A1. Brake Lining Wear Limits

The minimum replacement thickness on metallic and organic linings is 0.100 inch (2.54 mm). Refer to Figure A1.

> **Note**: On some designs the metallic lining is bonded directly to the pressure plate and back plate. In these cases, the part should be replaced when the lining material is worn to 0.030 inch (0.76 mm) thick.

For equipment used on Piper Aztec (using either 164-00206 or 164-03206 disc), see PRM19 or follow the procedure below:

- First, measure linings as shown in Figure A1. Linings worn below .100 inch are cause for replacement.
- If linings are still usable or are replaced, measure the cumulative thickness of two linings, disc, and pressure plate as shown in Figure A1-1. If the stack measures less than 1.00 (1-inch) with good linings (linings above .100 inch), the brake disc is considered below minimum wear thickness and should be replaced.

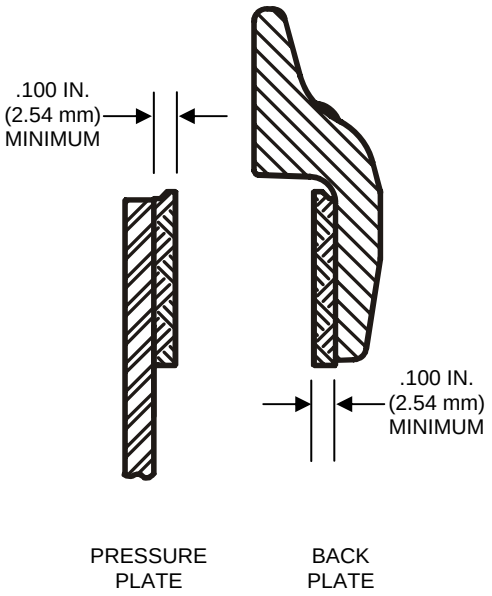

Figure A1
Minimum Lining Thickness

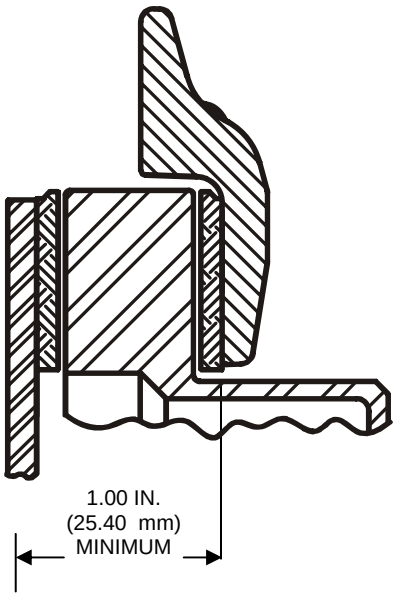

Figure A1-1
Disc Wear Measurement
(Piper Aztec)

A2. Brake Disc Minimum Thickness

Under average field conditions a brake disc should give years of trouble free service. However, unimproved fields, standing water, heavy industrial pollution, or infrequent use of the aircraft may necessitate more frequent inspection of discs to prolong the life of the brake lining.

Generally the disc faces should be checked for wear (Figure A2 Dim. “A”), grooves, deep scratches, excessive general pitting or coning of the brake disc. Coning beyond 0.015 inch (0.381 mm) in either direction would be cause for replacement.

Single or isolated grooves up to 0.030 deep should not be cause for replacement, although general grooving of the disc faces will reduce lining life.

Discs are plated for special applications only, therefore, rust in varying degrees can occur. If a powder rust appears, one or two taxibraking applications should wipe the disc clear. Rust allowed to progress beyond this point, may require removal of the disc from wheel assembly to properly clean both faces. Wire brushing, followed by sanding with 220 grit sandpaper, can restore the braking surfaces for continued use.

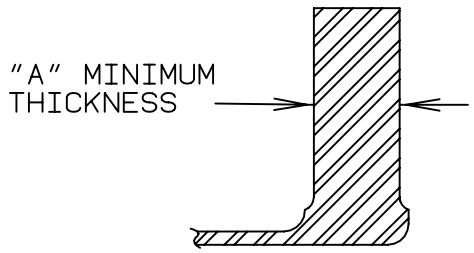

Figure A2 - Disc Thickness Measurement

A2. Brake Disc Minimum Thickness (Cont'd)

Part Number	"A" in/mm
159-00104	0.225/5.715
159-00204	0.475/12.065
164-00206	See Page A-1
164-00300	0.205/5.207
164-00400	0.162/4.115
164-00500	0.157/3.988
164-00700	0.345/8.763
164-00806	0.334/8.484
164-00900	0.227/5.766
164-01000	0.345/8.763
164-01100	0.345/8.763
164-12000	0.205/5.207
164-12601	0.205/5.207
164-01300	0.227/5.764
164-14000	0.205/5.207
164-01406	0.334/8.484
164-01501	0.327/8.306
164-01506	0.327/8.306
164-01600	0.157/3.988
164-01700	0.167/4.242
164-01900	0.227/5.766
164-02000	0.205/5.207
164-02201	0.345/8.763
164-02300	0.345/8.763
164-02501	0.445/11.303
164-02502	0.445/11.303
164-02503	0.445/11.303
164-02504	0.445/11.303
164-02505	0.445/11.303
164-02601	0.205/5.207
164-02700	0.330/8.382
164-02701	0.340/8.636
164-02706	0.330/8.382
164-02707	0.330/8.382
164-02800	0.227/5.766
164-02900	0.580/14.732
164-03006	0.282/7.163
164-03106	0.163/4.140
164-03206	See Page A-1
164-03300	0.235/5.969
164-03506	0.260/6.604
164-03600	0.327/8.306
164-03601	0.327/8.306
164-03700	0.345/8.763
164-03906	0.600/15.240
164.04000	0.205/5.207
164-04300	0.205/5.207
164-04406	0.334/8.484
164-04600	0.405/10.287
164-04700	0.345/8.763
164-04800	0.327/8.306
164-05006	0.475/12.065
164-05500	0.492/12.497
164-05606	0.395/10.033
164-05700	0.525/13.335

