FEAURES OF THE EXPEDITION LUGGAGE - ADVENTURE PANNIER MOUNT SET:

- Rugged 18mm steel tube mounting hoops and arms rigidity secure the luggage to your motorcycle
- Precision machined brackets ensure proper fit and durability
- Deep, complete welds make sure the mounts can handle the rigors of Adventure Touring
- Thick, black-matte powder-coating looks as good as it is tough
- Includes high-quality, cad-plated hardware with flange-style bolt heads and flange-style locking nuts
- Designed to work perfectly with MOOSE Expedition Aluminum Panniers
- No motorcycle modification required, simple installation - Designed and built in the U.S.A.

READ THESE INSTRUCTIONS THOROUGHLY BEFORE INSTALLATION!

Because of the variety of motorcycle configurations, other accessories, and the features and intended use of this MOOSE accessory, there are many different mounting options. You are responsible for the proper installation of this accessory on your motorcycle. Download the required instructions for your accessory mount set and motorcycle from www.MOOSERACING.com. Your attention to the installation instructions and recommendations will permit safe and proper use of this accessory. You must mount this accessory properly and securely before riding your motorcycle. If you lack the ability to safely and properly install this accessory, seek out a qualified motorcycle technician for assistance. During installation, support the motorcycle with a suitable stand or lift so it will not tip over and injure you, or damage the vehicle. Using or mounting this accessory improperly could result in a loss of control of the motorcycle which could result in damage to your motorcycle or other personal property, the property of third parties, and/or personal injury to yourself or others, up to and including death.

BE SURE TO THOROUGHLY READ AND CLOSELY FOLLOW THE MOUNTING INSTRUCTIONS THAT ARE INCLUDED WITH THIS ACCESSORY:

- The pannier mounts must be installed and securely fastened to the motorcycle’s frame.
- Install the mounts securely so they will not shift or move while riding. Make sure the mounts and all related brackets and hardware will not contact the wheels, suspension or any other moving parts of the motorcycle.
- If you do not understand these instructions DO NOT install the mounts. Remove any components you may have already installed on your motorcycle.
- Thoroughly inspect your motorcycle’s luggage mounts and panners before every ride.
- Do not use the panniers or mounts if your motorcycle’s frame is damaged, or if the sub-frame is damaged or is loose on the main chassis.
- Check the security of the mounts at each stop as you ride. Mounting hardware can loosen during operation, so be sure to check it frequently.
- Do not use this accessory mount set if you have any doubts as to whether it is properly mounted to your motorcycle.
- Do not exceed 20 pounds of cargo in each pannier bag you attach to your mounts (40 pounds total).
- When using this accessory, do not exceed your vehicle’s Maximum Gross Vehicle Weight as listed on your motorcycle or in its Owner’s Manual.
- Be aware the panniers and cargo will affect your vehicle’s performance and handling characteristics. Use caution when riding your motorcycle.
- Balance your cargo evenly between each pannier and arrange its placement so it does not shift during riding.
- When riding with panniers mounted to your motorcycle, be aware the width of your luggage may exceed the width of your handlebars. Use extra care when maneuvering in traffic or around other obstacles so you do not impact other objects with your luggage.
- If you strike another object, or tip over your motorcycle, immediately inspect the panniers, their mounts and your vehicle for damage.
- If your panniers or mounts are ever damaged, do not use them until they have been inspected by your local professional motorcycle dealer. Replace these parts immediately if they have damage that will prevent them from being properly secured to your motorcycle or able to securely hold cargo.

DO NOT ATTEMPT TO USE THIS ACCESSORY IF:

- You do not understand these installation and use instructions,
- You do not understand any part of the accessory mounting system,
- You have any doubts as to the security of the mounting system.

If you have any concerns or questions, contact your authorized MOOSE retailer.

WARNING

NOTE: Other tools may be required, depending upon your vehicle, previously installed accessories, and how your motorcycle is set up.

