ZENITH CARBURETOR DIVISION
BENDIX AVIATION CORP.
DETROIT, MICH., U. S. A.

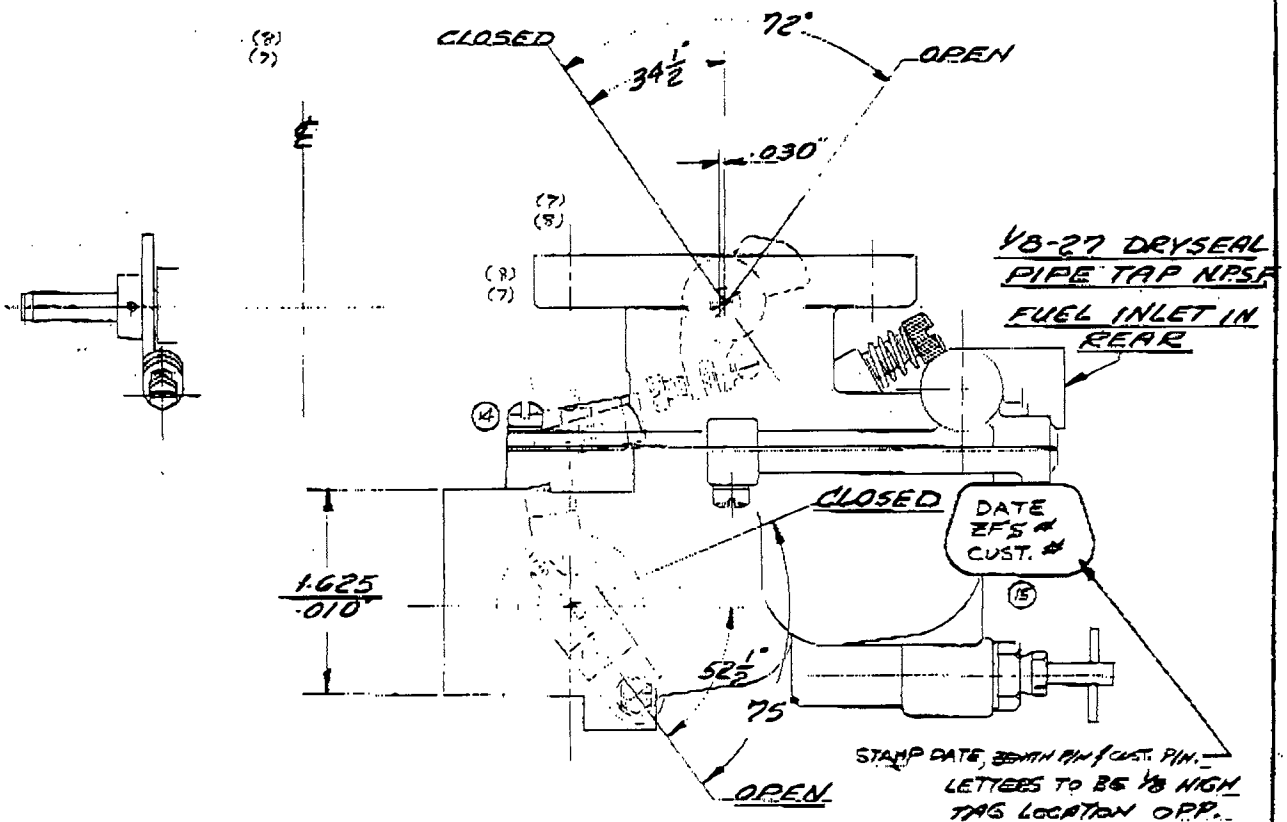
013246 CARB IS STILL AVAILABLE
THKS, MATTIE BELLAMY 276-645-8619

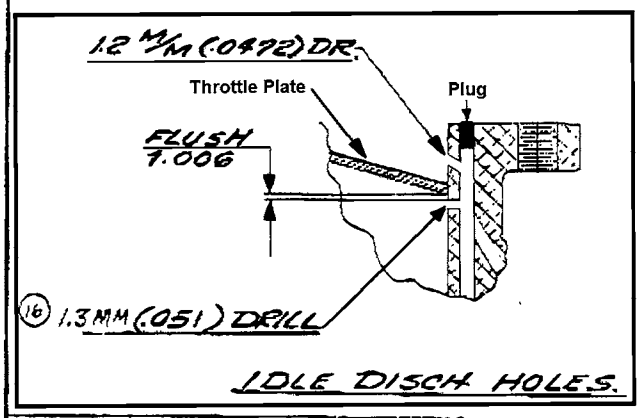
D.C.B. # 21345

TOLERANCE ON LEVERS AND GAS CONNECTIONS UNLESS OTHERWISE SPECIFIED

1. LEVERS NOT PINNED IN PLACE—POSITIONS ARE ONLY APPROX.
2. LEVERS PINNED IN PLACE ± 3 DEGREES IN RADIAL POSITION.
3. LEVERS—WHEN DIMENSIONS ARE GIVEN FROM Q/L OF CARB. ALLOW ± 1/32.
4. POSITIONS OF GAS CONNECTIONS ARE ONLY APPROX.
5. PIN ALL THROTTLE STOP LEVERS.
6. DO NOT PIN THROTTLE CLAMP LEVERS.

