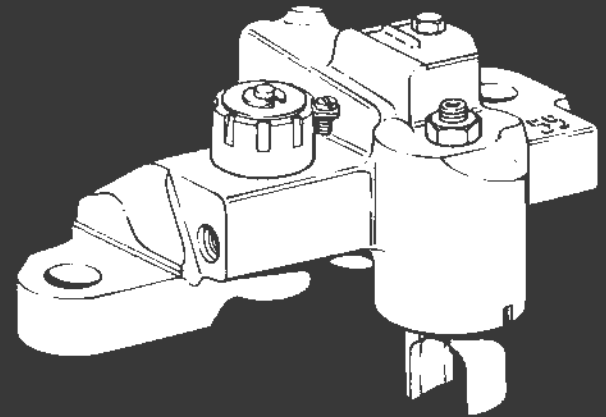


# Parts Manual for

*Jacobs*<sup>®</sup>  
**ENGINE  
BRAKE**



## Model 59, 59A & 59B

THE JACOBS ENGINE BRAKE, MODELS 59, 59A, AND 59B ARE DESIGNED FOR USE ON CUMMINS SMALL VEE ENGINES.

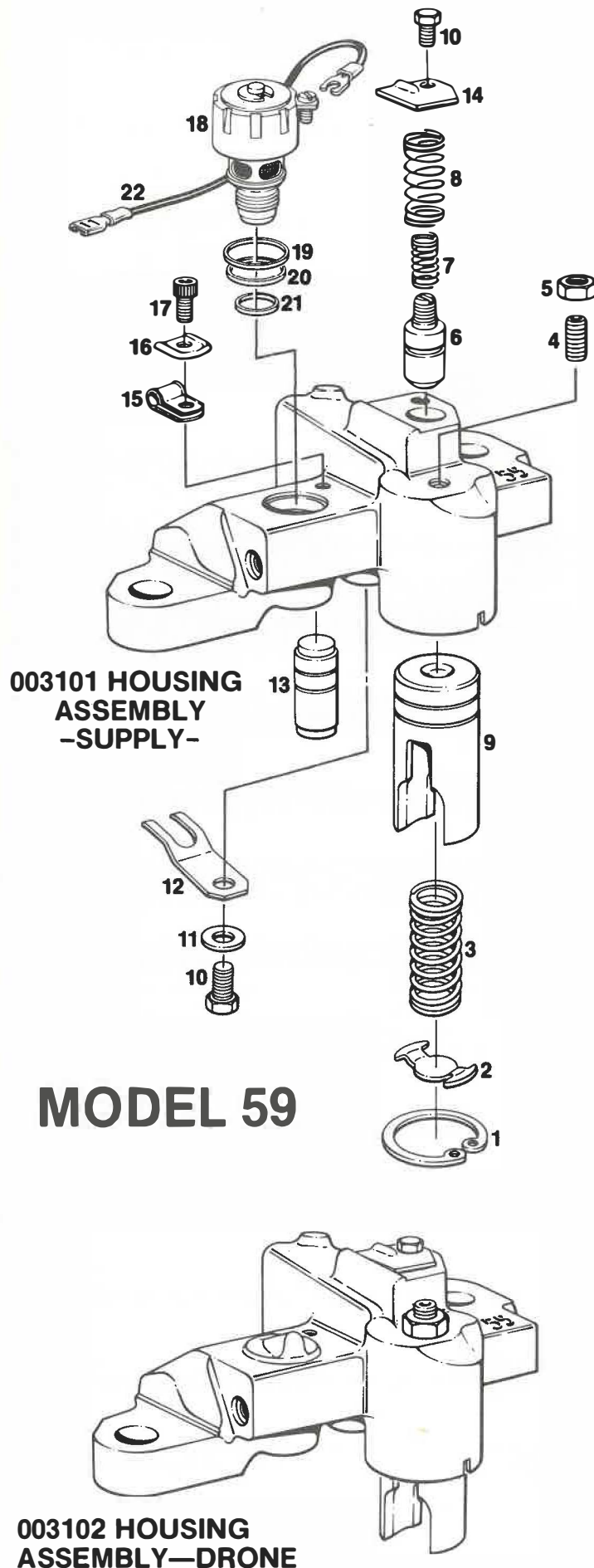
REFER TO THE JACOBS INSTALLATION MANUAL PN D11843 ENGLISH (PN D12229 SPANISH) FOR SPECIFIC ENGINE APPLICATION INFORMATION.



