

OPERATIONS MANUAL KUBOTA L5740 HST WITH NEILO BROOM COMBO



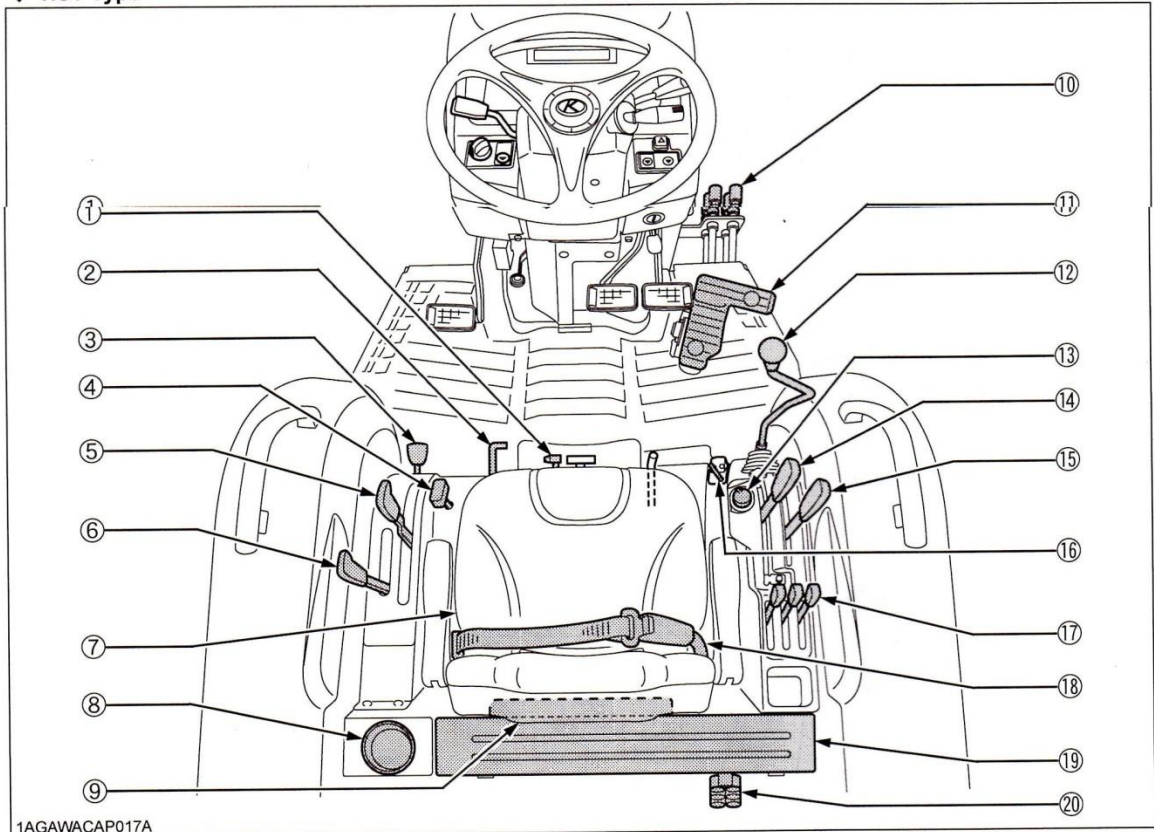
**This manual is to be used in conjunction with the
Kubota L5740 operator manuals**

BASIC OPERATING PROCEDURE OF KUBOTA L5740HST TRACTOR WITH NEILO BROOM

For detailed operating and servicing procedures please see Kubota L5740 HST operator manual supplied

■ Foot and Hand Controls

◆ HST Type



1. 3 PL speed knob (disengaged)
2. Differential lock Pedal
3. 4WD lever
4. Not equipped
5. Range gear shift lever (LMH)
6. Cruise control lever
7. Operators seat
8. Cup Holder
9. Tool box
10. Broom hydraulic couplers
11. HST speed control pedal
12. Broom Lift and Angle
13. PTO clutch (Broom Drive)
14. 3PL position control lever (disengaged)
15. Draft control (not Fitted)
16. Lock lever
17. Remote levers (disengaged)
18. Seat Belt
19. ROPS models only
20. Remote valves (not Fitted)

To start tractor

- Disengage the PTO # 13 (Broom drive)
- Ensure cruise control lever # 6 is in rear position
- Ensure HST pedal # 11 is in neutral position
- Depress Clutch
- Set throttle at approx ½ speed
- Start
- To stop tractor Turn key

