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Assembly instructions and parts list - Hamilton drafting tables.

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ASSEMBLY INSTRUCTIONS AND PARTS LIST

Hamilton

TORSION AUTO-SHIFT
TORSION POWERSHIFT
DRAFTING TABLES



TORSION AUTO-SHIFT with DIAL-A-TORQUE

TABLE ASSEMBLY

1. Open base unit package. Tip base unit on end with electric receptacle up.

1a. Remove hardware bag from tool drawer.

2. Attach foot pedal. Slip rubber pad on foot pedal. (Illus. 1)

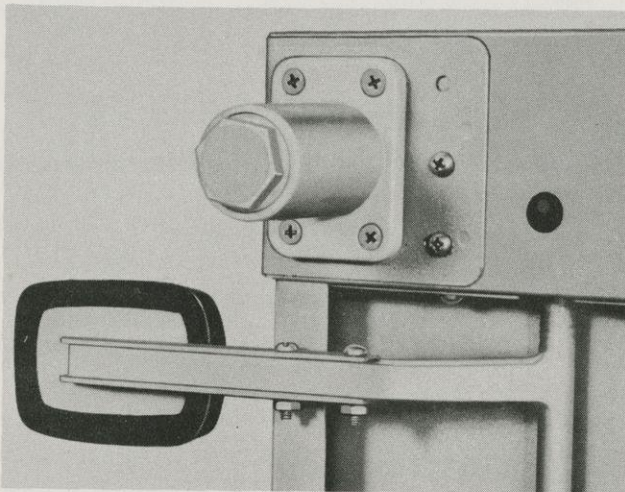


Illustration 1

3. Attach four legs - 4 screws each. (Illus.1) Place rubber shoes on adjustable section of legs.
4. Set base unit on legs. Depress foot pedal and lift board support assembly to maximum height.
5. Remove drawing board and mechanism from carton. Release brake handle and position brake leaves at 90° to board surface. (Illus. 2)

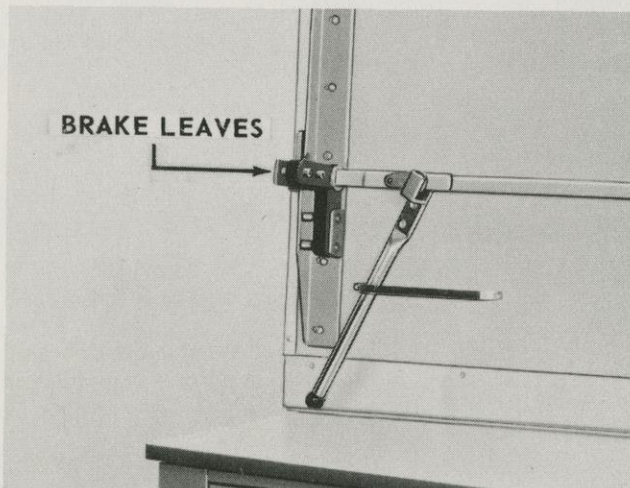


Illustration 2

6. Remove cap screws and nuts. (Illus. 2) Discard nuts (used only to hold leaf assembly in shipment). Save cap screws.

7. Position board and insert brake leaves and bushings in opening of columns. Bearing plates must be positioned outside columns. (Illus. 3)

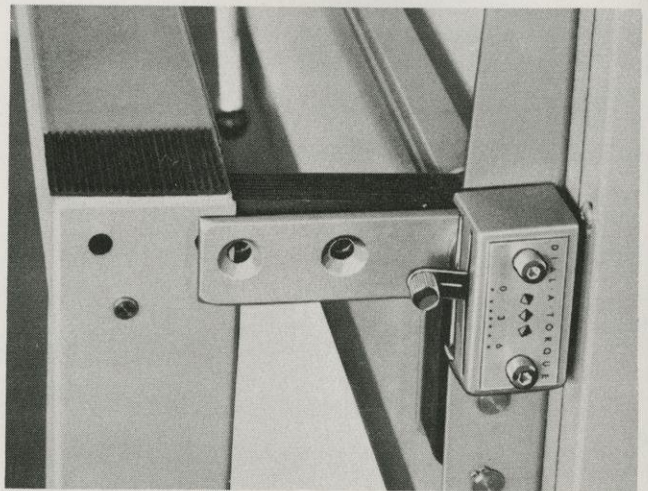


Illustration 3

8. Secure board assembly with 4 cap screws, using Allen wrench. (Illus. 4)

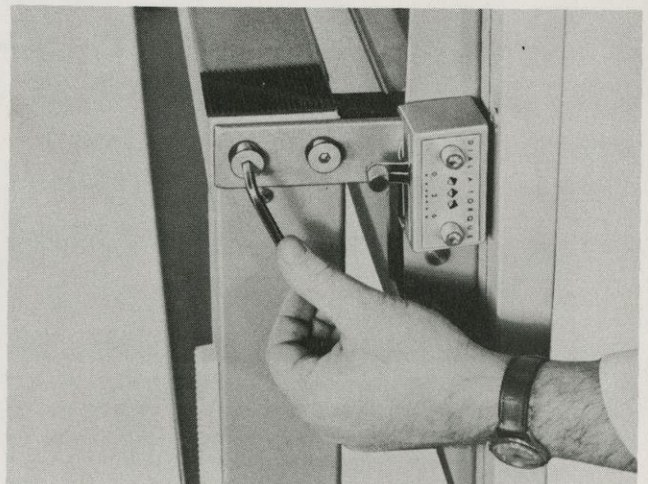


Illustration 4

TABLE ADJUSTMENTS

ELEVATION ADJUSTMENT

Extend reference surface. Remove plug button, exposing elevation adjusting screw. Turn clockwise with screwdriver to increase spring tension – counterclockwise to decrease tension. Elevating base mechanism is factory set at approximately 25 turns. For different board sizes, add the following additional turns:

