EO 15-10BAA-2

ROYAL CANADIAN AIR FORCE

HANDBOOK WITH PART LIST

STROMBERG NAR9B CARBURETTOR

"REVISION" NOTICE

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LIST OF RCAF REVISIONS

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PART 1

DESCRIPTION AND MAINTENANCE

1 The NA-R9B-19 carburettor is installed on Expeditor and Sikorsky S-51 aircraft.

2 This carburettor is a single barrel updraft unit and incorporates a single hinge type float, an accelerator pump, a needle type economizer and a needle type mixture control. It is assembled in two halves, the upper body and the lower body.

3 The upper body houses the throttle valve, the mixture control needle assembly, the economizer needle, the idle discharge jet and the idle air bleed. The accelerating pump is connected to the throttle lever by linkage, but operates in the accelerating pump well in the lower body.

(a) The mixture control shaft is so arranged that a part of it is a conical shape with an annular groove and when the mixture control is in the "Full Rich" position, a port is open connecting the drilled passage from the accelerating pump to the accelerating pump discharge nozzle in the barrel of the carburettor. In the "Full Lean" position the mixture control shaft connects the drilled passage from the accelerator pump to the 1/8" pipe tap connection which can be used as an engine primer.

(b) The lower body houses the float chamber, float and float needle valve seat, the discharge nozzle, the main and economizer jets, the mixture control seat, main air bleed, idle tube and, the fuel screen.

(c) The NA-R9B-19 carburettor has 4 studs for attachment to the air scoop.

PART 2

OVERHAUL INSTRUCTIONS

DISASSEMBLY

1 General instructions concerning disassembly and cleaning are given in EO 15-10BA-3.

2 The halves of the carburettor may be separated by removing the fillister head screws at the parting surface and the venturi set screws. Keep the parting surfaces parallel as they are separated to prevent bending the pump stem. Slip the pump sleeve off the stem as soon as the throttle body is removed. The mixture control needle remains in the throttle body and the economizer needle stays in the main body. The economizer needle and bushing may be removed by unscrewing the bushing from the main body. The mixture control shaft and primer assembly is removable by taking out the two fillister head screws. As the mixture control shaft is pulled out, it frees the needle so it may be removed. The mixture control shaft assembly may be disassembled by removing the stop after the taper pin has been driven out.

