

Section 7 - Level 3 Group 5

Injector Component Rebuild Tools Group

This section contains major component rebuild tools for the Injectors Group family. See below for a general description of contents for this grouping of tools.

This tool is used to seat the check ball in the injector body on the older

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tools were used on older model injectors prior to the introduction of PTD injectors

Injector Assembly and Setting Tools

ST 1255

Injector Assembly Stand

Engines Series A1 Except B and C Series

This tool set is an air cylinder to supply power to assembly stand when assembling injectors as compared to 2375054. The tool contains the necessary adapters to connect all O-ring seals.



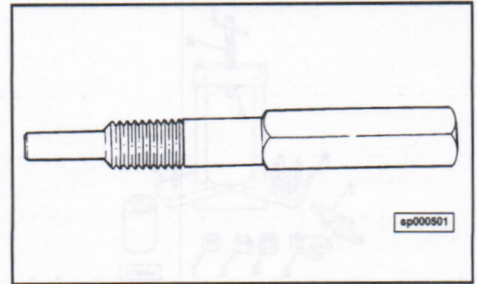
Ref. No.	Part No.	Description
1	ST 1296-5111	Air Cylinder
2	ST 1296-51	Adapter
3	3376758	Air Filter/Regulator
4	ST 1145-9	Pressure Gauge
7	3376757	Air Switch
8	ST 935	Cup Wrench (PT V805, V02, L10, K15, K38, K50) PTD
9	3375748	Cup Wrench (J & J V378, V384, V555)
10	ST 1343	Cup Wrench (PTB & PTC Flanged 1/2 Plunger (NH, 12 V8-200/V8-235 V8 300, V18-230)
11	ST 4072	Crowfoot Wrench
12	3375100	Loading Plate PTD & PTC Flanged Type
13	2375101	Loading Plate (PTC)
14	3375102	Body Wrench
15	2375103	Upper Gauge Bushing

Ball Seat Tools

ST 718 Ball Seating Tool

Engine Series: All with Cylindrical Injectors PT Type B and C

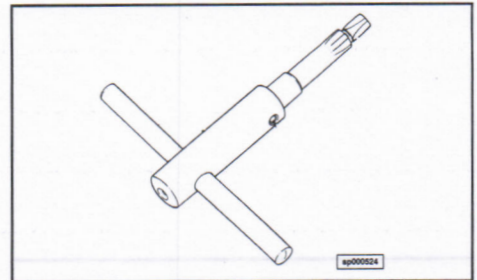
This tool is used to seat the check ball in the injector body on the older model cylindrical injectors PTB and PTC.



ST 955 Injector Ball Seat Cutter

Engine Series: All with PT Injectors Type B and C

This special cutter is used to reface the check ball seat surface in the injector body for the older model injectors (PTB and PTC). These injectors were used on older model injectors prior to the introduction of PTD injectors.

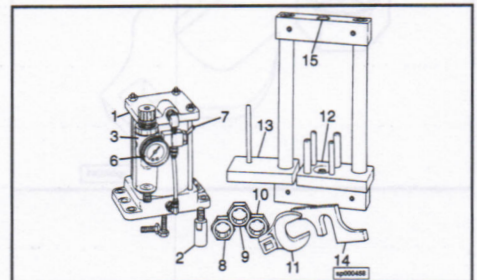


Injector Assembly and Setting Tools

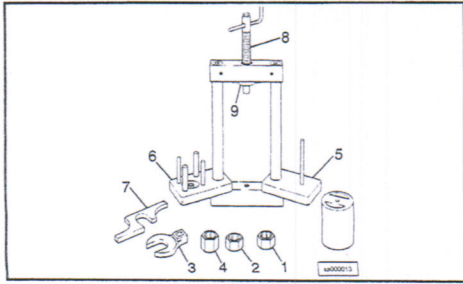
ST 1298 Injector Assembly Stand

Engine Series: All Except B and C Series

This tool has an air cylinder to greatly reduce to assembly time when assembling injectors as compared to 3375084. The tool contains the necessary adapters to assemble all Cummins injectors.



Ref. No.	Part No.	Description
1	ST 1298-5111	Air Cylinder
2	ST 1298-1	Adapter
3	3376758	Air Filter/Regulator
6	ST 1141-9	Pressure Gauge
7	3376757	Air Switch
8	ST 995	Cup Wrench (NT, V903, V28, L10, K19, K38, K50) PTD
9	3375048	Cup Wrench (C & J, V378, V504, V555)
10	ST 1303	Cup Wrench (PTB & PTC Flanged 3/8 Plunger (NH, V12 V6-200/V8-265, V8-300, VT8-430))
11	ST 1072	Crowfoot Wrench
12	3375100	Locating Plate PYB & PTC Flanged Type
13	3375101	Locating Plate (PTD)
14	3375102	Body Wrench
15	3375106	Upper Guide Bushing

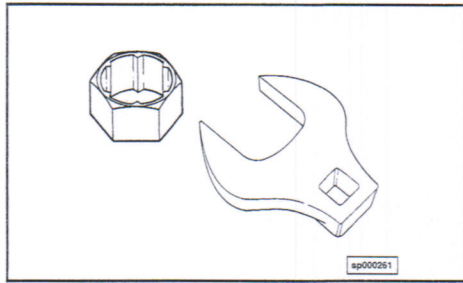


3375084
Injector Assembly Stand

Engine Series: All Except B and C Series

This tool is the same as ST 1298 except for the air cylinder. This tool is a manual operated tool for the tower volume shop. All the cup wrenches and other parts are included in this kit.

Ref. No.	Part No.	Description
1	ST 995	Cup Wrench (PTD)
2	ST 1303	Cup Wrench (PTB, PTC Flanged ³ / ₈ Plunger, NH, V12, V6-200/V8-265, V8-300/VT8-430)
3	ST 1072	Crowsfoot
4	3375048	Cup Wrench (C&J, V6-140/V8-185)
5	3375101	Locating Plate (PTD)
6	3375100	Locating Plate (PTB, PTC Flanged)
7	3375102	Body Wrench
8	3375103	Special Stud
9	3375104	Threaded Bushing



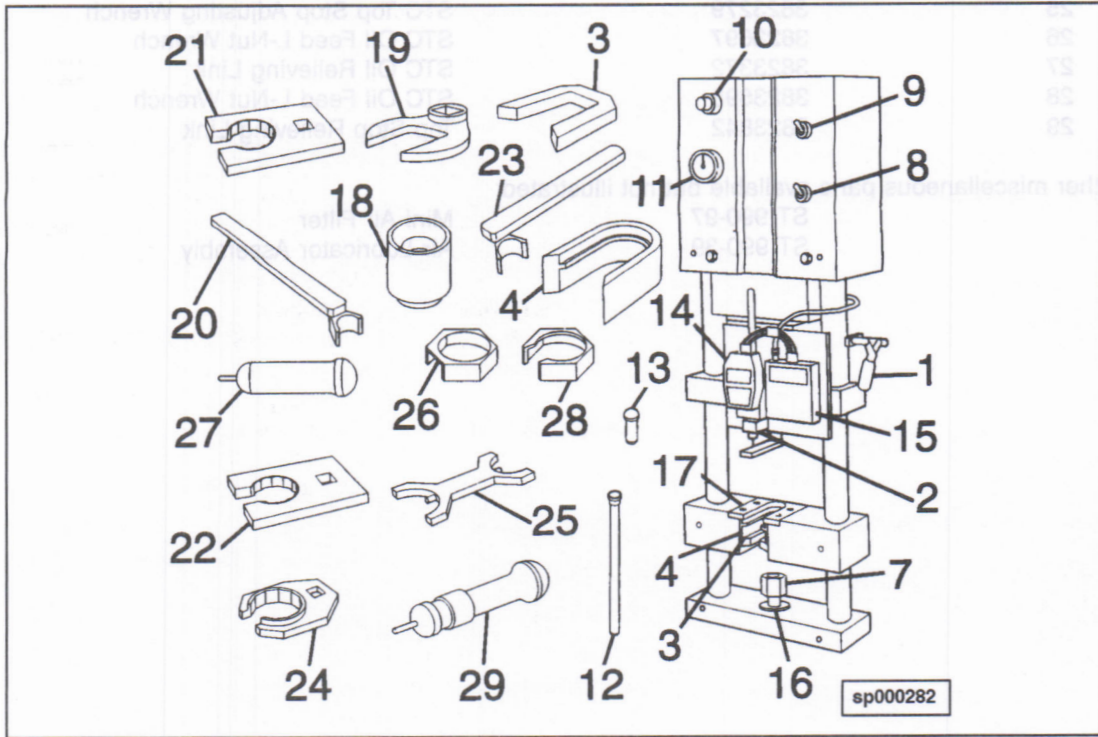
3822298
Injector Cup Wrench

Engine Series: K38, K50

These special wrenches are used to assemble or disassemble the Hyperbar engine injectors.

Part No.	Description
3822718	Crowsfoot Wrench
3822298	Cup Retainer Wrench

3822732
 Top Stop Setting Fixture



Engine Series: All With Top Stop Injectors

This tool includes all the tooling required to accurately set and/or adjust the top stop setting on all PTD topstop, Hyperbar and STC injectors.

