

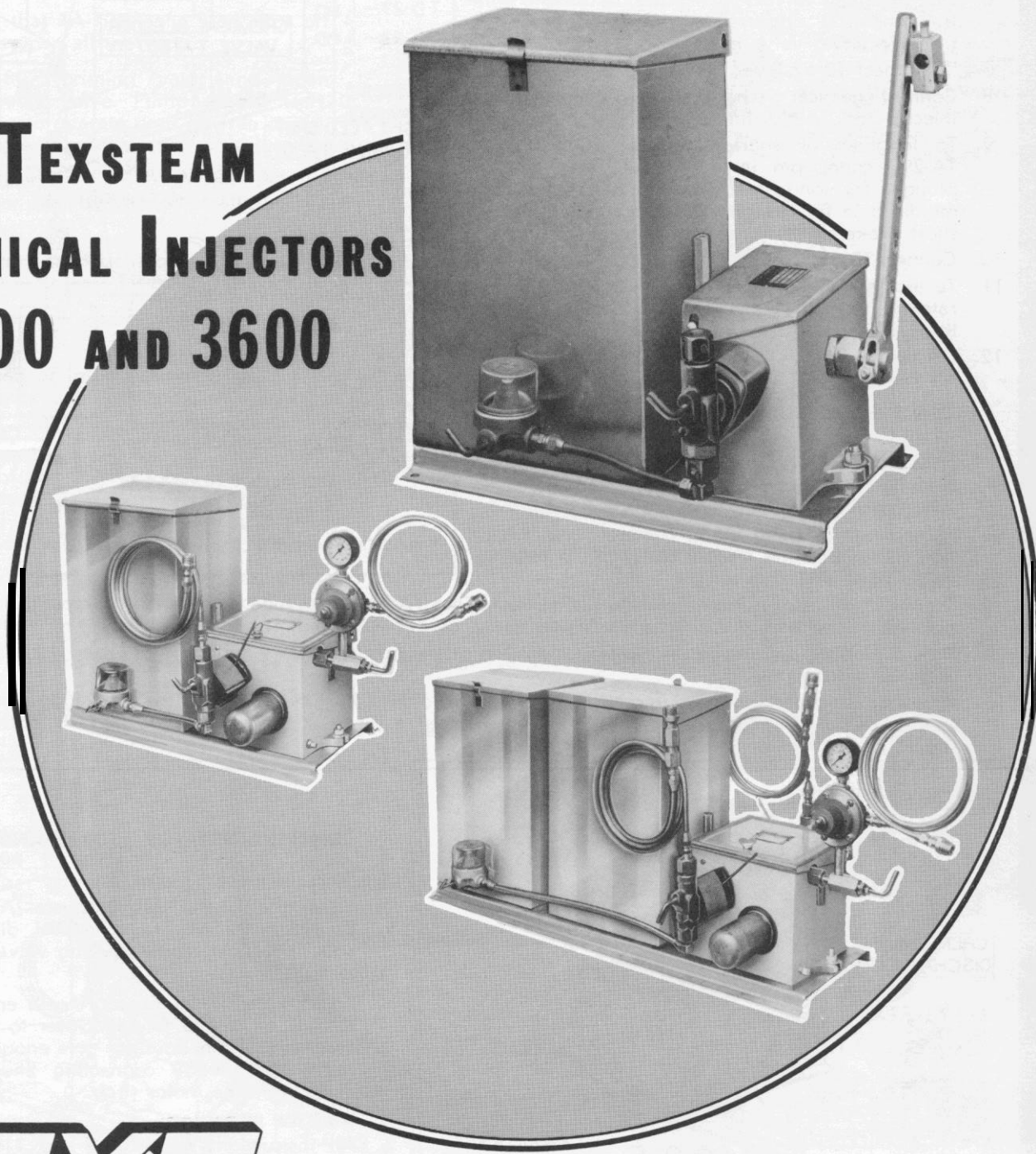
FRED C. GILBERT CO.
100 E. MINNER AVE. - P. O. BOX 5534
OILDALE, CALIFORNIA
PHONE BAKERSFIELD 399-9569

