

7. MAINTENANCE

7.1 Introduction

This chapter contains the preventive maintenance procedures for the ASTRONAUT A3 Next Milking Robot done by the operator of the milking robot. The procedures are based on the maintenance schedule (farmer), as shown in the next chapter.

The preventive maintenance schedule contains the tasks that must be done to an ASTRONAUT A3 Next Milking Robot.

The structure of this chapter is as follows:

- Introduction
- Maintenance schedule (farmer)
- Covers and doors procedures
- Box procedures
- Feeding system procedures
- Robot arm system procedures
- Milking system procedures
- Milk transport system procedures
- Cleaning system procedures
- Support system procedures
- Control system procedures.

Each procedure contains all the necessary information to complete the task. Therefore, if you do maintenance on more than one part, you may repeat steps that you have done on a previous part.

Read and understand all procedures for the applicable visit before you start. This will enable you to identify tasks that can be done only once (for example: put the milking robot out of operation, open the multiple function box).

7.2 Preventive Maintenance Schedule (Farmer)

The following table shows the preventive maintenance schedule for the ASTRONAUT A3 Next Milking Robot defined by Lely. Preventive maintenance must also be done as specified by local regulations.

Each task mentioned in this table is described further in this chapter.

Note:

The frequencies of the tasks shown in the table are the minimum frequencies recommended.

Maintenance Tasks	Frequencies						
	Hours	Day	Week	Month	Year	Operating Hours	Milkings
Examine the attention alarms (page 7-49)	8						
Examine the milking robot attention list (page 7-49)	8						
Replace the filter element of the single filter (page 7-40)	8						
Replace the filter element of the twin filter (page 7-42)	8-15						
Clean the sTDS screen (page 7-27)	12						
Clean the touch screen of the X-Link (page 7-50)		1					
Clean the bleed holes (page 7-18)		1					
Clean the robot arm and the box (page 7-27)		1					
Clean the outside of the teat cups (page 7-19)		1					
Examine the cleaning brushes (page 7-44)		1					
Replace the cleaning brushes (page 7-45)							40,000
Examine the twin tubes (page 7-36)		1					
Examine the cup centering (page 7-22)		1					
Examine the teat cup sleeves (page 7-21)		1					
Examine the quantity of Astri-Uc (page 7-43)		1					
Examine the quantity of Astri-Cid (page 7-43)		1					
Examine the quantity of Astri-Lin (page 7-43)		1					

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Maintenance Tasks	Frequencies						
	Hours	Day	Week	Month	Year	Operating Hours	Milkings
Examine the quantity of Astri-L (page 7-43)		1					
Examine the compressor and air dryer		1					
Examine the robot performance list (page 7-50)		1					
Measure the weight of the feed portion (page 7-17)			1				
Measure concentration of Astri-L (page 8-12)			1				
Test the spray beam of the teat disinfection nozzle (page 8-11)			1				
Examine the teat cup liners (page 7-28)			1				
Replace the teat cup liners (page 7-29)			8-10				silicon 10,000 rubber 2,500
Measure the temperature of the hot cleaning water (page 8-12)			1				
Examine the cup cords (page 7-20)			1				
Examine the compressor for leaks				3		2,000	
Clean the exterior of the vacuum pump				6			
Examine the vacuum pump oil level (page 7-46)						2,000	
Examine the feed funnel (page 7-14)				1			
Test the save-life switch (page 8-14)				1			
Cut the tails of the cows approximately 3 cm (1.2 in) below the tail bone				3			
Shave the udders. Refer to udder and tail shaving (page 6-4)				3			
Test the earthing of the milking robot (page 8-16)					1		