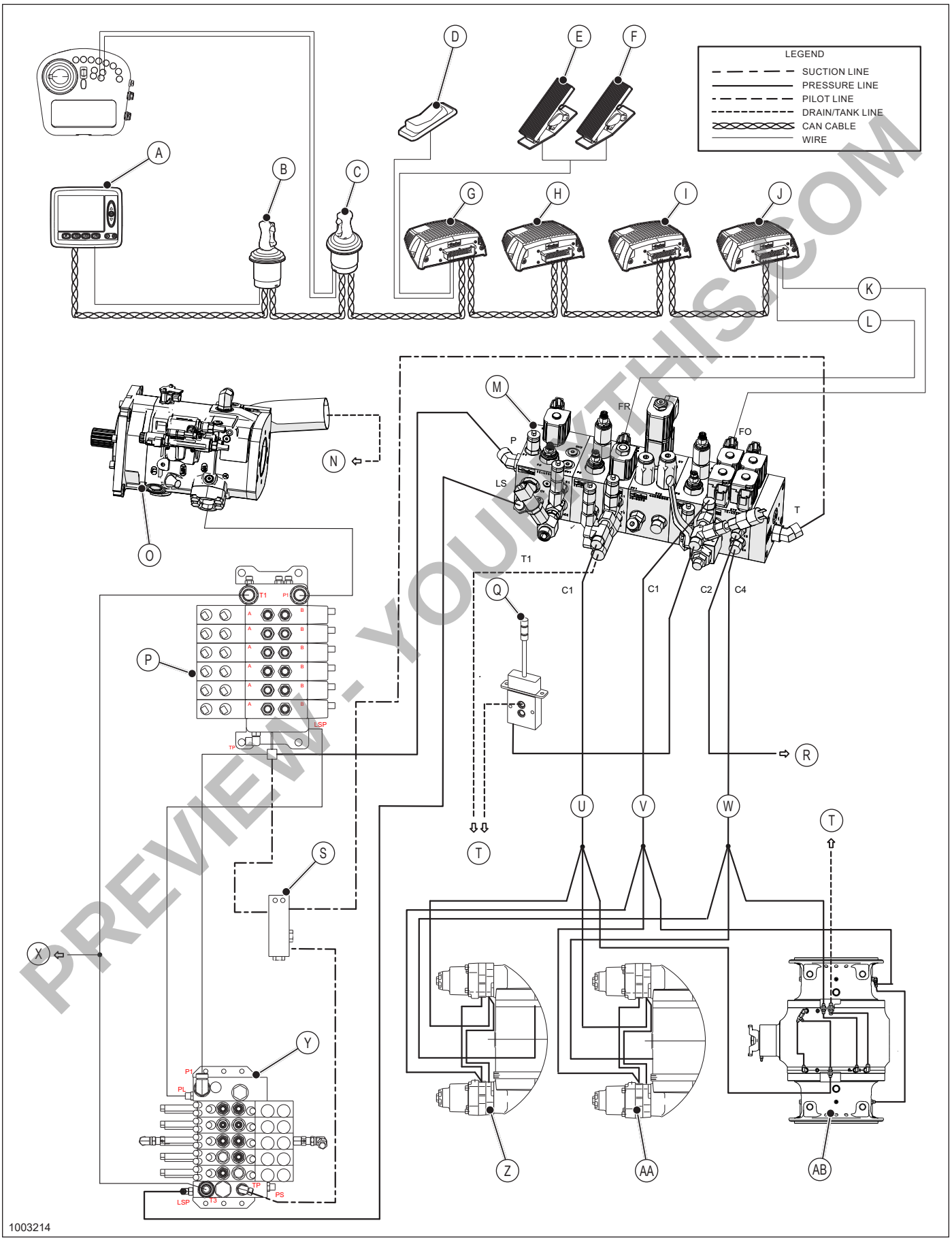
ELECTRICAL SYSTEM SCHEMATIC WIRING DIAGRAMS

A USB memory stick containing a PDF index and a copy of each electrical schematic is included with the paper copy of this manual. Use the wiring diagram index (shown below) to locate electrical schematics to help trace circuits and troubleshoot the electrical system.

* 93479B FOR STAGE V WILL BE USED CONCURRENTLY WITH 84273B/102350B FOR T4F/TIER 2		1085C	10850501–10850504, 10850511–10850513	10850505–10850510, 10850514–10850538	10850539–10850574		10850575
		1075C	10751001–10751015, 10751021–10751027	10751016–10751020, 10751028–10751071	10751072–10751126	10751119*, 10751127	10751127
		1055C		10550001–10550012	10550013–10550023		10551024
MASTER WIRING DIAGRAM DWG #			66289B	76645B	84273B	93479B	102350B
DRAWING DESCRIPTION		DWG #					
12–VOLT POWER		46770B	X	X	X	X	X
ACCESSORIES		41752B	X	X			
		87054B			X	X	X
ACCUMULATOR CHARGE		69251B	X	X	X	X	X
AIR FILTER		41754B	X	X	X		X
		102753B				X	
AUXILIARY		41755B	X	X			
BLADE		41756B	X				
		80824B		X	X	X	X
CAMERA POWER		43296B	X	X	X	X	X
COMPUTER POWER		69252B	X				
		80825B		X			
		87055B			X		X
		98492B				X	
CAN/ J1939 COMPUTER SYSTEM		69253B	X				
		80826B		X			
		87056B			X		X
		93480B				X	
COOLANT HEATER		69254B	X	X	X	X	X
COOLANT LEVEL		41760B	X	X	X	X	X
COOLING FAN		41761B	X	X	X	X	X
CRANE CONTROLS	LOGLIFT	41762B	X	X	X	X	X
	TIGERCAT	57953B	X	X			
		87058B			X	X	X
DASA COMPUTER		51646B	X	X			
		87059B			X	X	X
DIFFERENTIALS		41763B	X	X	X	X	X
DRIVES		69255B	X				
		80829B		X	X	X	X
ELECTRIC FUEL FILL		57963B	X	X	X		X
ENGINE TIER 4 & STAGE V AFTER–TREATMENT SYSTEM		69256B	X	X	X		X
		93481B				X	
FUEL HEATER		69257B	X	X	X	X	X
FUEL LEVEL		57961B	X	X			
		87060B			X	X	X
GATE		41768B	X	X	X	X	X
GRID HEATER		69258B	X				
		80830B		X	X	X	X

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COMMON AND CUSTOM TORQUE SPECIFICATIONS

