

# **USER MANUAL**

**WS250 2023**





## CONGRATULATIONS!

You are the proud owner of the Widescape WS250, the original stand-up snowmobile.

You are now part of a small revolution in winter powersports, among a brand new community of riders.

The WS250 was born from innovation and passion over 20 years ago with the desire to push boundaries and go beyond the beaten path. That same innovation and passion is at the core of every vehicle we build.

This revolutionary vehicle was designed for adventurers, nature lovers and thrill seekers, like yourself. We're so happy that you get to experience this new way of riding and enjoying winter. We can't wait to see all the amazing places that the WS250 will take you.

Thanks for being up for the ride,

A stylized, handwritten signature in black ink, appearing to read 'Alain Aubut'.

Alain Aubut,

Creator of the Widescape WS250



## INTRODUCTION

At the time of delivery of the Widescape WS250 Snowmobile (hereinafter referred to as the “Snowmobile”), your dealer has provided you with the relevant explanation of the warranty offered by 10696056 Canada Inc. (hereinafter referred to as “Widescape”) You have signed a delivery certificate that includes the registration of your Snowmobile and the list of checks made before delivery, all confirming the satisfaction of your purchase. This User Manual (hereinafter the “Manual”) contains updated information as of its publication on 20 February 2023. However, some minor variations may be caused by technical developments.

Widescape reserves the right to modify, in whole or in part, in any way whatsoever, the content of this Manual, in particular by deleting certain information without substitution or by adapting certain information, including prices, colors, forms, materials, services and maintenance, production and equipment or other. Widescape also reserves the right to discontinue production of a model at any time without notice or indication.

This Manual is intended to provide a general overview of the Snowmobile, including its safe use and maintenance. Nothing in this Manual shall be construed as legal advice given by Widescape. The owner of the Snowmobile remains at all times responsible for all uses made of it by anyone.

Widescape is not responsible for delivery times, discrepancies between the Snowmobile as manufactured and the content of the drawings and descriptions in this Manual, typographical errors or spelling or syntax errors. Without limiting the generality of the foregoing, the drawings and descriptions in this Manual may represent or refer to a Snowmobile with special features that are not necessarily included in the model purchased by a customer.

This manual is available in several languages, including English and French. In the event of a discrepancy between the English and French versions of the Manual, the former will prevail.

The information contained in this Manual is provided without obligation, either for informational purposes only. Widescape recommends that its customers review the contents of this Manual before using their Snowmobile and retain this Manual so that they can refer to it from time to time.

Enter your Snowmobile ID below:

<b>VEHICLE IDENTIFICATION NUMBER</b>	<a href="#">P.15</a>	<b>DEALER'S STAMP</b>
<b>MOTOR IDENTIFICATION NUMBER</b>	<a href="#">P.15</a>	

# TABLE OF CONTENTS







<b>INTRODUCTION</b>	04	5.6	AFTERSALE SERVICE	43
<b>GENERAL INFORMATIONS</b>	09	5.7	ILLUSTRATIONS	43
1. <b>SYMBOLS</b>	11	6.	<b>CONTROLS</b>	45
1.1 USED SYMBOLS	11	6.1	BRAKE LEVER	45
2. <b>IMPORTANT COMPONENTS</b>	12	6.2	THROTTLE	45
2.1 ENGINE	12	6.3	CONTROL UNIT	46
2.2 TRANSMISSION	12	6.3.1	WS250 ENGINE OPERATING MODES	46
2.3 TRACK	12	6.4	LIGHT SWITCH	47
2.4 SKI	13	6.5	FUEL TANK	47
2.5 COCKPIT	13	7.	<b>DASHBOARD</b>	48
2.6 CLUSTER	13	7.1	OVERVIEW	48
2.7 RIDING PLATFORM	14	7.2	SYMBOLS	49
2.8 SUSPENSION	14	7.3	TECHNICAL SPECIFICATIONS	49
2.9 BODYWORK AND CHASSIS	14	7.4	FEATURES	49
3. <b>IDENTIFICATION NUMBER LOCATION</b>	15	7.5	ADJUSTING THE CLUSTER SCREEN	50
3.1 VEHICULE IDENTIFICATION NUMBER	15	8.	<b>COMMISSIONING</b>	51
3.2 ENGINE IDENTIFICATION NUMBER	15	8.1	COMMISSIONING AT WIDESCAPE DEALERS	51
<b>INSTRUCTIONS</b>	16	8.2	PRE-RIDE INSPECTION	54
4. <b>SAFETY INSTRUCTIONS</b>	18	8.3	REGULAR START-UP PROCEDURE	55
4.1 DEFINITION OF USE	18	8.4	GET TO KNOW THE WS250	56
4.2 USE ON DIFFERENT TERRAINS	20	8.5	RIDING POSITION	56
4.3 INCORRECT USE	25	8.6	BRAKING	58
4.4 MINIMUM AGE AND SKILLS REQUIRED	25	8.7	CARE	59
4.5 IMPORTANT TAGS	26	8.8	TRANSPORT	60
4.6 WARNING AGAINST MODIFICATIONS	29	8.9	REFUELING	60
4.7 MAINTENANCE WORKS	29	9.	<b>CHECKS AND MAINTENANCE</b>	62
4.8 SAFE OPERATION	30	9.1	NOTICE	62
4.9 PROTECTIVE CLOTHING	31	9.2	SEVERE USE DEFINITION	62
4.10 EQUIPMENT	32	9.3	BREAK-IN AND PERIODIC MAINTENANCE CHECKLIST	63
4.11 RISK ANALYSIS	32	10.	<b>INSPECTION</b>	65
4.12 ENVIRONMENT	35	10.1	REMOVING COVER PANELS	65
4.13 USER MANUAL	35	10.1.1	REMOVING THE QUICK ACCESS PANELS	65
5. <b>IMPORTANT NOTES</b>	36	10.1.2	REMOVING THE SNOW FLAP	65
5.1 MANUFACTURER'S WARRANTY	36	10.1.3	REMOVING THE TOP CONSOLE, CONSOLE AND SIDE PANELS	66
5.1.1 CONDITIONS OF WARRANTY	36	10.1.4	REMOVING THE LOWER LEFT AND RIGHT SIDE PANEL	67
5.1.2 PERIOD OF WARRANTY	36	10.1.5	REMOVING FRONT PANEL AND SKID PLATE	67
5.1.3 GENERAL EXCLUSIONS FROM WARRANTY	37	10.2	INSTALLING THE PLASTICS	68
5.1.4 PARTS AND LABOR WARRANTY COVERAGE	37	10.2.1	INSTALLING THE FRONT PANEL AND SKID PLATE	68
5.1.5 CONDITIONS REQUIRED FOR WARRANTY COVERAGE	38	10.2.2	INSTALLING THE LOWER SIDE PANEL LEFT AND RIGHT	68
5.1.6 CLAIMING WARRANTY COVERAGE	38	10.2.3	INSTALLING THE TOP CONSOLE, CONSOLE AND SIDE PANELS	69
5.1.7 LIMITATIONS ON WARRANTY	38	10.2.4	INSTALLING THE REAR PLASTICS	70
5.1.8 CONSUMER ASSISTANCE	39	10.3	CONDITION OF THE DRIVE BELT	71
5.2 U.S. EPA EMISSIONS LIMITED GUARANTEE	39	10.4	CONDITION OF THE FUEL CIRCULATION SYSTEM	71
5.2.1 NOISE CONTROL SYSTEM AND TAMPERING	41	10.5	CONDITION OF THE COOLING SYSTEM	72
5.3 FUEL, LUBRICANTS AND OTHER FLUIDS	42			
5.4 SPARE PARTS	42			
5.5 SERVICES	42			



10.6	CHECKING THE IDLE SPEED	72	11.5	TRACK	100
10.7	ENGINE OIL LEVEL	73	11.5.1	ADJUSTING TRACK TENSION	100
10.8	CHAINCASE OIL LEVEL	73	11.6	DRIVE SYSTEM	101
10.9	CHECKING THE AIR FILTER	74	11.6.1	ADDING CHAINCASE OIL	101
10.10	COOLANT LEVEL	75	11.6.2	REPLACING CHAINCASE OIL	101
10.11	BRAKE SUPPORT INSPECTION	75	11.6.3	TIGHTENING THE CHAIN	102
10.12	BRAKE PAD INSPECTION	76	11.6.4	CHANGING THE TRANSMISSION BELT	103
10.13	BRAKE FLUID LEVEL	76	11.7	COOLING SYSTEM	104
10.14	FUEL LEVEL	77	11.7.1	ADDING COOLANT	104
10.15	CONDITION OF THE AIR BOX GRID	77	11.8	BRAKES	105
10.16	CONDITION OF THE FRONT SUSPENSION	78	11.8.1	REMOVING THE BRAKE CALIPER	105
10.17	REAR SUSPENSION CONDITION	79	11.8.2	INSTALLING THE BRAKE CALIPER	105
10.17.1	CHECKING REAR SUSPENSION BUSHINGS PLAY	79	11.8.3	CHANGING BRAKE PADS	106
10.17.2	CHECKING SUSPENSION RUNNER FOR WEAR	79	11.8.4	BLEEDING THE BRAKE SYSTEM	107
10.18	CONDITION OF THE STEERING COLUMN	80	11.9	THROTTLE CONTROL	108
10.19	CONDITION OF THE SKI	80	11.9.1	ADJUSTING THE THROTTLE CABLE AT	
10.20	CONDITION OF THE SKI'S SIDE RUNNERS	81		THE THROTTLE CONTROL	108
10.21	CONDITION OF THE SKI'S MAIN RUNNER		11.9.2	GREASING THE THROTTLE CABLE	108
	(CENTRAL CARBIDE)	81	11.10	ELECTRICAL SYSTEM	109
10.22	CONDITION OF THE TRACK	82	11.10.1	FUSES	109
10.23	CHECKING DRIVETRAIN FOR WEAR	82	12.	<b>SERVICES</b>	110
10.24	CONDITION OF THE CVT TRANSMISSION	83	12.1	CHANGING FRONT LIGHT	110
10.25	INSPECTION OF THE LIGHTS	83	12.1.1	REPLACING THE HEADLIGHT	110
10.26	INSPECTION OF THE VEHICLE'S CONTROLS	84	12.1.2	REPLACING THE TAILLIGHT	111
11.	MAINTENANCE WORK	85	12.1.3	CHANGING THE BATTERY	112
11.1	ENGINE	86	13.	<b>FAILURE DIAGNOSTIC</b>	113
11.1.1	THROTTLE BODY AND CABLE ADJUSTMENT	86	14.	<b>ECU VOLTAGE PARAMETER</b>	115
11.1.2	ADDING ENGINE OIL	86	15.	<b>TECHNICAL DATA</b>	116
11.1.3	CLEANING THE AIR FILTER	87	15.1	ENGINE	116
11.1.4	CHANGING THE OIL FILTER AND ENGINE OIL	88	15.2	MOTOR TIGHTENING TORQUES	117
11.1.5	CLEANING THE STRAINER	89	15.3	QUANTITY OF FLUIDS	118
11.2	FORK	90	15.4	CYCLE PARTS	119
11.2.1	REMOVING THE FORK	91	15.5	TIGHTENING TORQUES OF THE CYCLE PARTS	120
11.2.2	INSTALLING THE FORK	92			
11.3	SKI, STEERING AND HANDLEBARS	93			
11.3.1	TIGHTENING THE STEERING COLUMN BEARINGS	93			
11.3.2	REMOVING THE SKI	94			
11.3.3	INSTALLING THE SKI	94			
11.3.4	REPLACING THE SIDE RUNNERS	95			
11.3.5	REPLACING THE MAIN RUNNER	95			
11.3.6	TIGHTENING THE HANDLEBAR STEM CLAMP				
	TO THE STEERING COLUMN	96			
11.3.7	LUBRICATING THE STEERING HEAD BEARINGS	97			
11.4	REAR SUSPENSION	98			
11.4.1	REMOVING THE REAR SUSPENSION STRAP	98			
11.4.2	REMOVING THE REAR SHOCK ABSORBER	99			
11.4.3	INSTALLING THE REAR SHOCK ABSORBER	99			

# GENERAL INFORMATIONS



## 1. SYMBOLS

### 1.1 USED SYMBOLS

The meaning of the symbols used in this manual is explained below.

Typographic convention



**DANGER** This symbol indicates a hazard that can lead to serious injury or death if the proper actions are not taken.

- The user must read each DANGER section before using the vehicle for the first time.



**WARNING** This symbol indicates a hazard that could result in moderate injury.

- The user should read each WARNING section before using the vehicle for the first time.



**CAUTION** This symbol indicates a hazard that may result in minor injury.

The user should read each CAUTION section before operating the vehicle for the first time.



- This symbol indicates detailed information and tips



This symbol indicates that specialist or advanced mechanical skills are required. For your safety, these tasks should preferably be performed by a licensed professional.



This symbol indicates a reference page.



**NOTE** Identifies a hazard that could damage the vehicle or its environment.



**NOTE** This symbol indicates a hazard that could result in environmental damage if recommended actions are not followed.

## 2. IMPORTANT COMPONENTS

### 2.1 ENGINE



The WS250 is powered by our custom-built 242cc 4-stroke EFI engine with liquid cooling and was designed to be compact, reliable and fuel efficient.

Coupled with our continuously variable transmission, the result is an engine that offers a linear acceleration with strong torque at lower speeds, ideal for navigating through dense forests and riding deep snow.

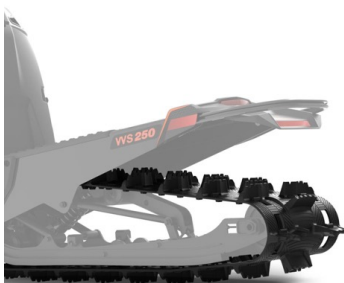
### 2.2 TRANSMISSION



The WS250 is equipped with a continuously variable transmission made in Canada by CVTech-IBC®.