REPLACEMENT AND RE-ASSEMBLY

3 See EO 15-10BA-3 for general instructions for re-assembly of the NA-R9B carburettors.

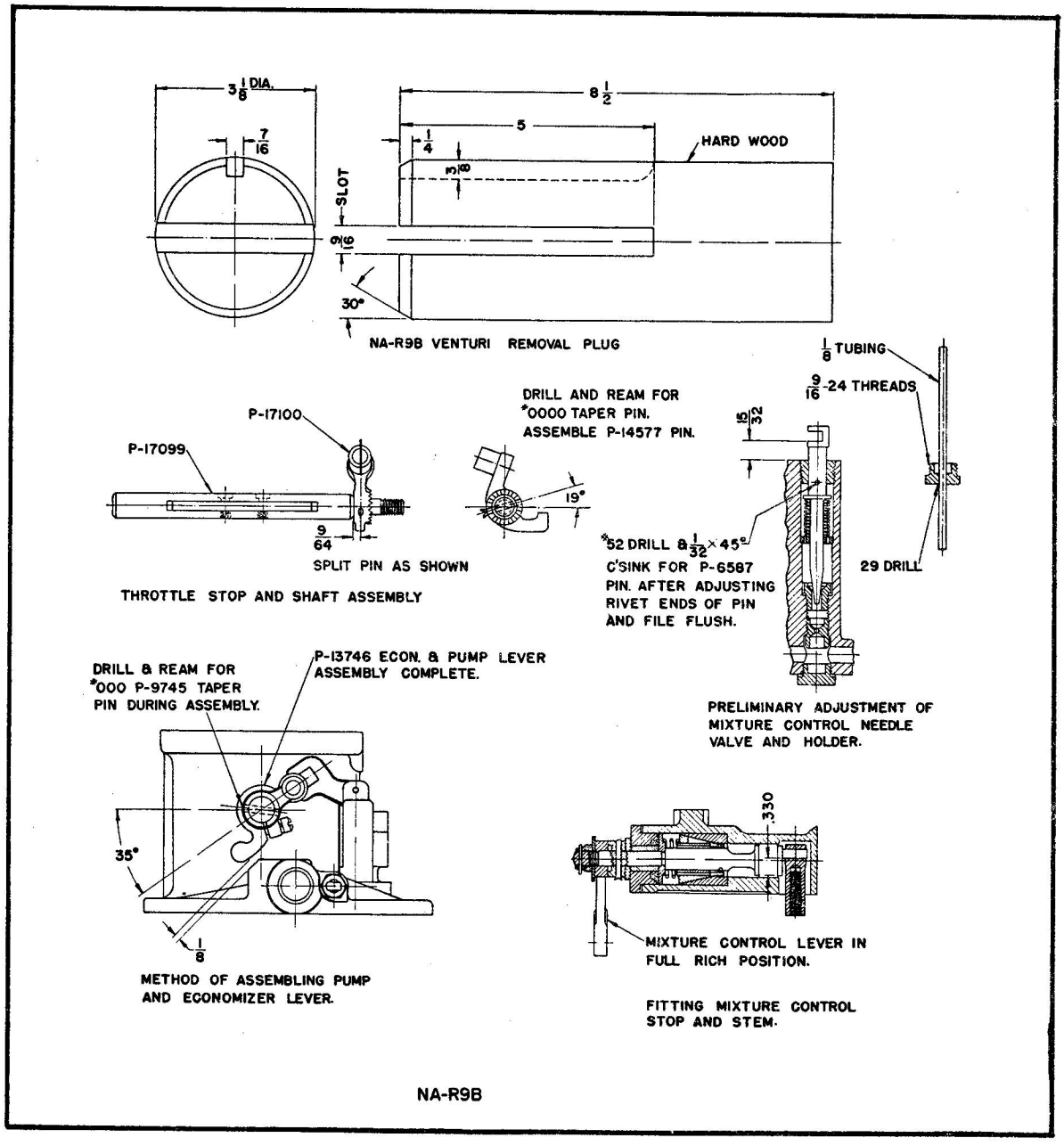

Figure 2-1 NA-R9B Re-assembly

4 The mixture control needle seat is to be checked for 130-150 inch pounds torque. If the torque on the needle seat is less than required, remove the seat, install a new gasket, part number 383805, then screw the needle seat in until tight, back out one or two turns and re-tighten to 130-150 inch pounds.

5 In fitting a new throttle shaft or pump lever it is necessary to locate the lever in the proper position on the shaft. Assemble the pump stem and guide in the throttle body. Place the pump lever on the throttle shaft with the square block in the pump stem fork and adjust the lever so that the block is in approximately the same position in the fork, when the throttle is closed and when it is wide open. Drill and pin the assembly in this position. Be sure the throttle and pump stem operates freely. A bent lever or any misalignment will cause this mechanism to bind. Check the clearance between the bottom of the lever on the economizer end, and the throttle body when the throttle is completely closed. File the lever if required.

6 The economizer needle adjusting nut should be so adjusted, that the forked end of the pump lever engages the economizer needle at the throttle opening given on the setting parts list under economizer setting. Make sure the econimizer needle seats properly without any leakage and that it works freely.

7 When any parts of the mixture control and primer shaft assembly are replaced, care should be taken to see that they are assembled correctly. The primer valve should be lapped in, using a very fine grinding compound. Care should be taken to see that the valve seats perfectly and after assembly should be checked to ensure fuel shut off from the pump discharge nozzle when the mixture control is full lean and the throttle operated. It is important that the stop be assembled in correct relation to the eccentric pin which operates the mixture control needle. This may be done by making up the complete assembly, including the lever, indicator plate and nut, and assembling it in the throttle valve body. With the stop in the "Full Rich" position (against the large head screw) the shaft should be adjusted so that the dimension from the shaft to the eccentric pin is .330 inch as shown in Figure 2-1. When this adjustment has been made, drill the pin and stop in place.

8 The mixture control needle is threaded into the needle stem and these parts should be adjusted to obtain a needle travel of 17/64 inch plus .000 inch, minus 1/64 inch; a lever travel of 75 to 80 degrees, and the primer valve to open between 55 to 60 degrees lever travel. An approximate adjustment may be obtained before assembling the needle in the throttle body by setting the bottom of the stem slot 15/32 inch from the main body parting surface with the needle valve held down against the seat as shown in Figure 2-1. The travel of the needle should be checked after assembling the bodies by removing the jet plug and jet under the mixture control needle and seat and using the simple device shown in Figure 2-1. After threading the drilled plug in the body the tubing may be pushed up against the point of the needle and the travel may be checked with a small ruler held against the tubing. When the correct needle travel has been obtained, remove the needle and stem, drill and pin (as shown in Figure 2-1), using a #52 drill, rivet over the ends of the pin and file flush so there is no interference with the bushing.

9 In assembling the main air bleed tube be careful not to strip the thread. This is a small part and does not require much force to tighten.

FUEL INLET STRAINER

10 The main body fuel inlet strainer threads are very easily stripped if the strainer is overtorqued during installation. The most common cause for overtorquing is because of nicks, scratches or gouges in the main body mating surface, which will allow the fuel to leak by the gasket when tightened down.

11 The fuel strainer mating surface in the main body is to be cleaned up, free from nicks, scratches or gouges at overhaul as required.

12 When the fuel strainer is removed for any purpose, the gasket Part 174-S-22 is to be discarded and a new gasket installed when

the strainer is replaced. This gasket is to be replaced as it is a copper coated lead gasket and loses its compressibility after one time use.

