

Recommended preventive maintenance schedule for Right \mathbf{Hand}^{TM}

1. Rail combined bearings

Location: In/out rails assembly

Quantity: 6

Estimate lifetime: 3-4 years

Recommendation: Perform visual check every week while greasing. If large flats are visible on the outer surface of the bearing, replace.



2. Rail roller bearings

Location: Fixed rail assembly

Quantity: 2

Estimate lifetime: 2-3 years

Recommendation: If the shaft has wear tracks where the bearings are in contact, replace.





3. Rail cylinders (in/out)

Location: In/out rail assembly

Quantity: 2

Estimate lifetime: 2-3 years

Recommendation: Perform visual check every week while greasing. If oil leaks at the rod seal, replace or rebuild with seals kit.



4. Plastic stabilizers

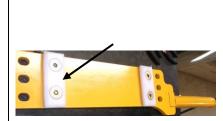
Location: Mobile rail assembly

Quantity: 2

Estimate lifetime: 2 years

Recommendation: Perform visual check, if the gap between the stabilizer and the "C" beam of the rail is more than 1/8", replace

or add shims.



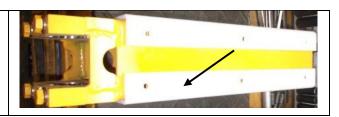


5. Mast plastic guides

Location: Up/Down mast assembly Quantity: 2 (smaller) + 2 (longer) Estimate lifetime: 4-5 years

Recommendation: Replace if thickness of plastic is less

than 3/16".





6. Mast cylinder (up/down)

Location: Up/Down mast assembly

Quantity: 1

Estimate lifetime: 3-4 years

Recommendation: Perform visual check every week while greasing. If oil leaks

at the rod or cartridge seal, replace or rebuild using seals kit.





7. Mast spherical sleeve

Location: Up/Down mast assembly

Quantity: 1

Estimate lifetime: 3-4 years Recommendation: Replace while

replacing the cylinder or if gap between sleeve and shaft is more than .030".





8. Chains (up/down)

Location: Up/Down mast assembly Quantity: 2 (smaller) + 2 (longer) Estimate lifetime: 2-2.5 years

Recommendation: Adjust chains tension every 4 months. If the is no more room to tight the chain yoke, replace the chain. Chain yoke should be replacer if threads are damaged.



9. Levelling arm bearings

Location: Up/Down mast assembly

Quantity: 4

Estimate lifetime: 4-5 years

Recommendation:



10. <u>Leveling arm bushing & spherical bearings</u>

Location: Grabber assembly Quantity: 4 (bushing) + 2 (bearing)

Estimate lifetime: 3 years Recommendation:







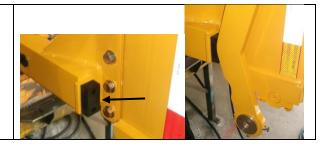
11. Leveling arm bumpers

Location: In/out rails assembly

Quantity: 2

Estimate lifetime: 4-5 years

Recommendation: Replace only if damaged.



12. Leveling arm rod ends (lower)

Location: Grabber assembly

Quantity: 2

Estimate lifetime: 2 years

Recommendation: Perform visual check every week while greasing.



13. Leveling arm rod ends (upper)

Location: Up/Down mast assembly

Quantity: 2

Estimate lifetime: 1.5 to 2 years

Recommendation: Perform visual check every week while greasing.



14. Rubber guards

Location: Up/Down mast assembly

Quantity: 4

Estimate lifetime: 3-5 years

Recommendation: Replace if damaged.



15. Pivot bushings (thrust washers)

Location: Grabber assembly

Quantity: 4

Estimate lifetime: 4 years Recommendation:





16. Pivot spherical bearings

Location: Grabber assembly

Quantity: 4

Estimate lifetime: 4 years Recommendation:









17. Grabber cylinders

Location: Grabber assembly

Quantity: 2

Estimate lifetime: 2-3 years

Recommendation:



18. <u>Cylinders bushings & spherical bearings</u>

Location: Grabber assembly Quantity: 8 (bushing) + 4 (bearing) Estimate lifetime: 2-3 years

Recommendation:



19. Grabber finger (blades)

Location: Grabber assembly

Quantity: 3

Estimate lifetime: 3-4 years

Recommendation: Replace only if damaged (if shape is

deformed).



