

6946

A thru D



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

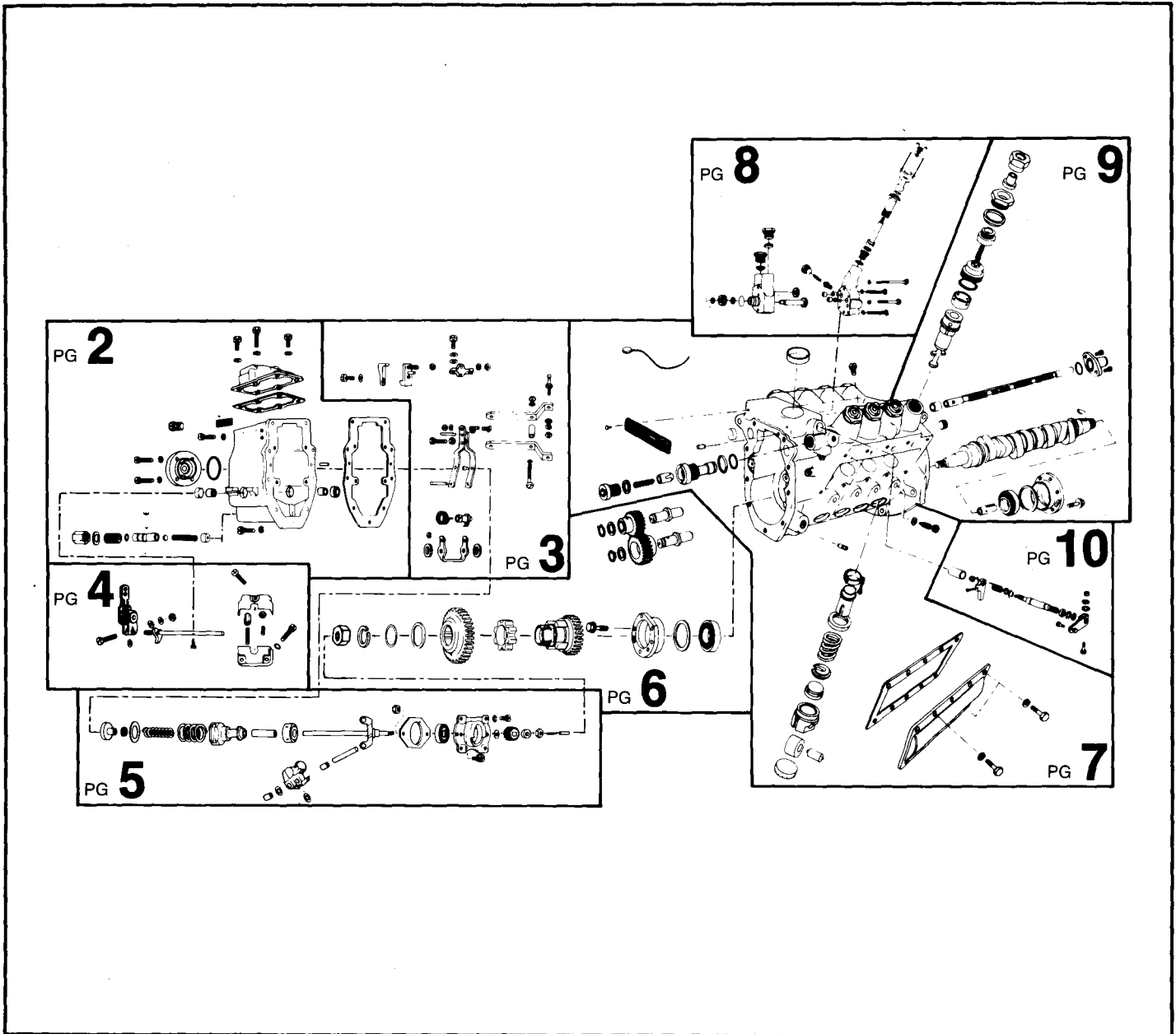
MACK
APE 8VG 110A 6946A thru D

Special Information:

SERVICE PARTS

Following are all parts, part numbers, pump codes and calibrations for the Model: APE 8VG 110A 6946A thru D. The exploded view drawing below is detailed with part numbers