13 Ensure that the main body mating surface is not carelessly nicked or scratched while removing or installing the strainer. The fuel strainer threads are to be lubricated with lubricant anti-seize to Specification MIL-L-6032 Sec. Ref. 34A/167.

14 The strainer tightening procedure is to be accomplished as follows:-

(a) Torque the fuel strainer to 100 inch pounds.

(b) Loosen the strainer and then slowly retighten to 110-115 inch pounds.

15 The special parts incorporated in the NA-R9B-19 carburettor built to part list A-30250-2 are listed in Table 2 of this EO.

TABLE 1

CLEARANCES AND TOLERANCES			
	MINIMUM	CLEARANCE DES	MAXIMUM
Throttle shaft and bushing	.0025	.003	.006
Throttle shaft and bushing end clearance WOT	.008	.012	.024
Throttle stop on shaft and throttle in body			
Throttle closed	1/32	1/16	3/32
Throttle valve and end of idle discharge nozzle	.000	.000	.004
Float level	47/64"	3/4"	51/64"
Float bearing	.001	.003	.006
Float bearing end clearance	.005	.010	.020
Float needle and seat	.004	.006	.010
Float pin and float needle slot	.010	.015	.020
Mixture control needle travel	1/4	1/4	17/64
MIXTURE CONTROL			
Stem end bushing or packing unit	.001	.002	.007
Needle stem in guide	.003	.005	.015

TABLE 1 (Cont'd)

	MINIMUM	CLEARANCE	MAXIMUM
Needle in seat or guide	.005	.010	.020
ECONOMIZER			
Needle stem and guide	.006	.008	.015
Needle valve in seat (guide)	.011	.011	.025
ACCELERATING PUMP			
P-17329 Piston	.0025	.004	.0075
Piston and Valve	.0005	.002	.007
Stem and Bushing	.001	.003	.010
Pump bearing square block and fork	.0005	.0025	.010
Pump bearing square block and pin	.0008	.002	.006

TABLE 2

SETTING SPECIFICATIONS

ENGINE MODEL R985-AN5-AN-14B CARBURETTOR MODEL: NA-R9B

ENGINE MFGR Pratt & Whitney PARTS LIST # A-30250-2

ENGINE MFGR SETTING # NA-R9B-19

ITEM NO	PART NAME	PART NO.	SIZE AND REMARKS
	MAIN METERING SYSTEM		
1	Venturi	P17156	Size: 2-3/4"
2	Metering Jet	393044	Size: #24
3	Main Air Bleed	P-13722	Size: #58
4	Main discharge Nozzle	390038	Size: Bore 3/8"

TABLE 2 (Cont'd)

ITEM NO	PART NAME	PART NO.	SIZE AND REMARKS
	Nozzle Bleeded Holes		Size: (upper) 4-#48; (lower) 4-#44
	IDLE METERING SYSTEM		
5	Idle Air Bleed	P-9187	Size: #56
6	Idle Discharge Jet	P-61386	Size: A-#57, B-Blk. C-#53, D-Blk. F-#52. Assembly P-61387
7	Idle Tube	P-13760	Size: Bore 3/16" Restriction #44
8	Throttle Valve	P-21255	Angle: 18°
	ECONOMIZER SYSTEM		
9	Economizer Metering Jet	393044	Size: #47
10	Economizer Needle Seat	P-17436	Size: #34
11	Economizer Needle	P-17430	Incl. Angle: 15°
12	Economizer Setting		Thro. Angle: 30°
	ACCELERATION PUMP		
13	Acceleration Pump Valve	P-13737	Size: 4-#40
14	Acceleration Discharge Jet	P-17137	Size: #50
	MIXTURE CONTROL SYSTEM		
15	MC Needle Seat	P-14172	Size: 9/32"
16	Mixture Control Needle	365401	Incl. Angle 12°, Assembly P22291
	Needle Travel		17/64" (1/4" minimum)
	FLOAT MECHANISM		
17	Needle Valve Seat	P-17171	Size: #9 (Needle and Seat Assembly P-17685)
	By-Pass Holes		Size: 4-#50

TABLE 2 (Cont'd)

ITEM NO	PART NAME	PART NO.	SIZE AND REMARKS
18	Float Level		3/4" using. 710 specific gravity fuel
19	Fuel Pressure		4 pounds per square inch

PART 3

PART LIST

PART 3

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SECTION 1

INTRODUCTION

This Part consists of an exploded view and Numerical Part List, covering the Stromberg float type carburettor NA-R9B-19 in P & W R985-AN14B and -AN5 engines.

This carburettor is installed in Expeditor aircraft and Sikorsky S-51 helicopter.

SECTION 1

INTRODUCTION

1 This Part consists of an Introduction, Group Assembly Part List complete with exploded view, and a Numerical Index, covering the Stromberg float type carburettor NAR9B installed in P&W R985-AN14B and AN5 engines.

