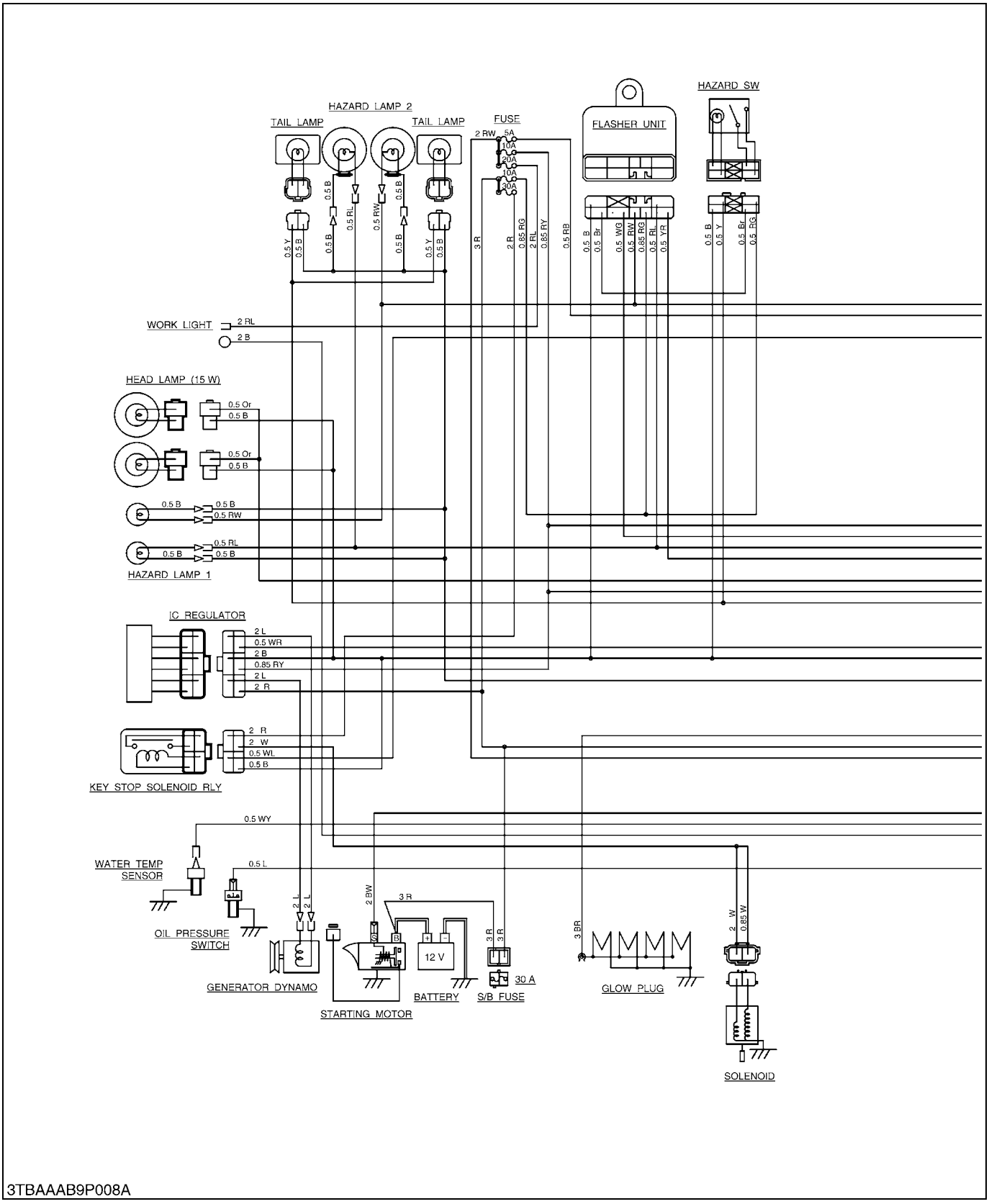
1. WIRING DIAGRAM



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