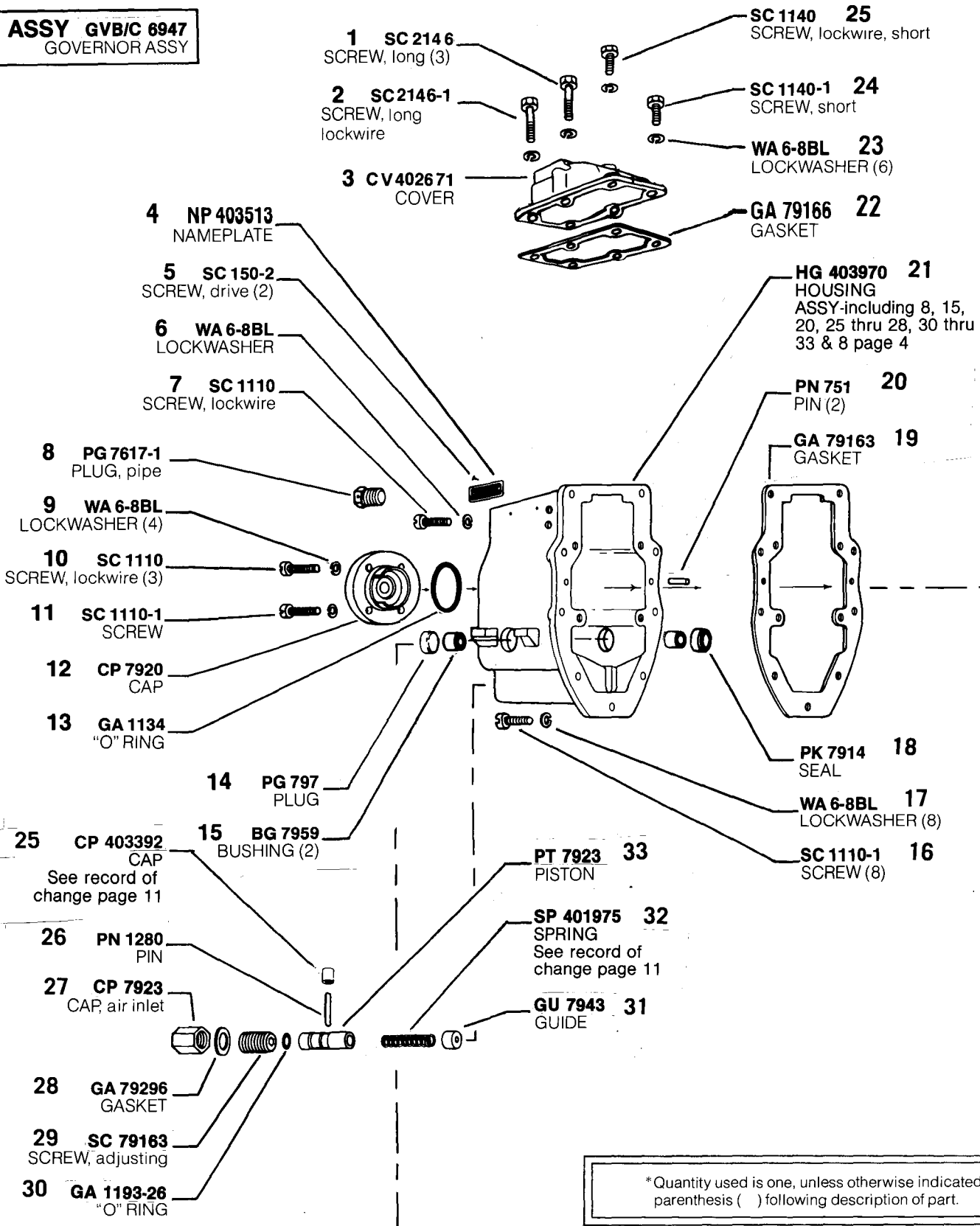
listed on the pages indicated. Refer to the Index Section for explanations of codes and abbreviations.



