NEW FLYER

INSTRUCTION TO SERVICE

ITS: 58843	
SECTION:	400 Structure
WRITTEN BY:	Jeff Kosheluk
SUBJECT:	Weld repair cracks as required at def tank bracket. Add reinforcement bracket at def. tank bracket area.

ITS 58843

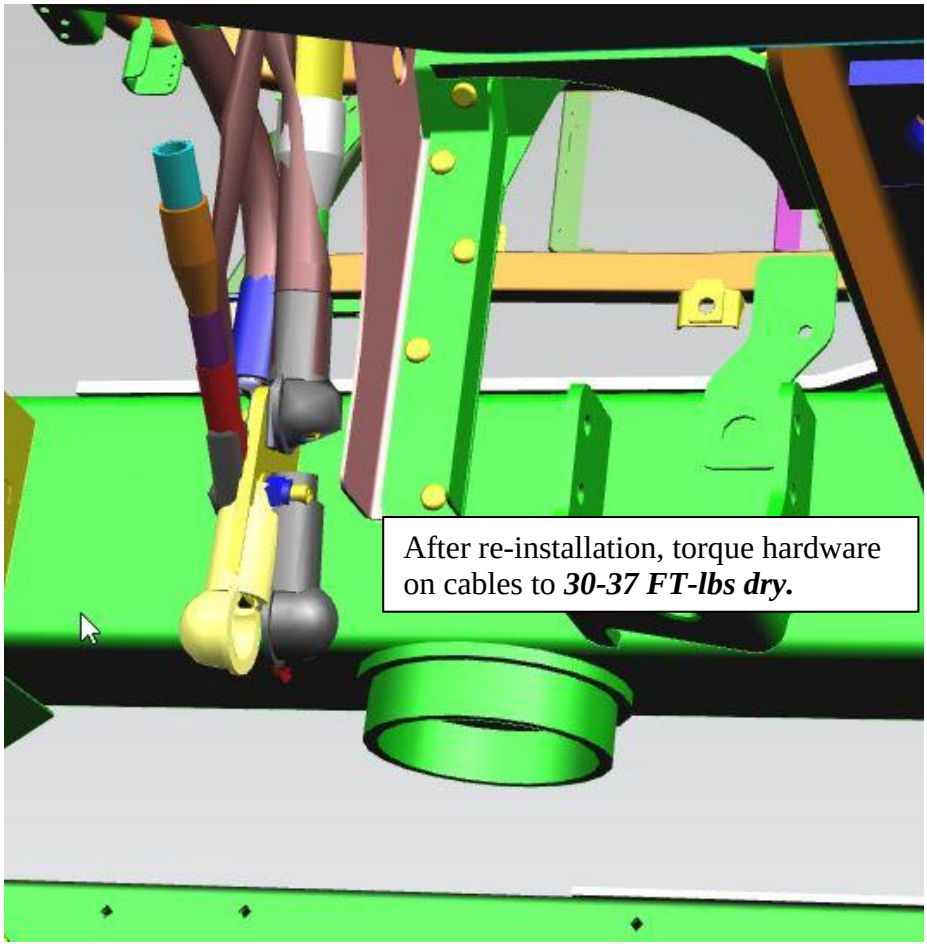
THIS ITS DOCUMENT SHOULD BE RETAINED AND REFERED TO FOR FUTURE MAINTENANCE UNTIL THE NEW FLYER PARTS AND/OR SERVICE MANUAL IS UPDATED TO REFLECT WORK DONE AS A RESULT OF THIS DOCUMENT. ENSURE THAT THIS DOCUMENT IS AVAILABLE FOR PARTS AND MAINTENANCE STAFF GOING FORWARD.

PROCEDURE:

1. Turn the main battery disconnect switch to the “OFF” position.

   Note: Follow instructions in the service manual for PPE equipment and safety procedures when working on the bus. Safety harnesses must be worn when working on top of the roof.

2. Remove any components and disconnect any electrical that will be in the way.



3. If there are no weld cracks, proceed to Part B.

Note: For the weld crack procedure below, this will only be completed on buses that have a crack that requires to be re-welded.

PART A: WELD PREPARATION OF ALL AREAS THAT REQUIRE WELDING FOR CRACK REPAIRS (AS REQUIRED).

☞ **NOTE: The following instructions cover all these processes; use discretion as to which processes are required. Following the welding sheets as per Appendix C.**

⚠ **WARNING: Ensure the following components are disconnected before welding:**

- **Battery cable**
- **Engine ECM – disconnect vehicle interface harness connector**
- **Transmission ECU – disconnect vehicle interface harness connector**
- **Vansco Multiplexing Modules (VMM) – disconnect all modules**
- **Destination sign – disconnect vehicle interface harness connector**
- **HVAC controller (if equipped) – disconnect vehicle interface harness connector**
- **Auxiliary heater (if equipped) – disconnect vehicle interface harness connector**
- **3 connection points on the DPIM on the roof – P1120, P1121 & P1122**
- **Disconnect components for the BAE equipment**

⚠ **WARNING: The following safety equipment must be available at the work station:**

- **Safety shields must be set up around the weld area to protect against flash hazards**
- **Fire extinguishers must be kept at each work station. Each operator should know the location of the extinguisher and how to operate it**

Note: Use welding blankets around the area that will be welded to prevent damage to any components. Including all electrical and airlines.

