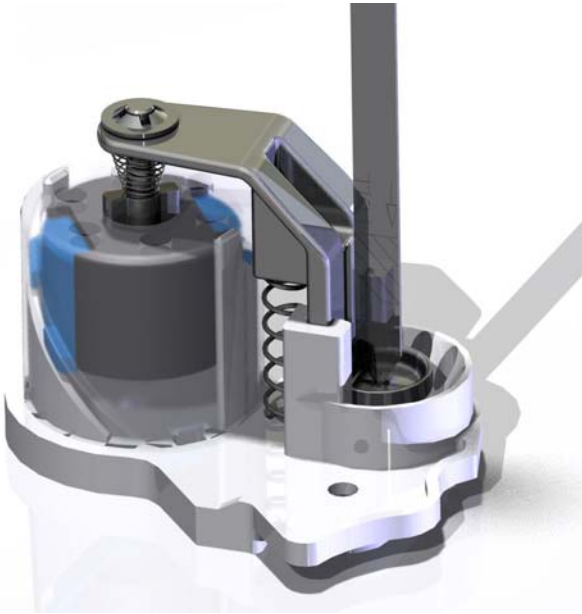


## **Smart Dipstick®** **Low-Level Fluid Sensor**



### **Operation**

- Float motion is both vertical and rotational due to screw thread control
- Rotary motion is dampened with fluid drag
- Fluid sensor incorporates positive mechanical latch to eliminate intermittent on-off as low fluid level is approached
- Dipstick removal and reinsertion automatically resets float switch
- Mechanical contact can:
  - Ground ignition
  - Close contact to external monitoring device

### **Configurations Available**

- Startup fluid level check only - prevents engine from starting under low fluid level condition
- Continuous fluid level monitoring - shuts off engine if low fluid level condition is reached during operation

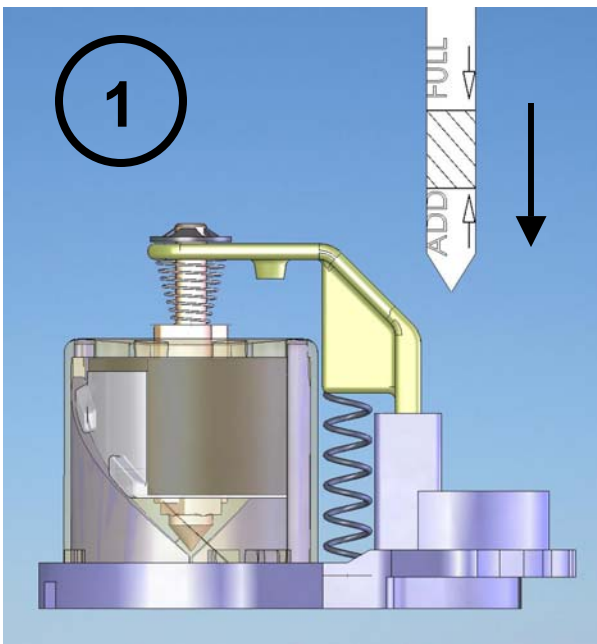
### **Features**

- Robust operation
  - Not sensitive to normal vibration levels
  - Not sensitive to malfunction due to engine tipping
  - No wearing parts
- Cost effective
- Prevents engine from starting under low fluid level condition
- Can shut off engine if low fluid level condition is reached during operation
- Simple installation (one-piece assembly)
- Provides positive indication of fluid level
- Compact package size
- Eliminates need for external electronic module for positive shutoff

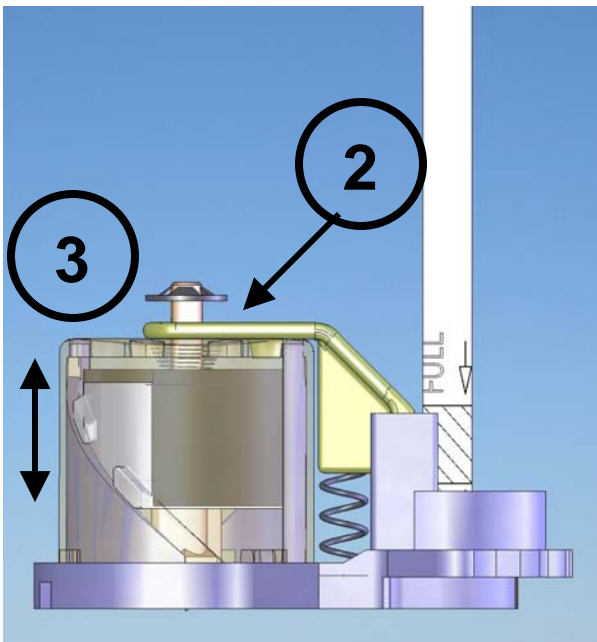
US Patent 7,486,179

For additional information on this and other innovations, please contact us at:  
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# Operation of the Smart Dipstick<sup>®</sup>

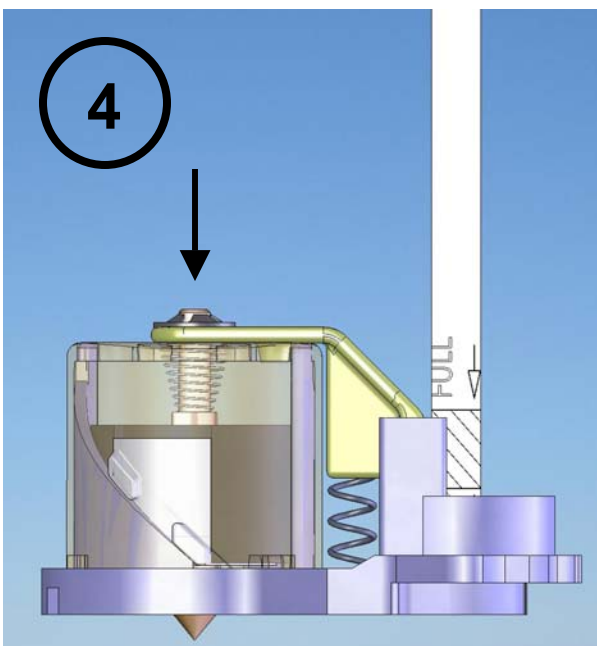


1) Dipstick is inserted



2) Reset arm is disengaged from the contact pin by insertion of the dipstick

3) Float is free to move with fluid level



4) As the float drops, it rotates and the contact pin aligns with the hole in the sensor base, dropping, and making contact. Reset is accomplished by removing the dipstick allowing the spring-loaded reset arm to lift the contact pin, which in turn lifts the float