85121

MODEL APE 8VG 110A 6946A thru D

ASSY GVB/C 6947
GOVERNOR ASSY

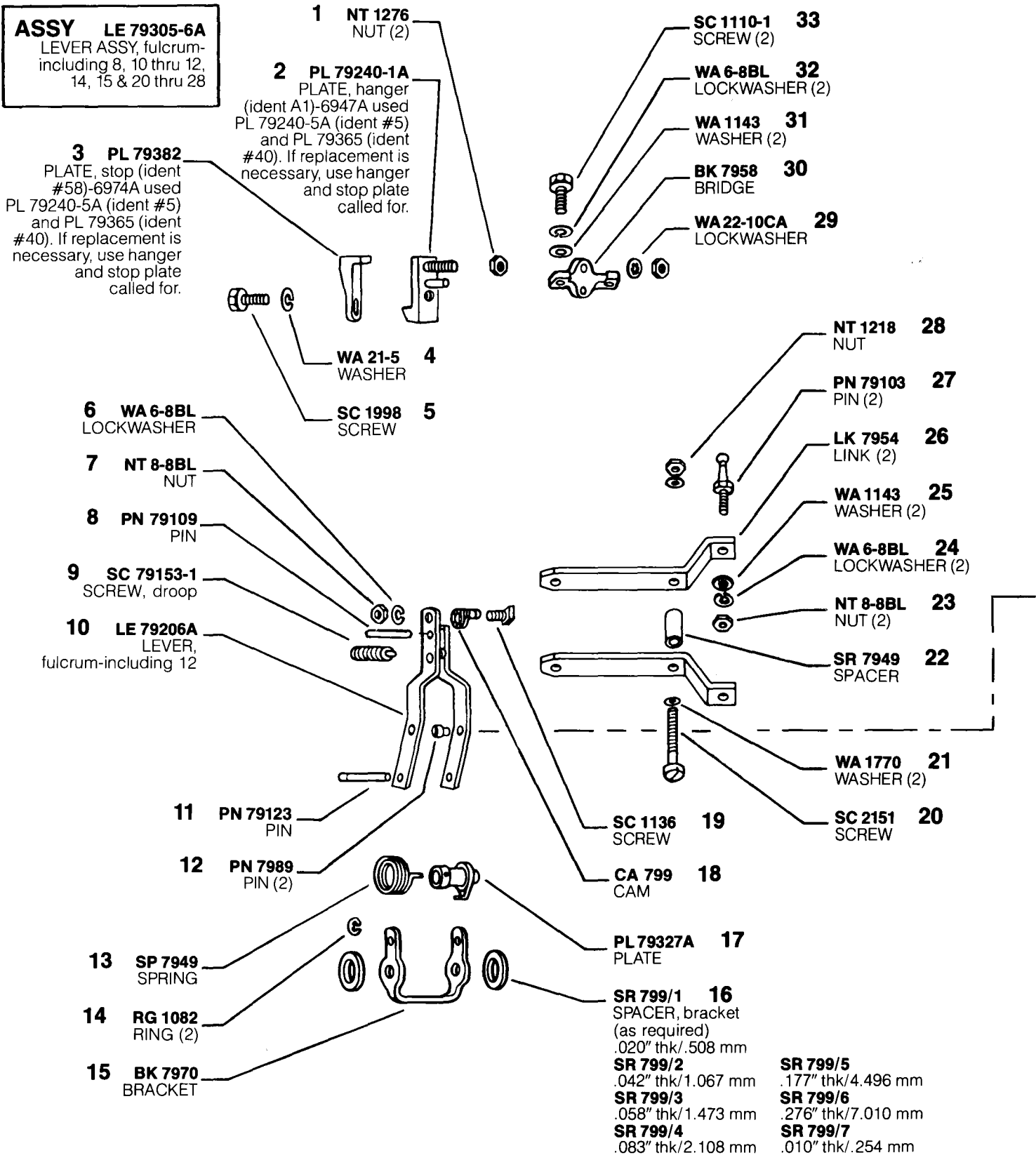


*Quantity used is one, unless otherwise indicated in parenthesis () following description of part.

