

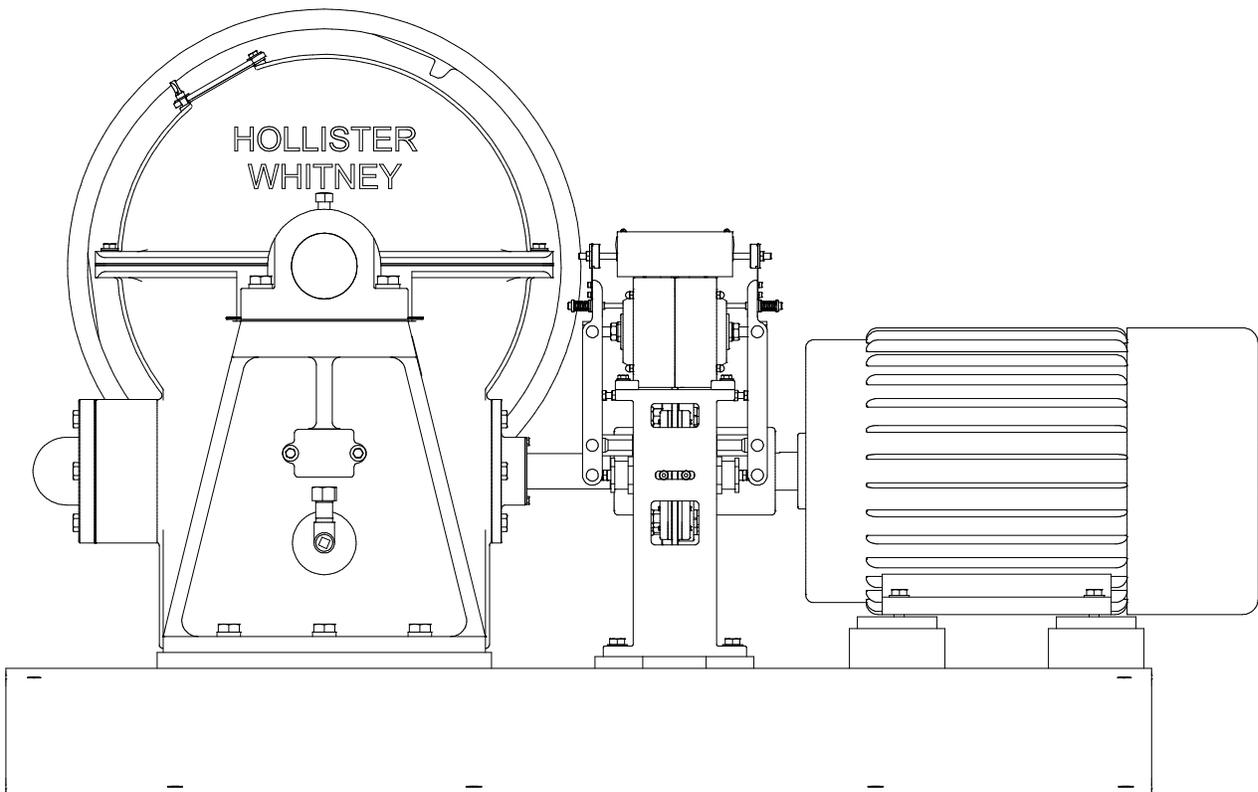


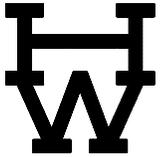
Hollister-Whitney Elevator Corporation

#1 Hollister-Whitney Parkway
Quincy, IL 62305
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www.hollisterwhitney.com

MAINTENANCE AND TROUBLESHOOTING INSTRUCTIONS FOR GEARED TRACTION MACHINES





HOLLISTER-WHITNEY ELEVATOR CORPORATION

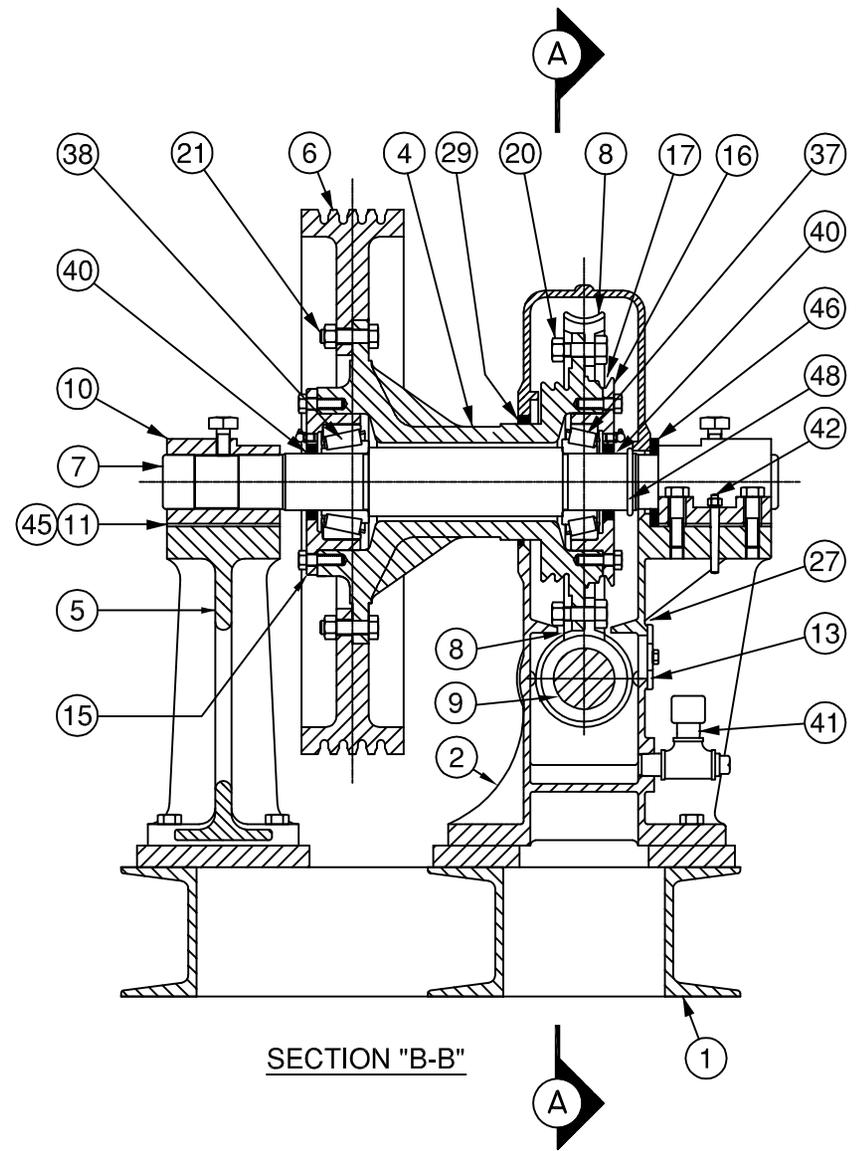
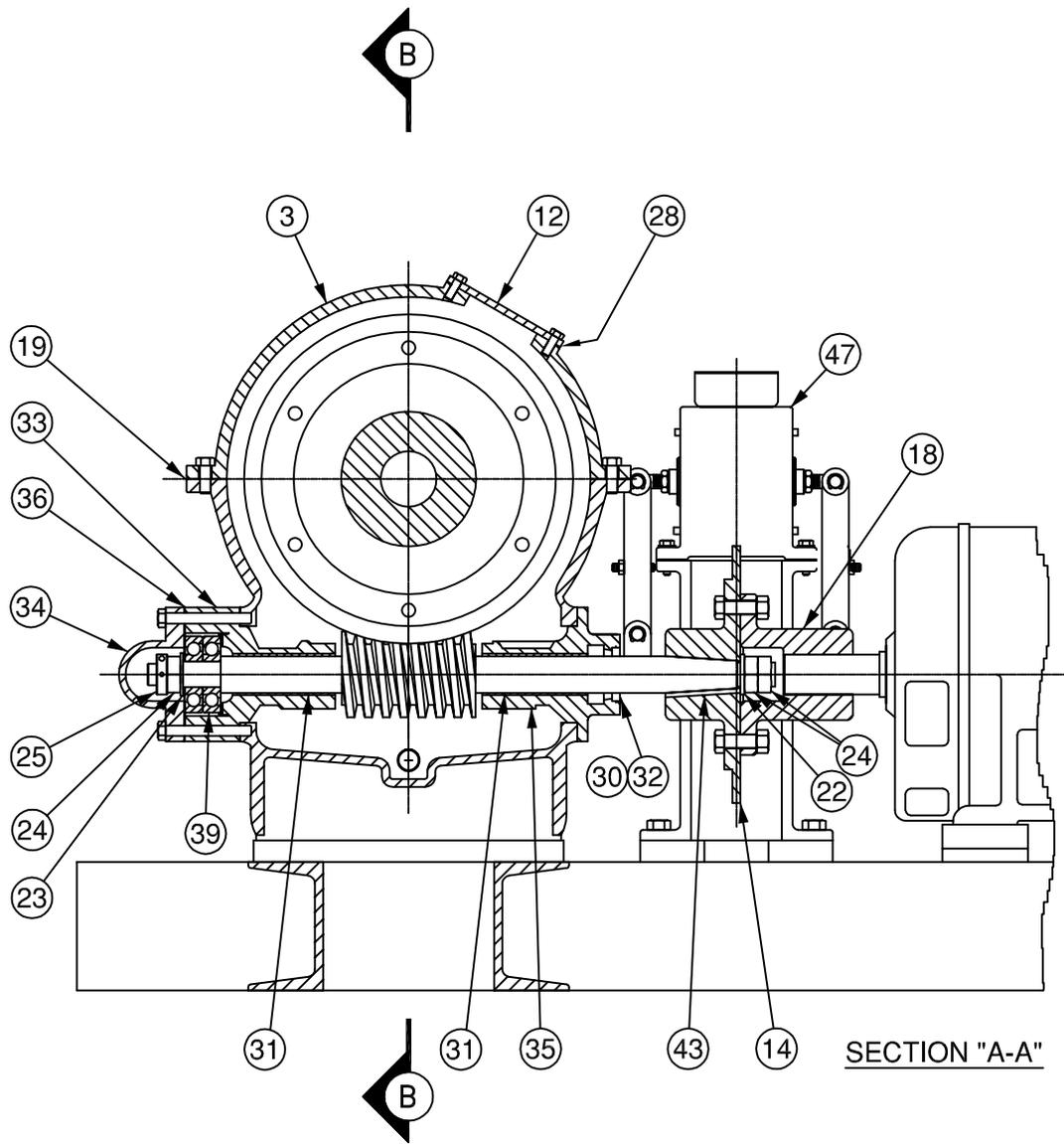
#1 Hollister-Whitney Parkway, P.O. Box 4025, Quincy, IL 62305
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Standard Basement Set Machines
O.D. Basement Set Machines

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NOTE: FOR DISC AND DRUM BRAKE PARTS LISTS AND ADJUSTMENT PROCEDURE, SEE SEPARATE BOOKLET FOR THE CORRESPONDING BRAKE TYPE AND MODEL NUMBER.



HOLLISTER-WHITNEY
ELEVATOR CORPORATION
QUINCY ILLINOIS

OVERHEAD TRACTION MACHINES
WITH DISC BRAKE

PUR #475 12-3-11

PUR #413 2-11-10

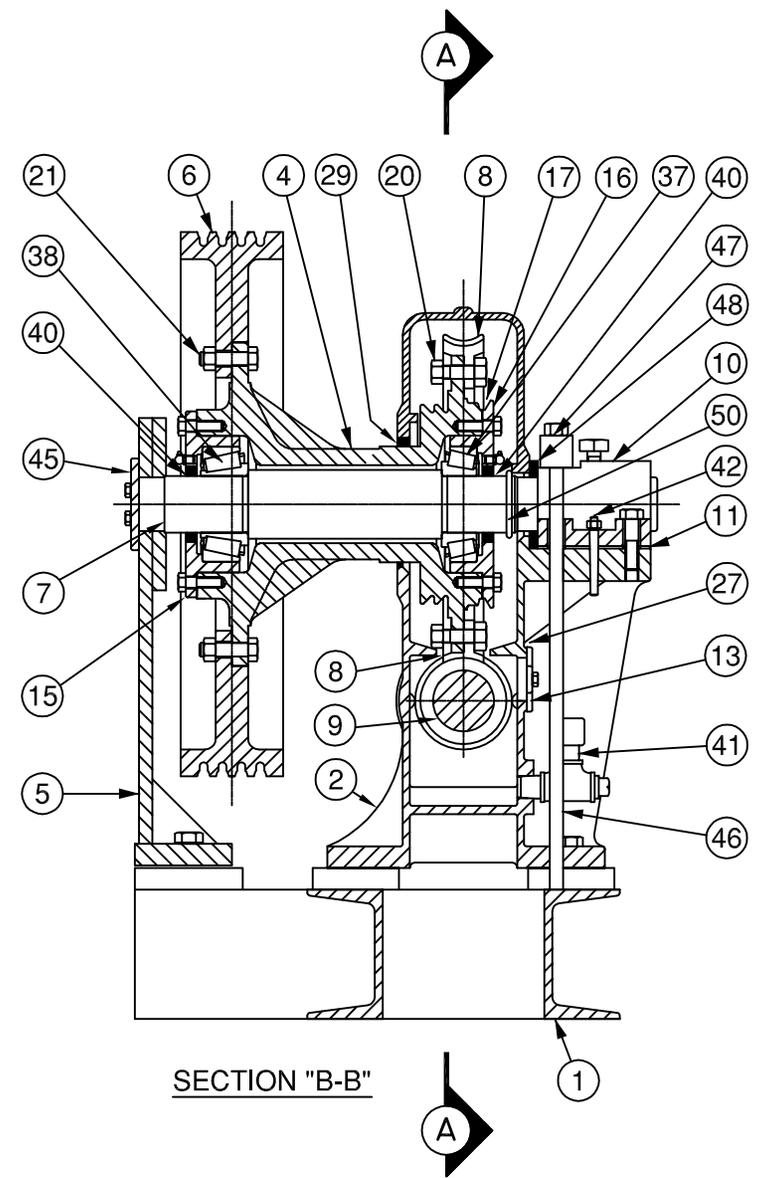
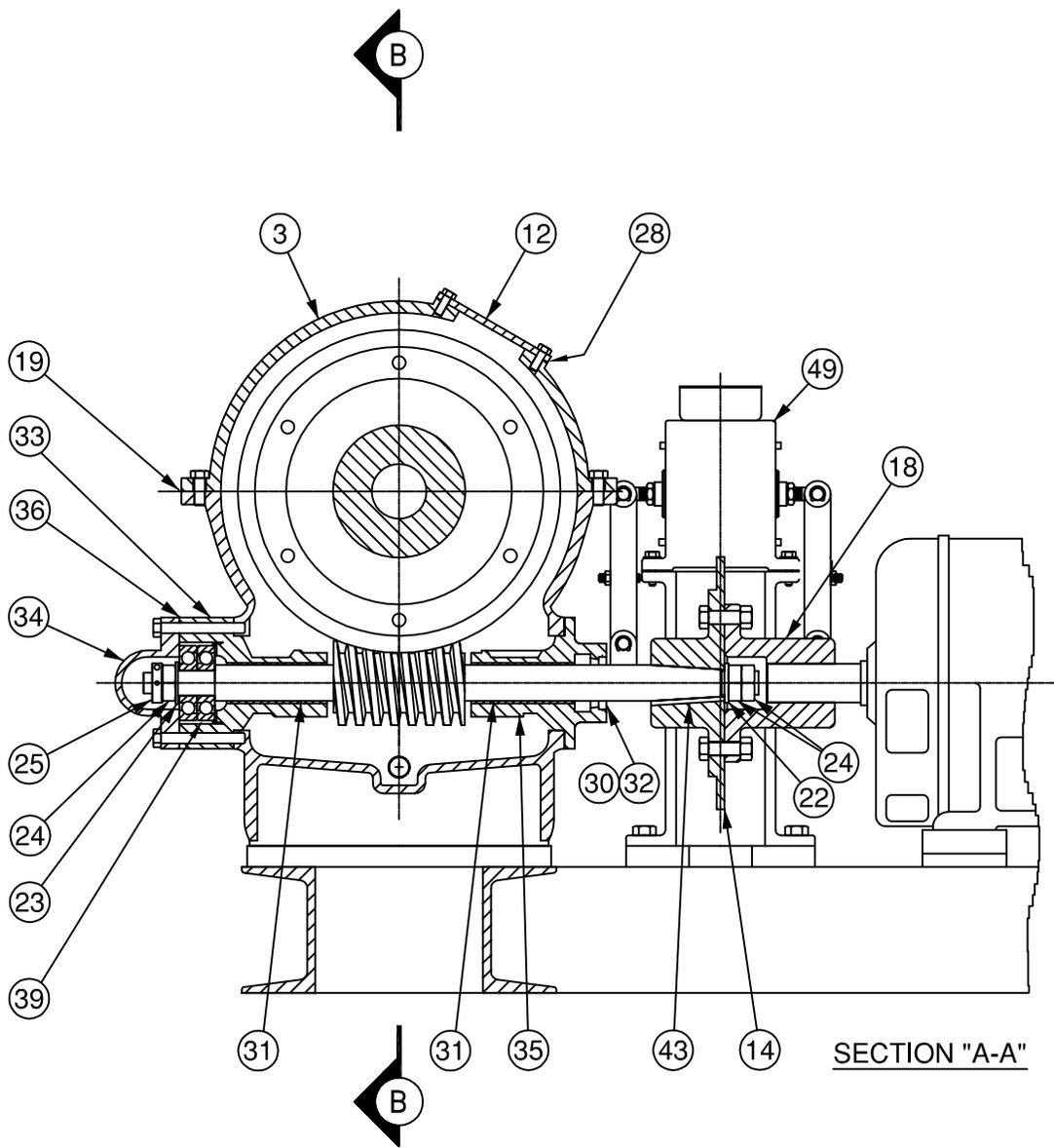
PARTS LIST
BULLETIN

1125-OH

OVERHEAD TRACTION MACHINES WITH DISC BRAKE

PARTS LIST

NO.	DESCRIPTION	QTY.	PART NO.			
			#34 Mach.	#44 Mach.	#54 Mach.	#64 Mach.
1	BASE	1	34-OH-1	43-OH-1	53-OH-1	64-OH-1
2	HOUSING-LOWER	1	34-002	43-2	53-2	63-2
3	HOUSING-UPPER	1	34-003	43-3	53-3	63-3
4	CENTER-GEAR & T.S.	1	34-004	43-4	53-4	63-4
5	STAND-OUTBOARD	1	33-005	43-5	53-5	63-5
6	SHEAVE-TRACTION	1		43-	53-	63-
7	SHAFT-MAIN	1	34-018	43-18	53-18	63-18
8	GEAR	1	34-	43-	53-	63-
9	WORM	1	34-	43-	54-	64-
10	BLOCKS-SHAFT SUPPORT	2	33-061	43-61	53-61	63-61
11	SHIM-SHAFT SUPPORT BLOCK (SOLID)	8	34-062	43-62	53-62	63-62
	SHIM-SHAFT SUPPORT BLOCK (LAM.)	4	34-062-1	43-62-1	53-62-1	63-62-1
12	PLATE-UPPER HOUSING	1	43-63	43-63	43-63	74-63
13	PLATE-LOWER HOUSING	1	43-64	43-64	43-64	43-64
14	DISC-BRAKE	1	34-186	44-186	54-186	64-186
15	RETAINER-T.S. END BEARING	1	34-066	43-66	53-66	63-66
16	RETAINER-GEAR END BEARING	1	34-067	43-67	53-67	63-67
17	SHIM-RETAINER (GEAR END)		34-068	43-68	53-68	63-68
18	COUPLING-MOTOR	1	34-187	44-187	44-187	64-187
19	GASKET-HOUSING	2	34-071	43-71	53-71	63-71
20	BODY BOLT-GEAR END	6/8	43-175 (6)	43-72 (6)	53-72 (6)	63-72 (8)
21	BODY BOLT-T.S. END	8	43-73	43-73	53-73	53-73
22	WASHER	1	33-74	43-74	53-74	63-74
23	WASHER	1	34-199	44-199	54-199	64-199
24	NUT-JAM	3	34-075	43-075	53-075	63-075
25	COLLAR-THREADED LOCK	1	34-198	44-198	54-198	64-198
26	NUT-SLOTTED	1	34-76	—	—	—
27	GASKET-LOWER HOUSING PLATE	1	43-77	43-77	43-77	43-77
28	GASKET-UPPER HOUSING PLATE	1	43-78	43-78	43-78	74-78
29	SEAL-HOUSING	1	34-079	43-79	53-79	63-79
30	SEAL-CLIPPER (SPLIT)	1	34-081-1	43-81-1	53-81-1	63-81-1
31	BUSHING-WORM SHAFT	2	34-082	43-82	53-82	63-82
32	RETAINER-CLIPPER SEAL	1	34-083	43-83	53-83	63-83
33	HOUSING-REAR END BEARING	1	34-084	43-84	53-84	63-84
34	CAP-REAR END BEARING HOUSING	1	34-085	43-85	53-85	63-85
35	HOUSING-FORWARD END BEARING	1	34-086	43-86	53-86	63-86
36	SHIM-BEARING HOUSING	8	34-087	43-87	53-87	63-87
37	BEARING-GEAR END	1	34-089	43-89	53-89	63-89
38	BEARING-T.S. END	1	34-090	43-90	53-90	63-90
39	BEARING-THRUST(ONE MATCHED SET OF 2)	1	34-091	43-91	53-91	63-91
40	KLOZURE (GEAR & T.S. END)	2	34-092	43-92	53-92	63-92
41	OIL LEVEL TUBE	1	43-101	43-101	63-101	53-101
42	PIN-THREADED DOWEL #7 (3" LG.) / #10 (5" LG.)	9	43-102	43-102	43-102	74-102
43	KEY-BRAKE DRUM	1	43-104	43-104	43-104	63-104
44	TAG-MACHINE DATA	1	43-134	43-134	43-134	43-134
45	SHIM-SUPPORT BLOCK	1	34-157	43-157	53-157	63-157
46	FOAM SEAL-GEAR HOUSING	1	34-178	43-178	53-178	63-178
47	BRAKE - DISC	1	92	102	102	112
48	O-RING	1	34-213	43-213	53-213	63-213



HOLLISTER-WHITNEY
ELEVATOR CORPORATION
QUINCY ILLINOIS

PUR #475	12-03-11
PUR #417	12-03-10
PUR #413	2-11-10

BASEMENT TRACTION MACHINES
WITH DISC BRAKE

PARTS LIST
BULLETIN

1125-BS

BASEMENT SET TRACTION MACHINES WITH DISC BRAKE

PARTS LIST

NO.	DESCRIPTION	QTY.	PART NO.		
			#44 Mach.	#54 Mach.	#64 Mach.
1	BASE	1	43-BS-1	53-BS-1	63-BS-1
2	HOUSING-LOWER	1	43-2	53-2	63-2
3	HOUSING-UPPER	1	43-3	53-3	63-3
4	CENTER-GEAR & T.S.	1	43-4	53-4	63-4
5	STAND-OUTBOARD	1	43-BS-5	53-BS-5	63-BS-5
6	SHEAVE-TRACTION	1	43-	53-	63-
7	SHAFT-MAIN	1	43-BS-18	53-BS-18	63-BS-18
8	GEAR	1	43-	53-	63-
9	WORM	1	43-	54-	64-
10	BLOCK-SHAFT SUPPORT	1	43-61	53-61	63-61
11	SHIM-SHAFT SUPPORT BLOCK (SOLID)	4	43-62	53-62	63-62
	SHIM-SHAFT SUPPORT BLOCK (LAM.)	2	43-62-1	53-62-1	63-62-1
12	PLATE-UPPER HOUSING	1	43-63	43-63	74-63
13	PLATE-LOWER HOUSING	1	43-64	43-64	43-64
14	DISC-BRAKE	1	44-186	54-186	64-186
15	RETAINER-T.S. END BEARING	1	43-66	53-66	63-66
16	RETAINER-GEAR END BEARING	1	43-67	53-67	63-67
17	SHIM-RETAINER (GEAR END)		43-68	53-68	63-68
18	COUPLING-MOTOR	1	44-187	44-187	64-187
19	GASKET-HOUSING	2	43-71	53-71	63-71
20	BODY BOLT-GEAR END	6/8	43-72 (6)	53-72 (6)	63-72 (8)
21	BODY BOLT-T.S. END	8	43-73	53-73	53-73
22	WASHER	1	43-74	53-74	63-74
23	WASHER	1	44-199	54-199	64-199
24	NUT-JAM	3	43-075	53-075	63-075
25	COLLAR-THREADED LOCK	1	44-198	54-198	64-198
27	GASKET-LOWER HOUSING PLATE	1	43-77	43-77	43-77
28	GASKET-UPPER HOUSING PLATE	1	43-78	43-78	74-78
29	SEAL-HOUSING	1	43-79	53-79	63-79
30	SEAL-CLIPPER (SPLIT)	1	43-81-1	53-81-1	63-81-1
31	BUSHING-WORM SHAFT	2	43-82	53-82	63-82
32	RETAINER-CLIPPER SEAL	1	43-83	53-83	63-83
33	HOUSING-REAR END BEARING	1	43-84	53-84	63-84
34	CAP-REAR END BEARING HOUSING	1	43-85	53-85	63-85
35	HOUSING-FORWARD END BEARING	1	43-86	53-86	63-86
36	SHIM-BEARING HOUSING	8	43-87	53-87	63-87
37	BEARING-GEAR END	1	43-89	53-89	63-89
38	BEARING-T.S. END	1	43-90	53-90	63-90
39	BEARING-THRUST(ONE MATCHED SET OF 2)	1	43-91	53-91	63-91
40	KLOZURE (GEAR & T.S. END)	2	43-92	53-92	63-92
41	OIL LEVEL TUBE	1	43-101	63-101	53-101
42	PIN-THREADED DOWEL #7 (3" LG.) / #10 (5" LG.)	13	43-102	43-102	74-102
43	KEY-BRAKE DRUM	1	43-104	43-104	63-104
44	TAG-MACHINE DATA	1	43-134	43-134	43-134
45	RETAINER-SHAFT	1	53-OD-135	53-OD-135	63-OD-135
46	HOLD DOWN ROD	2	43-BS-136	53-BS-136	63-BS-136
47	HOLD DOWN BAR	1	43-BS-137	53-BS-137	63-BS-137
48	FOAM SEAL-GEAR HOUSING	1	43-178	53-178	63-178
49	BRAKE - DISC	1	102	102	112
50	O-RING	1	43-213	53-213	63-213

Bulletin 1125-BS
PUR #413 2-11-10
PUR #417 12-03-10
PUR #475 12-03-11



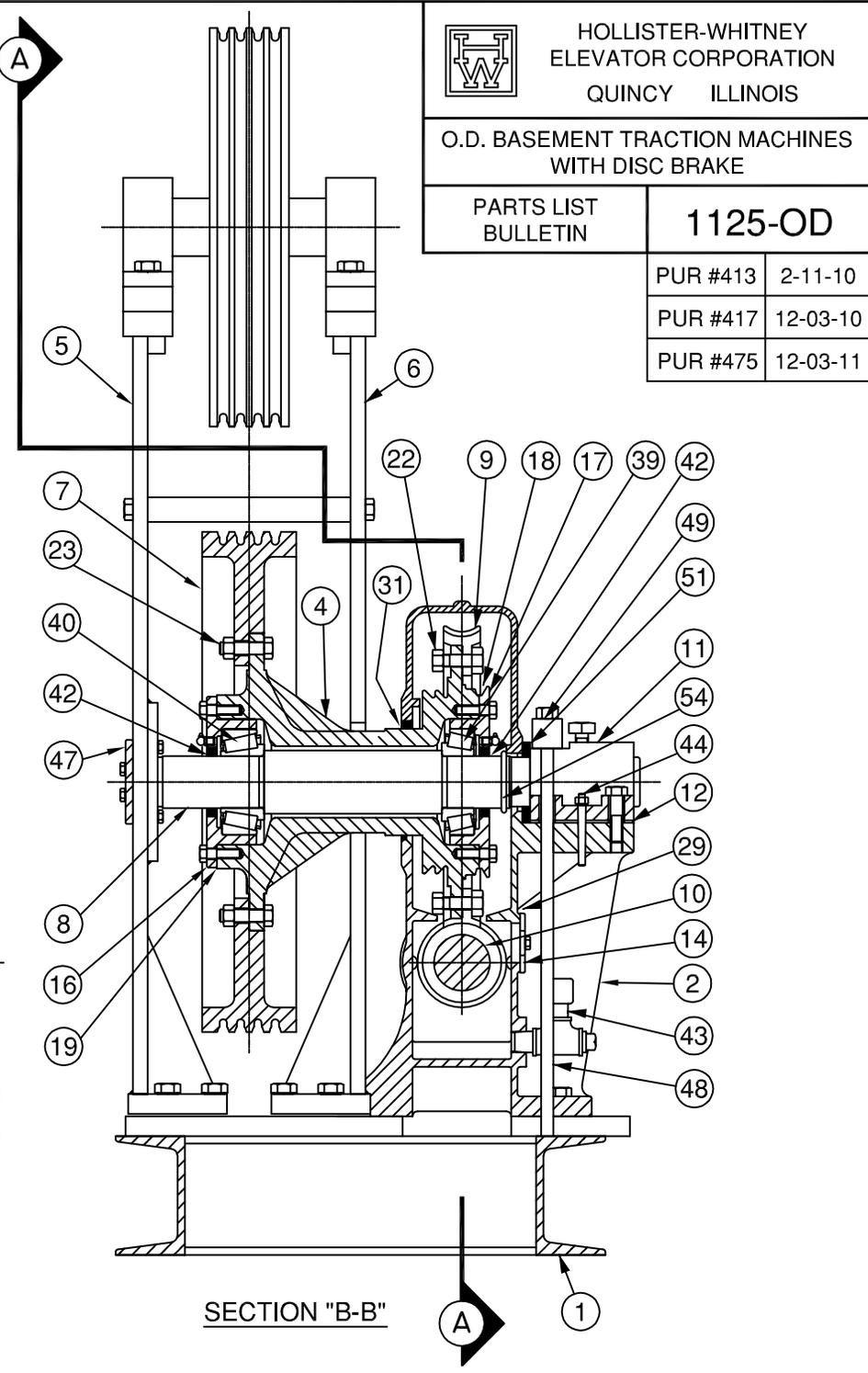
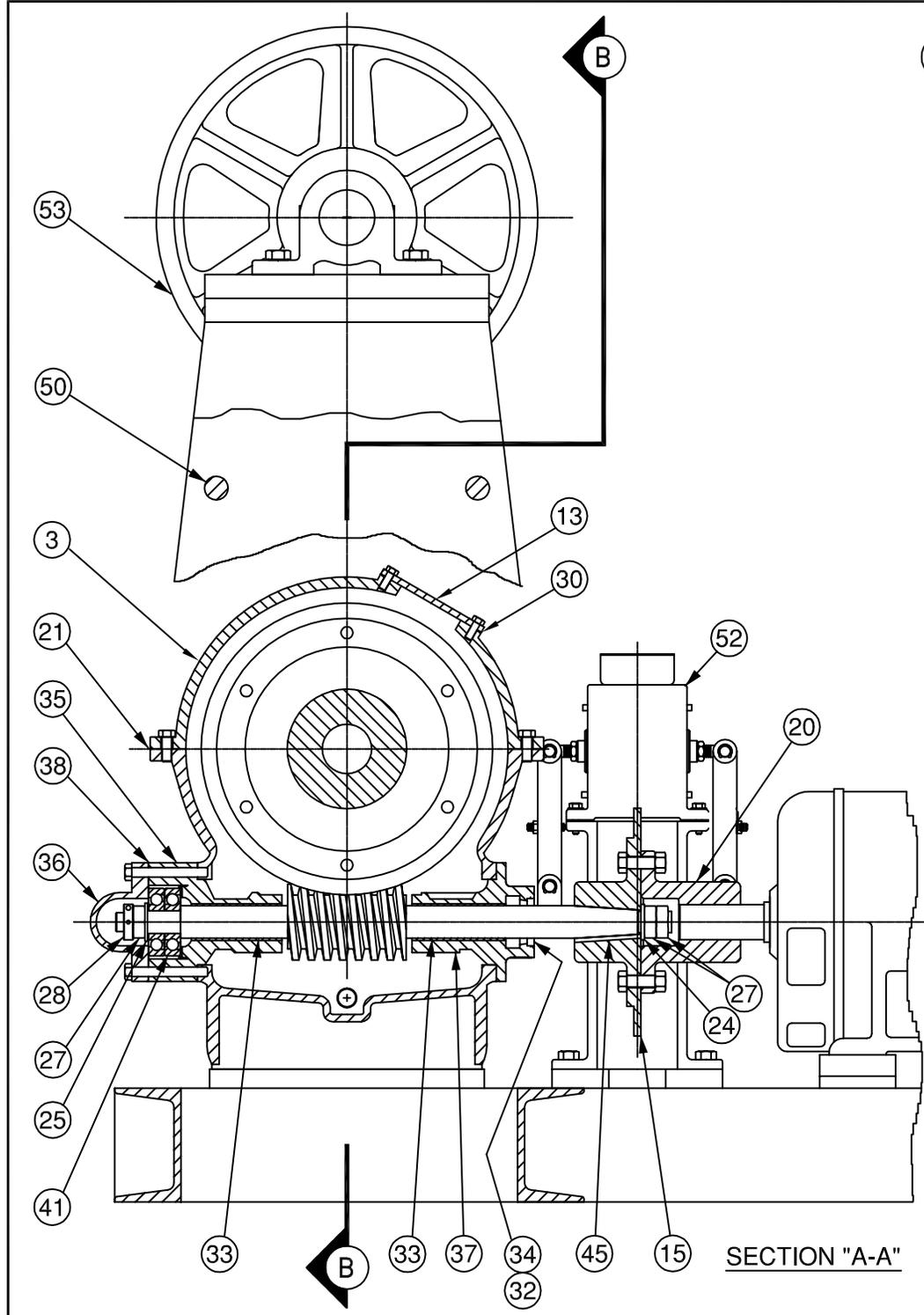
HOLLISTER-WHITNEY
ELEVATOR CORPORATION
QUINCY ILLINOIS

O.D. BASEMENT TRACTION MACHINES
WITH DISC BRAKE

PARTS LIST
BULLETIN

1125-OD

PUR #413	2-11-10
PUR #417	12-03-10
PUR #475	12-03-11



O.D. BASEMENT SET TRACTION MACHINES WITH DISC BRAKE

PARTS LIST

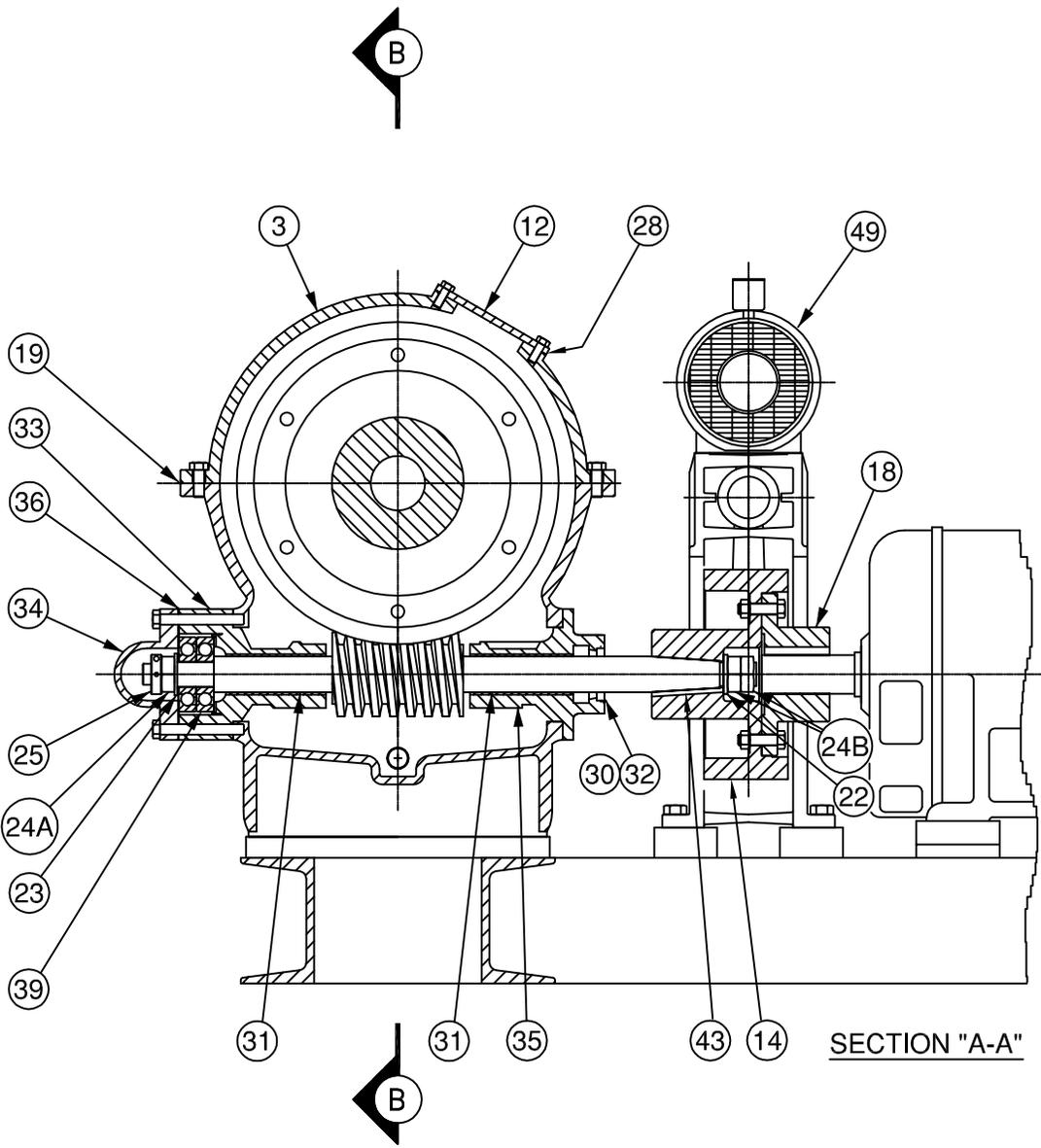
NO.	DESCRIPTION	QTY.	PART NO.		
			#44 Mach.	#54 Mach.	#64 Mach.
1	BASE	1	43-OD-1	53-OD-1	63-OD-1
2	HOUSING-LOWER	1	43-2	53-2	63-2
3	HOUSING-UPPER	1	43-3	53-3	63-3
4	CENTER-GEAR & T.S.	1	43-4	53-4	63-4
5	STAND-OUTBOARD	1	43-OD-5	53-OD-5	63-OD-5
6	STAND-INBOARD	1	43-OD-6	53-OD-6	63-OD-6
7	SHEAVE-TRACTION	1	43-	53-	63-
8	SHAFT-MAIN	1	43-OD-18	53-OD-18	63-OD-18
9	GEAR	1	43-	53-	63-
10	WORM	1	43-	54-	64-
11	BLOCK-SHAFT SUPPORT	1	43-61	53-61	63-61
12	SHIM-SHAFT SUPPORT BLOCK (SOLID)	4	43-62	53-62	63-62
	SHIM-SHAFT SUPPORT BLOCK (LAM.)	2	43-62-1	53-62-1	63-62-1
13	PLATE-UPPER HOUSING	1	43-63	43-63	74-63
14	PLATE-LOWER HOUSING	1	43-64	43-64	43-64
15	DISC-BRAKE	1	44-186	54-186	64-186
16	RETAINER-T.S. END BEARING	1	43-66	53-66	63-OD-66
17	RETAINER-GEAR END BEARING	1	43-67	53-67	63-67
18	SHIM-RETAINER (GEAR END)		43-68	53-68	63-69
19	SHIM-RETAINER (TRACTION SHEAVE END)		43-68	53-69	63-68
20	COUPLING-MOTOR	1	44-187	44-187	64-187
21	GASKET-HOUSING	2	43-71	53-71	63-71
22	BODY BOLT-GEAR END	6/8	43-72 (6)	53-72 (6)	63-72 (8)
23	BODY BOLT-T.S. END	8	43-73	53-73	53-73
24	WASHER	1	43-74	53-74	63-74
25	WASHER	1	44-199	54-199	64-199
27	NUT-JAM	3	43-075	53-075	63-075
28	COLLAR-THREADED LOCK	1	44-198	54-198	64-198
29	GASKET-LOWER HOUSING PLATE	1	43-77	43-77	43-77
30	GASKET-UPPER HOUSING PLATE	1	43-78	43-78	74-78
31	SEAL-HOUSING	1	43-79	53-79	63-79
32	SEAL-CLIPPER (SPLIT)	1	43-81-1	53-81-1	63-81-1
33	BUSHING-WORM SHAFT	2	43-82	53-82	63-82
34	RETAINER-CLIPPER SEAL	1	43-83	53-83	63-83
35	HOUSING-REAR END BEARING	1	43-84	53-84	63-84
36	CAP-REAR END BEARING HOUSING	1	43-85	53-85	63-85
37	HOUSING-FORWARD END BEARING	1	43-86	53-86	63-86
38	SHIM-BEARING HOUSING	8	43-87	53-87	63-87
39	BEARING-GEAR END	1	43-89	53-89	63-89
40	BEARING-T.S. END	1	43-90	53-90	63-90
41	BEARING-THRUST(ONE MATCHED SET OF 2)	1	43-91	53-91	63-91
42	KLOZURE (GEAR & T.S. END)	2	43-92	53-92	63-92
43	OIL LEVEL TUBE	1	43-101	63-101	53-101
44	PIN-THREADED DOWEL #7 (3" LG.) / #10 (5" LG.)	13	43-102	43-102	74-102
45	KEY-BRAKE DRUM	1	43-104	43-104	63-104
46	TAG-MACHINE DATA	1	43-134	43-134	43-134
47	RETAINER-SHAFT	1	53-OD-135	53-OD-135	63-OD-135
48	HOLD DOWN ROD	2	43-BS-136	53-BS-136	63-BS-136
49	HOLD DOWN BAR	1	43-BS-137	53-BS-137	63-BS-137
50	SPACER-O.D. STAND	2	43-OD-137	53-OD-137	63-OD-137
51	FOAM SEAL-GEAR HOUSING	1	43-178	53-178	63-178
52	BRAKE - DISC	1	102	102	112
53	SHEAVE-DEFLECTOR	1	331	331	331
54	O-RING	1	43-213	53-213	63-213

Bulletin 1125-OD
PUR #413 2-11-10
PUR #417 12-03-10
PUR #475 12-03-11

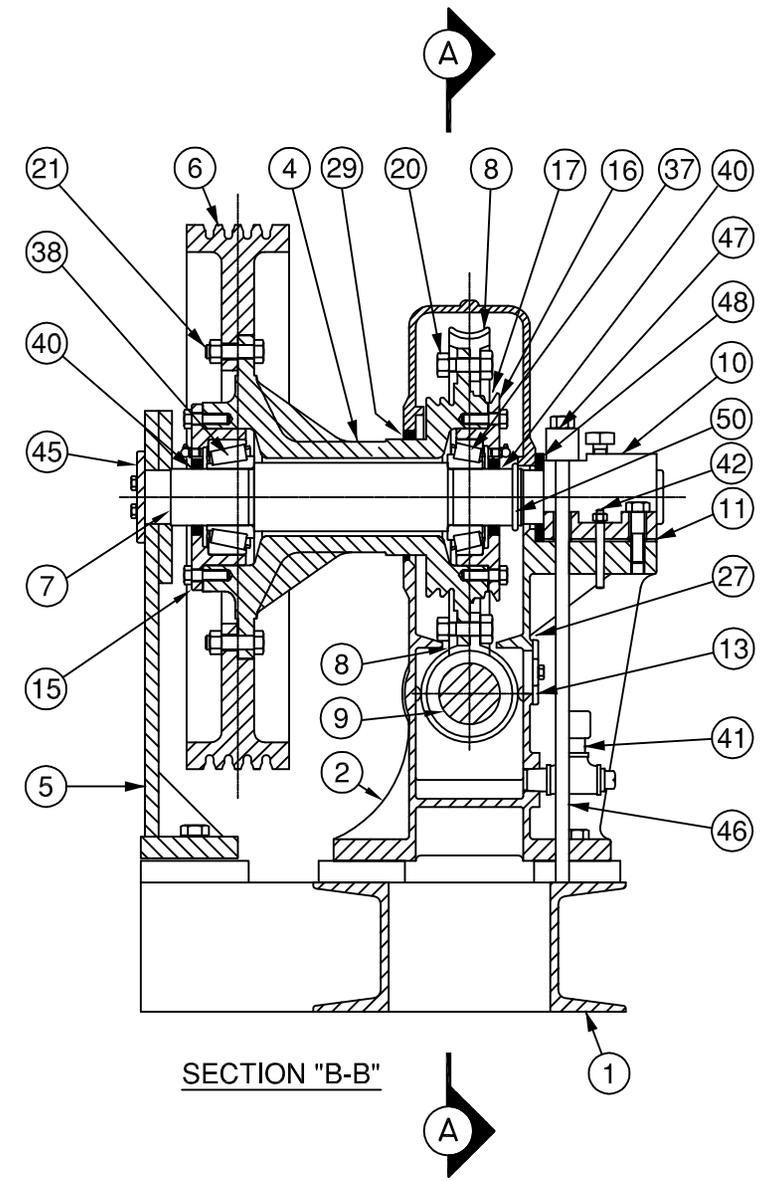
OVERHEAD TRACTION MACHINES WITH DRUM BRAKE

PARTS LIST

NO.	DESCRIPTION	QTY.	PART NO.			
			#43 Mach.	#53 Mach.	#63 Mach.	#74 Mach.
1	BASE	1	43-OH-1	53-OH-1	63-OH-1	74-OH-1
2	HOUSING-LOWER	1	43-2	53-2	63-2	74-2
3	HOUSING-UPPER	1	43-3	53-3	63-3	74-3
4	CENTER-GEAR & T.S.	1	43-4	53-4	63-4	74-4
5	STAND-OUTBOARD	1	43-5	53-5	63-5	74-5
6	SHEAVE-TRACTION	1	43-	53-	63-	74-
7	SHAFT-MAIN	1	43-18	53-18	63-18	74-18
8	GEAR	1	43-	53-	63-	74-
9	WORM	1	43-	53-	63-	74-
10	BLOCKS-SHAFT SUPPORT	2	43-61	53-61	63-61	74-61
11	SHIM-SHAFT SUPPORT BLOCK (SOLID)	8	43-62	53-62	63-62	74-62
	SHIM-SHAFT SUPPORT BLOCK (LAM.)	4	43-62-1	53-62-1	63-62-1	74-62-1
12	PLATE-UPPER HOUSING	1	43-63	43-63	43-63	74-63
13	PLATE-LOWER HOUSING	1	43-64	43-64	43-64	43-64
14	DRUM-BRAKE	1	43-65	53-65	63-65	74-65
15	RETAINER-T.S. END BEARING	1	43-66	53-66	63-66	74-66
16	RETAINER-GEAR END BEARING	1	43-67	53-67	63-67	74-67
17	SHIM-RETAINER (GEAR END)		43-68	53-68	63-68	74-68
18	COUPLING-MOTOR	1	43-70	53-70	53-70	74-70
19	GASKET-HOUSING	2	43-71	53-71	63-71	74-71
20	BODY BOLT-GEAR END	6/8/12	43-72 (6)	53-72 (6)	63-72 (8)	74-72 (12)
21	BODY BOLT-T.S. END	8/12	43-73 (8)	53-73 (8)	53-73 (8)	74-73 (12)
22	WASHER	1	43-74	53-74	63-74	74-74
23	WASHER	1	44-199	54-199	64-199	74-199
24A	NUT-JAM	1	43-075	53-075	63-075	74-200
24B	NUT-JAM	2	43-075	53-075	63-075	74-075
25	COLLAR-THREADED LOCK	1	44-198	54-198	64-198	74-198
27	GASKET-LOWER HOUSING PLATE	1	43-77	43-77	43-77	43-77
28	GASKET-UPPER HOUSING PLATE	1	43-78	43-78	43-78	74-78
29	SEAL-HOUSING	1	43-79	53-79	63-79	74-79
30	SEAL-CLIPPER (SPLIT)	1	43-81-1	53-81-1	63-81-1	74-81-1
31	BUSHING-WORM SHAFT	2	43-82	53-82	63-82	74-82
32	RETAINER-CLIPPER SEAL	1	43-83	53-83	63-83	74-83
33	HOUSING-REAR END BEARING	1	43-84	53-84	63-84	74-84
34	CAP-REAR END BEARING HOUSING	1	43-85	53-85	63-85	74-85
35	HOUSING-FORWARD END BEARING	1	43-86	53-86	63-86	74-86
36	SHIM-BEARING HOUSING	8	43-87	53-87	63-87	74-87
37	BEARING-GEAR END	1	43-89	53-89	63-89	74-89
38	BEARING-T.S. END	1	43-90	53-90	63-90	74-90
39	BEARING-THRUST(ONE MATCHED SET OF 2)	1	43-91	53-91	63-91	74-91
40	KLOZURE (GEAR & T.S. END)	2	43-92	53-92	63-92	74-92
41	OIL LEVEL TUBE	1	43-101	53-101	63-101	74-101
42	PIN-THREADED DOWEL #7 (3" LG.) / #10 (5" LG.)	9	43-102	43-102	43-102	74-102
43	KEY-BRAKE DRUM	1	43-104	43-104	63-104	74-104
44	TAG-MACHINE DATA	1	43-134	43-134	43-134	43-134
45	SHIM-SUPPORT BLOCK	1	43-157	53-157	63-157	74-157
46	FOAM SEAL-GEAR HOUSING	1	43-178	53-178	63-178	74-178
47	BRAKE - DRUM	1	90	100	110	120
48	O-RING	1	43-213	53-213	63-213	74-213



SECTION "A-A"



SECTION "B-B"


**HOLLISTER-WHITNEY
ELEVATOR CORPORATION**
 QUINCY ILLINOIS

PUR #475	12-03-11
PUR #417	12-03-10
PUR #413	2-11-10

BASEMENT TRACTION MACHINES WITH DRUM BRAKE	
PARTS LIST BULLETIN	1000-BS

BASEMENT SET TRACTION MACHINES WITH DRUM BRAKE

PARTS LIST

NO.	DESCRIPTION	QTY.	PART NO.			
			#43 Mach.	#53 Mach.	#63 Mach.	#74 Mach.
1	BASE	1	43-BS-1	53-BS-1	63-BS-1	74-BS-1
2	HOUSING-LOWER	1	43-2	53-2	63-2	74-2
3	HOUSING-UPPER	1	43-3	53-3	63-3	74-3
4	CENTER-GEAR & T.S.	1	43-4	53-4	63-4	74-4
5	STAND-OUTBOARD	1	43-BS-5	53-BS-5	63-BS-5	74-BS-5
6	SHEAVE-TRACTION	1	43-	53-	63-	74-
7	SHAFT-MAIN	1	43-BS-18	53-BS-18	63-BS-18	74-BS-18
8	GEAR	1	43-	53-	63-	74-
9	WORM	1	43-	53-	63-	74-
10	BLOCKS-SHAFT SUPPORT	1	43-61	53-61	63-61	74-61
11	SHIM-SHAFT SUPPORT BLOCK (SOLID)	4	43-62	53-62	63-62	74-62
	SHIM-SHAFT SUPPORT BLOCK (LAM.)	2	43-62-1	53-62-1	63-62-1	74-62-1
12	PLATE-UPPER HOUSING	1	43-63	43-63	43-63	74-63
13	PLATE-LOWER HOUSING	1	43-64	43-64	43-64	43-64
14	DRUM-BRAKE	1	43-65	53-65	63-65	74-65
15	RETAINER-T.S. END BEARING	1	43-66	53-66	63-66	74-66
16	RETAINER-GEAR END BEARING	1	43-67	53-67	63-67	74-67
17	SHIM-RETAINER (GEAR END)		43-68	53-68	63-68	74-68
18	COUPLING-MOTOR	1	43-70	53-70	63-70	74-70
19	GASKET-HOUSING	2	43-71	53-71	63-71	74-71
20	BODY BOLT-GEAR END	6/8/12	43-72 (6)	53-72 (6)	63-72 (8)	74-72 (12)
21	BODY BOLT-T.S. END	8/12	43-73 (8)	53-73 (8)	53-73 (8)	74-73 (12)
22	WASHER	1	43-74	53-74	63-74	74-74
23	WASHER	1	44-199	54-199	64-199	74-199
24A	NUT-JAM	1	43-075	53-075	63-075	74-200
24B	NUT-JAM	2	43-075	53-075	63-075	74-075
25	COLLAR-THREADED LOCK	1	44-198	54-198	64-198	74-198
27	GASKET-LOWER HOUSING PLATE	1	43-77	43-77	43-77	43-77
28	GASKET-UPPER HOUSING PLATE	1	43-78	43-78	43-78	74-78
29	SEAL-HOUSING	1	43-79	53-79	63-79	74-79
30	SEAL-CLIPPER (SPLIT)	1	43-81-1	53-81-1	63-81-1	74-81-1
31	BUSHING-WORM SHAFT	2	43-82	53-82	63-82	74-82
32	RETAINER-CLIPPER SEAL	1	43-83	53-83	63-83	74-83
33	HOUSING-REAR END BEARING	1	43-84	53-84	63-84	74-84
34	CAP-REAR END BEARING HOUSING	1	43-85	53-85	63-85	74-85
35	HOUSING-FORWARD END BEARING	1	43-86	53-86	63-86	74-86
36	SHIM-BEARING HOUSING	8	43-87	53-87	63-87	74-87
37	BEARING-GEAR END	1	43-89	53-89	63-89	74-89
38	BEARING-T.S. END	1	43-90	53-90	63-90	74-90
39	BEARING-THRUST(ONE MATCHED SET OF 2)	1	43-91	53-91	63-91	74-91
40	KLOZURE (GEAR & T.S. END)	2	43-92	53-92	63-92	74-92
41	OIL LEVEL TUBE	1	43-101	53-101	63-101	74-101
42	PIN-THREADED DOWEL #7 (3" LG.) / #10 (5" LG.)	13	43-102	43-102	43-102	74-102
43	KEY-BRAKE DRUM	1	43-104	43-104	63-104	74-104
44	TAG-MACHINE DATA	1	43-134	43-134	43-134	43-134
45	RETAINER-SHAFT	1	53-OD-135	53-OD-135	63-OD-135	74-OD-135
46	HOLD DOWN ROD	2	43-BS-136	53-BS-136	63-BS-136	74-BS-136
47	HOLD DOWN BAR	1	43-BS-137	53-BS-137	63-BS-137	74-BS-137
48	FOAM SEAL-GEAR HOUSING	1	43-178	53-178	63-178	74-178
49	BRAKE-DRUM	1	90	100	110	120
50	O-RING	1	43-213	53-213	63-213	74-213

Bulletin 1000-BS
 PUR #413 2-11-10
 PUR #417 12-03-10
 PUR #475 12-03-11



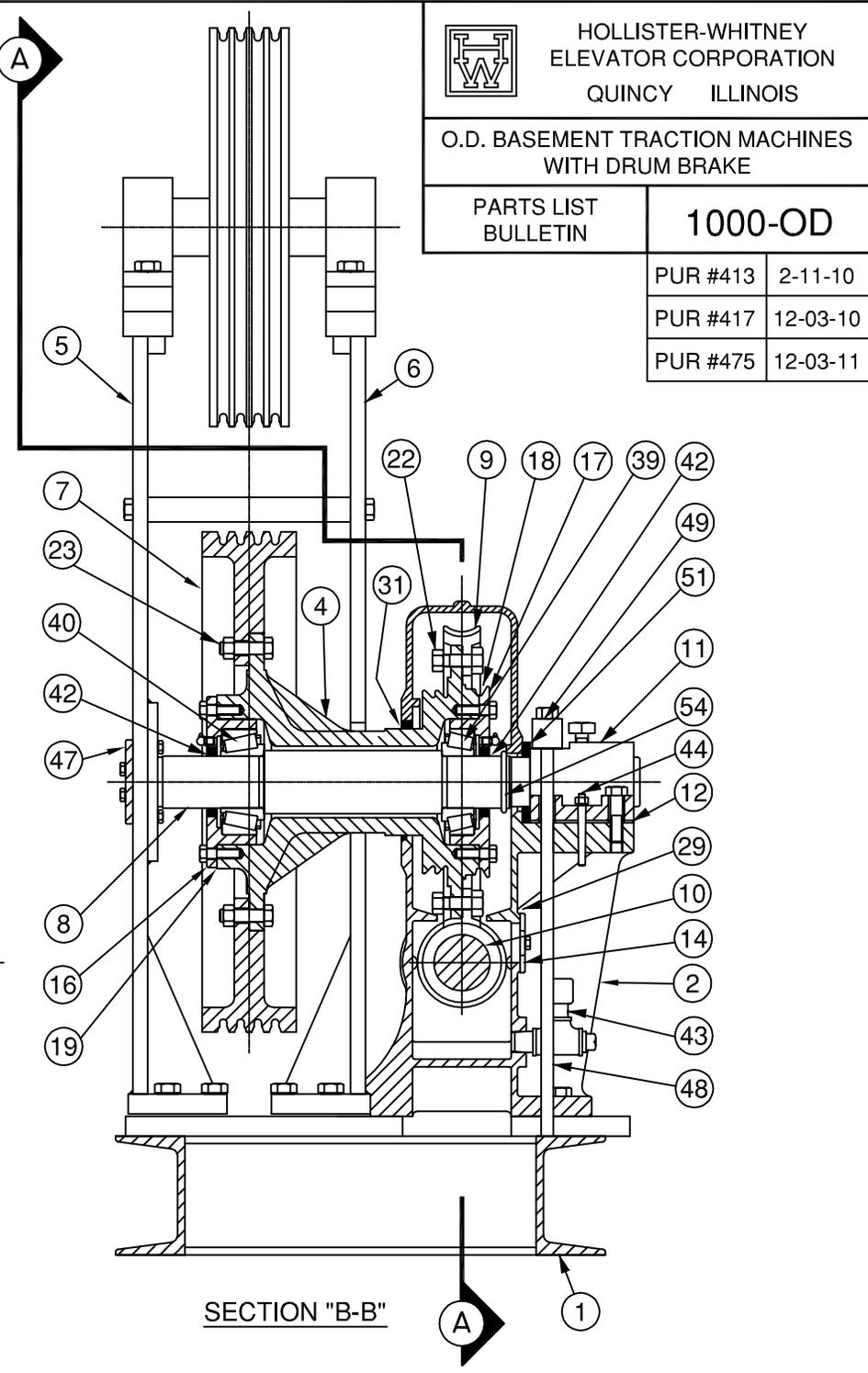
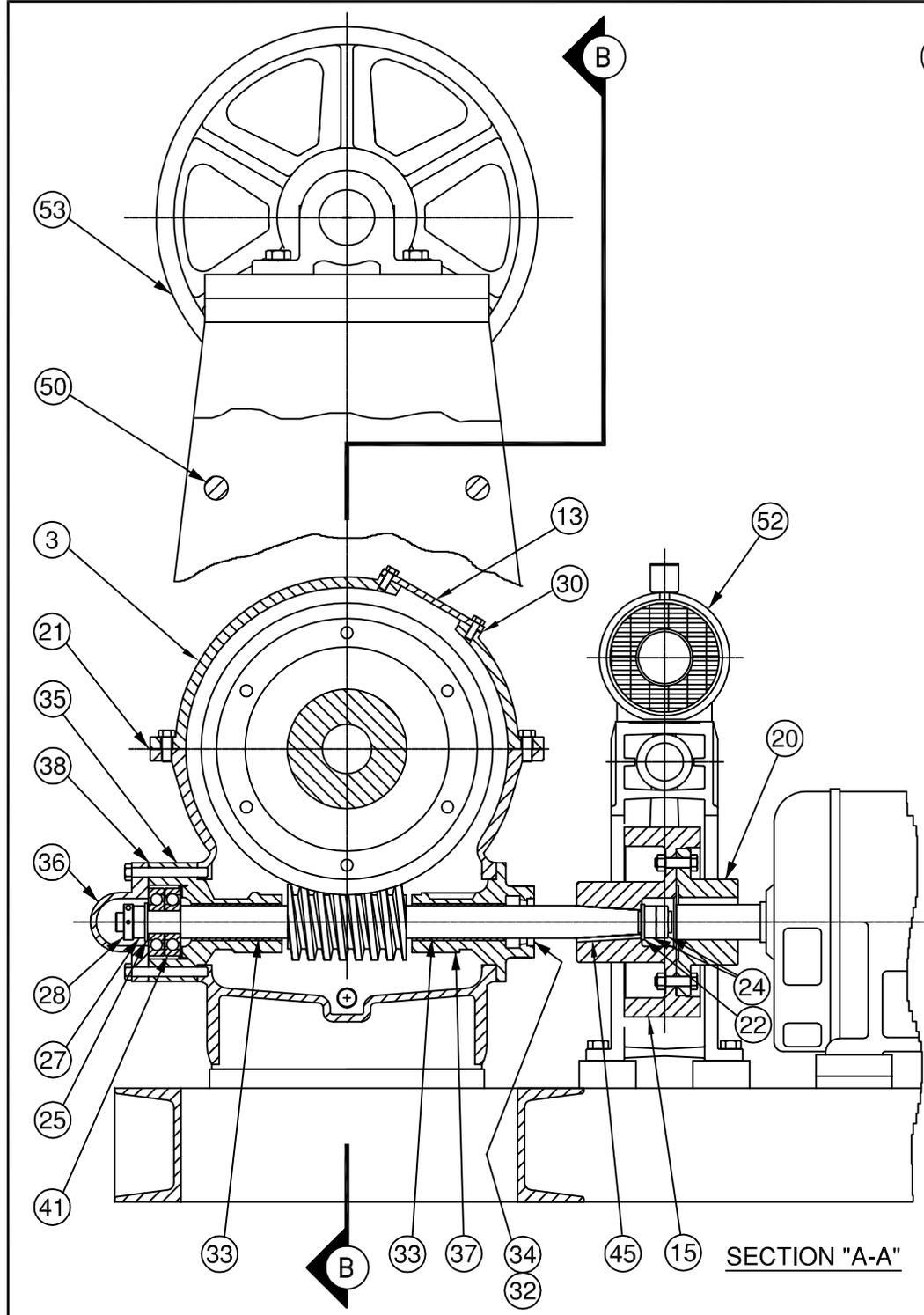
HOLLISTER-WHITNEY
ELEVATOR CORPORATION
QUINCY ILLINOIS

O.D. BASEMENT TRACTION MACHINES
WITH DRUM BRAKE

PARTS LIST
BULLETIN

1000-OD

PUR #413	2-11-10
PUR #417	12-03-10
PUR #475	12-03-11



O.D. BASEMENT SET TRACTION MACHINES WITH DRUM BRAKE

PARTS LIST

NO.	DESCRIPTION	QTY.	PART NO.			
			#43 Mach.	#53 Mach.	#63 Mach.	#74 Mach.
1	BASE	1	43-OD-1	53-OD-1	63-OD-1	74-OD-1
2	HOUSING-LOWER	1	43-2	53-2	63-2	74-2
3	HOUSING-UPPER	1	43-3	53-3	63-3	74-3
4	CENTER-GEAR & T.S.	1	43-4	53-4	63-4	74-4
5	STAND-OUTBOARD	1	43-OD-5	53-OD-5	63-OD-5	74-OD-5
6	STAND-INBOARD	1	43-OD-6	53-OD-6	63-OD-6	74-OD-6
7	SHEAVE-TRACTION	1	43-	53-	63-	74-
8	SHAFT-MAIN	1	43-OD-18	53-OD-18	63-OD-18	74-BS-18
9	GEAR	1	43-	53-	63-	74-
10	WORM	1	44-	54-	64-	74-
11	BLOCK-SHAFT SUPPORT	1	43-61	53-61	63-61	74-61
12	SHIM-SHAFT SUPPORT BLOCK (SOLID)	4	43-62	53-62	63-62	74-62
	SHIM-SHAFT SUPPORT BLOCK (LAM.)	2	43-62-1	53-62-1	63-62-1	74-62-1
13	PLATE-UPPER HOUSING	1	43-63	43-63	43-63	74-63
14	PLATE-LOWER HOUSING	1	43-64	43-64	43-64	43-64
15	DRUM-BRAKE	1	43-65	53-65	63-65	74-65
16	RETAINER-T.S. END BEARING	1	43-66	53-66	63-OD-66	74-66
17	RETAINER-GEAR END BEARING	1	43-67	53-67	63-67	74-67
18	SHIM-RETAINER (GEAR END)		43-68	53-68	63-69	74-69
19	SHIM-RETAINER (TRACTION SHEAVE END)		43-68	53-69	63-68	74-68
20	COUPLING-MOTOR	1	43-70	53-70	63-70	74-70
21	GASKET-HOUSING	2	43-71	53-71	63-71	74-71
22	BODY BOLT-GEAR END	6/8/12	43-72 (6)	53-72 (6)	63-72 (8)	74-72 (12)
23	BODY BOLT-T.S. END	8/12	43-73 (8)	53-73 (8)	53-73 (8)	74-73 (12)
24	WASHER	1	43-74	53-74	63-74	74-74
25	WASHER	1	44-199	54-199	64-199	74-199
27	NUT-JAM	3	43-075	53-075	63-075	74-200
28	COLLAR-THREADED LOCK	1	44-198	54-198	64-198	74-198
29	GASKET-LOWER HOUSING PLATE	1	43-77	43-77	43-77	43-77
30	GASKET-UPPER HOUSING PLATE	1	43-78	43-78	43-78	74-78
31	SEAL-HOUSING	1	43-79	53-79	63-79	74-79
32	SEAL-CLIPPER (SPLIT)	1	43-81-1	53-81-1	63-81-1	74-81-1
33	BUSHING-WORM SHAFT	2	43-82	53-82	63-82	74-82
34	RETAINER-CLIPPER SEAL	1	43-83	53-83	63-83	74-83
35	HOUSING-REAR END BEARING	1	43-84	53-84	63-84	74-84
36	CAP-REAR END BEARING HOUSING	1	43-85	53-85	63-85	74-85
37	HOUSING-FORWARD END BEARING	1	43-86	53-86	63-86	74-86
38	SHIM-BEARING HOUSING	8	43-87	53-87	63-87	74-87
39	BEARING-GEAR END	1	43-89	53-89	63-89	74-89
40	BEARING-T.S. END	1	43-90	53-90	63-90	74-90
41	BEARING-THRUST(ONE MATCHED SET OF 2)	1	43-91	53-91	63-91	74-91
42	KLOZURE (GEAR & T.S. END)	2	43-92	53-92	63-92	74-92
43	OIL LEVEL TUBE	1	43-101	53-101	63-101	74-101
44	PIN-THREADED DOWEL #7 (3" LG.) / #10 (5" LG.)	13	43-102	43-102	43-102	74-102
45	KEY-BRAKE DRUM	1	43-104	43-104	63-104	74-104
46	TAG-MACHINE DATA	1	43-134	43-134	43-134	43-134
47	RETAINER-SHAFT	1	53-OD-135	53-OD-135	63-OD-135	74-OD-135
48	HOLD DOWN ROD	2	43-BS-136	53-BS-136	63-BS-136	74-BS-136
49	HOLD DOWN BAR	1	43-BS-137	53-BS-137	63-BS-137	74-BS-137
50	SPACER-O.D. STAND	2	43-OD-137	53-OD-137	63-OD-137	74-OD-137
51	FOAM SEAL-GEAR HOUSING	1	43-178	53-178	63-178	74-178
52	BRAKE - DRUM	1	90	100	110	120
53	SHEAVE-DEFLECTOR	1	331	331	331	331
54	O-RING	1	43-213	53-213	63-213	74-213

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LUBRICATION INSTRUCTIONS FOR WORM-GEAR MACHINES

IMPORTANT - READ CAREFULLY

NEW MACHINES

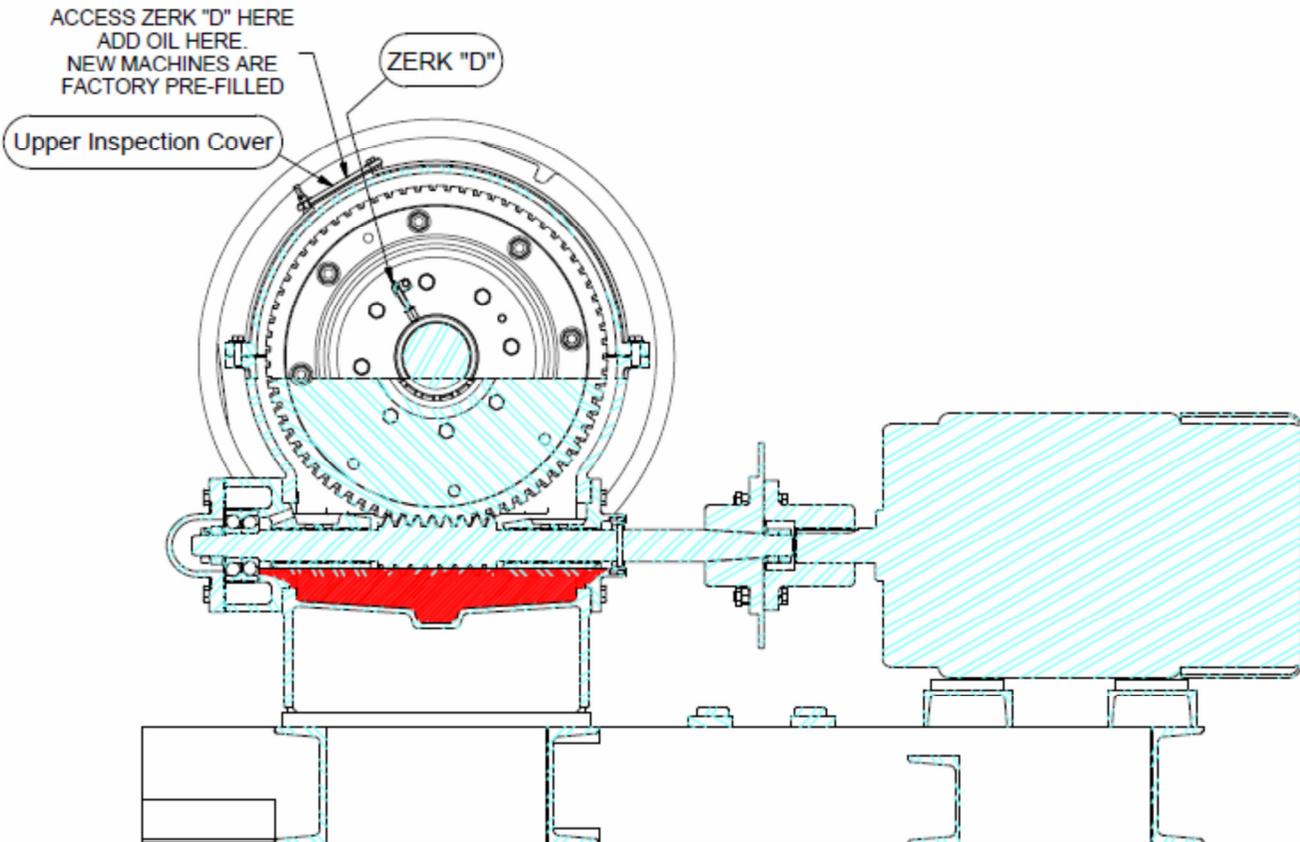
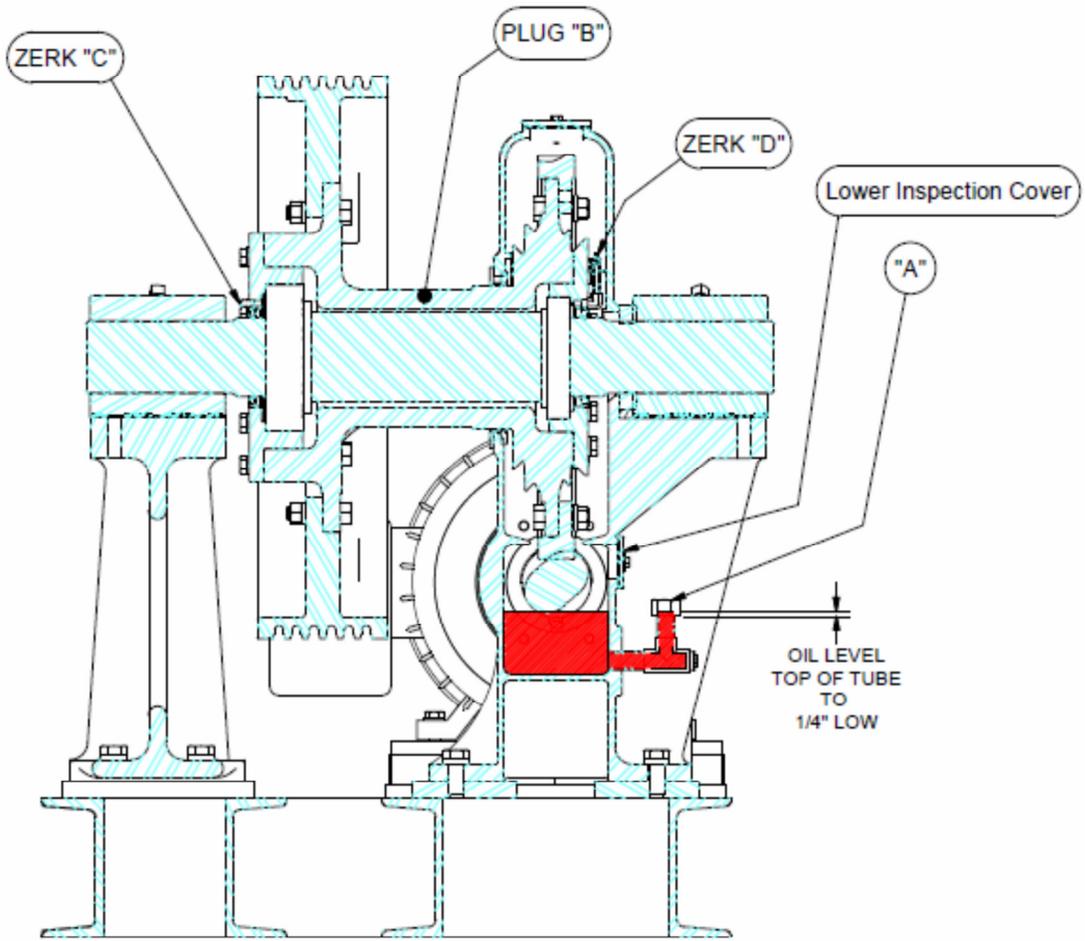
1. Machine lubricant has been factory pre-filled. Checking the level of worm-gear lubricant may be done by removing Cap "A". The oil should be at the top or within 1/4" of the top of the oil level tube.
2. The tapered roller bearings on the main shaft at the gear and at the traction sheave are factory packed, and will require no additional lubrication for approximately (1) year.
3. The direct current brake requires no lubrication under normal environmental conditions.
4. Refer to separate motor oiling instructions enclosed or packed with the motor.

ADDITION OF LUBRICANT TO EXISTING MACHINES

1. Annual checks of worm-gear lubricant through the Upper and Lower Inspection Covers and checks of the lubricant level are required. Replacement of worm and gear lubricant should occur every three (3) years for normal duty, and as often as semi yearly or yearly for severe duty.
2. Hollister-Whitney supplies machines with Mobil SHC 636 mineral based synthetic lubricant. Glycol based lubricants are NOT recommended as they are not compatible with Non-Glycol Synthetics or Mineral Based Lubricants.
3. Each tapered roller bearing will require a yearly addition of two (2) to three (3) ounces of EXXON POLYREX EP2. Remove pressure Relief Plug "B". Insert lubrication at Grease Zerk fittings "C" and "D". Zerk "D" is inside the upper housing and should line up with Relief Plug "B". Rotate traction wheel to line up Plug "B" and access Zerk "D" through the Upper Inspection Cover. When lubrication is complete Re-install Plug "B".

APPROXIMATE AMOUNTS OF LUBRICANT TO INITIALLY FILL EACH SIZE MACHINE

Machine Size	Worm Gear Lubricant	Bearing Lubricant Gear End	Bearing Lubricant Traction Sheave End
#34	3/4 Gallon	1 oz.	3 oz.
#43 / #44	1 Gallon	2 oz.	5 oz.
#53 / #54	1 1/2 Gallon	5 oz.	12 oz.
#63 / #64	2 Gallon	11 oz.	21 oz.
#74	4 Gallon	20 oz.	35 oz.



HOLLISTER-WHITNEY ELEVATOR CORP.
SOCKETS USED ON MACHINES

#34 MACHINE: 3/4" SOCKET
 9/16" SOCKET
 15/16" SOCKET
 1-5/16" SOCKET
 1-5/16" HAMMER WRENCH

#43/#44 MACHINE: 3/4" SOCKET
 15/16" SOCKET
 1-1/16" SOCKET
 1-11/16" SOCKET
 1-11/16" HAMMER WRENCH

#53/#54 MACHINE: 3/4" SOCKET
 1-1/8" SOCKET
 1-1/4" SOCKET
 1-7/8" SOCKET
 1-7/8" HAMMER WRENCH

#63/#64 MACHINE: 15/16" SOCKET
 1-1/8" SOCKET
 1-1/4" SOCKET
 1-5/16" SOCKET
 2-1/4" SOCKET
 2-1/4" HAMMER WRENCH

#74 MACHINE: 1-1/2 SOCKET
 1-7/16" SOCKET
 2-3/4" SOCKET
 3-1/4" SOCKET
 3-1/4" HAMMER WRENCH

HOLLISTER-WHITNEY ELEVATOR CORP.
MOTOR ALIGNMENT PROCEDURE FOR H-W TRACTION MACHINES

Mounting and aligning the new motor on undrilled motor pads:

1. The first step in mounting the motor on undrilled motor pads is to mount the motor coupling on the motor shaft. HOLLISTER-WHITNEY bores the coupling approximately .0010" to .0015" smaller than the motor shaft. While the coupling can be pressed on, HOLLISTER-WHITNEY heats the coupling and shrinks it on.
2. The double taper keys are now installed as shown in Fig. 2.
3. On motors that have the inset key, the key-to keyway fit is such that no extra fitting is necessary. Just heat the coupling and push it over the shaft and key. The end of the motor shaft is to be flush with the recessed step on the coupling.
4. There is a small amount of play in the in-and-out motion of the motor shaft. The motor must be mounted approximately in the center of this movement. This is done by pushing the shaft as far back as it will go and scribing a line on the shaft. Then pull the shaft out as far as it will go and scribe a line. The shaft is then placed approximately in the center of these two lines.
5. The motor is set on base pads and roughly aligned with the brake drum or brake disc. This is accomplished by hoisting the motor from the eye bolt, close to the finished height (motor feet about 1/8" from pads). Now with the coupling resting in the pulley recess, lightly move the motor from side-to-side (while pushing the motor toward the pulley) until the flat surfaces of the coupling and the pulley fully meet. At this point, lower the motor onto the pads being careful to prevent side movement. Next pry between the coupling and the end bell, then move the motor back half of the free end play of the shaft.
6. Mounting holes are now scribed. The motor is removed and mounting holes are drilled and tapped.
7. The motor is again put onto the base pads. Install two (2) 5/16" tram rods (approximately 7" long) into the motor coupling (180° apart). Put two (2) 90° Starrett Model #196 indicators on one (1) tramming rod with one against the face of the brake drum or disc, and the other on the O.D. of the brake drum or disc. See Fig. 1 for indicator positioning.

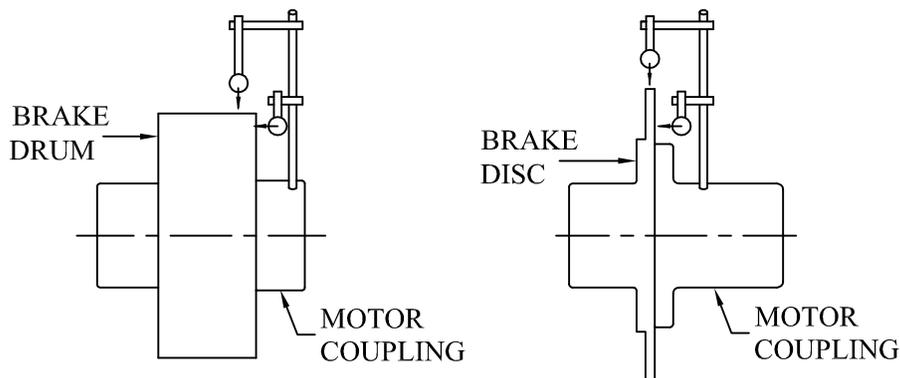


FIG. 1-
INDICATOR
POSITIONING

(cont'd.)

8. Turn the tram rods horizontally with the drum or disc until a "0" reading is obtained. Swing the tram rods, turning with the indicator, 180° on the brake drum or disc.
9. While taking readings of the indicators, you should tap the motor (depending on reading) as you swing 180°. They should both read "0" on the drum or disc.
10. This would indicate that the motor is straight in line with the brake drum or disc, and swinging the indicators to an upright position on top of the drum or disc, you would need to again take a reading. The indicator on the face tells you whether the back of the motor is high or low, while the indicator on the O.D. will tell you the height of the motor.
11. Adjust the shimming under the motor legs to maintain the height on the indicator from .0 to .0015. The reading on the O.D. should be from "0" to .002-. (A negative reading indicates that the motor is actually .002 high).
12. Go back and check the side reading to make sure they are still "0" readings. Swing the indicators to the top of the drum or disc to make sure they maintain .0 to .0015 on the face and that the O.D. of the drum or disc maintains "0" or .002- (high).
13. Install bolts in the motor coupling and the drum or disc, snugging them in and taking care not to overtighten.
14. Using a magnetic stand and indicator on the O.D. of the drum or disc, take a reading on the indicator to assure it is true to within "0" to .0005.
15. True reading within these tolerances can be obtained by taking a soft hammer and tapping on the positive side of the face of the drum, bringing it into the "0" to .0005 range. Tighten bolts and replace the lock nuts.

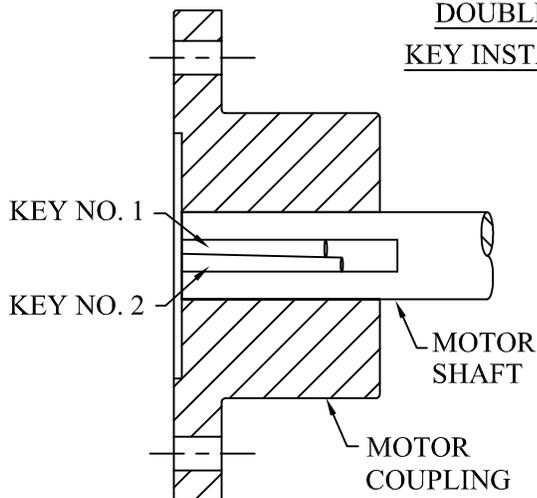
Instructions for the installation and removal of the double taper keys:

1. First press or shrink the flange or pulley on the shaft, being careful to have the keyways in perfect alignment. This may be done by putting the two keys in the keyway in the shaft, about halfway in, before the hub is started. If the flange is heated and slipped on the shaft, the two keys can be driven lightly in the keyway before the hub cools.
2. The keys are identical, but the one inserted first is referred to as key No. 1, and the other one as key No. 2. Insert key No. 1, large end first, and let it extend about one inch from the end of the shaft.
3. Insert key No. 2, small end first, and tap it lightly with a hammer to be sure the two keys are solidly together. The large end of key No. 2 should extend about 3/8 to 1/2 inch out from the small end of key No. 1. If it extends farther than 1/2 inch, mark it and cut it off. If it does not extend at least 3/8" inch from the small end of key No. 1, mark No. 1, and remove it and cut it off at the mark. This 3/8 to 1/2 inch must be maintained.

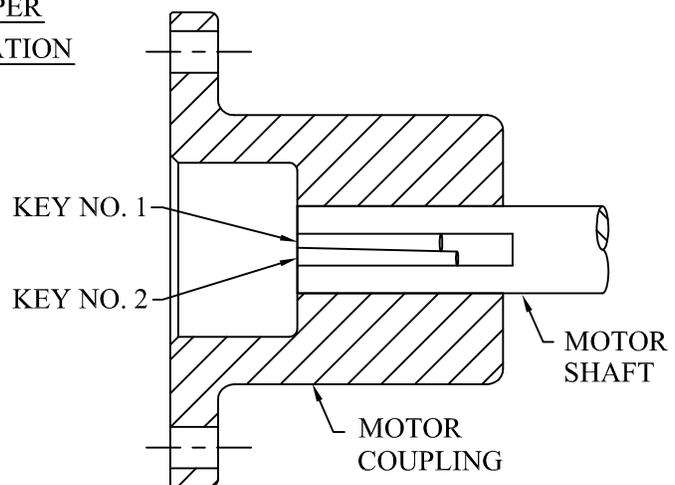
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4. Now insert key No. 1 in the keyway as far as it will go. It should go $\frac{3}{8}$ to $\frac{1}{2}$ inch below flush. If it does not, remove it and cut off the LARGE end of the required amount. It does not matter if the distance below flush is a little greater than the $\frac{1}{2}$ inch.
5. Remove key No. 1, and try key No. 2 in the keyway, small end first. It should go at least flush with the end of the shaft. If it does not go this far, remove it and cut off the SMALL end.
6. The necessary fitting has now been done. File or grind both ends of both keys approximately flat and chamfer all edges of the ends.
7. Dope the keys with "Never-Seez" or "Anti-Seize". Place key No. 1 in the keyway, large end first, letting it protrude about $\frac{1}{2}$ inch. Insert key No. 2, and drive it in with a soft hammer or a soft drift until it is flush with key No. 1, then drive both keys flush with the end of the shaft. If key No. 1 creeps in as key No. 2 is driven in so it appears that No. 1 will be below flush, remove both keys and start again with No. 1 farther out. Wipe off the excess dope and the job is done.
8. To remove the keys, make a soft steel drift just the size of the exposed end of key No. 1, this is the small end of the keys. Drive key No. 1 in as far as it will go. This loosens the keys and they can be easily removed. In case the dope causes key No. 2 to stick in the groove, the keys do not need to be removed in order to get the flange off the shaft. As soon as key No. 1 is driven in, the assembly is loose and the hub can be removed without interference by the keys.
9. If the keys are not damaged in assembly or disassembly they can be used many times.
10. Fig. 2 shows the keys properly fitted and in the driven up position for drum or disc brakes.

FIG. 2-
DOUBLE TAPER
KEY INSTALLATION



MOTOR COUPLING FOR DRUM BRAKE



MOTOR COUPLING FOR DISC BRAKE

HOLLISTER-WHITNEY ELEVATOR CORP.
MOTOR ALIGNMENT PROCEDURE WITH MACHINE INSTALLED & CABLES ON

Procedure:

1. With car empty, land counterweight, then release the brake. Turn the brake drum or disc until balance is made.
2. Loosen the brake springs on the brake. Unbolt the brake and slide the brake as far as possible toward the machine (gear-box) housing, making sure the brake shoes are clear of the drum or disc.
3. Take all bolts out of the motor coupling and install two (2) 5/16" tram rods (approximately 7" long) into the motor coupling (180° apart). Put two (2) 90° Starrett Model #196 indicators on one (1) tramming rod with one against the face of the brake drum or disc, and the other on the O.D. of the brake drum or disc. See Fig. 1 for indicator positioning.
4. Turn the tram rods horizontally with the drum or disc until a "0" reading is obtained. Swing the tram rods, turning with the indicator, 180° on the brake drum or disc.
5. While taking readings of the indicators, you should tap the motor (depending on reading) as you swing 180°. They should both read "0" on the drum or disc.
6. This would indicate that the motor is straight in line with the brake drum or disc, and swinging the indicators to an upright position on top of the drum or disc, you would need to again take a reading. The indicator on the face tells you whether the back of the motor is high or low, while the indicator on the O.D. will tell you the height of the motor.
7. Adjust the shimming under the motor legs to maintain the height on the indicator from .0 to .0015. The reading on the O.D. should be from "0" to .002-. (A negative reading indicates that the motor is actually .002 high).
8. Go back and check the side reading to make sure they are still "0" readings. Swing the indicators to the top of the drum or disc to make sure they maintain .0 to .0015 on the face and O.D. of the drum or disc maintains "0" to .002- (high).
9. Replace the bolts in the motor coupling and the drum or disc, snugging them in and taking care not to over-tighten.
10. Using a magnetic stand and indicator on the O.D. of the drum or disc, put the car in inspection mode and run down about 3 feet. Take a reading on the indicator to assure it is true to within "0" to .0005.
11. True reading within these tolerances can be obtained by taking a soft hammer and tapping on the positive side of the face of the drum or disc, bringing it into the "0" to .0005 range. Tighten the bolts and replace the lock nuts.
12. Remount the brake.
13. Restore the elevator to operation.

(cont'd.)

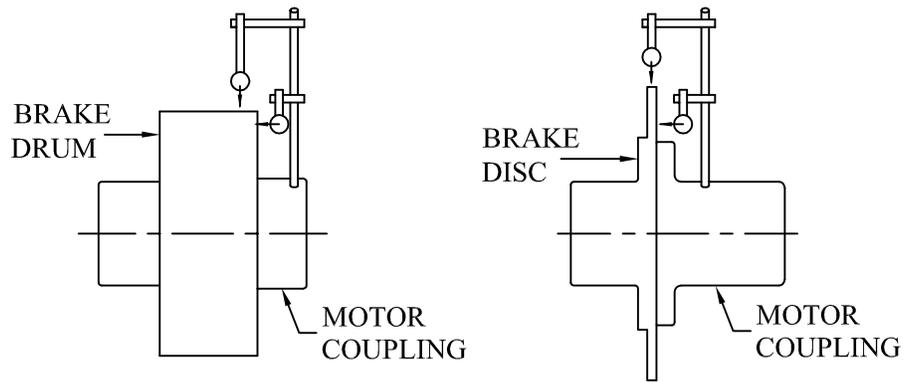
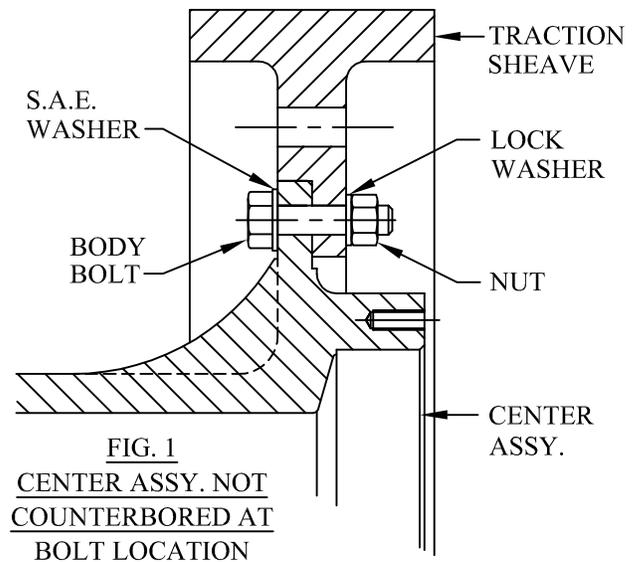


FIG. 1 - INDICATOR POSITIONING

HOLLISTER-WHITNEY ELEVATOR CORP.
INSTRUCTIONS FOR REPLACEMENT OF TRACTION SHEAVE

Instructions:

1. Traction sheave is mounted with shrink fit. To remove the sheave you will need some form of heat, preferably an acetylene torch with a large heating tip (rosebud) which is used for heating only.
2. Apply heat to the traction sheave until just past "hand-touch" temperature. While heating, use an impact wrench to "walk-off" the sheave one bolt at a time. There are three tapped holes in the traction sheave that are used for this purpose. If there is resistance, apply additional heat.
3. Remove and rest the sheave on blocking so the sheave is free of the center, and at this point, you can remove the outboard stand. This will keep the gear from being moved out of position in relation to the worm.
4. After removal of the outboard stand, remove the old sheave.
5. Any burrs must be removed from the center flange surface, bolt holes, and back-off screw indentions to assure a flush re-mount.
6. You will now need to preheat the new traction sheave to nearly the same temperature and you are ready for assembly.
7. Use 4 N.C. standard bolts the same diameter as the body bolts to pull the sheave onto the center. DO NOT USE BODY BOLTS. Once it is set into position with the 4 standard bolts in place, replace the outboard stand. Tighten traction sheave on center going nut-to-nut around the circle. Additional heat may be required for easy assembly.
8. Once you are sure the traction sheave is flush against the flange, the holes will require a slight reaming to accept the large body bolts.
9. Attach the replacement traction sheave to the existing center assembly with body bolts. NOTE: Place a S.A.E. washer at the underside of the bolt head if the center assembly has not been counterbored. If the center assembly has been counterbored at the bolt location, then the S.A.E. washer is not required. Secure the bolts with a lock washer and nut. (See Fig. 1)
10. Check run-out of sheave with a dial indicator. It should run within .005 and if it does not, then you may need to apply additional heat and re-tighten all bolts.



HOLLISTER-WHITNEY ELEVATOR CORP.
INSTRUCTIONS FOR REPLACEMENT OF WORM & GEAR SETS

(Reference: H-W Bulletin #1000 or #1125)

<u>Description</u>	<u>Purpose</u>
Dowel Pin	To maintain setting during transit.
Shim Pack	To adjust depth of gear mesh.
Jack Screw	To raise either shaft support block for shim adjustment.
Bolts	To maintain position of shaft support block.
Set Screws	To maintain position of main shaft axially in shaft support blocks.

Mounting and Alignment Procedure:

1. Gear center seat must be true and clean. Gear must be uniformly heated for shrink fit on gear center. Make certain gear is fully seated against flange, and aligned for insertion of body fit bolts. Re-ream all holes.
2. After installation of replacement worm shaft, check for free-spinning. Mount and align motor, lubricate worm shaft bushings and thrust bearings intermittently while running machine to insure freedom of worm, also, back off bearing cap bolts to enable the thrust bearings to seek their center. Re-tighten cap bolts and install gear/traction sheave assembly.
3. Adjust setting of gear in relation to worm to result in approximately .005" backlash (measured with tangentially mounted dial indicator, reading on flank of gear tooth) by rocking center assembly while duplicating factory gear contact pattern, if present. Pattern must be established under simulated load condition which can be accomplished by applying the pressure of a wood pry beam against rotating traction sheave rim.
4. Height of gear/traction sheave assembly is adjusted by thickness of shim packs under both shaft support blocks. Note that the top shim is actually a laminated shim pack which can be peeled off in .002" increments.
5. Gear/traction sheave assembly can be rotated in relation to worm shaft by shifting position of appropriate shaft support block sideways, since the hold down bolts are positioned in oversized holes in blocks.
6. Gear/traction sheave assembly can be shifted axially through bore of shaft support blocks.
7. Add new gear oil (refer to Lubrication Instructions).



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REPLACEMENT BEARINGS AND SEALS FOR HOLLISTER-WHITNEY MACHINES

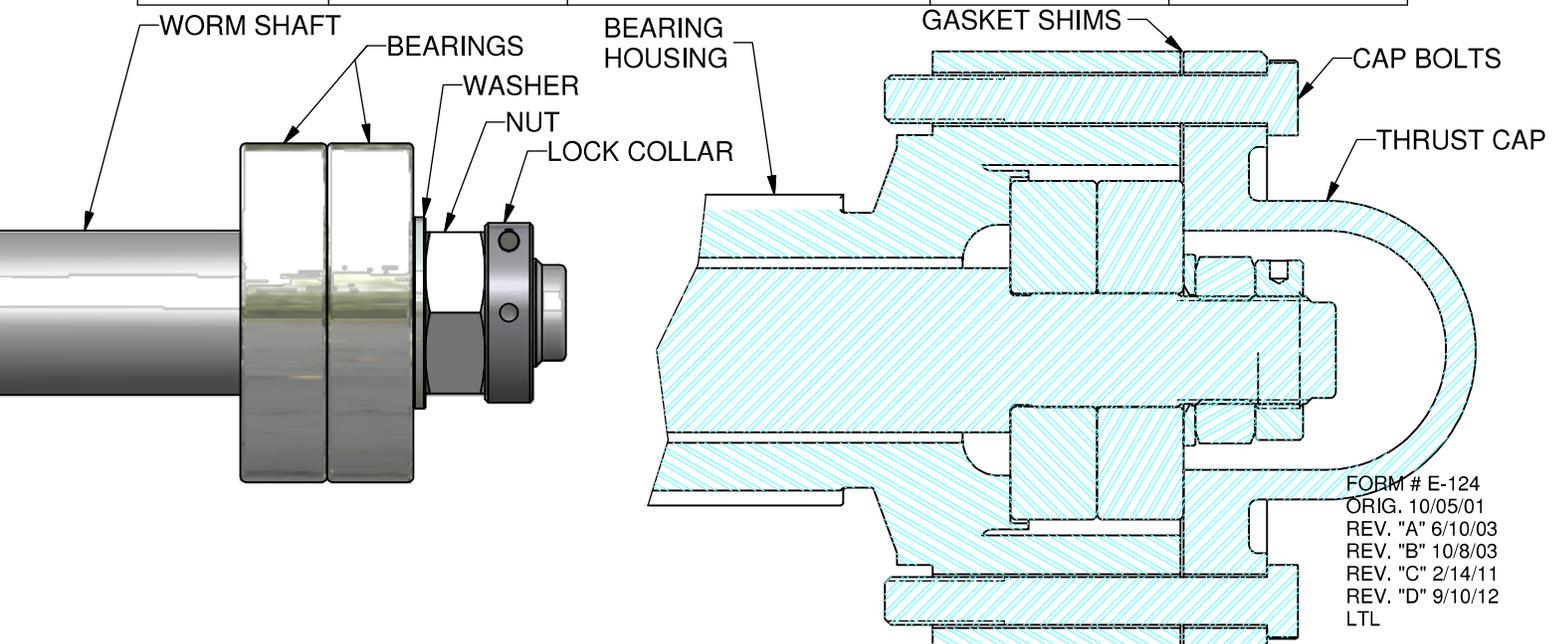
MACH.	INFO.	BEARING GEAR END	BEARING T.S. END	BEARING-THRUST (Matched set of 2)	HOUSING SEAL Gear or T.S. End	CLIPPER SEAL (Split)	CLIPPER SEAL
#34	HW Part #	34-089	34-090	34-091	34-092	34-081-1	34-081
	Mfg	Timken	Timken	SKF	Garlock/Klozure	Parker	Parker
	Part #	Cup - 3920 Cone - 3980	Cup - 65500 Cone - 65237	7405 BCBM	21158-1642	0150-9628	6679-H1L5
#43 #44	HW Part #	43-089	43-090	43-091	43-092	43-081-1	43-081
	Mfg	Timken	Timken	SKF	SKF	J.M. Clipper	Parker
#53 #54	HW Part #	53-089	53-090	53-091	53-092	53-081-1	53-081
	Mfg	Timken	Timken	SKF	SKF	Parker	Parker
	Part #	Cup - 752 Cone - 759	Cup - 6535 Cone - 6580	7407 BM/DGB	34886	0193-4274	5828 H1L5
#63 #64	HW Part #	63-089	63-090	63-091	63-092	63-081-1	63-081
	Mfg	Timken	Timken	SKF	SKF	Parker	SKF
#74	HW Part #	74-089	74-090	74-091	74-092	74-081-1	74-081
	Mfg	Timken	Timken	FAG	SKF	Garlock/Klozur	SKF
	Part #	Cup - 99100 Cone - 99600	Cup - HH234010 Cone - HH234048	7413 B.MP.UO	60006	25003-6356	CR 32395



HOLLISTER-WHITNEY ELEVATOR CORPORATION INSTALLATION PROCEDURE FOR #7400 SERIES THRUST BEARINGS

- 1.) Drain and thoroughly clean gear housing, thrust bearing housing, and thrust cap. The face of the shoulder on worm shaft must project beyond bearing face on bearing housing.
- 2.) Place the STAMPED faces of outer races of thrust bearings together and assemble on worm shaft as shown.
- 3.) Install washer on worm shaft. Make sure the bore chamfer on washer is toward bearings. Torque nut according to the CONDITIONING TORQUE on chart below to condition the worm threads. Back nut off and remove.
- 4.) Clean threads of nut and worm thoroughly with a non-oil based cleaner and let dry completely.
- 5.) Apply provided Loctite #2440 or Permatex Threadlocker Blue PX #24325 to worm threads where nut will be located.
- 6.) Re-install nut and re-torque to the FINAL TORQUE value specified in the chart below.
- 7.) Install new lock collar provided. Snug down collar against nut by tapping spanner wrench handle lightly with a brass hammer. Tighten clamping screw on collar to 14 ft-lbs (170 in-lbs). **NOTE EXCEPTION: For 74 Machine ONLY**, tighten clamping screw on collar to 27 ft-lbs (325 in-lbs).
- 8.) Install just enough shims between thrust cap and housing to eliminate ALL axial end play in worm shaft. Remove one shim and torque thrust cap bolts solid per chart (0.001" to 0.007" preload on outer races is recommended).
- 9.) After unit is completely re-assembled, and before starting machine, fill gear housing to correct oil level with worm gear oil of approved specification (See Lubrication Instructions Bulletin #1150).
- 10.) Before restoring car to service, slightly back off all thrust bearing cap bolts temporarily, and run EMPTY car for several trips. Re-tighten cap bolts to specified torque value and place car into regular service.

TORQUE VALUES				
Machine	Thrust Bearing	CONDITIONING Torque	Thrust Cap Bolt	FINAL Torque
34	#7405	250 ft-lbs	23 ft-lbs	75 ft-lbs
43/44	#7406	350 ft-lbs	55 ft-lbs	95 ft-lbs
53/54	#7407	350 ft-lbs	55 ft-lbs	125 ft-lbs
63/64	#7409	350 ft-lbs	110 ft-lbs	200 ft-lbs
74	#7413	550 ft-lbs	200 ft-lbs	375 ft-lbs



HOLLISTER-WHITNEY ELEVATOR CORP.
INSTRUCTIONS FOR REPLACEMENT OF GEAR & TRACTION SHEAVE BEARINGS & SEALS

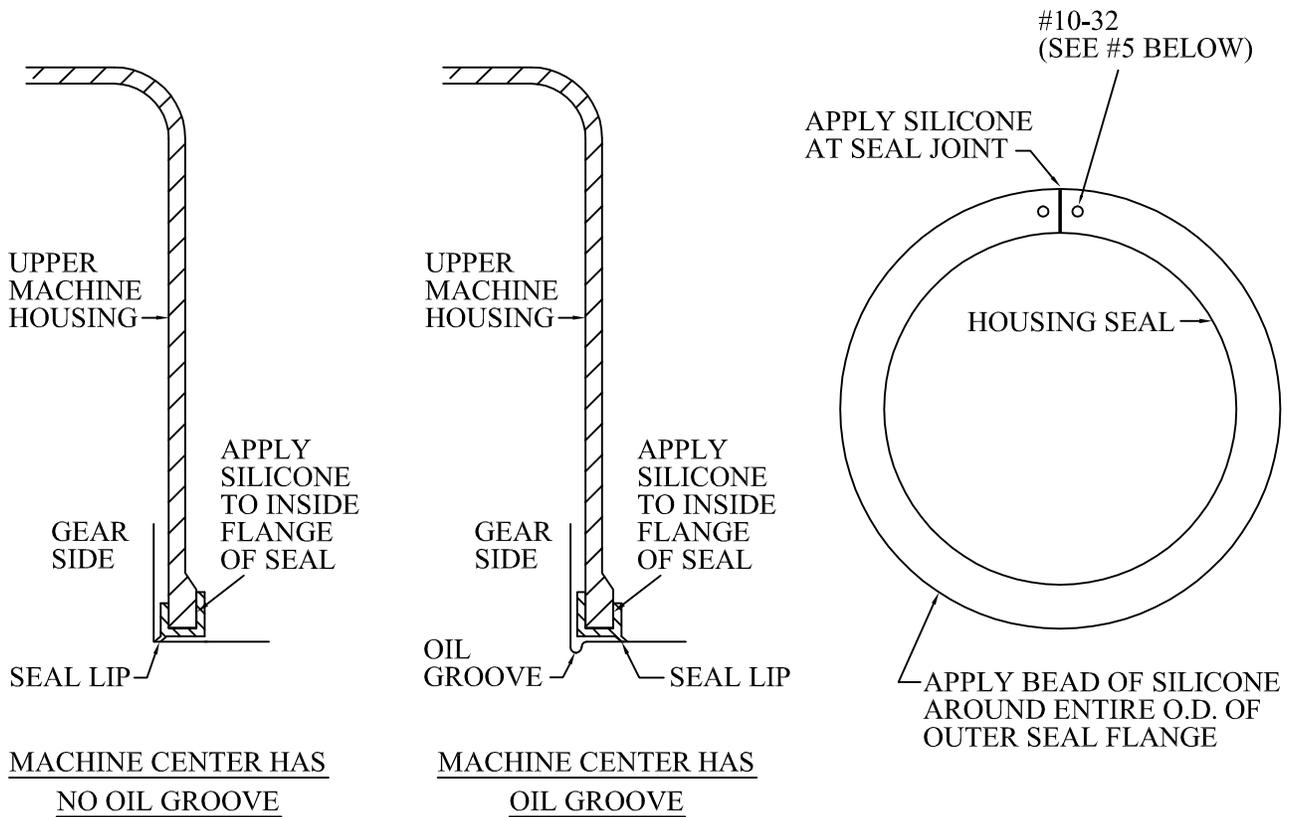
Instructions:

1. Gear/traction sheave assembly must be removed from machine. Take care in marking location of shaft on assembly before dismantling. Be careful also to protect bronze gear from damage in handling of the assembly.
2. Remove shaft support blocks from both ends of shaft, and mark the position of the retainer with a center punch for later re-assembly alignment. Remove the retainer bolts and both retainers. Tapped holes in both ends of retainers are provided for removing, and you can use a suitable bolt for this. After suitable blocking impact the shaft until the first bearing is removed from the shaft. Take special care not to damage the ends of the shaft during impacting.
3. Remove shaft from the center assembly with the other bearing attached to it, and after wiping clear any grease (to avoid fire hazard), you can apply some heat to loosen the fit, and remove the bearing. Be sure to remove all excess grease from the cavity and shaft.
4. Using an inside bearing puller, pull outer races from both bearings, and remove both oil seals. Press in new outer races and seals.
5. Reset the shaft in the center assembly in the proper position. After heating the traction sheave end bearing in oil (not to exceed 250°), assemble it to the traction sheave end of the shaft making sure bearing is up to shoulder on shaft. After the bearing cools, with retainer and center clean, place a 3/16" bead of silicone at inside corner of retainer and re-assemble.
6. Repeat the process for the gear end, once again making sure both bearings are against the shaft shoulder. Note that prior to re-assembling the retainer on the gear end, add approximately .040" shim. This will be a trial-and-error method of adding or removing shims as you tighten the bolts and turn the shaft until you acquire the proper pre-load on the shaft (*see below).

<u>H-W MACHINE MODEL</u>	<u>*FT. LBS. OF PRE-LOAD</u>
#34	15-20 ft. lbs.
#43/#44	15-20 ft. lbs.
#53/#54	20-25 ft. lbs.
#63/#64	25-30 ft. lbs.
#74	50-52 ft. lbs.

7. After total re-assembly and the replacing of the tapered pins, blue-up 3 teeth on the gear adjacent to the H-W original bluing. Compare the pattern, and if it is not the same then remove pins and reduce shims (NOTE: Top shim separates in .002" thickness) and repeat procedure to duplicate original pattern. There should be .005" to .007" backlash between worm and gear. (ALSO NOTE: Do not replace taper pins if the holes are out of position.)

HOLLISTER-WHITNEY ELEVATOR CORP.
INSTRUCTIONS FOR INSTALLATION OF MACHINE HOUSING SEAL



INSTRUCTIONS

1. Install the seal on the machine lower housing so that the seal lip is facing the gear side of the housing if the machine center does not have an oil groove. If the machine center does have an oil groove, the seal should be installed on the machine housing so that the seal lip is facing away from the gear side of the housing as shown above.
2. Refasten the seal joint with its screw or link fastener.
3. Apply RTV silicone liberally to the seal joint and to the inside flange of the seal.
4. Replace the machine upper housing keeping it in alignment with the lower housing at the seal side.
5. Apply RTV silicone to the O.D. of the outside flange of the seal. Allow the silicone to set for 24 hours before operating the machine. If machine has to be operated before this time limit, drill and tap (2) #10-32 holes in the housing to attach the seal as shown.

HOLLISTER-WHITNEY ELEVATOR CORP.
DIAGRAM OF CORRECT ROPE SETTING AS DESIGNED IN UNUSED TRACTION SHEAVE
FOR TYPICAL H-W 105° UNDERCUT "U" GROOVE

