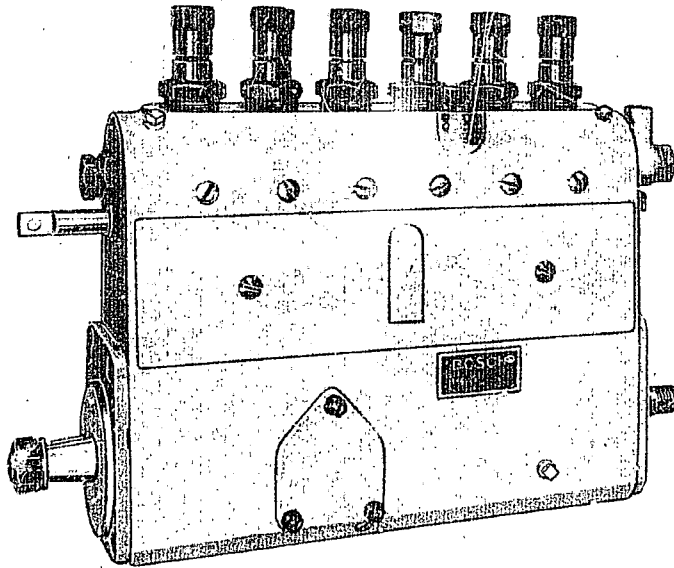


**APE**

**6Z**

These pages supersede previous manual pages D 144 and D 144b.

# SERVICE PARTS FOR FUEL INJECTION PUMPS



PE 6Z 100-130A 300/3 S326

TYPE PE 6Z 100-130A <sup>300/3</sup>  
400/3 S326

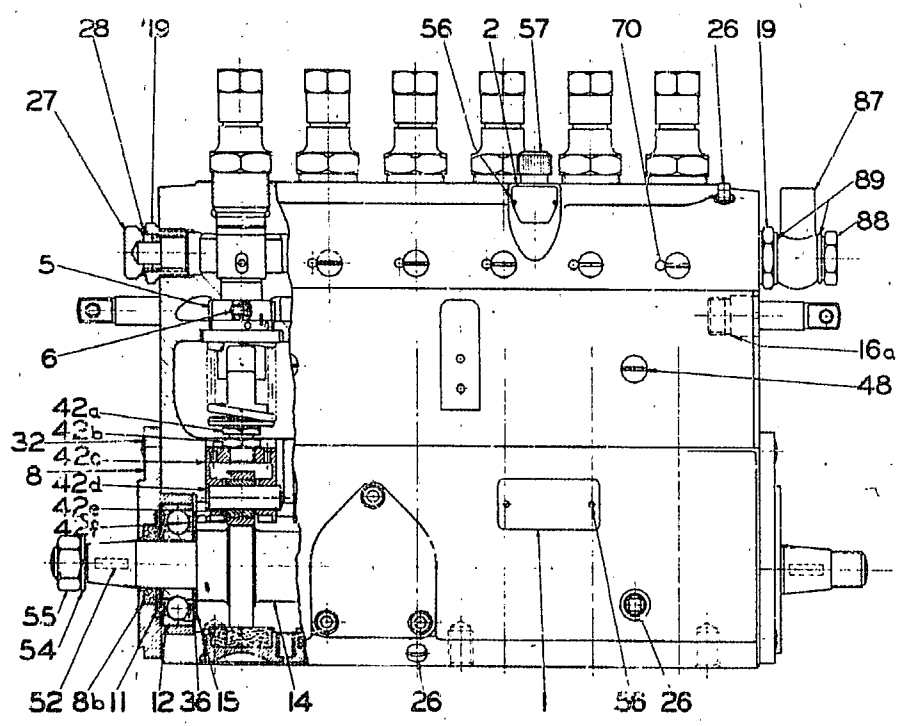
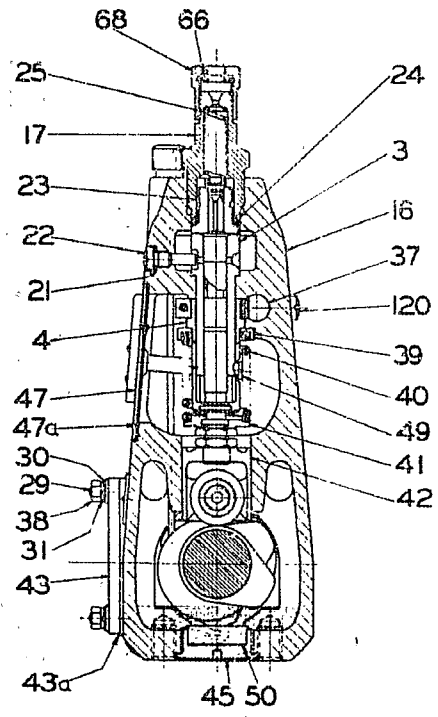


