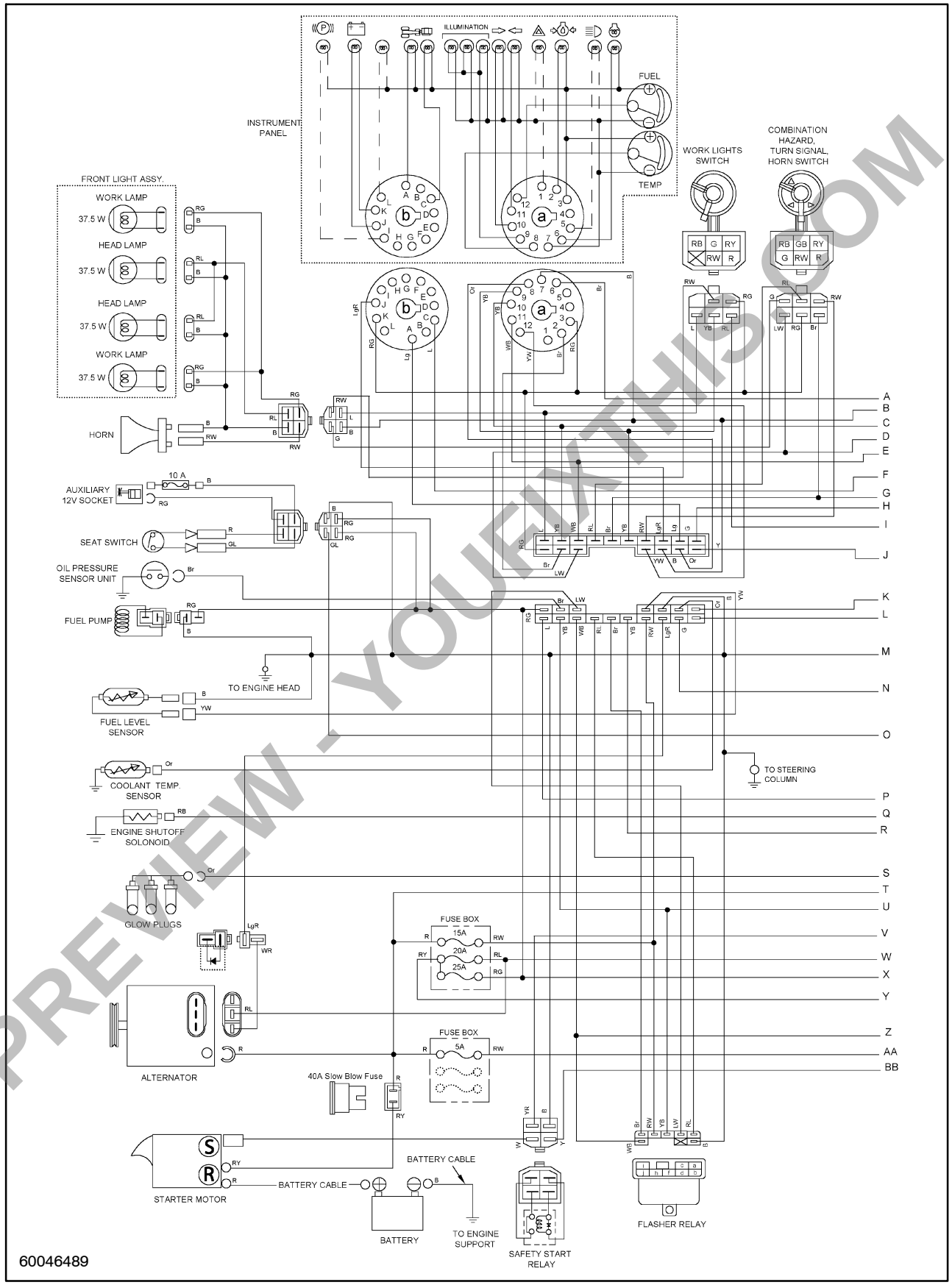