4. Using a wire wheel or a similar tool, remove all zinc primer and Sika sealant from the areas to be welded. Clear a minimum of 2” around the areas to be welded. Be thorough; weld contamination must be minimized.

   a. All welding must comply with American Welding Society (AWS) standards.

5. Locally clean repair area's with vacuum to remove dust and debris. Wipe the weld areas clean with a clean lint free cloth.
6. Repair cracked tube/bracket as per Appendix B to drill stop, groove and weld. Weld as per Appendix A & C. Note: This is only if crack is seen.

SR2011 – Vehicle #1257 (10/23/2019)

7. Clean all welds to allow for application of zinc primer. Visually inspect for weld defects such as undercut, porosity, etc.; repair as required. Remove any sharp edges or significant spatter.

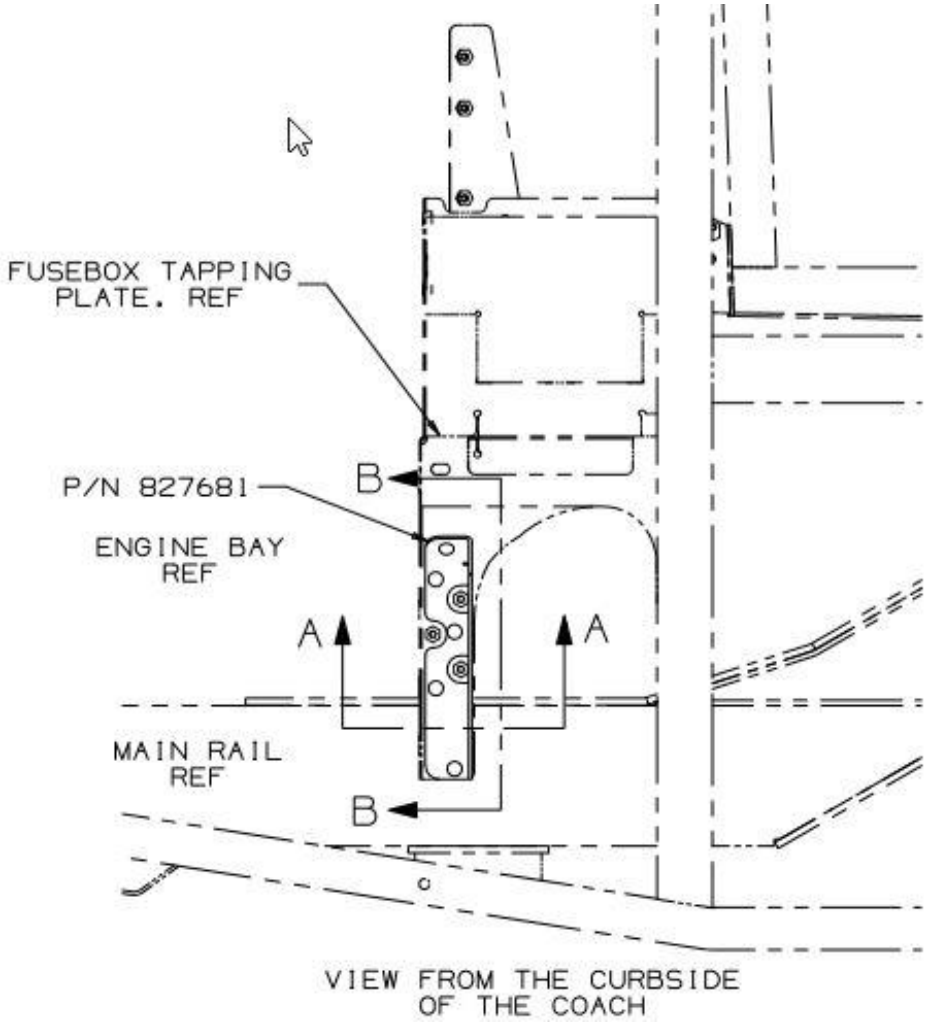
   ☞ **NOTE: Visual inspection of all tubes in the area must be performed once welding is complete. This is to ensure that all cracks have been repaired, the tubes and gussets have been correctly installed, and no further cracking has occurred.**

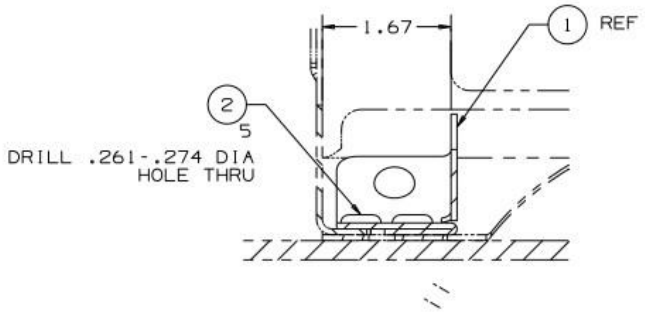
8. Once all welding is completed, clean surface of the tubes with mineral spirits. Let it flash off for 5 minutes. Scuff the surface area of the new metal or the area that has been welded with a scotch pad for proper adhesion. Follow instructions on **Appendix D** to apply zinc primer. Apply 2 to 3 light coats.