37½" x 50" – 73 turns
37½" x 60" – 82 turns

37½" x 72" – 91 turns
43½" x 72" – 103 turns

For each additional pound of weight added to the board, one complete turn is required. Tension is correct when top rises approximately 7" from lowest position when foot pedal control is released. (Illus. 5)

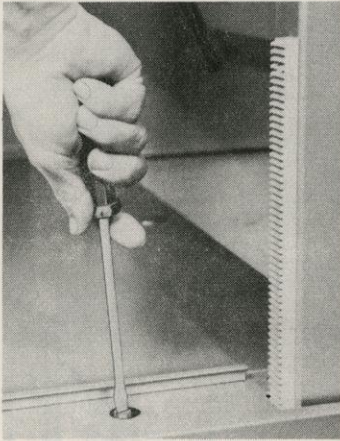


Illustration 5

DIAL-A-TORQUE TILT COUNTERBALANCING ADJUSTMENT

1. Adjustment is factory set at zero. Tilt torque required varies according to board size and additional weight of drafting machine or accessories.

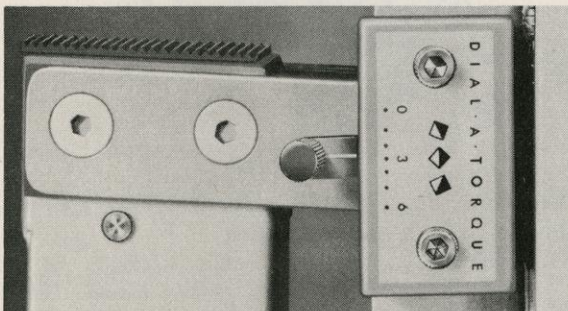


Illustration 6

2. For proper Dial-A-Torque setting, place board in vertical position. Loosen 2 cap screws on Dial-A-Torque plate with Allen wrench. See graph, Illus. 6a. Minimum setting = 0. Maximum = 6. Suggested settings for boards without accessories:

37½ x 50 = 1½
37½ x 60 = 1½

37½ x 72 = 2
43½ x 72 = 2½

Move index lever to desired setting and tighten cap screws. If lubrication is necessary, use silicone grease.

DIAL-A-TORQUE SETTINGS

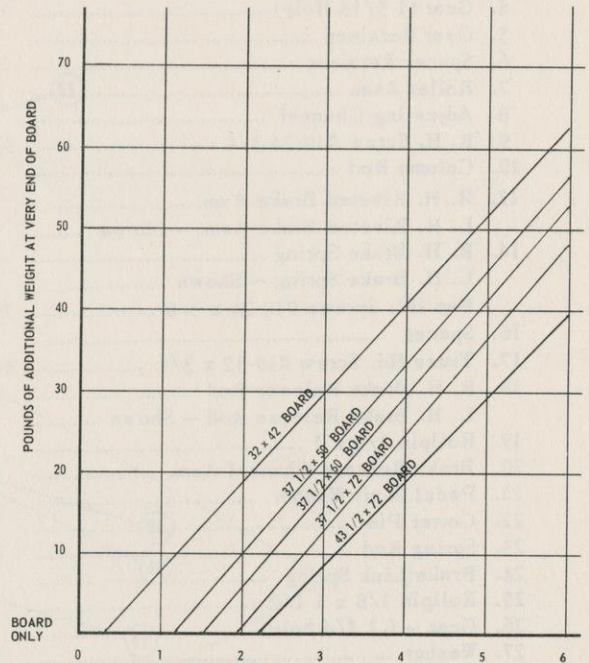


Illustration 6a

NOTE: Settings may vary in actual practice and with individual preferences.

