

BUDGIT®

INSTRUCTIONS AND PARTS LIST RETROFIT REPLACEMENT KIT FOR 3 PHASE MOTORS AND MOTOR BRAKE BUDGIT® ELECTRIC HOIST DC SOLENOID MOTOR BRAKE

THE INFORMATION CONTAINED IN THIS MANUAL IS FOR INFORMATIONAL PURPOSES ONLY AND YALE•LIFT-TECH INTERNATIONAL DOES NOT WARRANT OR OTHERWISE GUARANTEE (IMPLIEDLY OR EXPRESSLY) ANYTHING OTHER THAN THE COMPONENTS THAT YALE•LIFT-TECH MANUFACTURES AND ASSUMES NO LEGAL RESPONSIBILITY (INCLUDING, BUT NOT LIMITED TO CONSEQUENTIAL DAMAGES) FOR INFORMATION CONTAINED IN THIS MANUAL.

GENERAL

Motor replacement kits for **BUDGIT** electric hoists consist of brake, motor, adapter (furnished only when required), and mounting hardware. These kits are for **BUDGIT** electric hoists that have an internal motor brake.

⚠ WARNING

Before performing any internal work on hoist, be certain power is shut off. Lock main service switch in the open position.

INSTALLATION

1. Remove existing motor from hoist.
2. Remove motor brake parts including support studs.
3. Place adapter ring (if furnished) over the edge on the hoist frame. Clearance cutout in ring should be over motor bolt bosses.
4. The motor fits over the edge of the adapter ring, if ring is furnished. If ring is not furnished, motor fits hoist frame directly.
5. Install key, brake hub (allow approximately 1/8" shaft extension), and set screws. Torque set screws to 30 to 35 lb-in.
6. To mount brake, remove brake cover and fasten brake mounting plate to motor with two socket head cap screws. Orientation of brake is as shown in Figure 1.
7. Connect two brake leads (yellow wire) to rectifier with wire nuts.
8. Adjust brake as follows:

Instructions for adjusting the brake are inside the brake cover and are repeated below. Check brake adjustment after first 30 days of service and regularly thereafter during the six-month inspection procedure recommended in the Operation, Service & Parts Manual, 113535-12.

- (a) Examine position of indicating tang located below the solenoid coil.

