# SERVICE TRAINING AND PUBLICATION BULLETIN

| No.: OB- 9604 |
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| 010 |
| Date : 2019/9/19 |

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|---|---|
| TRAINING | |
| PUBLICATION | ■ |
| INFORMATION | |
| ADVANCE ORDER | |
| OTHERS | |

APPLICABLE COUNTRIES:

| | | | | | |
|---|---|---|---|---|---|
| | ALL COUNTRIES | | N. AMERICA | ■ | GENERAL COUNTRIES, EUROPE |
| | Other | | | | |

**To: Service Manager**

CORRECTION TO
- [x] REPAIR MANUAL
- [ ] ELECTRICAL WIRING DIAGRAM
- [ ] NEW CAR FEATURES
- [ ] BODY REPAIR MANUAL
- [ ] SERVICE DATA SHEET

**The following manual has revised service information:**

Pub. No.: **RM26T9E** Pub. Name: **HIACE Repair Manual**

| Section | Title | Paragraph |
|---|---|---|
| 1GD-FTV ENGINE MECHANICAL | FRONT CRANKSHAFT OIL SEAL | COMPONENTS (201701-201908) |
| | | REMOVAL (201701-201908) |
| | | INSTALLATION (201701-201908) |

The revised pages listed above are attached.
(The corrected parts are indicated by arrows.)

Please attach the accompanying revised pages to the applicable pages in the manual above.

**This Bulletin is related to: Revision to Flat Rate Manual TPB (OB-9602)**

This bulletin is also available on the OASIS Global Service Information Center.
Inquiries : BM_correction_information@mta.mx.toyota.co.jp

