

**INSTALLATION OF FRONT MOUNTING KIT
2011-2014 GM HD
2015 NEWER GM HD**

SAFETY PRECAUTIONS

If any installation problems are encountered, please call G&B Specialties, Inc. for technical assistance before continuing with the installation process.



- Failure to heed to any of the following warnings could result in severe bodily injury and/or equipment damage.
- Read and understand this manual completely before attempting installation of the equipment.
- Installation instructions provided below only address the G&B Specialties railgear equipment. Applicable railway company procedures and policies must be adhered to.
- Before performing any work under the vehicle or railgear, ensure the engine is turned off and the parking brake is set.
- Ensure all removed components are given to the vehicle owner after the installation of the railgear. These components must be re-installed if the railgear is removed from the vehicle.

INSTALLATION OF FRONT MOUNTING KIT

The following procedure details the installation of the front mounting kit. The hardware required for this installation is listed in table 1.

Table 1: Front Mounting Kit Installation Parts

Part Number	Description	Qty
R-21090D	Front Mounting Bracket, Drivers Side	1
R-21090P	Front Mounting Bracket, Passengers Side	1
R-21097	Spacer	2
R-21098	Shim	2
R-2960	Railgear Mounting Shim – ½” Thick	4
R-051	Side Wand Set w/ Fasteners	1
R-990KIT-301	1/2” UNC Gr. 8 Bolt x 1.75” Long	6
	1/2” UNC Gr. 8 Bolt x 5.00” Long	4
	1/2” UNC Gr. 8 Bolt x 5.50” Long	4
	1/2” Gr. 8 Flat Washer	24
	1/2” UNC Gr. 8 Nylon Insert Lock Nut	12
R-990KIT-303	3/4” UNC Gr. 8 Bolt x 2.50” Long	4
	3/4” UNC Gr. 8 Bolt x 3.50” Long	4
	3/4” Gr. 8 Flat Washer	8
	3/4” UNC Gr. 8 Nylon Insert Lock Nut	4

1. Remove the front bumper, bumper mounting brackets and tow hooks. Retain the bumper and bumper mounting brackets for re-installation. The tow hooks will not be re-installed.

THE BUMPER MOUNTING BRACKETS ARE NOT REMOVEABLE ON 2015 MY TRUCKS. THE RAILGEAR MOUNTING BRACKETS MOUNT OVER THE TOP OF THE BUMPER MOUNTING BRACKETS AS SHOWN

2. Remove the lower air cowling from under the radiator. The air cowling will not be re-installed.
3. Remove the skid plate from the front frame cross member. The skid plate will not be re-installed.
4. Position the front mounting plates on the inner side of the frame as shown so that the front frame cross member (round tube) is cradled tightly by the small square bars welded to the front mounting plates. Ensure that the front mounting plates are tight against the bottom of the front frame cross member.

5. Bolt each front mounting bracket to the frame as shown using the supplied 1/2" hardware, spacers and bumper mounting brackets. Ensure the mounting plate lower surfaces are 0° to the horizontal with the vehicle in the typical road position and aligned with each other. Tighten but do not torque the fasteners
6. Ensure the front mounting plates are tight against the inner side of the frame and the underside of the front frame cross member and that the mounting plate lower surfaces are 0° to the horizontal. Torque the rear and lower 1/2" fasteners, as shown. Do not over torque. Do not torque the fasteners securing the bumper mounting brackets as these fasteners need to remain loose to adjust the front bumper.
7. The supplied railgear mounting shims are to be used as required when mounting the railgear to the front mounting plates.

