

**6940**

**A**



**PUMP ROTATION:**  
Counterclockwise: Firing Order: 1-5-4-8-6-3-7-2  
**MOUNT:**  
Vee  
**TIMED FOR PORT CLOSING**  
**SPECIAL FEATURES:**  
2.75:1 Gear Ratio

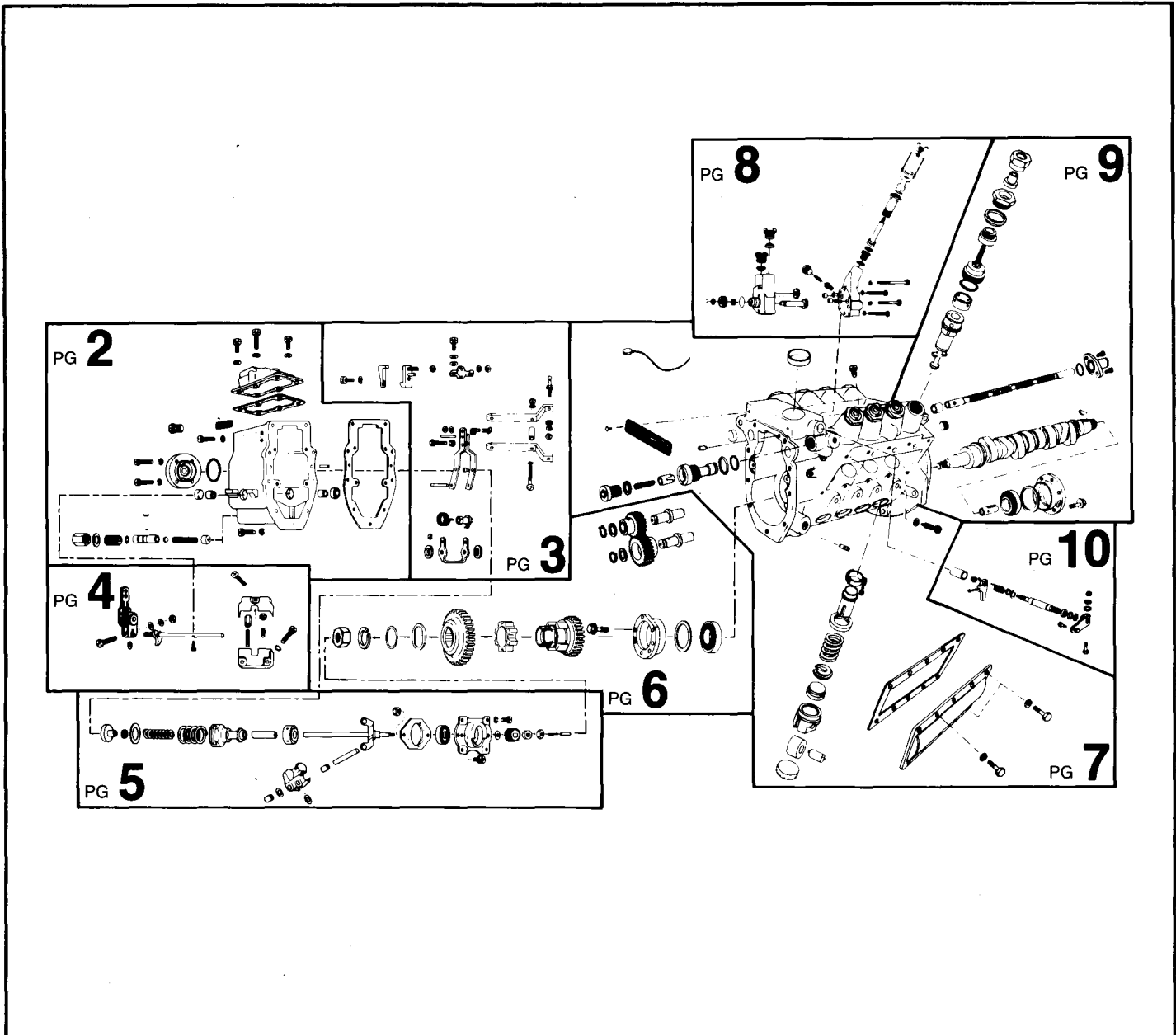
**MACK**  
**APE 8VG 110A 6940A**

**Special Information:**

### SERVICE PARTS

Following are all parts, part numbers, pump codes and calibrations for the *Model: APE 8VG 110A 6940A*. The exploded view drawing below is detailed with part numbers

