

ORIGINAL INSTRUCTIONS

PUMA 150
PUMA 165
Tier 4B (final)
Tractor

OPERATOR'S MANUAL

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Contents

1 GENERAL INFORMATION

Metric and imperial units abbreviations.....	1-1
To the owner.....	1-3
Product identification.....	1-5
Engine identification.....	1-6
Drive line identification.....	1-7
Cab identification.....	1-8
Product identification plate.....	1-8
Forestry kit plate.....	1-9
Ecology and the environment.....	1-10
Programming tractor functions.....	1-11
Operator's manual storage.....	1-12
Before operating the tractor.....	1-12
International symbols.....	1-13
Machine stability.....	1-14
Selective Catalytic Reduction (SCR) system.....	1-18

2 SAFETY INFORMATION

Safety precautions.....	2-1
Safety decals.....	2-3
Safety rules.....	2-11
Burn prevention.....	2-18
Prevention of fire or explosions.....	2-19
Fire extinguisher.....	2-20
Protection offered by the tractor.....	2-21
Hazardous substances.....	2-24
Emergency exit.....	2-25
Wheel chocks.....	2-26
Intended use statement.....	2-27
Instructor's seat.....	2-29

3 CONTROLS AND INSTRUMENTS

ACCESS TO OPERATOR'S PLATFORM

Introduction.....	3-1
Cab air filters.....	3-5
In cab storage (where fitted).....	3-6
Cable and wiring routing.....	3-7
Mobile telephone usage.....	3-7
Implement monitor installation.....	3-8
Cab air pressurisation control (where fitted).....	3-8

OPERATOR'S SEAT

Operator's seat.....	3-10
Air suspension seat with passive or Dynamic Damping System (DDS).....	3-11
Air suspension seat 'evolution active'.....	3-17

Seat belt	3-23
INSTRUCTOR'S SEAT	
Instructional seat	3-24
FORWARD CONTROLS	
Ignition key	3-25
Hazard light switch	3-25
Lights and turn indicator lever	3-26
Windshield wiper and washer controls	3-27
Electronic parking brake	3-28
Clutch pedal	3-32
Foot brakes	3-32
Exhaust brake (where fitted)	3-33
Steering column	3-34
LEFT-HAND SIDE CONTROLS	
Hand brake	3-35
RIGHT-HAND SIDE CONTROLS	
Integrated control panel	3-36
Multi function handle	3-37
REARWARD CONTROLS	
Switches on C-pillar	3-38
Hydraulic master switch	3-39
Heated screens (where fitted)	3-40
Autoguidance system (where fitted)	3-41
ISO bus functionality	3-41
Battery isolator control switch	3-42
Climate controls	3-43
Manual temperature control	3-44
Automatic Temperature Control (ATC)	3-45
OVERHEAD CONTROLS	
Switch panel	3-47
Left-hand and right-hand outermost work light switch	3-48
Interior light	3-49
INSTRUMENT CLUSTER	
Integrated control unit	3-50
Gauges	3-51
Indicator and warning lights	3-52
Displays	3-55
Transmission display	3-56
Keypad basic	3-58
Keypad enhanced	3-59

Selecting or changing the display settings	3-61
Adjust menu	3-62
Configure menu	3-66
Performance monitor	3-69
Armrest color display	3-77
Pop-up screens on color display	3-78
Performance monitor on color display	3-83
Programming the displays	3-88
Alarm functions	3-91
Accessing stored error codes	3-93
Selective Catalytic Reduction (SCR) exhaust treatment - Overview	3-94
Warning and advisory symbols	3-104

4 OPERATING INSTRUCTIONS

COMMISSIONING THE UNIT

Refueling the tractor	4-1
-----------------------------	-----

STARTING THE UNIT

Starting the engine	4-3
Grid heater cold start aid (where fitted)	4-4
Fuel heater (where fitted)	4-5
Coolant immersion heater (where fitted)	4-5
Transmission oil heater (where fitted)	4-6
Boosting the battery	4-7

STOPPING THE UNIT

Stopping the engine	4-8
Automatic engine shut down	4-8
Automatic engine shut down with enhanced keypad (where fitted)	4-9

MOVING THE UNIT

Operating in cold temperatures	4-10
Low idle speed management	4-12
Reversible engine fan	4-13

5 TRANSPORT OPERATIONS

PREPARING FOR ROAD TRANSPORT

Carrying the tractor on a transporter	5-1
Secure the high visibility roof panel	5-1

