

## Possible Frame Issue

Some owners on the French ER-6N/F (Ninja 650R) Forum, Kawette.net and the Italian er6italia.com Forum are reporting cracks to the frame in the area of the R/H forward engine mount. Following are pictures of damage to this area.

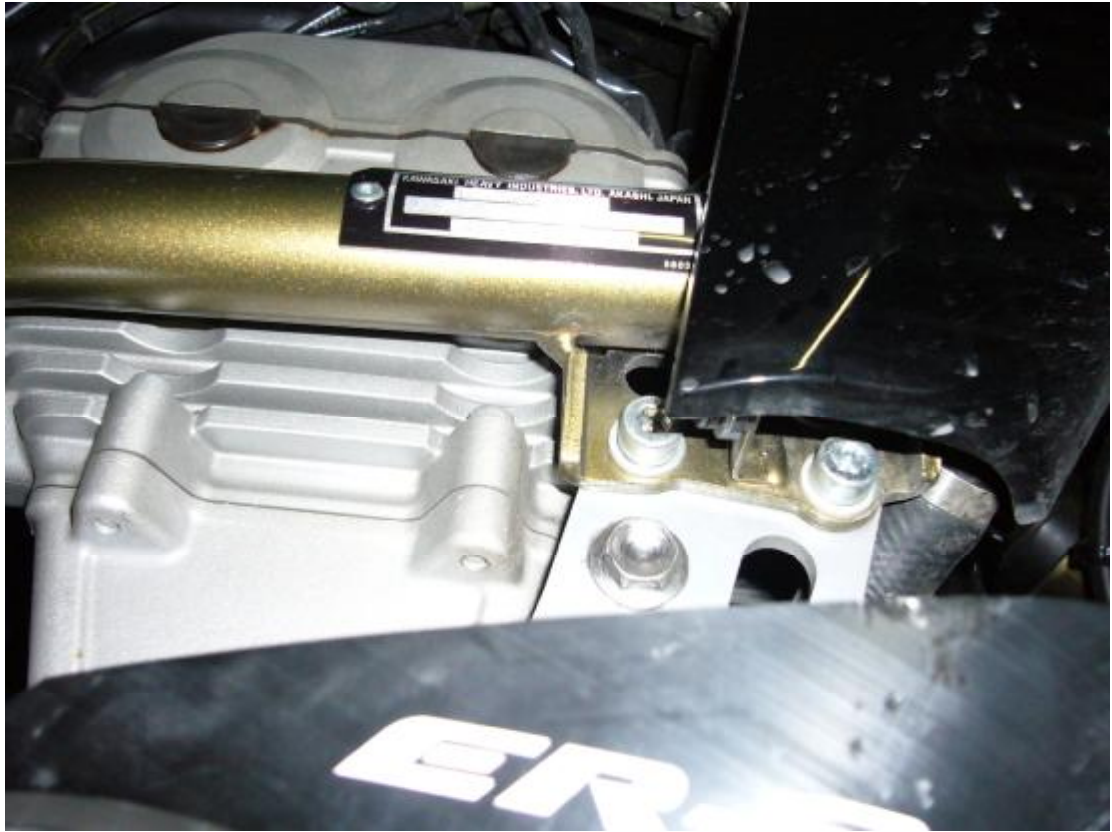
Owners are urged to inspect your frame now! With the ER-6F (Ninja 650R) use a mirror and a torch and view the suspect weld through the R/H cowling vent. If you find a crack contact Kawasaki or a Kawasaki Dealer.

Initially it was thought that the fault was only occurring to ER-6N models with crash protectors (frame sliders) fitted, however other owners with ER-6F (Ninja 650R) models and those without crash protectors have also reported the problem.