9. Remove welding blanket (fire blanket) from work area. Inspect all electrical/airlines and components to ensure that there is no damage.

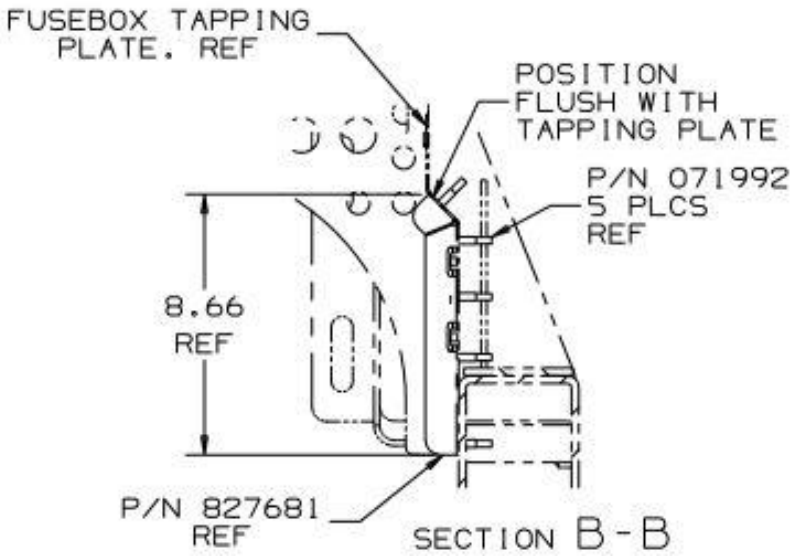
PART B: ADD ON RE-INFORCEMENT BRACKET TO DEF TANK MTG

10. Clean the area to remove debris and undercoating from the surface area to install the new support bracket **(PN: 827681)** to ensure a good riveted joint.
11. Position the bracket in place and mark out the hole locations. Refer to Figure 1.





SECTION A-A
SCALE 1:1



SECTION B-B

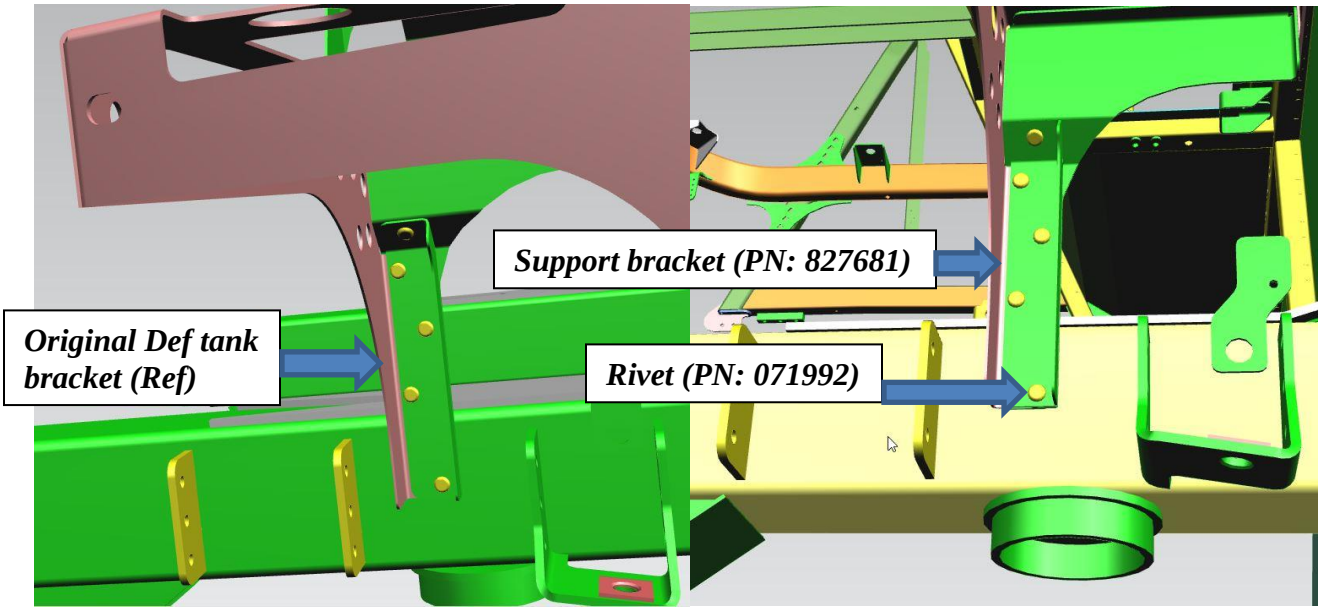


FIGURE 1: VIEW OF INSTALLATION OF THE DEF TANK SUPPORT BRACKET

12. Drill 0.261-.0274" diameter hole, secure bracket and install rivet **(PN: 071992)**. Crimp rivet in place.
13. Repeat process for the remaining 4 holes and install the remaining rivets.
14. Re-install any components and electrical harnesses at the ground plate. If re-connecting harness cables to ground plate, clean to bare metal and torque to ***30 -37 FT/LBS dry***. Add di-electric grease after torqueing connections.