Illustration Number	Part Number	Qty. Used	Description of Parts
1	NSQ 51/1 W10	1	Name plate
2	NSQ 5A2 X	1	Lubricating instruction plate
3	PPK 13/1 Z	6	Plunger and barrel assembly - 10 mm diameter
3	PPK 13/2 Z	6	Plunger and barrel assembly - 11 mm diameter
3	PPK 13/3 Z	6	Plunger and barrel assembly - 12 mm diameter
3	PPK 13/4 Z	6	Plunger and barrel assembly - 13 mm diameter
4	WMB 2114/1 X	6	*Control sleeve
5	PZR 26/1 X	6	*Control gear segment
6	WSR 2100/1 X	6	Segment clamping screw
8	PL 7612 <del>X</del> PL 76 90	2	End plate with packing--When replacing damaged end plates at either side
8b	PK 766	2	End plate packing--when end plate PL 7612 A is used
8b	PK 763	2	End plate packing--for use with old end plates PDE 70/1 Z or PDE 70/2 Z
11	<del>WMS 2162/1 X</del>	2	Packing retaining washer--for use with old end plates PDE 70/1 Z or PDE 70/2 Z
12	NKL <del>8/25 Z</del> <i>BA 1035</i>	2	*Ball bearing
14	PAC 89/1 X	1	Cam shaft
15	WMS 2088/4 X	2	Oil thrower
16	PGE 48/10 Z	1	Pump housing assembly, includes part 16a
16a	WMB 2107/1 X	2	*Control rod bushing
17	<del>WRV 2075/2 X</del> <i>PRV 45/2 X 6</i>	6	Delivery valve holder
19	WRV 2031/1 X	2	Union nut at either side
21	WMS 2021/3 X	6	*Barrel set screw gasket
22	WSR 2178/1 X	6	Barrel set screw
23	PVE 4/2 Z	6	*Delivery valve and seat
24	WNR 2028/2 X	6	*Delivery valve holder gasket
25	WSF 2056/2 X	6	*Delivery valve spring
26	NSR 1A1 X	4	Bleeder plug
27	WVU 2027/2 X	1	Bleeder screw
28	WMR 2041/3 X	1	*Bleeder screw gasket
29	WBO 2141/1 X	3	Stud for fuel supply pump pad cover
30	NMS 601/2 X	3	Washer for fuel supply pump stud
31	NMS 412/1 X	3	Lock washer for fuel supply pump stud
32	NSR 736/25 X	8	*End plate fastening screw
36	WMS 2150/4 X <i>3076/11</i>	As req.	*Adjusting washer - 0.2 mm thick
	WMS 2150/5 X	As req.	*Adjusting washer - 0.3 mm thick
	WMS 2150/6 X	As req.	*Adjusting washer - 0.4 mm thick
37	PZR 25/2 X	1	Control rod
38	NMU 44/2 X	3	*Hexagon nut for fuel supply pump stud
39	WMS 2160/1 X	6	Plunger spring seat - upper
40	WSF 2118/1 X	6	*Plunger spring
41	WMS 2161/1 X	6	Plunger spring seat - lower
42	PVE 27/3 Z	6	Tappet assembly complete, consists of parts 42a to 42f
42a	WSR 2179/1 X	6	*Tappet screw
42b	WMU 2131/1 X	6	Lock nut for tappet screw
42c	PVE 27/1 X	6	Tappet shell
42d	WBO 2125/2 X	6	*Tappet pin
42e	WMB 2118/2 X	6	*Tappet roller bushing
42f	WRL 2003/2 X	6	*Tappet roller
43	PDE 26/2 Z	1	Fuel supply pump pad cover with gasket
43a	PPT 25/3 X	1	*Gasket for fuel supply pump pad cover
45	WVU 2074/2 X	6	*Closing plug
47	PDE 19/12 Z	1	Inspection cover with gasket
47a	PPT 20/1 X	1	*Gasket for inspection cover
48	WSR 2177/1 X	2	Inspection cover fastening screw
49	NMR 11/5 X	2	Spring washer
50	PPT 22/1 X	6	*Felt cushion
52	NKE 6/3 X	1	*Woodruff key
54	WMS 595/1 X	1	Lock washer
55	WMJ 2132/1 X	1	Hexagon nut
56	SC 150-2	4	Drive rivet
57	PMI 9/5 Z	1	Lubricating oil gauge rod

\*Fast Moving Parts

WILSON JOSEPH COMPANY SPRINGFIELD MASS U.S.A.

Illustration Number	Part Number	Qty. Used	Description of Parts
66	WMS 2108/1 X	6	*Washer for delivery nipple nut
68	WMU 2089/1 X	6	*Delivery nipple nut
70	WPL 2001/1 X	6	Lead plug
87	NRV 22/3 X	1	Fuel inlet union
88	NRV 12/1 X	1	Retaining screw
89	NMR 20/4 Z	2	*Casket for fuel inlet union
120	WSR 2196/1 X	1	Control rod securing screw

P

5880

5001

5002

5003

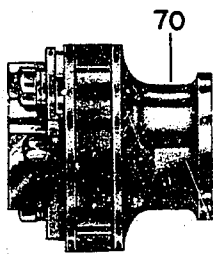
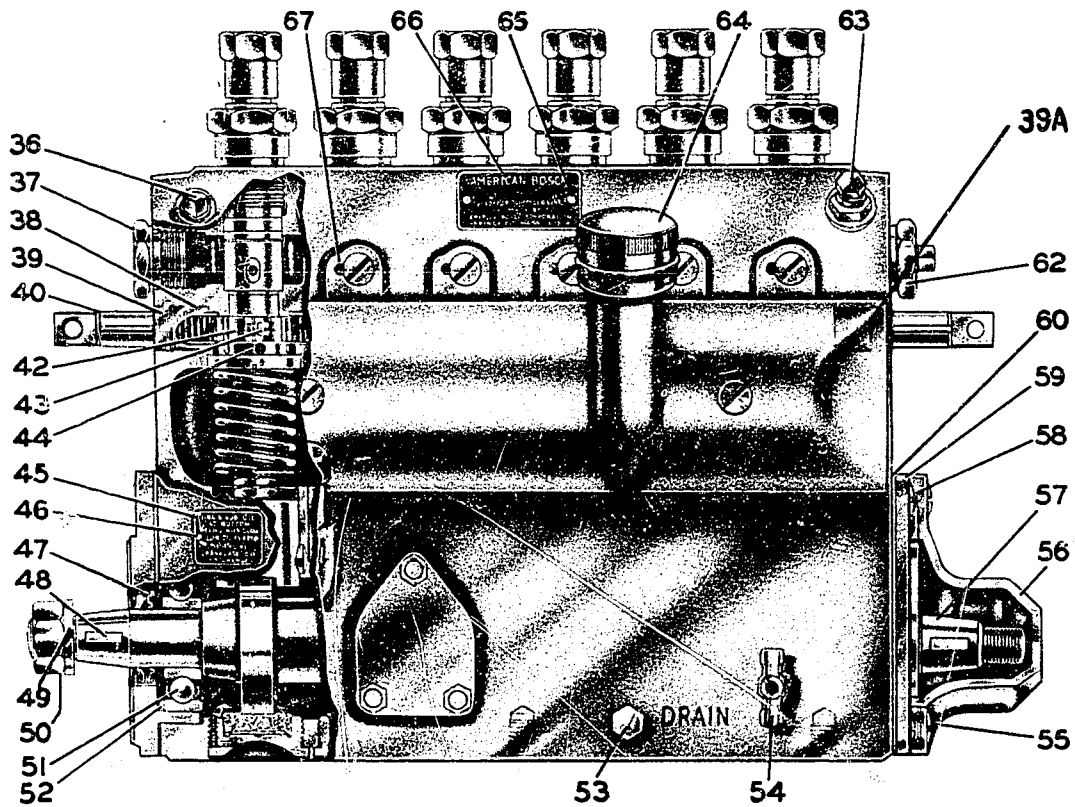
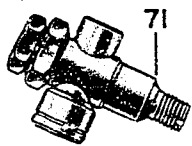
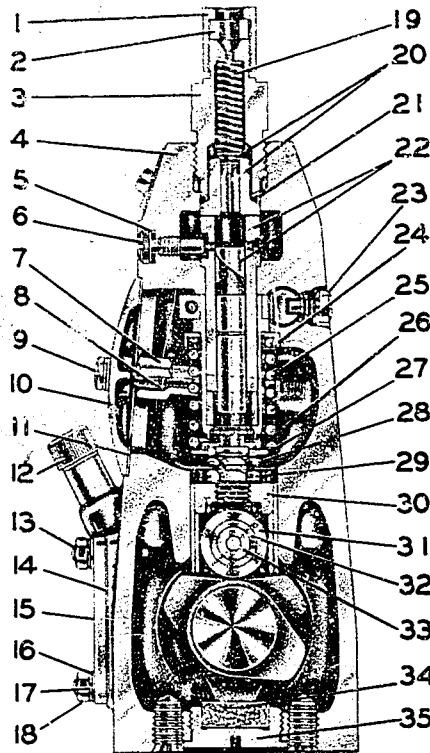
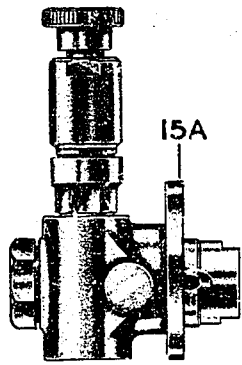
5004

