

OPERATOR'S MANUAL T SERIES

HiTech



About this manual

This operator's manual is for the Valtra T Series HiTech tractors. The T Series HiTech models are T144 H, T154 H, T174e H, T194 H, T214 H and T234 H.

The manual is meant for agricultural tractors only. If the tractor is used for other applications, it is the owner's responsibility to ensure compliance with local regulations. In this case, always contact your dealer first.

The purpose of this manual is to enable the owner and operator to use the tractor in a proper manner. Providing that the instructions are followed carefully, the tractor will provide years of service in the tradition of Valtra.



WARNING: Before using the tractor, read and understand all the instructions in this manual. They must then be strictly followed when operating and maintaining the tractor.

IMPORTANT: When using the tractor, always follow all valid laws and regulations even if they are not specifically pointed out in this manual.

The manual contains detailed instructions for operating, servicing and maintaining the tractor.

Optional equipment in the manual refers to equipment that can be selected when ordering the tractor.

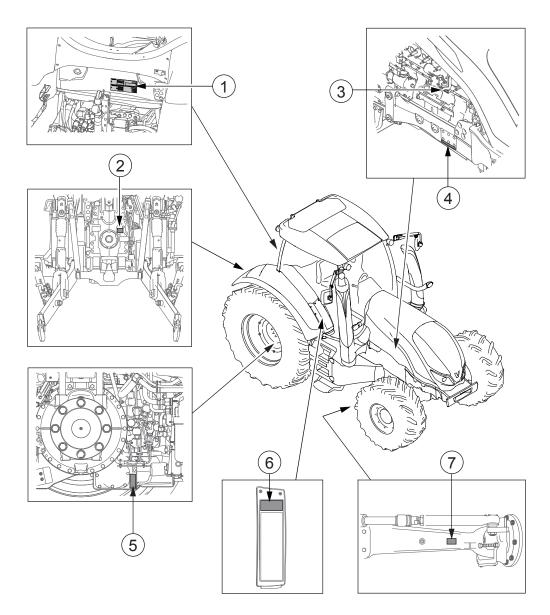
Due to the continual development of the products, the content of this manual may not always correspond to the new product. Therefore, we retain the right to make alterations without prior notification.

Maintenance, repairs and adjustments which are not described in this manual require special tools and exact technical data. For such work contact your dealer who has specially trained personnel to help you.

Valtra Inc.

Tractor serial numbers

When ordering spare parts or service, give the model indication and serial numbers and, in some cases, the engine, front axle, cab and transmission numbers.



- 1. Cab number and Type plate EEC
 - Model = model indication
 - Identification number = tractor serial number
- 2. Power take-off identification number
- 3. Engine number
- 4. Tractor serial number
- 5. Transmission Identification number
- 6. Tractor technical details used by service/spare part department
- 7. Front axle number

Contents

ΑŁ	oout t	his man	nual		1
Tr	actor	serial n	numbers		2
1	Safe	ety prec	autions		13
	1.1	Hazard	statements	5	13
	1.2	Safety re	ules		13
		1.2.1		safety and information signs	
		1.2.2		ns	
		1.2.3		g hardware safety	
		1.2.4	Using safe	ty features	23
		1.2.5	Safe opera	ation	26
			1.2.5.1	Following safe operating practices	
			1.2.5.2	Getting into and out of the cab	
			1.2.5.3	Driving on public roads	
			1.2.5.4	Controlling the driving speed	
			1.2.5.5	Driving downhill	
			1.2.5.6	Permitted driving inclinations	
			1.2.5.7	Operating with implements	
			1.2.5.8	Running with power take-off driven implements or machines.	
			1.2.5.9	Using ballast weights	
			1.2.5.10	Towing	
			1.2.5.11	Ensuring personal safety of other people	
			1.2.5.12	Fire hazards	
			1.2.5.13	Handling viton seals subjected to high temperatures	
			1.2.5.14	Aftertreatment system	
			1.2.5.15 1.2.5.16	Working with the front loaderRepair and maintenance	
_		4			
2				trols	
	2.1	-	• •	/stem	
	2.2	Pedals			38
	2.3	Dashbo	ard		39
	2.4	Control	panel for A	-pillar display and Proline	40
	2.5	Proline i	instrument	panel	40
		2.5.1	Symbols of	n the Proline instrument panel display	41
		2.5.2	Indicator lig	ghts on the left side of the display	42
		2.5.3	Indicator lig	ghts on the right side of the display	43
	2.6	Controls		ht-hand side	
		2.6.1	•	ntrols	
		2.6.2	Linkage		
			2.6.2.1	Rear linkage	
			2.6.2.2	Front linkage	
		2.6.3		9-off	
			2.6.3.1	Rear power take-off	
		0.0.4	2.6.3.2	Front power take-off	
		2.6.4		ydraulics	
		2.6.5		rols	
	0.7	2.6.6	-	er emergency button	
	2.7			ar side	
		2.7.1		ow opening latch	
		2.7.2		wipers	
	2.0	2.7.3		rive system controls	
	2.8			t-hand side	
	2.9		_	ht-hand side roof console	
				yview equipment right-hand side roof console	
	2.11	Working	ı lıght contr	ols	56

	2.12	Air cond	litioning controls	57
		2.12.1	Automatic air conditioning and additional heater controls	
		2.12.2	Manual air conditioning and additional heater controls	
		2.12.3	Manual air conditioning	58
		2.12.4	Heater controls	58
	2.13	Operato	or's seat	59
		2.13.1	Air suspended operator's seat	59
		2.13.2	Valtra Evolution operator's seat	60
	2.14	Controls	s on the rear mudguard	61
			nd controls and connections	
			ntrols and connections outside the cab	
3				
J	•			
	3.1	-	the tractor in	
	3.2	•	ng for use	
		3.2.1	Adjusting the air-suspended driver's seat	
		3.2.2	Adjusting the Valtra Evolution driver's seat	
		3.2.3	Adjusting the right-side armrest	
		3.2.4	Adjusting the steering wheel	
		3.2.5	Adjusting standard mirrors	
		3.2.6	Adjusting optional mirrors	
		3.2.7	Heating mirrors	
		3.2.8	Using the windscreen wiper and washer	75
		3.2.9	Using the side window wiper and washer	75
		3.2.10	Using the rear window wiper and washer	
		3.2.11	Using the roof window wiper and washer	76
		3.2.12	Using the window heaters	77
		3.2.13	Power shuttle lever	78
		3.2.14	Control stop	79
		3.2.15	Using the control stop	79
		3.2.16	Using the ignition switch	79
		3.2.17	Main power	81
		3.2.18	Using the main power emergency button	
		3.2.19	Using the roof hatch	
	3.3	Starting	the tractor	
		3.3.1	Starting under normal conditions.	
		3.3.2	Starting under cold conditions	
		3.3.3	Starting with an auxiliary battery	
	3.4		phts	
	0.4	3.4.1	Using the light switch	
		3.4.2	Using the follow-me-home functionality	
		3.4.2	Using the working lights	
		3.4.4	Using the cab light	
		3.4.5	Using the torch	
	2 5		otification devices	
	3.5	3.5.1		
			Using turn signals	
		3.5.2	Using the horn	
		3.5.3	Using the rotary beacon light	
	0.0	3.5.4	Using hazard lights	
	3.6	•	and ventilation	
		3.6.1	Using the heater	
		3.6.2	Using the manual air conditioning	
		3.6.3	Using the manual air conditioning and additional heater	
		3.6.4	Automatic air conditioning	
			3.6.4.1 Automatic air conditioning control panel and display	
			3.6.4.2 Using the automatic air conditioning	
			3.6.4.3 Using ECO mode	98
			3.6.4.4 Using the additional heater	99
			3.6.4.5 Using defrost	99
		365	Fuel-operated heater	100