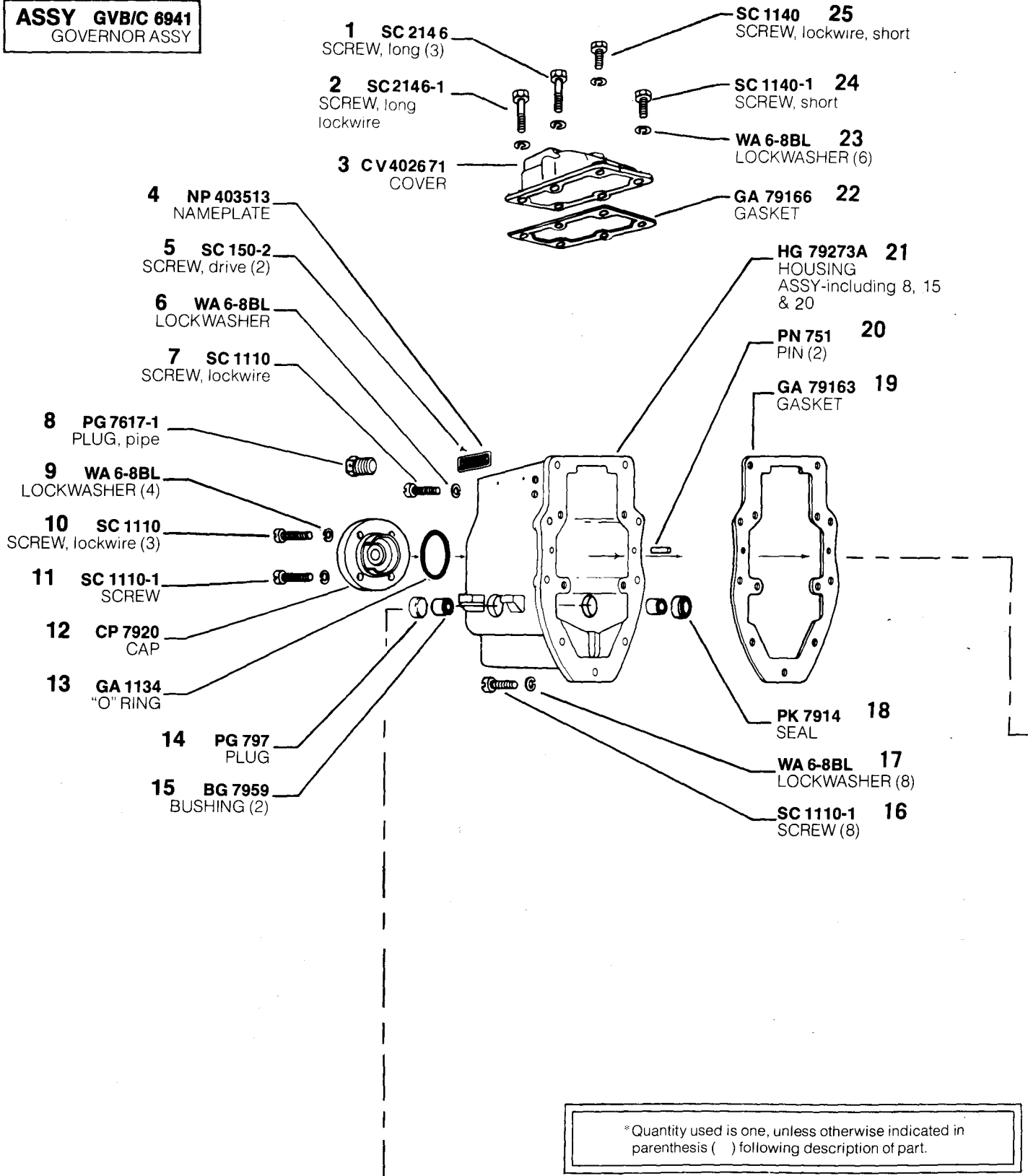
listed on the pages indicated. Refer to the Index Section for explanations of codes and abbreviations.



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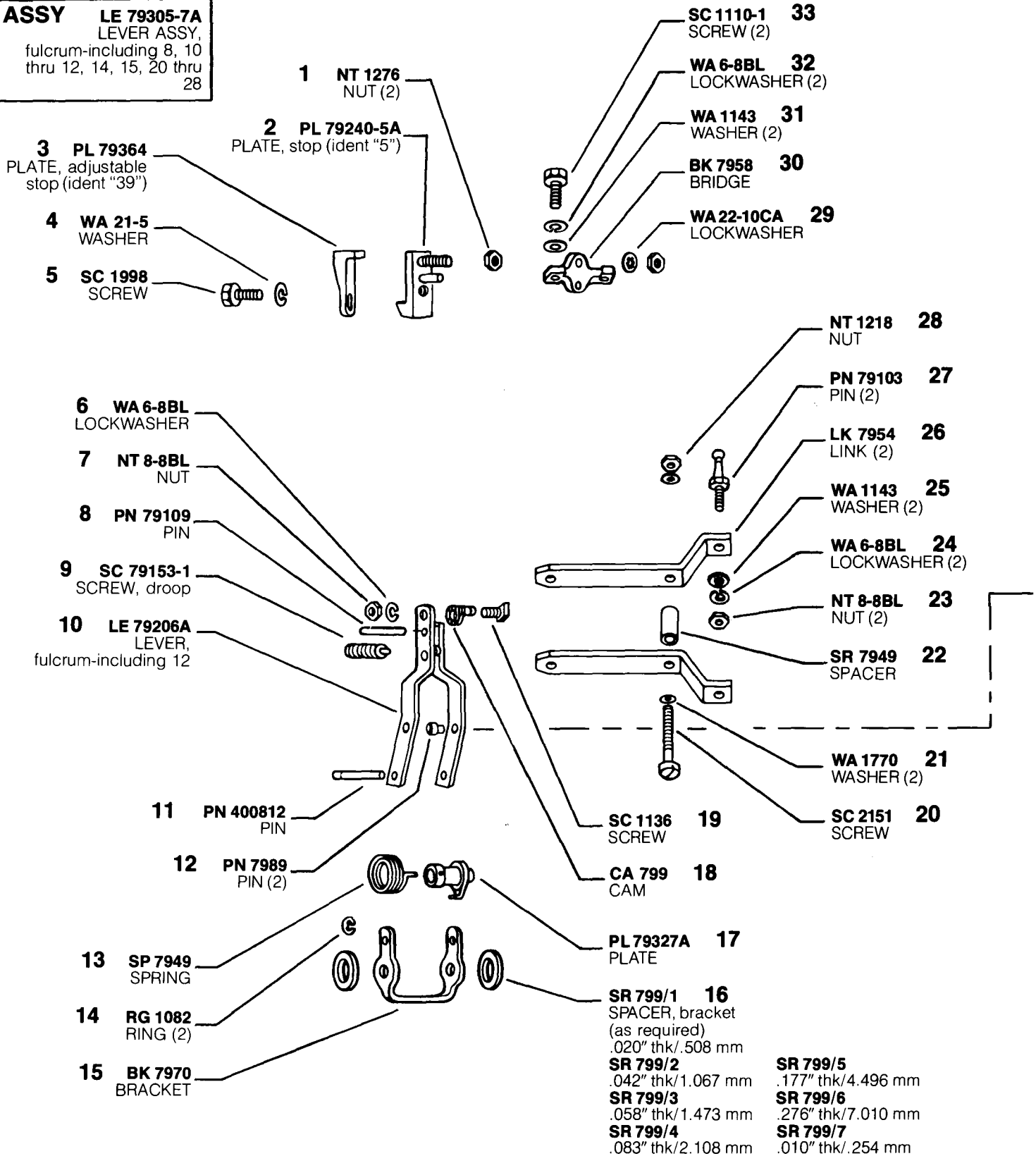
# MODEL APE 8VG 110A 6940A