5005

\*Fast Moving Parts



VALVE CORPORATION SPRINGFIELD, MASS. U.S.A.



AMERICAN BOSCH CORPORATION SPRINGFIELD

## SERVICE PARTS LIST

FOR

Type APE 6Z 100 to 140 N 300/3

N 400/3

## FUEL INJECTION PUMP

Illustration Number	Part Number	Quantity Used	Description of Part
1	WMU 2089/1X	6	NUT, hex — tubing
2	WMS 2108/1X	6	WASHER, plain — tubing hex nut
3	PRV 45/2X	6	HOLDER, delivery valve
4	HG 76136A	1	HOUSING, pump — includes parts 7, 13, 38, 53, 54 — Base mounting See Note
5	WNS 2021/3X	1	GASKET, plain — barrel locating screw
6	WSR 2178/1X	1	SCREW, barrel locating
7	SD 769	2	STUD, pump housing — inspection cover fastening screw
8	NMR 11/5X	2	RING, snap, inspection cover fastening screw
9	SC 7624	2	SCREW, fastening — inspection cover
10	CV 7696	1	COVER, inspection
11	GA 76266	1	GASKET, inspection cover
12	RD 7662A	1	ROD, oil gauge — lubricating oil
13	SD 7616	3	STUD, pump housing — supply pump
14	GA 76123	1	GASKET — supply pump cover
15	CV 7620C	1	COVER — used when supply pump not required
16	WA 1143	3	WASHER, plain — hex nut — used with supply pump cover only
17	WA 6-8 BL	3	WASHER, lock — hex nut
18	NT 1153	3	NUT, hex — supply pump or cover
19	WSF 2056A2X	6	SPRING, delivery valve
20	PVE 4/2Z	6	VALVE ASSEMBLY, delivery
21	WNR 2028/2X	6	GASKET, delivery valve
22	PPK 13/1Z	6	PLUNGER AND BARREL ASSEMBLY — 10 mm diameter plunger
22	PPK 13/2Z	6	PLUNGER AND BARREL ASSEMBLY — 11 mm diameter plunger
22	PPK 13/3Z	6	PLUNGER AND BARREL ASSEMBLY — 12 mm diameter plunger
22	PPK 13/4Z	6	PLUNGER AND BARREL ASSEMBLY — 13 mm diameter plunger
22	PPK 13/6Z	6	PLUNGER AND BARREL ASSEMBLY — 13.5 mm diameter plunger
22	PPK 13/5Z	6	PLUNGER AND BARREL ASSEMBLY — 14 mm diameter plunger
23	WSR 2196/1X	1	SCREW, securing — control rack
24	WMS 2160/1X	6	SEAT, plunger spring — upper
25	WSF 2118A400X	6	SPRING, plunger
26	SR 7616	6	WASHER, plain — plunger spring
27	WMS 2161/1X	6	SEAT, plunger spring — lower
28	PVE 27/3Z	6	TAPPET ASSEMBLY — includes parts 28 to 33
28	WSR 2179/1X	1	SCREW, adjusting — tappet assembly
29	WMU 2131/1X	1	NUT, lock — adjusting screw
30	PVE 27/1X	1	SHELL, tappet
31	WRL 2003/2X	1	ROLLER, tappet
32	WMB 2113/2X	1	BUSHING — tappet pin
33	WBO 2125/2X	1	PIN, tappet
34	PPT 22/1X	6	FELT — base plug
35	WVU 2074/2X	6	PLUG, base — pump housing
36	NSR 1A3X	1	PLUG, pipe
37	SC 7656	1	PLUG, closing — sump
38	WMB 2157/2X	2	BUSHING, control rack — inner
39	PMB 15/1X	1	BUSHING, control rack — outer — left-hand side
39A	PMB 15/1X	1	BUSHING, control rack — outer — right-hand side
40	PZR 25/2X	1	RACK, control
42	PZR 26/1X	6	SEGMENT, toothed — control sleeve
43	WSR 2100/1X	6	SCREW, locking — toothed segment
44	WMB 2114/1X	6	SLEEVE, control — plunger
45	NP 7618	1	PLATE, lubrication
46	SC 150-2	2	SCREW, drive — lubrication plate
47	PK 766	2	SEAL, oil — camshaft
48	NKE 6/3X	1	KEY, woodruff — camshaft
49	WA 6-24	1	WASHER, lock — camshaft
50	WMU 2132/1X	1	NUT, hex — camshaft
51	BB 1035	2	BALL BEARING — camshaft — non-separable
52	SR 7611-1	As req'd	WASHER, adjusting — camshaft — .008" thick
52	SR 7611-2	As req'd	WASHER, adjusting — camshaft — .012" thick
52	SR 7611-3	As req'd	WASHER, adjusting — camshaft — .016" thick
52	SR 7611-4	As req'd	WASHER, adjusting — camshaft — .028" thick
52	SR 7611-5	As req'd	WASHER, adjusting — camshaft — .035" thick
53	SC 7970	1	PLUG, drain — lube oil
54	FI 765	1	PETCOCK — lube oil overflow