Location	Thread	Torque (Lubricated)	
		N-m	lbf-ft
Steer Cylinders (38087B) (1055C)			
Pin keeper plate bolts	M20 - 2.5 GR.10.9	457-503	337-371
Piston nut	1 3/8 in. UNF	1708 *	1260 *
Gland	-	745 *	550 *
Steer Cylinders (45004B) (1075C/1085C)			
Pin keeper plate bolts	M20 - 2.5 GR.10.9	457-503	337-371
Piston nut	1 1/2 in.-12 UNF	2370 *	1750 *
Gland	-	745 *	550 *
Oscillation Lock Cylinders (26204B) Earlier Design			
Pin keeper plate bolts	M20 - 2.5 GR.10.9	457-503	337-371
Piston nut	1 3/8 in.-12 UNF	1490 *	1100 *
Gland	-	745 *	550 *
Oscillation Lock Cylinders (71906B) Later Design			
Pin keeper plate bolts	M20 - 2.5 GR.10.9	457-503	337-371
Piston nut	1 3/8 in. UNF	1708 *	1260 *
Gland	-	745 *	550 *
Snow Blade Cylinders (27142B)(1055C)			
Pin keeper plate bolts	M20 - 2.5 GR.10.9	457-503	337-371
Piston nut	1 3/8 in. UNF	1491 *	1100 *
Gland	-	745 *	550 *
Snow Blade Cylinders (5003D)(1075C/1085C)			
Pin keeper plate bolts	M20 - 2.5 GR.10.9	457-503	337-371
Piston nut	1 3/8 in. - 12 UNF	1708 *	1260 *
Gland	-	745 *	550 *
Centre joint bearing			
Articulation bearing retaining bolts	M12 - 1.75 GR.10.9	94-104	70-77
Articulation pin retaining bolts	M20 - 2.5 GR.10.9	457-503	337-371
Oscillation end cap bolts	M16 - 2.0 GR.10.9	234-257	173-190
Engine mounting			
Mounting Bolts	M24 - 3.0 GR.10.9	790-869	583-641
Engine mounting brackets	M12 - 1.75 GR.10.9	94-104	70-77
Pumpstack mounting			
Flywheel adapter plate to flywheel housing	M10 - 1.5 GR.10.9	54-60	40-44
Torsional drive coupler to flywheel	M10 - 1.5 GR.10.9	54-60	40-44
Drive pump mounting bolts (1055C)	5/8 in. - 11 GR.8	288-316	159-175
Drive pump mounting bolts (1075C/1085C)	3/4 in. - 10 GR.8	393-420	282-310
Main pump mounting bolts (1055C)	M16 - 2.0 GR.10.9	234-257	173-190
Main pump mounting bolts (1075C/1085C)	M20 - 2.5 GR.10.9	457-503	337-371
Charge/Cooling pump mounting bolts	M12 - 1.75 GR.10.9	94-104	70-77
Fan pump mounting bolts	M14 - 1.75 GR.10.9	94-104	70-77
Drive shafts			
Yoke retaining nut, rear shaft	1 1/4 in. - 18 UNEF	644-712 *	475-525 *
Pillow block retaining bolts	M20 - 2.5 GR.10.9	457-503	337-371
Universal joint bolts	1/2 in. - 20 GR.8	122-134	90-99
Front axle input universal joint bolts (1085C only)	M12 - 1.75 GR.10.9	94-104	70-77
Rear axle input universal joint bolts (1085C only)	M12 - 1.75 GR.10.9	94-104	70-77
Axle mounting bolts			
Front/Rear (1055C)	M27 - 3.0 GR.10.9	1158-1274	854-940
Front/Rear (1075C/1085C)	M30 - 3.5 GR.10.9	1150 *	1550 *
Wheel nuts (1055C/1075C)	M22 - 1.5	800 **	590 **
Wheel bolts (1085C)	7/8 in. - 14 GR.8	679-745	501-550
Transmission (1055C/1085C)			
Housing to mounting bracket	5/8 in. - 11 GR.8	216-237	159-175
Mounting bracket to Chassis	M22 - 2.5 GR.10.9	623-686	460-506
Drive motor mounting bolts	3/4 in. - 16 GR.8	393-420	282-310
Transmission (1075C)			
Housing to mounting bracket	M16 - 2.0 GR.10.9	234-257	173-190
Mounting bracket to Chassis	M22 - 2.5 GR.10.9	623-686	460-506
Drive motor mounting bolts	M20 - 2.5 GR.10.9	457-503	337-371
Grapple Tong Taper Lock Pin Bolts (FG43, FG53)	M16 GR 12.9	274-301	202-222
Link Taper Lock Pin Bolts (to crane)	M16 - 2.0 GR. 12.9	274-301	202-222

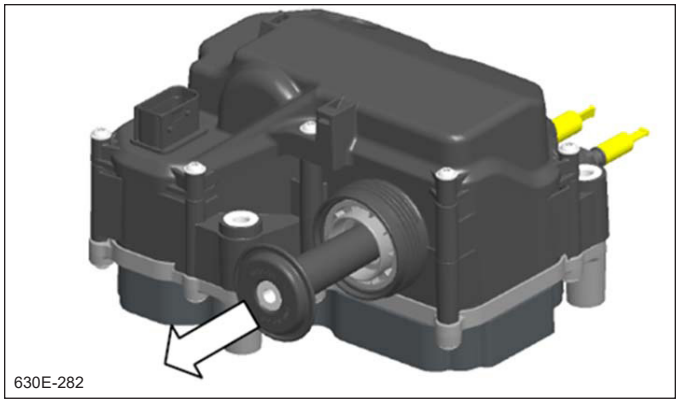
Torque values pertaining to the engine and attachments are provided in the appropriate manuals.

* denotes a custom torque value.

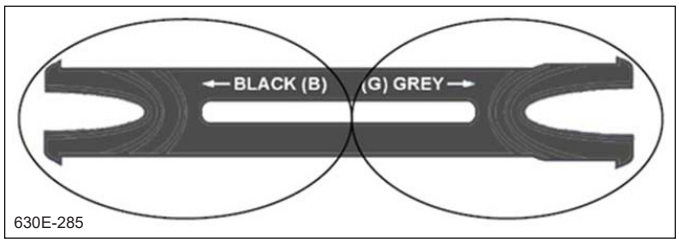
** maximum torque

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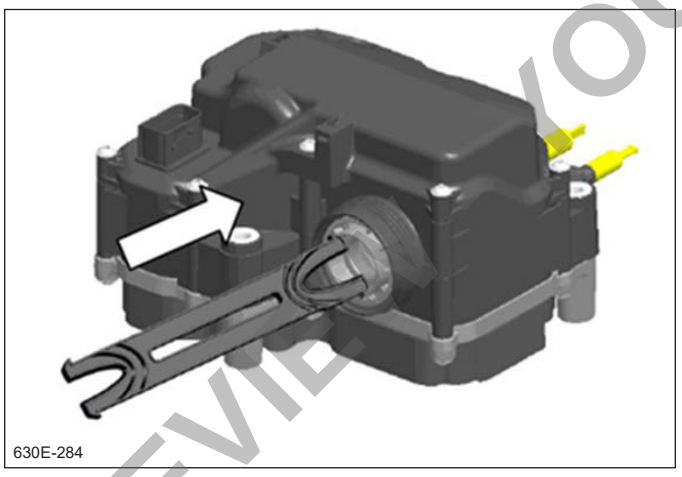

630E-282

4. Remove the equalizing element and note the colour of the filter inside (black or grey).

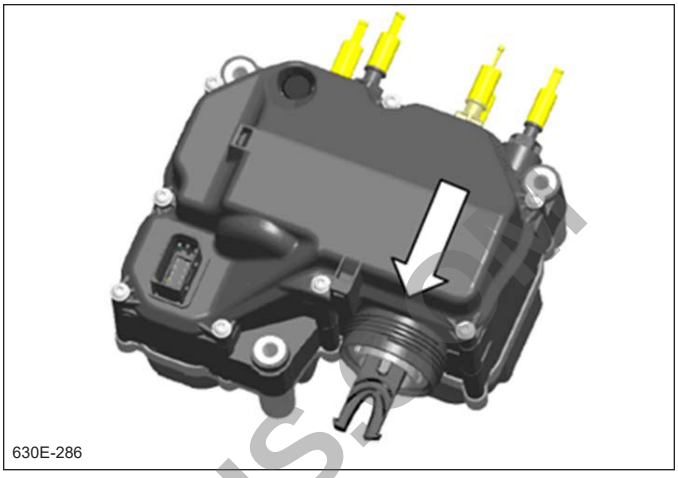


630E-285

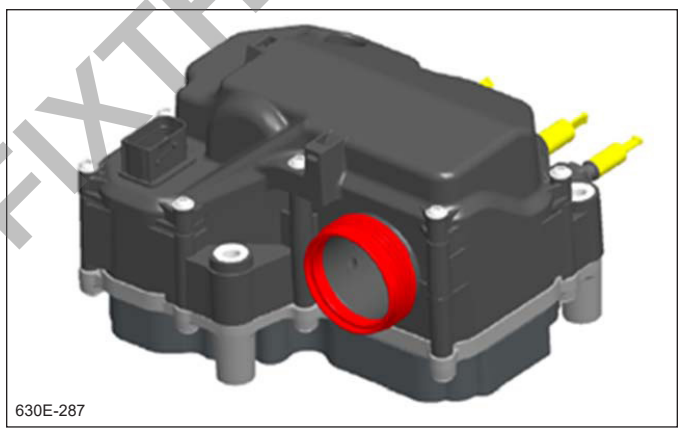
5. Find the filter removal tool provided with the replacement parts select the correct edge BLACK (B) for black filters or GREY (G) for grey filters.


630E-284

6. Insert the tool edge completely until a click is felt or heard.


630E-286

7. Pull out the filter, using a tool in the slot on the filter removal tool if required.


630E-287

8. Clean surfaces with distilled/demineralized water only to avoid DEF contamination.

   Check the area around the filter for cracks. If cracks are found the supply module must be replaced.

9. Thoroughly clean the filter cover to avoid introducing contamination.

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SCHEDULED MAINTENANCE

EVERY 8 HOURS (EVERY SHIFT)

CLEAN:

- Potentially damaging limbs or sticks from machine.
- All debris from around the telematics system antenna located on the roof of the cab. Refer to TELEMATICS in SECTION 3.
- A/C condenser, oil cooler, radiator and charge air cooler - refer to CLEANING THE COOLER PACKAGE in SECTION 3.