**ASSY GVB/C 6941**  
GOVERNOR ASSY

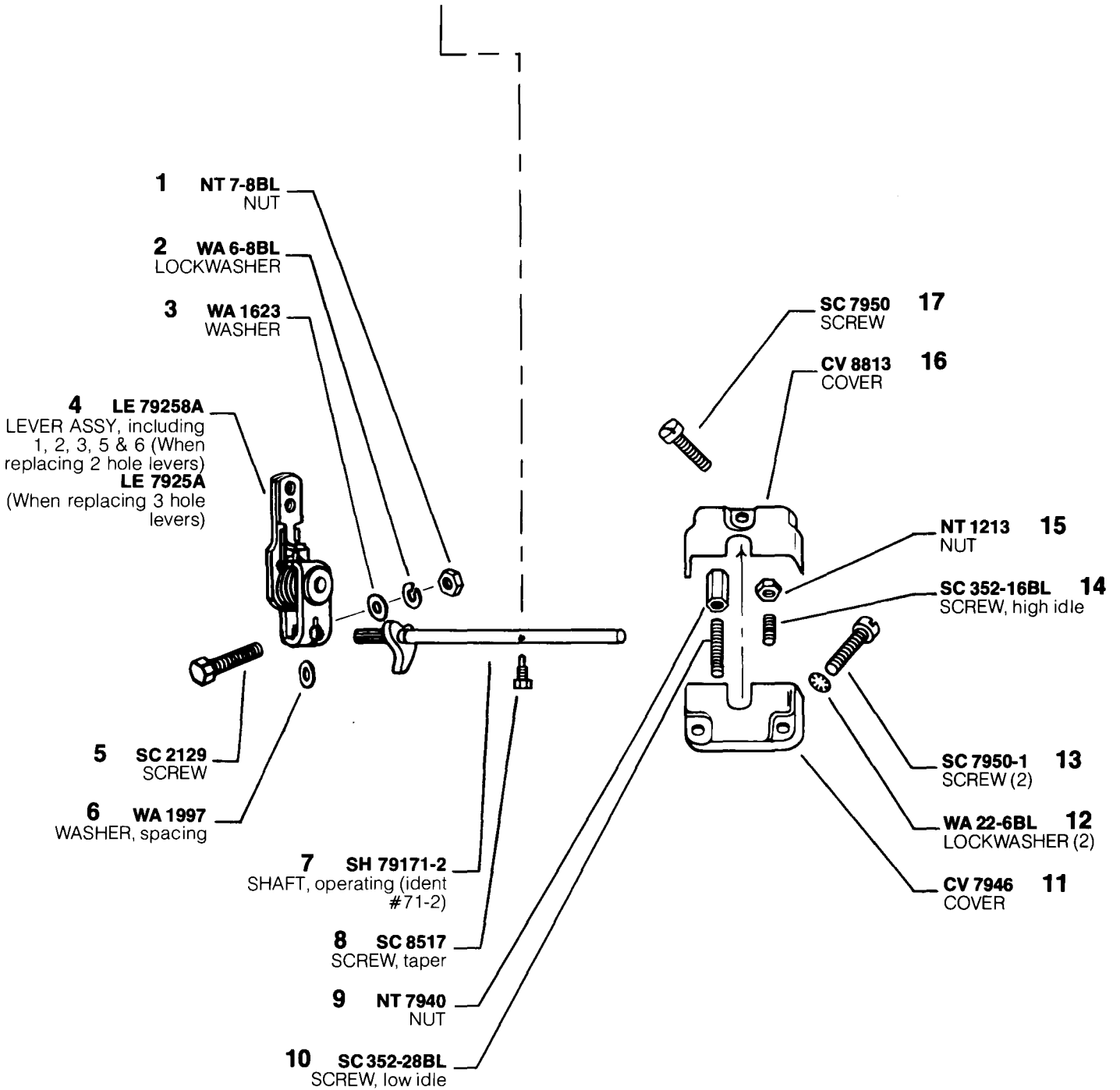


**MODEL APE 8VG 110A 6940A**

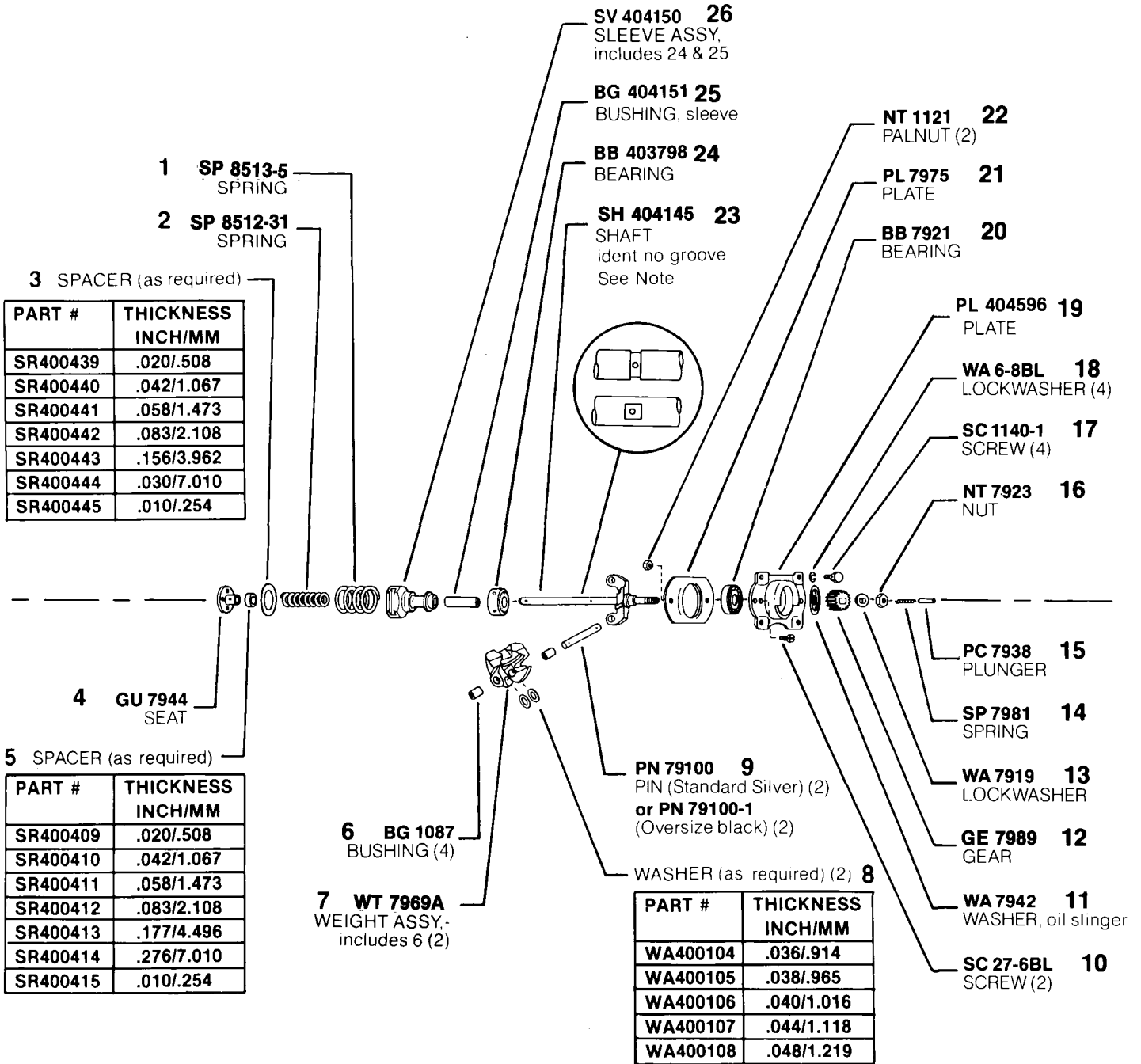
**ASSY LE 79305-7A**  
**LEVER ASSY,**  
 fulcrum-including 8, 10  
