



DESTROYER SERIES

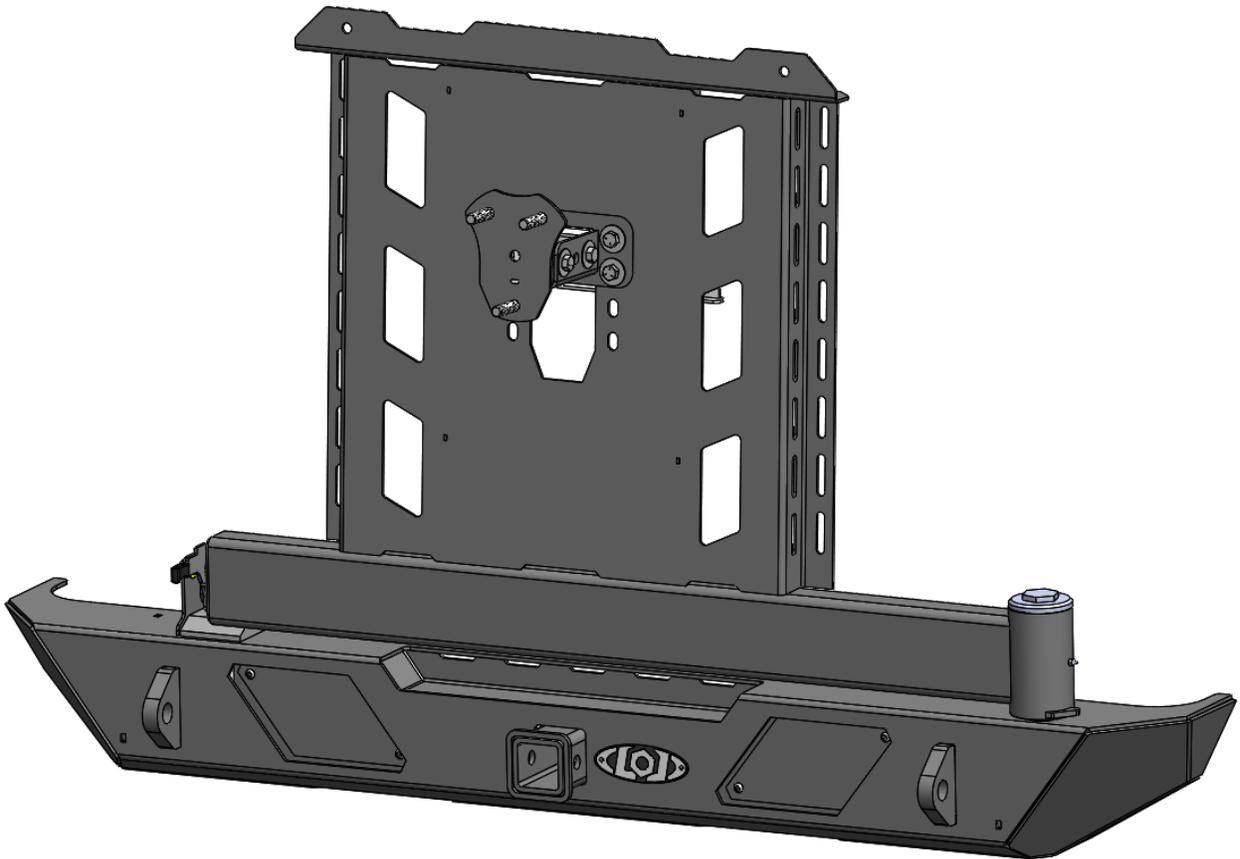
YJ TJ LJ

**JEEP YJ/TJ/LJ DESTROYER
TIRE CARRIER**



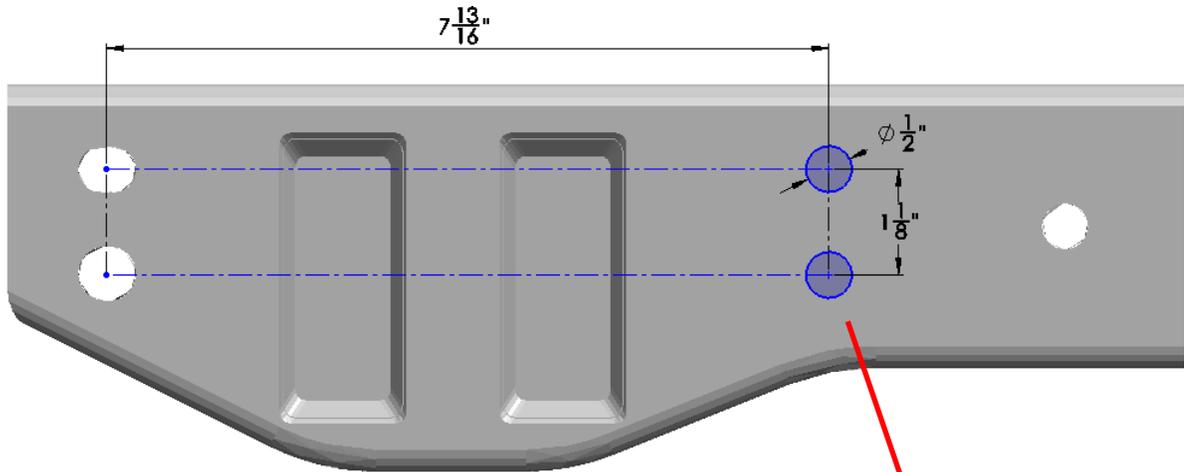
WEB LINK: <http://lodoffroad.com/assets/pdfs/JBC9640 YJ TJ LJ DESTROYER TIRE CARRIER.pdf>

VERIFY YOU HAVE ALL THE COMPONENTS BEFORE STARTING THE INSTALLATION. REFER TO THE ENGINEERING DRAWINGS AT THE END OF THIS DOCUMENT FOR A COMPLETE PARTS LIST



Start by removing your rear bumper. You will need to drill two mounting holes on each side in the rear cross member. This step is only needed on 1998 and newer TJ's. Earlier TJ's and YJ's already have these holes in place.

Follow the diagram shown for drilling 1/2" diameter mounting holes 7-13/16" from the outside mounting holes.



To improve your drilling accuracy it is a good idea to start small bit and get progressively larger or use a step drill. Be careful when you punch thru as to not hit the gas tank behind the cross member.



Next lower the gas tank skid plate by removing the 4 screws shown below. This will allow the skid plate to drop a few inches to gain access behind the rear cross member.

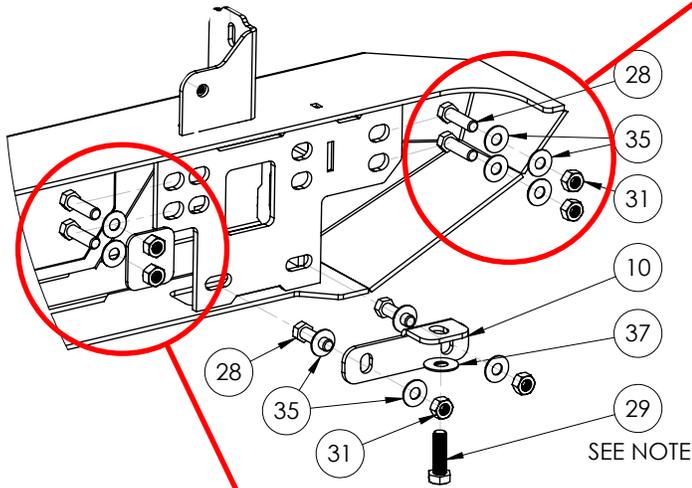
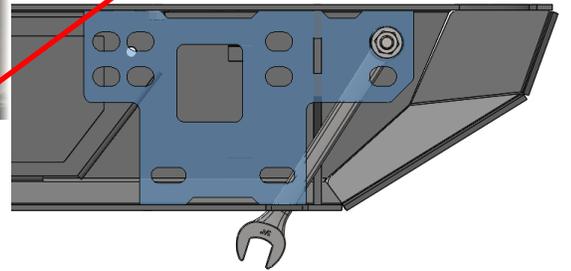


Use a floor jack or a helper to hold the rear bumper up to the rear cross member.

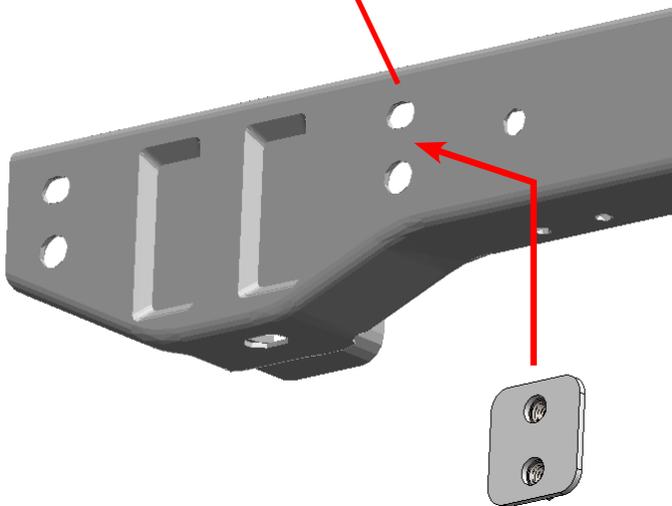
Install the 7/16" Hex Bolts, Nuts and Washers into the two outside mounting holes.

Start with the top bolt first. You can insert a wrench into the large rectangular hole in the bottom of the bumper to access the nut for tightening.

Tighten these securely then install the lower Hex Bolt, Nut and Washer and tighten securely.



