

Shockwave

CLUTCHES BY JR RACE CAR

C-4 Arm

- **Application:**
High low-end torque 7.90 engines
(example: Titan, ZR4 racing engines)
- **Stall Speed:**
5400
- **Spring:**
Large Diameter Purple (545-9519)
- **Shim count:**
3 shims (soft application), 4 shims (med application), 5 shims (hard application)
- **History:**

The C-4 arm was the third arm released in the Shockwave OD line, although it was developed in 2004 for the 330 outlaw series, it wasn't released until 2006. The goal behind its development was to increase stall speed and early load to produce faster ETs. Its release was delayed mostly based on one main feature. The C-4 introduced the concept of a progressive application to the Shockwave OD, which tended to slow reaction times from the favored H-1 arm. As the clutch grew in popularity, there opened up an opportunity for this arm to thrive.

 - The H-1 arm at the time was paired with the small diameter red spring. This earlier spring had the tendency to stall around 4800 RPM and would "hang in" after the burnout, forcing the crew chief to have to toggle the kill switch, dump rpm and pull the clutch off the belt. This is obviously a cumbersome practice and wasn't acceptable to some of the clutch users.
 - The other factor was reaction times. The H-1 arm was unmatched in its reaction time. Customers would consistently run into a red light issue when switching from a Polar style clutch to the Shockwave (most times as bad as .100 or more red!). For these customers the C-4 arm was a major fix to their racing program.



Characteristics of the C-4 arm

- **Heavy Load:**

The C-4 arm will Load the engine earlier and harder than any other arm in our line, requiring the engine to have decent low-end torque to be able to pull through this early load. **(NOTE: if your engine is a high RPM engine this is not the arm for you. High RPM engines will not pull through the early part of this arm causing a bog that's very difficult to overcome.)**
- **Progressive application:**

This arm has a feature that's very rare to jr. dragster clutches. The arm is designed to slowly build application force as the clutch is coming in. This allows you to either choose a hard/strong application that allows for no slip, or get an extremely soft application that slips the belt in a controlled manner, easing the load on the tires or anything in between. **(NOTE: Because of the progressive application users setup for increased slip will see faster than usual belt wear.)**
- **Slower reaction times than the H-1:**

This arm is slower than some of our other arm choices, yet still one of the fastest setups in the industry.
- **Faster 60 ft times:**

Due to the heavier load at the early part of the cycle, this arm has the potential to create a faster 60 ft time than almost any other setup (when paired with high low end torque engines).