RECOMMENDED TOOLS & MATERIALS:

<table>
<thead>
<tr>
<th>Tool</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>12mm wrench or socket</td>
<td>(may need two)</td>
<td>#3 Phillips screwdriver</td>
</tr>
<tr>
<td>13mm wrench or socket</td>
<td>(may need two)</td>
<td>5/16” &amp; 1/4” drill bits</td>
</tr>
<tr>
<td>10mm wrench or socket</td>
<td>(may need two)</td>
<td>Deburring tool (or 1/2” drill bit)</td>
</tr>
<tr>
<td>Center punch</td>
<td></td>
<td>Masking tape &amp; pen</td>
</tr>
<tr>
<td>Shop vacuum</td>
<td></td>
<td>Required: Thread Locking Agent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Suggested: Double-sided adhesive tape</td>
</tr>
</tbody>
</table>

The images in this instruction set may be different than your accessory or motorcycle.
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### INSTALLATION INSTRUCTIONS:
Your MOOSE pannier mounts were developed to mount easily to Suzuki DRz400S motorcycles in stock trim. Before beginning, have your motorcycle’s Owner’s Manual and Service Manual handy in case you need to reference a procedure.

**WARNING:** Place the motorcycle on a secure stand or lift so it will not tip over and injure you, or cause damage to the vehicle itself. Enlist the aid of a helper when installing the mounts on your motorcycle, as some steps require holding components while a fastener is being installed. If you lack the technical understanding or ability to install the pannier mounts, seek out the assistance of a qualified motorcycle technician.

**STEP 1:** Remove the original top, left passenger peg mount bolt and insert one of the supplied 8 x 20mm flange bolts 1 through the mount arm tab 2. Hand-thread the bolt in, do not tighten it fully yet.

**WARNING:** Always apply a thread-locking agent to threads of the bolts and nuts as you install the hardware. Do this to the new hardware and original fasteners you reinstall as part of the mount installation procedure. See page 8 of this instruction set for the type of recommended thread locking agent.

**CAUTION:** Do not tighten any mounting hardware fully until all of the mount set components are loosely assembled together on the motorcycle. This will ensure all of the components mesh together and further permits you to make aesthetic adjustments.

Remove the original top, right passenger peg mount bolt and insert one of the supplied 8 x 20mm flange bolts 3 through the mount arm tab 4. Hand-thread the bolt in, do not tighten it fully yet.

**REMINDER:** Save all of the removed hardware so you can return the motorcycle to its original configuration if you decide to remove the pannier mounts.

Move to **STEP 2.**
INSTALLATION INSTRUCTIONS (continued):

STEP 2: Hold the right pannier mount up to the sub-frame’s right, forward tab ① and insert one of the supplied 8 x 25mm flange bolts ② through the mount’s tab. Hand thread one of the supplied 8mm flange-style nuts on the end of the bolt.

Hold the left pannier mount up to the sub-frame’s left, forward tab ③ and insert the other supplied 8 x 25mm flange bolt ④ through the mount’s tab. Hand thread one of the supplied 8mm flange-style nuts on the end of the bolt.

Move to STEP 3.

STEP 3: The rear mounting tab of the right pannier mount will be secured to the motorcycle’s sub-frame via an aluminum clamp and hardware.

The parts of the clamp assembly are:

- ⑤ Aluminum clamp halves (two identical parts)
- ⑥ Separation washer (8mm ID, goes between each clamp half)
- ⑦ Flange bolt (8 x 40mm, insert through outside of the mounting tab)
- ⑧ Nylock-style 8mm flange nut

When putting the parts of the clamp assembly ⑨ together, make sure that the pannier mount tab ⑩ is on the outside of the clamp. Hand tighten the hardware only.

Move to STEP 4.

STEP 4: Insert the supplied 6 x 20mm bolt ⑪ through the left, rear pannier mount tab and the helmet lock bracket ⑫ on the sub-frame. Hand tighten the hardware only.

NOTE: The helmet lock assembly is not installed on the motorcycle in this image.

Move to STEP 5.