**The Jacobs Manufacturing Company**  
Vehicle Equipment Division  
Bloomfield, CT 06002 U.S.A.

# MODEL 59

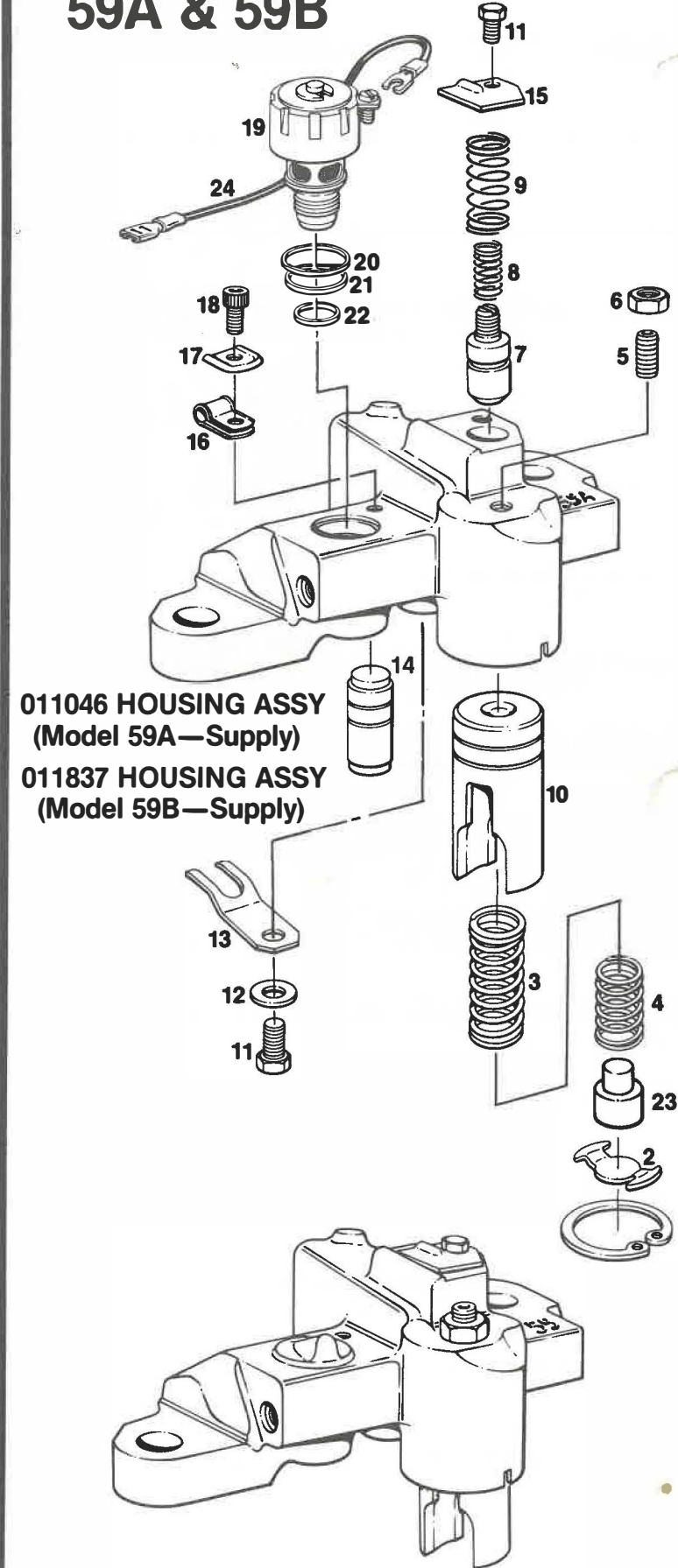
## MODELS 59A & 59B



003101 HOUSING ASSEMBLY—SUPPLY—

### MODEL 59

003102 HOUSING ASSEMBLY—DRONE



011046 HOUSING ASSY (Model 59A—Supply)

011837 HOUSING ASSY (Model 59B—Supply)

011047 HOUSING ASSY (Model 59A—Drone)  
011838 HOUSING ASSY (Model 59B—Drone)

### 003101 HOUSING ASSEMBLY—SUPPLY

Ill. No.	Part No.	Part Name	Qty/ Assy
1	001023	Ring—Retaining	1
2	001289	Retainer—Slave Piston Spring	1
3	001288	Spring—Slave Piston	1
4	001031	Set Screw—Flat Pt. Hex Socket	1
5	001026	Nut—Hex Jam	1
6	001521	Spool Assembly—Control Valve	1
7	003109	Spring—Control Valve	1
8	003110	Spring—Control Valve Stop	1
9	003108	Piston—Slave	1
10	001492	Capscrew—Hex Head	2
11	001030	Washer—Plain	1
12	003107	Spring—Master Piston	1
13	003106	Piston—Master	1
14	002221	Cover—Control Valve	1
15	002408	Clamp	1
16	001508	Washer—Solenoid Clamp	1
17	001722	Capscrew—Hex Socket Button Head	1
18	004205	Valve Assembly—Solenoid	1
19	001081	Seal—Ring. Upper	1
20	001082	Seal—Ring. Center	1
21	001083	Seal—Ring. Lower	1
22	002390	Harness—Solenoid	1

### 003102 HOUSING ASSEMBLY—DRONE

Ill. No.	Part No.	Part Name	Qty/ Assy
1	001023	Ring—Retaining	1
2	001289	Retainer—Slave Piston Spring	1
3	001288	Spring—Slave Piston	1
