**Step-by-step procedure to install a Carrier on the Strongback**

1. Clean-up surfaces
2. Start with the carrier #2 (center).
3. Using rail matching table, find appropriate V-rail and M-rail for bottom of the carrier, record the quadrant # and carrier # into the table.
4. Attach end plates to the both sides of the rails.
5. Clean-up the mating surfaces on the V-rail.
6. Wet two 0.001” shims with alcohol and place them on the lower part of the strongback.
7. Place the V-rail on the strongback and secure it with 2 M8x50 screws at the ends. Make the screws hand-tight.
8. Place the roller cassette on the rail.
9. Clean the M-rail up and place it on top of the V-rail. Move the M-rail back and forth to let rollers find the right position.
10. Set-up the carrier on a cart, attach the lifting fixture to it.
11. Clean the top mating surface with alcohol.
12. Using rail matching table, find appropriate M-rail and V-rail for top of the carrier, record the quadrant # and carrier # into the table.
13. Clean-up the mating surfaces on the M-rail, place it on the carrier and secure with 10 M8x45 screws. Make the screws hand-tight.
14. Place the roller cassette on the rail.
15. Clean up the V-rail and place it on top of the M-rail. Attach end plates to the rails on one side only. To the other side attach the rail motion restraining plate.
16. Install rail pre-loading screw. The screws should be ~ 0.6” above the strongback surface.
17. Wet two 0.001” shims with alcohol and place them on the top part of the strongback.
18. Have load positioner on the hook.
19. Lift carrier with the crane.
20. Position the carrier by crane next to the strongback, ~1/4” above the target location. Use the load positioner to lower the carrier and push it into the place.
21. Insert 2 M8X50 screws into the holes next to the shims and hand-tight secure the top rail on the strongback. Move carrier back and forth slightly to make holes into the right place.
22. Install 10 M8X45 screws on the front lower part of the carrier. Make them hand-tight.
23. Disconnect the lifting fixture.
24. Replace the rail motion restraining plate with the end plates.
25. Move the carrier back and forth to set the rollers.
26. Torque the rail pre-loading screws to 5 N-m.
27. Torque all 20 screws on the frond and 4 screws on the back to 5 N-m.
28. Slightly (1/16 turn or less) lose the pre-load screws.
29. Slightly (1/16 turn or less) lose the screws on the front and back.
30. Re-torque pre-load screws to 5N-m in zig-sag pattern.
31. Re-torque front and back screws to 5N-m in zig-sag pattern.
32. Check the carrier motion by moving it back and forth. Leave it in the middle. The carrier #2 has being installed.
33. Do items 1 to 5 for Carrier #1.
34. Wet two 0.025” shims with alcohol and place them on the lower part of the strongback.