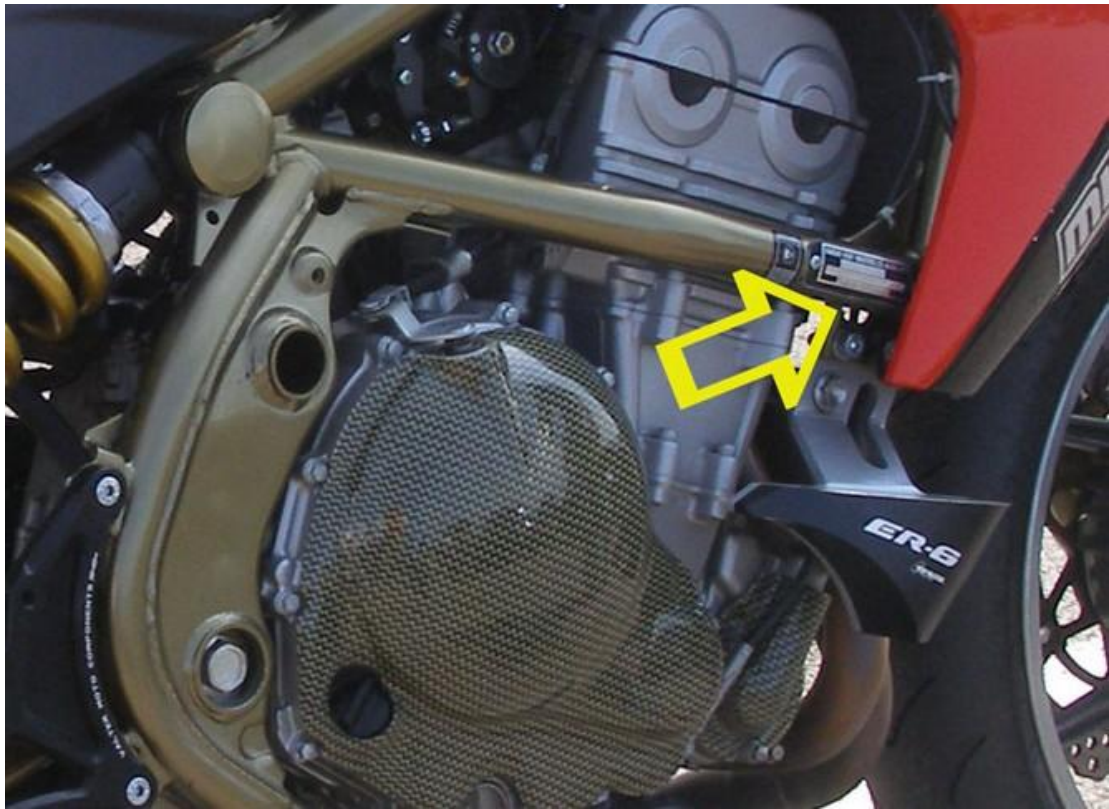
From reports on the USA and French Forums the cause of the fault appears to be that the distance between the upper motor mounts is too far apart during manufacture and when the motor is fitted and the mount bolts tightened excessive side loads is causing the right hand forward frame mount weld to crack.













Following is a translation from a French poster:

Several frames on which either Top Bloc or Kawasaki crash protectors have been mounted have developed a crack in the frame along the length of the engine mount. This crack in the frame, to my knowledge, only appears on the right hand side, and extends in the direction of the tube. It therefore does not seem as if there is a danger of the motor breaking in two or moving around while riding. All the same, it's not possible to leave the problem/bike in this state, as the crack is not going to repair itself. It can only get worse.

The cause or the origin of the problem seems to be the crash protectors, their position, their torque/tightness or their vibrations. It seems prudent therefore to recommend that you remove them while waiting for a solution from Kawasaki (edit: this crack exists on some frames without crash protectors, which are probably therefore not the cause).

But above all, verify that your frame does not begin to split around the mount. All the cases have occurred on ER-6Ns (edit: and on one ER6-F), the ER6-Fs have the same frame but not the same crash protectors. I think that [those with ER6-Fs] you should check as well (even if you do have to take off the fairing).