Note: For application of the zinc primer and undercoating, refer to Appendix D & E for application and TD sheets.

15. If there is any bare metal around the area, touch up zinc primer and apply 2 thin coats. Follow Appendix D for application instructions.
16. After primer has dried, apply at least 2 thin coats of undercoating. Follow application instructions in Appendix E.
17. Remove jack stands and lower the bus per the service manual.

    Note: Only trained personnel can operate lifts. Follow safety instructions written on the lift and NF service manual.

18. Turn the main battery disconnect switch to the “ON” position.
19. Fill in the ITS implementation sheet. One form must be completed for every unit that is serviced. This should be included with the claim form when the bus has been completed.

IMPLEMENTATION OF NEW FLYER ITS 58843

Bus Number: _____

Hub Reading: _____

Date Work Completed: _____

Assigned Welder: _____ (if required)

Service Tech: _____

Maximo Mileage: _____

New Flyer Industries hereby certified that the repairs completed on this bus were completed in accordance with approved ITS 58843 and the bus is structurally fit for service.

NF Representative: Date:

_____ _____

Weld or Service Technician: Date:

_____ _____

Appendix A

Stainless Steel welding procedure

I. Temperature of steel parts to be welded must be at or above 68°F (20°C) before welding.

II. Gas-shielded MIG welder using 308LSi wire. MIG shielding gas must conform to AWS D1.6 (98%Ar - 2%CO2 recommended).

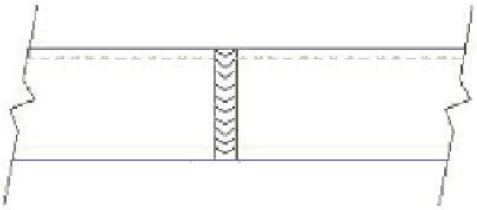
III. It is recommended to clean the area after welding with a stainless steel brush to remove oxidation.

APPENDIX B

WELD CRACK REPAIR PROCEDURE

(USE ONLY IF REQUIRED)

Locate the crack site



Ensure root opening as specified in applicable WPDS. Weld all cracks.

***NOTE:* DRILL *0.25"* DIAMETER HOLE AT THE END OF THE CRACK.**

I. Determine origin and terminus of crack using either the Liquid Penetrant Test method or an equally positive means. Magnetic Particle Testing is not applicable on the austenitic stainless-steel component (#827849).

II. Excavate and remove entire crack with rotary grinding equipment. **Ensure underlying frame rail material is not engaged with excavation process.**

III. Welder shall meet qualifications for “all position” welding IAW CSA W59 standard qualification for metal arc welding and the requirements of the applicable WPDS.

IV. Ensure weld machine ground cable is attached within proximity to the weld zone.

Appendix C

Welding Information Sheets

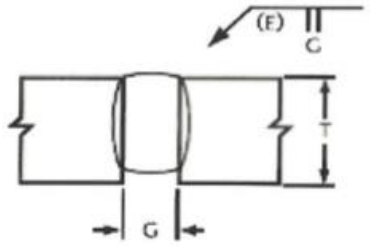
NEW FLYER

WELDING PROCEDURE DATA SHEET

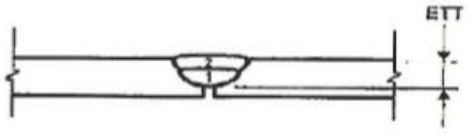
Company Name:	New Flyer Industries / New Flyer of America Inc			WPDS #:	3P-GSGa SS GMAW 035
711 Kernaghan Ave; Winnipeg, MB; R2C 3T4	6200 Glenn Carlson Dr; St Cloud, MN; 56301 USA	214 5th Avenue SW; Crookston, MN; 56716 USA	106 National Drive; Anniston, AL; 36207 USA	Date:	27-Feb-2017
				WPS:	NF-3
				Reference Standards:	CSA W47.1, AWS D1.6

Weld Process:	GMAW - Pulsed	Weld Position:	Vertical Down	Shielding Gas:	98%Ar-2%CO_2
Base Material:	Austenitic Stainless Steel per Table 5.2 AWS D1.6	Process Mode:	Semi-Automatic	Shielding Gas Flow Rate:	30-35 CFH
		Preheat Temperature:	50° F min	Interpass Temperature (min):	50° F
Filler Metal:	AWS 5.9; ER308LSi			Interpass Temperature (max):	N/A

Typical Joint Preparation:



Typical Pass and Layer Sequence:



Joint Dimensions:					
G:	0.035	Electrode Stickout:	3/8" ± 1/8"	Weld Type:	PJP Square Groove
Q:	N/A	Nozzle Diameter:	5/8" - 3/4"	Joint Type:	Butt / Corner / Edge
Root Face (Rf):	N/A	Current Polarity:	DC+	Pulse Program:	Miller 'Pulsed MIG' (Invision 350 MPa Power Source)