Built to be rugged and durable, it ensures a smooth and steady power output with a linear acceleration.

### 2.3 TRACK



Traction is provided by a scaled track, made in Canada by Soucy, a leading manufacturer of powersports components.

The track is 105 inches in length by 12 inches in width with 1.5 inch lugs, giving the ride optimal traction and control.



## 2.4 SKI



The WS250 is steered by a 12-inch single ski, purposefully designed by the engineers at Widescape and made in Canada. It is the same width as the track to ensure increased driveability and balance.

It is equipped with a single central carbide and side runners for optimal grip and precise handling on all surface types.

## 2.5 COCKPIT



A thumb-operated throttle allows for ease of use and comfort and ensures a smooth and steady power output when riding in dense forests.

Thanks to spacers, the riser bar can be adjusted up to 30mm to meet the rider's preferred height.

## 2.6 CLUSTER



The 4-inch digital display gives the rider all the info needed during a ride such as speed, engine temperature, low battery, check engine, low fuel indicator, engine run time, RPM and a clock.

## 2.7 RIDING PLATFORM



A non-slip traction mat ensures the rider's feet are always securely in place on the driving platform.

The built-in grooves ensure that snow is easily cleared from the riding platform during the ride.

## 2.8 SUSPENSION



High-performance front and rear suspension ensure a smooth and comfortable riding experience in all types of terrain, thanks to the suspension's 140 mm front and 100 mm rear travel.



## 2.9 BODYWORK AND CHASSIS

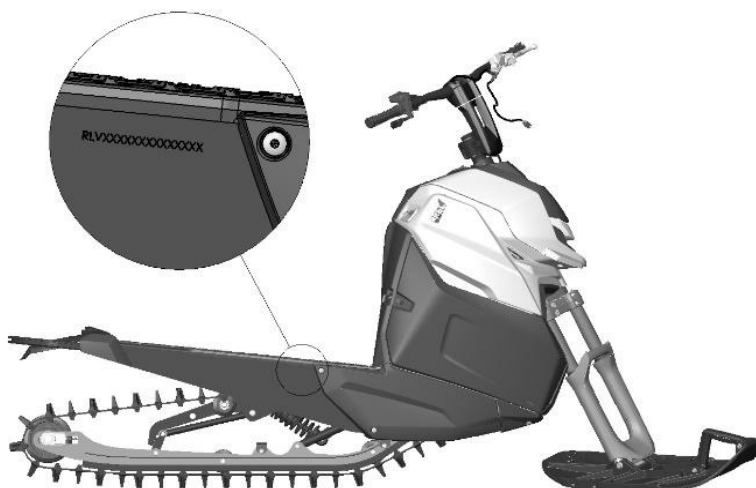


The WS250's chassis and frame are made entirely of aluminum, which makes the vehicle very light yet robust. At 200 pounds, it's the lightest snowmobile on the market.

The aluminum frame is wrapped in HDPE plastics, which are resistant to shock and cold, and finished up in a sleek and minimal design.

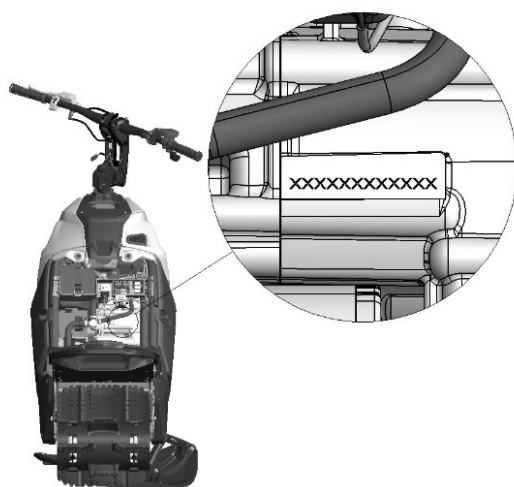
### 3. IDENTIFICATION NUMBER LOCATION

#### 3.1 VEHICLE IDENTIFICATION NUMBER



The vehicle identification number is located on the right side of the tunnel

#### 3.2 ENGINE IDENTIFICATION NUMBER



To access the engine identification number, open the rear quick-access panel.



See page [65](#) for the procedure on how to remove the rear quick access panel.

# **INSTRUCTIONS**





## 4. SAFETY INSTRUCTIONS

To operate the vehicle safely, certain instructions must be followed. These instructions are described in this manual. Widescape suggests that its customers to review and adhere to the guidelines listed below to ensure safe use of the Snowmobile. Anyone using the snowmobile is subject to the owner's responsibility.

### 4.1 DEFINITION OF USE

The Snowmobile is built to withstand the challenges of riding off-road. The Snowmobile is in compliance with the regulations in force at the time of publishing this Manual and is not allowed on public roads.



The owner or person using the snowmobile is responsible for making all necessary checks to ensure that the intended use is permissible and lawful, and, where applicable, to obtain all permits, licences and other authorizations of any kind that may be necessary for such use.

### WHERE CAN YOU RIDE THE WIDESCAPE WS250?



Always ride the Widescape vehicle on a snow-covered surface only. The variation between snow-covered terrain to any melted surface like asphalt, any type of soil or grass can cause sudden loss of control or accident.

**DISCLAIMER** — This section is meant to provide general information regarding restrictions that could apply to the use of Widescape's WS250 in different areas. Hence, this section shall not be interpreted or construed as legal advice. Widescape is not responsible for any damage caused or suffered by any person or entity in connection with unlawful use of The Widescape WS250. It is your responsibility to make all the necessary verifications to ensure that any contemplated use of The Widescape WS250 complies with applicable laws and regulations. Never ride the Widescape WS250 where it is not permitted to do so.

### FEDERATED SNOWMOBILE TRAILS IN CANADA

- Users require specific licenses, permits or authorizations emitted by competent authorities to be allowed to ride a snowmobile on federated trails.
- It is currently not possible to obtain such licenses, permits or authorizations for federated trails in Canada for the WS250 as Widescape is not yet a recognized manufacturer by the competent authorities.
- It is therefore **NOT** permitted to ride the Widescape WS250 on federated snowmobile trails in Canada.

## SNOWMOBILE CLUBS AND PRIVATE TRAILS IN CANADA

- Users may require licenses, permits or other authorizations emitted by local snowmobile clubs and/or other persons or entities to be allowed to ride a snowmobile on their territory and/or property (be it trails and/or off-trail terrain).
- Licenses, permits or other authorizations may be granted for the use of your Widescape WS250 on such territory and/or property, depending on applicable laws and regulations.
- Check with local snowmobile clubs and/or other concerned persons or entities to validate if and under which conditions you may be allowed to use your Widescape WS250 on their territory and/or property.

## CROWN LANDS AND PUBLIC LANDS (INCLUDING NATIONAL AND PROVINCIAL PARKS IN CANADA)

- Motorized vehicles may be used on Crown lands and public lands, depending on local legislation.
- Licenses, permits or other authorizations may be required to use the Widescape WS250 on Crown lands and public lands.
- Check with competent authorities to validate if and under which conditions the Widescape WS250 is allowed on specific Crown lands and public lands.

## PRIVATE PROPERTY

Never use your Widescape WS250 on private property that is not your own without express authorization from the owner of such property to do so.

## 4.2 USE ON DIFFERENT TERRAINS

### DEEP SNOW

Although light and mobile, your vehicle can get stuck in the deep snow. When this happens, turn off the engine to prevent the vehicle getting stuck even deeper. Note that it's essential to always have a riding partner when you ride in deep snow to have support should your vehicle get stuck.

Engine off	The low weight of the WS250 makes it agile and maneuverable when stuck in the deep snow. Push the vehicle from side to side to get it unstuck from the snow. If it's still stuck after a few attempts, go to the front of the vehicle and remove snow from the buried ski. Grab the rear bumper with both hands and raise the vehicle to create an optimized track-to-ground surface for better traction.
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Engine on	Make sure the vehicle is upright before starting the engine. Get on the vehicle to add weight to the track, start the engine and press the throttle gently so as to slowly turn the track to get traction and get unstuck from the deep snow.
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If your snowmobile is upside down or falls on the left or right side, immediately turn off the ignition and flip it back over as quickly as possible. Remove the quick access panels as indicated in section [10.1.1](#) of this manual to ventilate the cabin and ensure there is no presence of fuel. Wait at least 2 minutes before replacing the panels and restarting



The snow flap needs to be placed over the bumper when the vehicle is driven in deep snow. Refer to the procedure below.



Snow flap in the original position.



Snow flap in position for riding in deep snow



Simply pull the snow flap end gently to place it over the bumper.

## FROZEN BODY OF WATER

Always study your route prior to riding your WS250 to avoid bad surprises. A ride on a frozen body of water can be fatal. It is, therefore, vital that you assess the risks before embarking on this type of terrain. Please note that the ice formed on a whitewater river is never 100% safe.

The WS250's traction is not optimal on icy surfaces. Reduce your speed and watch your surroundings to ensure your safety whenever riding on icy surfaces on a frozen body of water.



Check with local authorities before setting out on a new ride. They will inform you about current riding conditions and give you vital information on the terrain.

## CLIMBING

The WS250 is most suitable for open ground and terrain that allows for a straight climb. It is not advised to ride on uneven or overly hilly terrain with the WS250. Always take the time to plan your route and know the terrain before your ride.



If your snowmobile is upside down or falls on the left or right side, immediately turn off the ignition and flip it back over as quickly as possible. Remove the quick access panels as indicated in section [10.1.1](#) of this manual to ventilate the cabin and ensure there is no presence of fuel. Wait at least 2 minutes before replacing the panels and restarting.

## DOWNHILL

When riding downhill, follow these tips to help you maintain control of the vehicle and reduce the risk of a fall.

- Avoid accelerating and let gravity to the work;
- Adjust your speed by gently using the brake;
- Adopt a the proper riding position (described on page [56](#) of this manual)
- Never block the vehicle's track.



## MOUNTAINSIDE

Riding the WS250 on a mountainside (commonly known as “sidehilling”) presents some risks and can be perilous. Always conduct a rigorous analysis of the terrain to assess and evaluate the risks before riding on a mountainside.



If your snowmobile is upside down or falls on the left or right side, immediately turn off the ignition and flip it back over as quickly as possible. Remove the quick access panels as indicated in section [10.1.1](#) of this manual to ventilate the cabin and ensure there is no presence of fuel. Wait at least 2 minutes before replacing the panels and restarting.

## AVALANCHE RISK

An avalanche is a layer of snow that has broken away from the mountain. Three (3) factors can cause an avalanche.

- A steep slope;
- A weak layer in the snow cover;
- A trigger (e.g., a motorized vehicle)

If you are riding in an area that is prone to avalanches, ask the local authorities about the potential risks. Avoid riding your vehicle near ledges and always conduct a rigorous analysis of the terrain you intend to ride on. Make sure to follow an avalanche safety course and carry avalanche gear with you prior to riding in areas that are prone to avalanches.

Proper avalanche gear should include:

- A shovel
- A detection beacons
- A probe

Please note that you need proper avalanche training to use avalanche safety equipment effectively.



All snowmobile riders who want to ride in the mountains are invited to take an avalanche safety course. You can find valuable information about avalanches at [www.avalanche.org](http://www.avalanche.org) (USA) or [www.avalanche.ca](http://www.avalanche.ca) (CANADA).

### **NIGHT RIDING OR IN THE DARK**

The WS250's lights have been optimized for low-light riding. However, riding at night is not recommended. Ideally, if you can't wait for daybreak to go on a ride, make sure you ride in terrain you know well.

### **UNKNOWN TERRITORY**

Riding and safety are not mutually exclusive. When exploring new terrain, reduce your speed and carefully analyze your surroundings. Snow may have covered obstacles such as low walls, stumps, or cables. Colliding with such obstacles can result in serious injury or death. Snow can impair your vision and cause you to overlook obstacles on the terrain. Be wary of potential obstacles whenever riding on unknown terrain, especially when there is fresh snow on the ground.

### **RIDING ON UNEVEN SURFACES**

Always analyze the terrain before you ride. When riding on uneven terrain, make sure to keep your center of gravity as low as possible, have a good footing, and hold the handlebars firmly. Unanticipated jumps, hard landings, repetitive bumps, and high speeds can cause sudden falls. These falls can result in serious injury or death.

### **CROSSING A PUBLIC ROAD**

The WS250 is not designed for use on public roads. It is highly discouraged to drive it across a road.

### **CROSSING A RAILROAD TRACK**

It is illegal to drive on or along a railroad track. Railroad tracks are private property. When crossing a railroad track:

- Stop in front of the track at a minimum of 8 meters
- Turn off the engine in order to hear if there's a train coming
- Turn on the ignition and start the vehicle
- Look both ways
- Slowly cross the track

### **JUMPS, TRICKS AND STUNTS**

Any use of your Snowmobile to perform jumps, tricks or other dangerous manoeuvres carries a significant risk of serious injury or death. Performing jumps, tricks or other dangerous maneuvers with your Snowmobile is prohibited and considered a misuse. Widescape recommends that its customers never use or allow the use of their Snowmobile to perform such jumps, tricks or other dangerous maneuvers. Widescape is not liable for any damages that may result from such a use of the snowmobile.

### 4.3 INCORRECT USE

This vehicle may only be used as designed. Improper use of the Snowmobile may result in serious injury or death, and damage or destroy the Snowmobile and/or its environment.

- Any unauthorized modification of your snowmobile and the use of equipment, accessories, or parts not approved by Widescape is considered a misuse of your snowmobile. Widescape has not tested these modifications or equipment, accessories, or parts, which could make your snowmobile non-compliance with current legislation and increase the risk of serious injury or death.
- Using fluids that are not listed in this Manual is considered a misuse of the Snowmobile
- Not adjusting its speed to its surroundings is considered misuse.
- Using the Snowmobile almost exclusively at high engine speeds is considered misuse.
- Using the Snowmobile in any other way than what is described in this Manual is considered misuse.

