50 P
Compact Excavator

(1FF050PA_ _H_00001—)

JOHN DEERE

OPERATOR'S MANUAL

50 P Compact Excavator

OMT489508X019 ISSUE E3 (ENGLISH)

CALIFORNIA

Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

If this product contains a gasoline engine:

⚠ WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

The State of California requires the above two warnings.

Worldwide Construction And Forestry Division

Email Address: _____

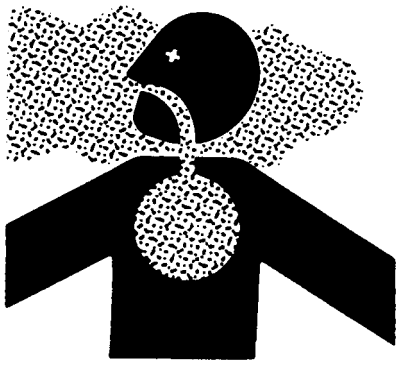
THANK YOU!

TX,TM,FAX -19-03JUL01-2/2

Work In Ventilated Area

Engine exhaust fumes can cause sickness or death. If it is necessary to run an engine in an enclosed area, remove the exhaust fumes from the area with an exhaust pipe extension.

If you do not have an exhaust pipe extension, open the doors and get outside air into the area.



TS220 —UN—15APR13

DX,AIR -19-17FEB99-1/1

Avoid Static Electricity Risk When Refueling

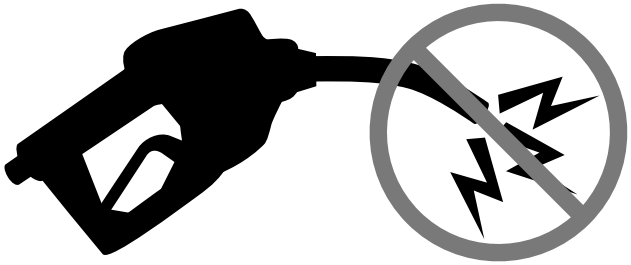
The removal of sulfur and other compounds in Ultra-Low Sulfur Diesel (ULSD) fuel decreases its conductivity and increases its ability to store a static charge.

Refineries may have treated the fuel with a static dissipating additive. However, there are many factors that can reduce the effectiveness of the additive over time.

Static charges can build up in ULSD fuel while it is flowing through fuel delivery systems. Static electricity discharge when combustible vapors are present could result in a fire or explosion.

Therefore, it is important to ensure that the entire system used to refuel your machine (fuel supply tank, transfer pump, transfer hose, nozzle, and others) is properly grounded and bonded. Consult with your fuel or fuel system supplier to ensure that the delivery system is in compliance with fueling standards for proper grounding and bonding practices.

RG22142 —UN—17MAR14



RG21992 —UN—21AUG13

DX,FUEL,STATIC,ELEC -19-12JUL13-1/1

Park and Prepare for Service Safely

Warn others of service work. Always park and prepare machine for service or repair properly.

- Do not support machine with boom, arm, or other hydraulically actuated attachments.
- Do not support machine or attachment with cinder blocks or wooden pieces that may crumble or crush.
- Do not support machine with a single jack or other devices that may slip out of place.
- Park machine on a level surface and lower equipment and attachments to the ground.
- Stop engine.
- Disable the pilot hydraulics. Move the pilot shutoff lever to the locked (up) position.
- Attach a “Do Not Operate” tag in an obvious place in the operator's station.

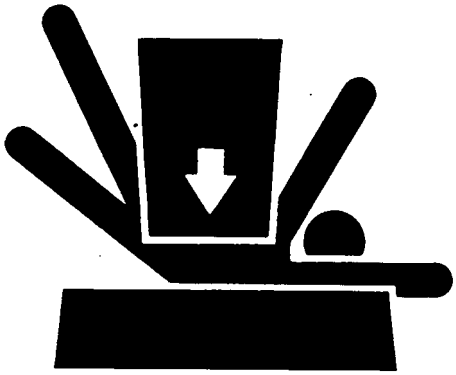
Securely support machine or attachment before working under it.

Understand service procedures before beginning repairs. Keep service area clean and dry. Use two people whenever the engine must be running for service work.

When performing above-ground maintenance, use appropriate support devices such as ladders, lifts, or platforms. If equipped, use the machine anchorage points and approved fall arrest harnesses and lanyards.

Do Not Operate Tag

T133332 —19—17APR13



Support Machine and Attachment Properly

TS229 —UN—23AUG88

TX.PARK,EXC -19-21AUG20-1/1

Service Cooling System Safely

Explosive release of fluids from pressurized cooling system can cause serious burns.

Shut off engine. Only remove filler cap when cool enough to touch with bare hands. Slowly loosen cap to first stop to relieve pressure before removing completely.

TS281 —UN—15APR13

DX,RCAP -19-04JUN90-1/1

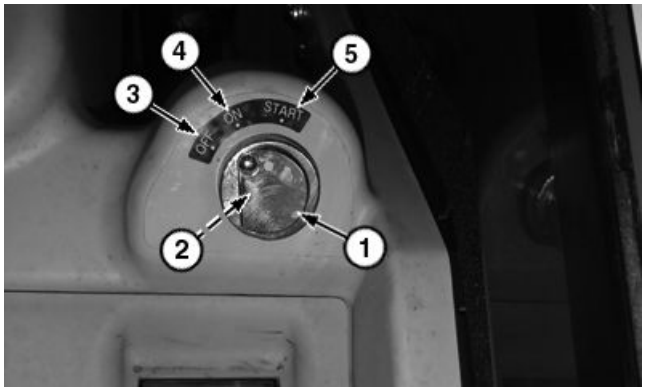
Key Switch

The key switch (2) has three positions:

- OFF (3)
- ON (4)
- START (5)

Rotate key switch cover (1) counterclockwise to uncover key switch.