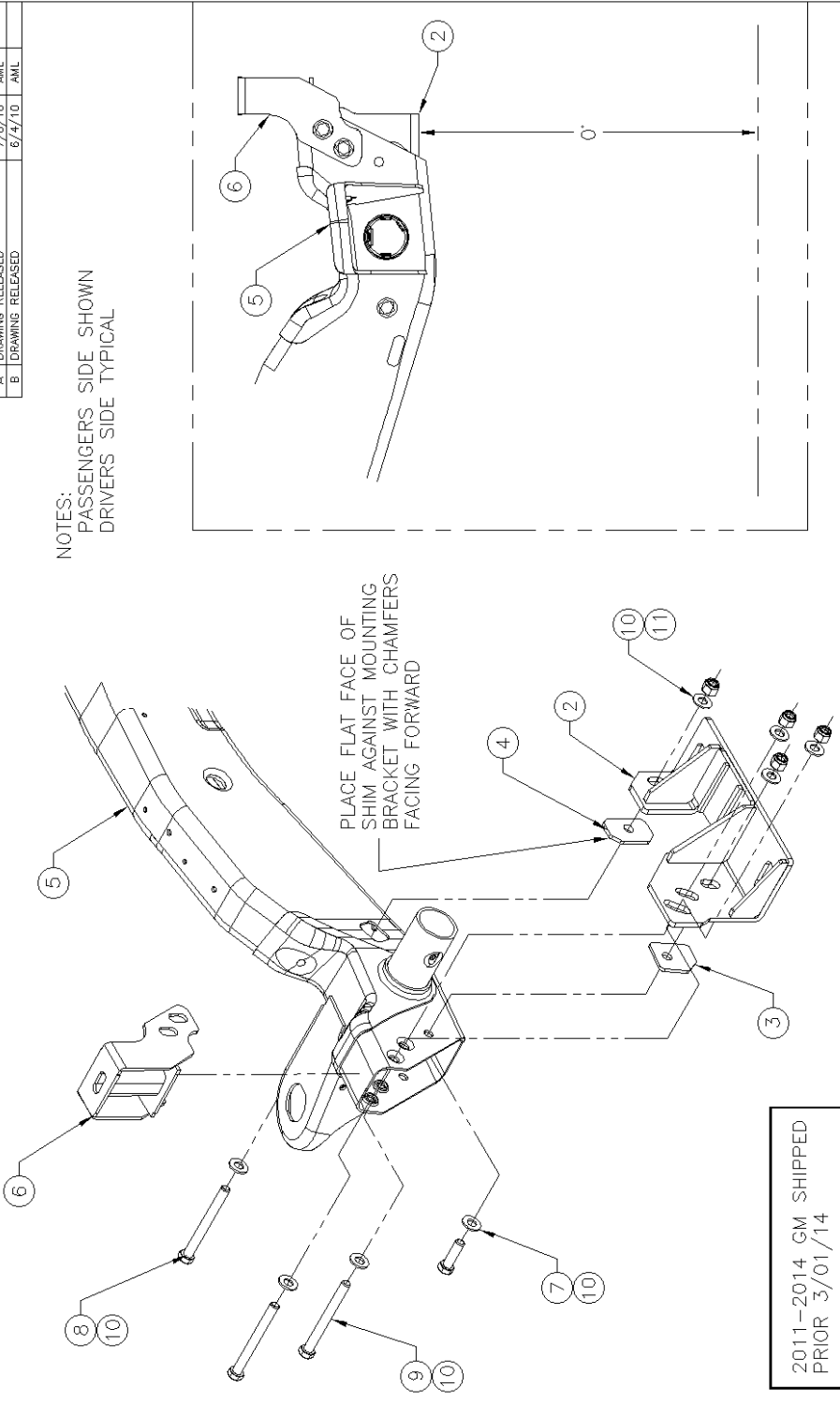
Following the installation of the front railgear, the front bumper will fit in it's original position. The front bumper will need to be trimmed/modified as required.

8. Separate the lower plastic air dam section of the bumper from the steel section of the bumper. The lower plastic section will not be re-installed.
9. Modify the OEM bumper as required to create clearance for all railgear components to eliminate any interference during its full range of motion.
10. Once the front bumper has been modified, installed and adjusted as required, tighten and torque the two remaining 1/2" fasteners to 100 ft-lbs dry. Do not over torque.

ON THE 2015 GM HD MODEL YEAR TRUCKS, THERE MAY BE ADDITIONAL MODIFICATIONS REQUIRED IN ORDER TO INSTALL THE FRONT RAILGEAR UNIT PROPERLY. REFER TO THE FRONT RAILGEAR INSTALLATION SUPPLEMENT FOR FURTHER INSTRUCTION