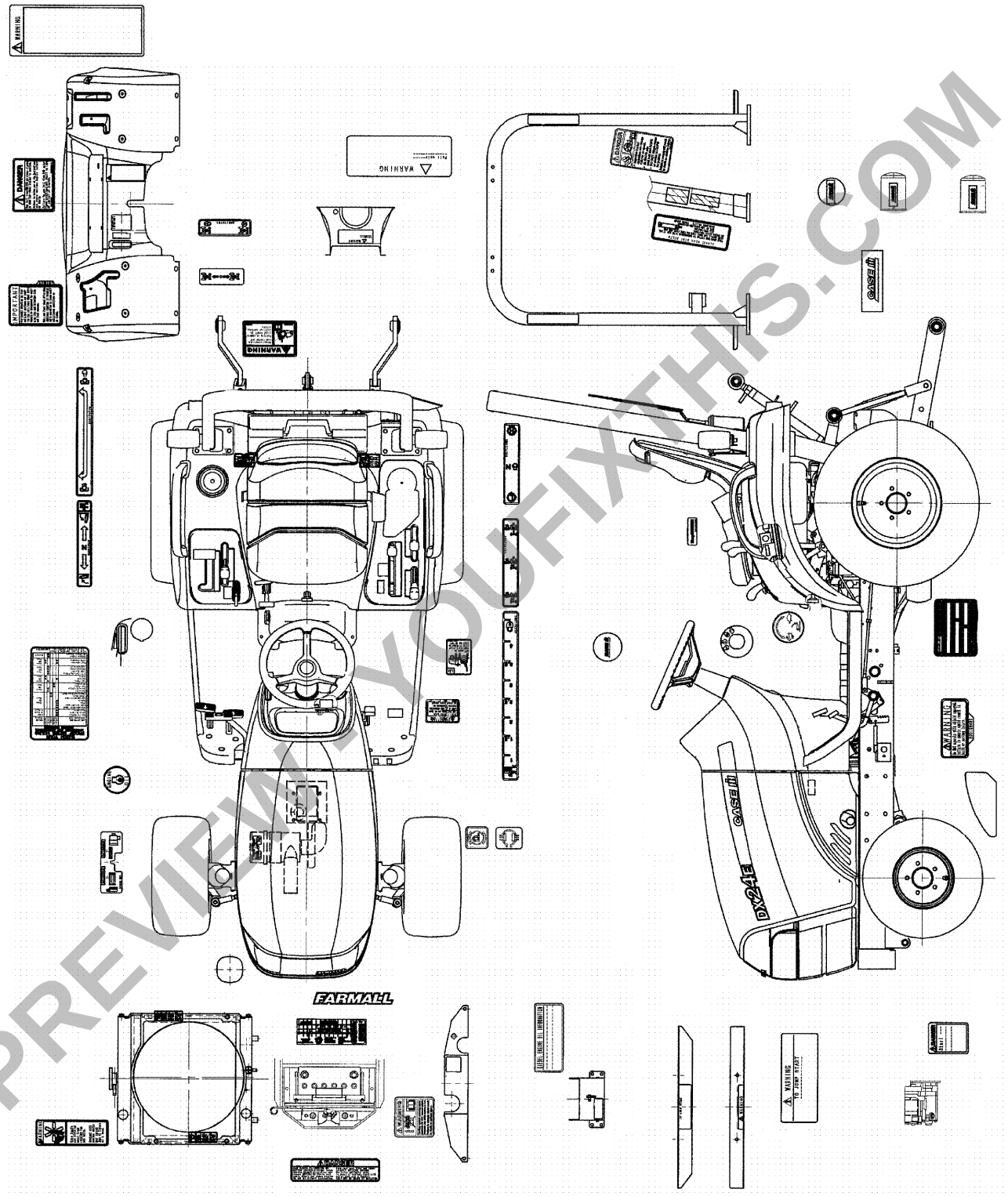
ELECTRICAL WIRING DIAGRAM



PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



50040606

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

MINIMUM HARDWARE TIGHTENING TORQUES

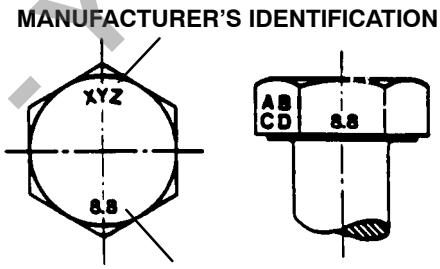
IN NEWTON-METERS (FOOT POUNDS) FOR NORMAL ASSEMBLY APPLICATIONS

METRIC NON-FLANGED HARDWARE AND LOCKNUTS

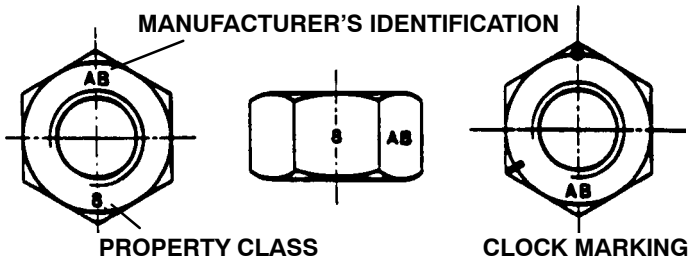
NOMINAL SIZE	CLASS 5.8		CLASS 8.8		CLASS 10.9		LOCKNUT CL.8 W/CL8.8 BOLT
	UNPLATED	PLATED W/ZnCr	UNPLATED	PLATED W/ZnCr	UNPLATED	PLATED W/ZnCr	
M4	1.7 (15)*	2.2 (19)*	2.6 (23)*	3.4 (30)*	3.7 (33)*	4.8 (42)*	2.3 (20)*
M6	5.8 (51)*	7.6 (67)*	8.9 (79)*	12 (102)*	13 (115)*	17 (150)*	7.8 (69)*
M8	14 (124)*	18 (159)*	22 (195)*	28 (248)*	31 (274)*	40 (354)*	19 (169)*
M10	28 (21)	36 (27)	43 (32)	56 (41)	61 (45)	79 (58)	38 (28)
M12	49 (36)	63 (46)	75 (55)	97 (72)	107 (79)	138 (102)	66 (49)
M16	121 (89)	158 (117)	186 (137)	240 (177)	266 (196)	344 (254)	164 (121)
M20	237 (175)	307 (226)	375 (277)	485 (358)	519 (383)	671 (495)	330 (243)
M24	411 (303)	531 (392)	648 (478)	839 (619)	897 (662)	1160 (855)	572 (422)

NOTE: Torque values shown with * are inch pounds.

IDENTIFICATION
HEX CAP SCREW AND CARRIAGE BOLTS
CLASSES 5.6 AND UP



HEX NUTS AND LOCKNUTS
CLASSES 05 AND UP



86529681 REV F 5.1

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

TROUBLESHOOTING

The following troubleshooting guide is for the mower and its drive. This assumes the tractor engine is running to prescribed specifications and the tractor hydraulics are working properly. Consult the applicable Tractor Repair Manual for all tractor system checks.

Before attempting any repair or test, observe the general condition of the tractor and mower. Make certain the tractor is operating properly and the mower is setup correctly. The following charts may give you some hints in solving a problem with the mower. If the problem cannot be easily solved, contact your Case IH Service Repair Dealer.

SYMPTOM	PROBLEM	CORRECTION
Excessive Vibration	Loose gearbox bolts.	Re-torque or replace as necessary.
	Loose spindle/blade fasteners.	Re-torque or replace as necessary.
	Damaged gearbox.	Rebuild gearbox as necessary.
	Worn or damaged driveline U-joints.	Rebuild driveline as necessary.
	Blade interference with grass buildup.	Clean the underside of the deck.
	Blades unbalanced.	Balance blades.
	Blade broken.	Replace mowing blades in sets.
Gearbox Overheating	Low on lubricant.	Fill to oil level plug.
	Debris buildup on top of deck around gearbox.	Clean deck top and remove debris.
Gearbox Noisy	Worn or rough bearings.	Replace bearings.
	Worn or rough gears.	Run-in gears, or rebuild gearbox.
Gearbox Leaking	Damaged oil seal.	Replace oil seal.
	Damaged shaft in seal area.	Replace shaft and oil seal.
	Oil seal installed wrong, or upside down.	Replace oil seal.
	Oil level too high in housing.	Drain oil to correct level.
	Cracked or broken housings.	Replace housings or gearbox assembly.
	Gasket damaged.	Replace liquid gasket.
	Bolts loose.	Re-torque bolts.
Blades Wear Too Fast	Cutting in sandy conditions.	Increase deck cutting height.
	Cutting in rocky conditions.	Increase deck cutting height.
	Heat treat removed by sharpening with grinder.	Replace blades in sets.
Not Cutting Clean	Blades dull.	Sharpen or replace blades.
	Blades installed upside down.	Install blades correctly.
	Blade RPM too low.	Use full throttle position.
	Mower not level.	See cutting height adjustments, Tires under inflated.
	Tractor tires mashing grass.	Too wet or lush to cut. Reverse direction of cut and re-mow the area.
	Ground speed too fast.	Reduce ground speed.
	Excessive grass buildup under mower deck.	Clean underside of deck.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