Ref. No.	Part No.	Description
	3822696	Top Stop Setting Fixture
1	3375391	Over Center Clamp
2	3823404	Indicator Arm
3	3822726	Injector Holding Bracket
4	3822727	Injector Adapter
5	3822935	Setting Fixture Main Ram
6	3822936	Setting Fixture Lift Ram
7	3823220	Injector Stop
8	3823403	Main Air Control Valve
9	3823402	Lift Air Control Valve
10	ST 990-40	Pressure Regulator
11	ST 1141-9	Pressure Gauge
12	3822728	Injector Link
13	3822729	Injector Link
14	3822730	Digimatic Indicator
15	3822731	Digimatic Presetter
16	3823217	Bottom Plate Threaded Bushing
17	3823218	Lower Plate Wear Insert
18	3823752	Top Stop Setting Adapter (Other Tools in 3822732 kit)
19	ST 1072	Crowsfoot Wrench
20	3375165	Top Stop Adjusting Wrench
21	3375166	Crowsfoot Wrench
22	3376867	Injector Locknut Wrench
23	3376868	Top Stop Adjusting Wrench

Ref. No.	Part No.	Description
24	3823699	STC Tappet Top Cap Wrench
25	3823279	STC Top Stop Adjusting Wrench
26	3823697	STC Oil Feed L-Nut Wrench
27	3823372	STC Oil Relieving Link
28	3823698	STC Oil Feed L-Nut Wrench
29	3823842	Top Stop Relieving Link

Other miscellaneous parts available but not illustrated:

ST 990-97	Mini Air Filter
ST 990-39	Air Lubricator Assembly

Injector Nozzle Tools

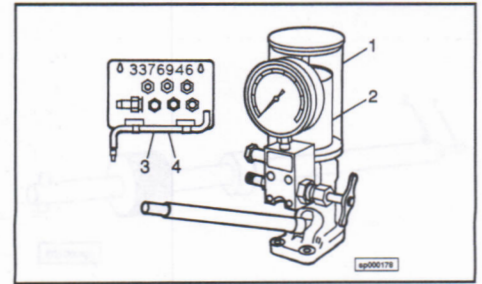
3376946

Injection Nozzle Tester

Engine Series: B and C Series

This special tester is used to test the opening pressure, leakage, chatter and spray pattern of the "nozzle" type injectors.

Ref. No.	Part No.	Description
1	3824417	Reservoir With Cover
3	3824116	Test Line (M14 x 1.5 Tester End and M12 x 1.5 Nozzle End)
4	3824415	Test Line (M14 x 1.5 Both Ends)

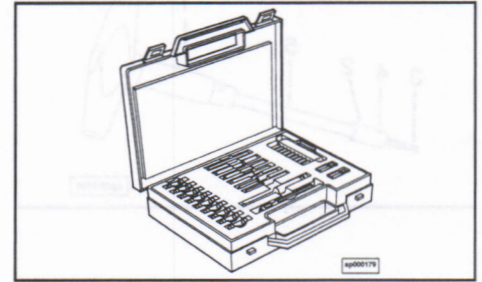


3376947

Injector Nozzle Cleaning Kit

Engine Series: B Series

This kit contains several components to clean the injector nozzles. Included Are: Scrappers for 5, 6 and 7mm Nozzles, Wooden Cleaner for the Seating Surfaces, Brass Wire Brush Holder for Injection Nozzles, Nozzle/Orifice Cleaning Tool & Holder, Cleaning Needles and Scraper for Ring Groove.



Miscellaneous

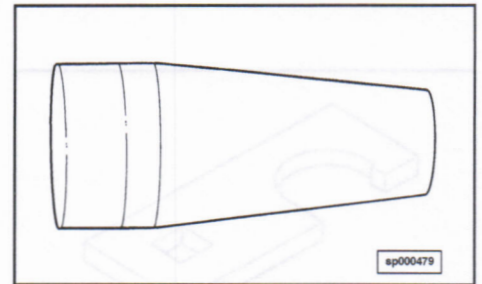
ST 426

O'Ring Assembly Tool

Engine Series: C & J, NH

These o'ring assembly tools are used to install the injector cup o'ring on older model injectors. These nylon adapters fit over the injector cup threads and prevent damage to the o'ring.

Part No.	Description
ST 426	O'Ring Assembly Tool (C, J, V6-140/V8-185 (PTB & PTC))
ST 427	O'Ring Assembly Tool (N, NH, V12, V6-200/V8-265 V8-300/VT8-430 (PTB & PTC))



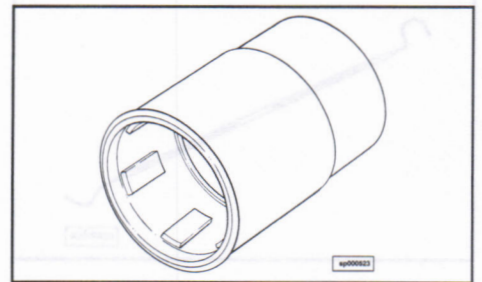
ST 933

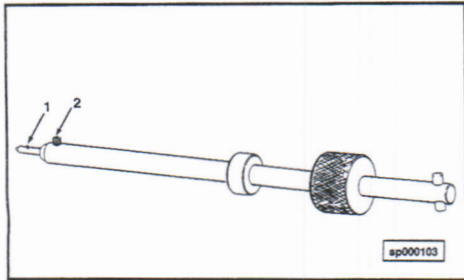
Injector Cup Wrench

Engine Series: C & J, NH

These special injector cup wrenches are used on older model injectors (1 piece cup) prior to the PTD (2 piece cup). These special sockets are used to remove or torque the injector cups. A 1/2 inch drive torque wrench is required.

Part No.	Description
ST 933	Injector Cup Wrench (H, NH, V12, V6-200/V8-265 V8-300/VT8-430 (1 in. x 6 Spline))
ST 934	Injector Cup Wrench (C & J, V6-140/V8-185 (7/8 in. x 6 Spline))

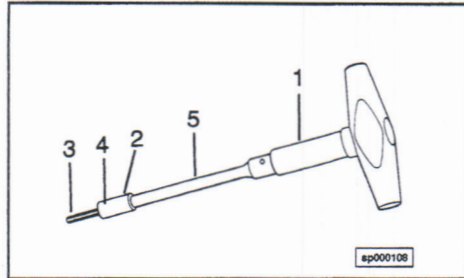




**3376135
Burnishing Tool**

Engine Series: All Except B and C Series

This tool is required to hold the special burnishing needles while calibrating/testing injectors on test stands. The burnishing needles (1) must be ordered separately. Order **ST 708-1 Burnishing Needle** for orifices below .018 inch inside diameter and order **3823331 Burnishing Needle** for orifices above .018 inch inside diameter. **ST 708-3 Setscrew** (2) may be ordered as desired. Burnishing Needles come in a 50 pack quantity.



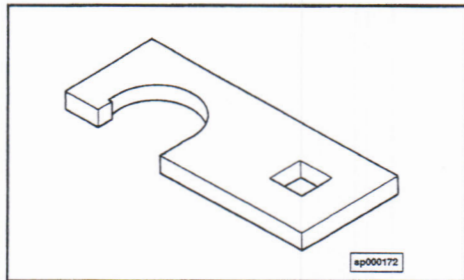
**3376177
Injector Orifice Torque Wrench**

Engine Series: All Except B and C Series

This torque wrench is preset to 10 inch pounds to properly torque the injector balance orifice when calibrating injectors. The torque wrench may also be used to remove the balance orifice.

Ref. No.	Part No.	Description
1	3376178	Inch Pound Torque Wrench
2	3376197	Screwdriver
3	ST 1090-3	Allen Wrench (5/64)
4	ST 1090-4	Set Screw
5		Extension

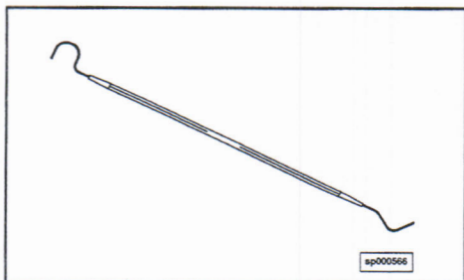
Note: Part number **3376198** includes details 2, 3 and 4 for ordering convenience.



**3376887
Injector Locknut Spanner**

Engine Series: NH

This special spanner wrench is used to turn the top stop locknut on HVT injectors.



**3398017
O'Ring Pick**

Engine Series: All

The o'ring pick is used to remove o'rings from injectors or remove o'rings from a deep pocket.