— Continued —

**N 300/3 - 400/3 — Cont'd**

Illustration Number	Part Number	Quantity Used	Description of Part
55	NSR 736/32X	4	SCREW, fastening — camshaft protection cover — supplied only by special order
56	PDE 86/1X	1	COVER, protection — camshaft supplied only by special order
57	PAC 89A2X	1	CAMSHAFT
58	NSR 736/25X	8	SCREW, fastening — end plate
59	PL 7690	2	PLATE, end
60	GA 76138	2	GASKET, end plate
62	WRV 2A1X	1	ADAPTER — sump
63	FI 7621	1	FITTING, bleed — sump
64	CV 76119A	1	CAP, breather — inspection cover
65	SC 150-2	2	SCREW, drive — name plate
66	NP 7645	1	PLATE, name
67	WPL 2001/1X	6	PLUG, sealing — barrel locating screw

NOTE TO ILLUSTRATION 4: When a "Z" size injection pump incorporates a supply pump, in the past a spacer (part number SR 761) was required between the injection pump and supply pump. The design of the housing now eliminates the need of the spacer. To ascertain if the spacer is needed, compare the mounting flange of the supply pump with the boss on the injection pump, if identical, no spacer is needed. If the boss is larger, use the spacer.

<b>S51</b>	APE 6Z 130N	300 S51	Buda 6½" x 8¾" — Model 6 LD 1742
<b>S51</b>		400 S51	Buda 6¾" x 8¾" — Model 6 DH 1879
<b>S51A</b>		300 S51A	Buda 6¾" x 8¾" — Model 6 DH 1879
<b>S51A</b>		400 S51A	Buda 6¾" x 8¾" — Model 6 DH 1879

"300" Camshaft Notch — L. H. Side — Pump Rotates Clockwise

"400" Camshaft Notch — R. H. Side — Pump Rotates Anti-Clockwise

Timed for Port: Closing — Firing Order: 1-5-3-6-2-4 — Drive End: L. H. Side

Illustration Number	Part Number	Quantity Used	Description of Part
15A	SPA 22B 1823C	1	FUEL SUPPLY PUMP ASSEMBLY — for parts see fuel supply pump section
**	SR 761	1	SPACER, fuel supply pump — used only when boss on pump housing not identical to flange of supply pump
22	PPK 42/2Z	6	PLUNGER AND BARREL ASSEMBLY — 13 mm diameter plunger
37	WRV 2031/1X	1	NUT, union — fuel inlet — left-hand side
**	NRV 12/1X	1	SCREW, retaining — fuel inlet
**	NRV 22/3X	1	UNION, angular — fuel inlet
**	V.MR 2041/6X	2	GASKET, angular union — fuel inlet
39A	PMB 15/1X	1	BUSHING, control rack — right-hand side for S51A pump
39A	BG 7631A	1	STOP ASSEMBLY — control rack — for S51 pump for parts see governor section
57	FAC 89A2X	1	CAMSHAFT
62	SC 7656	1	PLUG, closing — sump — right-hand side
**	NP 7641	1	PLATE, firing order
**	SC 150-2	2	SCREW, drive — plate
70	ZKG 12A1	1	COUPLING ASSEMBLY — for parts see coupling section
71	VA 7928A	1	OVERFLOW VALVE ASSEMBLY — for parts see safety valve section

Omit illustrated parts 15, 16 and 63.

All other parts same as APE 6Z 130N on pages D 145/2 and D 145/3.

**CALIBRATION:** Set at 200 RPM and with control rack of 6 mm for 69 mm<sup>3</sup> to 88 mm<sup>3</sup> per stroke. Check at 600 RPM and control rack positioning of 12 mm for 233 mm<sup>3</sup> to 263 mm<sup>3</sup> per stroke.

Use ADN 6S2 or ADN 8S2 nozzle — Opening Pressure 2500 p.s.i.

\*\* Not illustrated.

APE 6Z 140N 300/3 S52  
 APE 6Z 140N 300/3 S54

Waukesha 8½" x 8½" — Model LRH

S52  
 S54

Camshaft Notch — L. H. Side Pump Rotates Anti-Clockwise — Firing Order: 1-5-3-6-2-4  
 Timed for Port Opening — Drive End: R. H. Side

Illustration Number	Part Number	Quantity Used	Description of Part
2	WMS 2108/400X	6	WASHER, plain — tubing hex nut
4	HG 76233A	1	HOUSING, pump — includes parts 7, 13, 38, 45, 46, 53 and 54 — Base Mounting
22	BC 7657-1A	6	PLUNGER AND BARREL ASSEMBLY — 14 mm diameter plunger
36	FI 769	1	NUT, union — fuel inlet
**	NRV 12/1X	1	SCREW, retaining — fuel inlet union
**	WRV 2051/1X	1	UNION, fuel inlet
**	WMR 2041/6X	2	GASKET, fuel inlet union
37	WVU 2079/1X	1	PLUG, closing — sump — left-hand side
39A	PMB 15/2X	1	BUSHING — control rack — outer — S52 pump
**	CV 76122	1	COVER, control rack — right-hand side — S52 pump
45	NP 7652	1	PLATE, lubrication
57	PAC 89A 2X	1	CAMSHAFT
58	NSR 736/25X	4	SCREW, fastening — end plate
58	NSR 736/32X	4	SCREW, fastening — end plate
66	NP 7635	1	PLATE, name
**	NP 7646	1	PLATE, customer's part number
**	SC 150-2	2	SCREW, drive — customer's plate
**	CV 7940	1	BELLOWS, dust proofing — for S54 pump
**	WI 791	As req'd	WIRE, locking — specify length

NOTE to Illustration 40: Control rack to be installed one tooth to the right of center so that the control rack extension from the end of the pump housing to the center of the linkage hole at the left-hand side is 32.2 mm (1.267").

