

9499

A & B



**UNITED  
TECHNOLOGIES  
DIESEL SYSTEMS**

**PUMP ROTATION:**  
Clockwise  
**FIRING ORDER:**  
1-5-3-6-2-4  
**MOUNTING:**  
R H  
**SPECIAL FEATURES:**  
12 Volt Electric Shut-off, Low Idle Screw

**ALLIS-CHALMERS  
100 6A 100A 9499A & B**

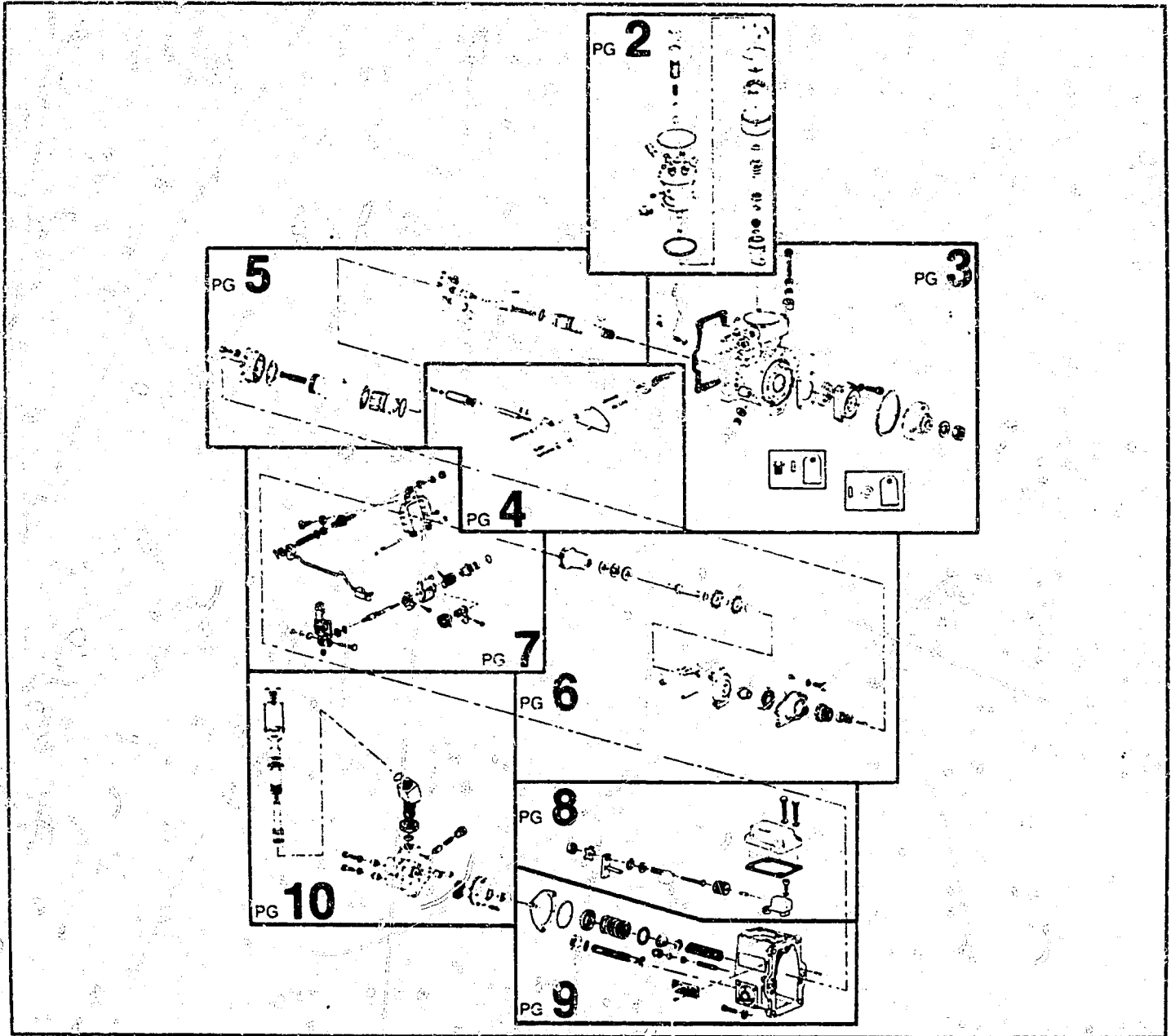
Special information:

Springfield, MA 01107

**SERVICE PARTS**

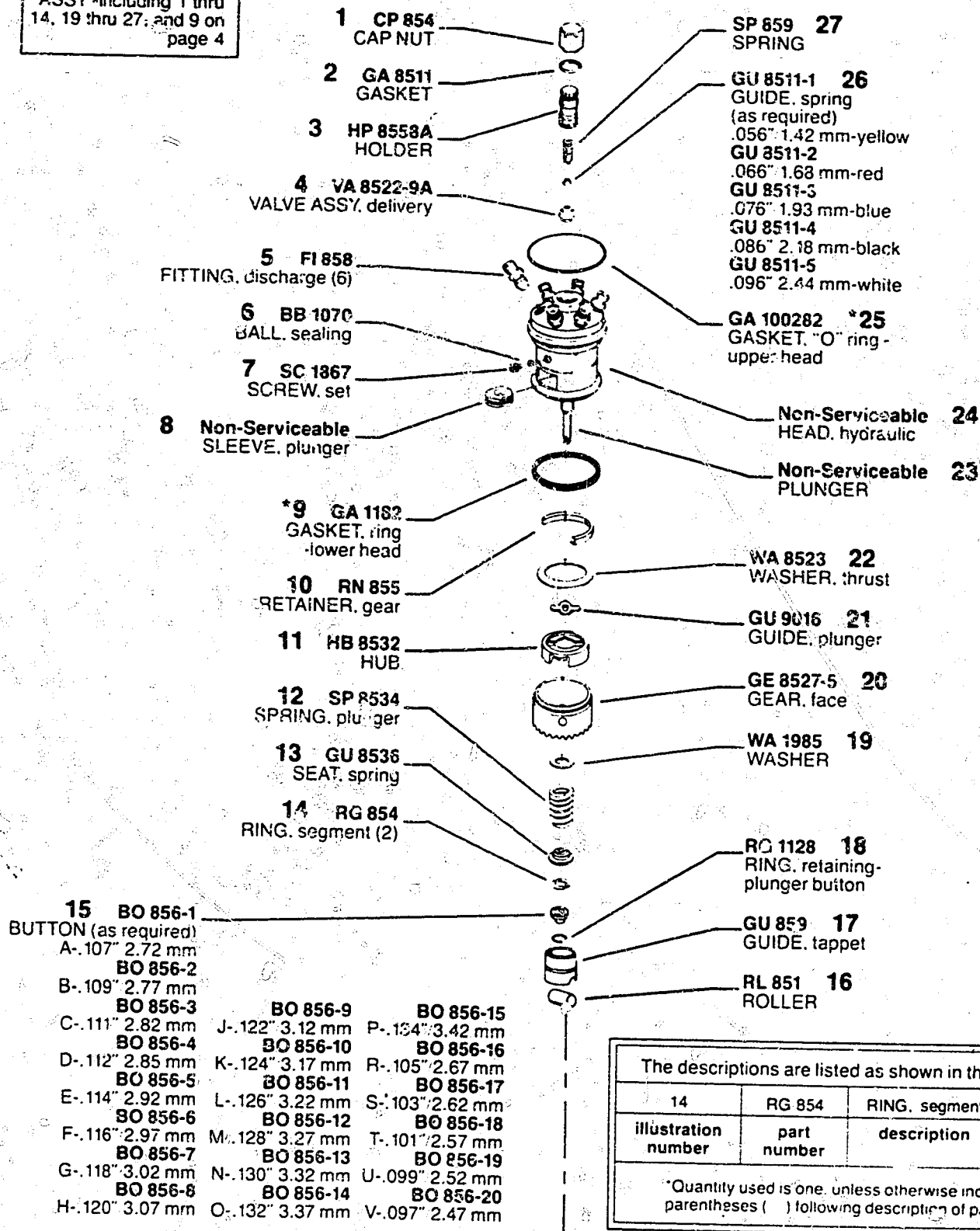
Following are all parts, part numbers, pump codes and calibrations for the *Model: 100 6A 100A 9499A & B*. The exploded view drawing below is detailed with part numbers

listed on the pages indicated. Refer to the Index Section for explanations of codes and abbreviations.



**MODEL 100 6A 100A 9499A & B**

**ASSY HD 9454AS**  
HYDRAULIC HEAD  
ASSY including 1 thru  
14, 19 thru 27, and 9 on  
page 4



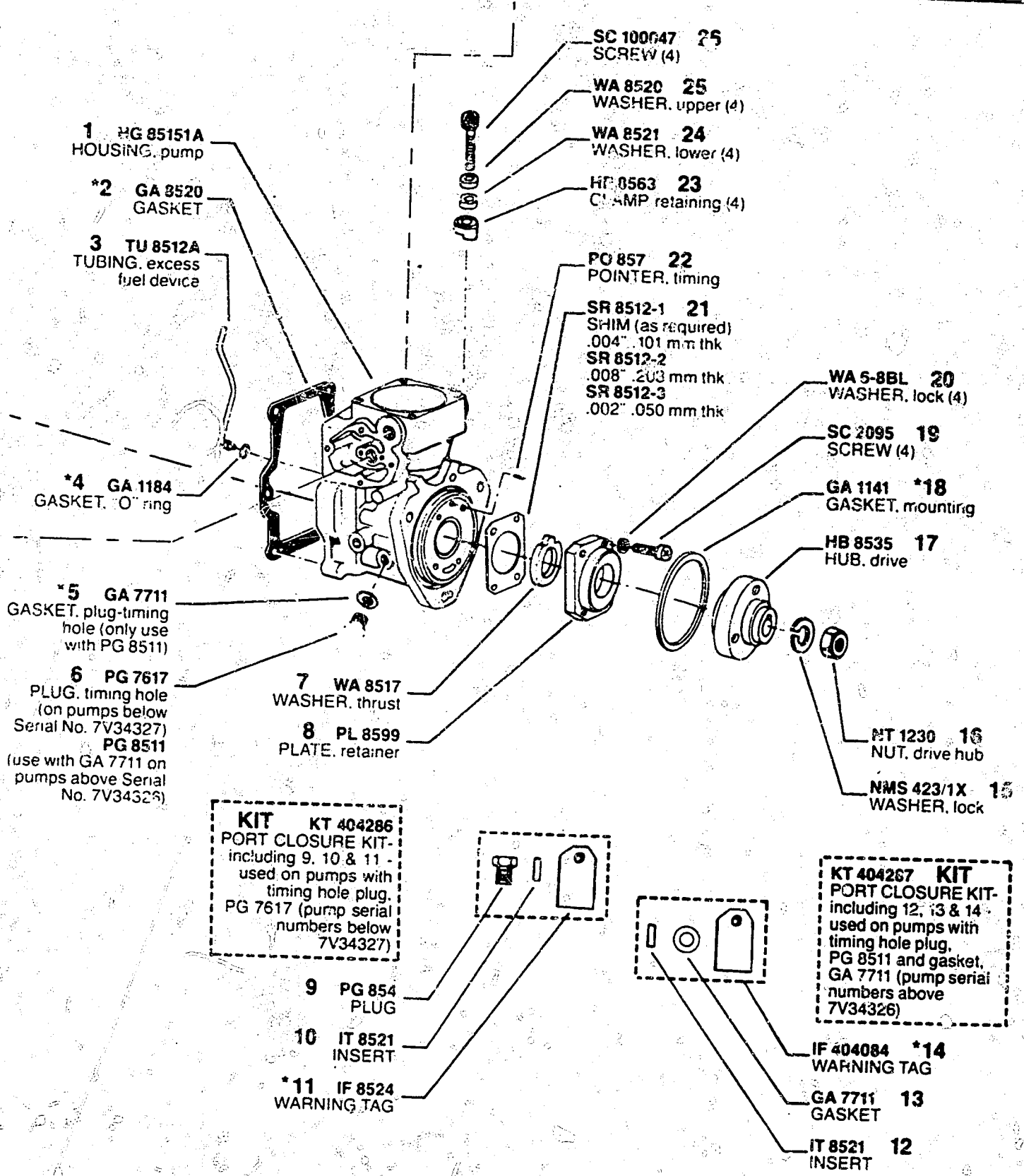
The descriptions are listed as shown in this example:

14	RG 854	RING, segment	(2)
illustration number	part number	description	quantity*

\*Quantity used is one, unless otherwise indicated in parentheses ( ) following description of part.

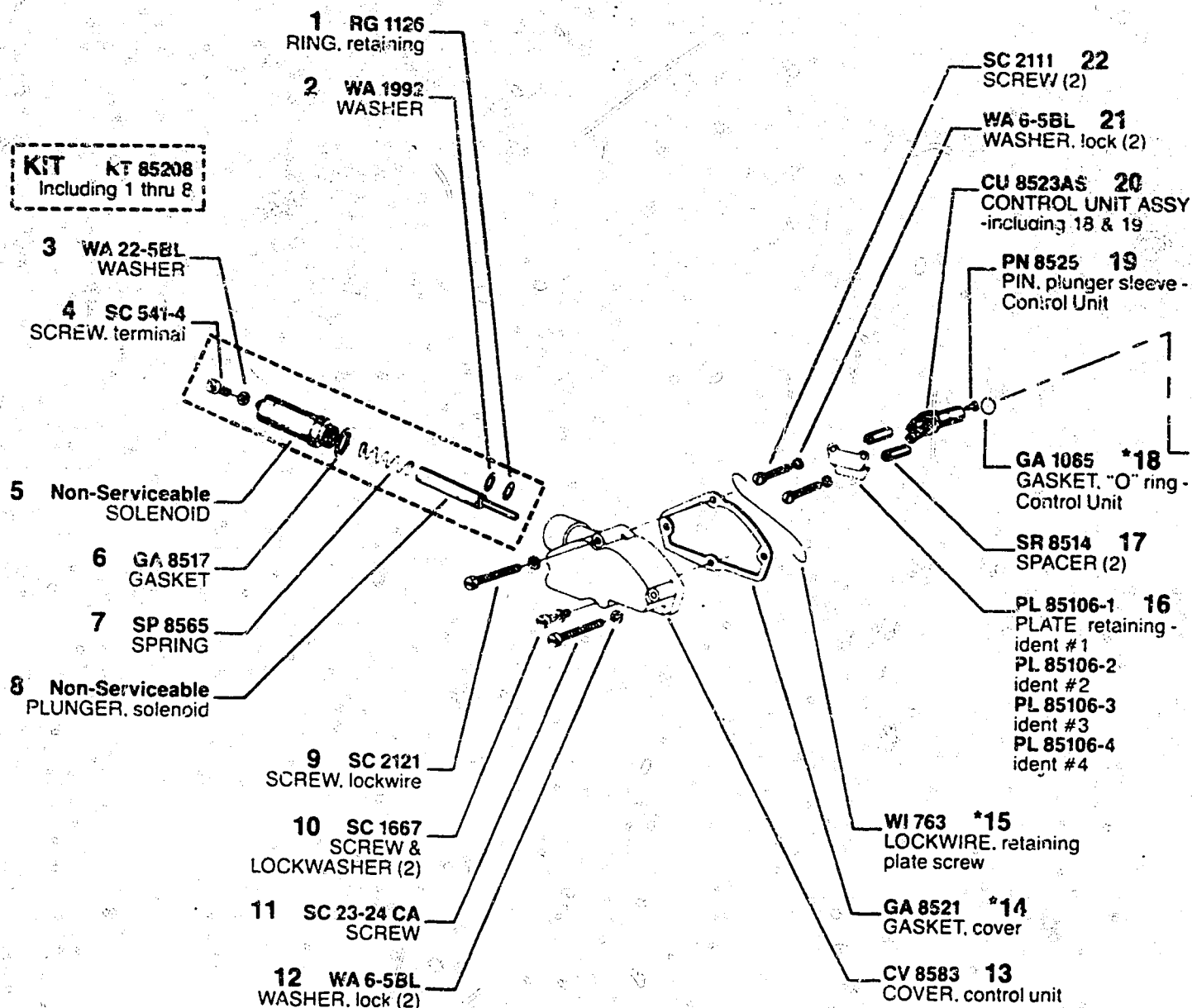
# MODEL 100 6A 100A 9499A & B

\*Denotes parts in Gasket Kit, KT 404126. Kit includes gasket (GA 7711) and tag (IF 404084) which are only required when timing hole plug (PG 8511) is used.



# MODEL 100 6A 100A 9499A & B

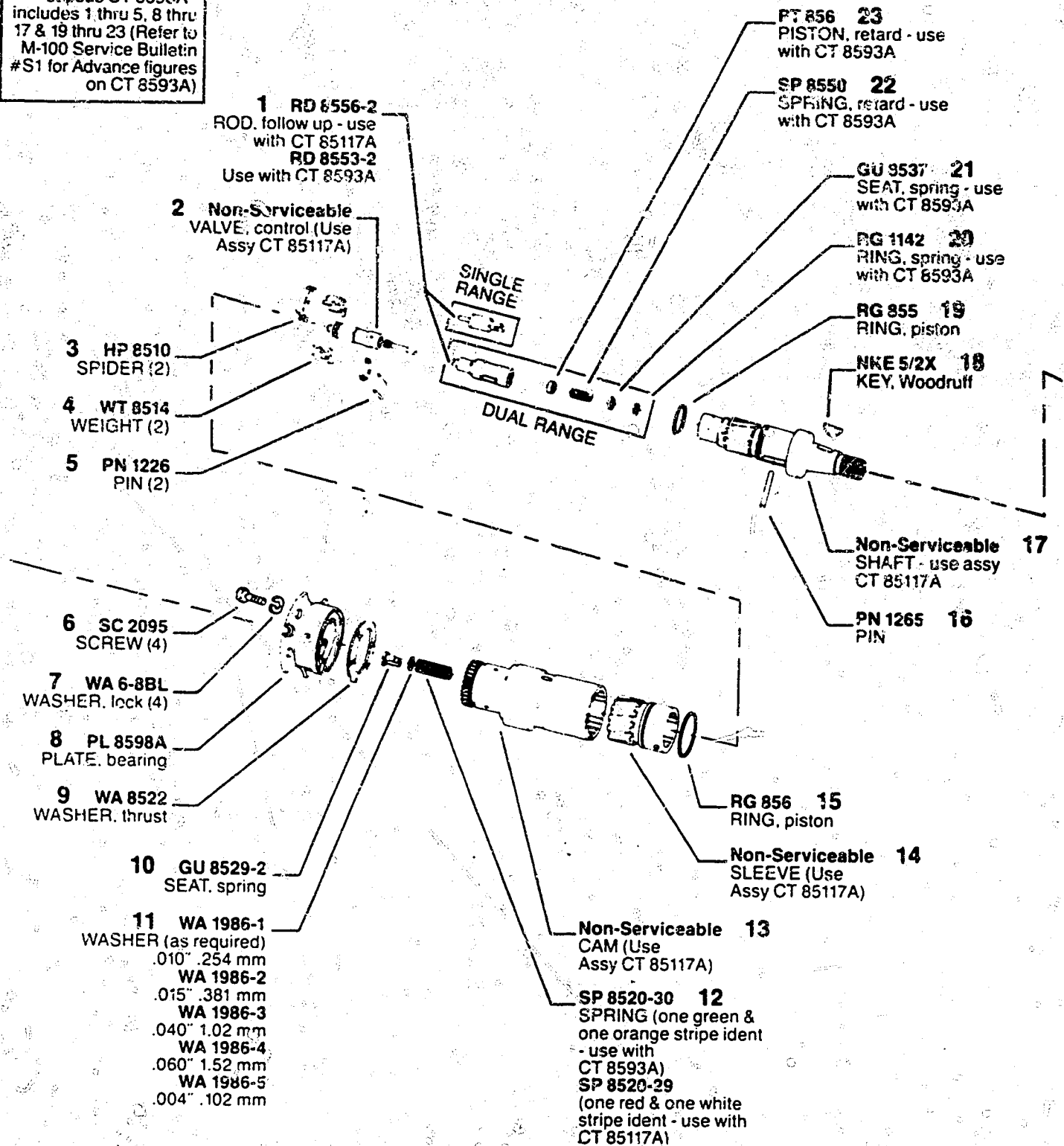
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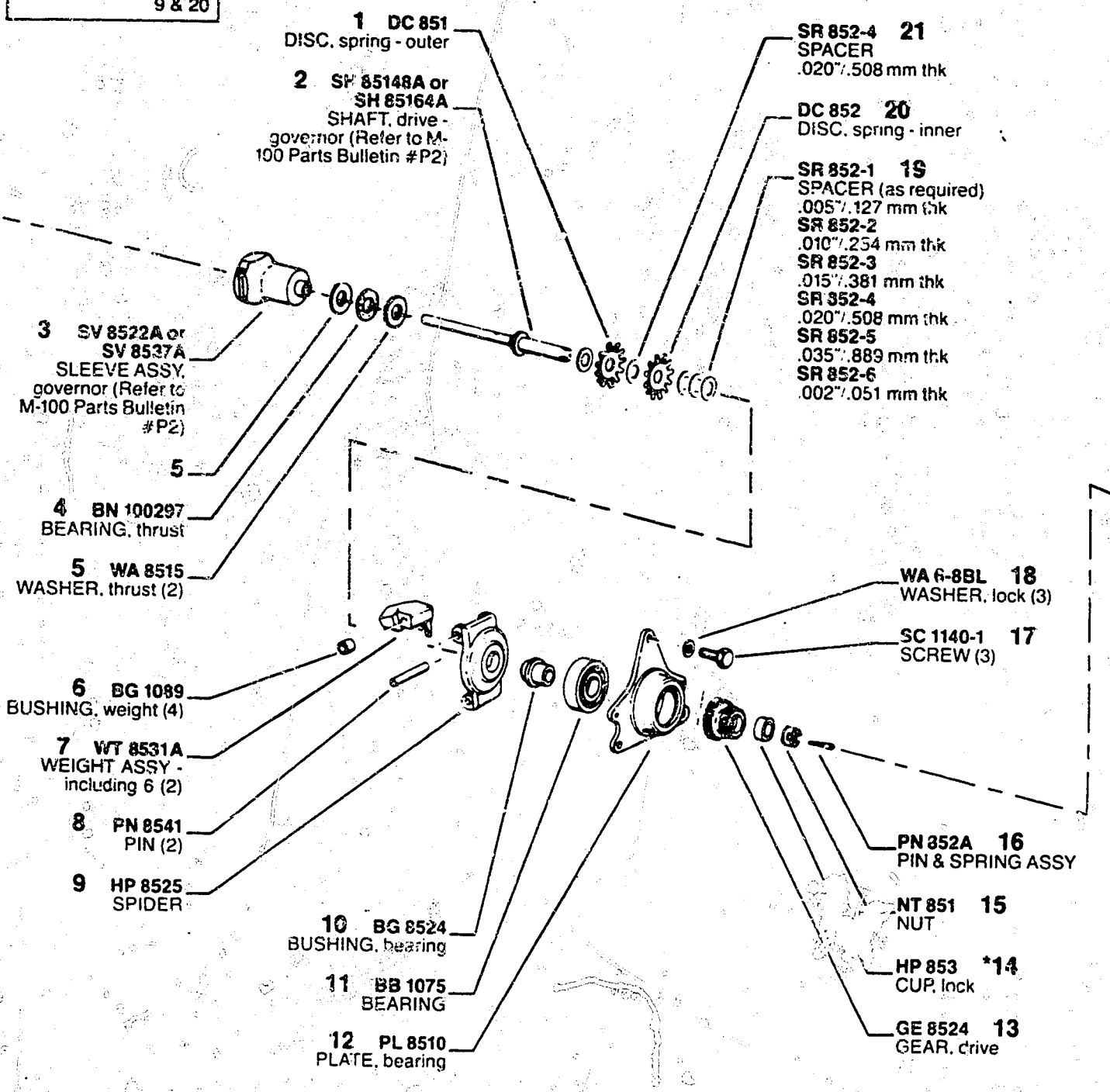
**ASSY CT 85117A**  
INTRAVANCE  
CAMSHAFT ASSY  
supds CT 8593A  
includes 1 thru 5, 8 thru  
17 & 19 thru 23 (Refer to  
M-100 Service Bulletin  
#S1 for Advance figures  
on CT 8593A)