### 4.4 MINIMUM AGE AND SKILLS REQUIRED

Get to know your vehicle before you ride it. Inexperienced riders may overlook risks and become confused by the specific behavior of their vehicles and the terrain conditions. Be cautious when riding and make sure that anyone driving your Snowmobile is also careful.

- Speeding and reckless riding can cause death! Be aware of snow conditions and adjust your speed accordingly.
- Always follow the laws on the minimum age of the rider. The manufacturer recommends a minimum age of 16 years. Make sure you also comply with applicable legislation regarding the permits, licenses and other authorizations required to drive a snowmobile in your jurisdiction.
- The WS250 is designed for only one (1) operator per vehicle. To operate the WS250, you must be able to set your feet firmly on the riding platform and grasp the handlebars securely.
- Any users of the Snowmobile must wear an approved helmet, goggles and a face shield. Any user of the Snowmobile must also wear warm and appropriate clothing that is well adjusted to ensure comfort while driving.
- The Snowmobile should never be used by anyone who is pregnant, tired, sick, under the influence of any substance or affected by any other condition that may have an impact on the safety of their driving.
- Your guests should never operate the WS250 unless they have read and understood the owner's manual, and taken note of all safety labels on the Snowmobile. Any new user of the Snowmobile should be given a trial period to familiarize themselves with the Snowmobile under surveillance in a known and controlled area.

## 4.5 IMPORTANT TAGS

Your snowmobile is equipped with labels and indications that guarantee your safety and are an integral part of it. Make sure that your snowmobile's labels and indications are still legible and properly secured in their original position. In the event that a label or indication is removed, erased or becomes unreadable, please contact your authorized Widescape dealer for a replacement. If there is a difference in the labels or indications in this Manual and those on your Snowmobile, the latter should prevail.



### WARNING LABEL — Procedure and User Safety

Describes the procedure for starting the vehicle and indicates the user's safety rules. The label is located on the rear panel and is visible to the user when in the riding position.



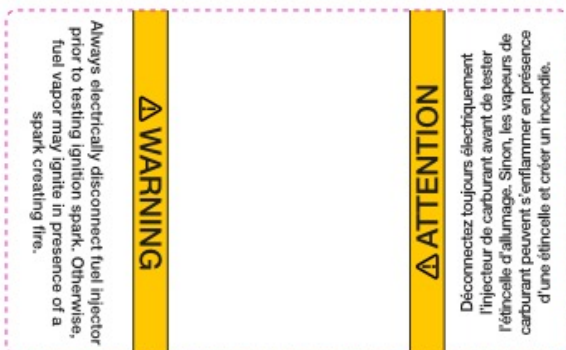
## WARNING LABEL—Do not open while hot

Never open the coolant reservoir when the vehicle is hot. The pressure inside could cause fluid to splash out and burn you. The label is placed directly on the coolant reservoir cap.



## WARNING LABEL—Hot Parts

Some parts are very hot inside the cab. Be sure to let the vehicle cool down before doing any work in the cab. Labels are clearly visible when opening the quick access panels.



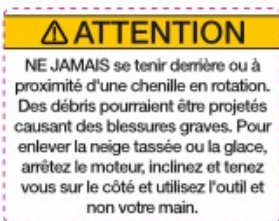
## WARNING LABEL—Ignition Spark Test

Always disconnect the injector connector when performing an ignition spark test. Gasoline vapors can ignite and cause a fire. The label is placed directly on the spark plug cable.



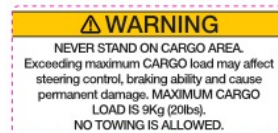
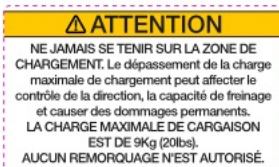
## WARNING LABEL—Transmission Guard

The transmission guard must always be in place when starting and operating the vehicle. The label is positioned directly on the guard.



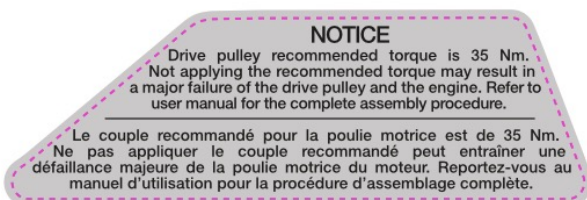
## WARNING LABEL—Rotating Track

Never stand behind or near a rotating track. Debris could be thrown around, causing serious injury. To remove packed snow or ice, stop the engine, tilt it to the side and use a tool, not your hand. The label is located on the tunnel at the rear of the vehicle.



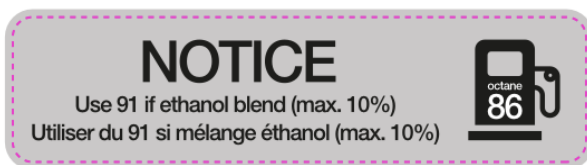
## WARNING LABEL—Loading Area

Never stand on the loading area. Exceeding the maximum cargo load can affect steering control and braking ability and cause permanent damage to the vehicle. The maximum cargo load is 9 kg. No towing is allowed. The label is placed on the tunnel at the rear of the vehicle.



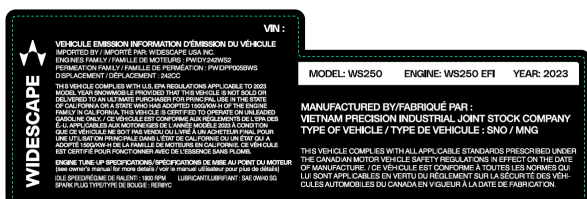
## INSTRUCTION LABEL—Drive Pulley Torque

The recommended torque for the drive pulley is 35 Nm. Failure to apply the recommended torque may result in failure of the motor drive pulley. Refer to the operator's manual for the complete assembly procedure. The label is located directly above the drive pulley on the transmission guard.



## NOTICE LABEL—Gasoline Recommendation

Always use gasoline with an octane rating of at least 86. Use 91 octane or higher if the ethanol ratio is 10% or higher. The label is located directly below the gas cap.



## COMPLIANCE LABEL—Vehicle and EPA info

The WS250 is designed to meet the standards of Canada and the United States. The label is placed on the right side of the tunnel as required by CMVSS 115.

#### 4.6 WARNING AGAINST MODIFICATIONS

Modifications to noise reduction components are prohibited. The following alterations measures and the establishment of corresponding circumstances are prohibited by law:

- Removal or decommissioning of all sound attenuating equipment or components on a new vehicle prior to its sale or delivery to an end user or during the life of the vehicle for purposes other than maintenance, repair, or replacement;
- Operating the vehicle after removing or disabling such equipment or components.

Examples of handling prohibited by law:

- Removal or drilling of mufflers, baffles, headers, or other components that discharge exhaust gasses.
- Removal or drilling of intake system components.
- Use in an improperly maintained state.
- Replacement of moving parts of the vehicle or parts of the exhaust or intake system with parts not approved by Widescape.



The exhaust system of this vehicle complies with SSCC-11 standards

#### 4.7 MAINTENANCE WORKS

Please make sure the vehicle's engine is switched off when you perform maintenance work.

Some operations require special tools. If you have any doubts, please consult with your Widescape authorized dealer or Widescape directly.

The operations described in this manual are performed under normal working conditions and in a well-ventilated environment:

AMBIENT TEMPERATURE	AMBIENT AIR PRESSURE	RELATIVE HUMIDITY
20°C (68°F)	1.013mbar (14.69psi)	60±5%.

During the reassembly phase, some parts cannot be used again (seals, sealing rings, self-locking screws, pins, etc.). These parts must be replaced with new ones.

Some screws are coated with a threadlocker. If a threadlocker is already used on a new part, there is no need to apply more.

Dismantled parts that can be used again must be cleaned to check their state of deterioration effectively. Parts whose state of wear may lead to a malfunction of the vehicle must be replaced.

After the maintenance is completed, make sure the vehicle is still in a safe operating condition.



## 4.8 SAFE OPERATION

**RISK OF ACCIDENT** - If you are not in a good mental and physical state, do not ride, as you will put yourself and others at risk.



Do not drive under the influence of alcohol, drugs, medication or any other substance that may affect your driving abilities.

Do not drive if you are not in an appropriate physical or mental state.

**RISK OF POISONING** - Exhaust fumes are toxic and can cause unconsciousness or death.



The engine must be operated in an adequately ventilated environment.

If you must run the engine in an enclosed area, use an appropriate exhaust extraction system.

**BURN HAZARD** - Some vehicle parts become hot while riding the vehicle.



Make sure that the vehicle's plastics are always in place to ensure sufficient protection against possible burns.

Allow the vehicle to cool down before doing any work on it.

Stay away from moving parts. Never start the vehicle without the access and protection panels. The driver's feet should always remain on the driving platform when starting the vehicle and when driving. Use the vehicle only when it is in perfect working order (see page [59](#) of this Manual).

Operating problems that may affect the safety of the user and the environment must be repaired immediately by an authorized mechanic.

Gasoline is extremely flammable. Always use an approved can to store gasoline. Use only the WIDESCAPE accessory to carry extra gasoline on your vehicle. If you smell gasoline or see traces of gasoline on your vehicle, do not start it. A spark from the engine could cause a fire.

4.9 PROTECTIVE CLOTHING

**RISK OF INJURY** - Failure to wear protective equipment or wearing unadapted equipment is a hazard. Protective clothing should not restrict the rider’s movements and should be comfortable. Only use equipment that is in good condition and approved.



The following list provides an example of appropriate protective clothing and equipment.

Waterproof winter suit	Always adjust your suit to the weather conditions. Make sure you have the necessary equipment to face the elements in case of extreme cold. A one-piece suit is recommended. The suit must cover the upper and lower body.
Helmet	Complies with applicable standards in the jurisdiction where the Snowmobile is used.
Gloves	Warm and waterproof winter gloves
Boots	High boots with rubber soles and fleece lining covered with gaiters. The rubber sole must have a good grip on the vehicle’s riding platform.
Protective glasses	If the helmet is not equipped with a visor, wear ski or snowmobile goggles. Adjust the tint of the visor or lenses to the usage conditions. A tinted visor or lens is suggested for sunny days to avoid glare. A clear visor is recommended in low-light conditions.
Knee protectors	Your knees are very close to the rear panel of the vehicle when you ride. It is, therefore, essential to wear knee protectors to avoid injuries.

4.10 EQUIPMENT

When you go on an expedition with your vehicle, make sure you are prepared for the unexpected. To do so, you will find below an example of the basic tools to have in your possession during your trips :

- First aid kit
  - Cellular phone (Verify the condition of your provider's network in the area of your trip. In the event of a weak or absent network, notify people of your trip at the very least.)
  - Versatile tool and fire starter
  - Flashlight or headlamp
  - Additional thermal layer
  - Hand and foot warmer
  - Versatile tool and fire starter
  - Map of the riding area
  - Avalanche safety equipment (if you are in the mountains):
    - Snow shovel
    - Avalanche probe
    - Detection beacon
- Please note that avalanche safety equipment is not effective without proper avalanche training.



Useful information on avalanches can be found at [www.avalanche.org](http://www.avalanche.org) (USA) or [www.avalanche.ca](http://www.avalanche.ca) (CANADA).

4.11 RISK ANALYSIS

The following points details all the risks that a WS250 pilot can be exposed to during a ride. Be careful to acknowledge all those risks before using your vehicle.

Traffic Accidents	The use of a snowmobile on shared roads or trails can result in collisions with other vehicles, leading to severe injuries.
Weather Conditions	Snowmobiles are often used in cold and snowy environments, posing risks related to falls (slipping), hypothermia, frostbite, and reduced visibility.
Weather Changes	Rapid changes in weather conditions, such as sudden snowstorms or low visibility, can create navigational challenges and increase the risk of accidents.
Snow Conditions	Variable snow conditions, such as deep powder, hard-packed snow, or icy surfaces, can affect the control and stability of the snowmobile, leading to accidents.
Terrain Hazards	Hidden obstacles under the snow, such as rocks, fallen trees, or uneven terrain, pose a significant risk of collisions or accidents.

Excessive Speed	Speeding can lead to loss of control and serious accidents. It is essential to adhere to speed limits and drive cautiously.
Overestimation of Abilities	Overestimating one's skill level and attempting advanced maneuvers or challenging terrain beyond one's capabilities can result in accidents.
Alcohol and Drugs	Using alcohol or illicit substances while operating a snowmobile can compromise safety and significantly increase the risk of accidents.
Inadequate Training	Insufficient training in snowmobile operation can increase the risk of accidents due to a lack of knowledge of proper driving techniques.
Isolation in Remote Areas	Mechanical breakdowns or accidents can leave riders stranded in remote, snow-covered areas, increasing the risks associated with exposure, dehydration, or delayed rescue.
Non-compliance with Rules and Regulations	Disregarding safety rules and local regulations can result in legal sanctions and increased safety risks.
Inadequate Protective Gear	Failure to wear proper protective gear, including helmets, goggles, and insulated clothing, can increase the risk of injuries in the event of an accident.
Mechanical Failures	Mechanical breakdowns, such as brake or engine failures, pose a major risk during snowmobile use.
Poor Maintenance	Inadequate vehicle maintenance can cause mechanical failures, increasing the risk of accidents.
Engine Failures	Engine failures, such as sudden breakdowns, oil leaks, or overheating, can lead to unexpected stops and hazardous situations.
Brake System	Brake issues, such as worn or defective brakes, can result in a loss of control and serious snowmobile accidents.
Suspension	Inadequate suspension can make the snowmobile unstable on rough terrain, increasing the risk of overturning or loss of control.