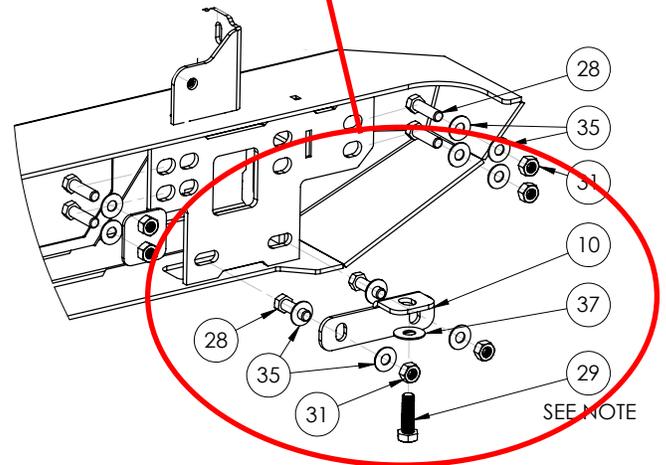
Install the 7/16" Hex Bolts, Washers and Frame Backing Plate as shown into the holes that you drilled into the rear Cross Member. With the gas tank skid plate lowered as shown, you will be able to insert the Frame Backing Plate behind the Cross Member. You can access bolt holes thru the light bezel opening in your bumper.



Install the Bottom Bracket as shown using 7/16" Hex Bolt and washers into the bumper, and the supplied metric M12 Hex bolt and washer into the frame.

Note some older Jeeps may have a different threaded nut in frame. Be sure to check the thread before tightening. Do not force the bolt into the thread if you are not sure.

Once all the bolts are installed, tighten all the mounting bolts securely. Once the bumper is secure reinstall the gas tank skid plate.

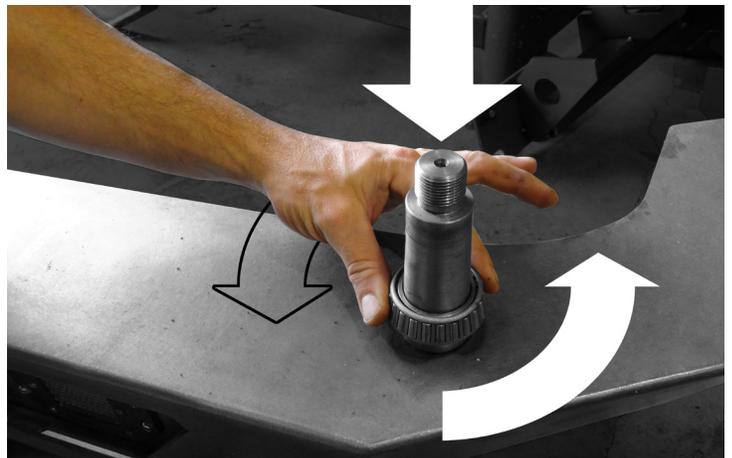


Place bottom bearing LM29749 onto the spindle, tapered side up. It should slide down all the way and spin freely. If not, you are using the wrong bearing.

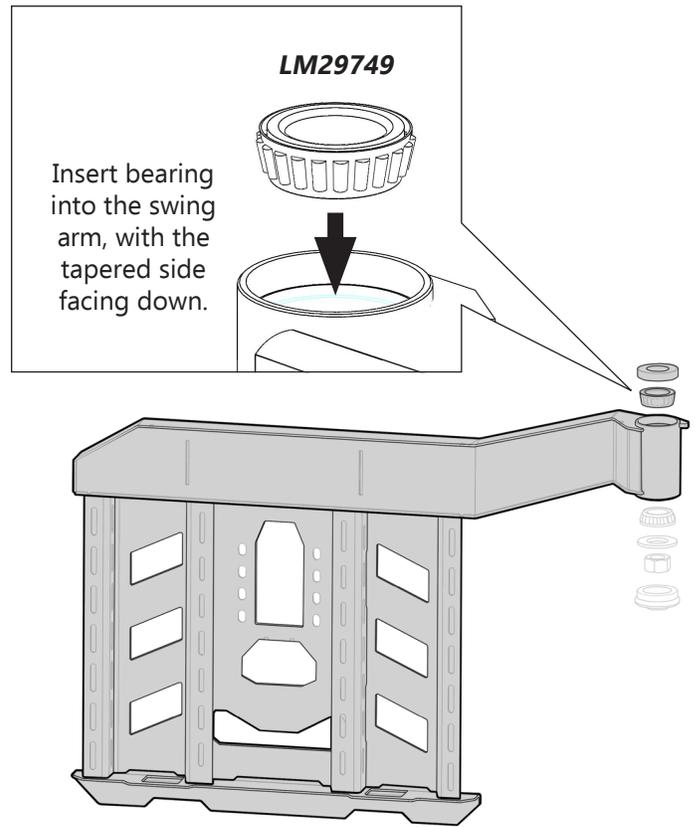
Make SURE to check the bearing number to be sure you have the correct one.

Be sure not to mix up the top and bottom bearings as this can damage the spindle and bearings.

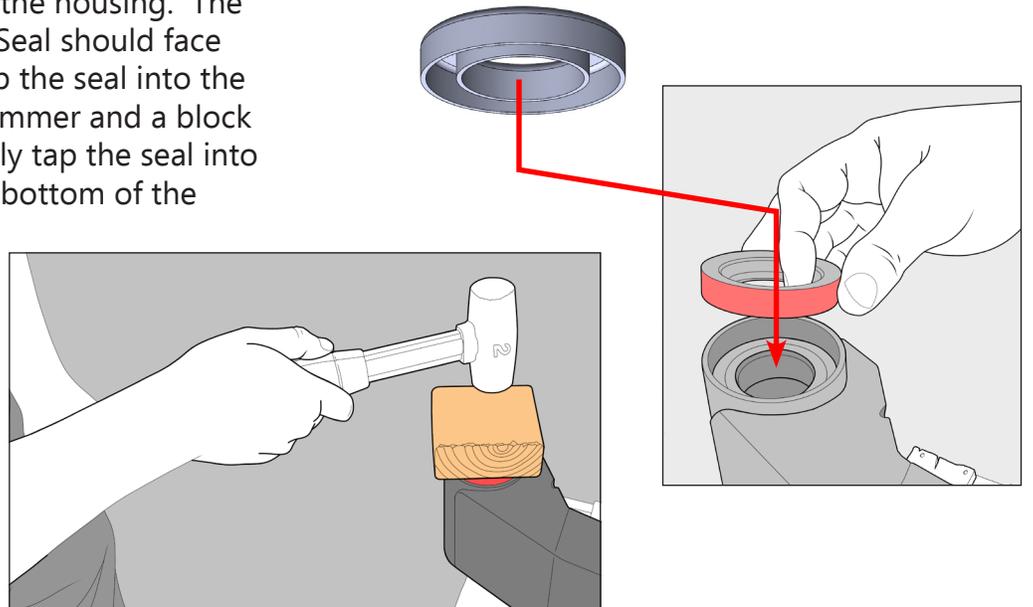
Pack the bearings using red wheel bearing grease using the palm method. You can find an explanation and video of this online.



Next place the tire carrier Swing Arm upside down as shown in the image below. Insert the greased bottom bearing LM29749 into the housing with the tapered side facing into the housing.

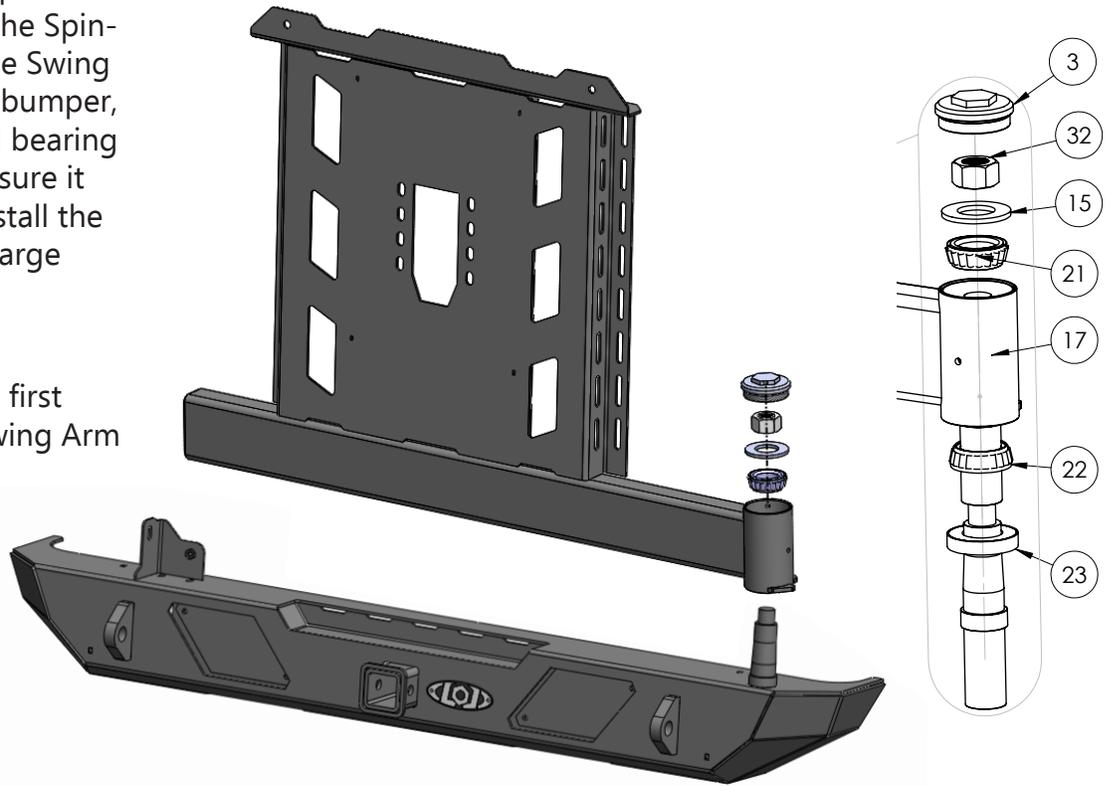


Place the Bearing Seal onto the housing. The cupped side of the Bearing Seal should face into the housing. Lightly tap the seal into the housing opening using a hammer and a block of wood. Be careful to evenly tap the seal into place until its flush with the bottom of the housing.



