

Cleveland Wheel and Brake Information To Support Stinson 108-2 NC9391K Serial Number 2391

Includes:

- Wheel and Brake part number information and substantiation for installation on a 108-2
- Torque Values for wheels and brakes
- Part Number information for wheels and brakes
- 30-18 Brakes
- 40-28 Wheels
- The TCDS for the 108-2 Stinson allows for this in para 201(g)

Applicability Data

Model/ Name	Year/ Serial Number	Main Wheel Assembly	Standard Disc	Chrome Disc	Brake Assembly	Lining	Auxiliary Wheel
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Swearingen Aircraft

SX300		40-151	164-08500	N/A	30-133	066-10500	40-87
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Taylorcraft Aviation Corp.

F-19 Sportsman 100		3050 (1)	169-00201	N/A	C7000A (1)	066-00504 (2)	N/A
		40-86	164-02000	164-12000	30-55	066-10500	
F-21, F-21A Trainer/Sport		40-86	164-02000	164-12000	30-55	066-10500	
F-22		40-86	164-02000	164-12000	30-55	066-10500	40-77

(1) Aircraft equipped with Drum-type brakes, mechanically operated.

(2) Brake Shoe, includes rivets.

Univair

A2, A2A Alon (1)		40-97A	164-02601	164-12601	30-63A	066-10500	N/A
415-C, CD, D, E, G (1) Ercoupe F1, F1A Forney		40-41	164-00300	N/A	30-30	066-10500	
M10 Mooney Cadet (1)		40-97A	164-02601	164-12601	30-63A	066-10500	
J-3, PA-11, PA-12, (10) PA-14, PA-16, PA-18, PA-20 Piper Cub		40-60	164-06700	164-16700	30-60 (2)	066-10600	
PA-18, PA-20, PA-22/20 Piper Cub (10) (3)		40-84	164-01900	164-11900	30-41 (4)	066-10600	
108, 108-1, -2, -3, -5 (1)		3040 (5) (7)	169-00101	N/A	C2000 (5)	066-00504 (6)	
		40-28 (8)	164-00500	164-10500	30-18	066-10600	
Stinson		40-97E (9)	164-02601	164-12601	30-63Q (9)	066-10500	

(1) TC currently owned by Univair.

(2) Inactive - superseded by 30-60A.

(3) Aircraft equipped with 1-1/2 inch axles.

(4) Inactive - superseded by 30-41B.

(5) Aircraft equipped with Drum-type Brakes.

(6) Brake shoe, includes rivets.

(7) Aircraft equipped with 6.00-6 tires.

(8) Aircraft equipped with 7.00-6 tires.

(9) May be used to retrofit earlier models.

(10) STC Approved modification of original aircraft.

Valmet

L-70 Militrainer		40-75S (1)	164-04800	164-14800	30-52K	066-10500	40-77C
L-90 TP Redigo		40-142	164-07800	N/A	30-127	066-06200	40-110B

(1) Inactive - superseded by 40-75T.

Varga

2150A/218 Kachina		40-97E	164-02601	164-12601	30-63E	066-10500	40-77B
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Waco