Electrical System	Electrical failures, such as starting problems, faulty lights, or battery failures, can impact the safety of the snowmobile.
Transmission System	Transmission problems, such as broken gears or clutch failures, can lead to power loss and difficulties in controlling the snowmobile.
Body and Chassis	Cracks or damage to the chassis or body can compromise the stability of the snowmobile and user safety.
Steering System	Steering issues, such as loose or defective steering, can make it difficult to control the snowmobile.
Cooling System	Ineffective cooling systems can lead to engine overheating, causing damage to the engine and reducing safety.
Avalanche Risks	In mountainous regions, snowmobilers may be exposed to avalanche risks, especially when leaving marked trails. Taking appropriate precautions and following avalanche warnings is essential.
Injury Risks	Bodily injuries, such as fractures, sprains, or head injuries, can occur in accidents, falls, or collisions. Wearing protective equipment, including a helmet, is essential to reduce these risks.
Cold-Related Injury Risks	Prolonged exposure to cold can result in frostbite, frostnip, and other cold-related health issues.
Distracted Driving	Using mobile phones, entertainment systems, or other distractions while driving can lead to accidents.
Exhaustion Risks	Snowmobiling can be physically demanding, leading to excessive fatigue or exhaustion if users do not take regular breaks.
Driving Fatigue	Driving while fatigued can reduce alertness and the ability to react quickly, increasing the risk of accidents.





To minimize these risks, snowmobilers should prioritize safety, undergo proper training, wear appropriate safety gear, adhere to speed limits and guidelines, and stay informed about weather and trail conditions. Regular equipment maintenance and responsible riding practices are crucial for a safer snowmobiling experience.

To mitigate these risks, individuals should take precautions when engaging in activities in snowy environments, including informing others about their plans, carrying essential supplies such as communication devices, extra clothing, and emergency provisions, and being aware of the surrounding terrain. Additionally, maintaining situational awareness and adhering to safety guidelines are critical for preventing and addressing potential risks in such scenarios.

#### 4.12 ENVIRONMENT

Always ride the WS250 responsibly so as not to harm your environment and the environment of those around you.

When draining any fluid or disposing of used components, be sure to follow the laws and regulations of the country where you are performing these operations.

#### 4.13 USER MANUAL



The Widescape WS250 owner's manual contains a wealth of information, tips, and tricks to help you operate, handle, and maintain your vehicle. This manual can be downloaded on the Widescape Owner's Hub by scanning the QR code on the right or by visiting: [www.widescape.ca/owners-hub](http://www.widescape.ca/owners-hub). Be sure to read this manual carefully and completely before using the WS250 for the first time.

If you resell your vehicle, make sure that the new user also downloads the manual.

For more information or if any points in this manual require clarification, contact an authorized Widescape distributor.

## 5. IMPORTANT NOTES

### 5.1 MANUFACTURER'S WARRANTY

#### 5.1.1 CONDITIONS OF WARRANTY

Widescape warrants its 2023 snowmobiles sold by authorized Widescape dealers (as defined below) in the United States of America ("USA") and in Canada from defects in material or workmanship for the period and under the conditions described below. The limited warranty on a Widescape Snowmobile is extended to the original retail purchaser for the time periods described below; however, the balance of the remaining warranty may be transferred to another party unless the purchase is for commercial use (see below).

Warranty coverage is only available in the country in which the original retail purchase occurs to the original retail purchaser resident in that country or to a transferee resident in that country of the balance of the remaining warranty. Warranty coverage applies only if the Snowmobile has been properly set-up and serviced by an authorized Widescape dealer prior to delivery. Snowmobile warranties are only valid if the Snowmobile has been serviced and maintained according to the owner's manual(s) and other Widescape literature.

#### 5.1.2 PERIOD OF WARRANTY FOR MY 2023/24 SNOWMOBILES SOLD IN THE U.S. AND CANADA

**DURATION** - One (1) year from the date of purchase.

**LIMITATIONS** - For snowmobiles used for commercial purposes (including rental operations), ONE (1) YEAR from the date of invoice (nontransferable). THIRTY (30) DAYS from date of sale of snowmobile on the following parts: battery Brake Pads, Spark Plugs, Driving Clutch/Driven Clutch/Strap and Airbox Nylon mesh.

The warranty period is effective on the date of purchase by the Original Purchaser and remains in effect only as stated above.

This limited warranty will become null and void if: (1) the snowmobile was used for racing or any other competitive activity, at any point, even by a previous owner; or (2) the snowmobile has been altered or modified in such a way so as to adversely affect its operation, performance or durability, or has been altered or modified to change its intended use.

For emission-related components; please also refer to the US EPA EMISSION-RELATED WARRANTY contained herein.

### **5.1.3 GENERAL EXCLUSIONS FROM WARRANTY**

This warranty does not cover any failures resulting from, or caused by:

- Lack of proper maintenance.
- Modification, alterations, and installation of parts that are not genuine Widescape parts or supplied as original equipment.
- Damage caused by abuse, abnormal use, neglect, use of the product on surfaces other than snow, or operation of the product in a manner inconsistent with the recommended operation described in the Owner's Manual;
- Normal wear and tear of components
- Use of parts not sold or approved by Widescape;
- Routine Maintenance items
- Misuse, such as, but not limited to, using incorrect fuel, using gasoline additives, not suitable lubricants and coolants,
- Damages to the paint, coatings or corrosion of metal parts due to external influences such as stones, salt, inadequate cleaning products.
- Fading of painted or metal coated surfaces.
- Use of improper gasoline, lubricating oils, or spark plugs.
- Improper coolant and oil quantity
- Damages due to water submersion and/or foreign material ingestion.
- Incidental or consequential damages, or damages of any kind including without limitation towing, storage, telephone, rental, taxi, inconvenience, insurance coverage, loan payments, loss of time, or loss of income;
- and – Damage resulting from.
- Damage resulting from accident, submersion, fire, theft, vandalism or any act of God.

### **5.1.4 PARTS AND LABOR WARRANTY COVERAGE**

Widescape will repair or replace, at its option, free of charge, any parts that are found to be warrantable in material or workmanship. Labor to replace parts that are covered in the Widescape warranty, which are found to be defective in material or workmanship, is no charge to the original purchaser. This repair work **MUST** be done by an authorized Widescape dealer. No transportation charges, rental charges, or inconvenience costs will be paid by Widescape. Warranty repairs must be done only with the authorization of Widescape. Labor costs to replace any parts without authorization from Widescape, or any other parts not covered in the Widescape warranty are not covered. The warranty is validated upon examination of said parts by Widescape or an authorized Widescape dealer. Widescape reserves the right to inspect such parts at its factory for final determination if warranty should apply.

### **5.1.5 CONDITIONS REQUIRED FOR WARRANTY COVERAGE**

1. To maintain warranty coverage, routine maintenance must be performed as outlined in the Owner's Manual.
2. If warranty repairs are needed, they must be performed by an authorized Widescape dealership. The owner may be asked to provide the following documentation of proper maintenance: a maintenance record which displays the date of service and service work performed, copies of repair orders/receipts, a statement including receipts for the replacement parts/ gaskets/ filters/ fluids etc. that were used to complete the service.
3. Owner is responsible for the costs of maintenance to the Snowmobile including service at scheduled intervals. Service work properly done by the owner will not void the warranty. Failures caused directly by lack of maintenance or improper maintenance will void the warranty.

### **5.1.6 CLAIMING WARRANTY COVERAGE**

Return the Widescape Snowmobile to a Widescape authorized Snowmobiles dealer after discovery of any defective parts. The customer must notify a servicing Widescape dealer within ten (10) days of the appearance of a defect, and provide it with reasonable access to the product and reasonable opportunity to repair it. Your Widescape authorized Snowmobiles dealer should initially determine if the particular Widescape Component(s) in question are to be submitted to Widescape for evaluation. All warranty work must be performed by a Widescape authorized Snowmobiles dealer.

### **5.1.7 LIMITATIONS ON WARRANTY**

THE LIMITED WARRANTY DESCRIBED IN THIS DOCUMENT IS THE ONLY WARRANTY THAT APPLIES TO YOUR SNOWMOBILE. WIDESCAPE MAKES NO OTHER WARRANTY OR GUARANTEE OF ANY KIND EXPRESSED OR IMPLIED. NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY PURPOSE, IS APPLICABLE TO ANY PRODUCT SOLD BY WIDESCAPE. BUYER AND ALL OTHER PARTIES WHO CONTRACT WITH WIDESCAPE, HEREBY SPECIFICALLY AND KNOWLEDGEABLY WAIVE ANY AND ALL WARRANTIES, EXPRESSED OR IMPLIED. SOME STATES/PROVINCES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU. ALSO EXCLUDED FROM THIS WARRANTY ARE ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING LOSS OF USE ARE EXCLUDED FROM COVERAGE UNDER THIS WARRANTY. SOME STATES/PROVINCES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE EXCLUSION MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH VARY, FROM STATE TO STATE, OR PROVINCE TO PROVINCE. THE CONTENTS STATED HEREIN ARE SUBJECT TO CHANGE WITHOUT NOTICE.

### 5.1.8 CONSUMER ASSISTANCE

If you are unable to receive satisfactory warranty service at a Widescape dealer, or you are dissatisfied with a warranty decision, please contact us using the contact us form on [www.widescape.ca](http://www.widescape.ca).

## 5.2 U.S. EPA EMISSIONS LIMITED GUARANTEE

This Emissions Limited Warranty is in addition to the WIDESCAPE standard Limited Warranty for your vehicle. WIDESCAPE warrants that at the time it is first purchased, this emissions-certified vehicle is designed, built and equipped so it conforms with applicable U.S. Environmental Protection Agency emission regulations. WIDESCAPE warrants that the vehicle is free from defects in materials and workmanship that would cause it to fail to meet these regulations.

The warranty period for this emissions-certified vehicle starts on the date the vehicle is first purchased and continues for a period of 300 hours of engine operation; or 30 calendar months from the date of purchase, whichever comes first.

This Emissions Limited Warranty covers components if their failure increases the vehicle's regulated emissions, and it covers components of systems if their only purpose is to control emissions. Repairing or replacing other components not covered by this warranty is the responsibility of the vehicle owner. This Emissions Limited Warranty does not cover components if their failure does not increase the vehicle's regulated emissions. For exhaust emissions, emission-related components include any engine parts related to the following systems:

- Air-induction system
- Fuel system
- Ignition system

The following parts are also considered emission-related components for exhaust emissions:

- |                                |                            |
|--------------------------------|----------------------------|
| • Aftertreatment devices       | • Sensors                  |
| • Crankcase ventilation valves | • Electronic control units |



The following parts are considered emission-related components for evaporative emissions:

- Fuel Tank
- Fuel Cap
- Fuel Line
- Fuel Line Fittings
- Clamps\*
- Pressure Relief Valves\*
- Control Valves\*
- Control Solenoids\*
- Electronic Controls\*
- Vacuum Control Diaphragms\*
- Control Cables\*
- Control Linkages\*
- Purge Valves
- Vapor Hoses
- Liquid/Vapor Separator
- Carbon Canister
- Carburetor Purge Port Connector

\*As related to the evaporative emission control system.

The exclusive remedy for breach of this Limited Warranty shall be, at the exclusive option of WIDESCAPE, repair or replacement of any defective materials, components or products. THE REMEDIES SET FORTH IN THIS LIMITED WARRANTY ARE THE ONLY REMEDIES AVAILABLE TO ANY PERSON FOR BREACH OF THIS WARRANTY. WIDESCAPE SHALL HAVE NO LIABILITY TO ANY PERSON FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY DESCRIPTION, WHETHER ARISING OUT OF EXPRESS OR IMPLIED WARRANTY OR ANY OTHER CONTRACT, NEGLIGENCE OR OTHER TORT OR OTHERWISE. THIS EXCLUSION OF CONSEQUENTIAL, INCIDENTAL, AND SPECIAL DAMAGES IS INDEPENDENT FROM AND SHALL SURVIVE ANY FINDING THAT THE EXCLUSIVE REMEDY FAILED OF ITS ESSENTIAL PURPOSE. ALL IMPLIED WARRANTIES (INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) ARE LIMITED IN DURATION TO THE WARRANTY PERIOD DESCRIBED HEREIN. WIDESCAPE DISCLAIMS ALL EXPRESS WARRANTIES NOT STATED IN THIS WARRANTY. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply if it is inconsistent with the controlling state law.

This Limited Warranty excludes failures not caused by a defect in material or workmanship. This Limited Warranty does not cover damage due to accidents, abuse or improper handling, maintenance or use. This Limited Warranty also does not cover any engine that has been structurally altered, or when the vehicle has been used in racing competition. This Limited Warranty also does not cover physical damage, corrosion or defects caused by fire, explosions or other similar causes beyond the control of WIDESCAPE.

Owners are responsible for performing the scheduled maintenance identified in the owner's manual. WIDESCAPE may deny warranty claims for failures that have been caused by the owner's or operator's improper maintenance or use, by accidents for which WIDESCAPE has no responsibility, or by acts of God.

Any qualified repair shop or person may maintain, replace, or repair the emission control devices or systems on your vehicle. WIDESCAPE recommends that you contact an authorized WIDESCAPE dealer to perform any service that may be necessary for your vehicle. WIDESCAPE also recommends that you use only WIDESCAPE parts. It is a potential violation of the Clean Air Act if a part supplied by an aftermarket parts manufacturer reduces the effectiveness of the vehicle's emission controls. Tampering with emission controls is prohibited by federal law.

If you have any questions regarding your warranty rights and responsibilities, please contact WIDESCAPE at (581) 801-5665.