2 Abbreviations and symbols used are as follows:-

AR	-	as required
ID	-	inside diameter
OD	-	outside diameter
In.	-	inch
NP	-	not procurable
OS	-	oversize
*	-	parts so identified are not procurable

NOTE

When the main body has been reworked at overhaul due to stripped strainer threads, strainer Part P16577 will be used for replacement.

Ordinarily either strainer used can be identified by the part number stamped on the head. If there is no identification, care must be taken to ensure that the fuel pressure line reducer does not protrude far enough into the body to foul the strainer threads in the event that strainer Part P16577 is fitted. If in doubt, the reducer should be backed off before attempting to remove the strainer, and if the reducer is too long it should be suitably shortened or replaced.

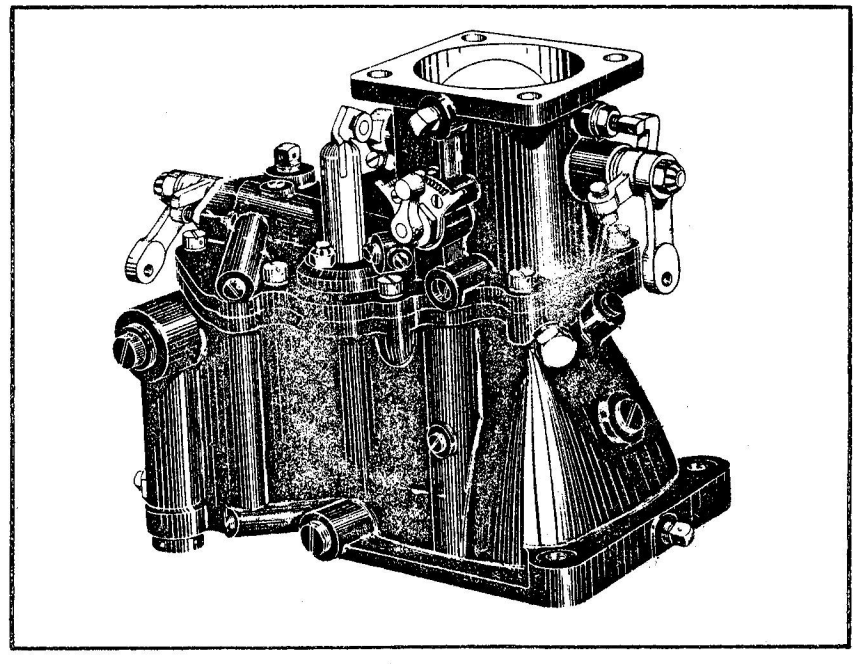

Figure 3-1 NAR9B Carburettor Assembly - External View

SECTION 2

GROUP ASSEMBLY PART LIST

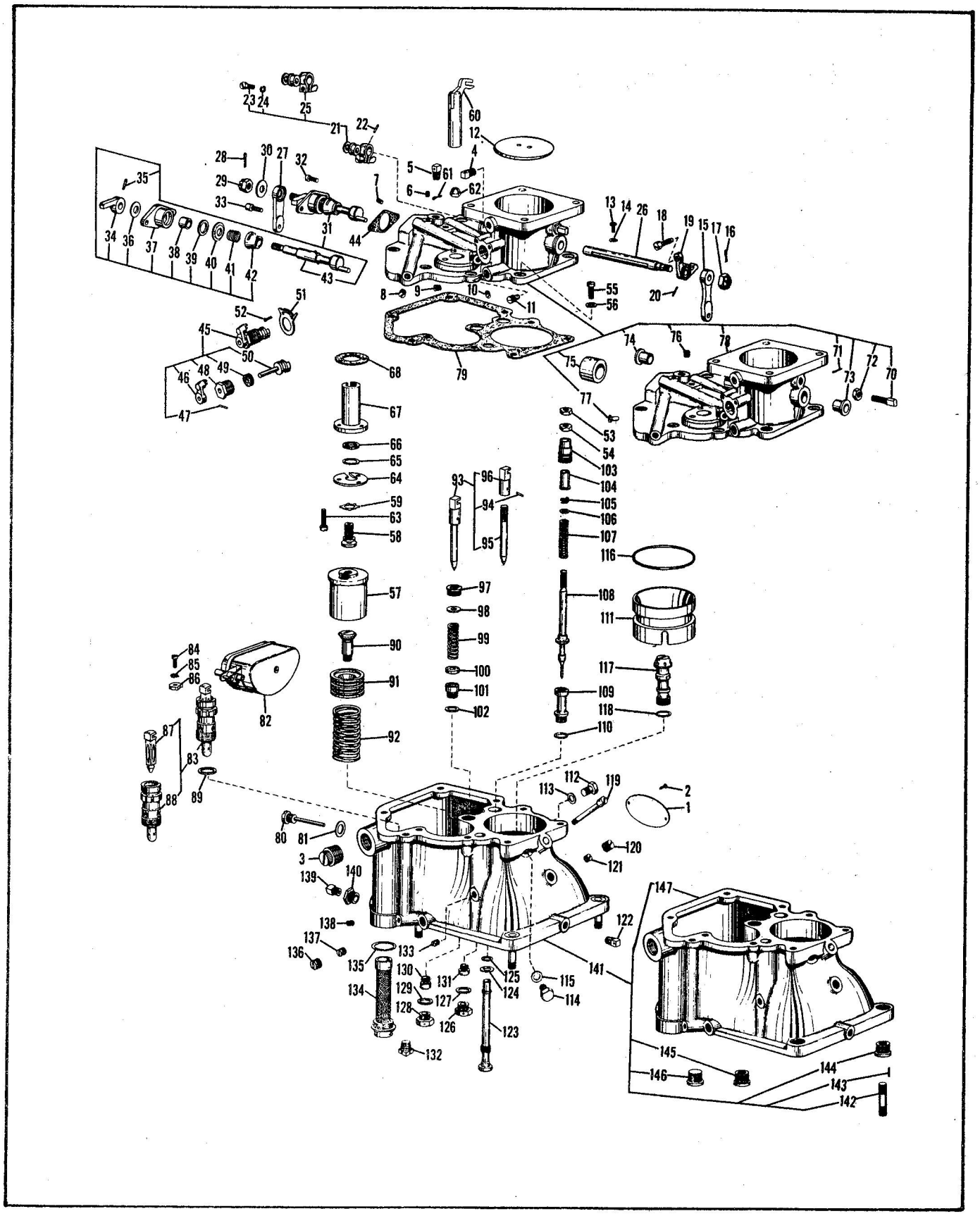

Figure 3-2 NAR9B Carburettor Assembly - Exploded View

FIGURE and INDEX NUMBER	GROUP MAJOR ASSEMBLY CARBURETTOR ASSEMBLY NAR9B PART NUMBER	1 2 3 4 5 6 7 NOMENCLATURE	Units Per Assy	Usage on Code
3-2	A30250-2	Carburettor Assembly NAR9B	1	
-1	P17619	Plate - Identification	1	
-2	P16630	Screw - Self-tapping 3/16 in.	2	
-3	1604-42	Cap - Dust and moisture (390215)	1	
-4	AN913-1	Plug - Pipe (Bendix P8508)	1	
-5	AN913-1	Plug - Pipe	1	
-6	P6670	Plug - Headless	1	
