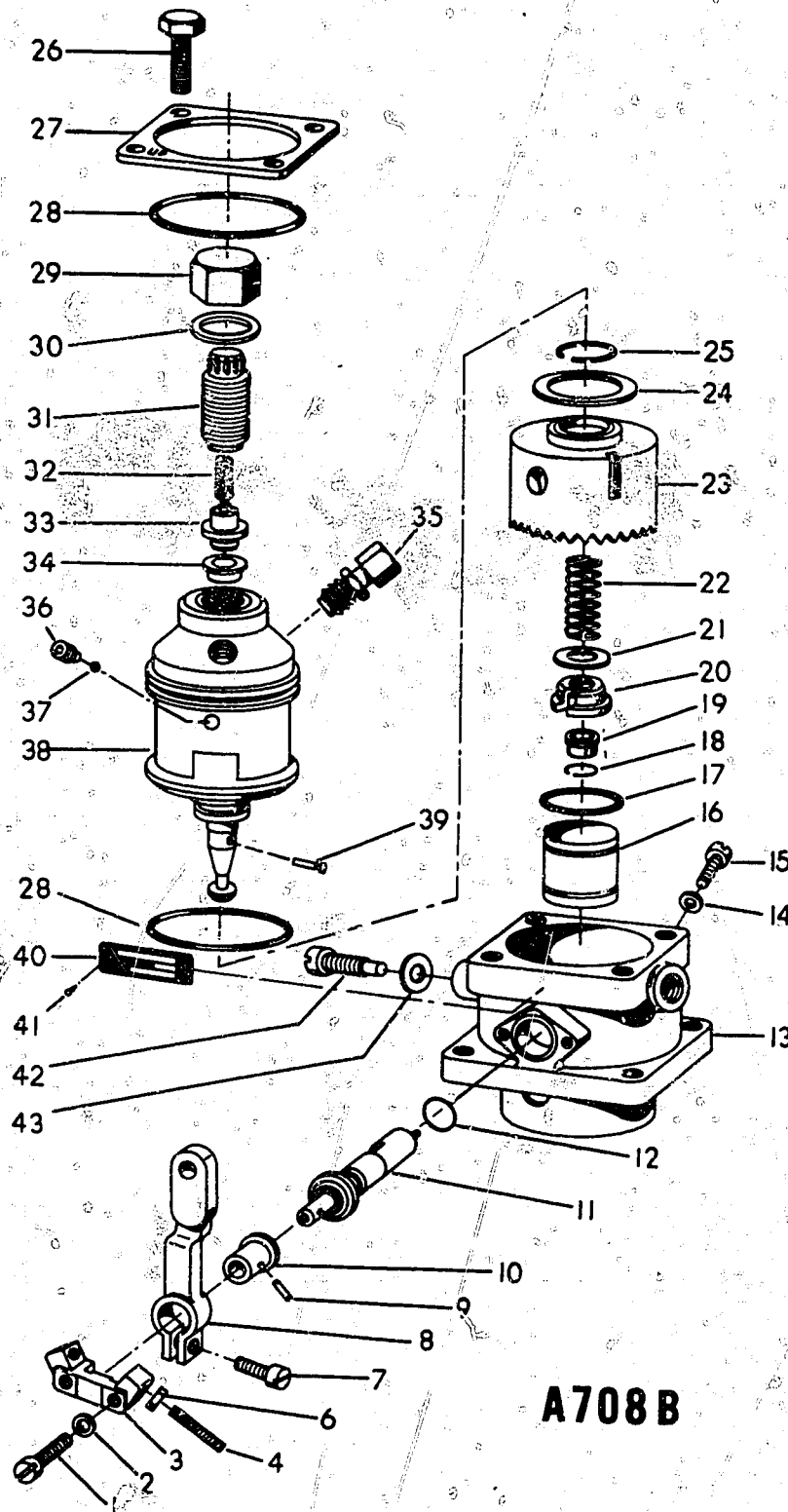


PSU

AMERICAN BOSCH
SERVICE PARTS LIST
FOR
FUEL INJECTION PUMPS
PSU 2A-80B-8353A
PSU 4A-80B-8354A
USED ON
ONAN ENGINES

SYMBOLS

- — New Part
- † — Discontinued with no replacement.
- — Part Included in listed kit.
- .. — Not Illustrated
- ... — Not Shown Assembled
- | — Text or listing opposite has been revised or changed.



A708B

AMERICAN BOSCH SALES DIVISION

AMERICAN
BOSCH
ARMA
CORPORATION

SPRINGFIELD, MASS.