Meteor, Minerva, Vela		40-97A	164-02601	164-12601	30-63A	066-10500	40-77
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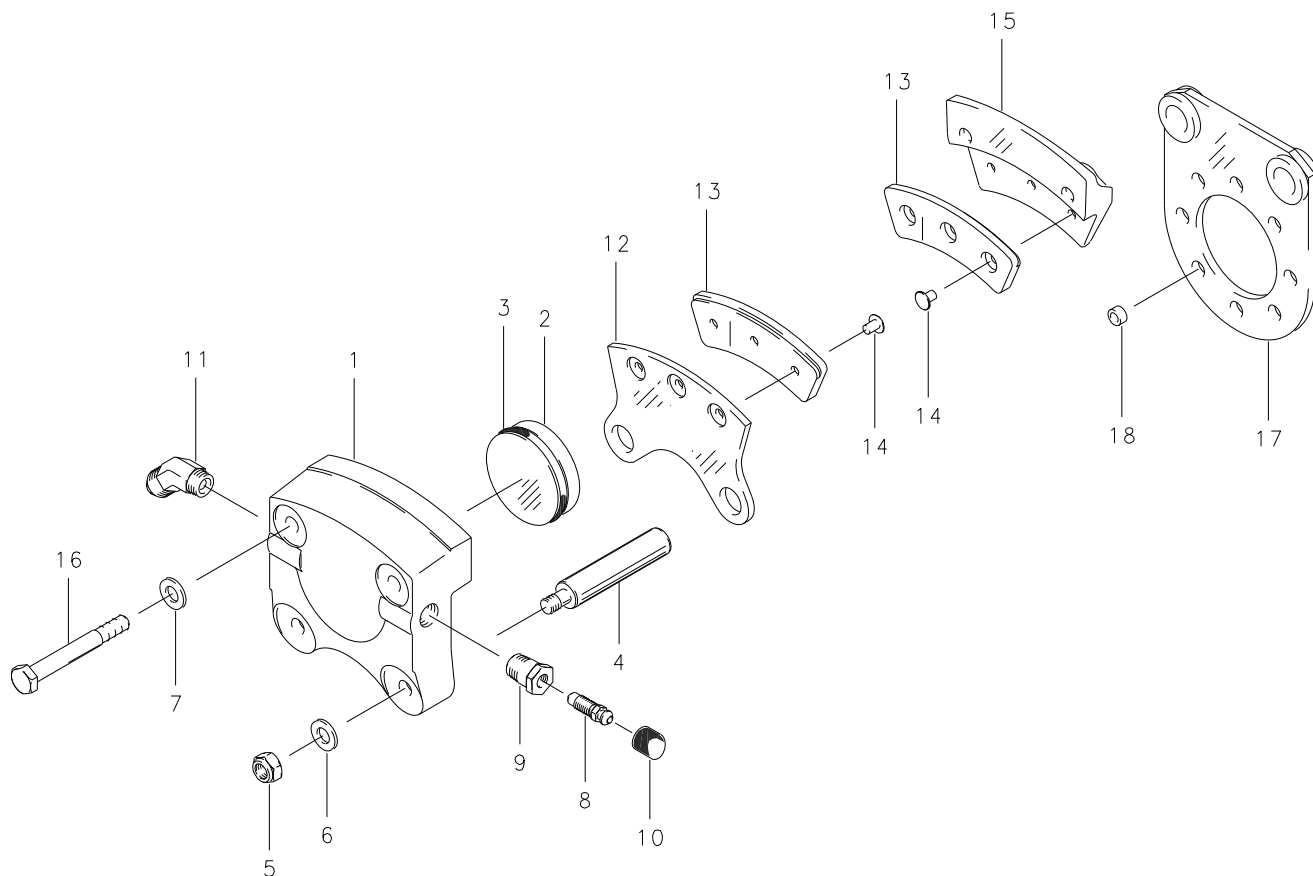


Illustrated Parts List

Brake Assembly – 6" External Single Cylinder, Single Piston

30-18, 30-19, 30-19A, 30-40, 30-40A, 30-45

Organic Lining



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Illustrated Parts List**Brake Assembly – 6” External
Single Cylinder, Single Piston****30-18, 30-19, 30-19A, 30-40, 30-40A, 30-45****Organic Lining**