REV	CHANGE	DATE	BY	APPD
A	DRAWING RELEASED	7/16/10	AML	
B	DRAWING RELEASED	6/14/10	AML	

NOTES:
PASSENGERS SIDE SHOWN
DRIVERS SIDE TYPICAL



PLACE FLAT FACE OF SHIM AGAINST MOUNTING BRACKET WITH CHAMFERS FACING FORWARD

2011-2014 GM SHIPPED
PRIOR 3/01/14

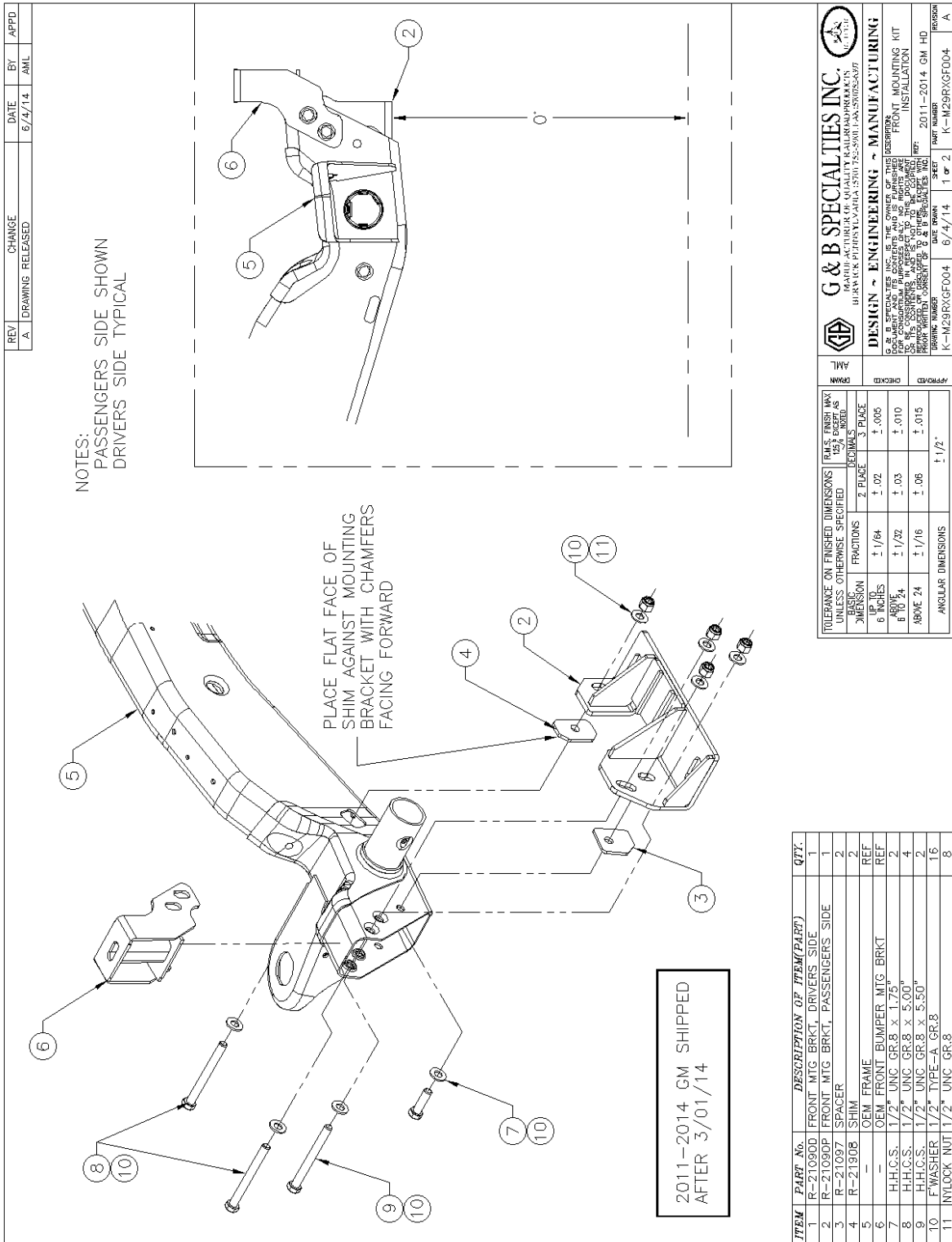
TOLERANCE ON FINISHED DIMENSIONS: FRACTIONS DECIMALS	
2 PLACE	± .02
3 PLACE	± .005
4 PLACE	± .010
5 PLACE	± .015
6 PLACE	± .015
7 PLACE	± .015
8 PLACE	± .015
9 PLACE	± .015
10 PLACE	± .015
11 PLACE	± .015
ANGULAR DIMENSIONS	± 1/2°

ITEM	PART No.	DESCRIPTION OF ITEM(PART)	QTY.
1	R-210900	FRONT MTG BRKLT, DRIVERS SIDE	1
2	R-210900	FRONT MTG BRKLT, PASSENGERS SIDE	1
3	R-21097	SPACER	2
4	R-21908	SHIM	2
5	OEM FRAME	OEM FRAME BUMPER MTG BRKLT	REF
6	H.H.C.S.	1/2" UNC GR.8 x 1.75"	2
7	H.H.C.S.	1/2" UNC GR.8 x 5.00"	2
8	H.H.C.S.	1/2" UNC GR.8 x 5.50"	4
9	F WASHER	1/2" TYPE-A GR.8	16
10	NYLOCK NUT	1/2" UNC GR.8	8
11			


DESIGN ~ ENGINEERING ~ MANUFACTURING
G & B SPECIALTIES INC.
1000 W. 3RD STREET, BERWICK, PA 17611
TEL: (717) 752-5901 FAX: (717) 752-6397
DATE DRAWN: 7/16/10
DRAWING NUMBER: K-M29RXGF004
SHEET: 1 OF 1
REVISION: B

FOR 2011-2014 GM HD TRUCKS SHIPPED PRIOR TO 3/01/2014

G&B Specialties Inc. 535 West 3rd Street, Berwick, PA, USA Tel: 1-507-752-5901 Fax: (570) 752-6397



REV	CHANGE	DATE	BY	APPD
1A	DRAWING RELEASED	6/4/14	AML	

 G & B SPECIALTIES INC. MANUFACTURING DIVISION 535 WEST 3RD STREET, BERWICK, PA 17004 TEL: 570-752-6397 FAX: 570-752-6397	
DESIGN - ENGINEERING - MANUFACTURING DATE: 6/4/14 DRAWN: 1 CHECKED: 1 APPROVED: 1 PART NUMBER: K-M29RXGF004	
DRAWING NUMBER: K-M29RXGF004 DATE: 6/4/14 SHEET: 1 of 2 REVISION: A	
TOLERANCE ON FINISHED DIMENSIONS UNLESS OTHERWISE SPECIFIED	DIMENSION 1/8" FINISH MAX 1/32" MIN
DECIMALS 2 PLACE 3 PLACE	FRACTIONS 1/64 1/32 1/16
UP ABOVE ABOVE 24	±.02 ±.03 ±.06
ANGULAR DIMENSIONS	±1/2°

