

ORIGINAL INSTRUCTIONS

OPERATOR'S MANUAL

T7.230

T7.245

T7.260

Tier 4B (final)

Sidewinder II

Power Command - Tractor

Part number 47789216

2nd edition English

January 2015

Replaces part number 47584560



Contents

1 GENERAL INFORMATION

Metric and imperial units abbreviations.....	1-1
To the owner.....	1-3
Operator's manual storage.....	1-5
Product identification.....	1-6
Engine identification.....	1-7
Drive line identification.....	1-8
Cab identification.....	1-8
Ecology and the environment.....	1-9
Programming tractor functions.....	1-10
Before operating the tractor.....	1-11
International symbols.....	1-12
Machine stability.....	1-13
Selective Catalytic Reduction (SCR) system.....	1-17

2 SAFETY INFORMATION

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

3 CONTROLS AND INSTRUMENTS

ACCESS TO OPERATOR'S PLATFORM

Introduction.....	3-1
Cab - Localization overview.....	3-5
Cab air filters.....	3-7
In cab storage (where fitted).....	3-8
Implement monitor installation.....	3-9

OPERATOR'S SEAT

Operator's seat.....	3-10
Air suspension seat.....	3-11
Air suspension seat deluxe.....	3-13
Seat belt.....	3-17

INSTRUCTOR'S SEAT

Instructional seat.....	3-18
-------------------------	------

FORWARD CONTROLS

Hazard warning light operation	3-19
Electronic parking brake	3-20
Anti-lock braking system ABS Operation	3-24
Foot brakes	3-31
Exhaust brake (where fitted)	3-33
Steering column	3-33

RIGHT-HAND SIDE CONTROLS

Integrated control panel	3-34
Hand throttle	3-35
Multi function handle	3-35

REARWARD CONTROLS

Switches on C-pillar	3-36
Hydraulic master switch	3-37
Heated screens (where fitted)	3-38
Fast steering system (where fitted)	3-39
Autoguidance system (where fitted)	3-41
Automatic Temperature Control (ATC)	3-42

OVERHEAD CONTROLS

Switch panel worklights	3-43
Interior light	3-44

INSTRUMENT CLUSTER

Analog Digital Instrument Cluster (ADIC)	3-45
Gauges	3-46
Displays	3-47
Keypad enhanced	3-50
Selecting or changing the display settings	3-52
Ground speed calibration	3-53
Performance monitor	3-56
Color display	3-63
Display screens	3-65
Performance monitor	3-71
Display programming	3-74
Alarm functions	3-77
Accessing stored error codes	3-79
Selective Catalytic Reduction (SCR) instrumentation warnings	3-80
Warning and advisory symbols	3-84
Warning and advisory symbols	3-97

4 OPERATING INSTRUCTIONS

COMMISSIONING THE UNIT

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

STARTING THE UNIT

Starting the engine	4-3
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 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

RECOVERY TRANSPORT

Towing the tractor.....	5-1
-------------------------	-----

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
Automated headland functions	6-12
Headland turn sequence - Quick guide.....	6-12
Recording and replaying	6-14
Explanation of symbols	6-17
Recording a sequence	6-19
Replaying a sequence.....	6-21
Automated headland functions	6-25
Headland turn sequence	6-25
Universal Symbols.....	6-26
Recording a sequence	6-27
Replaying a sequence.....	6-31
Saving a sequence	6-33
Edit a sequence	6-35
Recalling a sequence.....	6-39
Deleting a sequence.....	6-42

TRANSMISSION

Full powershift transmission	6-45
Clutch pedal	6-45
Foot throttle pedal	6-46
Transmission operation.....	6-47

Powershift transmission controls	6-48
Transmission shuttle shift lever.....	6-49
Setting the sharp shuttle function.....	6-51
Transmission display	6-52
Driving the tractor.....	6-53
Speed matching	6-55
Auto shift function	6-56
Auto shifting field mode.....	6-57
Auto shifting in road mode.....	6-60
Setting the forward and reverse gear ratios	6-63
Creeper gears (where fitted)	6-64
Error codes	6-65
Ground speed chart powershift transmission Ground speeds	6-66

REAR POWER TAKE-OFF (PTO)

PTO operation safety rules	6-71
Attaching PTO driven equipment.....	6-71
PTO operation	6-72
PTO 2 speed system	6-77
External PTO controls	6-79
Auto PTO operation	6-81

FRONT POWER TAKE OFF

PTO operation.....	6-84
Auto PTO operation	6-86
Front hitch management	6-88

REAR HITCH

Electronic Draft Control (EDC)	6-93
Settings and adjustments.....	6-97
Electronic Draft Control (EDC) operation.....	6-99
External hitch controls	6-104

FRONT HITCH

Settings and adjustments.....	6-106
Front hitch operation	6-109
Auxiliary front couplers (where fitted).....	6-115