1— Key Switch Cover
2— Key Switch
3— OFF
4— ON
5— START

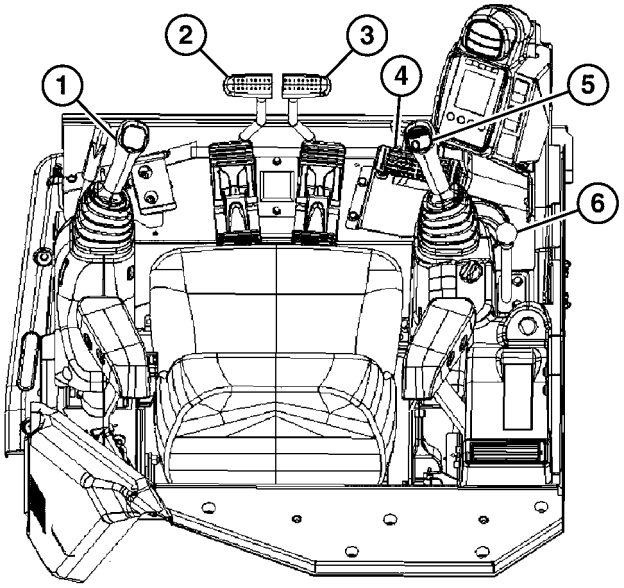


TX1125714A —UN—03DEC12

Key Switch

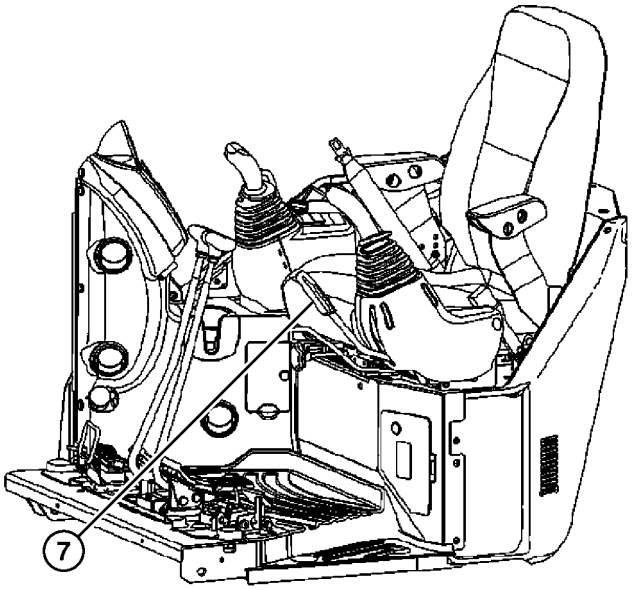
KR46761,000071E -19-09MAR17-1/1

Pedals and Levers



TX1126062 —UN—20NOV12

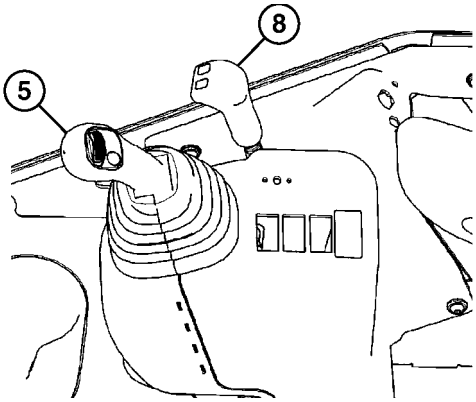
Pedals and Levers



TX1126389 —UN—21NOV12

Pilot Shutoff Lever

1— Left Control Lever
2— Left Travel Lever
3— Right Travel Lever
4— Boom Swing Pedal
5— Right Control Lever
6— Blade Control Lever
7— Pilot Shutoff Lever
8— Angle Blade Control Lever (if equipped)



TX1126390 —UN—18DEC12

Angle Blade Control Lever (if equipped)

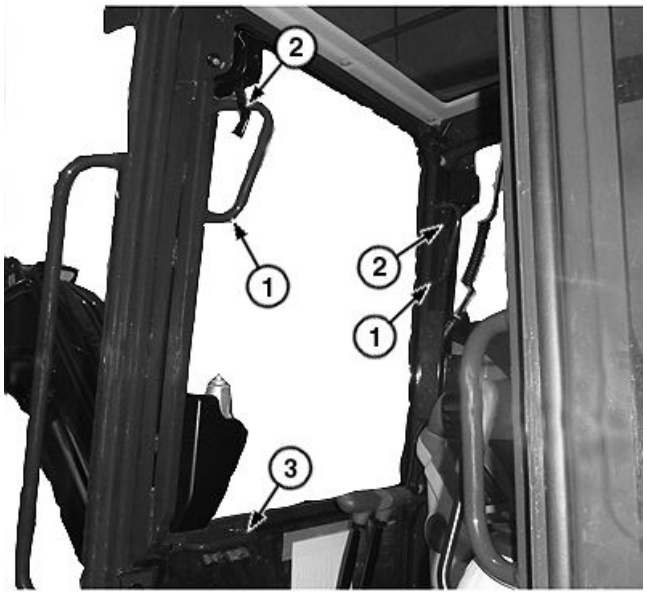
KR46761,00007B4 -19-30MAR17-1/1

Front (Alternative Exit) Window—If Equipped

CAUTION: Prevent possible injury from unexpected rapid window movement. Front window can come down forcefully. Close window only when sitting in operator's seat. Guide window down slowly. When opening window, ensure cab frame lock pin (4) is fully engaged.

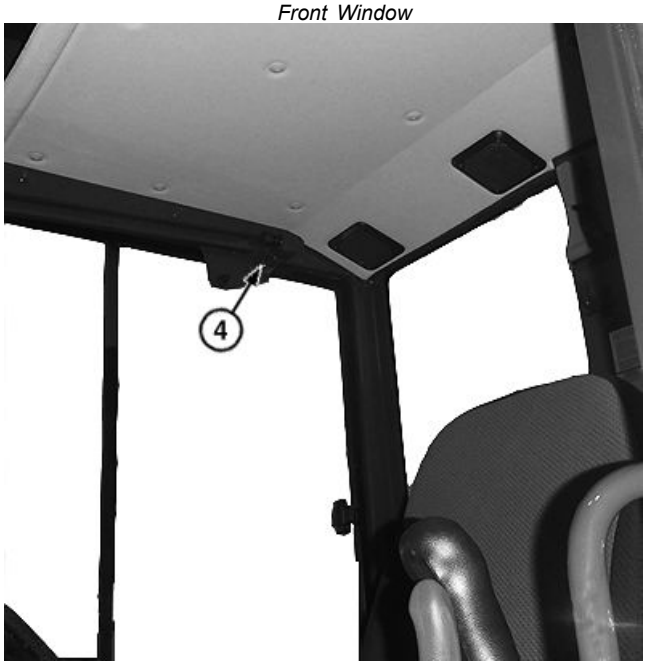
1. Grasp the handholds (1).
2. Pull latches (2) down to release window.
3. Use bottom handle (3) to pull window along rail until it securely catches into lock pin (4).
4. Unlatch cab frame lock pin to release window.
5. Use handholds to slide window down slowly.
6. Push on handholds until window latches are locked in place.

1— Handhold (2 used)
2— Latch (2 used)
3— Bottom Handle
4— Lock Pin



TX1126042A —UN—16NOV12

Front Window



TX1126043A —UN—27NOV12

Lock Pin

KR46761,00007A6 -19-30MAR17-1/1

•**Engine Overheat Alarm—**Engine coolant temperature has abnormally increased. Stop operation. Run the engine at slow idle speed and lower the coolant temperature.

TX1086350 —UN—06JAN11

Engine Overheat Alarm

KR46761,00007E4 -19-13MAR17-5/12

•**Warning Alarm—**An abnormal condition has been detected. Stop operation. See an authorized John Deere dealer.

TX1086352 —UN—06JAN11

Warning Alarm

KR46761,00007E4 -19-13MAR17-6/12

•**Engine Air Filter Restriction Alarm—**Air filter elements are restricted. Replace air filter elements.

TX1086365 —UN—06JAN11

Engine Air Filter Restriction Alarm

KR46761,00007E4 -19-13MAR17-7/12

•**Water Separator Alarm—**Water accumulated in water separator. Drain water separator.

TX1127870 —UN—11DEC12

Water Separator Alarm

KR46761,00007E4 -19-13MAR17-8/12

•**Engine Control Dial Malfunction Alarm—**Engine control dial malfunction is detected. Repair or replace.

TX1127874 —UN—11DEC12

Engine Control Dial Malfunction Alarm

KR46761,00007E4 -19-13MAR17-9/12

•**Machine Malfunction Alarm—**Machine malfunction is detected. See an authorized John Deere dealer.