Continued on next page...
STEP 5: Connect both ends of the back support bar so it's tabs (1) is OUTSIDE of the tab (2) on the pannier mounts. Loosely install 8 x 20mm flange-head bolts and four 8mm flange-style locknuts (3) through the mounting tabs on the back bar and the pannier mounts.

IMPORTANT ASSEMBLY NOTE: Verify that all of the mounting hardware is installed on the mounts and the motorcycle's chassis. Make sure all of the fasteners are threaded properly into their respective nuts or mounting points and thread lock has been applied. Check to make sure the mounts are aligned properly on the motorcycle and then begin to tighten all of the hardware to the torque specifications listed in the Hardware Torque Value table on page 8 of this instruction set.

With the mounts securely installed on the motorcycle, you will now need to prepare your panniers for attachment to the mounts. Move to STEP 6.

STEP 6: Supplied with your pannier mounts are a pair of plastic buffer/drill template sheets (4). These sheets have been engineered to mate perfectly with the outer wall contours of the MOOSE Expedition Panniers. You will use the sheets to mark the location of the holes you will need to drill in the panniers to install the mounting hardware supplied in this kit. After the holes are drilled and cleaned, the plastic sheets are then attached to the panniers to help protect the luggage and the mounts from abrasive wear.

DRILL BIT SIZES REQUIRED: Refer to the template illustration at right and sizes listed below to select the proper size drill bits required to place holes in your panniers for the mounting kit hardware.

- 5 This hole is not used for these mounts DO NOT DRILL
- 6 Use a 5/16” drill bit for the upper 8mm mounting hardware
- 7 Use a 1/4” drill bit for the 6mm hardware that retains the lower mounting lip

NOTE: Use a 1/2” drill bit or a formal tool to deburr holes after they have been drilled

Move to STEP 7.

STEP 7: Set your pannier box down on a protected surface (with the lid removed) and place the buffer/drill template on the side that will face the motorcycle’s chassis. This is the side of the pannier that has the riveted joint. The buffer/drill template's shape determines its placement on the pannier. The angular edges (8) indicates the top of the buffer/template. The buffer/template's other shapes fit with the pannier's bumpers (9) and there is clearance for the protruding rivet heads (10).

NOTE: You can use other band panniers with your MOOSE pannier mounts. While the buffer/drill template shapes will not exactly match another brand pannier, the hole relationships will allow you to attach the mounting hardware so the luggage can attach to the pannier mounts. Use care when selecting the mounting methods for non-MOOSE panniers on the mounts.

Move to STEP 8.

STEP 8: Position the buffer/template so it aligns with the contours and edges of the pannier. Use some masking tape (11) to temporarily hold the buffer/template in place for marking the drill hole locations.

Move to STEP 9.
STEP 9: Use a pencil to mark the center of the mounting holes in the pannier.

TIP: Avoid using a permanent marker or paint pen to mark the drill locations. This is so you can clean off a mark if needed. For dark color panniers, you can use a white grease pencil.

Move to STEP 10.

STEP 10: Remove the buffer/template from the pannier and use a center punch tool to create a pilot dent in the surface of the aluminum.

CAUTION: Use a spring-loaded center punch tool to create the indentation. Avoid using a solid punch with a hammer or another method which could cause you to dent or scratch the surface of the pannier.

Move to STEP 11.

STEP 11: Using the proper size drill bit, carefully drill each of the required holes.

REMINDER: Refer to the drill bit/hole size list on page 4 (STEP 8) of this instruction set.

Move to STEP 12.

STEP 12: Hand-turn a large drill bit (1/2") or use a formal deburring tool to remove any burrs or loose material from the drilled holes.

CAUTION: Deburr the exterior of the holes and the inside of the holes. Use a shop vacuum to clean up the drilling debris from the inside of the pannier. Take care to keep your work area clean of aluminum chips or other debris that could damage the pannier’s finish.

After the holes are deburred, and the debris cleaned off the pannier, re-tape the buffer/template back into place.

Move to STEP 13.

Continued on next page...
STEP 13: Prep the two mounting lips included with your pannier mounts by installing the 1/8" thick buffer strips on each lip as shown. Once you peel the protective backing off, carefully place the strips on each lip and press firmly so they will stick in place.

