

# OFNA/PICCO .26 ENGINE 51214 PULL START 51213 NON-PULL START



Stop!! Carburetor screws are preset by factory.... Do not change until you read break-in instruction.

## NEW ENGINE BREAK-IN

Your OFNA engine is extremely tight when the piston is at the top of the stroke and turning the crankshaft by hand. This is normal for a new ABC type engine. The piston and sleeve are matched for fit and the top of the sleeve is tapered for a tight fit. As you run your engine, this tightness should diminish. There is no cause for alarm, because as the engine warms up, the brass sleeve will expand faster than the aluminum piston and the engine will turn freer.

As with any new engine, there are many high spots and tight fits in the matching process. High spots create hot spots that must be broke-in. Therefore, the break-in process is very important to provide good service by the OFNA engine. So, you must run the engine rich (COOL) for the first three tanks of fuel. We recommend using one gallon of 20% BLUE THUNDER or BYRON'S 2000 as break-in fuel. Other break-in type fuels or added oil is NOT needed. DO NOT OVER REV THE ENGINE WHEN FIRST STARTING, this could break the piston and over heat the sleeve. Let engine run at a fast idle for one tank to break-in the connecting rod bearing before starting full break-in. Let the engine cool down before continuing and never stop the engine with the piston at top of the cylinder. This cool down period is for heat cycling the parts.

Break-in the engine in the car, by running the engine at a rich master needle setting (1 turn out from flush or more if needed). Run the car from a slow to fast speed with short bursts of speed. You need to buildup a little heat (warm to the touch) in the engine, but not too hot. In a rich setting (2 or more turns), the engine will run cold. In the leaner setting (2 or less turns), the engine runs hotter. Do not heat up the engine too much at this time, let it cool down if too hot. After about one (1) tank, turn the Master Needle Valve, clock wise, 1/8 of a turn leaner or clockwise. Keeping the fuel tank full, continue the process until you slowly turn the Master Needle Valve, 1/8 of turn each time, too a leaner point and at which the engine runs at high RPM and power, but still keep max temp. up to 250 deg. F. At this point you must stop, too lean of a setting will heat up engine and damage the piston. A normal operating temperature is around 210 to 250 Deg. Temperatures of 300 Deg. and above will damage engine and shorten life.

## STARTING NEEDLE SETTINGS

Master Needle Valve - main control for fuel mixture. Set at 3 to 3 1/2 turns from closed or flush with collar. Adjust this needle for maximum RPM and power without being too lean or too hot. Make sure you start at bottom of needle seat!!

Barrel Needle (Low Speed) - 7mm Carburetor, factory setting is " Turn needle in until it stops, do not over tighten. Now, turn out counter clockwise 10.5 to 11.5 turns. This needle is in the center of the carburetor barrel and provides throttle response. It is not the idle adjustment. Turning screw "IN" is Lean and "Out" is Rich. Do not adjust this needle until the Master Needle is set for power and best performance. This needle will only effect throttle response, so adjust needle until throttle response is clean with little or no delay. Once set, do not continue to turn (lean) needle further. This is important since continuing to turn needle will only increase engine temp, at lower RPM, which will throw off engine overall tuning.

Barrel Stop Screws - Used for adjusting Idle. Set for 1/16th inch gap to start new engines. You can open more for faster idle.

**USE LONG GLOW PLUG WITHOUT IDLE BAR,  
(OFNA/PICCO #51007 PLUG) IS RECOMMENDED**

# OFNA/PICCO .26 ENGINE 9MM VENTURI CARBURETOR ADJUSTMENTS

This special carburetor has the high heat nylon body to counter act heat from the engine that may boil the fuel before entering the engine. Over heated fuel causes tuning problems that are hard to resolve. This new design will give you much better performance.

**IDLE GAP** - Shown in fig 1, you can see the idle gap.  
Adjust idle screw to increase or lower engine idle. Never let barrel fully close or adjust idle from only radio.  
**FACTORY SETTING** - .5mm (.20)



