OPERATOR'S MANUAL

L213 L220
L216 L221
L218 L228
Tier 4B (final)
200 Series Skid Steer Loader

C227
C232
Tier 4B (final)
200 Series Compact Track Loader

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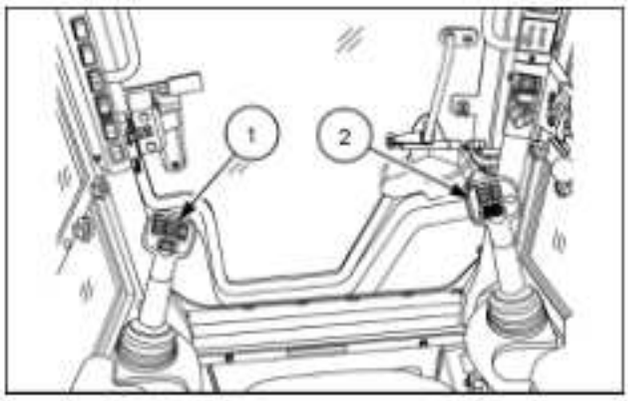
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Moving the machine

Push both the left-hand control lever **(1)** and the right-hand control lever **(2)** forward from neutral, to move the machine forward. Pull both of the control levers rearward from neutral, to move the machine in reverse. Move the control levers forward a short distance for maximum power and slow speed. Move the control levers completely forward for maximum speed.

Move both control levers to NEUTRAL to stop movement of the machine.



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EVERY 500 HOURS

Engine oil and filter

Change engine oil and filter at **500 h** intervals.

Engine oil specification – **NEW HOLLAND AMBRA UNITEK MASTERGOLD SBL CJ-4**

Remote engine oil drain

NOTE: *For a more complete removal of foreign material, change the engine oil when the engine is still warm, but not hot from operation.*

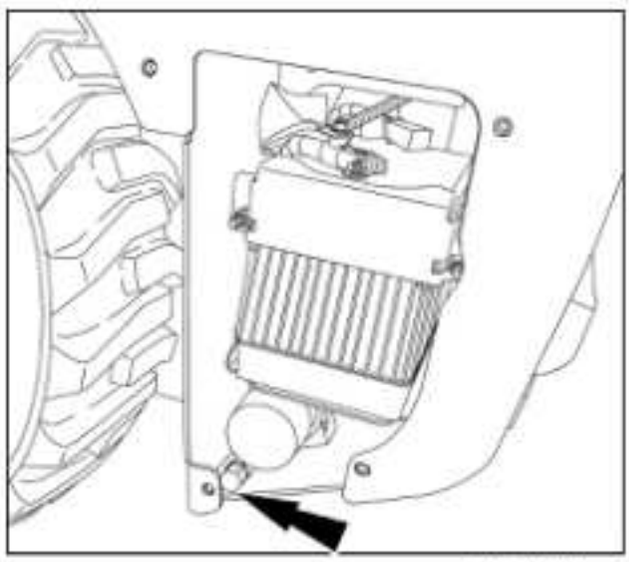
1. Place the machine on firm, level ground, with brakes on and in transport position.
2. Remove the access cover at the rear lower left of the machine exposing the engine oil drain hose and remote filter for draining engine oil.
3. If applicable, use compressed air to clean the engine oil filter assembly and drain hose.

NOTE: *If compressed air is not available, use a clean rag or cloth to wipe the area clean to reduce the potential of dirt contamination into the engine.*

4. Remove the cap from the engine oil drain hose.
5. Turn the old engine oil filter counter-clockwise to remove.
6. Dispose of the filter properly.
7. Use a clean cloth and wipe sealing surface of the old filter base to remove all dirt.
8. Apply a thin layer of clean grease or oil to the gasket of the new filter and put new oil into the new filter.
9. Turn the new oil filter clockwise onto the base until the gasket makes contact with the base.
   - L221, L228, C227, and C232 (F5 engines only) – Continue to tighten the filter one full turn or apply a torque of **35 N·m** (**26 lb ft**) to the engine oil filter.

