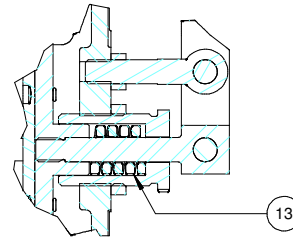
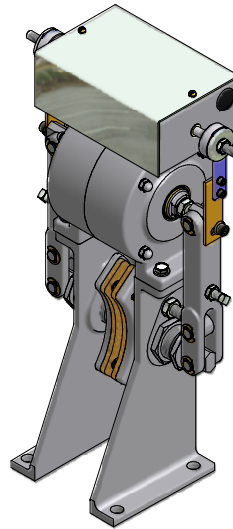
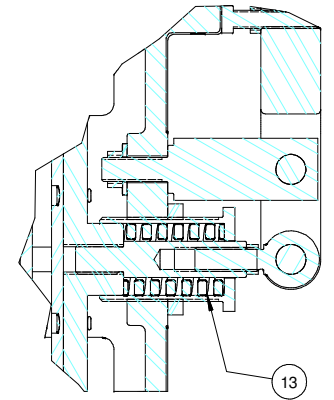


92 DISC BRAKE



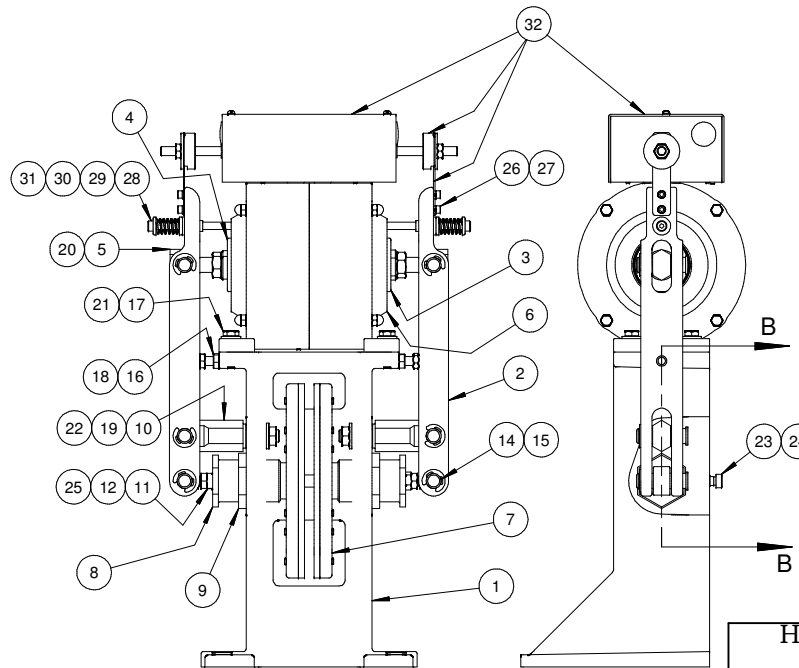
**92 DISC BRAKE
SPRING HOUSING
DETAIL SECTION A-A**



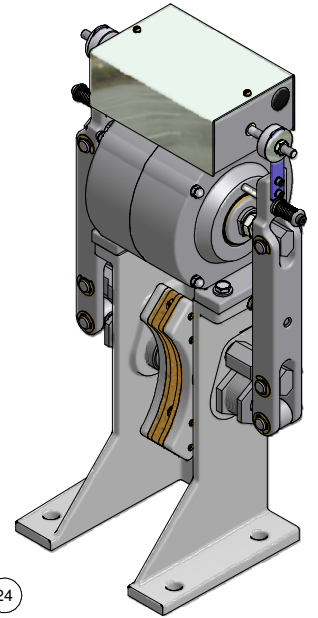
**102 & 112 DISC BRAKE
SPRING HOUSING
DETAIL SECTION B-B**