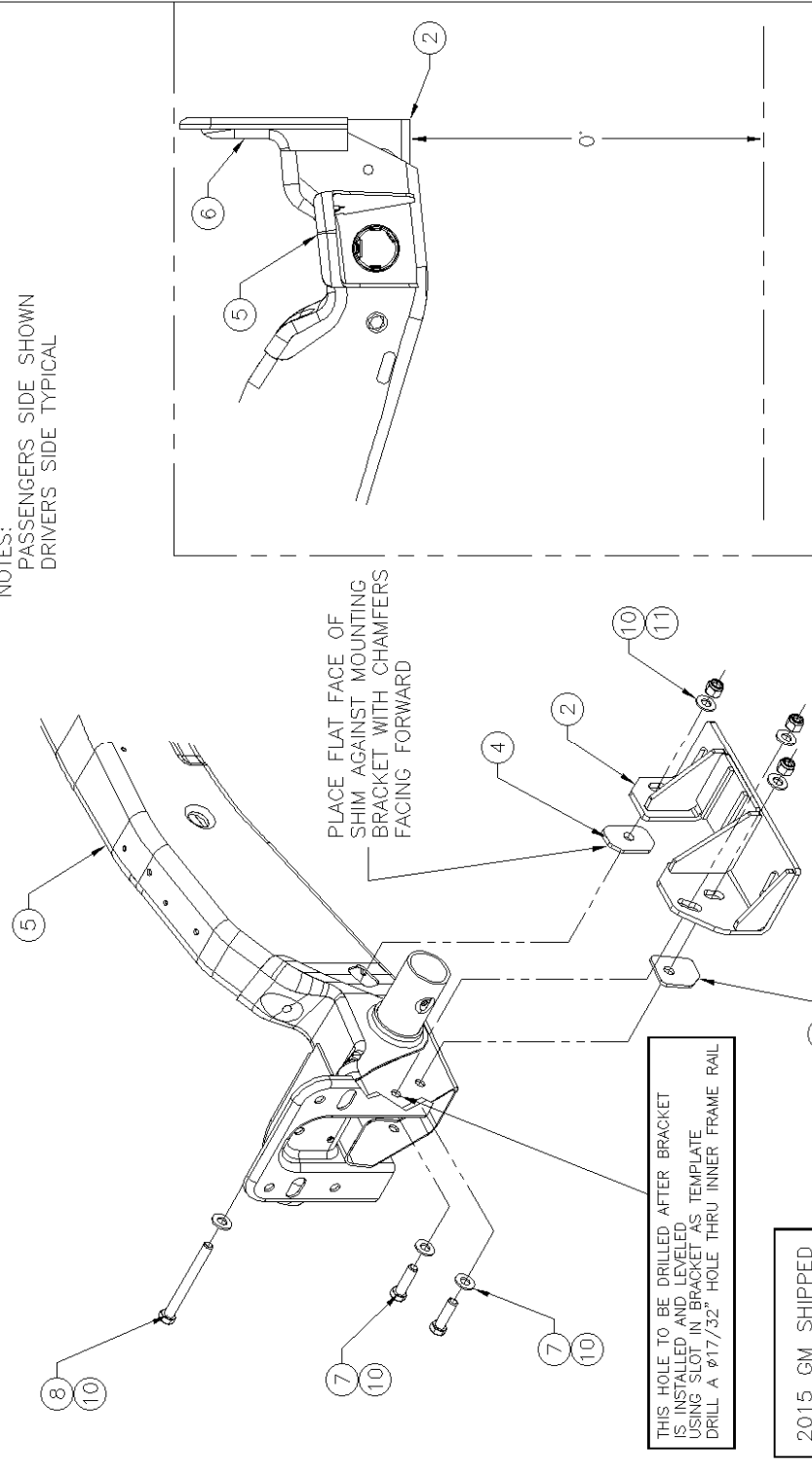
ITEM	PART No.	DESCRIPTION OF ITEM(PART)	QTY.
1	R-210900	FRONT MTG BRKT, DRIVERS SIDE	1
2	R-21090P	FRONT MTG BRKT, PASSENGERS SIDE	1
3	R-21097	SPACER	2
4	R-21308	SHIM	2
5	-	OEM FRAME	REF
6	-	OEM FRONT BUMPER MTG BRKT	REF
7	H.H.C.S.	1/2" UNC GR.8 x 1.75"	2
8	H.H.C.S.	1/2" UNC GR.8 x 5.00"	4
9	H.H.C.S.	1/2" UNC GR.8 x 5.50"	2
10	F'WASHER	1/2" TYPE-A GR.8	16
11	NYLOCK NUT	1/2" UNC GR.8	8