		3.6.5.1	Installing SIM card to the mobile controlled heater	101
3.7	Power o	utlets		102
	3.7.1	Lighter and p	oower outlets	102
	3.7.2	Using the tw	o-pin current socket and power switch	. 102
	3.7.3	Three-pin cu	ırrent socket	. 103
	3.7.4	Trailer socke	et	103
3.8	Driving t	the tractor		.105
	3.8.1		about steering	
	3.8.2	Power shuttl	e	105
	3.8.3	Parking brak	e	. 106
	3.8.4	Using the po	wer shuttle lever	107
	3.8.5	Adjusting the	e power shuttle engagement speed	. 109
	3.8.6	Clutch pedal		. 110
		3.8.6.1	Using the clutch pedal while driving	110
		3.8.6.2	Adjusting the clutch pedal engagement position	. 111
	3.8.7	Braking		. 113
	3.8.8	Using the en	nergency brake button	. 113
	3.8.9	Using the en	nergency brake lever	114
	3.8.10	Starting to di	rive	. 115
	3.8.11	Transmission	n system	116
		3.8.11.1	Speed matching	117
		3.8.11.2	Selecting the speed range	. 117
		3.8.11.3	Selecting the creeper speed range	119
		3.8.11.4	Using Powershift	120
		3.8.11.5	Preprogramming gear for driving direction changing	121
		3.8.11.6	Using the shifting automatics	123
		3.8.11.7	Programming shifting automatics	
		3.8.11.8	Using the Powershift limiter	. 127
		3.8.11.9	Activating and deactivating automatic shifting between	400
	0.0.40		speed ranges C and D	
	3.8.12	_	coPower mode	
	3.8.13	•	tractor	
	3.8.14	=	e tractor	
		3.8.14.1	Filling the fuel tank	
	0.045	3.8.14.2	Filling the AdBlue/DEF tank	
	3.8.15		ol	
		3.8.15.1	Cruise control buttons.	
			Programming the driving speed cruise control	
		3.8.15.3	Activating and deactivating the driving speed cruise control	
		3.8.15.4	Programming the engine speed cruise control	
	2016	3.8.15.5	Activating and deactivating the engine speed cruise control	
	3.8.16 3.8.17		action control	
	3.0.17		uspension and cab suspension	
		3.8.17.1 3.8.17.2	Front axle air suspension AutoComfort cab suspension	
	2 0 40		•	
	3.8.18		DCK	
		3.8.18.1 3.8.18.2	Differential lock	
	3.8.19		Engaging and disengaging the differential lockdrive	
	3.0.19	3.8.19.1	Four-wheel drive	
	2 0 20	3.8.19.2	Engaging and disengaging the four-wheel drive	
	3.8.20	3.8.20.1	automatics Driving start automatics	
		3.8.20.1	Activating and deactivating the driving start automatics	
		3.8.20.3	Setting the driving start automatics	
	3.8.21		Setting the driving start automatics	
	J.O.Z I	3.8.21.1	QuickSteer	
		3.8.21.1	Using QuickSteer	
		3.8.21.3	Resetting QuickSteer	
	3 8 22		verse drive system	150 151

		3.8.22.1	TwinTrac reverse drive system	
		3.8.22.2	Activating and deactivating TwinTrac	
		3.8.22.3	Using TwinTrac with QuickSteer	152
	3.8.23	HillHold		153
		3.8.23.1	HillHold	153
		3.8.23.2	Using HillHold	153
3.9	Displays	5		. 154
	3.9.1	Adjusting dis	splay brightness	154
3.10	Proline i	nstrument p	anel display	155
	3.10.1	Fixed views.		155
	3.10.2	Single-row a	nd two-row views	156
		3.10.2.1	Working time view	157
		3.10.2.2	Battery voltage view	157
		3.10.2.3	Cruise control view	157
		3.10.2.4	Driving speed view	158
		3.10.2.5	Rear power take-off speed view	159
		3.10.2.6	Front power take-off speed view	159
		3.10.2.7	Engine speed view	159
		3.10.2.8	Fuel consumption views	160
		3.10.2.9	Rear lower links' position view	161
		3.10.2.10	Gearbox temperature view	
		3.10.2.11	Travel distance and surface area view	162
	3.10.3	Periodical m	aintenance view	163
		3.10.3.1	Clearing the periodical maintenance view	163
	3.10.4	Resetting vie	ews	164
	3.10.5	Changing pa	rameters	164
		3.10.5.1	Activating and exiting the setting mode	164
		3.10.5.2	Changing the parameter value	165
		3.10.5.3	Setting the implement width	166
		3.10.5.4	Changing the hour display	166
		3.10.5.5	Changing the minute display	167
		3.10.5.6	Changing the clock mode	167
		3.10.5.7	Activating the direction indicator buzzer	167
		3.10.5.8	Changing the temperature unit	168
		3.10.5.9	Changing the length unit	168
		3.10.5.10	Changing the volume unit	169
		3.10.5.11	Activating and deactivating the front power take-off speed view	169
		3.10.5.12	Adjusting the display contrast	170
3.11	A-pillar o	display		170
	3.11.1		ay control panel	
	3.11.2		/	
		3.11.2.1	Power shuttle section	
		3.11.2.2	Transmission section	
		3.11.2.3	General information section	173
		3.11.2.4	Changing general information section views	175
	3.11.3	Driver's setti	ngs display	176
		3.11.3.1	Indexes section	176
		3.11.3.2	Adjustable indexes	176
		3.11.3.3	AUTO2 HI and LO sections	177
		3.11.3.4	Speed sensor calibration section	178
		3.11.3.5	I/O test section	
	3.11.4	Fault code v	iew	179
3.12	Rear linl			
·	3.12.1	-	ght	
	3.12.2	_	ing indicator lights	
	3.12.3	_	e linkage	
	3.12.4	_	/stop/lower switch	
	3.12.5	_	sition control knob	
	3.12.6		ne position set by position control knob	