4	001031	Set Screw—Flat Pt. Hex Socket	1
5	001026	Nut—Hex Jam	1
6	001521	Spool Assembly—Control Valve	1
7	003109	Spring—Control Valve	1
8	003110	Spring—Control Valve Stop	1
9	003108	Piston—Slave	1
10	001492	Capscrew—Hex Head	2
11	001030	Washer—Plain	1
12	003107	Spring—Master Piston	1
13	003106	Piston—Master	1
14	002221	Cover—Control Valve	1

## MODELS 59A & 59B

011046 HOUSING ASSY (Model 59A—Supply)  
011837 HOUSING ASSY (Model 59B—Supply)

Ill. No.	Part No.	Part Name	Qty/ Assy 59A	59B
1	001023	Ring—Retaining	1	1
2	001289	Retainer—Slave Piston Spring	1	1
3	001288	Spring—Slave Piston	1	1
4	*006789	Spring—Slave Piston (Inner)	1	1
5	001031	Set Screw—Flat Pt. Hex Socket	1	1
6	001026	Nut—Hex Jam	1	1
7	001521	Spool Assembly—Control Valve	1	1
8	003109	Spring—Control Valve	1	1
9	*010843	Spring—Control Valve Stop	1	1
10	003108	Piston—Slave	1	1
10	011818	Piston—Slave (Domed)		1
11	001492	Capscrew—Hex Head	2	2
12	001030	Washer—Plain	1	1
13	003107	Spring—Master Piston	1	1
14	003106	Piston—Master	1	1
15	002221	Cover—Control Valve	1	1
16	002408	Clamp	1	1
17	001508	Washer—Solenoid Clamp	1	1
18	001722	Capscrew—Hex Socket Button Head	1	1
19	004205	Valve Assembly—Solenoid	1	1
20	001081	Seal—Ring. Upper	1	1
21	001082	Seal—Ring. Center	1	1
22	001083	Seal—Ring. Lower	1	1
23	*010841	Guide—Spring	1	1
24	002390	Harness—Solenoid	1	1