 thru 12, 14, 15, 20 thru  
 28



# MODEL APE 8VG 110 6940A



MODEL APE 8VG 110 6940A

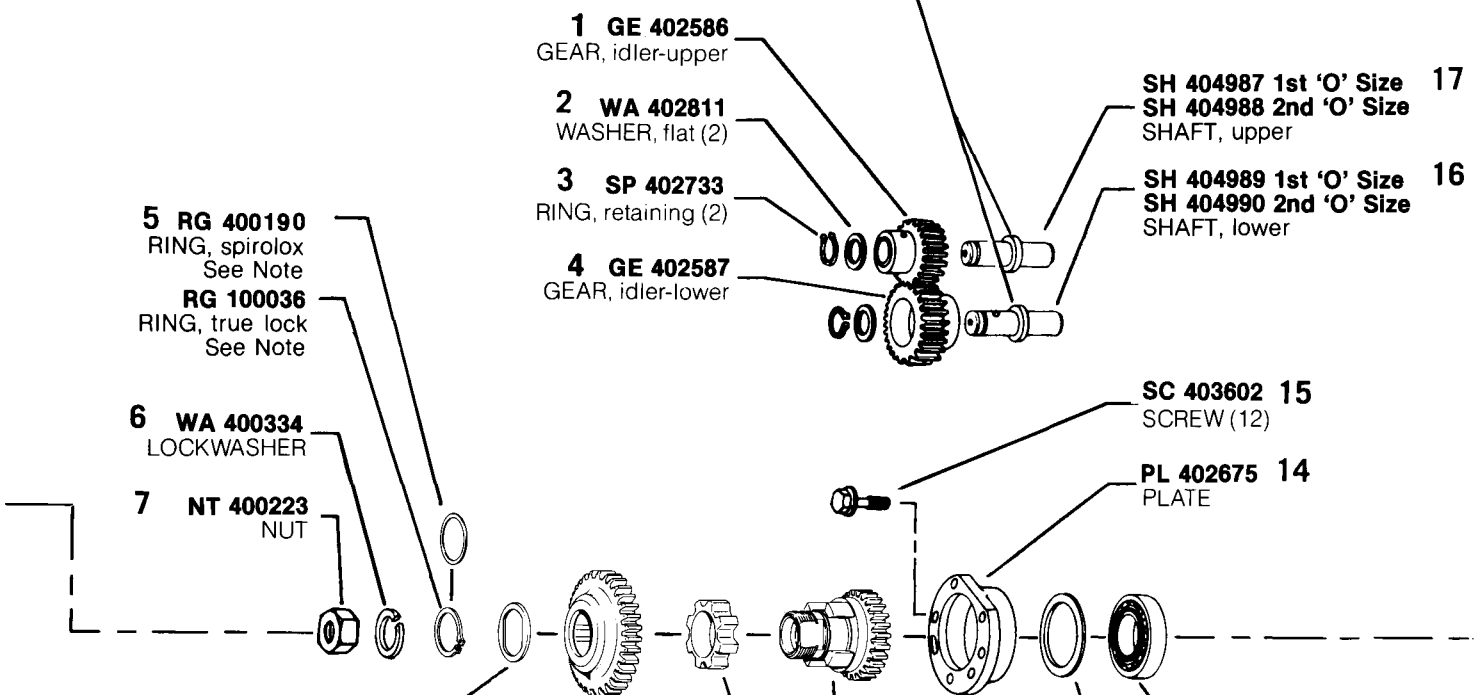
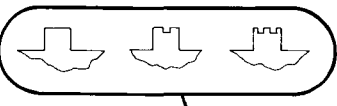


