

## WARNINGS

1. The Cheetah clutch and its associated components move at a high speed. Use clutch only when proper guarding is in place.
2. Adjustments to the clutch should be made while the engine is off. The engagement should only be checked on the track or with a properly fitted dyno.
3. Inspect the clutch for wear and damage before and after each use.
4. Always use proper eye and hearing protection when working on the clutch or your kart.
5. This clutch has been designed for karting applications only. Failure to use the clutch properly can result in serious personal injury.
6. If any parts are missing from the clutch do not operate until missing parts are replaced. Failure to do so can result in serious personal injury.

## OPERATIONS

The clutch engagement speed is the point where the plates fully engage the drum and start transmitting the engines power to the wheels. There are many different opinions as to the ideal engagement speed. We recommend setting the engagement at the peak torque of the engine. The preset engagement speed is 3,900-4,000 rpm but can be altered by any combination of the following:

1. Adjusting or changing the springs,
2. Adding weights to the lever arms.
3. Changing the friction plates.

## INSTALLATION

1. The Cheetah clutch may be mounted either inboard or outboard (sprocket facing engine). We recommend mounting the clutch inboard. This increases the life of the drum and allows for easier adjustment of springs.
2. If there is any difficulty in sliding the clutch onto the shaft use light emery cloth to remove any nicks or burrs.
3. Install the flat washer, lock washer and bolt. Torque to 150 inch pounds.

## CLUTCH BREAK IN

The Cheetah clutch requires a short period of break in before optimum performance is achieved. As the linings make contact with the plates the friction material burnishes the drive plates causing an increased coefficient of friction and better performance.

## MAINTENANCE AND REPAIR

*AIR GAP*- The Cheetah clutch has been preset with a gap between the friction and drive plates of .040 to .045 inches. The gap can be checked with feeler gages.

*SPRING HEIGHT* – When altering the spring height always adjust all six springs at once. We recommend turning the screws no more than ¼ turn each time. Turning the screws clockwise raises the engagement speed. Counter clockwise lowers the engagement speed.

*DOWEL PINS* – The dowel pins should be replaced every ten races. Be sure to apply a light coat of grease to the pins with each replacement.

## MAINTENANCE AND REPAIR CONTINUED

*LEVERS* – The pivot hole on the lever can become worn due to the stresses exerted during normal operation. These levers should be inspected before and after each use to ensure the hole has not become excessively elongated.

*SPROCKET* - The sprocket should be replaced when the teeth become worn to a sharp point. The chain should be oiled regularly and have at least 2 inches of free play.

*BEARING* - Inspect the bearing every five races. The life of the bearing will be increase if lubricated. We recommend using a minimum amount of grease. An excessive amount could result in the friction plates becoming contaminated.

*GENERAL INSPECTION* – The Cheetah clutch has been designed to withstand the high stresses and loads of performance karting. In order to ensure peak performance inspect the clutch housing, springs, levers, sprocket and bearing before and after each use. If any part has been damaged or shows excessive wear replace the component immediately.



***The Cheetah Racing Clutch***

*By Noram*



Dear Racer,

The Cheetah Plate Clutch is the latest addition to the Noram Racing clutch line. After several years of research, development and testing we are proud to introduce our first racing plate clutch. This product is designed to offer the highest performance of any racing clutch at a lower price than equivalent models. We believe, like you, that winning is not a matter of cost but of skill, knowledge and perseverance.

Sincerely,

Jeff Hargarten  
President of Noram