011047 HOUSING ASSY (Model 59A—Drone)  
011838 HOUSING ASSY (Model 59B—Drone)

Ill. No.	Part No.	Part Name	Qty/ Assy 59A	59B
1	001023	Ring—Retaining	1	1
2	001289	Retainer—Slave Piston Spring	1	1
3	001288	Spring—Slave Piston	1	1
4	*006789	Spring—Slave Piston (Inner)	1	1
5	001031	Set Screw—Flat Pt. Hex Socket	1	1
6	001026	Nut—Hex Jam	1	1
7	001521	Spool Assembly—Control Valve	1	1
8	003109	Spring—Control Valve	1	1
9	*010843	Spring—Control Valve Stop	1	1
10	003108	Piston—Slave	1	1
10	011818	Piston—Slave (Domed)		1
11	001492	Capscrew—Hex Head	2	2
12	001030	Washer—Plain	1	1
13	003107	Spring—Master Piston	1	1
14	003106	Piston—Master	1	1
15	002221	Cover—Control Valve	1	1
23	*010841	Guide—Spring	1	1

\*Model 59 housings can be converted to 59A assemblies by changing and adding these parts.

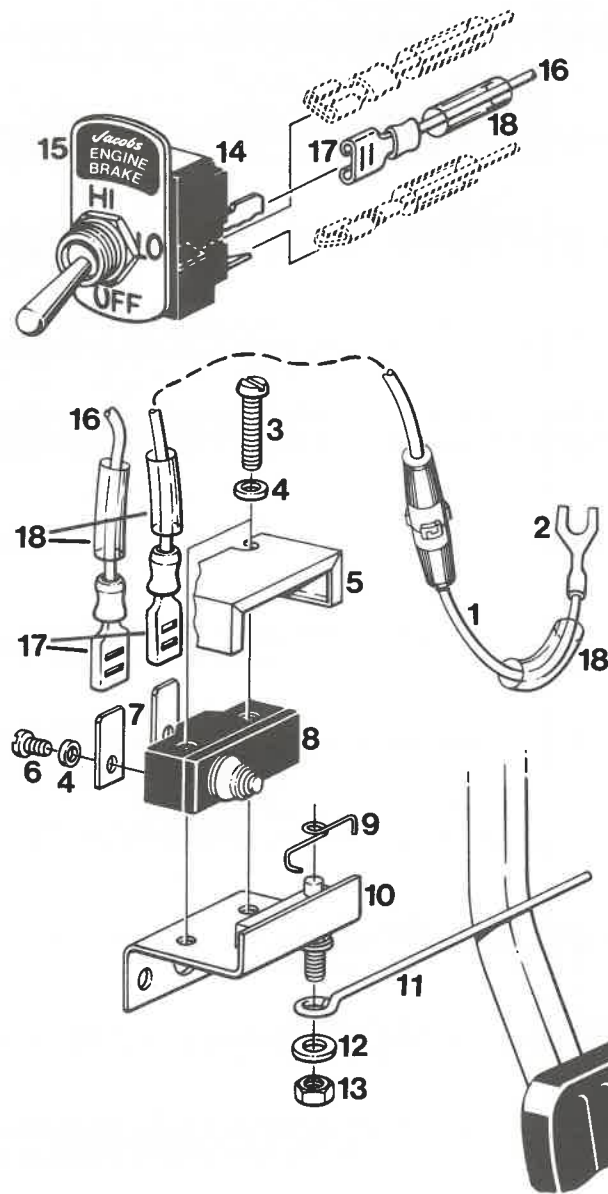
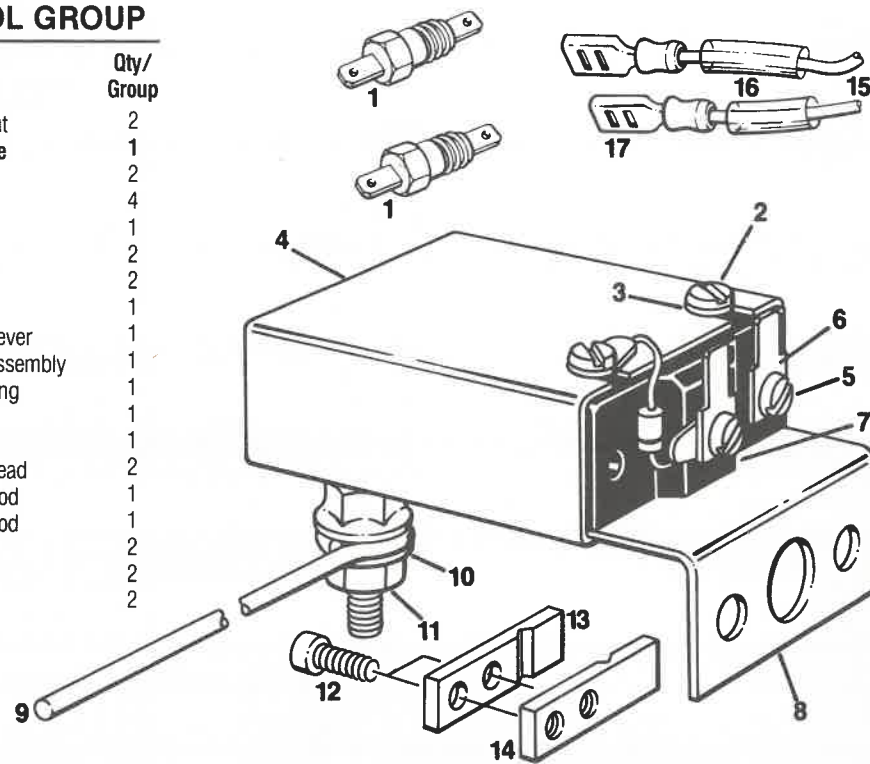
When replacing a Model 59 housing with a Model 59A housing all other housings shown be converted to 59A.

