

## **1FZ-FE LONG BLOCK REBUILD OEM PARTS LIST:**

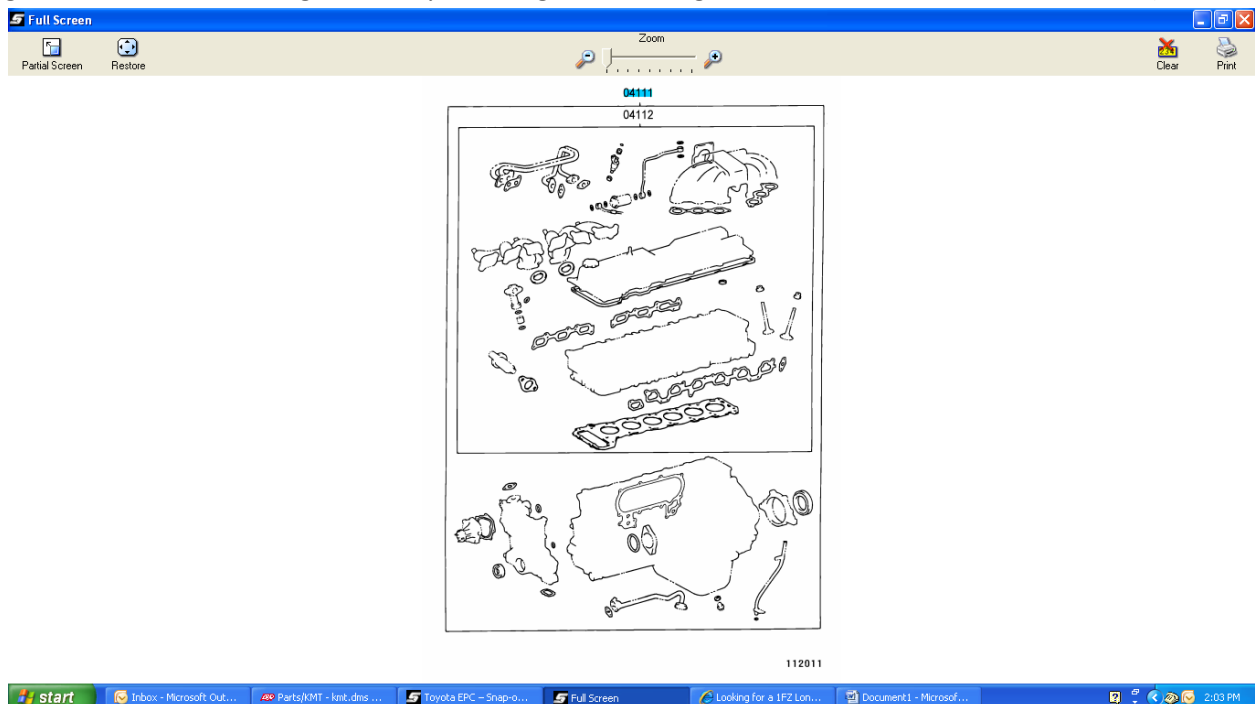
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BY: ONUR AZERI, PARTS MANAGER, LHM TOYOTA ABQ, [ozazeri@lhm.com](mailto:ozazeri@lhm.com), 505.332.6508

While this list is not meant to be comprehensive in its scope, it does cover most every major component system in the 1FZ-FE 4.5L petrol engine for the North American market (other markets might have more or less parts depending on year of build as well as market differentiations (1FZ-F carburetor, 1FZ-FE direct ignition, non-emissions, etc.). I have not included prices because they also vary by market and parts department. These are parts that both myself and Cruiserdan at American Toyota have in stock at all times. There are also a number of "while-you-are-in-there" parts listed here that is meant for someone who is also base-lining component system associated with the 1FZ-FE and should be done regardless during the base-lining process for a new owner. All part numbers are current as of March 2012 and all parts are still available. This list does not cover differences that occur between OBD I and OBD II systems. They are minor and should be considered by the owner at the time of parts purchase (a good parts guy will often times make note of the difference as well and suggest other parts needed specific to generation of emission system). The list below also assumes that the customer will be having machine work done, will be reusing block and crank, reusing the head assy, but will be replacing valves and all head components (reusing camshafts). The list below also assume you are using standard sized connecting rod bearing set, undersized main bearing set. If you choose to mimic the extant bearing sizes then you would need to follow the FSM procedure to find the size you want for the connecting rod bearings as well as the main engine bearings.