FOR 2011-2014 GM HD TRUCKS SHIPPED AFTER 3/01/2014

G&B Specialties Inc. 535 West 3rd Street, Berwick, PA, USA Tel: 1-507-752-5901 Fax: (570) 752-6397

REV	CHANGE	DATE	BY	APPD
A.	DRAWING RELEASED	6/14/14	AML	

NOTES:
PASSENGERS SIDE SHOWN
DRIVERS SIDE TYPICAL



PLACE FLAT FACE OF SHIM AGAINST MOUNTING BRACKET WITH CHAMFERS FACING FORWARD

THIS HOLE TO BE DRILLED AFTER BRACKET IS INSTALLED AND LEVELED USING SLOT IN BRACKET AS TEMPLATE DRILL A $\phi 17/32$ " HOLE THRU INNER FRAME RAIL

2015 GM SHIPPED AFTER 3/01/14

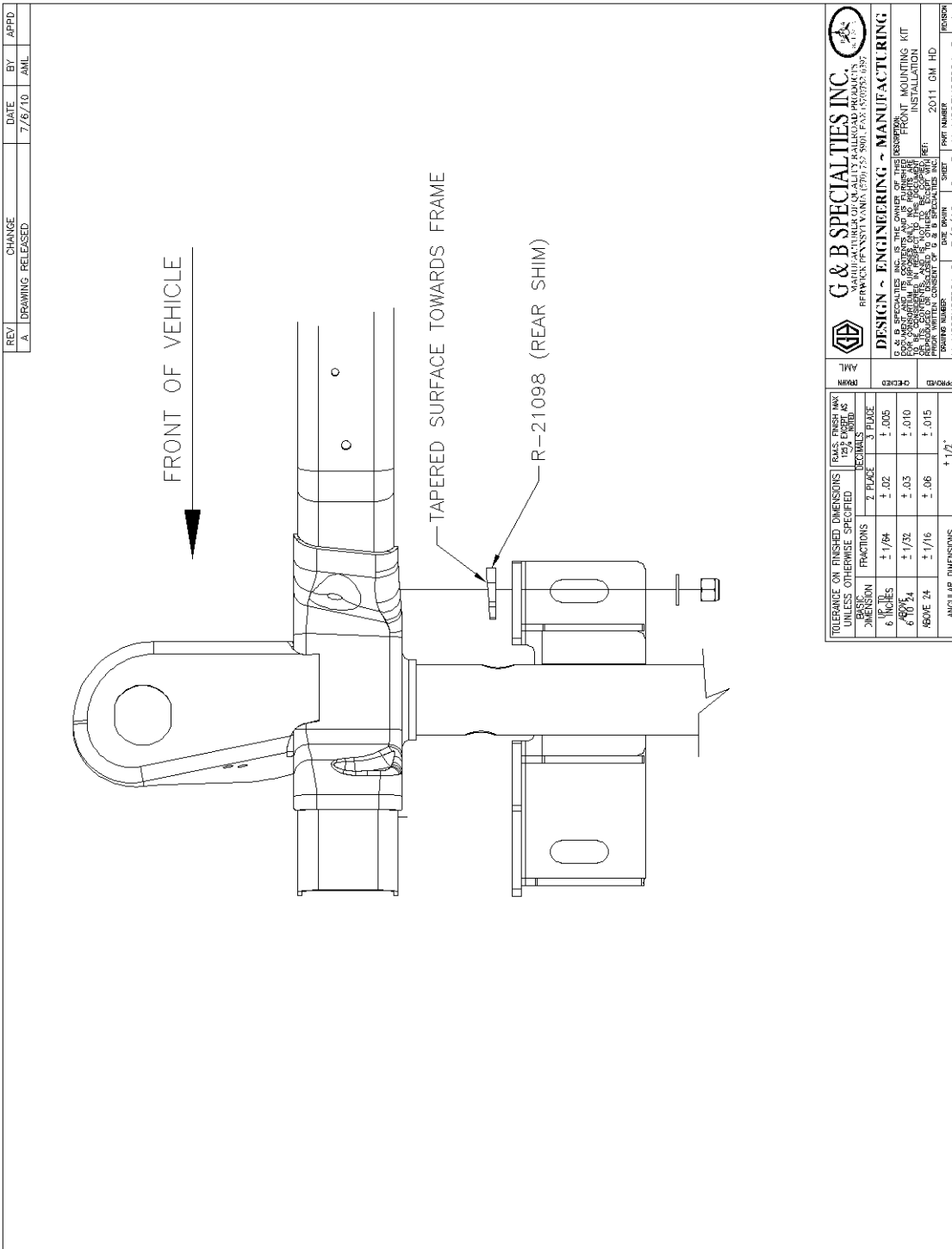
TOLERANCE ON FINISHED DIMENSIONS UNLESS OTHERWISE SPECIFIED	FRACTIONS	DECIMALS	FINISH TYP
BASIC DIMENSION	2 PLACE	3 PLACE	
6 INCHES	$\pm 1/64$	$\pm .02$	$\pm .005$
6 TO 10 INCHES	$\pm 1/32$	$\pm .03$	$\pm .010$
ABOVE 10 INCHES	$\pm 1/16$	$\pm .06$	$\pm .015$
ANGULAR DIMENSIONS			$\pm 1/2^\circ$