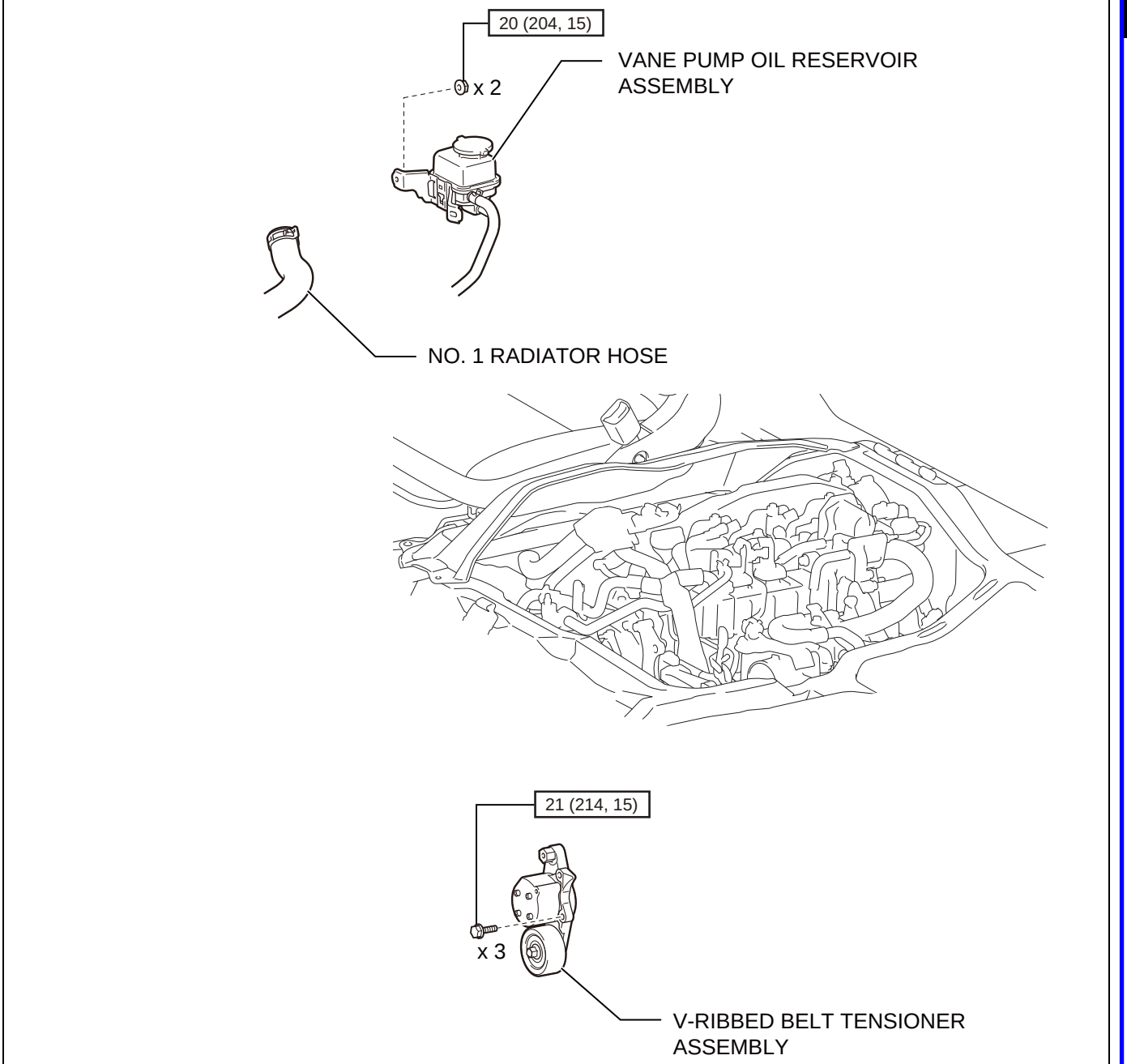
***KEEP IN BINDER TOGETHER WITH SERVICE PUBLICATIONS GUIDE***

TOYOTA QUALITY SERVICE

**TOYOTA MOTOR CORPORATION**
VEHICLE ENGINEERING DEPARTMENT
TECHNICAL SERVICE DIVISION
CUSTOMER FIRST PROMOTION GROUP

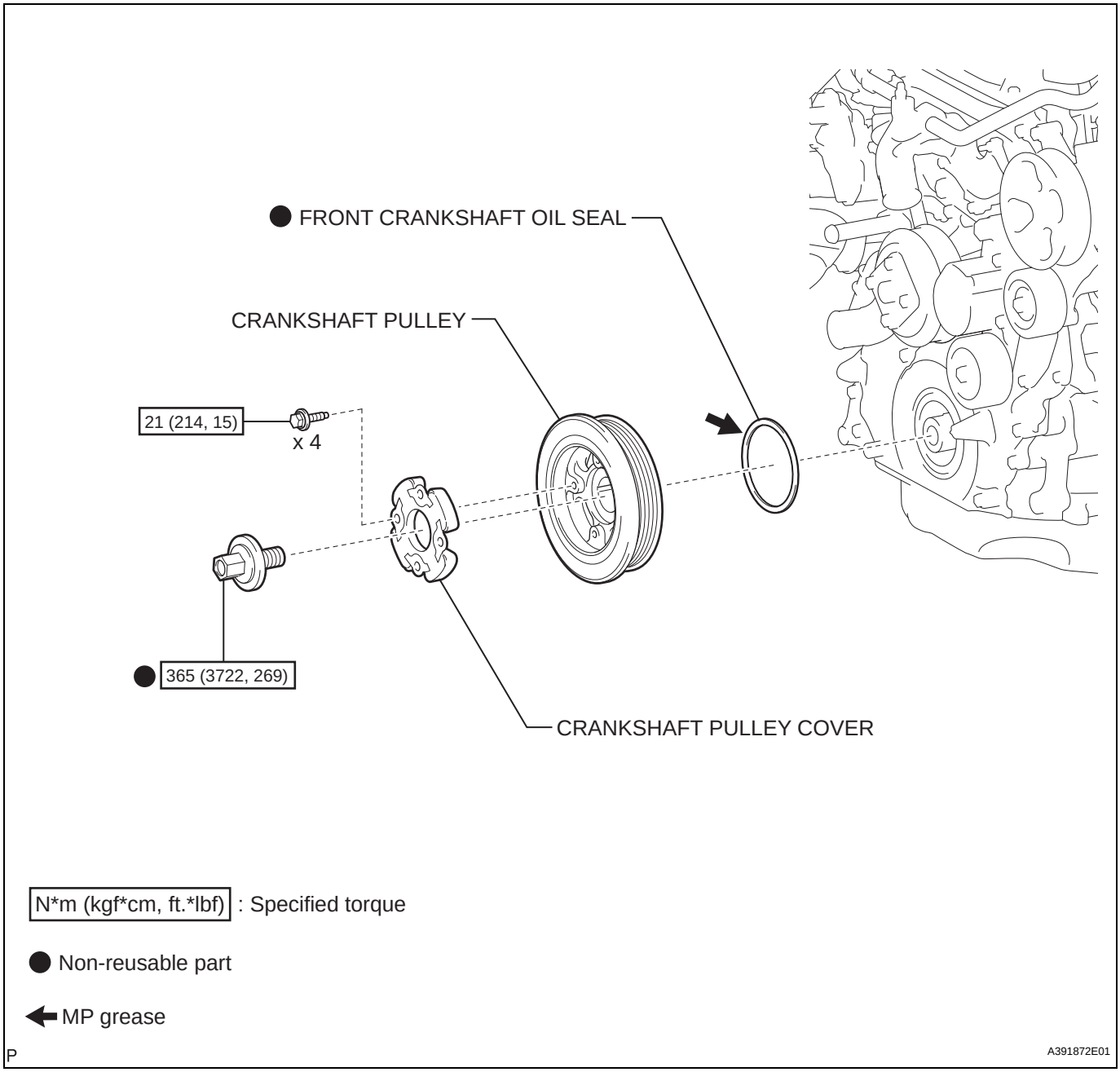
# FRONT CRANKSHAFT OIL SEAL

## COMPONENTS [201701-201908]




[Added]

