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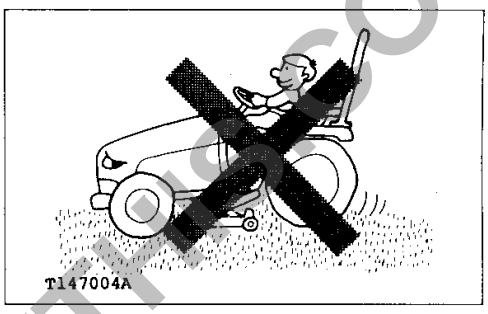
SAFETY INSTRUCTIONS

DANGER

Read these instructions carefully.
Important instructions are given for the safe operation and servicing of the tractor.
Failure to follow these instructions is likely to result in an accident involving death or serious injury.

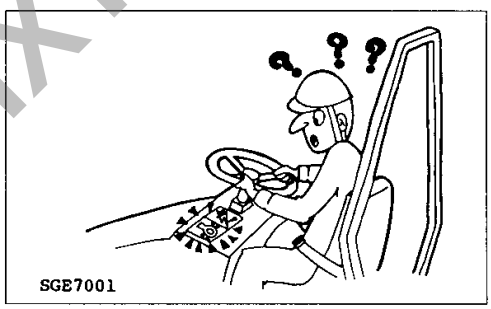
STUDY THE TRACTOR AND IMPLEMENTS

Do not permit anyone unfamiliar with the tractor or the operations of its implements to use the machine.
The operator's manual should be considered a permanent part of the tractor and should remain with the tractor.



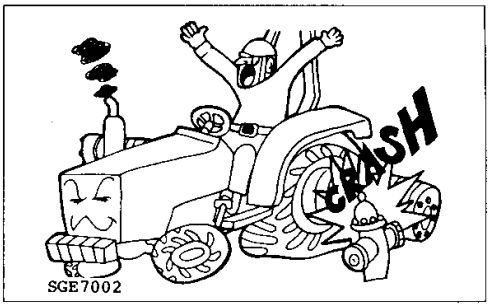
Know the positions and functions of all controls and the meaning of any identification symbols on your controls, gauges, and indicators before attempting to operate the tractor.

Know how to stop the engine in an emergency.



Make sure you understand the capabilities, operating characteristics and limitations of the tractor and implement, such as maximum ballast weight, hydraulic lifting capacity, speed, turning radius, operating clearances etc.

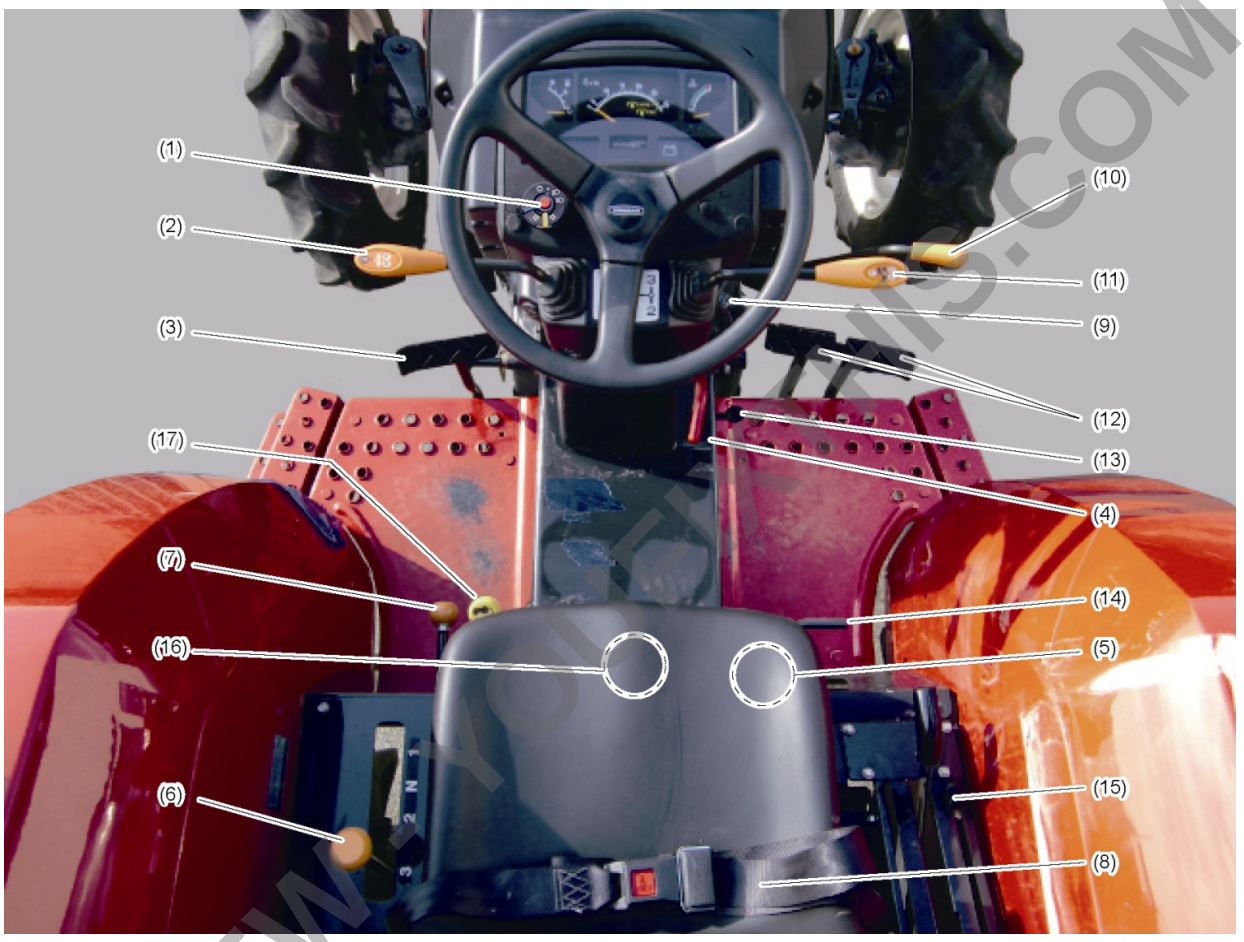
Do not add extra ballast weight to compensate for a load that is too heavy.



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(1) Light switch, Horn switch, Flasher switch
(2) Reverser lever
(3) Clutch pedal
(4) Parking brake lever
(5) Operator's seat adjusting pin
(6) Range shift lever
(7) Front wheel drive lever
(8) Seat belt
(9) Main switch
(10) Accelerator lever
(11) Main shift lever
(12) Brake pedal
(13) Accelerator pedal
(14) Differential lock pedal
(15) Position control lever
(16) Hydraulic stop slow return valve
(17) PTO shift lever

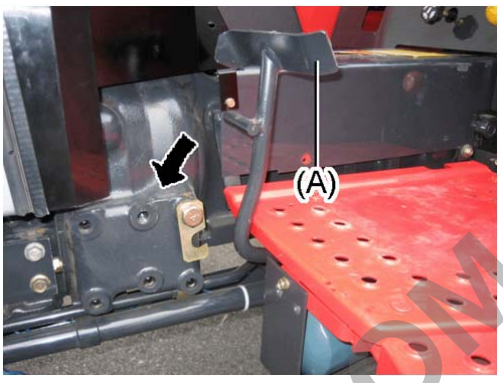


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Clutch pedal

(A) Clutch pedal

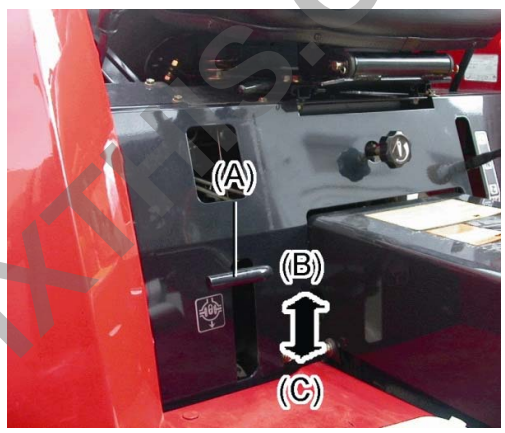


To disengage the clutch function, quickly depress the pedal. To engage, slowly release the pedal. Do not keep your foot on the clutch pedal unless necessary. Otherwise, the lifetime of the clutch may be reduced.

Differential lock pedal

WARNING

Never fail to turn off the differential lock to make a turn. Otherwise, you cannot make an intended turn and an accident may result.

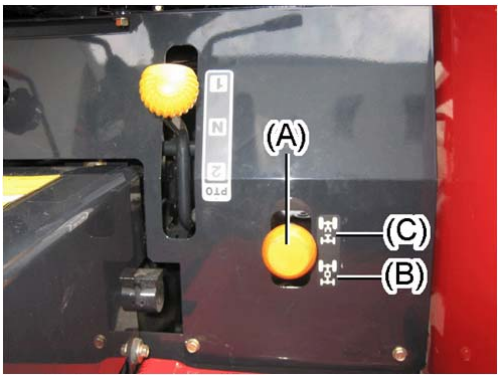


(A) Differential lock pedal
(B) Release lock
(C) Press to activate differential lock

This pedal makes both side wheels to turn as a consolidated form if one of rear wheels idles. This arrangement is useful to avoid slippage in muddy conditions.

Depressing the pedal automatically causes a differential lock condition. Releasing the pedal unlocks the differential system.

2WD/4WD lever



(A) Front wheel drive lever
(B) ON: Four-wheel drive
(C) OFF: Two-wheel drive

This lever is used to switch between two and four-wheel drive.

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1. Check intervals

x: Checks required

CHECK ITEMS	50 h	100h	150h	200h	250h	300h	350h	400h	450h	500h	550h	600h
Engine lubrication oil	Replace	Replace		Replace		Replace		Replace		Replace		Replace
Engine oil element	Replace					Replace						Replace
Transmission oil	Replace	X	X	X	X	Replace	X	X	X	X	X	Replace
Line filter (Hydraulic)	Replace					Replace						Replace
Transmission oil strainer	Clean					Clean						Clean
Fuel filter						Replace						Replace
Water separator	Drain	Drain		Drain		Clean		Drain		Drain		Clean
Radiator interior	Clean the interior of radiator when replacing cooling water											
Cooling water	Check before every work / Replacing every year											
Front axle oil	Replace	X	X	X	X	Replace	X	X	X	X	X	Replace
Air cleaner element	X	X	X	X	X	Replace	X	X	X	X	X	Replace
Radiator screen	X	X	X	X	X	X	X	X	X	X	X	X
Clean cooling fan, radiator	X	X	X	X	X	X	X	X	X	X	X	X
Battery liquid level	Check before every work											
Battery liquid gravity		X		X		X		X		X		X
Fuel piping, connections	X	X	X	X	X	X	X	X	X	X	X	X
Rubber hoses (Power steering)	X	X	X	X	X	X	X	X	X	X	X	X
Radiator hoses	Replace hoses every two years											
Hydraulic rubber hoses	Replace hoses every two years											
Fuel pipe, electric wires	Replace pipes and wires every two years											
Electric wiring, connections	X	X	X	X	X	X	X	X	X	X	X	X
Greasing	X	X	X	X	X	X	X	X	X	X	X	X
Greasing, propeller shaft										Apply		
Fastening of steering wheel fix nut		X		X		X		X		X		X
Important nuts and bolts	X	X		X		X		X		X		X
Cooling fan belt	X	X		X		X		X		X		X
Engine breather pipe	X	X	X	X	X	X	X	X	X	X	X	X
Engine crank case												X
Clearance of exhaust valve												X
Fuel injection valve												X
Generator, start motor	X	X				X				X		
Hydraulic system	X	X				X				X		
Fixing bolts of tires	X	X		X		X		X		X		X

Break-in period is 50 hours. If not reached, take up 1 year instead.
Items marked "Replace" should be replaced every two years even before suggested time intervals.
Replace the power steering hoses every 2 years.

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TROUBLESHOOTING

In case of abnormality of machine, stop the engine and locate a problem by referring to the following table.

1. Engine parts

PROBLEM	POSSIBLE CAUSE	RESPONSE
Won't start by main switch	Shift lever in N?	Set each shift levers in N. Under this condition, turn the main switch to START.
	Is battery liquid at normal level? Battery nor discharged?	Add the battery liquid to the normal level. Charge the battery.
	Check the battery terminals for looseness or rust.	Clean and fasten the terminals. Apply grease coating to avoid rusting.
	Main fuse blown	Replace the fuse with new one.
	Switch trouble	Have it repaired by the service representative.
	Starter trouble	Have it repaired by the service representative.
Self-starter running but the engine fails to start	No fuel	Add the fuel and remove air.
	Air in the fuel	Remove air from the fuel.
	Fuel cock in the C position	Put the fuel cock in the 0 position.
Engine runs irregularly	Air in the fuel supply system	Bleed air.
	Water mixed in the fuel	Remove water and replace with light oil
	Jet nozzle clogged	Replace or repair the nozzle.
	Clogged fuel filter	Clean or replace the filter element.
Engine overheating	Lack of cooling water	Add cooling water.
	Loosened or damaged fan belt	Adjust the tension of belt or replace the belt with new one.
	Clogged radiator fins	Clean the radiator fins.
	Running out of engine oil	Add engine oil.
	Overloaded	Reduce the load.
Low engine power	Clogged air cleaner	Check the air cleaner.
	Burnt nozzle	Have it repaired by the service representative.
	Low compression	Have it repaired by the service representative.
	Valve clearance incorrectly adjusted	Have it repaired by the service representative.
	Incorrect timing of fuel jet	Have it repaired by the service representative.
Oil pressure lamp lighting	Lack of engine oil	Add engine oil to the normal level.
	Low engine oil viscosity	Use the oil with adequate viscosity.
	Damaged pressure switch	Replace the switch.
	Damaged oil pump	Have it repaired by the service representative.
Charge lamp lighting	Damaged alternator	Have it repaired by the service representative.
	Loosened or damaged fan belt	Adjust the tension of the belt or replace the belt.

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SPECIFICATIONS

MODEL			EF494T
Drive type			4-wheel Drive
Dimensions	Overall length (mm)		3,230
	Overall width (mm)		1,605
	Overall height (mm)		2,355
	Wheelbase (mm)		1,830
	Tread	Front (mm)	1,300, 1,466
		Rear (mm)	1,270, 1,344
	Ground clearance (mm)		375
Weight (kg)			1,540
Engine	Model		4TNV88
	Type		4-cycle, water-cooled diesel
	Output (SAE Gross) (HP/rpm)		49/2,800
	Number of cylinders		4
	Bore x Stroke (mm)		88 x 90
	Displacement (cc)		2,189
	Air cleaner		Dry, dual element
	Fuel tank capacity (liter)		40
	Battery		12V-52AH
Steering			Hydrostatic
Clutch			Dry, single
Brake			Mechanical, wet disc
Transmission	Type		Collar shift
	Gear shift (Forward x Reverse)		F9 x R9
	Forward speed (km/hr)		1.6-28.8
	Reverses speed (km/hr)		1.7-29.7
	Max. speed, forward (km/hr)		30.8
Tire	Front		8-18-6
	Rear		13.6-26-8
Rear PTO	Type		Transmission PTO
	PTO shaft		SAE1-3/8 inch (35mm), 6 spline
	Speed (rpm)		568, 769 at rated engine speed
Hydraulic	Type		Position control
	Hitch		3 point hitch, category SAE #1
Draw bar hitch			Clevis type

NOTE:
All technical data, measurement and weight are approximate, and the manufacturer has the right to make alteration without prior notice.

TRACTOR MASS AND TIRE SPECIFICATION

TIRE SIZE (Number of plies)		FRONT AXLE		REAR AXLE	
		Maximum working load of tires	Technically permissible mass on each axle	Maximum working load of tires	Technically permissible mass on each axle
F: 8-18(6), R: 13.6-26(8)	kg	650	980	1,580	1,675



IMPORTANT

Set up the implement so that the front wheel load and the rear wheel load are not greater than the smaller of the following: the permissible load capacity of the tires or the technically permissible mass on each axle.

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2. Oil and grease

OIL, GREASE	TYPE
Fuel	Diesel fuel only
Engine oil	SAE 30 or 40 API Grade CD or better
Grease	Multipurpose Grease
Transmission oil, Hydraulic system oil	TF-500 Transmission fluid

* At temperature below – 10°C, use Super No.3 light oil.

3. Oil and water volume

(Unit: liters)

		EF453T	OIL TYPE
Fuel		40	Diesel light oil
Cooling water	Radiator	4	Anti-rusting fluid
	Sub-tank	0.45	Anti-rusting fluid
Engine oil		5.3	SAE 30 or 40
Transmission oil		27	TF-500A Transmission fluid
Front axle oil		7.5	TF-500A Transmission fluid, SAE 90

4. Replacing oil

DANGER

Never add oil while the engine is warm or running.
A fire may occur.

CAUTION

Never add oil just after stopping the engine. You may be burned.

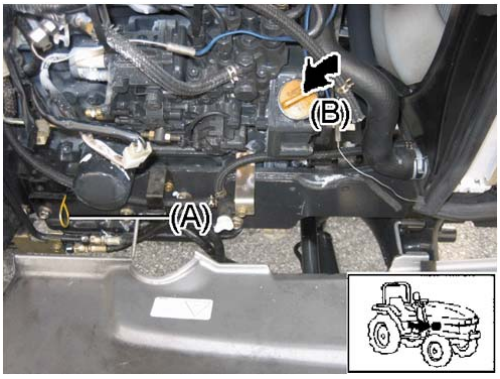
Engine oil

Check

Draw out the oil gauge on the right side of the engine and wipe off oil with a cloth. Reinsert and remove it again to see if the oil level is within the upper and lower marks.

If insufficient, add the new oil as much as the normal level through the supply port.

(A) Oil gauge
(B) Oil supply port

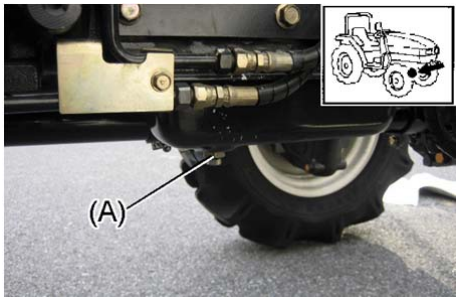


NOTE:
Check the oil level before the engine starts or when the engine is cool.

Replacing oil

Remove remaining oil through the drain plug on the lower part of the engine. Add the new oil through the oil supply port. Select a proper type of engine oil and replace it periodically considering the temperature and operating conditions.

(A) Drain plug



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