

# SERVICE MANUAL BULLETIN

This Service Manual Bulletin is prepared by the Publications Department of New Flyer Industries Canada ULC. Refer to details below.

## SMB-184

ISSUE DATE: April 30 2019

APPLICABILITY					
VEHICLE LENGTH	<input type="checkbox"/> 30ft.	<input type="checkbox"/> 35ft.	<input type="checkbox"/> 40ft.	<input type="checkbox"/> 60ft.	<input checked="" type="checkbox"/> ALL
VEHICLE TYPE	<input type="checkbox"/> Xcelsior®	<input type="checkbox"/> MiDi®	<input type="checkbox"/> Invero®		<input checked="" type="checkbox"/> ALL
	<input type="checkbox"/> Low Floor	<input type="checkbox"/> High Floor			
FUEL TYPE	<input type="checkbox"/> Diesel	<input type="checkbox"/> Diesel/Electric	<input type="checkbox"/> CNG	<input type="checkbox"/> LNG	<input checked="" type="checkbox"/> ALL
	<input type="checkbox"/> Fuel Cell	<input type="checkbox"/> Trolley/Electric	<input type="checkbox"/> Battery/Electric		
SUBJECT	Corrosion Protection - Galvanized Coated Structures				
SECTION TITLE	Preventive Maintenance 11- Structures & Chassis				
DETAILS	<p>This bulletin provides additional information and inspection requirements for galvanized coated components installed on your New Flyer vehicle.</p> <p style="text-align: center;"><b>NOTE:</b></p> <p style="text-align: center;"><i>New Flyer Industries requires that the inspection, maintenance and record keeping requirements covered in this document be performed. Failure to perform these procedures may void the corrosion warranty on affected units</i></p> <p><b>This bulletin supersedes any prior information on this subject already provided in your New Flyer Service Manuals. Make this Service Bulletin available to service personnel to inform them of changed information.</b></p>				

## 1. Galvanized Coated Structures

Certain rack structures are located in areas that are more prone to corrosion and require additional protection in the form of a galvanized (zinc) coating.

The following galvanized components are found on New Flyer vehicle configurations:

- Rear Suspension Beam. See “Fig. 1-1: Rear Suspension Beam.”

- Rooftop Fuel Tank Racks. See “Fig. 1-2: CNG Tank Rack.”
- Rooftop and Rear ESS Battery Racks. See “Fig. 1-3: Rooftop ESS Battery Rack.”
- Rooftop Inverter and Electronics Racks. See “Fig. 1-4: Rooftop Inverter Rack.”

### 1.1. Galvanized Coated Inspection

All galvanized coated structures and racks on the vehicle require a yearly inspection and cleaning to maintain the corrosion protection properties.