	3.12.7	Using the lin	kage floating position	186
	3.12.8	Using the lift	ing/lowering switch	187
	3.12.9	Using the lift	ing/lowering push buttons	187
	3.12.10	Setting the lo	owering speed	188
	3.12.11	Limiting the I	ifting height	189
	3.12.12	Draft control		189
		3.12.12.1	Activating and deactivating the draft control	190
	3.12.13	Drive balanc	e control	190
		3.12.13.1	Using the drive balance control	
3.13	Three-pe	oint linkage.		
	3.13.1	-	plements	
	3.13.2	_	couplings for lower links	
	3.13.3	• .	links	
	0.10.0	3.13.3.1	Adjusting lift links	
		3.13.3.2	Adjusting hydraulic lift link	
	3.13.4		ver links	
	3.13.5		e limiters	
	3.13.6		de limiters	
	3.13.0	3.13.6.1	Setting automatic side limiters to fixed position	
		3.13.6.2	=	
0.44	Δ '11' -		Setting automatic side limiters to floating position	
3.14	•	•		
	3.14.1	•	ne auxiliary hydraulics rear valves	
		3.14.1.1	Adjusting the flow control	
		3.14.1.2	Adjusting the kick-out pressure	
	3.14.2	•	nt linkage shut-off valve	
	3.14.3	_	ont hydraulics	
		3.14.3.1	Activating and deactivating the front hydraulics	
		3.14.3.2	Controlling the front hydraulic valves 1F and 2F	
		3.14.3.3	Controlling the front hydraulic valves 3F and 4F	
	3.14.4	Changing the	e front hydraulics settings	211
		3.14.4.1	Front hydraulic control's safety time out	211
		3.14.4.2	Adjusting the front hydraulic control's safety time out speed limit	211
		3.14.4.3	Activating and deactivating the front hydraulics assistant	213
	3.14.5	Connecting t	o the valves	
		3.14.5.1	Using quick couplings	
		3.14.5.2	Using a hydraulic valve as a single-action valve	
		3.14.5.3	Connecting an external hydraulic motor to the auxiliary	
			hydraulics	217
3.15	Front lin	kage		217
	3.15.1		nt linkage	
	3.15.2		nt linkage connected to the rear valves	
	3.15.3	-	linkage lifting link positions	
3 16	Valtra fr	-		
0.10	3.16.1		ıltra front loader	
	3.16.2	_	Iltra Quick front loader coupling device	
	3.16.3	_	ive	
	3.16.4	_	equipment	
	3.16.5	_	ne extra cylinder with the change valve	
2 47		_		
3.17			alamanta ta tha mayor tala aff	
	3.17.1		plements to the power take-off	
	3.17.2		take-off	
		3.17.2.1	Recommended rear power take-off shafts	
		3.17.2.2	Activating rear power take-off	
		3.17.2.3	Starting rear power take-off	
		3.17.2.4	Stopping rear power take-off temporarily	
		3.17.2.5	Deactivating rear power take-off	
		3.17.2.6	Stopping the rear power take-off in emergency	
		3.17.2.7	Using the rear power take-off automatic start/stop	
		3.17.2.8	Proportional ground speed power take-off	237

			3.17.2.9	Adjusting the rear power take-off engagement	
		3.17.3	Front power	take-off	
			3.17.3.1	Activating and deactivating front power take-off	241
	3.18	Impleme	ent signal co	nnection	242
		3.18.1	Implement s	ignal connector	242
		3.18.2	Resetting the	e implement signal connection	243
	3.19	ISOBUS	S implement	control system	244
		3.19.1	ISOBUS terr	minal connector	245
		3.19.2	ISOBUS imp	plement connector	245
		3.19.3	Bus extension	on connectors	245
		3.19.4		minal	
	3.20	Auto-G	uide Readine	PSS	245
		3.20.1	Using Auto-0	Guide	246
		3.20.2	Using Auto-0	Guide with QuickSteer	247
		3.20.3		with TwinTrac and QuickSteer	
		3.20.4	_	e Auto-Guide steering valve	
	3.21	Towing			
		3.21.1	•	up hitch	
		3.21.2		hitch	
		3.21.3		ck-up hitch	
		3.21.4	Using the pic	ckup hitch	
			3.21.4.1	Unlatching the pick-up hitch	
			3.21.4.2	Latching the Nordic and Euro pick-up hitch	
			3.21.4.3	Extending the Hydraulic pick-up hitch	
			3.21.4.4	Latching the Hydraulic pick-up hitch	
		3.21.5		e pick-up hitch implement	
			3.21.5.1	Changing the Euro pick-up hitch implement	
		0.04.0	3.21.5.2	Changing the Hydraulic pick-up hitch implement	
		3.21.6	-	drawbar	
		0.04.7	3.21.6.1	Adjusting the agricultural drawbar	
		3.21.7	_	ce frames	
			3.21.7.1 3.21.7.2	Adjusting the jaw height	
				Attaching to the mechanical jaw	
			3.21.7.3 3.21.7.4	Attaching to the mechanical jaw K80 Attaching to fixed Piton fix/fixed Ø80mm ball hitch	
			3.21.7.4	Attaching to the automatic jaw	
	2 22	Air prop		Attaching to the automatic jaw	
			-		
	3.23	3.23.1			
		3.23.1		signalsessure brakes	
		3.23.2	•	iller brake valve	
			-		
4	Maii	ntenand	ce		2/1
	4.1	Mainter	nance schedu	ıle	271
	4.2	Service	inspection		271
	4.3	Perform	ning maintena	ance tasks	272
		4.3.1	Cleaning the	tractor	273
			4.3.1.1	Cleaning the engine compartment	274
			4.3.1.2	Cleaning front axle suspension bellows	275
			4.3.1.3	Cleaning polycarbonate windows	
			4.3.1.4	Cleaning the exhaust pipe of the fuel-operated heater	
			4.3.1.5	Cleaning the fuel-operated heater and its surroundings	
		4.3.2	Greasing lub	oricating points fitted with grease nipples	279
		4.3.3		he tractor	
	4.4			and lubricants	
		4.4.1	Fuel		
			4.4.1.1	Quality requirements for engine fuel	
			4.4.1.2	Storing fuel	
			4.4.1.3	Storing AdBlue/DEF	
			4.4.1.4	Biodiesel fuel	282

