

OWNER'S MANUAL

MODULAR DIRECT CONNECTED TILTING STEAM JACKETED KETTLE

MODELS:

- MT6
- MT6T6
- MT10
- MT10T10
- MT10T6
- LFT6
- LFT10
- LFT10T6
- LFT10T10



MARKET FORGE
INDUSTRIES INC.

Form Number: S-2306

REV:C

10/12

Printed in U.S.A.



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INTRODUCTION

This manual contains general, maintenance, parts and service information for Market Forge Modular Direct Connected Tilting Steam Jacketed Kettles. A parts list is included in which each replaceable part is identified and shown in an accompanying illustration unless otherwise indicated.

DESCRIPTION:

Market Forge MT6 and MT10 Tilting Steam Jacketed Kettles are mounted on a modular stainless steel cabinet. Double wall construction around the lower half of the kettle forms a surrounding chamber in which steam is introduced as a source of heat for cooking.

Steam input plumbing is equipped with a manual control valve. Condensate is removed through a steam trap connecting with the kettle drain plumbing assembly. A swing nozzle, hot-cold combination faucet provides a source of water for addition to the kettle for cooking and cleaning.

The 6 gallon kettle is mounted in a trunnion assembly to the modular cabinet top. The trunnion pivots include steam input and return connections for the kettle. Kettle tilting is accomplished manually by moving the handle fixed to the rim so as to rotate the kettle in a trunnion.

SERVICE:

Modular kettles are exceptionally and durable cooking equipment requiring a minimum of service other than routine cleaning and preventive methods explained on page 2. Should repairs be required, a network of authorized service agencies is available to assist with prompt service. A current directory of authorized service agencies may be obtained by contacting:

Market Forge Ind., Inc.

35 Garvey Street

Everett, MA 02149-4403

Tel: (617) 387-4100 or (866) 698-3188

Fax: (617) 387-4456 or (800) 227-2659

Parts & Service Toll Free: (888) 259-7076

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The model and/or serial numbers must be referenced when corresponding with Market Forge. The data plate containing model and serial numbers pertaining to the equipment is located inside the cabinet door on the right vertical frame member.

MODELS:

MT6 / MT10

Single 6 Gallon or 10 Gallon kettle mounted on an 18" (457mm) wide x 28" (711mm) tall cabinet base equipped for direct connection to a remote steam source.

MT6T6 / MT10T10

Two 6 Gallon or 10 gallon Kettle mounted side by side on an 36" (914mm) wide x 28" (711mm) tall cabinet base equipped for direct connection to a remote steam source.

LFT6 / LFT10

Single 6 Gallon or 10 Gallon kettle mounted on an 18" (457mm) wide x 20" (508mm) tall Low Boy cabinet base equipped for direct connection to a remote steam source.

LFT10T6/LFT10T10

One 6 Gallon and 10 Gallon or Two 10 Gallon kettles mounted on an 18" (457mm) wide x 20" (508mm) tall Low Boy cabinet base equipped for direct connection to a remote steam source.

OPERATING

Consult boiler information or instructions plate and complete all start-up instructions.

OPERATE KETTLE AS FOLLOWS:

1. Check pressure gauge of steam supply to ensure steam input is at approximately 15 PSI ($1.0\text{kg}/\text{cm}^2$) to a maximum of 50 PSI ($3.5\text{ kg}/\text{cm}^2$). For direct connected steam, turn on external steam supply valve.
2. Load kettle with food to be cooked.
3. Add water for cooking by turning swing nozzle over kettle and using combination faucet.
4. Turn steam valve to full counterclockwise position to allow steam to flow into jacket. Wait until food reaches desired temperature.
5. Adjust subsequent cooking temperature by turning steam control valve. Turn clockwise to reduce heat (*steam flow*) and counterclockwise to increase heat (*steam flow*).
6. Close steam control valve and remove food from kettles as soon as cooking is complete to prevent overcooking. (*OLD Style - Place food pan under kettle being used and tip kettle forward using kettle handle. NEW Style - Attach splash guard to food pan. Place food under kettle being used and tip kettle forward using kettle handle*). (*NOTE: Before tilting kettle, ensure that a.) Swing nozzle is rotated clear of kettle. b.) Kettle is not full. If kettle is full ladle out 2 gallons of contents by hand.*)
7. Complete Cleaning Procedure (*see below*).