-7	P6670	Plug - Headless	1	
-8	P17155	Plug - Headless 1/4-28	1	
-9	P8460	Plug - Headless screw	1	
-10	P6670	Plug - Headless	1	
-11	P9187-56	Bleeder - Idle air	1	
-12	P21255	Valve - Throttle	1	
-13	P12403	Screw - Fillister head 8-32 x 27/64 in.	2	
-14	AN935-8L	Washer - (Bendix 901045K1)	2	
-15	18S9185	Lever - Throttle	1	
-16	P6666	Pin - 1/16 x 1/2 in.	1	
-17	AN310-5	Nut - Hex 5/16 x 24 (Bendix 900848K1)	1	
-18	P11477	Screw Assembly - Throttle adj.	1	
-19	P20346	Stop Assembly - Throttle	1	
-20	P19086	Pin - Plain tapered, standard	1	
-20	P19086-1	Pin - (1st OS of P19086) .005 in.	AR	
-20	P19086-2	Pin - (2nd OS of P19086) .010 in.	AR	
-21	P13746	Lever Assembly - Economizer and pump	1	
-22	P9745	Pin - Taper No. 3/0	1	
-23	P2924	Screw - Fillister 8-32 x 5/8 in.	1	
-24	P4627	Washer - Lock	1	
-25	*	Lever Assembly	NP	
-26	365469	Shaft - Throttle	1	
-27	189185	Lever - Mixture	1	
-28	P6666	Pin - 1/16 x 1/2 in.	1	
-29	AN310-5	Nut - Hex. castellated	1	
-30	P15156	Plate - Indicator	1	
-31	*P19250	Shaft Assembly - Mixture control and primer	1	
-32	P6588	Screw - Fillister 10-24 x 9/16 in.	1	
-33	P17422	Screw - Fillister 10-24 x 9/16 in.	1	
-34	P19241	Stop - Mixture control and primer	1	
-35	P19086	Pin - Plain tapered, standard	1	
-35	P19086-1	Pin - (1st OS of P19086) .005 in.	AR	
-35	P19086-2	Pin - (2nd OS of P19086) .010 in.	AR	
-36	P15997	Washer - Flat	1	
-37	P18622	Bushing - Flange	1	
-38	P18625	Bushing - Shaft	1	

