

TEMPORARY REVISION

AMM-TR-OÄM 42-353

Beringer Wheels and Brakes

This Temporary Revision AMM-TR-OÄM 42-353 is approved in conjunction with the Optional Design Change Advisory OÄM 42-353 and is valid in conjunction with the Airplane Maintenance Manual (AMM) until this Temporary Revision has been incorporated into the AMM.

The limitations and information contained herein either supplement or, in the case of conflict, override those in the AMM.

The technical information contained in this document has been approved under the authority of DOA No. EASA.21J.052.

Doc. No.	Section	Affected Pages
7.02.15	03-00-00	4a, 4aa
	05-00-00	3a, 3aa
	05-28-50	6a, 6b, 20a, 20aa
	10-10-00	2a, 2aa
	12-10-00	15a, 15aa, 17a, 17aa
	12-20-00	2a, 2aa
	20-10-00	4a, 4b
	32-40-00	1a, 2a, 3a, 3aa, 4a, 4aa, 5a, 5aa, 7a, 7aa, 101a, 101aa, 201a, 201aa

Instruction

- Print this document double-sided on yellow paper (odd pages and "a" pages on front sides, even pages and "aa" pages on reverse sides).
- Insert this cover page as the first page of the AMM.
- Insert the other pages of this Temporary Revision in front of the corresponding AMM pages.

AFFECTED CHAPTERS:

CHAPTER 03
GENERAL DESCRIPTION OF THE AIRPLANE

2. Equipment Data

The following row is added to the existing table:

ATA Chapter	Equipment/System	Manufacturer/Address	Direct Shipping Approved
32	If OÄM 42-353 is installed: Main Wheels, Nose Wheels and Brakes	Beringer Aero. 30 Rue Pierre Georges Latécoère 05130 Tallard France Tel: +33-492201619 Website: www.beringer-aero.com	Yes

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CHAPTER 05
TIME LIMITS AND MAINTENANCE CHECKS

Section 05-00-00
Maintenance Checklist Airframe

2. Chapter Configuration

G. Referenced Maintenance Data

The following row is added to the existing table:

Supplier	Document Name	Document No.
Beringer Aero	Brake-Servicing Manual	SM-01
	Wheels-Servicing Manual	SM-02
	Wheels-System Description	MM-02-001

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Section 05-28-50
Maintenance Checklist Airframe

1. Exterior of the Fuselage

D. Wheels

The following rows are amended to read:

<i>100 hr items marked * apply to US registered airplanes only</i>		Interval					Initials
	Inspection Items, Wheels	100	200	1000	2000	Time	
2	Examine the main wheel brakes: – Check brake linings for excessive wear. – Check brake disks for distortion and excessive wear. – Check brake cylinders for leaks. Refer to the instructions for Continuous Airworthiness of the Wheel Section 05-00.	X	X	X	X		
4	Examine the wheel axles. Look specially for cracks and corrosion. Refer to the instructions for Continuous Airworthiness of the Wheel Section 05-00.	X*	X	X	X		
5	Examine the wheel bearings. Look specially for play, corrosion and irregular running. Refer to the instructions for Continuous Airworthiness of the Wheel Section 05-00.	X*	X	X	X		
6	If OÄM 42-353 is not installed: Clean and lubricate all bearings at the wheels. (Refer to Section 12-20). Refer to the instructions for Continuous Airworthiness of the Wheel Section 05-00.	X*	X	X	X		
7	Examine the rims of all 3 wheels. Look specially for cracks. Refer to the instructions for Continuous Airworthiness of the Wheel Section 05-00.	X	X	X	X		

<i>100 hr items marked * apply to US registered airplanes only</i>		Interval					Initials
	Inspection Items, Wheels	100	200	1000	2000	Time	
8	Install all 3 wheels. Refer to the instructions for Continuous Airworthiness of the Wheel Section 05-00.	X*	X	X	X		

2. Cabin

F. Other Cockpit Controls

The following row is amended to read:

<i>100 hr items marked * apply to US registered airplanes only</i>		Interval					
	Inspection Items, Other Cockpit Controls	100	200	1000	2000	Time	Initials
2	Examine the brake fluid reservoirs on the co-pilot's side. Make sure the fluid level is correct: – The fluid level must be 12 mm to 25 mm (1/2 in to 1 in) below the top face of the reservoir filler hole. If OÄM 42-353 is installed: – The fluid level must be about 5 mm to 10 mm (0.1 in to 0.4 in) below the top.	X*	X	X	X		

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CHAPTER 10
PARKING, MOORING, STORAGE AND RETURN TO SERVICE

Section 10-10
Parking and Storage

1. General

B. Short-Term Parking

The following rows of the existing table are amended to read:

	Detail Steps/Work Items	Key Items/References
	5 Push both the brake pedals, hold force and set parking brake ON.	Pull the lever fully aft.
	7 Push both brake pedals, hold force and RELEASE the parking brake.	Lever fully forward.