SECTION 5
SPECIFICATIONS

	Model DX18E Hydrostatic	Model DX22E Hydrostatic	Model DX25E Hydrostatic
ENGINE			
Type	S753 Diesel	S753 Diesel	S773 Diesel
Engine Gross Horsepower	18.0	22.0	25.0
Cylinders	3	3	3
Bore	75 mm (2.95 in)	75 mm (2.95 in)	77 mm (3.03 in)
Stroke	72 mm (2.83 in)	72 mm (2.83 in)	72 mm (2.83 in)
Displacement	0.954 L (58.2 cu. in.)	0.954 L (58.2 cu. in.)	1.005 L (61.3 cu. in.)
Compression Ratio	24:1	24:1	24.5:1
Firing Order	1 – 2 – 3	1 – 2 – 3	1 – 2 – 3
Low Idle Speed	1380 ± 50 RPM	1380 ± 50 RPM	1380 ± 50 RPM
Maximum Speed			
High Idle	3200 ± 25 RPM	3200 ± 25 RPM	3300 ± 25 RPM
Rated	3000 ± 50 RPM	3000 ± 50 RPM	3100 ± 50 RPM
Valve Clearance (Cold):			
Intake	0.20 mm (0.008 in)	0.20 mm (0.008 in)	0.20 mm (0.008 in)
Exhaust	0.20 mm (0.008 in)	0.20 mm (0.008 in)	0.20 mm (0.008 in)
CAPACITIES			
Fuel Tank	29.5 liters/ 7.8 U.S. gals.	29.5 liters/ 7.8 U.S. gals.	29.5 liters/ 7.8 U.S. gals.
Cooling System	3.5 liters/ 3.7 U.S. qts.	3.5 liters/ 3.7 U.S. qts.	3.5 liters/ 3.7 U.S. qts.
Engine Crankcase			
With Filter	3.3 liters/ 3.5 U.S. qts.	3.3 liters/ 3.5 U.S. qts.	3.3 liters/ 3.5 U.S. qts.
Rear Axle & Transmission	13 liters/ 13.8 U.S. qts.	13 liters/ 13.8 U.S. qts.	13 liters/ 13.8 U.S. qts.
Power Steering	Using Transmission Oil (Common Use)	Using Transmission Oil (Common Use)	Using Transmission Oil (Common Use)
Front Axle Differential/ Final Reduction Gear Case	2.0 liters/ 2.12 U.S. qts.	2.0 liters/ 2.12 U.S. qts.	2.0 liters/ 2.12 U.S. qts.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

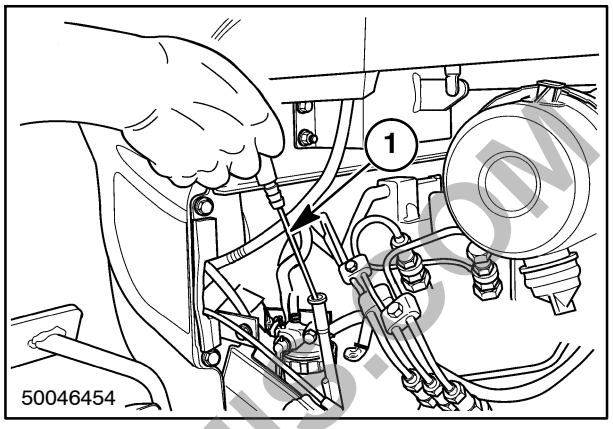
FUEL AND LUBRICANT SERVICE PROCEDURES

ENGINE

Checking the Engine Oil Level

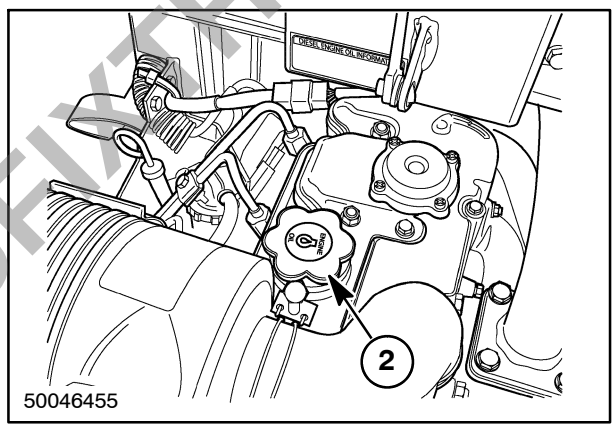
NOTE: *Check the engine oil level daily, or after every 10 hours of operation.*

1. After the engine has been stopped for a period of time, and with the tractor standing level, check the oil level using the dipstick, 1.



3

2. If the oil level is low, remove the filler cap, 2, and add oil through the filler hole. Add enough oil so that the level registers between the two marks on the dipstick. Do not overfill.



