



## DIPSTICK ADAPTER REPAIR KIT

(fits 94-03 Ford 7.3L Powerstroke Pickups, Vans & Excursions)



# **INSTALLATION INSTRUCTIONS**

E-Mail: sales@strictlydiesel.com Web: www.strictlydiesel.com Phone: 623-582-4404



# INSPECT CONTENTS OF THIS KIT THOROUGHLY BEFORE STARTING THE INSTALLATION PROCESS!

IF YOU FIND A PROBLEM WITH YOUR PACKAGE: • KEEP ALL OF THE PARTS & PACKAGING TOGETHER • DO NOT ATTEMPT INSTALLATION OF THE PRODUCT • PROMPTLY NOTIFY YOUR SELLING DEALER • PROVIDE DEALER WITH PHOTOGRAPHS IF REQ'D\* • WAIT FOR FURTHER INSTRUCTIONS FROM DEALER

## \*WE RESERVE THE RIGHT TO REQUEST PHOTOGRAPHS OF PACKAGING OR PARTS IN ORDER TO PROPERLY ADDRESS ANY SITUATION INVOLVING EITHER DAMAGED OR MISSING ITEMS.

**THANK YOU FOR YOUR COOPERATION!** 

## **IMPORTANT NOTES!**

Installation of this product requires an INCH/POUND torque wrench. Please pay close attention to the torque specifications in this document, there is a HUGE difference between 100in/lb and 100ft/lb!!! Using the wrong tool and wrong torque value will cause damage to the repair adapter!

Access to the oil pan may require lifting the truck. Park on a level surface and take appropriate safety precautions when jacking and working under your truck. The use of jack stands and wheel chocks is highly recommended...safe work practices are your responsibility!

These installation instructions were written for 94-97 "OBS" and 99-03 "Super Duty" FORD Pickup Trucks. There are a few minor differences between the installations on these trucks, these will be noted as "OBS" or "SD" in both the text and the photo captions. Installation in other vehicles (such as a van or a T444E in a medium or heavy duty application) may differ slightly, we recommend reading the instructions thoroughly before beginning the job, particularly if you are working on an application that is not specifically covered by this document.

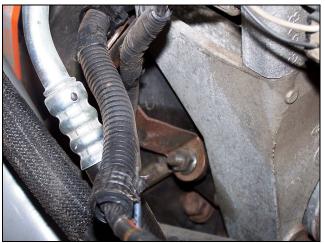
Unfortunately, not all oil pans appear to be created equal. We have run into some oil pans that are not perfectly flat in the area surrounding the dipstick adapter, and in some cases we've had to use some an RTV Sealant on the back of the dipstick adapter because the o-rings wouldn't seal without it. If you install the adapter and there is a significant gap between the side of the oil pan and the adapter (particularly at the bottom), you may want to remove the adapter and use a bead of quality RTV sealant to guarantee a leak-free installation. Usually a 1/8" to 1/4" bead (depending on how badly the pan is warped) of RTV between the 2 o-rings is more than enough to seal the adapter on a properly cleaned pan.

THE ENGINE OIL PAN HAS A WINDAGE TRAY THAT SITS BELOW THE DIPSTICK ADAPTER OPENING IN THE SIDE OF THE PAN. THE WINDAGE TRAY HAS A HOLE FOR THE OIL PICKUP TUBE THAT IS BELOW THE DIPSTICK ADAPTER HOLE IN THE SIDE OF THE PAN. IN STEP 12, YOU <u>MUST</u> GET THE OEM DIPSTICK ADAPTER TO DROP <u>THROUGH THE HOLE</u> IN THE WINDAGE TRAY SO THAT IT FALLS ALL THE WAY TO THE VERY BOTTOM OF THE OIL PAN SUMP. IF THE OEM DIPSTICK ADAPTER SITS ON TOP OF THE WINDAGE TRAY, IT <u>WILL</u> COME IN CONTACT WITH THE CRANKSHAFT.

> <u>Necessary Tools & Supplies:</u> Ratchet Wrench INCH/Pound Torque Wrench with 3/16" Allen Socket (ideal) 3/16" Allen Wrench Misc. Metric Sockets and Extensions for Above Misc. Metric Wrenches Large Adjustable Wrench or Large Set of Channel Lock Pliers

- 1. Drain the engine oil into a suitable container. This step is not required, but we find it easier to make sure that the old dipstick tube adapter has made it all the way to the bottom of the pan when the pan is empty.
- 2. Disconnect both batteries, negative terminals first...then positive terminals. You will be disconnecting and removing the starter, this step is intended to prevent the possibility of an accidental short while working on the starter.
- 3. SD ONLY: Remove the passenger side intercooler tube. This step is not required, but it can be helpful to have the intercooler tube out of the way.
- 4. Remove the oil dipstick and set aside.

5. Remove the retaining nut (SD) or bolt (OBS) that hold the top of the dipstick in place. See images below:



Super Duty Dipstick Retaining Nut



OBS Dipstick Retaining Bolt

- 6. Locate and disconnect the main battery cable and solenoid wire on the back of the starter. If you did not disconnect the batteries as described in step #2, the main battery cable at the starter will be "live" and should be handled very carefully!
- 7. Remove the starter bolts (2 x 13mm SD / 3 x 17mm OBS) and remove the starter from the truck.
- 8. Grasp the dipstick tube and push it up and out of the factory dipstick adapter. The tube can be left in the truck, just locate off to the side so it's not in the way.
- 9. Before proceeding, note the orientation of the stock dipstick adapter with relation to the angle the dipstick is inserted. Some trucks have the dipstick port pointing straight up, some have it pointing forward at an angle.
- 10. Using a large crescent (adjustable) wrench or large set of channel lock style pliers, loosen (but do not remove) the large nut holding the stock dipstick adapter in the oil pan. The nut should be loose enough to remove by hand, but left installed at this time.
- 11. You will need to use a pair of pliers to hold the adapter as shown in the photos below. Once you have secured the stock adapter, you can finish removing the large nut. You will need to push the adapter in far enough to use a pick or hook to retrieve the factory o-ring, we don't want it getting sucked up in the oil pump pickup.



12. Once you have removed the original o-ring, the factory adapter can be dropped into the bottom of the oil pan. You will want to direct it slightly toward the rear of the engine. Listen for it to hit the **BOTTOM** of the **SUMP** (lowest portion) of the oil pan. If you are unsure of whether it has made it all the way down, you can use a mirror and a flashlight to look into the opening in the pan. The opening in the windage tray is essentially straight down from the hole where the OEM dipstick adapter came out. **BEFORE PROCEEDING**, make sure that the original adapter is in fact in the bottom of the oil pan sump. **DO NOT LEAVE OEM ADAPTER ON TOP OF THE WINDAGE TRAY!!!!** 

- 13. Clean the side of the oil pan around the dipstick opening. This will be the new sealing surface, it needs to be clean and smooth.
- 14. Locate the new dipstick adapter. One of the screws is welded on the end and can't be removed, loosen that screw **BY HAND** until it stops. Remove the other screw and washer and set aside.
- 15. It's time to install the new dipstick adapter. Hold the OUTER piece of the adapter, the inner piece will hang down. When inserting the inner piece into the oil pan, it will need to be angled toward the rear of the truck.
- 16. Rotate the outer piece until it engages the tab in the pan and is oriented correctly (as compared to the notation you took in step 9) for the vehicle you are working on. It will drop into the hole in the pan and sit flush once oriented properly. See the pictures below for examples:





Typical Super Duty Adapter – Angled Forward

Typical OBS Adapter – Straight Up

- 17. Apply a thread locker to the end threads of the screw that was removed from the new adapter and then re-insert the screw into its hole.
- 18. Using a 3/16" allen wrench or socket, rotate the non-removable screw CLOCKWISE until the inner piece of the new adapter hits the other screw. Pull the loose screw out enough for the inner piece to rotate a bit further so you can locate threaded hole and start the screw. Once the second screw is started, tighten the screws evenly. We recommend tightening the screws to 100 INCH/POUNDS (approx 8-10FT/LBS). If you don't have a 3/16" allen socket you can use with a torque wrench, be sure to tighten the screws evenly, and not to over-tighten them.

WARNING: The screw with the welded end should never be forced in a counterclockwise direction, whether by hand or with impact tools. This can cause the screw to break or the weld to be pulled through the threads of the backplate, causing permanent damage that is not covered under warranty.

- 19. Install the new dipstick tube o-ring onto the end of the dipstick tube. Lube the o-ring and install the dipstick tube into the new dipstick tube adapter. Make sure that the dipstick bottoms fully in the dipstick adapter.
- 20. Secure the top of the dipstick with the original retaining nut (SD) or bolt (OBS). Make sure that the bottom of the dipstick didn't pull out of the adapter in the pan before proceeding.
- 21. Reinstall the starter and reconnect the starter electrical connections.
- 22. Fill the engine with your selected oil (now is a great time to change the filter as well...might as well make it a complete oil change).

### **INSTALLATION COMPLETE!**

#### S DIESEL, LLC (dba STRICTLY DIESEL AND/OR DRIVEN DIESEL\*) WARRANTY AND LIABILITY POLICY

#### MOST OF THE PRODUCTS SOLD BY S DIESEL, LLC, ARE DESIGNED TO INCREASE VEHICLE PERFORMANCE...USE AT YOUR OWN RISK!

Do not install or use any product(s) purchased from S DIESEL, LLC ("S DIESEL") until you have carefully read the following Warranty and Liability Policy (the "Warranty").

#### PRODUCT WARRANTY POLICY

Subject to the limitations, exclusions, and qualifications set forth below, the product or the products made and sold by S DIESEL (the "S Diesel Product" or "S Diesel Products") are warranted to Buyer as set forth in this Warranty. The installation of the S Diesel Products indicates that Buyer has read, understands and agrees to the terms and conditions of this Warranty. Any warranty on products that are made by another manufacturer which are resold by S DIESEL to Buyer is made to Buyer by the manufacturer of such products in accordance with and subject to all conditions and limitations of the manufacturer's warranty in effect on the date of the purchase by Buyer. S DIESEL makes no warranties to Buyer, express or implied, with respect to such products that are made by another manufacturer.

#### LIMITED WARRANTY

The S Diesel Products (except S Diesel Products specified to have different warranty terms) are warranted to be free from defects in material and workmanship, under normal use and service for a period (the "Product Warranty Period") of one (1) year from date of delivery to Buyer, unless S DIESEL performs the work installing the S Diesel Products, in which case the Product Warranty Period shall be extended to equal the Service Warranty Period (as defined below under "SERVICE WARRANTY POLICY"). S DIESEL's liability under this Warranty is limited to repair or replacement at its option, subject to the provisions set forth herein, of any S Diesel Products to S DIESEL for inspection.

S DIESEL shall not have any responsibility under this Warranty unless (1) the defect in an S Diesel Product results in a claim arising within the Product Warranty Period, measured from the date of delivery to Buyer, (2) the S Diesel Product, if installed by an installer other than S DIESEL, was properly installed, (3) the S Diesel Product was normally maintained and not subject to misuse, negligence or accident, and (4) the S Diesel Product, system components and/or accessories were not repaired or altered in such a way that in the judgment of S DIESEL the S Diesel Product's performance or reliability was adversely affected.

#### EXCLUSIONS

Any of the above warranties by S DIESEL shall not apply if Buyer's vehicle is in an accident, misused, neglected, altered from the S Diesel Product's manufacturer original designs or specifications or serviced in connection with a warranty claim hereunder without prior written approval of S DIESEL.

#### REMEDIES EXCLUSIVE

Repair or replacement of defective S Diesel Products in accordance with the Limited Warranty above shall be Buyer's exclusive remedy for and shall constitute satisfaction of any and all liabilities of S DIESEL with respect to any defect in any S Diesel Product whether based in warranty, contract, tort, negligence, strict liability or otherwise.

