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Survival Factors Attachment 1

Midwest Automotive Designs Invoice No. 2382

**Cranbury, NJ
HWY14MH012**

(66 Pages)

MIDWEST AUTOMOTIVE DESIGNS CORP.

4251 Pine Creek Rd, Elkhart, IN 46516 P:574-522-4878 F:574-522-5828

2012 Platinum Business Class Sprinter Series

Date 3/22/12

Invoice # 2382

Sales Rep _____

Customer Lake View Custom Coach (Montrose)	Customer Sig _____
Address _____	Contact Jeff Brown
City Oaklyn	Cust. Phone _____
ST. NJ Zip _____	Cust. Fax _____

2500 170" EXT Sprinter HT 3.0L Turbo Diesel

VIN # WD3PE8CC1C5666970

Interior Standard Features

- * Automotive Color Keyed Walls
- * 100% Nylon Color Keyed Carpet
- * Automotive Headliner
- * Floor Mats W/Non Slip Rubber Backing
- * 110 V Outlets (2)
- * 12 volt Outlets at Each Seat Location
- * 42" LCD Flat Screen Monitor
- * Front Partition W/ Power Window
- * Rear Partition Wall - No TV
- * Touch Screen Rear AM / FM Radio
- * Audio Amplifier
- * CD Player
- * DVD Player
- * I pod Hook Up
- * Mobile Theater Sound System
- * Sub Woofer
- * Wireless Head Phone Jack System
- * Video Game Prep W/Inverter
- * Dark Tinted Side and Rear Windows
- * Deluxe Lighting Controls
- * Interior Lighting Package
Dual Lighting Controls w/Dimmers
- * Complete Insulation Package
- * Complete Privacy Shade Package
- * Overhead and Floor Courtesy Lighting
- * Rear Speaker Upgrades
- * Rear Facing Seat Floor Console w/Storage
- * Intercom Phone

Exterior Standard Features

- * Fiberglass Running Board with Step (Color Keyed to Chassis)
- * Color Keyed Bumpers
- * Color Keyed Body Moldings
- * Wheel Covers

Exterior Color	<input type="checkbox"/> _____ <input checked="" type="checkbox"/> Black
Seat Style	Bentley
Seat Color	Blush
Wall / Ceiling	Sand
Flooring	Wood
Wood Trim	Turkish Burl

- * Seat Belt Package
- * Rear Luggage Storage Lighted
- * 5 Facing Buckets seats
- * Rear 3 Pass Power Electric Reclining Sofa
- * Side Wall Consoles w/Cup Holders and Storage
- * Driver and Passenger Deluxe Seating Recover
- * Rear Air and Heat 30,000 BTU
W/Dual Compressor, Condenser, and Evaporator
Digital Rear air Controls
- * Full Length Wall Consoles W/Cup holders
- * 2 Rear Clothes Hangers (Ceiling Mount)
- * Interior Sound Deadening Package
- * Coordinated Valances w/Indirect Lighting
- * Hand Rubbed Custom Made High Gloss Burled Wood Package
6 - pc Dash and Door Kit
Window Ledges
Valance Trims (Indirect Lighting) (2)
Upper Corner Trims (Indirect Lighting) (2)
Front Overhead TV Face
Rear Overhead
Speaker Grills (6)
Side Electronics Console
Caddie Tops
- * Coordinated Door Panels (Rear Half Carpet)
- * Dual Battery Charging System W/Custom Battery Tray
- * HDMI Hook Up