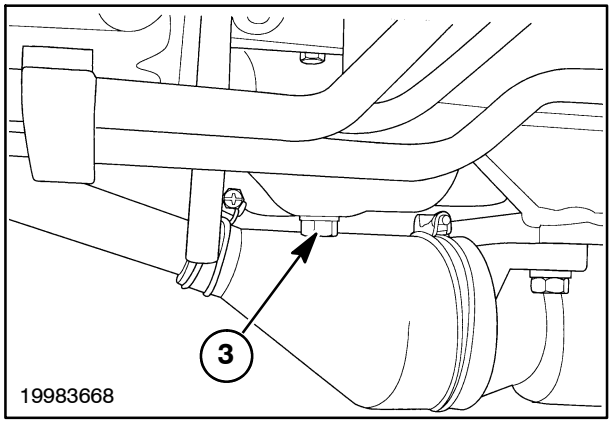
4

Changing the Engine Oil

NOTE: *Change the engine oil and filter after the first 50 hours of operation, then every 100 hours thereafter. If the tractor is operated for extended periods of time at maximum rated power and speed, or under other types of continuous, severe operating conditions, the engine oil and filter should be changed at 70-hour intervals following the initial oil change.*

To change the engine oil:

1. Place a suitable container beneath the drain opening to catch the used oil. With the tractor engine off but at normal operating temperature, remove the drain plug, 3. Reinstall the plug after all of the oil has been drained.



5

⚠ CAUTION ⚠

Engine oil could be hot, use caution during draining.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

SECTION 2
OPERATION

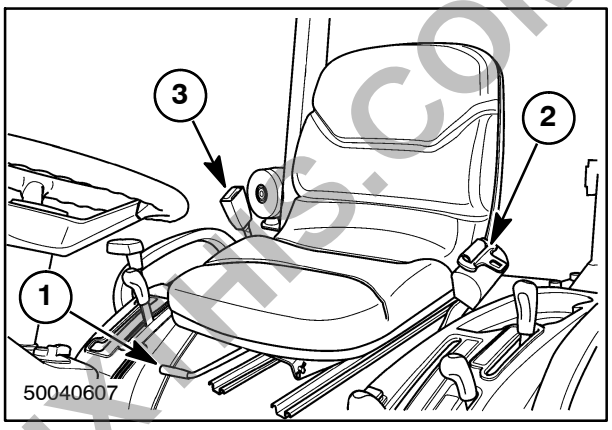
CONTROLS AND INSTRUMENTS

SEAT, SEAT BELT, AND ROLLOVER PROTECTIVE STRUCTURE (ROPS)

Adjusting the Tractor Seat

Your Case IH tractor is equipped with an adjustable-position seat.

To adjust the seat fore-and-aft, raise the release lever, 1, slide the seat along its mounting rails to the desired position, and release the lever. Because the seat is on an inclined base, more effort is required to move the seat rearward than forward.



1

NOTE: *Care of vinyl, plastic, and rubber parts to MAXIMIZE lift:*

For cleaning of vinyl, plastic, and rubber parts, use “ONLY” a mild car washing soap and water, as described below:

“First remove any loose dirt by rinsing with clean water. Mix a warm, mild liquid CAR WASHING soap solution (1 part soap and 99 parts water). Then using a sponge or soft cloth, apply the soap solution to the part. Allow the solution to soak for a few minutes to loosen the dirt. Finally, rinse the part with clean water to remove the dirt, and any solution residue. If all the dirt does not come off, repeat the procedure.”

Adjusting the Seat Belt

The male end of the seat belt, 2, is part of a retraction mechanism, located on the left side of the seat. To extend the length of the seat belt, pull out on the male end until the correct length is obtained. To latch the belt, insert the male end, 2, into the belt latch, 3, located on the right side of the seat. Ensure that the belt is securely latched during use, and that the belt length is correctly adjusted for the size of each operator.

Use soap and water to clean the seat belt if necessary. Do not use carbon tetrachloride, naphtha, etc., as these substances will weaken the webbing. Additionally, do not bleach or redye the webbing, as these products will also weaken the webbing.

Replace the seat belt if it becomes damaged or worn.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

SAFETY

⚠ PRECAUTIONARY STATEMENTS ⚠

A careful operator is the best operator. Most accidents can be avoided by observing certain precautions. To help prevent accidents, read the following precautions before operating this equipment. Equipment should be operated only by those who are responsible and instructed to do so.

Carefully review the procedures given in this manual with all operators. It is important that all operators be familiar with and follow safety precautions.

