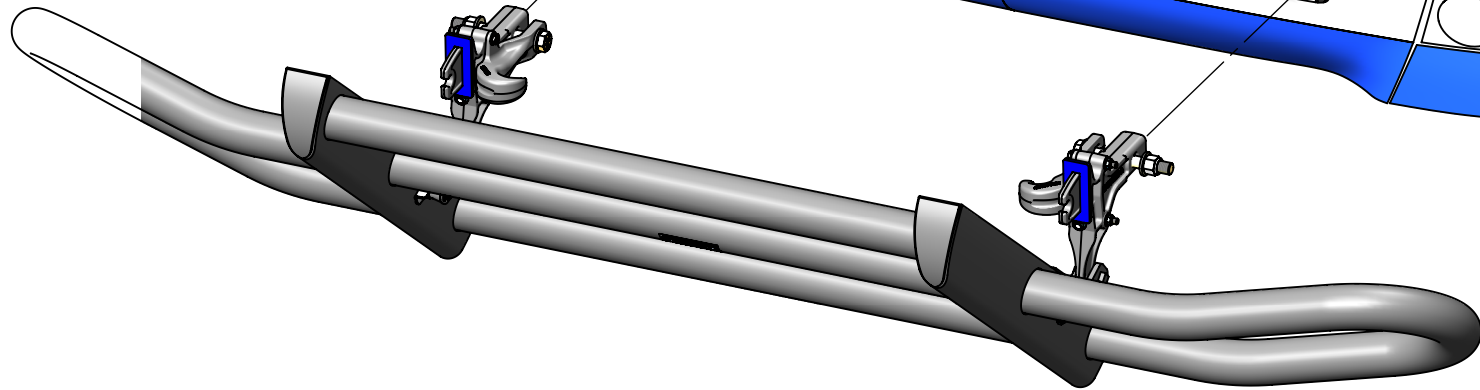


- 1.) INSERT MOUNT BRACKETS FULLY INTO TOW SOCKETS
- 2.) INSERT CROSS PIN THROUGH HOLE IN BRACKET AND TOW SOCKET
- 3.) TIGHTEN LOCKING NUT FIRMLY
- 4.) CLOSE AND LOCK BUMPER AND CHECK FOR PLAY - ADD SHIMS (SUPPLIED) BEHIND URETHANE PAD TO SUIT



MAGNUM TRAILER & EQUIPMENT INC.



FRACTIONS CHART

1/32	.03125	9/32	.28125	17/32	.53125	25/32	.78125
1/16	.0625	5/16	.3125	9/16	.5625	13/16	.8125
3/32	.09375	11/32	.34375	19/32	.59375	27/32	.84375
1/8	.125	3/8	.375	5/8	.625	7/8	.875
5/32	.15625	13/32	.40625	21/32	.65625	29/32	.90625
3/16	.1875	7/16	.4375	11/16	.6875	15/16	.9375
7/32	.21875	15/32	.46875	23/32	.71875	31/32	.96875
1/4	.25	1/2	.5	3/4	.75		

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:

FRACTIONS ANGLES
+/- 1/16" +/- 1deg

DIMENSIONS TO SHARP POINTS

SHEET NAME
BUMPER INSTALL

CURRENT CUSTOMER

WO#

SCALE 1:4

TITLE
17165 BUMPER ON VOLVO VN 2009

STOCK NUMBER

VENDOR NUMBER

WEIGHT - LB.

98.7

DRAWN BY

DRAWN DATE

2014-01-23

REV.