### **5.2.1 NOISE CONTROL SYSTEM AND TAMPERING**

#### **WARRANTY TIME PERIOD—30 CALENDAR MONTHS, 300 ENGINE HOURS**

Federal law prohibits the following acts or causing thereof:

1. The removal or rendering inoperative by any person other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use or.
2. The use of the vehicle after such device or element of design has been removed or rendered inoperative by any person. Among those acts presumed to constitute tampering are the acts listed below: These acts include tampering with the following systems. i.e., modification, removal, etc.
  - Exhaust system
  - Muffler
  - Exhaust
  - Silencer
  - Intake system
  - Air cleaner case
  - Air cleaner element
  - Intake duct

### 5.3 FUEL, LUBRICANTS AND OTHER FLUIDS

Fuel	Always use gasoline with a minimum octane level of 86. Use gasoline with an octane rating of 91 if the ethanol ratio exceeds 10%.
Engine Oil	It is important to use 0.9 to 1.1L of a fully synthetic 0W40 oil of a recognized brand in order not to alter the life of the engine and thus cancel the warranty.
Chain Lubricant	It is important to use 67 ml of a recognized brand of fully synthetic snowmobile crankcase oil.
Coolant	It is important to use 2L of a 50/50 mix of water and ethylene glycol coolant of a recognized brand.
Brake Fluid	Use DOT 4 brake fluid.

### 5.4 SPARE PARTS

To protect yourself and your vehicle, use only Widescape-approved parts and accessories and have them installed by a licensed professional.

If damage occurs due to the use of non-approved parts, Widescape will not be held responsible.

Be sure to use the Widescape part numbers available at [www.widescape.ca/owners-hub/parts/](http://www.widescape.ca/owners-hub/parts/).

Your Widescape authorized dealer will advise you on any final replacement part orders. You can also find commonly available Widescape accessories at your Widescape authorized dealer.

### 5.5 SERVICES

The lifespan of your vehicle depends on proper maintenance and care, as described in this manual. Use in extreme conditions or improper adjustments will wear out your components faster. The maintenance and checklist symbols will indicate when to service your vehicle based on its usage, giving you a guide on how to maintain your WS250 perfectly. To ensure the longest possible life for your vehicle, strictly adhere to the intervals described in the maintenance schedule. The mileage interval has priority over the time interval.

## 5.6 AFTERSALE SERVICE

Your Widescape authorized dealer is at your disposal to answer questions relating to your vehicle or the Widescape company.



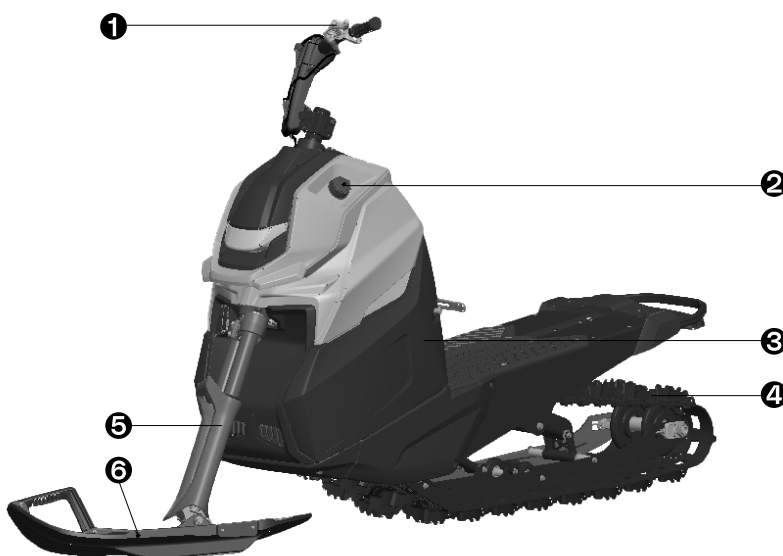
The list of Widescape authorized dealers is available on the Widescape website: <https://widescape.ca/find-a-dealer/>.

## 5.7 ILLUSTRATIONS

The following section presents view of the vehicle along with numbered bubbles and corresponding components.

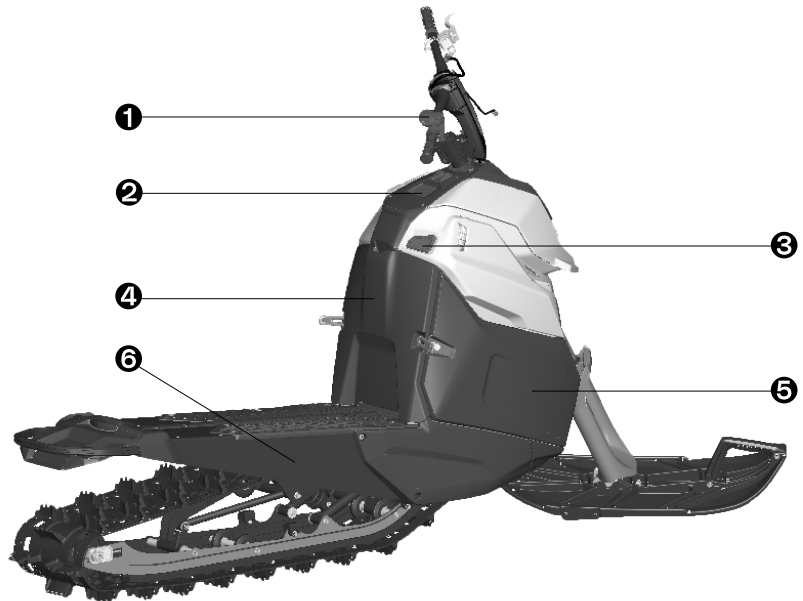
### FRONT-LEFT

- ❶ Hand brake lever
- ❷ Fuel tank filler cap
- ❸ Left quick access panel
- ❹ Track
- ❺ Fork
- ❻ Ski



## REAR-RIGHT

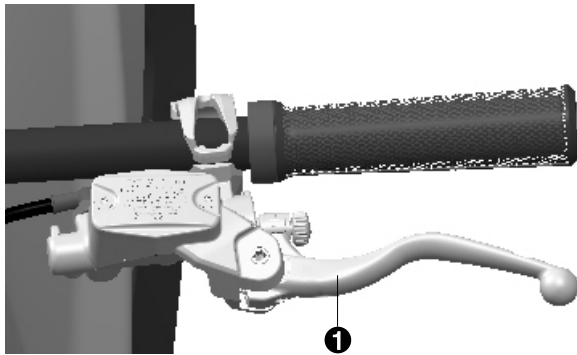
- ❶ Key switch
- ❷ Cluster
- ❸ Air Box Intake
- ❹ Front quick access panel
- ❺ Right quick access panel
- ❻ Vehicle Identification Number





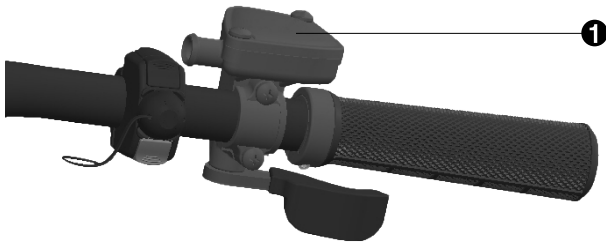
## 6. CONTROLS

### 6.1 BRAKE LEVER



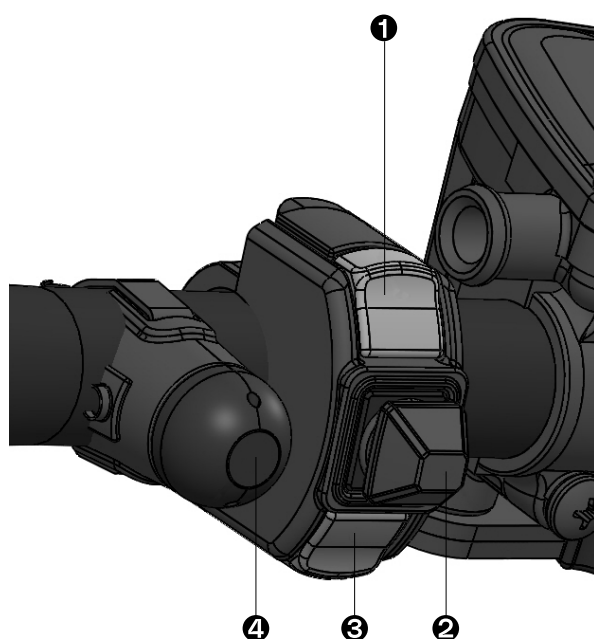
The brake lever **1** is located on the left side of the handlebar.

### 6.2 THROTTLE



The throttle control **1** is located on the right side of the handlebar.

### 6.3 CONTROL UNIT



- ❶ Engine mode switch
- ❷ Ignition switch
- ❸ Electric start button
- ❹ Magnetic emergency switch

#### 6.3.1 WS250 ENGINE OPERATING MODES

Two engine operating modes are available on the WS250, allowing the rider to select the optimal engine setting, based on the terrain and riding style.

1. The **STANDARD** mode corresponds to the standard performance of the engine. This is the mode that offers the most power. This mode is primarily used when operating the vehicle in large, open areas.
2. The **OFF-TRAIL** mode offers a more linear engine power output. The engine's response to the throttle position is more predictable. This mode is mainly used when the vehicle is used in the forest and on narrow trails.

The vehicle will always start in standard mode. To change the engine operating mode to off-trail mode, press and hold the engine mode switch (black button with the Widescape logo) for three (3) seconds and release. Pressing the button for 3 seconds a second time will revert the engine operating mode back to the standard mode.

## 6.4 LIGHT SWITCH

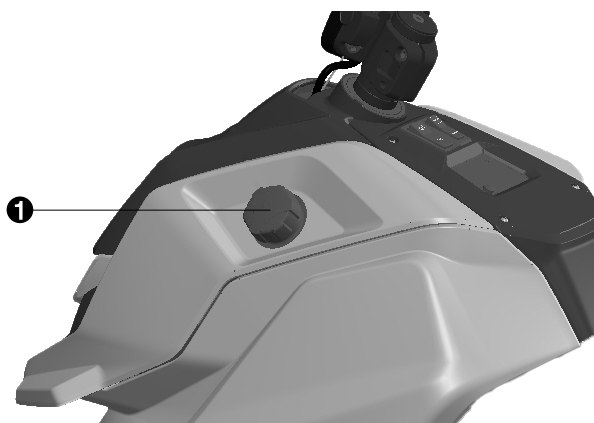
The light switch for the WS250 is located just above the cluster. There are two (2) settings available for the WS250's lighting, which can be adjusted according to your environment. The low beam mode is recommended when the surrounding natural light is bright enough to allow you to see properly without any additional lighting from the vehicle. The high beam mode should be activated when you ride in a low-light environment.



- ❶ Light switch
- ❷ Cluster

## 6.5 FUEL TANK

The fuel tank cap ❶ is located on the left side of the dashboard.



## 7. DASHBOARD

### 7.1 OVERVIEW



The cluster **1** is located on the main console.








- 1** Overview of Symbols
- 2** Display
- 3** Navigation button



All segments and LEDs should light up for 2 to 3 seconds and then go out when the starter is in the «On» position.

## 7.2 SYMBOLS

### WARNING SYMBOLS

					
Symbol Indicator	High Temp	Low Temp	Low Battery	Engine Check	Low Fuel
Colour	Red	Blue	Red	Amber	Amber

## 7.3 TECHNICAL SPECIFICATIONS

Type	Digital dashboard
Rated Voltage	12V DC
Operating Voltage Range	8V to 18V DC with and without battery
Operating Temperature	-25°C to 80°C
Storage Temperature	-30°C to 95°C
Max Current Consumption	≤ 500mA
Sleep Current When Ignition off	≤ 0.5mA when powered at 12V DC at 25°C

## 7.4 FEATURES

- Odometer
- Tripmeter
- Clock
- ARC (Accumulative running clock/ Hours meter)

## 7.5 ADJUSTING THE CLUSTER SCREEN

Speed, timer and ARC are displayed when the instrument cluster is turned on on the WS250. The cluster's navigation button is on the lower left side of the instrument panel and allows you to adjust the information displayed.

### OPERATION OF THE CLUSTER'S NAVIGATION BUTTON

A short press of the cluster's navigation button will allow you to navigate between parameters.

Press and hold the cluster's navigation button when a correct parameter is selected. This action will change or reset the selected parameter.



#### STANDARD DISPLAY

Speed—Clock—ARC

- Parameter 1: Speed—RPM—ARC
- Parameter 2: Speed—Clock—Odometer
- Parameter 3: Speed—RPM—Odometer Pressure
- Parameter 4: Speed—Clock—Distance Traveled

### ADJUSTING THE CLUSTER'S INSTRUMENT PANEL

Press and hold the cluster's navigation button to enter setting mode. The following actions can be completed in setting mode:

- Reset ARC to 0
- Change unit system
- Set the clock



## 8. COMMISSIONING

### 8.1 COMMISSIONING AT WIDESCAPE DEALERS



This procedure applies only when a new vehicle is received at an authorized WIDESCAPE dealer.

See complete assembly instructions for details.

The main steps in preparing a new vehicle are as follows:

- Unpacking the transport crate
- Handlebar assembly
- Assembling the ski on the lower part of the fork
- Assembly of the fork on the vehicle
- Rear bumper assembly
- Validation of fluids
- Start the WS250

#### UNPACKING THE TRANSPORT CRATE

1. Cut the straps that hold the plastic sheeting.
2. Remove the 4 corners placed at the top of the metal structure.
3. Remove the tarpaulin that covers the transport box.
4. Remove the cardboard wrapping from the transport box.
5. Cutting the straps that hold the boxes to the vehicle and the vehicle to the box.
6. Remove the boxes from the vehicle.
7. Remove the handlebars from the support located on the top of the body.
8. Remove the two side rails from the upper part of the body\*

\*The assembly of the handlebar will be done directly after this step.