MAINTENANCE

GENERAL:

This section contains both preventive and corrective maintenance information. Preventive maintenance may be performed by maintenance personnel at the establishment in which the kettle is installed. It is recommended that user personnel never attempt to make repairs or replacements to the equipment without the assistance of authorized services. Assistance in service methods or a current directory of authorized service agencies may be obtained from Market Forge (*see page 1 for contact information*).

PREVENTIVE MAINTENANCE:

The most important preventive maintenance operation on the steam jacketed kettle is the cleaning procedure. Cleaning should be faithfully completed at the end of each day, including cabinet doors, counter-top, fixtures, kettle lid, etc, should be washed and rinsed to remove all food spills.

CLEANING PROCEDURE AS FOLLOWS:

1. Fill kettle with water and mild detergent immediately after removing food from the kettle.
2. Remove food soil using a nylon brush. (*NOTE: Never scrape the inside of the kettle with metal tools, steel scouring pads or abrasive cleaners. Scratches will result which ruin the general appearance of the kettle and make it harder to clean and maintain in a sanitary condition*).
3. Loosen food which is stuck to the kettle by allowing it to soak. Also, a small amount of steam may help.
4. Place clean-Up pan under kettle being washed by inserting clean-up pan drain extension into counter-top drain opening. (*NEW Style - Attach splash guard to clean-Up pan*). Tilt kettle to pour out wash water.
5. Rinse kettle with hot water.
6. Thoroughly wash and rinse kettle exterior and cabinet exterior.
7. Thoroughly dry unit.

REPAIR AND REPLACEMENT

In the event that the kettle fails to operate correctly, the difficulty should first be isolated to either the kettle itself or the steam supply which heats the kettle. While mechanical problems are obvious faults of the kettle, any deficiencies in volume and pressure of the steam should be traced to the steam generator and the cause determined. Steam input requirements are listed below. This list recommends delivered boiler horsepower for kettle size and steam flow.

MT6	1/3 BHP	15-30 PSI
MT10	1/2 BHP	15-30 PSI
MT6T6	1/3 BHP	15-30 PSI
MT10T6	1/2 BHP	15-30 PSI
MT10T10	1/2 BHP	15-30 PSI
LFT6	1 BHP	15-30 PSI
LFT10	1 BHP	15-30 PSI
LFT10T6	1 BHP	15-30 PSI
LFT10T10	1 BHP	15-30 PSI

CABINET EXTERIOR REMOVAL:

Side and rear panels of all cabinets in which kettles are mounted are easily removed without the use of tools. Each panel is grasped at the bottom edge and pulled out sharply to release it from the panel mounting brackets shown in figure 6 on page 9. Replacement is completed by pushing panel up under the cabinet top and pressing in at the bottom until panel mounting brackets are engaged.

Doors may be removed to improve access to cabinet interior for repairs as shown in figure 6 on page 9 and 10. The two flat head screws, nuts, and holding cabinet

hinge are removed to lift the door out shown in figure 6 on page 9 and 10. When doors are remounted, the final tightened position of hinge determines the alignment of the door and must be set with care, also shown in figure 6 on page 9 and 10.

TRUNNION MOUNTED KETTLE DISASSEMBLY:

Trunnion mounted kettles may be removed from the cabinet top for replacement of worn o-rings and lubrication of trunnion parts.

