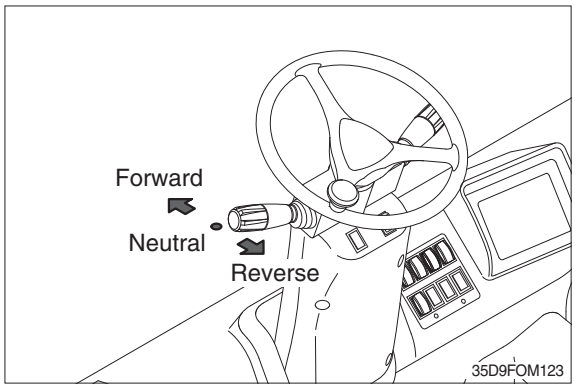
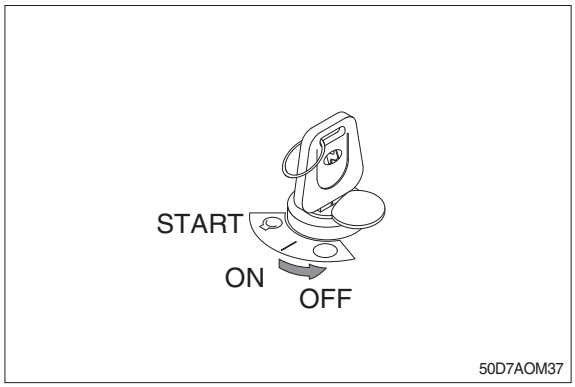
## 1. ENGINE SYSTEM

### 1) EASE OF STARTING, NOISE

(1) Set gear selector lever at NEUTRAL.

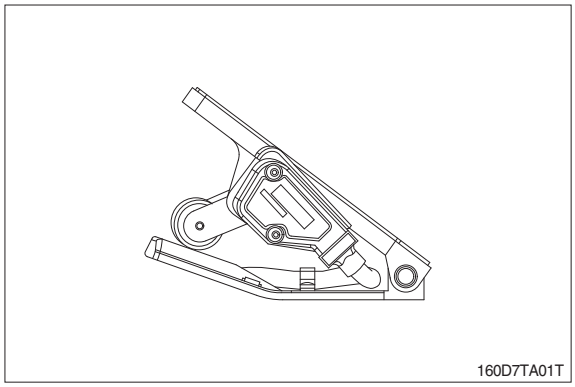



(2) Put the parking brake lever (or switch) in LOCK position.
(3) Turn ON start switch, automatically heating operated.
(4) When heater pilot lamp goes out, turn start switch to START, and start engine.
※ **When engine starts, check if it starts smoothly, and if it makes any abnormal noise.**




### 2) IDLING

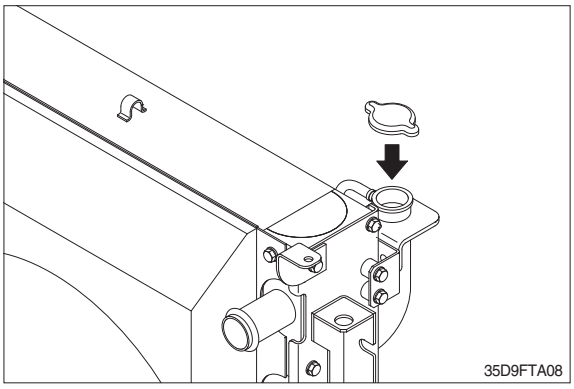
(1) After warming up engine, run at idling.
(2) Check that engine maintains steady, smooth rotation without gasping, abnormal noise, abnormal explosions, or irregular vibration.
(3) Check that idling speed is within specified range.
(4) Idle rpm : SEE 8. SPECIFICATION




### 3) WHEN ACCELERATOR PEDAL IS DEPRESSED

(1) Check that accelerator pedal does not catch when depressed.
(2) Check that engine speed increases in accordance with amount pedal is depressed.
(3) When doing this, check that engine speed changes without gasping, abnormal noise, abnormal explosions, or irregular vibration.
(4) Check that exhaust gas is colorless when the engine is idling, and a thin black color when accelerator pedal is depressed.
(5) Max speed : SEE SECTION 8. SPECIFICATIONS

### 4) RADIATOR CAP




(1) Push pressure regulator spring with finger and check that tension is correct.
(2) Pull negative pressure valve, and check that it is closed when released.
(3) If packing is damaged, replace whole radiator cap assembly.