#### HANDLEBAR ASSEMBLY

The assembly of the handlebar can be done directly in the box by removing only the top part of the transport box.

1. Place the handlebar/riser assembly on the stem
2. Place the riser clamp in position to secure the handlebar assembly
3. Secure the assembly with the 4x M8 bolts at 18 Nm with the special Widescape Allen key.

### UNPACKING THE TRANSPORT CRATE – CONTINUED

1. Loosen the screws holding the fork crown to the body.
2. Make sure the ski rubber is well positioned on the ski.
3. Loosen the 2 bolts holding the support plate that fits into the fork crown. Leave the bolts in place.
4. Remove the bracings holding the sides of the metal box.



It is important to lift the vehicle only when you are ready to put the fork down. The vehicle should not be dropped without the fork on the ground. This will damage the body components.

### SKI ASSEMBLY ON THE LOWER PART OF THE FORK

The assembled ski is in one of the boxes.

1. Remove the nut, spacers, smooth bearing, axle, and bolt on the ski.
2. Prepare 1 spacer on the ski bolt.
3. Secure the plain bearings in the fork and place the axle.
4. Place the ski in position.
5. Insert the bolt fully with the rubber hammer.
6. Place the second spacer on the opposite side with a rubber hammer (edge of spacer on top).
7. Torque the nut to 35 Nm.

### FORK ASSEMBLY

1. Loosen the 4x M8 screws of the fork crown.
2. Lift the front of the vehicle and remove the support plate that fits into the fork crown. It is important not to remove the vehicle and go directly to step 3.
3. Insert the lower part of the fork into the crown.
4. Make sure the caps on the bottom of the fork are evenly spaced above the fork crown.
5. Secure the fork by tightening the 4x bolts to 20 Nm.

### REAR BUMPER ASSEMBLY

1. Place the 2 special nuts inside the bumper.
2. Put the bumper in place by aligning the holes in the tunnel with those in the bumper.
3. Secure the bumper to the inside of the tunnel with the 4 M6 screws. Torque to 13 Nm.

**VALIDATION OF FLUIDS LEVELS**

1. Fill the tank with gasoline with an octane level above 86. Use 91 octane if the mixture contains more than 10% ethanol.
2. Check the engine oil level.
3. Validate the coolant level.

**PROCEDURE FOR THE FIRST START-UP**

1. Install the 12V lithium battery inside the battery holder.
2. Secure the battery pole using the special washer. Torque to 6 Nm.
3. Secure the engine cut-off switch to your wrist.
4. Check the thumb throttle and brake levers for proper operation each time before starting. They should return to their position when released.
5. Apply the brake throughout the starting procedure.
6. Turn the handlebars fully in both directions to check for interference and ensure free operation. The tension in the cables should not be affected by the movement.
7. Switch on the ignition switch for 15 sec and shut off.
8. Switch on the ignition switch.
9. Press the gray electric start button to turn the engine on.

## 8.2 PRE-RIDE INSPECTION

Make sure to complete the following points before doing the start-up procedure.

ELEMENTS	OPERATION	X
Vehicule suspension, air filter and controls	Check the condition and remove snow and ice.	
Direction	Check if the steering moves freely. Check the tension in the brake and throttle cables when the steering is turned fully to both sides.	
Ski assembly	Inspect the ski assembly and replace any broken or worn parts. Make sure that everything is working properly.	
Fuel	Validate that the tank is full and that there are no leaks.	
Coolant	Validate the level and the absence of leakage.	
Throttle lever	Make sure it works properly and returns to its original position when released.	
Brake lever	Make sure it works properly and returns to its original position when released.	
Track	Validate the condition of the track and the wear of the lugs.	
Slides	Validate the wear and tear of the slides and their proper functioning.	
Quick access panels	Ensure that all three (3) quick access panels are properly secured with the 2 rubber clips.	
Lights	Make sure the low beam and high beam modes are working properly. Make sure the brake light is working properly at the rear.	

### 8.3 REGULAR START-UP PROCEDURE

The procedure to be followed before any trip with the vehicle is as follows :

1. Make sure that the fuel tank is full
2. Ensure that the straps on the quick access panels are secure
3. Secure the engine cut-off switch on your wrist
4. Check the thumb throttle and brake levers for proper operation every time before starting the vehicle. They should return to their position when released.
5. Apply the brake throughout the starting procedure.
6. Turn the handlebars fully in both directions to check for interference and ensure free operation. The tension in the cables should not be affected by the movement.
7. Switch on the ignition switch.
8. Press the gray electric start button to turn the engine on.
9. Pull the tether cord to make sure the engine stops.
10. Restart and release the brake. You are ready to go.

#### IF THE VEHICLE WAS OUTSIDE

1. Remove snow and ice from the bodywork
2. Remove snow and ice from the riding platform
3. Remove packed snow and ice from the rear suspension.
4. Perform the regular start-up procedure.

#### STARTING THE VEHICLE

Make sure that the check points mentioned on page [54](#) have been met before performing the startup procedure.



**EXHAUST FUMES** — Engine exhaust fumes are toxic and inhalation can lead to unconsciousness or death. Always start the vehicle in a well-ventilated area and do not expose yourself unnecessarily to exhaust fumes for long periods.



**ENGINE** — To maximize engine life and minimize the risk of mechanical failure, always warm up the engine at idle (1800 rpm). allow the engine to idle (1800 rpm) for at least 3 min.



Press the start button for up to 5 seconds on each start attempt. Always wait 30 seconds between each attempt.

## COLD-START PROCEDURE

If your Snowmobile is stored in an environment where the temperature is below 0°C, your battery may experience a slight start-up problem. The following procedure explains how to start your vehicle in such conditions.

1. Activate the Snowmobile starter (position "ON").
2. Press the start button for 3 seconds.
3. If the Snowmobile does not start, the battery is not yet hot enough.
4. Turn Snowmobile Starter Off (Position "OFF")
5. Wait 10 seconds.
6. Repeat steps 1. to 5. until the Snowmobile starts.



Always turn the starter off between each test.

## 8.4 GET TO KNOW THE WS250

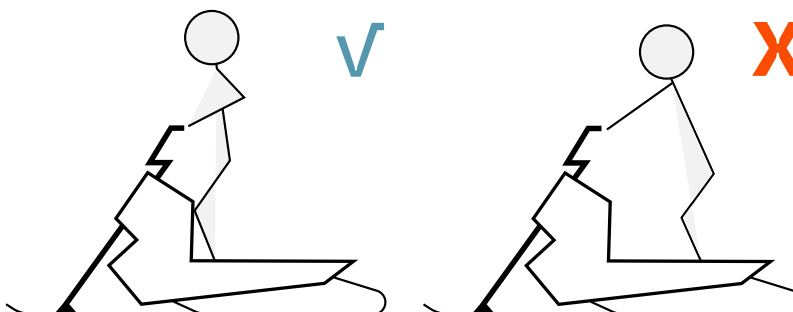
Find a suitable place to familiarize yourself with the WS250 when using it for the first time. A good area to ride the vehicle for the first time should be large and free of obstacles. It is also recommended to ride on fresh, untouched snow to help you get the feel for WS250's unique handling properties.

## 8.5 RIDING POSITION

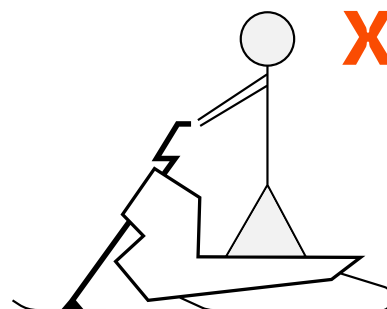
The WS250 has a low center of gravity, with most of the weight strategically positioned in front of the rider's feet. This allows the rider to steer the vehicle by shifting his weight from one foot to the other.

The riding position for the Widescape WS250 is akin to that of a trial motorcycle or a stand-up personal watercraft, where the rider maneuvers the vehicle by applying weight through the feet.

1. Climb onto the riding platform by placing the feet as close to the cab as possible, in order to align your body weight with the vehicle's center of gravity.



2. Place your feet on either side of the riding platform, aligning them with the width of your shoulders. Never ride the vehicle in a position where you have to turn your trunk, like on a snowboard.



3. There are two ways to steer the vehicle:

**ON HARD PACKED SNOW**—Steer the vehicle with the handle bars to align the ski in the desired direction, using the ski's central carbide to provide grip.

**IN SOFT OR DEEP SNOW**—Counter-steer the vehicle and shift your weight onto the side of the vehicle where you want to turn to tilt the vehicle, using the ski's side runners to provide grip.

4. Always maintain a relaxed and flexible riding position. Bending the knees will allow you to absorb impact efficiently.



**KNEES**— It is recommended that knee or leg pads be worn at all times when operating the vehicle. It is possible that the user's knees will hit the cab of the vehicle while driving.

5. Always keep your elbows slightly bent upward so that you can better steer the vehicle and avoid injury.
6. Always look far ahead when riding to facilitate balance and have a good view of obstacles. Do not ride the vehicle while looking down at the ski and never stare at obstacles to avoid mishaps.
7. Always hold the handlebars firmly when riding.



It is important to look far ahead to facilitate balance and to have a good view of obstacles.



## 8.6 BRAKING

**ACCIDENT RISK**—Pressing the brake quickly and firmly will lock the track and cause the vehicle to continue sliding on the snow, making it more difficult to maintain control.



Adjust braking to suit the conditions and surface. Always use smooth deceleration instead of forced braking.

**ACCIDENT RISK**—Pressing the brake quickly and firmly can propel the rider forward abruptly.



Always hold on to the handlebars and stiffen your arms when braking.

**ACCIDENT RISK**—The brake is a critical component of the vehicle for the rider's safety.



Always check the brake at the beginning of each ride. Do not operate the vehicle if the brake is defective or improperly maintained.

The vehicle's drive system causes the vehicle to decelerate naturally by compressing the engine when the throttle is released.

This “engine braking” effect is very useful for moderating speed. It is preferable to decelerate by controlling the throttle and using the engine's compression over a heavy use of the brake.



When you need to descend a steep, lightly depress the throttle to engage the continuously variable transmission and take advantage of the engine braking effect to better control the descent speed.

**8.7 CARE****AFTER USE**

Remove snow and ice from the body, air filter, controls, mechanics, ski, and suspensions. If you leave your vehicle outside for a short or long period, it is strongly recommended that you cover it with a weatherproof cover.

**CLEANING**

Clean the vehicle with a mixture of light detergent and water. Never use a pressure washer on the vehicle. Clean only with low pressure using a garden hose. Avoid petroleum-based detergents on plastics, vinyl, painted steel, aluminum, and painted aluminum.

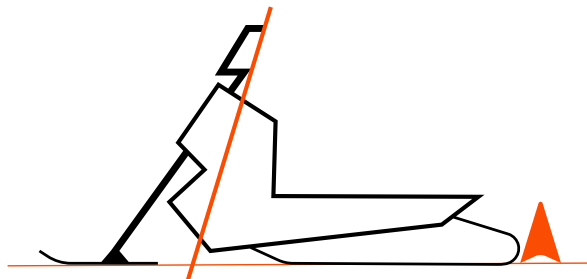
**STORAGE**

When the riding season is over, or if you are not planning on riding the vehicle for more than 3 months, you will need to store it properly. To ensure trouble-free storage, follow these steps:

1. Clean the vehicle as described in the previous section.
2. Make sure the fuel tank is full. Add a fuel stabilizer in accordance with the recommendations on page [42](#) of this manual.
3. Run the engine after adding the fuel stabilizer.
4. Lubricate the engine. To do this, follow the instructions on page [86](#) of this manual.
5. Lubricate the throttle and brake lever pivots with penetrating oil.
6. Remove and charge the battery every month to keep it fully charged and prevent deterioration.
7. Plug the exhaust with a piece of fabric to avoid external contamination (a rag for example).
8. Raise the rear of the vehicle until the track no longer touches the ground so that the shocks are not damaged during storage.
9. Ideally, cover your WS250 with a tarp to reduce its interaction with the outdoors and ensure its longevity.

## 8.8 TRANSPORT

1. Turn off the engine.
2. Stretch tie-down straps from the handlebars to solid ground anchors on both sides of the vehicle. The front suspension must be compressed by about 5 to 10 mm. Make sure you also add a tie-down strap around the rear section of the tunnel to avoid any bouncing. Make sure this tie-down strap is well anchored to the ground.
3. Prevent potential forward and rearward movement of the vehicle with a block or other device.



## 8.9 REFUELING

1. Turn off the engine. Make sure all mechanical parts are cold to the touch and that the vehicle has been shut off for at least an hour.
2. Slowly remove the gas cap by turning it counterclockwise. Be sure to keep the cap in a safe place.
3. Insert the nozzle of the pump or the nozzle of a certified gasoline can into the tank opening.
4. Pour gasoline slowly so that air can escape from the tank. Avoid spilling gasoline out of the tank.
5. Stop filling the tank when you begin to see the level of fuel in the tank or when the gun handle clicks. Do not overfill.
6. Reinstall the cap on the tank. Tighten it clockwise.
7. If there is an overflow, be sure to clean it up. If there is gasoline in the engine compartment, remove the quick access panels to allow the fumes to evaporate. Wait at least 5 minutes before restarting.
8. Do not leave an overfilled tank exposed to high heat.

**GASOLINE**— Gasoline is a highly flammable product and expands as the temperature rises.



- Do not add gasoline to the tank near flames, lit cigarettes or direct heat sources.
- Turn off the engine before adding gasoline.
- Be sure not to spill gasoline, especially on hot vehicle components.
- If gasoline is spilled while filling, wipe it up immediately.
- Follow the filling recommendations and the characteristics of the gasoline to be used.