TX1086367 —UN—06JAN11

System Malfunction Alarm

Continued on next page

KR46761,00007E4 -19-13MAR17-10/12

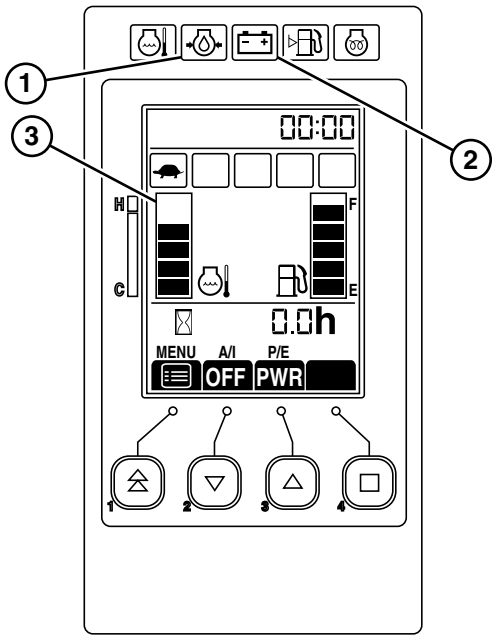
Checking Instruments After Starting

IMPORTANT: Prevent possible damage to engine. If indicators remain displayed after starting the engine, IMMEDIATELY STOP THE ENGINE. Find and correct the problem.

After the engine is started, if the engine oil pressure indicator (1) and the alternator indicator (2) remain displayed, stop the engine immediately. Find and correct the problem.

The engine coolant temperature gauge (3) should be in the white zone.

1— Engine Oil Pressure Indicator
2— Alternator Indicator
3— Engine Coolant Temperature Gauge



TX1235913 —UN—16MAR17

Monitor Screen

JS93577,000005D -19-15MAR17-1/1

Warm-Up Operation

CAUTION: Prevent possible injury from unexpected machine movement. If hydraulic oil is cold, hydraulic functions move slowly. Do not attempt normal machine operation within 6 seconds of starting to ensure that the hydraulic functions are moving at normal cycle times.

IMPORTANT: Prevent possible machine damage. Hydraulic components may be seriously damaged if the machine is operated when the hydraulic oil temperature is below 50°C (122°F) or above 80°C (176°F). Before starting work, be sure to follow the warm-up operation procedure until the hydraulic oil temperature is within the temperature range and the first segment of the coolant temperature gauge stops flashing.

Warm-Up Operation Procedure

1. Start the engine.
2. Turn the engine speed dial to the slow idle position.

NOTE: During cold weather, the warm-up operation system will automatically activate. The engine speed can momentarily increase to medium, even if the engine control dial is in the slow idle position.

NOTE: The warm-up operation system is deactivated when the engine control dial is set to the medium position.

3. When the first segment of the coolant temperature gauge stays on and stops flashing, turn the engine control dial to the medium position.
4. Extend and retract each cylinder several times and operate any attachments on the machine.
5. Lightly operate the swing and travel motors to warm the hydraulic oil to operating temperature and circulate hydraulic oil through the system.

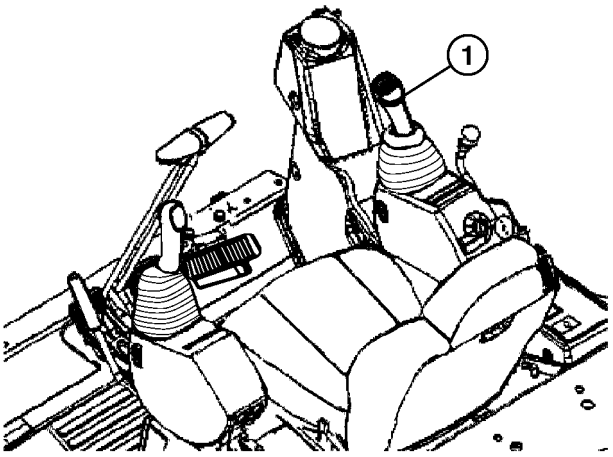
DH10862,00004DF -19-20FEB20-1/1

Multi-Function Control Lever

1. Move slide switch (2) on multi-function right control lever (1) to the right or left to operate front-end attachment such as hydraulic breaker.
2. When switch (3) on the back of the right control lever is pushed, it operates the same as when slide switch is moved to the left. This switch operation is convenient for using hydraulic breaker.

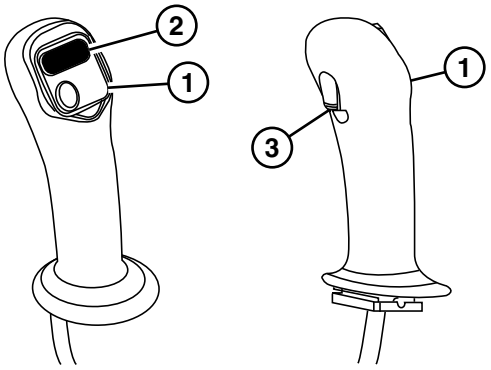
In case slide switch and switch are pushed simultaneously, switch operation has priority.

1— Multi-Function Right Control Lever
2— Slide Switch
3— Switch



TX1127714 —UN—10DEC12

Multi-Function Lever

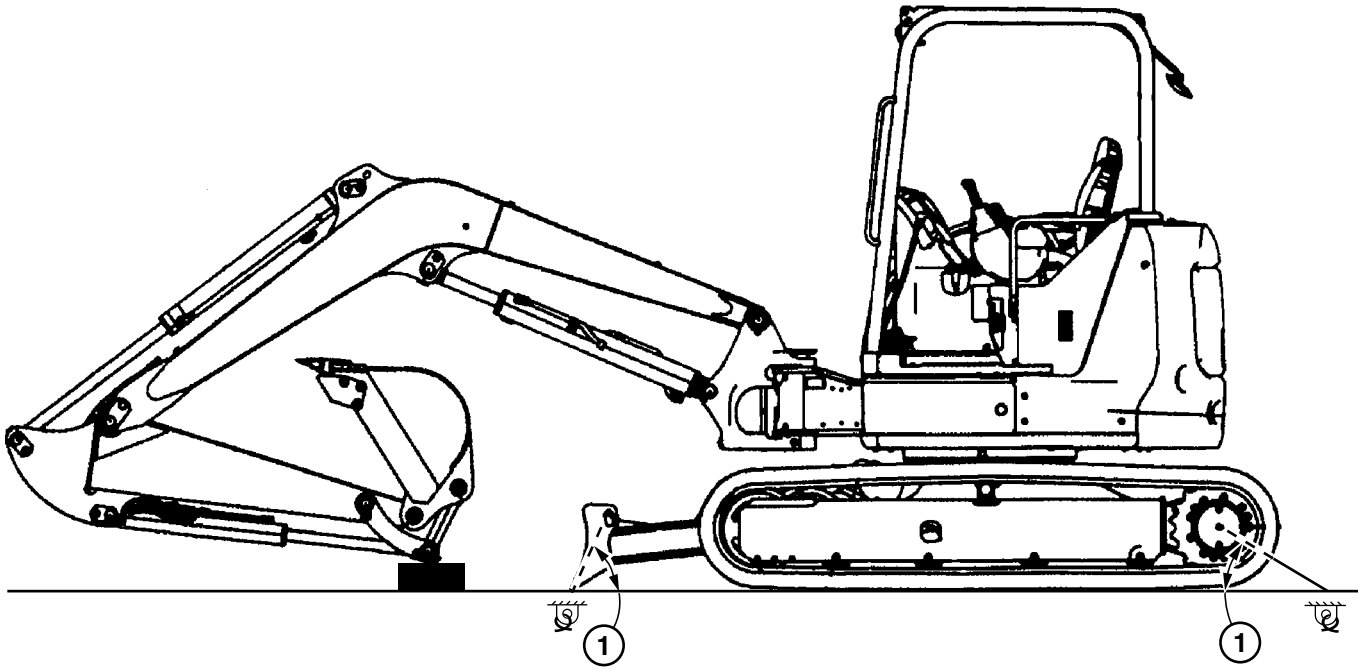


TX1127715 —UN—07DEC12

Multi-Function Switches

JS93577,000005B -19-30MAR17-1/1

Securing the Machine to Transport Equipment



TX1288004

Machine (left side shown)

1— Side Tiedown Angle (4 used)

IMPORTANT: Avoid machine damage. Fasten chains or cables to machine frame. Do not place chains or cables over or against hydraulic lines or hoses.