LOCKING ADJUSTMENT FOR BOARD TILT MECHANISM

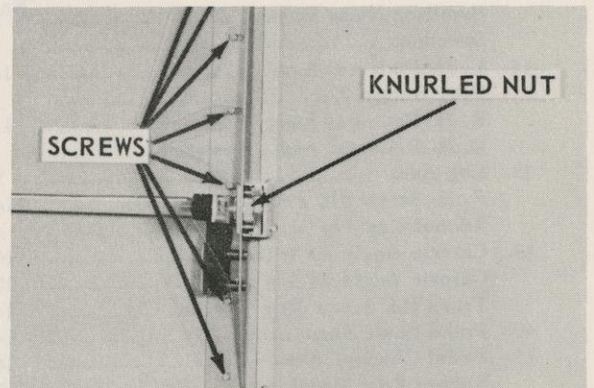
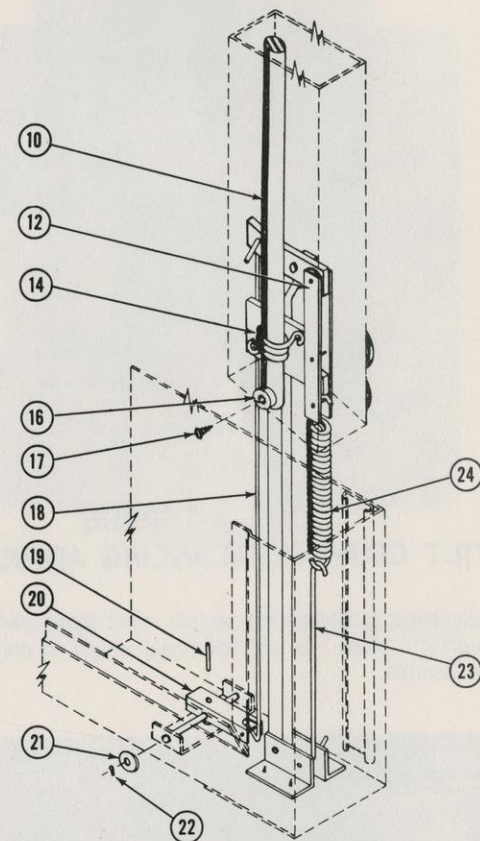
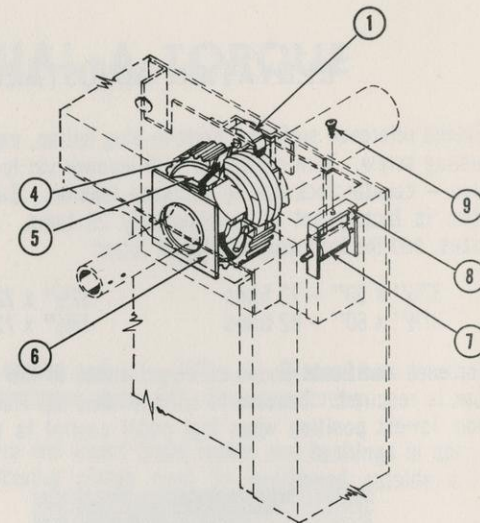


Illustration 7

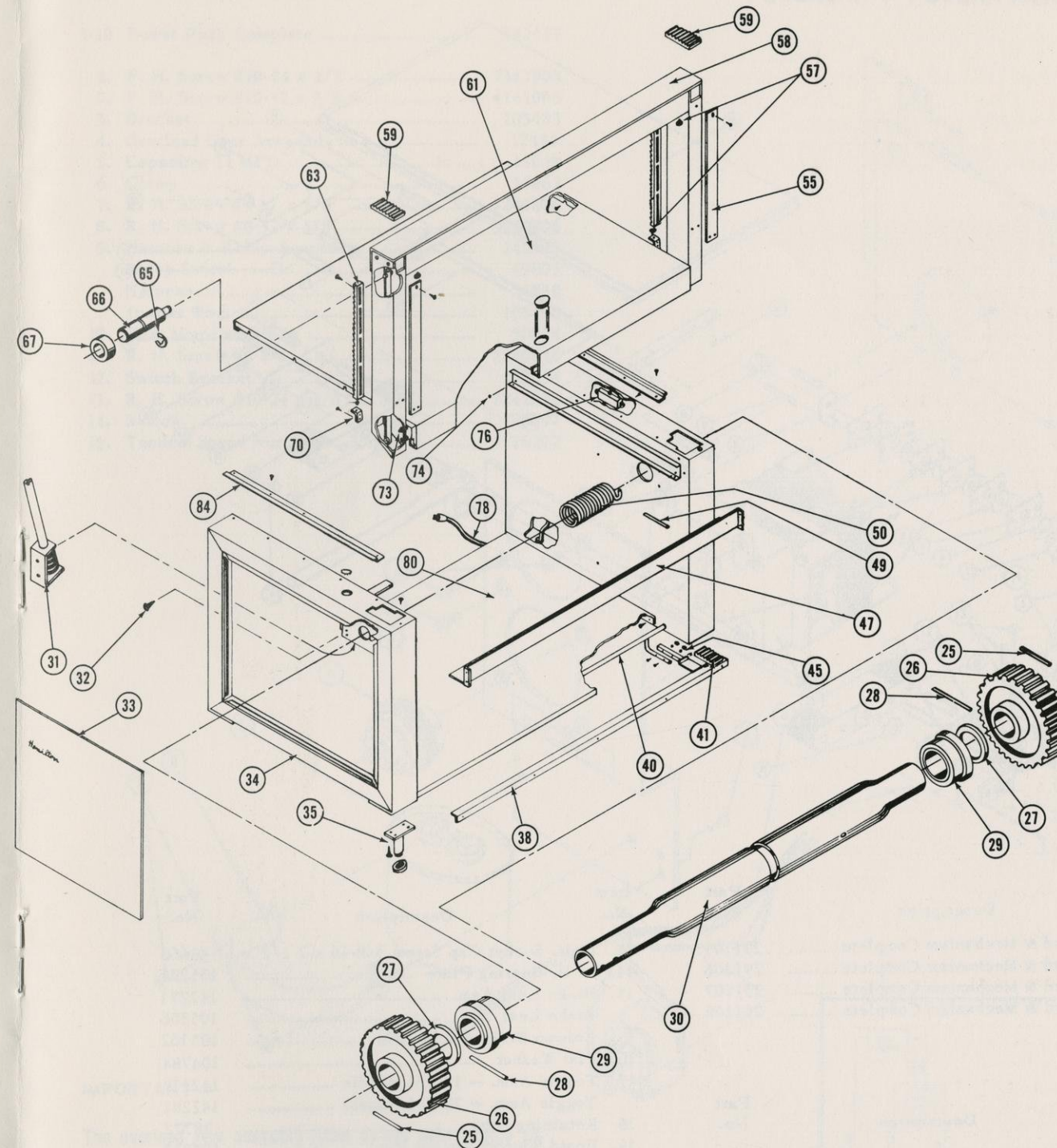
1. Brake for tilt control is factory adjusted to board size. To increase or decrease positive tilt lock control, it is necessary to change locking pressure on brake leaves.
2. Locking pressure is controlled by the brake lock, which can be changed by loosening the 2 cap screws on the Dial-A-Torque plate.
3. Loosen 7 screws holding board to either one of the board support arms. Turn the knurled nut clockwise to increase brake pressure and counterclockwise to decrease brake pressure. (Illus. 7)
4. Retighten screws on underside of board and 2 cap screws on Dial-A-Torque plate.