PSU 2A 80B 8353A - ONAN DIVISION - STUDEBAKER - PACKARD CORP.
Engine Model DJB & MDJB

8353A

Illustration Number	Part Number	Quantity Used	Description of Part
1	SC2003	2	SCREW, fastening - retainer
2	WA 6-5 BL	2	LOCKWASHER - retainer screw
3	RN 852	1	RETAINER, control shaft
4	SC 1966	1	SCREW, hex socket set full load
6	NT 3-5 BL	1	NUT - control lever
7	SC 76189	1	SCREW, clamping
8	LE 851	1	LEVER, control
9	PN 1215	1	PIN, roll-control unit
10	HB 851	1	HUB, control unit
11	CU 851 A	1	CONTROL UNIT ASSEMBLY - includes illustrated parts 9 and 10
*12	GA 1085	1	GASKET, "O" ring - control unit
13	HG 8510	1	HOUSING, hydraulic unit
14	WA 1917	1	LOCKWASHER, "Nylogrip"
15	SC 23-6 BL	1	SCREW, timing hole
16	TP 851	1	TAPPET
*17	GA 1058	1	GASKET, "O" ring - tappet
18	RG 100281	1	RING, spring
19	BO 853-11	1	BUTTON, plunger. SEE NOTE 1
20	GU 201024	1	SEAT, lower spring
21	WA 100280	1	WASHER, lower spring seat
22	SP 8533	1	SPRING, tappet
23	GE 851	1	GEAR, face
24	WA 100279	1	WASHER, thrust
25	RG 100278	1	RING, spring
26	SC 100300	4	SCREW, cap
27	PL 8553	1	PLATE, head retaining
*28	GA 100282	2	GASKET, "O" ring
29	CP 851	1	NUT, delivery valve cap
30	GA 8511	1	GASKET, cap nut - delivery valve
31	HP 8530 A	1	HOLDER, delivery valve
32	SP 8531	1	SPRING, delivery valve
33	VA 851 A	1	VALVE ASSEMBLY, delivery
34	GA 8514	1	GASKET, delivery valve
35	FI 855	2	FITTING, discharge
**	SV 7922	2	SLEEVE, discharge tubing
36	SC 1867	1	SCREW, headless set
37	BB 1070	1	BALL
38	HD 8344 B	1	HYDRAULIC HEAD ASSEMBLY - includes illustrated parts 18 thru 25, 28 thru 34, 36 thru 39 and 43
39	PN 8544	1	PIN, plunger drive. SEE NOTE 2
40	NP 852	1	NAMEPLATE
41	SC 150 -2 BL	2	SCREW, drive - nameplate
42	SC 201437	1	SCREW - head locating
*43	GA 7617	1	GASKET - head locating screw
**	VA 9031 A	1	VALVE, bleeder
**	SEE NOTE 3	1	LINK, ball joint
**	KT 851	1	KIT, gasket repair

**8353A (Cont'd)**

NOTE 1: The following optional plunger buttons are available for timing:

Part Number	Tolerance	Identifying Mark
BO 853 - 1	.118" - .120"	1
BO 853 - 2	.115" - .117"	2
BO 853 - 3	.111" - .113"	3
BO 853 - 4	.109" - .111"	4
BO 853 - 5	.106" - .108"	5
BO 853 - 6	.100" - .102"	6
BO 853 - 7	.097" - .099"	7
BO 853 - 8	.094" - .096"	8
BO 853 - 9	.091" - .093"	9
BO 853 - 10	.088" - .090"	10
BO 853 - 11	.103" - .105"	11
BO 853 - 12	.121" - .123"	12
BO 853 - 13	.124" - .126"	13
BO 853 - 14	.127" - .129"	14
BO 853 - 15	.130" - .132"	15
BO 853 - 16	.133" - .135"	16

NOTE 2: CAUTION: Assemble long end of drive block in downward position

NOTE 3: Not supplied by American Bosch. May be obtained from any hardware supply house.

8354A PSU 4A 80B 8354A - ONAN DIVISION - STUDEBAKER-PACKARD CORP.
Engine Model DJC & MDJC

Illustration Number	Part Number	Quantity Used	Description of Part
35	FI 855	4	FITTING, discharge
**	SV 7922	4	SLEEVE, discharge tubing
38	HD 8346-B	1	HYDRAULIC HEAD ASSEMBLY - includes illustrated parts 18 thru 25, 28 thru 34, 36 thru 39 and 43.

ALL OTHER REQUIRED PARTS SAME AS FOR PSU 2 A 80 B 8353 A - SEE MANUAL SECTION D235/110 Page 3



PSU 2A 80B X8589A -- ONAN DIVISION - STUDEBAKER-PACKARD CORP.

Engine Model: DJC - MDJC

Illustration Number	Part Number	Qty. Used	Description of Part
38	HD X8656	1	HYDRAULIC HEAD ASSEMBLY - includes illustrated parts 18 thru 25, 28 thru 34, 36 thru 39 and 43 (See Note 1)

ALL OTHER REQUIRED PARTS SAME AS FOR PSU 2A 80B 8353A -
SEE MANUAL SECTION D235/110, page 3.

NOTE 1: HD X8656A and B have been superseded by suspended type head, HD 8927A.