Part Number	"A" in/mm
164-05806	0.395/10.033
164-06106	0.475/12.065
164-06306	0.465/11.811
164-06406	0.465/11.811
164-06506	0.240/6.096
164-06700	0.220/5.588
164-06900	0.205/5.207
164-07200	0.492/12.497
164-07306	0.395/10.033
164-07400	0.492/12.497
164-07500	0.205/5.207
164-07700	0.470/11.938
164-07800	0.450/11.43
164-07906	0.465/11.811
164-08100	0.450/11.43
164-08200	0.327/8.306
164-08300	0.327/8.306
164-08406	0.330/8.382
164-08500	0.325/8.255
164-08800	0.190/4.826
164-08900	0.330/8.382
164-09000	0.330/8.382
164-09100	0.492/12.497
164-09200	0.190/4.826
164-09300	0.190/4.826
164-09400	0.190/4.826
164-09500	0.325/8.255
164-09600	0.325/8.255
164-09700	0.325/8.255
164-09900	0.275/6.985
164-10500	0.157/3.988
164-10700	0.345/8.763
164-10900	0.227/5.766
164-11501	0.327/8.306
164-11700	0.167/4.242
164-11800	0.162/4.115
164-11900	0.227/5.766
164-12000	0.205/5.207
164-12300	0.345/8.763
164-12501	0.445/11.303
164-12502	0.445/11.303
164-12504	0.445/11.303
164-12505	0.445/11.303
164-12601	0.205/5.207
164-13300	0.235/5.969
164-13600	0.327/8.306
164-13601	0.327/8.306
164-14000	0.205/5.207
164-14300	0.205/5.207
164-14800	0.327/8.306
164-16700	0.220/5.588
164-17500	0.205/5.207
164-18300	0.327/8.306
164-18800	0.190/4.826
164-18900	0.330/8.382

Part Number	"A" in/mm
164-19000	0.330/8.382
164-19200	0.191/4.826
164-19300	0.190/4.826
164-19400	0.190/4.826
164-19500	0.325/8.255
164-19600	0.325/8.255
164-19700	0.325/8.255
164-20100	0.250/6.350
164-20206	0.334/8.484
164-20306	0.465/11.811
164-20500	0.525/13.335
164-20600	0.455/11.557
164-20700	0.410/10.414
164-20806	0.475/12.065
164-20900	0.410/10.414
164-21000	0.436/11.074
164-21100	0.492/12.497
164-21200	0.327/8.306
164-21406	0.334/8.484
164-21600	0.405/10.287
164-21700	0.475/12.065
164-21900	0.590/14.986
164-22000	0.360/9.144
164-22201	0.537/13.640
164-22202	0.537/13.640
164-22400	0.385/9.779
164-22900	0.410/10.414
164-23000	0.565/14.351
164-23001	0.582/14.783
164-23002	0.582/14.783
164-23100	0.345/8.763
164-23300	0.475/12.065
164-23400	0.205/5.207
164-23600	0.190/4.826
164-23900	0.325/8.255
164-24000	0.325/8.255
164-24100	0.325/8.255
164-24200	0.167/4.242
164-24400	0.290/7.366
164-24500	0.327/8.306
164-24501	0.327/8.306
164-30007	0.190/4.826
164-30195	0.190/4.826
164-30388	0.325/8.255
164-30398	0.325/8.255
164-30414	0.325/8.255
164-30440	0.190/4.826
164-30615-1	0.190/4.826
164-30615-2	0.330/8.382
164-30615-3	0.330/8.382
164-30804-1	0.190/4.826
164-30804-2	0.330/8.382
164-30804-3	0.330/8.382
464-11501	0.327/8.306
464-11700	0.164/4.166

Part Number	"A" in/mm
464-12000	0.205/5.207
464-12601	0.205/5.207
464-13601	0.327/8.306
464-14000	0.205/5.207
464-14300	0.205/5.207
464-17500	0.205/5.207
464-18300	0.327/8.306

A3. Brake Assembly Back Plate Tie Bolt Torques

A "**D**" shown adjacent to the torque value indicates the value to be a "**Dry**" torque only.

An "**L**" shown adjacent to the torque value indicates a "**Lubtork**" torque only. Lubtork requires the application of an antiseize compound to all friction surfaces of the hardware. Only use the antiseize specified for your brake assembly. A flag note will specify which antiseize to use.

Caution: Do not "lubtork" any bolt and nut combinations that are specified as a "Dry" torque value.

Note: If there is any conflict or question regarding dry torque, lubtork, or torque value on your assembly, please contact Cleveland Customer Support for resolution.

Overtorquing (exceeding these values) could cause depressions in the brake cylinder, which result in dragging or bound up brakes. Use a torque wrench when installing back plate bolts to insure the proper torquing values are attained. Replace the back plate bolts with approved bolts as shown in the Cleveland Product Catalog. Depressions in the brake cylinder (surface A) exceeding 0.005 inch (0.127 mm) deep require replacement of the brake cylinder.