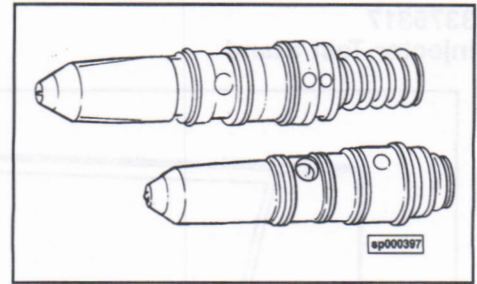
Test Stands

ST 1262

Master Injector

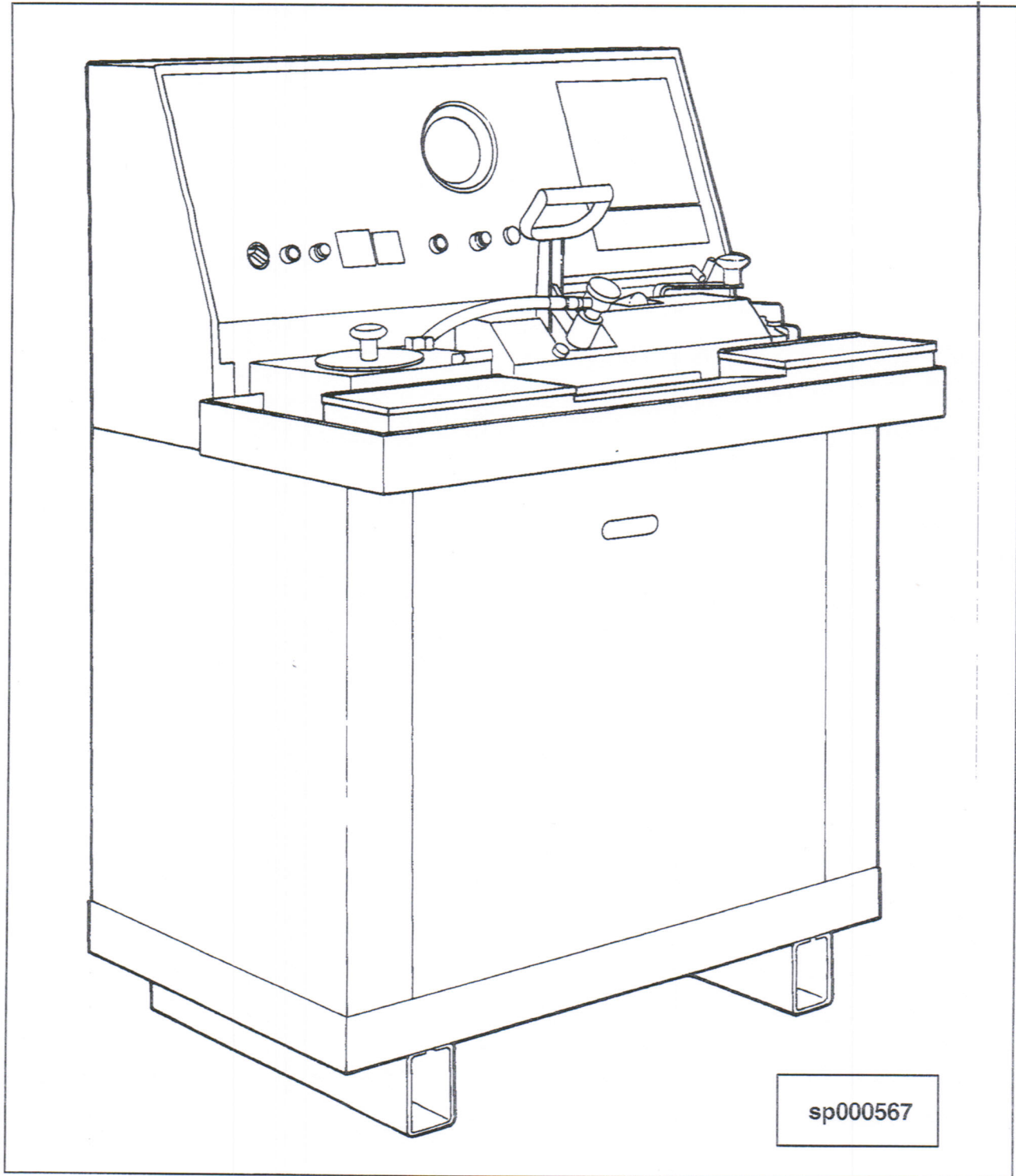
Engine Series: All Except B and C Series

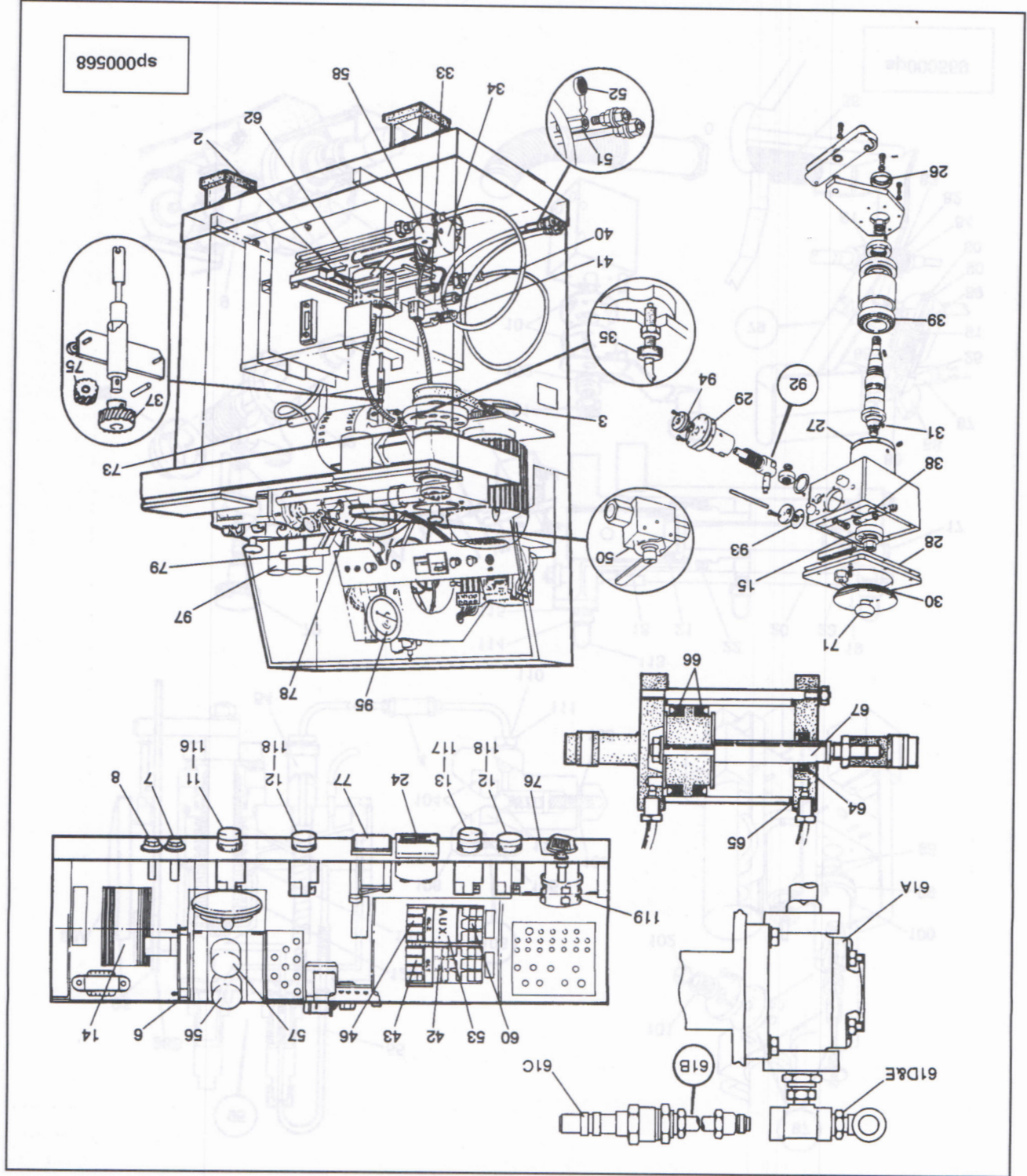
Master Injectors are used to check the output performance of the injector test stand. These injectors are used for reference and are not used to adjust the test stand pressures etc. Deadweight valves control the pressures of the test stand. The master injectors are intended for a quick check of the overall condition of the test stand.

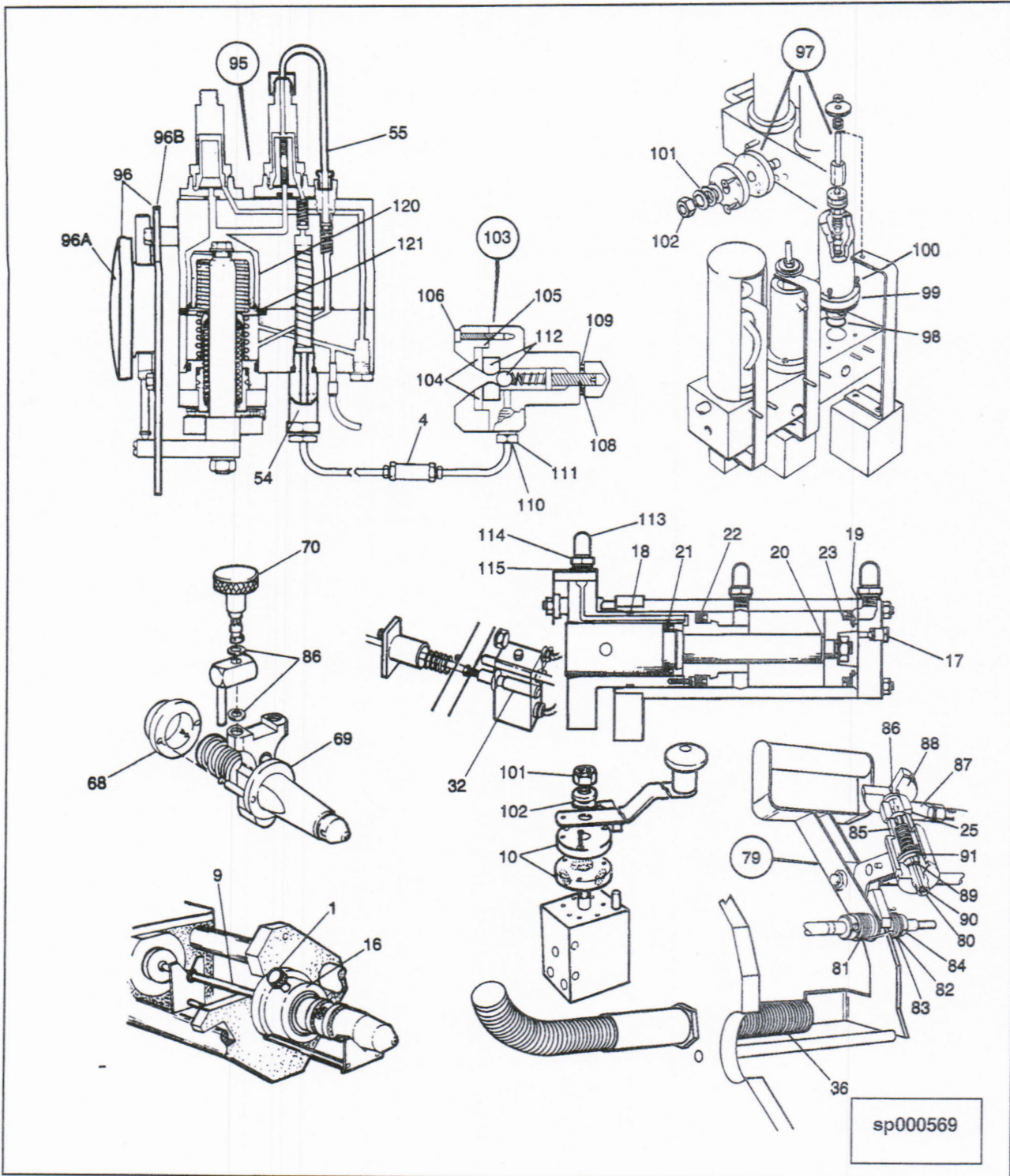


Part No.	Description
ST 1262	Master Injector (214.5/216.5 mm ³ flow (.310 Cam))
ST 1306	Master Injector (204.5/206.5 mm ³ flow (.189 Cam))
3822663	Master Injector (154/156 mm ³ flow (.230 Cam))
3823960	Master Injector (219/221 mm ³ flow (.248 Cam))
3823961	Master Injector (118/120 mm ³ flow (.169 Cam))
3823962	Master Injector (169/171 mm ³ flow (.272 Cam))
3823963	Master Injector (199/201 mm ³ flow (.426 Cam))
3822710	Master Leakage Injector (For 3375375 Tester)
3822711	Master Top Stop Injector (For 3822732 Fixture)