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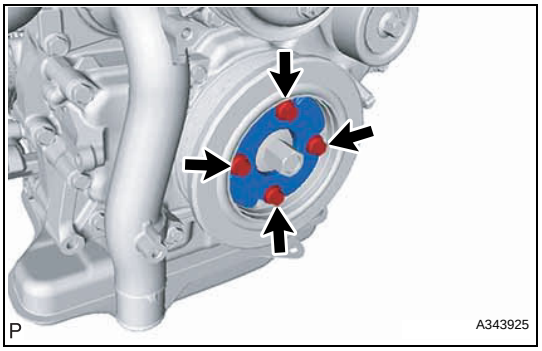

## REMOVAL [201701-201908]

1. **DRAIN ENGINE COOLANT** [Added]
(See page ) See*1

2. **REMOVE FAN AND GENERATOR V BELT** [Added]
(See page )

3. **REMOVE V-RIBBED BELT TENSIONER ASSEMBLY**
(See page ) See*2

See*1: 1GD-FTV COOLING - COOLANT - REPLACEMENT (2017/01-2019/08)
See*2: 1GD-FTV LUBRICATION - OIL PUMP - REMOVAL (2017/01-2019/08)




**4. REMOVE CRANKSHAFT PULLEY COVER**

(a) Remove the 4 bolts and crankshaft pulley cover from the crankshaft pulley.

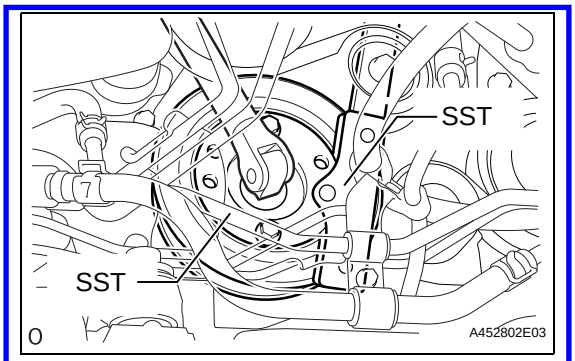
**5. DISCONNECT NO. 1 RADIATOR HOSE**
(See page ) See*1

[Added]

**6. DISCONNECT VANE PUMP OIL RESERVOIR ASSEMBLY**
(See page ) See*2

[Added]

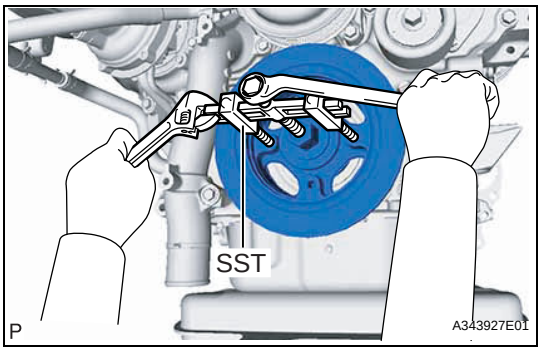
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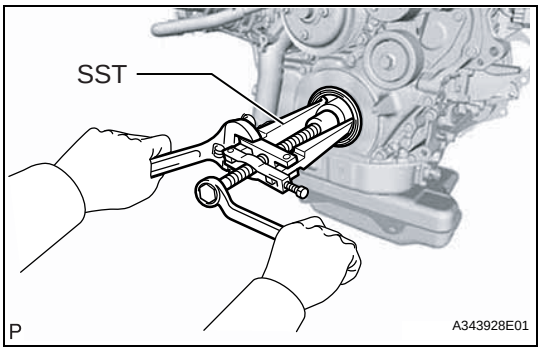

**7. REMOVE CRANKSHAFT PULLEY**

(a) Using SST, hold the crankshaft pulley and loosen the pulley bolt.
**SST 09213-58014 (91551-80840), 09330-00021**
HINT:
Make sure to leave the pulley bolt screwed into the crankshaft by 2 or 3 threads.

[Corrected]




(b) Using SST, remove the pulley bolt and crankshaft pulley from the crankshaft.
**SST 09950-50013 (09951-05010, 09952-05010, 09953-05020, 09954-05021)**




**8. REMOVE FRONT CRANKSHAFT OIL SEAL**

(a) Using SST, remove the front crankshaft oil seal from the timing chain cover assembly.
**SST 09308-10010, 09950-40011 (09957-04010), 09950-60010 (09951-00350)**
HINT:
After removal, check the crankshaft for damage. If damaged, smooth the surface with #400 sandpaper.

