

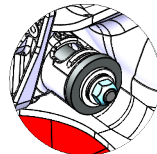
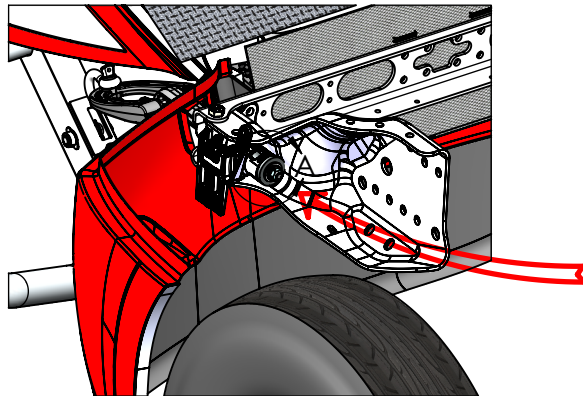
**INSTALL STEPS**

- 1) REMOVE NUTS, WASHERS AND SUPPORT SPACERS FROM STUDS - 2 PLACES.
- 2) OPEN THE HOOD AND REMOVE THE SRPINGS AND SHOULDER WASHERS IN THE BACK OF THE TOW SOCKETS. CLOSE THE HOOD.
- 3) WITH BUMPER IN THE CLOSED POSITION SLIDE THE BRACKETS INTO THE TOW SOCKETS.
- 4) CAREFULLY OPEN BUMPER, ENSURING IT DOES NOT SLIP OUT OF THE TOW SOCKETS.
- 5) OPEN TRUCK HOOD AND INSTALL NUTS, WASHERS AND SUPPORT SPACERS AS SHOWN IN DETAIL A AND CROP VIEW.
- 6) FULLY TIGHTEN NUTS ONTO STUD. TORQUE = 210 FT-LB. DO NOT EXCEED THIS VALUE OR STRIPPING WILL OCCUR. ENSURE THAT STUD IS FREE OF LUBRICATION BEFORE TIGHTENING TO THIS VALUE.  
  
IF LOCTITE IS USED DECREASE TORQUE VALUE ACCORDING TO THE MANUFACTURERS RECOMMENDATION.
- 7) CLOSE HOOD AND BUMPER.
- 8) CHECK THE BUMPER FOR FREE MOVEMENT AND IF IDENTIFIED ADD ONE OR MORE WHITE SHIMS AS PER MAGNUM INSTRUCTIONS. CONGRATULATIONS, THE INSTALL IS NOW COMPLETE.

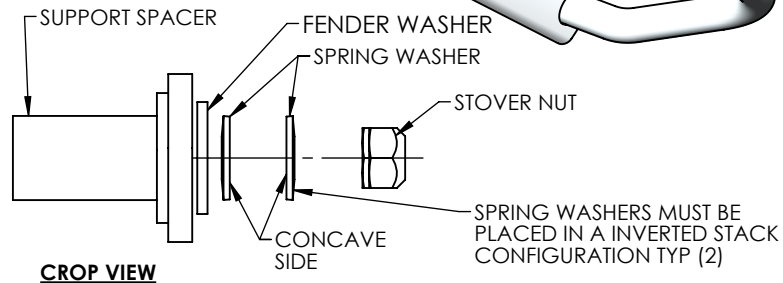
**NOTE:** TOW SHACKLE & CLEVIS NOT VISIBLE IN THIS VIEW, VISIBLE ON SECOND SHEET WHEN THE BUMPER IS CLOSED

NUTS, SPRING WASHERS AND SUPPORT SPACERS ARE INSTALLED AFTER BUMPER IS "PLUGGED" INTO TOW SOCKETS SEE DETAIL "A" AND CROP VIEW

WHITE SHIM



**DETAIL A**  
SCALE 1 : 8



**CROP VIEW**

SPRING WASHERS MUST BE PLACED IN A INVERTED STACK CONFIGURATION TYP (2)

**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

Sheet1

CURRENT CUSTOMER

WO#

SCALE

1:4

TITLE

17228 BUMPER ON 2017 FREIGHTLINER CASCADIA EVO

STOCK NUMBER

VENDOR NUMBER

WEIGHT - LB.

132.

DRAWN BY

HM

DRAWN DATE

3/30/2017

REV.