		4.4.1.5	AdBlue/DEF	282
	4.4.2	Grease		.283
		4.4.2.1	Universal Grease - NLGI2 universal grease	
		4.4.2.2	Calsium LF - NLGI2 calsium grease LF	
		4.4.2.3	Grease Moly - NLGI2 moly grease	
4.5	Storing t			
٦.٥	4.5.1		actor for a period shorter than two months	
	4.5.2	_	actor for a period longer than two months	
4.6		-	n after storage	
4.0	4.6.1		tractor in after a storing period shorter than two months	
	4.6.2	_	tractor in after a storing period shorter than two months	
4.7		-	nactor in after a storing period longer than two months	
4.7	4.7.1		aintenance chart	
	4.7.2	-	nance	
		4.7.2.1	Checking the engine oil level	
		4.7.2.2	Checking the coolant level	
		4.7.2.3	Cleaning radiators	.292
		4.7.2.4	Checking the oil level in the transmission and hydraulic system	293
	4.7.3	Weekly main	tenance	
		4.7.3.1	Greasing the rear linkage	
		4.7.3.2	Checking the pick-up hitch	
		4.7.3.3	Greasing the Nordic and Euro pick-up hitch	
		4.7.3.4	Greasing the hydraulic pick-up hitch	
		4.7.3.5	Checking and greasing the front linkage	
		4.7.3.6	Checking the front power take-off	
		4.7.3.7	Greasing the brake mechanism	
		4.7.3.8	Greasing front axle mounting bearings	
		4.7.3.9	Greasing air-suspended front axle mounting bearings	
		4.7.3.10	Checking belts' tension	
		4.7.3.11	Changing the fan and alternator belt	
		4.7.3.12	Checking the tyre pressure	
		4.7.3.13	Checking the emergency brake	
		4.7.3.14	Checking the windscreen washer fluid amount	
		4.7.3.15	Checking the air pressure system antifreeze fluid amount	
	4.7.4		every 600 hours	
		4.7.4.1	Checking, cleaning and greasing the battery terminals	
		4.7.4.2	Changing the engine oil and the oil filter	
		4.7.4.3	Changing the cab ventilation air filter	
		4.7.4.4	Changing the Skyview equipment cab ventilation air filter	
		4.7.4.5	Changing the recirculation filter	
		4.7.4.6	Changing the Skyview equipment cab recirculation filter	
		4.7.4.7	Checking the front loader frame bolt tightness	
		4.7.4.8	Checking the wheel nut tightness	
		4.7.4.9	Checking the brake pedal free travel	
		4.7.4.10	Adjusting the brake pedal free travel	
		4.7.4.11	Checking the parking brake	
		4.7.4.12	Adjusting the parking brake	
		4.7.4.13	Changing transmission oil filters	
		4.7.4.14	Changing the hydraulic system oil filter	
		4.7.4.14	Checking the engine breathing system	
		4.7.4.16	Checking the engine bleating system	
		4.7.4.10		
		4.7.4.17	Changing oil in the hubs of the front axles with brakes	
			Changing the front PTO beusing oil and washing the oil filter.	
		4.7.4.19	Changing the front PTO housing oil and washing the oil filter	
		4.7.4.20	Checking front PTO couplings	
		4.7.4.21	Checking and greasing the trailer air-pressure brake system	
		4.7.4.22	Checking the air pressure system's automatic water draining.	
		4.7.4.23 4 7 4 24	Filling the air pressure system antifreeze container	332
		- 1 4 /4		,,,

		4.7.4.25	Updating the software and calibrating the tractor	332
	4.7.5	Maintenance	e every 1200 hours or yearly	333
		4.7.5.1	Changing the oil in the transmission and hydraulic system	333
		4.7.5.2	Changing oil in the front axle differential	334
		4.7.5.3	Changing oil in the front axle hubs	335
		4.7.5.4	Changing the fuel filter	335
		4.7.5.5	Changing the fuel prefilter	336
		4.7.5.6	Changing engine air filters	338
		4.7.5.7	Changing the selective catalytic reduction system	
			breather and supply module main filter	339
		4.7.5.8	Checking the front wheel toe-in	342
		4.7.5.9	Adjusting the front wheel toe-in	342
		4.7.5.10	Changing the transmission and hydraulics breather	343
		4.7.5.11	Cleaning the suction strainer	344
		4.7.5.12	Checking the power shuttle operation	345
	4.7.6	Maintenance	e every 2400 hours or every other year	345
		4.7.6.1	Bleeding the brake system	345
		4.7.6.2	Bleeding the front axle brake system	347
		4.7.6.3	Cleaning the cooling system	348
		4.7.6.4	Checking the engine vibration damper	351
		4.7.6.5	Maintaining the air conditioning	351
4.8	Checks	and adjustn	nents	352
	4.8.1	•	res	
		4.8.1.1	Setting the tyre parameter	
		4.8.1.2	Tyre parameters	
	4.8.2	Track widths	5	
		4.8.2.1	Front axle track widths	
		4.8.2.2	Rear axle track widths	
	4.8.3	-	S	
	4.8.4	_	nounted wheels	
	4.8.5	•		
		4.8.5.1	Bleeding the fuel system	
	4.8.6	Electrical sv	stem	
		4.8.6.1	Safety precautions for the electrical system	
		4.8.6.2	Checking the battery	
		4.8.6.3	Alternator	
		4.8.6.4	Protecting the electrical system before welding	
		4.8.6.5	Fuses and relays	
		4.8.6.6	Fuses and relays in the cab electric centre	
		4.8.6.7	Fuses and relays in the roof electric centre	
		4.8.6.8	Fuses and relays in the Skyview equipment roof electric	000
		1.0.0.0	centre	372
		4.8.6.9	Fuses and relays in the main electric centre	
		4.8.6.10	Fuses and relays in the engine electric centre	
		4.8.6.11	Adjusting headlights	
	4.8.7	Power trans	mission system	
		4.8.7.1	Changing the rear power take-off shaft	
		4.8.7.2	Checking the transmission ratio of a power take-off driven	
			trailer	380
	4.8.8	Steering sys	stem	380
		4.8.8.1	Adjusting the steering angle	
	4.8.9	Cab and shi	elds	
		4.8.9.1	Cleaning the cab ventilation air filter	381
		4.8.9.2	Cleaning the Skyview equipment cab ventilation air filter	
		4.8.9.3	Adjusting steps for driving off-road	
		4.8.9.4	Checking and adjusting front mudguards	
		4.8.9.5	Adjusting flexible front mudguards	
	4.8.10		draulics	
		4.8.10.1	Adjusting the rear valve cables	
	4.8.11		Ces	
	1.0.11	I CANITION MEAN	~~~	