If it is the same with you (N or F), please let us know, including your mileage, the type of crash protector (if you have any) and if you have dropped the bike hard on its right hand side. If it is a Top Bloc, if you have used the old version and/if it broke (which creates strong vibrations) and was replaced.

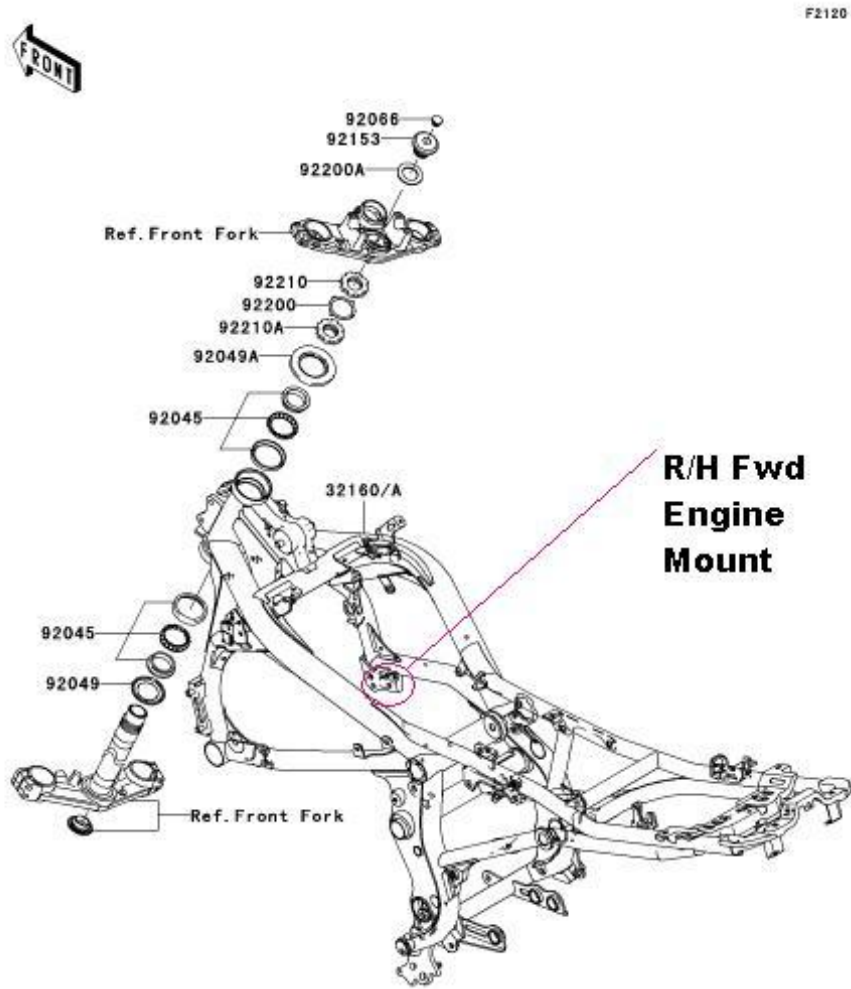
Some frames are not completely welded around the mount, which seems to prevent it splitting, but this does beg the question as to what the motor is attached to. Normally the weld attaches the entire frame side of the engine mount to the frame. If it is not the case, let us know. Don't hesitate to post photos.

I don't necessarily think that it is dangerous to ride with the beginnings of a split, on the other hand, because the frame rigidity is diminished, you'd better not ask too much of it. Avoid sporty or track riding as a precaution.

Put some marker lines around the ends of the crack to allow you to see if it gets worse. It's possible that it stays the same, or that it gets bigger. Tell us in both cases. Tell your dealer and

ask what he intends to do about it, reminding him that the bike is under warranty and that you cannot continue to ride with a crack that is getting bigger or could get bigger.

The crash protector attached to the top of the frame, as in photo 3, should not cause any problems, but check underneath in any event, around the engine mount, and tell us if it is ok.