THE TRACTOR

1. **Read the Operator's Manual carefully before using the tractor. Lack of operating knowledge can lead to accidents.**
2. **Use an approved roll bar and seat belt for safe operation. Overturning a tractor without a roll bar can result in death or injury. If your tractor is not equipped with a roll bar and seat belt, see your Case IH Dealer.**
3. **Always use the seat belt. The only instance when the seat belt should not be used is if the roll bar has been removed from the tractor.**
4. **If a front end loader is to be installed, always use a FOPS (Falling Object Protective Structure) canopy to avoid injury from falling objects.**
5. **Use the handholds and step plates when getting on and off the tractor to prevent falls. Keep steps and platform cleared of mud and debris.**
6. **Do not permit anyone but the operator to ride on the tractor. There is no safe place for extra riders.**
7. **Keep all safety decals clean of dirt and grime, and replace all missing, illegible, or damaged safety decals. See the list of decals in the Decal section of this manual.**

SERVICING THE TRACTOR

1. **The cooling system operates under pressure which is controlled by the radiator cap. It is dangerous to remove the cap while the system is hot. Always turn the cap slowly to the first stop and allow pressure to escape before removing the cap entirely.**
2. **Keep any type of open flame away from the tractor and do not smoke while refueling. Wait for the engine to cool before refueling.**
3. **Keep the tractor and equipment, particularly brakes and steering, maintained in a reliable and satisfactory condition to ensure your safety and comply with legal requirements.**
4. **Keep open flame or cold weather starting aids away from the battery to prevent fires or explosions. Use jumper cables according to instructions to prevent sparks which could cause explosion.**
5. **Stop the engine before performing any service on the tractor.**
6. **Escaping hydraulic/diesel fluid under pressure can penetrate the skin causing serious injury. If fluid is injected into the skin, obtain medical attention immediately or gangrene may result.**
   - **DO NOT use your hand to check for leaks. Use a piece of cardboard or paper to search for leaks.**
   - **Stop the engine and relieve pressure before connecting or disconnecting lines.**
   - **Tighten all connections before starting the engine or pressurizing lines.**
7. **Do not modify or permit anyone else to modify or alter this tractor or any of its components or functions without first consulting a Case IH Dealer.**
8. **The fuel oil in the injection system is under high pressure and can penetrate the skin. Unqualified persons should not remove or attempt to adjust a pump, injector, nozzle, or any other part of the fuel injection system. Failure to follow these instructions can result in serious injury.**
9. **Continuous long-term contact with used engine oil may cause skin cancer. Avoid prolonged contact with used engine oil. Wash skin promptly with soap and water.**

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PRECAUTIONARY STATEMENTS

PERSONAL SAFETY

Throughout this manual and on machine decals, you will find precautionary statements ("**DANGER**", "**WARNING**", and "**CAUTION**") followed by specific instructions. These precautions are intended for the personal safety of you and those working with you. Please take the time to read them.

⚠ DANGER ⚠

This word "DANGER" indicates an immediate hazardous situation that, if not avoided, will result in death or serious injury. The color associated with Danger is RED.

⚠ WARNING ⚠

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

⚠ CAUTION ⚠

This word "CAUTION" indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices. The color associated with Caution is YELLOW.

FAILURE TO FOLLOW THE "DANGER", "WARNING", AND "CAUTION" INSTRUCTIONS MAY RESULT IN SERIOUS BODILY INJURY OR DEATH.

MACHINE SAFETY

The precautionary statement ("**IMPORTANT**") is followed by specific instructions. This statement is intended for machine safety.

IMPORTANT: *The word "IMPORTANT" is used to inform the reader of something he needs to know to prevent minor machine damage if a certain procedure is not followed.*

