1830
Uni-Loader

Service Manual

9-73487

CASE
CONSTRUCTION

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U.S. AND METRIC TORQUE SPECIFICATIONS

Grade 5 Bolts, Nuts and Studs (Dry Threads)

Thread size	Ft-lbs	N m	Thread size	Ft-lbs	N m
1/4"-20 NC	5-10	7-13	3/4"-10 NC	235-285	319-386
1/4"-28 NF	10-15	13-20	3/4"-16 NF	270-330	366-447
5/16"-18 NC	15-20	20-27	7/8"-9 NC	360-440	488-597
5/16"-24 NF	15-20	20-27	7/8"-14 NF	395-490	536-664
3/8"-16 NC	25-35	34-47	1"-8 NC	520-640	705-867
3/8"-24 NF	30-40	41-54	1"-12 NF	575-705	780-955
7/16"-14 NC	45-55	61-74	1-1/8"-7 NC	720-820	976-1111
7/16"-20 NF	50-60	68-81	1-1/8"-12 NF	790-970	1071-1315
1/2"-13 NC	65-85	88-115	1-1/4"-7 NC	1010-1240	1370-1681
1/2"-20 NF	80-100	109-135	1-1/4"-12 NF	1115-1365	1512-1850
9/16"-12 NC	100-120	135-163	1-3/8"-6 NC	1315-1610	1783-2182
9/16"-18 NF	110-130	149-176	1-3/8"-12 NF	1510-1850	2047-2508
5/8"-11 NC	135-165	183-223	1-1/2"-6 NC	1745-2135	2366-2894
5/8"-18 NF	160-200	216-271	1-1/2"-12 NF	1880-2420	2549-3281



Grade 8 Bolts, Nuts and Studs (Dry Threads)

Thread size	Ft-lbs	N m	Thread size	Ft-lbs	N m
1/4"-20 NC	10-15	13-20	3/4"-10 NC	340-420	461-569
1/4"-28 NF	15-20	20-27	3/4"-16 NF	380-460	515-623
5/16"-18 NC	20-30	27-40	7/8"-9 NC	540-660	732-894
5/16"-24 NF	25-30	34-40	7/8"-14 NF	595-725	807-982
3/8"-16 NC	40-50	54-67	1"-8 NC	810-990	1098-1342
3/8"-24 NF	45-55	61-74	1"-12" NF	900-1100	1220-1491
7/16"-14 NC	60-80	82-102	1-1/8"-7 NC	1150-1400	1559-1898
7/16"-20 NF	70-90	95-122	1-1/8"-12 NF	1295-1585	1756-2148
1/2"-13 NC	100-120	136-162	1-1/4"-7 NC	1640-2000	2224-2711
1/2"-20 NF	110-130	149-176	1-1/4"-12 NF	1800-2200	2440-2982
9/16"-12 NC	135-165	183-223	1-3/8"-6 NC	2140-2620	2901-3552
9/16"-18 NF	155-190	210-257	1-3/8"-12 NF	2450-3000	3322-4067
5/8"-11 NC	200-240	271-325	1-1/2"-6 NC	2845-3475	3857-4711
5/8"-18 NF	215-265	292-359	1-1/2"-12 NF	3200-3900	4339-4880



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U.S. AND METRIC TORQUE SPECIFICATIONS

Hydraulic Fittings (Steel)

Dash Size	Tube O.D. Hose I.D.	Thread Size	37° Flare Torque		Straight Thread O-ring Torque	
			Ft-lbs	N m	Ft-lbs	N m
4	1/4"	7/16"-20	6-12	8-16	12-19	16-25
5	5/16"	1/2"-20	8-16	11-21	16-25	22-33
6	3/8"	9/16"-18	10-25	14-33	25-40	34-54
8	1/2"	3/4"-16	15-42	20-56	42-67	57-90
10	5/8"	7/8"-14	25-58	34-78	58-92	79-124
12	3/4"	1-1/16"-12	40-80	54-108	80-128	108-174
14	7/8"	1-3/16"-12	60-100	81-135	100-160	136-216
16	1"	1-5/16"-12	75-117	102-158	117-187	159-253
20	1-1/4"	1-5/8"-12	125-165	169-223	165-264	224-357
24	1-1/2"	1-7/8"-12	210-250	258-338	250-400	339-542

Split Flange Mounting Bolts (Grade 5, Dry Threads)

Flange Size	Thread Size	Torque	
		Ft-lbs	N m
1/2"	5/16"-18 NC	15-20	20-25
3/4"	3/8"-16 NC	20-25	26-33
1"	3/8"-16 NC	20-25	26-33
1-1/4"	7/16"-14 NC	35-45	47-61
1-1/2"	1/2"-13 NC	45-55	61-74
2"	1/2"-13 NC	55-65	74-88
2-1/2"	1/2"-13 NC	80-90	104-122
3"	5/8"-11 NC	140-150	190-203

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