NOTE: When replacing shaft (#23 w/groove) with latest shaft (SH 404145 no groove) BG404151 (25) MUST be used. Shaft with groove used BG400118.

# MODEL APE 8VG 110A 6940A

**ASSY GE 408661**  
 (RUBBER DRIVE)  
 DRIVE ASSY-including  
 5, 8 thru 11  
 See Note

PRODUCTION - No Groove  
 1st 'O' SIZE - One Groove  
 2nd 'O' SIZE - Two Grooves



- 1 GE 402586**  
GEAR, idler-upper
- 2 WA 402811**  
WASHER, flat (2)
- 3 SP 402733**  
RING, retaining (2)
- 4 GE 402587**  
GEAR, idler-lower
- 5 RG 400190**  
RING, spirolox  
See Note
- RG 100036**  
RING, true lock  
See Note
- 6 WA 400334**  
LOCKWASHER
- 7 NT 400223**  
NUT
- SH 404987 1st 'O' Size** **17**
- SH 404988 2nd 'O' Size**  
SHAFT, upper
- SH 404989 1st 'O' Size** **16**
- SH 404990 2nd 'O' Size**  
SHAFT, lower

**8 SPACER (as required)**

PART #	THICKNESS INCH/MM
SR400191	.065/1.65
SR400192	.070/1.78
SR400193	.075/1.90
SR400194	.080/2.03
SR400195	.085/2.16
SR400196	.0625/1.59
SR400197	.060/1.52
SR400198	.0675/1.71
SR400199	.0725/1.84
SR400200	.0775/1.97
SR400201	.0825/2.10
SR400202	.0875/2.22

- SC 403602 15**  
SCREW (12)
- PL 402675 14**  
PLATE
- RB 400059 13**  
BEARING (2)

**Not Serviced 11**  
 GEAR & HUB,  
 drive- if replace-  
 ment is  
 necessary, use  
**GE 408661**

**IT 400189 10**  
 INSERT, drive

**Not Serviced 9**  
 GEAR, drive-if  
 replacement is  
 necessary, use  
**GE 408661**

**SPACER (as required) 12**

PART #	THICKNESS INCH/MM
SR402736	.002/.051
SR402737	.004/.102
SR402738	.006/.152
SR402739	.008/.203
SR402740	.012/.305
SR402741	.016/.406
SR402742	.032/.813

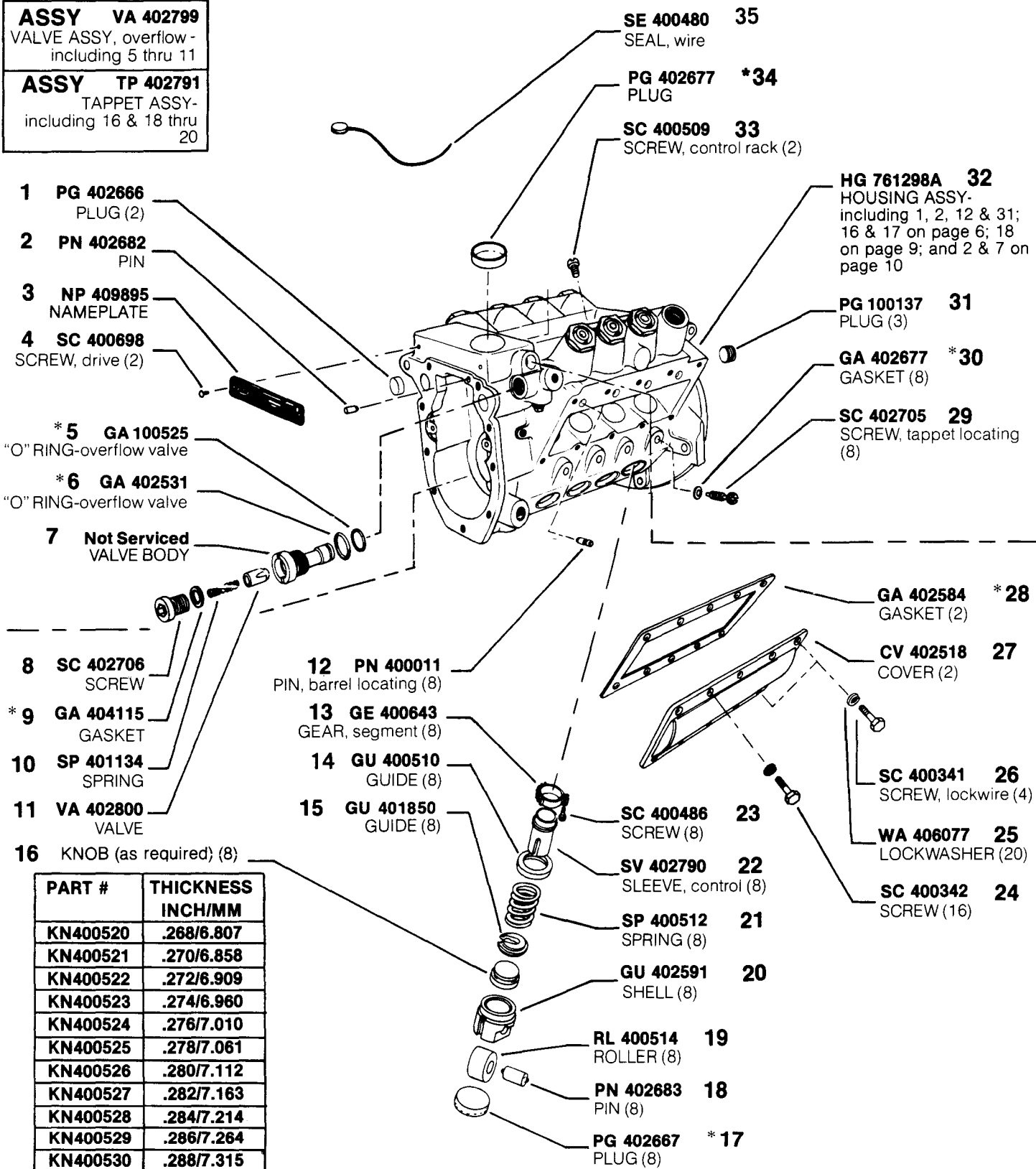
#5 NOTE: Earlier rubber drive assy GE 403795 used RG 400190 (Spirolox ring), later assy GE 408661 using RG 100036 (true lock ring). Spirolox & true lock rings are NOT interchangeable.