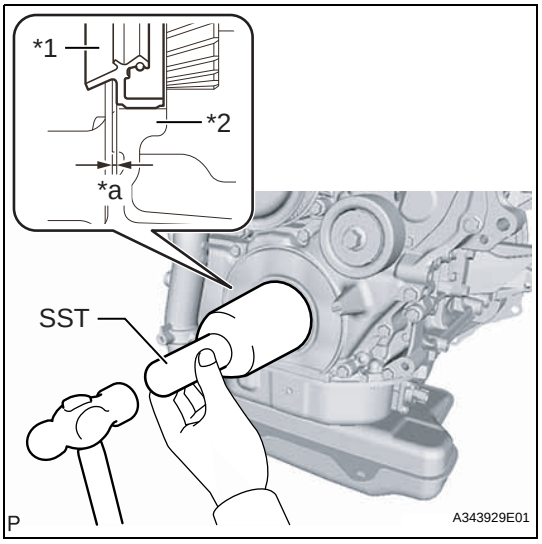
## INSTALLATION [201701-201908]

**1. INSTALL FRONT CRANKSHAFT OIL SEAL**

(a) Apply MP grease to the lip of a new crankshaft oil seal.
**NOTICE:**
- **Keep the lip free of foreign objects.**
- **Do not allow MP grease to contact the dust seal.**

See*1: 1GD-FTV ENGINE MECHANICAL - ENGINE ASSEMBLY - REMOVAL (2017/01-2017/12)
See*2: 1GD-FTV ENGINE MECHANICAL - ENGINE ASSEMBLY - REMOVAL (2017/01-2017/12)

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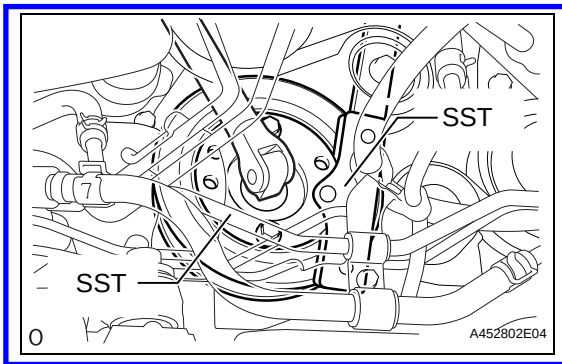

(b) Using SST and a hammer, tap in the front crankshaft oil seal.
**SST 09214-76011**
**Text in Illustration**

| | |
|---|---|
| *1 | Front Crankshaft Oil Seal |
| *2 | Timing Chain Cover Assembly |
| *a | 0 to 1.5 mm (0 to 0.0591 in.) |

**NOTICE:**
- **The acceptable depth from the top of the timing chain cover assembly is 0 to 1.5 mm (0 to 0.0591 in.)**
- **Keep the lip free from foreign matter.**
- **Do not tap the front crankshaft oil seal at an angle.**
- **Make sure that the front crankshaft oil seal is properly installed.**

**2. INSTALL CRANKSHAFT PULLEY**

(a) Align the keyway of the crankshaft pulley with the key located on the crankshaft, and then slide the crankshaft pulley into place to install it.




[Corrected]

(b) Using SST, install a new pulley bolt. [Added]
**SST 09213-58014 (91551-80840), 09330-00021**
**Torque: 365 N*m (3722 kgf*cm, 269 ft.*lbf)**

**3. CONNECT VANE PUMP OIL RESERVOIR ASSEMBLY**
(See page ) See*1

**4. CONNECT NO. 1 RADIATOR HOSE** [Added]
(See page ) See*2

**5. INSTALL CRANKSHAFT PULLEY COVER**

(a) Install the crankshaft pulley cover to the crankshaft pulley with the 4 bolts.
**Torque: 21 N*m (214 kgf*cm, 15 ft.*lbf)**

**6. INSTALL V-RIBBED BELT TENSIONER ASSEMBLY**
(See page ) See*3

**7. INSTALL FAN AND GENERATOR V BELT** [Added]
(See page )

**8. ADD ENGINE COOLANT** [Added]
(See page ) See*4

**9. INSPECT FOR COOLANT LEAK** [Added]
(See page ) See*5

See*1: 1GD-FTV ENGINE MECHANICAL - ENGINE ASSEMBLY - INSTALLATION (2017/01-2017/12)
See*2: 1GD-FTV ENGINE MECHANICAL - ENGINE ASSEMBLY - INSTALLATION (2017/01-2017/12)
See*3: 1GD-FTV LUBRICATION - OIL PUMP - INSTALLATION (2017/01-2019/08)
See*4: 1GD-FTV COOLING - COOLANT - REPLACEMENT (2017/01-2019/08)
See*5: 1GD-FTV COOLING - COOLING SYSTEM - ON-VEHICLE INSPECTION (2017/01-2019/08)