PARTS LIST - DISC BRAKE

NO.	DESCRIPTION	92 BRAKE (10" DISC)		102 BRAKE (12" DISC)	112 BRAKE (14" DISC)	
		QTY	34 MACHINE	QTY	44 & 54 MACHINE	64 MACHINE
1	HOUSING	1	92-001	1	102-001	112-001
2	LEVER	2	92-003	2	102-076	102-076
3	PLUNGER	1	92-006	1	102-006	102-006
4	PLUNGER w/ PLUNGER RING	1	92-007	1	102-007	102-007
5	PLUNGER EYEBOLT	2	92-064	2	102-064	102-064
6	SOLENOID HOUSING ASSEMBLY - 230V COIL	1	92-028	1	102-028	102-028
	SOLENOID HOUSING ASSEMBLY - 115V COIL	1	92-028-1	1	102-028-1	102-028-1
7	BRAKE SHOE ASSEMBLY	2	92-029	2	102-029	102-029
8	SPRING HOUSING	2	92-049	2	102-049	102-049
9	SPRING HOUSING NUT	2	92-050	2	102-050	102-050
10	HOUSING (PIVOT) EYEBOLT	2	92-051	2	102-065	102-065
11	SPRING HOUSING EYEBOLT	2	92-059	2	102-059	102-059
12	BRAKE SHOE CONNECTING ROD	2	102-060	2	102-060	102-060
13	SPRING (15 HP & BELOW)	2	92-053	2	102-070	102-071
	SPRING (20 HP & ABOVE)	2	92-053	2	102-071	102-071
14	PIN	6	377-004	6	90-013	90-013
15	E-CLIP	12	201-041	6	90-032	90-032
16	92 = SQ HEAD SET SCREW, 102 & 112 = HEX HEAD TAP BOLT	2	3/8"	2	3/8" x 1 3/4"	3/8" x 1 3/4"
17	HEX HEAD CAP SCREW	4	5/16" x 1 1/4"	4	3/8" x 1 1/4"	3/8" x 1 1/4"
18	JAM NUT	2	3/8" NC	2	3/8" NC	3/8" NC
19	JAM NUT	4	1/2" NC	2	1/2" NC	1/2" NC
20	JAM NUT	2	5/8" NC	2	5/8" NC	5/8" NC
21	WASHER (HARDENED)	4	5/16"	4	3/8"	3/8"
22	WASHER			2	1/2"	1/2"
23	SHOULDER BOLT	2	92-066	2	102-066	102-066
24	BUSHING	2	92-067	2	102-067	102-067
25	SPECIAL JAM NUT	2	102-072	2	102-072	102-072
26	SOCKET HEAD CAP SCREW	4	10-24 x 3/8"	4	10-24 x 3/8"	10-24 x 3/8"
27	LOCK WASHERS	4	#10	4	#10	#10
28	SHOULDER BOLT			2	102-077	102-077
29	CUP WASHER			4	205-020	205-020
30	NYLON BUSHING			2	90-025	90-025
31	ARM TENSIONING SPRING			2	400-078	400-078
32	BRAKE MONITOR	1	102-075	1	102-075	102-075
33	ARM EXTENSION	2	92-085			
34	SOCKET HEAD CAP SCREW	2	5/16" x 1/2"			
35	LOCK WASHER	2	5/16"			



**102 DISC BRAKE
112 SIMILAR (NOT SHOWN)**



**HOLLISTER-WHITNEY
ELEVATOR CO.**

TITLE
DISC BRAKE INSTRUCTION SHEET

DRAWN BY	SCALE	MATERIAL	NA	DIMENSIONAL TOLERANCES 2 PLACE ± 0.01, ANGLES 0.1° 3 & 4 PLACE ± 0.001 REF. «OPEN»-NOMINAL ± 0.015
BY	NA	DATE	12/9/2005	E-138

A	PARTS LIST UPDATE, PUR #369	LTL 10/10/06	SHEET SIZE C	DATE 12/9/2005
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HOLLISTER-WHITNEY DISC BRAKE WITH MONITOR SWITCH ADJUSTMENTS
Read and understand ALL of the following Brake Instructions before starting the adjustment procedure!!

The installation crew, mechanic, adjuster, and maintenance personnel should be thoroughly familiar with the proper installation, adjustment, operation, and maintenance of the HOLLISTER-WHITNEY Disc Brake.

SAFE ELEVATOR OPERATION DEPENDS ON PROPER BRAKE OPERATION DURING INSTALLATION,AS WELL AS THROUGHOUT THE LIFE OF THE ELEVATOR.

The Brake MUST be adjusted to meet all local, city, state and national codes.

The A17 and B44 Codes require the Brake to stop and hold a downward moving car loaded at 125% of capacity. It follows that when properly counterbalanced, the Brake will also stop an empty car moving upward.

Initial Brake Tension (Spring Pressure) is factory set. During installation, run elevator to assure proper Brake operation, arm alignment, and shoe clearance. Brake tension will eventually be set to stop and hold 125% load on a downward traveling car. This same tension should also stop a fully loaded downward moving car in approximately the same distance as the slow-down. This setting will help prevent the car sliding into the overhead or the pit during an emergency stop.