BASE FOR TORSION AUTO-SHIFT AND TORSION POWERSHIFT

Item No.	Description	Part No.
1.	Roller	10861
	Roller Shaft	105286
	"E" Retaining Ring	28762
4.	Gear (1 5/16 Hole)	17334
5.	Gear Retainer	54916
6.	Spacer Retainer	105324
7.	Roller Asm.	142287
8.	Adjusting Channel	105285
9.	R. H. Screw #10-24 3/4	3241012
10.	Column Rod	105287
12.	R. H. Riveted Brake Asm.	142301
	L. H. Riveted Brake Asm. - Shown	142302
14.	R. H. Brake Spring	40672
	L. H. Brake Spring - Shown	40673
	Pan Hd. Screws #10-24 x 3/8	7941006
16.	Spacer	105290
17.	Truss Hd. Screw #10-32 x 3/4	4441012
18.	R. H. Brake Release Rod	105209
	L. H. Brake Release Rod - Shown	105210
19.	Rollpin 1/4 x 1	27463
20.	Brake Release Channel Asm.	142343
21.	Pedal Shaft Washer	105291
22.	Cotter Pin	27354
23.	Spring Rod	105213
24.	Brake Link Spring	40774
25.	Rollpin 1/8 x 1 1/2	27462
26.	Gear - (1 1/4 hole)	17333
27.	Washer	105296
28.	Rollpin 3/16 x 1 3/4	27461
29.	Bearing	10862
30.	Timing Tube	105294
31.	Worm Asm.	142285
32.	R. H. Screw #10-24 x 3/8	7241006
33.	L. H. Panel Asm., Auto-shift, Complete, - Shown	142284
	R. H. Panel Asm., Auto-shift, Complete	142283
	L. H. Panel Asm., Powershift, Complete	
	R. H. Panel Asm., Powershift, Complete	
	Clip	14523
	Hamilton Name Plate	27731
	Speednut	26197
34.	L. H. Pedestal Asm.	142336
	Plug Button 7/8	13277
	R. H. Pedestal Asm., Auto-shift	142335
	R. H. Pedestal Asm., Powershift	
35.	Leg Asm.	93332
	F. H. Screw #10 x 3/4	1141012
	Rubber Leg Tip	42992
38.	Chrome Angle 40 1/16	105293
	Chrome Angle 24 3/4	105292
	Truss Hd. Screw #8 x 5/8 Sat. Chr.	146810
40.	Pedal Shaft Asm.	142312
45.	Pedal Channel Asm.	142272
	Rubber Foot Pedal	102877
	R. H. Screw #10-24 x 7/8	3241014
	Lock Washer	44394
	Hex Nut #10-24	25696
47.	Spring Guard	105331
	R. H. Screw #10 x 1/2	1251008
49.	Rollpin 1/4 x 1/2	27460
50.	Torsion Spring	40775
55.	Column Strip	105305
	Truss Hd. Screw #4 x 1/4	2440404
57.	Rubber Bumper	12900
58.	Tilt Mech. Support Asm.	142320
59.	Rubber Pad	105302
61.	Tie Panel	105299
	R. H. Screw #10 x 1/2	1241008
	Plug Button	13261