1. Fasten machine to trailer using chains or cables with appropriate load binder at the following points:
   - Front frame tiedown point (2 used)
   - Rear frame tiedown point (2 used)

   Ensure side tiedown angles (1) have angles between 20—40°.
2. Fasten all equipment to trailer using chains or cables with appropriate load binder.

JB38880,000169B -19-21NOV19-3/3

Mixing of Lubricants

In general, avoid mixing different brands or types of oil. Oil manufacturers blend additives in their oils to meet certain specifications and performance requirements.

Mixing different oils can interfere with the proper functioning of these additives and degrade lubricant performance.

Consult your John Deere dealer to obtain specific information and recommendations.

DX,LUBMIX -19-18MAR96-1/1

Diesel Engine Oil — Interim Tier 4, Final Tier 4, Stage IIIB, Stage IV, and Stage V

Failure to follow applicable oil standards and drain intervals can result in severe engine damage that might not be covered under warranty. Warranties, including the emissions warranty, are not conditioned on the use of John Deere oils, parts, or service.

Use oil viscosity based on the expected air temperature range during the period between oil changes.

John Deere Plus-50™ II is the recommended engine oil.

Extended service intervals may apply when John Deere Plus-50™ II engine oil is used. Refer to the engine oil drain interval table and consult your John Deere dealer for more information.

If John Deere Plus-50™ II engine oil is not available, engine oil meeting one or more of the following may be used:

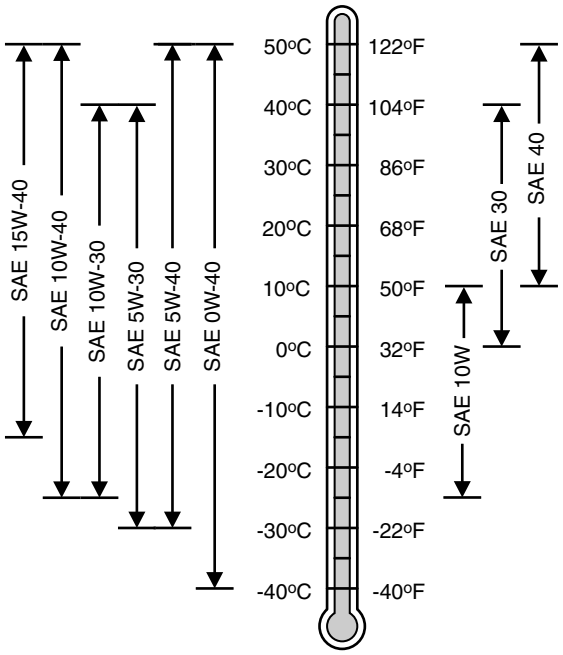
- API Service Category CK-4
- API Service Category CJ-4
- ACEA Oil Sequence E9
- ACEA Oil Sequence E6

DO NOT use engine oil containing more than 1.0% sulfated ash, 0.12% phosphorus, or 0.4% sulfur.

Multi-viscosity diesel engine oils are preferred.

Diesel fuel quality and fuel sulfur content must comply with all existing emissions regulations for the area in which the engine operates.

Plus-50 is a trademark of Deere & Company



Oil Viscosities for Air Temperature Ranges

IMPORTANT: Use only ultra low sulfur diesel (ULSD) fuel with a maximum sulfur content of 15 mg/kg (15 ppm).

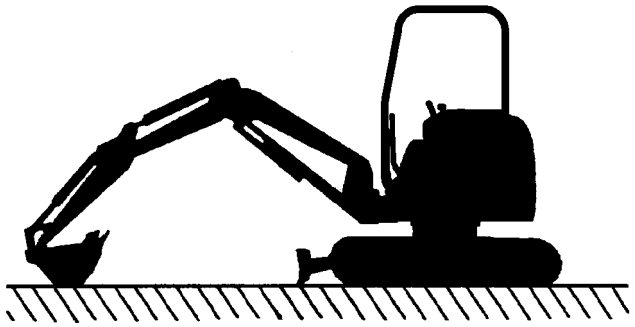
DX,ENOIL14 -19-23APR19-1/1

Prepare Machine for Maintenance

Before performing maintenance procedures given in the following sections and before leaving the operator's seat, position machine as shown unless another position is specified in the procedure.

1. Park machine on a level surface.
2. Lower bucket and blade to ground.
3. Turn auto-idle off.
4. Move engine speed dial (4) to slow idle (5) and run engine for approximately 5 minutes to cool engine.
5. Stop engine.
6. Turn key switch to the OFF (1) position. Remove key from key switch.
7. Place pilot shutoff lever to locked (UP) position.
8. Place a DO NOT OPERATE tag on the right pilot control lever.

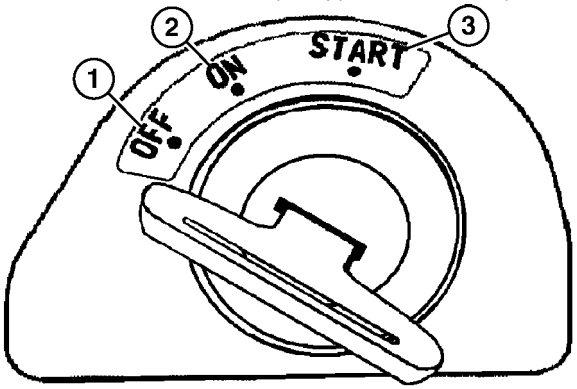
1— OFF
2— ON
3— START
4— Engine Speed Dial
5— Slow Idle
6— Fast Idle



T121197

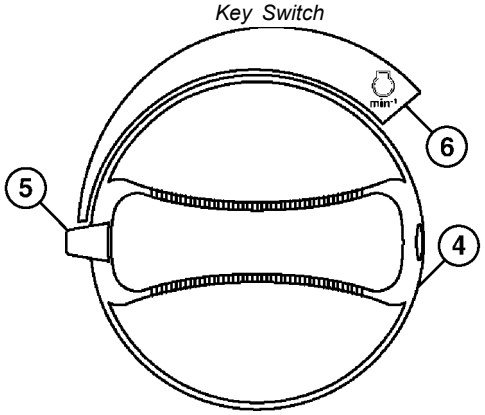
T121197 —UN—21APR99

Machine Position (canopy machine shown)