INFORMATION

NOTE: *Instructions used to identify and present supplementary information.*

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

INDEX

Air Cleaner 3-11
Alternator 3-24
Automatic FWD System (optional) 2-12
Auxiliary Electrical Power Socket 2-20
Battery 3-23
Belt Replacement 4-29
Brake Adjustment 3-31
Brake Controls 2-10
Break-In Procedures 2-7
California Emission Control
Warranty Statement 0-4
Care of Safety Decals 4-6
Cast Iron Weights (optional) 2-28
Controls and Instruments 2-1
Cooling System 3-17
Cutting Height Adjustment 4-23
Decal Locations 4-6
Diesel Fuel 3-4
Differential Control 2-14
Dismounting the Mower Deck
from the Tractor 4-14
Drink Holder 2-19
Driving the Tractor 2-25
Drop Rate Valve 2-22
Ecology and the Environment 0-19
Electrical Wiring Diagram 3-36, 3-37
Engine 3-6
Federal Emissions Warranty 0-3
Fixed/Clevis Drawbar 2-17
Flasher Warning Lights 3-26
Front Axle Differential/Final Reduction
Gear Case 3-32
Front Axle Pivot/Standard FWD Axle 3-33
Front-Wheel Drive 2-11, 3-32
Front Wheel Toe-In 3-30
Fuel and Lubricant Service Procedures 3-6
Fuel Shutoff Valve 2-10
Fuse Block 3-24
General Information 1-1
General Maintenance 3-17
Grass Discharge 4-9
Grille Guard (optional) 2-20
Headlamp 3-25
Hood Latch 2-18
H.S.T. Foot Pedal 2-13
H.S.T. Range Lever 2-13
H.S.T. Speed Control (optional)
(cruise control) 2-13
Hydraulic Power Lift (H.P.L.) (3 PT) 2-21
Hydraulic System 3-14
Hydraulic System Oil Filter 3-16
Hydrostatic Transmission (H.S.T.) Model 2-13
Hydrostatic Transmission (H.S.T.)
System Oil Filter 3-16
Identification Numbers 4-1
Improvements 0-1
Instruction Decals 0-13
Instrument Lights 3-26
Instrument Panel 2-3
Key Switch 2-4
Lighting 2-8
Liquid Ballast (optional) 2-29
Lubrication 4-24
Lubrication and Maintenance 3-1
Lubrication and Maintenance Chart 3-3
Lubrication Fittings 3-4
Main Fuse 3-25
Maintenance 4-26
Maintenance and Inspection
of the Rollover Protective Structure 3-21
Minimum Hardware Tightening Torques . . . 1-2, 4-2
Mounting the Mower Deck
to the Tractor 4-11
Mower Blade Removal and Installation 4-26
Mower Blade Sharpening 4-28
Mower Deck Leveling 4-18
Mower Operation 4-4
Mower Transport Lock 4-17
MWX154S, MWX160S Mower Deck 4-1
Operating Instructions 4-8
Operation 2-1
Operation of the Power Take-Off 2-16
Possible Damage to the ROPS 3-22
Precautionary Statements 0-6
Pre-Delivery Checklist 4-35
Pre-Delivery Service 5-11
Pre-Heating the System 2-4
Primary Fuel Filter 3-8
PTO Lever Control 2-15
PTO Shield and Cap 2-15
Rear Axle 3-14
Rear PTO Operation
(without operator in seat) 2-16
Rear Remote Control Valve (optional) 2-22
Recommended Lubricants 3-2
Removal and Storage 4-25
Rollover Protective Structure (ROPS) 2-1
Safety 0-7
Safety Decals 0-10, 4-6
Seasonal Storage 4-25
Seat 2-1
Seat Belt 2-1
Secondary Fuel Filter 3-8
Servicing the Mower 4-5
Specifications 4-34, 5-1
Starting the Engine 2-5
Starting the Tractor with Jumper Cables 2-7
Stopping the Engine 2-7

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

FEDERAL EMISSIONS WARRANTY

(North America Only)

(California owner's emissions warranty is covered elsewhere)

CNH UK Ltd warrants that your new 1996 and later heavy-duty off-road diesel engine was designed, built, and equipped to conform to applicable U.S. Environmental Protection Agency regulations for a period of use of five years or 3,000 hours of operation, whichever occurs first.

The new model year, class of diesel engine, and emission application determination for your engine are identified on the emission control information label affixed to the engine. The warranty period begins on the date the new equipment is sold to the first retail purchaser.

Any emission control system parts which are proven defective during normal use will be repaired or replaced during the warranty period. The warranty repairs and service will be performed by any authorized CNH dealer at the dealer's place of business, with no charge for parts or labor (including diagnosis).

As the engine owner, you are responsible to perform all the required maintenance listed in your owner's manual. CNH UK Ltd will not deny an emission warranty claim solely because you have no record of maintenance; however, a claim may be denied if your failure to perform maintenance resulted in the failure of a warranted part. Receipts covering regular maintenance should be retained in the event of questions and these receipts should be passed on to each subsequent owner of the engine.

It is recommended replacement parts used for maintenance or repairs be CNH Service Parts to maintain the quality originally designed into your emission certified engine. The use of non-CNH parts does not invalidate the warranty on other components unless the use of such parts causes damage to warranted parts.

