

East Sixth Street  
de Brier AR 72203  
J1292-6241

**AFCO**  
**STEEL**

APPLIES TO ALL JOBS HEREINAFTER

November 30, 1982

Mr. Veral Pinkerton  
Bridge Engineer  
Arkansas State Highway and  
Transportation Department  
P.O. Box 2261  
Little Rock, AR 72201

Gentlemen:

Enclosed is a chart showing the dimensions of Standard Washers.  
These washers can be galvanized in accordance with ASTM A153-80.

With your approval, we would like to use these galvanized Standard Washers with the Anchor Bolts on Jobs 9778 and 3914 in place of the 1/4" thick washers shown on the design drawings. The Standard Washers are readily available from the manufacturer whereas the 1/4" thick washers must be fabricated as required for each job.

Sincerely yours,

*Charles Waring*  
Charles Waring

kjh

Enclosure

ARKANSAS STATE HIGHWAY  
AND TRANSPORTATION  
DEPARTMENT

DEC 1, 1982

*AP*  
**RECEIVED**  
BRIDGE DESIGN DIVISION

*OK AP*  
*12-2-82*



## STANDARD WASHERS

Manufacturers' Standard Sizes  
(List effective February 1, 1970)

Bolt Size, In.	Outside Dia., In.	Inside Dia., In.	Birmingham Gauge	Estim. Wt. per 100 Pcs., Lbs.	Estimated No./Pcs. Per 200 Lbs.	Estimated No./Pcs. Per 100 Lbs.	LIST PRICE CWT.
5/16	3/8	3/4	18 (36)	2.8	72,200	351.	\$27.50
3/8	3/8	3/4	18 (36)	6.7	29,800	149.	23.20
1/2	3/8	3/4	14 (36)	11.5	17,400	87.	22.20
3/4	1	3/4	14 (36)	14.9	13,400	67.	21.50
3/4	1 1/4	3/4	14 (36)	24.4	8,200	41.	21.00
3/4	1 3/4	3/4	12 (36)	35.5	5,200	26.	20.80
3/4	1 3/4	3/4	12 (36)	45.5	4,400	22.	20.50
3/4	1 3/4	3/4	10 (36)	77.	2,600	13.	20.40
3/4	2	3/4	9 (36)	110.	1,820	9.1	20.20
3/4	2 1/4	3/4	8 (36)	153.	1,300	6.5	20.20
1	2 1/4	1 3/4	8 (36)	155.	1,050	5.3	20.20
1 1/4	2 3/4	1 3/4	8 (36)	220.	900	4.5	20.20
1 1/4	3	1 3/4	8 (36)	200.	700	3.5	20.50
1 1/4	3 1/4	1 3/4	7 (36)	333.	600	3.	20.50
1 1/4	3 1/4	1 3/4	7 (36)	335.	520	2.6	20.50
1 1/4	3 3/4	1 3/4	7 (36)	448.	450	2.3	23.00
1 1/4	4	1 3/4	7 (36)	500.	400	2.	23.00
1 1/4	4 1/4	2	7 (36)	509.	354	1.8	23.00
2	4 1/4	2 1/4	7 (36)	630.	315	1.6	23.00
2 1/4	4 3/4	2 1/4	5 (36)	825.	210	1.2	25.00
2 1/4	5	2 1/4	4 (36)	961.	203	1.	27.00
2 3/4	5 1/4	2 1/4	3 (36)	1103.	180	.9	29.00
3	5 3/4	3 1/4	2 (36)	1300.	150	.8	30.00

Thicknesses reflecting long established trade practice, the nominal thicknesses of washers are Birmingham gauge sizes. The bolts specified represent a tolerance of plus or minus one gauge or the spread from the minimum of one gauge minus to the maximum of one gauge plus.