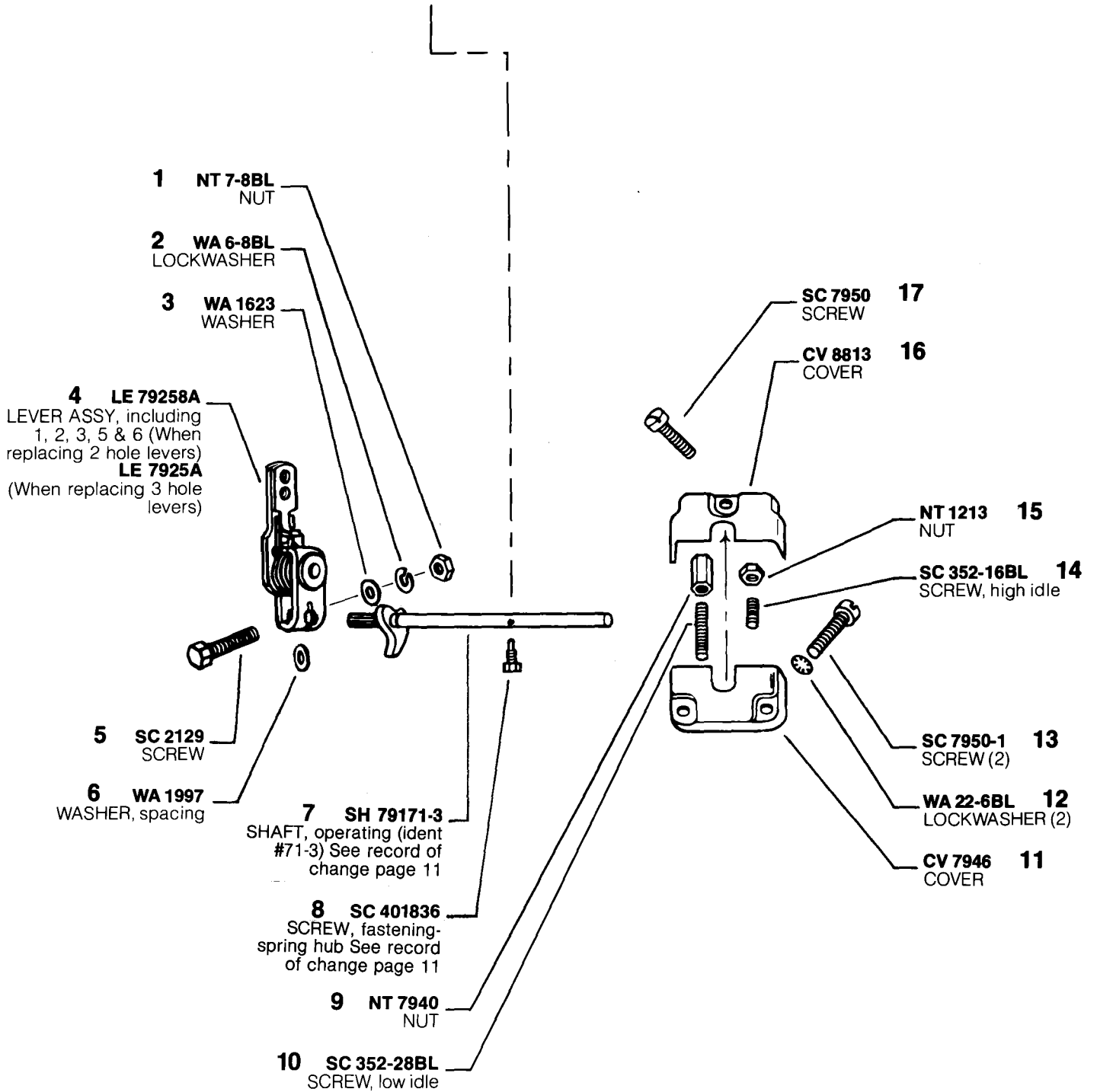
MODEL APE 8VG 110A 6946A thru D

ASSY LE 79305-6A

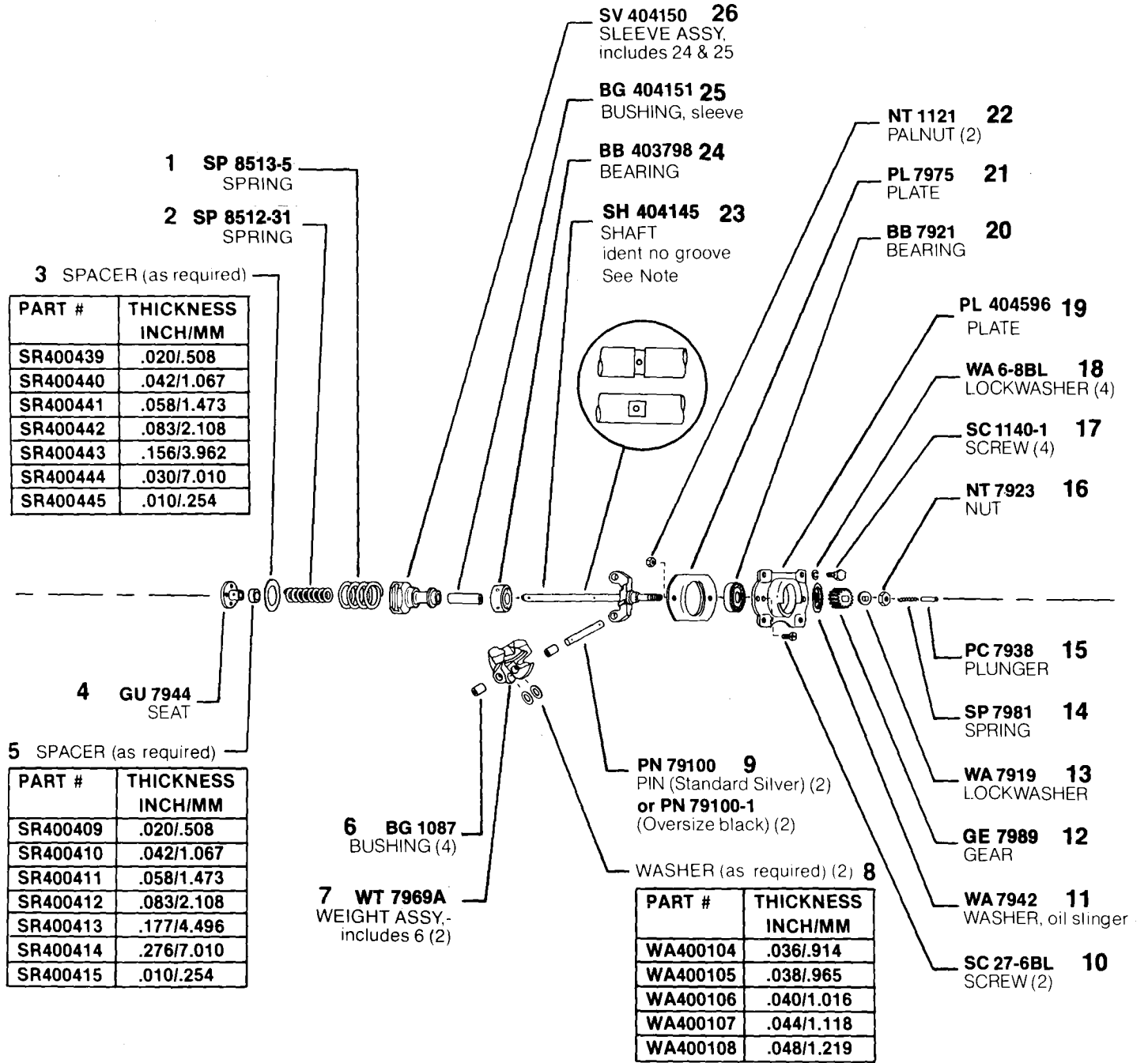
LEVER ASSY, fulcrum-including 8, 10 thru 12, 14, 15 & 20 thru 28



MODEL APE 8VG 110A 6946A thru D



MODEL APE 8VG 110A 6946A thru D

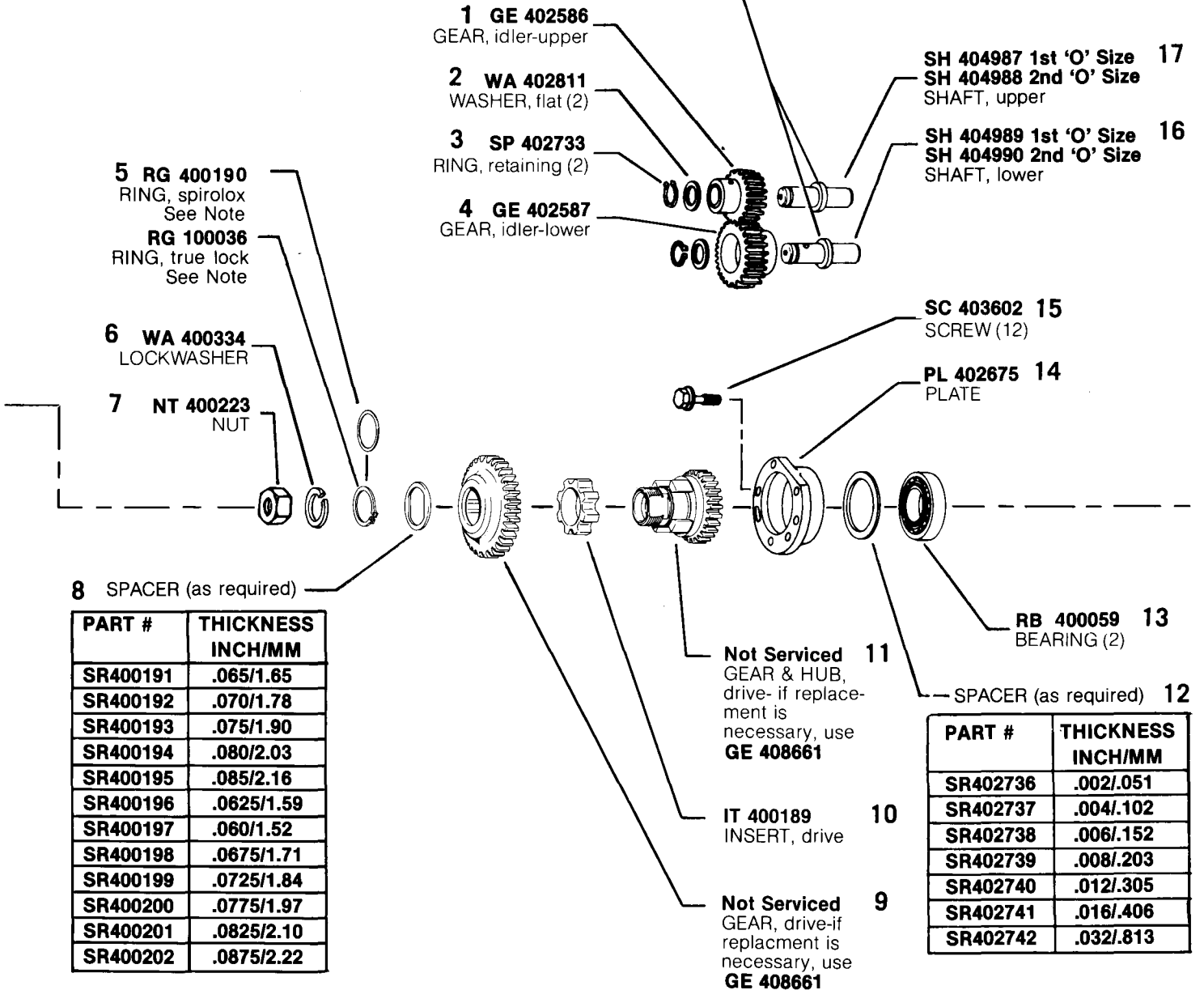
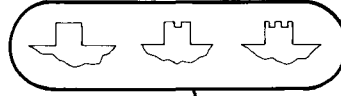