**ASSY** NOTE: Pumps equipped with GE 7991A "Friction Clutch" refer to Service Instructions Model 8VG Parts Bulletin P2 for Parts.

# MODEL APE 8VG 110 6940A

**ASSY VA 402799**  
VALVE ASSY, overflow -  
including 5 thru 11

**ASSY TP 402791**  
TAPPET ASSY-  
including 16 & 18 thru  
20



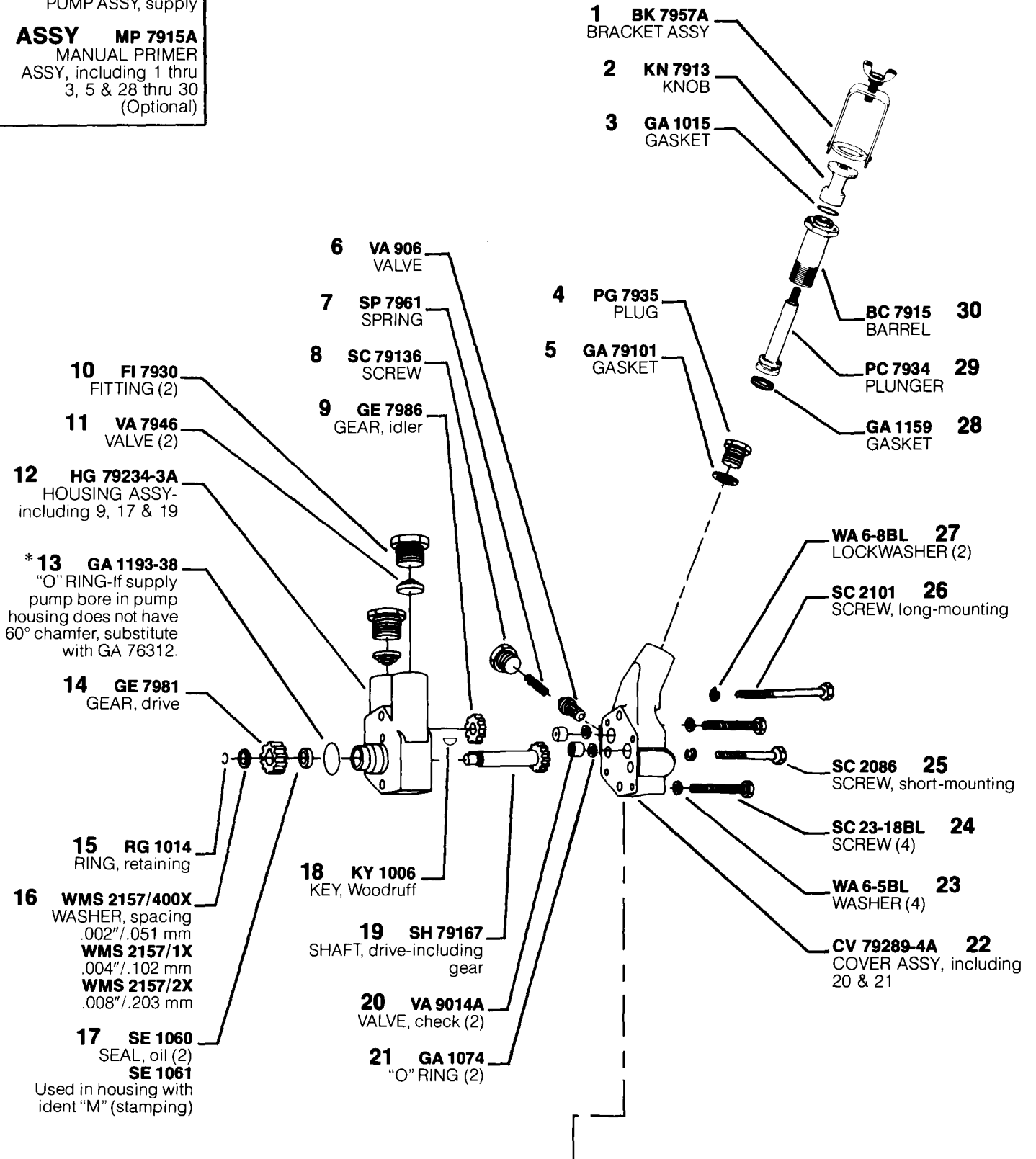
PART #	THICKNESS INCH/MM
KN400520	.268/6.807
KN400521	.270/6.858
KN400522	.272/6.909
KN400523	.274/6.960
KN400524	.276/7.010
KN400525	.278/7.061
KN400526	.280/7.112
KN400527	.282/7.163
KN400528	.284/7.214
KN400529	.286/7.264
KN400530	.288/7.315

\* Denotes parts included in Pump Repair Gasket Kit-KT 76480.