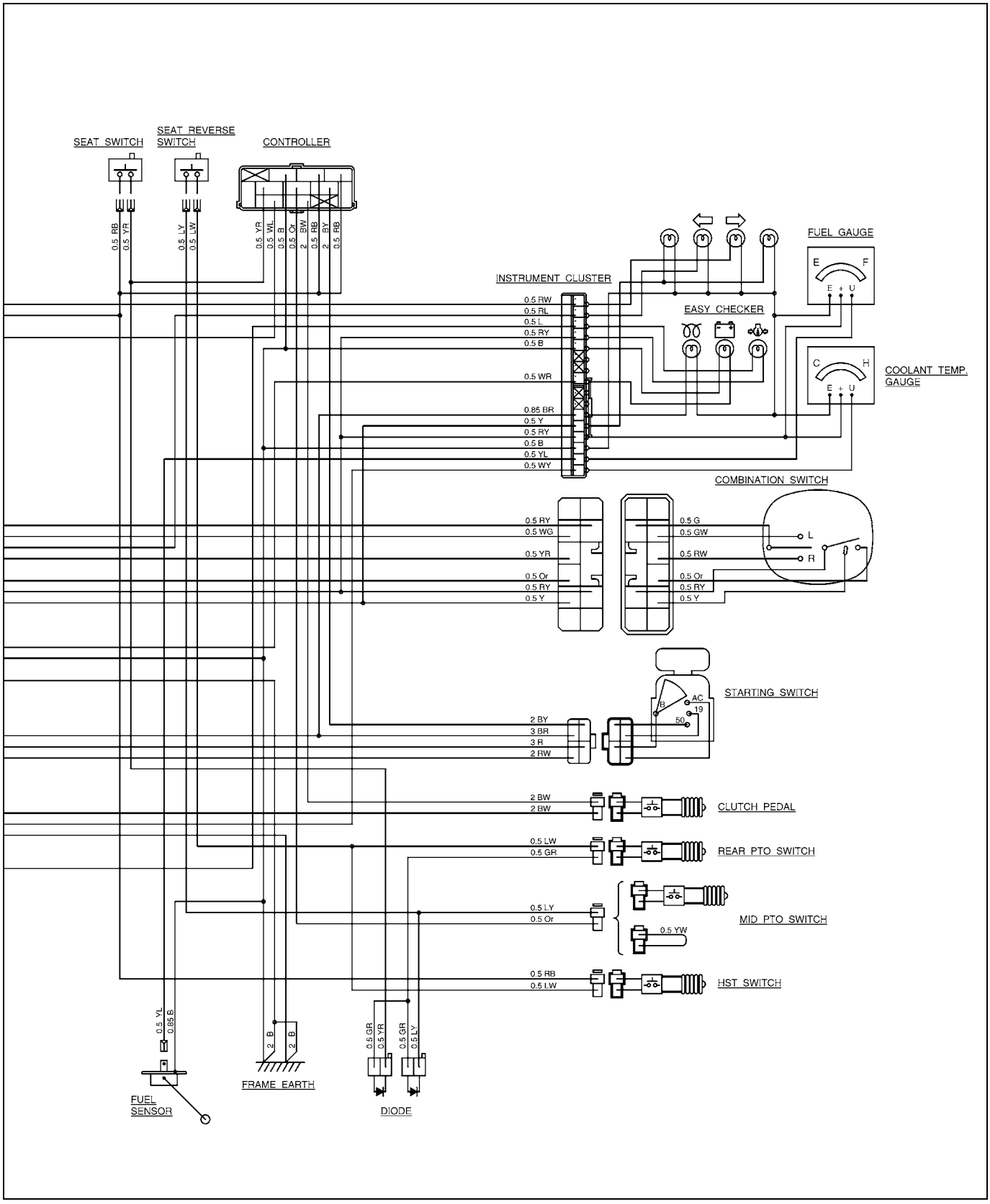
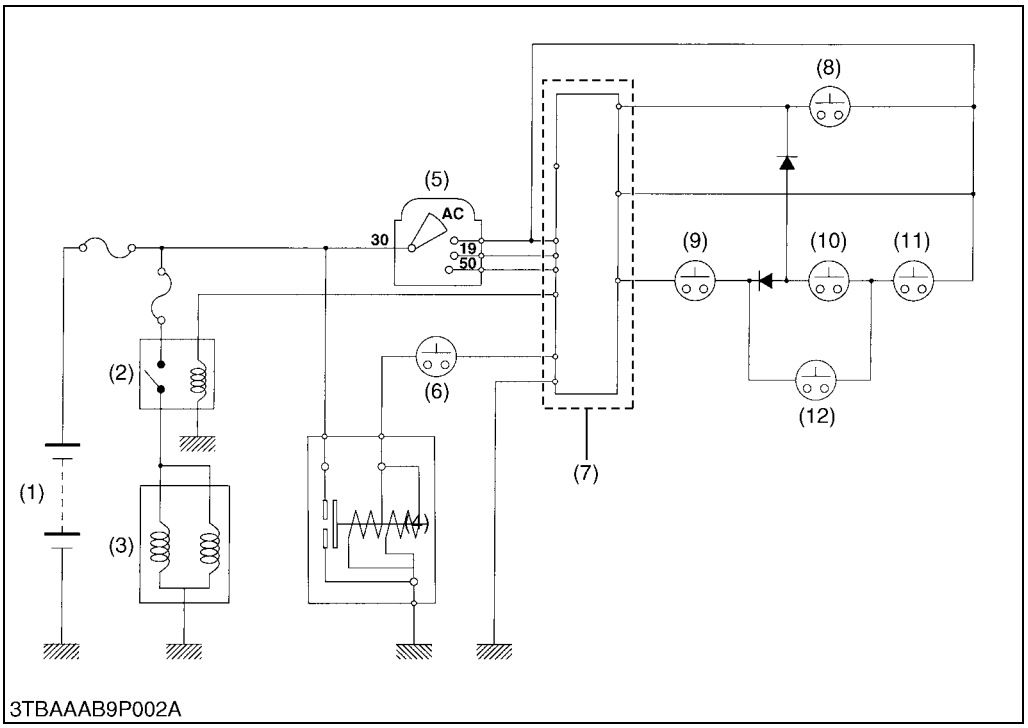