			4.8.11.1 4.8.11.2	Adjusting lifting links of the pick-up hitch Maintaining the automatic jaw of the wagon towing device	
_	Troi	ıblaaba			
5			•		
	5.1		•	tions	
	5.2			pline instrument panel display	
	5.3			d transmission or hydraulic system filter	
	5.4	-		es	
	5.5	•			
	5.6	•	•	lfunctions	
	5.7	•			
		5.7.1	-	ractor when the engine is running	
_		5.7.2	_	ractor when the engine is not running	
6	I ec		-	ns	
	6.1				
	6.2				
	6.3	Maximu	m permissib	le axle loading	403
	6.4		• .	ible towable masses	
	6.5	Tyres			404
		6.5.1	Wheel nut ti	ghtening torques	404
		6.5.2		dimensions	
		6.5.3		s and pressures	
	6.6	•		axles	
	6.7	Track w			
		6.7.1		ack widths	
		6.7.2		ack widths	
	6.8	•			
		6.8.1	•	cation system	
		6.8.2	-		
		6.8.3		talytic reduction system	
		6.8.4			
	0.0	6.8.5	• •	em	
	6.9		-		
	6.10				
		6.10.1		le	
		6.10.2			
		6.10.3 6.10.4		fferential lock	
		6.10.4		take-off	
		0.10.5	6.10.5.1	Rear power take-off alternatives	
			6.10.5.1	Rear power take-off ratios	
			6.10.5.3	Rear power take-off shafts	
			6.10.5.4	Lower link end distance from rear power take-off shaft	
			6.10.5.5	Proportional ground speed power take-off	
		6.10.6		take-off	
			6.10.6.1	Front power take-off ratio	
			6.10.6.2	Front power take-off shafts	
	6.11	Brake s	vstem		
			-		
		6.12.1			
		6.12.2		e	
		6.12.3	_	uspension	
	6.13	Cab and			
		6.13.1		pacity	
		6.13.2		washer	
		6.13.3		ing system	
		6.13.4	Noise level		416
		6.13.5	Exposure to	vibration	417

Contents

6.14	Hydrau	lic system		417
	6.14.1	Low-pressu	ure circuit	417
	6.14.2	Steering hy	draulic circuit	417
	6.14.3	Working hy	draulic circuit	417
		6.14.3.1	Valves for auxiliary hydraulics	419
		6.14.3.2	Counter pressure when using the return connection for auxiliary hydraulics	420
	6.14.4	Rear linkag	je	420
		6.14.4.1	Lifting forces and lifting ranges	420
	6.14.5	Front linkag	ge	421
	6.14.6	Towing dev	/ices	421
		6.14.6.1	Pick-up hitch	421
		6.14.6.2	Euro pick-up hitch	421
		6.14.6.3	Hydraulic pick-up hitch	422
		6.14.6.4	Agricultural towing device	423
		6.14.6.5	Towing device frames	424
Alphab	etical ir	ndex		426

Always follow the safety precautions given when working with the tractor.

The regulations given do not release the operator from statutory and other national regulations regarding traffic safety and occupational health and safety.

In addition to the precautions given in this manual, always follow the safety regulations applicable to different types of working sites and existing road traffic laws.

1.1 Hazard statements

Five types of notifications are used in the documentation.



DANGER: Indicates an imminently hazardous situation that, if not avoided, results in death or very serious injury.



WARNING: Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.



CAUTION: Indicates a potentially hazardous situation that, if not avoided, may result in minor injury.

IMPORTANT: Indicates special instructions or procedures which, if not strictly observed, could result in damage to or destruction of the machine, process or surroundings.

NOTE: Indicates points of particular interest for a more efficient and convenient repair or operation.

1.2 Safety rules

1.2.1 Replacing safety and information signs

Replacement signs are available from your dealer in the event of loss or damage.

1. Replace any danger, warning, caution or instruction signs that are not readable or are missing.

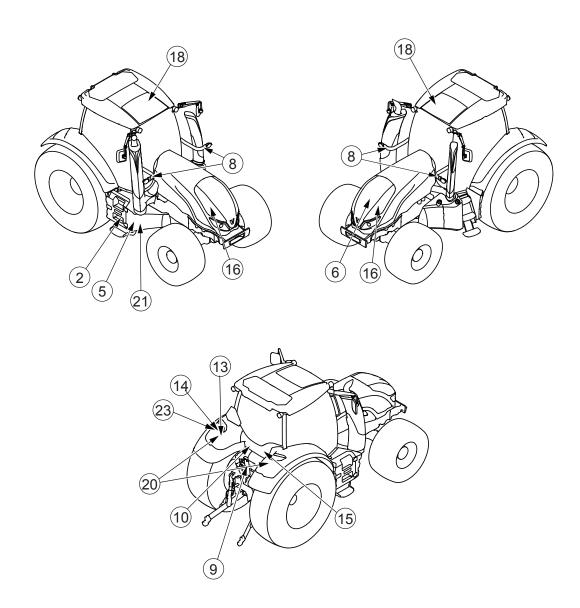


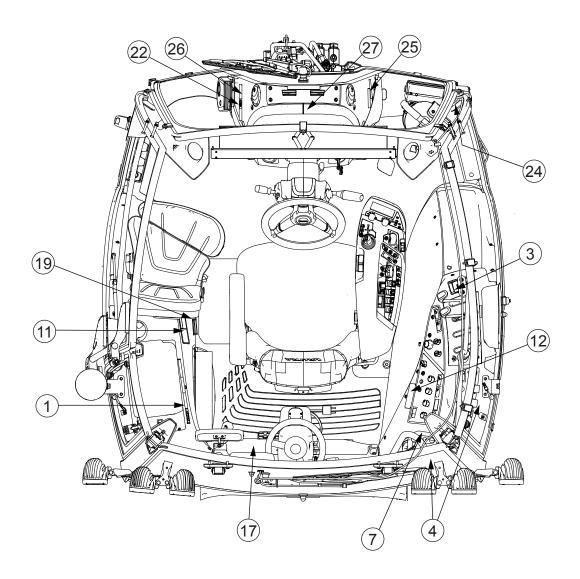
WARNING: Do not remove or obscure danger, warning, caution or instructions signs.