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CHAPTER 12
SERVICING

Section 12-10
Replenishment

8. Brake System

A. Fill the Brake System Reservoirs

The following row of the existing table is amended to read:

Detail Steps / Work Items		Key Items / References
3	Fill the reservoir to the correct level.	Use only MIL-PRF-5606H hydraulic fluid. If OÄM 42-353 is installed, use MIL-PRF-87257. 12 to 25 mm (0.5 to 1 in) below the top of the filler hole. If OÄM 42-353 is installed, fill the reservoir to about 5 mm to 10 mm (0.1 in to 0.4 in) below the top.

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10. Tires

The following is added:

■ If OÄM 42-353 is installed:

■ Main tires: 15x6.0-6; 6 PR, TL, 160 mph, Flight Special II, Goodyear

■ Nose tire: 5.00-5; 10 PR, TL, 190 mph, Flight Eagle LT, Goodyear

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Section 12-20
Scheduled Servicing

2. Lubrication Schedule

The following rows of the existing table are amended to read:

Table 2 - Lubrication Schedule									
Location		Type of Lubricant							Interval
No.	See Figure 1 and 2	1	2	3	4	5	6	7	(Hours) see Notes (1), (2)
(6)	Nose wheel bearing (see notes 3, 5, 6 and 8)	•						•	200
(16)	Brake caliper locating pins (see note 9)						•		1000
(18)	Main wheel bearings (see notes 3, 5, 6 and 8)	•						•	200

Notes:

The following notes are added:

- (8) If OÄM 42-353 is installed, the wheel bearings require no lubrication as encapsulated maintenance free wheel bearings are installed.
- (9) If OÄM 42-353 is installed: not applicable.

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CHAPTER 20
STANDARD PRACTICES

Section 20-10
Standard Practices - Airframe

4. Special Torque Values

The table is amended to read:

Part	Torque (Nm)	Torque (lbf.ft.)
Bolts attaching the engine mount to the firewall.	40	29,5
Bolts attaching the engine mounting arms to the engine (if MÄM 42-600 is installed).	20 ± 2*	14.75 ± 1.48
Front LH / RH shock mounts to engine mounting arms.	85*	62,7
Rear LH / RH shock mounts to engine mounts.	28 ± 2.8	20.64 ± 2.06
Propeller to engine nuts.	85 - 90	62.7 - 66.4
Propeller governor nut.	28	20
Intercooler clamp.	5	3,7
V-clamp turbo charger.	5.0 ± 0.5	3.7 ± 0.4
V-clamp turbo charger (if MÄM 42-963/a is installed).	5.5 ± 0.5	4.0 ± 0.4
Cabin air heat exchanger clamp.	5	3,7
Fuel filter drain connection.	22	16,2
Fuel drain valve.	1 - 3	0.74 - 2.21
Hydraulic pump motor electric connection bolt.	9 - 11	6.6 - 8.1
Bolts attaching the main landing gear brake back plates to the caliper.	Refer to Cleveland/Parker Maintenance Manual, latest revision or placard on brake cylinder assy.	
If OÄM 42-353 is installed: Bolts attaching the main landing gear brake back plates to the caliper.	Refer to Beringer Aero Brake Servicing Manual SM-01, latest revision or marking.	
Main landing gear axles (all bolts M 8).	16*	11.8*

Part	Torque (Nm)	Torque (lbf.ft.)
If OÄM 42-353 is installed: Main landing gear axles (all bolts M 8).	20	14
Main landing gear axles (all bolts M 12).	60*	44.3*
If OÄM 42-353 is installed: Main landing gear axles (all bolts M 12).	80	59
If OÄM 42-353 is installed: Nose landing gear axle.	20	14
If OÄM 42-353 is installed: Main landing gear axle nut.	35	25
Trailing arm main landing gear attachment bolts M 12.	30*	22.1*
Upper main landing gear damper attachment bolt M 12.	48*	35.4*
Horizontal stabilizer attachment bolts.	45*	33.2*

*) values including friction.

5. Torque Measurement

The Paragraphs are amended to read:

For self-locking nuts, add the torque value of the locking device (friction or brake torque) to the value in the table. Read the friction value from the torque wrench before the nut seats.

Where a bolt is tightened from the bolt-head, add the value of the shaft friction (the friction of the bolt in the attached part) to the value in the table. Read the friction value from the torque wrench before the bolt seats.

CHAPTER 32
LANDING GEAR

Section 32-40
Wheels and Brakes

1. General

The Paragraph is inserted after the second Paragraph:

■ If OÄM 42-353 is installed, the wheels are tubeless and use Refer to the instructions for Continuous
■ Airworthiness of the Wheel Section 05-00. Beringer components. These use a Beringer brake disc and
■ caliper.

