body guide can be reinstalled into the venturi body. Use care not to strip the threads. Do not overtighten.

## Starting the Engine

Please refer to the Break-in and Starting Instructions on page 4 and 5 of the “Small-Medium Single Cylinder 4-Stroke Engine Instructions (SAIMAN1).” Since the venturi system uses only the High Speed Needle valve (85) to control the rich/lean mixture of the engine, we suggest using 4 ½ turns out from the fully closed position of the needle valve. You want to be sure you have a rich mixture setting when first starting the engine.

Do not exceed 4,000 rpm during the first 10 minutes of operation. Subsequent runs may be made at a slightly leaner setting. Forty minutes is considered sufficient time for normal break-in prior to the first flight.

Parts unique to the control line engines:

	FA-56CL	FA-62a CL	FA-72CL
Muffler	SAI5674CL	SAI5674CL	SAI7274CL
Carburetor Body Assembly	SAI56831CL	SAI56831CL	SAI568215CL
Venturi Body	SAI568215CL	SAI568215CL	SAI56821CL
Insert (Small Venturi)	SAI568219CL	SAI568219CL	SAI568219CL
Venturi System, Complete	SAI56821CL	SAI56821CL	SAI72821CL
Taper Collet & Drive Flange	SAI5627CL	SAI5627CL	SAI7227CL
Throttle Barrel Assembly	SAI5687CL	SAI5687CL	SAI7287CL
Carburetor Screw Set	SAI5691CL	SAI5690CL	SAI7290CL
Carburetor Gasket Set	SAI5690CL	SAI5691CL	SAI5691CL
Carburetor Nipple	SAI56147CL	SAI56147CL	SAI56147CL

## CL キャブレター部品リスト (Parts List for CL-Carburetor)

82-1	Carburetor complete	1 Carburetor body		1	1	
		2 Spray bar		1	1	
		3 Needle stopper	(50)	1	1	
		4 Lock nut for spray bar	(50)	1	1	
		5 Venturi body(Large venturi)		1	1	
		6 Carburetor nipple		1	1	
		7 Venturi body stopper screw		1	1	
		8 Aluminium washer for carburetor nipple		2	2	
		9 Insert(Small venturi)		1	1	
		10 Blank plug		1	1	
		13 'O' ring P-5(NBR) for spray bar	(50)	1	1	
		15 Cap screw M3X20 for carburetor	(50)	2	2	
			'O' ring P-8(NBR) for carburetor body	32-4	1	1
			Needle valve	85	1	1
			Set screw M3X3 for needle valve	90-1	1	1
	'O' ring P-2 NBR for spraybar	91-1	1	1		
83-1	Carburetor body assembly	Carburetor body	82-1-1	1	1	
		Spray bar	82-1-2	1	1	
		Needle stopper	82-1-3	1	1	
		Lock nut for spray bar	82-1-4	1	1	
		Carburetor nipple	82-1-6	1	1	
		Venturi body stopper screw	82-1-7	1	1	
		Aluminium washer for carburetor nipple	82-1-8	2	2	
		Blank plug	82-1-10	1	1	
		'O' ring P-5(NBR) for spray bar	82-1-13	1	1	
		Cap screw M3X20 for carburetor	82-1-15	2	2	
		'O' ring P-8(NBR) for carburetor body	32-4	1	1	
		'O' ring P-2 NBR for spraybar	91-1	1	1	
		65	Full throttle needle	Needle valve Set screw M3X3 for needle valve	90-1	1
87	Throttle barrel assembly [Venturi body(Large venturi) & Insert(Small venturi)]	Venturi body(Large venturi) Insert(Small venturi)	82-1-5 82-1-9	1	1	
90	Carburetor screw set	Carburetor nipple Venturi body stopper screw Aluminium washer for carburetor nipple Blank plug Cap screw M3X20 for carburetor Set screw M3x3 for needle valve	82-1-6 82-1-7 82-1-8 82-1-10 82-1-15	1	1	
91	Carburetor gasket set	'O' ring P-5(NBR) for spray bar 'O' ring P-8(NBR) for carburetor body 'O' ring P-2(NBR) for spray bar	82-1-13 32-4	1	1	

