

# BAER® TRACKER™



## Full Floating Axle Conversion

### PROBLEM:

Traditional flanged-axes employ a single axle-bearing and together they support the weight of the vehicle. When cornering the flanged-axle is levered by lateral forces. Axle deflection, “bowing” or “bending” occurs as lateral forces rise with cornering speeds.

### AFFECTS:

- “Knock Back” results when the axle flange and the brake rotor to which it is attached deflect causing the rotor to “knock” the pad “back” displacing brake fluid in the caliper piston(s). The driver must then “pump the pedal” to move fluid back into the caliper and re-establish a firm brake pedal.
- This axle deflection also alters the lateral grip unpredictably resulting in reduced cornering speeds, uneven tire temperatures and wear.
- The affect on single axle-bearings (even tapered units) found on traditional flanged-axles is dramatically decreased bearing life. As bearing wear increases so do knock back and handling concerns.

### APPLICATIONS AFFECTED:

Live axle rear ends, Ford 9”, Dana, 10 or 12-bolt, others

### SOLUTION:

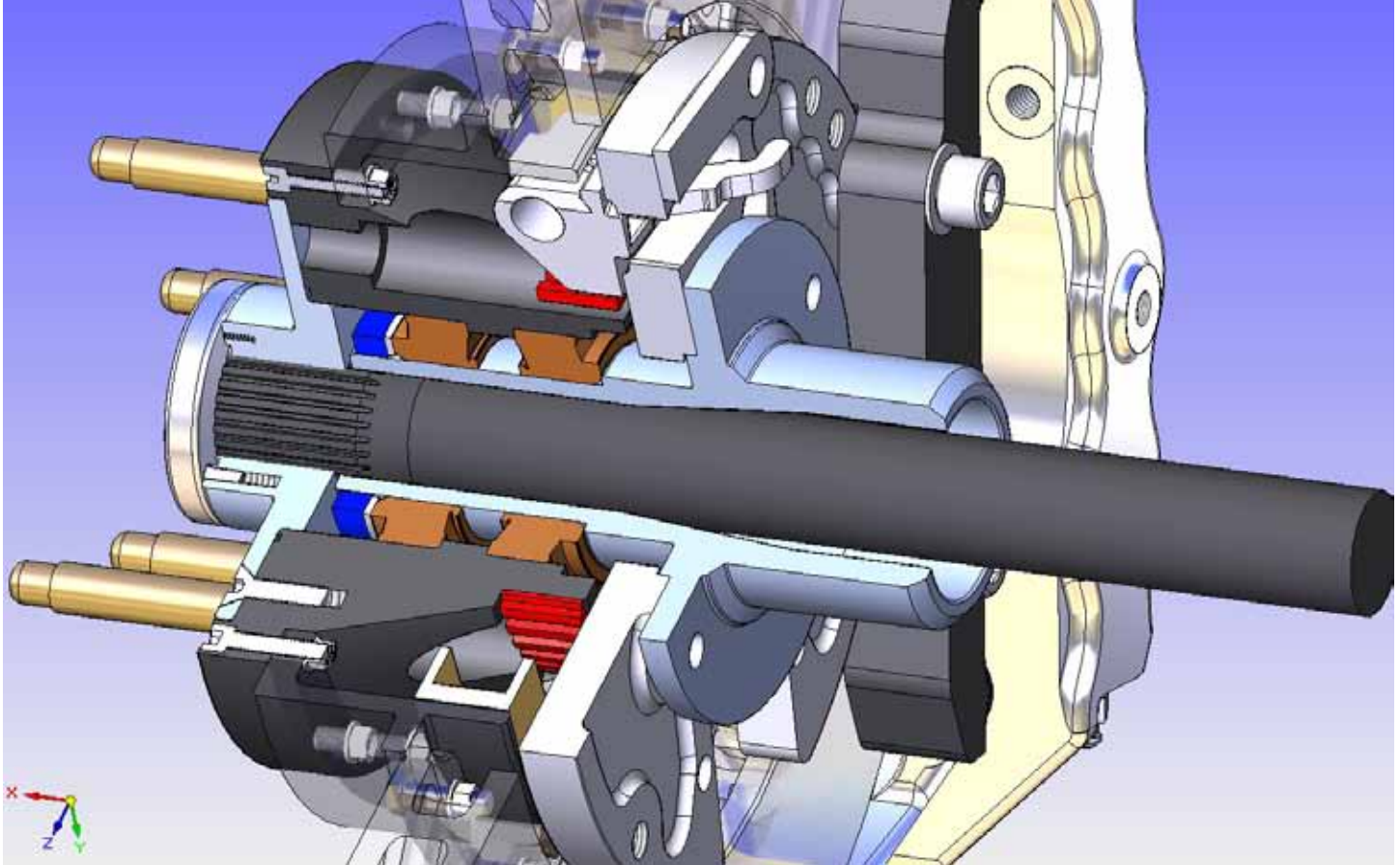
BAER TRACKER Full Floating Axle Conversion