# MODEL APE 8VG 110 6940A

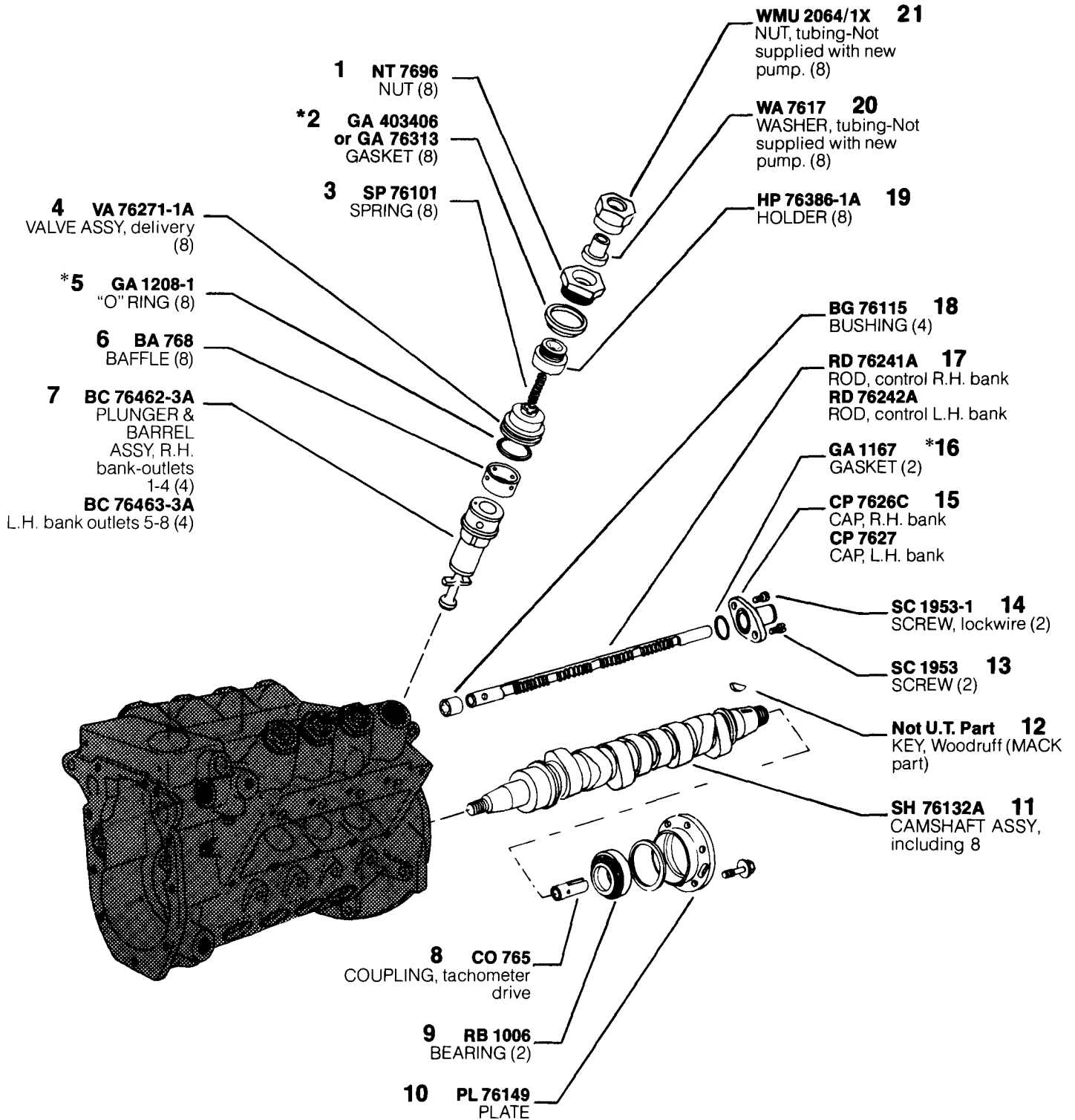
**ASSY SGE 20A6635A**  
PUMP ASSY, supply