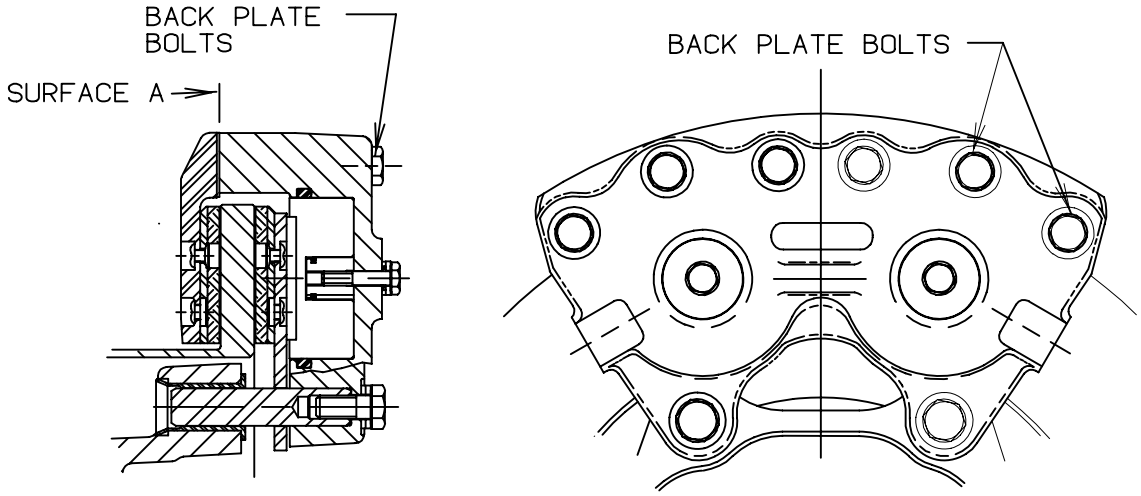

Figure A3 - Back Plate Bolts

A3. Brake Assembly Back Plate Tie Bolt Torques (Cont'd)

Brake Assembly	Bolt Torque		Material	
	In-lb	N-M	Housing	Torque Plate
35-200A (30-1)	60 D	6.8	A	S
30-4	60 D	6.8	A	S
30-5	60 D	6.8	A	S
30-6	60 D	6.8	A	S
30-7	60 D	6.8	A	S
37-200-2 (30-8)	90 D	10.2	A	S
30-9	75-80 D	8.5-9.0	A	S
30-9A	75-80 D	8.5-9.0	A	S
30-9C	75-80 D	8.5-9.0	A	S
30-9D	75-80 D	8.5-9.0	A	S
30-9E	75-80 D	8.5-9.0	A	S
3000-250 (30-12)	90 D	10.2	A	S
3000-500 (30-13)	90 D	10.2	A	S
30-18	75-80 D	8.5-9.0	A	S
30-19	75-80 D	8.5-9.0	A	S
30-19A	75-80 D	8.5-9.0	A	S
30-21	65-75 D	7.3-8.5	A	S
30-23	65-75 D	7.3-8.5	A	N/A
30-23A	65-75 D	7.3-8.5	A	N/A
30-23B	65-75 D	7.3-8.5	A	N/A
30-23C	65-75 D	7.3-8.5	A	N/A
30-23D	65-75 D	7.3-8.5	A	N/A
30-24	65-75 D	7.3-8.5	(1)	(1)
30-28B	80-90 D	9.0-10.2	M	M
30-28C	80-90 D	9.0-10.2	M	M
30-28D	80-90 D	9.0-10.2	M	M
30-30	90 D	10.2	M	S
30-31	1/4-28 85-90 D	9.6-10.2	A	S
	3/8-24 125-150 D	14.0-17.0		
30-32	65-75 D	7.3-8.5	A	S
30-32A	65-75 D	7.3-8.5	A	S
30-32B	65-75 D	7.3-8.5	A	S
30-32C	65-75 D	7.3-8.5	A	S
30-32E	65-75 D	7.3-8.5	A	S
30-35	65-75 D	7.3-8.5	(1)	S
30-40	60 D	6.8	A	S
30-40A	75-80 D	8.5-9.0	A	S
30-41	65-75 D	7.3-8.5	A	N/A
30-41A	90 D	10.2	A	S
30-41B	65-75 D	7.3-8.5	A	N/A
30-45	60 D	6.8	A	S
30-51	65-75 D	7.3-8.5	A	S

Brake Assembly	Bolt Torque		Material	
	In-lb	N-M	Housing	Torque Plate
30-51A	65-75 D	7.3-8.5	A	S
30-51B	65-75 D	7.3-8.5	A	S
30-52	90 D	10.2	M	S
30-52A	90 D	10.2	M	S
30-52B	90 D	10.2	M	S
30-52D	90 D	10.2	M	S
30-52E	90 D	10.2	M	S
30-52F	90 D	10.2	M	S
30-52G	90 D	10.2	M	S
30-52H	90 D	10.2	M	S
30-52K	90 D	10.2	M	S
30-52L	75-80 D	8.5-9.0	M	N/A
30-52M	90 D	10.2	M	S
30-52N	90 D	10.2	M	S
30-52P	90 D	10.2	M	S
30-52Q	90 D	10.2	M	S
30-52S	90 D	10.2	M	S
30-52T	90 D	10.2	M	S
30-52U	90 D	10.2	M	S
30-52V	90 D	10.2	M	S
30-52W	90 D	10.2	M	S
30-52X	90 D	10.2	M	S
30-52Y	90 D	10.2	A	S
30-52Z	90 D	10.2	M	S
30-52AA	90 D	10.2	M	S
30-52AB	90 D	10.2	M	S
30-53	75-80 D	8.5-9.0	(1)	(1)
30-53A	75-80 D	8.5-9.0	M	S
30-54	90 D	10.2	M	A
30-54A	90 D	10.2	M	A
30-54B	90 D	10.2	M	S
30-54C	85-90 D	9.6-10.2	M	A
30-55	75-80 D	8.5-9.0	M	S
30-55A	75-80 D	8.5-9.0	(1)	(1)
30-55B	75-80 D	8.5-9.0	M	S
30-56	75-80 D	8.5-9.0	M	S
30-56A	75-80 D	8.5-9.0	M	S
30-56B	75-80 D	8.5-9.0	M	S
30-56C	75-80 D	8.5-9.0	M	S
30-56D	75-80 D	8.5-9.0	M	S
30-56F	75-80 D	8.5-9.0	M	S
30-58A	75-80 D	8.5-9.0	(1)	(1)