NOTE: When replacing shaft (#23 w/groove) with latest shaft (SH 404145 no groove) BG404151 (25) MUST be used. Shaft with groove used BG400118.

MODEL APE 8VG 110A 6946A thru D

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



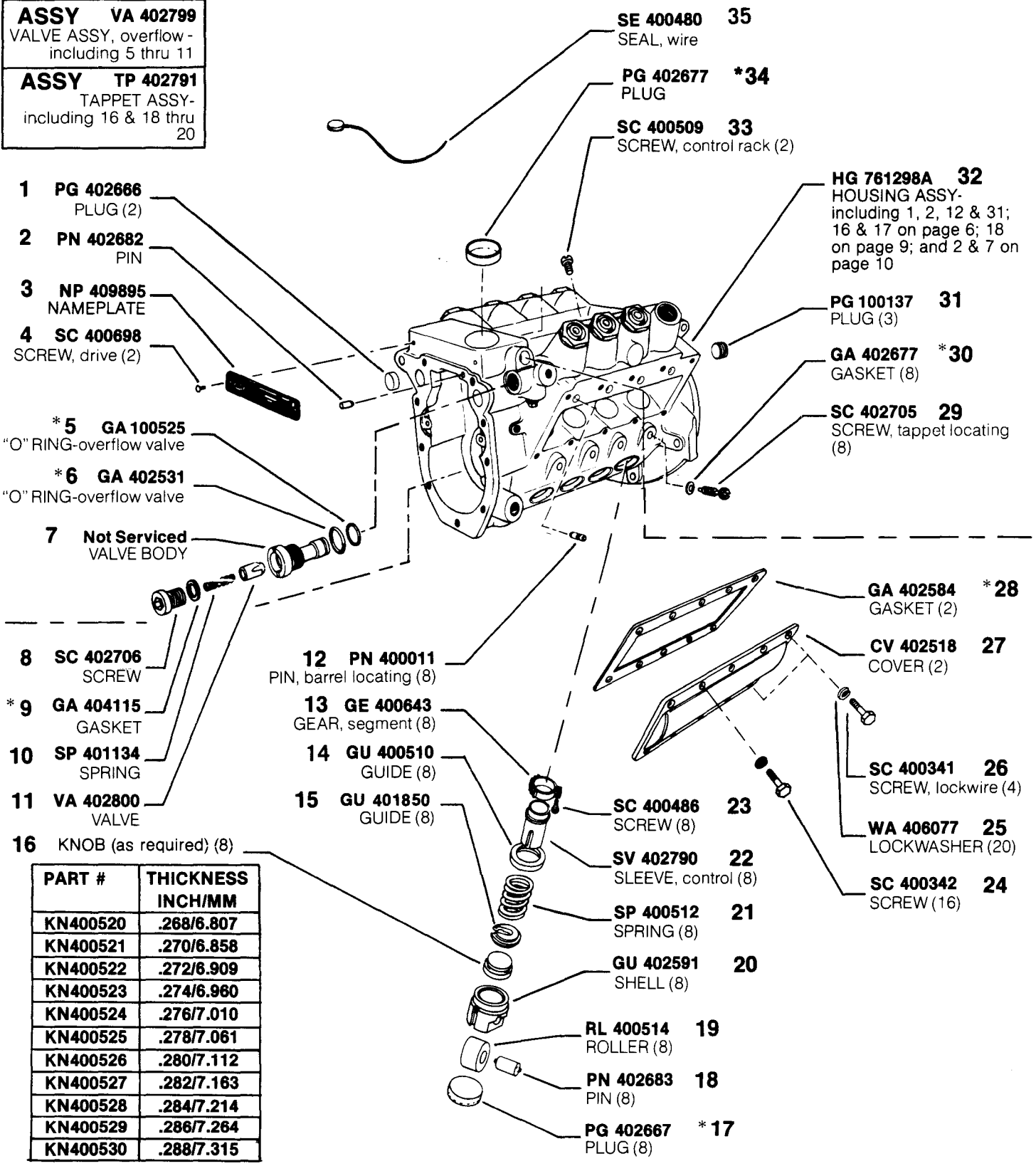
#5 NOTE: Earlier rubber drive assy GE 403795 used RG 400190 (Spirolox ring), later assy GE 408661 using RG 100036 (true lock ring). Spirolox & true lock rings are NOT interchangeable.