Material Thickness (t) (in)	Weld Size / ETT (in)	Number of Layers	Number of Passes	Electrode Diameter (in)	Peak / Background Current (A):	RMS Current (A)	Wire Feed Speed (in/min)	Voltage (V)	Travel Speed (in/min)
0.06 (16 ga)	0.060	1	1	0.035	200 / 100	150 - 180	425 - 475	21.5 - 24.5	18 - 24
0.075 (14 ga)	0.075	1	1	0.035	200 / 100	150 - 180	425 - 475	21.5 - 24.5	18 - 24
0.105 (12 ga)	0.105	1	1	0.035	200 / 100	150 - 180	425 - 475	21.5 - 24.5	18 - 24
0.120 (11 ga)	0.120	1	1	0.035	200 / 100	150 - 180	425 - 475	21.5 - 24.5	18 - 24
0.135 (10 ga)	0.135	1	1	0.035	200 / 100	150 - 180	425 - 475	21.5 - 24.5	18 - 24
0.187 (7 ga)	0.160	1	1	0.035	200 / 100	150 - 180	425 - 475	21.5 - 24.5	18 - 24

Revision Date:	Initials:	Explanation:
27-Feb-2017	BSE	Original WPDS
Per PQR 68BH1707260613 (macros)		
Per PQR 68BH1707230725 (mechanicals)		
Prepared by: BSE Welding Engineering Ltd		

Company Authorization:

PROVINCE OF MANITOBA
B. S. ELLIS
Member
30408
REGISTERED PROFESSIONAL ENGINEER

CWB Approval:

On the basis of
PROCEDURE QUALIFICATION

CWB Accepted
November 02, 2017
Valid only if welding consumables are certified by the CWB

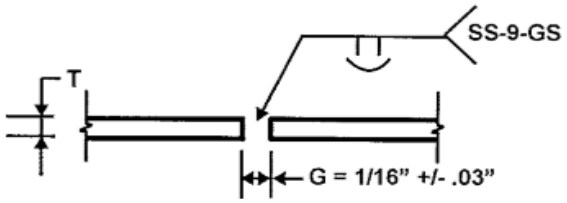
NEW FLYER

NEW FLYER INDUSTRIES
711 Kernaghan Avenue
Winnipeg, MB R2C 3T4

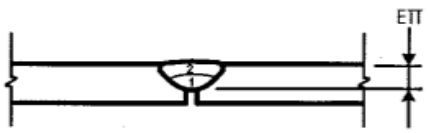
NEW FLYER USA
6200 Glenn Carlson Drive
St. Cloud, MN 58301

Date
27/10/05

Process	Position	Applicable Codes	W.P.D.S. NO.	
☐ SMAW ☐ FCAW ■ GMAW ☐ SAW ☐ GTAW	Vertical Down	AWS D1.6 CSA W47.1, W59	SS-9-GS **Welding Procedure Specification** NF-3	
	Polarity DC +	**ESO** 1/2"-5/8"	**Shielding Gas** 98% Ar. 2% CO_2	**Flow Rate** 32-40 CFH
Preheat temperature Preheat min. per CSA W59 Min. Interpass Temperature: 60^0F Max. Interpass Temperature: 200^0F		**Material** Austenitic Stainless Steel Per Table 3.2 AWS D1.6		**Electrode** ER308LSi



Typical joint preparation



Typical pass sequence

Complete joint penetration groove weld
☐ Back gouge to sound metal
☐ Welded onto other than steel backing
☐ Welded onto steel backing
☐ Welded both sides, no back gouge

☐ Fillet Weld
☐ Flare Bevel
☐ Flare Vee
■ Partial joint penetration groove weld

Joint type
■ Butt ☐ Tee
■ Corner ■ Edge
☐ Lap

Size T	Layer	ETT	Pass No.	Electrode Size	Amperes	Wire Feed Speed	Volts	Travel Speed
.060	1	.045	1	.035	131	310	18	25-28 ipm
.075	1	.050	1	.035	131	310	18	22-26 ipm
.100	1	.070	1	.035	131	310	18	20-24 ipm
.120	1	.080	1	.035	131	310	18	30-35 ipm
.134	1	.090	1	.035	166	400	22.5	28-32 ipm
.1875	1	.130	1	.035	166	400	22.5	31.3 ipm
.1875	1	*.093	1	.035	166	400	22.5	42.1 ipm
.250	1-2	.180	1-2	.035	166	400	22.5	18-22 ipm
	* Gap=.07							

Revision Date	Initials	Explanation
Oct 05	FAR	P35334
Oct 27/05	FAR	Settings for .120"

PROVINCE OF MANITOBA
F. A. ROBERTS
REGISTERED PROFESSIONAL ENGINEER

Welding Procedure Data Sheet
CWB Accepted to CSA W47.1
NOV 0 3 2005
Acceptance valid only when Welding Consumables certified by C.W.B.
(Cl. 11.8.1, CSA W47.1)

Appendix D

ZINC PRIMER

NF PN: 606945 & 638699

General Industrial

Technical Data Sheet

GANICIN™ 2.8 MC-U™ MOISTURE-CURED ZINC-RICH PRIMER

Ganicin™ 2.8 MC-U Moisture-Cured Zinc-Rich Polyurethane Primer

GENERAL

DESCRIPTION

A high solids, two-component, 2.8 lbs/gal VOC conforming, moisture-cured organic zinc-rich coating based on Axalta polyurethane technology. The resulting coating is designed to be highly durable and to deliver outstanding corrosion resistance.