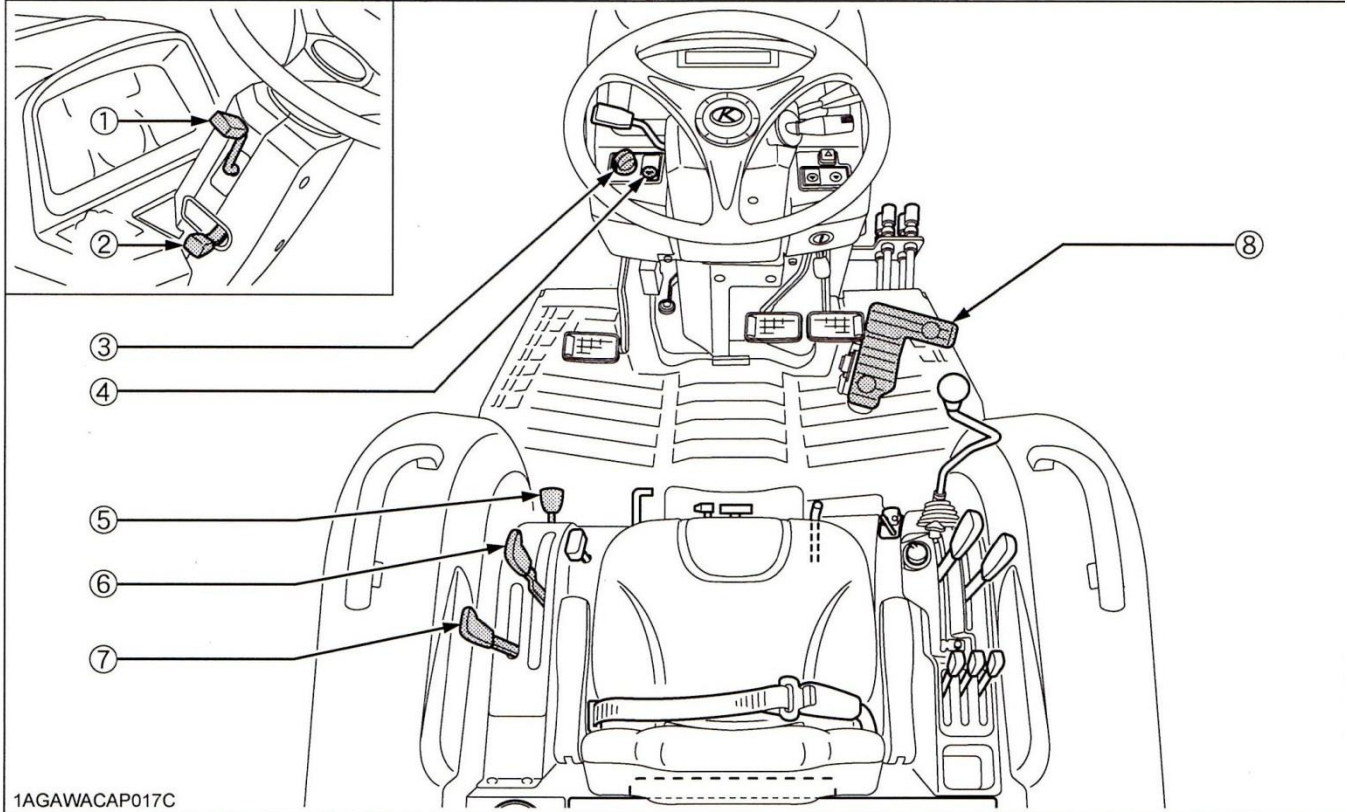
Engine operating RPM

When driving the tractor always operate at 75 to 100% of available RPM (throttle) to ensure efficient operation of HST Transmission

ALWAYS WEAR A SEAT BELT!

6. Selecting the Travel Speed.

[HST Type]



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- | | | | |
|----------------|-------------------------------|-----------------------------|--------------------------|
| (1) H-DS lever | (3) HST response control dial | (5) Front wheel drive lever | (7) Cruise control lever |
| (2) ATA lever | (4) HST mode select switch | (6) Range gear shift lever | (8) Speed control pedal |

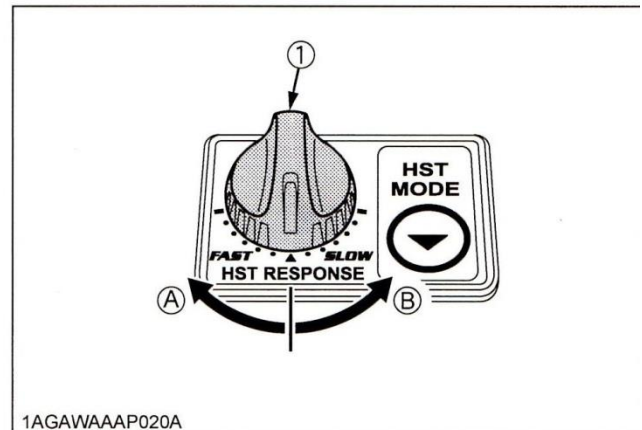
■ HST Response Control Dial

This dial is used to set the start-up response when you step on the speed control pedal and the engine brake effect when you release the pedal.

Turn the dial toward "FAST", and the response level gets quicker. Turn it toward "SLOW" to have a slower response level.

When you move the tractor forward and backward repeatedly, during loader operations, for example, set the dial toward "FAST". It helps improve the working efficiency.

When using "STALL GUARD" with PTO powered implements, the tractor automatically adjust for optimum response.



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- | | |
|-------------------------------|------------|
| (1) HST response control dial | (A) "FAST" |
| | (B) "SLOW" |

NOTE :

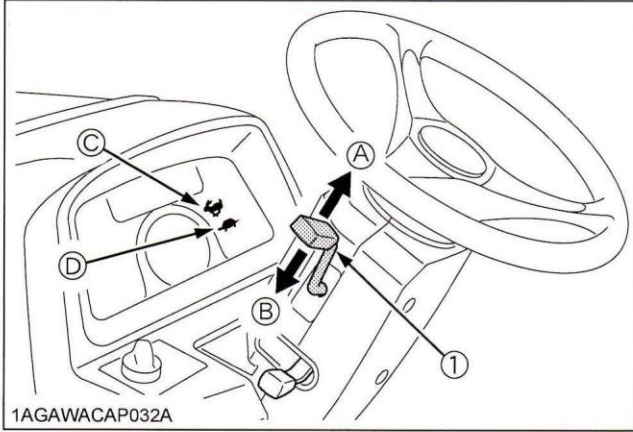
- This dial can be set whether the tractor is moving or not.

HST continued.



■ H-DS (Hydro Dual Speed) Lever

This lever changes the tractor speed in two stages whether the tractor is moving or not.

Pull up the lever to increase the speed, and push it down to decrease the speed. The selected speed can be checked with the indicator on the meter panel.