### **OEM Parts List (assumes customer is over-boring block by 1mm over (basically making it a 4.6L 1FZ-FE):**

04111-66035: Engine Gasket set (includes most of your consumable gaskets, oil seals, o-rings, head gasket, for the entire long block assy. Other gaskets/o-rings/seals will be listed below as needed).



00295-00103: Form-in-place-gasket (FIPG)

16603-66010: DRIVE BELT IDLER

12361-17011: ENGINE MOUNTS (X2)

12261-66021: VENT HOSE, VALVE COVER

12262-66021: VENT HOSE, VALVE COVER

12204-35040: PCV VALVE

90480-18001: PCV VALVE GROMMET

13105-66040: PISTON (X6) [1MM OVER]

13015-66021: RING SET (X1) [1MM OVER]

13011-66021: BEARING SET, CONNECTING ROD

11704-66031: BEARING SET, MAIN BEARINGS (UNDERSIZED .25MM)

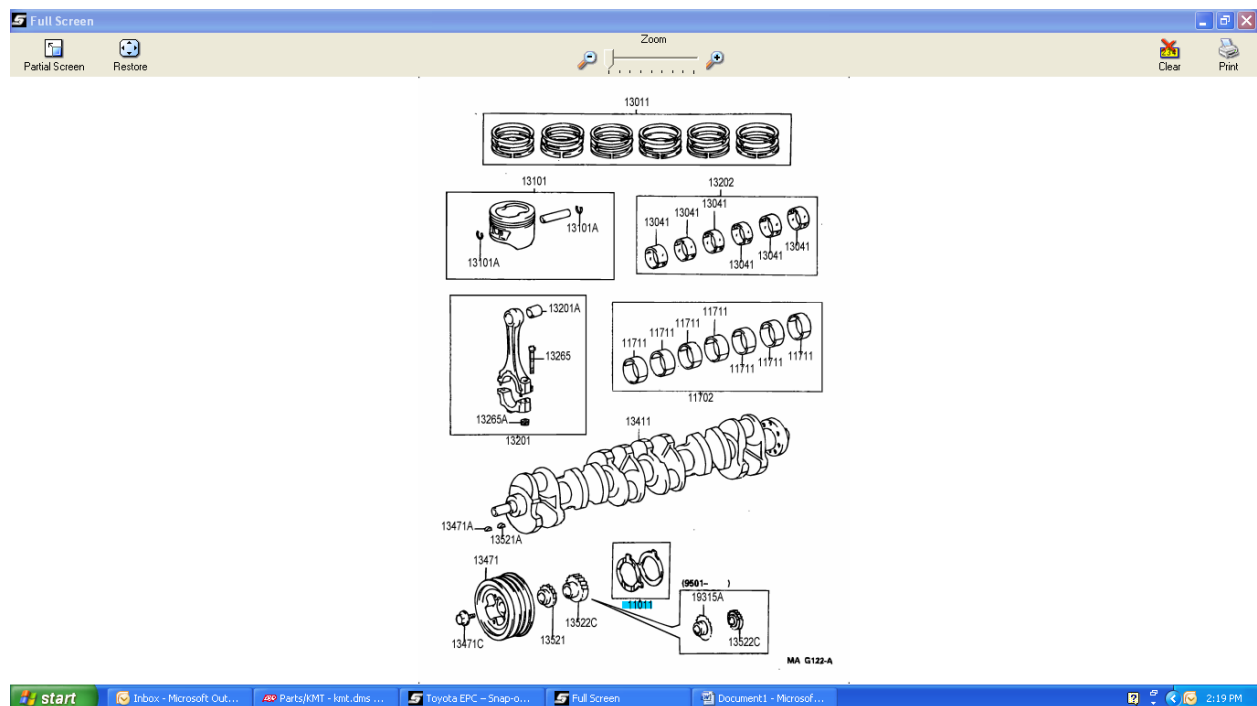
11011-66020: WASHER SET, THRUST FOR CRANKSHAFT

13201-66020: CONNECTING ROD (X6)

13522-66030: GEAR, OIL PUMP DRIVE

19315-66010: CRANKSHAFT POSITION GEAR

90119-22001: CRANKSHAFT BOLT



13515-75010: DISTRIBUTOR DRIVE GEAR

13523-66020: CAMSHAFT TIMING GEAR/SPROCKET

13540-66011: TIMING CHAIN TENSIONER

13559-66011: CHAIN SLIPPER

13561-66010: CHAIN DAMPER

13506-66010: TIMING CHAIN

13715-66030: VALVE, EXHAUST (X12)