# BAER TRACKER Full Floating Axle Conversion

## CONCEPT:

Eliminate conventional flanged single bearing axle and thus eliminate deflection at the axle flange. Employ durable floating axle technology mandatory in many forms of racing and the accepted standard required for heavy-duty truck applications. Do so while packaging this technology for ease of adaptation and serviceability for ultra high performance cars used both on the track and the street.



## GOAL:

Eliminate axle deflection to minimize knock back, improve handling and increase bearing life.

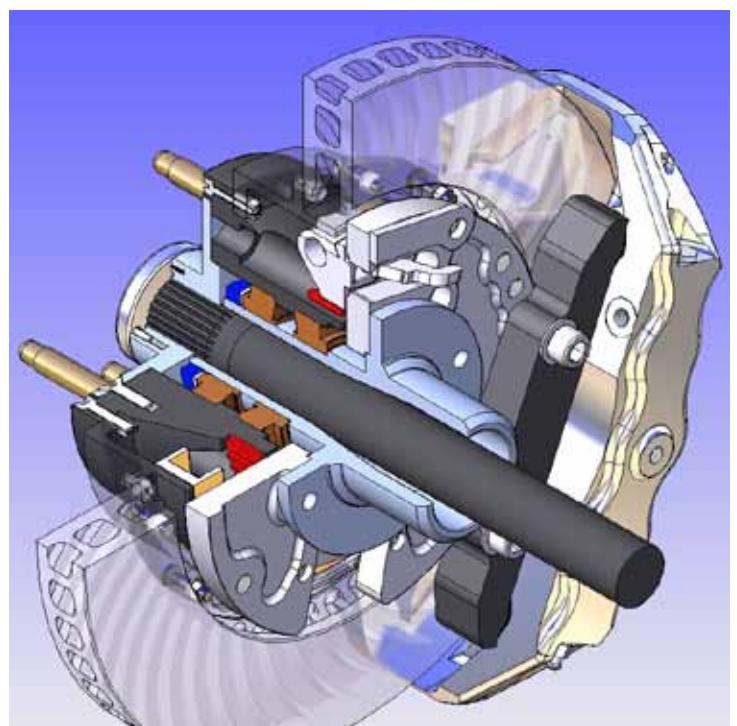
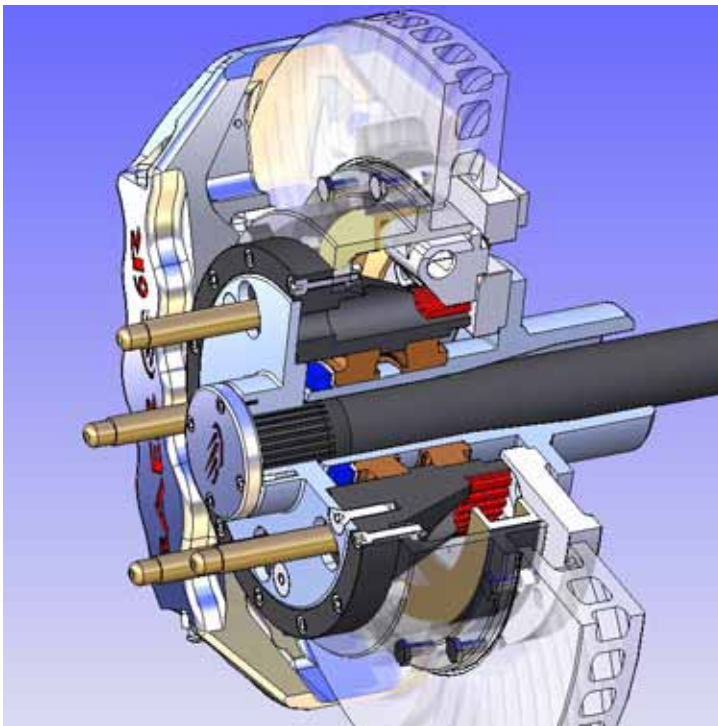
## IMPLEMENTATION:

- The axle must become a drive mechanism only, no longer directly supporting vehicle weight or absorbing cornering loads.
- The existing flange on the end of the axle tube (or housing) is decapitated and a precision steel spindle is jigged to ensure accuracy in its location before being welded in its place.
- *NOTE: With Baer's TRACKER Floating Conversion the billet parking brake backing plate, Banksia 1-piece park shoe and actuation hardware would be assembled onto the spindle next.*
- The hub is assembled employing two massive bearings spaced for maximum load capacity.
- ARP 1/2-20 studs are installed (5 on 4.5", 4.75" or 5" bolt circles).
- The rotor plate (*on TRACKERs this is also the hat for the park shoe*) is then fixed to the hub and in turn to the appropriate rotor from 12" to 15" diameter from .400" to 1.25" thick.
- The complete rotational assembly now slides in place on the steel spindle, a 2.00" locknut and retainer secure the assembly to the spindle.
- The flanged axle drive plate made of 4130 chrome moly is then bolted to the hub.
- Last the double spline axles (31 or 35, not included) are then slid into place and the axle cap is bolted to the spindle.

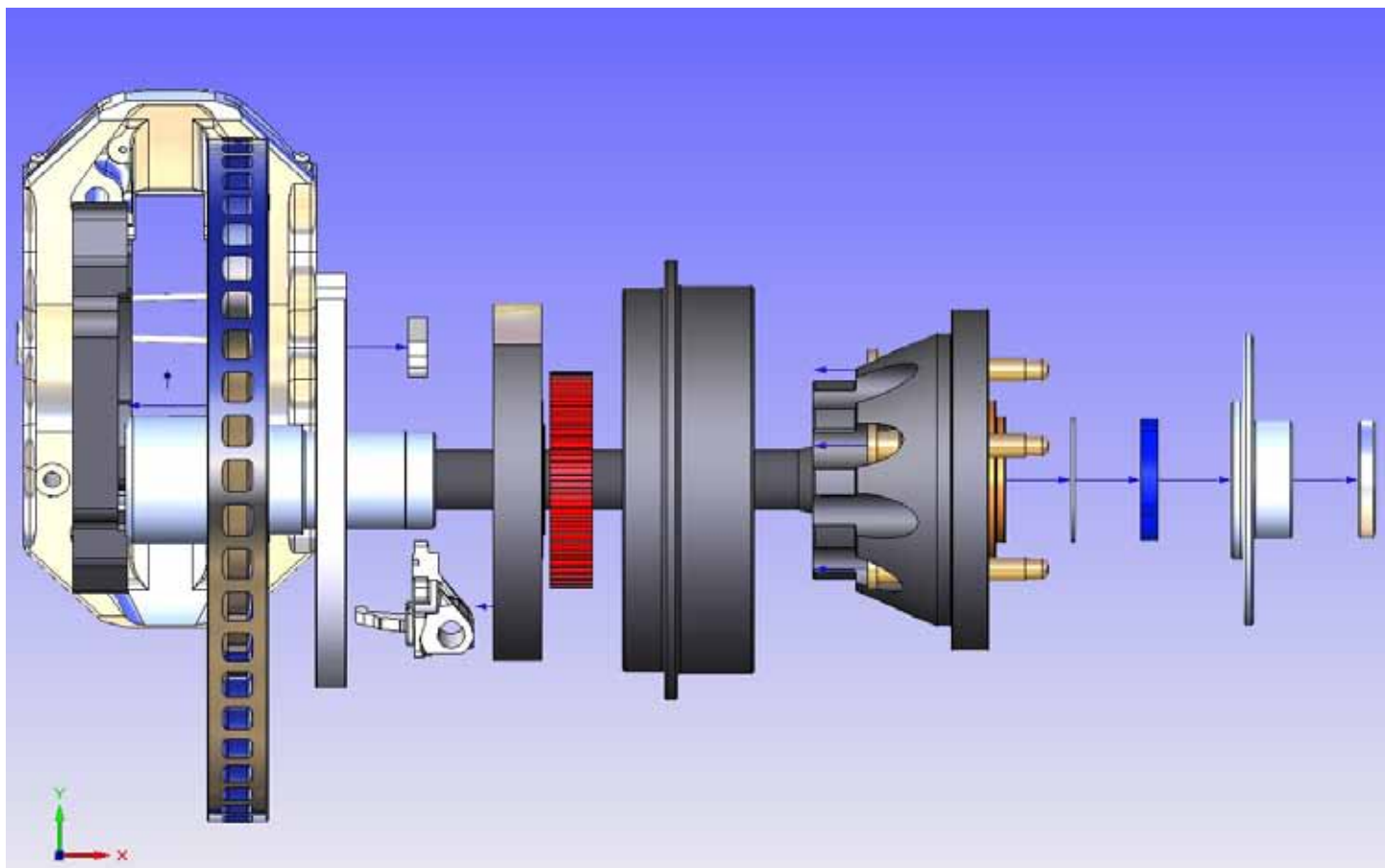
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## BENEFITS:

- Dramatically improved handling through predictable and consistent brake pedal height and tire contact patch.
- Longer service intervals on rotational parts, bearings and axles.
- Allows use of virtually any modern alloy wheel. Index is 2.410" diameter, centering rings are used for larger needs.
- First floating axle conversion with fully integrated park brake assembly (1-piece shoe design has 35% greater break-away-torque than conventional 2-piece shoe configurations).
- Design is fully ABS compatible
- Sold three ways;
  - As an option to the full range of Baer Claw® brake system, caliper choices and rotor sizes
    - SS4+ 4-piston (S4) 12 or 13" diameter rotor with park brake (11" diameter version with no park brake)
    - PRO+ 6-piston (6P) 13 or 14" diameter with park brake
    - EXTREME+ 6-piston (6S or 6R) 14, 15 or 16" diameter with park brake
  - Retrofit of most existing Baer Claw® PRO+ or EXTREME+ brake system
  - Outright for use with other manufacturer's calipers and brackets



# BAER TRACKER Full Floating Axle Conversion



## INCLUDED IN TRACKER Full Floating Axle Conversion:

- Compact, precision machined steel spindle (housing end).
- Billet backing plate with 1-piece park shoe, retainer, actuator and related hardware.
- Hub assemblies with races, bearings, seals, studs, rotor plate (hat) and related hardware (NOTE: must specify 31 or 35 spline and bolt circle as well as ABS tone ring dimensional preference if required).
- 4130 hardened steel drive plate and related hardware
- Options; ABS tone ring (normally provided by the customer).
- NOT INCLUDED; rotor or caliper related parts normally included in rear Baer systems.
- NOTE: All remaining Baer components can be purchased separately.

## PRICING:

1. Purchased as an upgrade with rear Baer Claw® system; **add \$1,450 to system price**
2. Upgrade a current (aluminum backing plate style) Baer Claw® PRO+ or EXTREME+ 9" Ford system with Torino bearing and 1-piece park brake shoe; **\$1,550**
3. TRACKER™ Full Floating Axle Conversion - for adaptation to other Baer applications or other caliper manufacturer's brake system; complete EXCEPT rotors, radial mount brackets and directly related hardware (available separately); **\$1,650**

## AVAILABILITY:

BAER TRACKER® installation requires professional level fabrication skills and equipment. TRACKERS are sold direct to racers or through qualified value added installer/distributors and are not available through warehouses. Call Baer toll free for details.

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