CHECK:

- Engine coolant level
- Engine oil level
- Drain fuel/water separator
- Fuel fill screen
- Air intake, clean as required
- Air cleaner unloader valve
- Air intake filter restriction indicator.
- Replace primary filter if indicator is in red zone.
- Replace secondary (safety) filter every third primary filter change to guarantee maximum performance and reliability.
- Hydraulic oil level in hydraulic tank
- Transmission oil level
- All engine air intake system components (including charge air cooler) rubber elbows, connector hoses, tubes, seals and clamps for damage, hardening, wear, cracks, leaks, loose clamps or loose hanger bracket hardware and repair or replace immediately.
- Charge Air Cooler for damage, wear, cracks, or leaks and repair immediately.
- For leakage around hydraulic components and flexible hoses. * See “Oil lost from leakage” chart.
- For loose nuts, bolts and fittings.
- Exhaust system for leaks.
- Conduct an overall visual inspection.

LUBRICATE:

- Axles input shaft bearings, 1-fitting; 2-places, purge
- Mid drive shaft 1-fitting, purge

  NOTE: Lubricate mid drive shaft slip joint with machine fully articulated.
- Fixed centre joint drive shaft, 1-fittings, purge
- Rear drive shaft bearing, 1-fitting, purge
- Centre joint articulation bearings, 2-fittings, purge
- Centre joint oscillation bearings (if equipped), 1-fitting, purge
- Centre joint oscillation lock cylinder ends (if equipped), 4-fittings, purge
- Steering cylinder ends, 4-fittings, purge
- Snow blade cylinders and pivots (if equipped), 6-fittings, purge

TIGERCAT CRANES AND ATTACHMENTS:

- Check crane slew oil level. Refer to TIGERCAT CRANE–CRANE SLEW OIL LEVEL CHECK AND FILL in THIS SECTION. and to SERVICE AND LUBRICATION POINTS chart in THIS SECTION for capacities and recommended oil.
- Lubricate the telescopic boom end and rotator per the LUBRICATION POINTS–TIGERCAT LINK, SNUBBER ROTATOR AND GRAPPLE diagram in THIS SECTION.
- Lubricate crane per LUBRICATION POINTS–TIGERCAT CRANE diagram in THIS SECTION.
- Lubricate grapple per the LUBRICATION POINTS–TIGERCAT LINK, SNUBBER ROTATOR AND GRAPPLE diagram in THIS SECTION.
- Lubricate and adjust link snubber, 3 or 6 fittings, purge. Refer to LUBRICATION POINTS–TIGERCAT LINK, SNUBBER ROTATOR AND GRAPPLE diagram in THIS SECTION.

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Tigercat 1055C/1075C/1085C Forwarder

SECTION 2–CONTROLS AND OPERATION

Read and understand the entire contents of this manual, and all manuals for any attachments or accessories associated with this machine, prior to operating or servicing this equipment.

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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.

1055C/1075C/1085C Available Literature

Operator's Manual	Part No. 44482AENG
Service Manual (This Manual)	Part No. 44483AENG
Parts Catalog 1055C	Part No. 49626A
Parts Catalog 1075C	Part No. 44481A
Parts Catalog 1085C	Part No. 46634A
Vehicle Moving and Transporting Instructions	Part No. 32465AMUL
Engine Operation and Maintenance Manual, N67 T4f	Part No. 42939AMUL
Engine Operation and Maintenance Manual, N67 T2	Part No. 45045AMUL

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Tigercat 1055C/1075C/1085C Forwarder

SECTION 1–SAFETY

Read and understand the entire contents of this manual, and all manuals for any attachments or accessories associated with this machine, prior to operating or servicing this equipment.

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Tigercat 1055C/1075C/1085C Forwarder
INTRODUCTION

An Operator's manual, Service manual and a Parts catalog are made available by **Tigercat** to assist the dealer, customer and operator in becoming familiar with the features of the 1055C/1075C/1085C Forwarder.

Serial numbers:-

1055C 10551001 to 10551023
1075C 10751001 to 10751126
1085C 10850501 to 10850573

The 1055C/1075C/1085C Forwarder is designed for transporting cut-to-length trees harvested in at-the-stump or roadside processing applications in plantations and natural stands.

The operator's manual will assist the operator with the techniques of proper and safe operation of the Forwarder. There is also important information regarding the safe operation of optional equipment and attachments. The service manual contains safety and servicing procedures and a preventive maintenance schedule to assist in repair and ensure optimum machine performance. For manual part numbers, see the title page in each manual.

Section 1 in both the operator's manual and the service manual contains safety information that must be followed. As well, throughout the rest of the manuals, WARNING and CAUTION notices are displayed where necessary, drawing attention to possible hazards when performing certain procedures.

Only trained personnel should be allowed to operate or work on the machine.

The information contained in this manual is current at time of printing. Improvements to the machine are on-going and may not be covered, therefore in these cases contact your **Tigercat** dealer for the appropriate information.

The phrase **"and up"** appearing in this manual after the serial number implies that the related information is current for any machine serial number HIGHER than the serial number preceding the **"and up"**.

Tigercat reserves the right to make changes to the machine after this manual release date that may not immediately appear in this manual.

Every effort is made to send out updates on a regular basis. If the machine in question was built after the release date of this manual and there is a discrepancy, call Tigercat service department. The release date appears on the first page.

The Company reserves the right to change information contained herein at any time without prior notice.

Tigercat Industries Inc.

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OPENING THE ENGINE HOOD

Do not raise the snow blade while the hood is open. The hood may close unexpectedly.

Engage the hood lock to prevent the unintended closing of the hood.

Do not exceed the maximum capacity of the hood.

ENGINE COOLANT HEATER (OPTIONAL)

⚠ WARNING

Do not operate, or program the coolant heater to operate, in the situations listed below.

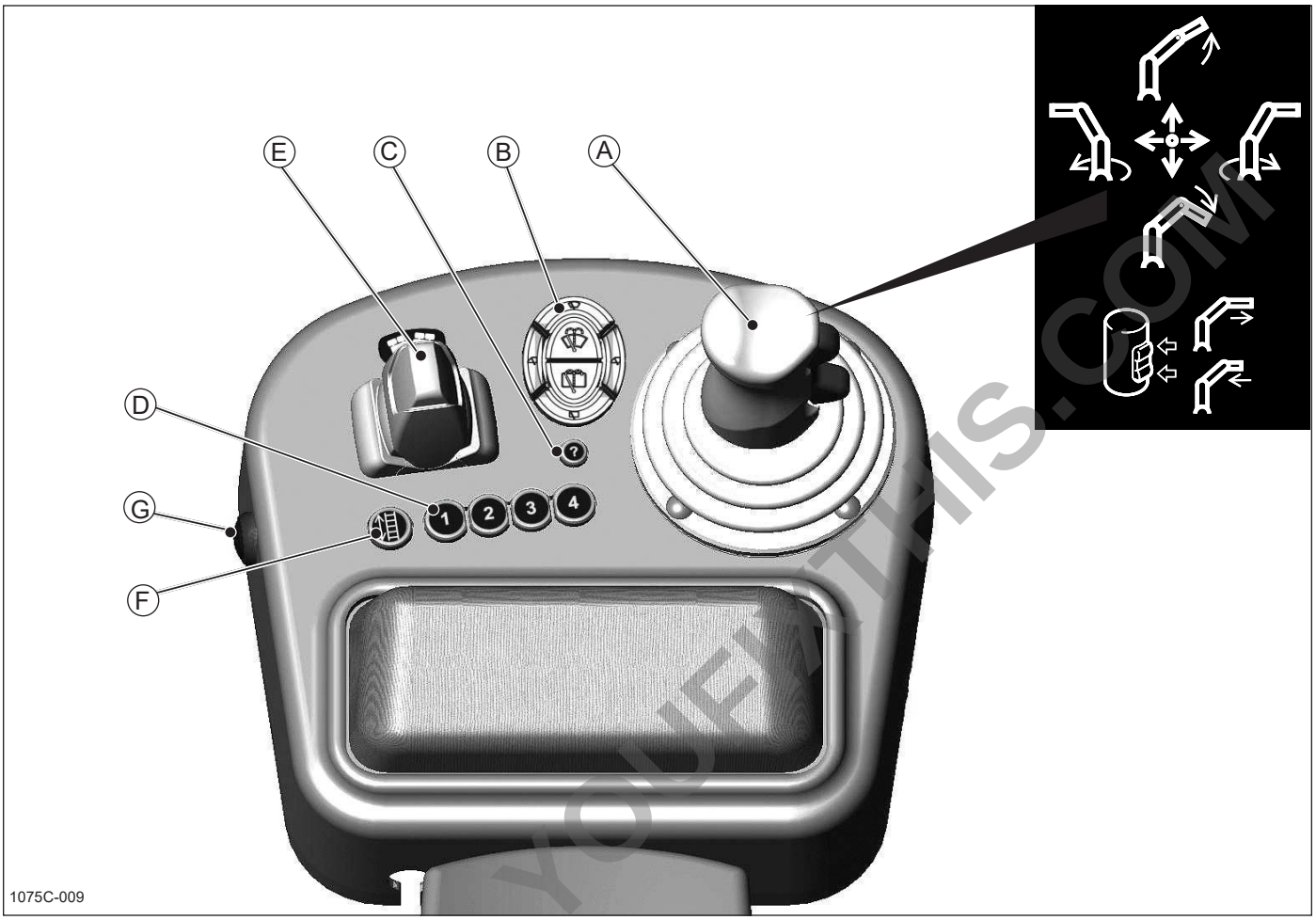
The heater must not be operated:

- In fuel filling stations and tank storage locations.
- At locations at which highly flammable gases or dusts can form, and at which highly flammable liquids or solid materials are stored (e.g. near fuel, coal and wood dust, grain warehouses, dry grass and leaves, cardboard, paper, etc.).
- In enclosed rooms (e.g. garages), not even via the timer or Telestart.
- Without at least 33 % brand name anti-freeze in the coolant.
- When welding.

Refer to the manufacturer's documentation for additional safety information.

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Left Joystick Pod–SAE Configuration, Earlier Design

A	Left Joystick	E	Steer Joystick
B	Windshield Wiper/Washer Controls	F	Ladder Raise/Lower Switch
C	Help Selector Button	G	Seat Rotate Lock/Unlock Switch
D	Programmable Selector Switches (Optional)		

LEFT JOYSTICK POD

LEFT JOYSTICK (SAE)

The left joystick is activated only when the operator seat is facing toward the crane (rear facing) and the CRANE ON/OFF switch is ON.

The left joystick can be programmed for SAE, ISO & US configurations. The left joystick in the SAE configuration operates the following crane functions:

CRANE SWING RIGHT/LEFT ←→

- Move the joystick right to SWING the crane RIGHT.
- Move the joystick left to SWING the crane LEFT.

STICK BOOM UP/DOWN ↕

- Move the joystick FORWARD to move the stick boom UP.
- Move the joystick BACK to move the stick boom DOWN.

TELESCOPING BOOM EXTEND/RETRACT

- Press the TOP of the switch to EXTEND the telescoping boom.
- Press the BOTTOM of the switch to RETRACT the telescoping boom.

NOTE: The telescopic Boom controls are common to the SAE, ISO & US configurations.

⚠ WARNING

When leaving the cab always lower the blade to the ground and place the crane in the park position or lower it to the ground and turn the ignition key to the STOP position.

If leaving the machine unattended remove the key and place the battery disconnect switch in the OFF position.

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GENERAL CRANE ADJUSTMENTS

CRANE SPEED (%)

Crane speed is a single adjustment that sets the speed of all of the crane functions (except grapple open and close). Crane speed is the maximum speed setting of each crane function multiplied by the percentage displayed.

CRANE WORKING SPEED (RPM)

Set the Crane Working Speed to customize the rpm of the engine according to operating conditions/operator preference.

Alternately settings can be adjusted to make this minimum engine rpm setting available for travelling operations in addition to crane operation. In this case the crane working speed switch works independently of the crane on/off switch. Refer to COMPUTER–ADJUSTMENT MENU–CRANE ADJUST–GENERAL CRANE–WORKING SPEED ACTIVE ALWAYS.

WORKING SPEED ACTIVE ALWAYS

This setting toggles the operation of the crane working rpm switch from default to alternate settings.

If set to NO (default setting) the crane working rpm switch works with default computer settings which require that the crane on/off switch be used in conjunction with the crane working speed switch. In this case the minimum engine rpm setting is available only when operating the crane and the operator's seat is facing the crane.

If set to YES (alternate setting) the crane working rpm switch works independently of the crane on/off switch making the minimum engine rpm setting available for travelling operations in addition to crane operation, regardless of seat position.

The following crane functions can be adjusted to fine tune the operating speeds and start/stop ramps. In addition band width limiting and damping settings can be adjusted.

Refer to JOYSTICK CONTROL OUTPUT ADJUSTMENT SETTINGS in THIS SECTION for more information about how start slope, stop slope, fine control, BWL and damping settings affect function performance.

Refer to CRANE ADJUSTMENT SETTINGS REFERENCE CHART in SECTION 3 for range and default setting information.

MAIN BOOM STOP CUSHION +/- (TIGERCAT CRANE ONLY)

This setting adjusts the performance of the main boom stop cushion function. This function uses the signal from the main boom proximity sensor to reduce main boom speed as the boom approaches the limit of cylinder stroke. A lower setting will result in a harder main boom stop impact. A higher setting will result in a softer main boom stop impact.

STICK BOOM STOP CUSHION +/- (TIGERCAT CRANE ONLY)

This setting adjusts the performance of the stick boom stop cushion function. This function uses the signal from the stick boom proximity sensor to reduce stick boom speed as the boom approaches the limit of cylinder stroke. A lower setting will result in a harder stick boom stop impact. A higher setting will result in a softer stick boom stop impact.

SLEW (CRANE SWING)

Slew adjustments are used to customize the crane swing functions +RIGHT/-LEFT.

MAIN BOOM

Main boom adjustments are used to customize the main boom function +UP/-DOWN.

STICK BOOM

Stick boom adjustments are used to customize the stick boom function +UP/-DOWN.

TELESCOPE

Telescope adjustments are used to customize the main boom function +EXTEND/-RETRACT.

GRAPPLE ROTATE

Grapple rotate adjustments are used to customize the grapple rotate function +CW/-CCW.

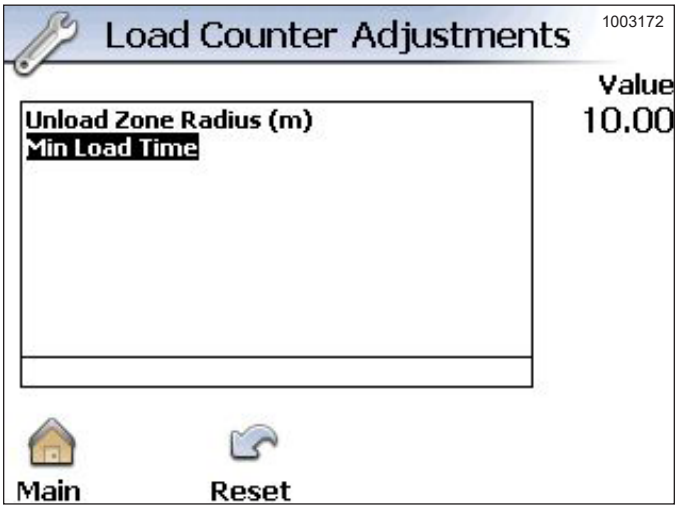
GRAPPLE OPEN/CLOSE

Grapple open/close adjustments are used to customize the grapple open/close function +OPEN/-CLOSE.

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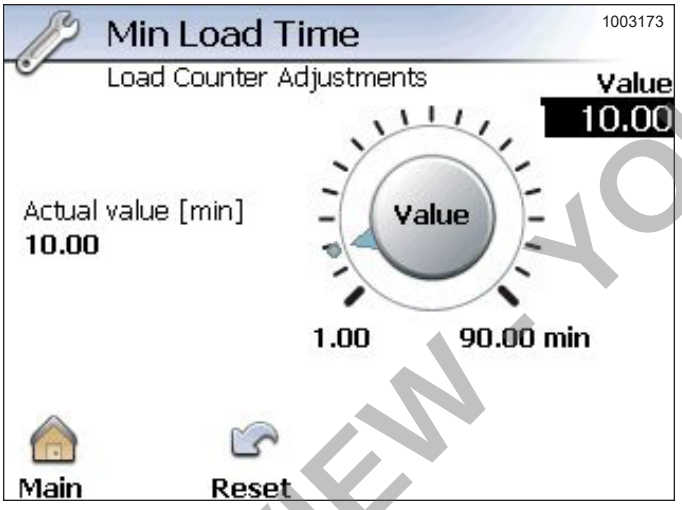
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MIN LOAD TIME (OPTIONAL)



Press the UP or DOWN arrow buttons to select Min Load Time.

Press the OK button to make the selection.



Press the UP or DOWN arrow buttons to reduce or increase the min load time value.

Press OK to set the value.

Press F2 to reset the value.

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INFORMATION MESSAGES (BLUE)

Information messages give the operator information regarding an event or problem condition while the event or problem exists.

Information messages have lowest priority and are used to provide information that is useful to the operator, but requires no action to prevent immediate or future damage to the machine

The messages remain displayed while the condition exists, or until the message is acknowledged.

Information messages can be acknowledged by pressing F2 (OK). Acknowledged information messages are no longer displayed.