B

MODELLER

DRAWING NUMBER

AA-33068

NUMBER OF SHEETS

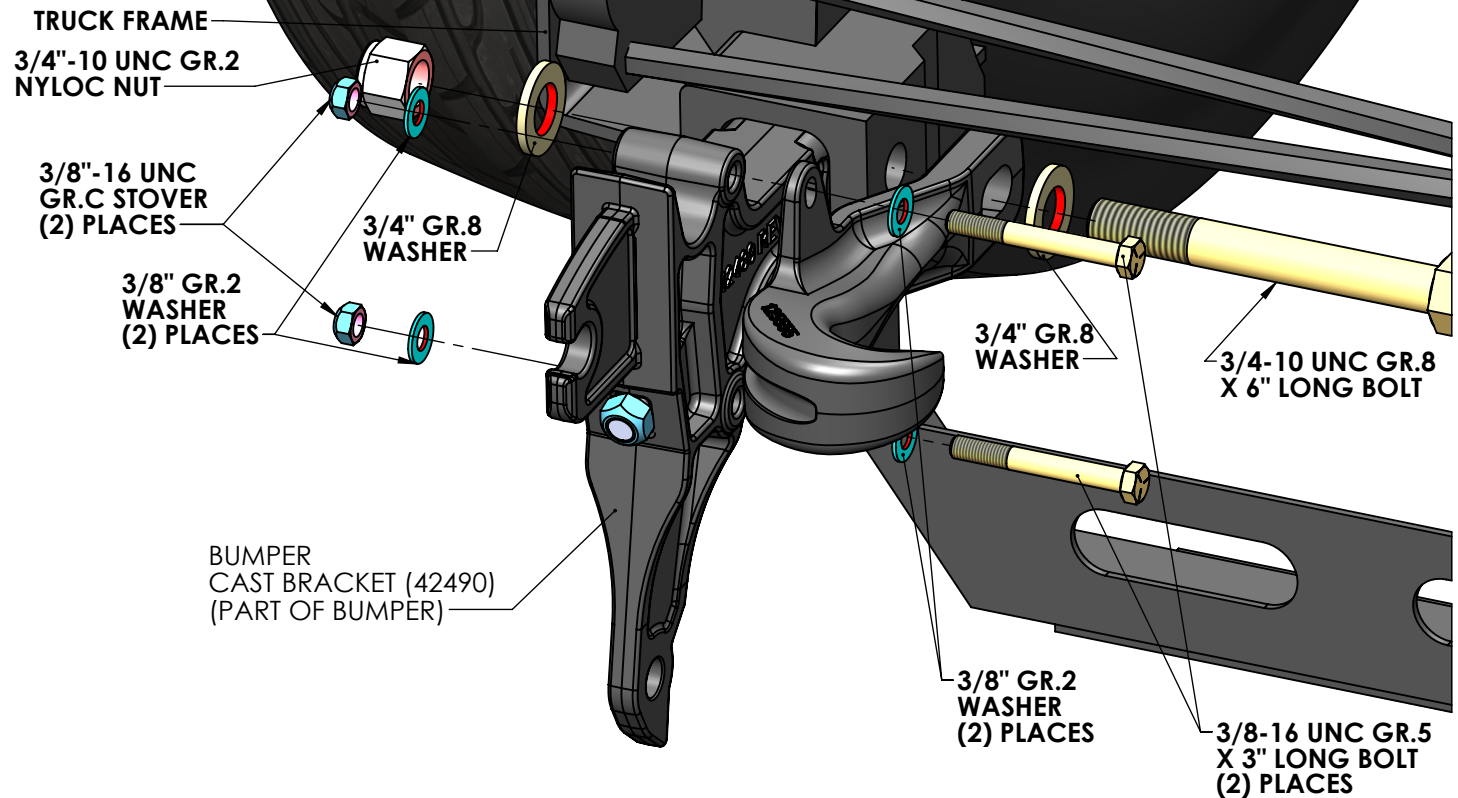
1

*TRUCK HOOD IS HIDDEN IN THIS DRAWING

DO NOT SUBSTITUTE ANY FASTENERS

INSTALLATION STEPS

1. POSITION HOOK TO INSIDE OF BUMPER BRACKET
2. INSERT 3/8" X 3" BOLTS WITH WASHERS THROUGH HOOK AND BUMPER BRACKET AS SHOWN.
3. INSTALL 3/8" WASHERS AND STOVER NUTS. LEAVE THESE LOOSE AT THIS POINT.
4. INSTALL 3/4" BOLT WITH WASHER THROUGH HOOK AND BRACKET.
5. INSTALL 3/4" NYLOC NUT WITH WASHER - LEAVE LOOSE AT THIS POINT
6. TIGHTEN 3/8" STOVER NUTS - TORQUE = **20 LB./FT**
7. TIGHTEN 3/4" NYLOC NUT ONLY UNTIL THE BOLT HAS NO FREE END PLAY. **DO NOT TIGHTEN THIS NUT DOWN FULLY**