Model 59 and 59A housing assemblies cannot be converted to Model 59B assemblies because of differences in the machined housing.



### 003118 ENGINE CONTROL GROUP

Ill. No.	Part No.	Part Name	Qty/Group
1	002299	Terminal Assembly Leadout	2
	<b>001560</b>	<b>Switch Assembly—Throttle</b>	<b>1</b>
2	001244	• Screw—Tapping	2
3	001559	• Washer—Lock	4
4	001506	• Cover—Switch	1
5	001558	• Screw—Binder Head	2
6	001040	• Terminal	2
7	001218	• Switch	1
N.I.	001497	• Spring—Actuating Lever	1
8	002198	• Bracket and Lever Assembly	1
9	002183	• Rod—Switch Actuating	1
10	002190	• Washer—Flat	1
11	002186	• Nut—Hex	1
12	001126	Cap screw—Hex Socket Head	2
13	001124	Clamp—Throttle Control Rod	1
14	001125	Clamp—Throttle Control Rod	1
15	003881	Harness—Wiring	2
16	003708	Tube—Shrink	2
17	002014	Receptacle	2



### 003971 CAB CONTROL GROUP

Ill. No.	Part No.	Part Name	Qty/Group
1	003780	Harness—Engine Brake to Switch	1
2	003807	Terminal—Spade	1
	<b>001495</b>	<b>Switch Assembly—Clutch</b>	<b>1</b>
3	001244	• Screw—Tapping	2
4	001559	• Washer—Lock	4
5	001506	• Cover—Switch	1
6	001558	• Screw—Binder Head	2
7	001040	• Terminal	2
8	001218	• Switch	1
9	001497	• Spring—Actuating Lever	1
10	002198	• Bracket and Lever Assembly	1
11	002183	• Rod—Switch Actuating	1
12	002190	• Washer—Flat	1
13	002186	• Nut—Hex	1
	<b>003776</b>	<b>Switch Assembly—Dash</b>	<b>1</b>
14	003586	• Switch—Toggle (3-Position)	1
15	003777	• Plate—Switch	1
16	003781	Harness—Wire	1
N.I.	006833	Tie—Cable	12
17	003278	Receptacle	5
18	003707	Tube—Shrink	6
N.I.	003972	Wiring Diagram	1