## LIGHT STEEL WASHERS

(Sizes carried in stock)

Size of Bolt, In.	Outside Dia., In.	Inside Dia., In.	Birmingham Gauge	Estimated Wt. per 100 Pcs., Lbs.	Estimated No. in 200 Lb. Keg	Estimated No. Pcs. per Lb.
3/8	3/8	3/4	20 (36)	2.	100,000	500.
3/8	3/8	3/4	18 (36)	5.	40,000	200.
3/8	3/8	3/4	18 (36)	6.9.	29,000	145.
3/8	1	3/4	16 (36)	11.7	17,100	85.5

(Sizes not in stock)

(Stock tools available for production of these sizes)

3/8	1 1/4	3/4	14 (36)	31.3	5,820	29.1
3/8	1 3/4	3/4	14 (36)	47.8	4,160	20.9
3/8	2	3/4	14 (36)	61.7	3,240	16.2
3/8	2 1/4	3/4	14 (36)	77.3	2,580	12.9
1	2 3/4	1 3/4	14 (36)	94.5	2,120	10.6

*Not Applicable*

## STEEL WASHERS

(List effective February 1, 1970)

Bolt Size, In.	Outside Dia., In.	Inside Dia., In.	Birmingham Gauge	Estim. Wt. per 100 Pcs., Lbs.	Estimated No./Pcs. Per 200 Lbs.	Estimated No./Pcs. Per 100 Lbs.	LIST PRICE CWT.
1/4	3/8	3/4	21 (36)	.6	333,000	1650	\$35.00
5/16	3/8	3/4	18 (36)	1.25	155,000	700.	42.50
3/8	3/8	3/4	18 (36)	1.7	115,000	555.	39.75
3/8	3/8	3/4	18 (36)	2.3	91,000	435.	30.00
1/2	3/8	3/4	16 (36)	3.7	54,400	250.	27.50
1/2	3/8	3/4	16 (36)	4.5	44,400	222.	26.00
3/4	3/8	3/4	16 (36)	5.2	39,000	192.	25.00
3/4	3/8	3/4	16 (36)	7.2	28,000	140.	23.75
3/4	3/8	3/4	16 (36)	9.5	22,000	105.	23.00
3/4	1 1/8	3/4	13 (36)	18.3	11,200	55.	22.75
3/4	1 1/8	3/4	13 (36)	23.4	9,000	43.	22.75
3/4	1 1/8	3/4	13 (36)	27.7	7,400	36.	22.75
3/4	1 3/8	3/4	10 (36)	47.4	4,200	21.	22.75
3/4	1 3/8	3/4	10 (36)	63.	3,100	16.	22.75
1	2	1 1/8	10 (36)	83.	2,340	12.	22.50
1 1/4	2 1/4	1 3/8	10 (36)	109.	1,840	9.2	22.50
1 1/4	2 1/4	1 3/8	9 (36)	160.	1,340	6.3	22.50
1 1/4	2 3/4	1 3/8	9 (36)	190.	1,100	5.25	22.50
1 1/4	3	1 3/8	9 (36)	240.	920	4.25	22.50

The washer washing process, which also includes rust resistant treatment, introduced by Weynot Washer, is used on all popular sizes of U.S. Standard and S.A.E. Washers, on Steel Bars and Machinery Fixings. Add this washing process to the consistent high quality for which Milwaukee Washers are noted and preferred...and you have a positive Plus Value at no extra cost!

## RIVETING WASHERS

Stock Sizes

Size of Rivet, In.	Outside Dia., In.	Inside Dia., In.	Birmingham Gauge	Estimated Wt. per 100 Pcs., Lbs.	Estimated No. in 200 Lb. Keg	Estimated No. Pcs. per Lb.
1/8	3/8	3/4	18 (36)	1.8	111,000	555
1/8	3/8	3/4	15 (36)	2.4	83,000	415
1/8	3/8	3/4	15 (36)	2.3	85,000	430
3/16	3/8	3/4	15 (36)	2.3	85,000	440
1/4	3/8	3/4	15 (36)	2.2	91,000	455
3/8	3/8	3/4	15 (36)	2.5	87,000	285
3/8	3/4	3/4	16 (36)	6.5	20,500	154
3/8	3/4	3/4	16 (36)	8.8	22,500	114

Non-Stock Items — See Page 6