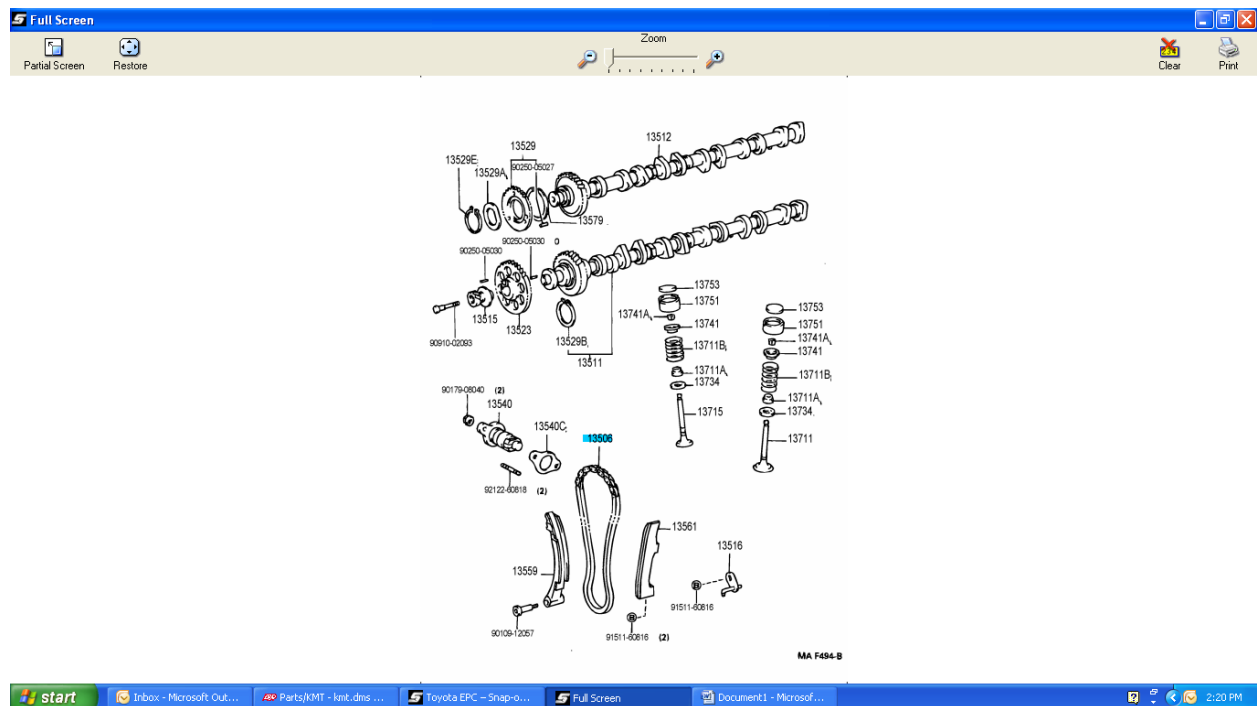
13711-66030: VALVE, INTAKE (X12)

90501-38006: SPRING, COMPRESSION (X24)

90913-03027: VALVE SPRING RETAINER LOCK (X48)

13734-66020: VALVE SEATS (X24)

13741-66020: VALVE RETAINERS (X24)



90910-02111: HEAD BOLTS (X14)