FIG.	PART NO.	DESCRIPTION	PER ASSY.					
			30-18	30-19	30-19A	30-40	30-40A (1)	30-45 (1) (2)
1	091-00701	Cylinder Assembly	1	1				
	091-00702	Cylinder Assembly			1	1		
	061-00601	Cylinder	1	1	1	1	1	
	(3)	Cylinder						1
2	092-00200	Piston Assembly	1	1	1	1		
	(3)	Piston Assembly					1	1
	062-00300	Piston	1	1	1	1		
3	(3)	Piston					1	1
	101-02300	O-Ring (MS28775-218)	1	1	1	1	1	
4	(3)	O-Ring						1
	069-00200	Anchor Bolt						2
5	069-00400	Anchor Bolt	2	2	2	2	2	
	094-10100	Nut (AN364-624C)						2
6	094-10300	Nut (MS21044-N4)	2	2	2	2	2	
	095-10100	Washer (AN960-616L)						2
7	095-10400	Washer (AN960-416)	2	2	2	2	2	
	095-10700	Washer (AN960-516L)						2
8	095-10200	Washer (AN960-416L)	2	2	2	2	2	
	079-00300	Screw-Bleeder	1	1	1	1	1	1
9	081-00200	Seat-Bleeder	1	1	1	1	1	1
	183-00100	Cap-Bleeder	1	1	1	1	1	1
11	104-00400	Fitting (MS20822-4D)	1	1				
	104-00500	Fitting (MS20823-4D)			1	1		
	104-00300	Fitting (AN816-4D)					1	1
	073-00100	Pressure Plate Assembly						1
12	073-00300	Pressure Plate Assembly	1	1	1	1	1	
	063-00200	Pressure Plate						1
	063-00500	Pressure Plate	1	1	1	1	1	
13	066-11100	Lining						1
	066-10600	Lining	1	1	1	1	1	
14	105-00200	Rivet	3	3	3	3	3	3
	074-00200	Back Plate Assembly	1	1	1	1	1	
15	064-00300	Back Plate						1
	064-00500	Back Plate	1	1	1	1	1	
	066-11100	Lining						1
13	066-10600	Lining	1	1	1	1	1	
	105-00200	Rivet	3	3	3	3	3	3
16	103-20700	Bolt (AN5H14A)						2
	103-12100	Bolt (AN5H15A)	2			2		
	103-11500	Bolt		2	2		2	
17	075-01600	Torque Plate Assembly	1					
	075-04900	Torque Plate Assembly			1			
	075-02500	Torque Plate Assembly				1		
	075-00600	Torque Plate Assembly						1
	075-01700	Torque Plate Assembly		1				
18	(3)	Torque Plate Assembly					1	
	145-01000	Bushing					2	2

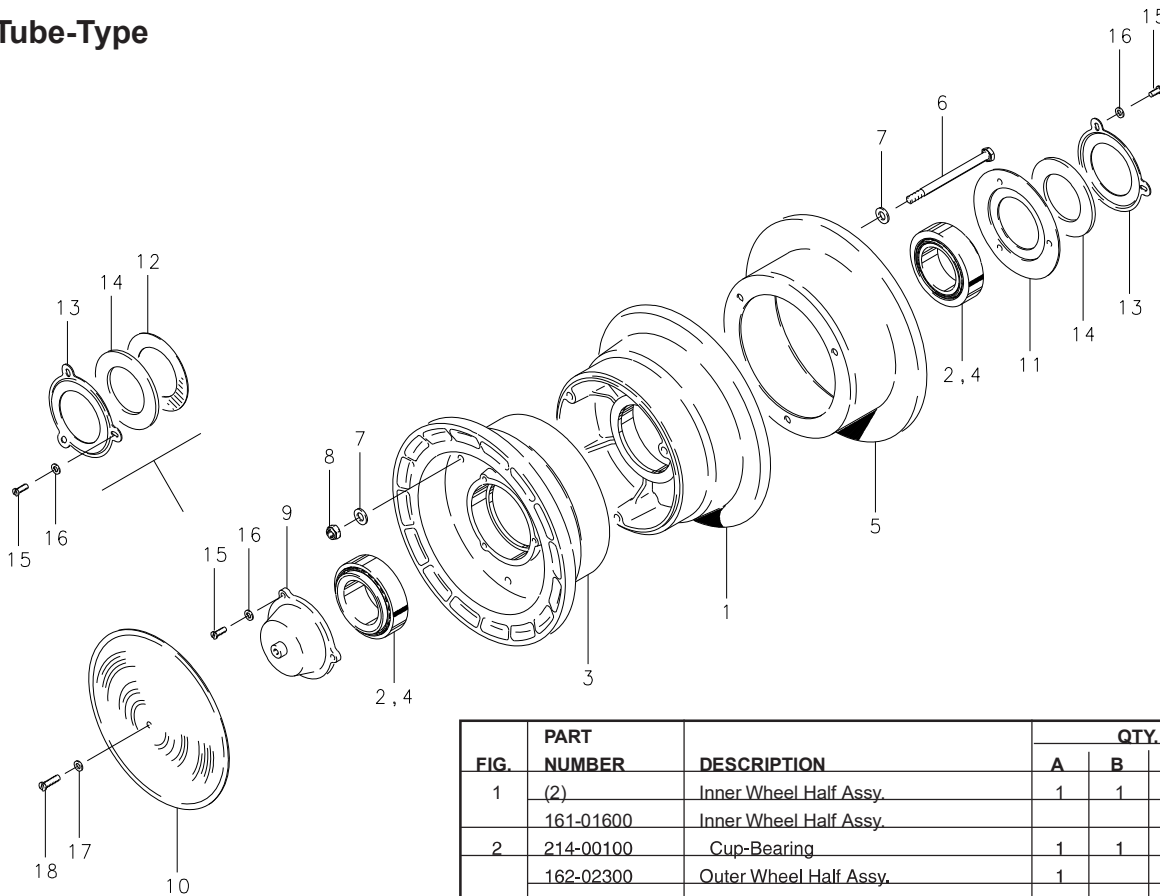
NOTES:

- (1) Inactive assembly – spares support only for parts listed.
 (2) 199-60 supersedes 30-45.
 (3) Inactive part – no longer available for spares support.

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Illustrated Parts List**Wheel Assembly – Main, External
6.00-6****40-21, 40-24, 40-28, 40-28D, 40-67****Tube-Type****Assy. Number****A) 40-21 (1)****B) 40-24 (1)****C) 40-28****D) 40-28D****E) 40-67 (1)****NOTES:**

(1) Inactive assembly – spares support only for parts listed.

(2) Inactive part – no longer available for spares support.

(3) Alternate chrome plated disc.

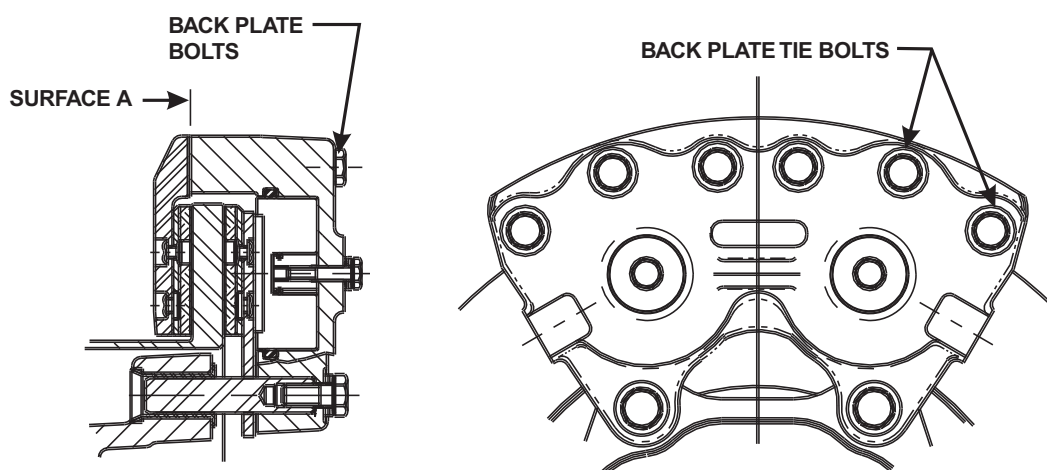
FIG.	PART NUMBER	DESCRIPTION	QTY. PER ASSY.				
			A	B	C	D	E
1	(2)	Inner Wheel Half Assy.	1	1			1
	161-01600	Inner Wheel Half Assy.			1	1	
2	214-00100	Cup-Bearing	1	1	1	1	1
3	162-02300	Outer Wheel Half Assy.	1				1
	(2)	Outer Wheel Half Assy.		1			
2	162-00600	Outer Wheel Half Assy.			1	1	
	214-00100	Cup-Bearing	1	1	1	1	1
4	214-00200	Cone-Bearing	2	2	2	2	2
5	164-00900	Brake Disc	1	1			
	164-00700	Brake Disc					1
	164-00500	Brake Disc			1	1	
	164-10500 (3)	Brake Disc - Chrome			1	1	
	164-10700 (3)	Brake Disc - Chrome					1
	164-10900 (3)	Brake Disc - Chrome	1	1			
6	103-11300	Bolt (AN4-40A)	3	3			3
	103-11000	Bolt (AN4-36A)			3	3	
7	095-10400	Washer (AN960-416)	6	6	3	3	6
8	094-10300	Nut (MS21044-N4)	3	3	3	3	3
9	158-01000	Cap-Hub		1	1		
10	157-00300	Shield-Dust		1			
	157-00200	Shield-Dust			1		
11	156-00100	Plate-Grease Seal	1	1			1
12	153-00300	Ring-Grease Seal	1				1
13	153-00500	Ring-Grease Seal	1	1	2	4	1
	153-01000	Ring-Grease Seal	1				1
14	154-00500	Felt-Grease Seal				2	
	154-00400	Felt-Grease Seal	1	1	1		1
	154-00900	Felt-Grease Seal	1				1
15	102-05100	Screw (AN500-8-8)	6	6	6	6	6
16	095-15100	Washer Lock (MS35333-38)	6	6	6	6	6
17	095-15400	Washer Lock (AN936A10)		1	1		
18	102-25100	Screw-F.H.C. (AN526-1024-8)		1	1		

