CEAM029203

Operation & Maintenance Manual

XT430-3
XT430L-3
XT445L-3
XT460L-3

CRAWLER FELLER BUNCHER/HARVESTER

SERIAL NUMBERS XT430-3 A1101 and up
XT430L-3 A2101 and up
XT445L-3 A3101 and up
XT460L-3 A5101 and up

ENGINE QSC 8.3 TIER 3

October 2016

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Reverse Travel

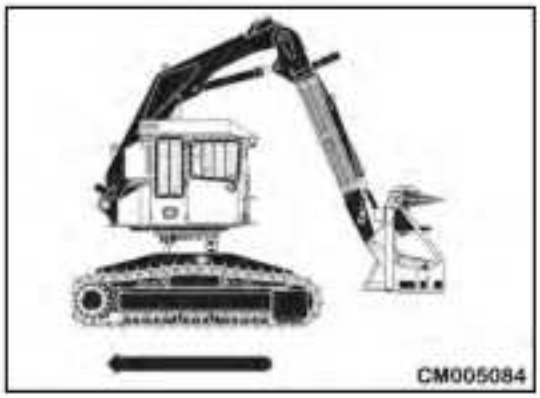
To travel in reverse, push down on the bottom of both travel pedals with your heels (1). The farther the pedals are pressed downwards, the faster the machine will travel.

To stop traveling, release the pedals and they will return to the neutral position stopping machine movement.



The drive sprockets on the track drives must be to the rear of the cab, or the foot pedal controls will operate backwards. If you rotate the upper frame 180°, the drive sprockets will be located in front of the cab. Then pushing down with your heels on the foot pedal controls will cause the machine to travel in the direction you are looking and pushing down with your toes will cause the machine to travel in the opposite direction.

Check that the travel alarm sounds properly.



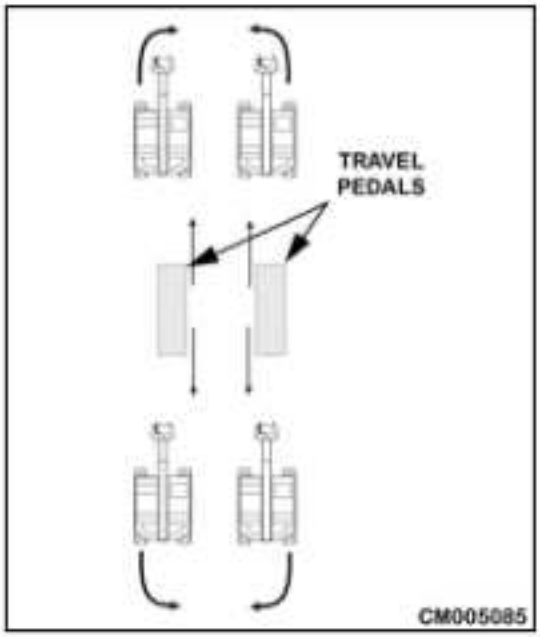
Turning During Travel

To make a turn during travel, press further downwards with your toes on one of the travel pedals.

- To turn to the left, press the right pedal further downwards than the left pedal.
- To turn to the right, press the left pedal further downwards than the right pedal.

Remark

The farther the pedals are pressed, the faster the machine will turn.



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General Hydraulic Oil Specification

For optimum efficiency and hydraulics component life, Komatsu Forest recommends that a high quality, wide temperature range, shear stable hydraulic oil be utilized which incorporates the following additive agents and viscosity limits.

★ The hydraulic oil is the life blood of the hydraulic system and should never be compromised.

1. Operating hydraulic oil viscosity (at normal operating temperature) be selected in the range of 81 to 167 SUS (17 to 35 cSt).
2. Anti-wear Agents: Zinc dithiophosphate at a minimum level of 800 ppm to provide lubricity (or equivalent).
3. Defoamers or Release Agents: Prevents the formation of air bubbles within the hydraulic oil.
4. Anti-Oxidant Agents: Prevents the formation of corrosive acids and sludge.
5. Rust & Corrosion Inhibitors: Protects metallic components from water and acids.
6. Detergents & Dispersants: Keeps system components free of deposits.

Reference the oil manufacturers specification data sheet for the above hydraulic oil technical requirements.

Minimum Technical Hydraulic Oil Requirements

Any hydraulic oil utilized in Komatsu Forest produced equipment should meet the following minimum technical requirements:

Specification Minimum Requirement

FZG Rating, Din 5153410+

Vickers 35VQ Vane Pump Test <90 mg

Vickers M-2950-S

Foam Test, ASTM D89220/0I, II, III/mℓ

Emulsion Test, ASTM 1401 10 max
(minutes to 37 mℓ. Water @ 55°C [130°F])

Cincinnati Milacron Thermal Pass
Stability (135°C [275°F], 168 hours)

Rust Test, ASTM D-665 Pass
Procedures A & B

Sonic Shear Stability, 5 max
ASTM D5621 (100C / 40 minutes) (% viscosity loss)

Water In Suspension <.1% (% by Volume)

Oil Cleanliness ISO Standard 17/14 min (16/12 prefer)

Viscosity Index, Min:
ISO 32 Rating 169
ISO 46 Rating 145
ISO 68 Rating 135

Pour Point, Max:
ISO 32 Rating -42.77°C (-45°F)
ISO 46 Rating -37.22°C (-35°F)
ISO 68 Rating -34.44°C (-30°F)

Track Final Drive Oil Information

Shell Donax TC 50

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50 Hour Interval Maintenance Procedures

⚠ WARNING

Perform all Daily Maintenance and 10 Hour Interval procedures before beginning the 50 Hour Interval Maintenance procedures.