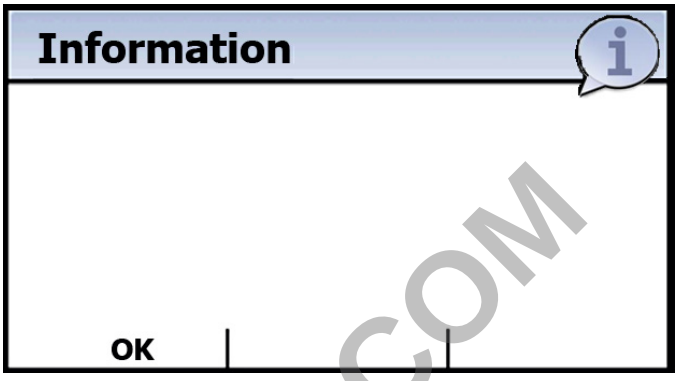


Information messages do not have an indicator after they have been acknowledged.

Most information messages that have been acknowledged cannot be reviewed.

Recurrence of an event or problem condition related to an information message may cause the message to be shown again.

Restarting the machine may also cause the message to be displayed again.



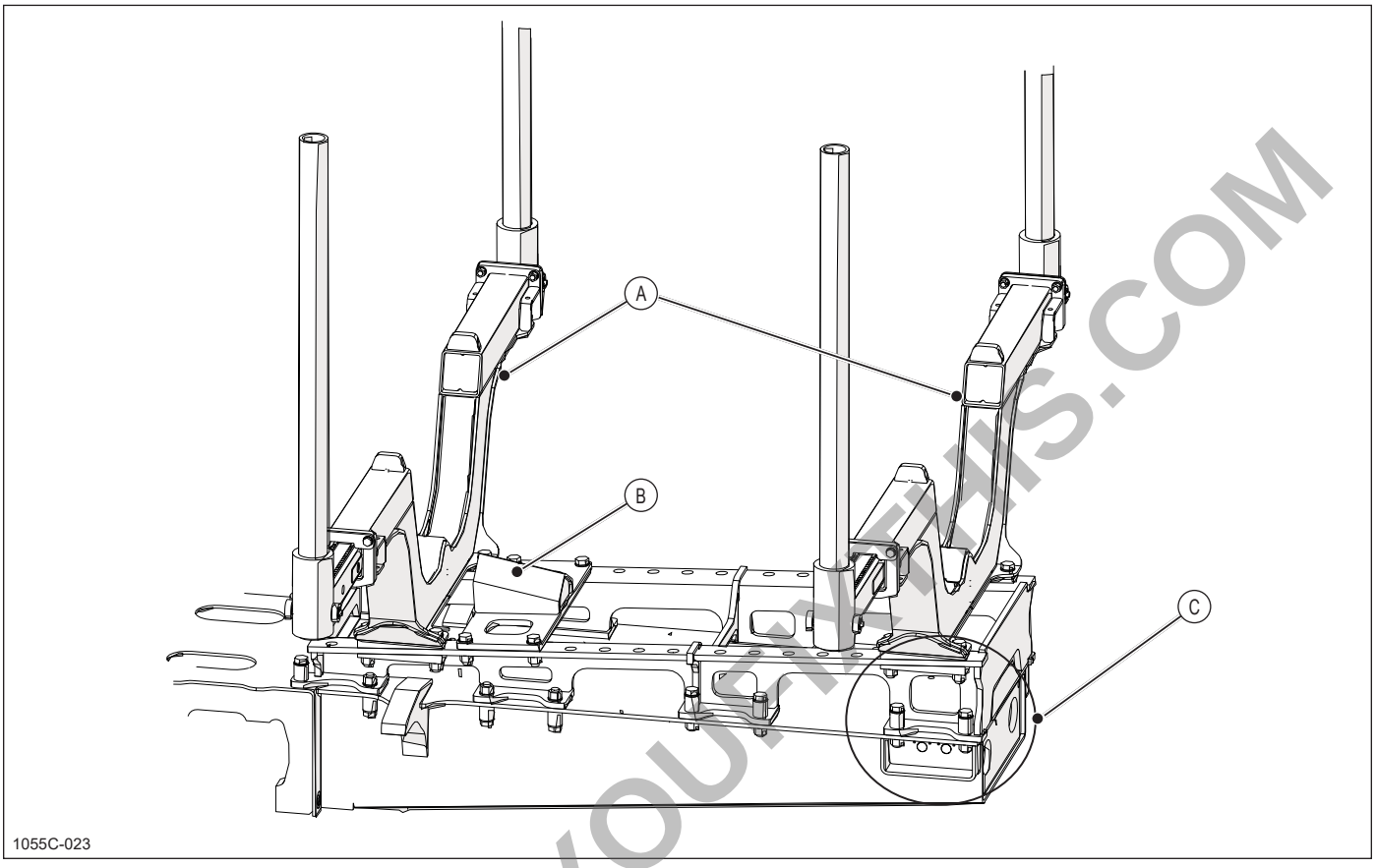
The **INFORMATION MESSAGES** are:

- Door Open
- Drive Interlock - Ladder Down
- Ladder Interlock
- Pilot Not Reset
- Input Interlock
- Crane Input Interlock
- Drive Input Interlock
- Door Open
- Park Brake Switch ON
- Steer Interlock - Ladder Down
- Drive Interlock - Park Brake
- Gear Change Interlock
- Machine Warm Up Interlock
- Drive Interlock - AWD
- Engine Speed
- Cooling Fan Operation Limited
- Interlock System - Parking Brake ON

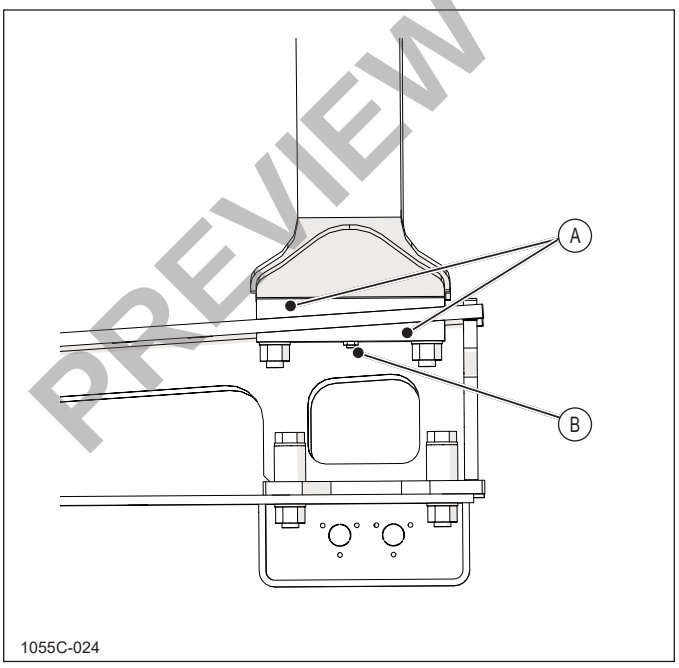
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BUNKS #3 AND #4



Low-Wide 1055C Rear Bunks	
A Rear Bunks	C See Bunk Mounting Detail
B Park Bracket	



Low-Wide 1055C Bunk Mounting Detail
A Angled Spacers
B Mounting Bolt

ADJUSTING THE POSITION OF THE REAR BUNKS

1. Secure the bunk with a suitable lifting device. Each bunk weighs approximately 240 kg (525 lbs).
2. Loosen and remove the bolts that secure the bunk to the chassis.
3. Loosen and remove the mounting bolt that secures both halves of the angled spacers.
4. Move the angled spacers to the desired location and install the mounting bolt.
5. Install the bunk at the new location.
   Tighten and torque the bolts.
   Bolts: M24 - 3.0 GR.10.9
   Torque: 790 - 869 N-m (583 - 641 lbf-ft)
6. Move the park bracket only if a bunk is being moved to the park bracket location. When in the park position, the crane must rest on a bunk or the park bracket.

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ENGINE COOLANT HEATER UNIT PREVENTIVE MAINTENANCE

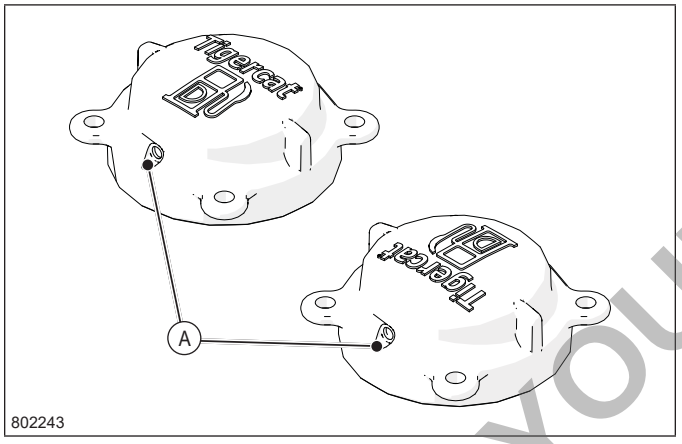
The following preventive maintenance schedule keeps the engine coolant heater unit in proper working order. Refer to the manufacturer's operation manual for further information.