Disassemble as follows:

1. Disconnect both steam inlet and condensate return plumbing connected to kettle legs from inside of cabinet.
2. Remove 3/8" nuts and washer used to fasten kettle legs to cabinet top.
3. Lift kettle with legs attached off of cabinet top.
4. Insert blade of screwdriver in slots of trunnion end caps and pry off caps.
5. Remove retaining rings from ends of trunnions using retaining ring pliers.
6. Slip leg and support collar assemblies off of kettle.
7. Remove o-rings and clean off trunnion parts including insides of support collars attached to legs.
8. Replace o-rings and lubricate trunnion parts with krylon base no. 1325 silicon spray.
9. Reassemble kettle and trunnion by completing step 6 and the 5, and tapping end cap back in place (*slot down*) with a rubber mallet.
10. Remount kettle and trunnion assembly on cabinet top by completing steps 3, 2 and then 1.

PARTS LIST



Fig. 1 MT6T6

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	97-5008	KNOB	2
2	97-5115	HANDLE	2
2a	97-5116	NUT, ACORN - FOR HANDLE	
3	10-5242	STEAM, VALVE, ANGLE 1/2" (SEE FIG. 5)	2
4	10-3556	FAUCET (SEE FIG. 5)	
5	10-5753	SWING NOZZLE (SEE FIG. 5)	
6	97-5117	END CAP	4
*	97-0662	6 GALLON	
	97-0663	10 GALLON	
8	97-1975	CLEAN-UP PAN	
9		CABINET, 36" (SEE FIG. 5 NEW STYLE. FIG. 6 OLD STYLE)	
-	10-4755	STEAM TRAP (SEE FIG. 4)	
-	97-5122	O-RING, 5/8" ID X 7/8" OD X 1/8" SECT. (NOT SHOWN)	8
-	97-5123	RETAINING RING (NOT SHOWN)	4
10a	97-5118	STANCHION ASS'Y 6 GALLON KETTLE	
10b	97-5119	STANCHION ASS'Y 10 GALLON KETTLE	
10c	97-5118A	STANCHION ASS'Y WITH STEAM CONTROL VALVE 6 GALLON KETTLE	
10d	97-5119A	STANCHION ASS'Y WITH STEAM CONTROL VALVE 10 GALLON KETTLE	
-	97-5120	WASHER FOR STANCHION	
-	97-5121	LOCKNUT FOR STANCHION	