SEAT SWITCH
SEAT REVERSE SWITCH
CONTROLLER
0.5 RB
0.5 YR
0.5 LY
0.5 LW
0.5 YR
0.5 WL
0.5 B
0.5 Or
2 BW
0.5 RB
2 BY
0.5 RB
INSTRUMENT CLUSTER
FUEL GAUGE
E
F
E + U
EASY CHECKER
C
H
E + U
COOLANT TEMP. GAUGE
0.5 RW
0.5 RL
0.5 L
0.5 RY
0.5 B
0.5 WR
0.85 BR
0.5 Y
0.5 RY
0.5 B
0.5 YL
0.5 WY
COMBINATION SWITCH
0.5 RY
0.5 WG
0.5 YR
0.5 Or
0.5 RY
0.5 Y
0.5 G
0.5 GW
0.5 RW
0.5 Or
0.5 RY
0.5 Y
L
R
STARTING SWITCH
B
AC
19
50
2 BY
3 BR
3 R
2 RW
2 BW
2 BW
CLUTCH PEDAL
0.5 LW
0.5 GR
REAR PTO SWITCH
0.5 LY
0.5 Or
0.5 YW
MID PTO SWITCH
0.5 RB
0.5 LW
HST SWITCH
0.5 YL
0.85 B
FUEL SENSOR
2 B
2 B
FRAME EARTH
0.5 GR
0.5 YR
0.5 GR
0.5 LY
DIODE

2. OPERATORS PRESENCE CONTROL (OPC)



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(1) Battery
(2) Key Stop Solenoid Relay
(3) Engine Stop Solenoid
(4) Starter
(5) Main Switch
(6) Clutch Pedal Switch
(7) Controller
(8) Seat Switch
(9) Mid-PTO Shift Lever Switch (Mid-PTO Model)
(10) PTO Shift Lever Switch
(11) Speed Control Pedal Switch
(12) Seat Reverse Switch

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B7800 is configured with an Operators Presence Control (OPC) to control (1) Engine starting, (2) Engine automatically stopping, (3) Engine revolution automatically recovering, and (4) Rear-PTO shift lever changing. This OPC consists of controller and engine starting/stopping control switches such as clutch pedal switch, mid-PTO shift lever switch, rear-PTO shift lever switch, speed change pedal switch, seat (occupying) switch, and seat reverse switch.

Main parts regarding OPC are laid out as shown in the electrical circuit.

The function of controller and each switch are mentioned as below.

1. Controller
   - Controller is configured with a delay timer in the controller unit to hold fuel cut signal from the controller unit to fuel cut solenoid for about 1 second.
2. Clutch pedal switch
   - This clutch pedal switch detects the clutch pedal engaging or disengaging positions. When engaging the clutch pedal, the clutch pedal switch is pushed in and electrical circuit is closed.
3. Mid-PTO shift lever switch (mid-PTO model only)
   - This mid-PTO lever switch detects the mid-PTO lever engaging or disengaging positions. When engaging the mid-PTO shift lever, the mid-PTO shift lever switch is pushed in and electrical circuit is closed.

4. PTO shift lever switch
   - This PTO shift lever switch detects both the rear-PTO shift lever and mid-PTO shift lever engaging or disengaging positions. When shifting both the rear-PTO shift lever and mid-PTO shift lever to "**NEUTRAL**", the PTO shift lever switch is pushed in and electrical circuit is closed ("ON").
5. Speed control pedal switch
   - This speed control pedal switch detects the speed control pedal forward or reverse positions.
   - When engaging the speed change pedal, the speed change pedal switch is pushed in and electrical circuit is closed.