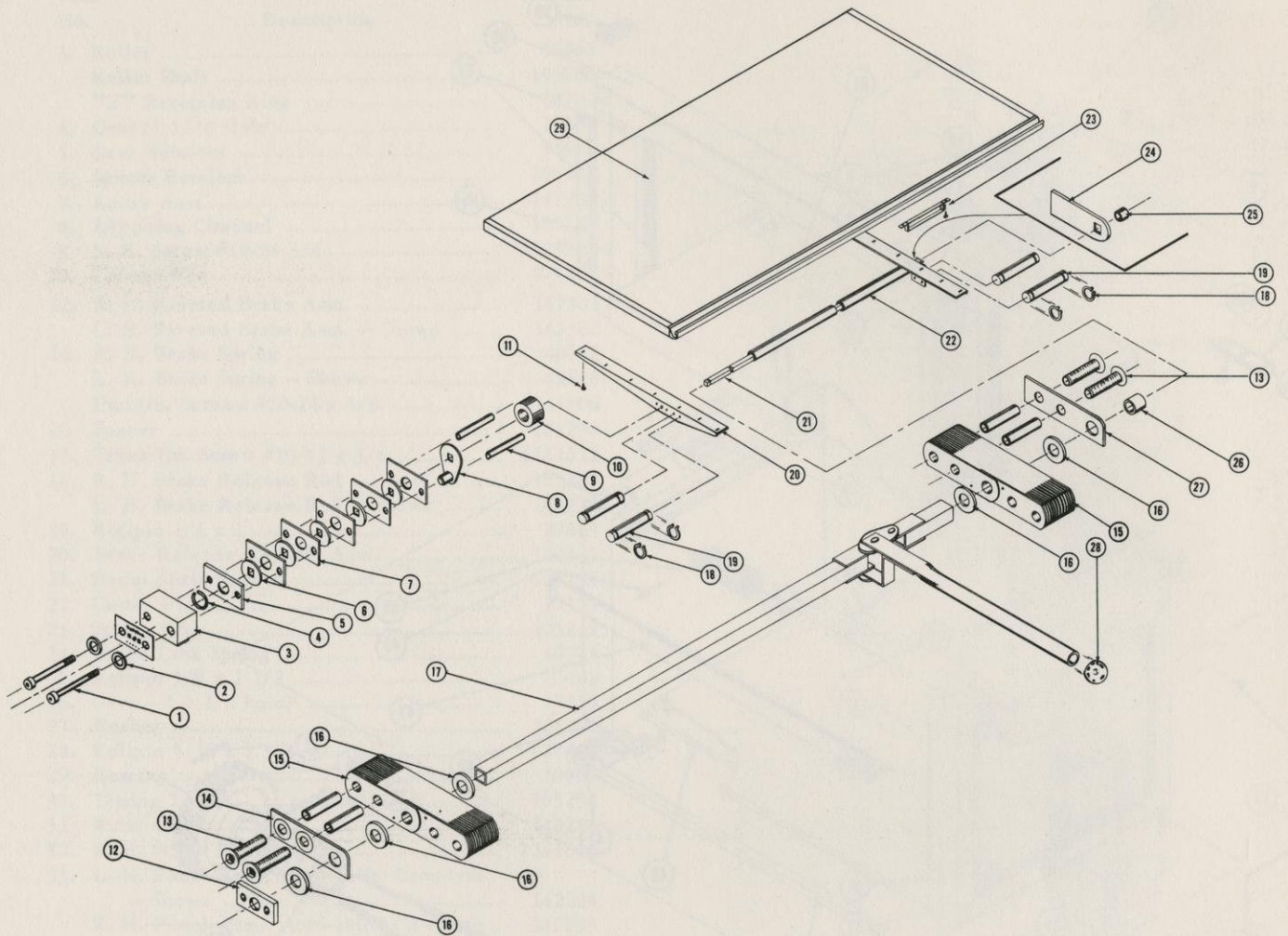
Item No.	Description	Part No.
63.	Rack	54888
	R. H. Screw #8-32 x 3/8	7240806
65.	Retaining Ring	28765
66.	Column Pin	105289
67.	Spacer	105290
70.	Stop Angle	105303
	Pan Hd. Screw #8-32 x 3/8	7940806
73.	Ball Bearing Roller	29510
	Shakeproof Washer	44501
	Hex Nut 5/16	25536
74.	Nylon Glide	27769
76.	Triplex Receptacle - No Ground	49332
	Truss Hd. Screw #6-32 x 1/2	3440608
	Single Receptacle - Grounded	49356



Item No.	Description	Part No.
78.	Cord Set, 2 Wire 9' long	15105
	Strain Relief	17745
	Cord Set, 3 Wire 8' long	15106
	Strain Relief	17753
80.	Bottom Panel Asm.	142314
	R. H. Screw #10-24 x 1/2	3241008
84.	Reference Top Guide	105301
	Truss Hd. Screw #10 x 1/2	1441008

ITEMS NOT ILLUSTRATED	
Sliding Ref. Top - Complete	142316
Stop Asem.	142315
Paper Stop	105246
Two-Drawer Unit - Complete	142333
Reference Drawer	142337
Back Panel	105297
R. H. Screw #10-24 x 1/2	3241008
Shakeproof Lockwasher	44499
Hex Nut #10-24	25696
Short Top Shelf	105298
R. H. Screws #10-24 x 1/2	3241008
Shakeproof Lockwasher	44499
Hex Nut #10-24	25696