ITEM	PART No.	DESCRIPTION OF ITEM(PART)	QTY.
1	R-210900	FRONT MTG BRKT, DRIVERS SIDE	1
2	R-21090P	FRONT MTG BRKT, PASSENGERS SIDE	1
3	R-21097	SPACER	2
4	R-21098	SHIM	2
5	—	OEM FRAME	REF
6	—	OEM FRONT BUMPER MTG BRKT	REF
7	H.H.C.S.	1/2" UNC GR.8 x 1.75"	2
8	H.H.C.S.	1/2" UNC GR.8 x 5.00"	2
9	F'WASHER	1/2" TYPE-A GR.8	16
10	INTLOCK NUT	1/2" UNC GR.8	16
11	—	—	8

APPROVED	DATE DRAWN	SHEET	OF
	K-M29RXGF004	2/26/14	1 of 1
DESIGN	DATE CHECKED	BY	APPD

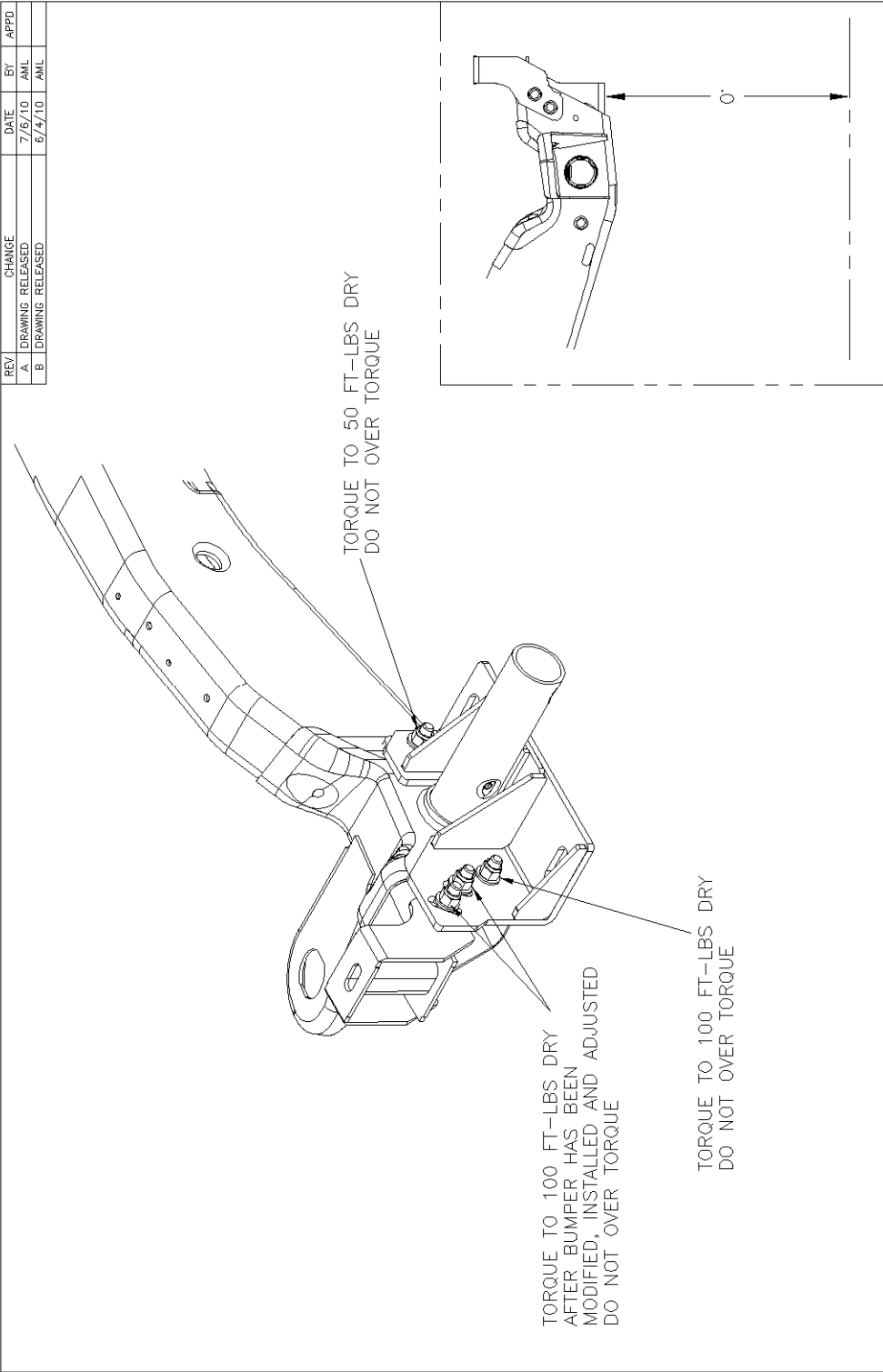
FOR 2015-NEWER GM HD TRUCKS

G&B Specialties Inc. 535 West 3rd Street, Berwick, PA, USA Tel: 1-507-752-5901 Fax: (570) 752-6397