Supersedes Section D 235/120 Issued February, 1972

SERVICE PARTS LIST

For

AMERICAN BOSCH

PSU 2A 80E 8843 A

PSU 4A 80E 8844 A

PSU 2A 80E 8862 A

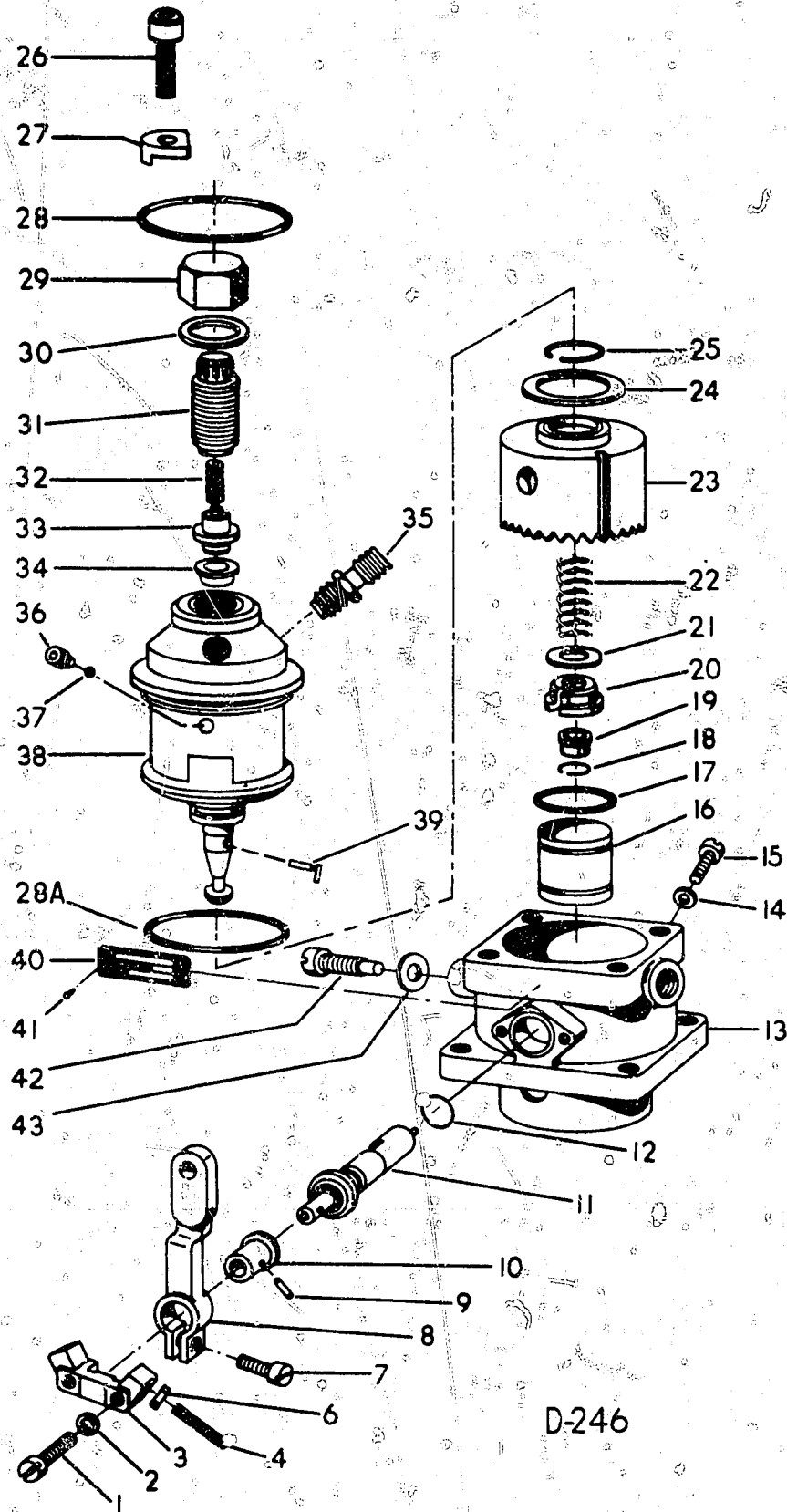
FUEL INJECTION PUMPS USED ON ONAN ENGINES

(ONAN DIVISION—STUDEBAKER—PACKARD CORP.)



SYMBOLS

- | | |
|---------------------------------------|---|
| • — New Part | .. — Not Illustrated |
| † — Discontinued with no replacement. | ... — Not Shown Assembled |
| • — Parts Included in listed kit. | — Text or listing opposite has been revised or changed. |