RECOVERY TRANSPORT

Freeing a stuck tractor	5-2
Towing the tractor	5-3

6 WORKING OPERATIONS

GENERAL INFORMATION

Variable engine power management	6-1
Constant engine speed	6-3
Differential lock	6-6
Four wheel drive	6-8
Front axle suspension (where fitted)	6-10
HTS standard	6-11
Quick guide	6-11
Explanation of symbols	6-13
Recording and replaying	6-15
Recording a sequence	6-18
Replaying a sequence	6-20
HTS advanced	6-24
Headland turn sequence	6-24
Explanation of symbols	6-25
Recording a sequence	6-26
Replaying a sequence	6-30
Saving a sequence	6-33
Edit a sequence	6-36
Recalling a sequence	6-40
Deleting a sequence	6-44

TRANSMISSION

Foot throttle pedal	6-47
Hand throttle	6-47
Shuttle lever	6-48
Sharp shuttle setting	6-50
Transmission display	6-51
Fault codes	6-53
SEMI POWERSHIFT TRANSMISSION	6-54
Transmission operation	6-54
Powershift control lever	6-55
Driving the tractor	6-56
Speed matching	6-58
Auto shift function	6-59
Auto shifting field mode	6-60
Auto shifting in road mode	6-63
Setting the forward and reverse gear ratios	6-66
Creeper gears (where fitted)	6-67
FULL POWERSHIFT TRANSMISSION	6-68
Transmission operation	6-68
Powershift control lever	6-69
Driving the tractor	6-70
Speed matching	6-72
Auto shift function	6-73
Auto shifting field mode	6-74
Auto shifting in road mode	6-77
Setting the forward and reverse gear ratios	6-80
Creeper gears (where fitted)	6-81

REAR POWER TAKE-OFF

Power Take-Off (PTO) operating precautions	6-82
Changing the PTO output shaft	6-82
Attaching PTO driven equipment	6-83
Power Take-Off (PTO) operation	6-84
Three speed PTO systems	6-89
Ground drive PTO (where fitted)	6-91
External PTO controls	6-92
Auto PTO operation	6-94

FRONT POWER TAKE OFF

Power Take-Off (PTO) operation	6-97
Auto PTO operation	6-99

REAR HITCH

Electronic Draft Control (EDC)	6-101
Settings and display	6-105
Electronic Draft Control (EDC) operation	6-107
External hitch controls	6-113

FRONT HITCH

Settings and adjustments	6-115
Front hitch operation	6-118
Auxiliary front couplers (where fitted)	6-123
External hitch controls	6-125
Front hitch management	6-126

HYDRAULIC REMOTE CONTROL VALVES

Remote control valves	6-132
Operating with remote valves	6-135
Connecting remote cylinders	6-138
Hydraulic oil level when using remote hydraulic equipment	6-140

ELECTRO-HYDRAULIC REMOTE CONTROL VALVES (where fitted)

Remote control valves	6-142
Settings and adjustments	6-149
Setting the remote valve priority	6-155
Creating timer programs	6-157
Connecting remote cylinders	6-164
Operating with remote valves	6-166
Joystick operation with a front loader	6-168
Mid mount remote valves	6-175
EHR implement control setting	6-177
External EHR controls	6-181
Hydraulic oil level when using remote hydraulic equipment	6-182

HYDRAULIC POWER BEYOND PORT

Hydraulic power beyond for external services with mechanical-hydraulic remote control valves.....	6-184
Hydraulic power beyond for external services with electro-hydraulic remote control valves.....	6-186

THREE POINT HITCH

Attaching three-point hitch equipment.....	6-189
Lift rod adjustment.....	6-191
Top link adjustment.....	6-194
Flexible link end adjustment.....	6-195
Quick hitch.....	6-196
Linkage stabilizer adjustment.....	6-198

DRAWBARS AND TOWING ATTACHMENTS

Drawbars and towing attachments.....	6-201
Swinging drawbar.....	6-204
Automatic pickup hitch.....	6-207
Rear trailer hitches.....	6-211

TRAILER BRAKING SYSTEMS

Air-operated trailer brakes.....	6-218
Air-operated trailer brakes (Italian type).....	6-221
Trailer brake bias control.....	6-222
Auxiliary air supply connector (where fitted).....	6-222
Hydraulic trailer brakes.....	6-223
Hydraulic trailer brakes (Italian type).....	6-224

WHEEL TRACK ADJUSTMENT

Front wheel track adjustment.....	6-225
Front wheel alignment.....	6-229
Steering stops.....	6-230
Front axle oscillation stops.....	6-230
Front fender.....	6-231
REAR WHEEL TRACK ADJUSTMENT.....	6-233
Flange type axle (where fitted).....	6-233
Bar type axle (where fitted).....	6-236
Dual rear wheels (where fitted).....	6-242

BALLASTING AND TIRES

Ballasting and tires.....	6-245
Iron weights (where fitted).....	6-248
Liquid ballast.....	6-251
Tire inflation.....	6-253
Tire pressures and permissible loads.....	6-254