3375317
Injector Test Stand







Engine Series: All Except B and C Series

This test stand is used to test and calibrate Cummins injectors without the use of master injectors. All the necessary adapters and special cams are provided to test all current Cummins injectors. Master injectors are used for reference only to determine flow output of the test stand.

Order test stand kit below according to your electrical requirements.

- 3375410 Injector Test Stands (220 Volt, 3 Phase, 60 Hz.)
- 3822486 Injector Test Stands (220 Volt, 3 Phase, 50 Hz.)
- 3822487 Injector Test Stands (440 Volt, 3 Phase, 60 Hz.)
- 3822488 Injector Test Stands (440 Volt, 3 Phase, 50 Hz.)

Each test stand kit includes the following:

- Test Stand
- 3375365 Calibration Fluid (30 Gallon)
- 3823753 Adapter Pot (L10-STC)
- 3376135 Burnishing Tool
- 3823386 Cam (.272 lift, 91L10 & 91N14)
- 3823357 Cam (.248 lift, NT-STC)
- 3376169 Cam (.169 lift, Small Cam Top Stop)
- 3376170 Cam (.230 lift, Big Cam Top Stop)
- 3823233 Adapter Pot (L10 Top Stop)
- 3823838 Adapter Pot (3/8 PTD & 91N14)

3822652 Audit kit must be ordered separately as desired so that routine performance checks can be completed.

Ref. No.	Part No.	Description
1	3375467	Locator Pin (for Pots)
2	3375468	Fuel Filter (Tank)
	3376989	Adapter (Spin On Filter)
3	3375469	Drive Belt
4	3375470	High Pressure Inline Filter
6	3375479	Temp/Metering Control (Printed Circuit Board)
6	3377228	Rebuilt Temp/Metering Control Board
7	3375480	Fuse (1 Amp)
8	3375481	Fuse (5 Amp)
9	3375482	Link, 1 ring (3/8 PTB/PTC)
9	3375483	Link, 2 ring (3/8 PTB/PTC)
9	3375484	Link, 3 ring (3/8 PTB/PTC)
9	3375485	Link, 4 ring (5/16 PTB/PTC)
9	3375486	Link, 5 ring (5/16 PTB/PTC)
9	3375487	Link, 6 ring (H/NH/J-C)
9	3375488	Link, 7 ring (3/8 PTD)
9	3375489	Link, 8 ring (5/16 PTD)
9	3375490	Link, 9 ring (K-PTD)
9	3376308	Link, 11 ring (High Feed Port, Flanged PTD)
9	3376309	Link, 10 ring (3/8 PTD Flanged)
10	3375637	Rotary Control Valve PTFE Face
11	3375638	Metering Switch (Orange)
12	3375639	Main Drive On Switch Fuel System (Green)
13	3375640	Main Drive Stop Switch (Red)
14	3375642	Heat Sink Assembly
15	3375642	Cam (Std. PTD (.189 lift))
15	3375645	Cam (K-PTD (.310 lift))
15	3376169	Cam (Small Cam Top Stop (.169 lift))
15	3376170	Cam (Big Cam Top Stop (.230 lift))
16	3375643	Adapter Pot (3/8 PTD)
16	3823838	Adapter Pot (3/8 PTD Top Stop)
16	3375646	Adapter Pot (K PTD)
16	3375648	Adapter Pot (5/16 PTB/PTC)
16	3375649	Adapter Pot (3/8 PTB/PTC)
16	3375650	Adapter Pot (5/16 PTD)
16	3823233	Adapter Pot (L10)
16	3376862	Adapter Pot (K STC)
17	3375651	Plug, Clamp Cylinder & Pressure Block
18	3375652	Cylinder Slide Ring (Clamp Cylinder)
19	3375653	Gasket (Clamp Cylinder)

Ref. No.	Part No.	Description
20	3375654	O'ring (Gaco)
21	3375655	Packing Seal (Gaco)
22	3375656	Packing Seal (Gaco)
23	3375657	Glyd Ring (Clamp Cylinder Seal)
24	3375662	Temperature Indicator
25	3375663	Nylon Washer, Fuel Arm
26	3375665	Lower Oil Seal, Cam Box
27	3375666	Lower Gasket, Cam Box
28	3375667	Upper Gasket, Cam Box
29	3375668	Gasket, Tappet Housing
30	3375670	O-ring, Cam Box Cover
31	3375674	Cam Drive Key
32	3375676	Datum Valve Assembly
33	3375679	Thermistor, Fuel Tank
34	3375680	Heater, Fuel Tank
35	3375682	Transducer Cable Assembly (for Magnetic Pick Up)
36	3375683	Transducer Cable Assembly (for Fuel Arm)
37	3376314	Nylon Driven Gear, Stirrer
37	3376316	Steel Drive Gear, Stirrer
38	3375751	Roller Bearing, Datum Valve Lever
39	3375752	Tapered Bearing, Camshaft
40	3375754	Tank Thermostat
41	3375755	Switch (Float Tank, Mod. D)
42	3375756	Contactora (208/240 V. 60 Hz. Mod. D)
42	3375926	Contactora (208/240 V. 60 Hz. Mod. C Stands)
43	3375757	Overload, 5.5 - 8 Amp, OL1 Mod. D Stands
43	3375927	Overload, 6 - 9 Amp, OL1 Mod. C Stands
43	3376310	Overload, 10 - 13 Amp, Mod. D heavy duty
46	3376174	Overload, 4 - 6 Amp Mod, D heavy duty
46	3375759	Overload, 1.6 - 2.5 Amp Mod. D
46	3375928	Overload, OL2 2.7 - 4 Amp Mod. C Stands
50	3375760	Valve, Ball (On/Off)
50	3376825	Repair Kit, Valve Seat (for 3375760 Ball Valve)
51	3375761	Housing, Strainer-Cooler Inlet
52	3375762	Assembly, Strainer Disc
53	3375763	Block, Auxilliary Contact
54	3375800	Filter, Metering Head
55	3375801	By-Pass Tube
56	3375802	Valve, Intake
57	3375803	Valve, Exhaust
57	3375478	Replacement Solenoid Coil (for 3375802 & 3375803)
58	3375804	Valve, Cooler
58	3375477	Replacement Solenoid Coil (for 3375804 (230V))
58	3376043	Replacement Solenoid Coil (for 3375804 (440V))
Note: 3376621 is a 1/4 NPT 220/240 VAC Solenoid Valve which replaces 3375804 for most North American requirements.		
	3375805	Lapping Paste
61	3375963	Gear Pump Adapter Kit (Includes 61A, B, C, D & E)
61	3375964	Gear Pump Adapter Kit (Includes 61B, C, D & E)
61A	3375962	Gear Pump
61B		Included in 3375964 Kit
61C	3375975	Valve, Pressure Relief
61D	3376252	Tube Nut, 10 mm
61E	3376253	Tube Sleeve, 10 mm
62	3375972	Assembly, Cooler Tube
64	3375976	Seal, Index Cylinder
65	3375977	Gasket, Index Cylinder

Ref. No.	Part No.	Description
66	3375978	Seal, Index Cylinder
67	3375979	Rod, Index Cylinder
68	3376305	Ring, NH Flanged Inj.
69	3376306	Locator, NH Flanged
70	3376307	Knob, Banjo
71	3376313	Cover, Cam Box
73	3376315	Door Catch
75	3376323	Stirrer Gear Kit
Contains: 3376314 & 3376316 (ref. 37)		
	3376971	Assembly, Stirrer Drive
	3376972	Connection, Stirrer Shaft
76	3376249	Indicator, Neon, 220 V
76	3376044	Indicator, Neon, 440 V
77	3376251	Counter, Hours (60 Hz)
78	3376469	Inertia Damper
79	3375473	Fuel Arm Assembly Includes:
80	3375474	O'ring, Nose Piece
81	3375475	Spring, Left Side
83	3375968	Spring, Right Side
84	3375969	Collar, Spring
85	3375970	Housing, Fuel Nozzle Spring
86	3375971	Washer, Dowty
87	3375973	Fitting, Banjo
88	3375974	Bolt, Banjo
89	3375664	O'ring, Nozzle Valve
90	3375675	Valve, Fuel Nozzle
91	3375678	Nylon Washer, Fuel Nozzle
92	3375672	Tappet Assembly
	3376970	Repair Kit, Tappet
93	3375671	Packing Ring (Datum Valve Rod)
94	3375669	Gasket, Tappet Cover
95	3375673	Fuel Recorder Assembly includes:
96	3375966	Dial Gauge and Attachment Kit
96A	3375965	Dial Gauge
96B	3375967	Attachment Kit
97	3376172	Deadweight Assembly
98	3375797	O'ring, Deadweight
99	3375798	Gasket, Deadweight
100	3375799	Capscrew, Deadweight
101	3376312	Nut, Nyloc
102	3376311	Washer, Dished
103	3376173	Nose Cone Assembly includes:
104	3375471	Seal, Nylon Nose Cone
105	3375472	O'ring, Nose Cone
106	3375795	Capscrew, Nose Cone
108	3375930	Adjuster Screw, Nose Cone
109	3375931	Dowty Washer, Nose Cone
110	3376079	Ferrule (6 mm)
111	3376080	Tube Nut (6 mm)
112	3376171	Ball & Seat Assembly, Nose Cone
113	3376659	Elbow, Clamp Cylinder
114	3376660	Locknut, Clamp Cylinder
115	3376661	Seal Washer, Clamp Cyl.
116	3376664	Push Button, Orange
117	3376667	Push Button, Red
118	3376668	Push Button, Green
119	3376824	Switch, On-Off

Ref. No.	Part No.	Description
120	3376743	Piston, Fuel Recorder
121	3376744	O'ring & Gasket Kit (Fuel Recorder Ass'y)

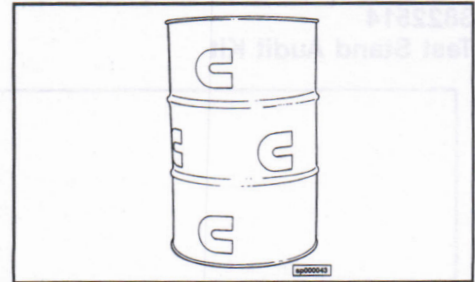
Other kits available, not illustrated:

- 3376190** **Cam Nose Cone Ball & Seat Ass'y Kit (Kit Includes:**
- 3376169 Cam (.169 Lift)
- 3376170 Cam (.230 Lift)
- 3376171 Ball & Seat Assembly, Nose Cone
- 3823360** **Injector Calibration Kit (Kit, K Injectors With 2 Balance Orifices)**
- 3376862 Adapter Pot
- 3823358 Cam (.426 Lift)
- 3823359 Anti Splash Shield
- 3823963 Master Injector (200 mm3)

3375364
Calibration Fluid

Engine Series: All Except B and C Series

This is the only calibration fluid that is authorized to calibrate or test the Cummins fuel systems products. Any other kind of calibration fluid will cause erroneous readings and therefore will not permit the proper calibration to factory specifications.



Part No.	Description
3375364	Calibration Fluid (55 Gallon Drum)
3375365	Calibration Fluid (30 Gallon Drum)

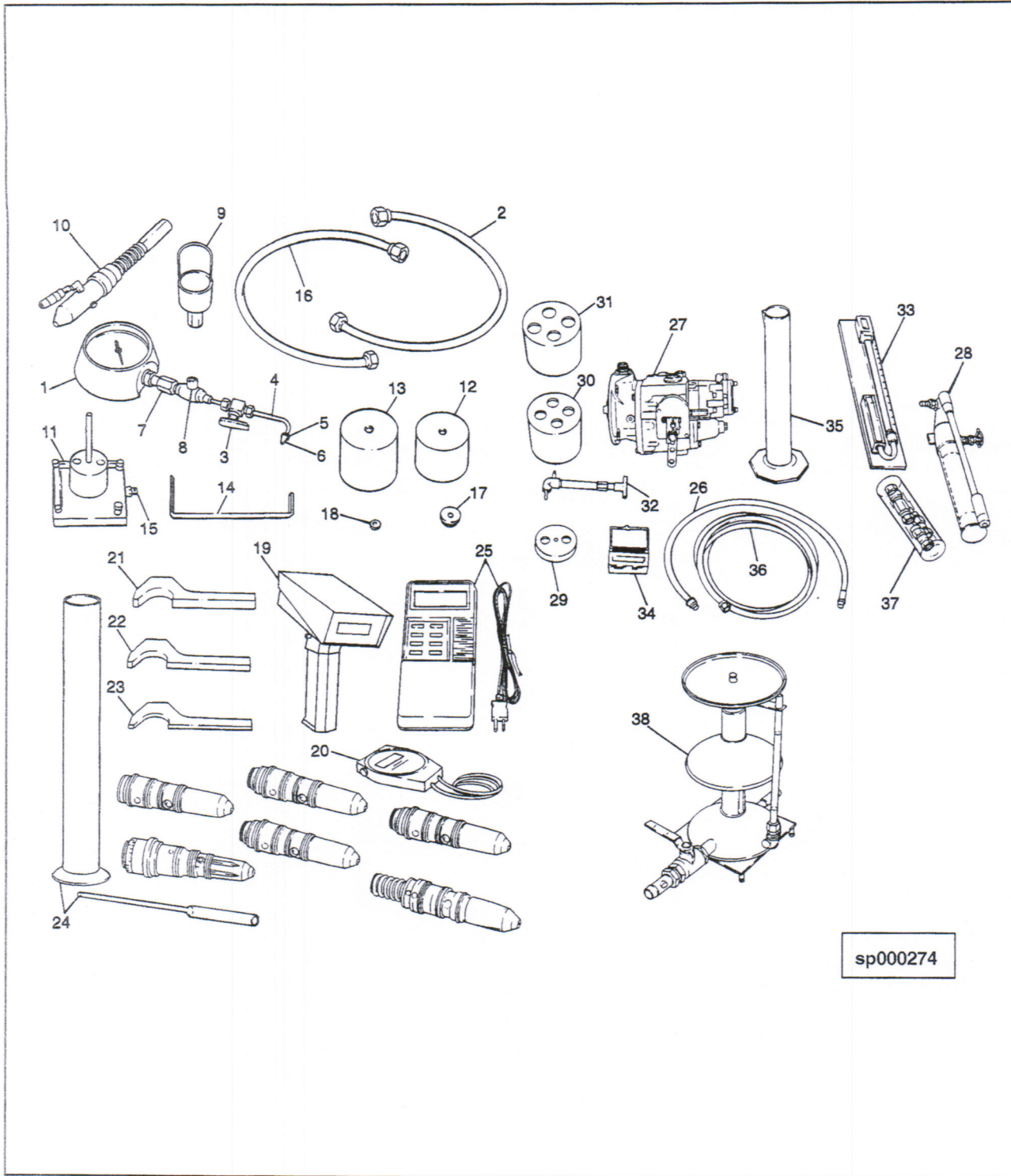


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This kit contains all the necessary special calibrated equipment and testers to complete a self audit on the injector. Test Stand and Fuel Pump Test Stand included are master injectors, master fuel pump and various other master equipment required to perform a self audit of these test stands. All contents come in a suitcase with spudrom liners.

Engine Series: All Except B and C Series

3822514
Test Stand Audit Kit



sp000274

Engine Series: All Except B and C Series

This kit contains all the necessary special calibrated equipment and testers to complete a self audit on the Injector Test Stand and Fuel Pump Test Stand. Included are master injectors, master fuel pump and various other master equipment required to perform a self audit of these test stands. All contents come in 4 suitcases with styrofoam liners.

Bulletin No. 3377596 Fuel Systems Self Audit Kit Instruction Manual is used to provide step by step instructions.

Ref. No.	Part No.	Description
Suitcase 1 3822974 Audit Kit contains the following:		
	3375454	Fuel Pressurizing Valve Ass'y
1	3375451	Pressure Gauge (600 psi)
2	3376490	Hose Assembly
3	3376491	Ball Valve
4	3376492	Steel Tube
5	3376080	Tube Nut (6 mm)
6	3376079	Tube Nut Ferrule (6 mm)
7	3822693	Gauge Snubber
8	3376493	Cap Plug
9	3375399	Viscometer
10	3375449	Dummy Injector
	3375450	Dead Weight Tester
11	3822664	Deadweight Base Plate
12	3822653	Deadweight (73.4 psi)
13	3822654	Deadweight (99.9 psi)
14	3822657	Deadweight Travel Bracket
15	3822692	Male Connector
16	3376494	Hose Assembly
	3376079	Tube Nut Ferrule (6 mm)
	3376080	Tube Nut (6 mm)
17	3822656	Trim Weight (1.0 psi)
18	3822655	Trim Weight (0.2 psi)
	3822969	Case & Foam Insert Ass'y
	3822690	Tool Case
	3822964	Foam Insert

Suitcase 2 - **3822658 Audit Kit** contains the following:

19	3377462	Digital Optical Tachometer
	3377596	Instruction Sheet
20	3822659	Digital Stop Watch
21	3822660	Dial Indicator Gauge Block (130 mm3)
22	3822661	Dial Indicator Gauge Block (230 mm3)
23	3822662	Dial Indicator Gauge Block (300 mm3)
24	3822442	Specific Gravity Test Kit
25	3822666	Digital Thermometer Kit
	3822710	Master Leakage Injector
	3822711	Master Top Stop Injector
	ST 1262	Master Injector (214.5/216.5 mm3) (.310 cam)
	ST 1306	Master Injector (204.5/206.5 mm3) (.189 cam)
	3822663	Master Injector (154.156 mm3) (.230 cam)
	3823960	Master Injector (220 mm3) (.248 cam)
	3823961	Master Injector (119 mm3) (.169 cam)
	3823962	Master Injector (170 mm3) (.272 cam)
	3822970	Case & Foam Insert Ass'y
	3822690	Tool Case
	3822965	Foam Insert

Note: 3822658 Kit may be used to update 3375366 Audit Kit to the equivalent of 3822652.