SUGGESTED USES

As a high performance primer on carbon steel or as a touch-up for inorganic zinc coatings where:

- A coating with 85% zinc in the dried film with low VOC is required
- Spray application, or by brush when touch-ups may be necessary
- Application is recommended down to 35°F (2°C)
- No induction time and long pot life may improve productivity

Ganicin 2.8 MC-U is intended to be used as a primer and should be topcoated.

COMPATIBILITY WITH OTHER COATINGS

Ganicin 2.8 MC-U Moisture-Cured Zinc-Rich Primer may be topcoated with Corlar® epoxies and/or Imron® polyurethane Primers. Do not apply Imron polyurethane topcoats, directly to Ganicin 2.8 MC-U. Ganicin 2.8 MC-U may also be used to touch up inorganic and organic zinc-rich coatings. Testing for lifting, bubbling and adhesion is recommended to assure compatibility with unknown coatings. Contact your Axalta representative for specific recommendations.

NOT RECOMMENDED FOR

- Immersion service
- Exposure to acid or alkali environments without suitable topcoats

PERFORMANCE PROPERTIES

Chemical Excellent
Humidity Excellent
Water spray Excellent
Weather Excellent with durable topcoat
(will chalk if left untopcoated)

COLOR

Grey green

The products referenced herein may not be sold in your market. Please consult your distributor for product availability.

MIXING

COMPONENTS

63P1500 primer base 1 short fill gallon container (0.46 gallon)
347YB1500™ zinc dust 1 gallon container (13.4 lbs.)

MIX RATIO

Component Part by Volume
63P1500 primer base 1 container short fill (0.46 gallon)
347YB1500 zinc dust 1 container (13.4 lbs.)
NOTE: Mixed amount will makes 0.70 gallon.

ACTIVATION

Thoroughly stir 63P1500 primer, then slowly add 347YB1500 zinc dust with consistent agitation. After mixing, filter through a 40 mesh screen. Filter into an agitated spray pot. Constant agitation during application is recommended to prevent settling of zinc dust. Minimize contact with humid air.

Reduction

No reduction should be necessary. However, if conditions require thinning, Axalta 8685S™ may be used up to 5 oz./gal. To remain @ 2.8 lbs/gal VOC, use no more than 2 oz/gal.

APPLICATION THINNERS

Spray or brush: Axalta 8685S up to 2 oz./gal. may be added and still remain conforming at 2.8 lbs/gal VOC. Amounts up to 5 oz./gal. Max can be used if required for various application conditions. Use no alcohol-containing thinners.

POT LIFE

At least 8 hours if moisture is excluded, shorter in high humidity and temperature.

APPLICATION

SURFACE PREPARATION

An SSPC-SP 6 Commercial Blast Cleaning is preferred for optimal performance. For touchup over inorganic zinc, Hand Tool Clean to an SSPC-SP 2 or Power Tool Clean to an SSPC-SP 3 can be used. Note: You can prep surface by using 100 – 150 grit sand paper.

APPLICATION CONDITIONS

Do not apply if material, substrate or ambient temperature is below 35°F (2°C) or above 110°F (43°C). The substrate must be at least 5°F (3°C) above the dew point. Relative humidity should be below 90%. For best results, apply by spray. Product can be brushed for small spot applications or repairs. Note that in high humidity, the coating will gradually accumulate on the brush.

BRUSH APPLICATION

Manufacturer: Wooster China Bristle - 3”- 4” brush

SPRAY APPLICATION

Manufacturers listed below are a guide. Others may be used. Changes in tip size or pressure may be required to achieve proper application.

Conventional Spray
Binks DeVilbiss
Spray Gun: 2001 JGA
Fluid Nozzle: 67SS FF (1.4)
Air Cap: 67PR 704

HVLP Spray
Binks DeVilbiss
Spray Gun: Mach 1 GTi
Fluid Nozzle: 94 (1.4) 1.4
Air Cap: 94P 2000

Airless Spray
Pump: Graco Extreme 33:1
Airless Gun: Graco 946853
Fluid Hose: 3/8" x 100' max.
Tips: 415-517RAC
Minimum pressure to avoid fingering: 2400 psi min.

Application Notes

- Must be agitated during application.
- For conventional air spray, fluid lines should be 0.5” inner diameter and 25-50’ long maximum.
- For best results, keep pressure pot at the same height as the work.
- Apply a full, wet coat. Try not to exceed specified film build thickness.

CLEAN UP THINNERS

Axalta 8685S

DRY TIMES

Cure time at recommended thickness 3 mils DTF @ 50% RH

77°F (25°C)

To touch 30 minutes
Re-coat 2 hours
Handle 3-4 hours
Note: May be overcoated with itself up to 3 days (72 hours) after initial application.