With a helper, slowly place the Swing Arm onto the Spindle. While holding the Swing Arm parallel with the bumper, place the top tapered bearing into the housing. Be sure it seats properly and install the Bearing Washer and large Nut.

Hand tighten the Nut first and make sure the Swing Arm operates smoothly.



It is a good idea to add a little blue loctite to the Nut to prevent loosening. Slowly tighten the nut using a 1-1/2" Socket. Check the swing arm movement every 1/8th turn. The Swing Arm movement should not be restricted and should move freely. Overtightening could damage the bearings.

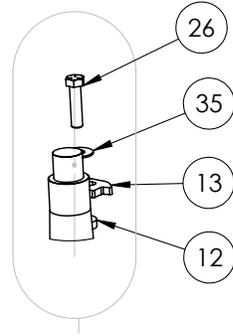
Install and tighten the Spindle Cap.



Install your Destroyer Light Bezels using the 1/4" Button Head Screws provided.

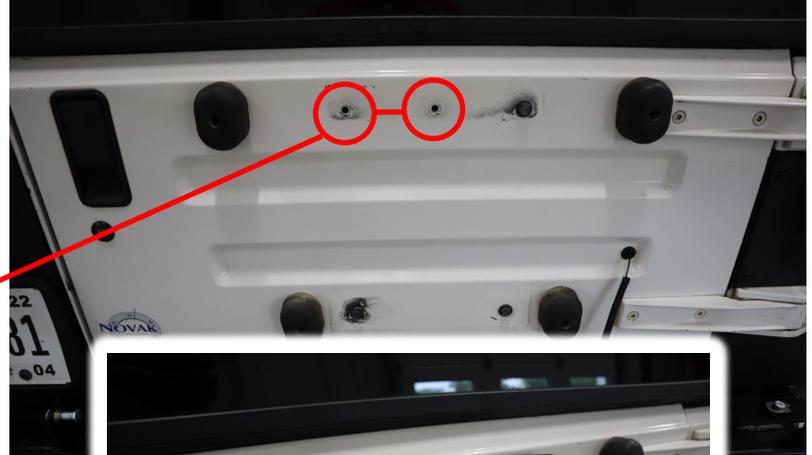
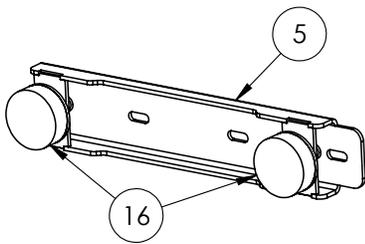


Install the tire carrier Swing Stop. Be sure to adjust it to allow the Swing Arm to open completely and allow full use of your tailgate and tighten securely. If you have accessories mounted on your tire carrier, you can adjust this slightly to help avoid the accessories hitting the Jeep when you open the Swing Arm.



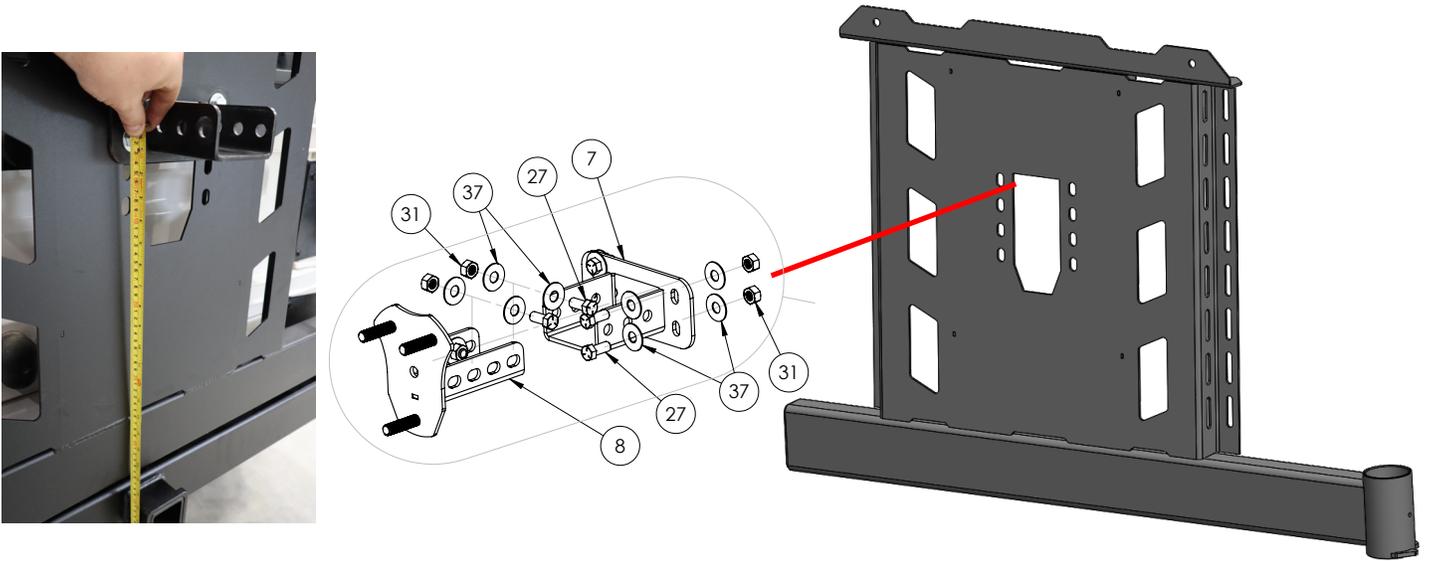
The Swing Stop is designed to allow the swing arm to rest in the open position when the Jeep is out of level. It is also a safety feature that will help stop the tire carrier Swing Arm from swinging around and damaging your Jeep. Repeatedly allowing the Swing Arm to swing around uncontrolled could damage the swing stop. Always open the Swing Arm and allow it to gently rest against the Swing Stop.

Install the Bumper Door Bracket and two large bumpers as shown onto the tailgate. Use the original mounting screws from your OEM tire carrier.



Install the Bumper Door Bracket so the two large bumpers should line up with the ribs on the back of the tire carrier Swing Arm. Adjust the Bumper Door Bracket as needed and tighten securely.

Install the Tire Mount and Tire Mount Bracket onto the Swing Arm using 7/16" Hex Bolts, Nuts and Washers. You will want to mount this in the lowest position that will work for your size tire. Measure the radius of your tire then transfer that measurement up from the top of the bumper to find the optimal position for your Tire Mount.

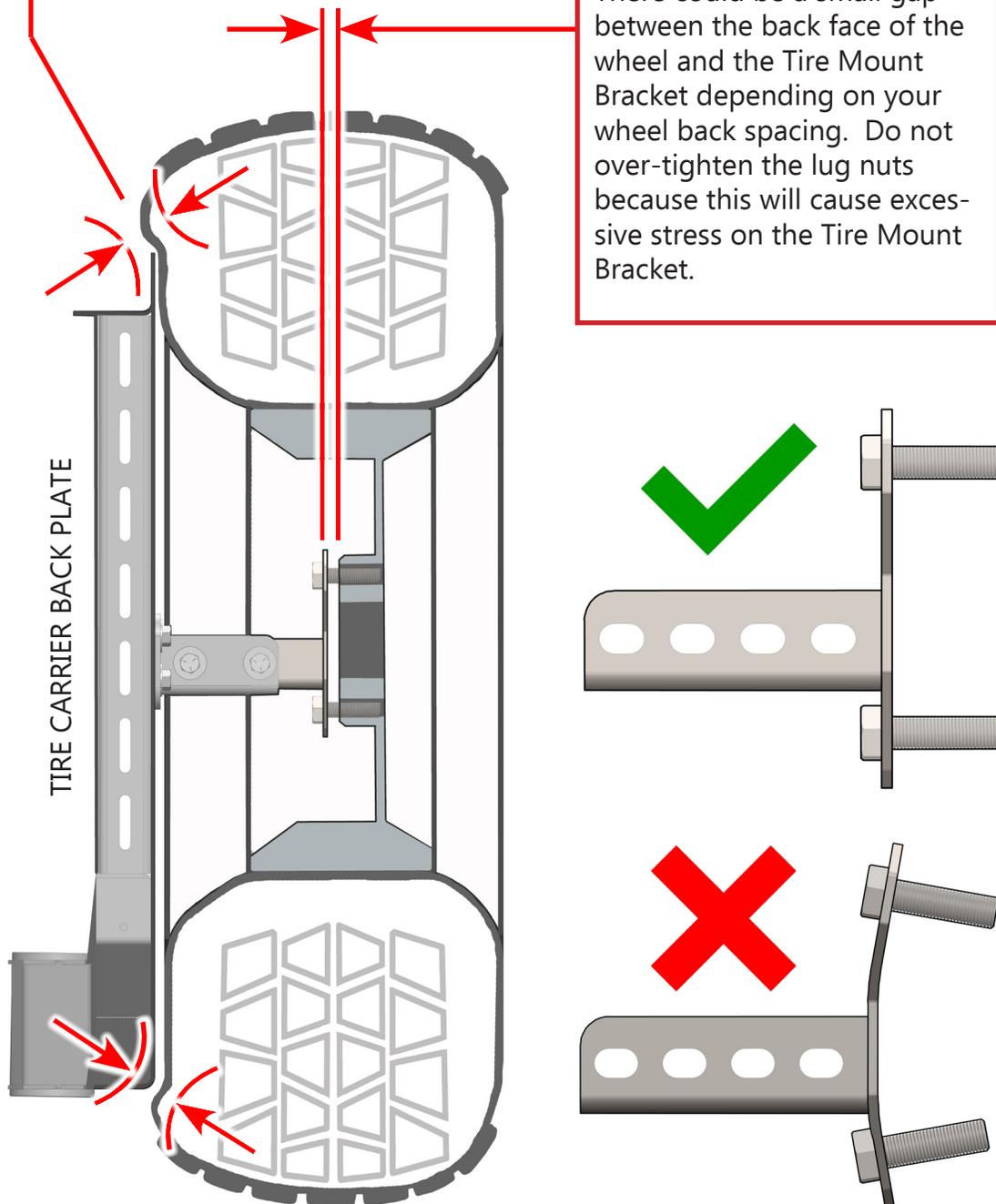


With the tire mounted, there could be a small gap between the back of the wheel and the Tire Mount Plate approximately 1/4" - 1/2". This is ok because the tire is pressed against the Tire Carrier Back Plate. The tire should be tight against the back plate and not able to wiggle side to side or up and down. This keeps the tire from shaking on the tire carrier.