Material column designations are as follows: "**A**" Aluminum "**M**" Magnesium "**S**" Steel

(1) For assistance contact the Technical Services Hotline (see page 4).

Antiseize Compound:

(2) Use SAE AMS2518 (MIL-T-5544). (3) Use MIL-PRF-83483 (MIL-T-83483).

A3. Brake Assembly Back Plate Tie Bolt Torques (Cont'd)

Brake Assembly	Bolt Torque		Material	
	In-lb	N-M	Housing	Torque Plate
30-58B	75-80 D	8.5-9.0	M	(1)
30-59	75-80 D	8.5-9.0	M	S
30-59A	75-80 D	8.5-9.0	M	S
30-59D	75-80 D	8.5-9.0	M	S
30-59E	75-80 D	8.5-9.0	M	S
30-60	75-80 D	8.5-9.0	(1)	S
30-60A	65-75 D	7.3-8.5	A	S
30-60B	65-75 D	7.3-8.5	A	S
30-61	90 D	10.2	M	S
30-61A	90 D	10.2	M	S
30-61B	65-75 D	7.3-8.5	M	S
30-61D	90 D	10.2	M	S
30-61E	90 D	10.2	M	S
30-61F	90 D	10.2	M	S
30-63	75-80 D	8.5-9.0	M	S
30-63A	75-80 D	8.5-9.0	M	S
30-63B	75-80 D	8.5-9.0	M	S
30-63D	75-80 D	8.5-9.0	M	S
30-63E	75-80 D	8.5-9.0	M	S
30-63F	75-80 D	8.5-9.0	M	S
30-63J	75-80 D	8.5-9.0	M	S
30-63K	75-80 D	8.5-9.0	M	S
30-63M	75-80 D	8.5-9.0	M	S
30-63P	75-80 D	8.5-9.0	M	S
30-63Q	75-80 D	8.5-9.0	M	S
30-63S	75-80 D	8.5-9.0	M	S
30-65	75-90 D	8.5-10.2	M	S
30-65A	75-90 D	8.5-10.2	M	S
30-65E	75-90 D	8.5-10.2	M	S
30-66	90 D	10.2	A	A
30-66A	90 D	10.2	M	M
30-66B	90 D	10.2	A	A
30-66C	90 D	10.2	A	A
30-66D	90 D	10.2	M	(1)
30-66F	90 D	10.2	M	M
30-66G	80-90 D	9.0-10.2	M	A
30-66H	75-90 D	8.5-10.2	M	S
30-67	85-90 D	9.6-10.2	A	A
30-67A	85-90 D	9.6-10.2	A	A
30-67B	85-90 D	9.6-10.2	A	A
30-67C	85-90 D	9.6-10.2	A	A
30-67D	85-90 D	9.6-10.2	A	A

Brake Assembly	Bolt Torque		Material	
	In-lb	N-M	Housing	Torque Plate
30-67E	85-90 D	9.6-10.2	A	A
30-67X	85-90 D	9.6-10.2	A	A
30-68	75-80 D	8.5-9.0	M	M
30-68A	75-80 D	8.5-9.0	M	M
30-68B	75-80 D	8.5-9.0	M	M
30-69A	85-95 D	9.6-10.7	M	M
30-69B	90 D	10.2	M	M
37-200A (30-72)	65-70 D	7.3-7.9	A	S
30-74B	60-75 D	6.8-8.5	M	M
30-75	75-80 D	8.5-9.0	A	S
30-75A	75-80 D	8.5-9.0	A	S
30-75B	75-80 D	8.5-9.0	A	S
30-75X	75-80 D	8.5-9.0	A	S
30-79	90 D	10.2	A	S
30-79A	90 D	10.2	A	S
30-79B	90 D	10.2	A	S
30-83	90 D	10.2	M	S
30-83A	90 D	10.2	M	S
30-84	80-90 D	9.0-10.2	A	N/A
30-88	75-80 D	8.5-9.0	M	A
30-89	80-90 D	9.0-10.2	A	A
30-89A	80-90 D	9.0-10.2	A	A
30-89B	80-90 D	9.0-10.2	A	A
30-89C	80-90 D	9.0-10.2	A	A
30-89E	80-90 D	9.0-10.2	A	A
30-93	80-90 D	9.0-10.2	M	M
30-93A	80-90 D	9.0-10.2	M	M
30-93B	80-90 D	9.0-10.2	M	M
30-93C	80-90 D	9.0-10.2	M	M
30-93D	80-90 D	9.0-10.2	M	M
30-93E	90-100 D	10.2-11.3	M	M
30-94	80-90 D	9.0-10.2	A	A
30-95	60 D	6.8	(1)	(1)
30-95A	60 D	6.8	M	M
30-95B	60 D	6.8	M	M
30-96	60 D	6.8	M	S
30-97	80-90 D	9.0-10.2	A	M
30-98	80-90 D	9.0-10.2	A	A
30-98A	80-90 D	9.0-10.2	A	A
30-98B	80-90 D	9.0-10.2	A	A
30-98C	80-90 D	9.0-10.2	A	A
30-98D	80-90 D	9.0-10.2	A	A

Material column designations are as follows: "**A**" Aluminum "**M**" Magnesium "**S**" Steel

(1) For assistance contact the Technical Services Hotline (see page 4).