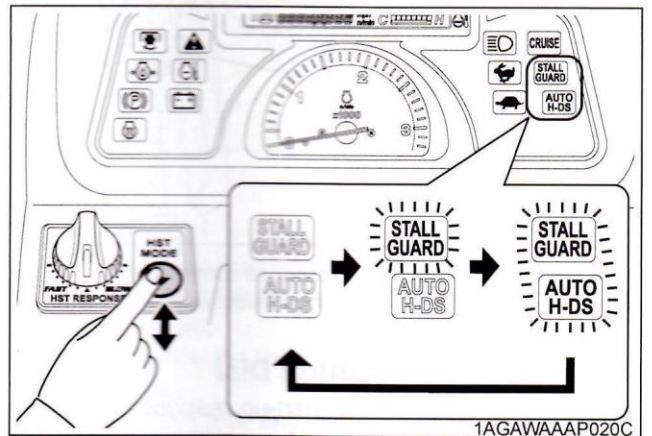
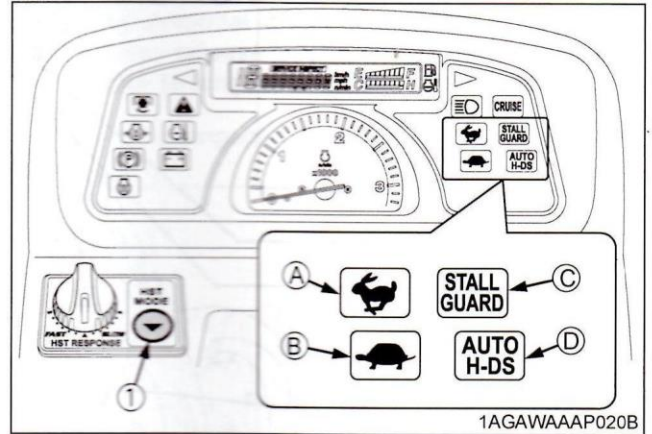




(1) H-DS lever

- (A) "UP" (Hi)
- (B) "DOWN" (Lo)
- (C) "  " (Hi)
- (D) "  " (Lo)

■ HST Mode Select Switch

Every time this switch is pushed, "MANUAL", "STALL GUARD" and "AUTO H-DS/STALL GUARD" are selected consecutively. Choose the best mode according to the type of job or your operating style. The selected mode is displayed on the indicator on the meter panel.




- (1) HST mode select switch
- (A) "  " (Hi)
 - (B) "  " (Lo)
 - (C) "STALL GUARD"
 - (D) "AUTO H-DS"

◆ STALL GUARD

1. Push the HST mode select switch until the "STALL GUARD" indicator lights up on the meter panel.
2. If the tractor gets overloaded and the engine rpm drops, the tractor automatically slows down in response to the load, which prevents an engine stall.
3. When using PTO driven implements and the tractor is in "STALL GUARD" mode, the tractor speed will automatically adjust with the loads on the engine.

◆ AUTO H-DS/STALL GUARD

1. Push the HST mode select switch until the "STALL GUARD" and "AUTO H-DS" indicators light up on the meter panel.
2. Set the H-DS lever to the "UP" (Hi) position. Make sure the "  " (Hi) lamp lights up on the meter panel.

HST continued.

- When using PTO driven implements and the tractor is in "STALL GUARD" mode, the tractor speed will automatically adjust with the loads on the engine.
- If the tractor gets overloaded and the engine rpm drops, the tractor automatically slows down to the (Lo) low speed range.
In this case, the "Hi" lamp goes out and the "Lo" lamp lights up instead.
- When the engine rpm has come up again, the tractor automatically speeds up from the (Lo) low speed range to the (Hi) high speed range. (The tractor speed increases to match the speed control pedal.) If the load is rather heavy and the engine rpm drops further, "STALL GUARD" will still prevent engine stall.

NOTE :

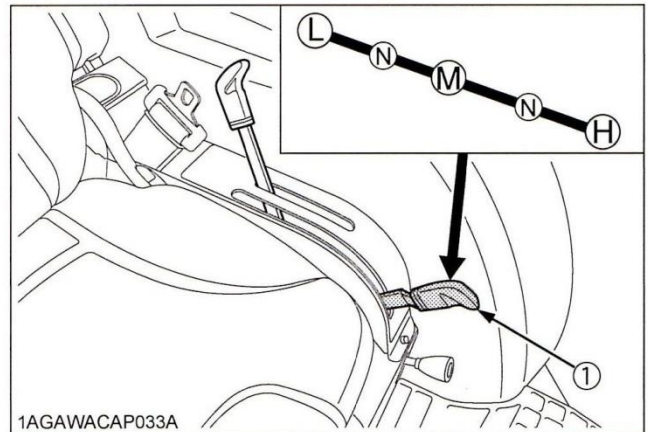
- When the H-DS lever is set at the "Lo" position, the "AUTO H-DS" system does not work. (If the "Lo" lamp stays up and the "AUTO H-DS" lamp is flashing, set the H-DS lever to the "Hi" position.)
- Even in the "AUTO H-DS/STALL GUARD" mode, the Hi-Lo speed change can be made with this lever. Return the lever to the "Hi" position when there is no more need to slow down.
- When "STALL GUARD" is on and the PTO is engaged, "STALL GUARD" switches to "STALL GUARD PLUS" mode.
"STALL GUARD PLUS" maintains engine speed at a higher rate.

◆ MANUAL

Push the HST mode select switch until the "STALL GUARD" and "AUTO H-DS" indicators go out on the meter panel. This provides for manual mode. In this mode, any automatic control in response to the load does not activate.

■ Range Gear Shift Lever (L-M-H)

The range gear shift can only be shifted when the tractor is completely stopped and the speed control pedal is in the neutral position.



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- (1) Range gear shift lever (L-M-H) (H) "HIGH"
(M) "MIDDLE"
(L) "LOW"
(N) "NEUTRAL POSITION"

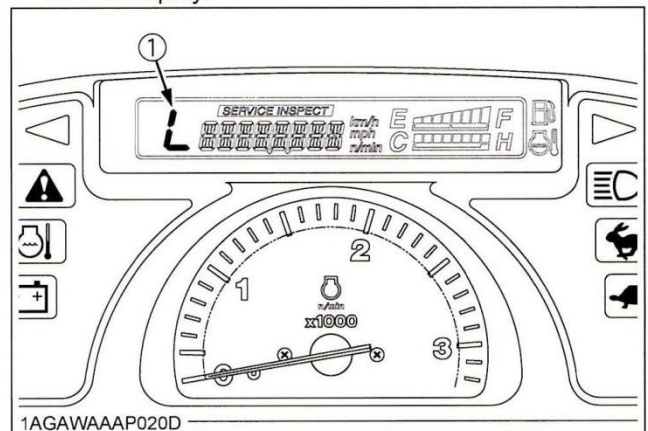
IMPORTANT:

To avoid transmission and shift linkage damage when shifting:

- Completely stop the tractor using the brake pedals.
- Do not force the range gear shift lever.
- If it is difficult to shift the lever into L, M, or H from neutral position:
On slopes be sure to set the parking brake before starting the procedure.
 - Slightly depress the speed control pedal to rotate the gears inside of the transmission.
 - Release the speed control pedal to the neutral position.
 - Depress the clutch pedal, wait for a moment and then shift the lever.

NOTE :

- The range gear shift number being selected appears on the display.

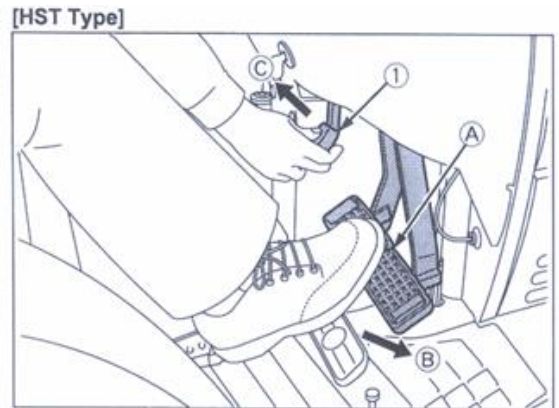


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- (1) Gear shift number (H-M-L) N: "NEUTRAL"

Parking brake

- **To set the parking brakes:**
Depress the brake pedal (a)
- Latch the brake pedal with the parking brake latch lever (1)
- To release parking brake step firmly on brake pedal.

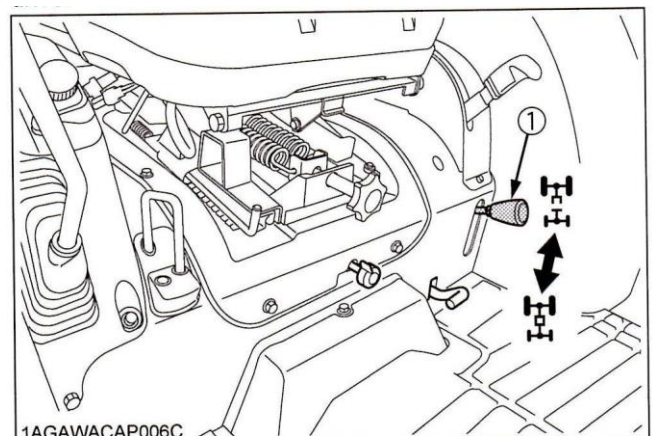


4WD Four wheel drive

- 4WD should only be engaged when greater pulling force is required on wet or loose surfaces.
- **Caution!** To avoid excess front tire wear and torque build up in the tractors drive line do not operate 4WD when operating on hard dry surfaces or traveling at highway speed.

To engage/disengage 4wd:

- Stop tractor
- 4WD lever in down position
- 2WD lever in up position



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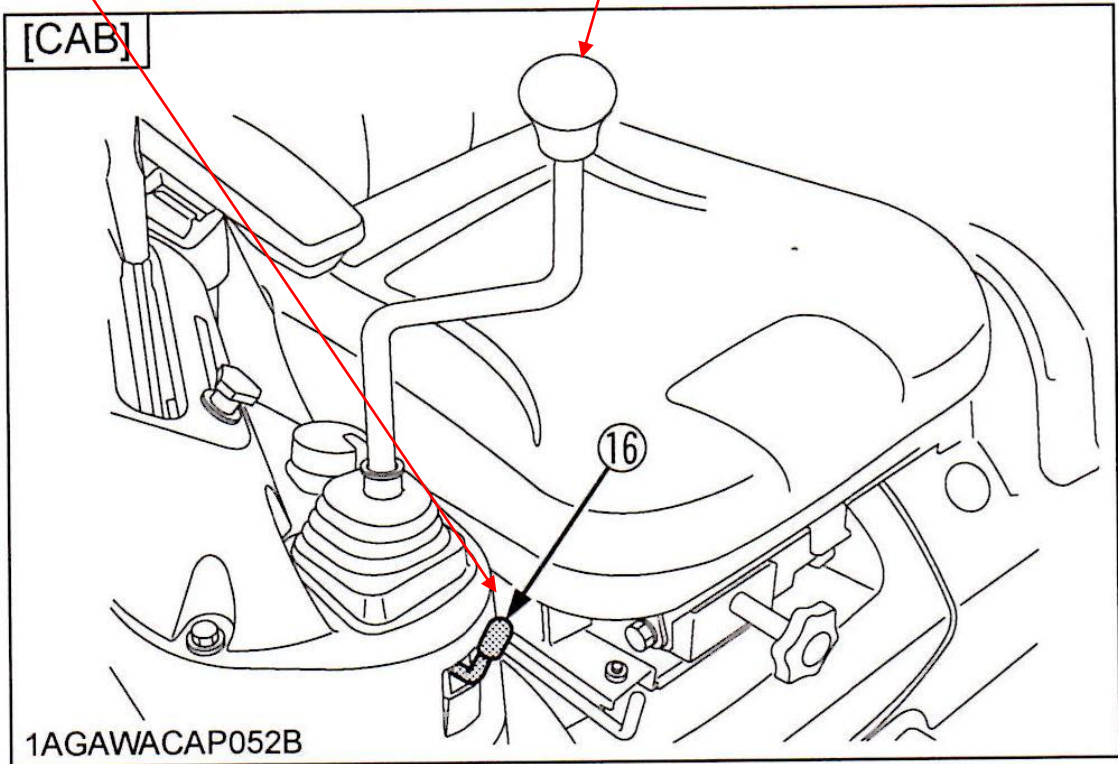
(1) Front wheel drive lever

