



### OFFROAD USE ONLY

Fisch Racing Tech products are sold for off road use only and are intended to be used on vehicles used solely as such. Installation and use of this product may be in direct violation of local laws and are therefore not to be used on public roads.

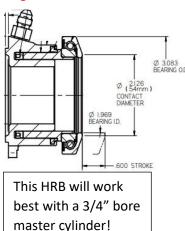
The buyer is responsible for all Fisch parts after they have been received. This includes installation, monitoring condition, any alterations, and all damages sustained from use.

In the event of a warranty for defects, it is agreed that under no circumstances shall the seller or manufacturer be liable for any labor charged or travel time incurred in diagnosis for defects, removal, reinstallation, or any contingent expenses.

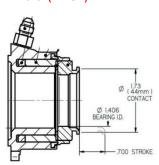
Improper installation may cause damage, or injury. It is recommended that installation be performed by a licensed professional.

# PLEASE CHECK CONTACT DIAMETER OF THE HRB WITH YOUR CLUTCH FINGERS (SPRING CONTACT POINT) BEFORE INSTALLING!



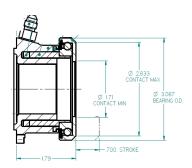


Multi (7.25")

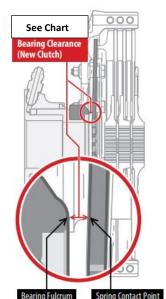


This HRB will work best with a 3/4" bore master cylinder!

Tilton ST-246 Twin Disc Clutch



This HRB will work best with a 7/8" bore master cylinder!



# PLEASE CHECK BEARING CLEARANCE AFTER INSTALLING!

Check the bearing clearance. A clutch assembly with worn friction discs will not provide accurate results, so make sure new friction discs are used when taking measurements. The bearing clearance must be in the range of "See Chart" . If the clearance is less than this range, there will not be enough room to allow for the full wear range of the clutch since clearance reduces with clutch wear.

Single / Multi 7.25": Clearance .170" - .230" (4.3mm-5.8mm)

Tilton ST-246 Twin Disc Clutch: Clearance .1" - .15" (2.5mm-3.8mm)

(See next page)

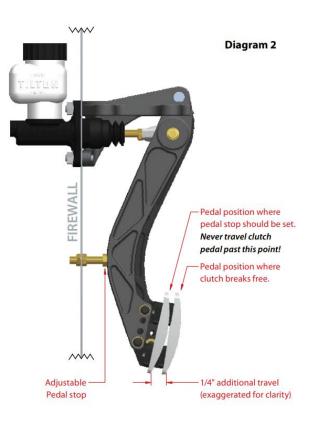
#### **CLUTCH PEDAL STOP**

A positive clutch pedal stop must be used to prevent over-stroking the hydraulic release bearing piston and the clutch. For access reasons, in many cars it is not easy to determine how far the master cylinder is being stroked. The method listed below provides a very effective method for adjusting the pedal stop:

- 1. Lift the drive wheels off the ground and support the car on jack stands.
- With the engine off, place the gearbox in first gear and have someone attempt to rotate the drive wheels.
- Depress the clutch pedal slowly until the clutch disengages and the drive wheels can be rotated.
- 4. Adjust pedal stop to allow another 1/4" of pedal travel. This should provide clean release of the clutch. Do not stroke the pedal any further than this point throughout this procedure, otherwise you will over-stroke the clutch.



Scan to watch a video on Clutch Pedal Stop: How to Set a Clutch Pedal Stop or visit www.tiltonracing.com/technical/ technical-videos/



# **Trouble Shooting Common HRB Problems**



#### **BRAKE FLUID LEAKING:**

- Excessive initial gap between bearing and clutch at setup. This is by far the most common mistake.
- Wrong brake fluid (or fluid other than brake fluid) used. Use only DOT 3, DOT 4 or DOT 5.1 brake fluid. Avoid high temperature brake fluids.
- · Clutch hose damaged by clutch. Be sure clutch hoses are out of the way of rotating components and are secured.
- No pedal stop (if being used with a larger sized master cylinder).

#### **CLUTCH WON'T RELEASE:**

- · Air in system.
- · Too small of master cylinder.
- Pedal motion ratio or footwell design prevents full stroke of master cylinder.
- · No pedal stop (in some applications) will mean the fingers are being pushed into the clutch disc.

## CLUTCH WON'T ENGAGE (STAYS RELEASED):

- Cutoff port of master cylinder blocked. Check master cylinder pushrod for clearance.
- Bellhousing out of parallel or concentricity.
- · Burr or debris behind bearing mount (bearing not mounted flat).

#### **CLUTCH PEDAL STAYS ON FLOOR:**

- If the clutch is not staying disengaged, this is a master cylinder or pedal geometry issue. There is nothing a hydraulic release bearing can do to make the pedal stay on the floor.
- Check for excessive master cylinder pushrod angle or binding in the system.
- Some OEM clutch pedals have a driver assist spring (over the center spring) to reduce driver leg fatigue. Some of these may not be compatible with aftermarket release bearings or clutches.

#### **CLUTCH PEDAL IS TOO HEAVY:**

- Insufficient clutch pedal motion ratio
- Master cylinder too large for application
- · Clutch spring too heavy for application