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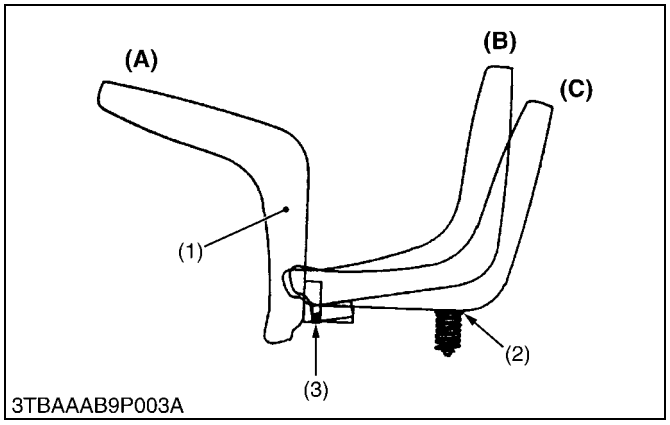

6. Seat switches
   - Seat switches consist of two switches. One is seat (occupying) switch to detect the position of the seat. This is located under the seat in the rear side of the seat support. When sitting on the seat, this switch is pushed in and electrical circuit is closed. When the seat is vacant, this switch is not pushed and electrical circuit is opened. Other is seat reverse switch to detect tilting the seat. This is located under the seat in the front side of the seat support. When tilting the seat forward, this switch is pushed in and electrical circuit is closed.

(1) Seat
(2) Seat Switch
(3) Seat Reverse Switch

A: Tilted
B: Vacant
C: Seated (Occupied)

W1013588

[OPC switch and its electrical circuit]

Switch name	Switch movement	Electrical contacts	Remarks
Clutch pedal switch	Pushed when depressing the clutch pedal	ON, closed	
	Free when releasing the clutch pedal	OFF, opened	
Mid-PTO shift lever switch	Pushed in disengaging position	ON, closed	Mid-PTO model only
	Free at engaging position	OFF, opened	
PTO shift lever switch	Pushed when both rear-PTO and mid-PTO shift lever is "**NEUTRAL**"	ON, closed	
	Free when both rear-PTO and mid-PTO shift lever is engaged	OFF, opened	
Speed control pedal switch	Pushed in neutral position	ON, closed	
	Free at forward or reverse position	OFF, opened	
Seat (Occupying) switch	Pushed in when sitting on the seat	ON, closed	
	Free when seat is vacant	OFF, opened	
Seat reverse switch	Pushed when tilting the seat	ON, closed	
	Free when returning back the seat to the original position	OFF, opened	

W1014198

[1] ENGINE STARTING

The engine mounted on B7800 can be started when OPC switches such as clutch pedal switch, speed control pedal switch, mid-PTO shift lever switch, PTO shift lever switch are “ON” at any operator’s seat positions as shown on the table below.

[Engine Starting Condition]

Clutch Pedal Switch	Speed Control Pedal Switch	PTO Shift Lever Switch
ON	ON	ON

W1014802

[2] ENGINE AUTOMATICALLY STOPPING: AUTOMATIC ENGINE STOP

Engine can be shut-off under the following two conditions since these conditions cause delay timer in the control circuit of the controller to operate and it controls the fuel cut solenoid and fuel injection, and stops the engine. The delay timer holds the fuel cut signal for about 1 second.

[Condition 1]

- While keeping the operator’s seat vacant, engaging speed control pedal, mid-PTO shift lever or rear-PTO shift lever as shown on the table below.

[Condition 2]

- While keeping the seat reverse switch to “ON”, engaging speed control pedal or mid-PTO shift lever as shown on the table below.

[Engine Automatically Stopping Condition]

Seat (Occupying) Switch	Speed Control Pedal Switch	Mid-PTO Shift Lever Switch	PTO Shift Lever Switch	Seat Reverse Switch	condition
OFF	ON	ON	OFF	OFF	Condition 1
OFF	ON	OFF	OFF	OFF	Condition 1
OFF	OFF	ON or OFF	ON or OFF	OFF	Condition 1
OFF	ON	OFF	OFF	ON	Condition 2
OFF	OFF	ON or OFF	ON or OFF	ON	Condition 2

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- Engine Revolution Automatically Recovering
  - While engine revolution decreasing under the engine automatically stopping condition, since sitting on the operator’s seat does not operate the delay timer, and fuel are delivered to the engine, and engine revolution are automatically recovered.
- Rear-PTO Shift Lever
  - Shifting rear-PTO shift lever does not cause engine stopping at seat tilting position.