Your tire should squeeze against the back plane of the tire carrier at the top and the bottom.

There could be a small gap between the back face of the wheel and the Tire Mount Bracket depending on your wheel back spacing. Do not over-tighten the lug nuts because this will cause excessive stress on the Tire Mount Bracket.

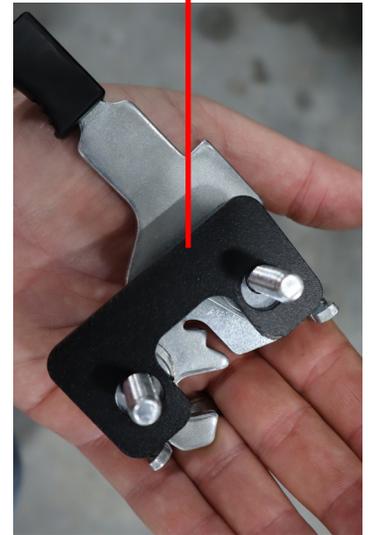
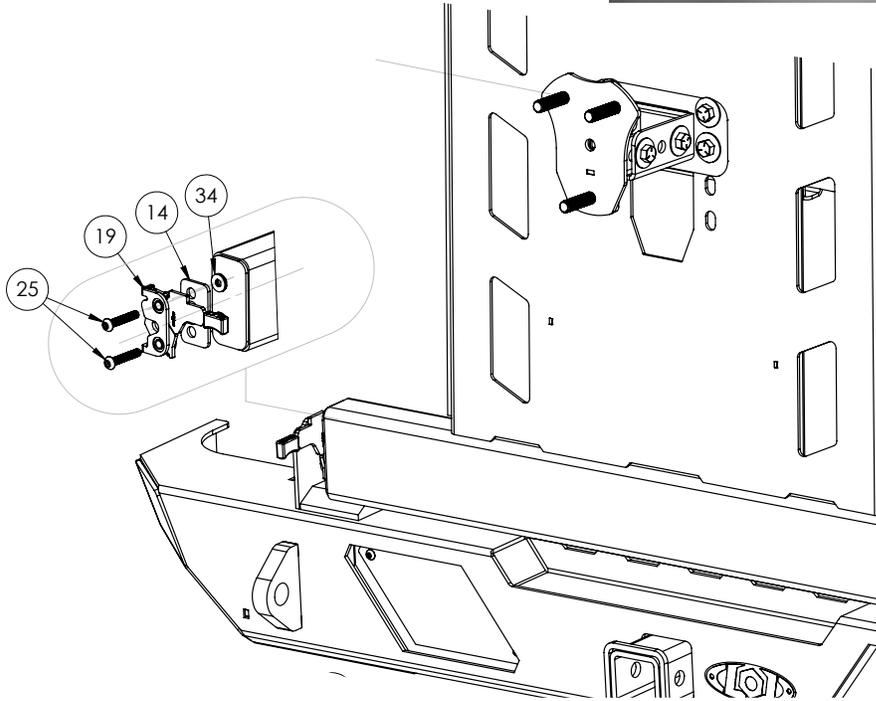
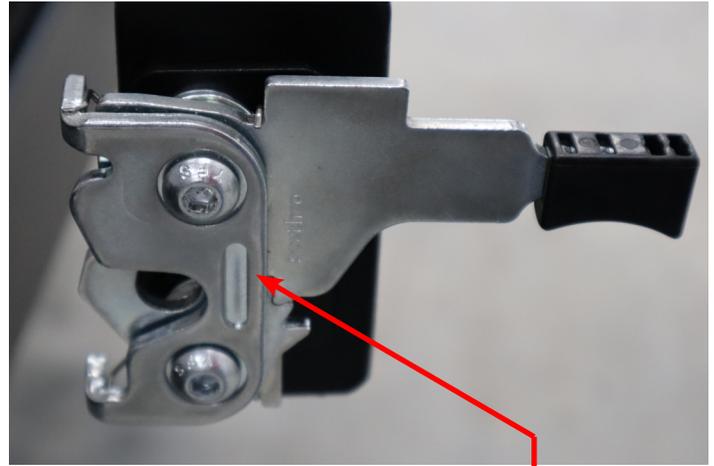


WARNING!

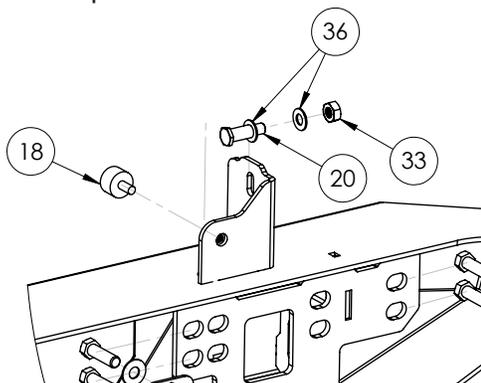
To prevent excessive tire shaking, your tire must be squeezed and making contact with the Tire Carrier Back Plate. Failure to do so could lead to Tire Bracket failure and the loss of your tire.

Install the Latch and Latch Spacer onto the end of the Swing Arm. Just snug them up because you may need to adjust it in the following steps.

The Latch Spacer is used to help position the latch relative to the Striker Bolt. Also included in the hardware are 1/4" Washers. These are placed between the Latch and the Swing Arm and can be used for fine adjustment if needed. Start by installing just the Latch and Latch Spacer for now.



Next install the Striker Bolt with Yellow Zinc plated Washers and Metric M10 Nut. Just snug these up for now until all adjustments are made. Also install the small rubber bumper as shown.

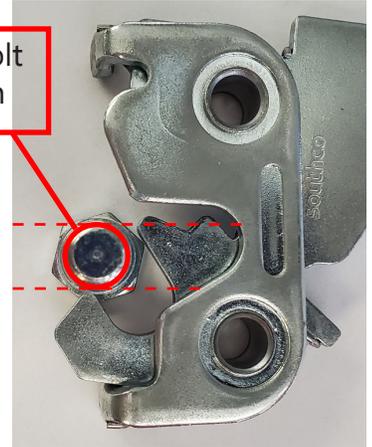


LATCH ADJUSTMENT

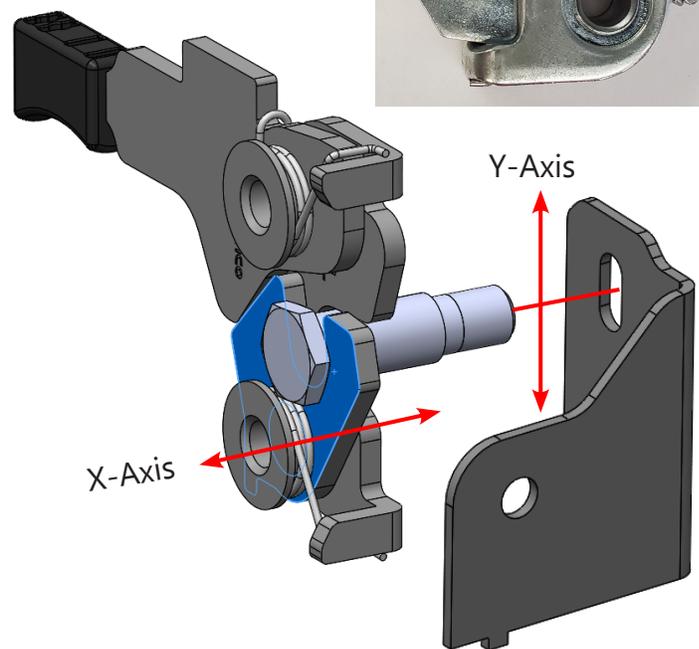
For smooth latch operation, be sure to adjust the latch with the tire carrier loaded with your spare tire and any other normal accessories you will run.

With the tire carrier loaded, adjust the position of the Striker Bolt up or down along the Y-Axis until it lines up with the Latch.

Position of Striker Bolt relative to the Latch



Next position the latch on the X-Axis using the Latch Spacer and/or the 1/4" washers to position the head of the Striker Bolt as close to the BLUE highlighted face without rubbing.



Make sure the two large rubber bumpers and the small bumper are threaded all the way in and out of the way of the Swing Arm while you adjust the Latch.

Test the operation of the latch by slowly closing the swing Arm until the latch engages. If needed add or remove spacers from the Latch mounting or adjust the Striker Bolt up or down until the Swing Arm closes easily.

Once adjusted, tighten the Latch and Striker Bolt Securely.



Always close the tire carrier Swing Arm by pushing on the arm near the Latch or the bottom of the tire. This helps to insure the Latch catches the Striker Bolt securely.

Closing the tire carrier Swing Arm from any other location may cause the Latch not to engage properly.

Always check to make sure the Latch is secure before driving.



With the swing arm closed, unthread the small rubber bumper until it touches the arm, then add another 1/2 to 1 full turn. This bumper should limit the Swing Arm movement and keep the Latch from rattling against the Striker Bolt.