15188-66020: OIL PUMP COVER GASKET

15102-66020: OIL PUMP ROTOR

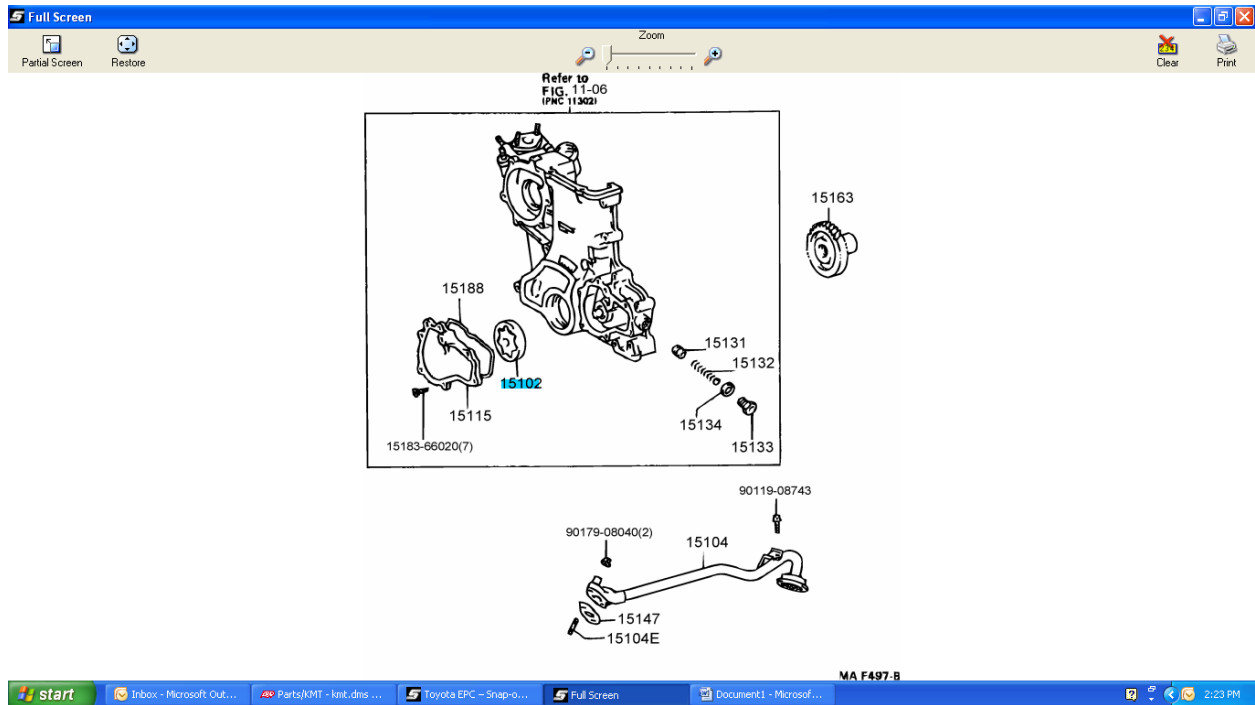
15163-66021: OIL PUMP DRIVE GEAR

15131-46040: OIL PUMP RELIEF VALVE

15132-66020: RELIEF VALVE SPRING

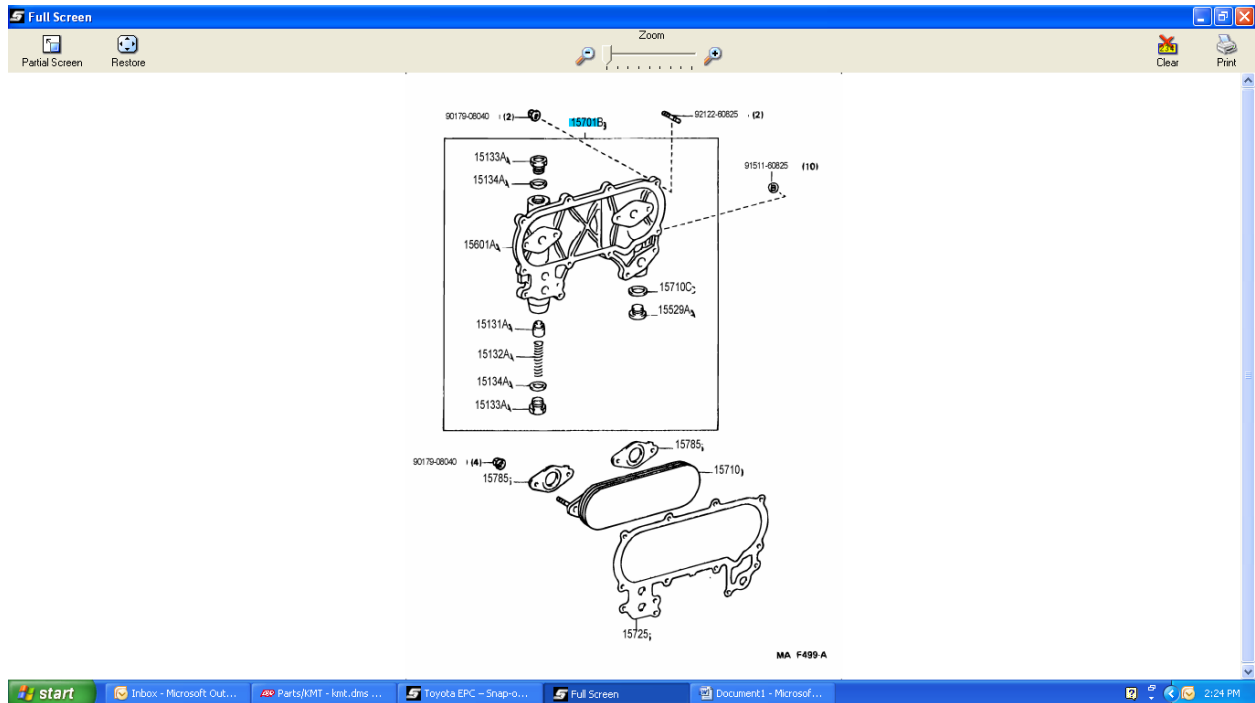
15134-17010: GASKET, RELIEF VALVE

15133-17010: PLUG, RELIEF VALVE



15785-66010: OIL COOLER GASKETS (X2)

15701-66010: COVER, OIL COOLER (INCLUDES ALL GASKETS AND RELIEF VALVE)



16210-66020: FAN CLUTCH

16100-69325: WATER PUMP/GASKET

16400-66040: 1993-1994 3-CORE BRASS RADIATOR

16571-66030: UPPER RADIATOR HOSE

16572-66021: LOWER RADIATOR HOSE

16573-66010: 3<sup>RD</sup> "BIG" RADIATOR HOSE

90916-03117: THERMOSTAT

16346-66020: THERMOSTAT GASKET

16405-66020: CAP/HOSE OVERFLOW TANK

16119-66020: THERMOSTAT GUIDE GASKET

16261-66040: WATER BYPASS HOSE, NO. 1

16264-66021: WATER BYPASS HOSE, NO. 2

16267-66020: WATER BYPASS HOSE, NO.3

(I RECOMMEND USING AFTERMARKET HOSE AND CLAMPS FOR ALL OF THE FIREWALL HEATER/COOLANT HOSES AS WELL AS DOING THE PHH METAL TUBE BYPASS. I PERSONALLY LIKE THIS SITE:

[WWW.1FZFEPHH.COM](http://WWW.1FZFEPHH.COM))

99555-10200: HOSE, WATER BYPASS (CUT-TO-LENGTH; THIS HOSE IS 200MM IN LENGTH)

90311-38020: FRONT OIL SEAL FOR TRANNY (**A343F** ONLY/**A442F** USES 90311-42010)

25620-66011: EGR VALVE