TX1126205 —UN—20NOV12

Key Switch



TX1126244 —UN—20NOV12

Engine Speed Dial

KR46761,0000769 -19-30MAR17-1/1

Service Intervals

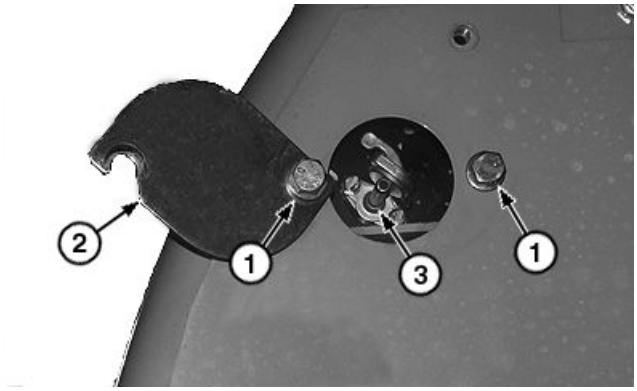
Model:	Hour Meter Reading:
PIN/Serial Number:	
SERVICE INTERVALS	
Service your machine at intervals shown on this chart. Also, perform service on items at multiples of the original requirement. For example, at 2000 hours also service those items (if applicable) listed under 1000 hours, 500 hours, 250 hours, 50 hours, and 10 hours or daily.	
FLUID SAMPLING	
Take fluid samples from each system as indicated on this form. The manufacturer of the fluid analysis kits will provide maintenance recommendations based upon the results of the fluid analysis and the operating information you supply. Regular fluid sampling extends the operational life of your machine.	
As Required	
□ Clean radiator core and oil cooler	□ Check and adjust air conditioner belt—if equipped
□ Check and clean air cleaner dust unloader valve	□ Check and adjust track sag
□ Replace engine air filter elements	□ Clean and tighten battery terminals
Every 10 Hours or Daily	
□ Check engine oil level	□ Check bucket teeth
□ Check hydraulic tank oil level	□ Check seat belt
□ Drain water and sediment from fuel tank sump	□ Lubricate bucket and link pins
□ Drain water and sediment from primary fuel filter and water separator	□ Lubricate front end pin joints
□ Check engine coolant level	
Initial Service—50 Hours[1]	
□ Check and adjust fan belt tension	
Every 100 Hours	
□ Lubricate bucket and link pins	□ Check and adjust fan belt tension
□ Lubricate front end pin joints	
Initial Service—250 Hours[2]	
□ Replace hydraulic tank oil filter	
Every 250 Hours	
□ Lubricate swing bearing	□ Drain water and sediment from hydraulic tank
□ Check travel gear case oil level	□ Take engine oil sample
Every 500 Hours	
□ Drain and refill engine oil and replace filter	□ Replace final fuel filter
□ Lubricate front end pin joints	□ Replace hydraulic tank oil filter
□ Lubricate swing bearing gear	□ Take travel gear case oil sample
□ Lubricate control lever universal joint	□ Take hydraulic oil sample
□ Lubricate blade pins	□ Take engine coolant sample
□ Replace primary fuel filter and water separator	□ Take diesel fuel sample
Every 1000 Hours	
□ Replace pilot system oil filter	□ Check and adjust engine valve lash
□ Drain and refill travel gear case oil	□ Check starter and alternator
Every 2000 Hours	
□ Drain and refill hydraulic tank oil	□ Drain, flush, and refill engine cooling system
Every 3000 Hours	

Continued on next page

Drain Water and Sediment from Fuel Tank Sump

NOTE: Fuel tank drain valve (3) is located under machine directly below fuel tank.

1. Park machine on a level surface. Rotate upperstructure 90° for easier access.
2. Lower bucket and blade to ground.
3. Stop engine.
4. Loosen cap screws (1) and rotate cover (2).
5. Open drain valve (3) for several seconds to drain water and sediment into a container. Dispose of waste properly.
6. Close drain valve.
7. Install cover and tighten cap screws.



TX1126058A —UN—16NOV12

Fuel Tank Drain Valve (view from under machine)

1— Cap Screw (2 used)
2— Cover
3— Drain Valve

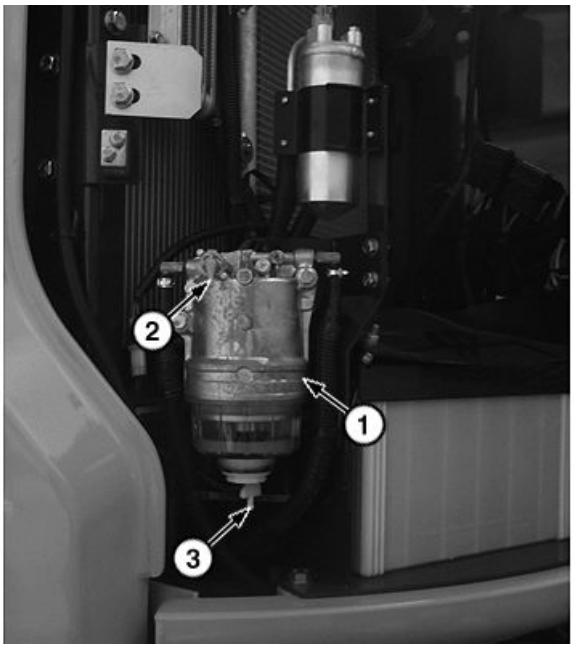
KR46761,00007D1 -19-14MAR17-1/1

Drain Water and Sediment from Primary Fuel Filter and Water Separator

1. Open right rear service door to access primary fuel filter and water separator assembly (1).
2. Close fuel shutoff valve (2)

NOTE: Drain waste into a container. Dispose of waste properly.

3. Open drain valve (3) to extract water from fuel system. Drain fluid until water and sediment is removed. Collect waste in a container and dispose of waste properly.
4. Close drain valve
5. Open fuel shutoff valve.
6. Bleed fuel system. See Bleed Fuel System. (Section 4-1.)
7. Close right rear service door.



TX1126713A —UN—27NOV12

Primary Fuel Filter and Water Separator

1— Primary Fuel Filter and Water Separator Assembly
2— Fuel Shutoff Valve
3— Drain Valve

KR46761,00007BC -19-04DEC12-1/1

Lubricate Swing Bearing

CAUTION: Prevent possible injury from unexpected machine movement if controls are moved by another person. Lubricating swing bearing gear and rotating the upperstructure must be done by one person.

NOTE: Lubricate the swing bearing gear at 500 hours.

1. Park machine on a level surface.
2. Lower the bucket to the ground.
3. Stop the engine.
4. Pull the pilot control shutoff lever to the locked position.
5. Turn key switch to OFF. Remove key from switch.
6. Lubricate swing bearing with 2—3 shots of grease at grease fitting. See Grease. (Section 3-1.)

TX1126712A —UN—27NOV12

Swing Bearing Location

7. Start engine. Raise bucket several inches off the ground and rotate upperstructure 90 degrees (1/4 turn).
8. Repeat steps 2—7 seven times. It is not necessary to start the engine the last time.

JS93577,000003D -19-04FEB15-1/1

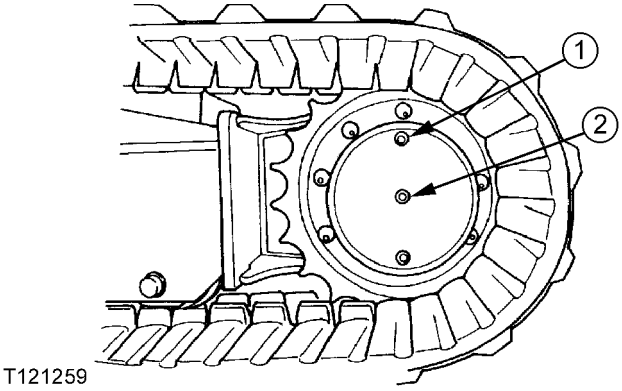
Check Travel Gear Case Oil Level

1. Park machine on level ground rotating travel gear case until positioned as shown.
2. Stop engine.

CAUTION: High-pressure release of oils from pressurized system can cause serious burns. Wait for travel gear case oil to cool. Keep body and face away from fill plug (1). Gradually loosen fill plug to release pressure.

3. After travel gear case has cooled, slowly loosen fill plug (1) to release air to relieve pressure.
4. Remove check plug (2). Oil must be to bottom of hole.
5. If necessary, remove fill plug and add oil until oil flows out of check plug hole. See Travel Gear Case Oil. (Section 3-1.)
6. Wrap threads of plugs with sealing-type tape. Install plugs. Tighten plugs to specification.