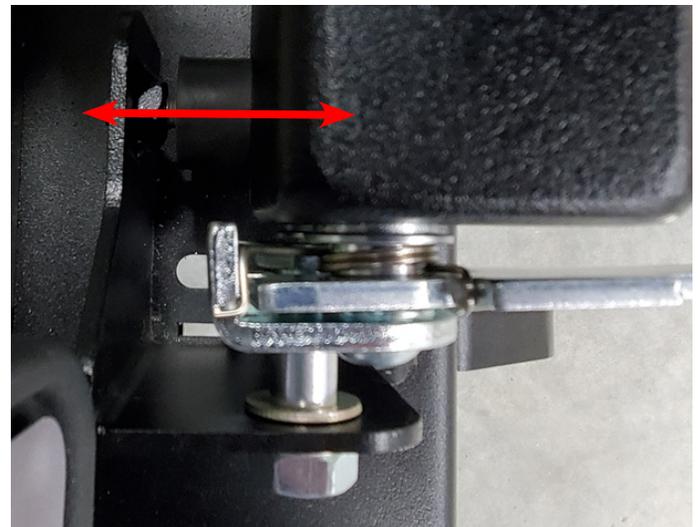
When adjusted correctly you should not have to slam the Swing Arm closed for the latch to operate correctly but you will need to use a little force.

You may need to adjust the latch if you remove accessories from your tire carrier or change tire size.

Next unthread the large rubber bumpers until they are touching the inside ribs of the Swing Arm, then add another 2 to 3 full turns. These bumpers will help limit Swing Arm movement and vibration.

When adjusted correctly you should not hear any rattles while shaking the loaded tire carrier.

You can use a little green or blue loctite on the bumper threads to keep them from changing position during daily use.



Specifications:

Max Tire size:
 40" without accessory mounts
 38" with accessory mounts

Weight Limits:
 300 lbs Max combined weight
 (includes tire, accessories and accessory mounts)

Only install one accessory per side. Do not double stack accessories

300 LBS MAX.

****Maintenance****

Tire Carrier & Swing Arm:

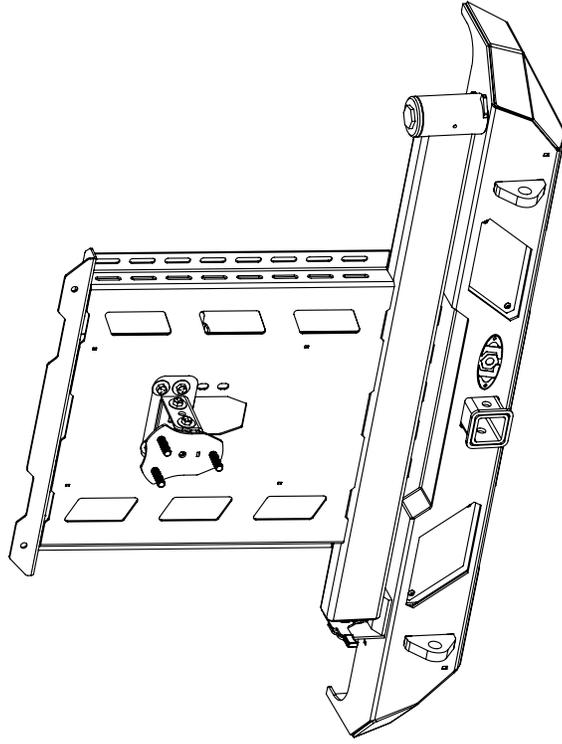
- Once per year or as needed, add bearing grease to the Tire Carrier Swing Arm Spindle via the grease fitting on the side of the spindle. We suggest using a Lithium type automotive multi-purpose grease or wheel bearing grease (Red) that is water resistant.
- Periodically check and re-tighten all fasteners. Adjust the swing arm bumpers to ensure rattle free operation.
- Periodically check your Bumper and Tire Carrier and accessory mounts for scratches, dings, or rust spots which can happen over time or after heavy use. It is important to address these areas as soon as possible to prevent rust and corrosion from spreading. We recommend using Rustoleum® brand Black Semi-Gloss Protective Enamel (oil based). Apply using a foam brush by dabbing to match the powder coat texture.



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	4JBC9640-05	TJ DESTROYER REAR BUMPER WELDMENT	1
2	4JBC9640-03	TJ/LJ DESTROYER SWING ARM	1
3	2JC1002-03	SPINDLE CAP	1
4	LOGO1001	DESTROYER LOGO - EMBOSSED	1
HARDWARE KIT			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
5	4JBC9640-08	BUMPER DOOR BRACKET	1
6	4JBC9620-01	FRAME BACKING PLATE	2
7	4JTC1001-04	TIRE MOUNT BRACKET	1
8	4JBC9640-01	TJ EXPEDITION TIRE MOUNT 5X4.5	1
9	2JBC9640-21	SUPPORT PAD	1
10	2JBC9640-24	BOTTOM MOUNT TAB DS	1
11	2JBC9640-23	BOTTOM MOUNT TAB PS	1
12	2JBC1800-11	SWING STOP SPACER	1
13	2JBC1800-10	SWING STOP	1
14	2JBC9640-17	LATCH SPACER	1
15	2JTC1001-22	BEARING WASHER	1
16	2JTC1001-52	RUBBER ISOLATOR	2
17	2JTC0701-10	GREASE FITTING 1/4-28	1
18	BP1001	RUBBER BUMPER, 5/16-18 X .62"LG THREADED STUD, 50D	1
19	LAT1002	ROTARY PUSH TO CLOSE LATCH	1
20	LAT1003	ROTARY LATCH STRIKER BOLT M10	1
21	LM48548	TOP TAPERED BEARING	1
22	LM29749	BOTTOM TAPERED BEARING	1
23	450068	TIMKEN BEARING SEAL 450068	1

BOLT KIT

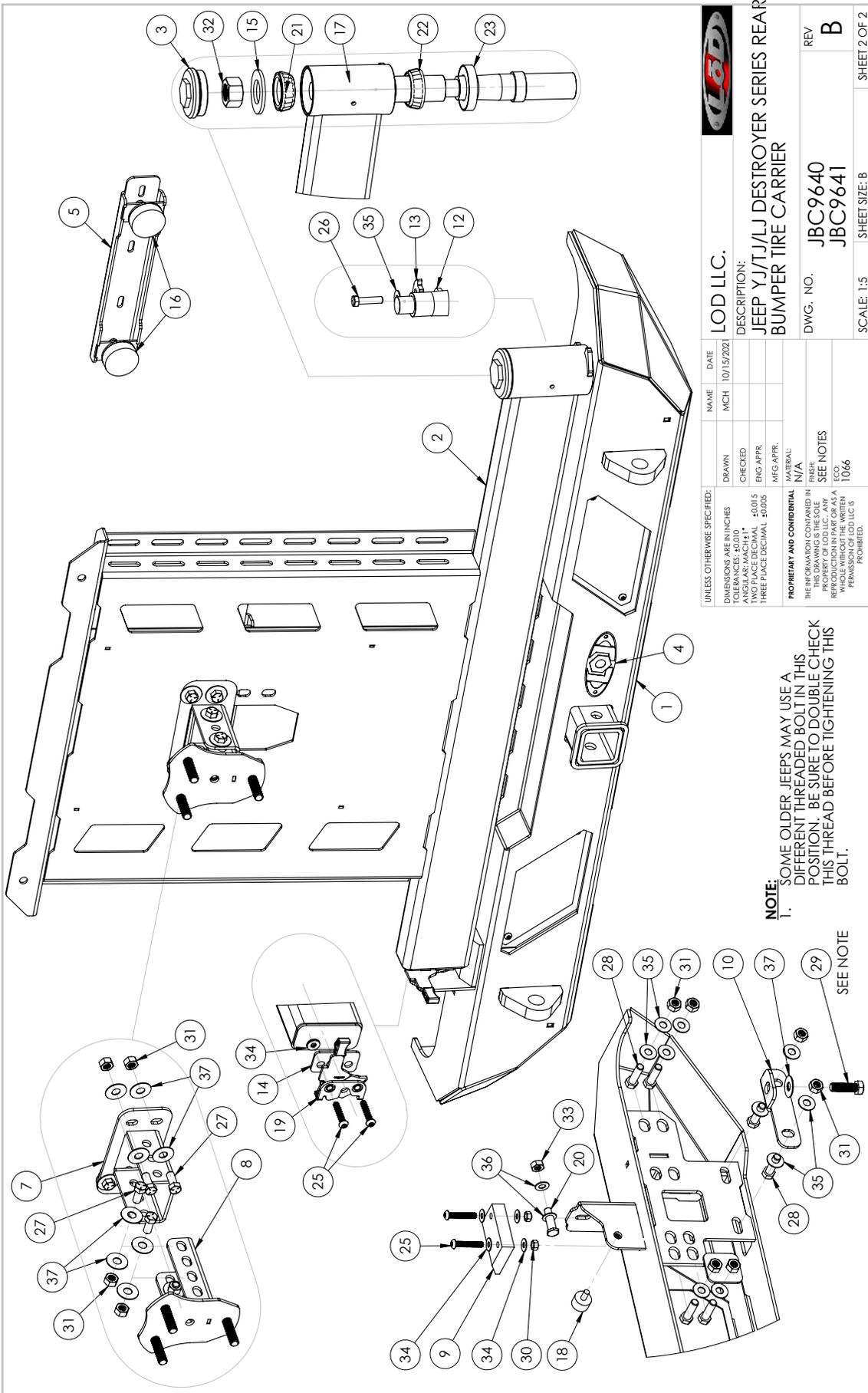
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
24	BHSCS252008ZP	BHSCS 1/4-20 X 0.50 ZINC PLATE	4
25	BHSCS311828ZP	BHSCS 5/16-18 X 1.75 ZINC PLATE	4
26	HB381624ZPGR5	HEX BOLT 3/8-16 X 1.500 ZINC PLATE GR5	1
27	HB431416ZPGR5	HEX BOLT 7/16-14 X 1.00 HEX BOLT ZINC PLATE GR5	8
28	HB431424ZPGR5	HEX BOLT 7/16-14 X 1.50 HEX BOLT ZINC PLATE GR5	12
29	HB12175M40ZPCL88	HEX BOLT M12-1.75 x 40mm ZINC PLATE CL8.8	2
30	HN3118ZPGR5	HEX NUT 5/16-18 ZINC PLATE GR5	2
31	HN4314ZPGR5	HEX NUT 7/16-14 ZINC PLATE GR5	16
32	HN1014ZPGR5	HEX NUT 1-14 ZINC PLATE GR5	1
33	HN10150M2PCL8	HEX NUT M10 X 1.50mm ZINC PLATE CL8	1
34	FW2512ZP	FLAT WASHER Ø1/4" X .75 ZINC PLATE	10
35	FW3816ZP	FLAT WASHER Ø3/8" X 1.00 ZINC PLATE	21
36	FW3813YZ	FLAT WASHER Ø.406" X .812 YELLOW ZINC	2
37	FW4318ZP	FLAT WASHER Ø7/16 X 1.25" ZINC PLATED	18