PARTS LIST

REVISED OCTOBER 1, 1955

FRED C. GILBERT CO.
100 E. MINNER AVE. - P. O. BOX 5534
OILDALE, CALIFORNIA
PHONE BAKERSFIELD 399-9569

TEXSTEAM CHEMICAL INJECTORS 1100 AND 3600



TXT

TEXSTEAM

DIVISION OF VAPOR HEATING CORP

Corporation

320 HUGHES ST. • P. O. BOX 9127, HOUSTON 11, TEXAS • PHONE WA 6-8853

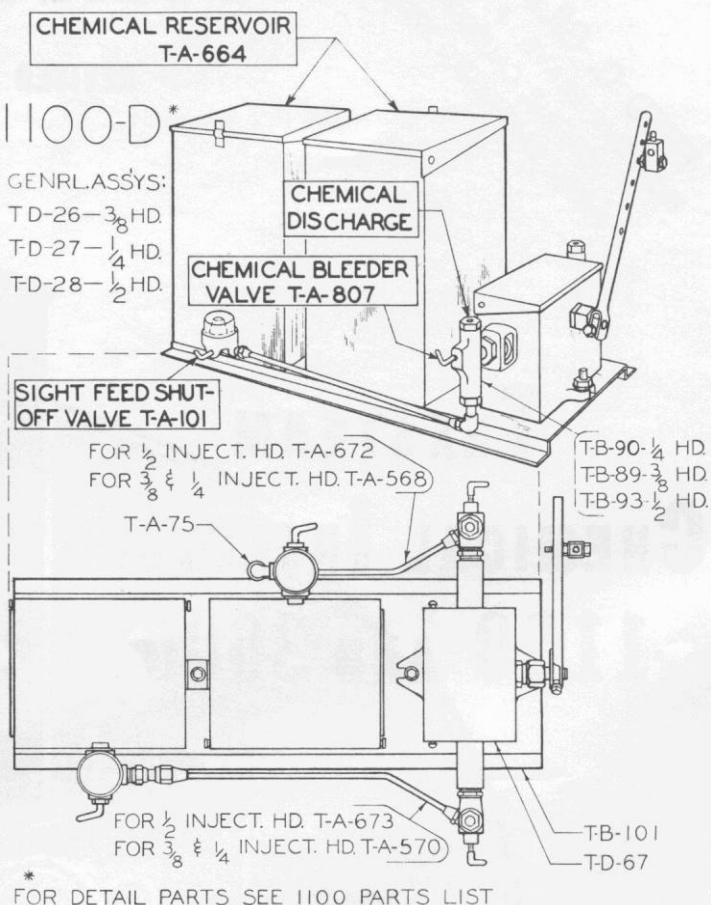
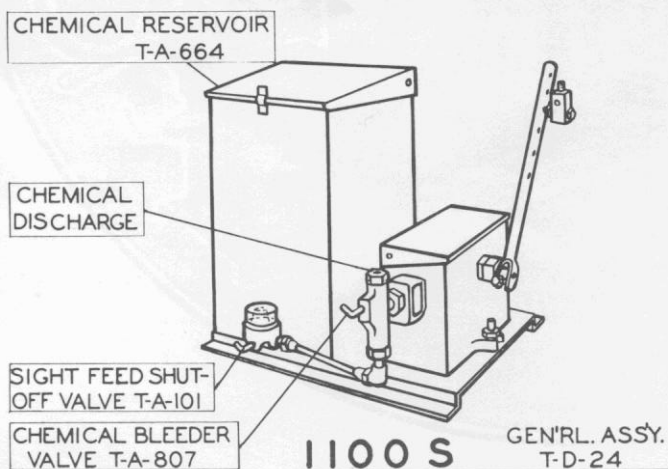
OPERATING INSTRUCTIONS: TXT 1100 CHEMICAL INJECTOR

TEXSTEAM 1100 BEAM DRIVE CHEMICAL INJECTORS

1. Inspect injector for damage in shipment.
2. Install TA-676 line check as close to the point of injection as possible, with arrow pointing in direction of flow.
3. Pour chemical in reservoir TA-664.
4. Make sure TA-101 sight feed shut off assembly is open all the way.
5. Connect TB-67 lever to reciprocating motion.
6. Open priming valve. Allow pump to operate until free chemical discharges from small hole just below priming valve handle.
7. Disconnect TB-67 lever.
8. Connect chemical discharge line between chemical injector and TA-676 line check.
9. To lengthen or shorten plunger stroke, place TA-290 cotter pin in third hole from end of plunger for longest stroke and more chemical; middle hole for medium stroke and end hole for short stroke, or less chemical.
10. Connect TB-67 lever.
11. To increase the number of teeth engaged in the ratchet, move the TA-538 up; to decrease, move the TA-538 down.
12. Fill the TB-91 box assembly with enough SAE-10 oil to cover the TA-457 bearing.

TROUBLE SHOOTING FOR 1100 S AND 1100 D

1. Should injector run but fail to pump chemical, remove TA-771 bottom bushing and TA-809 top bushing to inspect and clean balls and seats . . . Also check for damage and replace if required.
2. Should pump fail to pump chemical and inspection shows that the TA-209 cotter pin is missing, install new TA-290 cotter pin.
3. Should TA-98 bowl fill completely with chemical, close TA-101 sight feed valve and allow pump to operate until sight feed bowl is empty. Then open TA-101 all the way. If bowl continues to fill, inspect TA-101 valve for damage.
4. Should plunger packing require replacement too often, contact factory, giving name and formula number of chemical being pumped.
5. If, in replacing parts in the pump head, corrosion is noted, notify the factory of the type and name of the manufacturer of the compound being pumped. If any excessive wear or replacement of parts is noted, the factory should be notified and the part number identified.



INSTRUCTIONS FOR 1100 SE AND 1100 DE

1. Start the electric motor.
2. Open the TA-807 priming valve. Allow pump to operate until air free chemical discharges from small hole just below priming valve handle.
3. Shut off motor.
4. To increase the number of teeth engaged on the ratchet, move the TA-538 closer to the TB-91 box assembly. If this does not give enough adjustment, move the TA-538 connecting knuckle assembly away from the motor shaft.
5. Start the motor.
6. All instructions for 1100 S and 1100 D apply to the 1100 SE and 1100 DE.