All other parts same as APE 6Z 140N on Pages D 145/2 and D 145/3.

CALIBRATION — S52 PUMP: Set at 550 RPM and control rack position of 7.2 mm for 73 cc to 76 cc per 500 strokes. Check at 550 RPM and control rack position of 17.8 mm for 66.5 cc to 69.5 cc per 100 strokes.

— S54 PUMP: Set at 350 RPM and control rack position of 8.5 mm for 218 mm<sup>3</sup> to 222 mm<sup>3</sup> per stroke. Check at 550 RPM and control rack position of 17.8 mm for 690 mm<sup>3</sup> to 710 mm<sup>3</sup> per stroke.

Use ADN 6S2 or ADN 8S2 Nozzle — Set opening pressure 2500 p.s.i.

APE 6Z 130N 1529A  
 APE 6Z 130N 1529B  
 APE 6Z 130N 1529A  
 APE 6Z 130N 1530B

Buda — 6¾" x 8¾" — Model 6 DH 1879

1529A  
 1529B  
 1529A  
 1530B

Camshaft Notch — R. H. Side Pump Rotates — Anti-Clockwise — Firing Order: 1-5-3-6-2-4  
 Timed for Port Closing — Drive End: L. H. Side

Illustration Number	Part Number	Quantity Used	Description of Part
15A	SPA 22B 3384A	1	FUEL SUPPLY PUMP ASSEMBLY — for parts see fuel supply pump section
22	PPK 42/2Z	6	PLUNGER AND BARREL ASSEMBLY — 13 mm diameter plunger
39	PMB 12/1X	1	BUSHING, control rack — outer
39A	BG 7631A	1	STOP ASSEMBLY — control rack — for 1529A and 1529B pumps
57	PAC 89A2X	1	CAMSHAFT
62	SC 7680	1	ADAPTER, fuel inlet
70	ZKG 12A1	1	COUPLING ASSEMBLY — for parts see coupling section
71	VA 7928A	1	OVERFLOW VALVE ASSEMBLY — for parts see safety valve section

Omit illustrated parts 15, 16 and 63.

All other parts same as APE 6Z 130N on pages D 145/2 and D 145/3.

Set at 200 RPM and control rack position of 6 mm for 69 mm<sup>3</sup> to 88 mm<sup>3</sup> per stroke. Check at 600 RPM and control rack position of 12 mm for 233 mm<sup>3</sup> to 263 mm<sup>3</sup> per stroke. Use ADN 6S2 or ADN 8S2 Nozzle — Set Opening Pressure 2500 p.s.i.

\*\* Not illustrated.

**1700A  
1700B**

E. F. Sergor — 8" x 10" — Model 138

APE 6Z 130N 1700A  
APE 6Z 130N 1700B

Camshaft Notch — R. H. Side Pump Rotates — Anti-Clockwise — Firing Order: 1-5-3-6-2-4  
Timed for Port Closing — Drive End: R. H. Side

Illustration Number	Part Number	Quantity Used	Description of Part
15A	SPA 22B 1823B	1	FUEL SUPPLY PUMP ASSEMBLY — for parts see fuel supply pump section
22	PPK 42/2Z	6	PLUNGER AND BARREL ASSEMBLY — 13 mm diameter plunger
39	PMB 15/2X	1	BUSHING — control rack — outer
**	CV 76122	1	COVER, control rack
55	NSR 736/32X	4	SCREW, fastening — camshaft protection cover
56	PDE 86/1X	1	COVER, protection — camshaft — left-hand side
57	PAC 89A2X	1	CAMSHAFT
71	VA 7928A	1	OVERFLOW VALVE ASSEMBLY — for parts see safety valve section
**	NP 7641	1	PLATE, firing order
**	SC 150-2	2	SCREW, drive — firing order plate

Omit illustrated parts 15, 16, 63 and 4 of 58.

All other parts same as APE 6Z 130N on Manual Page D 145/2 and D 145/3.

CALIBRATION: Set at 200 RPM and control rack position of 6 mm for 69 mm<sup>3</sup> to 86 mm<sup>3</sup> per stroke. Check at 600 RPM and control rack position of 12 mm for 233 mm<sup>3</sup> to 263 mm<sup>3</sup> per stroke.

Use ADN 6S2 or ADN 8S2 nozzle — Set opening pressure 2500 p.s.i.

**1817A  
1817B  
1818A  
1818B  
1819A  
1819B**

Sterling Engine Co. — 6½" x 6½" — Model A 1200

APE 6Z 120N 1817A  
APE 6Z 120N 1817B  
APE 6Z 120N 1818A  
APE 6Z 120N 1818B  
APE 6Z 120N 1819A  
APE 6Z 120N 1819B

Camshaft Notch — R. H. Side — 1817A and B  
Camshaft Notch — L. H. Side — 1818A and B — 1819A and B  
Rotation — Clockwise — 1817A and B — 1819A and B  
Rotation — Anti-Clockwise — 1818A and B  
Firing Order: 1-5-3-6-2-4 — 1817A and B and 1819A and B  
Firing Order: 1-4-2-6-3-5 — 1818A and B  
Drive End: R. H. Side — 1817A and B  
Drive End: L. H. Side — 1818A and B and 1819A and B  
Timed for Port Closing

Illustration Number	Part Number	Quantity Used	Description of Part
15A	SPA 22B 1823B	1	FUEL SUPPLY PUMP ASSEMBLY — for parts see fuel supply pump section
22	PPK 13/3Z	6	PLUNGER AND BARREL ASSEMBLY — 12 mm diameter plunger
57	PAC 89A 2X	1	CAMSHAFT
70	ZKG 12A1	1	COUPLING ASSEMBLY — for parts see coupling section
71	VA 7928A	1	OVERFLOW VALVE ASSEMBLY — for parts see safety valve section

Omit illustrated parts 15, 16 and 63.

All other parts same as APE 6Z 120N on Manual Pages D 145/2 and D 145/3.

CALIBRATION: Set at 200 RPM and control rack position of 6 mm for 95 mm<sup>3</sup> to 123 mm<sup>3</sup> per stroke. Check at 600 RPM and control rack position of 12 mm for 295 mm<sup>3</sup> to 335 mm<sup>3</sup> per stroke.