DAILY MAINTENANCE

Complete the following preventive maintenance items once per day:

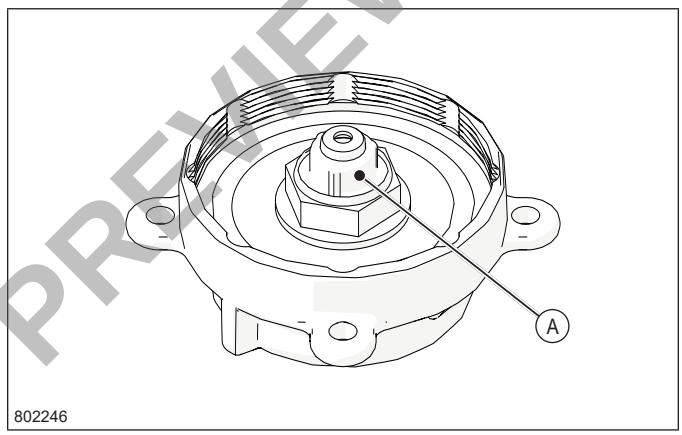
MACHINE FUEL TANK

If the engine coolant heater unit draws fuel directly from the machine fuel tank:



Fuel Tank Fill Cap
A Vent Ports

Remove any debris, snow, or ice around the fuel tank fill cap. Keep the vent ports clear to prevent a vacuum inside the fuel tank.



Fuel Tank Fill Cap
A Venting Valve

Inspect the fuel tank fill cap venting valve for proper operation in freezing temperatures. If the valve may freeze while the machine is parked overnight, leave the cap loose to prevent a vacuum inside the fuel tank.

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8. Check for leaks.
9. Turn OFF the engine.

IMPORTANT!
Do not contaminate the DEF when performing maintenance on the system as this may cause costly damage to SCR system components and affect the proper operation of the aftertreatment system and the engine.

⚠ WARNING

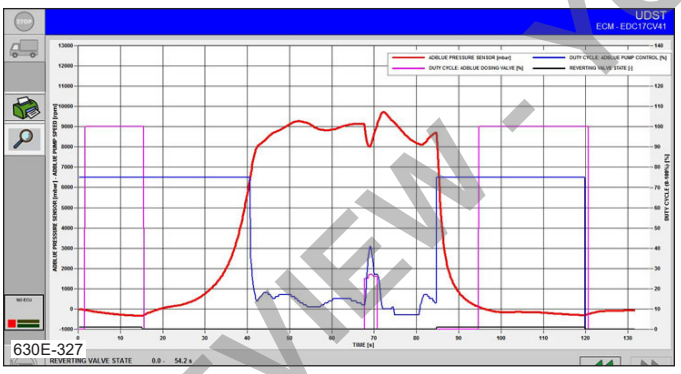
Use only diesel exhaust fluid (DEF) which meets ISO 22241 specifications. NEVER fill the DEF tank with any other fluid.

DEF is injected into the exhaust gas stream during normal operation of the Selective Catalytic Reduction (SCR) aftertreatment system.

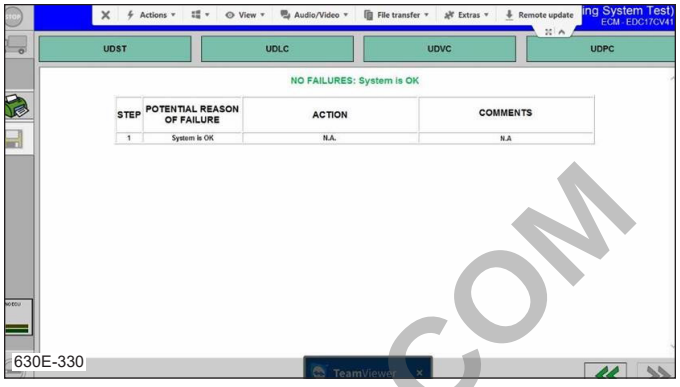
Use of other fluids may cause component damage, or a fire risk which could result in death or serious injury.

UDST (UREA DOSING SYSTEM TEST)

1. With the aid of an assistant run a UDST test from the laptop computer. Refer to PT Box Manual for UDST test information.



2. If the DEF supply module is functioning correctly the test should show a characteristic curve as shown above, DEF pressure (red line).
3. A confirmation screen will indicate System is OK if the DEF supply module is functioning correctly.
4. Repeat the UDST test a second time to confirm the results.



5. If the UDST test passes twice, the DEF supply module is OK.



6. If the UDST test fails twice note the error mode(s) and contact customer service.

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CLEANING

The viewing surfaces of polycarbonate cab windows are specially treated with a hard coating to provide enhanced resistance to abrasion and ultra-violet (UV) radiation.

The following instructions are provided to prolong the life of this protective hard coating.

1. Rinse the window thoroughly with lukewarm water
2. Using a soft cloth, cellulose sponge or chamois, gently wash the window with a mild solution of soap or detergent in lukewarm water. D scrub or use brushes or squeegees.

   Brand name soaps and detergents recommended for cleaning polycarbonate are:
   - Formula 409
   - Hexcel F.O. 554
   - Joy
   - Neleco-Placer
   - Top Job
3. Rinse the window thoroughly with lukewarm water.
4. Dry the window with a moist soft cloth, cellulose sponge or chamois to prevent water spotting.
5. To remove grease or oil, first rub lightly with a good grade of VM&P Naphtha or isopropyl alcohol followed by the same rinse, wash, rinse and dry procedure described in steps 1 to 4.

   Refer to RESISTANCE TO CHEMICALS for a list of chemicals which should not be permitted to come into contact with polycarbonate windows.

CAUTIONS

- Do not use abusive cleaning procedures either by hand or pressure washing on polycarbonate windows.
- Do not use brushes, razor blades, scrapers, squeegees or other sharp tools on polycarbonate windows.
- Do not clean polycarbonate windows when the daytime temperature is high or in direct sunlight.
- Do not use abrasive or highly alkaline cleaners on polycarbonate windows.
- Do not use glass cleaners in either aerosol or non-aerosol containers to clean polycarbonate windows.
- Failure to follow these cleaning instructions will shorten the service life of polycarbonate and may cause visual hazing, loss of light transmission and delamination of the polycarbonate hard surface coating.

CONCEALING HAIRLINE SCRATCHES

The appearance of scratches and minor abrasions on the surfaces of polycarbonate windows can be minimized by using a mild automotive polish such as:

- Johnson’s Paste Wax
- Novus Plastic Polish #1 and #2
- Mirror Glaze Plastic Polish

Be certain to clean the polycarbonate window as outlined prior to application of an automotive polish. Refer to CLEANING INSTRUCTIONS.

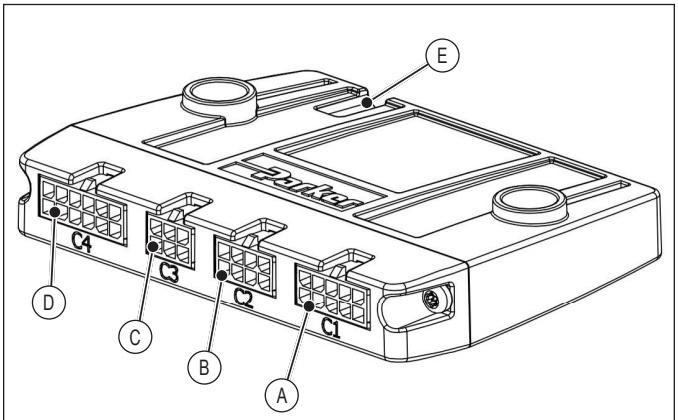
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XC21 MODULE–1055C/1075C/1085C

10751016 to 10751020, 10751028 and up
10850504 to 10850510, 10850514 and up
10551001 and up