PARTS LIST

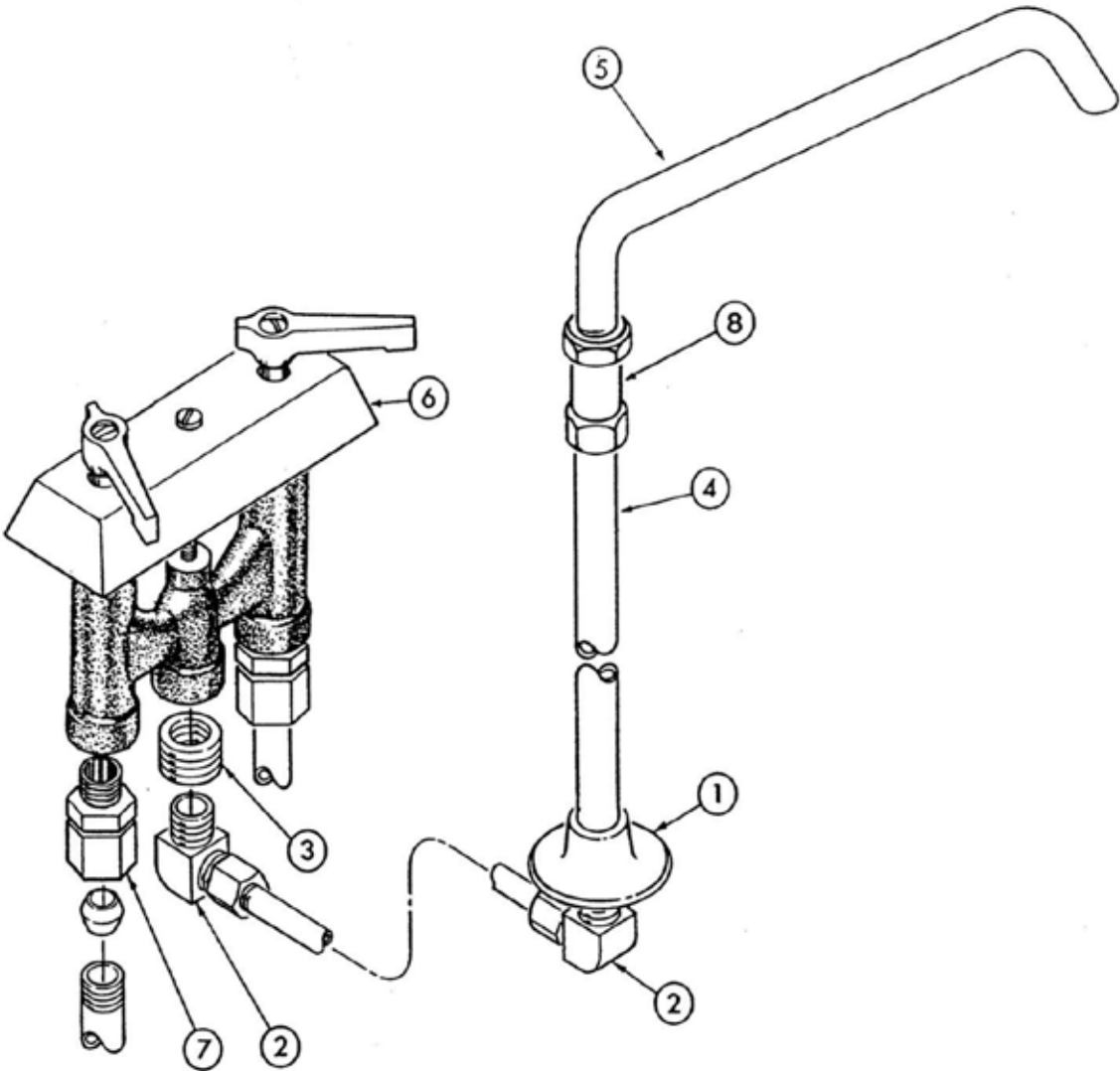


Fig. 2 Faucet

ITEM NO.	PART NO.	DESCRIPTION
1	10-3108	MOUNTING BASE, RISER
2	10-3357	ADAPTER, 90°
3	10-3741	REDUCING, BUSHING
4	91-0887	RISER, 15"
5	10-5753	SWING NOZZLE
6	10-3556	FAUCET
7	10-3684	COMPRESSION FITTING, MALE
8	10-1100	SWIVEL BODY

PARTS LIST

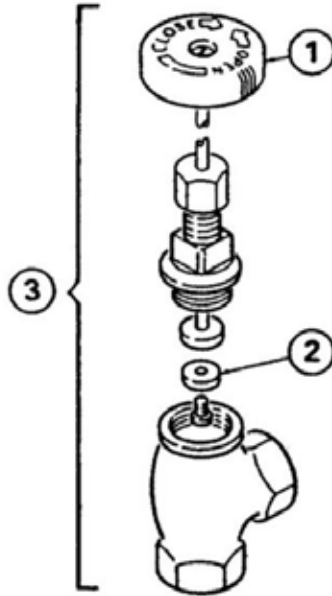


Fig. 3 Steam Valve

ITEM NO.	PART NO.	DESCRIPTION
1	10-0105	STEAM VALVE HANDLE
2	10-5247	VALVE DISC
3	10-5242	STEAM CONTROL VALVE, ANGLE 1/2"