**MODEL 100 6A 100A 9499A & B**

**ASSY WT 8535A**  
WEIGHT & SHAFT  
ASSY - including 1, 2, 6  
thru 15 & 19 thru 21

**ASSY WT 8531AS**  
WEIGHT & SPIDER  
ASSY - including 6 thru  
9 & 20



**1 DC 851**  
DISC, spring - outer

**2 SF 85148A or SH 85164A**  
SHAFT, drive-governor (Refer to M-100 Parts Bulletin #P2)

**SR 852-4 21**  
SPACER  
.020" / .508 mm thk

**DC 852 20**  
DISC, spring - inner

**SR 852-1 19**  
SPACER (as required)  
.005" / .127 mm thk

**SR 852-2**  
.010" / .254 mm thk

**SR 852-3**  
.015" / .381 mm thk

**SR 852-4**  
.020" / .508 mm thk

**SR 852-5**  
.035" / .889 mm thk

**SR 852-6**  
.002" / .051 mm thk

**3 SV 8522A or SV 8537A**  
SLEEVE ASSY, governor (Refer to M-100 Parts Bulletin #P2)

**4 BN 100297**  
BEARING, thrust

**5 WA 8515**  
WASHER, thrust (2)

**6 BG 1089**  
BUSHING, weight (4)

**7 WT 8531A**  
WEIGHT ASSY - including 6 (2)

**8 PN 8541**  
PIN (2)

**9 HP 8525**  
SPIDER

**10 BG 8524**  
BUSHING, bearing

**11 BB 1075**  
BEARING

**12 PL 8510**  
PLATE, bearing

**WA 6-8BL 18**  
WASHER, lock (3)

**SC 1140-1 17**  
SCREW (3)

**PN 352A 16**  
PIN & SPRING ASSY

**NT 851 15**  
NUT

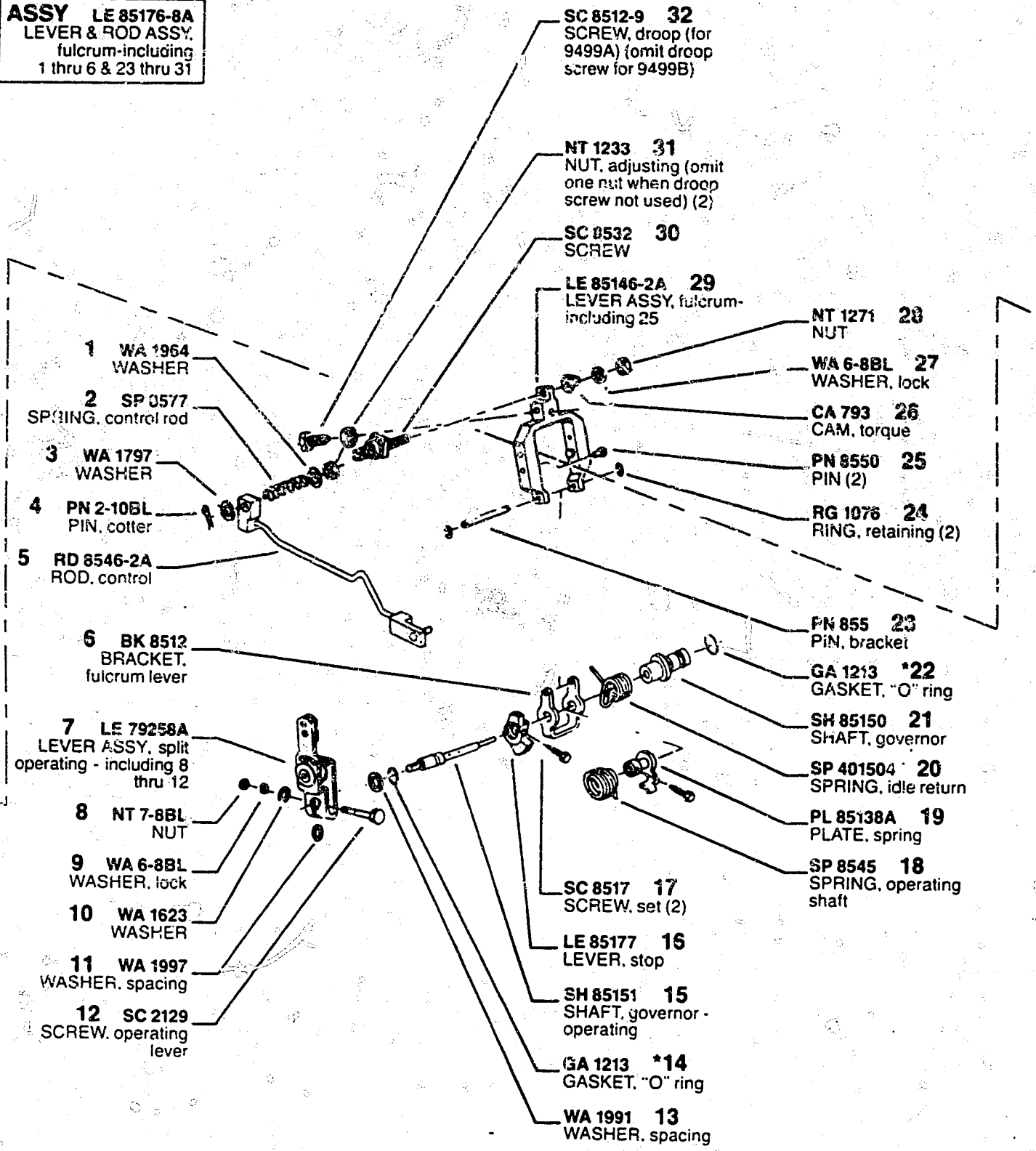
**HP 853 \*14**  
CUP, lock

**GE 8524 13**  
GEAR, drive

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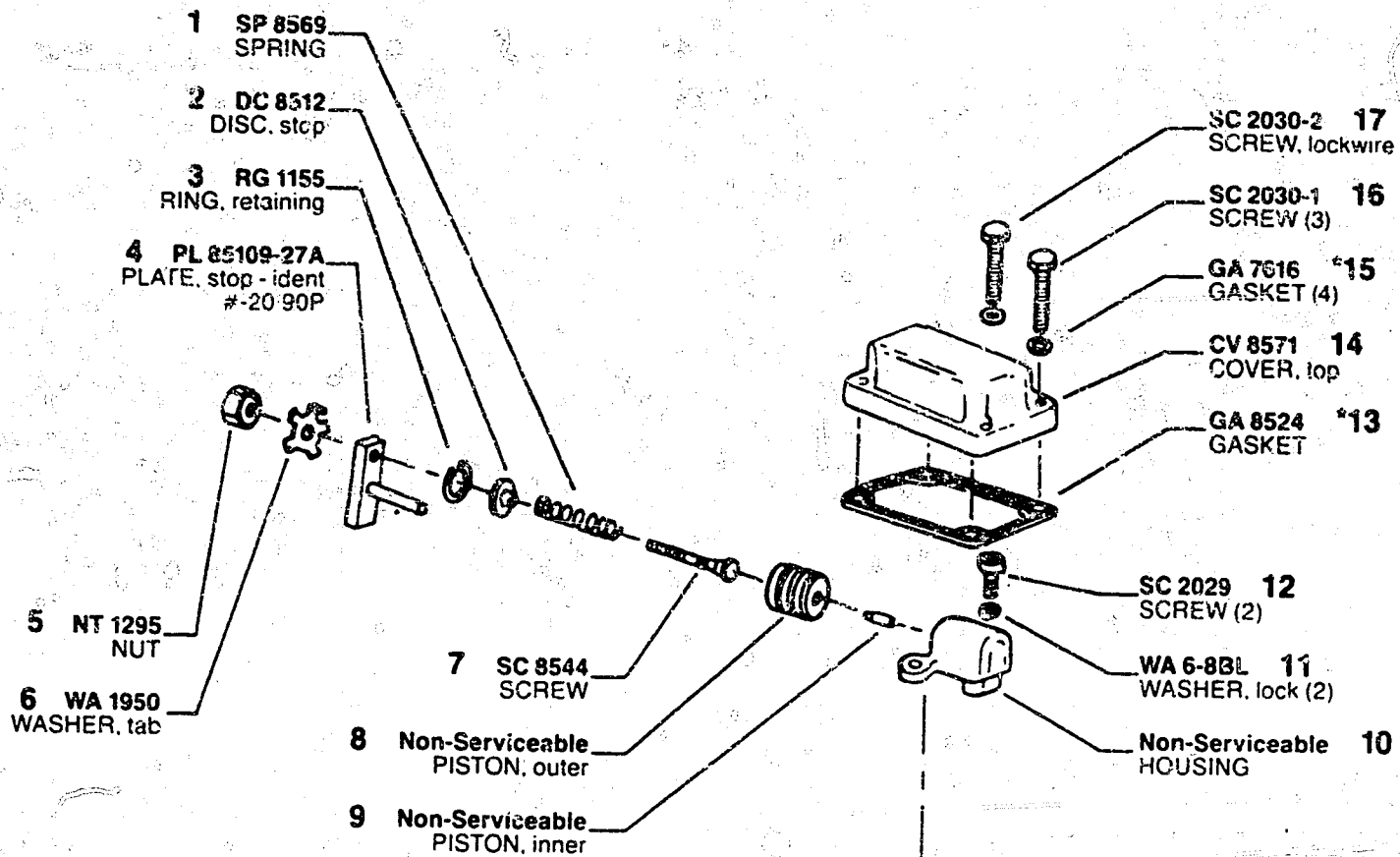
**ASSY LE 85176-8A**  
LEVER & ROD ASSY.  
fulcrum-including  
1 thru 6 & 23 thru 31