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

MODEL APE 8VG 110A 6946A thru D

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

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



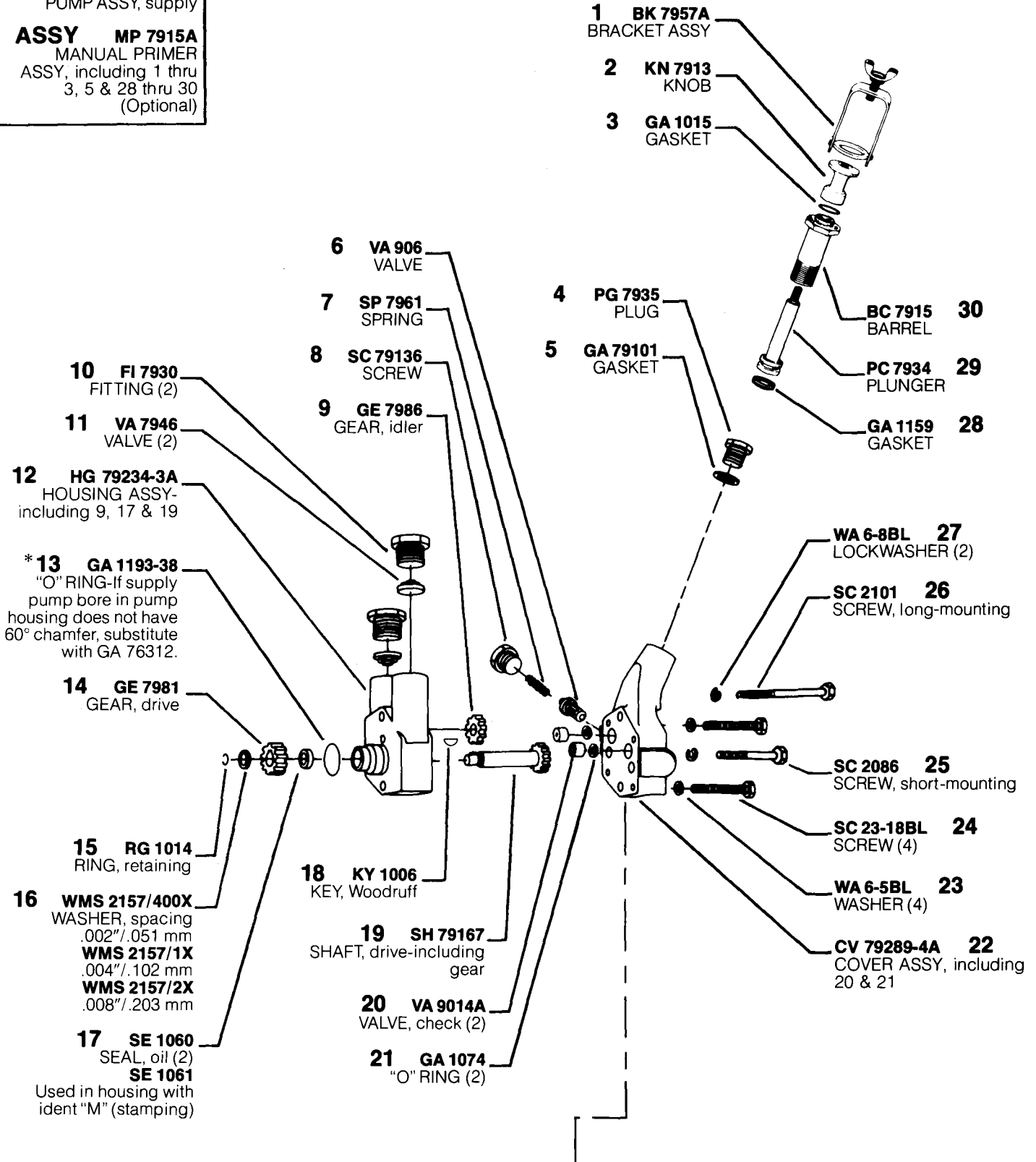
PART #	THICKNESS INCH/MM
KN400520	.268/6.807
KN400521	.270/6.858
KN400522	.272/6.909
KN400523	.274/6.960
KN400524	.276/7.010
KN400525	.278/7.061
KN400526	.280/7.112
KN400527	.282/7.163
KN400528	.284/7.214
KN400529	.286/7.264
KN400530	.288/7.315