- NOTES:**
- JBC9640 = BARE STEEL OPTION
 - JBC9641 = BLACK POWDER COAT OPTION
 - WEIGHT = APPROX 120 LBS

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		MCH	10/15/2021
ANGULAR TOLERANCES UNLESS OTHERWISE SPECIFIED:		CHECKED	
TWO PLACE DECIMAL ±0.015		ENG APPR.	
THREE PLACE DECIMAL ±0.005		MFG APPR.	
MATERIAL:		LOD LLC.	
PROPRIETARY AND CONFIDENTIAL		DESCRIPTION:	
THIS DRAWING IS THE SOLE PROPERTY OF LOD LLC. ANY REPRODUCTION OR TRANSMISSION OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF LOD LLC IS PROHIBITED.		JEEP YJ/TJ/LJ DESTROYER SERIES REAR BUMPER TIRE CARRIER	
SEE NOTES		DWG. NO.	JBC9640
TOD 1066		REV	B
		SCALE: 1:8	SHEET SIZE: B
			SHEET 1 OF 2





UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		MCH	10/15/2021
TOLERANCES: ±.010			
ANGULAR: MACH 1°			
TWO PLACE DECIMAL ±.0015			
THREE PLACE DECIMAL ±.0005			
		DRAWN	CHECKED
		ENG APPR.	ENG APPR.
		MFG APPR.	MFG APPR.
		INTERVAL	INTERVAL
		N/A	N/A
PROPRIETARY AND CONFIDENTIAL		SEE NOTES	
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF LOD LLC. A REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF LOD LLC IS PROHIBITED.		1066	

LOD

DESCRIPTION:
JEEP YJ/TJ/LJ DESTROYER SERIES REAR BUMPER TIRE CARRIER

DWG. NO. **JBC9640**
JBC9641

REV **B**

SCALE: 1:5 SHEET SIZE: B SHEET 2 OF 2



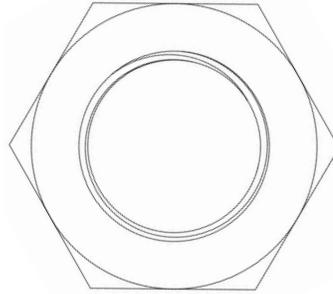
**YJ/TJ/LJ Jeep
DESTROYER SERIES**

Tire Carrier
SHIPPING SHEET

Sheet 1

Packaged by:

On: _____

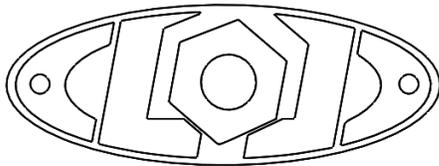
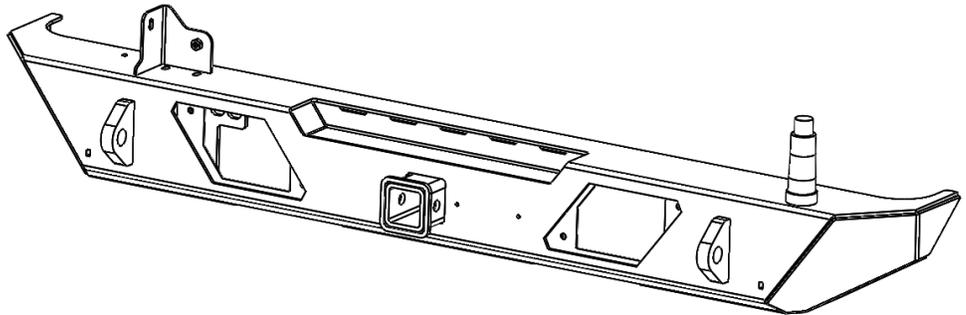


HEX NUT 1-14
(36370)
(x1)



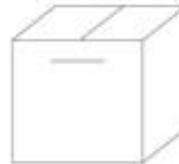
installed on tire carrier spindle

Destroyer Rear Bumper
Tire Carrier Weldment



PACKAGED SEPERATE IF BUMPER IS BARE STEEL

LOD LOGO
(x1)



Hardware Kit
(contents
may vary)

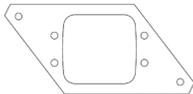


Destroyer Light Bezels

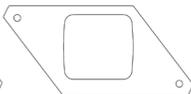
(STYLE MAY VARY, ONLY ONE SET INCLUDED)



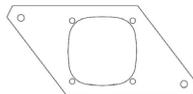
Blank / No light
JLB1851



Universal
Flush Mount
Cube
JLB1821



Rigid Pro-Series
Dually
JLB1841



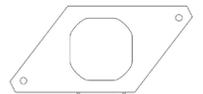
Baja Designs
Squadron
Flush Mount
JLB1863



Baja Designs
Squadron
JLB1865



Baja Designs
Squadron
Round
JLB1868



LoD Radiant
Pro LED Surface
Mount
JLB1869





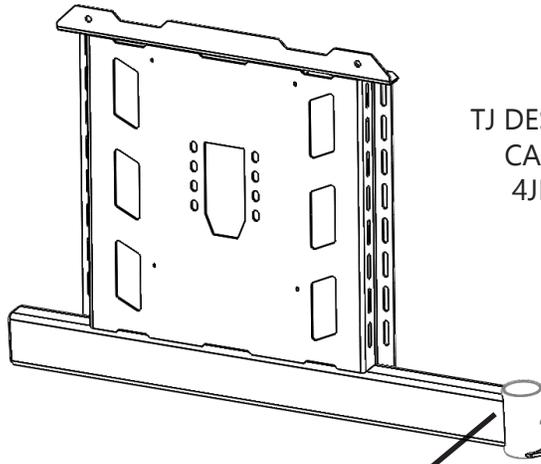
YJ/TJ/LJ Jeep
DESTROYER SERIES

Tire Carrier
SHIPPING SHEET

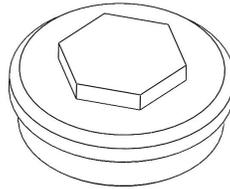
Sheet 2

Packaged by:

On:



TJ DESTROYER TIRE
CARRIER ARM
4JBC9640-03
(x1)



SPINDLE CAP
2JC1002-03
(x1)



*Installed in Tire Carrier Swing Arm



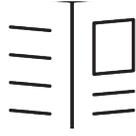
**YJ/TJ/LJ Jeep
DESTROYER SERIES**

Tire Carrier
Hardware Kit

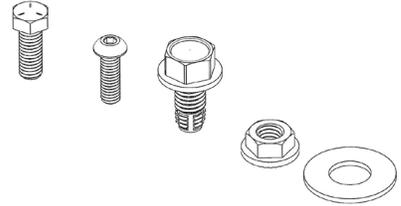
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Packaged by:

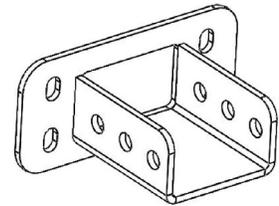
On:



INSTRUCTION
SHEET

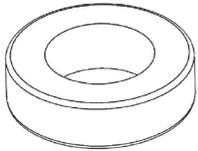


BOLT KIT
(may vary)

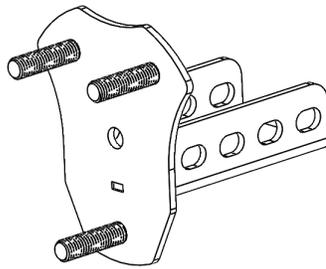


TIRE MOUNT BRACKET
4JTC1001-04

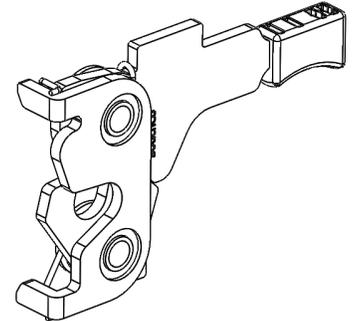
(x1)



BEARING SEAL
450068
(x1)

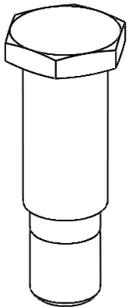


TIRE MOUNT
4JBC9640-01
(x1)

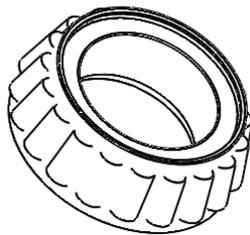


ROTARY LATCH
LAT1002

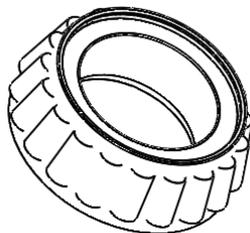
(x1)