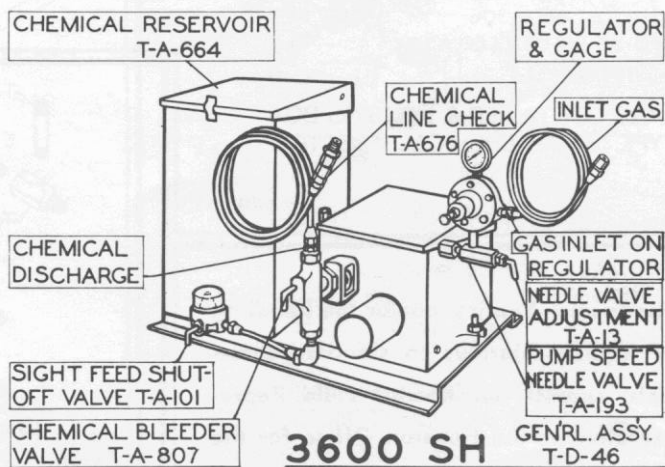
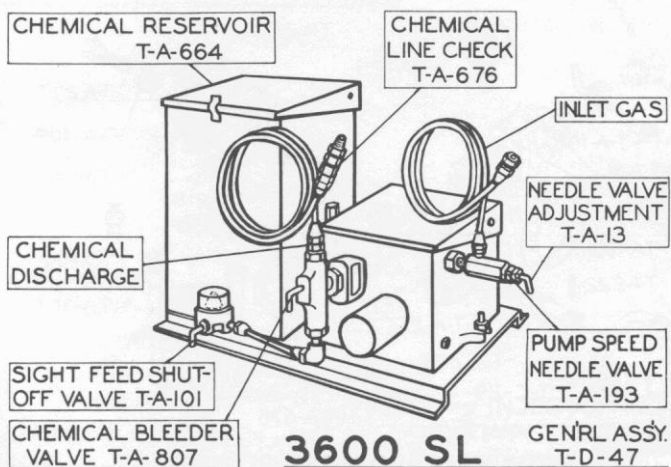
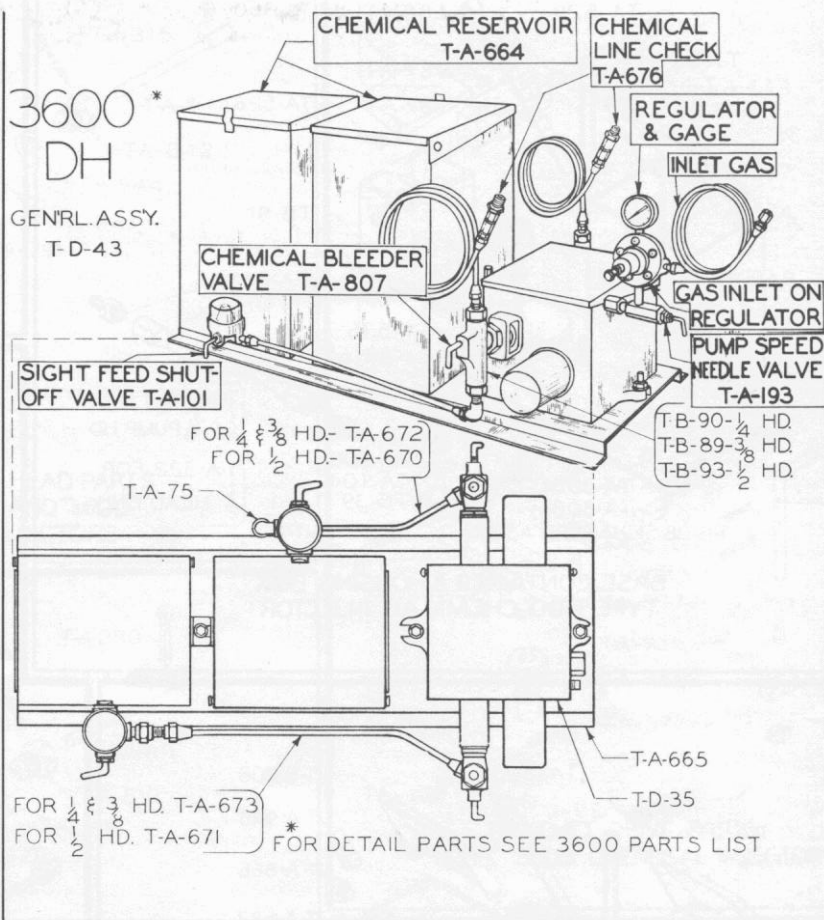
TEXSTEAM CORPORATION

OPERATING INSTRUCTIONS: TXT 3600 CHEMICAL INJECTOR

TEXSTEAM 3600

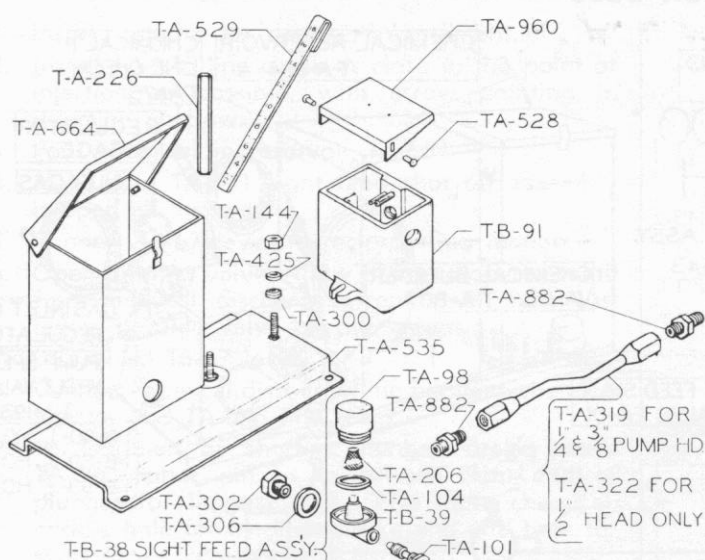
1. Inspect injector for damage in shipment.
2. Blow gas feed line clean before connecting gas line to the injector.
3. Install TA-676 line check as close to the point of injection as possible, with arrow pointing toward direction of flow.
4. Pour chemical into reservoir. (Part TA-664)
5. Make sure that TA-101 sight feed shut off assembly is open all the way.
6. Open TA-807 priming valve, and open TA-193 needle valve. Pump should start. Allow pump to operate until air free chemical discharges from the small hole just below priming valve handle.
7. Shut injector off, by closing needle valve. (TA-193)
8. Connect chemical discharge line between chemical injector and TA-676 line check.
9. Start injector by opening TA-193 needle valve.
10. Adjust speed of injector by screwing in or out on needle valve handle part TA-13.
11. To lengthen or shorten chemical plunger stroke: place TA-290 cotter pin in third hole from end of plunger for longest stroke and more chemical; middle hole for medium stroke and end hole for short stroke or less chemical.
12. Increase or decrease number of teeth engaged by driving pawl TA-455. Place ratchet control latch (TA-949) in nearest hole to engage most teeth and to pump most chemical and in adjacent holes of ratchet control for less chemical.
13. Fill box assembly—TA-583 to point indicated by oil level gauge (TA-946), use SAE-10, or equal.
14. If gas line pressure is over 50 lbs., set TB-40 regulator at 50 psi.