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H. Back Plate Tie Bolt Torque

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. Apply an antiseize compound conforming to MIL-T-5544 to all friction surfaces. 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 tie bolts to insure the proper torquing values are attained. Replace the back plate tie 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 Tie Bolts



Brake Assembly	Bolt Torque	
	in-lb	N·m
35-200A (30-1)	60 D	6.8
30-4	60 D	6.8
30-5	60 D	6.8
30-6	60 D	6.8
30-7	60 D	6.8
37-200-2 (30-8)	90 D	10.2
30-9	75-80 D	8.5-9.0
30-9A	75-80 D	8.5-9.0
30-9C	75-80 D	8.5-9.0
30-9D	75-80 D	8.5-9.0
30-9E	75-80 D	8.5-9.0
3000-250 (30-12)	90 D	10.2
3000-500 (30-13)	90 D	10.2
30-18	90 D	6.8
30-19	75-80 D	8.5-9.0
30-19A	75-80 D	8.5-9.0

Brake Assembly	Bolt Torque	
	in-lb	N·m
30-21	65-75 D	7.3-8.5
30-23	65-75 D	7.3-8.5
30-23A	65-75 D	7.3-8.5
30-23B	65-75 D	7.3-8.5
30-23C	65-75 D	7.3-8.5
30-23D	65-75 D	7.3-8.5
30-24	65-75 D	7.3-8.5
30-28B	80-90 D	9.0-10.2
30-28C	80-90 D	9.0-10.2
30-28D	80-90 D	9.0-10.2
30-30	90 D	10.2
30-31	85-90 D	9.6-10.2
30-32	65-75 D	7.3-8.5
30-32A	65-75 D	7.3-8.5
30-32B	65-75 D	7.3-8.5

F. 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 the value to be a “Lubtork” value. “Lubtork” requires the application of an antiseize compound conforming the MIL-T-5544 to all friction surfaces, prior to torquing.

CAUTION: Do not “Lubtork” any bolt and nut combinations that are specified as a “Dry” torque value. If there is any conflict or question regarding dry torque, Lubtork or torque value on your assembly, please contact Cleveland Customer Support for resolution.

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

Wheel Assembly	Bolt Torque	
	in-lb	N•m
40-59D	150 D	16.9
40-59E	150 D	16.9
40-60	90 D	10.2
40-60A	90 D	10.2
40-61	90 D	10.2
40-66	90 D	10.2
40-67	90 D	10.2
40-74	90 D	10.2
40-74A	90 D	10.2
40-74B	90 D	10.2
40-75B	150 D	16.9
40-75D	150 D	16.9
40-75E	150 D	16.9
40-75F	150 D	16.9
40-75G	150 D	16.9
40-75H	150 D	16.9
40-75J	150 D	16.9
40-75S	150 D	16.9
40-75T	150 D	16.9
40-75W	150 D	16.9
40-76A	150 D	16.9
40-76B	150 D	16.9
40-76C	150 D	16.9
40-76D	150 D	16.9
40-76E	150 D	16.9
40-76F	150 D	16.9
40-76G	150 D	16.9
40-76H	150 D	16.9
40-76-1	150 D	16.9
40-77	90 D	10.2
40-77A	90 D	10.2
40-77B	90 D	10.2
40-77C	90 D	10.2
40-77D	90 D	10.2
40-77E	90 D	10.2
40-77F	90 D	10.2
40-77G	90 D	10.2
40-78	90 D	10.2
40-78A	90 D	10.2