⚙️ "ON" ⚙️ "OFF"

Operating broom

Joystick control to lift lower and angle

- Push directly forward to lower
- Pull directly back to lift
- Push to right to angle right
- Push to left to angle left
- Safety locking mechanism



Operating broom

PTO OPERATION



CAUTION

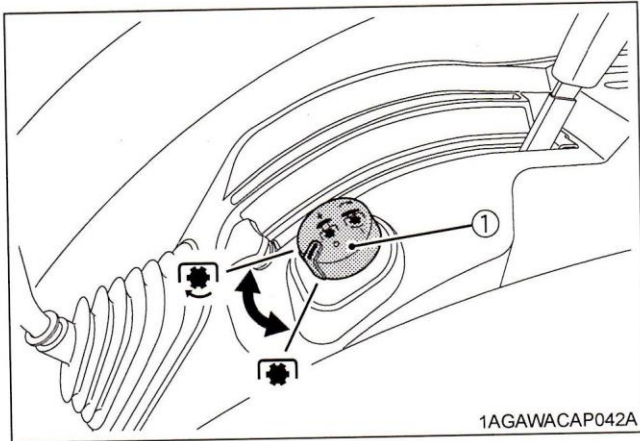
To avoid personal injury:

- Disengage PTO, stop engine, and allow all rotating components to come to a complete stop before connecting, disconnecting, adjusting, or cleaning any PTO driven equipment.

PTO Clutch Control Switch

1. The tractor has a 540 rpm speed position and 6-spline shaft.
2. The PTO clutch control switch engages or disengages the PTO clutch which gives the PTO independent control.

Turn the switch to "ON" to engage the PTO clutch. Turn the switch to "OFF" to disengage the PTO clutch.



(1) PTO clutch control switch

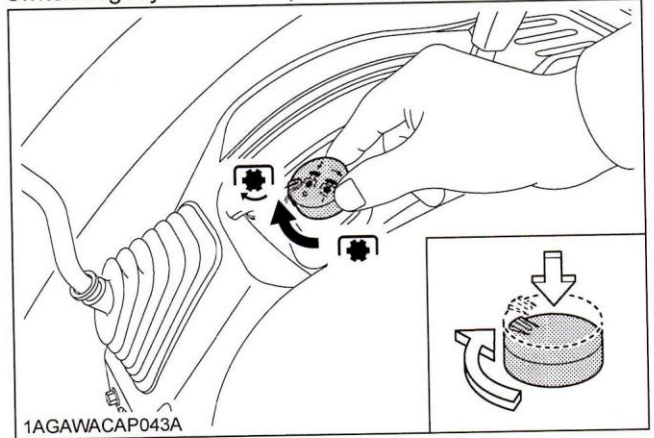
⚙️ "ON"

⚙️/ "OFF"

PTO Clutch Control Switch

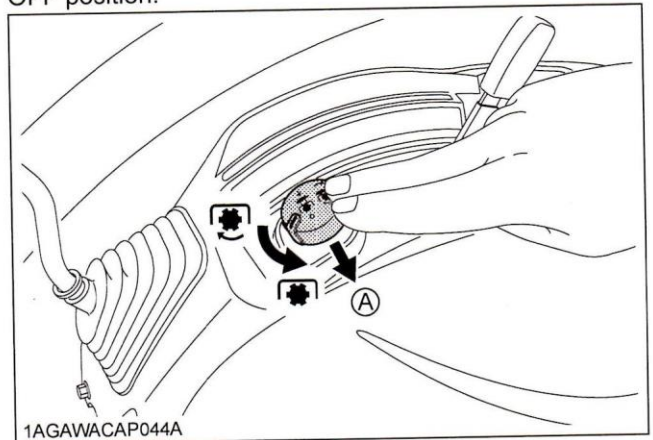
To turn ON

While pushing the switch, turn clockwise to the "ON" position and release your hand. (In the ON position, switch slightly rises itself.)



To Turn OFF

Tap on top of the switch, and the switch will return to the OFF position.