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

MODEL APE 8VG 110A 6946A thru D

ASSY SGE 20A6635A
PUMP ASSY, supply

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



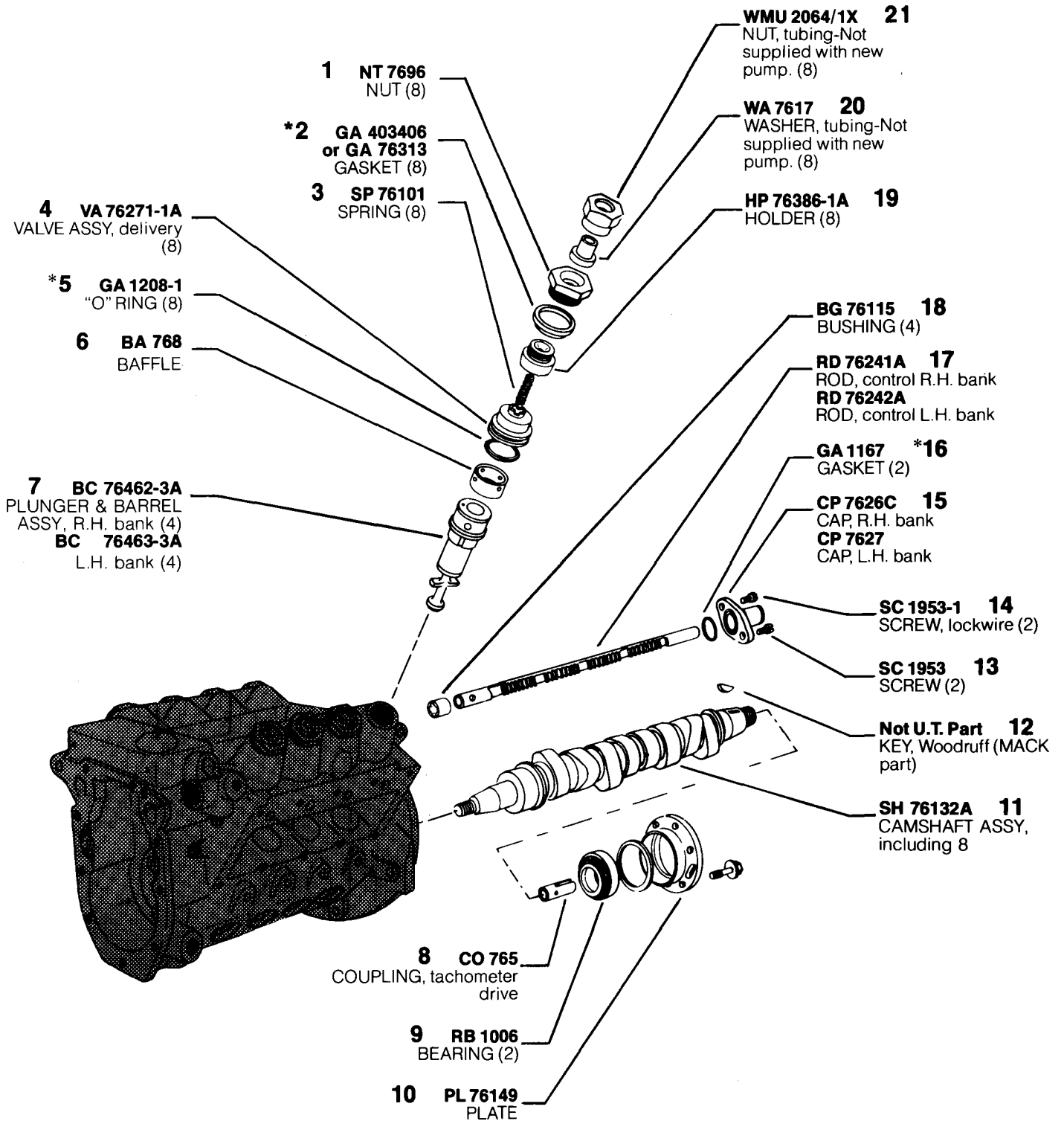
- 10 FI 7930
FITTING (2)
- 11 VA 7946
VALVE (2)
- 12 HG 79234-3A
HOUSING ASSY-
including 9, 17 & 19
- * 13 GA 1193-38
"O" RING-If supply
pump bore in pump
housing does not have
60° chamfer, substitute
with GA 76312.
- 14 GE 7981
GEAR, drive
- 15 RG 1014
RING, retaining
- 16 WMS 2157/400X
WASHER, spacing
.002"/.051 mm
WMS 2157/1X
.004"/.102 mm
WMS 2157/2X
.008"/.203 mm
- 17 SE 1060
SEAL, oil (2)
SE 1061
Used in housing with
ident "M" (stamping)

- 6 VA 906
VALVE
- 7 SP 7961
SPRING
- 8 SC 79136
SCREW
- 9 GE 7986
GEAR, idler
- 18 KY 1006
KEY, Woodruff
- 19 SH 79167
SHAFT, drive-including
gear
- 20 VA 9014A
VALVE, check (2)
- 21 GA 1074
"O" RING (2)

- 1 BK 7957A
BRACKET ASSY
- 2 KN 7913
KNOB
- 3 GA 1015
GASKET
- 4 PG 7935
PLUG
- 5 GA 79101
GASKET
- BC 7915 30
BARREL
- PC 7934 29
PLUNGER
- GA 1159 28
GASKET
- WA 6-8BL 27
LOCKWASHER (2)
- SC 2101 26
SCREW, long-mounting
- SC 2086 25
SCREW, short-mounting
- SC 23-18BL 24
SCREW (4)
- WA 6-5BL 23
WASHER (4)
- CV 79289-4A 22
COVER ASSY, including
20 & 21