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Figure 1

AMERICAN BOSCH MARKETING



SPRINGFIELD, MASS. 01107

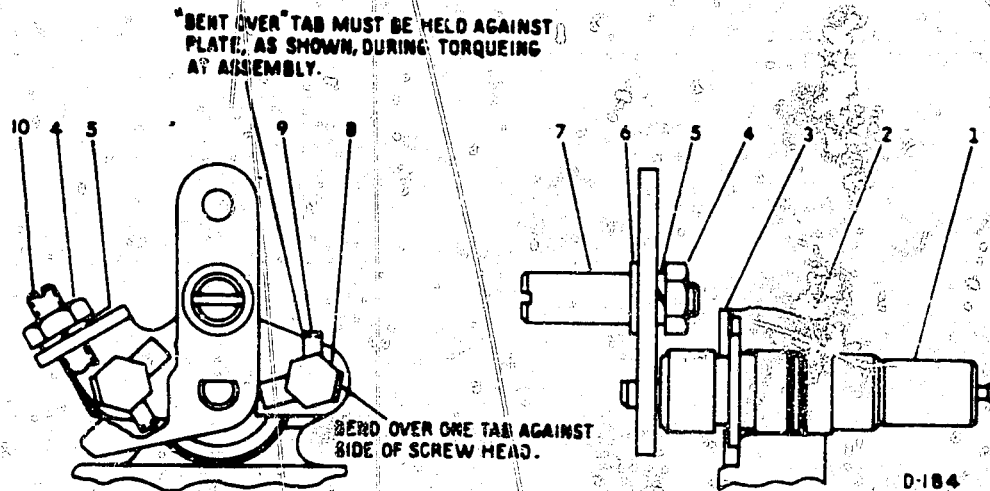


Figure 2

NOTE

- (1) Unless otherwise indicated in parenthesis () following description of part, quantity used is one - applicable to all lists.
- (2) For explanation of abbreviations, refer to Section D 10/207.
- (3) The first digit of an "Ill. No." identifies the applicable figure; the numbers following the dash (-) refer to the illustrated parts in the figure.

**SERVICE PARTS LIST FOR BASIC
PSU 2A 80E 8843 A**

ONAN DIVISION: Engine Model DJB - MDJB

Ill. No.	Part No.	Description	Ill. No.	Part No.	Description
1-1	SC 2003	SCREW, retr (2)	*1-28 A	GA 1146	GASKET, "O" ring - lwr hd
1-2	WA 6-5 BL	WASHER, retr sc (2)	1-29	CP 851	CAP NUT, dely va
1-3	See Note 1	RETAINER, cntl shaft	1-30	GA 8511	GASKET, cap nut
1-4	SC 1966	SCREW, full load	1-31	HP 8530 A	HOLDER, dely va
1-5	Deleted		1-32	SP 8531	SPRING, dely va
1-6	NT 3-5 BL	NUT, full load sc	1-33	VA 851 A	VALVE ASSY - dely
1-7	SC 76189	SCREW, lever-	1-34	SR 8515	SPACER, dely va
1-8	See Note 2	LEVER, cntl	1-35	FI 858	FITTING, dischg (2)
1-9	PN 1215	PIN, roll - cntl unit	1-36	SC 1867	SCREW, set
1-10	HB 851	HUB, cntl unit	1-37	BB 1070	BALL
1-11	See Note 3	CONTROL UNIT ASSY - incl 9, 10 & **a	1-38	HD 8913	HYDRAULIC HEAD ASSY - incl 18 thru 39 and 43
**a	PN 8525	PIN, plngr slv - See Note 4	1-39	PN 8544	PIN, plngr drive - See Note 7
1-12	GA 1085	GASKET, "O" ring - cntl unit	1-40	NP 852	NAMEPLATE
**b	See Note 1	PLATE, retr	1-41	SC 150-2 BL	SCREW, drive (2)
1-13	See Note 5	HOUSING, hyd unit	1-42	SC 8530	SCREW, hd lctng
1-14	GA 7615	GASKET, copper	*1-43	GA 7617	GASKET, lctng sc
1-15	SC 23-6 BL	SCREW, tmng hold	**	VA 9031 A	VALVE, bleeder
1-16	TP 851	TAPPET	**	See Note 8	LINK, ball joint
*1-17	GA 1194	GASKET, "O" ring			
1-18	RG 100281	RING, spring			
1-19	BO 853-11	BUTTON, plngr - See Note 6			
1-20	GU 201024	SEAT, lwr sp gu			
1-21	WA 100280	WASHER, lwr sp seat			
1-22	SP 8533	SPRING, tappet			
1-23	GE 851	GEAR, face			
1-24	WA 100279	WASHER, thrust			
1-25	RG 100278	RING, spring			
1-26	SC 2057	SCREW, cap (4)			
1-27	HP 8539	CLAMP, hd retng (4)			
*1-28	GA 100282	GASKET, "O" ring - upr hd			

NOTES

1. When replacing Control Shaft Retainer (3) use KT 85188 which contains 1 Retainer Plate (**b) "PL 8589" and 1 - Control Shaft Retainer (3) "RN 854", unless KT 85202-1 has been used (See Figure 2).
2. When replacing Control Lever (8) use KT 85202-1 and follow instructions in Kit. (For parts - See Figure 2)
3. When replacing Control Unit (11) use KT 85202-1 and follow instructions in Kit. (For parts - See Figure 2)

4. Control Unit Pin (**a) should fit snug but must be free to rotate in Control Unit Assembly (11).
5. When replacing Housing HG 8510 (13) CU 851 A Control Unit Assy must be replaced with KT 85202-1. (See Figure 2).
6. For selection of buttons (19) see Manual Section D 235/1002, Section 5.
7. **CAUTION:** Assemble plunger drive pin (39) so the long end of drive block is in a downward position.
8. Not supplied by American Bosch. May be obtained from any hardware supply house.

* Denotes Parts included in Repair Gasket Kit "KT 85166"

PARTS LIST For KT 85202-1

Ill. No.	Part No.	Description
2-1	CU 8514 A	CONTROL UNIT ASSY - incl 2-2 and **a
2-2	GA 1985	GASKET, "O" ring - cntl unit
**a	PN 8525	PIN, plngr slv - See Note 4
2-3	PL 85108-1	PLATE, retrn
2-4	NT 4-5 BL	NUT (2)
2-5	WA 6-5 BL	LOCK WASHER (2)
2-6	WA 1-7 BL	WASHER, plain (2)
2-7	PN 8552-1	PIN
2-8	SC 2118	SCREW, retrn (2)
2-9	WA 1648	WASHER, tab (2)
2-10	SC 2119-1	SCREW, set

AMERICAN BOSCH MARKETING DIVISION



INDUSTRIES INC.

SPRINGFIELD, MASS. 01107

PSU 2A 80E 8862A - ONAN DIVISION - STUDEBAKER-PACKARD CORP.

Engine Model: DJC - MDJC

Illustration Number	Part Number	Qty. Used	Description of Part
38	HD 8927	1	HYDRAULIC HEAD ASSEMBLY - includes parts 18 thru 39 and 43

ALL OTHER REQUIRED PARTS SAME AS FOR PSU 2A 80E 8843A -

SEE MANUAL SECTION D235/120, page 3.

VARIATIONS

NOTE: The following parts lists itemize particular parts and/or quantities that apply to variations of the basic pump.

8844

PSU 4A 80E 8844 A

Onan Division - Studebaker - Packard Corp.
Engine Model: DJC - MDJC

Ill. No.	Part No.	Description
1-35	FI 858	FITTING, dischg (4)
1-38	HD 8914	HYDRAULIC HEAD ASSY - incl 18 thru 39 & 43

Refer to PSU 2A 80E 8843 - Section D 235/120 for all other required parts.

8862

PSU 2A 80E 8862 A

Onan Division - Studebaker - Packard Corp.
Engine Model: DJC - MDJC

Ill. No.	Part No.	Description
1-38	HD 8927	HYDRAULIC HEAD ASSY - incl 18 thru 39 & 43

Refer to PSU 2A 80E 8843 - Section D 235/120 for all other required parts.

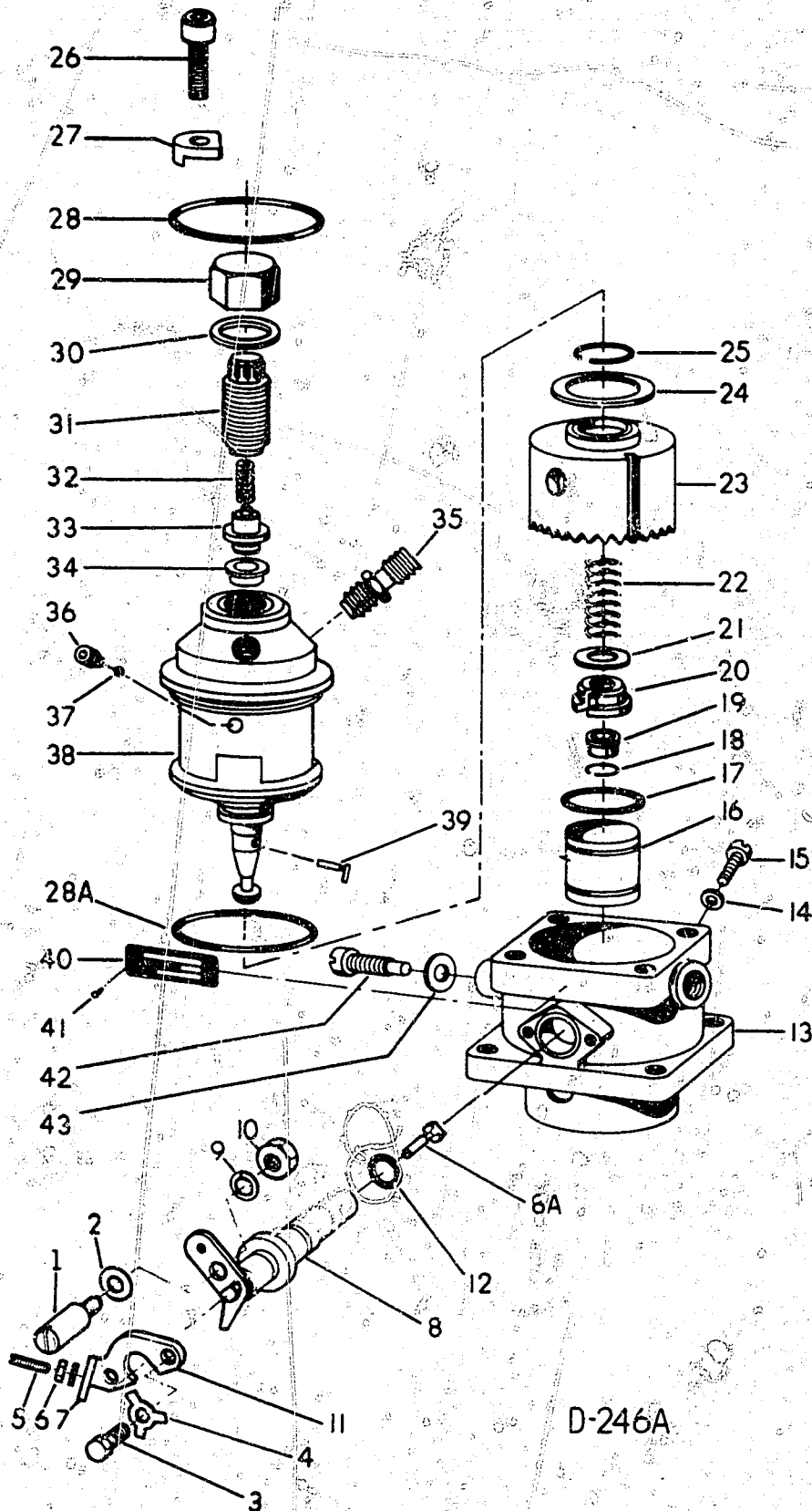
SERVICE PARTS LIST
For
AMERICAN BOSCH
PSU 2A 80E 9167 A
PSU 4A 80E 9168 A
PSU 2A 80E 9169 A
FUEL INJECTION PUMPS
USED ON ONAN ENGINES

(ONAN DIVISION-STUDEBAKER-PACKARD CORP.)



SYMBOLS

- | | |
|---------------------------------------|---|
| • - New Part | .. - Not Illustrated |
| † - Discontinued with no replacement. | ... - Not Shown Assembled |
| * - Parts Included in listed kit. | - Text or listing opposite has been revised or changed. |



D-246A

Figure 1

AMERICAN BOSCH MARKETING



SPRINGFIELD, MASS. 01107

- NOTE:** (1) Unless otherwise indicated in parenthesis () following description of part, quantity, used is one - applicable to all lists.
(2) For explanation of abbreviations, refer to Section D 10/20.
(3) The first digit of an "Ill. No." identifies the applicable figure; the numbers following the dash (-) refer to the illustrated parts in the figure.

**SERVICE PARTS LIST
FOR BASIC
PSU 2A 80E 9167 A**

ONAN DIVISION - STUDEBAKER - PACKARD CORP.
Engine Model: DJB - MDJB

Ill. No.	Part No.	Description
1-1	PN 8552-1	PIN
1-2	WA 1-7 BL	WASHER, plain
1-3	SC 2118	SCREW, retrn (2)
1-4	WA 1648	WASHER, tab (2)
1-5	SC 2119-1	SCREW, set - adjng
1-6	NT 4-5 BL	NUT, adjng sc
1-7	WA 6-5 BL	WASHER, lock - adjng sc
1-8	CU 8514 A	CONTROL UNIT ASSY - incl 1-8A, 1-12
1-8A	PN 8525	PIN, plngr slv - See Note 1
1-9	WA 6-5 BL	WASHER, lock - pin
1-10	NT 4-5 BL	NUT, pin
1-11	PL 85108-1	PLATE, retng
*1-12	GA 1085	GASKET, "O" ring - ctrl unit
1-13	HG 8510	HOUSING, hyd unit
1-14	GA 7615	GASKET, copper
1-15	SC 23-6 BL	SCREW, tmng hole
1-16	TP 851	TAPPET
*1-17	GA 1194	GASKET, "O" ring
1-18	RG 100281	RING, spring
1-19	BO 853-11	BUTTON, plngr - See Note 2
1-20	GU 201024	SEAT, lwr sp gu
1-21	WA 100280	WASHER, lwr sp seat
1-22	SP 8533	SPRING, tappet
1-23	GE 851	GEAR, face
1-24	WA 100279	WASHER, thrust
1-25	RG 100278	RING, spring
1-26	SC 2057	SCREW, cap (4)
1-27	HP 8539	CLAMP, hd retng (4)
*1-28	GA 100282	GASKET, "O" ring - upr hd
*1-28A	GA 1146	GASKET, "O" ring - lwr hd
1-29	CP 851	CAP NUT, dely va
1-30	GA 8511	GASKET, cap nut
1-31	HP 8545 A	HOLDER, dely va
1-32	SP 8531	SPRING, dely va
1-33	VA 851 A	VALVE ASSY, dely
1-34	SR 8515	SPACER, dely va
1-35	FI 858	FITTING, dischg (2)
1-36	SC 1867	SCREW, set
1-37	BB 1070	BALL
1-38	HD 8913	HYDRAULIC HEAD ASSY - incl 1-18 thru 1-39 & 1-43
1-39	PN 8544	PIN, plngr drive - See Note 3
1-40	NP 852	NAMEPLATE
1-41	SC 150-2 BL	SCREW, drive N/P
1-42	SC 8530	SCREW, hd lctng
*1-43	GA 7617	GASKET, lctng sc
**	VA 9031 A	VALVE, bleeder
**	See Note 4	LINK, ball joint

NOTES

1. Plunger sleeve pin (1-8A) should fit snug but must be free to rotate in control unit assembly (1-8).
2. For selection of buttons (1-19) See Manual Section D 235/1002, Section 5.
3. **CAUTION:** Assemble plunger drive pin (1-39) so the long end of drive block is in a downward position.
4. Not supplied by American Bosch. May be obtained from any hardware supply house.

* Denotes Parts included in Repair Gasket Kit, "KT 85166"

AMERICAN BOSCH MARKETING



SPRINGFIELD, MASS. 01107

VARIATIONS

NOTE: The following parts lists itemizes particular parts and/or quantities that apply to variations of the basic pump.

9168

PSU 4A 80E 9168 A

ONAN DIVISION - STUDEBAKER - PACKARD CORP.
 Engine Model: DJC - MDJC

Ill. No.	Part No.	Description
1-35	Fi 858	FITTING, dischg (4)
1-38	HD 8914	HYDRAULIC HEAD ASSY - incl 1-18 thru 1-39 & 1-43

Refer to PSU 2A 80E 9167 - Section D 235/121 for all other required parts.

9169

PSU 2A 80E 9169 A

ONAN DIVISION - STUDEBAKER - PACKARD CORP.
 Engine Model: DJBA & MDJBA

Ill. No.	Part No.	Description
1-38	HD 8927	HYDRAULIC HEAD ASSY - incl 1-18 thru 1-39 & 1-43

Refer to PSU 2A 80E 9167 - Section D 235/121 for all other required parts.

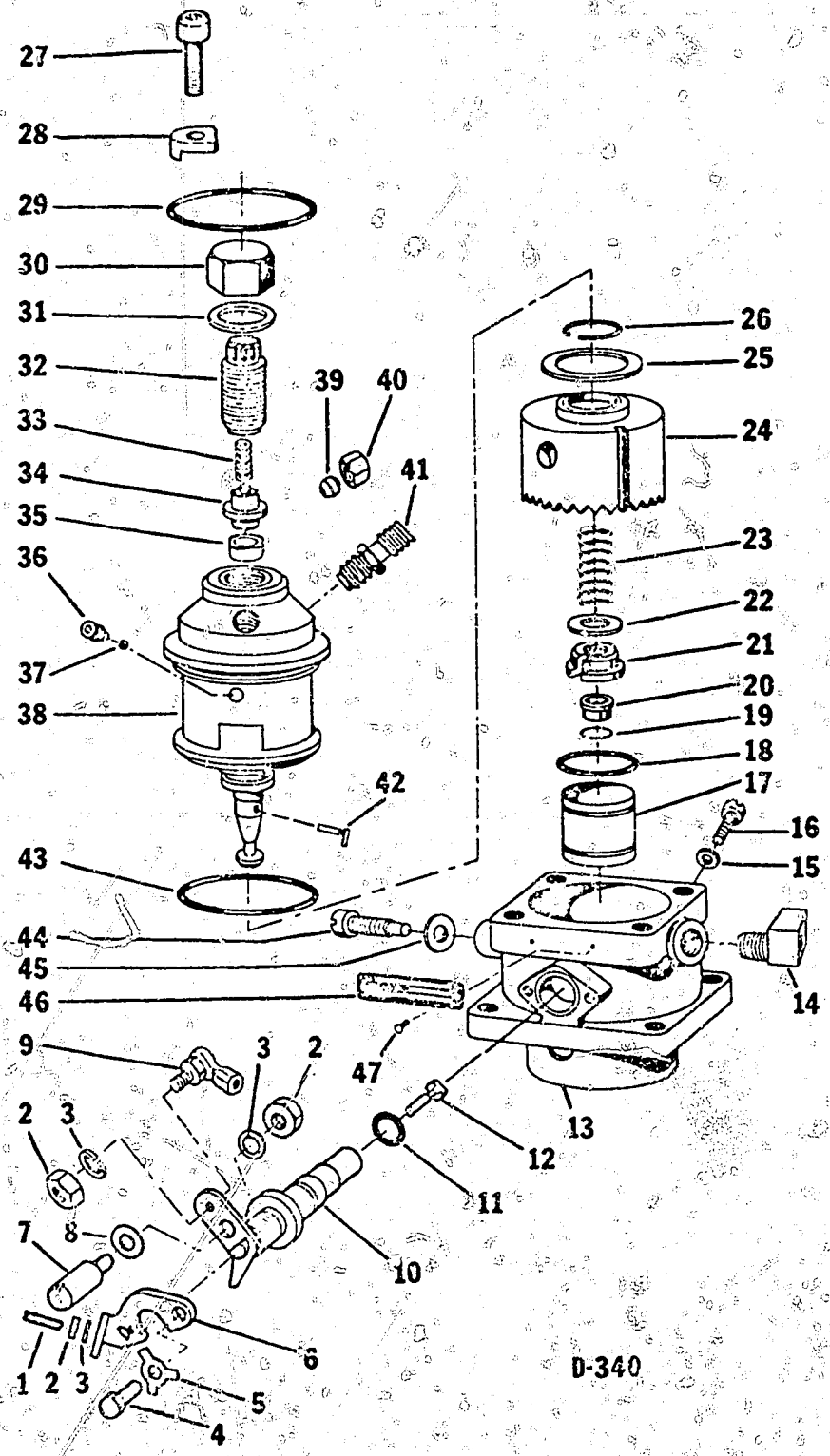
SERVICE PARTS LIST
For
AMERICAN BOSCH
PSU 2/4A 80E 9328A
FUEL INJECTION PUMPS

APPLIED To ONAN DIVISION (STUDEBAKER-PACKARD CORP.) ENGINES



SYMBOLS

- | | |
|---------------------------------------|---|
| • — New Part | .. — Not Illustrated |
| † — Discontinued with no replacement. | ... — Not Shown Assembled |
| •• — Parts Included in listed kit. | — Text or listing opposite has been revised or changed. |



D-340

FIGURE 1

AMERICAN BOSCH MARKETING



SPRINGFIELD, MASS. 01107

- NOTE**
- (1) Unless otherwise indicated in parenthesis () following description of part, quantity used is one.
 - (2) For explanation of abbreviations, refer to Section D 10/20.
 - (3) The first digit of an "Ill. No." identifies the applicable figure; the numbers following the dash (-) refer to the illustrated parts in the figure.

SERVICE PARTS LIST

For

PSU 2/4A 80E 9328A

USED ON: Onan Div. (Studebaker-Packard Corp.) DJE - 99E/9485B (2 cyl.) & DJF - 99E/9487B (4 cyl.) engines.

Ill. No.	Part No.	Description	NOTES
1-1	See Note 1	SCREW, set-full load adjng	
1-2	NT 1293	NUT, scurng (3)	
1-3	WA 1930	WASHER, lock (3)	
1-4	SC 2137	SCREW, retrn (2)	
1-5	WA 1993	WASHER, tab (2)	
1-6	PL 85108-2	PLATE, retrng - cntl unit	
1-7	PN 8552-2	PIN, stop	
1-8	WA 2001	WASHER, pln	
1-9	See Note 2	LINK, ball joint	
1-10	CU 8514A	CONTROL UNIT ASSY - incl 1-11 & 1-12	
* 1-11	GA 1085	GASKET, "O" ring - cntl unit	
1-12	PN 8525	PIN, plngr slv - See Note 3	1. Initially use an SC 2119-2 (3/4" long). Once the pump has been properly calibrated, make certain that the screw threads fully engage locknut threads. If not, replace SC 2119-2 with an SC 2143-2 (7/8" long) and re-calibrate pump.
1-13	HG 8510	HOUSING, pump	
1-14	VA 9031A	VALVE, bldr - See Note 6	
1-15	GA 7615	GASKET, copper	
1-16	SC 2136	SCREW, trng hole	
1-17	TP 851	TAPPET	
* 1-18	GA 1194	GASKET, "O" ring	
1-19	RG 100281	RING, sp - See Note 4	DO NOT use an SC 2143-2 unless absolutely necessary, since there is the possibility of an interference problem on the engine.
1-20	See Note 4	BUTTON, plngr	
1-21	GU 20102-5	SEAT, lwr sp	2. Ball joint link (1-9) is Onan Division part #150A 939.
1-22	WA 100280	WASHER, lwr sp seat	
1-23	SP 8533	SPRING, tp	3. Plunger sleeve pin (1-12) should fit snug but must be free to rotate in control unit assembly (1-10).
1-24	GE 851	GEAR, face	
1-25	WA 100279	WASHER, thst	
1-26	RG 100278	RING, sp	
1-27	SC 2057	SCREW, cap (4)	
1-28	HP 8549	CLAMP, hd retrng (4)	
* 1-29	GA 100282	GASKET, "O" ring - upr hd	4. The snap ring (1-19) and plunger button (1-20) are not supplied with a new pump. Refer to Page 11, Section 5, Manual Section D:235/1102 for "Plunger Button Selection".
1-30	CP 851	CAP NUT, dely va	
1-31	GA 8511	GASKET, cap nut	
1-32	HP 8545A	HOLDER, dely va	
1-33	SP 8531	SPRING, dely va	
1-34	VA 851A	VALVE ASSY, dely	
1-35	SR 8515	SPACER, dely va	
1-36	SC 867	SCREW, set	
1-37	BB 1070	BALL	
1-38	HD 8914B	HYDRAULIC HEAD ASSY - incl 1-11, 1-21 thru 1-37, 1-41 thru 1-43 & 1-45	5. Assemble plunger drive pin (1-42) so that long end of drive block is extended down.
1-39	PG 857	PLUG, discharge ftng (#2 & 4 outlets on 9328A1) (2)	
1-40	CP 852	CAP, discharge ftng (#2 & 4 outlets on 9328A1) (2)	6. Apply Loctite #277 to the first 3 or 4 threads and assemble valve so that bleed hole is towards rear of pump with valve body parallel to pump <u>horizontal</u> centerline.
1-41	FI 858	FITTING, discharge (4)	
1-42	PN 8544	PIN, plngr dv - See Note 5	
* 1-43	GA 1146	GASKET, lwr hd	
1-44	SC 8541	SCREW, hd lctng	
* 1-45	GA 7617	GASKET, lctng sc	
1-46	NP 852	NAMEPLATE	
1-47	SC 2135	SCREW, drive - np	

* Denotes parts included in repair gasket Kit. KT 85166.