Antiseize Compound:

(2) Use SAE AMS2518 (MIL-T-5544). (3) Use MIL-PRF-83483 (MIL-T-83483).

A3. Brake Assembly Back Plate Tie Bolt Torques (Cont'd)

Brake Assembly	Bolt Torque		Material	
	In-lb	N-M	Housing	Torque Plate
30-99	75-80 D	8.5-9.0	M	A
30-99A	75-80 D	8.5-9.0	M	M
30-100	75-80 D	8.5-9.0	M	M
30-106	80-90 D	9.0-10.2	M	M
30-107	85-90 D	9.6-10.2	A	M
30-107A	85-90 D	9.6-10.2	A	M
30-107B	85-90 D	9.6-10.2	A	M
30-107C	85-90 D	9.6-10.2	A	M
30-107D	85-90 D	9.6-10.2	A	M
30-107E	80-95 D	9.0-10.7	A	M
30-111	80-90 D	9.0-10.2	A	A
30-113	80-90 D	9.0-10.2	A	M
30-113A	80-90 D	9.0-10.2	A	M
30-123	80-90 D	9.0-10.2	M	M
30-127	90 D	10.2	M	S
30-127A	90 D	10.2	M	S
30-127C	90 D	10.2	M	S
30-127D	90 D	10.2	M	S
30-129	75-90 D	8.5-10.2	M	S
30-131	80-90 D	9.0-10.2	A	M
30-133	75-80 D	8.5-9.0	M	S
30-138	80-90 D	9.0-10.2	M	M
30-139	75-80 D	8.5-9.0	M	S
30-141	150 D	16.9	A	M
30-142	150 D	16.9	A	M
30-143	150 D	16.9	A	M
30-144	85-90 D	9.6-10.2	A	M
30-144A	85-90 D	9.6-10.2	A	M
30-144B	85-90 D	9.6-10.2	A	M
30-145	80-90 D	9.0-10.2	M	M
30-146	85-90 D	9.6-10.2	A	M
30-146A	85-90 D	9.6-10.2	A	A
30-149	80-90 D	9.0-10.2	A	A
30-158	80-90 D	9.0-10.2	M	M
30-159	85-90 D	9.6-10.2	A	M
30-159A	85-90 D	9.6-10.2	A	M
30-159B	85-90 D	9.6-10.2	A	M
30-159C	85-90 D	9.6-10.2	A	M
30-163	85-90 D	9.6-10.2	M	A
30-164	75-80 D	8.5-9.0	M	S
30-170	80-85 D	9.0-9.6	A	A
30-176	85-90 D	9.6-10.2	A	A

Brake Assembly	Bolt Torque		Material	
	In-lb	N-M	Housing	Torque Plate
30-181A	75-80 D	8.5-9.0	A	S
30-182	85-90 D	9.6-10.2	M	A
30-184	80-90 D	9.0-10.2	A	A
30-195	85-90 D	9.6-10.2	A	A
30-195A	85-90 D	9.6-10.2	A	A
30-210	80-85 L (2)	9.0-9.6	A	A
30-210A	80-85 L (3)	9.0-9.6	A	A
30-214	75-80 D	8.5-9.0	M	S
30-214B	75-80 D	8.5-9.0	M	S
30-220	85-90 D	9.6-10.2	A	M
30-224	75-80 D	8.5-9.0	M	S
30-231	80-90 D	9.0-10.2	A	A
30-233	90 D	10.2	M	S
30-233A	90 D	10.2	M	S
30-233B	90 D	10.2	M	S
30-236	75-80 D	8.5-9.0	M	N/A
30-239	75-80 D	8.5-9.0	M	S
30-239A	75-80 D	8.5-9.0	M	S
30-239B	75-80 D	8.5-9.0	A	S
30-241	90 L (3)	10.2	A	S
C-30018	120-130 D	13.6-14.7	A	S
C-30018-1	120-130 D	13.6-14.7	A	S
C-30018-2	120-130 D	13.6-14.7	A	S
C-30018-3	120-130 D	13.6-14.7	A	S
C-30018-4	120-130 D	13.6-14.7	A	S
C-30018-5	120-130 D	13.6-14.7	A	S
C-30018-6	120-130 D	13.6-14.7	A	S
C-30018-7	120-130 D	13.6-14.7	A	S
D-30118-3	100-110 D	11.3-12.4	A	S
D-30118-4	100-110 D	11.3-12.4	A	S
D-30118-5	100-110 D	11.3-12.4	A	S
D-30118-6	100-110 D	11.3-12.4	A	S
D-30118-7	100-110 D	11.3-12.4	A	S
D-30118-8	100-110 D	11.3-12.4	A	S
D-30118-9	100-110 D	11.3-12.4	A	S
D-30118-10	100-110 D	11.3-12.4	A	S
C-30764-5	120-130 D	13.6-14.7	A	S
C-30764-6	120-130 D	13.6-14.7	A	S
C-30764-7	120-130 D	13.6-14.7	A	S
D-30793-3	100-110 D	11.3-12.4	A	S
D-30793-4	100-110 D	11.3-12.4	A	S
D-30793-5	100-110 D	11.3-12.4	A	S
D-30793-6	100-110 D	11.3-12.4	A	S

Material column designations are as follows: "**A**" Aluminum "**M**" Magnesium "**S**" Steel

(1) For assistance contact the Technical Services Hotline (see page 4).