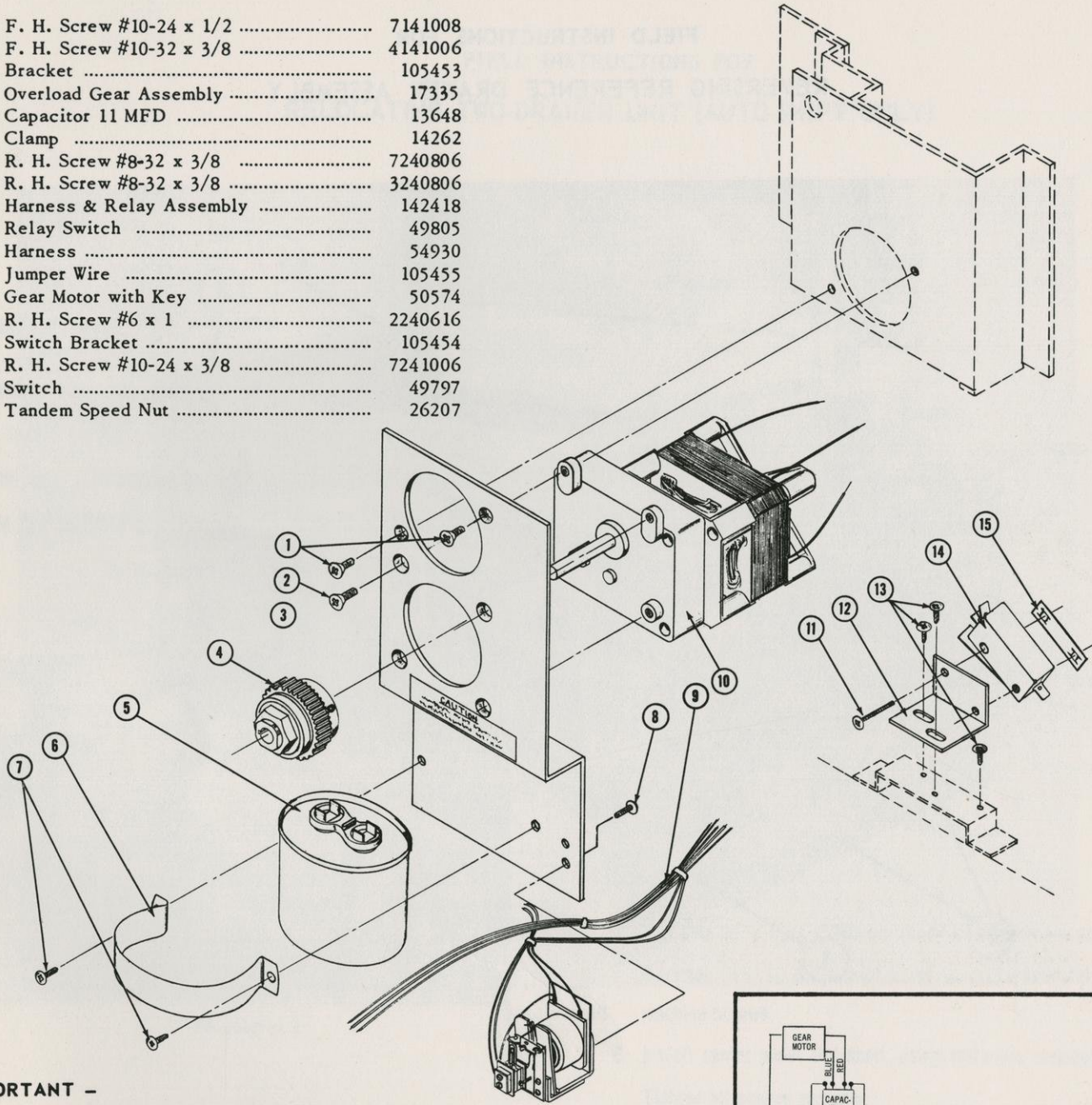
BOARD WITH TILT MECHANISM



	Description	Part No.		Description	Part No.
	37½ x 50 Board & Mechanism Complete	29J105	13.	F. H. Socket Cap Screw 3/8-16 x 2 1/2 ..	38666
	37½ x 60 Board & Mechanism Complete	29J106	14.	L. H. Bearing Plate	105224
	37½ x 72 Board & Mechanism Complete	29J107	15.	Brake Leaf Asm.	142271
	43½ x 72 Board & Mechanism Complete	29J108		Brake Leaf	105306
				Column Brake Anchor Pin	105162
			16.	Flat Washer	104784
			17.	Toggle Asm. - 15 1/4 Handle	142279
				Toggle Asm. - 18 1/4 Handle	142281
			18.	Retaining Ring	28771
			19.	Board Support Anchor Pin	105233
			20.	L. H. Top Support Asm.	142306
			21.	Torsion Bar	105326
			22.	R. H. Top Support Asm.	142305
			23.	Handle Guide Asm.	142373
				R. H. Screw #10 x 3/4	1241012
			24.	Anchor Plate Asm.	142288
			25.	Retainer Bushing	105234
			26.	Bearing Plate Bushing	105221
			27.	R. H. Bearing Plate	105223
			28.	Plastic Cap	17499
			29.	Board Asm. 37 1/2 x 50	29J45
				Board Asm. 37 1/2 x 60	29J46
				Board Asm. 37 1/2 x 72	29J47
				Board Asm. 43 1/2 x 72	29J48
Ref. No.	Description	Part No.			
1.	Socket Hd. Cap Screw 5/16-18 x 1 3/4	38671			
2.	Steel Washer	44893			
3.	Brake Cap Asm.	142342			
	Brake Cap	105204			
	Dial-A-Torque Name Plate	55123			
4.	Retaining Ring	28775			
5.	Thick Pressure Pad	105231			
6.	Disc	105229			
7.	Thin Brake Pad	105227			
8.	Index Lever Asm.	142389			
9.	Cap Screw Bushing	105226			
10.	Knurled Outer Pressure Pad	105225			
11.	Pan Hd. Screw #12 x 7/8	1941214			
12.	Thick Tapped Pressure Pad	105222			

