

# REPLACEMENT OF ENGINE OIL AND OIL FILTER

## CAUTION:

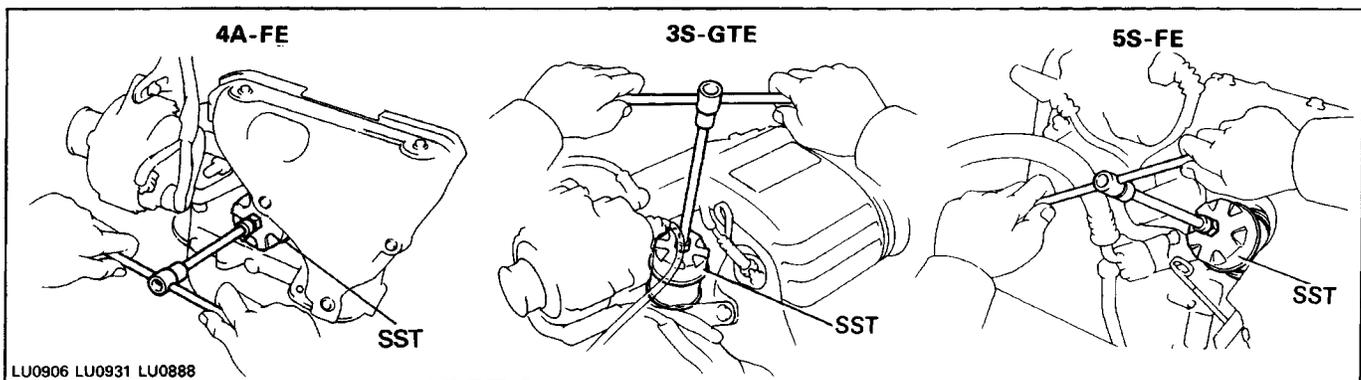
- Prolonged and repeated contact with mineral oil will result in the removal of natural fats from the skin, leading to dryness, irritation and dermatitis. In addition, used engine oil contains potentially harmful contaminants which may cause skin cancer.
- Care should be taken, therefore, when changing engine, oil to minimize the frequency and length of time your skin is exposed to used engine oil. Protective clothing and gloves that cannot be penetrated by oil should be worn. The skin should be thoroughly washed with soap and water, or use waterless hand cleaner, to remove any used engine oil. Do not use gasoline, thinners, or solvents.
- In order to preserve the environment, used oil and used oil filter must be disposed of only at designated disposal sites.

## 1. DRAIN ENGINE OIL

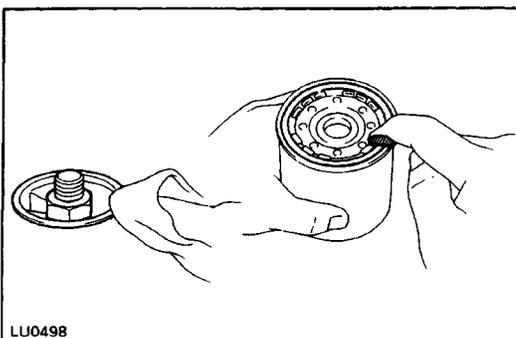
- Remove the oil filler cap.
- Remove the oil drain plug, and drain the oil into a container.

## 2. REPLACE OIL FILTER

- (3S-GTE)  
Remove the generator ducts.  
(See steps 2, 4 and 10 on pages [CH-7](#) and 8)
- Using SST, remove the oil filter.  
SST 09228-06500

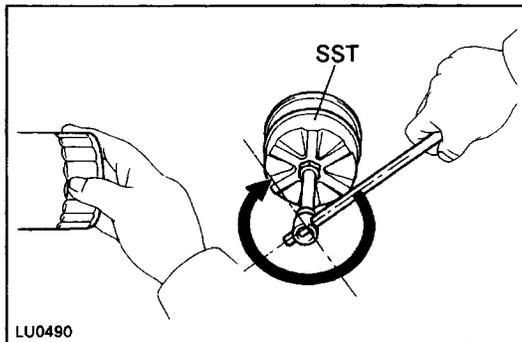


LU0906 LU0931 LU0888



LU0498

- Clean the oil filter contact surface on the filter mounting.
- Lubricate the filter rubber gasket with engine oil.



- (e) Tighten the oil filter by hand until the rubber gasket contacts the seat of the filter mounting. Then using SST, give it an additional 3/4 turn to seat the oil filter.

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- (f) (3S-GTE)

Reinstall the generator ducts.

(See steps 1, 7 and 9 on pages [CH-23](#) and 24)

### 3. FILL WITH ENGINE OIL

- (a) Clean and install the oil drain plug with a new gasket.

**Torque:**

**4A-FE 34 N-m (350 kgf-cm, 25 ft-lbf)**

**3S-GTE and 5S-FE 39 N-m (400 kgf-cm, 29 ft-lbf)**

- (b) Fill with new engine oil.

**Oil grade:** See page [LU-5](#)

**Capacity:**

**(4A-FE)**

#### **Drain and refill**

**w/ Oil filter change**

**3.2 liters (3.3 US qts, 2.8 Imp. qts)**

**w/o Oil filter change**

**3.0 liters (3.1 US qts, 2.6 Imp. qts)**

**Dry fill 3.7 liters (3.9 US qts, 3.3 Imp. qts)**

#### **(3S-GTE)**

**Drain and refill**

**w/ Oil filter change**

**3.9 liters (4.1 US qts, 3.4 Imp. qts)**

**w/o Oil filter change**

**3.6 liters (3.8 US qts, 3.2 Imp. qts)**

**Dry fill 4.3 liters (4.5 US qts, 3.8 Imp. qts)**

#### **(5S-FE (w/ Oil cooler))**

**Drain and refill**

**w/ Oil filter change**

**4.2 liters (4.4 US qts, 3.7 Imp. qts)**

**w/o Oil filter change**

**3.8 liters (4.0 US qts, 3.3 Imp. qts)**

**Dry fill 4.6 liters (4.9 US qts, 4.0 Imp. qts)**

#### **(5S-FE (w/o Oil cooler))**

**Drain and refill**

**w/ Oil filter change**

**4.1 liters (4.3 US qts, 3.6 Imp. qts)**

**w/o Oil filter change**

**3.7 liters (3.9 US qts, 3.3 Imp. qts)**

**Dry fill 4.5 liters (4.8 US qts, 4.0 Imp. qts)**

- (c) Reinstall the oil filler cap.

### 4. START ENGINE AND CHECK FOR LEAKS

### 5. RECHECK ENGINE OIL LEVEL (See page [LU-5](#))