ALL GM HD TRUCKS 2011 AND NEWER

REV	CHANGE	DATE	BY	APPD
A	DRAWING RELEASED	7/6/10	AML	
B	DRAWING RELEASED	6/4/10	AML	




TORQUE TO 50 FT-LBS DRY
DO NOT OVER TORQUE

TORQUE TO 100 FT-LBS DRY
AFTER BUMPER HAS BEEN
MODIFIED, INSTALLED AND ADJUSTED
DO NOT OVER TORQUE

TORQUE TO 100 FT-LBS DRY
DO NOT OVER TORQUE

2011-2014 GM SHIPPED
PRIOR 3/01/14

TOLERANCE ON FINISHED DIMENSIONS UNLESS OTHERWISE SPECIFIED	PLACES FINISH MAX 125° CORNER AS SHOWN		
	FRACTIONS	DECIMALS	3 PLACE
BASIC DIMENSION			
UP TO 6 INCHES	± 1/64	± .02	± .005
ABOVE 6 TO 24 INCHES	± 1/32	± .03	± .010
ABOVE 24 INCHES	± 1/16	± .06	± .015
ANGULAR DIMENSIONS	± 1/2°		



G & B SPECIALTIES INC.
MANUFACTURER OF QUALITY RAILROAD BRAKES
 100 W. W. PERRY AVE. - CARLA, PA 17015-5901 FAX: 570-752-6397

DESIGN ~ ENGINEERING ~ MANUFACTURING

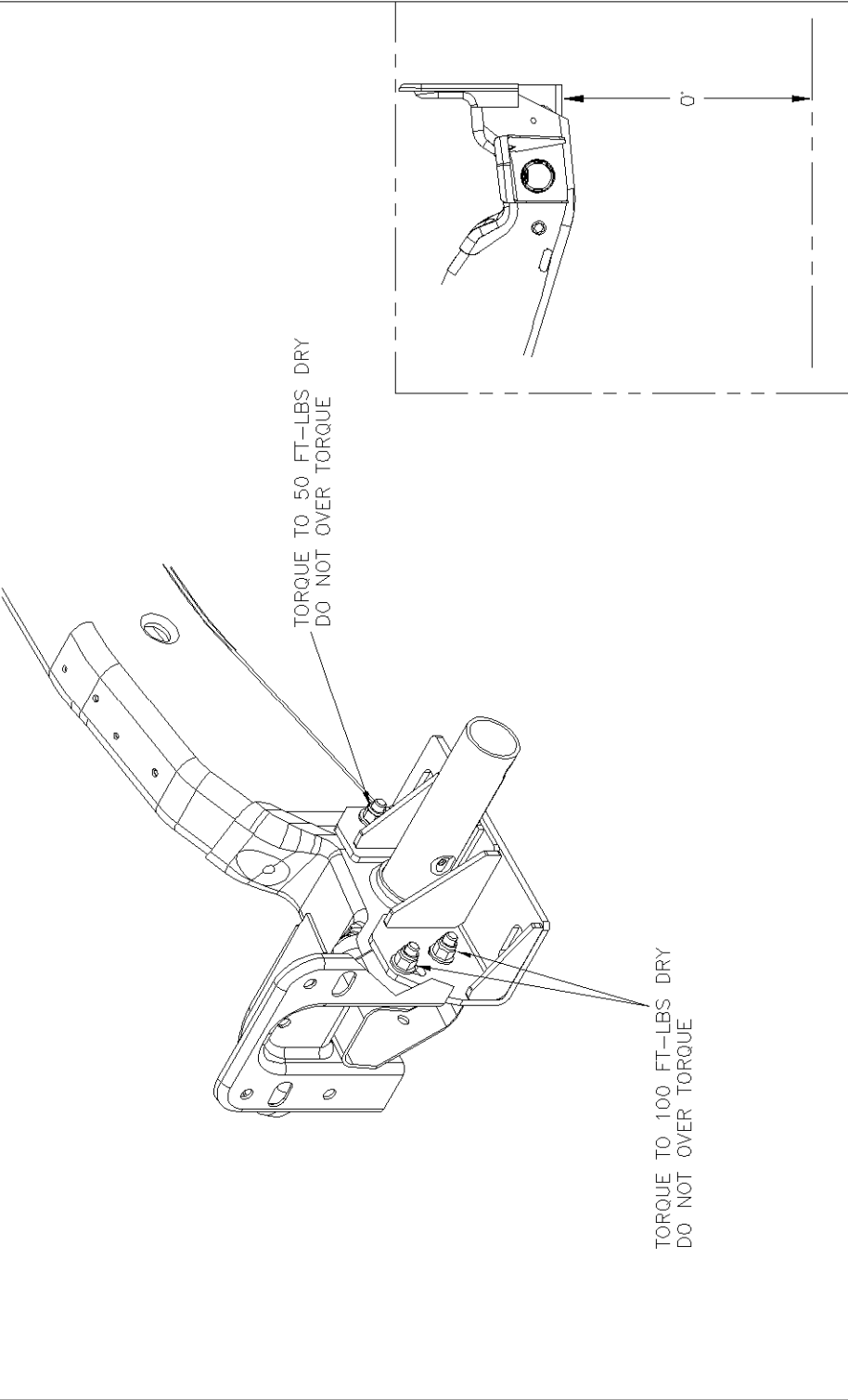
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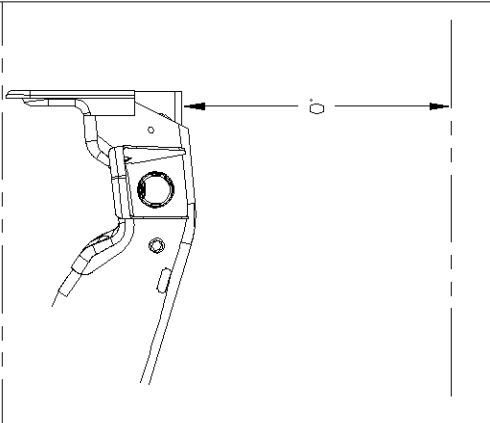
2011-2014 GM HD
 Date: 7/6/10
 Rev: α
 Part: K-M29RXGF004-1
 Revision: B