Suitcase 3 - **3822976 Audit Kit** contains the following:

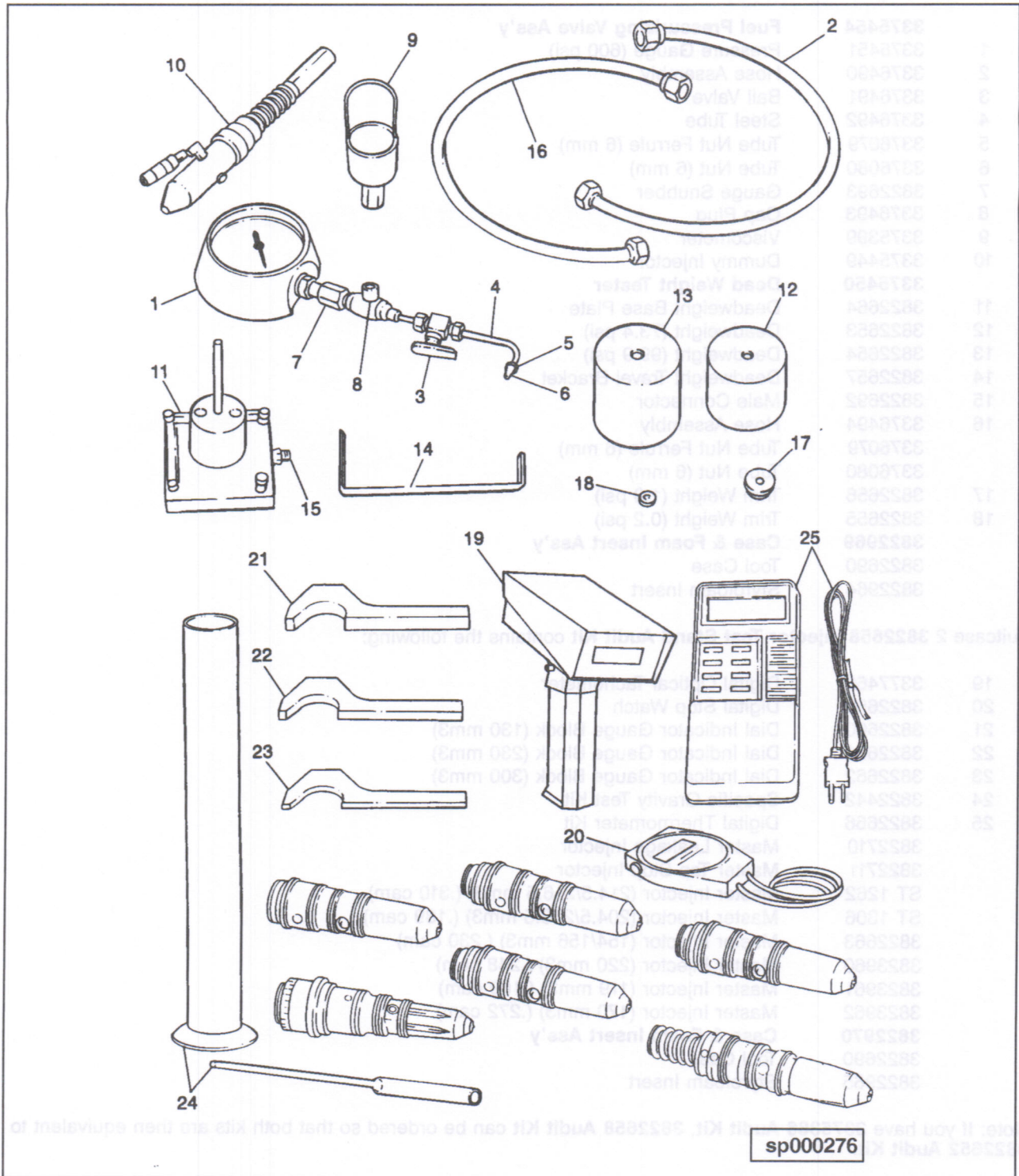
26	3376490	Pressurizing Valve Tube
27	3822515	Master Fuel Pump
28	3822516	Hydraulic Pump

Ref. No.	Part No.	Description
29	3822517	Deadweight (30 psi)
30	3822518	Deadweight (150 psi)
31	3822519	Deadweight (200 psi)
32	3822520	Pressure/Vacuum Pump
33	3822521	Well Type Manometer
34	3822522	Gage Hand Puller Kit
35	3823705	Graduated Beaker
36	3822713	Tube Ass'y (1/4 x 72 in.)
37	3823387	Miscellaneous Fitting Kit
	3823388	1/8 NPT x No. 4 Male Hose Fitting
	3823389	1/8 NPT Pipe Coupling
	3823390	1/8 NPT x No. 5 Male Hose Fitting
	3822692	1/8 NPT x 1/4 Male Tube Connector
	3823391	1/8 NPT x 3/16 Male Tube Connector
	3823000	3/4 NPT x 1/2 Male Tube Connector
	3823001	1/2 NPT x 1/2 Male Tube Connector
	3823392	1/4 Tube Male Branch Tee
	3823393	1/2 Tube End Cap
	3823394	1/8 NPT Pipe Tee
	3822971	Tool Case Assembly
	3822716	Tool Case
	3822966	Foam Insert

Suitcase 4 - **3822977 Audit Kit** contains the following:

	3822978	Flow Vessel Tube (1/2 x 84 in.)
38	3822717	Flow Vessel
	3822972	Case & Foam Insert Ass'y
	3823112	Case

3822652
Audit Kit, Injector Test Stand



Engine Series: All Except B and C Series

This kit contains all the necessary special calibrated equipment and testers to complete a self audit on the injector test stand. Included are master injectors and various master equipment required to test the calibration specifications. All contents come in 2 suitcases with styrofoam liners.

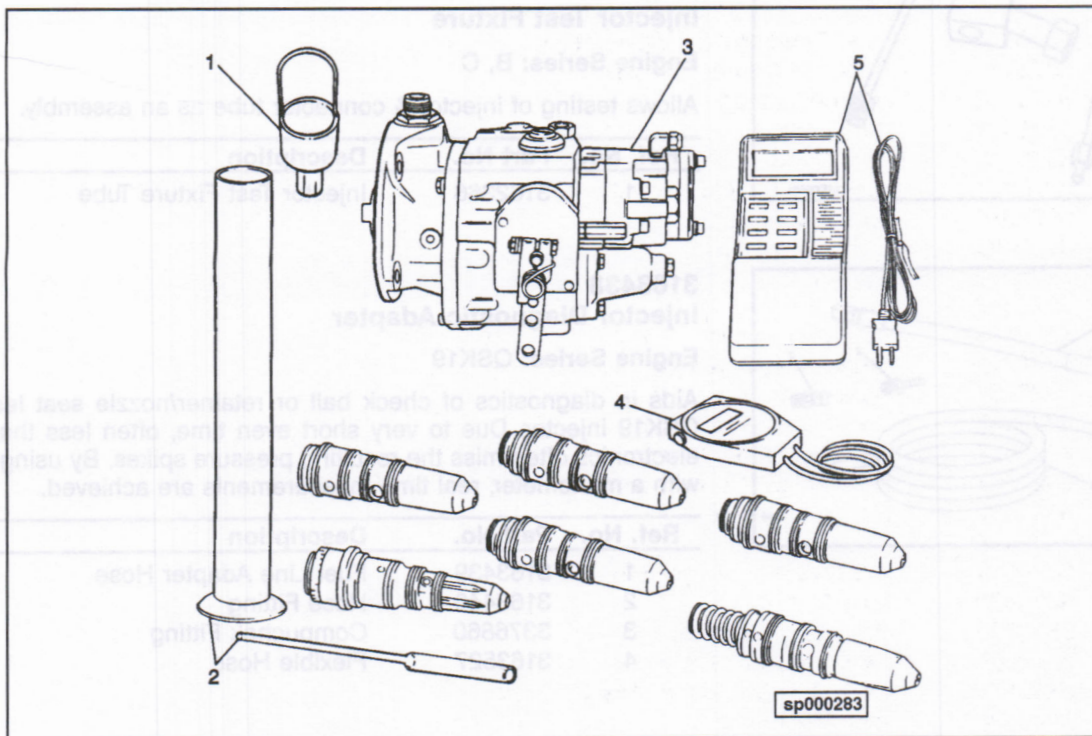
Ref. No.	Part No.	Description
Suitcase 1 3822974 Injector Test Stand Audit Kit contains the following:		
	3375454	Fuel Pressurizing Valve Ass'y
1	3375451	Pressure Gauge (600 psi)
2	3376490	Hose Assembly
3	3376491	Ball Valve
4	3376492	Steel Tube
5	3376079	Tube Nut Ferrule (6 mm)
6	3376080	Tube Nut (6 mm)
7	3822693	Gauge Snubber
8	3376493	Cap Plug
9	3375399	Viscometer
10	3375449	Dummy Injector
	3375450	Dead Weight Tester
11	3822664	Deadweight Base Plate
12	3822653	Deadweight (73.4 psi)
13	3822654	Deadweight (99.9 psi)
14	3822657	Deadweight Travel Bracket
15	3822692	Male Connector
16	3376494	Hose Assembly
	3376079	Tube Nut Ferrule (6 mm)
	3376080	Tube Nut (6 mm)
17	3822656	Trim Weight (1.0 psi)
18	3822655	Trim Weight (0.2 psi)
	3822969	Case & Foam Insert Ass'y
	3822690	Tool Case
	3822964	Styrofoam Insert

Suitcase 2 **3822658 Injector Test Stand Audit Kit** contains the following:

19	3377462	Digital Optical Tachometer
20	3822659	Digital Stop Watch
21	3822660	Dial Indicator Gauge Block (130 mm3)
22	3822661	Dial Indicator Gauge Block (230 mm3)
23	3822662	Dial Indicator Gauge Block (300 mm3)
24	3822442	Specific Gravity Test Kit
25	3822666	Digital Thermometer Kit
	3822710	Master Leakage Injector
	3822711	Master Top Stop Injector
	ST 1262	Master Injector (214.5/216.5 mm3) (.310 cam)
	ST 1306	Master Injector (204.5/206.5 mm3) (.189 cam)
	3822663	Master Injector (154/156 mm3) (.230 cam)
	3823960	Master Injector (220 mm3) (.248 cam)
	3823961	Master Injector (119 mm3) (.169 cam)
	3823962	Master Injector (170 mm3) (.272 cam)
	3822970	Case & Foam Insert Ass'y
	3822690	Tool Case
	3822965	Styrofoam Insert

Note: If you have **3375366 Audit Kit**, **3822658 Audit Kit** can be ordered so that both kits are then equivalent to **3822652 Audit Kit**.