MODEL APE 8VG 110A 6946A thru D

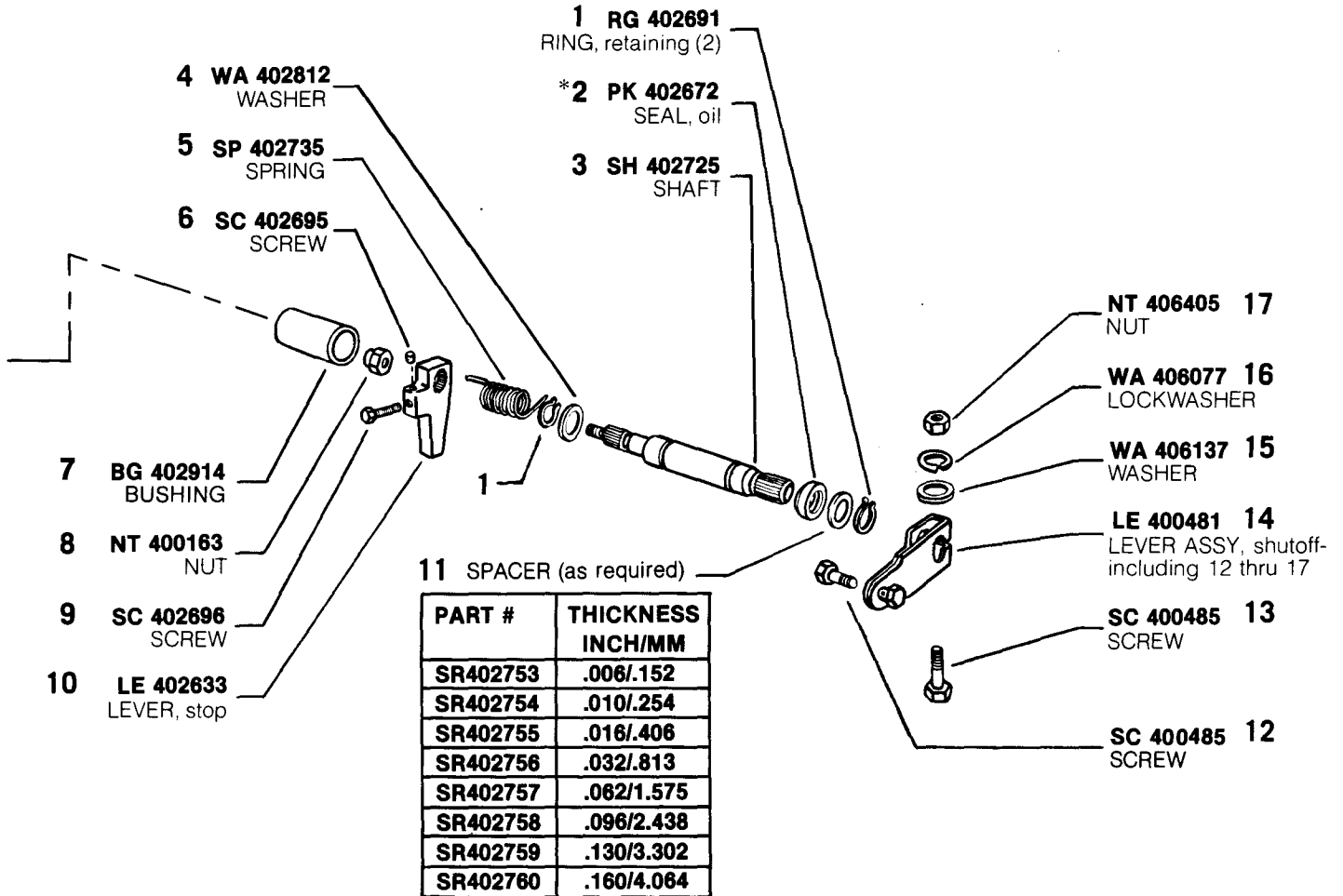
*Denotes parts included in Pump Repair Gasket Kit-KT 76480.



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

MODEL APE 8VG 110A 6946A thru D

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



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

MODEL APE 8VG 110A 6946A thru D



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
 Air Pressure 70-90 psi to air inlet cap
 PROCEDURE: Refer to Service Instructions and use figures below.

11

**MACK
 APE 8VG 110A 6946A thru D**

6946A1 thru D1

CODE DATA

Engine Model EM9-400	Governor Outer Spring
Engine Static Timing 17°	Precompression Flush to 0.5mm (.020")
Customer No. 313 GC 5133-P24	Governor Inner
Kit No. KT 76492-1	Spring Gap 4.25-4.50mm (.158"-.167")
Customer Kit No. 313 GC 5133-P23	Lift to Port Closing 3.00-3.20mm
Governor Speeds 300/1050	(.118"-.126"), cam lift with L.H. bank control rack at
Cam Nose Angle 92°-96°	0.350" (full load position) extension

STEP	A	B	C	D
	Full Load at 0.350" Rack Ext	Cam Departure	Peak Torque (from actual A delivery)	Droop Screw (from actual A delivery)
RPM	1000	1080-1090	700	615
DEL cc/500 str	84.0-88.5	NONE	+ 23.0 ± 3.0	+ 29.5 ± 3.5
DEL cc/300 str	50.0-53.0	NONE	+ 13.5 ± 2.0	+ 17.5 ± 2.0

STEP	E	F	G	H
	"PLE"	Low Idle	Minimum Delivery	"Dual Speed" Cam Departure
RPM	800	325	75	910-920
DEL cc/500 str	61.0-65.0	14.0-22.0	—	NONE
DEL cc/300 str	36.5-39.0	8.5-13.5	—	NONE
DEL cc/100 str	—	—	12.0	NONE

SERVICE CHECK — A, C & D are applicable

Calibration data consist of latest calibration figures. Earlier editions may require changing parts to meet calibration requirements. See record of change chart.

RECORD OF CHANGE

EDI-TION	CAP Dual Speed	SPRING Dual Speed	SET SCREW operating shaft	SHAFT operating
A	NONE	SP79120	SC8517	SH79171-2
B	NONE	SP79120	SC8517	SH79171-2
C	CP403392	SP401975	SC401836	SH79171-2
D	CP403392	SP401975	SC401836	SH79171-3

NOTE:

6946 A & B used HG 79301A. A & B edition should be updated to "C" edition to meet calibration requirement. HG79301A can be updated by changing spring (32 on p.2), and adding cap (25 on p.2) called for in parts list.

IMPORTANT:

SC401836 (8 on p.4) **MUST** be used when updating to "C" edition.