Platinum Package Special Features

Digital Satellite Directional TV System

Slide Under Sofa Refrigerator

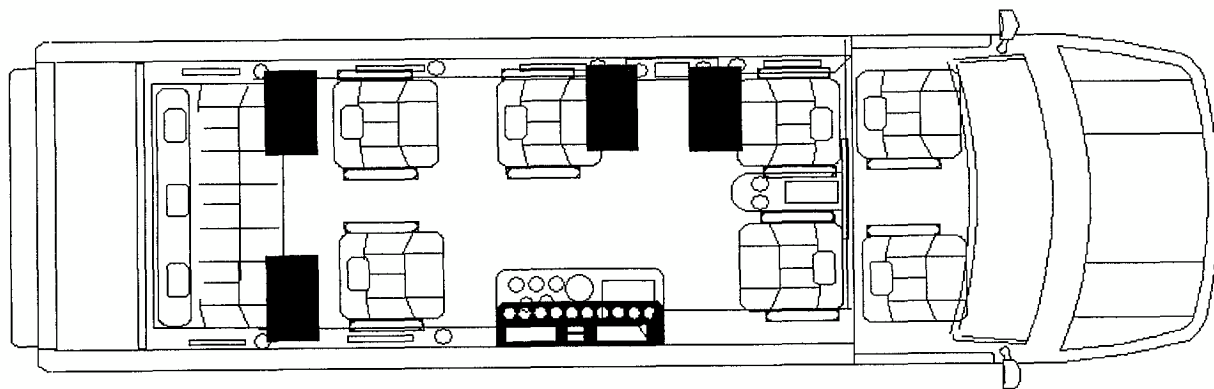
Satellite Radio (Rear)
 18" Wheel and Tire Upgrade
 Wireless Internet Router
 Front Bumper Cover W/Fog Lights
 Security System W/Control Pads
 Back-up Camera System (Display on GPS)
 Overhead Side Cabinets w/Wood Doors
 Wood / Leather Steering Wheel

Under Sofa Locking Storage Drawer
 Rear 42" Monitor W/Rear Partition Wall
 Side Bar w/Window Wine Cabinet
 Wood Flooring Upgrade
 Wall Mount I pad Dock (I pad Included Wi-Fi 32g)
 4 Console Lap Tables (\$275.00 Each)
 Crestron AV Remote System
 In dash 6.5" LCD GPS, CD, DVD, Navigation Touch Screen

Available Options

- Dr & Pass Front Center Floor Console w/12vott
- Add 16" alum Wheels
- Delete Overhead Side Cabinets
- Delete Sat TV, 18" Alum Wheels
- Power Leg Lifts (\$398.00 Per Chair)
- Deluxe Seat Massage (\$125.00 Per Chair)
- Seat Heat Back and Bottom (\$109.00 Per Chair)
- Rear Tail Gate 47" TV Audio System

Notes:



FMVSS 207 SEATING SYSTEM & 210 SEAT BELT ANCHORAGE STRENGTH TEST

NORCO INDUSTRIES, INC.
53236 COUNTY ROAD 13
ELKHART, IN 46514

PRODUCT TESTED:

6048/6049 FRAME
11664 MANUAL SLIDE/SWIVEL PEDESTAL

*NEW
TEST NO. 10130
6-05-2019
[Signature]*

FMVSS 207 SEATING SYSTEM & 210 SEAT BELT ANCHORAGE STRENGTH TEST

- 1) Measure the lap belt attachment anchorage distance from any bolt center for an individual seat assembly. The dimension should measure further apart than 6.50".
- 2) Check all the adjacent seat information below that is true:
 - The adjacent seating position faces forward and shares the same occupant seat.
 - The dimension from the centerline of any mounting bolt for the occupant seat is further than 12" from the adjacent designated occupant seat bolt centerline that also faces in the same direction.
 - The dimension from the centerline of any mounting bolt for the occupant seat is not further than 12" from the adjacent designated occupant seat bolt centerline that also faces the same direction
 - The information of the adjacent seat location was not provided to seat supplier for testing.
- 3) Specify the seat direction that it faces. The seat should face in either the forward or rearward direction for this test.
- 4) Check the lap seat belt angle situation that is true:
 - The seatbelt does not bear upon the frame and the seat is not adjustable. The line taken from the SRP to the nearest contact point of the belt with the anchorage is at an angle with the horizontal of not less than 30 degrees and not more than 75 degrees.
 - The seatbelt does not bear upon the frame and the seat is adjustable. The line from a point 2.520" forward and 0.394" above the SRP to the nearest contact point of the belt with the anchorage extends forward from the anchorage angle with the horizontal of not less than 30 degrees and not more than 75 degrees.
 - The seatbelt does bear upon the frame and is not attached to the frame. The seatbelt anchorage is aft of the rearmost belt contact point on the seat frame with the seat in the rearmost position. The line from the SRP to the nearest belt contact point on the seat frame, with the seat positioned at the SRP, extends forward from that contact point at an angle with the horizontal of not less than 30 degrees and not more than 75 degrees.
 - The seatbelt attaches to the seat structure. The line from the SRP to the nearest contact point of the belt with the hardware attaching it to the seat structure extends forward from that contact point at an angle with the horizontal of not less than 30 degrees and not more than 75 degrees.
 - The seatbelt angle information or all components were not made available to seat supplier for measurement.

FMVSS 207 SEATING SYSTEM & 210 SEAT BELT ANCHORAGE STRENGTH TEST

- 5) The vehicle seat is to be positioned in the full rearward and full downward position with the seat back in its most upright position.
- 6) Check the box that relates most to the situation of the upper torso belt restraint location:
- The upper torso restraint is located within the acceptable range per figure #1 of section 210 (For adjustable upper torso restraints the mechanism is at mid adjustment position).
 - The upper torso belt location was not provided to seat supplier for measurement.
- 7) Select the box that is true in relation to the center-of-gravity situation per FMVSS 207:
- The CG load of twenty times the stack weight was applied at or above the CG point of the full stack.
 - The CG load was applied separately through each of its two major components. The CG load of twenty times the separate component weight was applied through each of its own corresponding CG point.
- 8) The target load for the torso belt at the outboard seating positions is to be set at a minimum load of 3000 lbs and at a load rate of not more than 30,000 lbs/second. Apply load at an angle between 5 to 15 degrees.
- 9) The target load for the lap belt at the outboard seating positions is to be set at a minimum load of 3000 lbs and at a load rate of not more than 30,000 lbs/second. Apply load at an angle between 5 to 15 degrees.
- 10) The target load for the lap belt at the center seating position is to be set at a minimum load of 5000 lbs and at a load rate of not more than 50,000 lbs/second. Apply load at an angle between 5 to 15 degrees.
- 11) The test equipment is to be set to reach all target loads within 30 seconds.
- 12) The target test loads are to be maintained not less than 10 seconds.
- 13) The following two pages of information are to be recorded from the test performed.

FMVSS 207 SEATING SYSTEM & 210 SEAT BELT ANCHORAGE STRENGTH TEST

Date: 06/05/2012

Technicians: [REDACTED]

Vehicle Model Yr/Make/Model/Body: N/A

VIN Number: N/A

Vehicle Mfg Date: N/A

Observers: [REDACTED]

Seat Frame Description: Adnik 6048/6049 Manual Recline ISS frame

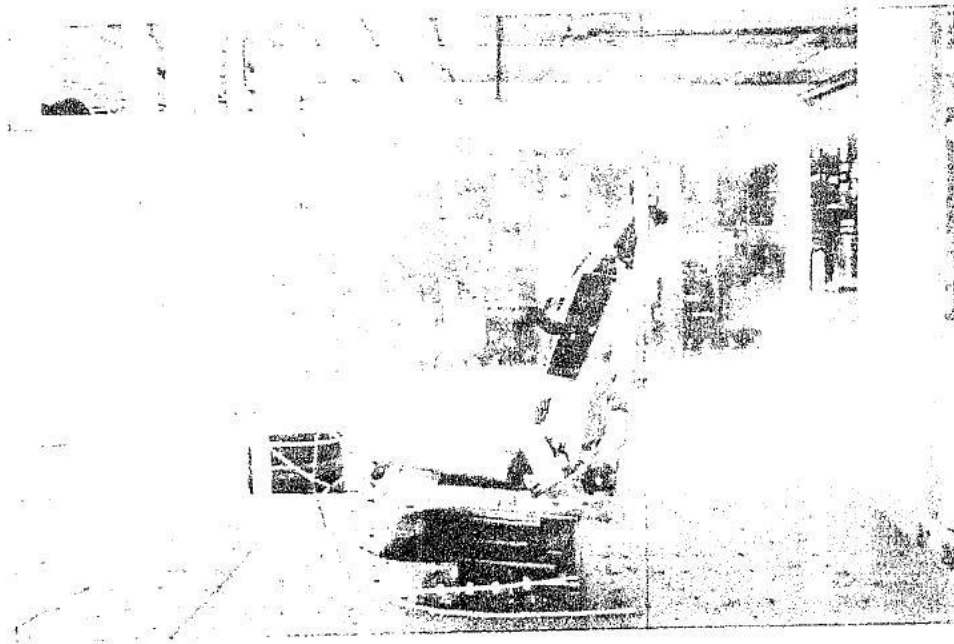
Power Unit Description: Adnik 11664 Manual slide/swivel riser