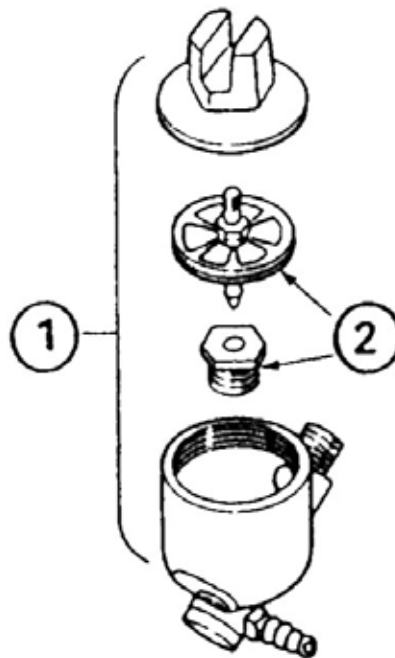
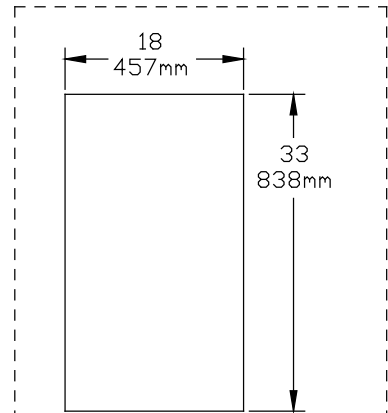
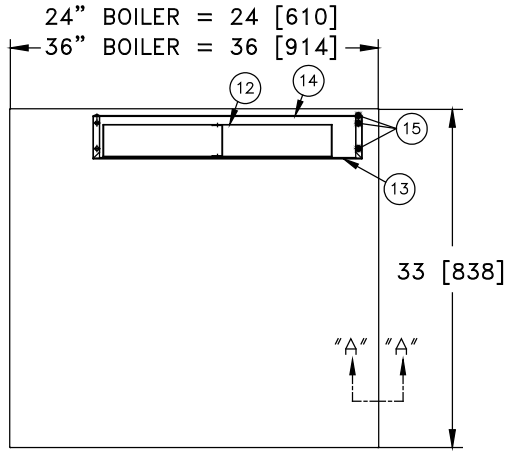
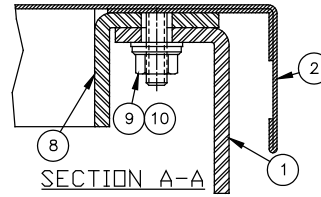
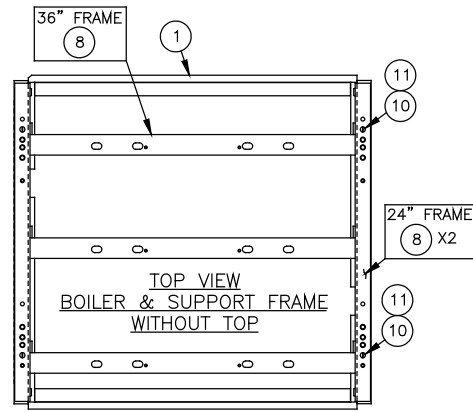
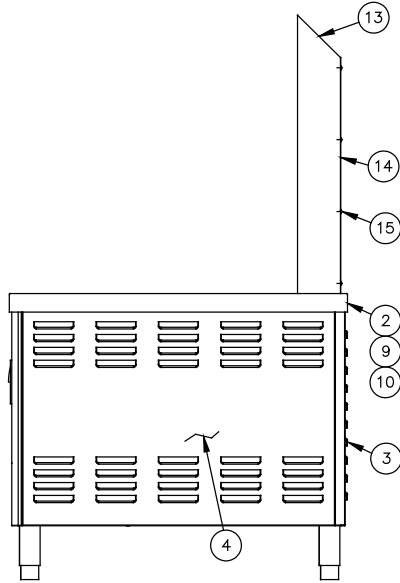