Ref. No.	Description	Part No.
1-10	Power Pack Complete	142417
1.	F. H. Screw #10-24 x 1/2	7141008
2.	F. H. Screw #10-32 x 3/8	4141006
3.	Bracket	105453
4.	Overload Gear Assembly	17335
5.	Capacitor 11 MFD	13648
6.	Clamp	14262
7.	R. H. Screw #8-32 x 3/8	7240806
8.	R. H. Screw #8-32 x 3/8	3240806
9.	Harness & Relay Assembly	142418
	Relay Switch	49805
	Harness	54930
	Jumper Wire	105455
10.	Gear Motor with Key	50574
11.	R. H. Screw #6 x 1	2240616
12.	Switch Bracket	105454
13.	R. H. Screw #10-24 x 3/8	7241006
14.	Switch	49797
15.	Tandem Speed Nut	26207

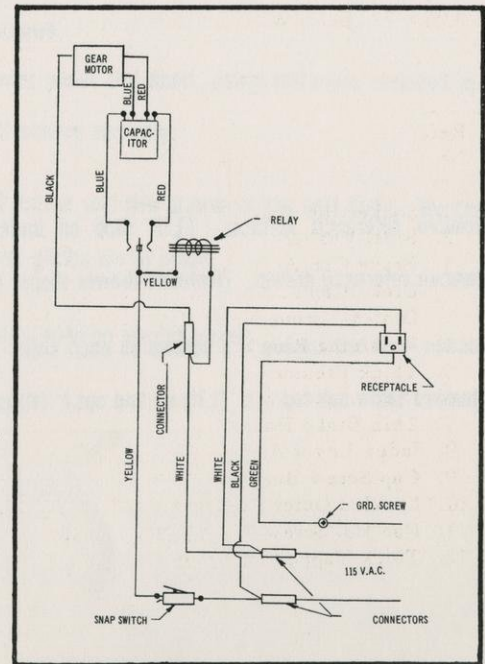
POWERSHIFT POWER-PACK



IMPORTANT -

The overload gear assembly (item 4) has been factory adjusted to slip at 40 inch pounds. It may be removed without changing the torque setting by loosening the single Allen set screw on the large hub and pulling the entire assembly free as shown.