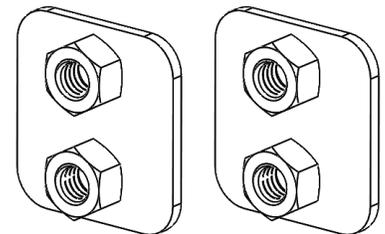
ROTARY LATCH STRIKER
BOLT
LAT1003
(x1)



TOP
TAPERED
BEARING
LM48548)



BOTTOM
TAPERED
BEARING
LM29749)



FRAME BACKING PLATE
4JBC9620-01

(x2)





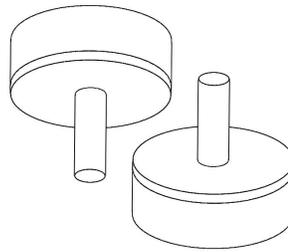
**YJ/TJ/LJ Jeep
DESTROYER SERIES**

Tire Carrier
Hardware Kit

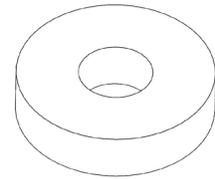
Sheet 2

Packaged by:

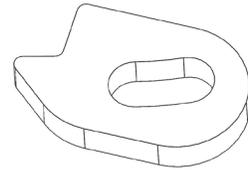
On:



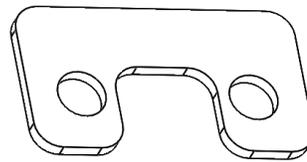
RUBBER ISOLATOR
2JTC1001-52
(x2)



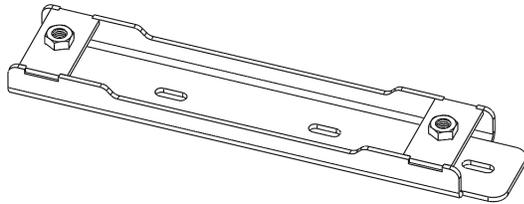
SWING STOP SPACER
2JBC1800-11
(x1)



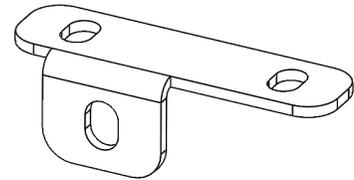
SWING STOP
2JBC1800-10
(x1)



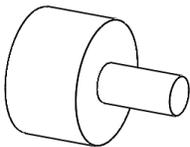
LATCH SPACER
2JBC9640-17
(x1)



BUMPER DOOR
BRACKET
4JBC9640-08
(x1)



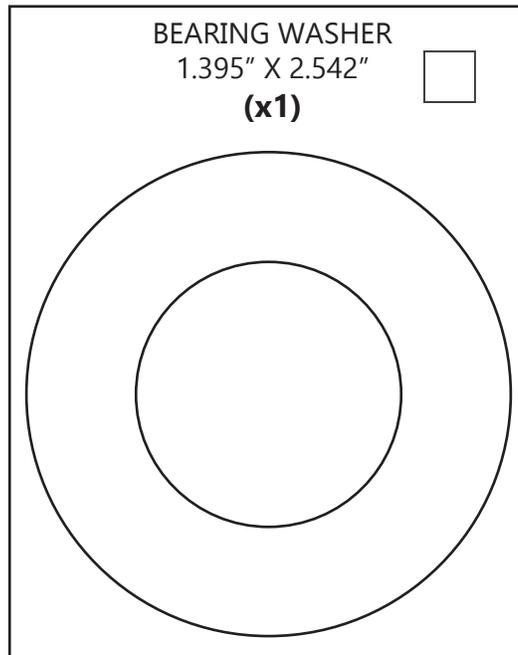
BOTTOM MOUNT TAB PS
2JBC9640-23
(x1)



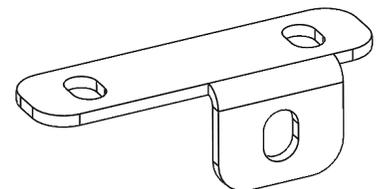
RUBBER BUMPER
BP1001
(x1)



BEARING WASHER
1.395" X 2.542"
(x1)



GREASE FITTING
1/4-28
(58771)
(x1)



BOTTOM MOUNT TAB DS
2JBC9640-24
(x1)





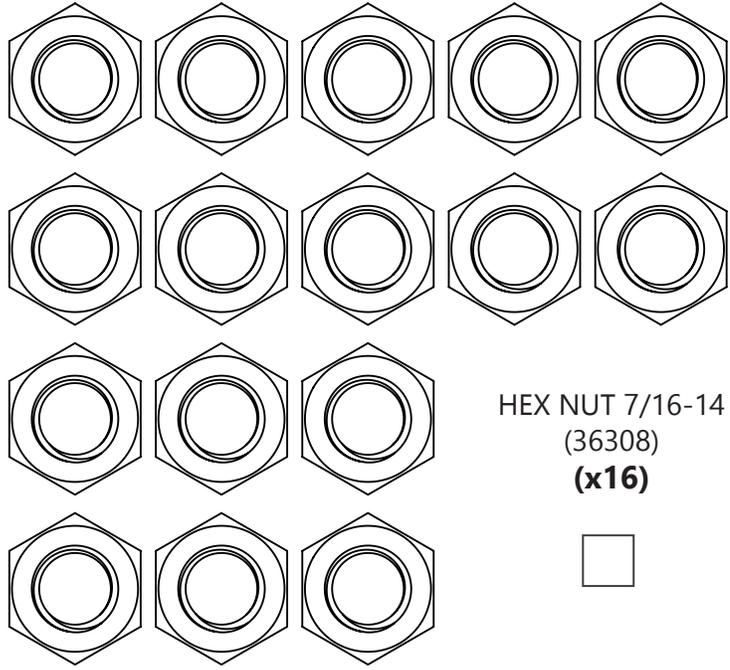
**YJ/TJ/LJ Jeep
DESTROYER SERIES**

Tire Carrier

Bolt Kit

Packaged by:

On:



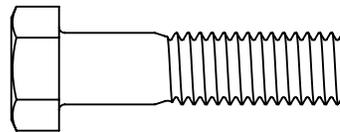
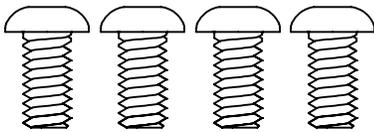
HEX NUT 7/16-14
(36308)
(x16)



BUTTON HEAD
SCREW 1/4-20 X .50"

(94049)

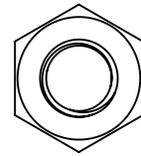
(x4)



HEX BOLT 3/8-16 X 1.50"

(0137516)

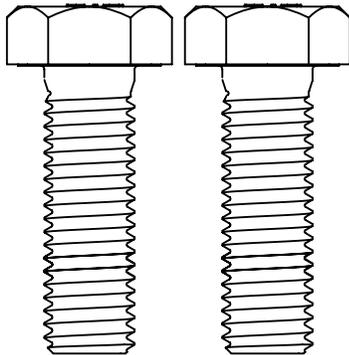
(x1)



HEX NUT M10 X 1.50MM

(36304)

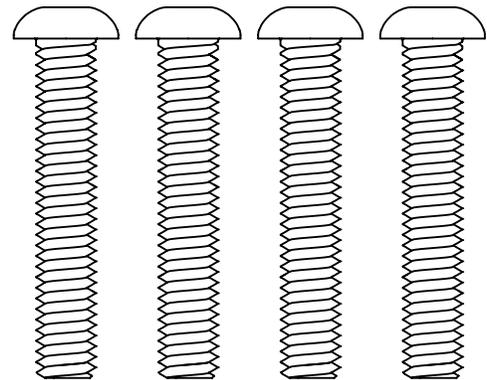
(x1)



HEX BOLT M12-1.75 X 40MM

(2138708)

(x2)



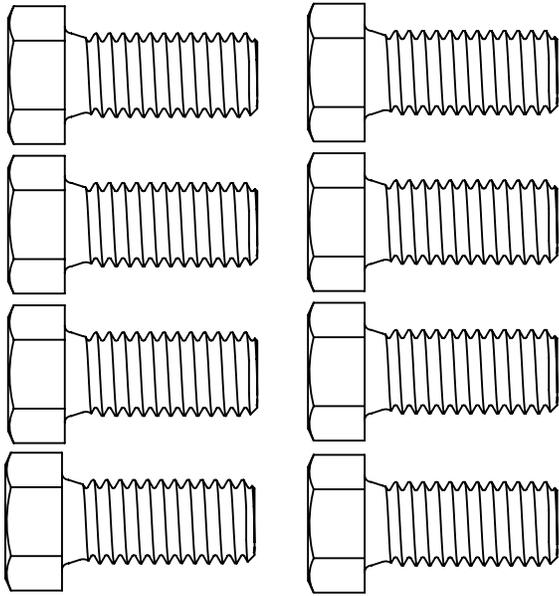
BUTTON HEAD SCREW

5/16-18 X 1.75"