Slide Track Description: N/A

Undercarriage Description: N/A

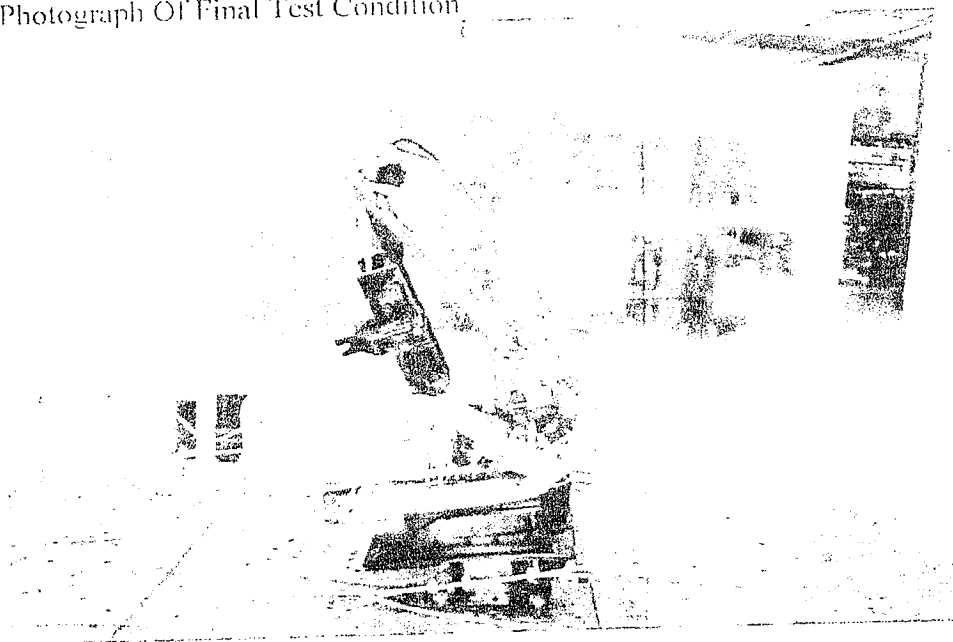
Sub plate Descriptions: N/A

Photograph Of Setup:



FMVSS 207 SEATING SYSTEM & 210 SEAT BELT ANCHORAGE STRENGTH TEST

Photograph Of Final Test Condition



Description Of Location In Vehicle: N/A

Distance Between Seatbelt Anchorage More Than 6.50" (y/n): N/A

Seatbelt Angle From Contact Point Between 30 and 75 degrees (y/n): Not measured

Seat Adjusted Rearward & Downward (y/n): N/A

Seat In Most Upright Position (y/n): y

Angle Of Pelvic Body Block Between 5 and 15 Degrees (y/n): y

Angle Of Torso Body Block Between 5 and 15 Degrees (y/n): y

Target Load Value Of Torso Block: 3000 lbs (outboard)

Target Load Value Of Pelvic Block: 3000 lbs (outboard) & 5000 lbs (inboard center)

Target Load Of CG Load (Individual/Both): 1200 lbs for riser, 1100 lbs. for seat

ISS MANUAL RECLINE Norco Industries, Inc.

FMVSS 207 SEATING SYSTEM & 210 SEAT BELT ANCHORAGE STRENGTH TEST

Weight Of Full Stack: 115 lbs

Time To Reach All Target Loads: 16 seconds

Minimum Time Period Held (y/n): y

Is Seat & Adjacent Seats Required To Be Pulled Simultaneous (y/n): n

Was Test Pulled With Adjacent Seats If Required (y/n): n

Results Of Anchorage Strength Test (Pass/Fail): Pass

Additional Comments:

Test performed on solid bench.

Hardware:

Riser to Floor ~ 1/2-13 grade 5 Bolts
~ 1/2-13 lock nuts
~ 1/2" USS flat washers
2.5 x 5 backup washers

Seat frame to riser :

Rear mounting holes ~ 3/8-16 grade 5 bolts
~ 3/8" USS flat washers
~ 3/8-16 pal nuts
Front mounting holes ~ 5/16-18 grade 5 bolts
~ 5/16-18 pal nuts
~ 5/15" USS flat washers

This test does not certify to all sections of FMVSS 207 and 210. This test shows that the product meets all strength requirements of anchorage when tested simultaneously per these sections.

FMVSS 207 SEATING SYSTEM & 210 SEAT BELT ANCHORAGE STRENGTH TEST

Test Approvals:

Test Technician:

Date: _____

Engineering Director:

Date: 06/05/2012

Brand Manager:

Date: 6/5/2012