1.2.2 Safety signs

The safety signs on the tractor draw attention to possible dangers related to certain parts or equipment of the tractor. The safety signs must be clean and clearly visible. Worn or detached safety signs must be replaced.

IMPORTANT: After maintenance work, all replacements for parts with a safety sign on them must include also the new safety sign.





Caution: Instructions on avoiding injuries during startup, driving and maintenance. Located inside the cab, below the left-hand side C-pillar.



- To avoid injury
- Read the Operators instruction Book for safety information and operating instructions.
- Fasten your seat belt before tractor operation.
- Start engine only when seated in operator's seat.
- Make sure everyone is clear of tractor and equipment before starting engine or operation.
- Keep all shields, covers and guards in place and stay away from moving parts while engine is running.
- Place transmission shift lever in neutral and apply parking brake before using external 3-point hitch controls.
- Apply parking brake, lower equipment, stop engine and remove key before leaving the tractor unattended.
- Wait for all movement to stop before servicing tractor or equipment.
- Securely support or block lifted implements which must be in the raised position for servicing or adjustment.
- Couple brake pedals together for road travel.
- Use flashing warning lights and SMV emblem when on public roads except where prohibited by law.
- Always drive with care and attention.
 36149410
- 2 Warning: Country-specific warning concerning handling of the battery and its accessories. Located on the side of the battery casing.



Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm.

Wash hands after handling.

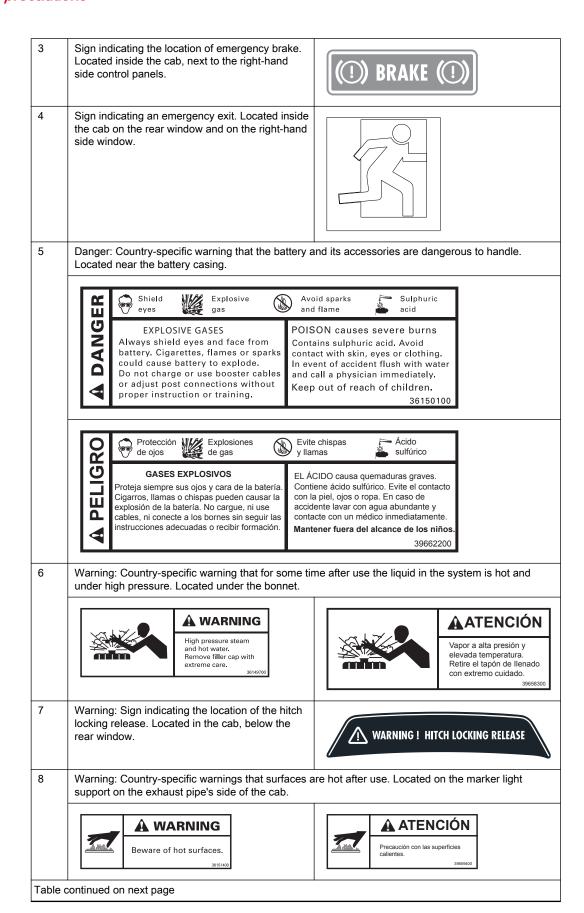
ATENCIÓN

Los bornes de la batería y el resto de los accesorios relacionados contienen plomo y componentes de plomo, estos compuestos pueden producir cáncer y daños en el aparato reproductor, según el Estado de California.

Lávese las manos después de su

39665500

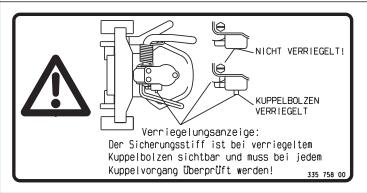
Table continued on next page



9 Caution: During the connection of the front linkage to the shut-off valve, there must be no load on the front linkage or a rear implement connected to the same valve. The warning sign is located next to the shut-off valve at the back of the tractor.



10 Country-specific warning concerning jaw locking. Located below the rear window on the outside of the tractor.

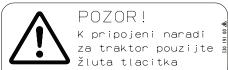


Warning: Country-specific warning against standing on the stairs while the tractor is moving. Located in the cab, behind the passenger seat.





12 Country-specific notification concerning the power lift / front linkage. Located in the cab, near the control panel on the right-hand side.



Country-specific notification concerning connecting of implements. Located at the back of the tractor, on the left rear wheel mudguard.



POZOR!

Pro připojení nářadí používejte pouze pro tento účel určená zařízení(závěs. ž tažnou lištu.výkyvné táhlo, tříbodový ž závšs). Jinak vzniká nebezpečí převrácení traktoru.

Table continued on next page

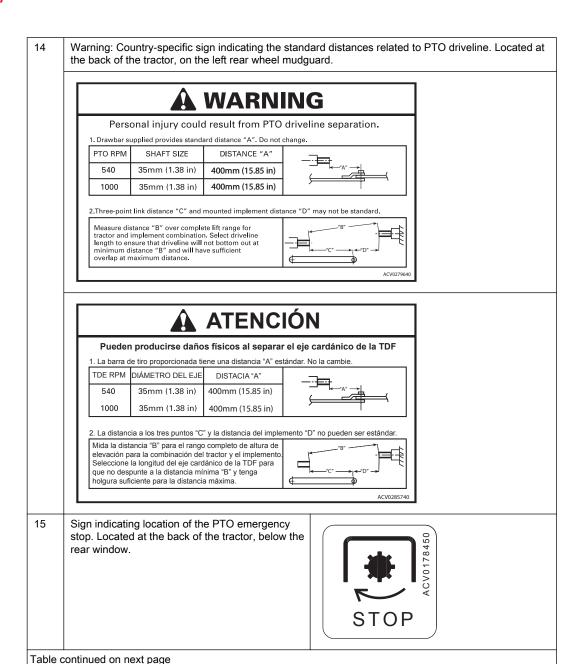


Table commune on next page

- 16 Warning: The sign warns against several dangers:
 - · exposed fan which can crush and cut
 - surfaces which can be hot
 - exposed belt drive which can cause severe injury

Located under the bonnet, on both sides of the radiator.



17 Country-specific notification concerning the reverse drive system. Located in the cab, next to the TwinTrac driving controls.