**ASSY MP 7915A**  
MANUAL PRIMER  
ASSY, including 1 thru  
3, 5 & 28 thru 30  
(Optional)



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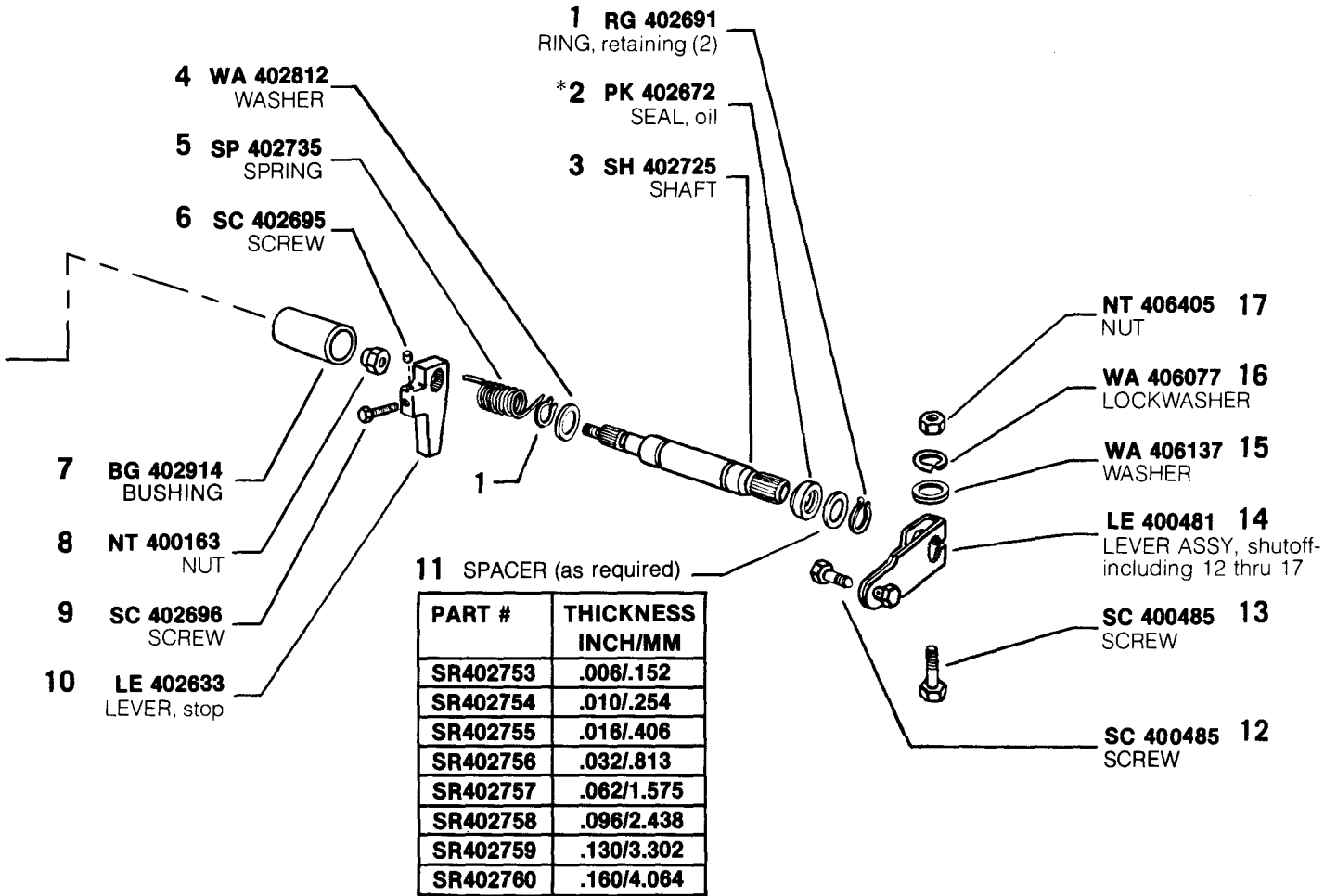
\*Denotes parts included in Pump Repair Gasket Kit-KT 76480.



# MODEL APE 8VG 110 6940A

\*Denotes parts included in Pump Repair Gasket Kit-KT 76480.

**ASSY LE 79298A**  
 LEVER ASSY, inner  
 stop-including 6, 9 & 10



\*Denotes parts included in Pump Repair Gasket Kit-KT 76480.

## MODEL APE 8VG 110 6940A



**CALIBRATION SET-UP**  
 Engine Holders ..... AKN 137M 6567 Code 2  
 Engine Nozzles ..... ADB 160M 215-7  
 High Pressure Tubing ..... 1/4" O.D. X .084" I.D. X 27" Long  
 Calibrating Oil ..... VISCOR 1487 @ 100°-105°F (38°-41°C)  
 at pump inlet  
 Lube Oil ..... SAE #20 or #30 at 20 psi at pump inlet  
**PROCEDURE:** Refer to Service Instructions and use figures below.

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**MACK  
 APE 8VG 110A 6940A**

6940 Code 1

**CODE DATA**

Engine Model ..... E9-441  
 Engine Static Timing ..... 17°  
 Customer No. .... 313 GC 5133-P22  
 Kit No. .... KT 76466-8  
 Customer Kit No. .... 313 GC 5133-P21  
 Governor Speeds ..... 300/1050  
 Cam Nose Angle ..... 92°-96°

Governor Outer Spring  
 Precompression ..... Flush to 0.5mm(.020")  
 Governor Inner  
 Spring Gap ..... 4.25-4.50mm(.158"-.167")  
 Lift to Port Closing ..... 3.00-3.20mm  
 (.118"-.126"), cam lift with L.H. bank control rack at  
 0.375" (full load position) extension

STEP	A	B	C	D
	Full Load at 0.375" Rack Ext	Cam Departure	Peak Torque (from actual A delivery)	Droop Screw (from actual A delivery)
RPM	<b>1050</b>	<b>1085-1095</b>	<b>800</b>	<b>750</b>
DEL cc/500 str	<b>93.5-99.5</b>	<b>NONE</b>	<b>+ 15.0 ± 3.5</b>	<b>+ 16.5 ± 3.5</b>
DEL cc/300 str	<b>56.0-59.5</b>	<b>NONE</b>	<b>+ 9.0 ± 2.0</b>	<b>+ 10.0 ± 2.0</b>

STEP	E	F	G
	"PLE"	Low Idle	Minimum Delivery
RPM	<b>800</b>	<b>325</b>	<b>75</b>
DEL cc/500 str	<b>61.0-65.0</b>	<b>14.0-22.0</b>	—
DEL cc/300 str	<b>37.0-39.0</b>	<b>8.5-13.5</b>	—
DEL cc/100 str	—	—	<b>12.0</b>

SERVICE CHECK — A, C & D are applicable