Figure 1A is added:

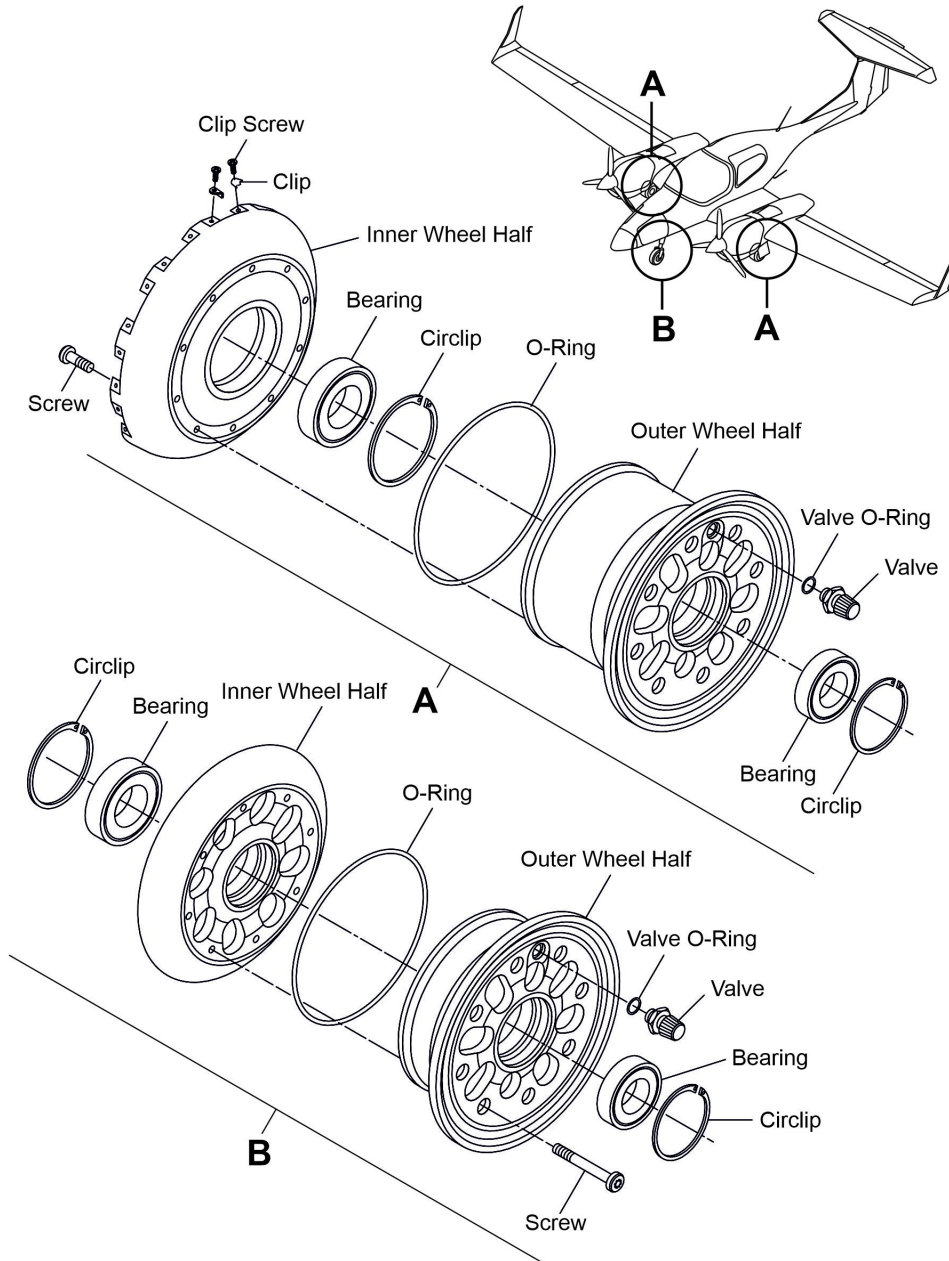


Figure 1A: Main and Nose Wheel Assemblies (if OÄM 42-353 is installed)

2. Description - Main Wheels

The Paragraph is inserted at the end:

- | If OÄM 42-353 is installed, the main wheels are of a design by Beringer Aero. Refer to the Wheel System
- | Description, MM-02-001 wheel RF-017.2 for detailed description. Each main wheel has a Goodyear
- | 15x6.0, 6 PR, TL, 160 mph, Flight Special II installed.