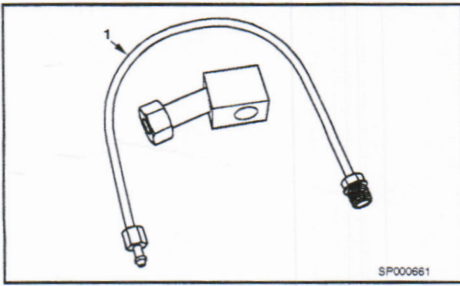
3822734
Test Stand Audit Kit - Monthly



Engine Series: All Except B and C Series

Use this kit for monthly audits of the fuel pump test stand and injector test stands. Master injectors and master fuel pump are provided so that the test stands calibration performance can be checked as required on a monthly audit basis.

Ref. No.	Part No.	Description
1	3375399	Viscometer
2	3822442	Specific Gravity Test Kit
3	3822515	Master Fuel Pump
4	3822659	Digital Stopwatch
5	3822666	Digital Thermometer
	3822710	Master Leakage Injector
	3822711	Master Top Stop Injector
	ST 1262	Master Injector (214.5/216.5 mm ³) (.310 cam)
	ST 1306	Master Injector (204.5/206.5 mm ³) (.189 cam)
	3822663	Master Injector (154/156 mm ³) (.230 cam)
	3823960	Master Injector (219/221 mm ³) (.248 cam)
	3823961	Master Injector (118/120 mm ³) (.169 cam)
	3823962	Master Injector (169/171 mm ³) (.272 cam)
	3822973	Tool Case & Foam Insert
	3822716	Tool Case
	3822968	Foam Insert



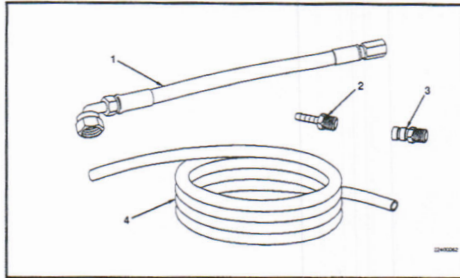
Testers and Checking Tools

3162269 Injector Test Fixture

Engine Series: B, C

Allows testing of injector & connector tube as an assembly.

Ref. No.	Part No.	Description
1	3162366	Injector Test Fixture Tube



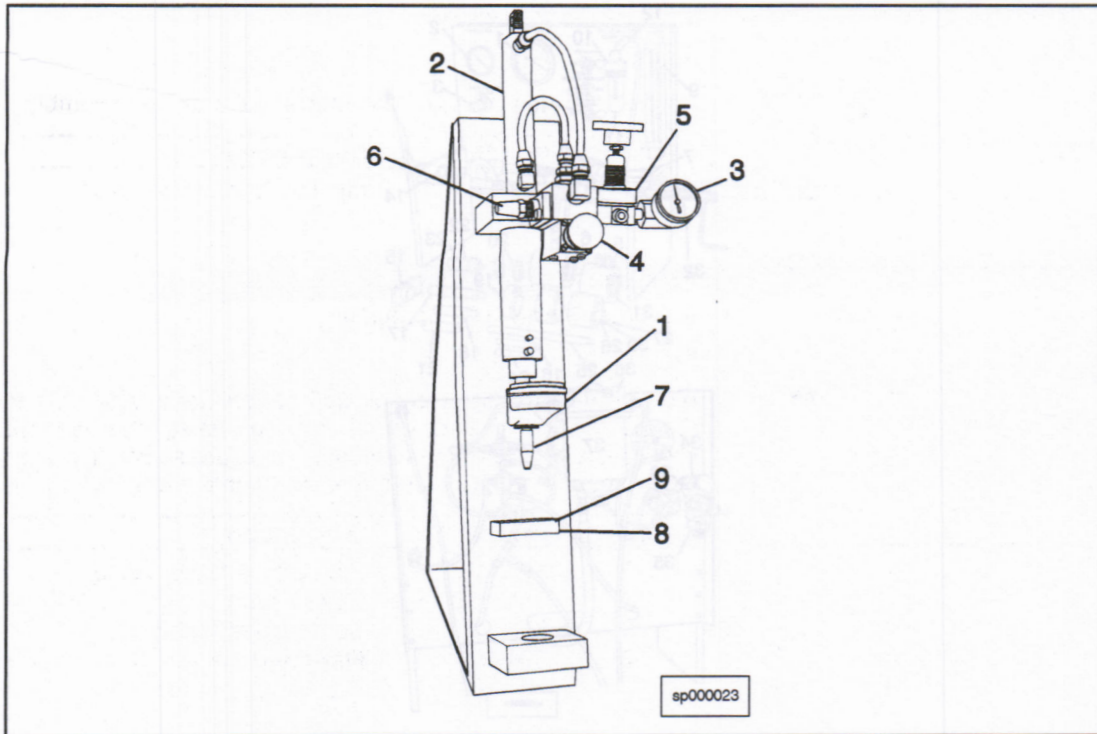
3163438 Injector Diagnostic Adapter

Engine Series: QSK19

Aids in diagnostics of check ball or retainer/nozzle seat leakage on QSK19 injector. Due to very short even time, often less than 2 sec., electronics often miss the resulting pressure spikes. By using this tool, with a manometer, real time measurements are achieved.

Ref. No.	Part No.	Description
1	3163439	Fuel Line Adapter Hose
2	3163440	Hose Fitting
3	3376860	Compuchek Fitting
4	3163527	Flexible Hose

3375209
 Injector Plunger Checking Tool

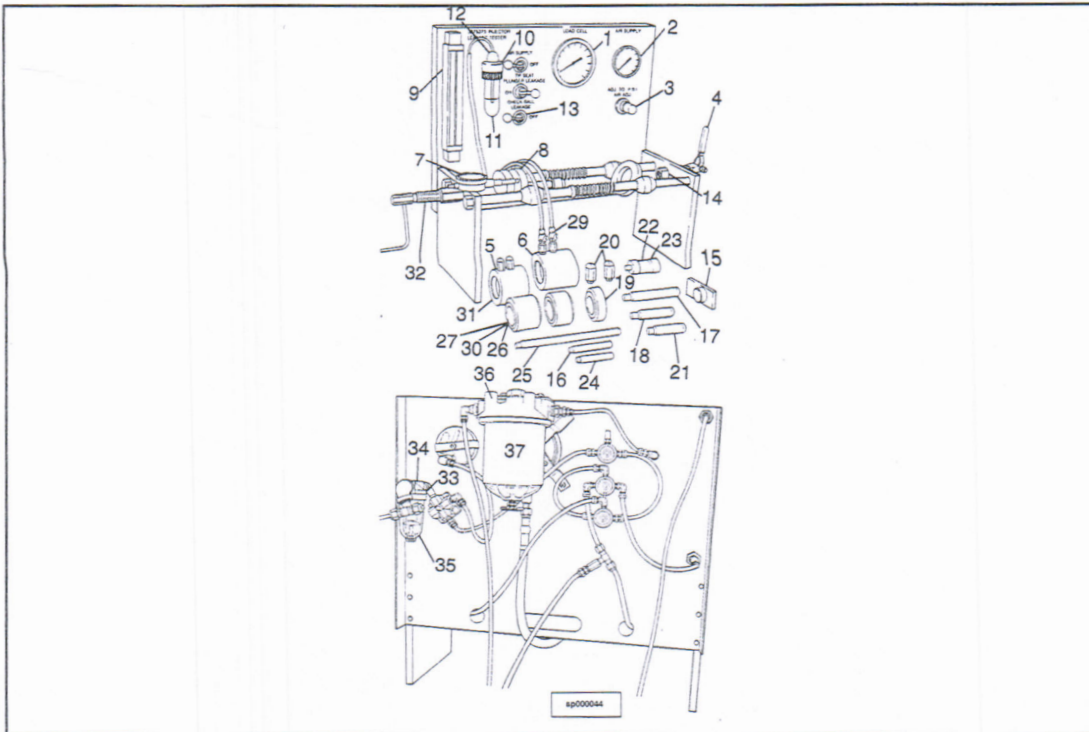


Engine Series: All

This special tool is used to check assembled injectors for sticking plungers. With calibrated pressure on the plunger, injector body is rotated. The amount of torque required to rotate the body is registered on the dial of the torque wrench. The amount of torque will determine if plunger alignment is acceptable.