Antiseize Compound:

(2) Use SAE AMS2518 (MIL-T-5544). (3) Use MIL-PRF-83483 (MIL-T-83483).

A4. Wheel Assembly Torque Values

All wheel assembly tie bolt and nut torque values listed are to be applied to the **nut** only.

A "**D**" shown adjacent to the torque value indicates the value to be a "**Dry**" torque only.

An "**L**" shown adjacent to the torque value indicates a "**Lubtork**" torque only. Lubtork requires the application of an antiseize compound to all friction surfaces of the hardware as shown in Figure 312. Only use the antiseize specified for your wheel assembly. A flag note will specify which antiseize to use.

Caution: Do not "lubtork" any bolt and nut combinations that are specified as a "Dry" torque value.

Note: If there is any conflict or question regarding dry torque, lubtork, or torque value on your assembly, please contact Cleveland Customer Support for resolution.

[A5-#] = Code for inflation valve stem torque. See appropriate dash number, -#, in Table A5 for torque value.

Table Flag Note Legend:

Material Column Designations: "**A**" Aluminum "**M**" Magnesium

(1) For assistance contact the Technical Services Hotline (see page 4).

Antiseize Compound:

(2) Use SAE AMS2518 (MIL-T-5544). (3) Use MIL-PRF-83483 (MIL-T-83483).

Wheel Bearing Grease: (Refer to Section 300, paragraph 3.A. Bearing Grease)

All active wheel assemblies listed are shipped with Mobil Aviation Grease SHC 100 except:

(4) Wheel uses BG Products HCF Grease P/N 605 (Amphibious).

Torque Values:

(5) Dry torque brake disc bolts to 80 in-lbs.
(6) Dry torque brake disc bolts to 150 in-lbs.
(7) Torque value is dependent on hardware configuration. Refer to PRM 83 for torque values.
(8) Torque value is dependent on hardware configuration. PRM's are in development to release the hardware upgrade for the following assemblies. In the interim, follow the wheel assembly nameplate for torque value. The table below is for reference only. For assistance contact the Technical Services Hotline (see page 4).

Wheel Assembly	Nut / Washer (qty)	Torque in-lb (N-M)
40-77, 40-77A, 40-77B, 40-77F, 40-87C, 40-110, 40-168	094-01200 / 095-10400	75 D (8.5)
	094-10300 / 095-10200	90 D (10.2)
40-87	094-01200 / 095-10400 (6)	75 D (8.5)
	094-10300 / 095-10400 (3)	90 D (10.2)
40-78, 40-78A, 40-78B, 40-78E, 40-78J, 40-151, 40-151A, 40-230	094-01200 / 095-10200	75 D (8.5)
	094-10300 / 095-10200	90 D (10.2)
40-87A, 40-87D, 40-87F, 40-110B, 40-152	094-01200 / 095-10400	75 D (8.5)
	094-10300 / 095-10400	90 D (10.2)

A4. Wheel Assembly Torque Values (Cont'd)

Wheel Assembly	Bolt Torque		Material
	In-lb	N-M	Wheel
27-100D (40-1)	90 D	10.2	A
21-100D (40-2)	90 D	10.2	M
3080A (40-3)	90 D	10.2	M
3080B (40-4)	90 D	10.2	M
3070 (40-5)	90 D	10.2	M
3040 (40-6)	90 D	10.2	A
3050 (40-7)	90 D	10.2	A
3050A (40-7A)	90 D	10.2	A
38501 (40-8)	90 D	10.2	M
40-12	90 D	10.2	M
40-12A	90 D	10.2	M
40-18	90 D	10.2	M
40-19	90 D	10.2	A
40-19A	90 D	10.2	A
40-21	90 D	10.2	A
40-24	90 D	10.2	A
40-28	90 D	10.2	M
40-28D	90 D	10.2	M
40-30A	90 D	10.2	A
40-32	90 D	10.2	A
40-34	90 D	10.2	M
40-37	90 D	10.2	A
40-40A	135-145D	15.3-16.4	M
40-40B	135-145D	15.3-16.4	M
40-40C	90 D	10.2	M
40-40D	150 D	16.9	M
40-41	150 D	16.9	M
40-46	90 D	10.2	A
40-47	150 D	16.9	A
40-50	90 D	10.2	A
40-55	90 D	10.2	A
40-56	150 D	16.9	M
40-56B	150 D	16.9	M
40-56C	150 D	16.9	M
40-57	90 D	10.2	A
40-57A	90 D	10.2	A
40-58	90 D	10.2	M
40-59	150 D	16.9	M
40-59A	150 D	16.9	M
40-59D	150 D	16.9	M
40-59E	150 D	16.9	M
40-60	90 D	10.2	M
40-60A	90 D	10.2	A
40-61	90 D	10.2	M
40-66	90 D	10.2	A
40-67	90 D	10.2	A