figure 1

**IDLE SCREW**

**FLUSH**

**MAIN NEEDLE  
(HIGH SPEED)**

**THROTTLE LINKAGE BALL**

VENTURI CARB NOT SHOWN

**FUEL INLET NIPPLE**

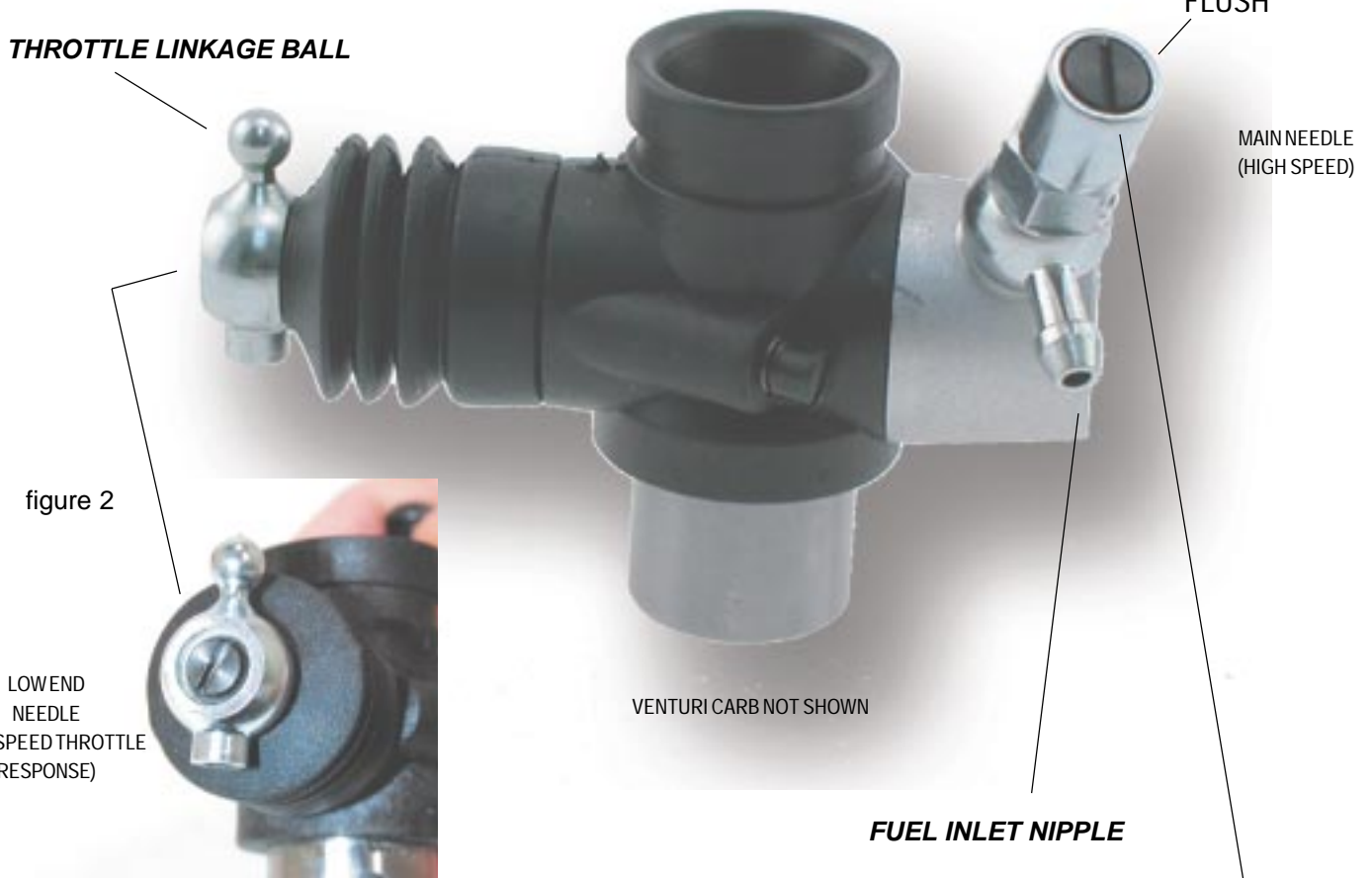


figure 2

**LOW END  
NEEDLE  
(LOW SPEED THROTTLE  
RESPONSE)**

**LOW END NEEDLE** - Shown fig. 2 is the Low End Needle, which is preset by Picco. You can adjust this needle after break-in if needed. When turning this needle, make only small 1/16 turns.  
**FACTORY SETTING** - TURN IN UNTIL STOPS, DO NOT OVER TIGHTEN. TURN COUNTER CLOCKWISE 10.5 TO 11.5 TURNS

**MASTER NEEDLE** - Adjust this needle for best power and temp. The preset setting should be 3 to 3 1/8 OUT. It is recommended to turn this needle "OUT" during break-in (richer mixture) if engine is too hot.  
**FACTORY SETTING** - flush

# 30 DAYS LIMITED WARRANTY

OFNA/PICCO .26 ENGINE MODEL IS COVERED BY A 30 DAY LIMITED. THIS WARRANTY IS LIMITED TO THE BELOW MENTIONED REQUIREMENTS AND IS NOT NEGOTIABLE. IT IS THE JUDGEMENT AND DISCRETION OF OFNA TECHNICAL DEPARTMENT IF AN ENGINE IS COVERED UNDER THIS WARRANTY, MEETING THE BELOW REQUIREMENTS.