CNH UK Ltd wishes to assure the emission control systems warranty is being properly administered. If you believe you have not received the service entitled to under this warranty, you should contact the nearest CNH Office for assistance. The address and phone number of each Office is in your equipment owner's manual. If additional assistance or information is needed, contact:

Service Department
CNH America, LLC
500 Diller Avenue
New Holland, PA 17557
(717) 355-1121

Please note that the Emission Warranty does not cover:

1. Systems and parts that were not first installed on the new equipment or engine as original equipment by CNH UK Ltd.
2. Part malfunctions caused by abuse, misuse, improper adjustment, modification, alteration, tampering, disconnection, improper or inadequate maintenance, or use of non-recommended fuels and lubricating oils.
3. Accident caused damage, acts of nature, or other events beyond CNH UK Ltd's control.
4. Replacement of expendable items made in connection with scheduled maintenance.
5. Parts requiring replacement, inspection or adjustment maintenance intervals for reasons other than being defective.
6. Parts which are not CNH Service Parts.
7. Loss of time, inconvenience, loss of use of equipment/engine or commercial loss.
8. Equipment with altered or disconnected hourmeter where the hours cannot be determined.
9. Equipment normally operated outside the United States.
10. Non-defective parts replaced by other than CNH dealers.

Coverage

This emission control system warranty applies only to the following emission control parts.

Electronic Control Unit
Fuel Injection Pump
Fuel Injectors
Turbocharger
Intake Manifold
Exhaust Manifold
Boost Pressure Tubing-connection to Aneroid Device ON F.I.P.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

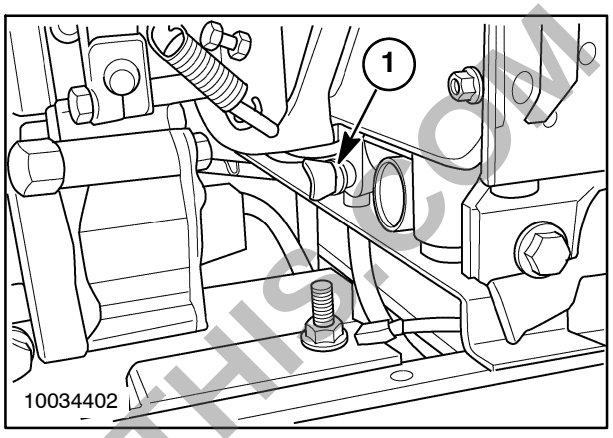
Draining and Flushing the Cooling System

NOTE: *Drain and flush the radiator and engine block every 12 months. Refill with a 50/50 solution of permanent antifreeze and clear water.*

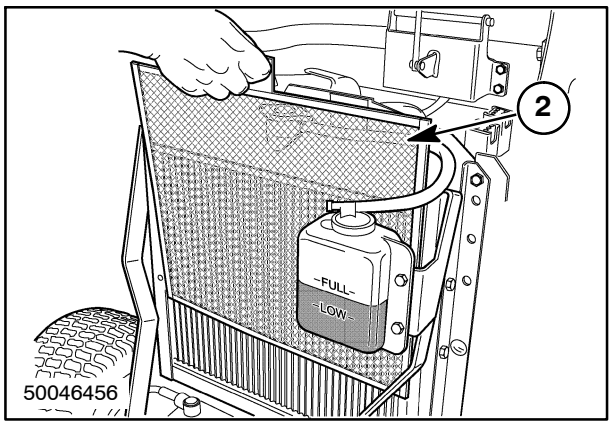
To drain the cooling system:

1. Place a suitable receptacle to catch the used coolant. (The coolant system capacity is 3.5L (3.7 qts.)). Remove the radiator cap and open the drain valve, 1, on the bottom center of the radiator to drain the coolant from the radiator and engine block.
2. After the coolant has drained, place a water hose in the radiator filler neck and run water through the system. After water begins flowing out of the drain valve, start the engine. Run the engine until the water flowing from the drain valve is free of discoloration and sediment, then stop the engine and remove the hose. Allow all water to drain from the system through the drain valve.
3. Close the drain valve and slowly refill the system with a 50/50 solution of permanent antifreeze and clear water. Fill the radiator until the coolant level is approximately 3.8 – 5 cm (1-1/2 – 2 in) below the bottom of the filler neck. Do not fill beyond this level.
4. Clean the radiator cap and cap seal and install the cap.
5. Fill the coolant recovery reservoir until the fluid level is between the ‘full’ and ‘low’ marks on the reservoir.
6. Clean the radiator front screen, 2.
7. Run the engine until normal operating temperature is reached, then stop the engine. Recheck the coolant level when the engine has cooled, and add more coolant as necessary.

IMPORTANT: *NEVER run the engine when the cooling system is empty. Do NOT add cold water or cold antifreeze solution if the engine is hot.*



25



26

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PREVIEW ONLY

You're viewing 12 of 146 pages

The full manual includes:

- All 146 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

Case IH DX18E, DX22E, DX25E, MWX154S, MWX160S, DX25E Tractors, MWX160S Mower Decks Operator Manual

Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual