



INSTRUCTION TO SERVICE

ITS: 4610

SECTION:	219 Engine & Transmission
WRITTEN BY:	Michael Rooney
SUBJECT:	Install New Engine Oil Dipstick Assembly.

ITS4610

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PROCEDURE:

1. Turn the main battery disconnect switch to the “OFF” position.

⚠ WARNING: **ALWAYS** discharge the Ultra Capacitors before performing maintenance on this vehicle. Refer to Section 5 of the service manual under 2.17 *Discharging the Ultra Capacitors* for the discharge procedure.

2. Open the street side rear compartment door and locate the remote engine oil drain tube and plug.
3. Drain the engine oil into a suitably sized drain pan.
4. Remove the fitting that connects the remote engine oil drain tube to the oil pan drain of the engine.
5. Install a tee-fitting NF P/N 491256 on the oil pan drain. Orient the tee-fitting so that it is vertical with one opening at 6 o'clock and the other opening at 12 o'clock. Figure 1.
6. Re-install the remote oil drain tube on the tee-fitting opening located at 6 o'clock. Torque fitting to 43-48 FT-LBS. Figure 1.

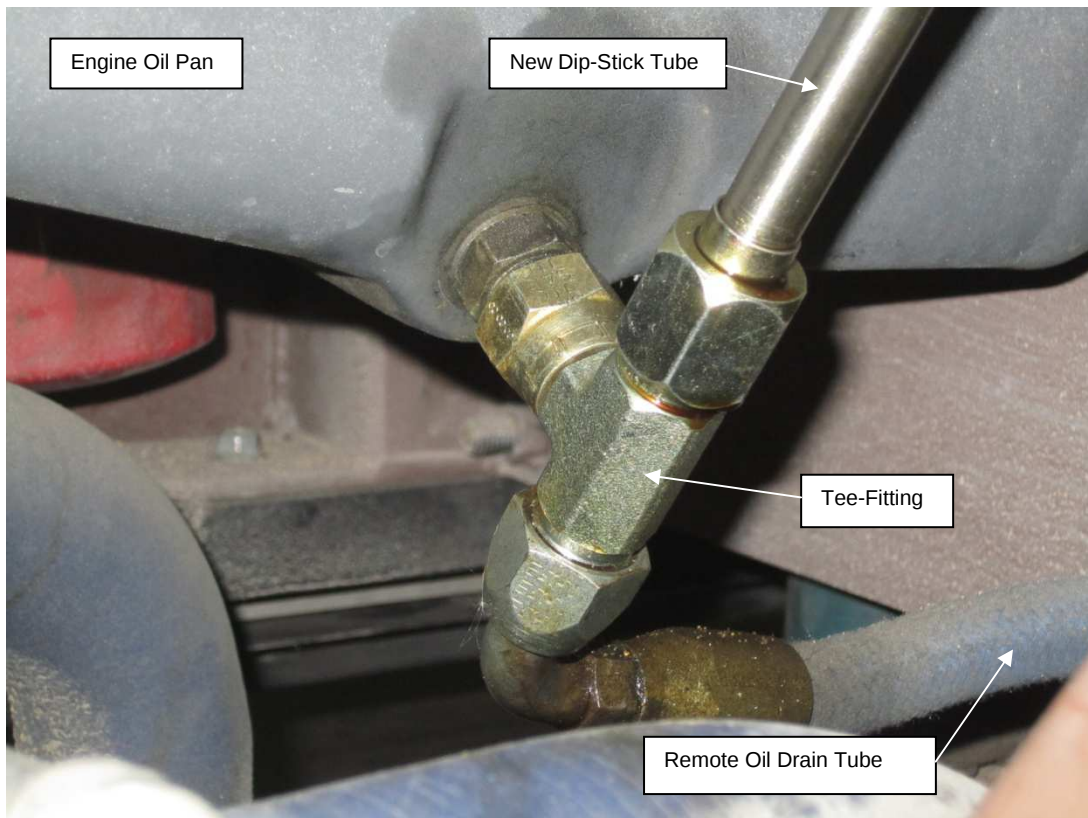


Figure 1: Oil Pan Connection Detail

7. Open the rear engine compartment door and remove the accessory drive belt guard on the engine.
8. Locate the alternator mounting plate on the street side of the engine. Figure 2.
9. Remove the bolt at the right upper corner of the alternator mounting plate and set aside.

10. Install the dip stick tube mounting bracket NF P/N 491715 using the bolt removed in Step #9. Figure 2.
11. Attach the new dip stick assembly NF P/N 491306 to the mounting bracket using a clamp NF P/N 247221, nut NF P/N 40N04000, two washers NF P/N 10W04000 and bolt NF P/N 10B04016. Torque hardware to 12-14 FT-LBS. Figure 2.

 **NOTE:** Ensure that there is adequate clearance between the dipstick tube and the starter solenoid terminals to prevent electrical shorting.