Specification	
Plug—Torque	23 N·m 204 lb·in



T121259

T121259 —UN—22APR99

Travel Gear Case

1— Fill Plug **2— Check Plug**

7. Check second travel gear case oil level.

KR46761,0000766 -19-29MAR17-1/1

Replace Pilot System Oil Filter

Pressurized Fluids

TS281 —UN—15APR13

TX1126718A —UN—27NOV12

Hydraulic Tank Filler Cap

⚠ CAUTION: High pressure release of oil from pressurized system can cause serious burns or penetrating injury. The hydraulic tank is pressurized. Slowly loosen cap to release pressure.

1. Open right front service door.
2. Slowly loosen hydraulic tank filler cap (1) to release pressure.

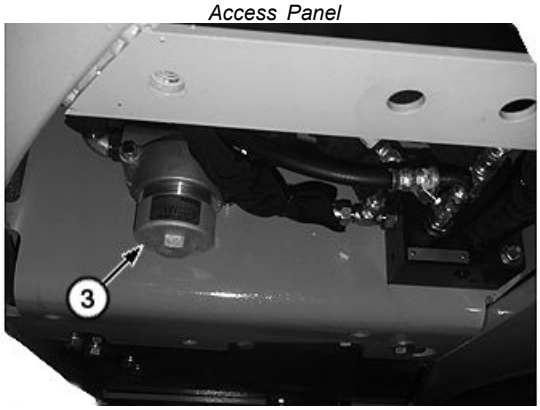
NOTE: Pilot system oil filter access panel (2) is under the left rear of machine.

3. Remove access panel (2) to access pilot system oil filter (3).

1— Hydraulic Tank Filler Cap
2— Access Panel
3— Pilot System Oil Filter

TX1126722A —UN—27NOV12

Access Panel



TX1126978A —UN—29NOV12

Pilot System Oil Filter

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JS93577,0000040 -19-12DEC12-1/2

Precautions for Alternator and Regulator

When batteries are connected, follow these rules:

1. Disconnect negative (-) battery cable when working on or near alternator or regulator.
2. DO NOT TRY TO POLARIZE ALTERNATOR OR REGULATOR.
3. Be sure that alternator wires are correctly connected BEFORE connecting batteries.
4. Do not ground alternator output terminal.
5. Do not disconnect or connect any alternator or regulator wires while batteries are connected or while the alternator is operating.
6. Connect batteries or a booster battery in the correct polarity (positive [+] to positive [+] and negative [-] to negative [-]).
7. Do not disconnect the batteries when engine is running and alternator is charging.
8. Disconnect battery cables before connecting battery charger to the batteries. If machine has more than one battery, each battery must be charged separately.
9. Before washing machine, place a water repellent cover over the alternator.
10. To prevent component damage, the water jets need to be set at a 45-degree angle with reduced water pressure. Avoid direct contact with electrical and electronic connectors.

CED,OUO1021,185 -19-04MAR20-1/1

Using Booster Batteries—12-Volt System

Before boost starting, machine must be properly shut down to prevent unexpected machine movement when engine starts.

CAUTION: Prevent possible injury from exploding battery. An explosive gas is produced while batteries are in use or being charged. Keep flames or sparks away from the battery area. Make sure the batteries are charged in a well-ventilated area.

IMPORTANT: The machine electrical system is a 12-volt negative (-) ground. Use only 12-volt booster batteries.

TS204 —UN—15APR13

Using Booster Batteries

1. Connect one end of the positive cable to the positive terminal of the machine batteries and the other end to the positive terminal of the booster batteries.
2. Connect one end of the negative cable to the negative terminal of the booster batteries. Connect other end of the negative cable to the machine as far away from the machine batteries as possible.
3. Start engine.
4. Immediately after starting engine disconnect end of the negative cable from the machine. Then disconnect the other end of the negative cable from the negative terminal of the booster batteries.
5. Disconnect positive cable from booster batteries and machine batteries.

OUT4001,00000E1 -19-21JUL17-1/1

Clean Cab Fresh Air and Cab Recirculating Air Filters—If Equipped

IMPORTANT: Prevent damage to filters. Do not use compressed air or water to clean filters. Replace filters after the sixth cleaning.

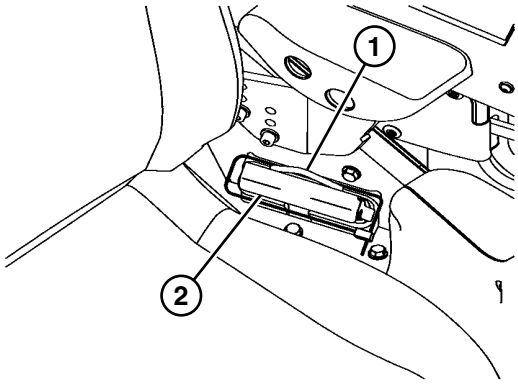
Cab Fresh Air Filter (2)

1. On the left side of the operator's seat underneath the armrest, pull filter tab (1).
2. Remove cab fresh air filter.
3. Lightly tap filter to remove dirt and debris. Use vacuum to clean filter if needed.
4. Install filter.

Cab Recirculating Air Filter (5)

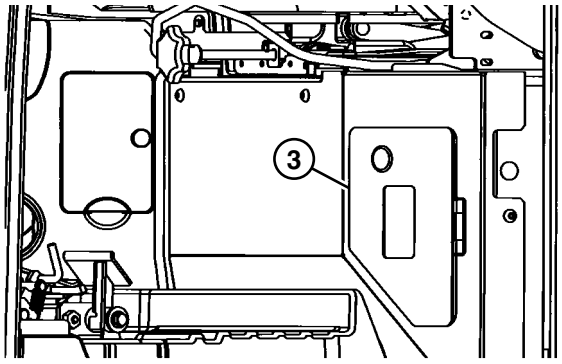
1. Below the operator's seat, open access panel (3).
2. Pull filter tab (4) to remove cab recirculating air filter.
3. Lightly tap filter to remove dirt and debris. Use vacuum to clean filter if needed.
4. Install filter.
5. Close access panel.

1— Filter Tab
2— Cab Fresh Air Filter
3— Access Panel
4— Filter Tab
5— Cab Recirculating Air Filter



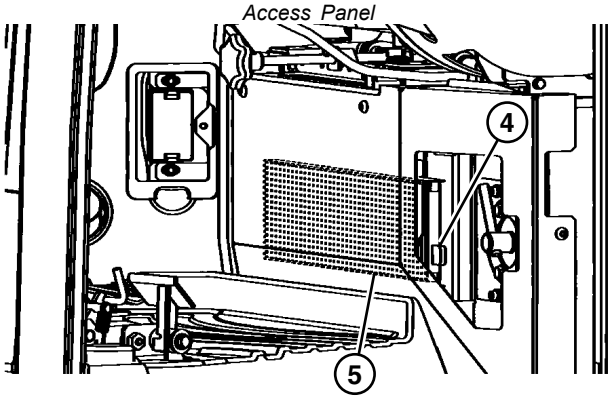
TX1235702 —UN—13MAR17

Cab Fresh Air Filter



TX1235704 —UN—13MAR17

Access Panel

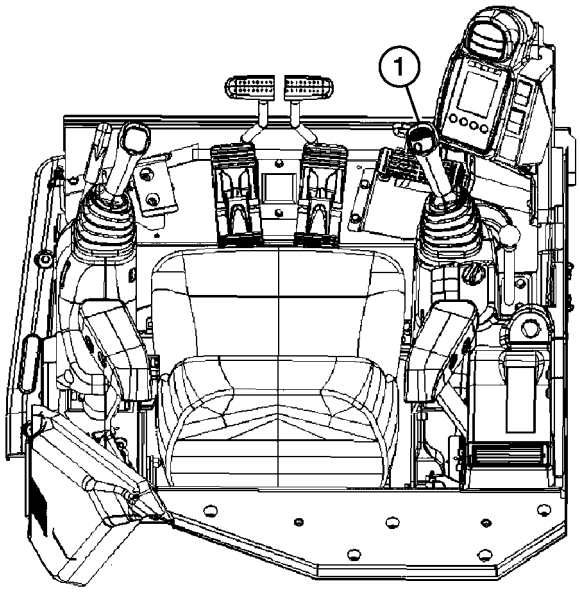


TX1235705 —UN—13MAR17

Cab Recirculating Air Filter

JS93577,0000065 -19-30MAR17-1/1

Horn Circuit Check



TX1126265 —UN—28NOV12

Horn Button

1— Horn Button

Key switch in OFF position.