Fig. 4 Steam Trap

ITEM NO.	PART NO.	DESCRIPTION
1	10-4755	STEAM TRAP 1/2"
2	10-4937	THERMOSTAT, STEAM TRAP

PARTS LIST

NEW STYLE CABINET BASE



LOW BOY CABINET BASE

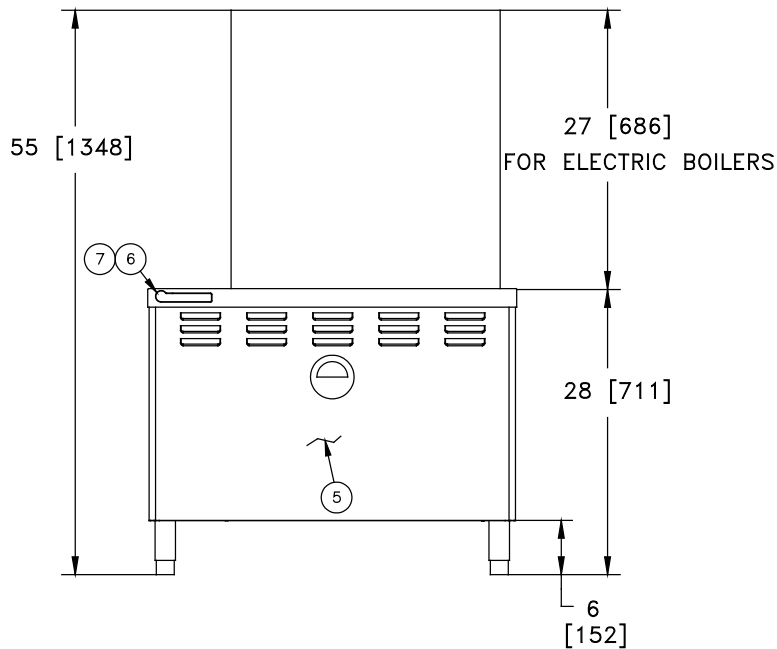
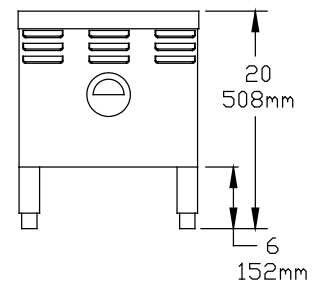


Fig. 5 New Style Cabinet Base

PARTS LIST

NEW STYLE CABINET BASE

ITEM NO.	PART NO.	DESCRIPTION	91-5812 ELECTRIC BOILER 36" FRAME	91-5811 ELECTRIC BOILER 24" FRAME	91-5810 300K GAS BOILER 36" FRAME	91-5809 200K GAS BOILER 36" FRAME	91-5808 200K GAS BOILER 24" FRAME
			QTY.	QTY.	QTY.	QTY.	QTY.
1	98-3681	BOILER, 200K GAS, 24" FRAME					1
	98-3682	BOILER, 200K GAS, 36" FRAME				1	
	98-3983	BOILER, 300K GAS, 36" FRAME			1		
	98-3684	BOILER, ELECTRIC, 24" FRAME		1			
	98-3985	BOILER, ELECTRIC, 36" FRAME	1				
2	98-3998	TOP, PLAIN, 200K GAS BOILER, 24" FRAME					1
	98-3999	TOP, PLAIN, 200 & 300K GAS BOILER, 36" FRAME			1	1	
	98-4000	TOP, PLAIN, ELECTRIC BOILER, 24" FRAME		1			
	98-4001	TOP, PLAIN, ELECTRIC BOILER, 36" FRAME	1				
3	98-3995	REAR PANEL, 24" FRAME		1			1
	98-3996	REAR PANEL, 36" FRAME	1		1	1	
4	98-3994	SIDE PANEL, LEFT & RIGHT	2	2	2	2	2
5	98-3992	CONTROL (FRONT) PANEL, 24" FRAME		1			1
	98-3993	CONTROL (FRONT) PANEL, 36" FRAME	1		1	1	
6	08-5894	MARKET FORGE NAME PLATE	1	1	1	1	1
7	10-2347	STUD RECEIVER	2	2	2	2	2
8	98-4015	SUPPORT FRAME, TOP MOUNT, 36" FRAME	1		1	1	
	94-5124	SUPPORT ANGLE, TOP MOUNT, 24" FRAME		1			1
9	08-3822	1/4 Ø FLAT WASHER, ST. ST.	4	4	4	4	4
10	08-7840	1/4-20 SERRATED, FLANGED, HEX NUT, ST. ST.	8	8	8	8	8
11	10-1770	1/4-20 X 3/4 LG. FLAT HEAD SCREW, ST. ST.	4	4	4	4	4
12	98-0593	INNER FLUE, WELD ASSY. 200K GAS, 24" FRAME					1
	91-8936	INNER FLUE, WELD ASSY. GAS, 36" FRAME			1	1	
13	91-8892	FLUE COVER, FRONT & SIDES, 24" FRAME					1
	91-8938	FLUE COVER, FRONT & SIDES, 36" FRAME			1	1	
14	91-2713	FLUE COVER, BACK, 36" FRAME			1	1	
	91-8893	FLUE COVER, BACK, 24" FRAME					1
15	10-1735	#8 X 3/8 LG., PAN HEAD TYPE-A S.M. SCREW			12	12	12