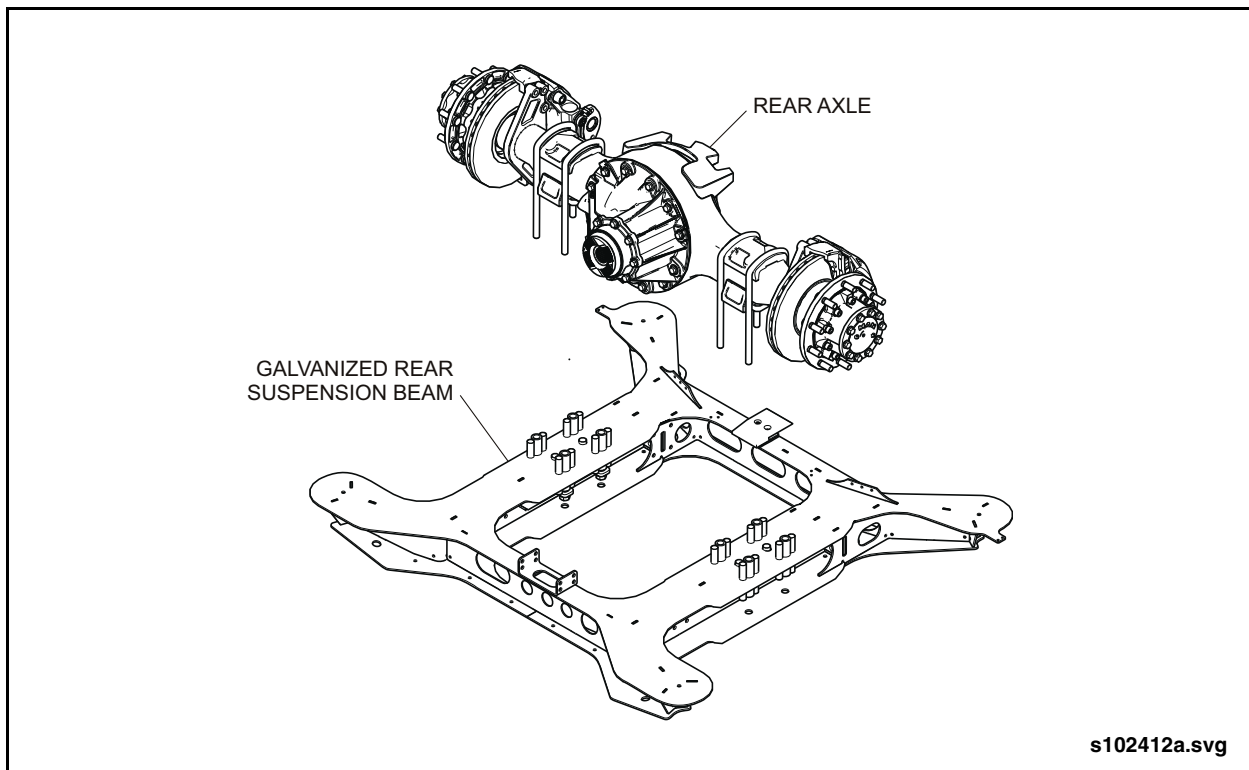


Fig. 1-1: Rear Suspension Beam

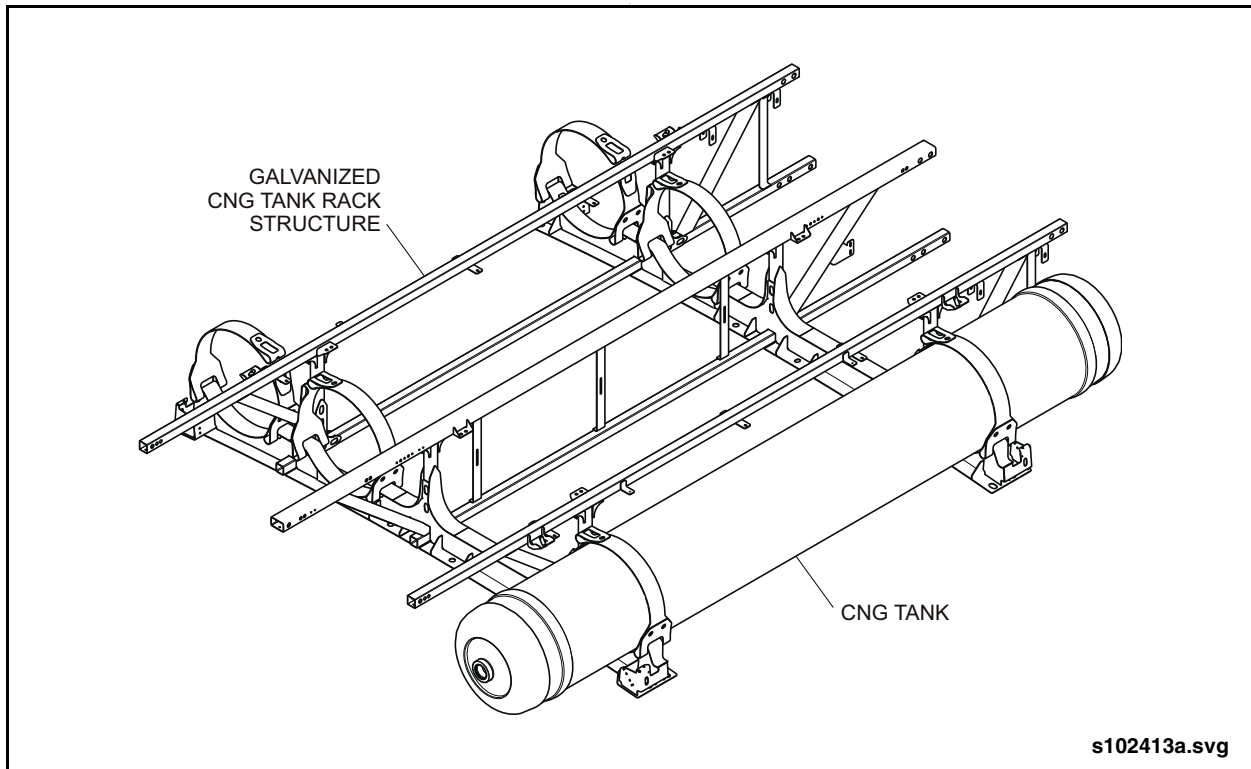


Fig. 1-2: CNG Tank Rack

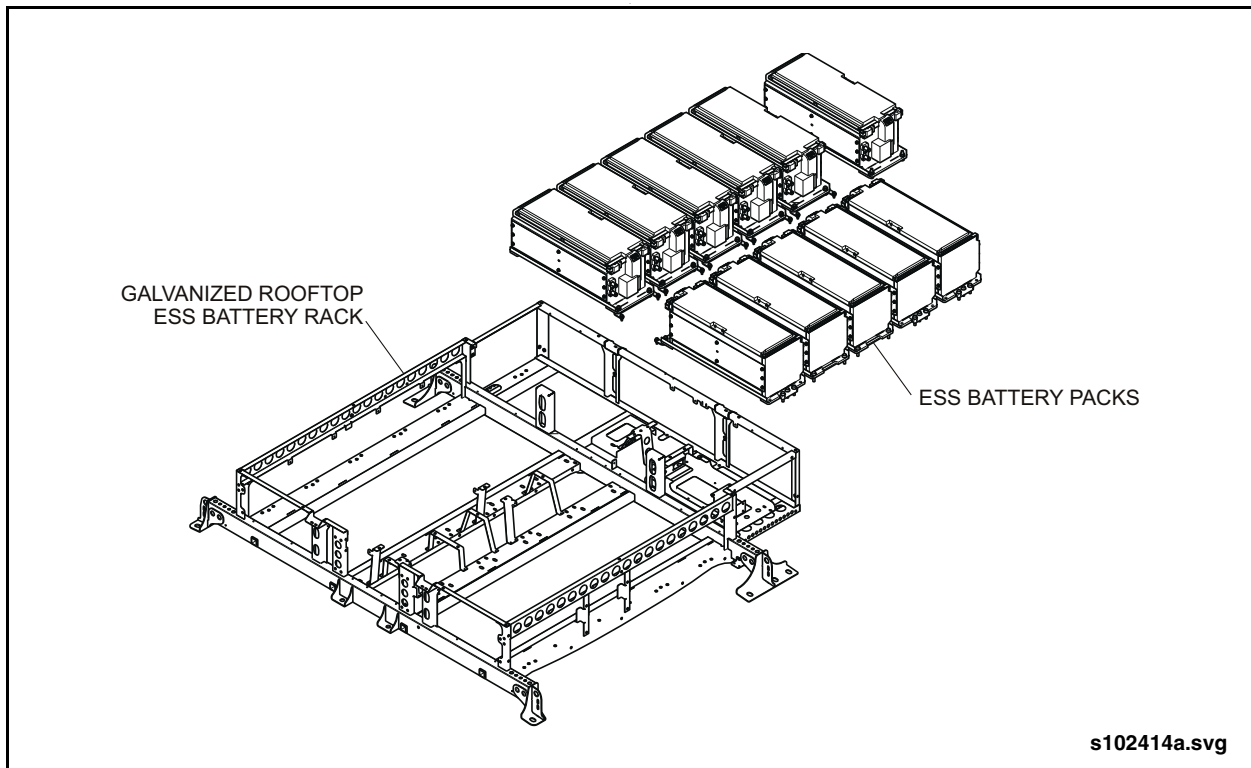


Fig. 1-3: Rooftop ESS Battery Rack

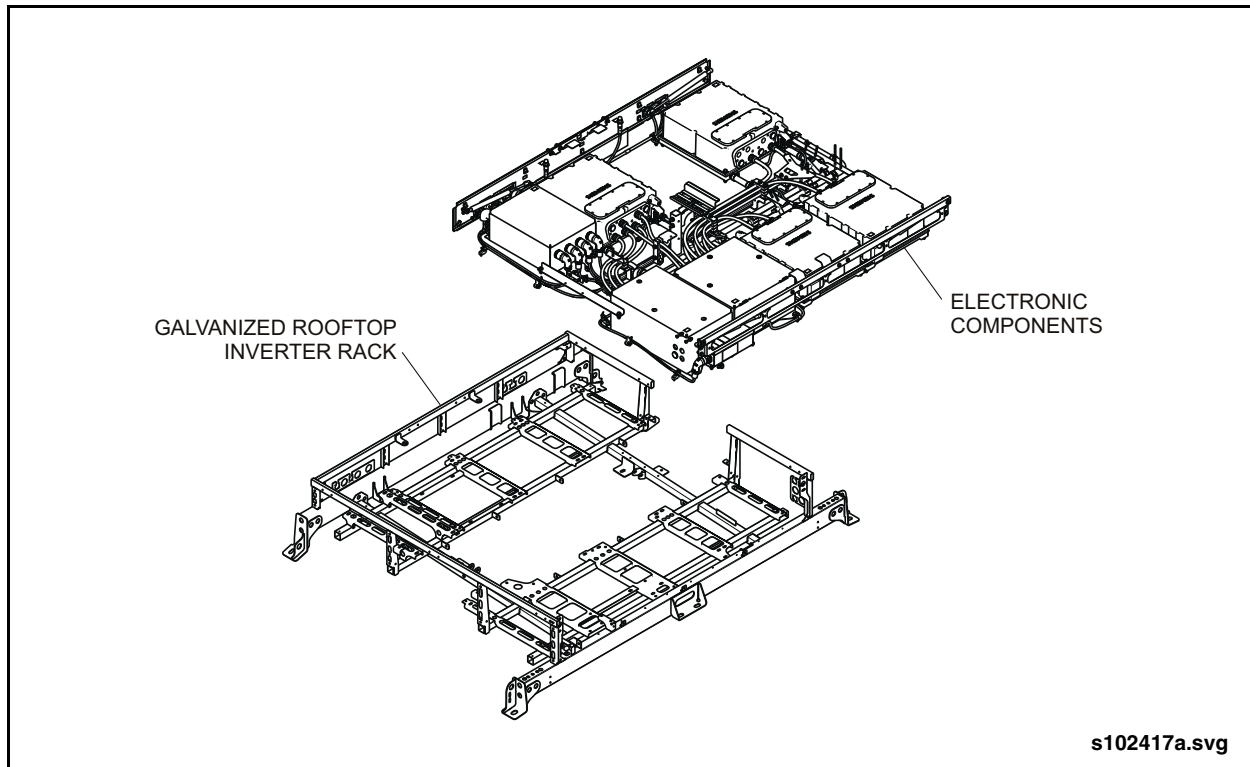


Fig. 1-4: Rooftop Inverter Rack

### 1.1.1. Inspection

 **NOTE:**

*The following inspection applies to all galvanized structures on the vehicle.*

1. Gain access to the structure being inspected. If necessary, raise vehicle and/or remove compartment access covers.