POWERSHIFT WIRING DIAGRAM



FIELD INSTRUCTIONS FOR
REVERSING REFERENCE DRAWER ASSEMBLY

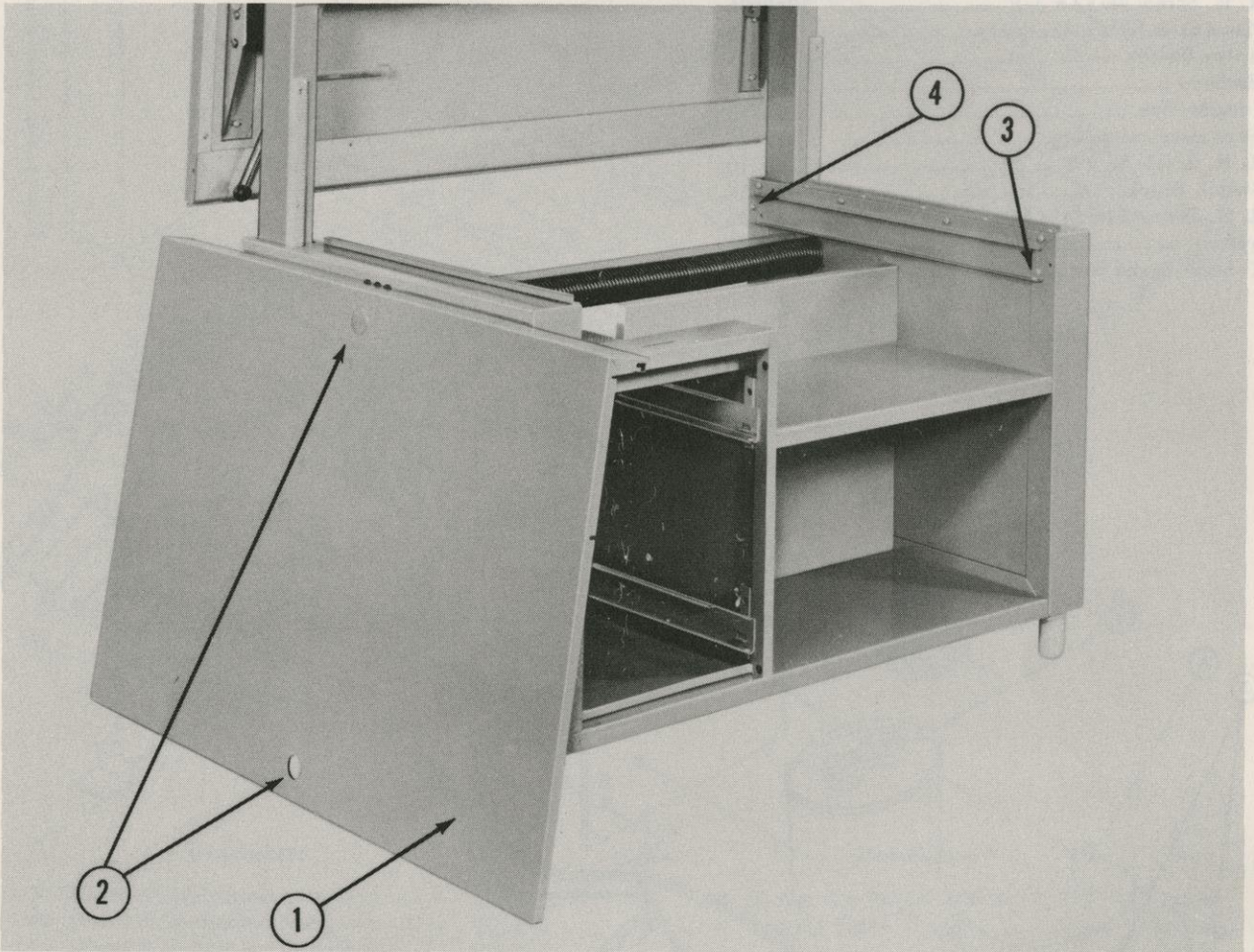


Illustration 8

1. Remove reference surface. (Lift stop on underside, pull out.)
2. Remove reference drawer. (Release drawer stops, pull out.)
3. Loosen – do not remove – 5 screws on each side. (Illus. 8)
4. Remove table sub-top (1). (Lift up and out.) (Illus. 8)
5. Reverse plug button (2), nylon glides (3). Remove 2 screws (4) (one to each side) and insert on opposite end of run. (Illus. 8)
6. Install sub-top with small flange toward draftsman's side and tighten screws. (Illus. 8)
7. Replace reference drawer and reference surface.

**FIELD INSTRUCTIONS FOR
RELOCATING TWO-DRAWER UNIT (AUTO-SHIFT ONLY)**

(UNIT CAN BE PLACED IN ANY OF FOUR CORNERS)

1. Remove drawers.
2. Remove outer snap-on access panels. Caution: To prevent damage to access panels, remove by inserting blade screwdriver at top and side only, disengaging spring clips from pedestal flange. Panels can then be lifted out. (Illus. 9)

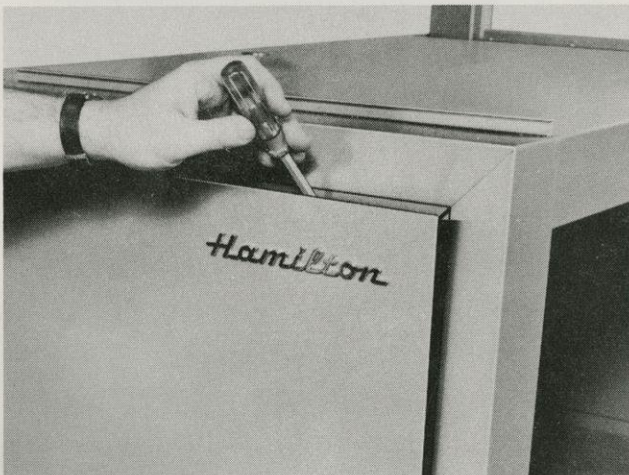


Illustration 9

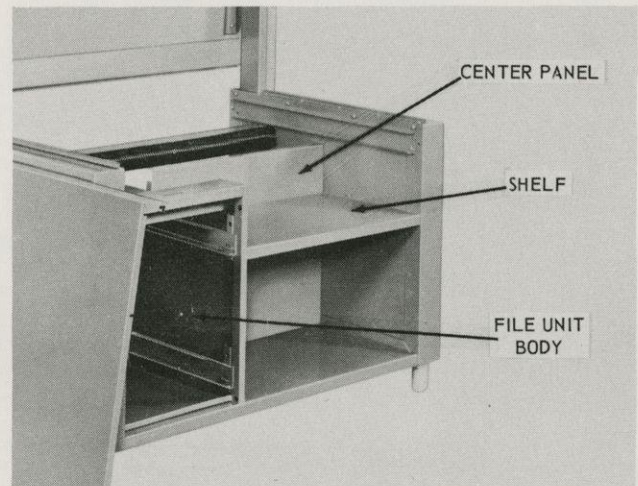
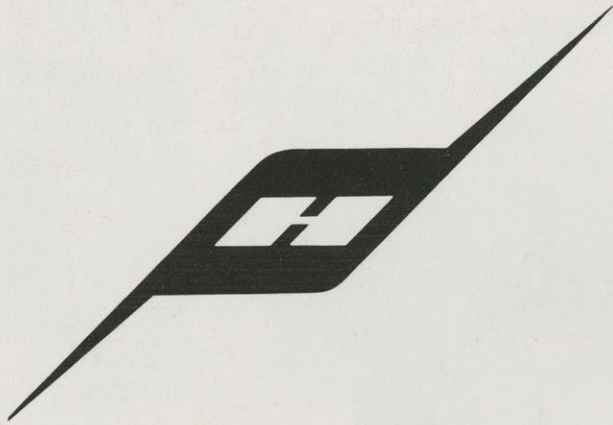


Illustration 10

3. Remove shelf, center panel and file unit body from drafting table base. (Held in place with sheet metal screws. Illus. 10)
4. Position file unit body in desired location in drafting table base. Check for proper hole alignment and secure unit in place with machine screws removed in Step 3.
5. Use 2 holes in front of file unit body as a guide and drill two .128 diameter (No. 30 drill) pilot holes in table pedestal and fasten machine screws.
6. Install center panel and shelf, using fasteners removed in Step 3. Tighten all screws securely.
7. Insert tool drawer and file drawer in the unit body. Be certain all nylon drawer glides are in place.
8. Replace outer snap-on access panels.

FOR ENGINEERING OFFICE
FIELD INSTRUCTIONS FOR
RELOCATING TWO DRAWER UNIT (AUTO SHIFT ONLY)



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