**GASOLINE**— Gasoline is poisonous and is a health hazard



- Turn off your vehicle engine for refueling.
- Do not smoke, light matches or lighters while refueling or when using gasoline.
- Do not over-fill or top-off your vehicle tank, which can cause gasoline spillage. Wipe off any gasoline spillage.
- Avoid prolonged breathing of gasoline vapors.
- Use gasoline only in open areas.
- Keep your face away from the fuel tank.
- Never siphon gasoline by mouth nor put gasoline in your mouth for any reason. Gasoline can be harmful or fatal if swallowed. If someone swallows gasoline, do not induce vomiting. Contact a doctor or an emergency medical service provider immediately.
- Keep gasoline away from your eyes and skin; it may cause irritation. Remove gasoline-soaked clothing immediately.
- Wash any skin in contact with gasoline with plenty of water.
- Make sure your fuel tank breather hole is free from any debris or obstruction as gasoline expands when warm.

**GASOLINE**— Gasoline is an environmental hazard.



Avoid the infiltration of gasoline into the ground, groundwater or water pipes.

## 9. CHECKS AND MAINTENANCE

### 9.1 NOTICE

Careful periodic maintenance will help to keep your vehicle in the safest and most reliable condition. Inspection, adjustment, replacement, and lubrication of critical components are explained in this manual.

Inspection, cleaning, lubrication, adjustment, and replacement of the parts are necessary. When an inspection reveals the need for replacement of parts, always use genuine parts available at your Widescape authorized dealer are necessary to preserve the lifespan of your vehicle.

Periodic service and adjustments are critical. If you are not familiar with performing safe service and adjustment procedures, have a qualified Widescape authorized dealer perform the required maintenance for you. Pay special attention to the engine oil level during cold weather operations. A low or high oil level can cause irreversible damage to the engine.

Proper and regular maintenance of your Snowmobile is essential and is under your responsibility. Widescape's conventional warranty may not apply if, among other things, an inspection of your Snowmobile reveals that the problem affecting it is related to a lack of maintenance or inadequate or inappropriate maintenance.

### 9.2 SEVERE USE DEFINITION

Widescape define a severe vehicle use as follow:

- Frequent deep snow riding
- Immersion in water and mud
- Towing with the vehicle
- Racing or race-style high RPM use
- Extending engine idle
- Multiple short trips in really cold weather ( $\leq -20^{\circ}\text{C}$ );
- Vehicles used in commercial operations

If you define your riding style as one of the above conditions you must divide per 2 the services time frame.

### 9.3 BREAK-IN AND PERIODIC MAINTENANCE CHECKLIST

ITEMS	TIME FRAME					REMARK
	01 HR	15 HRS	30 HRS	45 HRS	01 YR	
Perform the following items after the specified time.						
General Lubrication		▲	▲	▲	▲	Lubricate all grease points, pivots and cables
Engine Oil	●	●	●	●	●	Check oil level
Torque bolts validation	●	●	●	●	●	Validation of bolt torque according to the tightening tables in section <a href="#">15.2</a> and <a href="#">15.5</a> of this manual
Coolant	●	●	●	●	●	Validate the coolant level
Engine Air Filter		▲	▲	▲	▲	Inspect; replace if dirty, dry if water
Chaincase Oil	●		▲		▲	Check level and inspect leaks
Chaincase Chain Tension			▲		▲	Adjust the chain tension
Engine Hoses, Gaskets, and Seal			●		●	Inspect for leaks
Engine Oil, Oil filter, Oil strainer			▲		▲	Changing oil and oil filter; cleaning oil strainer
Idle Condition					■	Validate if there is any variation in the throttle and voltage of the adjustment screws.
Thumb Throttle Adjustment			▲		▲	Throttle cable inspection on routing and adjustment.
Track Tension	●	●	●	●	●	Track tension validation
Brake Inspection (parts and oil)	●		▲		▲	Validate alignment, brake pad condition and oil
Battery			●		●	Validate the battery condition
Electric Equipment			●		●	Check connectors, terminals, relays, fuses and routing for damages.
Cooling System			●		●	Inspect for leaks and clean
Steering System				▲		Inspect steering system and grease
Front Suspension					●	Change oil and seal
Throttle Body and Throttle Cable					■	Validate the cable condition at throttle body
CVT Drive Belt					●	Inspect the CVT belt
CVT Drive and Driven Pulley					●	Inspect the CVT system
Fuel Hose					■	Slide
Cooling Hoses			●		●	Inspect the coolant hose and clamps
Fuel System					■	Inspect FDM pressure and gas tank vent
Spark Plug					■	Change spark plug
Engine Gaskets and Seals			●		●	Check for leak
Ski Side Runner			▲		▲	Change side ski runner
Ski Main Runner			▲		▲	Change main ski runner
Track Slides and Slides Caps					▲	Change track slides and cap
Suspension Straps		▲	▲	▲	▲	Inspect the suspension strap and bolt torque
Rear Suspension Wheels + Shafts					▲	Inspect rear suspension wheels + wheels shafts
Brake Cable			●		●	Inspect the brake cable for damages
OBD Memory Checking					■	Engine parameter checkup

ITEMS	TIME FRAME			REMARK
	135 HRS	02 YR	300 HRS	
Perform the following items after the specified time.				
Engine Top End			■	Replace the piston kit and gaskets
Brake Fluid		■		Change brake fluid
Coolant		■		Change coolant
Engine Air Filter	■			Inspect; Replace if dirty. Dry if wet
Engine Valve Clearance	■			Check and adjust as necessary

- ▲ Severe Use Item. Reduce interval by 50% on vehicles subjected to sever use.
- Need to be perform by a Widescape authorized dealer. Emissions related components or critical.
- Normal maintenance.

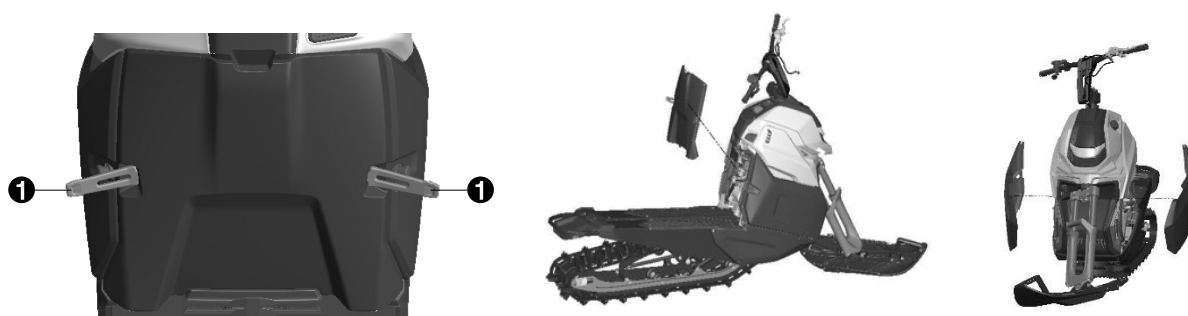


## 10. INSPECTION

Make sure the vehicle is fully functional and safe to use before each trip.

### 10.1 REMOVING COVER PANELS

#### 10.1.1 REMOVING THE QUICK ACCESS PANELS

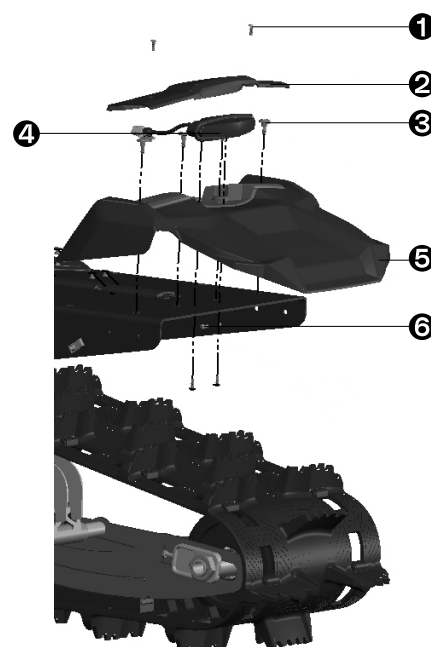


1. Remove the rubber straps **1** on both sides of the vehicle.
2. Remove the rear quick access panel.
3. Remove the side panels by pulling them out of the rubber attachment points and sliding them toward the front of the vehicle.

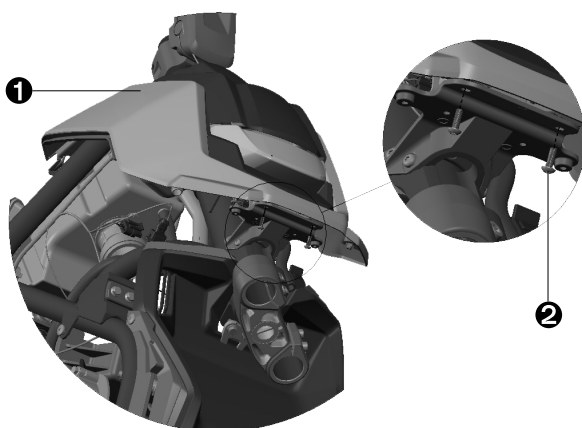
#### 10.1.2 REMOVING THE SNOW FLAP

- 1** M4 Screw
- 2** Taillight cover
- 3** M5 Screw
- 4** Taillight
- 5** Snow flap
- 6** M4 Screw

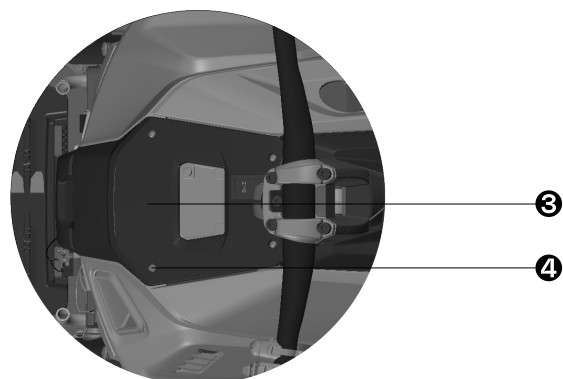
1. Remove the taillight cover **2** by unscrewing the x2 M4 **1**.
2. Remove the taillight **4** by unscrewing x2 M5 **3**
3. Remove the snow flap **5** by unscrewing x2 M4 **3** and x4 M5 **6**.



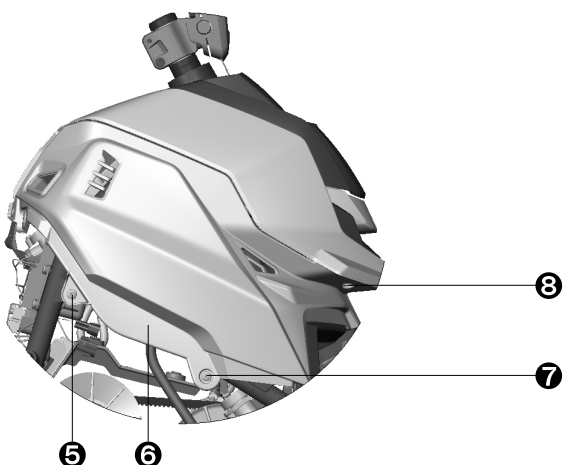
## 10.1.3 REMOVING THE TOP CONSOLE, CONSOLE AND SIDE PANELS



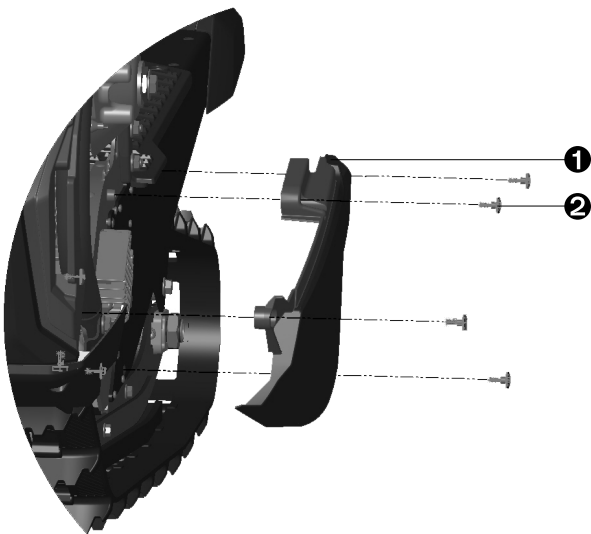
- ❶ Console
- ❷ M4 Screw
- ❸ Top display console
- ❹ M4 Screw
- ❺ M5 Screw
- ❻ Side Panel
- ❼ M5 Screw
- ❽ M5 Screw



1. Remove the top display console ❸ by unscrewing the x4 M4 ❹.
2. Remove the side panels ❻ by unscrewing the x8 M5 ❸ and ❺.
3. Remove the console ❶ by unscrewing the x2 M4 ❷.