Achtung

Im hinteren Kabinenbereich dürfen sich keine Personen, Werkzeuge und sonstige Gegenstände befinden.

37183700

The sign advises how to open the roof hatch so that it can be used as an emergency exit. Located in the cab, on the roof hatch.

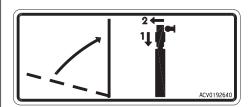
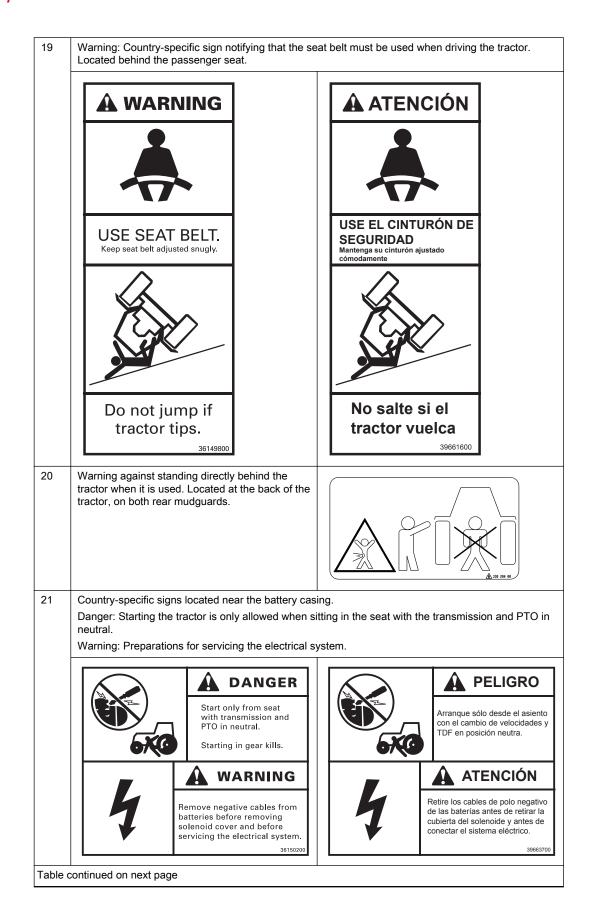


Table continued on next page



Country-specific warning concerning cabin tightness. Located in the cab, on the left side of the front housing.

UPOZORNĚNÍ

Kabina traktoru není zajištěna proti pronikání postřikových aerosolů a látek k chemickému ošetřování plodin a půdy.

23 Country-specific signs located at the back of the tractor, on the left rear mudguard.

Danger: Only approved parts in their correct position can be used for pulling.

Danger: All equipment shields must be kept in place during operation.

Warning: The switch to move the three-point hitch must not be used while standing directly behind the tractor.

▲ DANGER	▲ DANGER	▲ WARNING
Pull only from approved drawbar or lower links of 3-point	Rotating driveline contact may cause serious injury or death.	Stand clear when using switch to move 3 point hitch.
linkage at horizontal position or below.	Keep all driveline tractor and equipment shields in place during operation.	36150400

▲ PELIGRO	▲ PELIGRO	▲ ATENCIÓN
- 35°		
Realice tracción sólo con una barra de tiro o con los brazos inferiores del tripuntal autorizados en posición horizontal o inferior.	El eje cardánico girando puede causar daños físicos o incluso la muerte. Mantenga el eje cardánico de la TDF y protecciones en posición durante el trabajo.	Mantenga la distancia de seguridad cuando utilice los botones del elevador.

24 Sign indicating the location of first aid kit. Located on the right-hand side A-pillar.

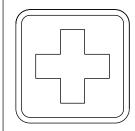
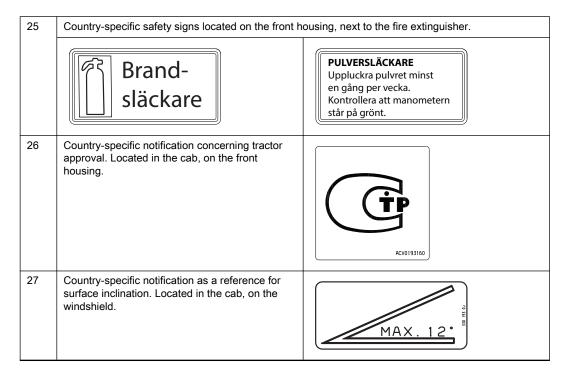


Table continued on next page



1.2.3 Maintaining hardware safety

To ensure maximum safety for the operator, maintain tractor hardware safety.

The owner is responsible for repairing any damage or wear which might endanger the safety of the tractor.

Cab

Take care that damages on the cab are repaired without delay to ensure the cab's protective capability.



WARNING: If damage occurs to the cab, replace all affected parts with new ones. Do not attempt any repair work (welding, drilling, cutting or grinding) without first consulting the manufacturer.

Tractor construction

Do not change the tractor construction, such as maximum driving speed or maximum power.

The tractor is type-approved to comply with construction and use regulations. Any changes to the tractor construction may reduce safety and durability and affect the warranty terms.

Brakes

- Always check before driving that the brakes are working.
 - After attaching a trailer, check that the brakes are working.
- Lock the brake pedals together whenever individual wheel brakes are not required and always when driving on the road.
- Extensive repairs to the braking system should be undertaken only by an authorised Valtra workshop.
- When implements or ballast weights are front-end-mounted, the rear axle loading is decreased.
 - Make sure that steering is still effective.
 - Make sure that the tractor remains stable and the rear end does not rise up when braking.
 - Use appropriate ballast weights at the rear as required.
 - Do not exceed the maximum axle loads.

Cleaning

Keep the tractor clean to decrease the risk of fire.

Lights

- Make sure that lights and reflectors are clean and in working order.
- Make sure that the headlights are correctly adjusted.

Steps

Keep the steps clean as dirty steps can lead to falls and injuries.

Quick couplings



WARNING: Clean the quick couplings and ball joints before attaching an implement. There is a risk that the implement is not attached properly.

Maintenance

- Follow the maintenance instructions and safety precautions applicable to the tractor.
- Stop the engine and lower the implement before carrying out any maintenance work on the tractor or implement.



DANGER: Support the tractor from the correct support points on the frame and use suitable blocks or stands when carrying out maintenance tasks that require supporting the tractor.

1.2.4 Using safety features

The tractor has several features that contribute to the safety of the operator.

Steering wheel and safety handles



WARNING: Hold on to the steering wheel or safety handles in the cab if the tractor tips over. Never try to jump out.