68 Series Aluminum Carburetor - Used on 1967 through 1976 Gravely Model "L" 7.6 HP.
(1962 through 1966 6.6 HP is same but has a 17mm venturi instead of 18mm)





SPECIAL NOTES

1. CRACK THRO. PLATE FOR IDLE.
2. SET IDLE ADJ. 1 TO 2 TURNS OPEN.
3. SET MAIN JET ADJ FULL TURN OPEN

(13)(12) 4. FLOAT CHECK DIMENSION TO BE 1 7/32" ± 1/32" FROM GASKET SURFACE TO TOP OF FLOAT.

DATE	LET	CHANGE	CHG. NO.
2-26-00	16	CHANGED DRILL SZ.	20053
12-17-96	15	ADDED IDENT. TAG.	18782
12-12-88	14	SEE BULLETIN	12947
6-31-87	13	SEE BULLETIN	12157
1-8-86	12	ADD NOTE #4	11106
8-22-82	11	WAS C131-38	8433
9-15-81	10	ADDED C136-29	8150
11-1-78	9	SEE BULL	6965
2-12-74	8	SEE BULLETIN	3795
11-13-73	7	SEE BULLETIN	3761
3-7-73	6	WAS C137-49	3219
10-2-72	5	C137-49 ADDED	N-3316
7-16-71	4	COST. NO. WAS 10878P-1	N-3705
4-8-71	A	SEE BULLETIN	C-2952
12-17-70	3	REMOVED C138-3	N-3588
12-7-68	2	CHG. COST. PART NO.	N-3846
9-28-66	1	ADDED CUST. PART NO. 10878P-1	N-2932

SETTING

VENTURI	MAIN JET	IDLE JET	M. DIS JET	WELL VENT	F.V. SEAT	B.V. RESTR
18	25	12	40	20	35	64

FUEL LEVEL: 12 TO 14 M/M
WITH 3 FT. HEAD

PRIMING PLUG HOLE
REVEALING
O.D.

SPARK ADVANCE
DRILL SIZE
REVEALING
O.D.

MANIFOLD FLANGE
CENTERS 2 1/4
DRILL
TAP 5/16-18
MILLED

ENGINE
MAKE OWN
MODEL SUPER L
BORE AND STROKE 3 1/4 x 3 1/2
NO. CYL. 1

MANUFACTURED FOR
GRAVELY TRACTOR
THEIR PART NO. 10878P-1
STAMP ON NAMEP
ZENITH NO. 13246
CUSTOMER NO. 169

SCALE	DRAWN BY	CHK'D BY	DATE	
FULL	H.G.	Dal	8-23-66	32

From: ozzie1957
Date: Wed Feb 11, 2004 3:26 pm
Subject: Zenith Model 68 Aluminum Carb Schematic for 7.6 HP Model "L"

I just added (in the Files section) a schematic I received from the Zenith Carburetor Company. It has some useful information on it including:

1. All Jet sizes.
2. Initial throttle plate, idle and main jet settings.
3. Carb changes and dates that took place over the years.

I particularly found the "Idle Discharge Holes" section extremely beneficial in fixing a problem with a carb I bought off of ebay. It was an early model 6.6 Aluminum carb (rear facing air intake) that I wanted because the linkage was on the correct side for a 7.6 HP application and it was advertised as having a "Tight" throttle shaft. I knew all the jets and venturi would be wrong so I had to change all of them to the 7.6 HP specs.

After all the changes it ran beautiful at any speed except idle (sort of). It simply would not idle at an RPM I would consider low enough to be normal. Every time I started to get close it would just die. Well after seeing this schematic I noticed that the upper idle discharge hole (marked 1.2 mm) was about half that diameter. So I ordered a set of tiny drill bits off the net and drilled that discharge hole to 1.2 mm.

And now that carb runs absolutely perfect.

Now I can turn the idle down so low you can count seconds between each firing of the magneto. Well that might be exaggerating a little but you get my drift.

I hope this is useful to someone else too and I also find it interesting that they continued to change the carb design in the 80's 90's and even in 2000.

Ozzie

From: saw_48170
Date: Wed Feb 11, 2004 5:27 pm
Subject: Re: Zenith Model 68 Alum. Carb Schematic for 7.6 HP Model "L"

I think it looks like there are two different "idle" holes in the drawing. The idle port (hole) - the one drilled to 1.2 mm, is the angled hole located at the top "under" the throttle plate, and functions when the throttle plate is closed.

When the throttle plate starts to open, the straight 1.3mm hole (which is located just a few thousandths before the plate) is exposed, and fuel is allowed to trickle out. Allowing more fuel to flow as the throttle plate opens (off idle) helps in transitioning to the main system. Otherwise, there can be a hesitation (gulp) before the main kicks in.That's a great document to have - nice work!

From: ozzie1957
Date: Wed Feb 11, 2004 6:55 pm
Subject: Re: Zenith Model 68 Alum. Carb Schematic for 7.6 HP Model "L"

Yep you are right. There are 2 discharge holes. Fortunately the lower (horizontally drilled) one is already at the 1.3mm diameter on the older 6.6 carb. I wouldn't have been able to drill that one unless I somehow popped out the brass plug (opposite side of carb throat) that fills the hole that allowed the drill to come in horizontally when the carb was manufactured.

Ozzie