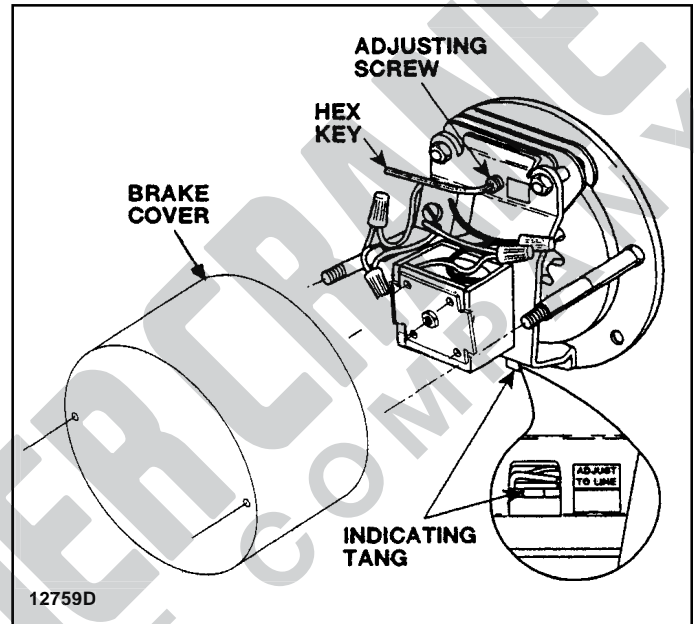


Figure 1. Hoist Motor Brake

- (b) If the tang is below the line by more than 1/8", the brake should be adjusted to bring the top of the tang back up alongside the line on the adjust label.
 - (c) Remove the hex key (1/8" size) from the holster on the cover mounting stud and carefully turn the ADJUSTING SCREW (located above the solenoid coil) clockwise. The indicating tang will move a large distance for a small turn of the adjusting screw, therefore turn the screw no more than one quarter turn before checking adjustment.
 - (d) After adjustment operate the brake by hand to assure brake disc running clearance. The outboard brake pad should separate from the brake disc by approximately .010".
 - (e) Replace hex key in holster.
9. Air gap adjustment.
 - (a) Loosen jam nut using 7/16" wrench while holding set screw with 1/8" hex key.
 - (b) Pull brake release lever as far as possible away from motor, and hold.
 - (c) Turn in set screw until it contacts plunger (when movement is felt in release lever), then turn in 1/4 to 1/2 additional turn.
 - (d) Tighten jam nut, making sure set screw does not turn.

- (e) Test operation of brake.
- (f) Readjust as necessary, 1/4 to 1/2 turn at a time, until brake sets properly.
- 10. Replace hex key in holster.
- 11. Replace brake cover.
- 12. Attach cover to brake with two nuts.
- 13. Wire hoist motor and brake according to proper wiring diagram as shown in 113535-13.
- 14. Replace electrical compartment cover. Test hoist operations per instructions in 113535-12.

The numbers assigned to the parts of our various assemblies in our parts list are not the part numbers used in manufacturing the part. They are identification numbers, that when given with the model number, permit us to identify, select or manufacture, and ship the correct part needed.