TIP: You may need to trim the supplied buffer strips, so verify the length before removing the protective backing from the strip.

The majority of the water resistance designed into your pannier mounting components is from the plastic buffer/drill template and the Nylock-style nuts that hold the mounting lip in place on each pannier. For additional sealing apply some silicone sealant to the threads and underside of the head of the eight 6mm button-head screws supplied with your mounts.

NOTE: The sealant will not compromise the fastening capability of your hardware.

Move to STEP 14.

STEP 14: Place the mounting lip on the bottom of the pannier so its four mounting holes align with the line of four holes you drilled into the pannier. Make sure the lip is oriented so its opening is facing down.

Insert the 6mm button head screw through the holes inside the pannier. Use a 10mm wrench or socket to tighten the nuts as you hold the screws with a #3 Phillips screwdriver. Repeat on the other pannier.

CAUTION: Tighten all of the hardware evenly. After the initial tightening of the hardware, refer to the table on page 8 for final torque specification.

Move to STEP 15.

STEP 15:

TIP: If you will be removing and reinstalling your panniers frequently, install some double sided tape at the indicated locations between the outer wall of the bag and the plastic protector. This will ease mounting as it will prevent the protector from flaring away from the pannier.

NOTE: Obtain the double-sided adhesive tape from your local hardware store.

Move to STEP 16.

Continued on next page...
**STEP 16:** Each pannier is secured to the mount assembly via the bottom mounting lip and the hardware that connects it to the brackets in the top corners of the mount's rectangular hoop. Familiarize yourself with the hardware and lay it out in the order that is used to attach the pannier to the mount:

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Qty (per pannier)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Flange bolt (8 x 30mm)</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Washer (1.5” dia)</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Rubber washer (1.5” dia)</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Support disc (3” dia)</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Pannier/protector</td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>Mount bracket</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>Washer (1.25” dia)</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>Nylock flange nut (8mm)</td>
<td>2</td>
</tr>
</tbody>
</table>

**TIPS:** Enlist the aid of another person when mounting the panniers. Once you are familiar with the mounting process you can easily do it by yourself. Pre-install the washers (in the proper order) that go on the flange bolts before attempting to mount the pannier.

With the lid off of the pannier, carefully lift it up and position it so the mounting lip slips over the bottom porting of the mount’s rectangular hoop. Adjust the pannier’s position so you can insert the bolt through the washers, then through the hole in the pannier’s wall and the mount bracket. Slip the washer onto the protruding end of the bolt and hand thread the Nylock nut onto the bolt. Hand install the hardware in the other corner of the pannier/mount.

Using the proper wrench and/or socket, tighten both bolts 1 and nuts 8 in each pannier. Repeat for the other pannier.

**CAUTION:** Tighten all of the hardware evenly. After the initial tightening of the hardware, refer to the table on page 8 for final torque specification.

Move to STEP 17.

**STEP 17:**

**OPTIONAL ITEMS AVAILABLE:** You can obtain a pannier attachment kit which includes hardware that permits pannier removal and installation without tools. See your MOOSE dealer for more information.

**CAUTION:** When riding over rough paved roads, or unimproved terrain, or with a heavy cargo load you should always use the supplied, standard mounting bolts and locking nuts. This hardware will properly secure your panniers to the mounts.

Move to STEP 18.

**STEP 18:**

Visually inspect the panniers to verify they are mounted evenly and away from any other components on the motorcycle. Before riding do a complete review of the installation. Do not load the panniers with cargo during an initial test ride. Install the pannier lids and latch them securely. After your test ride, double check the installation.

**WARNING:** Review all of the information on page 8 of the instruction set. It is imperative that you continually verify the security and integrity of your accessory and its mounting on your motorcycle. Adventure and Dual Sport motorcycles are very capable vehicles and they can operate in environments that will tax any mechanical device. Your safety and that of others is dependent on your attention to this continual inspection of your vehicle and it’s accessories.

Continued on next page...
The images in this instruction set may be different than your accessory or motorcycle.