AUXILIARY POWER CONNECTIONS

Diagnostic socket.....	6-256
Trailer socket electrical.....	6-256
ELECTRICAL POWER CONNECTORS	6-257
Internal power connectors.....	6-257
External power connectors.....	6-259
ISO bus classes.....	6-261
ISO bus functionality.....	6-263

7 MAINTENANCE

GENERAL INFORMATION

Introduction.....	7-1
Fuel requirement - Diesel fuel.....	7-2
Fuel - Storage, handling and transport.....	7-2
Biodiesel fuel.....	7-3
Change the engine oil.....	7-5
Protective devices.....	7-6
Tractor jacking points.....	7-8
Lubricants and coolants.....	7-9
General specifications.....	7-10
Capacities.....	7-11
Organic Acid Technology (OAT) coolant.....	7-12

MAINTENANCE CHART

Maintenance chart.....	7-13
------------------------	------

WHEN THE WARNING LAMP LIGHTS

Change the engine air cleaner outer element.....	7-15
Drain the fuel system water separator.....	7-16
Check the brake fluid level.....	7-17

EVERY 10 HOURS OR EACH DAY

Check the engine coolant level.....	7-18
Checking the engine oil level.....	7-19
Check the remote control valve drain bottles.....	7-20
Check windscreen washer reservoir.....	7-21
Drain air reservoir on air operated trailer brake.....	7-21

FIRST 50 HOURS

Service operations.....	7-22
-------------------------	------

EVERY 50 HOURS

Clean the cab air filter.....	7-24
Clean the SCR cover air ducts.....	7-25
Clean the cooler section.....	7-26
All grease fittings.....	7-27
Check the front and the rear wheel nuts.....	7-34
Check the tire pressures and the tire condition.....	7-34

EVERY 100 HOURS

- Inspect the poly V-belt 7-35
- Inspect the compressor drive belt 7-35

EVERY 300 HOURS

- Check the battery fluid level 7-37
- Adjust the hand brake 7-39
- Check the transmission oil level, the rear axle oil level and the hydraulic oil level 7-40
- Check the 4WD front axle differential oil level and the hubs oil level..... 7-41
- Check the front PTO gearbox oil level..... 7-42

EVERY 600 HOURS

- Change engine oil and filter 7-43
- Change the first stage fuel filter and the fuel filter element..... 7-45
- Change the engine air cleaner outer element 7-47
- Change the hydraulic charge pump oil filter 7-48
- Check the engine air intake connections 7-49
- Check the transmission oil cooler pipe couplings 7-50
- Clean the DEF/AdBlue in-line filter 7-50

EVERY 1200 HOURS OR ANNUALLY

- Change the cab air filters 7-51
- Change the hydraulic suction pump oil filter..... 7-52
- Change the 4WD differential oil 7-53
- Change the 4WD planetary hub oil 7-54
- Change the front PTO gearbox oil..... 7-55
- Grease the rear axle shaft bearing 7-55

EVERY 1200 HOURS OR EVERY 2 YEARS

- Change the DEF/AdBlue in-line filter 7-56
- Change the engine air cleaner inner element 7-57
- Check the valve tappet clearance 7-58
- Change the air brake drier reservoir..... 7-58
- Change the poly V-belts 7-59
- Change the transmission oil, the rear axle oil and the hydraulic oil 7-62

EVERY 2 YEARS

- Change the air conditioning receiver drier..... 7-63

EVERY 1800 HOURS OR EVERY 2 YEARS

- Change the engine breather filter 7-64

EVERY 3600 HOURS OR EVERY 2 YEARS

- Change the DEF/AdBlue main filter 7-65
-

EVERY 3600 HOURS OR EVERY 4 YEARS

Change the engine coolant fluid - OAT type coolant 7-66

GENERAL MAINTENANCE

Cleaning the tractor..... 7-70
Check first stage fuel filter and water trap 7-72
Bleeding the fuel system 7-73
Hydraulic system hoses 7-74
Check the brake pedal latching/unlatching 7-74
Adjust the cab suspension (where fitted)..... 7-75
Adjust the automatic pickup hitch 7-76
Headlight adjustment 7-77
Work light adjustment 7-77
Bulb replacement 7-78
Fuses and relays 7-81
Protecting the electronic and electrical systems during battery charging or welding .. 7-89
Battery removal and installation 7-90

STORAGE

Tractor storage 7-91
Preparation for use after storage 7-92

8 TROUBLESHOOTING

FAULT CODE RESOLUTION

Introduction 8-1

ALARM(S)

Fault codes and symbols 8-2

SYMPTOM(S)

Engine 8-4
Transmission 8-5
Hydraulics 8-6
Three-point hitch 8-6
Brakes 8-7
Cab 8-7
Electrical system 8-8