(A) "PUSH"

IMPORTANT:

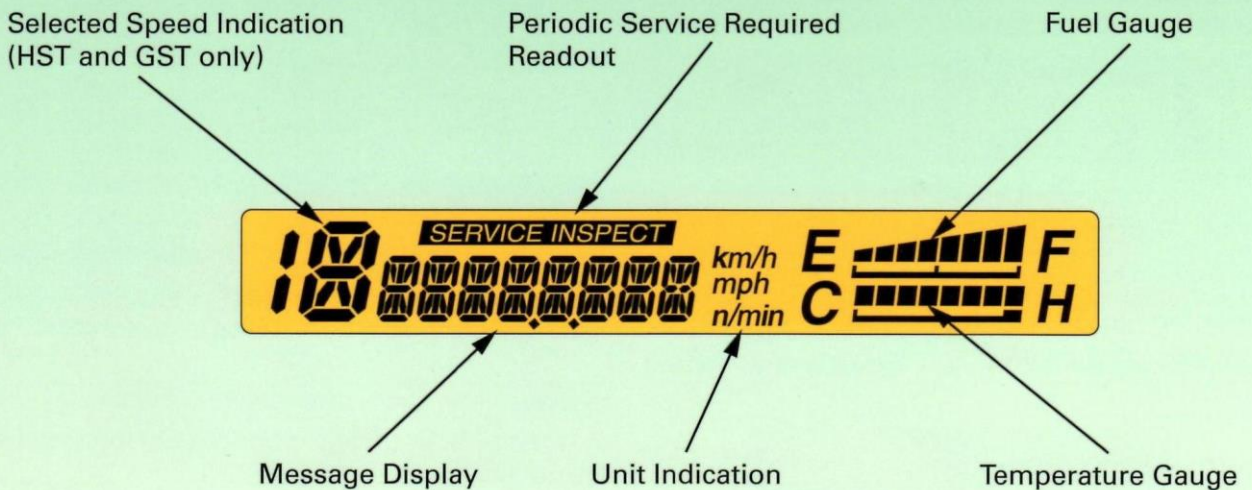
- To avoid shock loads to the PTO, reduce engine speed when engaging the PTO, then open the throttle to the recommended speed.
- To avoid damage of PTO clutch and implement, proper warm up is strongly recommended in cold weather.
Do not continuously turn the PTO clutch control switch.

IntelliPanel™



- **Display Mode Switch** is used at the switching of display indication.
- **Travel Speed Switch** is used to switching to the traveling speed display.

■ LCD INDICATION



- **Fuel Gauge** and **Coolant Temperature Gauge** are always displayed.
- **Selected Speed** is indicated on HST and GST model

STANDARD DISPLAY

- By pushing **Display Mode Switch**, you can view the five available display modes.

Display Item	HST	GST	Manual Transmission
Standard Display 1 Hour Meter (Multiplication hours)			
Standard Display 2 Trip Meter (Unit hours)			
Standard Display 3 Traveling Speed (mph)			
Standard Display 4 Traveling Speed (km/h)			
Standard Display 5 PTO Speed (PTO OFF)			
(Rear PTO ON)			
(Mid PTO ON)			

NOTE

Trip Meter can be reset to 0.0 hrs. by pushing and holding the **Display Mode Switch** for about two seconds with trip meter displayed

SERVICE INTERVAL ALERT

-The IntelliPanel display will alert the operator when the scheduled service is required.
-Please perform the required maintenance service according to the **Operator's Manual** when this function is displayed.

IMPORTANT

This display, **SERVICE INSPECT**, informs the operator that periodic maintenance service is due. It does not indicate system or product malfunction.



SERVICE INSPECT is displayed in the LCD every 50 operating hours.

This service alert indicator remains illuminated until the clearing (reset) operation is completed after the periodic maintenance is performed.

Display Mode Switch

Travel Speed Switch



NOTE:

It is possible to change other display by pushing the display mode switch.

(Clearing Operation)

Keep pushing both the Display Mode Switch and the Travel Speed Switch for two seconds or more while displaying the **Hour Meter**.

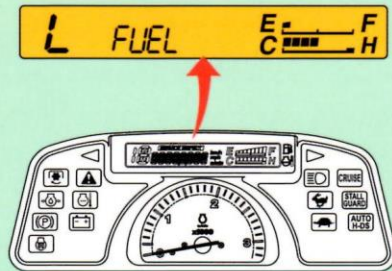
■ OPERATOR "ATTENTION" DISPLAY

- If neither of the levers nor pedals are in neutral positions when the main switch is turned to the "START" position, the engine cannot be started. The IntelliPanel displays a message for the operator to correct the situation by placing the appropriate lever or pedal in the neutral position.

Condition	Display on LCD	Solution
(Manual Transmission and GST model)		
Shuttle lever is shifted to F or R and PTO switch is turned to ON		Shift shuttle lever to Neutral and turn PTO switch to OFF position
(HST model)		
HST pedal is depressed, PTO switch is turned to ON and Clutch is engaged		Release HST pedal, turn PTO switch to OFF position and depress clutch pedal

■ WARNING INFORMATION

Fuel Level Warning

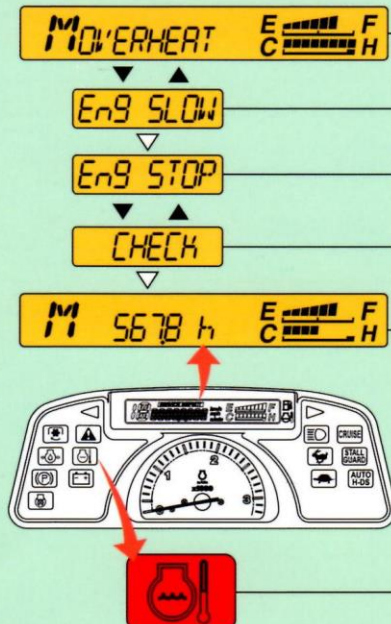


- When all the liquid crystal blocks but the leftmost one of the fuel gauge go out, "FUEL" appears in the LCD.
- Refuel

NOTE:

It is possible to return to standard display by pushing the display mode switch

Overheat



The coolant temperature is hotter than 257°F(125°C). Reduce the load and let engine idle at 800 to 1200 RPM before shutdown.

Coolant temperature has been reduced to less than 230°F(110°C). Stop the engine, and check the cooling system.

When the coolant temperature falls below 212°F(100°C), LCD indication returns to Standard Display.

The warning lamp remain illuminated until the coolant temperature falls below 212°F(100°C).

SERVICE INTERVALS

No.	Items		Indication on hour meter													Interval				
			50	100	150	200	250	300	350	400	450	500	550	600	650		700			
1	Engine start system	Check	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	every 50 Hr	
2	Wheel bolt torque	Check	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	every 50 Hr
3	Greasing	---	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	every 50 Hr
4	Battery condition	Check		○		○		○		○		○		○		○		○	every 100 Hr	
5	Fan belt	Adjust		○		○		○		○		○		○		○		○	every 100 Hr	
6	Brake	Adjust		○		○		○		○		○		○		○		○	every 100 Hr	
7	Clutch	Adjust	⊙	○		○		○		○		○		○		○		○	every 100 Hr	
8	Air cleaner element	Clean		○		○		○		○		○		○		○		○	every 100 Hr	
	Primary element	Replace																	every 1 year	
	Secondary element	Replace																	every 1 year	
9	Fuel line	Check		○		○		○		○		○		○		○		○	every 100 Hr	
		Replace																	every 2 year	
10	Fuel filter element	Clean		○		○		○		○		○		○		○		○	every 100 Hr	
		Replace								○									every 400 Hr	
11	Engine oil	Change	⊙			○		○		○		○		○		○		○	every 200 Hr	
12	Engine oil filter	Replace	⊙			○		○		○		○		○		○		○	every 200 Hr	
13	Transmission oil filter [HST]	Replace	⊙			○		○		○		○		○		○		○	every 200 Hr	
14	Toe-in	Adjust				○		○		○		○		○		○		○	every 200 Hr	
15	Power steering oil line	Check				○		○		○		○		○		○		○	every 200 Hr	
		Replace																	every 2 year	
16	HST oil line [HST]	Check				○		○		○		○		○		○		○	every 200 Hr	
		Replace																	every 2 year	
17	Radiator hose and clamp	Check				○		○		○		○		○		○		○	every 200 Hr	
		Replace																	every 2 year	
18	Intake air line	Check				○		○		○		○		○		○		○	every 200 Hr	
		Replace																	every 2 year	
19	Hydraulic oil filter	Replace								○									every 400 Hr	
20	Transmission fluid	Change								○									every 400 Hr	
21	Front axle case oil	Change								○									every 400 Hr	
22	Greasing (2WD front wheel hub)	---								○									every 400 Hr	
23	Front axle pivot	Adjust															○		every 600 Hr	
24	Engine valve clearance	Adjust																	every 800 Hr	
25	Fuel injection nozzle Injection pressure	Check																	every 1500 Hr	
26	Injection pump	Check																	every 3000 Hr	
27	Turbo charger	Check																	every 3000 Hr	
28	Lift cylinder hose	Replace																	every 2 year	
29	Cooling system	Flush																	every 2 year	
30	Coolant	Change																	every 2 year	
31	Fuel system	Bleed																		
32	Clutch housing water	Drain																	Service as required	
33	Fuse	Replace																		
34	Light bulb	Replace																		

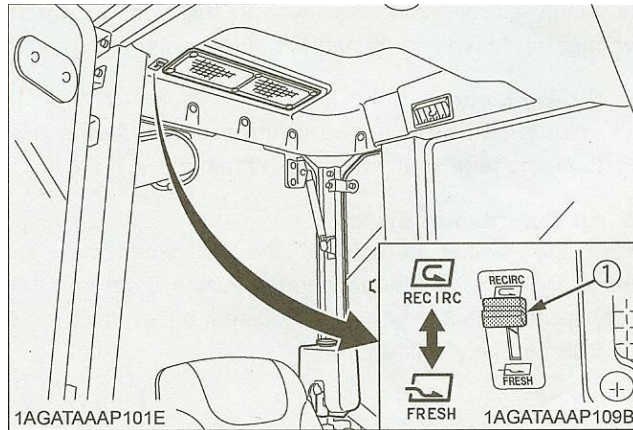
● The jobs indicated by ⊙ must be done after the first 50 hours of operation.

(Only the Check Points Different from Those for Tractors with CAB)

No.	Items		Daily	Indication on hour meter								Interval								
				100	200	300	400	500	600	700	800									
1	Clogging of air conditioner condenser screen	Clean	○																	
2	Tension of air conditioner drive belt	Adjust			○		○		○		○		○		○		○		○	every 200 Hr
3	Clogging of inner air filter	Clean			○		○		○		○		○		○		○		○	every 200 Hr
4	Clogging of fresh air filter	Clean			○		○		○		○		○		○		○		○	every 200 Hr
5	Clogging of air conditioner condenser	Check			○		○		○		○		○		○		○		○	every 200 Hr
6	Air conditioner pipes and hoses	Check																		every 1 year
		Replace																		every 2 years
7	CAB isolation cushion	Check																		every 1 year
8	Washer liquid	Check																		service as required
9	Amount of refrigerant (gas)	Check																		service as required

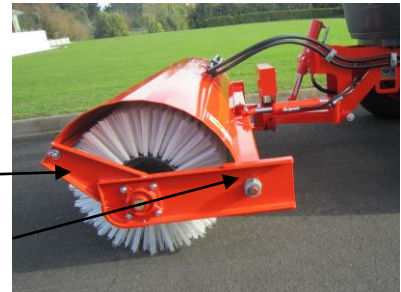
Keeping dust out of the cabin

- Keep all windows and doors shut
- Turn on blower with or without air conditioning
- Ensure lever in cab roof is set to **FRESH** to keep positive air pressure in cab



