RT 2020 Whistling/Wining Noise Between 70-80 km/h (45-50 mph)

by **Eric Fauteux (Eric_Fauteux)** on 21-07-2020 11:56 AM (392 Views)

Hey guys,

I have many reports of driveline noise complaints while driving at 70-80 km/h (45-50 mph) and I can confirm that I can easily duplicate that noise on our reference unit. To add, the sweet spot is at 77 km/h (48 mph)... Yes, very annoying

Meshing frequency is assumed to be the primary frequency of noise generated by belt drives since the noise is generated from meshing interference and land impact during operation. Meshing frequency is defined as the number of belt teeth that enter and exit the belt pulley grooves per unit of time. As the belt tooth enters and exits the belt pulleys tooth, the air is compressed and forcibly evacuated, making a sound similar to air escaping from a balloon. Added to this is the impact between the belt teeth and belt pulley cause a slapping sound.

The MY20 RT has the same driveline components as the previous MY's. No parts number change, same parts. Now why this noise on the new RT? Simply because of the new facelift. The new RT is offering a great improved wind protection for the driver and passenger. At the same time, the driver can hear more noises produced by the engine/driveline. These noises are there on the previous MY but are hidden by the wind whistle at high speed.

What is next

Our noise, vibration, and harshness (*NVH*) team are actually working on a new front pulley with a revised tooth profile which will reduce the noise produced by the belt and pulley teeth contact. Until this new pulley is available, there are no parts needed to replace to fix that noise. It is possible to have a noise intensity variation between 2 similar units. Here are some quick check to do that can reduce the noise;

ALIGNMENT:

A drive with excessive misalignment, generally greater than 1/4 degree, will more likely generate noise than a properly aligned drive. Consider both parallel and angular misalignment. Also, properly aligned drives will yield improved belt life.

- Drive misalignment

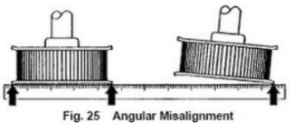

Fig. 25 Angular Misalignment

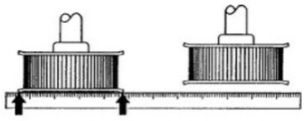

Fig. 26 Parallel Misalignment

TENSION:

Improperly tensioned drives will more likely generate noise. Always refer to the manual shop for the proper tension specification. The belt tension should not be too high or too low. Too low a tension can also lead to shortened belt life or ratcheting, while too high a tension will add undue stress to bearings, shafts, and other related components.

I'll keep you posted when the new sprocket will be available.