For SAFETY, when setting the Brake, be sure the car is out of service. When adjusting for final brake tension, adjust spring pressure with loaded car at the bottom floor. When checking the stopping power of the Brake, keep car near bottom floor.

Object of brake adjustments:

- 1.) Spring pressure strong enough to stop car under all loading conditions.
- 2.) Spring pressure equal so both shoes pick up and drop at the same time.
- 3.) Brake arms parallel and straight up.
- 4.) Shoes parallel to disc with proper and equal air gap on both sides, before and after setting of centering screws.
- 5.) Proper setting of centering screws for quiet operation with minimal air gap in plungers.
- 6.) Proper coil voltage to always energize the Brake, even when the coil heats up. Coil may lose 30% of power when hot.
- 7.) Proper adjustment of monitor switch to indicate proper Brake Operation.

NOTE: ALL INITIAL ADJUSTMENTS SHOULD BE DONE WITH EMPTY CAR IN OVERHEAD AND THE COUNTERWEIGHT LANDED.

ADJUSTMENTS:

1.) **SPRING ADJUSTMENT:**

With Brake applied (Coil de-energized), adjust spring pressure by loosening Lock Nut (A) and screwing Spring Housing (B) into Brake Housing. Note clearance (C), between Brake Shoe (D) and Spring Housing must be equal on both sides and enough for Brake Shoe to pick up when coil is energized. Initially, adjust clearance (C) to 7/32" and tighten Lock Nut (A).

(Note: This may not be the final setting for 125% load. When finally set at 125% load, the spring pressure may be less than above. Check to see that Brake stops 100% load at approximately the slow-down rate.)

2.) **CENTERING SCREW INITIAL ADJUSTMENT:**

With Brake applied, adjust Centering Screws (E) until they are against Brake Arms (F) [away from the Brake Housing.]

3.) **BRAKE ARM ADJUSTMENT:**

With Brake applied, check that Brake Arms (F) are vertically parallel or angled slightly in toward the Solenoid Housing. If adjustment is necessary remove Snap Rings and Pins (G) [3 per side]. Arms (F) can now be lifted out of the way. Adjust Pivot Eye-bolt (Q) for proper alignment. When aligned, grease Pins, re-assemble Pins, and re-tighten Lock Nut (P).

4.) **BRAKE COIL VOLTAGE ADJUSTMENT:**

To set the Brake Coil voltage, momentarily energize the Brake. Set the Brake Coil voltage per the following:

	<u>230V Coil</u>	<u>115V Coil</u>
If voltage is constant:	230V	115V
If dual voltage:	250V Pick Up 150V Hold	125V Pick Up 75V Hold

PICK UP voltage should be applied long enough to ensure Solenoid Plungers are touching before dropping to the HOLD voltage. On controls that require a voltage calibration, be sure to adjust calibration. *Please note: Coil may lose 30% of power when hot!*

5.) **BRAKE SHOE GAP ADJUSTMENT:**

With Brake energized, set an initial gap between the Shoes (D) and the Disc (L) of 0.015". With Brake applied (Brake de-energized), loosen Lock Nut (M) and adjust Solenoid Plungers (N) so that an equal amount of each Plunger shows on each side of the Solenoid Housing. Energize Brake, check 0.015" gap, re-adjust as necessary.

NOTES:

- a.) Moving the Plungers out produces a larger gap between the Shoes and Disc when the Brake Coil is energized.
- b.) If a Shoe is not parallel to the Disc when the Coil is energized, it may be necessary to tap Pivot Bolt (Q) up or down to affect the parallel gap.
- c.) If one shoe picks up slower than the other, loosen the Spring on that side while tightening the Spring on the other side an equal amount.
- d.) When installing a **NEW** Brake on an **EXISTING MACHINE**, it may be necessary to shim the Brake Housing to achieve Shoe-to-Disc parallelism if Shoes are parallel with each other but not with the Disc.

6.) **CENTERING SCREW FINAL ADJUSTMENT:**

With Coil energized, adjust each Centering Screw (E) to just touch Brake Housing. With Coil de-energized, adjust each Centering Screw in slightly, adjusting them for a Shoe-to-Disc gap of 0.012", and tighten Lock Nut. This will produce a quieter Brake.

NOTE: Plungers will now have a slight air gap, but this will not affect Brake Pick Up.

7.) **SEE BRAKE MONITOR SWITCH ADJUSTMENTS.**

8.) Run elevator as much as possible to assure proper operation.

9.) **CAUTION:** Before releasing car to the public, re-check that Brake is operating properly and will stop 125% load. If Brake Tension is ever changed, re-adjust Items 5.), 6.), and 7.) above.