25695-66010: HOSE, EGR MODULATOR TO VALVE

11291-66010: "1FZ-FE" VALVE COVER STICKER

12180-13010: "TEQ" OIL FILLER CAP

82121-60343: ENGINE MAIN HARNESS

82221-60020: OIL PRESSURE SWITCH WIRE

89615-30050: KNOCK SENSOR (X2)

83520-60040: OIL PRESSURE SENDER GAGE ASSY

83420-16040: WATER TEMP SENDER GAGE ASSY

90987-02004-83: EFI MAIN

28380-66010: FUEL PUMP RELAY

89422-35010: WATER TEMP SENSOR FOR EFI (DIFFERENT THAN WATER TEMP SENDER)

89452-22090: THROTTLE POSITION SENSOR

87240-60170: WATER VALVE ON FIREWALL

88440-26090: IDLER/ADJUSTER PULLEY FOR AC COMPRESSOR

88446-35040: ADJUSTER BOLT

I HAVE INCLUDED ALL EMISSIONS PARTS AS MANY STATES HAVE EMISSION REQUIREMENTS. OBVIOUSLY, YOU CAN "DE-SMOG" THE 1FZ-FE; IF THAT IS DONE, MANY OF THE EMISSION COMPONENTS CAN BE DELETED OFF THE LIST. I DO NOT ADVOCATE OR RECOMMEND DESMOGGING YOUR ENGINE AS IT IS AGAINST MOST STATE LAWS.

IF YOU HAVE ANY PARTS YOU WOULD LIKE TO ADD TO THIS LIST, FEEL FREE TO MODIFY IT AND REPOST IT TO ASSIST OTHERS IN MAKING INFORMED DECISIONS FOR THEIR BUILDS. OBVIOUSLY, THERE ARE PARTS ON HERE THAT NOT EVERYONE WILL WANT TO REPLACE (OR NEED TO REPLACE). THIS IS THE COMPREHENSIVE "BENO" LIST. IF THIS WERE MY TRUCK I WOULD ALSO REPLACE MOST HARDWARE AS WELL. BUT THAT'S JUST ME. ☺

REGARDS.

-ONUR