### 003135 HOUSING ATTACHING PARTS GROUP (For V6 Engines and V8 Big Cam Engines with 1/2" Cylinder Head Bolts)

Ill. No.	Part No.	Part Name	Qty/Group
1	*011392	Crosshead—Exhaust Valve	6
2	001764	Screw—Injector Rocker Lever Adjusting	6
3	**011995	Nut—Brake Housing (Holddown)	8
4	003125	Spacer—End Unit	2
5	003122	Stud—Machined Assembly	8
6	003127	Washer—Cylinder Head Stud	8
7	003293	Sleeve—Stud Guide	12
8	*011426	Screw Adjusting	6

### 003300 HOUSING ATTACHING PARTS GROUP (For V6 Engines and V8 Big Cam Engines with 5/16" Cylinder Head Bolts)

Ill. No.	Part No.	Part Name	Qty/Group
1	*011392	Crosshead—Exhaust Valve	6
2	001764	Screw—Injector Rocker Lever Adjusting	6
3	**011996	Nut—Brake Housing (Holddown)	8
4	003125	Spacer—End Unit	2
5	003294	Stud—Machined Assembly	8
6	003298	Washer—Cylinder Head Stud	8
8	*011426	Screw Adjusting	6

\*PN 011392 Crosshead replaces Crosshead PN 003120, PN 011426 replaces the Cummins adjusting screw.  
\*\*PN 011995 Nut replaces PN 003126 Nut, PN 01196 Nut replaces PN 003297 Nut.

### 003119 HOUSING ATTACHING PARTS GROUP (For V8 Small Cam Engines with 1/2" Cylinder Head Bolts)

Ill. No.	Part No.	Part Name	Qty/Group
1	*011392	Crosshead—Exhaust Valve	8
2	001764	Screw—Injector Rocker Lever Adjusting	8
3	*011995	Nut—Brake Housing (Holddown)	10
4	003125	Spacer—End Unit	2
5	003122	Stud—Machined Assembly	10
6	003127	Washer—Cylinder Head Stud	10
7	003293	Sleeve—Stud Guide	16
8	*011426	Screw Adjusting	8

### 003299 HOUSING ATTACHING PARTS GROUP (For V8 Small Cam Engines with 5/16" Cylinder Head Bolts)

Ill. No.	Part No.	Part Name	Qty/Group
1	*011392	Crosshead—Exhaust Valve	8
2	001764	Screw—Injector Rocker Lever Adjusting	8
3	*011996	Nut—Brake Housing (Holddown)	10
4	003125	Spacer—End Unit	2
5	003294	Stud—Machined Assembly	10
6	003298	Washer—Cylinder Head Stud	10
8	*011426	Screw Adjusting	8

### OPTIONAL EQUIPMENT

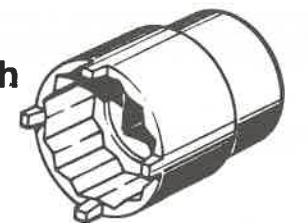
#### 003218 TOOL KIT (Not Illustrated)

Ill. No.	Part No.	Part Name	Qty/Kit
-	011494	Wrench—Solenoid Valve	1
-	001137	Plier—Truarc	1
-	002536	Hex Key	1
-	001138	Hex Key	1
-	001853	Hex Key	1
-	011747	Gauge—Feeler (.038") 0.96 mm (.028") 0.71 mm	1

#### SOLENOID REPLACEMENT PARTS (Not Illustrated)

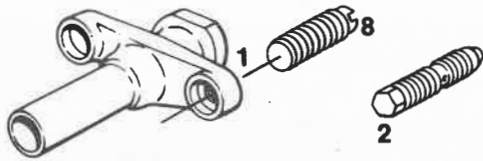
Ill. No.	Part No.	Part Name	Qty/Assy
-	1282	Screen—Solenoid	1
-	1283	Retainer—Solenoid Screen	1