Press horn button (1) on top of right pilot control lever.

LISTEN: Does horn sound?

YES: Go to next check.

NO: Check horn relay 5 A fuse (F1).

IF OK: See your authorized dealer.

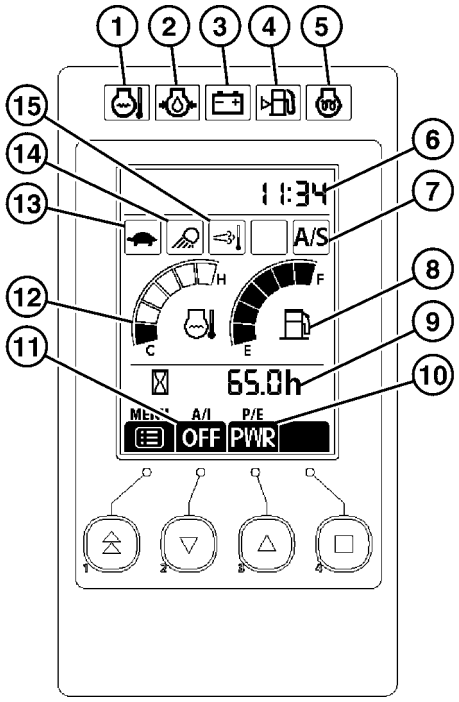
KR46761,0000812 -19-18JUL17-5/47

Operational Checks—Key Switch On, Engine Off Checks

Continued on next page

KR46761,0000812 -19-18JUL17-6/47

Monitor and Gauge Circuit Checks



TX1128400 —UN—19DEC12

Default Screen

1— Overheat Indicator
2— Engine Oil Pressure Indicator
3— Alternator Indicator
4— Fuel Level Indicator
5— Engine Preheat Indicator
6— Time Indicator
7— Auto-Shutdown Indicator
8— Fuel Gauge
9— Hour Meter
10— Power Mode Indicator
11— Auto-Idle Mode Indicator
12— Engine Coolant Temperature Gauge
13— Travel Mode Indicator
14— Work Light Indicator
15— Exhaust Filter Indicator

IMPORTANT: Avoid possible engine damage. If engine oil pressure indicator (2) comes on after engine starts. Turn off machine immediately.

NOTE: The exhaust filter auto cleaning disabled indicator will display on the monitor when the key switch is in the ON position. Once the engine is started, the indicator will disappear unless exhaust filter auto cleaning has been disabled by the operator through the monitor.

Start engine.

LOOK: Do all alarm indicators remain off after engine starts?

YES: Go to next check.

NO: Engine oil pressure indicator. Immediately stop engine and check engine oil level. See Check Engine Oil Level. (Section 3-4.)

LOOK: Does engine coolant temperature gauge (12) display correct engine coolant temperature?

NO: Alternator alarm indicator displayed. Check alternator drive belt. See Check Starter and Alternator. (Section 3-10.)

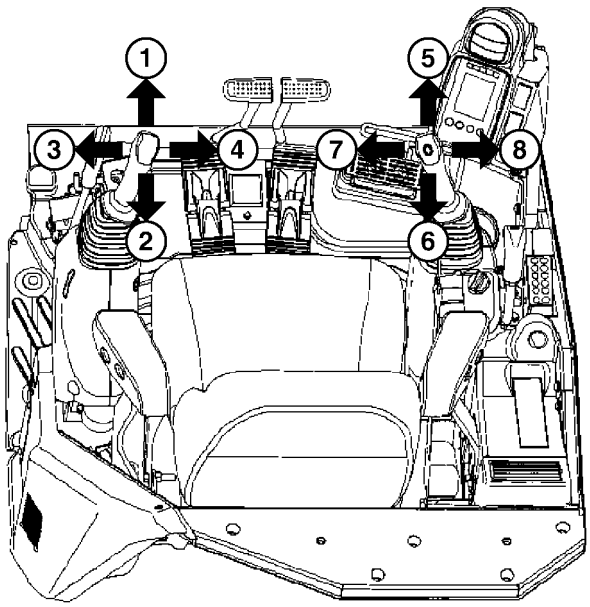
LOOK: Does fuel gauge (8) display correct fuel level?

IF OK: See your authorized dealer.

Continued on next page

KR46761,0000812 -19-18JUL17-18/47

Pilot Control Pattern Check—ISO Excavator Pattern



TX1126384 —UN—28NOV12

Excavator Control Pattern

1— Arm Out
2— Arm In
3— Swing Left
4— Swing Right
5— Boom Down
6— Boom Up
7— Bucket Load
8— Bucket Dump

CAUTION: Prevent possible injury from unexpected machine movement. Clear all persons from the area before operating machine.

Turn engine speed dial to slow idle position.

Place pilot shutoff lever in unlocked (DOWN) position.

Slowly move hydraulic levers to all positions.

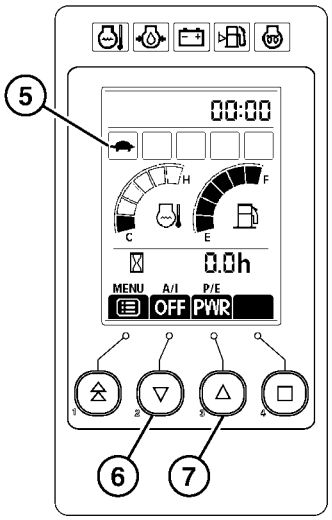
LOOK: Do bucket, boom, arm, and swing move according to pattern?

YES: Go to next check.

NO: See Control Lever Pattern Operation. (Section 2-3.)

Continued on next page

KR46761,0000812 -19-18JUL17-29/47



TX1126360 —UN—29NOV12

Monitor Panel

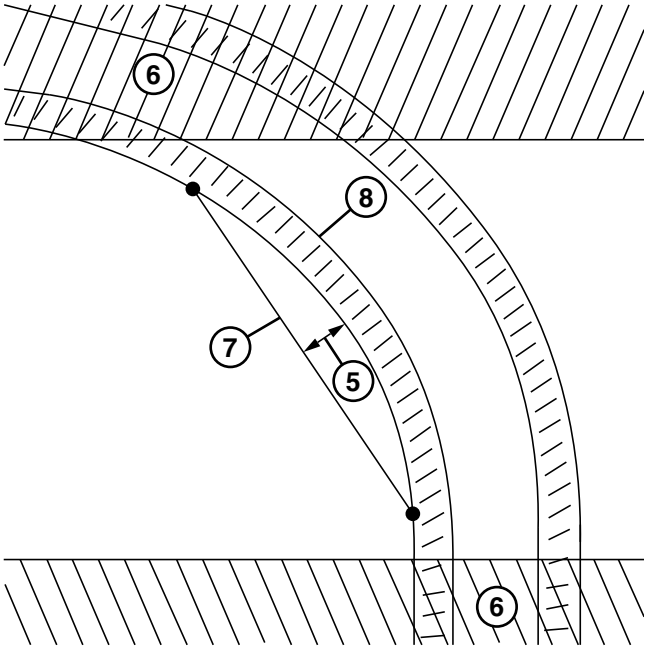
1— Work Light Switch
3— Travel Mode Switch
4— Engine Speed Dial
5— Travel Mode Indicator
6— Auto-Idle Button
7— Power Mode Button

Turn engine speed dial (4) to fast idle position.