(For Trouble Shooting See Inside Back Cover)

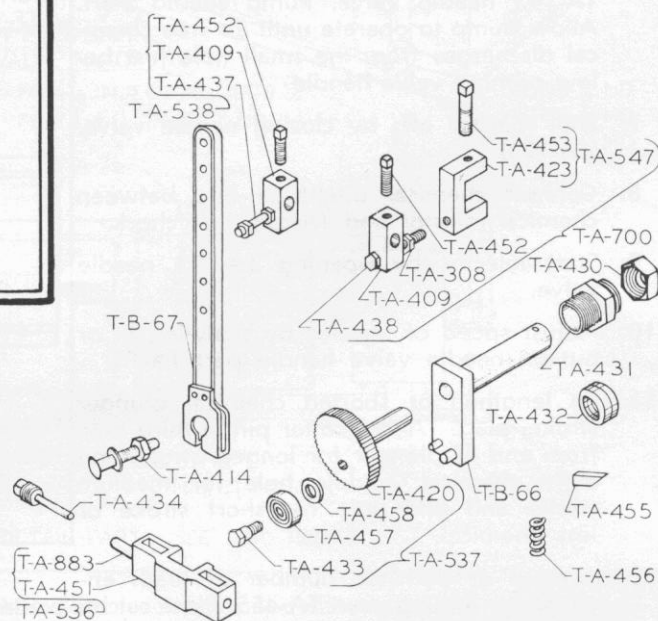
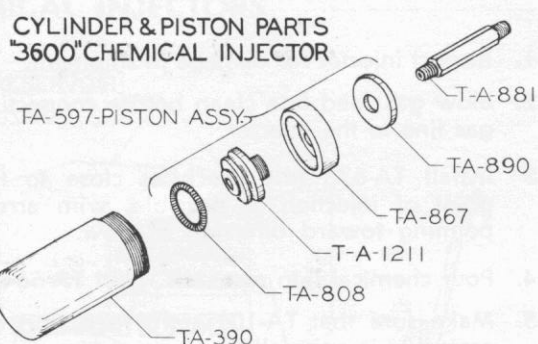


TEXSTEAM CORPORATION

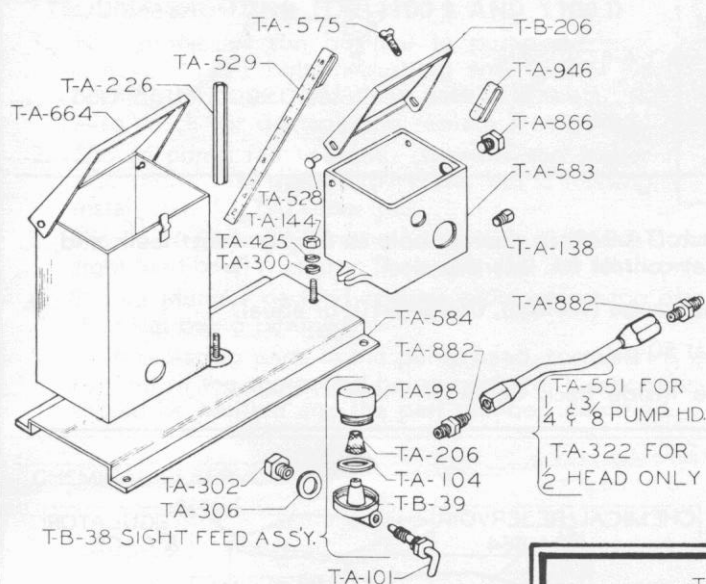
PARTS LIST • TXT 1100 AND 3600 CHEMICAL INJECTOR