OVERVIEW



1055C-026

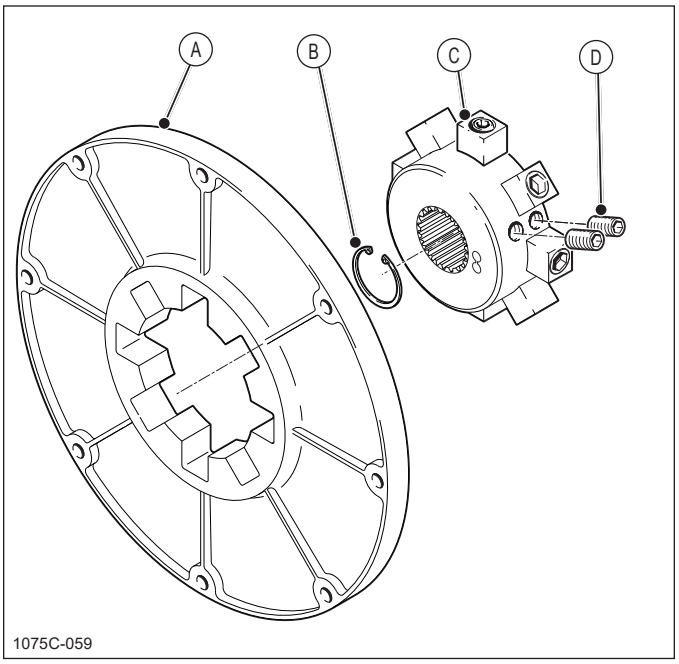
A C1
B C2
C C3
D C4
E Yellow/Red Status LED

STATUS AND ERROR CODES

Status		**Yellow Flashing LED**			
Normal (no errors)		Constant			
Error Code	**Error**	**Primary Flash (red LED) Error Category**	**Secondary Flash (yellow LED) Error Description**	**Symptom**	**Action**
1.1	DOUT error (open load)	1 flash	1 flash	Open/short circuit	Check connections to pod joystick and buttons
1.3	VREF error	1 flash	3 flashes	Battery voltage is out of range	Check voltage supply VREF <4.9 Vdc, > 5.1 Vdc
2.1	VBAT warning	2 flashes	1 flash	VREF is out of range	Check voltage supply +BAT <6.5 Vdc, >36 Vdc
2.2	Temperature warning	2 flashes	2 flashes	Internal temp sensor error	Contact service
3.1	CAN error/ timeout	3 flashes	1 flash	CAN-bus off. All outputs shut off	Check CAN-bus
3.2	ID Tag error	3 flashes	2 flashes	Poor ID Tag connection or defective ID Tag	Check ID connection and measure resistance of ID tag.
FE	Fatal error	6 flashes	none	Module is off	Contact service

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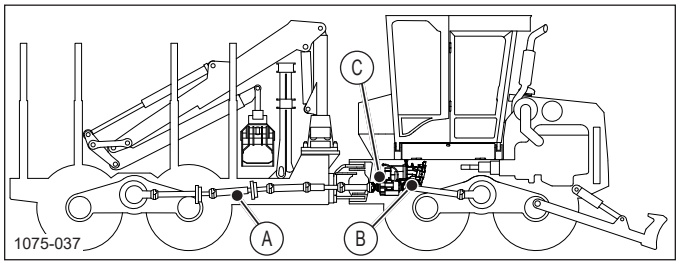
A	Element
B	Snap Ring
C	Hub
D	Set Screws

6. Loosen the two set screws and remove the hub from the pump shaft.

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BOGIE AXLES



Drive Train
A Driveshaft
B Motor
C Transmission

from the drive motor(s) is transmitted to the front and rear Bogie Axles via the transmission and the front and rear drive shafts.

Both Bogie Axles are bolted directly to their respective frames. The centre joint is pivot mounted to the rear chassis allowing it to oscillate.

Both front and rear Bogie Axles are configured in an identical manner, but are installed in opposing directions.

Each Bogie Axle consists of an input yoke, differential with hydraulic differential lock, Inboard multiple wet disk brakes, slew bearings, bogie housings and gear sets, axle housings and shafts.

Non-Tigercat Bogies Axles: The bogie has three oil compartments separated by seals. Each compartment must be drained and refilled individually.

Tigercat Bogie Axles: The bogie has no internal seals. Adding oil to the top of the Differential fills the entire bogie.

Refer to AXLE LUBRICATION and SLEW BEARING LUBRICATION in SECTION 3 for Bogie Axle Lubrication and information about how to determine which type of bogie is installed.

Refer to BRAKES in SECTION 9 for additional detailed information regarding the brakes and their operation.

DIFFERENTIAL AND DIFFERENTIAL LOCKS

The differentials distribute the power to each side of the axle while allowing the wheels on each side of the differential to turn at different speeds. The differential locks, in the front and rear axles, are hydraulically controlled and can be independently turned ON or OFF by switches in the cab.

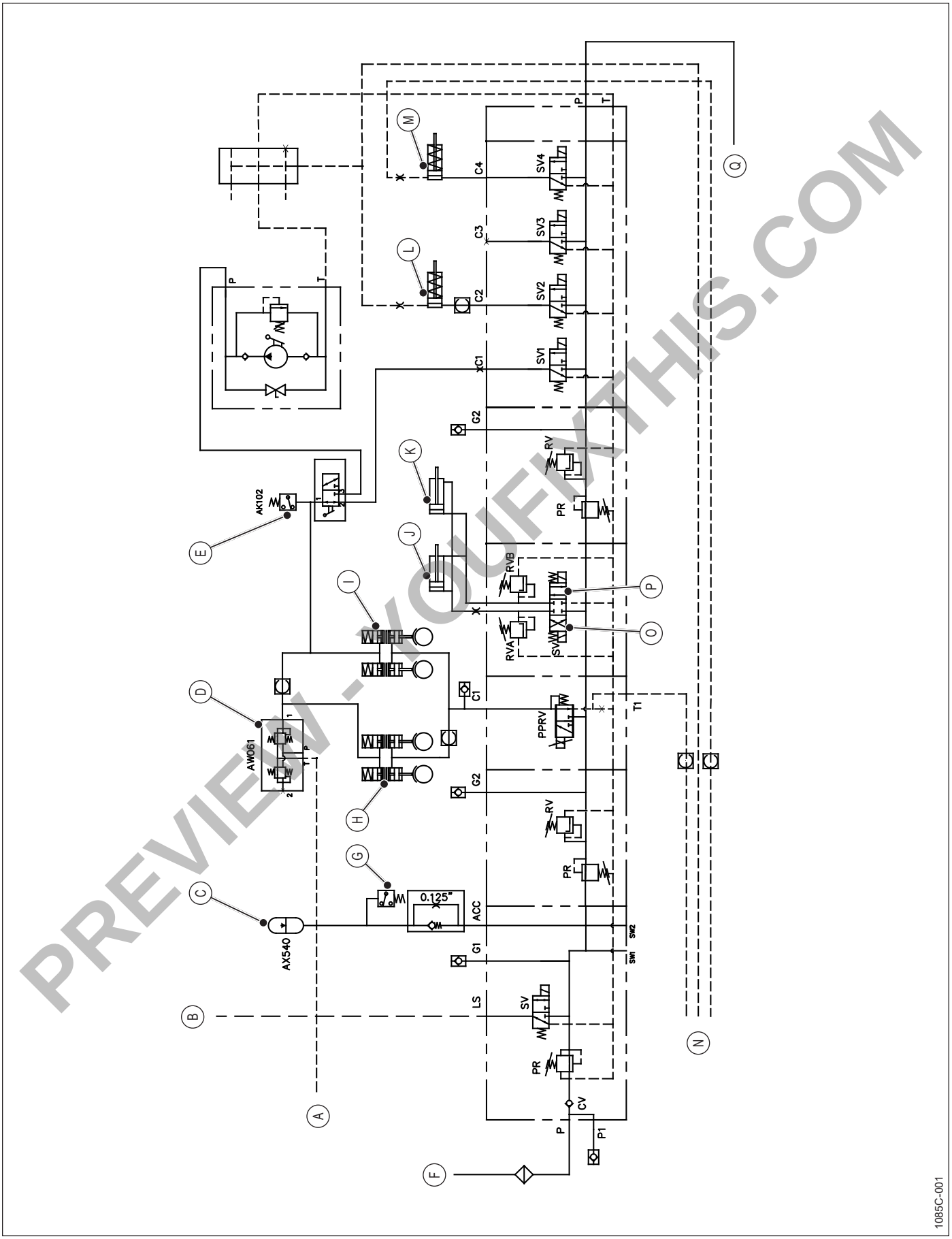
Differential locks provide positive drive to both sides of the axle (all 4 wheels) when tractive conditions might otherwise allow one side to spin.

Refer to SECTION 9 for additional information about the differential lock hydraulic circuit.

For information about axle lubrication and slew bearing lubrication refer to SECTION 3.