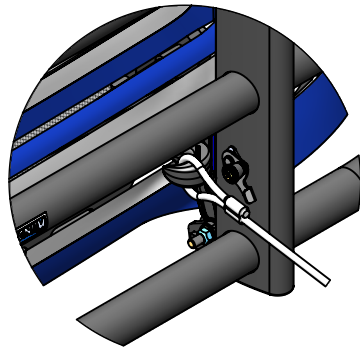
IMPORTANT SAFETY NOTES:

-THE (2) 3/8" DIAMETER BOLTS MUST BE GRADE 5 ONLY - DO NOT SUBSTITUTE BOLTS ARE DESIGNED TO BREAK TO INDICATE TOW OVER SAFE CAPACITY

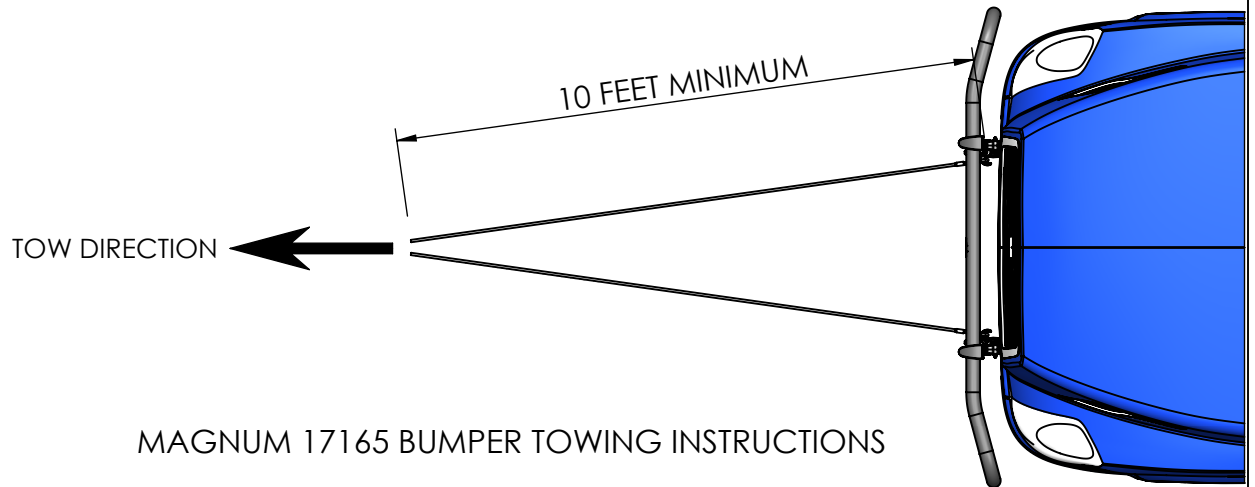
-DO NOT FULLY TIGHTEN DOWN THE 3/4" NYLOC NUT. THERE MAY BE A GAP BETWEEN THE HOOK AND TRUCK FRAME - THIS IS NORMAL

**ALUMINUM PORTION OF BUMPER IS NOT SHOWN FOR CLARITY TOW HOOKS CAN BE INSTALLED WITHOUT REMOVING BUMPER

MAGNUM TRAILER & EQUIPMENT INC. 	FRACTIONS CHART				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS ANGLES +/- 1/16" +/- 1° .XX" .XXX" +/- 0.03" +/- 0.005"		SHEET NAME BRACKET INSTALL		TITLE 17165 BUMPER ON VOLVO VN 2009		
	1/32 .03125	9/32 .28125	17/32 .53125	25/32 .78125			CURRENT CUSTOMER		STOCK NUMBER		VENDOR NUMBER
	1/16 .0625	5/16 .3125	9/16 .5625	13/16 .8125	DRAWN BY		DRAWING DATE 2014-01-23		REV. B		
	3/32 .09375	11/32 .34375	19/32 .59375	27/32 .84375	SCALE 1:3		MODELLER		DRAWING NUMBER AA-33068		NUMBER OF SHEETS 1
1/8 .125	3/8 .375	5/8 .625	7/8 .875	DIMENSIONS TO SHARP POINTS		WO#					
5/32 .15625	13/32 .40625	21/32 .65625	29/32 .90625								
3/16 .1875	7/16 .4375	11/16 .6875	15/16 .9375								
7/32 .21875	15/32 .46875	23/32 .71875	31/32 .96875								
1/4 .25	1/2 .5	3/4 .75									