Use ADN 6S2 or ADN 8S2 nozzle — Set opening pressure 2500 p.s.i.

\*\* Not illustrated.

APE 6Z 120N 1845A  
APE 6Z 120N 1845B

Continental — 6" x 7" — Model XD 1200

1845A  
1845B

Camshaft Notch — L. H. Side Pump Rotates Clockwise — Firing Order: 1-5-3-6-2-4  
Timed for Port Closing — Drive End: L. H. Side

Illustration Number	Part Number	Quantity Used	Description of Part
3	HP 76124	6	HOLDER, delivery valve — 5/8" thread — Ermeto
15A	SPA 22B 1823B	1	FUEL SUPPLY PUMP ASSEMBLY — for parts see fuel supply pump section
22	PPK 13/3Z	6	PLUNGER AND BARREL ASSEMBLY — 12 mm diameter plunger
57	PAC 89A 2X	1	CAMSHAFT
70	ZKG 12A1	1	COUPLING ASSEMBLY — for parts see coupling section
71	VA 7931A	1	OVERFLOW VALVE ASSEMBLY — for parts see safety valve section
**	NP 7641	1	PLATE, firing order
**	SC 150-2	2	SCREW, drive — firing order plate

Omit illustrated parts 1, 2, 15, 16 and 63.

All other parts same as APE 6Z 120N on Manual Pages D 145/2 and D 145/3.

CALIBRATION: Set at 200 RPM and control rack position of 6 mm for 95 mm<sup>3</sup> to 123 mm<sup>3</sup> per stroke. Check at 600 RPM and control rack position of 12 mm for 295 mm<sup>3</sup> to 335 mm<sup>3</sup> per stroke.

Use ADN 6S2 or ADN 8S2 nozzle — Set opening pressure at 2500 p.s.i.

APE 6Z 130N 1875A  
APE 6Z 130N 1875B

Buda — 6 3/4" x 8 3/4" — Model 6 DH 1879

1875A  
1875B

Camshaft Notch — R. H. Side Pump Rotates Clockwise — Firing Order: 1-4-2-6-3-5  
Timed for Port Closing — Drive End: L. H. Side

Illustration Number	Part Number	Quantity Used	Description of Part
15A	SPA 22B 1823B	1	FUEL SUPPLY PUMP ASSEMBLY — for parts see fuel supply pump section
22	PPK 42/2Z	6	PLUNGER AND BARREL ASSEMBLY — 13 mm diameter plunger
37	SC 7680	1	ADAPTER, fuel inlet
39	PMB 12/1X	1	BUSHING, control rack — outer
39A	BG 7631A	1	STOP ASSEMBLY — control rack — for parts see governor section
57	PAC 89A 2X	1	CAMSHAFT
70	ZKG 12A1	1	COUPLING ASSEMBLY — for parts see coupling section
71	VA 7928A	1	OVERFLOW VALVE ASSEMBLY — for parts see safety valve section
**	NP 7642	1	PLATE, firing order
**	SC 150-2	2	SCREW, drive — firing order plate

Omit illustrated parts 15, 16 and 63.

All other parts same as APE 6Z 130N on Manual Pages D 145/2 and D 145/3.

CALIBRATION: Set at 200 RPM and control rack position of 6 mm for 69 mm<sup>3</sup> to 88 mm<sup>3</sup> per stroke. Check at 600 RPM and control rack position of 12 mm for 233 mm<sup>3</sup> to 263 mm<sup>3</sup> per stroke.

Use ADN 6S2 or ADN 8S2 nozzle — Opening pressure 2500 p.s.i.

\*\* Not illustrated.

**2087A**  
**2087B**  
**2087C**

APE 6Z 140N 2087A  
 APE 6Z 140N 2087B  
 APE 6Z 140N 2087C

Waukesha — 8½" x 8½" — Model 6-LRD

Camshaft Notch — L. H. Side Pump Rotates — Anti-Clockwise — Firing Order: 1-5-3-6-2-4

Timed for Port Closing — Drive End: R. H. Side

Illustration Number	Part Number	Quantity Used	Description of Part
3	HP 76190	6	HOLDER, delivery valve — ¾" — 16 thread for ⅝" O.D. tubing — Ermeto
4	HG 76233A	1	HOUSING, pump — includes parts 7, 13, 38, 45, 46, 53 and 54 — Base Mounting
22	PPK 13/5Z	6	PLUNGER AND BARREL ASSEMBLY — 14 mm diameter plunger
37	WRV 2031/1X	1	ADAPTER, fuel inlet
**	WRV 2051/1X	1	UNION, fuel inlet
**	NRV 12/1X	1	SCREW, retaining — fuel inlet
**	WNR 2041/6X	2	GASKET, fuel inlet union
59	PMB 15/2X	1	BUSHING, control rack — outer
**	CV 76122	1	COVER, control rack — left-hand side
39A	BG 7629	1	BUSHING, control rack
55	NSR 736/32X	4	SCREW, fastening — camshaft protection cover
56	PDE 86/1X	1	COVER, protection — camshaft — left-hand side
57	PAC 89A 2X	1	CAMSHAFT
62	WVU 2079/1X	1	PLUG, closing
71	VA 7928A	1	OVERFLOW VALVE ASSEMBLY — for parts see safety valve section
**	NP 7646	1	PLATE, customer's part number
**	SC 150-2	2	SCREW, drive — customer's part number plate
**	CV 7940	1	BELLOWS, dust proofing — for 2087A pump
**	WI 791	As req'd	WIRE, locking — Bellows — specify length

Omit parts 1, 2, 15, 16, 4 of 58 and 63.

All other parts same as APE 6Z 140N on Manual Pages D 145/2 and D 145/3.

TIMING: Port Closing at number one plunger to occur at plunger lift of 0.072" to 0.076" (1.83 mm to 1.93 mm) as measured from the cam base circle.

CALIBRATION: Set at 600 RPM and control rack position of 12 mm for 47 cc to 49 cc per 100 strokes. Check at 600 RPM and control rack position of 5 mm for 24 cc to 33 cc per 200 strokes.

Use ADN 6S2 or ADN 8S2 nozzle — Set opening pressure 2500 p.s.i.