ELECTRO-HYDRAULIC REMOTE CONTROL VALVES (where fitted)

Remote control valves	6-117
Settings and adjustments.....	6-124
Valve priority	6-129
Programming tractor functions	6-130
Connecting remote cylinders	6-137
Operating with remote valves	6-139
Joystick operation with a front loader.....	6-141
Mid mount remote valves.....	6-147

External EHR controls	6-148
EHR implement control setting	6-149
Transmission rear axle and hydraulic system oil level	6-153

THREE POINT HITCH

Attaching three-point hitch equipment	6-155
Lift rod adjustment	6-157
Top link adjustment	6-160
Lower links	6-162
Quick hitch	6-163
Lower links	6-165

DRAWBARS AND TOWING ATTACHMENTS

Drawbars and towing attachments	6-169
Swinging drawbar	6-171

TRAILER BRAKING SYSTEMS

Air-operated trailer brakes	6-174
Trailer brake bias control	6-177
Trailer brakes air operated	6-177
Hydraulic trailer brakes	6-178

WHEEL TRACK ADJUSTMENT

Front wheel track adjustment	6-179
Front wheel alignment	6-184
Steering stops	6-185
Front axle oscillation stops	6-186
Front wheel fenders	6-187
Rear wheel track adjustment	6-189
Flange type axle (where fitted)	6-189
Bar type axle (where fitted)	6-193
Dual rear wheels (where fitted)	6-200

BALLASTING AND TIRES

Ballasting and tires	6-203
Iron weights (where fitted)	6-206
Liquid ballast	6-209
Tire inflation	6-211
Tire pressures and permissible loads	6-212

AUXILIARY POWER CONNECTIONS

Diagnostic socket	6-214
Trailer electrical socket	6-215
Electrical power connectors	6-216
Internal power connectors	6-216
External power connectors	6-218

7 MAINTENANCE

GENERAL INFORMATION

Introduction	7-1
Diesel fuel	7-2
Biodiesel fuel - Biodiesel fuels	7-4
Engine oil change	7-6
Protective devices	7-7
Lubricants and coolants	7-9
Tractor jacking points	7-11
General specifications	7-12
Capacities	7-13

MAINTENANCE CHART

Maintenance chart	7-14
-------------------------	------

WHEN THE WARNING LAMP LIGHTS

Engine air cleaner	7-16
Fuel system water separator	7-17
Check the brake fluid level	7-18

EVERY 10 HOURS OR EACH DAY

Coolant level check	7-19
Engine oil level	7-20
Remote valve collection bottle	7-20
Windscreen wash wipe	7-21
Air reservoir	7-21

FIRST 50 HOURS

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

EVERY 50 HOURS

Cab air filters	7-23
Selective Catalytic Reduction (SCR) system	7-25
Clean the coolers	7-26
Grease fittings	7-27
Wheel nuts torque	7-33
Tire inflation pressures	7-33

EVERY 100 HOURS

Drive belts - check	7-34
Drive belts - check	7-35

EVERY 300 HOURS

Battery fluid level	7-36
Transmission oil level	7-38
Handbrake	7-39
Front PTO oil level	7-39
Front axle oil - Four-Wheel Drive (4WD)	7-40

EVERY 600 HOURS

Change engine oil and filter	7-41
Change the first stage fuel filter and the fuel filter element.....	7-43
Engine air precleaner.....	7-44
Charge pump hydraulic filter	7-45
Check the air intake system	7-46
Transmission	7-47
DEF/AdBlue® in-line filter	7-47

EVERY 1200 HOURS OR ANNUALLY

Cab air filters	7-48
Main oil filter cartridge change	7-49
Change transmission oil.....	7-50
Differential and planetary oil.....	7-51
Front hubs - 4WD.....	7-52
Front PTO change oil.....	7-52
Rear steer axle grease fittings.....	7-53

EVERY 1200 HOURS OR EVERY 2 YEARS

Battery check	7-54
DEF/AdBlue® filter	7-56
Change the engine air cleaner inner element	7-57
Engine tappet valve clearance	7-58
Air-operated trailer brakes.....	7-58
Poly (V) belts change.....	7-59

EVERY 1800 HOURS OR EVERY 2 YEARS

Engine - breather filter replacement	7-61
--	------

EVERY 3600 HOURS OR EVERY 2 YEARS

DEF/AdBlue® filter	7-61
--------------------------	------

EVERY 3600 HOURS OR EVERY 4 YEARS

Change the engine coolant fluid.....	7-62
--------------------------------------	------

EVERY 36 MONTHS

Air conditioning system	7-66
Battery check	7-67

GENERAL MAINTENANCE

Cleaning the tractor.....	7-69
Fuel system water separator	7-71
Bleeding the fuel system	7-71
Brake Pedal	7-72
Cab suspension, if equipped	7-73