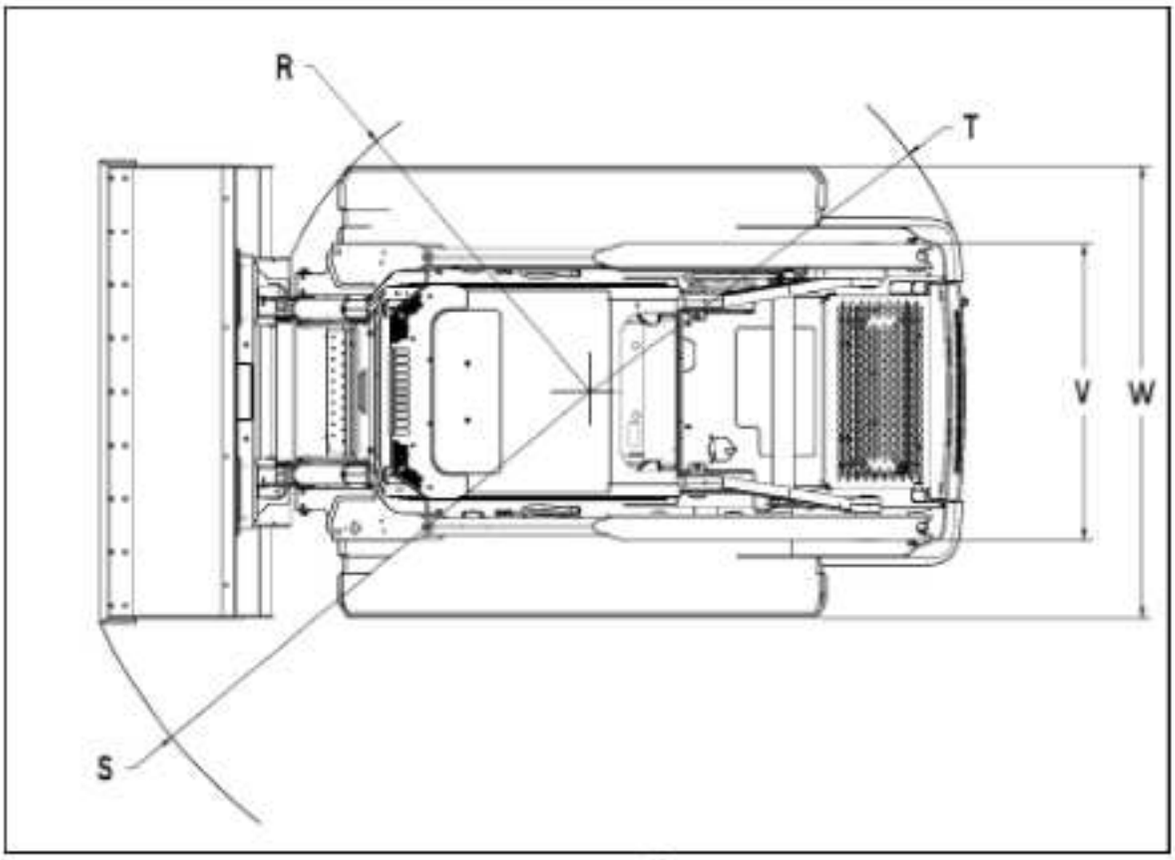
     NOTICE: *For models L213, L216, L218, and L220 (ISM engines only), DO NOT use a filter strap wrench to install the oil filter. An oil filter strap wrench can cause a leak if the filter is dented or overstressed.*

   - L213, L216, L218, and L220 (ISM engines only) – Continue to hand tighten the filter 1/2 or 3/4 of a turn.
10. Install the drain plug once all old oil has finished draining. Tighten to a torque of **68 - 82 N·m** (**50 - 60 lb ft**).



