

OPERATING & MAINTENANCE INSTRUCTIONS (WITH PARTS LIST)

YALE HOISTS FWE SERIES TROLLEYS 1/4, 1/2, 1, 1 1/2, 2, 3 & 5 TON Publication Part No. FWE-680

SECTION 1 - GENERAL INFORMATION

1-1 General

Yale FWE trolleys are designed for use with hook mounted hoists with rated loads up to 5 Tons. Adjustment to a wide range of beam sizes is accomplished with the placement of spacer washers, as described in paragraph 2-1.

1-2 Industrial Use Only

The hoisting equipment described in these instructions is intended for industrial use only, and should not be used to lift, support, or otherwise transport people.

1-3 Load Ratings

Before installing, make certain that the capacity of the hoist does not exceed the rated load of the trolley, and that the supporting structure is capable of supporting the weight of the load, hoist and trolley with a generous factor for safety.

SECTION 2 - INSTALLATION

2-1 Installation and Adjustment

- Measure I-beam flange width. Refer to the spacer washer adjustment chart (Chart 3 on reverse) for initial trolley adjustment. Check "X" dimension (see Figure 1 below) against Chart 3 and compare wheel flange spacing to beam flange width measurement before actually installing trolley on beam.
- Place trolley on beam and tighten the hanger shaft locknuts (see Chart 1 for locknut torque). The hanger shaft must extend completely through each locknut.

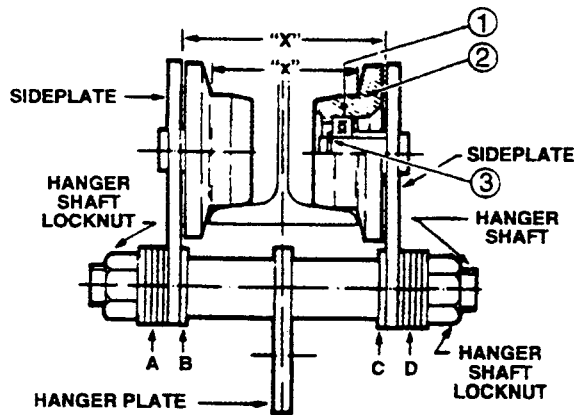


FIGURE 1

- Observe trolley operation. The trolley should move freely with the wheel flanges as close as possible to the edge of the I-beam. If it appears that the trolley sideplates could be moved closer together and still maintain freedom of movement, move one additional washer from location C to location D (Figure 1).

- If additional adjustment is required, be sure to keep the hanger plate as near to the center of the trolley as possible. There should be no more than one washer difference between locations B and C (Figure 1).

2-2 Curved Beam Operation

Yale FWE trolleys can operate on curved beams. Slightly increased wheel spacing may be required on curved beams. See Chart 1 for minimum recommended radius curves.

CHART 1 - MINIMUM RADIUS & LOCKNUT TORQUE

Model	Min. Radius	Locknut Torque
FWE 1/4 Ton	36 in.	125 ft.-lbs.
FWE 1/2 Ton	36 in.	125 ft.-lbs.
FWE 1 Ton	48 in.	125 ft.-lbs.
FWE 1 1/2 Ton	60 in.	125 ft.-lbs.
FWE 2 Ton	60 in.	125 ft.-lbs.
FWE 3 Ton	60 in.	150 ft.-lbs.
FWE 5 Ton	60 in.	150 ft.-lbs.

SECTION 3 - MAINTENANCE

3-1 Periodic Inspection

This trolley should be inspected periodically for wear and its continued ability to support the load. The frequency of inspection will depend on the severity of trolley use. It is recommended that the user begin with a monthly inspection and extend periods to quarterly, semi-annually or annually based on monthly experience.

3-2 Inspection Items

The trolley should be visually inspected for the following conditions:

- Loose locknuts.
- Sideplate damage or bending.
- Hanger plate wear, cracks, or distortion.
- Wheel wear, cracks, or worn bearings.

Any worn parts should be replaced immediately. See Chart 2 below for repair parts.

CHART 2 - PARTS LIST

Index No.	1	2	3
Part Name	Wheel	Ball Bearing	Retaining Ring
FWE 1/4 Ton	647057425	647057450	011003000
FWE 1/2 Ton	647057425	647057450	011003000
FWE 1 Ton	647057426	022061000	015918400
FWE 1 1/2 Ton	647057427	015128300	015915600
FWE 2 Ton	647057427	015128300	015915600
FWE 3 Ton	647057428	015120800	015915900
FWE 5 Ton	647057429	015126400	015916300

CHART 3 - SPACER WASHER ADJUSTMENT (Quantity and Location - Refer to Figure 1)