**⚠ While the coolant in the radiator is retained hot temperature, do not open the radiator cap.**
**It will gush out the hot water and someone might get scalded or severe injured.**

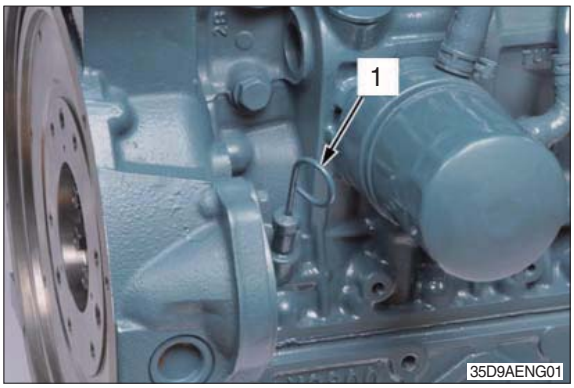
### 5) FUEL FILTER

(1) The fuel filter cartridge cannot be inspected from the outside, so replace it periodically (refer to 7. PLANNED MAINTENANCE AND LUBRICATION).
(2) Always use HYUNDAI Forklift genuine parts when replacing the element.
(3) After replacing the element, run the engine and check for oil leakage from the filter mount.

### 6) ENGINE OIL

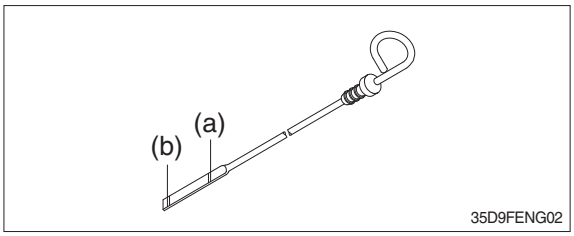
(1) Check oil level with dipstick and add oil if necessary.
(2) Check oil for discoloration or deterioration. Change oil if discolored or deteriorated.
(3) Engine oil quantity : See section 8. Specification

### 7) ENGINE OIL FILTER



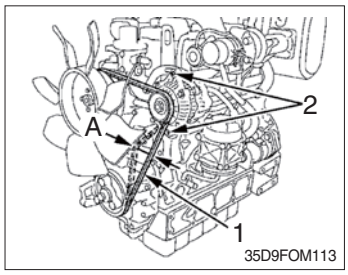

The condition of the oil filter element cannot be inspected from the outside so replace the engine oil filter periodically. Refer to 7. PLANNED MAINTENANCE AND LUBRICATION.
Use a filter wrench and remove the whole cartridge assembly.

**⚠ If a spilt oil on the engine is left as it is after replacing the engine oil filter, there is dangerous material for a fire.**
**Make sure that the spilt oil is wiped thoroughly away.**




(a) Upper line (b) Lower line

### 8) FAN BELT




1 Fan belt
2 Mounting bolt
A Deflection

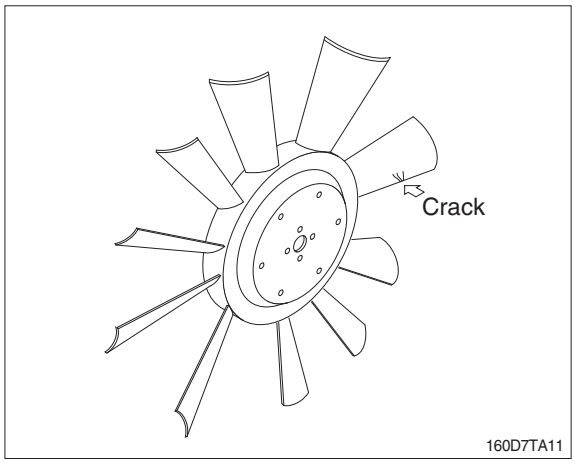
(1) Stop the engine and remove the start switch.
(2) Apply moderate thumb pressure to belt between the pulleys.
(3) If tension is incorrect, loosen the alternator mounting bolts (2) and, using a lever placed between the alternator and the engine block, pull the alternator out until the deflection of the belt falls within acceptable limits.
(4) Replace fan belt if it is damaged or stretched beyond the acceptable limits.

※ **If belt is loosen or damaged and the fan is damaged, it could result in overheats or insufficient charging. Correct or replace belt.**

· Specification (under load of 6~7 kgf (13.2~15.4 lbf))
A : 10~12 mm (0.39~0.47 in)

### 9) FAN

Move fan backwards and forwards by hand to check for looseness.
Tighten mounting bolt with a spanner.



## 2. DRIVE SYSTEM

### 1) GEAR SELECTOR LEVER

#### (1) Neutral starting

Engine can be started only when the gear selector lever is in neutral position.

#### (2) Shifting forward/reverse

① **Forward**

Push the lever forward then forward solenoid valve operates and oil comes to forward clutch thus the truck will run forward.

② Reverse

Pull the lever backward then reverse solenoid valve operates and oil comes to reverse clutch thus the truck will run backward.