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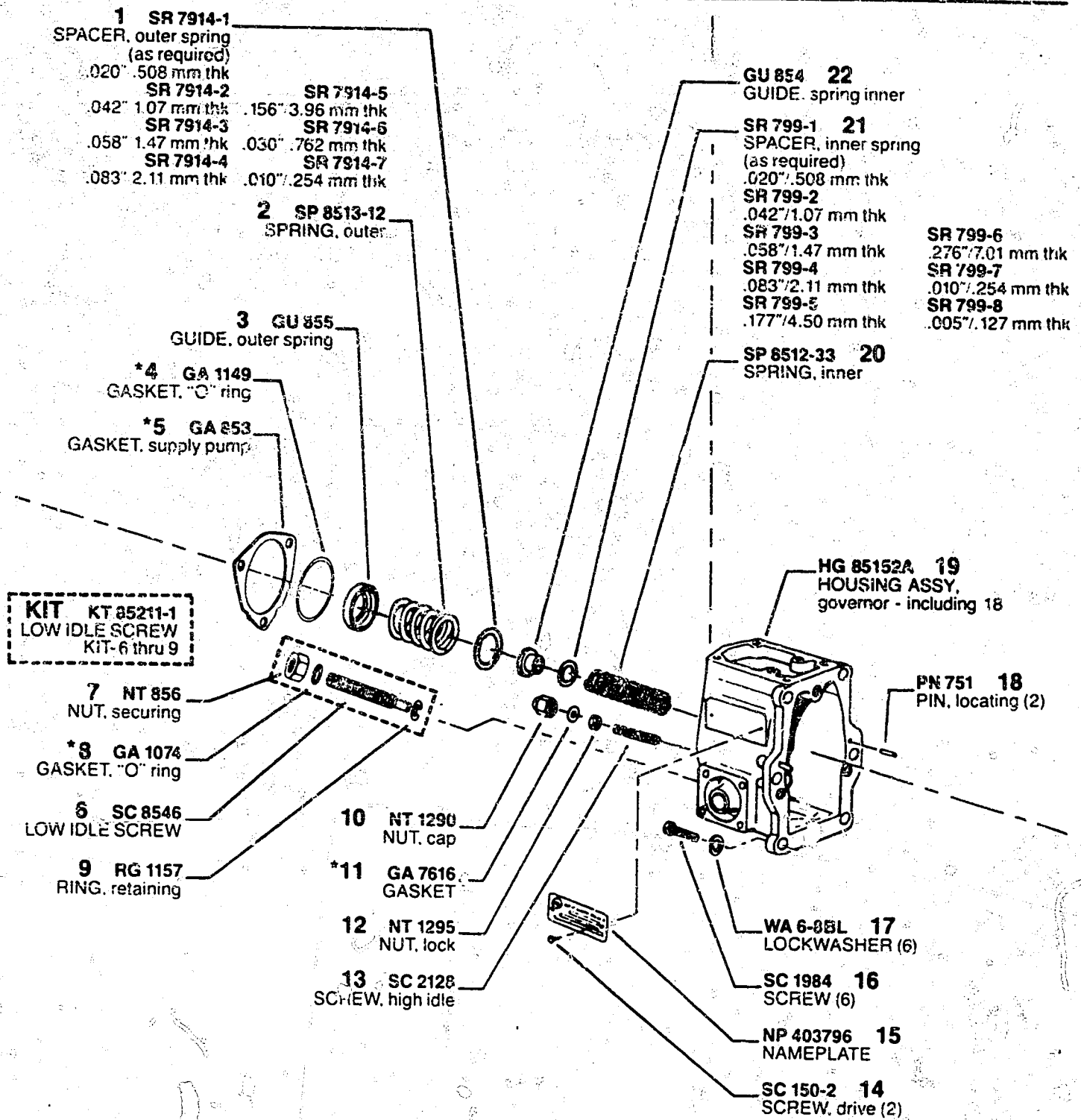
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**ASSY PL 85131-13A**  
EXCESS FUEL  
DEVICE ASSY -  
including 1 thru 3 & 5  
thru 10