9 SPECIFICATIONS

General dimensions 9-1
Maximum operating angle 9-4
Maximum permissible operating weights 9-5
Tractor weights 9-5
Capacities 9-6
Engine 9-7

Fuel system.....	9-7
Air cleaner system.....	9-8
Cooling system.....	9-8
Transmission.....	9-8
Rear Power Take-Off (PTO).....	9-9
Front Power Take-Off (PTO).....	9-9
Hydraulic system.....	9-10
Three-point hitch.....	9-10
Remote control valves.....	9-12
Three-point hitch front.....	9-12
Front remote control valve couplers.....	9-12
Brakes.....	9-13
Steering.....	9-13
Electrical equipment.....	9-14
Ground speed chart Semi-Powershift transmission.....	9-15
Ground speed chart Full-Powershift transmission.....	9-17
Minimum hardware tightening torques.....	9-19

10 ACCESSORIES

Radio (where fitted).....	10-1
External rear view mirrors.....	10-1
Auxiliary headlights.....	10-3
Rotating beacon.....	10-4
Front-end loader fixation points.....	10-5

11 FORMS AND DECLARATIONS

Service record 1st 50 hour, Owner copy.....	11-1
Service record 1st 50 hour, Dealer copy.....	11-3

1 - GENERAL INFORMATION

Metric and imperial units abbreviations

Typical applications	Metric unit		Imperial unit	
	Name	Symbol	Name	Symbol
Area (Land area)				
	hectare	ha	acre	ac
	square meter	m ²	square foot	ft ²
			square inch	in ²
	square millimeter	mm ²	square inch	in ²
Electricity				
	ampere	A	ampere	A
	volt	V	volt	V
	microfarad	μF	microfarad	μF
	ohm	Ω	ohm	Ω
Force				
	kilonewton	kN	pound	lb
	newton	N	pound	lb
Force per length				
	newton per meter	N/m	pound per foot	lb/ft
			pound per inch	lb/in
Frequency				
	megahertz	MHz	megahertz	MHz
	kilohertz	kHz	kilohertz	kHz
	hertz	Hz	hertz	Hz
Frequency - Rotational				
	revolution per minute	r/min	revolution per minute	r/min ^a
		rpm		rpm
Length				
	kilometer	km	mile	mi
	meter	m	foot	ft
	centimeter	cm	inch	in
	millimeter	mm	inch	in
	micrometer	μm		
Mass				
	kilogram	kg	pound	lb
	gram	g	ounce	oz
	milligram	mg		
Mass per mass				
	milligram per kilogram	mg/ kg	parts per million	ppm
Power				
	kilowatt	kW	horsepower	Hp
	watt	W	Btu per hour	Btu/hr
			Btu per minute	Btu/min
Pressure or stress (Force per area)				
	kilopascal	kPa	pound per square inch	psi
			inch of mercury	inHg
	pascal	Pa	inch of water	inH ₂ O
	megapascal	MPa	pound per square inch	psi
	millibar	mbar		
	bar	bar		

1 - GENERAL INFORMATION

Typical applications	Metric unit		Imperial unit	
	Name	Symbol	Name	Symbol
Temperature (other than thermodynamic)				
	degrees Celsius	°C	degrees Fahrenheit	°F
Time				
	hour	h	hour	h
	minute	min	minute	min
	second	s	second	s
Torque (includes bending moment, moment of force, and moment of a couple)				
	newton meter	N m	pound foot	lb ft
			pound foot	lb in
Velocity				
	kilometer per hour	km/h	mile per hour	mph
	meter per second	m/s	foot per second	ft/s
	millimeter per second	mm/s	inch per second	in/s
	meter per minute	m/min	foot per minute	ft/min
Volume (includes capacity)				
	cubic meter	m ³	cubic yard	yd ³
				cu yd
	liter	l	cubic inch	in ³
	liter	l	US gallon	US gal
			UK gallon	UK gal
			US quart	US qt
			UK quart	UK qt
	milliliter	ml	fluid ounce	fl oz
Volume per time (includes discharge and flow rate)				
	cubic meter per minute	m ³ /min	cubic foot per minute	ft ³ /min
	liter per minute	l/min	US gallon per minute	US gal/min
	milliliter per minute	ml/min	UK gallon per minute	UK gal/min
Sound power level and sound pressure level				
	decibel	dB	decibel	dB
Water hardness				
	German hardness	°dH	English hardness	°e
	French hardness	°fH	parts per million	ppm

Glossary

Acronym	Definition
DEF	Diesel Exhaust Fluid
ISO	International Organization for Standardization
MSDS	Material Safety Data Sheet
NOx	Nitrogen Oxide
PPE	Personal Protective Equipment
SCR	Selective Catalytic Reduction
ULSD	Ultra Low Sulfur Diesel
%	Percent
<	Less than
>	Greater than

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