6.0L Ford

Five things that is very important

1. Truck has to have base oil pressure to start. Does oil pressure gage move when cranking, if not check filter height
2. Is the FICM sync---should be yes when cranking
3. FICM volts—look at spread sheet
4. ICP—look at spreadsheet
5. IPR % Value—15-85%, but seldom 85% 15% is atmospheric pressure…..you might get 75% on hard acceleration, 85% usually means oil leak or ICP is defective

First thing first, if you have a no start condition, check base engine oil pressure. If the filter height is wrong, then the drain back valve in oil filter base will stay open and wont build adequate base engine oil pressure. Remove filter, measure it. Also crank while filter is off to watch oil raise in filter housing.

THEN…..unplug ICP, which is on top of right valve cover. This is supposed to put ECM in default mode. Truck should start.

ICP must have 500psi to start. If not, then you either have a bad oil leak internally or oil pump going out. The inte4rnaly oil leak is real common.

The ICP sensor on 2005 & older is under turbo

On newer, its easy to get at on valve cover.

To find oil leak, remove valve covers, crank engine & hopefully you will see oil leak squirting.

There is a fitting on oil rail under valve cover. Remove it & pressurize oil system with shop air pressure.. Listen for leaks.

Its common on older ones for the standpipe that goes on oil gallery under valve cover to fuel rail for these o-rings to go bad. Replace the standpipe with new o-rings, not just o-ring it.

Important…..before doing this, ensure the FICM is having 46-48 volts output!!!

This will and can throw you off.

It might be possible to unplug the ICP and computer default to 1800PSI. So unplug ICP, crank while watching scan tool to see if that happens. If it does, truck will start.

The accuracy of this statement may & may not be true.

If you doubt the accuracy of ICP sensor output, if it reads, its probably OK

its nevvvvver the oil pump...seriously.  
I see sooooooooooooooo many guys (dealerships included) that see "no ICP" or some ICP codes in a scantool...and toss HPOP's on truck after truck...when it is either an IPR or an injector (poppet valve) issue.  
If you hook up the scantool, and monitor ICP (psi) while cranking...you'll see IPR% (duty cycle) climb & climb 15% [key](http://www.ford-trucks.com/forums/1121180-low-icp-pressure-when-cranking-no-start.html) on..20, 30, 40, 55%, higher..the increase in IPR% means that the PCM is requesting ICP pressure to increase...so ALSO watch ICP(psi) and if it comes up to only 180-250psi or so and stays there...then it's the IPR hung open (bypassing oil back to the oil pan through the front cover) such that only minimal psi can be made.  
If the ICP is VERY low...like under 60psi...then it could be injector (poppets) pissing oil (under the VC's)..which is typical for injector with more than 180-200k miles.  
if ICP climbs above 550-600..then it will probably climb much higher (15-1800+) and it is most likely going to be an electrical issue.  
If his scantool will not connect then its a PCM or [chip](http://www.ford-trucks.com/forums/1121180-low-icp-pressure-when-cranking-no-start.html) issue (remove the chip if you have one & haven't removed it yet)   
if the scantool connects AND you have >600ICP then look at the datastream for a [RPM](http://www.ford-trucks.com/forums/1121180-low-icp-pressure-when-cranking-no-start.html) reading.  
if the scantool picks up an RPM signal and it seems accurate....then the CPS is good.  
If no RPM on the scantool, replace CPS.  
If you have RPM (on scantool, not just on dash)...AND have ICP >600, then run an (key on, eng off) injector "buzz test"...the buzz test is nothing more than a continuity test from the PCM, through the IDM, and to & from each [injector solenoid](http://www.amazon.com/dp/B0040CWY94).  
LISTEN to each inj buzz....do they all sound the same? nice & crisp?  
if the test passes (and you audibly heard them all)...then wiring is good, IDM is good, HPOP is good...CPS is good...then it could be a fuel issue. gasoline, water, etc...  
  
I wouldn't mention it if I haven't seen it myself numerous times...  
  
  
  
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