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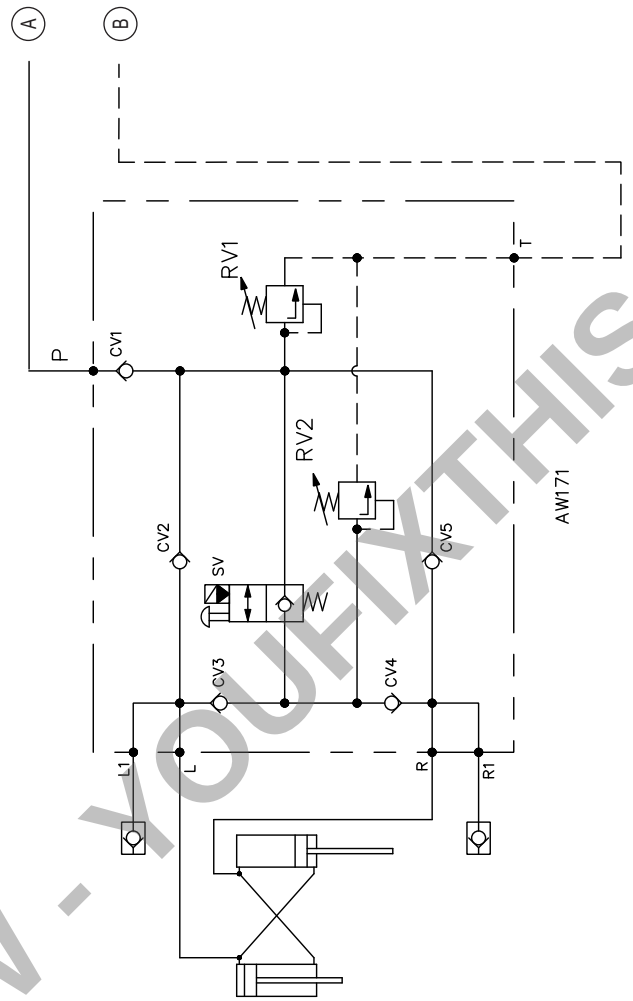
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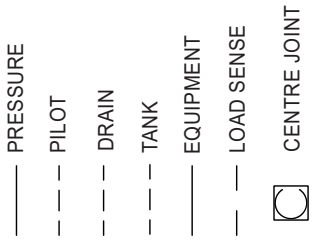


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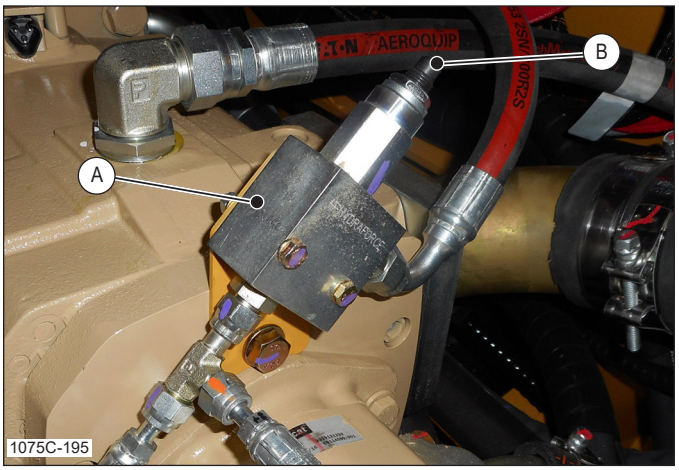


1085C-037

Circuit Schematic–Oscillation Lock

A TO P Port of Modular Manifold–End Section (In) B To Return Manifold

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A Load Sense Relief Valve
B Adjustment Screw

9. If the LS relief valve pressure requires adjusting:
   a. Loosen the locknut on the relief valve adjusting screw (2) located on the main pump controller.
   b. Turn the adjusting screw until the reading meets specifications.

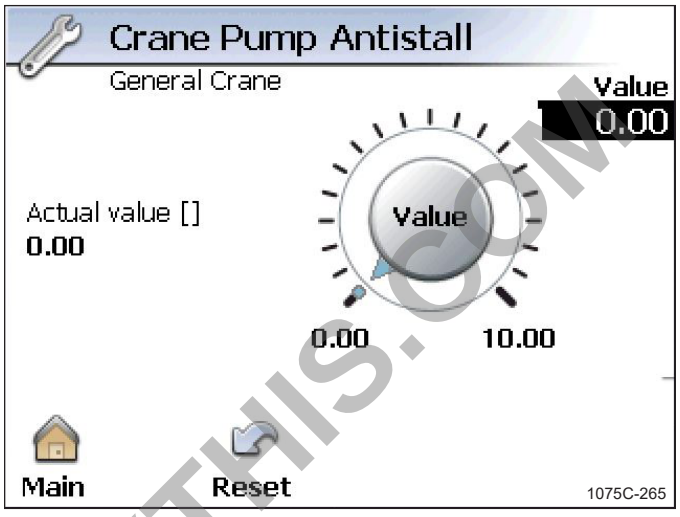
      Turn the adjusting screw IN (clockwise) to increase pressure.

      Turn the screw OUT (counter-clockwise) to decrease pressure.

   Refer to PRESSURE AND SPEED SETTINGS chart in SECTION 3 for pressure and speed specifications.
10. Repeat the process to verify the LS relief valve pressure setting remains correct.
11. Tighten the locknut on the adjusting screw.
12. Release the telescopic boom joystick button.

CRANE PUMP ANTI-STALL

Tap Crane Pump Anti-stall on the General Crane screen.



Range: 0 to10

Anti-stall limits the load applied to the engine by the main pump to prevent the engine from stalling.

Increase the anti-stall value to reduce the maximum limit of the pump output and reduce the load on the engine.

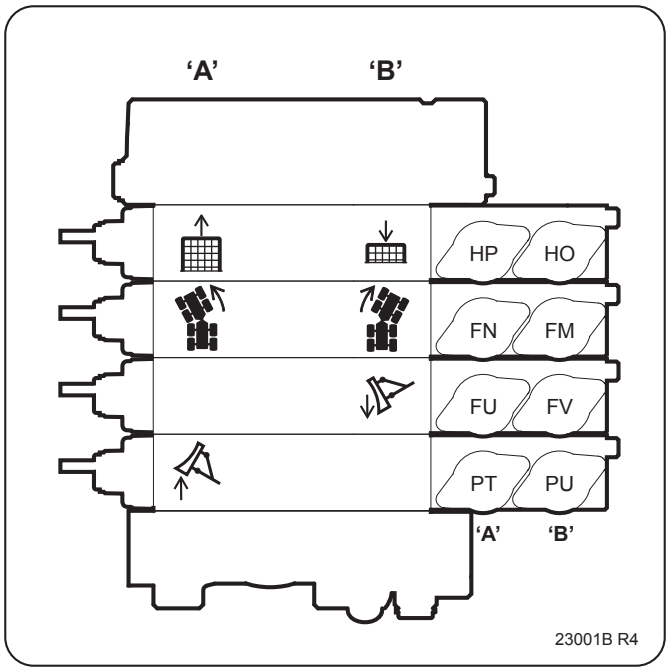
Decrease the anti-stall value to increase the maximum limit of the pump output and increase the load on the engine.

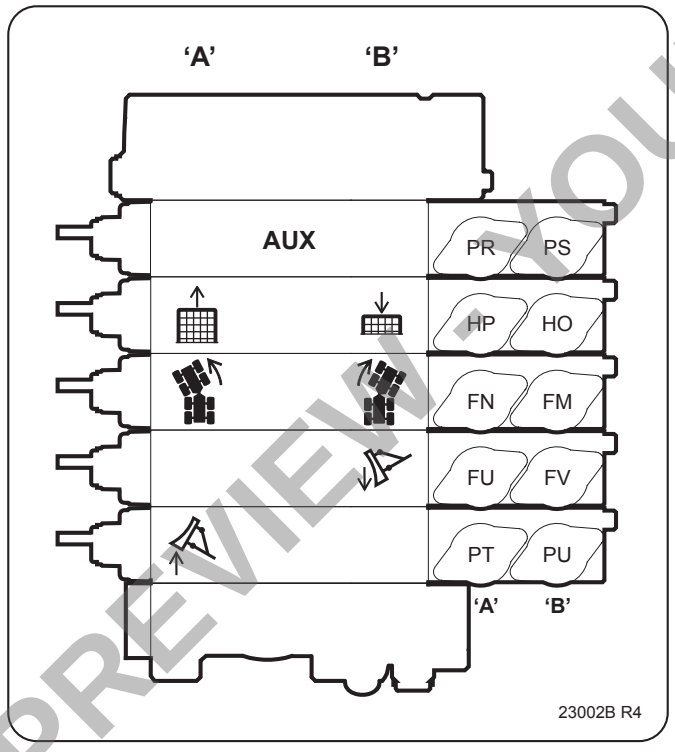
An anti-stall value of zero does not disable the anti-stall feature.

If engine lugging is experienced, increase the anti-stall value, or increase the Crane Working Speed.

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