2. Inspect the access cover or doors, as applicable, to ensure the rubber seals are properly fitted and in good condition.
3. Inspect any associated hinges or latches on the compartment doors. Spray hinges, pins, and latches with Krown T-40 rust protection or Krown KL-FSM lubricant.
4. Inspect along all sides of the galvanized steel structure for any evidence of corrosion. See "Fig. 1-5: Wet Storage Stains."

 **NOTE:**

*Zinc corrosion will change the appearance of the galvanized coating from a gray smooth finish to a surface with white or gray powdery deposits known as wet storage stain*

5. Assess the level of wet storage staining and proceed as follows:

- a. Light wet storage stains - thin, light powdery stains are, for the most part, superficial and will not compromise the corrosion protection properties of the zinc coating. Refer to 1.1.2.1. "Light Cleaning" on page 6 in this section for light cleaning procedures.
- b. Medium wet storage stains - heavier powdery stains do not indicate serious degradation of the zinc coating but should be removed. Refer to 1.1.2.2. "Medium to Heavy Cleaning" on page 6 in this section for medium cleaning procedures.
- c. Heavy wet storage stains - thick corrosion products that appear crusty or bubbly must be removed immediately in order to avoid severe damage to the underlying zinc coating. Refer to 1.1.2.2. "Medium to Heavy Cleaning" on page 6 in this section for heavy cleaning procedures.

- d. Inspect any zinc-primed brackets or other parts that are attached to the galvanized rack. If rust is evident, clean and re-apply primer. Refer to 1.1.2.3.

“Zinc-Primer Parts Cleaning & Reapplication” on page 6 in this section for procedure.