FOR 2011-2014 GM HD TRUCKS SHIPPED PRIOR TO 3/01/2014

G&B Specialties Inc. 535 West 3rd Street, Berwick, PA, USA Tel: 1-507-752-5901 Fax: (570) 752-6397

REV	CHANGE	DATE	BY	APPD
A	DRAWING RELEASED	8/4/10	AML	





G & B SPECIALTIES INC.	
MANUFACTURER OF QUALITY RAILROAD BRAKES 100 W. W. PERRYVILLE, PA. 17351-7590 TEL: 717-251-5900	
DESIGN ~ ENGINEERING ~ MANUFACTURING	
G & B SPECIALTIES INC. IS THE OWNER OF THIS DRAWING. IT DESCRIBES THE MOUNTING KIT FOR CONSTRUCTION PURPOSES ONLY. NO OTHER USES ARE PERMITTED WITHOUT THE WRITTEN CONSENT OF G & B SPECIALTIES INC.	
DATE: 2015 GM HD DRAWING NO: K-M29RXGF004-1	

TOLERANCE ON FINISHED DIMENSIONS UNLESS OTHERWISE SPECIFIED		FMS FINISH MAY VARY EXCEPT AS SPECIFIED	
BASIC DIMENSION	FRACTIONS	DECIMALS	3 PLACE
UP TO .25	± 1/64	± .02	± .005
ABOVE .25 TO .75	± 1/32	± .03	± .010
ABOVE .75	± 1/16	± .06	± .015
ANGULAR DIMENSIONS	± 1/2°		

2015 GM SHIPPED
AFTER 3/01/14

FOR 2015-NEWER GM HD TRUCKS

OPERATION, SERVICE AND PARTS OF FRONT MOUNTING KIT

SAFETY PRECAUTIONS

If any operating, services or parts problems are encountered, please call G&B Specialties, Inc. for technical assistance.



- Failure to heed to any of the following warnings could result in severe bodily injury and/or equipment damage.
- Read and understand this manual completely before attempting operation of the railgear equipped vehicle.
- Operating instructions provided below only address the RAFNA railgear equipment. Applicable railway company procedures and policies must be adhered to.
- Railway company rules governing rail travel must be observed at all times.
- Before performing any work under the vehicle or railgear, ensure the engine is turned off and the parking brake is set.
- Never operate the vehicle if the Gross Vehicle Weight Rating (GVWR), Gross Axle Weight Rating Front or Rear (GAWR), or the wheel or tire load ratings are exceeded.

OPERATION OF FRONT MOUNTING KIT

With the front mounting kit installed on this vehicle, it may be operated as normal, however the front bumper is located further forward than standard. Side wands are located on the front bumper to aid in determining the length and width of the vehicle. Caution must be used when operating the vehicle.

Never operate the vehicle if the Gross Vehicle Weight Rating (GVWR), Gross Axle Weight Rating Front or Rear (GAWR), or the wheel or tire load ratings are exceeded.

SERVICE OF FRONT MOUNTING KIT

The front mounting kit must be serviced regularly to avoid damage to the equipment. Table 1 below provides the Recommended Service Schedule and Table 2 provides Standard Fastener Torque Values.

Service Required	Initial 100 km (62 Miles) of road and/or rail use	6 Months
Inspect front mounting kit fasteners (re-torque if required)		✓

Table 2: Standard Fastener Torque Values

Fastener Size	Fastener Torque Value (ft-lbs) Dry
1" UNC Gr. 8 Fasteners	250
3/4" UNC Gr. 8 Fasteners	175
5/8" UNC Gr. 8 Fasteners	150
1/2" UNC Gr. 8 Fasteners	100
3/8" UNC Gr. 8 Fasteners	40
1/4" UNC Gr. 8 Fasteners	12