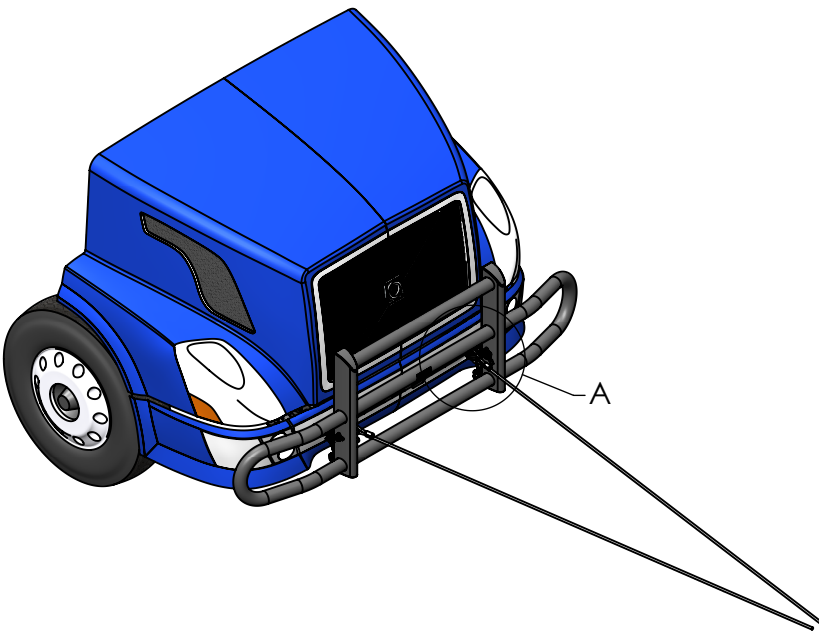


DETAIL A
SCALE 1 : 12



MAGNUM 17165 BUMPER TOWING INSTRUCTIONS

- TOW CAPACITY PER HOOK IS **5000 lb. MAXIMUM.**
- TOW ONLY IN ACCORDANCE WITH THE ARRANGEMENT SHOWN IN THIS INSTRUCTION.
- TOW CAPABILITY IS NOT FOR VEHICLE RECOVERY FROM ACCIDENT OR OTHER VEHICLE OFF ROAD CONDITION - FOR VEHICLE RECOVERY REMOVE THE BUMPER AND USE THE VOLVO PROVIDED TOW YOKES.
- MINIMUM TOW CABLE LENGTH = 10 FT.
- TOW HOOKS MUST BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH MAGNUM INSTALLATION INSTRUCTIONS



DANGER!

ONLY USE RIGGING OF CORRECT RATED CAPACITY

CLEAR ALL PERSONS MINIMUM 15 METERS FROM VEHICLES WHEN TOWING

MAGNUM TRAILER & EQUIPMENT INC. 	FRACTIONS CHART				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS ANGLES +/- 1/16" +/- 1° .XX" .XXX" +/- 0.03" +/- 0.005"		SHEET NAME TOWING		TITLE 17165 BUMPER ON VOLVO VN 2009				
	1/32 .03125 9/32 .28125 17/32 .53125 25/32 .78125	1/16 .0625 5/16 .3125 9/16 .5625 13/16 .8125	3/32 .09375 11/32 .34375 19/32 .59375 27/32 .84375	1/8 .125 3/8 .375 5/8 .625 7/8 .875			5/32 .15625 13/32 .40625 21/32 .65625 29/32 .90625	3/16 .1875 7/16 .4375 11/16 .6875 15/16 .9375	7/32 .21875 15/32 .46875 23/32 .71875 31/32 .96875	1/4 .25 1/2 .5 3/4 .75	CURRENT CUSTOMER	STOCK NUMBER	VENDOR NUMBER
					DIMENSIONS TO SHARP POINTS		WO#		DRAWN BY		DRAWN DATE 2014-01-23		REV. B
							SCALE 1:40		MODELLER		DRAWING NUMBER AA-33068		NUMBER OF SHEETS 1