Hydraulic Door Safety Interlock

⚠ WARNING

- **DO NOT bypass, remove, or tamper with the door safety interrupt system.**
- **Serious personal injury or death could occur while operating the machine with the cab door open or with a faulty door safety interrupt system.**

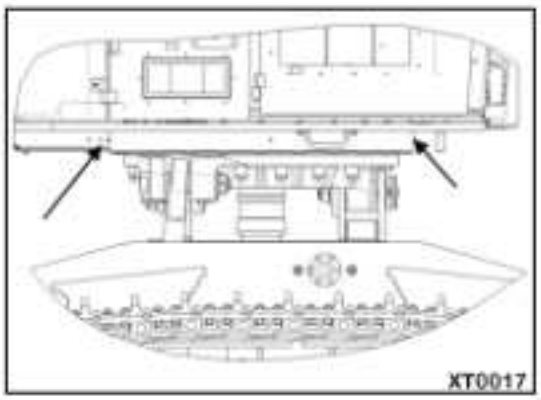
A normally open electrical switch is located at the base of the cab door. This switch is part of the door safety interrupt system used to monitor the cab door. The IQAN control system will only allow operation of the machine when the cab door is closed.

Test the door safety interrupt system using the following procedures:

1. Sit in the operator seat and fasten the seat belt.
2. Make sure the cab door is fully open.
3. Start the machine and try arming the IQAN control system. The "System Armed" light should not illuminate.
4. If the "System Armed" light illuminates with the cab door open, STOP. Have the door safety interrupt system repaired before operating the machine.
5. Slowly operate one of the hand controls. The controls should not respond with the cab door open.
6. If the controls respond with the cab door open, STOP. Have the door safety interrupt system repaired before operating the machine.
7. Close the cab door, but do not arm the IQAN control system. The "System Armed" light should not be illuminated.
8. If the "System Armed" light illuminates by only closing the cab door, STOP. Have the door safety interrupt system repaired before operating the machine.

Lubricate Swing Circle

1. Lower the work equipment to the ground.
2. Using a grease pump, pump in grease through the grease fittings shown by arrows. (2 Places)
3. After greasing, wipe off any old grease that was pushed out.



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Fire Extinguisher

The fire extinguisher is located inside the cab to the right of the operator's seat.



⚠ WARNING

- **Inspect the charge gauge on a routine basis to make sure the extinguisher is fully functional.**
- **If the gauge indicator is not in the Green zone, have the extinguisher inspected and recharged.**

Ansul™ Fire Suppression System (Optional)

The CHECKFIRE 110 Detection and Actuation System is used to detect fire and actuate the ANSUL™ fire suppression on a 24-hour basis. When a fire is detected, a dry chemical extinguishing agent (powder) is distributed through a hose, and discharged through nozzles into areas of the machine to suppress the fire (1).



For older machine models, the CHECKFIRE SC-N system is used for fire detection and actuation.

Remark

Refer to the Ansul Vehicle Fire Protection Owner's Manual for information on the fire suppression/detection systems.

CHECKFIRE 110 Detection and Actuation System

Automatic Detection and Actuation

The detection and actuation system signals the control panel when a fire is detected.

The automatic detection activates a release circuit when a fire is detected, which initiates the fire suppression operation. The release circuit initiates the time delay to shut down functions and activate auxiliary vehicle components as provided by the design of the system.



- When a fire is detected, the red LED for "PUSH To Activate / Alarm When Lit" (2) begins flashing. The alarm also begins beeping.
- Press the Delay button which delays actuation of fire suppression for a few seconds to prepare for evacuation.
  The Time Delay alarm uses the following pattern as soon as the system is initiated:

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Mounting and Dismounting Precautions

Handrails and Steps

To prevent personal injury caused by slipping or falling off the machine, do as follows.

1. Use tread plates and handles provided with at least three points of support (two hands and one foot or two feet and one hand) when mounting and dismounting the machine. Do not climb, mount or dismount machine in any other fashion.


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2. The cab step is movable, so do not grab hold of it as a handrail.

3. Always face the machine and maintain three-point contact (both feet and one hand, or both hands and one foot) with the handrails and steps including the track shoe to ensure that you support yourself.

4. NEVER attempt to mount or dismount a moving machine.

5. NEVER jump from the machine.


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6. .Do not use the controls or operator's seat armrest as a hand hold when mounting or dismounting the machine.

⚠ WARNING

Make sure the folding step is lifted up into cab when the door is closed.
Not lifting the step into the cab may damage the folding step.


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