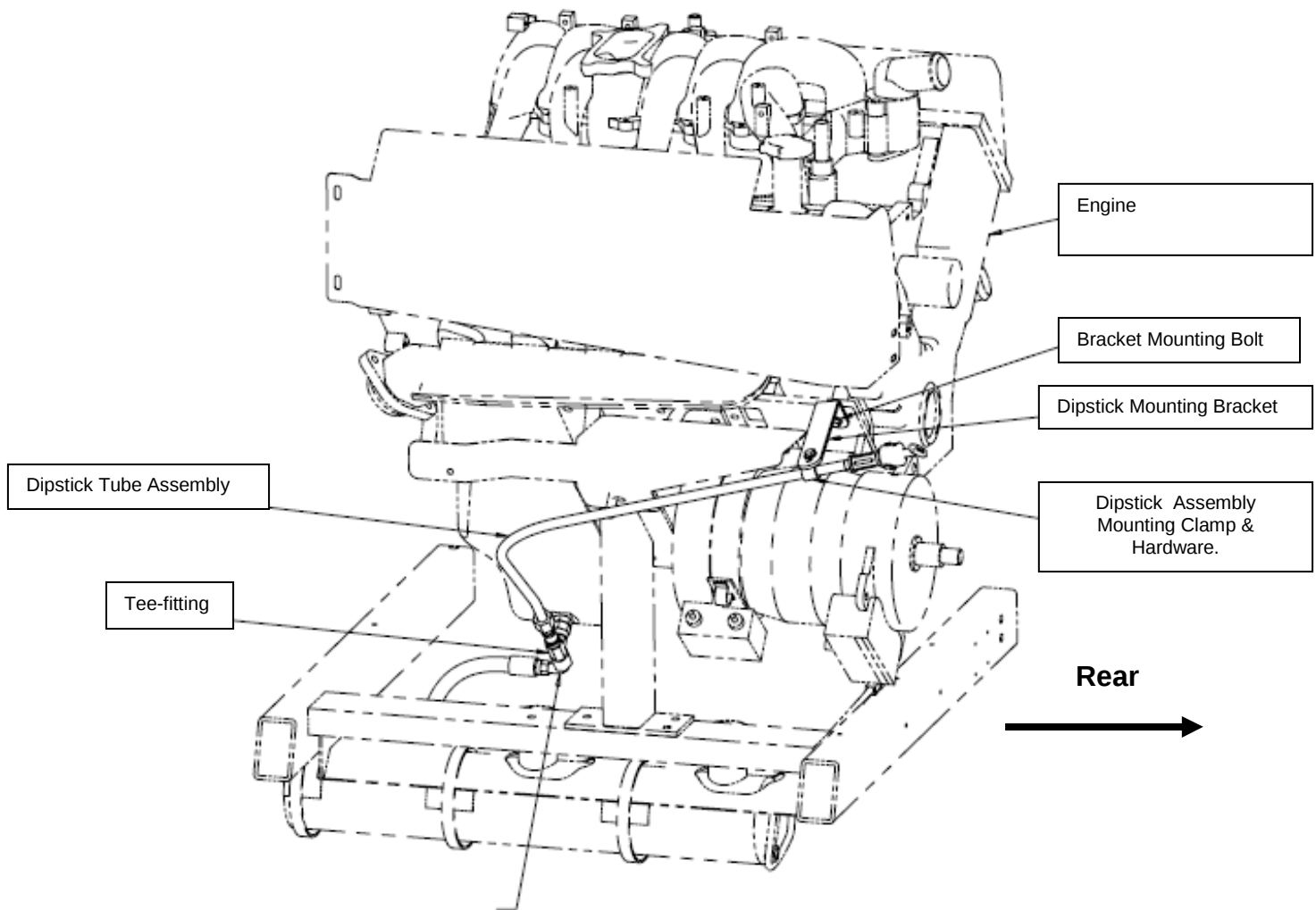


Figure 2: New Engine Oil Dipstick Installation.



12. Attach the end of the new dip stick tube to the new tee-fitting installed previously on the engine oil pan fitting. Figure 1 & Figure 2. Torque fitting to 43-48 FT-LBS.
13. Re-fill the engine with fresh engine oil. Refer to the service manual for correct engine oil specs, viscosity and fill quantities. Optionally, if desired, the engine oil filter can be changed at this point.
14. Re-install the drive belt guard removed previously.
15. Check the engine oil drain and the tee-fitting for oil leaks. If leaks are found, repair as required.
16. Check engine oil level on the new dipstick before running the engine
17. Turn the main battery disconnect switch to the "ON" position.
18. Remove all tools and debris to return the coach to service condition.



LABOUR ESTIMATE

	Operation	Men	Hours	Labour Time M X HR
1	Install New Engine Oil Dipstick Assembly.	1	0.5	0.5

PARTS REQUIRED

Item	Part Number	Description	Qty. per Coach	Units	Notes
1	491306	ASSY-DIPSTICK ENG ISE/FORD	1	EA	
2	491715	BRKT-MTG ENGINE DIPSTICK	1	EA	
3	491256	TEE-BRANCH SWIVEL -8 JIC	1	EA	
4	40N04000	LOCKNUT 1/4" 20 UNC	1	EA	
5	247221	CLAMP-P 0.500	1	EA	
6	10W05000	WASHER FLAT 5/16"	1	EA	
7	10W04000	WASHER-FLAT 1/4 NOM	2	EA	
8	10B04016	BOLT HEX 1/4" 20 UNC X 1" LG	1	EA	

SPECIAL TOOLS REQUIRED

Item	Part Number	Description	Qty. per Coach	Units	Notes
1		No Special Tools Required			