Press auto-idle button (6) until A/I OFF is displayed on monitor.

Press travel mode switch (3) to fast speed (rabbit) mode.

Press power mode button (7) until PWR (power) is displayed on monitor.



TX1120481 —UN—17AUG12

Tracking Check

5— Distance of Mistrack
6— Acceleration and Deceleration Zone Approximately: 3—5 m (10—16 ft.)
7— Test Line Distance: 20 m (66 ft.)
8— Track Print

Continued on next page

KR46761,0000812 -19-18JUL17-39/47

Symptom	Problem	Solution
	Incorrect engine oil	Drain crankcase and refill with correct oil.
	Air filter restricted or dirty	Replace filter element.
	Starter	Repair or replace starter. See an authorized John Deere dealer.
Engine Knocks, Runs Irregularly, or Stops	Air filter restricted or dirty	Replace filter element.
	Fuel filters restricted	Replace filters. Bleed air.
	Fuel filter not installed correctly	Install new filter and O-ring. Ensure proper O-ring seal. Bleed air.
	Air in fuel system	Bleed air. See Bleed Fuel System. (Section 4-1.)
	Contaminated fuel	Drain fuel tank. Replace primary fuel filter and water separator. Bleed air. Add clean fuel.
	Low crankcase oil level	Fill crankcase to proper oil level.
	Coolant temperature low	Check for proper thermostat temperature and operation. Replace if necessary.
	Cold oil	Perform hydraulic warm-up procedure.
	Injection pump	See an authorized John Deere dealer.
	Engine speed control system	See an authorized John Deere dealer.
Excessive Fuel Consumption	Air filter restricted or dirty	Replace filter element.
	Incorrect fuel	Drain fuel tank and refill with correct fuel.
	Poor fuel quality	Drain fuel and replace with quality fuel of the proper grade.
	Leaks in fuel system	Locate source of leak and repair as required.
	Exhaust filter restricted	See an authorized John Deere dealer.

Continued on next page

Monthly Storage Procedure

NOTE: The following procedure is used monthly when the engine has not been prepared for long-term storage. See Preparing Engine for Long-Term Storage in this section.

CAUTION: Prevent possible injury or death from asphyxiation. Engine exhaust fumes can cause sickness or death. ONLY start engine in a well-ventilated area.

1. Clear area around machine to allow for movement
2. Charge and install batteries.
3. Turn battery disconnect switch to the ON position. See Battery Disconnect Switch. (Section 2-2.)
4. Remove LPS 3® Rust Inhibitor from cylinder rods with a cleaning solvent.
5. For machines with tires, check condition of tires and tire pressure. For machines with tracks, check condition of tracks and track sag. For non-sealed and lubricated track chains, apply oil to the pin-to-bushing joints.
6. Inspect engine compartment and remove any foreign material.
7. Check belts.

IMPORTANT: Prevent possible engine damage. During cold temperatures, check fluidity of engine oil on dipstick. If the oil appears waxy and/or jelly like rather than liquid, DO NOT attempt to start engine. Use external heat source to warm the crankcase until oil appears fluid.

8. Check all fluid levels. If low, check for leaks and add oil as required.
9. Check condition of all hoses and connections.

CAUTION: Prevent possible injury from unexpected machine movement. Clear the area of all persons before operating the machine.

NOTE: If the batteries are kept disconnected for more than 1 month, resetting of the monitor may be required. Contact an authorized John Deere dealer.

Start engine and run until machine reaches normal operating temperature.
- If engine does not start or runs poorly after starting, change fuel filters. Bleed fuel system.

10. Operate all controls, levers, seat adjustments, etc.
    - If equipped, operate air conditioning system for 2 minutes.
11. Run machine back and forth several times.
12. Park the machine with cylinder rods retracted, if possible. Shut off engine.
13. Place a DO NOT OPERATE tag in operator's station
14. Check condition of all hoses and connections.
15. Drain water and sediment from fuel tank.

IMPORTANT: LPS 3® Rust Inhibitor can destroy painted finish. DO NOT spray LPS 3® Rust Inhibitor on painted areas.

16. Apply LPS 3Rust Inhibitor to exposed cylinder rod areas.
17. Lock all covers and doors if equipped

TX,MONTHLY,STORE,PROC -19-01MAR21-1/1

Excavator Lift Capacity—KG (LB.)
(Canopy, Long Arm, Standard Counterweight, and Rubber Track with Blade)

Arm: 1.69 m (5 ft. 7 in.)	**Blade:** 2.00 m (6 ft. 7 in.)		**Bucket:** 115.0 kg (253.6 lb.)
Power Dig: On			
LIFTING OVER FRONT			
Load Point Height	**Horizontal Distance from Centerline of Rotation**		
m (ft.)	**1.52 (5)**	**3.05 (10)**	**4.57 (15)**
3.05 (10)			1034* (2280*)
1.52 (5)		1909* (4209*)	1218* (2686*)
Ground Line		2475* (5456*)	1388* (3060*)
-1.52 (-5)	2531* (5579*)	2199* (4848*)	
LIFTING OVER SIDE			
Load Point Height	**Horizontal Distance from Centerline of Rotation**		
m (ft.)	**1.52 (5)**	**3.05 (10)**	**4.57 (15)**
3.05 (10)			683 (1505)
1.52 (5)		1180 (2601)	650 (1434)
Ground Line		1087 (2396)	618 (1363)
-1.52 (-5)	2531* (5579*)	1087 (2396)	

Lift Capacities (canopy, long arm, standard counterweight, and rubber track with blade)

* Hydraulically Limited Capacities

KR46761,0000712 -19-24MAR23-1/1

Excavator Lift Capacity—KG (LB.) (Cab, Standard Arm, Extra Counterweight, and Rubber Track with Blade)

Arm: 1.38 m (4 ft. 6 in.)	**Blade:** 2.00 m (6 ft. 7 in.)		**Bucket:** 115.0 kg (253.6 lb.)
Power Dig: On			
LIFTING OVER FRONT			
Load Point Height	**Horizontal Distance from Centerline of Rotation**		
m (ft.)	**1.52 (5)**	**3.05 (10)**	**4.57 (15)**
3.05 (10)		1247* (2749*)	1166* (2570*)
1.52 (5)		2130* (4696*)	1304* (2875*)
Ground Line		2509* (5531*)	1415* (3120*)
-1.52 (-5)	3112* (6860*)	2062* (4545*)	
LIFTING OVER SIDE			
Load Point Height	**Horizontal Distance from Centerline of Rotation**		
m (ft.)	**1.52 (5)**	**3.05 (10)**	**4.57 (15)**
3.05 (10)		1247* (2749*)	781 (1722)
1.52 (5)		1339 (2951)	700 (1668)
Ground Line		1271 (2803)	665 (1613)
-1.52 (-5)	3112* (6860*)	1284 (2831)	

Lift Capacities (cab, standard arm, extra counterweight, and rubber track with blade)

* Hydraulically Limited Capacities

KR46761,000079C -19-24MAR23-1/1