#### DISCLAIMERS AND LIMITATIONS

THE EXPRESS WARRANTIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, CONDITIONS AND TERMS AS TO QUALITY OR FITNESS OF ALL PRODUCTS SUPPLIED BY S DIESEL TO BUYER, WHETHER WRITTEN, ORAL OR IMPLIED, STATUTORY OR OTHERWISE, INCLUDING WITHOUT LIMITATION, ANY WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND ALL SUCH OTHER WARRANTIES, CONDITIONS AND TERMS ARE HEREBY DISCLAIMED AND EXCLUDED BY S DIESEL, IN NO EVENT SHALL S DIESEL BE LIABLE FOR ANY LOSS OF ACTUAL OR ANTICIPATED PROFITS, LOSS OF ANTICIPATED BUSINESS, COST OF SUBSTITUTE PRODUCTS, LOSS OF USE OR DOWNTIME COSTS OR DELAY CLAIMS (WHETHER DIRECT OR INDIRECT) NOR FOR ANY OTHER SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF OR RELATING TO THIS WARRANTY OR THE SUPPLY OF S DIESEL PRODUCTS TO BUYER, WHETHER BASED IN WARRANTY, CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE. BUYER ACKNOWLEDGES THAT (A) THE PRODUCTS PURCHASED FROM S DIESEL WILL BE USED IN CONNECTION WITH ACTIVITIES, UNDER EXTREME CONDITIONS AND/OR SUBJECT TO MODIFICATIONS REQUESTED BY BUYER FOR WHICH THE PRODUCTS MAY OR MAY NOT BE SUITABLE: (B) THE WARRANTY OF SUCH PRODUCTS FOR PERFORMANCE IN CONNECTION WITH SUCH ACTIVITIES, UNDER SUCH EXTREME CONDITIONS AND/OR SUBJECT TO SUCH MODIFICATIONS REQUESTED BY BUYER IS NOT POSSIBLE: AND (C) ANY MANUFACTURER'S WARRANTY MAY BE VOIDED BY USE OF THE PRODUCTS IN CONNECTION WITH SUCH ACTIVITIES, UNDER SUCH EXTREME CONDITIONS AND/OR SUBJECT TO SUCH MODIFICATIONS REQUESTED BY BUYER. BUYER ACKNOWLEDGES THAT THE INSTALLATION OF ANY S DIESEL PRODUCTS THAT ARE NOT LEGAL FOR USE ON POLLUTION CONTROLLED MOTOR VEHICLES IS DONE SOLELY AT THE REQUEST OF BUYER AND ALL RESPONSIBILITY FOR ANY EFFECTS ON THE ORIGINAL VEHICLE MANUFACTURERS WARRANTY, ABILITY TO PASS ANY EMISSIONS INSPECTIONS OR FOR ANY FINES THAT MAY OCCUR DUE TO THE REMOVAL OF FEDERALLY MANDATED EMISSION CONTROL EQUIPMENT IS ON BUYER. No employee or representative of S Diesel has the authority to make any representation, promise or agreement which in any way varies from the terms and conditions of this Warranty. No suit or claim based on any cause of action, regardless of form, arising out of or relating to this Warranty or any of the S Diesel Products supplied by S DIESEL may be brought by Buyer or anyone claiming by, through or under Buyer against S DIESEL more than one year after the date that such cause of action arose.

IN THE EVENT BUYER DOES NOT AGREE WITH THE TERMS AND CONDITIONS OF THIS WARRANTY, BUYER MAY PROMPTLY RETURN THE PRODUCT TO S DIESEL FOR A FULL REFUND. THE PRODUCT MUST BE IN NEW, UNUSED AND RESELLABLE CONDITION, BE RECEIVED WITHIN FIFTEEN (15) DAYS OF THE ORIGINAL PURCHASE AND BE ACCOMPANIED BY A DATED PROOF OF PURCHASE (RECEIPT). PRODUCTS RETURNED IN NEW, UNUSED AND RESELLABLE CONDITION MAY STILL BE SUBJECT TO RESTOCKING/REPACKAGING FEES.

THE INSTALLATION OR USE OF ANY PRODUCT PURCHASED FROM S DIESEL INDICATES THAT BUYER HAS READ, UNDERSTANDS AND AGREES TO THE TERMS AND CONDITIONS OF THIS WARRANTY.

#### ASSIGNABILITY OF WARRANTY

This Warranty is for the exclusive benefit of Buyer and is not assignable

#### WARRANTY CLAIMS PROCEDURE

Warranty claim forms can be printed from the company websites (<u>http://www.drivendiesel.com</u> (Products) and <u>http://www.strictivdiesel.com</u> (Services)). A properly completed warranty claim form and a copy of the invoice for any defective Product or Service must be received by the Seller within the earlier of 30 days after the expiration of the Warranty Period or the incident giving rise to the claim. To qualify for an adjustment under this Warranty a defective Product must be returned prepaid to the Seller for inspection and must be accompanied by a dated proof of purchase receipt. In addition, the serial number of the defective Product, if any, must match the serial number on Buyer's invoice. All Warranty claims are subject to approval by the Seller and/or the Product's manufacturer. Buyer must pay all applicable service charges and taxes. Defective Products accepted for warranty compensation become the property of the Seller. To qualify for an adjustment under this Warranty a vehicle upon which S Diesel Services have been performed must be delivered to the Seller during Seller's hours of operation for inspection and must be accompanied by a dated proof of purchase receipt.

#### WAIVER

Any failure of the part of S Diesel to insist on strict compliance with the Warranty Provisions shall no way constitute a waiver of such right. No claim or rights arising out of a breach of the Warranty Provisions by Buyer may be discharged in whole or in part by a waiver of the claim or right, unless the waiver is in writing signed by an authorized representative of S Diesel. S Diesel's waiver or acceptance of any breach by Buyer of any provisions of the Warranty Provisions shall not constitute a waiver of or an excuse for nonperformance as to any other provision of the Warranty Provisions nor as to any prior or subsequent breach of the same provision.

#### APPLICABLE LAW

The Warranty shall be governed by the laws of the State of Arizona (excluding Arizona law with respect to conflicts of law).

\* Driven Diesel was formerly known as ITP Diesel, LLC and Sinister Diesel, LLC.