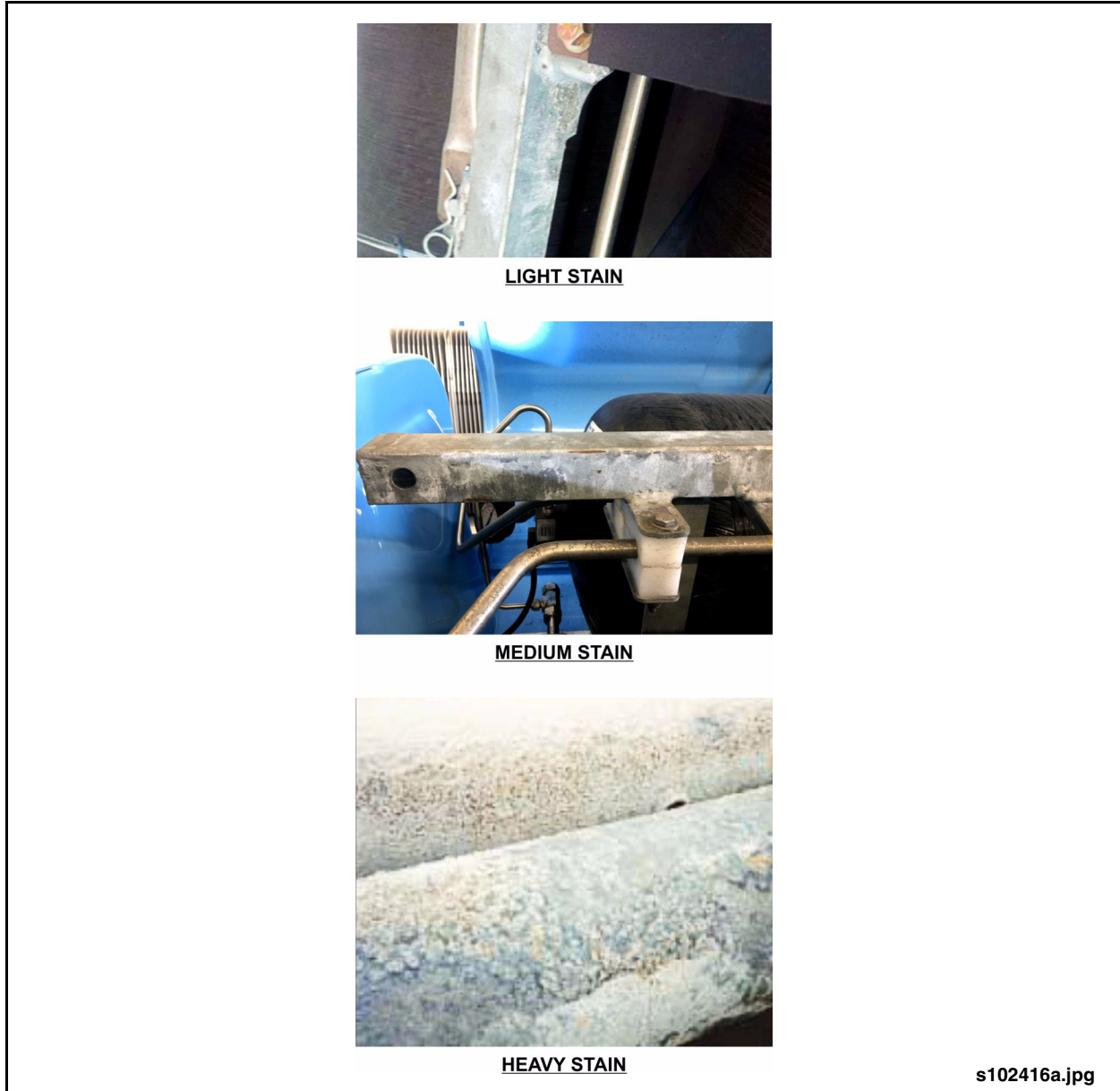


Fig. 1-5: Wet Storage Stains

**1.1.2. Cleaning**



**Observe all workplace safety standards and procedures. Wear safety glasses and protective gloves when working with chemicals. ALWAYS follow the manufacturer's instructions for product use.**

Depending on the level of the wet storage stain, proceed with either the light cleaning or heavy cleaning process.

**1.1.2.1. Light Cleaning**

Use a stiff nylon brush and scrub the affected surface. Hard scrubbing may be required to remove all traces of the stain.

**1.1.2.2. Medium to Heavy Cleaning**



**Ensure the work area is properly ventilated when working with cleaning chemicals. ALWAYS follow product manufacturer's application instructions.**

Any of the following readily available products may be used to clean medium to heavy staining:

- CLR
- Lime Juice
- Naval Jelly Rust Dissolver (light and medium stains only)
- Picklex 10G
- White Vinegar

Clean the affected area as follows:

1. Use a stiff nylon brush to apply the cleaning product. Use a little cleaning chemical as possible to scrub off the wet storage stain.
2. Rinse the surface thoroughly with fresh water as soon as the stain is removed.
3. Dry the surface immediately.

**1.1.2.3. Zinc-Primer Parts Cleaning & Reapplication**

Use either of the following methods to clean rust from parts and reprotect surface:

**Mechanical Cleaning**

1. Wire brush the rusted area down to bare metal.
2. Apply zinc primer, using two to three light coats to achieve 3-4 mils of dry film thickness. Refer to Section 11 of your New Flyer Service Manual for procedure.

**Chemical Cleaning**

1. Use a stiff nylon brush to remove any loose rust.
2. Apply any of the following products to remove the rust:
  - CLR
  - Lime Juice
  - Naval Jelly Rust Dissolver (light and medium stains only)
  - Picklex 10G
  - White Vinegar
3. Rinse and dry the surface.
4. Apply two light coats of Rust Bullet.