Transmission clutch calibration	7-74
Machine lighting	7-76
Bulb replacement	7-77
Fuses and relays	7-82
Protecting the electronic and electrical systems during battery charging or welding..	7-87
Battery - replacement	7-88

STORAGE

Tractor storage	7-89
Removing the machine from storage	7-89

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	8-5
Three-point hitch	8-6
Brakes	8-6
Cab	8-6
Electrical system	8-7

9 SPECIFICATIONS

General dimensions	9-1
Frame - General specification	9-1
Capacities	9-4
Transmission - Capacity	9-4
Front axle system - Capacity	9-4
Engine	9-5
Transmission	9-6
Rear Power Take-Off (PTO)	9-7
Front Power Take-Off (PTO)	9-8
Hydraulic system	9-9
Three-point hitch	9-11
Remote control valves	9-12
Three-point hitch	9-12
Brakes	9-13
Steering	9-13
Electrical equipment	9-14
Minimum hardware tightening torques	9-15

10 ACCESSORIES

External rear view mirrors	10-1
----------------------------------	------

Auxiliary lights	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

To the owner

GENERAL INFORMATION

This Manual has been prepared to assist you in the correct procedure for running- in, driving and operating and for the maintenance of your new tractor. Read this Manual carefully. Your tractor is intended for use in normal and customary agricultural applications.

If at any time you require advice concerning your tractor, do not hesitate to contact your authorised dealer. He has factory trained personnel, genuine manufacturers' parts and the necessary equipment to carry out all your service requirements.

The specification are provided for your information and guidance. For further information concerning your tractor and equipment, consult your authorised dealer.

All data given in this manual is subject to production variations. Dimensions and weight are approximate only. The illustrations do not necessarily show tractors in standard condition or imply that these features are available in all countries. For exact information about any particular tractor, please consult your authorised dealer.

Your tractor has been designed and built to give maximum performance, economy and ease of operation under a wide variety of operating conditions. Prior to delivery, the tractor was carefully inspected, both at the factory and by your dealer to ensure that it reaches you in optimum condition. To maintain this condition and ensure trouble-free operation, it is important that the routine services, as specified on page 7-14 of this Manual, are carried out at the recommended intervals.

ABOUT THIS MANUAL

This manual gives information for use of your machine, as intended and under the conditions foreseen by the manufacturer during normal operation and routine service and maintenance.

Read and understand; keep it in good condition and always safely store it in the provided pocket in the back of your seat for later easy retrieval.

This manual does not contain all the information related to periodical service, converting and repairs to be carried out by professional service personnel.

The Table of Contents page(s) are provided to have an overview of main manual's topics. A detailed alphabetic index is available at the end of this manual for locating specific items.

Normal operation

- Normal operation means the use of the tractor for the purpose intended by the manufacturer by an operator familiar with the tractor and the mounted or towed equipment and complying with the information for op-

eration and safe practices, as specified by the manufacturer in this manual and by the decals on the tractor and the equipment.

- Normal operation includes the preparation and storage of the tractor, swinging components into work position and vice versa, adding or removing ballast and picking up and setting off attachments.
- Normal operation includes the adjustment and setting of the tractor and equipment, for the specific condition of the field and/ or the crop.

Routine service

- Routine service and maintenance means activities that must be done daily by an operator familiar with the tractor characteristics and complying with the information for routine service and safe practices, as specified by the manufacturer in this manual and by decals on the tractor, in order to maintain its proper function. Routine service includes activities such as fueling, cleaning, washing, topping up fluid levels, greasing, replacing of consumable articles such as lamp bulbs.

Converting, periodical service and repair

- Periodical service means activities that must be done at defined intervals by trained personnel familiar with the tractor characteristics and which are complying with the information for periodical service and safe practices, as partly specified by the manufacturer in this manual and in other Company literature, in order to maintain the expected life time of the tractor.
- Converting means activities that must be done by professional service personnel familiar with the tractor characteristics and complying with the information for converting, as partly specified by the manufacturer in this manual, in assembly instructions or in other Company literature, in order to fit the tractor to a specific configuration.
- Repair means activities that must be done by professional service personnel only familiar with the tractor characteristics and complying with the information for repair, as specified by the manufacturer in the dealer's workshop manual, in order to restore the proper function of the tractor after a failure or degradation of performance.

CLEANING THE TRACTOR

Your tractor is a state- of- the- art machine with sophisticated, electronic controls. This should be taken into consideration when cleaning the tractor, particularly if using a high pressure washer. Even though every precaution has been taken to safeguard electronic components and connections, the pressure generated by some of these machines is such that complete protection against water ingress cannot be guaranteed.

Thank you so much for reading.
Please click the “Buy Now!”
button below to download the
complete manual.



After you pay.

You can download the most
perfect and complete manual in
the world immediately.

Our support email:

ebooklibonline@outlook.com