3. Description - Nose Wheel

The Paragraph is inserted at the end:

- | If OÄM 42-353 is installed, the nose wheel is of a design by Beringer Aero. Refer to the Wheel System
- | Description, MM-02-001 wheel RA-014 for detailed description. The nose wheel has a Goodyear 5.00-5,
- | 10 PR, TL, 190 mph, Flight Eagle LT installed.

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Figure 2A is added:

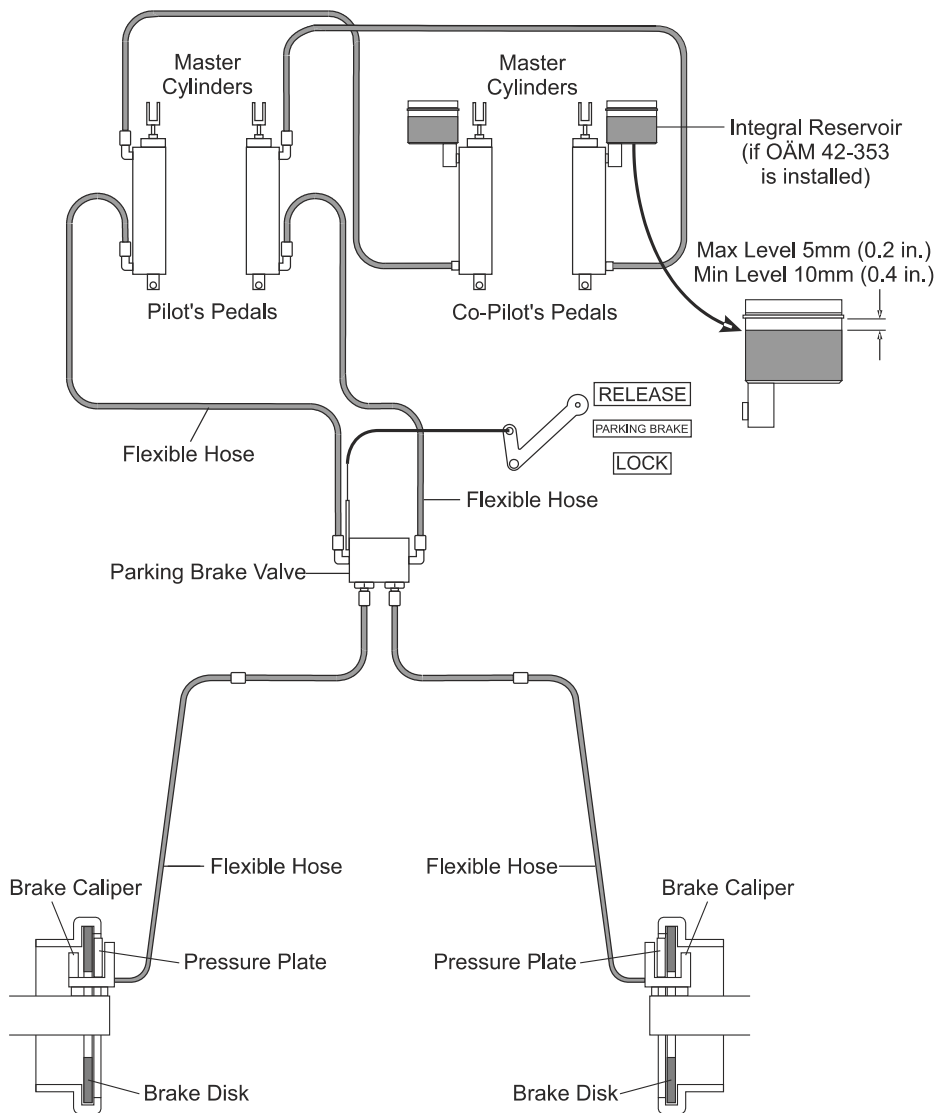


Figure 2A: Wheel Brake System Schematic Diagram (if OÄM 42-353 is installed)

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4. Description - Brake System

The following is inserted at the end:

■ If OÄM 42-353 is installed, the brake system is a Beringer Aero design. Refer to Beringer Aero
■ documentation for detailed descriptions.

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5. Operation- Brake System

The last Paragraph is amended to read:

If you push on the left brake pedal and the right brake pedal together, then both wheel brakes operate. If you set the parking brake to LOCK while you push on both brake pedals the parking brake valve traps the fluid in the brake units and the wheel brakes stay on. Move the parking brake lever to RELEASE while you push on the brake pedals to release the brakes.

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Trouble Shooting

1. General

The following is added to the existing table:

Trouble	Possible Cause	Repair
If OÄM 42-353 is installed, troubleshooting guidance can be found in Beringer Aero Servicing Manuals SM-01 and SM-02.		

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Maintenance Practices

1. General

The following is added at the end of the Paragraph:

█ If OÄM 42-353 is installed, refer to Beringer Aero Servicing Manuals SM-01 and SM-02.

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