### 2) OIL LEAKAGE

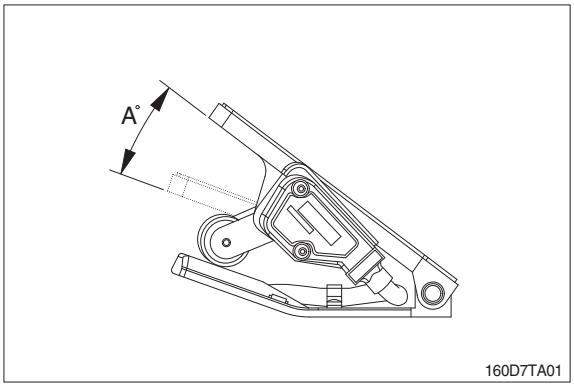
Check that there is no oil leakage from torque converter, transmission or control valve. If oil oozes out and forms drops, replace packing.

### 3) ADJUSTMENT OF PEDAL

#### (1) Electric accelerator pedal

Pedal operating range is "A°".

· Operating range (A°) : 17.5±2



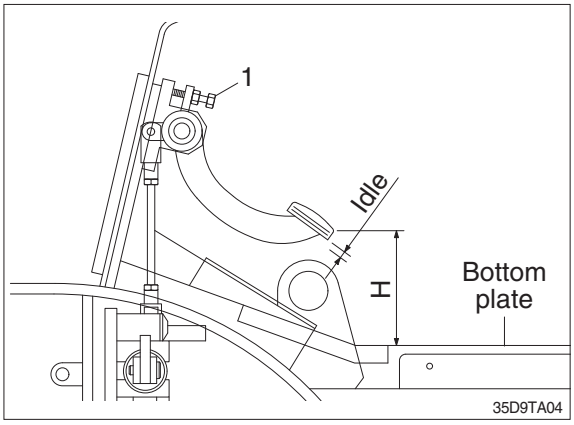

#### (2) Brake pedal

· Adjust stopper bolt (1) so that pedal height is "H".

· Adjust nut at the push rod of brake valve so that pedal play is idle stroke.

Unit : mm

| Model | H | Idle |
|---|---|---|
| 35/40/45D-9F, 50DA-9F | 130±4 | 2~4 |

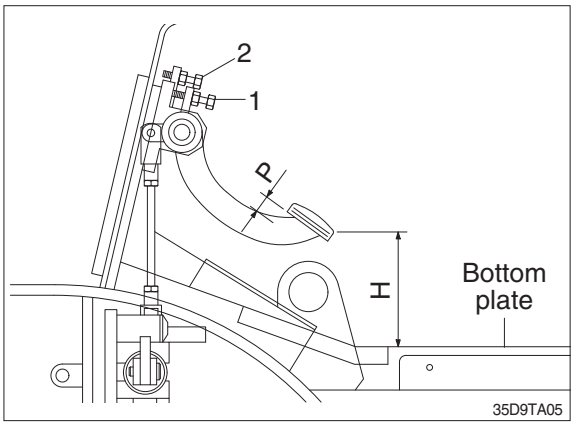


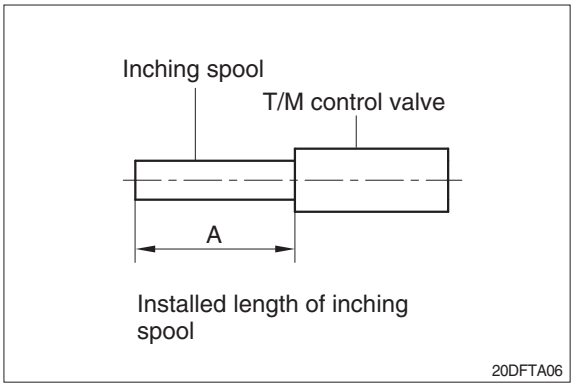
### (4) Inching pedal

- Adjust stopper bolt (1) so that pedal height is "H".
- Adjust rod of inching cable so that inching pedal play is idle stroke when pedal height is "H".
- Adjust bolt (2) so that brake pedal interconnects with inching pedal at inching pedal stroke "P".

Unit : mm

| Model | H | P | IDLE | A |
|---|---|---|---|---|
| 35/40/45D-9F, 50DA-9F | 130±4 | 0 | 5 | 33 |



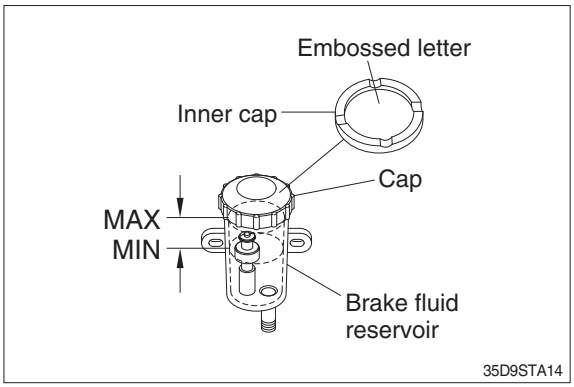




### 4) CHECK OIL LEVEL

Stop the machine in a flat place and check the oil level with the dipstick.