F

MODELLER

HM

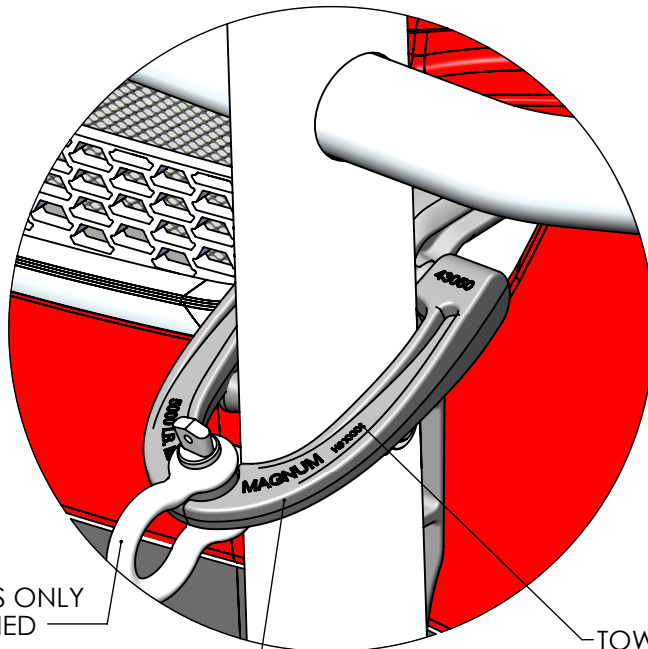
DRAWING NUMBER

AA-44591

NUMBER OF SHEETS

2

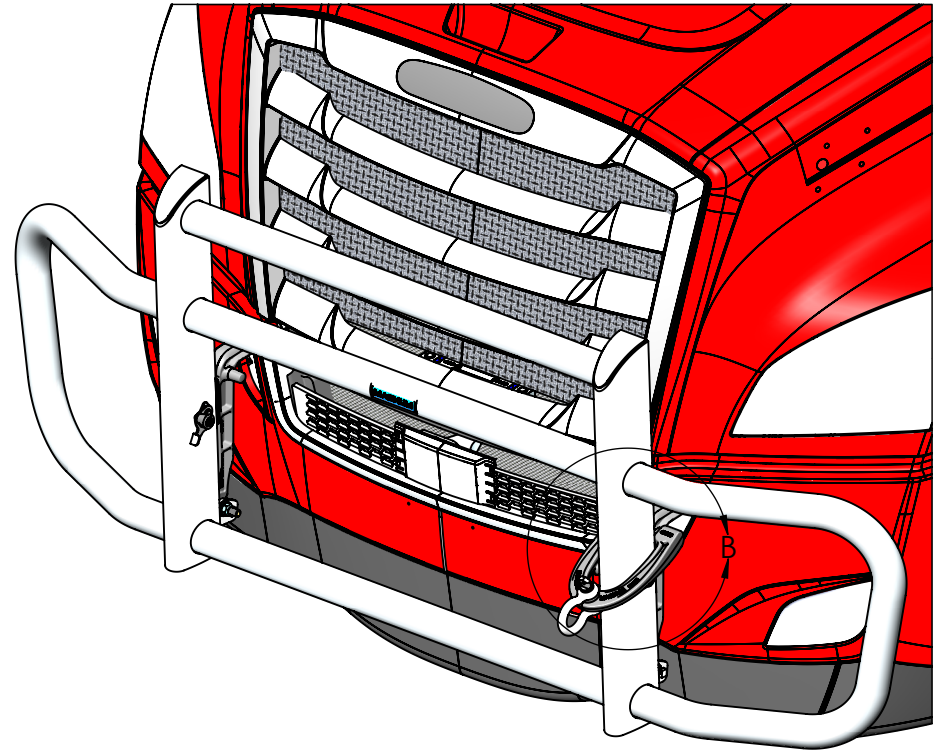
DETAIL B  
SCALE 1 : 5



SECURE TOW-CLEVIS ONLY  
WITH SHACLE SUPPLIED

TOW-CLEVIS SUPPLIED

INSTALL & USE TOW COMPONENTS  
ONLY WHEN TOWING.  
INSPECT TOWING COMPONENTS  
BEFORE INSTALLATION.



**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
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1/4	.25	1/2	.5	3/4	.75		

UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES  
TOLERANCES ARE:

FRACTIONS	ANGLES
+/- 1/16"	+/- 1°
.XX"	.XXX"
+/- 0.03"	+/- 0.005"

**DIMENSIONS TO SHARP POINTS**

SHEET NAME

Sheet2

CURRENT CUSTOMER

WO#

SCALE

1:4

TITLE

**17228 BUMPER ON 2017 FREIGHTLINER CASCADIA EVO**

STOCK NUMBER

VENDOR NUMBER

WEIGHT - LB.

132.

DRAWN BY

HM

DRAWN DATE

3/30/2017

REV.

F

MODELLER

HM

DRAWING NUMBER

**AA-44591**

NUMBER OF SHEETS

2