**2197A**  
**2197B**

APE 6Z 140N 2197A  
 APE 6Z 140N 2197B

Pratt &amp; Whitney

Camshaft Notch — R. H. Side Pump Rotates Anti-Clockwise — Firing Order: 1-5-3-6-2-4

Timed for Port Closing — Drive End: L. H. Side

Illustration Number	Part Number	Quantity Used	Description of Part
15A	SPA 22B 1823B	1	SUPPLY PUMP ASSEMBLY — for parts see supply pump section
20	VA 7680A	1	DELIVERY VALVE ASSEMBLY
22	PPK 13/5Z	6	PLUNGER AND BARREL ASSEMBLY — 14 mm diameter plunger
25	SP 7610	6	SPRING, plunger
37	SC 7680	1	ADAPTER, fuel inlet
39	PMB 12/1X	1	BUSHING, control rack — outer
57	PAC 99/1X	1	CAMSHAFT
70	ZKG 12A1	1	COUPLING ASSEMBLY — for parts see coupling section
71	VA 7928A	1	OVERFLOW VALVE ASSEMBLY — for parts see safety valve section
**	NP 7641	1	PLATE, firing order
**	SC 150-2	2	SCREW, drive — firing order plate

Omit illustrated parts 15, 16 and 63.

All other parts same as APE 6Z 140N on Manual Pages D 145/2 and D 145/3.

CALIBRATION: Set at 600 RPM and control rack position of 12 mm for 520 mm<sup>3</sup> to 575 mm<sup>3</sup> per stroke. Check at 200 RPM and control rack position of 6 mm for 230 mm<sup>3</sup> to 270 mm<sup>3</sup> per stroke.

Use ADN 6S2 or ADN 8S2 nozzle — Set opening pressure 2500 p.s.i.

\*\* Not illustrated.

APE 6Z 130N 2262A  
 APE 6Z 130N 2262B

Buda -- 6 $\frac{3}{4}$ " x 8 $\frac{3}{4}$ " -- Model 6 DH 1879

2232A  
 2262B

Camshaft Notch -- L. H. Side Pump Rotates Clockwise -- Firing Order: 1-5-3-6-2-4  
 Timed for Port Closing -- Drive End: L. H. Side

Illustration Number	Part Number	Quantity Used	Description of Part
15A	SPA 22B 3384A	1	SUPPLY PUMP ASSEMBLY -- for parts see supply pump section
22	PPK 42/2Z	1	PLUNGER AND BARREL ASSEMBLY -- 13 mm diameter plunger
37	WRV 2031/1X	1	NUT, union -- fuel inlet
**	NRV 12/1X	1	SCREW, retaining -- fuel inlet union
**	NRV 22/3X	1	UNION, angular -- fuel inlet
**	WMR 2041/6X	2	GASKET, angular union
39	PMB 12/1X	1	BUSHING, control rack -- outer
57	PAC 89A 2X	1	CAMSHAFT
70	ZKG 12A1	1	COUPLING ASSEMBLY -- for parts see coupling section
71	VA 7928A	1	OVERFLOW VALVE ASSEMBLY -- for parts see safety valve section
**	NP 7641	1	PLATE, firing order
**	SC 150-2	2	SCREW, drive -- firing order plate

Omit illustrated parts 15, 16 and 63.

All other parts same as APE 6Z 130N on Manual Pages D 145/2 and D 145/3.

CALIBRATION: Set at 200 RPM and control rack position of 6 mm for 69 mm<sup>3</sup> to 88 mm<sup>3</sup> per stroke. Check at 600 RPM and control rack position of 12 mm for 233 mm<sup>3</sup> to 263 mm<sup>3</sup> per stroke.

Use ADN 6S2 or ADN 8S2 nozzle -- Set opening pressure 2500 p.s.i.

APE 6Z 140N 2396A  
 APE 6Z 140N 2396B

Buda -- 6 $\frac{3}{4}$ " x 8 $\frac{3}{4}$ " -- Model 6-DH 1879

2396A  
 2396B

Camshaft Notch -- R. H. Side Pump Rotates Anti-Clockwise -- Firing Order: 1-5-3-6-2-4  
 Timed for Port Closing -- Drive End: R. H. Side

Illustration Number	Part Number	Quantity Used	Description of Part
15A	SPA 22B 1923B	1	FUEL SUPPLY PUMP ASSEMBLY -- for parts see fuel supply pump section
22	PPK 42/3Z	1	PLUNGER AND BARREL ASSEMBLY -- 14 mm diameter plunger
37	SC 7680	1	ADAPTER, fuel inlet
39	PMB 12/1X	1	BUSHING, control rack -- outer
57	PAC 89A 2X	1	CAMSHAFT
70	ZKG 12A1	1	COUPLING ASSEMBLY -- for parts see coupling section
71	VA 7928A	1	OVERFLOW VALVE ASSEMBLY -- for parts see safety valve section
**	NP 7641	1	PLATE, firing order
**	SC 150-2	2	SCREW, drive -- firing order plate

Omit illustrated parts 15, 16 and 63.

All other parts same as APE 6Z 140N on Manual Pages D 145/2 and D 145/3.

CALIBRATION: Set at 600 RPM and control rack position of 12 mm for 285 mm<sup>3</sup> to 323 mm<sup>3</sup> per stroke. Check at 200 RPM and control rack position of 6 mm for 93 mm<sup>3</sup> to 120 mm<sup>3</sup> per stroke.

Use ADN 6S2 or ADN 8S2 nozzle -- Set opening pressure 2500 p.s.i.

\*\* Not illustrated.

**2646A**

APE 6Z 130N 2646A

Baldwin — 17½" x 24" — Model VA supercharged

Camshaft Notch — L. H. Side Pump Rotates Clockwise — Firing Order: 1-5-3-6-2-4

Timed for Port Closing — Drive End: L. H. Side

Illustration Number	Part Number	Quantity Used	Description of Part
15A	SPA 22B 1823B	1	FUEL SUPPLY PUMP ASSEMBLY — for parts see supply pump section
22	PPK 42/2Z	1	PLUNGER AND BARREL ASSEMBLY — 13 mm diameter plunger
37	SC 7680	1	ADAPTER, fuel inlet
39	PMB 12/1X	1	BUSHING, control rack — outer
57	PAC 89A 2X	1	CAMSHAFT
71	VA 7928A	1	OVERFLOW VALVE ASSEMBLY — for parts see safety valve section
**	NP 7641	1	PLATE, firing order
**	SC 150-2	2	SCREW, drive — firing order plate

Omit illustrated parts 15, 16 and 63.