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MEDIUM RADIAL FRAME UNITS (C227)

ITEM	COMPONENT	MEASUREMENT
R	Clearance circle radius without tool	**1410.0 mm (55.5 in)**
S	Clearance circle radius with **1828.8 mm (72.0 in)** DF bucket	**2132.0 mm (83.9 in)**
S	Clearance circle radius with **1828.8 mm (72.0 in)** HD bucket	**2226.0 mm (87.6 in)**
S	Clearance circle radius with **1828.8 mm (72.0 in)** LPE bucket	**2344.0 mm (92.3 in)**
T	Clearance circle radius rear	**1501.0 mm (59.1 in)**
V	Over the track width	**1356.0 mm (53.4 in)**
W	Overall width	**1676.0 mm (66.0 in)**
Operating weight		**3750 kg (8267 lb)**
SAE Rated Operating Capacity (ROC)		
	35% of tipping load	**860 kg (1896 lb)**
	50% of tipping load	**1225 kg (2701 lb)**
Tipping load		**2450 kg (5401 lb)**
Counter weight (optional)		**63.8 kg (140.7 lb)**
Cab side glass (optional)		**21.3 kg (47.0 lb)**
Cab glass door (optional)		**34.0 kg (75.0 lb)**
Cab Lexan door (optional)		**34.0 kg (75.0 lb)**
Suspension seat (optional)		**10.0 kg (22.0 lb)**

NOTE: *All measurements are based on machines with a* ***1828.8 mm (72.0 in)*** *Dirt & Foundry (DF) bucket.*

NOTE: *Clearance Circle Radius (R, S, T) values were calculated using a 50/50 weight distribution (center point of counter rotation centered between the axles) and with the bucket resting flat on ground.*

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Machine safety sign information

⚠ WARNING

Avoid injury!
Make sure safety signs are legible. Clean safety signs regularly. Replace all damaged, missing, painted over, or illegible safety signs. See your dealer for replacement safety signs. If a safety sign is on a part that is replaced, make sure the new part has a safety sign.
Failure to comply could result in death or serious injury.

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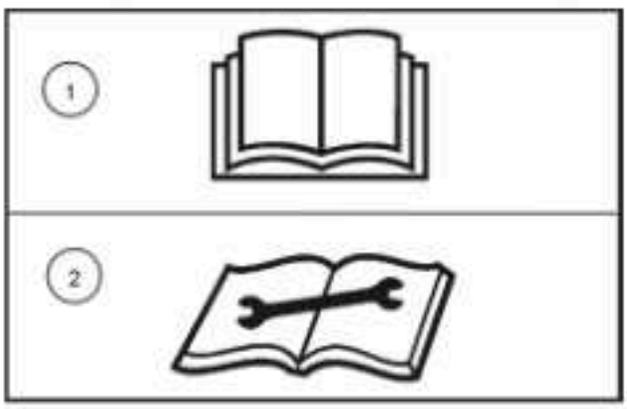
The following safety signs are placed on your machine as a guide for your safety and for those working with you. Walk around the machine and note the content and location of these safety signs before operating your machine.

Keep safety signs clean and legible. Clean safety signs with a soft cloth, water, and a gentle detergent. Do not use solvent, gasoline, or other harsh chemicals. Solvents, gasoline, and other harsh chemicals may damage or remove safety signs.

Replace all safety signs that are damaged, missing, painted over, or illegible. If a safety sign is on a part that is replaced, make sure the safety sign is installed on the new part. See your dealer for replacement safety signs.

Read operator's manual symbol (1)

Safety signs that display the "Read Operator's Manual" symbol **(1)** are intended to direct the operator to the operator's manual for further information regarding maintenance, adjustments, or procedures for particular areas of the machine. When a safety sign displays this symbol, refer to the appropriate page of the operator's manual.



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Read service manual symbol (2)

When a decal displays the "read service manual" symbol **(2)**, refer to the service manual for specific information such as service, operation, maintenance, or adjustment. See an authorized dealer for a service manual.

One or both of these symbols may appear on a decal relating to safety, machine operation or service. To the right is a sample safety sign that directs the machine operator or service technician to the operator's manual **(1)** for additional information concerning this procedure.



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ISO two-panel pictorial symbol safety signs.
The first panel indicates the nature of the hazard. The second panel indicates the appropriate avoidance of the hazard. The background color is YELLOW. Prohibition symbols such as STOP, if used are RED.



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