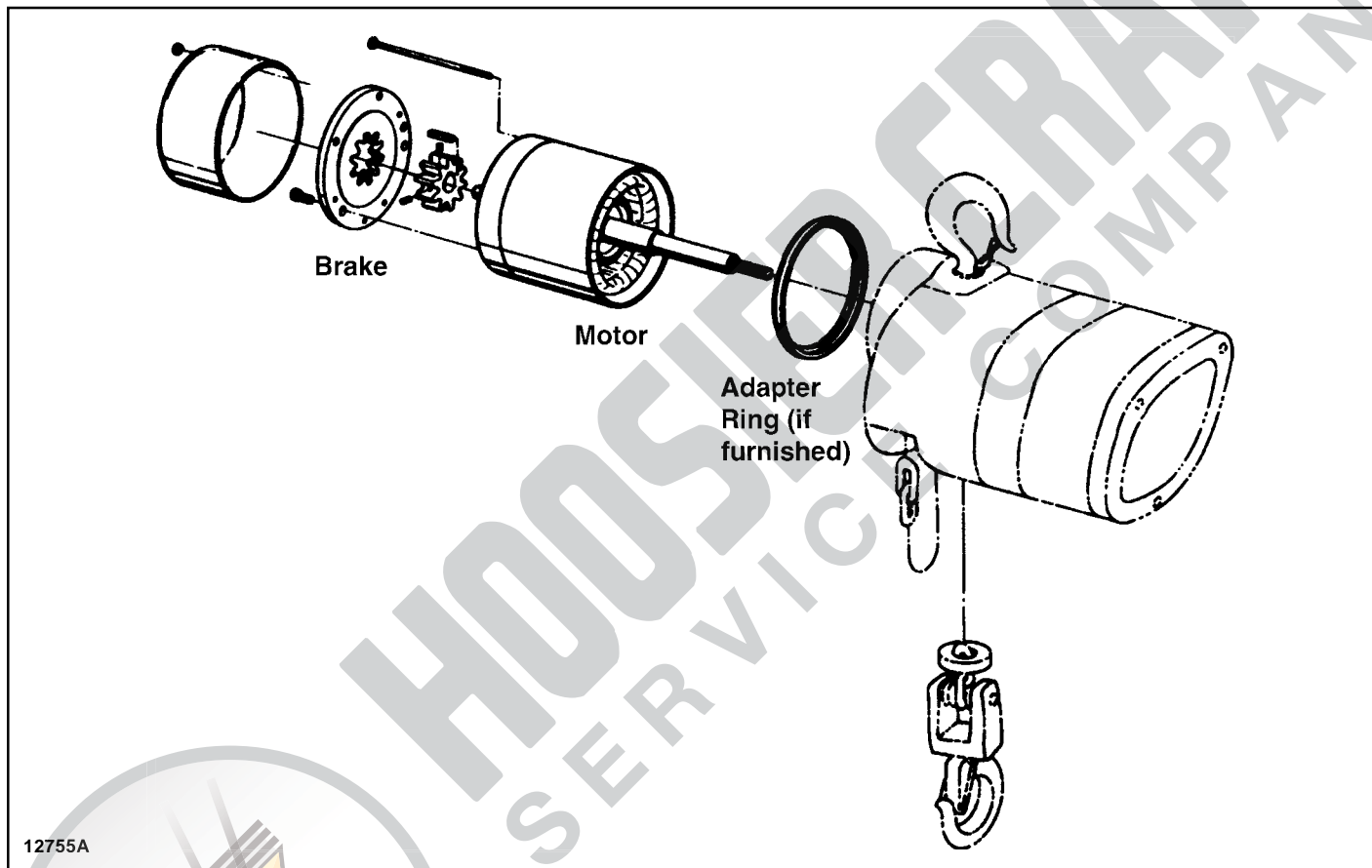


Figure 2. Kit Mounting Arrangement

Part Number	Description	Qty. Req'd
	Brake Assembly - See Figure 3.	1
	Motor Assembly	1
BH-3301	1/4 Horsepower	
BH-3302	200 Volt	
BH-3303	230/460 Volt	
	575 Volt	
BH-3304	1/2 Horsepower	
BH-3305	200 Volt	
BH-3306	230/460 Volt	
	575 Volt	

Part Number	Description	Qty. Req'd
BH-3307	1 Horsepower	
BH-3308	200 Volt	
BH-3309	230/460 Volt	
	575 Volt	
BH-2945	2 - 1/2 Horsepower	
BH-2946	200 Volt	
BH-2947	230/460 Volt	
	575 Volt	
BH-3099	Adapter Ring	1*

