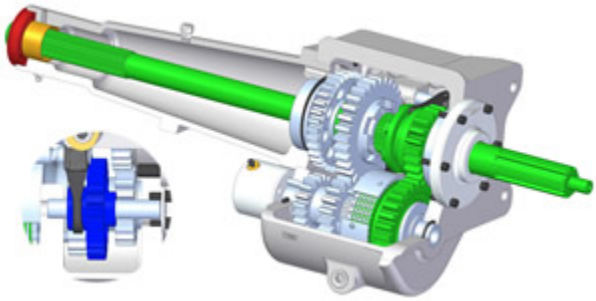
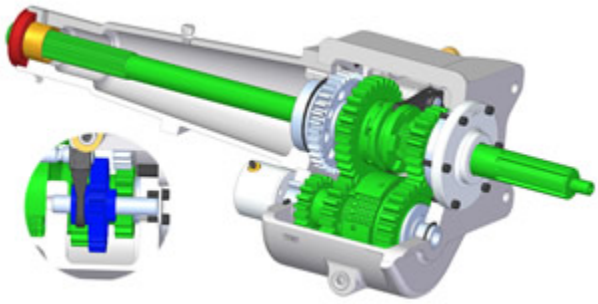
How is a Brinn Original Transmission Different?

Direct Drive Power Path



Unlike the competition, the reverse idler gear (shown in blue) is not meshed with any gears and is not spinning when the transmission is in Direct Drive. Also, since the countershaft is fully supported by needle roller bearings, only the input mesh gear is spinning when the transmission is in Direct Drive. Click to enlarge.

Low Gear Power Path



Unlike the competition, the low gear set is in constant mesh. Only the dog ring is used to make the shift. Not having to bring the low gear set in and out of mesh helps you make quick, smooth shifts. The reverse idler gear (shown in blue) is not engaged with any other gears. Click to enlarge.

Reverse Idler Gear

The reverse idler gear is not meshed with any other gears when the transmission is in low gear or direct drive. Gears that are spinning when not needed rob horsepower and reduce acceleration.

Easy Shifting

The Brinn Original Transmission requires you to only move a dog ring to engage direct drive or low gear. There are no gear teeth on the dog ring to engage with other gears. Shifting is quick and precise.

Fully Supported Countershaft

The countershaft is fully supported by needle bearings on a hardened steel shaft. This improves rigidity and simplifies rebuilding. The countershaft and clutch assembly can be rebuilt on your workbench. A clip (supplied in the rebuild kit) is all that is needed to hold the assembly together when installing it in the case. No dummy shafts or c-clamps are required.

- **Removable Side Cover**

All of the shifting mechanism is built into the side cover. Removing the side cover also removes all of the forks, shift rods, detent springs and balls. Why rebuild the shifting mechanism if you just need to rebuild the clutch?

- **No Special Tools Required**

The Brinn Original Transmission can be rebuilt with standard shop tools, a pair of snap ring pliers, and a clutch assembly tool that is provided in the rebuild kit. There are no press fit bearings in the transmission. How much time would you save if you didn't need to press bearings?

- **No Need to Remachine Parts**

You will not need to machine any service parts when rebuilding a Brinn Original Transmission. All parts will fit the first time, everytime.

- **External Clutch Piston**

The clutch piston, pins, and housing can be serviced and/or replaced without opening the transmission. This saves you time if the clutch piston needs service.

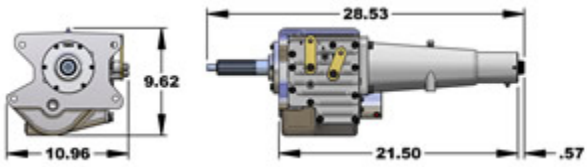
- **No Welded Parts**

There are no welded parts in the Brinn Original Transmission. All parts are cast or made from billet. All parts are precision machined on CNC machining centers.

- **Cryogenically Treated Parts**

All critically loaded shafts and gears are cryogenically treated using the latest advances in cryogenic technology. Cryogenic treating produces stronger parts with increased durability. The direct drive/low gear dog ring is also shot peened to increase stength.

- **Overall Dimensions**



- # Features
- Brinn part numbers
- 70001 Aluminum case and output housing
- 70010 Magnesium case and output housing
- Lightweight - 45.4-51.4 pounds depending on model and without fluid
- Reverse idler gear and low speed gear are NOT engaged in direct drive
- The input and output shafts are gundrilled for reduced weight
- Superior dog clutch design provides the most durability and the smoothest shifting available
- Low cost - eliminates clutch assembly and throwout bearing assembly
- Dog clutch and detent design eliminate the need for special shifters
- Separate low and reverse gears make shifting precise
- Designed for easy assembly, disassembly and service
- Six inch long, 27 tooth output shaft spline that will accept any length yoke
- SAE 10 tooth input shaft spline
- Transmissions, parts, rebuilding and complete servicing readily available
- Low gear ratio: 1.88:1
- Reverse gear ratio: 2.29:1
- Shafts and gears are cryogenically treated