BASE, CONTAINER & HOUSING BOX
TYPE "1100" CHEMICAL INJECTOR

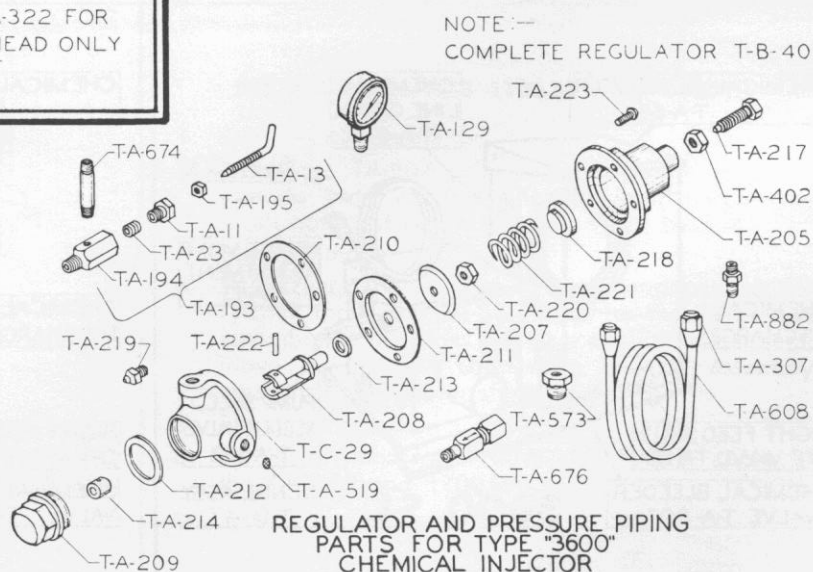


RATCHET DRIVE PARTS
"1100"CHEMICAL INJECTORS



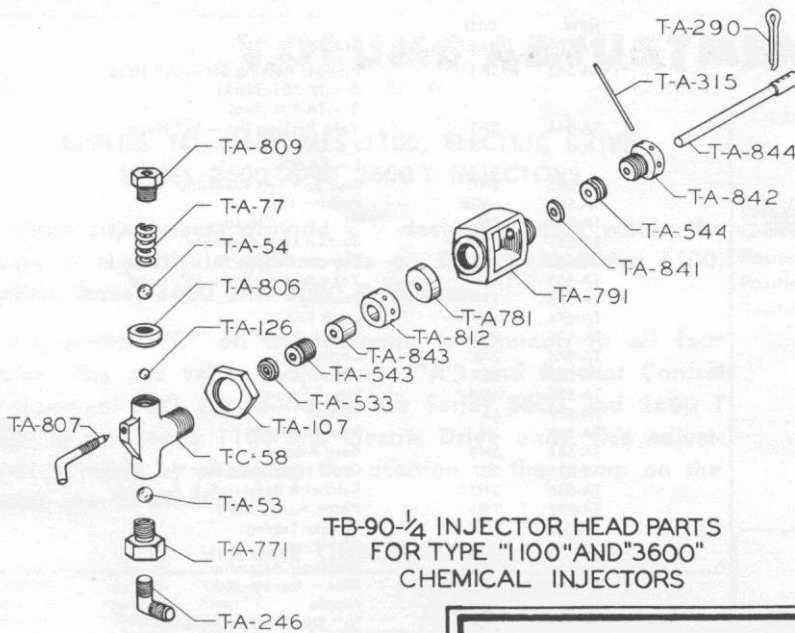
BASE, CONTAINER & HOUSING BOX
TYPE "3600" CHEMICAL INJECTOR

For Special Applications or the handling of liquids injurious to standard materials, contact our nearest Field Representative or the Houston Office for the proper recommendations.

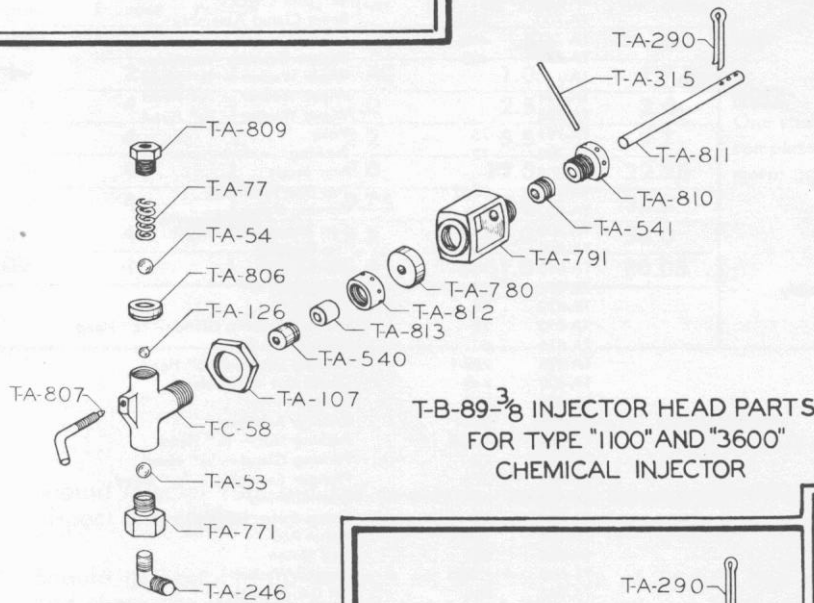


TEXSTEAM CORPORATION

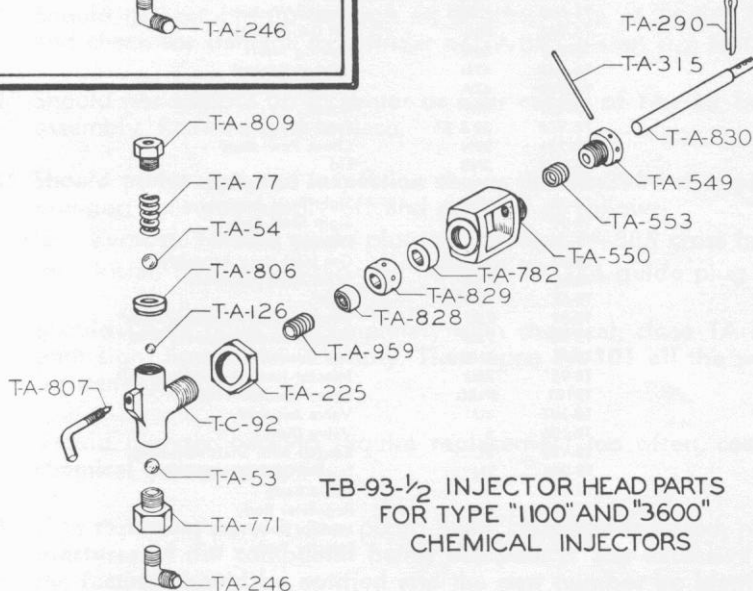
PARTS LIST ● TXT 1100 AND 3600 CHEMICAL INJECTOR