REPLACING BRUSH SECTIONS

- Stop engine and lower close to ground
- Remove Nut on LH end of broom
- Remove large nut on LH end of broom
- Remove LH end plate and worn brush section
- Fit new brush sections and reverse procedure



If brushes are to be recycled 25mm of bristle must be retained

CAUTION TO AVOID DAMAGE TO BROOM ENSURE BRUSH SECTIONS CONFORM TO CORRECT LENGTH AND DIAMETER

Daily & Weekly Service Checks

- Check engine oil level and cooling water daily

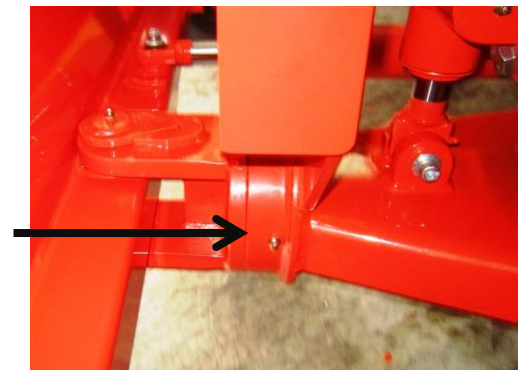
- Greasing-There are twelve grease nipples requiring one shot of grease daily



Important

It is possible to over-grease the spring loaded pivot causing it to lock. If this occurs, remove grease nipple, cycle pivot and release excess grease, replace grease nipple.

A locked pivot will cause premature brush wear!



- Check and empty bowl on pre-cleaner daily.

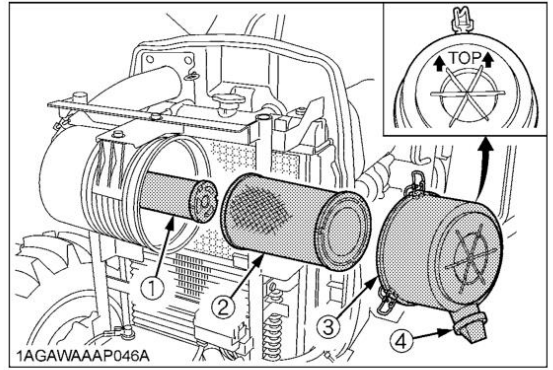


- Weekly: Squeeze vacuator on bottom of long pre cleaner pipe to release potentially trapped water



Daily & Weekly Service Checks Continued..

- Check & Clean all screens daily
- Check primary air filter weekly



(1) Secondary (safety) element
(2) Primary element
(3) Cover
(4) Evacuator valve

- Check site glass on PTO step up box weekly, top up with Kubota UDT oil (same as transmission)
- **Note:** Change oil in step up box when trans. oil changed



- Breather only, not to be opened
- Top up or change oil via filter
- Check oil level of hydraulic reservoir, oil should be aligned with top indicator

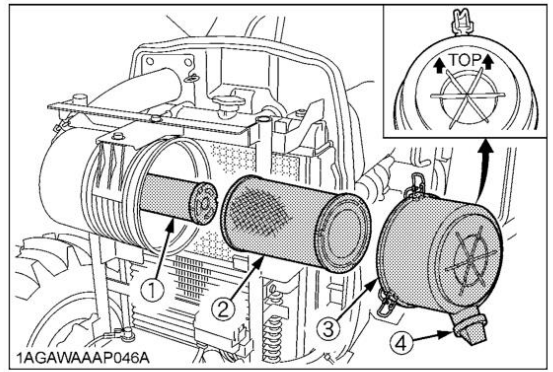


- Check tyre pressures weekly, Front 20 PSI, Rear 16 PSI

**CHECK DAILY FOR OIL LEAKS AND REPORT IMMEDIATELY
TO YOUR SUPERVISOR OR SERVICE PROVIDER**

Daily & Weekly Service Checks Continued..

- Check & Clean all screens daily
- Check primary air filter weekly



(1) Secondary (safety) element
(2) Primary element
(3) Cover
(4) Evacuator valve

- Check site glass on PTO step up box weekly, top up with Kubota UDT oil (same as transmission)
- **Note:** Change oil (.34l) step up box when trans. oil changed



- Top up or change oil via filter
- Breather only, not to be opened
- Check oil level of hydraulic reservoir, oil should be aligned with top indicator



- Check tyre pressures weekly, Front 20 PSI, Rear 16 PSI

CHECK DAILY FOR OIL LEAKS AND REPORT IMMEDIATELY TO YOUR SUPERVISOR OR SERVICE PROVIDER

Part numbers and oils

- Engine oil Filter part # HH164-32430
- Fuel filter part # 15521-43160
- Hydraulic filter part # HHTAO-37710
- HST filter part # HHTAO-5990
- Air Filter (outer) part # 59800-26110
- Air Filter (Inner) part # 3A111-19138
- Air Conditioning Filter part # T1855-71600
- Cab /ignition key part # T0270-81810
- Broom Filter MF1002P10NB
- Broom Bearing UC207 self aligning bearing & F207 bearing block
- Tyre pressures Front 20 PSI rear 16psi

Oils

- **Engine oil:** 9.4 L Kubota Engine oil API CH4 15W40 / BP C6 Global
- **Transmission oil:** 45L (TTF) Tractor Transmission Fluid SA80W
Kubota UDT-GL4 or Super UDT-GL4 / BP Traction TF10 classification API-GL4
- **Front axle case:** 9.0 L same as tractor transmission
- **Broom Hydraulics:** 80 L HD46
- **Step up box:** 0.3l same as tractor transmission, fill to site glass only (do not overfill)

GREASE

- General purpose grease

manufactured by