THIS WARRANTY COVERS COMPONENT BREAKAGES FOR PISTON, CONNECTING ROD OR CRANKSHAFT FOR 30 DAYS. OFNA WILL REPAIR THE ENGINE FREE OF CHARGE, EXCLUDING SHIPPING AND HANDLING, WITH PROOF OF PURCHASE RECEIPT. THE WARRANTY IS FOR PARTS BREAKAGE DUE TO MANUFACTURING DEFECTS AND DOES NOT COVER THE FOLLOWING ENGINE FAILURES AND/OR PROBLEMS.

- ENGINE WEAR DUE TO USE
- OVER HEATING ENGINE, CAUSING LOSS OF PERFORMANCE
- OVER HEATING ENGINE, CAUSING LOW COMPRESSION
- HIGH RPM OR SUSTAINED RPM DUE TO RUN-A-WAY
- HIGH RPM AND MISHANDLING OF ANY KIND
- FAILURE TO BREAK-IN ENGINE PROPERLY BEFORE HIGH RPM
- WATER IN FUEL CAUSING RUST INSIDE ENGINE
- RUST INSIDE ENGINE
- DUST OR DIRT INSIDE ENGINE
- SCRATCHES IN ENGINE CAUSED BY DIRT OR DUST
- DAMAGED PISTON DUE TO PISTON STOP DEVICES
- DAMAGED CYLINDER EXHAUST PORT DUE TO PISTON STOP DEVICE
- DAMAGED PISTON DUE TO GLOW PLUG FAILURE
- LOOSE FLYWHEEL CAUSING OVER RPM BREAKAGE
- RUNNING ENGINE WITHOUT FLYWHEEL
- BREAKAGES AT HIGH RPM WITHOUT ENGINE LOAD
- ANY CUSTOM MODIFICATIONS

FOR ALL ENGINES NOT COVERED BY WARRANTY OR VOID OF THIS WARRANTY, SEND YOUR ENGINE TO OFNA RACING AT THE ADDRESS BELOW. ENGINES NOT DEEMED UNDER WARRANTY WITH BE CHARGED A REBUILD FEE OF \$50.00. THIS FEE MUST BE PAID IN ADVANCE PRIOR TO STARTING REPAIRS. NO COD'S, CREDIT CARDS ONLY.

THIS WARRANTY IS NOT TRANSFERABLE AND WILL NOT BE EXTEND BEYOND THE ORIGINAL PURCHASE DATE. WHEN SENDING YOUR ENGINE FOR SERVICE, MAKE SURE THE RETURN SLIP IS FILLED OUT IN FULL, OTHERWISE YOUR ENGINE WILL BE RETURNED. ALWAYS **INSURE** YOUR PACKAGE. OFNA IS NOT RESPONSIBLE FOR LOST PACKAGES IF NOT SIGNED FOR BY OFNA. DO NOT FORGET YOUR PROOF OF PURCHASE RECEIPT FOR ALL WARRANTY CLAIMS.

IT IS NOT NECESSARY TO REMOVE CLUTCH OR ENGINE MOUNTS, BUT RECOMMENDED YOU DO SO. BUT, DO NOT SEND MANIFOLD/PIPE OR CAR KIT WITH PRIOR PERMISSION FROM TECHNICAL DEPT MANGER.

**OFNA RACING (949) 586-2910  
TECHNICAL DEPT.  
22692 GRANITE WAY, STE. B  
LAGUNA HILLS, CA 92653**

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## **30 DAY ENGINE RETURN INFORMATION SLIP (ENGINE MUST BE FULLY ASSEMBLED WHEN SENT)**

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_

STATE \_\_\_\_\_

ZIP \_\_\_\_\_

HOME TEL: (        ) \_\_\_\_\_ (MUST HAVE)

WHAT IS THE PROBLEM: \_\_\_\_\_

(MUST HAVE PURCHASE RECIEPT?)