20. Grabber rubber blocks

Location: Grabber assembly Quantity: 12 (rubbers) Estimate lifetime: 1-3 years

Recommendation: Replace only if damaged.



21. Rail hydraulic hoses

Location: In/out rails assembly

Quantity: 4 + 2

Estimate lifetime: 2-3 years

Recommendation: Perform visual check every week to make sure there is no crack near the ends.



22. Mast hydraulic hoses

Location: Up/Down mast assembly

Quantity: 2

Estimate lifetime: 1.5 to 3 years

Recommendation: Perform visual check every week to

make sure there is no crack near the ends.





23. Grabber hydraulic hoses

Location: Grabber assembly

Quantity: 4

Estimate lifetime: 1.5-3 years

Recommendation: Perform visual check every week to make sure there

is no crack near the ends.



The estimated life cycle indicated above may vary depending of the maintenance quality and frequency done by the customer. Those values are for reference only and shall not be use for warranty claim justification, they have been estimated for 1200 carts pick up per day, 5 days per weeks in ideal conditions. Preventive maintenance reduces the production down time and can prevent major oil spills. Each customer should develop its own maintenance schedule according to its database and past experiences.

During the hydraulic cylinder warranty period, new or rebuilt cylinders should be installed. Seal kits should not be installed during the cylinder warranty period unless authorized by the Warranty Coordinator.



List of items subject to be replaced

	Right Hand model #			
	BCB01100-04	BCB01100-05	BCB01100-06	BCB01100-07 to -09
1	HYV30201	HYV30201	As previous version	As previous version
2	HYV30182 (bearing ass'y) S-SC112-16916 (shaft)	As previous version	143250 (bearing ass'y) 154712 (shaft)	As previous version
3	HYC00179-01 (cylinder) HYJ00179-01 (seals kit)	As previous version	As previous version	HYC00231 (cylinder) HYJ00179-01 (seals kit)
4	155698	As previous version	As previous version	As previous version
5	S-TEF-14-2-2-21 HYV30225	As previous version	As previous version	As previous version
6	BCB10039 (item discontinued)	As previous version	HYC00951 (cylinder) HYJ00951 (seals kit)	As previous version
7	S-GS258-114	As previous version	As previous version	As previous version
8	Q-0111 Q-0112	As previous version	As previous version	As previous version
9	HYV30062	As previous version	As previous version	As previous version
10	143308 (bushing) HYV30064 (bearing)	As previous version	As previous version	As previous version
11	Refer to parts manual	BCB01424	As previous version	As previous version
12	HYV30066	As previous version	147280	As previous version
13	HYV30066	As previous version	97087	As previous version
14	BCB10029	As previous version	As previous version	As previous version
15	HYV30099	As previous version	As previous version	As previous version
16	HYV30066	As previous version	As previous version	As previous version
17	HYC30101 (cylinder) 153003 (seals kit)	As previous version	As previous version	As previous version
18	S-TM114-34-58 (bushing) QUR01216 (bearing)	As previous version	As previous version	As previous version
19	Refer to parts manual	As previous version	143038	As previous version
20	Refer to parts manual	As previous version	BCB01485	As previous version
21	Refer to parts manual	Refer to parts manual	Refer to parts manual	Refer to parts manual
22	Refer to parts manual	Refer to parts manual	Refer to parts manual	Refer to parts manual
23	Refer to parts manual	Refer to parts manual	Refer to parts manual	Refer to parts manual

Part numbers indicated above are for reference only and shall be validated with Labrie service support before ordering. Some upgrade modifications could have been done on your arm model and parts numbers do not match. Numbers could also have been replaced by new numbers.