PHYSICAL PROPERTIES

Maximum Service Temperature 250°F (121°C) in continuous service
350°F (177°C) in intermittent service
Volume Solids 62% ± 2%
Weight Solids 89% ± 2%
Theoretical Coverage Per Gallon 994 ft² (24.4 m²/L) @ 1 mil DFT
330 ft² (8.1 m²/L) @ 3 mils DFT
Material losses during mixing and application will vary and must be taken into consideration when estimating job requirements.
Weight Per Gallon 24.8 lb average | 11.2 kg. average
Shipping Weight (approximate) 1 gallon container: liquid 3.8 lbs | zinc 13.4 lbs
Suggested Film Thickness 5 mils (125 µm) wet
3 mils (75 µm) dry
Application by brush and roller may require additional coats to achieve recommended films thickness.
Flash Point: (Tag Closed Cup) 100°F (38°C)
Gloss Flat
Package Size 1 container
Shelf Life 1 year minimum

STORAGE CONDITIONS

Store in a dry, well-ventilated area. Storage conditions should be between -30°F (-34°C) and 120°F (48°C).
Moisture-cured zinc-rich primer liquid may settle. Agitate before each use. To prevent pressure build-up after mixing, do not store in sealed containers.

VOC REGULATIONS

VOC (Theoretical, varies with color).
Moisture cured zinc-rich primer; unreduced 2.76 lbs/gal (332 g/l)
These directions refer to the use of products which may be restricted or require special mixing instructions in VOC regulated areas. Follow mixing usage and recommendations in the VOC Compliant Products Chart for your area.

General Industrial

Technical Data Sheet

GANICIN™ 2.8 MC-U™ MOISTURE-CURED ZINC-RICH PRIMER

ASTM INFORMATION

Physical properties are for Ganicin 2.8 MC-U Moisture-Cured Zinc-Rich Primer. For other system results, contact Axalta Coating Systems.
Paint System: Ganicin 2.8 MC-U
Type | Color: Moisture-cure organic zinc-rich |Gray green
DFT: 2.8 mils
Salt Fog (ASTM B117) 1000 hours no rusting, no blisters
2000 hours no rusting, no blisters
3000 hours no rusting, few #8 blisters at the scribe, no undercutting at the scribe
Relative Humidity (ASTM D2247) 1000 hours no rusting, no blisters
2000 hours no rusting, no blisters
3000 hours no rusting, no blisters
Dry Heat (ASTM D2485) 250°F for 24 hours no cracking, no blisters, moderate loss of adhesion, no discoloration

Electrical Resistance: $1x10_{10}$ (OHMS)
Adhesion (ASTM D4541): 2406 psi cohesive failure within the coating
Cleveland Cond (ASTM D4585): 1000 hours no rusting, no blisters
UV Con (ASTM D4587)* 3000 hours Gloss before exposure: 2
Gloss after exposure: 0.9
Evaluation no rusting, no blisters, no delamination
Mandrel Bend (ASTM D522): % Elongation – 5-10% (on smooth eCoat)
Taber Abrasion (ASTM D4060): weight loss in grams - 0.14
*8 hr UV @ 122°F (50°C), 4 hr condensation @ 104°F (40°C), gloss readings @ 60°

SAFETY AND HANDLING

For industrial use only by professional, trained painters. Not for sale to or use by the general public. Before using, read and follow all label and MSDS precautions. If mixed with other components, mixture will have hazards of all components. Ready to use paint materials containing isocyanates can cause irritation of the respiratory organs and hypersensitive reactions. Asthma sufferers, those with allergies and anyone with a history of respiratory complaints must not be asked to work with products containing isocyanates.
Do not sand, flame cut, braze or weld dry coating without a NIOSH approved air purifying respirator with particulate filters or appropriate ventilation, and gloves.

Revised: June 2015

In the United States:
1.855.6.AXALTA
axalta.us

In Canada:
1.800.668.6945
axalta.ca

APPENDIX E:

UNDERCOATING

NF PN: 606947

Transportation

Technical Data Sheet

TUFCOTE™ UC-1000™

Tufcote™ UC-1000™
Waterborne Chip Resistant Undercoat

GENERAL

DESCRIPTION

A single-component, waterborne, zero VOC, semi-firm coating designed to deliver premium performance to resist chipping, scratches and gravel marks for use on the underbody of truck, trailer, bus, body builder and other transit vehicles. It is formulated to provide excellent adhesion, hardness and may be applied at film thickness up to 15 mils. It is available in three factory packaged colors: black, off-white, and grey.

SUGGESTED USES

· Recommended for use on underbody of truck, trailer, bus, body builder and other transit vehicles where premium quality attributes for corrosion prevention and chip resistance are desired.

· Formulated to provide excellent adhesion, hardness and durability to most substrates including primers, e-coat and oily steel.

COMPATIBILITY WITH OTHER COATINGS

· Compatible with most urethane, acrylic or alkyd resin formulated transportation quality topcoats

COLOR

UC-1001™ Black
UC-1003™ Grey
UC-1006™ White

MIXING

COMPONENT

Tufcote UC-1000 Waterborne Chip Resistant Undercoat

MIX RATIO

Mixing or thinning not required. Mild agitation is recommended prior to use.

ADDITIVES

None recommended.
DO NOT THIN. Incorrect thinning will affect film build, dry time and product performance.

APPLICATION

SURFACE PREPARATION

The maximum performance of Tufcote UC-1000 can be achieved only when the metal surfaces to be protected are clean, dry, and free of rust, oil, and mill scale.

APPLICATION CONDITIONS

Do not apply if material, substrate or ambient temperature is less than 50°F (10°C) or above 95°F (35°C) at the time of product application.