* If required

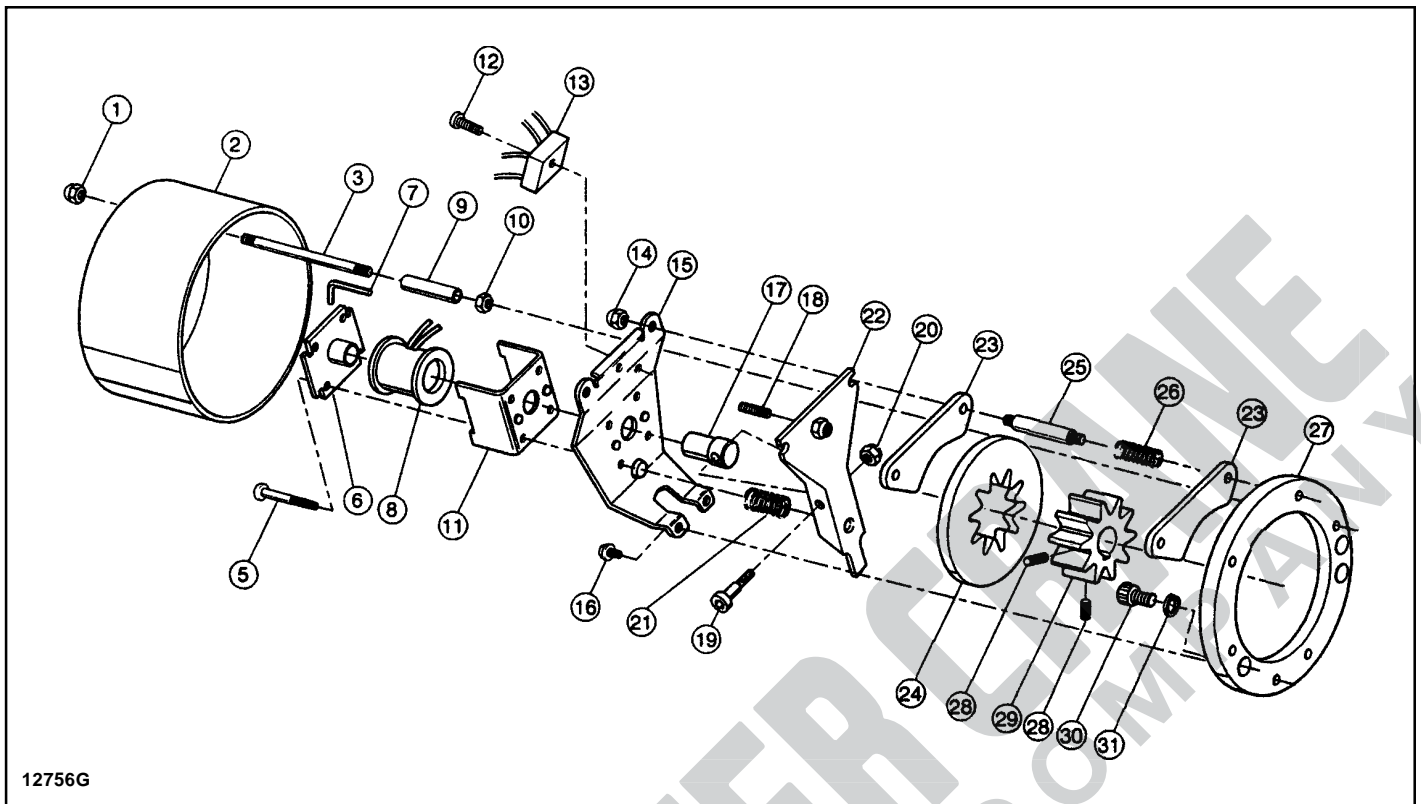


Figure 3. Hoist Motor Brake

Ref. No.	Part Number	Description	Qty. Req'd																																																
		Motor Brake Assembly (Includes Ref. Nos. 1 thru 31)	1																																																
		<table><tr><th><u>Hst. Spds.</u></th><th><u>Mtr. HP</u></th><th><u>Voltage</u></th></tr><tr><td>1</td><td>1/4, 1/2 & 1</td><td>115/230</td></tr><tr><td>1</td><td>2-1/2</td><td>200</td></tr><tr><td>2</td><td>1 / 1/3</td><td>200 & 230</td></tr><tr><td>2</td><td>2-1/4 / 3/4</td><td>200 & 230</td></tr><tr><td>1</td><td>1/4 & 1/2</td><td>200 & 230/460</td></tr><tr><td>1</td><td>1</td><td>200, 230/460 & 575</td></tr><tr><td>1</td><td>2-1/2</td><td>575</td></tr><tr><td>2</td><td>1/2 / 1/6</td><td>200 & 230</td></tr><tr><td>2</td><td>1 / 1/3</td><td>460</td></tr><tr><td>2</td><td>2-1/4 / 3/4</td><td>230/460 & 575</td></tr><tr><td>1</td><td>1/4 & 1/2</td><td>575</td></tr><tr><td>2</td><td>1/2 / 1/6</td><td>460 & 575</td></tr><tr><td>2</td><td>1 / 1/3</td><td>575</td></tr><tr><td>1</td><td>2-1/2</td><td>115/230</td></tr><tr><td>1</td><td>2-1/2</td><td>230/460</td></tr></table>	<u>Hst. Spds.</u>	<u>Mtr. HP</u>	<u>Voltage</u>	1	1/4, 1/2 & 1	115/230	1	2-1/2	200	2	1 / 1/3	200 & 230	2	2-1/4 / 3/4	200 & 230	1	1/4 & 1/2	200 & 230/460	1	1	200, 230/460 & 575	1	2-1/2	575	2	1/2 / 1/6	200 & 230	2	1 / 1/3	460	2	2-1/4 / 3/4	230/460 & 575	1	1/4 & 1/2	575	2	1/2 / 1/6	460 & 575	2	1 / 1/3	575	1	2-1/2	115/230	1	2-1/2	230/460	
<u>Hst. Spds.</u>	<u>Mtr. HP</u>	<u>Voltage</u>																																																	
1	1/4, 1/2 & 1	115/230																																																	
1	2-1/2	200																																																	
2	1 / 1/3	200 & 230																																																	
2	2-1/4 / 3/4	200 & 230																																																	
1	1/4 & 1/2	200 & 230/460																																																	
1	1	200, 230/460 & 575																																																	
1	2-1/2	575																																																	
2	1/2 / 1/6	200 & 230																																																	
2	1 / 1/3	460																																																	
2	2-1/4 / 3/4	230/460 & 575																																																	
1	1/4 & 1/2	575																																																	
2	1/2 / 1/6	460 & 575																																																	
2	1 / 1/3	575																																																	
1	2-1/2	115/230																																																	
1	2-1/2	230/460																																																	
1	*	Acorn Nut - Plated (#10-32)	2																																																
2	BH-3706	Brake Cover Assembly (Includes Brake Cover and Label Inside Cover)	1																																																
3	*	Cover Stud	2																																																
5	*	Phillips Pan Head Self Tapping Screw - Plated (#10-32 x 1-3/4)	4																																																
6	*	Solenoid Frame Cover Assembly	1																																																
7	*	Hex Key (1/8 - 3/4 x 2)	1																																																
8	*	Solenoid Coil Assembly	1																																																
		For BH-3701																																																	
		For BH-3702																																																	
		For BH-3703																																																	
		For BH-3704																																																	
		For BH-3705																																																	

