ORIGINAL INSTRUCTIONS

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FARMALL® 45C
FARMALL® 55C
Tier 4B (final)
Tractor

FARMALL® 45C Cab: PIN LSMF45CCxx0010001 and above; ROPS: PIN LSMF45CRxx0010001 and above
FARMALL® 55C Cab: PIN LSMF55CCxx0010001 and above; ROPS: PIN LSMF55CRxx0010001 and above

OPERATOR'S MANUAL

Part number 48115974
2nd edition English
July 2018
Replaces part number 48048883

CASE IH AGRICULTURE

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2 - SAFETY INFORMATION

Safety rules and signal word definitions

Personal safety



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible death or injury.

Throughout this manual and on machine safety signs, you will find the signal words DANGER, WARNING, and CAUTION followed by special instructions. These precautions are intended for the personal safety of you and those working with you.

Read and understand all the safety messages in this manual before you operate or service the machine.

⚠ DANGER indicates a hazardous situation that, if not avoided, will result in death or serious injury. The color associated with DANGER is RED.

⚠ WARNING indicates a hazardous situation that, if not avoided, could result in death or serious injury. The color associated with WARNING is ORANGE.

⚠ CAUTION indicates a hazardous situation that, if not avoided, could result in minor or moderate injury. The color associated with CAUTION is YELLOW.

FAILURE TO FOLLOW DANGER, WARNING, AND CAUTION MESSAGES COULD RESULT IN DEATH OR SERIOUS INJURY.

Machine safety

NOTICE: *Notice indicates a situation that, if not avoided, could result in machine damage or property damage. The color associated with Notice is BLUE.*

Throughout this manual you will find the signal word Notice followed by special instructions to prevent machine damage or property damage. The word Notice is used to address practices not related to personal safety.

Information

NOTE: *Note indicates additional information that clarifies steps, procedures, or other information in this manual.*

Throughout this manual you will find the word Note followed by additional information about a step, procedure, or other information in the manual. The word Note is not intended to address personal safety or property damage.

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4 - OPERATING INSTRUCTIONS

Commissioning the unit

Engine break-in procedure

Your tractor will provide long and dependable service if given proper care during the first 50-hour break-in period. During the first 50 hours of operation:

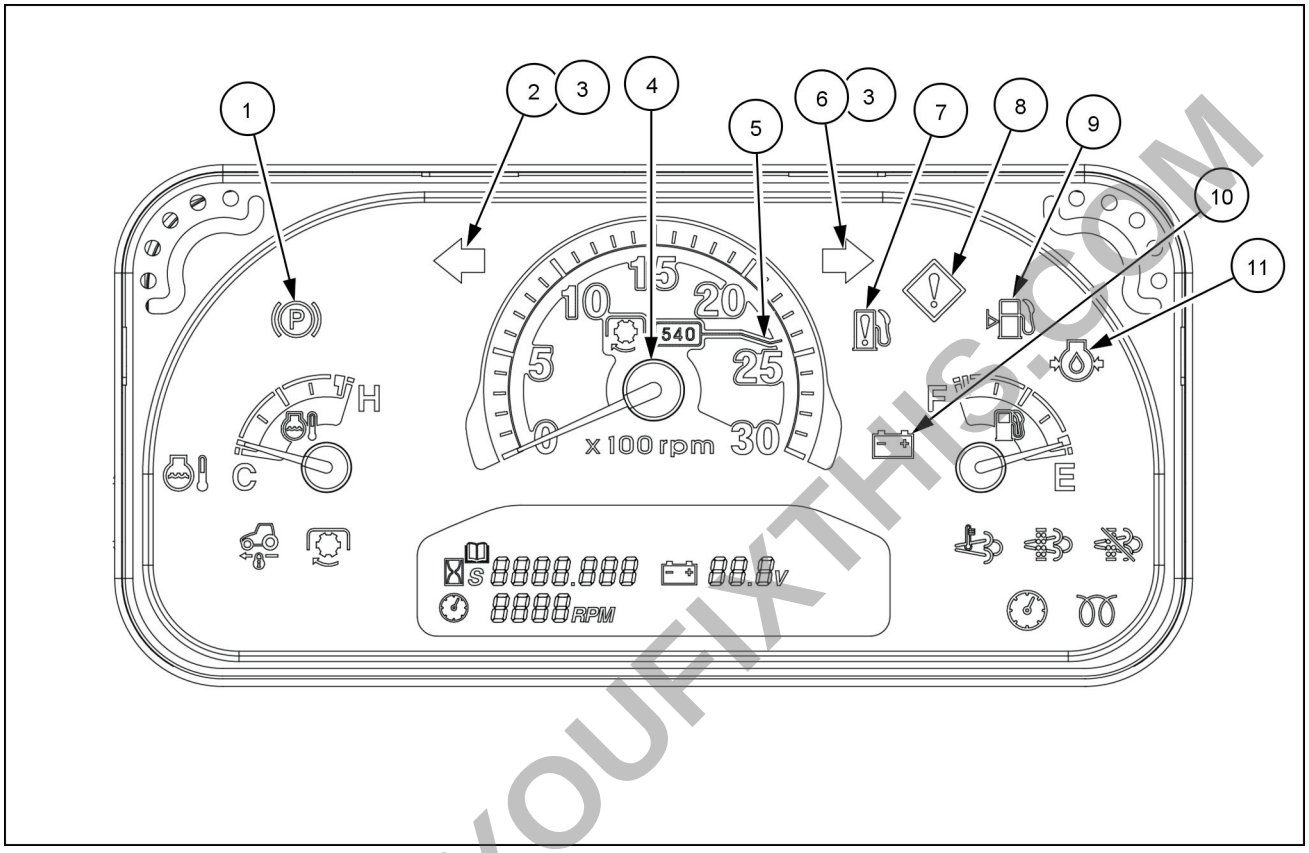
1. Avoid "lugging" the engine. Operating in too high a gear under heavy load may cause engine lugging, which is indicated when the engine will not respond to a throttle increase.
2. Use the lower gear ratios when pulling heavy loads and avoid continuous operation at constant engine speeds. You will save fuel and minimize engine wear by selecting the correct gear ratio for a particular operation. Operating the tractor in low gear with a light load and high engine speed wastes fuel.
3. Avoid prolonged operation at either high or low engine speeds without a load on the engine.
4. Check the instruments frequently and keep the radiator and oil reservoirs filled to recommended levels. Daily checks include the engine oil level, radiator coolant, and air cleaner.
5. After the first 50 hours of use, be sure to perform the maintenance items listed in the maintenance schedule.

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Forward controls

Instrument panel



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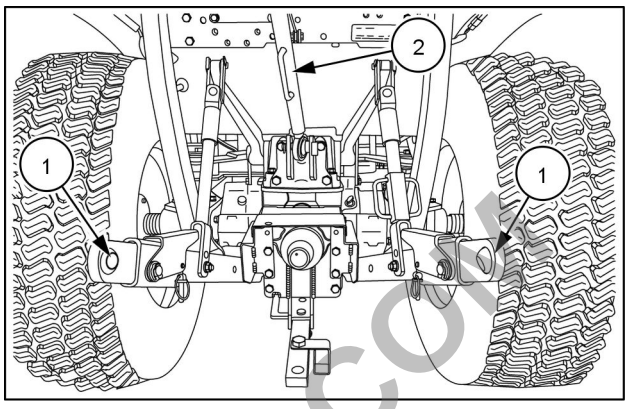
1. Park Brake Indicator Light - Illuminates if the park brake is engaged with the key switch rotated from the "OFF" position.
2. Flasher Turn Lights - Operate when the multifunction switch lever is moved downwards for left turns the left arrow will flash. The key switch has to be in the "ON" or "START" positions.
3. Flasher Warning Lights - Operate when the operator places the multifunction switch in the hazard or road lights position, regardless of the key switch position. Use the flasher warning lights, road lights when traveling on public roads, day or night.
4. Tachometer - Registers engine Revolutions Per Minute (RPM). The gauge is marked in increments of 100 and will return to zero when the engine is not running.
5. PTO Speed Indicator - Determined by the position of the needle on the tachometer. The tachometer is marked to indicate **540 RPM** of PTO. If the needle registers above the **540 RPM** mark, this indicates a dangerous over speed condition, reduce the engine (RPM) immediately.
6. Flasher Turn Lights - Operate when the multifunction switch lever is moved upwards for right turns the right arrow will flash. The key switch has to be in the "ON" or "START" positions.
7. Fuel Filter Warning Indictor Light - Illuminates when there is water in the fuel filter. When this indicator illuminates the engine will shut off automatically. Service of the fuel filter will be required.
8. Engine Warning Indicator Light - Will illuminate when there is a fault detected in the engine control system. This indicator light will be illuminate, either continuously or blinking, depending on engine fault. See **3-11** for a detailed explanation of engine warning indictor light operation.
9. Low fuel level warning indicator - When the fuel in the fuel tank is under minimum level, this indicator shall be ON.

   NOTICE: *If this indicator turns on, fill the fuel tank immediately with fuel.*

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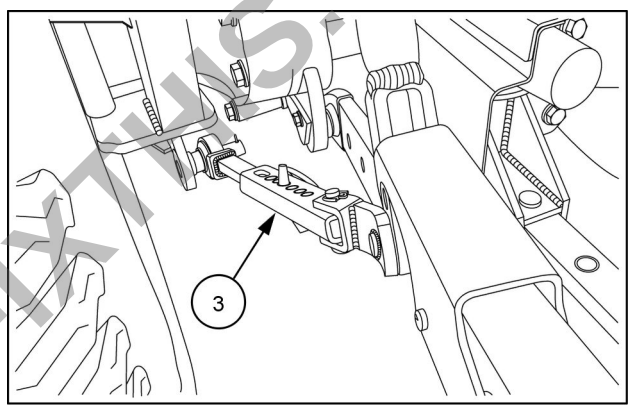
Three-point linkage

The tractor's three-point linkage is used to attach three-point mounted equipment which is usually PTO operated, such as rotary mowers, tillers, flail mowers, snowblowers, etc. The three linkage points are the two lower lift arms **(1)** and the top link **(2)**.



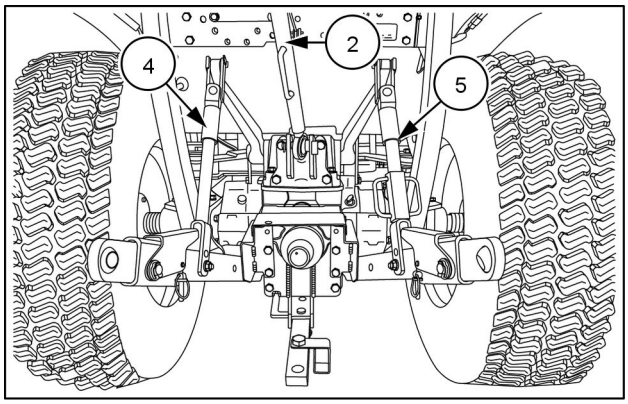
NHIL13CT01023AA 1

The three-point linkage has easy to adjust sway bars **(3)** on each side of the hitch to control lateral movement of the lift arms.



NHIL13CT01019AA 2

The length of the top link **(2)** and the height of the left-hand **(4)** and right-hand **(5)** lift arms can be adjusted to ease the attachment of implements and to level the implement after attaching.



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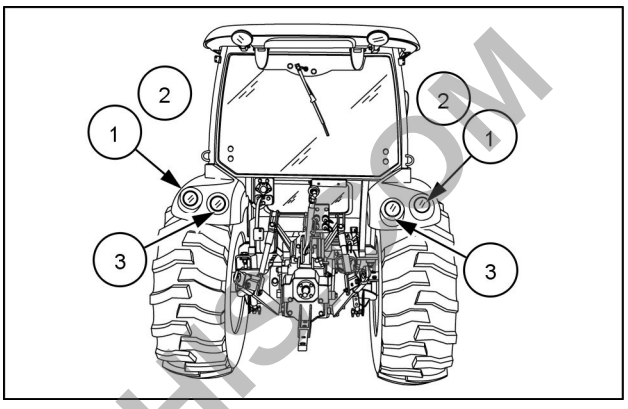
5 - TRANSPORT OPERATIONS

Road transport

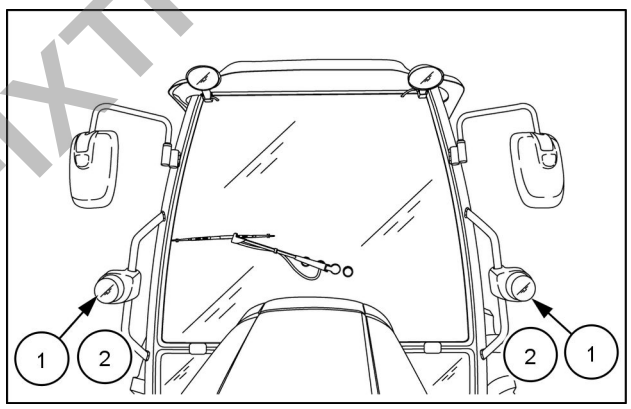
External lighting - Cab

Your tractor is equipped with the following equipment:

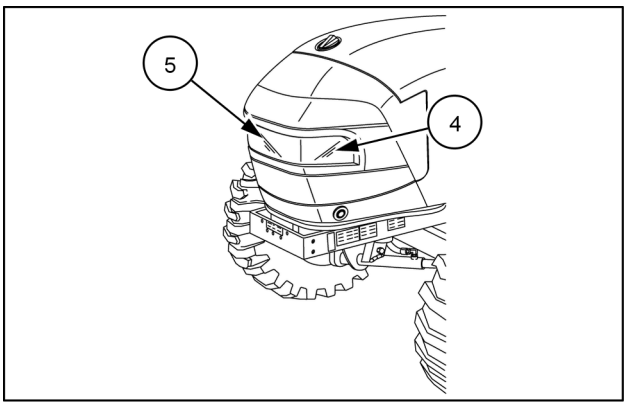
- Turn signal/hazard side warning lights **(1)**.
- Rear amber warning lights **(2)**
- Rear red tail/brake lights **(3)**.
- Road lights **(4)** Work Lights **(5)**.
- Rear Work Light (Optional) mounted on the rear of the ROPS.



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NHIL15CT00535AA 2



NHIL13CT01336AA 3

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Diesel Particulate Filter (DPF) regeneration

⚠ CAUTION

Burn hazard!
During the Diesel Particulate Filter (DPF) regeneration process the exhaust stack and fixed hood area becomes extremely hot. Allow area to cool before servicing or working near the exhaust system components.
Failure to comply could result in minor or moderate injury.

C0102B

⚠ WARNING

Fire hazard!
During the Diesel Particulate Filter (DPF) forced regeneration process the exhaust stack and fixed hood area becomes extremely hot. Park the machine outside and away from combustible or highly flammable material.
Failure to comply could result in death or serious injury.

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Definitions of system components and operations

The following terms will define the system components and operational modes.

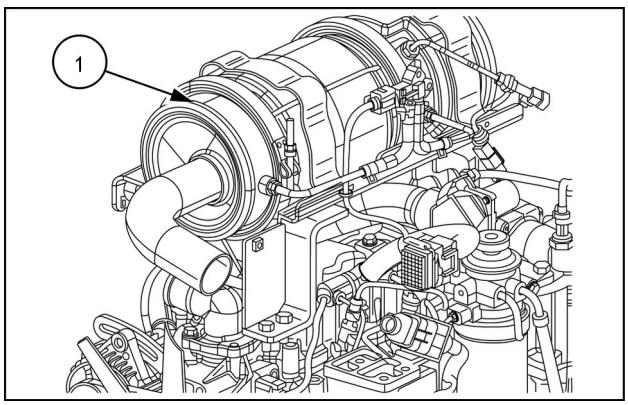
- Diesel Oxidation Catalyst (DOC) - Is a catalytic converter that reduces emission element such as hydrocarbons, carbon monoxide, and unburned fuel.
- Diesel Particulate Filter (DPF) - Is a filter that captures soot from the engine exhaust.
- DPF switch - Switch located on the right-hand side of the dash. This switch stops or blocks the regeneration process or to exit the inhibited regeneration mode. The switch can also initiate a forced regeneration.
- Regeneration - This is the process of burning/cleaning the soot that accumulates in the DPF.
- Inhibited Regeneration - The regeneration process is disabled by the use of the DPF switch
- Forced Regeneration - The regeneration process is initiated by the use of the DPF switch

Diesel Oxidation Catalyst (DOC) and Diesel Particulate Filter (DPF)

The DOC and the DPF function are to reduce engine exhaust hydrocarbons, carbon monoxide, and other toxic gases. This system converts exhaust emissions to harmless carbon dioxide and water. The DPF also traps Particular Matter (PM)

To meet Tier 4B (final) emission regulations, your tractor is equipped with a DOC and a DPF **(1)**. These components are located under the engine hood of the tractor.

It is very important to read this operator's manual and understand the safe operation of your tractor. If you have any questions in the operation of this emission system please contact your CASE IH dealer



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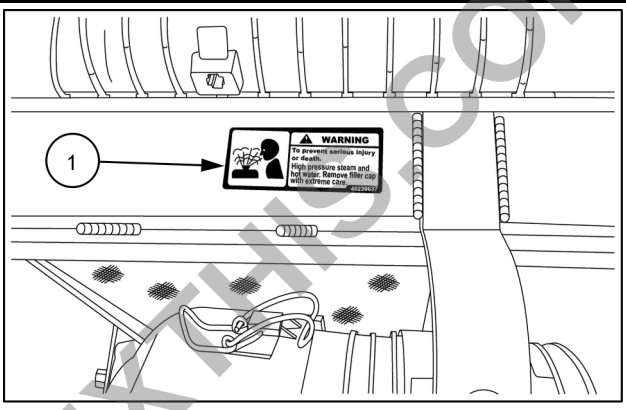
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(1)
WARNING
To prevent serious injury or death.
High pressure steam and hot water. Remove filler cap with extreme care.
Failure to comply could result in death or serious injury.
Quantity: 1
English Part Number: MT40297729



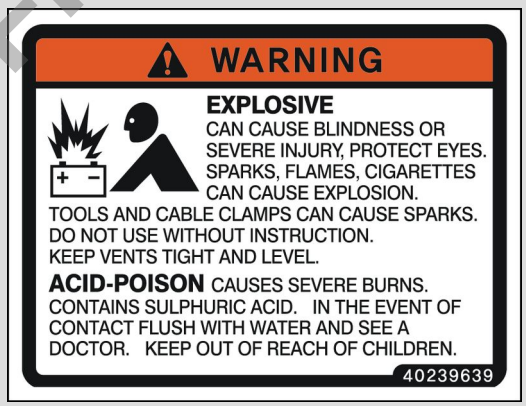
40297729 2

(1) Location: On top of screen frame.



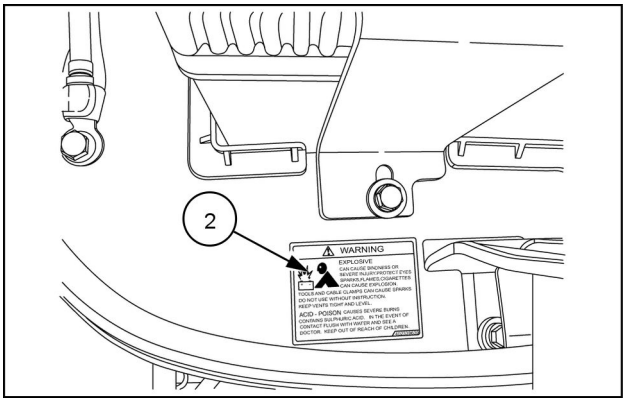
NHIL13CT00990AA 3

(2)
WARNING
EXPLOSIVE
Can cause blindness or severe injury, protect eyes. Sparks, flames, cigarettes can cause explosion. Tools and cable clamps can cause sparks. Do not use without instruction. Keep vents tight and level. ACID-POISON causes severe burns. Contains sulphuric acid. In the event of contact flush with water and see a doctor. Keep out of reach of children. Failure to comply could result in death or serious injury.
Quantity: 1
English Part Number: MT40239639



40239639 4

(2) Location: On the right front edge of the battery tray.



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Engine fault code display

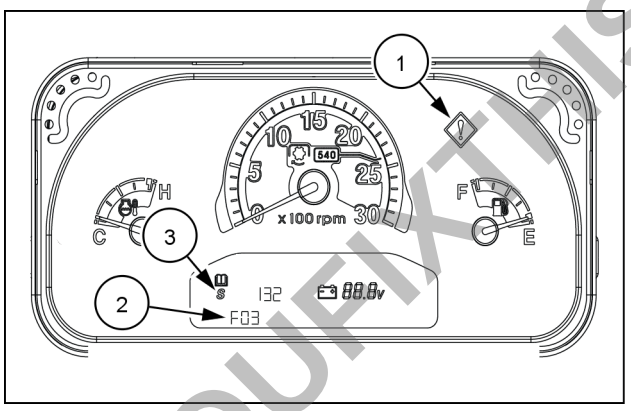
Introduction

The following information is intended as a guide to assist in identifying and correcting possible tractor malfunctions and fault conditions.

Fault codes

Your tractor makes extensive use of electronics to control and monitor major components within the engine and emissions control systems. In the unlikely event of a fault occurring in one of these areas, the malfunction will be identified with a “sxxxx” **(3)** and “Fxx” **(2)** code displayed on the instrument panel. The Warning Lamp **(1)** will also be illuminated in amber or red color.

Should a fault occur causing the tractor to become disabled, a fault code will be displayed in the instrument panel. Contact your authorized CASE IH dealer and report the fault code displayed.