Wheel Assembly	Bolt Torque		Material
	In-lb	N-M	Wheel
40-74	90 D	10.2	A
40-74A	90 D	10.2	A
40-74B	90 D	10.2	A
40-75B	150 D	16.9	M
40-75D	150 D	16.9	M
40-75E	150 D	16.9	M
40-75F	150 D	16.9	M
40-75G	150 D	16.9	M
40-75H	150 D	16.9	M
40-75J	150 D	16.9	M
40-75P	150 D	16.9	M
40-75S	150 D	16.9	M
40-75T	150 D	16.9	M
40-75W	150 D	16.9	M
40-75Z	150 D	16.9	M
40-76A	150 D	16.9	M
40-76B	150 D	16.9	M
40-76C	150 D	16.9	M
40-76D	150 D	16.9	M
40-76E	150 D	16.9	M
40-76F	150 D	16.9	M
40-76G	150 D	16.9	M
40-76H	150 D	16.9	M
40-76P	150 D	16.9	M
40-76-1	150 D	16.9	(1)
40-77	(8)		M
40-77A	(8)		M
40-77B	(8)		M
40-77C	(7)		M
40-77D	90 D	10.2	M
40-77E	(7)		M
40-77F	(8)		M
40-77G	90 L (2)	10.2	M
40-78	(8)		M
40-78A	(8)		A
40-78B	(8)		M
40-78E	(8)		M
40-78J	(8)		A
40-79A	150 D	16.9	M
40-83	150 D	16.9	M
40-83A	150 D	16.9	M
40-83B	150 D	16.9	M
40-84	150 D	16.9	M
40-84A	150 D	16.9	M
40-84B	150 D	16.9	M

A4. Wheel Assembly Torque Values (Cont'd)

Wheel Assembly	Bolt Torque In-lb	Bolt Torque N-M	Material Wheel
40-86	150 D	16.9	M
40-86A	150 D	16.9	M
40-86B	150 D	16.9	M
40-86E	150 D	16.9	M
40-86F	150 D	16.9	M
40-87	(8)		M
40-87A	(8)		M
40-87C	(8)		A
40-87D	(8)		M
40-87F	(8)		M
40-87G	115-135 D	13.0-15.3	M
40-88C	150 D	16.9	M
40-90	150 D	16.9	M
40-90A	150 D	16.9	M
40-90B	150 D	16.9	M
40-90D	150 D	16.9	M
40-90E	150 D	16.9	M
40-90F	150 D	16.9	M
40-96E	150 D	16.9	M
40-97A	150 D	16.9	M
40-97B	150 D	16.9	M
40-97C	150 D	16.9	M
40-97D	150 D	16.9	M
40-97E	150 D	16.9	M
40-97F	150 D	16.9	M
40-98	150 D	16.9	M
40-98A	150 D	16.9	M
40-98D	150 D	16.9	M
40-98E	150 D	16.9	M
40-98F	150 D	16.9	M
40-98G	150 D	16.9	M
40-98H	150 D	16.9	M
40-98N	150 D	16.9	M
40-98P	150 D	16.9	M
40-99	90 D	10.2	M
40-101	90 D	10.2	A
40-101A	90 D	10.2	A
40-101D	90 D	10.2	A
40-101E	90 D	10.2	A
40-102	90 D	10.2	M
40-102A	90 D	10.2	M
40-103	90 D	10.2	A
40-103A	90 D	10.2	A
40-106	150 D	16.9	M
40-106A	150 D	16.9	M
40-107A [A5-3]	300 L (2)	33.9	M

Wheel Assembly	Bolt Torque In-lb	Bolt Torque N-M	Material Wheel
40-110	(8)		M
40-110B	(8)		M
40-111	150 D	16.9	M
40-111A	150 D	16.9	M
40-112	90 D	10.2	A
40-113	90 D	10.2	A
40-113A	90 D	10.2	A
40-113B	90 D	10.2	A
40-113C	90 D	10.2	A
40-113X	90 D	10.2	A
40-115	90 D	10.2	M
40-115A	115-135 D	13.0-15.3	M
40-115B	115-135 D	13.0-15.3	M
40-115C	115-135 D	13.0-15.3	M
3080D (40-116) (5)	90 D	10.2	M
40-117A	150 D	16.9	M
40-120	150 D	16.9	M
40-120A	150 D	16.9	M
40-120C	150 D	16.9	M
40-124	180 D	20.3	M
40-127	180 L (2)	20.3	A
40-128	180 D	20.3	M
40-128A	180 D	20.3	M
40-128C	180 D	20.3	M
40-128D	180 D	20.3	M
40-128E	180 D	20.3	M
40-129	90 D	10.2	A
40-130	90 D	10.2	M
40-131 (5)	90 D	10.2	M
40-132 [A5-1]	150 D	16.9	M
40-133	150 D	16.9	A
40-134 [A5-2]	150 D	16.9	M
40-134A [A5-2]	150 D	16.9	M
40-135	135-145 D	15.3-16.4	M
40-135A	150 D	16.9	M
40-137	180 D	20.3	A
40-138A	150 D	16.9	M
40-139	150 D	16.9	A
40-140	150 D	16.9	M
40-140A	150 D	16.9	M
40-140B	150 D	16.9	M
40-140C	150 D	16.9	M
40-141	150 D	16.9	M
40-142	150 D	16.9	M
40-142A	150 D	16.9	M
40-143	150 D	16.9	M

A4. Wheel Assembly Torque Values (Cont'd)