***Following are posts from USA member of the Ninja650.com forum regarding his frame crack issue on his 2006 Ninja 650R (ER-6F).***

Posted: Sat Dec 02, 2006 3:14 pm Post subject: frame crack

Frame crack, Watch Out it will happen after 7500-9000mi. I do not have sliders and the bike has not been down. I spotted this crack after reading the troubles that have happened in Europe. The bike has been used only for touring around and yet the frame has cracked. Take a look at yours to make sure it is in good condition. The break is on the right side top engine mount.

Posted: Mon Dec 11, 2006 6:59 am Post subject: frame crack

I just received word from my local dealer that Kawasaki wants to inspect the frame. They are worried that the measurement from the upper motor mounts are too far apart. When torqued down the frame is pulled in and excess side load occurs and cracks develop. This is what has been happening in Europe. Kawasaki has said they will install a new frame and anything else needed to make the bike new. According to Kawasaki USA my bike is the only one in the states that has this problem. (like winning the lottery) I will pass any other odd findings along after tear down.

Posted: Thu Jan 25, 2007 11:27 am Post subject: frame crack

Kawasaki finished the frame swap on my 650 without any issues. The old frame is being sent to Kawasaki USA for inspection. On the new frame it required shims on the top motor mounts to prevent pulling the frame inward when torqued down. There was approx. 1/8" excess gap. Kawasaki also installed all new bushings and bearings thru out. No other cracks were found anywhere else on the frame. According to Kawasaki this is the only frame in the U.S that has this issue though they did say it has occurred in Europe on several frames. Everything was covered on warranty with \$0.00 charged. My local dealer was great in the whole process, (Moses Lake Power Sports) they deserve a plug on this post.

***Following are posts from an Australian member of the Ninja650.com forum regarding his frame crack issue on his 2006 ER-6N.***

Posted: Sat Feb 17, 2007 12:56 pm

Thanks for the info Kiwi\_ER-6F. I've just discovered the engine mount bolt is broken on that side on my bike. But the frame seems ok.

edit: had a better look, and oh no!



Posted: Fri Feb 23, 2007 10:24 pm

Finally got time off work to take the bike in to the dealer. They were very good. Inspected the weld and decided nothing had cracked \*yet\*, which I do agree with. Took down the VIN number and my details, in case something does happen and it gets worse. They replaced the broken engine mount immediately.

They have come to the same conclusion as most of you...the engine mount on that side is horribly over-torqued, to compensate for the cylindrical spacer around the bolt being too short. End result is the frame is bowed inwards by 3-4mm. This is leading to the problems of snapping engine mounts and cracking welds.

The mechanic tested all 3 ER6's in the shop, and all of them had the same problem. At standard torque settings for the engine mount, there was 3-4mm (and in one case 7mm) free play in the spacer. All were over-tightened to close this gap. He installed a washer as a spacer, until something more permanent can be done.

Also he has reported it to Kawasaki, who seem to be aware of the problem, as the '07 models have an extra mount on that side, located at the back of the engine block.

I'm very happy with the treatment I got, and hopefully this will be the end of the problem for me.

*Following are posts from members of the Ninja650.com forum regarding the cause of the frame crack issue on the Ninja 650R.*

Posted: Sun Feb 18, 2007 2:13 pm



Just about a 5mm gap on the right side and around 1mm on the left. Mine is out of warranty and it hasn't cracked. I put a couple washers in to bridge the gap and hopefully won't have to bother with it anymore.

Posted: Thu Mar 08, 2007 12:17 am

You have to undo first both bolts on the right-hand side engine mount and then check for the gap. If you undid both bolts and saw no gap (4-5mm between spacer and bracket), then your bike is OK.

However, you also have to check (when bolts are correctly tightened) that there is no crack on the frame where the engine mount bracket was welded. It could just be a hairline crack. Along the welded area.

If you checked this way and saw no probs, then you can really say that your bike is OK.