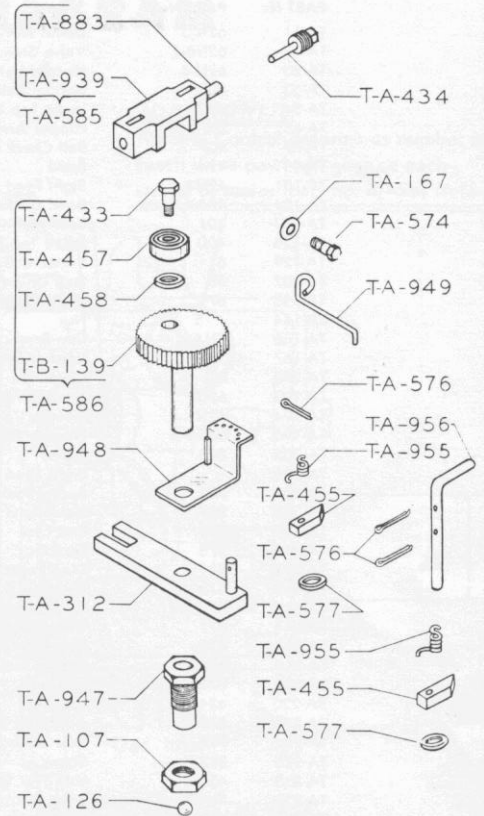
**TB-90- $\frac{1}{4}$ INJECTOR HEAD PARTS
FOR TYPE "1100" AND "3600"
CHEMICAL INJECTORS**



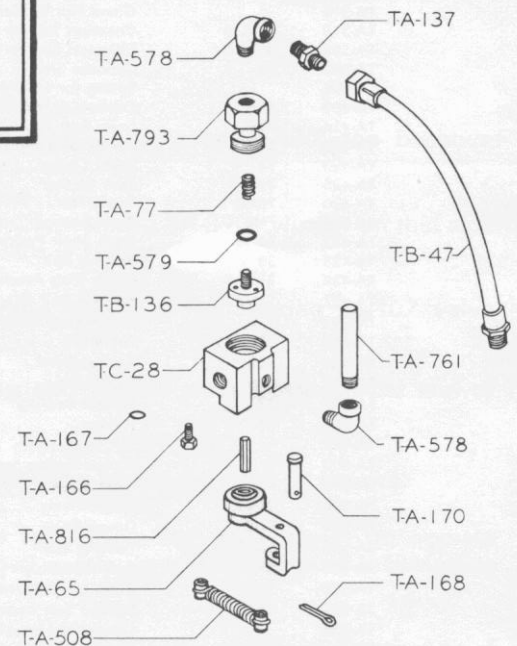
**T-B-89- $\frac{3}{8}$ INJECTOR HEAD PARTS
FOR TYPE "1100" AND "3600"
CHEMICAL INJECTOR**



**T-B-93- $\frac{1}{2}$ INJECTOR HEAD PARTS
FOR TYPE "1100" AND "3600"
CHEMICAL INJECTORS**



**RATCHET DRIVE PARTS
TYPE "3600" CHEMICAL INJECTOR**



**GAS VALVE PARTS FOR
TYPE "3600" CHEMICAL INJECTOR**
TB-107 VALVE COMPLETE
LESS HOSE TB-47 & CONNECTOR TA-137

TEXSTEAM CORPORATION

PARTS LIST ● TXT 1100 AND 3600 CHEMICAL INJECTOR

NEW PART No.	OLD PART No.	NAME	NEW PART No.	OLD PART No.	NAME
TA-11	62N-3	Gland Nut	TA-543	38-1	Plunger Packing Set — 1/4" Head
TA-13	62NB-1	Valve Stem			5 — TA-505 (Black)
TA-23	62N-4	Needle Valve Packing			2 — TA-506 (Red)
TA-53	40E	Bottom Ball	TA-544	37-1	Yoke Packing Set — 1/4" Head
TA-54	40C	Large Top Ball			2 — TA-505
TA-65	7N	Flipper Arm Assembly			1 — TA-506
TA-77	40F	Ball Check Spring	TA-545	3NC	Base Bolt Sub Assembly
TA-98	42A	Bowl	TA-549	40GB	Packing Nut
TA-101	42NA	Sight Feed Shut-Off Assembly	TA-550	75B	Yoke — 1/2" Head
TA-104	42AX	Bowl Gasket	TA-551	41DC-7	Suction Line Assembly
TA-107	40J	Lock Nut	TA-552	38C	Plunger Packing Set — 1/2" Head
TA-126	40D	Small Top Ball	TA-553	37C	Yoke Packing Set — 1/2" Head
TA-129	61	Pressure Gauge	TA-573	77	Bushing
TA-137	58	Half Union	TA-574	47B	Latch Bolt
TA-138	67	Drain Plug	TA-575	2NB-1	Thumb Screw
TA-144		Nut	TA-576	27X	Cotter Pin
TA-166	7NA	Cap Screw	TA-577	25X	Washer
TA-167		Washer	TA-578	4NA	Street Elbow
TA-170	8N	Clevis Pin	TA-579	4A	Washer
TA-193	62U	Needle Valve Assembly	TA-583	1N	Box Assembly
TA-194	62N	Needle Valve Body	TA-584	3NB	Base Assembly
TA-195	62NB-2	Needle Valve Stem Nut	TA-585	20	Cross Head Assembly
TA-205	882	Bonnet	TA-586	31U	Ratchet & Bearing Sub Assembly
TA-206		Sight Feed Strainer	TA-597	15U	Piston Assembly
TA-207	876	Spring Plate	TA-608	90X	Copper Tubing
TA-208	859	Valve Seat Block Yoke	TA-612		"O" Ring
TA-209	860	End Cap	TA-664	3NU	Reservoir Assembly
TA-210	878	Gasket	TA-665	3NBD-U	Base — Double 3600
TA-211	861	Diaphragm	TA-674	62K	Nipple
TA-212	879	End Cap Gasket	TA-675	71S	1/4" Srls. Steel Line Check
TA-213	877	Diaphragm Nut Gasket	TA-676	71	1/4" Line Check
TA-214	872	Valve Seat Assembly	TA-700	13U	Beam Clamp Assembly
TA-217	875	Regulator Screw	TA-761	4NB	Exhaust Nipple
TA-218	874	Spring Disc	TA-771	40B	Bottom Bushing Assembly
TA-219	871	Screw	TA-780		Wiper Washer — 3/8" Head
TA-220	624-X	Lock Nut	TA-781		Wiper Washer — 1/4" Head
TA-221	873	Adjusting Spring	TA-782		Wiper Washer — 1/2" Head
TA-222	947	Seat Block Pin	TA-791	75	Yoke
TA-223	882-X	Screw	TA-793	12	Bushing
TA-225	40-JB	Lock Nut for 1/2" TB-93	TA-805		Seat Insert
TA-226	3NCN	Long Nut	TA-806	1602	Top Seat Assembly
TA-246	41B	Suction Elbow	TA-807	40K	Priming Valve
TA-290	23	Cotter Pin	TA-808	16N	Cup Expander Spring
TA-299		Rivet	TA-809	40A	Top Bushing
TA-300	3NC-4	Washer	TA-810	40G	Packing Nut
TA-302	46N	Strainer Bushing Assembly	TA-811	22	Plunger — 3/8"
TA-306	46NA	Gasket	TA-812	74	Packing Nut
TA-307	41SF	Tubing Nut	TA-813	72	Plunger Packing Gland — 3/8" Head
TA-312	24	Cross Arm Assembly	TA-816	6	Valve Drive Pin
TA-315		Gland Nut Wrench	TA-828	72B-1	Packing Gland — 1/2" Head
TA-319	41DC-1	Chemical Suction Line	TA-829	74B	Gland Nut — 1/2" Head
TA-322	41DC-2	Chemical Suction Line	TA-830	22B	Plunger — 1/2"
TA-390	19	Cylinder Shell	TA-841	1634	Packing Adapter
TA-391		Spring for TA-676 Line Check	TA-842	40GA	Packing Nut — 1/4" Head
TA-409	13NB	Connecting Knuckle	TA-843	72-1	Packing Gland — 1/4" Head
TA-414	27B	Lever Bolt Assembly	TA-844	22A	Plunger Assembly — 1/4" Head
TA-420	6NB	Ratchet Assembly	TA-866	65	Inlet Bushing
TA-423	13	Beam Clamp	TA-867	14N	Piston Cut — Leather
TA-425	3NC-2	Lock Washer	TA-881	13N	Piston Rod
TA-430	10NB	Gland Nut	TA-882	951	Half Union
TA-431	7NB	Shaft Bearing	TA-890	15ND	Tapped Washer
TA-432	24NB	Drive Shaft Packing	TA-946	965	Oil Gauge Stick
TA-433	33	Bearing Bolt	TA-947	53N	Bearing Insert
TA-434	21	Guide Plug Assembly	TA-948	47N	Ratchet Control
TA-437	14NB	Knuckle Bolt Assembly	TA-949	47A	Ratchet Control Latch
TA-452	17B	Knuckle Set Screw	TA-951	3NF	Cover
TA-453	18B	Set Screw	TA-955	30 & 27	Pawl Spring
TA-455	28B	Ratchet Pawl	TA-956	29N	Check Pawl Stud
TA-456	30N	Pawl Spring	TA-960	2NB	Lid
TA-457	32	Ratchet Bearing	TA-1211		Piston Cup Retainer
TA-458	34	Washer	TB-38	42U	Sight Feed Assembly
TA-479		"O" Ring	TB-39		Sight Feed Body
TA-508	9	Flipper Spring Sub Assembly	TB-40	60A	Pressure Regulator
TA-519	885	Filter Screen	TB-47	59	Gas Inlet Hose Assembly
TA-528	2NBX	Cover Rivets	TB-66	5NB	Drive Shaft Assembly
TA-529	3NG	Gauge Stick	TB-67	12NB1	Lever
TA-533	1635	Packing Disc	TB-89	75U	Injector Head Assembly — 3/8"
TA-535	4NBU	Base Assembly	TB-90	75U	Injector Head Assembly — 1/4"
TA-536	9NB-U	Cross Head Assembly	TB-91	1NB	Box Assembly 1100
TA-537	6NB-U	Ratchet Sub Assembly	TB-93	75U	Injector Head Assembly — 1/2"
TA-538		Connecting Knuckle Assembly	TB101	4NBD	Base — Double 1100
TA-540	38	Plunger Packing Set — 3/8" Head	TB-107	4U	Valve Assembly
		5 — TA-313 (Black)	TB-136	5	Valve Disc
		2 — TA-314 (Red)	TB-139	31	Ratchet with Shaft Assembly
		Yoke Packing Set — 3/8" Head	TB-206	2N	Injector Box Cover — 3600
		2 — TA-313	TC-28	4	Valve Body
		1 — TA-314	TC-29	858	Regulator Body
			TC-58	40N	Injector Body — 1/4" & 3/8"
			TC-92	40NB	Injector Body — 1/2"

TEXSTEAM CORPORATION

320 HUGHES STREET

HOUSTON, TEXAS

P. O. BOX 9127

PHONE WAlnut 6-8853

VOLUME ADJUSTMENT DIAGRAM

APPLIES TO ALL SERIES 1100, ELECTRIC DRIVE SERIES 3600 AND 3600 T INJECTORS

Three adjustments provide any desired volume within the range of a particular piston size on TEXSTEAM Series 1100, Electric Drive, 3600 and 3600 T Injectors.

Adjustment "C" on this diagram is common to all four series. The gas valve (Adjustment "A") and Ratchet Control (Adjustment "B") are found on the Series 3600 and 3600 T only; in the Series 1100 and Electric Drive units, this adjustment is made by changing the position of the clamp on the rocker arm of the injector.

VOLUME OUTPUT TABLE

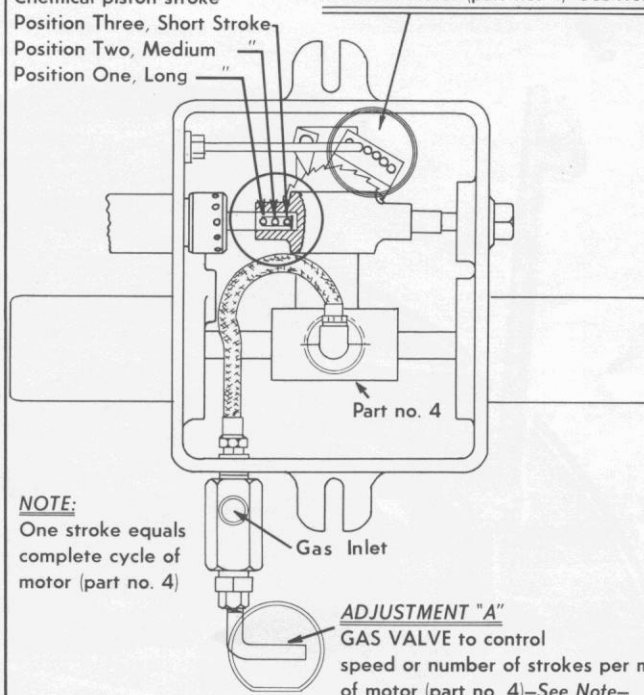
Adjustment "A" Strokes Per Minute	Adjustment "B" Ratchet Teeth Engaged	Adjustment "C" Piston Stroke Position	OUTPUT PINTS PER 24 HOURS		
			1/4" Piston	3/8" Piston	1/2" Piston
10	2	2	.20	.5	.88
10	2	1	.40	1.0	1.77
10	4	1	1.0	2.5	3.4
20	4	1	2.2	5.5	9.7
40	4	1	5.0	12.5	22.25
60	4	1	9.75	22.0	38.0
80	4	1	13.2	33.0	58.0
100	4	1	16.4	41.0	80.05

ADJUSTMENT "C"

Chemical piston stroke
Position Three, Short Stroke
Position Two, Medium
Position One, Long

ADJUSTMENT "B"

Ratchet Control determines number of teeth drive pawl will engage each stroke of motor (part no. 4)—See Note—



NOTE:

One stroke equals complete cycle of motor (part no. 4)

TROUBLE SHOOTING

- Should injector run, but fail to pump chemical, remove TA-771, bottom bushing, and TA-809, top bushing, inspect and clean balls and seats. Check for damage and replace if required.
- Should gas bubble up through oil at either side of TA-583 box assembly, remove TA-390 cylinder on that side and check for damage to cylinder or TA-867 piston cup leather. Replace if required.
- Should gas bubble up in center or near center of TA-583 box assembly, this indicates leaking TB-107 valve assembly. Remove and replace.
- Should pump stall and inspection shows the TA-290 cotter pin missing and TA-585 cross head against end of plunger;** shut gas supply off and proceed as follows:
 - Remove TA-434 guide plug and realign TA-585 cross head with plunger.
 - Install new cotter pin and reinstall TA-434 guide plug. Pump can now be placed back in service.
- Should TA-98 bowl fill completely with chemical; close TA-101 sight feed valve and allow pump to operate until sight feed bowl is empty. **Then open TA-101 all the way.** If bowl continues to fill, inspect TA-101 valve for damage.
- Should plunger packing require replacement too often, contact factory, **giving name and formula number of chemical being pumped.**
- If in replacing parts in the pump head, corrosion is noted, notify the factory of **the type and name of the manufacturer of the compound being pumped. If any excessive wear or excessive replacement of parts is noted, the factory should be notified and the part number be identified.**

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