FIGURE and INDEX NUMBER	GROUP MAJOR ASSEMBLY CARBURETTOR ASSEMBLY NAR9B (Cont'd) PART NUMBER 1 2 3 4 5 6 7 NOMENCLATURE	Units Per Assy	Usage on Code
3-2-39	P18629 Washer - Nonmetallic	1	
-40	P18626 Washer	1	
-41	P18632 Spring - Primer valve	1	
-42	P19244 Valve Assembly	1	
-43	P19246 Shaft Assembly	1	
-44	P18633 Gasket - Mixture control	1	
-45	390041 Jet Assembly - Idle	1	
-46	P9291 Lever Assembly - Adjusting	1	
-47	P6243 Pin - Headless straight	1	
-48	P19057 Nut - Idle adj.	1	
-49	P19056 Washer - Nonmetallic	1	
-50	*P61386 Jet - Idle discharge	NP	
-51	P13733 Quadrant - Idle adj.	1	
-52	P6869 Screw - Machine oval head	2	
-53	P16594 Nut - Hex	1	
-54	P16594 Nut - Hex		
-55	P8576 Screw - Fillister 1/4-20 x 3/4 in.	8	
-56	P15344 Washer - Flat	8	
-57	P13749 Sleeve Assembly - Pump piston	1	
-58	P19283 Link - Pump stem	1	
-59	P60021 Washer - Lock	1	
-60	P19276 Stem Assembly - Pump	1	
-61	P7170 Pin - Cotter 1/16 x 7/16 in.	3	
-62	AN913-3 Nut - 10-32 (Bendix 900846K1)	3	
-63	P13875 Screw - Fillister 10-32 x 7/8 in.	3	
-64	P13876 Washer - Packing retainer	1	
-65	P13873 Washer - Flat	1	
-66	P13905 Washer - Nonmetallic	1	
-67	P19240 Bushing - Pump stem	1	
-68	P13775 Gasket	1	
-69	P19248 Body Assembly - Throttle	1	
-70	P16596 Screw - Stop block	1	
-71	Pin - Type 1, 1-1/16 x 1/2 in. (P16597)	1	
-72	P16598 Nut - Hex	1	
-73	390080 Bushing - Throttle shaft (standard)	1	
-73	390081 Bushing (1st OS of 390080) .003 in.	AR	
-73	390082 Bushing (2nd OS of 390080) .006 in.	AR	
-74	390080 (See -73)	1	
-74	390081 (See -73)	AR	
-74	390082 (See -73)	AR	
-75	P19247 Bushing - Primer valve seat (standard)	1	
-75	P19247-1 Bushing (1st OS of P19247) .003 in.	AR	
-75	P19247-2 Bushing (2nd OS of P19247) .006 in.	AR	

FIGURE and INDEX NUMBER	GROUP MAJOR ASSEMBLY CARBURETTOR ASSEMBLY NAR9B (Cont'd) PART NUMBER	1 2 3 4 5 6 7 NOMENCLATURE	Units Per Assy	Usage on Code
3-2-76	P12866	Screw - Headless set	1	
-77	P19137-50	Nozzle - Pump discharge	1	
-78		Body - Throttle	NP	
-79	P19275	Gasket - Main body	1	
-80	P13773	Screw Assembly - Fulcrum	1	
-81	P60307	Washer - Nonmetallic 1/64 in. thick	1	
-81	P10666	Washer - Nonmetallic 1/32 in. thick	1	
-81	P60308	Washer - Nonmetallic 3/64 in. thick	1	
-82	P13770	Float Assembly	1	
-83	365646-4-50	Needle and Seat Assembly - Float	1	
-84	P3199	Screw - Fillister 10-24 x 1/2 in.	1	
-85	AN935-10	Washer - (Bendix 901004K1)	1	
-86	P13898	Lock - Seat	1	
-87	*365402	Needle - Float	NP	
-88	*P17171-4-50	Seat Assembly - Fload needle	NP	
-89	P14425	Washer - Nonmetallic 1/64 in. thick	1	
-89	P5319	Washer - Nonmetallic 1/32 in. thick	1	
-89	P14426	Washer - Nonmetallic 3/64 in. thick	1	
-89	P14427	Washer - Nonmetallic 1/16 in. thick	1	
-90	P13737-4-40	Valve - Pump	1	
-91	P17329	Piston - Pump	1	
-92	P13735	Spring - Pump	1	
-93	*365622	Valve Assembly - Mixture control needle	1	
-94	P7018	Pin - headless straight	2	
-95	365401	Point - Valve	1	
-96	P17435	Stem - Mixture control	1	
-97	P17434	Guide - Needle stem	1	
-98	P17433	Washer - Flat	1	
-99	P13734	Spring - Mixture control valve	1	
-100	P17431	Washer - Mixture control valve	1	
-101	P14172-9/32	Seat - Mixture control	1	
-102	383805	Gasket - Mixture control seat	1	
-103	P60011	Bushing - Economizer needle	1	
-104	P60010	Guide - Economizer needle	1	
-105	365636	Packing (P10918 in lieu)	1	
-106	P16560	Washer - Flat	1	
-107	P60012	Spring - Economizer	1	
-108	390039	Needle Assembly - Economizer (P17430 in lieu)	1	
-109	P17436-34	Seat - Needle valve (P17683-38 substitute)	1	
-110	383805	Gasket - Needle valve seat	1	
-111	P17156-2 5/8	Venturi	1	
-112	P13657	Screw - Hex	1	