I-Beams

I - Beam Size & Weight	Flange Width	MODEL ½ TON				MODEL ½ TON				MODEL 1 TON									
		"X" DIM. (in.)	"x" DIM. (in.)	# of washers at location				"X" DIM. (in.)	"x" DIM. (in.)	# of washers at location									
				A	B	C	D			A	B	C	D						
4" x 7.7#	2.660	3.937	2.835	23	0	0	23	3.937	2.835	23	0	0	23						
4" x 9.5#	2.796	4.055	2.953	23	0	1	22	4.055	2.953	23	0	1	22						
5" x 10.0#	3.000	4.297	3.189	22	1	2	21	4.297	3.189	22	1	2	21	4.218	3.189	22	1	1	23
5" x 14.75#	3.284	4.537	3.435	21	2	3	20	4.537	3.435	21	2	3	20	4.458	3.425	21	2	2	22
6" x 12.5#	3.330	4.657	3.555	20	3	3	20	4.657	3.555	20	3	3	20	4.578	3.555	21	2	3	21
6" x 17.25#	3.565	4.897	3.795	19	4	4	19	4.897	3.795	19	4	4	19	4.818	3.795	20	3	4	20
7" x 15.3#	3.660	5.017	3.915	19	4	5	18	5.017	3.915	19	4	5	18	4.938	3.915	19	4	4	20
7" x 20.0#	3.860	5.137	4.035	18	5	5	18	5.137	4.035	18	5	5	18	5.058	4.035	19	4	5	19
8" x 18.4#	4.000	5.257	4.155	18	5	6	17	5.257	4.155	18	5	6	17	5.178	4.155	18	5	5	19
8" x 23.0#	4.171	5.499	4.397	17	6	7	16	5.499	4.397	17	6	7	16	5.418	4.395	18	5	6	18
10" x 25.4#	4.660	5.977	4.875	15	8	9	14	5.977	4.875	15	8	9	14	5.898	4.875	15	8	8	16
10" x 35.0#	4.944	6.217	5.114	14	9	10	13	6.217	5.114	14	9	10	13	6.138	5.115	14	9	9	15
12" x 31.8#	5.000	6.337	5.234	13	10	10	13	6.337	5.234	13	10	10	13	6.258	5.235	14	9	10	14
12" x 35.0#	5.078	6.337	5.234	13	10	10	13	6.337	5.234	13	10	10	13	6.378	5.355	13	10	10	14
15" x 42.9#	5.500	6.820	5.717	11	12	12	11	6.820	5.717	11	12	12	11	6.738	5.715	12	11	12	12
15" x 50.0#	5.640	6.940	5.837	11	12	13	10	6.940	5.837	11	12	13	10	6.858	5.835	11	12	12	12
18" x 54.7#	6.000	7.300	6.197	9	14	14	9	7.300	6.197	9	14	14	9	7.218	6.195	10	13	14	10
18" x 70.0#	6.250	7.540	6.437	8	15	15	8	7.540	6.437	8	15	15	8	7.458	6.435	9	14	15	9

I - Beam Size & Weight	Flange Width	MODEL 1½ & 2 TON				MODEL 3 TON				MODEL 5 TON									
		"X" DIM. (in.)	"x" DIM. (in.)	# of washers at location				"X" DIM. (in.)	"x" DIM. (in.)	# of washers at location									
				A	B	C	D			A	B	C	D						
6" x 12.5#	3.330	4.685	3.504	20	1	1	21												
6" x 17.25#	3.565	4.926	3.745	19	2	2	20												
7" x 15.3#	3.660	5.046	3.865	19	2	3	19												
7" x 20.0#	3.860	5.286	4.105	18	3	4	18												
8" x 18.4#	4.000	5.406	4.225	17	4	4	18	5.360	4.173	12	0	0	12						
8" x 23.0#	4.171	5.526	4.345	17	4	5	17	5.540	4.353	12	0	1	11						
10" x 25.4#	4.660	6.006	4.825	15	6	7	15	6.080	4.893	10	2	2	10	6.656	4.843	10	0	0	10
10" x 35.0#	4.944	6.246	5.065	13	8	8	14	6.260	5.073	10	2	3	9	7.016	5.203	9	1	1	9
12" x 31.8#	5.000	6.366	5.185	13	8	8	14	6.440	5.253	9	3	3	9	7.016	5.203	9	1	1	9
12" x 35.0#	5.078	6.486	5.305	13	8	9	13	6.440	5.253	9	3	3	9	7.016	5.203	9	1	1	9
15" x 42.9#	5.500	6.846	5.665	11	10	10	12	6.980	5.793	8	4	5	7	7.556	5.743	8	2	3	7
15" x 50.0#	5.640	6.966	5.785	10	11	11	11	6.980	5.793	8	4	5	7	7.736	5.923	7	3	3	7
18" x 54.7#	6.000	7.326	6.145	9	12	12	10	7.340	6.153	7	5	6	6	8.096	6.283	6	4	4	6
18" x 70.0#	6.255	7.566	6.384	8	13	13	9	7.615	6.428	6	6	7	5	8.276	6.463	6	4	5	5
20" x 65.4#	6.250	7.566	6.384	8	13	13	9	7.615	6.428	6	6	7	5	8.276	6.463	6	4	5	5
20" x 75.0#	6.391	7.806	6.625	7	14	14	8	7.615	6.428	6	6	7	5	8.456	6.643	5	5	5	5
24" x 79.9#	7.000	8.406	7.225	5	16	17	5	8.420	7.094	4	8	9	3	8.996	7.183	4	6	7	3
24" x 90.0#	7.124	8.526	7.345	4	17	17	5	8.420	7.094	4	8	9	3	9.176	7.363	3	7	7	3
24" x 100.0#	7.247	8.646	7.465	4	17	18	4	8.600	7.413	3	9	9	3	9.356	7.543	3	7	8	2
24" x 106.0#	7.870													9.896	8.080	1	9	9	1
24" x 121.0#	8.050													10.076	8.263	1	9	10	0

NOTE: Due to manufacturing tolerances and possible flange wear, the actual beam width may vary from those shown. The beam flange width should be checked before installation, and trolley spacing should be adjusted accordingly.

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