Safety belt

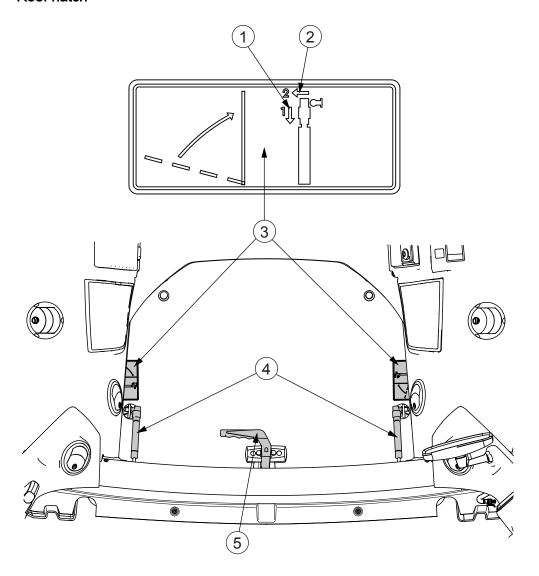
Always use the safety belt when using the tractor.

Emergency exits

Familiarise yourself with the three emergency exits of the tractor cab, that is, the door, the rear window and the roof hatch. If necessary, the right-side window can be broken and used as emergency exit. The windshield is polycarbonate and cannot be easily broken.

When the tractor is equipped with the Skyview roof (optional), there is no roof hatch which could be used as an emergency exit. The windshield is then made of glass and can be broken and used as an emergency exit.

Roof hatch



- 1. Direction for releasing the lock
- 2. Direction for detaching the spring
- 3. Safety sign for using the emergency exit
- 4. Gas springs with quick locks
- 5. Handle
- · Pull open the sunshade.
- Turn the handle to unlock the hatch.
- Release the locking of the gas springs by pulling the spring shafts to the direction the arrow indicates.
- Detach both gas springs from their quick locks by pulling to the direction the arrow indicates.
- Push the hatch fully open.

WARNING: When driving on ice, keep the roof hatch open.

Emergency brake

Use the emergency brake only in emergency situations if braking with brake pedals is not possible.





WARNING: Emergency brake uses the parking brake which is not designed for continuous use. The parking brake can become faulty.



WARNING: Using emergency brake in slippery conditions can result in skidding and loss of control. Release the emergency brake immediately when there is danger of wheels locking up. Release the emergency brake only if you can do it safely.

1.2.5 Safe operation

1.2.5.1 Following safe operating practices

To operate the tractor safely, follow all safety precautions and instructions.

- Avoid operating the tractor near ditches, embankments and holes.
- Stay off slopes too steep for safe operation.
- When using chemicals, carefully follow the chemical manufacturer's instructions for use, storage and disposal.

Also follow the chemical application equipment manufacturer's instructions.

Protect yourself against engine noise.

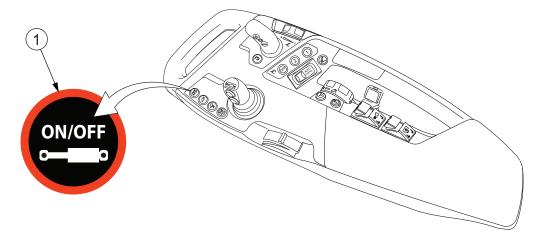
Use hearing protectors to avoid injuries when you are working outside the cab near the engine.

Avoid carbon monoxide poisoning.



WARNING: To avoid carbon monoxide poisoning, do not start the engine or run it indoors with the doors closed unless the exhaust is vented to the outside.

Functionality of the auxiliary hydraulics on/off push button.



1. Auxiliary hydraulics on/off push button

Pressing the auxiliary hydraulics on/off push button turns off or on all the functions of the auxiliary hydraulics. The button has no effect on the functionality of the ON/OFF valves or the rear linkage.

When the auxiliary hydraulics on/off symbol on the auxiliary hydraulics push button is white, the auxiliary hydraulics is deactivated.



DANGER:

To prevent accidental front hydraulics control movements, always turn off the auxiliary hydraulics during road driving and during work if you do not need it.

Restart after engine stop.

- If the engine has stalled, for example due to too heavy loading, turn the ignition key to the Off position.
- Restart the engine. Keep an eye on the indicator lights on the instrument panel.

Front linkage



WARNING: When the front linkage is being connected to the rear valve, make sure there is no load on the front linkage or rear implement connected to the same valve. The load on the front linkage or rear valve implement discharges when the shut-off valve lever is turned. This may cause the implements to move abruptly.



WARNING: When you drive on public roads and there is no implement on the front linkage, the lifting links have to be folded up.

Front loader



WARNING: To prevent involuntary loader motion, the loader joystick controller must be of the self-neutralising type. When the operator releases their grip on the joystick, the joystick must return to the neutral position, except for the float detent position in the loader lowering direction.



WARNING: The risk of overturning increases as the loader is raised. Be extra careful on slopes when operating the loader. Always carry the load as low as practical for the conditions.

Differential lock

Use the differential lock only when running on loose or slippery ground.

Overturning

- Always consider the way in which the tractor is to be used and the fact that the centre of gravity of the tractor/implement assembly changes according to the load being transported or towed.
- Adapt the tractor speed according to visibility, weather conditions and the type of terrain.
- Do not transport loads in the top position. Transport them as low as possible and balance the tractor with ballast weights.
- Do not accelerate, brake, turn or release clutch too suddenly when driving on a slope.
- If possible, drive so that the heavier end of the tractor is towards the top of the slope.
- Work situations with an increased risk of overturning include front-loader work, lifting of heavy loads with the rear or front linkage, forest work, especially with a boom, as well as driving on a soft, uneven or inclined surface.



WARNING: The instructions concerning overturning in this manual are not exhaustive.

Hydraulic/fuel pressure

Do not attempt to locate a leak in the hydraulic system or attempt to close a leak using any part of your body.



CAUTION: Oil/fuel under high pressure easily penetrates clothing and skin and can cause serious injuries.

Hot surfaces



CAUTION: Be careful of hot surfaces during operation and service work, in particular the engine and hydraulics components.

Fuel-operated heater



WARNING: During the heating period, clean the exhaust pipe of the fuel-operated heater daily and its surroundings monthly. In dusty conditions, clean more frequently. There is a risk of dry hay or other dirt catching fire.



WARNING: When using the heater, the area directly below the heater must be clear.

This as a preview PDF file from best-manuals.com



Download full PDF manual at best-manuals.com