PARTS LIST

OLD STYLE CABINET BASE

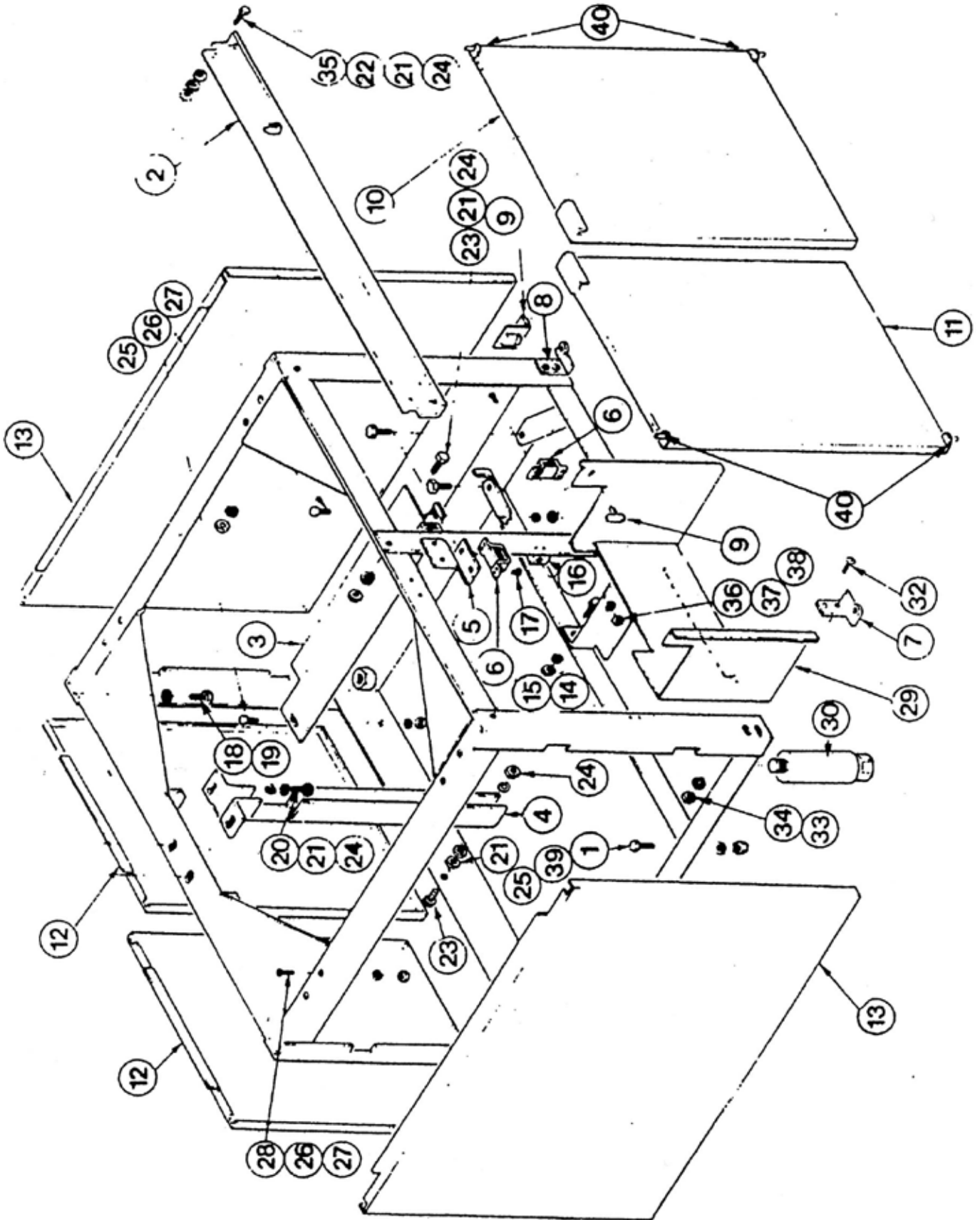


Fig. 6 Old Style Cabinet Base

PARTS LIST

ITEM NO.	PART NO.	OLD STYLE CABINET BASE DESCRIPTION
1	10-2500	WASHER, LOCK ST. 1/4
2	10-0495	STRIP, FEATURE
3	91-8126	TRAY, HOSE
4	91-3348	CHANNEL, REAR FRAME SUPPORT
5	90-3210	BRACKET FOR DOOR MAGNET
6	10-5561	MAGNET, DOOR
7	91-5482	HINGE, LEFT, BOTTOM
8	91-5481	HINGE, RIGHT, BOTTOM
9	90-2663	BRACKET, SIDE AND REAR ST.
10	91-5490	DOOR, ASS'Y, RIGHT HAND
11	91-5484	DOOR, ASS'Y, LEFT HAND
12	91-6132	PANEL, REAR, ALUMINIZED ST.
13	90-2661	PANEL, SIDE, RIGHT & LEFT, ST.
14	10-1928	STUD
15	10-1927	RECEPTACLE
16	10-1929	RETAINER, SPLIT RING
17	10-8057	SCREW RD. HD. ST. 6-32 X 5/8 LG.
18	10-2050	SCREW RD. HD. CAP 3/8-16 X 7/8 LG.
19	10-2503	WASHER, LOCK 3/8