Wheel Assembly	Bolt Torque In-lb	Bolt Torque N-M	Material Wheel
40-148 [A5-3]	300 D	33.9	M
40-151	(8)		M
40-151A	(8)		A
40-152	(8)		M
40-162	150 D	16.9	M
40-163	150 D	16.9	M
40-166 [A5-1] (6)	300 D	33.9	M
40-167 (6)	300 D	33.9	M
40-168	(8)		A
40-169 [A5-1] (6)	150 D	16.9	M
40-170 [A5-3]	300 L (2)	33.9	M
40-170A [A5-3]	300 L (2)	33.9	A
40-170B [A5-3]	300 L (2)	33.9	M
40-171	180 D	20.3	M
40-172	180 D	20.3	M
40-174	300 L (2)	33.9	A
40-175	150 D	16.9	A
40-176 [A5-1]	300 D	33.9	A
40-176A [A5-1]	300 D	33.9	A
40-177A	150 D	16.9	M
40-179	150 D	16.9	A
40-179A	150 D	16.9	A
40-181B [A5-1]	180 D	20.3	A
40-181C [A5-1]	180 D	20.3	A
40-193	150 D	16.9	A
40-195	150 D	16.9	M
40-196	90 D	10.2	M
40-198 [A5-3]	300 L (2)	33.9	M
40-199	90 D	10.2	A
40-199A	90 D	10.2	A
40-202 [A5-1]	300 L (2)	33.9	A
40-203 [A5-4]	290-300 L (2)	32.8-33.9	A
40-204 [A5-4]	290-300 L (2)	32.8-33.9	A
40-205 [A5-1]	180 D	20.3	M
40-210 [A5-6]	150 L (2)	16.9	M
40-211 [A5-3]	300 D	33.9	M
040-21101 [A5-3]	300 L (2)	33.9	M
40-212 [A5-1]	150 L (2)	16.9	M

Wheel Assembly	Bolt Torque In-lb	Bolt Torque N-M	Material Wheel
40-223	90 D	10.2	A
40-230	(8)		M
40-234	90 D	10.2	A
40-239 [A5-6]	300 L (2)	33.9	A
040-23901 [A5-6]	300 L (2)	33.9	A
40-240A [A5-6]	125 L (2)	14.1	M
40-255 [A5-1]	90-100 L (2)	10.2-11.3	M
40-256	135-145 D	15.3-16.4	M
40-258	300 D	33.9	(1)
40-259 [A5-1]	95-105 L (2)	10.7-11.8	M
40-260 [A5-1]	95-105 L (2)	10.7-11.8	M
40-262A [A5-6]	90 L (2)	10.2	M
40-270 [A5-6]	115-135 L (2)	13.0-15.3	M
40-273 [A5-5]	300 L (2)	33.9	A
40-273A [A5-4]	290-300 L (2)	32.8-33.9	A
40-273B [A5-4]	290-300 L (2)	32.8-33.9	A
40-276 [A5-6]	90-100 L (2)	10.2-11.3	M
40-279 [A5-3]	300 L (2)	33.9	M
40-279A [A5-3]	300 L (3)	33.9	M
40-281	90 D	10.2	M
40-289 [A5-1]	300 L (2)	33.9	A
40-293 [A5-6]	180-190 L (2)	20.3-21.5	A
40-403	150 D	16.9	A
40-406	150 D	16.9	M
40-406A	150 D	16.9	M
40-407	150 D	16.9	M
40-414	150 D	16.9	M
40-414A	150 D	16.9	M
40-417 [A5-7]	115-125 L (3)	12.9-14.1	A
40-418 (4)	150 D	16.9	A
40-418A (4)	150 D	16.9	A
40-418B (4)	150 D	16.9	A
40-426 (4)	150 D	16.9	A
40-426A (4)	150 D	16.9	A
40-434 [A5-6]	315-325 L (3)	35.6-36.7	A
40-450	105-115 L (2)	11.9-13.0	A
40-455	150 D	16.9	A

A4. Wheel Assembly Torque Values (Cont'd)

Wheel Assembly	Bolt Torque		Material
	In-lb	N-M	Wheel
C-30174-1	95 D	10.7	(1)
C-30179	190-200 D	21.5-22.6	(1)
D-30204	95 D	10.7	(1)
D-30255	195 D	22.0	(1)
D-30260	195 D	22.0	(1)
D-30260-1	195 D	22.0	(1)
D-30291-1	195 D	22.0	A
D-30291-2	195 D	22.0	A
D-30291-3	195 D	22.0	A
D-30291-4	195 D	22.0	A
D-30291-5	195 D	22.0	A
D-30291-6	195 D	22.0	A
D-30380	95 D	10.7	A
C-30480	195 D	22.0	(1)
D-30500	145 D	16.4	A
D-30500-1	145 D	16.4	A

Wheel Assembly	Bolt Torque		Material
	In-lb	N-M	Wheel
D-30570	195 D	22.0	A
D-30580	195 D	22.0	(1)
D-30585	195 D	22.0	(1)
D-30660-1	145 D	16.4	A
D-30660-2	145 D	16.4	A
D-30660-3	145 D	16.4	A
D-30660-4	145 D	16.4	A
D-30660-5	145 D	16.4	A
D-30660-6	145 D	16.4	A
D-30660-7	145 D	16.4	A
D-30660-8	145 D	16.4	A
D-30660-9	145 D	16.4	A
D-30660-10	145 D	16.4	A
D-30665	145 D	16.4	A
D-30665-1	145 D	16.4	A

A5. Tire Inflation Valve Stem Torques

Dash No.	Inflation Valve P/N	Recommended Torque	
		In-Lb	N-M
-1	160-00700	50-60	5.7-6.8
-2	160-00900	165-200	18.7-22.6
-3	160-01100	75-100	8.4-11.3
-4	160-01200	35-45	4.0-5.1

Dash No.	Inflation Valve P/N	Recommended Torque	
		In-Lb	N-M
-5	160-01500	70-80	7.9-9.0
-6	160-01900	50-60	5.7-6.8
-7	160-02000	25-35	2.8-3.9