APPLICATION EQUIPMENT

Airless spray
Dip

Transportation

Technical Data Sheet

TUFCOTE™ UC-1000™

APPLICATION

- Tufcote UC-1000 is formulated to be used as supplied.
- Ensure uniform consistency prior to use. Continued stirring is generally not required.
- If the product thickens due to cold storage or loss of water and coalescing solvent during use, contact an Axalta representative.
- DO NOT THIN. Incorrect thinning will affect film build, dry time and product performance.
- Recommended ambient and product temperature should be 50 - 95ºF (10 - 35ºC) at time of application.
- Product can be airless spray or dip applied.

RE-COAT

- Tufcote UC-1000 may be recoated with most urethane, acrylic or alkyd resin formulated transportation topcoats.

REMOVAL

The dry film is not normally intended for removal. The product can be repainted after the film is cured. Citrus or alkaline cleaner will remove fresh residue accumulated on application equipment. If removability is a factor, contact an Axalta representative.

CLEAN UP SOLVENTS

Citrus or alkaline cleaner

DRY TIMES

Approximate Dry Time At Recommended Thickness @ 77°F (25°C)
Air dry 30 – 60 minutes
Cure Time 72 hours

- Adequate ventilation is required for cure and to ensure against formation of a combustible liquid atmosphere.
- THE PARTIALLY CURED FILM SHOULD NOT BE EXPOSED TO IGNITION SOURCES SUCH AS FLARES, FLAMES, SPARKS, EXCESSIVE HEAT, OR TORCHES.
- Refer to product Material Safety Data Sheet for additional handling and first aid information.

PHYSICAL PROPERTIES

	UC-1001	UC-1003	UC-1006
	Black	Grey	White
Density, Weight/Gallon @ 77ºF (25ºC)	10.5 ± 0.1 lbs	10.9 ± 0.1 lbs	10.9 ± 0.1 lbs
Recommended Dry Film Thickness over Metal Profile	10 - 15 mils	10 - 15 mils	10–15 mils
Dry Film Thickness Over Primed Steel	6 – 8 mils	6 – 8 mils	6 – 8 mils
Theoretical Coverage @ Rec. DFT	48-73 ft²/gallon	75-95 ft²/gallon	80 ft²/gal
Non-Volatile % by Weight	55 ± 2	56 ± 2	54 ± 2
Non-Volatile % by Volume	45 ± 2	42 ± 2	50 ± 2
Gloss	Matte		
Shelf Life	12 months minimum		
Gravelometer, -20°C, SAE J-400, Pass, Excellent Rating			
GM-998-4247, GM9508P No Adhesion Loss			

Transportation

Technical Data Sheet

TUFCOTE™ UC-1000™

STORAGE CONDITIONS

Store in a dry, well-ventilated area. Storage conditions should be between 50°F (10°C) and 95°F (35°C). Mild agitation is recommended prior to use.
Do not allow product to freeze.

ASTM INFORMATION

5% Salt Spray (Hours) at 15 mils DFT
ASTM B-117 @ 6 to 10 Recommended DFT 2000
(2x4x1/8 in. CRS Panels)
100% Relative Humidity (Hours)
ASTM D-1748 @ Recommended DFT 1000
(2x4x1/8 in. CRS Panels)

VOC REGULATIONS

Volatile Organic Content (VOC) 0 lbs. / gallon

SAFETY AND HANDLING

For industrial use only by professional, trained painters. Not for sale to or use by the general public. Before using, read and follow all label and MSDS precautions. If mixed with other components, mixture will have hazards of all components.
Ready to use paint materials containing isocyanates can cause irritation of the respiratory organs and hypersensitive reactions. Asthma sufferers, those with allergies and anyone with a history of respiratory complaints must not be asked to work with products containing isocyanates.
Do not sand, flame cut, braze or weld dry coating without a NIOSH approved air purifying respirator with particulate filters or appropriate ventilation, and gloves.

Revised: February 2015

In the United States:
1.855.6.AXALTA
axalta.us

In Canada:
1.800.668.6945
axalta.ca

LABOUR ESTIMATE				
	Operation	Men	Hours	Labour Time M X HR
1	Bring in & set up coach. Connect & disconnect all electrical modules required. This includes the 3 connection points on the DPIM on roof (only if bus is Hybrid). Note: This is only for buses that have weld cracks to repair.	1	1.5	1.5
1A	Prep area and weld up cracks.	1	1.0	1.0
2	Install DEF tank support bracket.	1	1	1

Note:
Buses that have cracked welds, total labor: 3.5 hours
Or
Buses that have no cracks, total labor: 1.0 hour

PARTS REQUIRED					
Item	Part Number	Description	Qty. per Coach	Units	Notes
1	827681	Bracket – Support, Def tank	1	EA	
2	071992	Rivet – ¼ SS .08-.575GP	5	EA	
3	606945	Primer Zinc	0.01	GA	
4	638699	Primer Zinc Powder	0.02	GA	
5	638689	Solvent – Axalta Zinc Thinner	0.1	GA	*1
6	606947	Undercoat	0.1	EA	

NOTE:

1) *Equivalent thinner can be used as well.*