NHILCT1700115AA 1

Reference	Dashboard Fault Code	Fault Code	Warning Lamp		Title
			Amber	Red	
1	s629 F12	P060B		Solid on or **1 Hz**	Analog Digital Converter (ADC) Circuit Fault inside of ECU
2	s132 F31	P0100		Solid on	Air Mass Flow (AMF) Sensor Failure
3	s132 F00 s132 F01	P0101		Solid on	Air Mass Flow (AMF) plausibility fault
4	s132 F03	P0103		Solid on	Air Mass Flow (AMF) Sensor high fault
5	s132 F04	P0102		Solid on	Air Mass Flow (AMF) Sensor low fault
6	s637 F02	P0341	Solid on	Solid on	Cam signal drift fault
7	s637 F10	P0340	Solid on		Cam signal learn fault
8	s636 F02	P0371		Solid on	Crank signal early fault
9	s636 F02	P0374		Solid on	Crank signal lost fault
10	s636 F02	P0372		Solid on	Crank signal missing fault
11	s636 F02 s636 F11	P0335	Solid on	Solid on	Crank over speed / gap lost fault
12	s108 F03	P2229		Solid on	Atmospheric pressure sensor high fault
13	s108 F04	P2228		Solid on	Atmospheric pressure sensor low fault
14	s168 F03	P0563	Solid on		Battery voltage high fault
15	s168 F04	P0562	Solid on		Battery voltage low fault
16	s651 F31	P0262		Solid on	Injector 1 resistance high fault
17	s653 F31	P0268		Solid on	Injector 2 resistance high fault
18	s654 F31	P0271		Solid on	Injector 3 resistance high fault
19	s652 F31	P0265		Solid on	Injector 4 resistance high fault
20	s651 F31	P0261		Solid on	Injector 1 resistance low fault

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8 - TROUBLESHOOTING

Symptom(s)

Engine - Troubleshooting

Problem	Possible Cause	Correction
The start motor does not rotate with the key switch in the (START) position.	Low battery charge	Charge or replace
	Loose battery or starter cable terminals	Tighten the terminal
	Key switch faulty	Repair or replace switch
	Safety start switch not completing circuit	Depress clutch pedal fully
	PTO safety switch is not in "OFF" position	Place PTO switch in "OFF" position
	Starter motor faulty	Repair or replace starter motor
The start motor rotates but the engine does not start	Low battery charge	Charge or replace battery
	Air in fuel system	Bleed out the air
	Fuel filter clogged	Clean or replace the filter
Engine speed is irregular	Air in fuel system	Bleed the fuel system
	Fuel filter clogged	Clean or replace the filter
	Injection nozzle clogged	Repair or replace nozzle
	Fuel leakage	Repair fuel system
Engine stops suddenly during operation	Fuel shortage	Add fuel and bleed air from fuel system
	Faulty fuel injector	Repair or replace injector
	Internal parts of engine seized due to lack of lubrication	Repair engine as needed
Engine stops suddenly during operation	Fuel shortage	Add fuel and bleed air from fuel system
	Faulty fuel injector	Repair or replace injector
	Internal parts of engine seized due to lack of lubrication	Repair engine as needed
Engine overheating	Lack of coolant	Add coolant as needed
	Fan belt slipping or belt is broken	Adjust belt tension or replace belt
	Dirt attached to the radiator or prescreen	Clean radiator fins or screen as needed
The color of exhaust smoke is white	Low engine operating temperature	Allow engine to obtain higher operating temperature
	Engine burning engine oil	Repair engine as needed
	Engine coolant entering engine exhaust	Repair engine as needed
The color of exhaust gas is black.	Air filter clogged	Clean or replace engine air filter
	Excessive fuel supply	Contact authorized dealer
	Faulty fuel injector	Contact authorized dealer
Low engine power	Fuel injector nozzle clogged	Repair injector as needed
	Carbon accumulation on valve seat	Repair valve and seats as needed
	Incorrect valve gap adjustment	Adjust valve gap to correct amount
	Lack of fuel supply	Check fuel system for restriction
	Air filter clogged	Clean or replace air filter
Instrument panel engine oil pressure indicator light is "ON" during operation.	Lack of engine oil	Add engine oil as needed
	Low viscosity of engine oil	Replace oil with proper viscosity type
	Faulty pressure switch	Replace switch
	Faulty engine oil pump	Repair oil pump as needed
	Engine oil filter clogged	Replace the filter
Instrument panel battery charging indicator is "ON" during operation.	Bad electrical connection	Check battery terminals, ground, and repair as needed

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