FIGURE and INDEX NUMBER	GROUP MAJOR ASSEMBLY CARBURETTOR ASSEMBLY NAR9B (Cont'd) PART NUMBER	1 2 3 4 5 6 7 NOMENCLATURE	Units Per Assy	Usage on Code
3-2-113	P16708	Washer - Flat	1	
-114	P13657	Screw - Hex	1	
-115	P16708	Washer - Flat	1	
-116	392636	Packing - Venturi	1	
-117	390038-3/8	Nozzle - Main discharge	1	
-118	360002	Gasket - Nozzle (P16790 in lieu)	1	
-119	P13722-58	Bleed - Main, air	1	
-120	P11348	Plug - Headless screw 1/2-24	1	
-121	P10248	Plug - Headless screw 3/8-24	1	
-122	AN913-1	Plug - Pipe	1	
-123	P13760-40	Tube Assembly - Idle	1	
-124	174S4	Gasket - Copper, idle tube assembly	1	
-125	390267	Washer - Nonmetallic	1	
-126	P10908	Plug - Hex 9/16-24	1	
-127	P3779	Washer - Nonmetallic	1	
-128	P10908	Plug - Hex	1	
-129	P3779	Washer - Nonmetallic	1	
-130	393044-24	Jet - Metering	1	
-131	393044-47	Jet - Metering, economizer	1	
-132	P9008	Plug - Drain	1	
-133	P6670	Plug - Headless	1	
-134	P13680	Strainer and Plug Assembly	1	
-134	P16577	Strainer - (Use only under conditions as per NOTE Section 1)		
-135	174S22	Gasket - Copper, strainer	1	
-136	P17143	Plug - Headless 3/8-24	1	
-137	P11611	Plug - Headless 7/16-24	1	
-138	P17155	Plug - Headless 1/4-28	1	
-139	AN913-1	Plug - Pipe (Bendix P8508)	1	
-140	AN912-1	Reducer (Bendix P60509)	1	
-141	P19249	Body Assembly - Main	1	
-142	PWA656-2	Stud - Main body	4	
-143		Pin - Headless 3/32 x 3/8 in. (Bendix 397469)	8	
-144	P60857	Bushing - (Standard)	2	
-144	P60857-1	Bushing (1st OS of P60857) .003 in.	AR	
-144	P60857-2	Bushing (2nd OS of P60857) .007 in.	AR	
-145		(Same as item 144)		
-146	P60973	Bushing - Blind screw (standard)	1	
-146	P60973-1	Bushing (1st OS of P60973) .003 in.	AR	
-146	P60973-2	Bushing (2nd OS of P60973) .007 in.	AR	
-147	*	Body - Main	NP	

SECTION 3

NUMERICAL INDEX

PART NO.	FIGURE AND INDEX	QUANTITY
Pin type 1	3-2-71	1
Pin type 2	3-2-143	8
Screw type Z	3-2-2	2
AN310-3	3-2-62	3
AN310-5	3-2-17	2
AN912-1	3-2-140	1
AN913-1	3-2-4, -5, -122, -139	4
AN913-2	3-2-139	1
AN935-10	3-2-85	1
AN935-8L	3-2-14	2
A30250-2	3-2-	1
P10248	3-2-121	1
P10666	3-2-81	1
P10908	3-2-126	2
P10918	3-2-105	1
P11348	3-2-120	1
P11477	3-2-18	1
P11611	3-2-137	1
P12403	3-2-13	2
P12866	3-2-76	1
P13657	3-2-112, -114	2
P13680	3-2-134	1
P13722-58	3-2-119	1
P13733	3-2-51	1
P13734	3-2-99	1
P13735	3-2-92	1
P13737-4-40	3-2-90	1
P13746	3-2-21	1
P13749	3-2-57	1
P13760-40	3-2-123	1
P13770	3-2-82	1
P13773	3-2-80	1
P13775	3-2-68	1
P13873	3-2-65	1
P13875	3-2-63	3
P13876	3-2-64	1
P13898	3-2-86	1
P13905	3-2-66	1
P14172-9/32	3-2-101	1
P14425	3-2-89	1
P14426	3-2-89	1
P14427	3-2-89	1
P15156	3-2-30	1
P15344	3-2-56	8
P15997	3-2-36	1
P16560	3-2-106	1
P16577 (see NOTE Section 1)		
P16594	3-2-53	2
P16596	3-2-70	1
P16597 (see Pin type 1)		
P16598	3-2-72	1
P16630 (see Screw type Z)		
P16708	3-2-113, -115	2
P16790	3-2-118	1
P17137-50	3-2-77	1
P17143	3-2-136	1
P17155	3-2-8, -138	2
P17156-2 5/8	3-2-111	1
P17171-4-50	3-2-88	1
P17329	3-2-91	1
P17422	3-2-33	1
P17430-14°	3-2-108	1
P17431	3-2-100	1
P17433	3-2-98	1
P17434	3-2-97	1
P17435	3-2-96	1
P17436-34	3-2-109	1
P17619	3-2-1	1
P17683-38	3-2-109	1
P18622	3-2-37	1
P18625	3-2-38	1
P18626	3-2-40	1
P18629	3-2-39	1
P18632	3-2-41	1
P18633	3-2-44	1
P19056	3-2-49	1
P19057	3-2-48	1
P19086	3-2-20, -35	2
P19240	3-2-67	1
P19241	3-2-34	1
P19244	3-2-42	1
P19246	3-2-43	1
P19247	3-2-75	1
P19248	3-2-69	1
P19249	3-2-141	1
P19250	3-2-31	1
P19275	3-2-79	1
P19276	3-2-60	1
P19283	3-2-58	1
P20346	3-2-19	1
P21255	3-2-12	1
P2924	3-2-23	1
P3199	3-2-84	1
P3779	3-2-127, -129	2