#### Solenoid Wrench P/N 011494



#### Feeler Gauge





**003135 HOUSING ATTACHING PARTS GROUP**  
(For V6 Engines and V8 Big Cam Engines  
with 1/2" Cylinder Head Bolts)

Ill. No.	Part No.	Part Name	Qty/Group
1	*011392	Crosshead—Exhaust Valve	6
2	001764	Screw—Injector Rocker Lever Adjusting	6
3	**011995	Nut—Brake Housing (Holddown)	8
4	003125	Spacer—End Unit	2
5	003122	Stud—Machined Assembly	8
6	003127	Washer—Cylinder Head Stud	8
7	003293	Sleeve—Stud Guide	12
8	*011426	Screw Adjusting	6

**003119 HOUSING ATTACHING PARTS GROUP**  
(For V8 Small Cam Engines with 1/2" Cylinder  
Head Bolts)

Ill. No.	Part No.	Part Name	Qty/Group
1	*011392	Crosshead—Exhaust Valve	8
2	001764	Screw—Injector Rocker Lever Adjusting	8
3	*011995	Nut—Brake Housing (Holddown)	10
4	003125	Spacer—End Unit	2
5	003122	Stud—Machined Assembly	10
6	003127	Washer—Cylinder Head Stud	10
7	003293	Sleeve—Stud Guide	16
8	*011426	Screw Adjusting	8

**003300 HOUSING ATTACHING PARTS GROUP**  
(For V6 Engines and V8 Big Cam Engines  
with 3/16" Cylinder Head Bolts)

Ill. No.	Part No.	Part Name	Qty/Group
1	*011392	Crosshead—Exhaust Valve	6
2	001764	Screw—Injector Rocker Lever Adjusting	6
3	**011996	Nut—Brake Housing (Holddown)	8
4	003125	Spacer—End Unit	2
5	003294	Stud—Machined Assembly	8
6	003298	Washer—Cylinder Head Stud	8
8	*011426	Screw Adjusting	6

**003299 HOUSING ATTACHING PARTS GROUP**  
(For V8 Small Cam Engines with 3/16" Cylinder  
Head Bolts)

Ill. No.	Part No.	Part Name	Qty/Group
1	*011392	Crosshead—Exhaust Valve	8
2	001764	Screw—Injector Rocker Lever Adjusting	8
3	*011996	Nut—Brake Housing (Holddown)	10
4	003125	Spacer—End Unit	2
5	003294	Stud—Machined Assembly	10
6	003298	Washer—Cylinder Head Stud	10
8	*011426	Screw Adjusting	8

\*PN 011392 Crosshead replaces Crosshead PN 003120, PN 011426 replaces the Cummins adjusting screw.

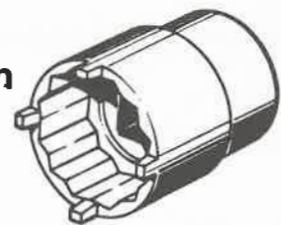
\*\*PN 011995 Nut replaces PN 003126 Nut, PN 01196 Nut replaces PN 003297 Nut.

**OPTIONAL EQUIPMENT**

**003218 TOOL KIT (Not Illustrated)**

Ill. No.	Part No.	Part Name	Qty/Kit
-	011494	Wrench—Solenoid Valve	1
-	001137	Plier—Truarc	1
-	002536	Hex Key	1
-	001138	Hex Key	1
-	001853	Hex Key	1
-	011747	Gauge—Feeler (.038") 0.96 mm (.028") 0.71 mm	1

**Solenoid Wrench**  
**P/N 011494**



**SOLENOID REPLACEMENT PARTS**  
(Not Illustrated)

Ill. No.	Part No.	Part Name	Qty/Assy
-	1282	Screen—Solenoid	1
-	1283	Retainer—Solenoid Screen	1

**Feeler Gauge**