Ref. No.	Part No.	Description
1	3375247	Torque Wrench (96 in. lb.)
2	3375248	Air Cylinder
3	3375249	Pressure Gauge (0-60 PSI)
4	3375250	Air Actuator Valve
5	ST 990-40	Air Regulator
6	ST 1141-3	Air Filter
7	3823266	Injector Plunger Cone
	3823860	Update Kit 91N14 and L10
8	3823850	Injector Support
9	3823849	Injector Plunger Guide

3375375
Injector Leakage Tester



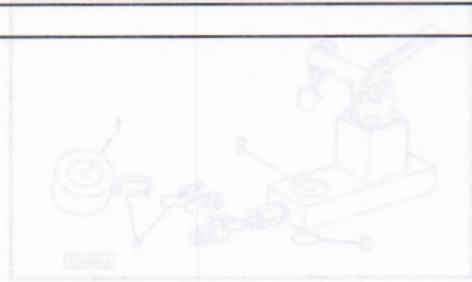
Engine Series: All Except B and C Series

This tester is used to measure the amount of fuel leakage in all Cummins PT injectors. Test performed are tip seat leakage, barrel/plunger leakage and check ball leakage. Air pressure is directed to the various passages to test the clearances or leakages of the injector.

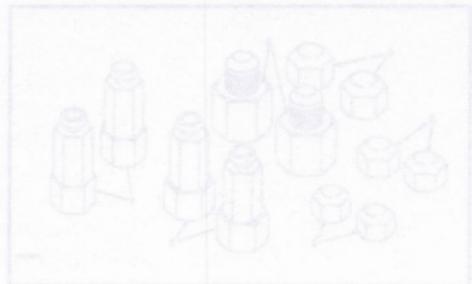
Ref. No.	Part No.	Description
1	3375392	Pressure Gauge (0-600 psi.)
2	3375388	Pressure Gauge (0-100 psi.)
3	ST 990-40	Pressure Regulator
4	3375391	Clamp Assembly
5	3823829	Adapter Pot (Std. PTD)
6	3375440	Adapter Pot (K Series)
7	3375006	Dial Indicator
	3375687	Indicator Point
	3375441	Indicator Mounting Plate
8	3375394	Load Cell Assembly
	ST 990-49	Load Cell O'ring
9	ST 990-46	Air Flowmeter
10	ST 990-5112	Bubble Checker Ass'y
11	ST 990-129	Bubble Checker Glass Bowl
12	3376435	Bubble Checker Plastic Cap
13	3375390	Air Valve Switch
14	3375400	Nose Piece
	ST 990-50	Nose Piece O'ring
15	3375691	Injector Locator Adapter (C, J)
16	3375689	Link (V378, V504, V555)
17	3375747	Link
18	3375748	Link (PTB & PTC)
19	3375690	Injector Adapter Locator

Ref. No.	Part No.	Description
20	3375459	Injector Coupling (Flanged)
21	3375373	Link (NH Flanged)
22	3375397	Plunger Extension
23	3822765	Plunger Extension (NT, STC)
24	3375396	Link (All Std. PTD)
25	3375398	Link (All K Series)
26	3375401	Adapter Pot Locator
27	3375688	Adapter Pot Locator
29	3376075	Kwik Coupler Ass'y
	3822777	Kwik Conn., Female Fitting
	3822778	Kwik Conn., Male Fitting
30	3376211	Injector Locator Adapter (L10, use with 3823830)
31	3823830	Adapter Pot (L10, Use with 3376211 Adapter)
32	3375393	Load Screw Ass'y
33	ST 990-97	Mini Air Filter
34	3376436	Mini Air Filter Plastic Cup
35	ST 990-129	Mini Air Filter Glass Bowl
36	ST 990-127	Large Air Filter
37	ST 990-128	Large Filter Cartridge

Note: Ref. Details 5, 6 and 31 contains 2 female Kwik Connect Fittings (3822777).



Ref. No.	Part No.	Description
1	3183884	Adapter (1/2" tube)
2	3183885	Adapter (1/2" tube)
3	3183888	Flared Reducer (1/2" to 3/4" tube)
4	3183889	Cap Flared Nut (1/2" tube)
5	3183890	Cap Flared Nut (1/2" tube)
6	3183891	Cap Flared Nut (1/2" tube)

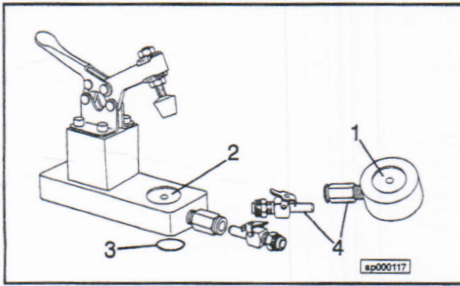


This kit contains the necessary fitting and adapters to test the STC Valve for leakage on the 337575 Leakage Tester.
 Engine Series: All
 STC Valve Test Kit
 3183883

Ref. No.	Part No.	Description
7	3375974	Pressure Regulator
8	3375700	Square Cut O-ring (Flanged injectors)
9	3823701	O-ring (All K Series)
10	3823702	O-ring (All K Series)
11	3823703	Cup Adapter (All K Series)
12	3378883	O-ring (V375, V504, V553)
13	3378882	O-ring (Std. PTD)
14	3378881	Cylinder Tub
15	3378880	Cylinder

Note: Both 3823701 & 3823702 O-rings must be used when testing K cups in 3823703 Adapter.

NOTE: Part number 3376402 Adapter is available to adapt the tester to the older comparators ST 790 or HA 280.

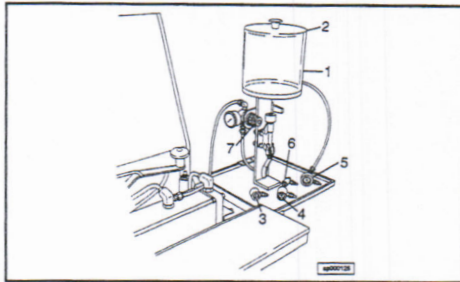


3376297 Injector Barrel Tester

Engine Series: K19, K38, K50, NT, V28, V378, V555, V903, V504, L10

This special test fixture is used to test the injector barrel check ball seat prior to assembling the injector. This is a time savings device since the check ball or seat is sometimes defective. Use this with a controlled air supply and flowmeter available on **3375375 Injector Tester**.

Ref. No.	Part No.	Description
1	3376413	Test Gasket
2	3376414	Test Gasket
3	3376415	Test O'ring
4	3376075	Quik Coupler



3376350 Injector Cup Spray Tester

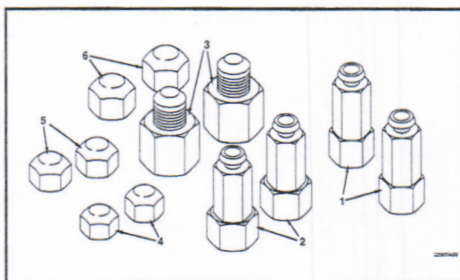
Engine Series: All Except B and C Series

This low pressure tester is designed to test the injector cup to make sure that all the spray holes are open and spraying in a uniform pattern and angle. This allows testing of the cups prior to assembly to the injector. The tester requires a clean source of injector test fluid and can be easily adapted to **3375317 Injector Test Stand**.

NOTE: Part number **3376402 Adapter** is available to adapt the tester to the older comparators ST 790 or HA 280.

Ref. No.	Part No.	Description
1	3376680	Cylinder
2	3376681	Cylinder Lid
3	3376682	O'ring (Std PTD)
4	3376683	O'ring (V378, V504, V555)
5	3823703	Cup Adapter (All K Series)
5	3823702	O'ring (All K Series)
5	3823701	O'ring (All K Series)
6	3376700	Square Cut O'ring (Flanged Injectors)
7	3376974	Pressure Regulator

Note: Both **3823701 & 3823702 O'rings** must be used when testing K cups in **3823703 Adapter**.



3163683 STC Valve Test Kit

Engine Series: All

This kit contains the necessary fitting and adapters to test the STC Valve for leakage on the **3375375 Leakage Tester**.

Ref. No.	Part No.	Description
1	3163684	Adapter (1/4" tube)
2	3163685	Adapter (3/8" tube)
3	3163688	Flared Reducer (1/2 to 3/8" tube)
4	3163689	Cap Flared Nut (1/4" tube)
5	3163690	Cap Flared Nut (3/8" tube)
6	3163691	Cap Flared Nut (1/2" tube)

Ultrasonic Cleaner

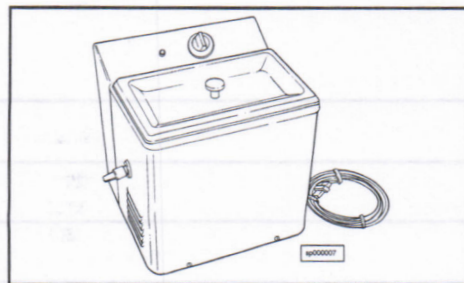
NOTES

3375001

Ultrasonic Cleaner

Engine Series: All

This unit must operate on 220/240 VAC 50/60 Hz. The ultrasonic cleaner is used to clean small parts, especially injector cups etc. These parts are submerged in a special solution and the high frequency waves vibrate the solution to clean/remove carbon particles etc. **Use 3377467 Cleaning Solution.**

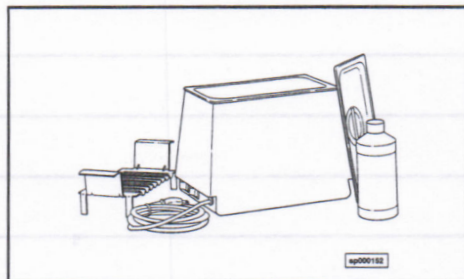


3376665

Ultrasonic Cleaner

Engine Series: All

This unit must operate on 115 VAC 50/60 Hz. The ultrasonic cleaner produces high frequency waves that cleans small parts submerged in a special cleaning fluid. This is an excellent method of cleaning injector cups and other small parts. A small enclosed heater heats the fluid to 120/140 degrees F. **Use 3377467 Cleaner Solution.**



3377467

Ultrasonic Cleaning Solution

Engine Series: All

This special cleaning solution comes in a 5 gallon container. The solution is pre-mixed and ready to use on one of the ultrasonic cleaner machines.

