

Baja Setups

Clutching

What clutch setup should I be using?

· For new teams or those without much knowledge of this type of system, we recommend using the 1322920 Complete Drive Clutch used on the Ranger XP. This clutch is designed for a similar engine package to that used in the Mini Baja competition and will provide new teams with the easiest setup right out of the box.

· How can I tune the P90 clutch for the low power and engagement of the 10hp B&S engine?

· Our drive clutch (#1322920) is designed for 3600 rpm when used with the black spring (#7041022), or lighter, and the S94 weights (#5631434). This is essentially the same drive clutch we have offered in the past, but with wide rollers to accommodate the large weights. We aren't sure how it will work, but it should be considerably better than our old clutches. In the past, many teams have good luck with the D80 weights, a light drive spring (black), and the light driven spring (red). Custom weights anybody? Let us know what works for you!

· What is the center to center distance on the Polaris P90 ATV clutch?

· The center to center distance on our P90 clutch is 10" +/- 0.050". It is important that you set this properly if you want good performance from the clutch. The parts list shows numbers for clutch tools that you can order from a dealer – I highly recommend using them! Refer to the PVT service manual in the Technical Info section for more information on PVT maintenance and tools.

· What is the overall diameter of the P90 clutch?

· Drive (1322920): approx 7.245"

· Driven (1322845): approx 9.485"

· What is the overall ratio of the P90 clutch?

· The ratio starts near a 3.83:1 underdrive and will top out near a 0.76:1 overdrive.

What is the weight of the P90 clutch?

· **The Drive Clutch weighs approximately 7.18lbs and the Driven Clutch weighs about 9.0lbs.**

· **How should we mount the P90 clutch to our engine?**

· **I would recommend boring the clutch to the correct diameter and depth (1" dia X approx. 3.75" depth) and then broaching the ¼" keyway. The 1" bore will not clean up the entire original taper, but if you hold the diameter tightly, you will have plenty to pilot on. I like this method better than making an adapter or modifying the crankshaft.**

· **Does Polaris have any belts that offer different center to center distances?**

· **Yes, our snowmobile belts can be used in the P90 ATV clutch. However, some of the belts are wider and will require modifications to the drive and driven clutches.**

· **What is the difference between the normal and long life EBS belts?**

· **The Long Life EBS belts (3211091) are made from a harder compound than the regular belts (3211077). The EBS belt is also a bit wider and has a slightly different angle requiring clutch modifications.**

· **What temperature range can be run for the long life EBS belts?**

· **The Long Life EBS belts will handle temps up to 210 degrees F without any problems. When the temperature exceeds that the life will be substantially reduced. The actual performance of the belt doesn't change much until you exceed around 240 degrees F.**

Is a stock Polaris clutch cover allowed in Baja competition?

· **The stock cover is made from Zytel. (Information is readily available on the web at www.matweb.com). The rules committee is now allowing teams to use the stock production clutch cover for their Baja SAE entries as long as it remains unmodified from the stock part.**

Differentials

- How much does the 1341442 cable lock differential used on the Ranger TM weigh?
- Filled with the proper fluid, the differential weighs approximately 30 lbs.

Brakes

- What is the diameter and thickness of various brake rotors?
- 5250205 248.2mm diameter, 4.75mm thick
- 5244314 8.95" diameter, 0.158" thick
- 5248250 8.625" diameter, 0.188" thick
- 5248213 202.8mm diameter, 4mm thick
- 5248378 198.8mm diameter, 4mm thick
- 5249138 9" diameter, .158" +/- .008" thick
- 5247752 7" diameter, .158" +/- .008" thick
- 5246155 7.75" diameter, .158" +/- .008" thick

Suspension

- What does it mean when a spring is listed as 80 - 160 lbs per inch?
- The spring that is listed as 80 - 160 lbs per inch is a dual rate spring. It is not adjustable. That means that for the first inch or so of travel, the rate is 80 lbs/in and then it switches to 160 lbs/inch after that.
- Can you provide shock damping curves?
- No we can not.