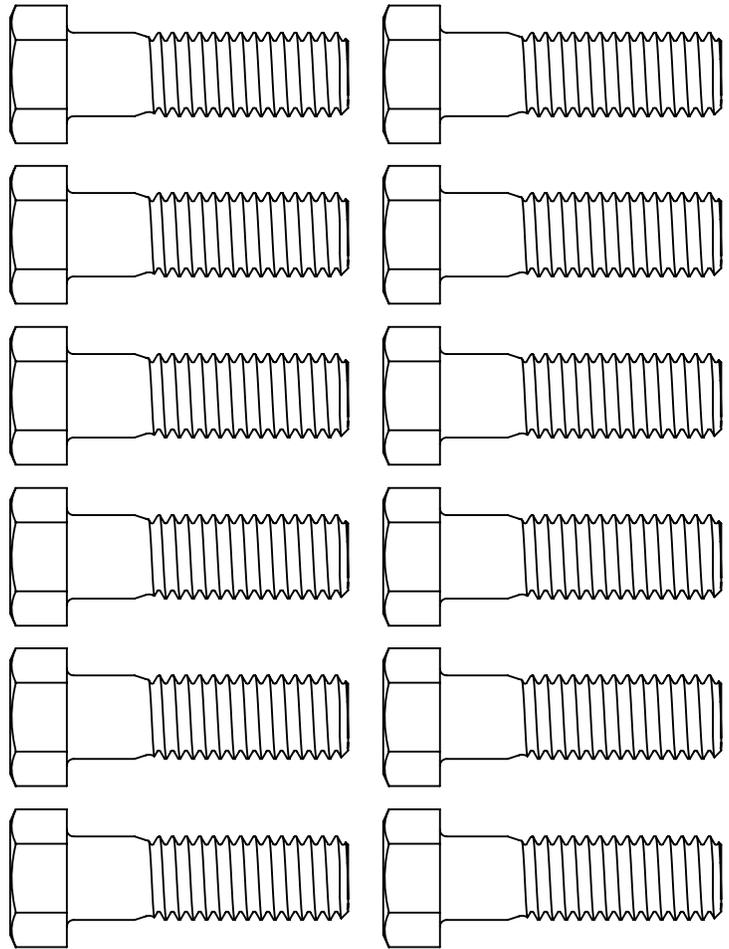
(94074)

(x4)

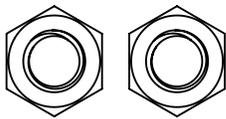




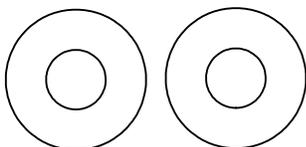
HEX BOLT 7/16-14 X 1.00"
(11105772)
(x8)



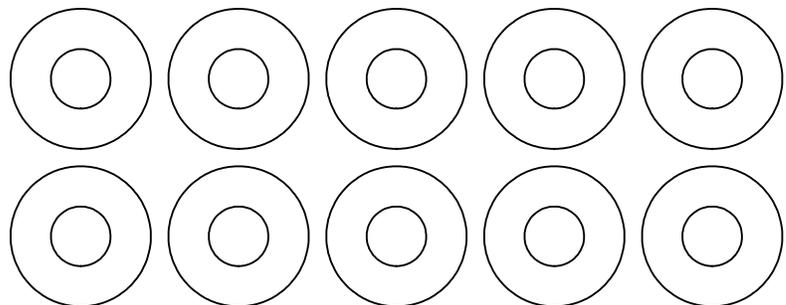
HEX BOLT 7/16-14 X 1.50"
(110120363)
(x12)



HEX NUT 5/16-18
(36304)
(x2)

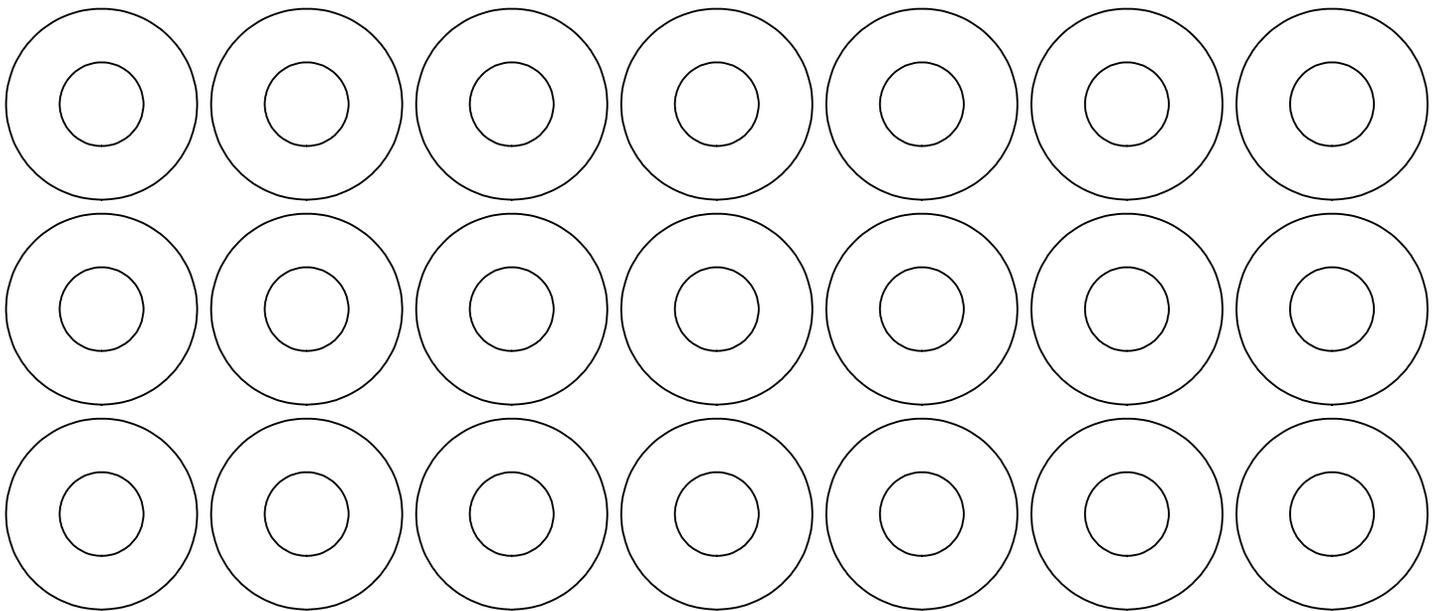
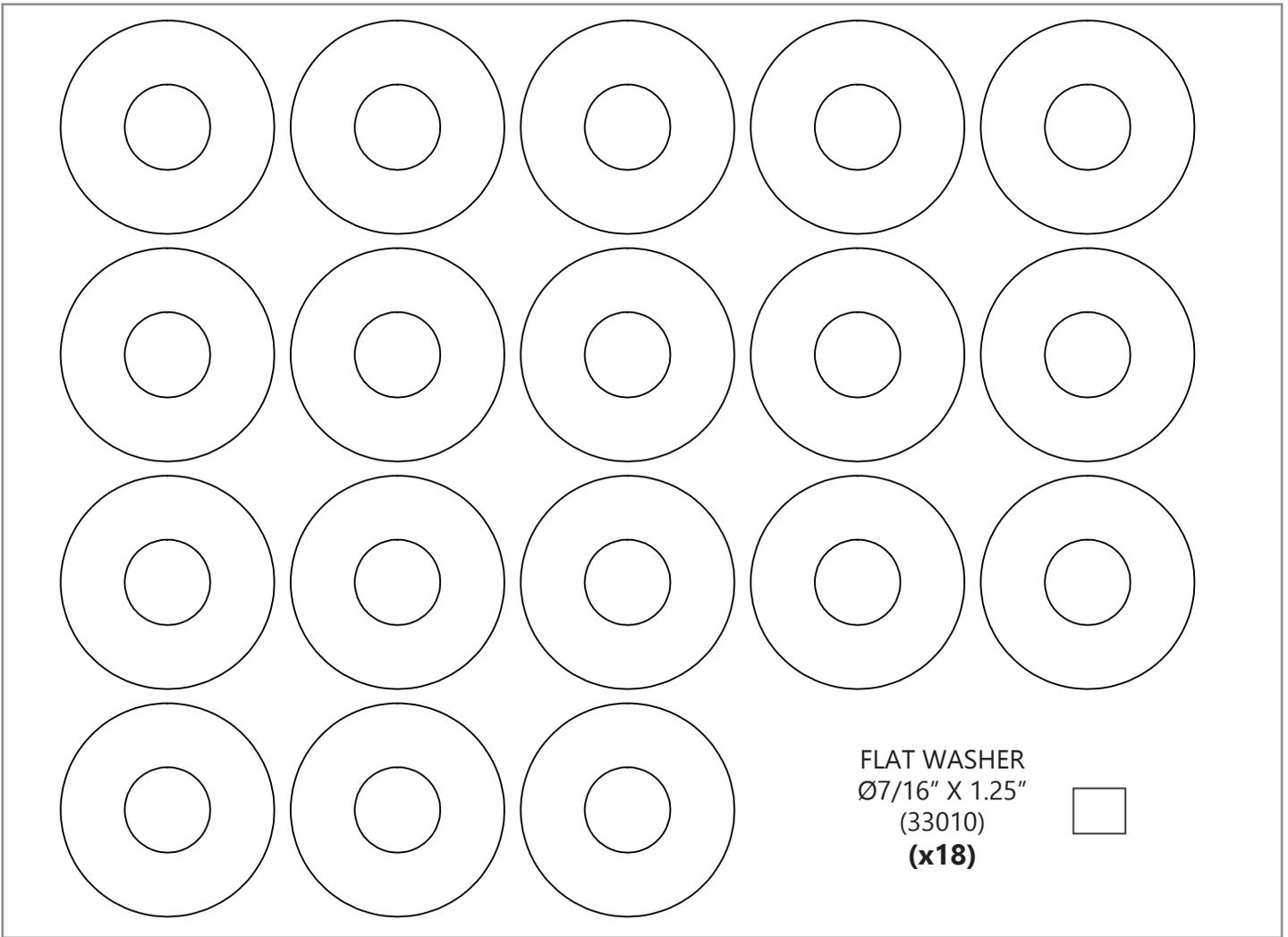


FLAT WASHER
Ø.406" X .812"
YELLOW ZINC
(33815)
(x2)



FLAT WASHER
Ø1/4" X .75"
(133004)
(x10)





FLAT WASHER
Ø3/8" X 1.00"
(0159679)
(x21)