All other parts same as APE 6Z 140N on Manual Pages D 145/2 and D 145/3.

CALIBRATION: Set at 600 RPM and control rack position of 12 mm for 233 mm<sup>3</sup> to 263 mm<sup>3</sup> per stroke.  
Check at 200 RPM and control rack position of 6 mm for 69 mm<sup>3</sup> to 88 mm<sup>3</sup> per stroke.

Use ADN 6S2 or ADN 8S2 nozzle — Set opening pressure 2500 p.s.i.

**3482A**

APE 6Z 140N 3482A

Waukesha — 8½" x 8½" — Model LRF

Camshaft Notch — L. H. Side Pump Rotates Anti-Clockwise — Firing Order: 1-5-3-6-2-4

Timed for Port Opening — Drive End: R. H. Side

Illustration Number	Part Number	Quantity Used	Description of Part
2	WMS 2108/400X	6	WASHER, plain — tubing nut
4	HG 76233A	1	HOUSING, pump — includes parts 7, 13, 38, 45, 46, 53 and 54 — Base Mounting
22	BC 7657-1A	1	PLUNGER AND BARREL ASSEMBLY — 14 mm diameter plunger
36	FI 7621	1	FITTING, bleed
39A	PMB 15/2X	1	BUSHING, control rack — outer
**	CV 76122	1	COVER, control rack
58	NSR 736/25X	4	SCREW, fastening — end plate — right-hand side
58	NSR 736/32X	4	SCREW, fastening — end plate — left-hand side
62	WVU 2079/1X	1	PLUG, closing — sump
63	FI 769	1	ADAPTER, fuel inlet
**	NRV 12/1X	1	SCREW, retaining — fuel inlet
**	WRV 2051/1X	1	UNION, fuel inlet
**	WNR 2041/6X	2	GASKET, fuel inlet union
66	NP 7635	1	PLATE, name
**	NP 7646	1	PLATE, customer's part number
**	SC 150-2	2	SCREW, drive — customer's plate

Omit illustrated part 37.

All other parts same as APE 6Z 140N on Pages D 145/2 and D 145/3.

CALIBRATION: Set at 600 RPM and control rack position of 12 mm for 47 to 49 cc per 100 strokes.  
Check at 600 RPM and control rack position of 5 mm for 24 cc to 33 cc per 200 strokes.

Use ADN 6S2 or ADN 8S2 nozzle — Set opening pressure 2500 p.s.i.

\*\* Not illustrated.

AMERICAN BOSCH CORPORATION SPRINGFIELD 7 MASS. U.S.A.

APE 6Z 140N 3483A

Waukesha — 8½" x 8½" — Model LRH

3483A

Camshaft Notch — L. H. Side Pump Rotates Anti-Clockwise — Firing Order: 1-5-3-6-2-4  
 Timed for Port Opening — Drive End: R. H. Side

Illustration Number	Part Number	Quantity Used	Description of Part
2	WMS 2108/400X	6	WASHER, plain — tubing nut
4	HG 76233A	1	HOUSING, pump — includes parts 7, 13, 38, 45, 46, 53 and 54 — Base Mounting
22	BC 7557-1A	6	PLUNGER AND BARREL ASSEMBLY — 14 mm diameter plunger
36	FI 7621	1	FITTING, bleed
39A	BG 7629	1	BUSHING, control rack
40	RD 7684A	1	RACK, control — with cut-out arrangement — see note
58	NSR 736/25X	4	SCREW, fastening — end plate — right-hand side
58	NSR 736/32X	4	SCREW, fastening — end plate — left-hand side
62	WVU 2079/1X	1	PLUG, closing — sump
63	FI 769	1	ADAPTER, fuel inlet
**	NRV 12/1X	1	SCREW, retaining — fuel inlet
**	WRV 2051/1X	1	UNION, fuel inlet
**	WMR 2041/6X	2	GASKET, fuel inlet union
66	NP 7635	1	PLATE, name
**	SC 150-2	2	SCREW, drive — customer's plate
**	CV 7940	1	BELLOWS, dust proofing
**	WI 791	As req'd	WIRE, locking — specify length

Omit illustrated part 37.

All other parts same as APE 6Z 140N on Manual Pages D 145/2 and D 145/3.

Note to Illustration 40:

The control rack is to be installed one tooth to the right of the center so that the control rack extension from the end of the pump housing to the center of the linkage hole at the left-hand side is 32.2 mm (1.267").

CALIBRATION: Set at 350 RPM and control rack position of 8.5 mm for 218 mm<sup>3</sup> to 222 mm<sup>3</sup> per stroke. Check at 550 RPM and control rack position of 17.8 mm for 690 mm<sup>3</sup> to 710 mm<sup>3</sup> per stroke.

Use ADN 6S2 or ADN 8S2 nozzle — Set opening pressure 2500 p.s.i.

APE 6Z 120N 3536A

3536A

Camshaft Notch — L. H. Side Pump Rotates Anti-Clockwise — Firing Order: 1-5-3-6-2-4  
 Timed for Port Closing — Drive End: R. H. Side

Illustration Number	Part Number	Quantity Used	Description of Part
22	PPK 13/3Z	6	PLUNGER AND BARREL ASSEMBLY — 12 mm diameter plunger
55	NSR 736/32X	4	SCREW, fastening — protection cover
56	PDE 86/1X	1	COVER, protection — camshaft — left-hand side
58	NSR 736/25X	4	SCREW, fastening — end plate — right-hand side

Omit illustrated part 63.

All other parts same as APE 6Z 120N on Manual Pages D 145/2 and D 145/3.

CALIBRATION: Set at 600 RPM and control rack position of 12 mm for 295 mm<sup>3</sup> to 335 mm<sup>3</sup> per stroke. Check at 200 RPM and control rack position of 6 mm for 95 mm<sup>3</sup> to 123 mm<sup>3</sup> per stroke.

Use ADN 6S2 or ADN 8S2 nozzle — Set opening pressure 2500 p.s.i.

\*\* Not illustrated.