(Continued on following page)

Figure 3. Hoist Motor Brake - Continued

Ref. No.	Part Number	Description	Qty. Req'd
9	*	Tubing	3
10	*	Hex Nut - Plated (#10-32)	2
11	*	Solenoid Frame	1
12	*	Hex Washer Head Thread Forming Screw - Plated (#10-32 x 3/4)	1
13	*	Rectifier Assembly	1
14	*	Hex Head Self Locking Nut - Plated (#10-32)	2
15	BH-3707	Solenoid Support	1
16	*	Hex Washer Head Thread Forming Screw - Plated (#10-32 x 1/4)	2
17	*	Solenoid Plunger	1
18	*	Hex Socket Head Set Screw - Oval Point (1/4-28 x 1)	1
19	*	Hex Socket Shoulder Screw (#10-24 x 1)	1
20	*	Hex Head Self Locking Nut - Plated (#10-24)	1
21	*	Brake Soring	1
22	*	Brake Lever Assembly	1
23	*	Pressure Pad	2
24	*	Brake Disc (Non-asbestos)	1
25	*	Brake Support Stud	2
26	*	Separating Spring	2
27	BH-3708	Brake Mounting Plate	1
28	*	Hex Socket Head Self Locking Set Screw - Cup Point (1/4-20 x 3/8)	2
29	*	Brake Hub	1
30	*	Hex Socket Head Screw (3/8-16 x 3/4)	2
31	*	Lock Washer (3/8)	2
	*	Wire Nuts - Not Shown (No. 22 thru 14 AWG)	4

*Not available as individual parts. See replacement kits listed below. Kits include quantities shown above.

Kit Description	Part Number	Reference Numbers Included
Brake Disc	BH-3709	23, 24, 26
Brake Lever	BH-3710	6, 15, 17, 18, 19, 20, 21 (Zinc Color), 22, Adjusting Screw Label, Brake Adjust Label - Discard Red Spring
Rectifier	BH-3711	12, 13, 4 Wire Nuts
Hardware	BH-3712	1, 3, 4, 5, 7, 9, 10, 12, 16, 18, 20, 25, 28, 30, 31, Instruction Label, Power Warning Label
Brake Hub	BH-3713	28, 29, Hub Drive Key (Shown Elsewhere)
Solenoid	BH-3710	8 (Order Same Part Number)

BUDGIT®

414 West Broadway Avenue
P.O. Box 769
Muskegon, Michigan 49443-0769
(800) 955-5541
(800) 742-9270 FAX