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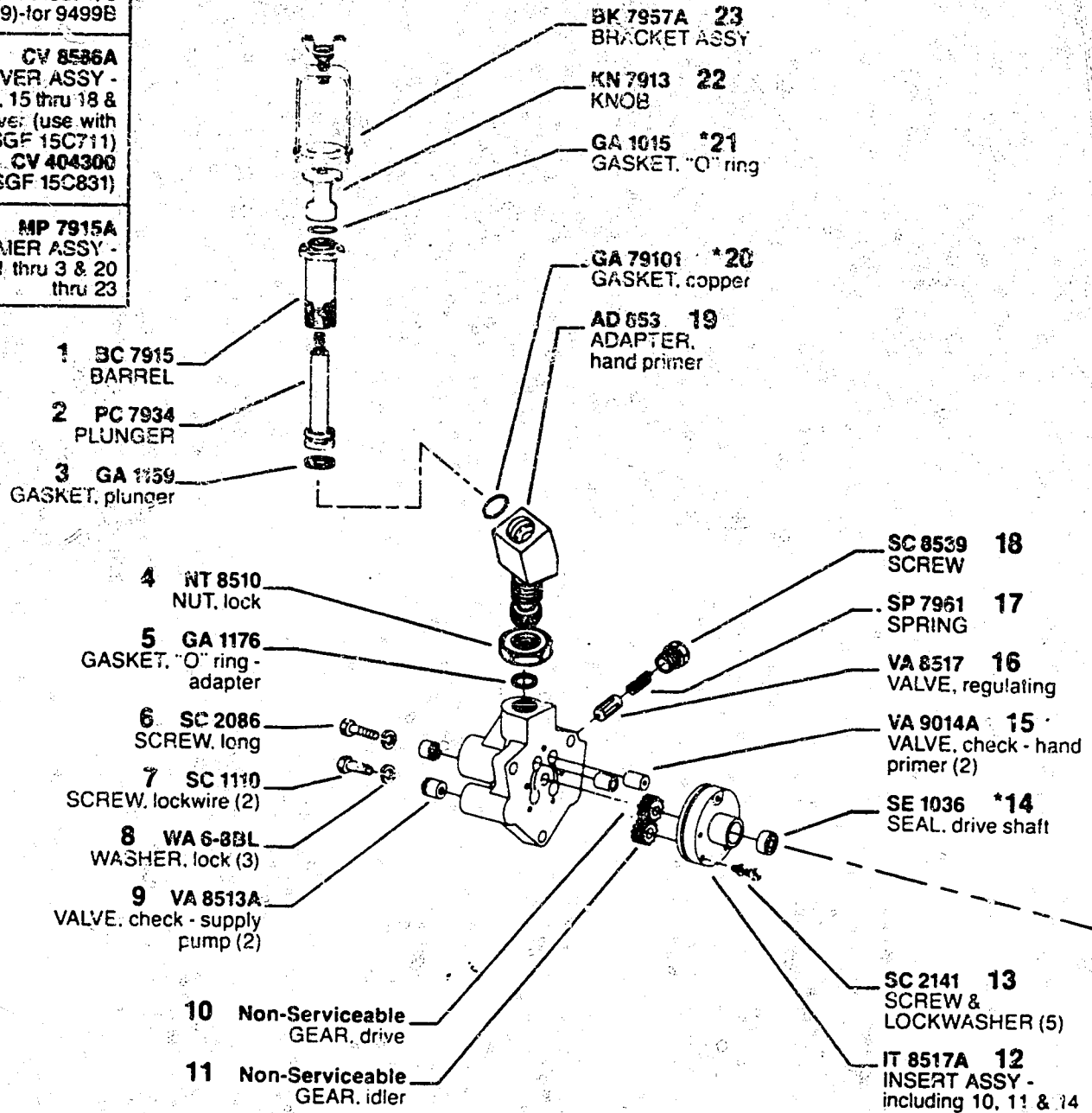
# MODEL 100 6A 100A 9499A & B

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**ASSY SGF 15C711**  
SUPPLY PUMP ASSY -  
including 9 thru 18,  
cover: and 4 & 5 on  
page 9 (used with 4, 5  
& 19)-for 9499A  
**SGF 15C831**  
(Used without 4, 5  
& 19)-for 9499B

**ASSY CV 8536A**  
COVER ASSY -  
including 9, 15 thru 18 &  
cove: (use with  
SGF 15C711)  
**CV 404300**  
(Use with SGF 15C831)

**ASSY MP 7915A**  
HAND PRIMER ASSY -  
including 1 thru 3 & 20  
thru 23



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**UNITED TECHNOLOGIES DIESEL SYSTEMS**

**CALIBRATION SET-UP**

Nozzle Holder . . . . . TSE 77107-5  
 High Pressure Tubing . . . . . 1/4" x .062" x 32" (6.35 mm x 1.58 mm x 813 mm)  
 Tubing Nut . . . . . NT 7935 (pump end); WMU 2064 1X (calibrating nozzle end)  
 Tubing Sleeve (Ermeto) . . . . . SV 7922 (pump end)  
 Tubing Washer . . . . . WA 7617 (calibrating nozzle end)  
 Test Oil . . . . . Viscor # 1487 in 100 F (38 C) at pump inlet  
 Supply Pump Pressure . . . . . 40 psi (276 KPa) min at full load (rated) speed  
 NOTE: Use orifice fitting, FI 8530A to provide back pressure when calibrating; after calibration, remove fitting  
 Lube Oil Pressure . . . . . 55 psi (380 KPa)  
 INTRAVANCE\* Assy . . . . . CF 85117A (Stamped Ident Code: 117)  
 Advance: 20° Total  
 Start: 300-500 RPM  
 End: 1500-1700 RPM

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PROCEDURE Refer to Service Instructions and use figures below

**ALLIS-CHALMERS  
 100 6A 100A 9499A & B**

Springfield, MA 01107

**9499A1 & B1  
 CODE DATA**

Customer No. . . . . 4036918  
 Engine Model . . . . . 670 T (175 BHP)  
 Application . . . . . AVCO  
 Governor RPM . . . . . 900/2400  
 Inner Spring Gap . . . . . 3.60 ± .25 mm  
 Outer Spring Precompression . . . . . 1.75 ± .25 mm  
 Cam Angle (Ref) . . . . . 70°

Lift To Port Closing Requirement . . . . . .024"-.030" (0.60-0.75 mm)  
 Delivery Valve Opening Pressure . . . . . 1150-1450 psi (7.929-9.998 MPa)

STEP	A	B	C	D
	Full Load	Peak Torque (from actual A delivery)	Cam Departure	High Speed Shut-Off
RPM	2400	1800	2475	2800
DEL	*46.0	*+8.0	--	2cc Max

STEP	E	F	G
	Droop Screw	Low Idle	Starting Fuel Min Delivery
RPM	1500	900	150
DEL	*(See Note Below)	*6.5	10

\*Permissible tolerances: Service Check: ± 2.5 cc/500 str  
 Recalibration: ± 0.5 cc/500 str

STEP A: Max variation between cyl: 4.0 cc/500 str

STEP A thru F: cc/500 str

STEP G: cc/100 str

NOTE: Record fuel delivery at 1500 RPM with droop screw backed out (not contacting plate). Then reduce this fuel delivery by 1cc/500 str with droop screw adjustment. Setting not required for 9499B1-no droop screw.