PART NO.	FIGURE AND INDEX	QUANTITY
P4627	3-2-24	1
P5319	3-2-89	1
P60010	3-2-104	1
P60011	3-2-103	1
P60012	3-2-107	1
P60021	3-2-59	1
P60307	3-2-81	1
P60308	3-2-81	1
P60509 (see AN912-1)		
P60857	3-2-144,-145	3
P60973	3-2-146	1
P61386	3-2-50	1
P61387	3-2-45	1
P6243	3-2-47	1
P6588	3-2-32	1
P6666	3-2-16,-28	2
P6670	3-2-6,-7,-10,-133	4
P6869	3-2-52	2
P7018	3-2-94	2
P7170	3-2-61	3
P8460	3-2-9	1
P8505 (see AN913-2)		
P8508 (see AN913-1)		
P8576	3-2-55	8
P9008	3-2-132	1
P9187-56	3-2-11	1
P9291	3-2-46	1
P9745	3-2-22	1
PWA656-2	3-2-142	4

PART NO.	FIGURE AND INDEX	QUANTITY
1604-42	3-2-3	1
174S22	3-2-135	1
174S4	3-2-124	1
18S9185	3-2-15	1
189185	3-2-27	1
360002	3-2-118	1
365401	3-2-95	1
365402	3-2-87	1
365469	3-2-26	1
365622	3-2-93	1
365636	3-2-105	1
365646-4-50	3-2-83	1
383805	3-2-102,-110	2
390038-3/8	3-2-117	1
390039	3-2-108	1
390041	3-2-45	1
390080	3-2-73,-74	2
390081	3-2-73,-74	2
390082	3-2-73,-74	2
390215 (see 1604-42)		
390267	3-2-125	1
392636	3-2-116	1
393044-24	3-2-130	1
393044-47	3-2-131	1
397469 (see Pin type 2)		
900946K1 (see AN310-3)		
900848K1 (see AN310-5)		
901004K1 (see AN935-10)		
901045K1 (see AN935-8L)		

DESCRIPTION AND MAINTENANCE INSTRUCTIONS

STROMBERG FLOAT TYPE CARBURETTORS

MODELS

NA-R9B AND NA-R9C2

1 The Stromberg NA-R9C2 Float Type Carburettor used on the P & W R985-AN6B engine installed in the Goose aircraft incorporates a mixture control that can be operated by automatic or manual selection. There is a cruise valve installed on this carburettor which allows a lean or rich mixture with the same throttle setting.

2 The NA-R9B-19 carburettor is installed on the R985-AN14B on the Anson and Expeditor Aircraft and the NA-R9B-18 is installed on the R985-AN5 on the Sikorsky S-51 Aircraft.

3 The NA-R9B carburettor is a single barrel updraft unit and incorporates a single hinge type float, an accelerator pump, a needle type economizer and a needle type mixture control. It is assembled in two halves, the upper body and the lower body.

4 The upper body houses the throttle valve, the mixture control needle assembly, the economizer needle, the idle discharge jet and the idle air bleed. The accelerating pump is connected to the throttle lever by linkage, but operates in the accelerating pump well in the lower body.

(a) The mixture control shaft is so arranged that a part of it is a conical shape with an annular groove, and when the mixture control is in the Full Rich position, a port is open connecting the drilled passage from the accelerating pump discharge nozzle in the barrel of the carburettor. In the Full Lean position the mixture control shaft connects the drilled passage from accelerator pump to the 1/8" pipe tap connection which can be used as an engine primer.

(b) The lower body houses the float chamber float and float needle valve seat, the discharge nozzle, the main and economizer jets, the mixture control seat, main air bleed, idle tube and the fuel screen.

5 The NA-R9B-19 carburettor has 4 studs for attaching air scoop while NA-R9B-18 carburettor is fitted with tapped inserts for attachment of air scoop to carburettor with bolts.

ISSUED ON AUTHORITY OF THE CHIEF OF THE AIR STAFF

SUPERSEDED
BY ..... 23 June 55 .....

Prepared By:
AMC/SAESO/E1