20	10-2141	SCREW RD. HD. CAP 5/16-18 X 1 1/2 LG.
21	10-2511	WASHER, LOCK 5/16
22	10-2405	WASHER, PLAIN ST 5/16
23	10-2147	SCREW HEX. HD. CAP 5/15-18 X 3/4 LG.
24	10-2307	NUT HEX. 5/16-18
25	10-2089	SCREW HEX. HD. CAP 1/4-20 X 7/8 LG.
26	10-2500	WASHER, LOCK ST. 1/4
27	10-2308	NUT HEX. ST. 1/4-20
28	10-1755	SCREW MACHINE, FLAT HD. ST. 1/4-20 X 1 LG.
29	91-3358	GUARD, SPLASH ASS'Y
30	10-0631	FEET, ADJUSTABLE 6"
31	10-0636	FEET, ADJUSTABLE WITH FLANG (NOT SHOWN)
32	10-1869	SCREW FLAT HD. 10-32 X 1/2 LG.
33	10-2505	WASHER, LOCK #10
34	10-2340	NUT, HEX. 10-32
35	10-2143	SCREW HEX. HD. CAP 5/16-18 X 1 1/4 LG.
36	10-1836	SCREW RD. HD. ST. 8-32 X 1/2 LG.
37	10-2521	WASHER, LOCK #8
38	10-2332	NUT, HEX. 8-32
39	10-2400	WASHER, PLAIN 1/4
40	10-1582	BEARING, FLANGE TYPE NYLON