### (1) Brake reservoir

Check the brake reservoir, and add brake fluid, if necessary. The embossed letter facing up.



## 3. TRAVEL SYSTEM

### 1) TIRES

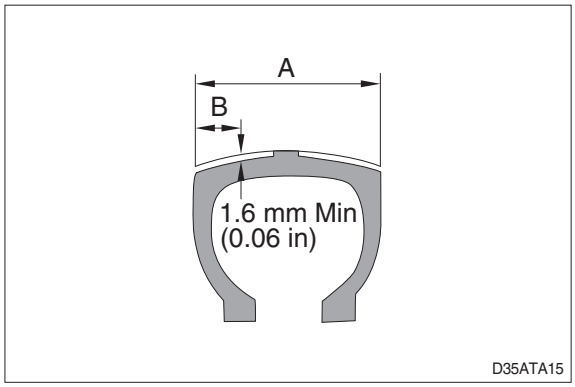
(1) Check tire pressure using tire gauge : SEE 5-3 CHECK BEFORE STARTING ENGINE

(2) Check visually for cracks and damage to tread and side wall. If crack or damage is serious, replace tire.

**(3) Wear**

Measure tread of pneumatic tires (tires with air). Depth of tread must be at least 1.6 mm (0.06 in) at point 1/4 across width of tread. A/B≒4.

(4) Check tire visually for uneven wear, stepped wear or any other abnormal wear. Check also for pieces stuck in tire.




### 2) HUB NUTS

Use wrench to check for loose hub nuts.

Tighten any loose hub nuts to specified tightening torque : SEE 8. SPECIFICATION

### 3) RIM SIDE RING

Check rim side ring for deformation or cracks. Check visually or use crack detection method.

· Rear rim connecting nut torque : SEE 8. SPECIFICATION

### 4) STEERING AXLE

(1) Push axle from one side or measure front to rear clearance with feeler gauge. Check that clearance is within 2 mm. If clearance is more than 2 mm, insert shim to reduce clearance to within 0.7 mm.

· Mounting bolt torque : SEE 8. SPECIFICATION

(2) Measure clearance between center pin and bushing. Check that clearance is within 0.5 mm (0.02 in). If clearance is more than 0.5 mm, replace the bushing.

### 5) DRIVE AXLE

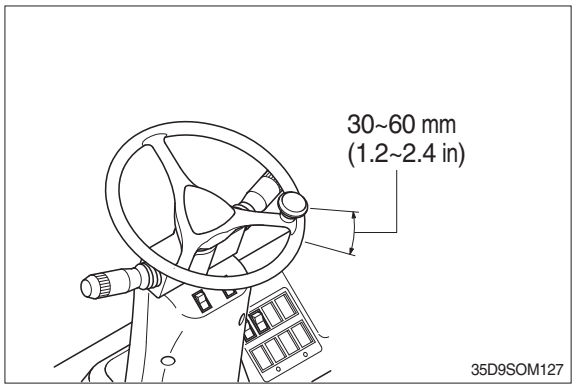
Check that there is no deformation or crack around mounting bolts of front axle and main frame and at welds. Check visually or use crack detection method.

Mounting bolt torque : SEE 8. SPECIFICATION

# 4. STEERING SYSTEM

## 1) STEERING WHEEL

Set rear wheels facing straight forward, then turn steering wheel to left and right. Measure range of steering wheel movement before rear wheel starts to move. Range should be 30~60 mm at rim of steering wheel. If play is too large, adjust at gearbox. Test steering wheel play with engine at idling.




## 2) KNUCKLE

Check knuckle visually or use crack detection method. If the knuckle is bent, the tire wear is uneven, so check tire wear.

## 3) STEERING AXLE

(1) Put camber gauge in contact with hub and measure camber. If camber is not within 1.5˚, rear axle is bent.
(2) Ask assistant to drive truck at minimum turning radius.
(3) Fit bar and a piece of chalk at outside edge of counterweight to mark line of turning radius.
(4) If minimum turning radius is not within ±100 mm (±4 in) of specified value, adjust turning angle stopper bolt.

## 5. ADJUSTMENT OF PARKING BRAKE LEVER

### 1. RATCHET TYPE PARKING LEVER

1) Put the lever to the brake released position.
2) Pull the parking lever up to the specified stroke which is respectively and the fix the adjust nut.
   · Operating range : 23˚