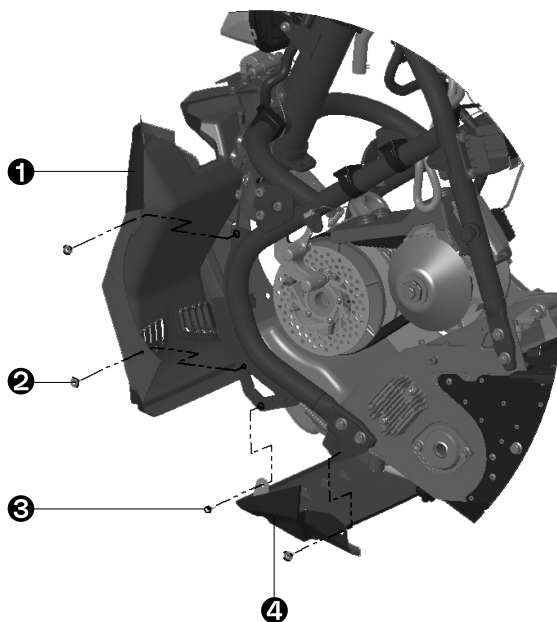
#### 10.1.4 REMOVING THE LOWER LEFT AND RIGHT SIDE PANEL



- ❶ Lower side panel  
(Left side in example)
- ❷ M5 Screw

1. Remove the lower side panels ❶ by unscrewing the x8 M5 ❷.

#### 10.1.5 REMOVING FRONT PANEL AND SKID PLATE

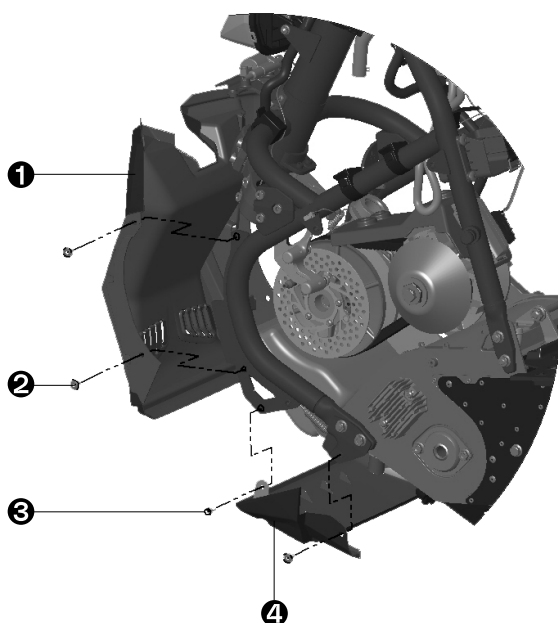


- ❶ Front panel
- ❷ M5 Screw
- ❸ M5 Screw
- ❹ Skid Plate

1. Remove the front panel ❶ by unscrewing x4 M5 ❷.
2. Remove the skid plate ❹ by unscrewing x4 M5 ❸.

## 10.2 INSTALLING THE PLASTICS

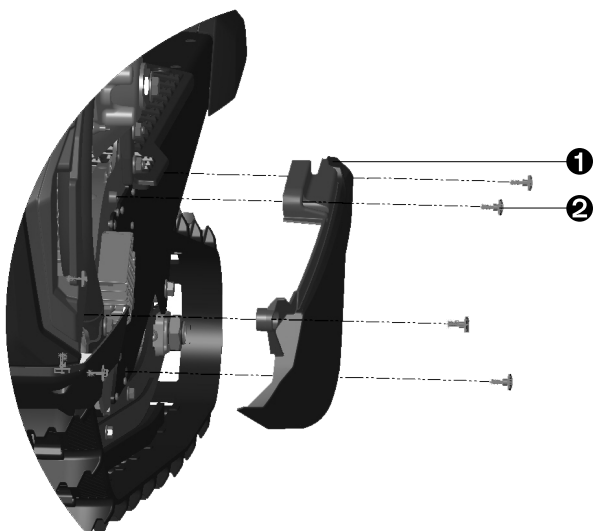
### 10.2.1 INSTALLING THE FRONT PANEL AND SKID PLATE



- ❶ Front panel
- ❷ M5 Screw
- ❸ M5 Screw
- ❹ Skid Plate

1. Install the skid plate ❹ on the floorboard extension with the x4 M5 ❸. Torque at 7Nm.
2. Install the front panel ❶ on the floorboard with x4 M5 ❷. Torque at 7Nm.

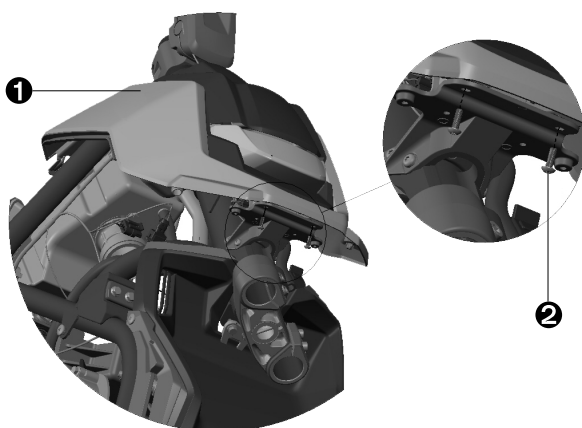
### 10.2.2 INSTALLING THE LOWER SIDE PANEL LEFT AND RIGHT



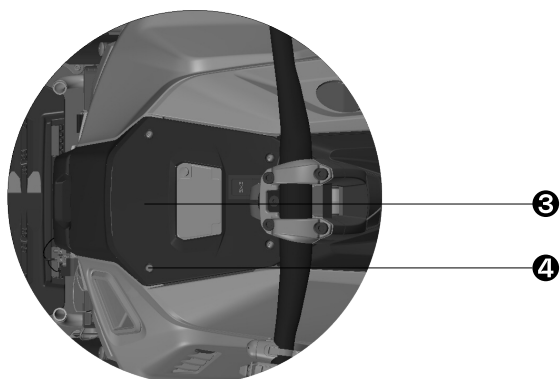
- ❶ Lower side panel  
(Left side in example)
- ❷ M5 Screw

1. Install the lower side panels ❶ with the x8 M5 ❷. Torque at 7Nm.

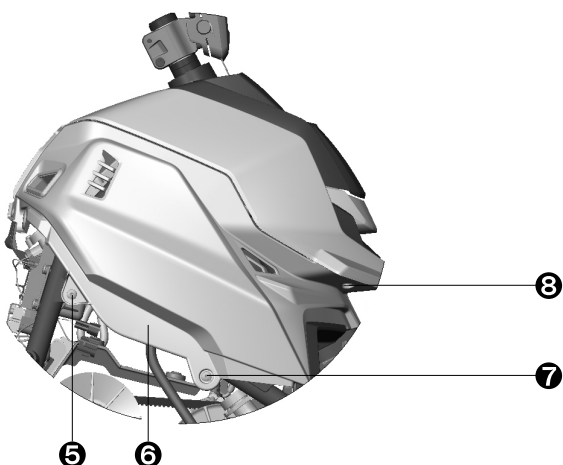
## 10.2.3 INSTALLING THE TOP CONSOLE, CONSOLE AND SIDE PANELS



- ❶ Top Console
- ❷ M4 Screw
- ❸ Top console
- ❹ M4 Screw
- ❺ M5 Screw
- ❻ Slide Panel
- ❼ M5 Screw
- ❽ M5 Screw



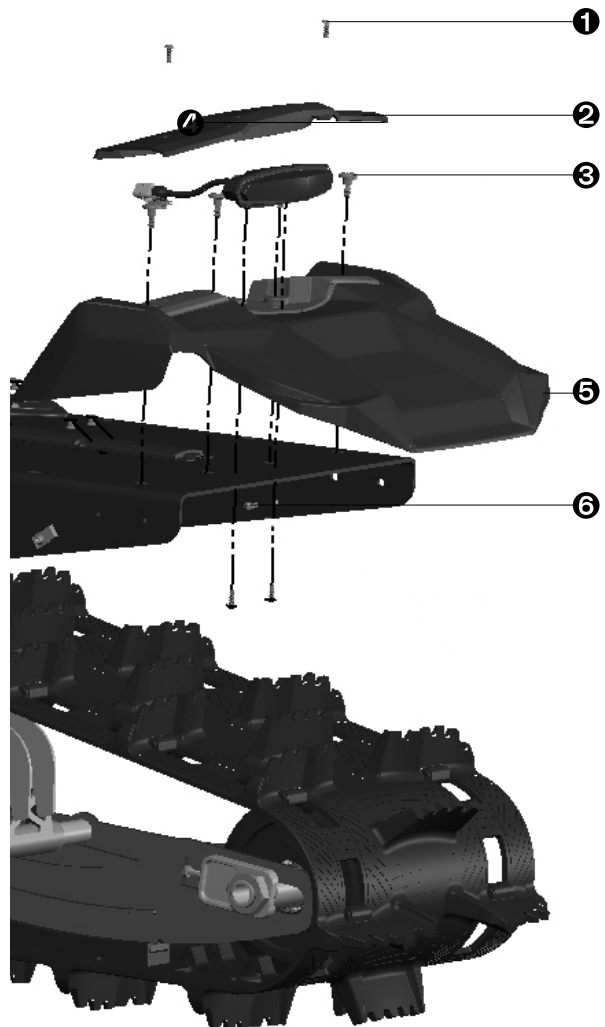
1. Install the side panels ❸ with the x8 M5 ❺ and ❼. Torque at 7Nm.
2. Install the top console ❶ with the x2 M4 ❷. Torque the M4 at 4Nm.
3. Install the console with the x4 M4 ❹. Torque à 4Nm.



#### 10.2.4 INSTALLING THE REAR PLASTICS

- ❶ M4 Screw
- ❷ Taillight cover
- ❸ M5 Screw
- ❹ Taillight
- ❺ Snow flap
- ❻ M4 Screw

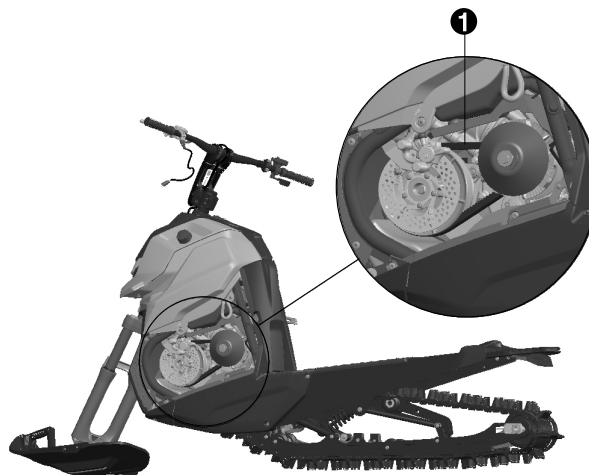
1. Install the snow flap ❺ with the x2 M4 ❻ (torque at 5Nm) and x4 M5 ❸ (torque at 7Nm).
2. Install the taillight ❹ with the x2 M5 ❸. Torque at 5Nm.
3. Install the taillight cover ❷ with x2 M4 ❶. Torque at 5Nm.



### 10.3 CONDITION OF THE DRIVE BELT

#### ① Drive belt

1. Remove the left quick access panel as explained on page [65](#) of this manual.
2. Inspect the condition of the belt ①. If the belt shows any signs of tearing, fraying, or if the spike wear indicator appears, you should replace the belt with a new one.



To change the drive belt, refer to page [65](#) of this manual.

### 10.4 CONDITION OF THE FUEL CIRCULATION SYSTEM

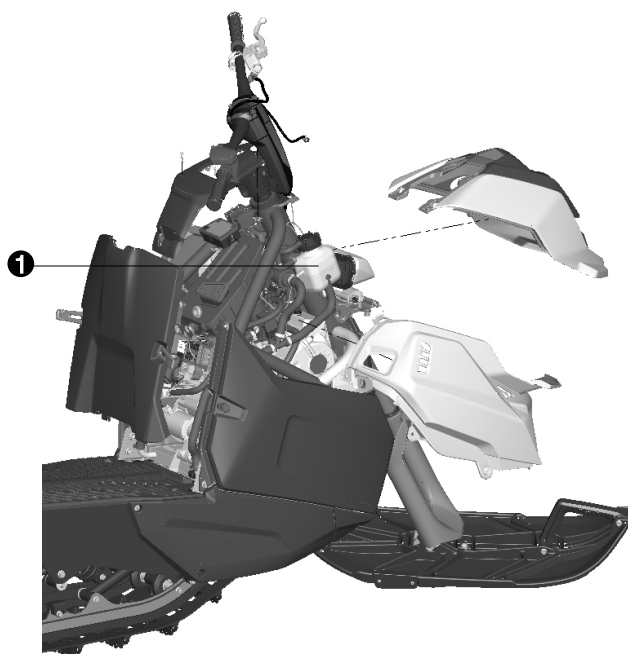
Follow the fuel circulation system to identify a possible leak.



Never re-use old hose collars. Hose and/or collar replacement is needed if a leak is observed. Please go to a Widescape authorized dealer for inspection.



## 10.5 CONDITION OF THE COOLING SYSTEM



**1** Coolant tank

1. Follow the coolant circulation system to identify any leaks.



Never re-use old hose collars. Hose and/or collar replacement is needed if a leak is observed. Please go to a Widescape authorized dealer for inspection.

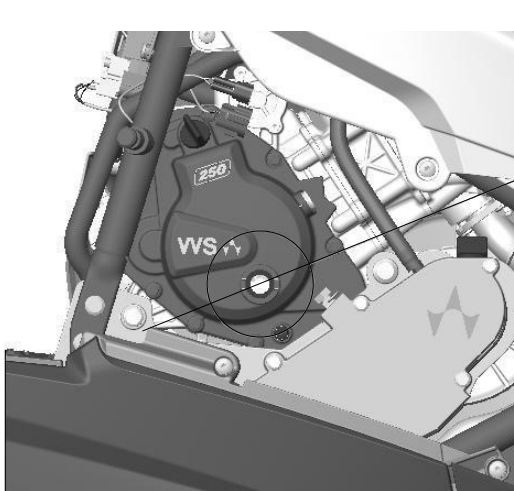
## 10.6 CHECKING THE IDLE SPEED

1. Start the vehicle.
2. When the vehicle is idling, the engine speed should be around 1800RPM.
3. If the instrument panel shows significantly more or less than 1800RPM, you will need to adjust the engine idle.



Please visit your Widescape authorized dealer to adjust the idle speed. The idle speed must be adjusted with the vehicle diagnostic software. Never try to adjust with the idle screw on the throttle body.

## 10.7 ENGINE OIL LEVEL



1. Remove the right quick access panel as explained above.
2. The oil level can be checked through the sight glass on the right side of the engine.
3. The oil level should be as close as possible to the top sight.

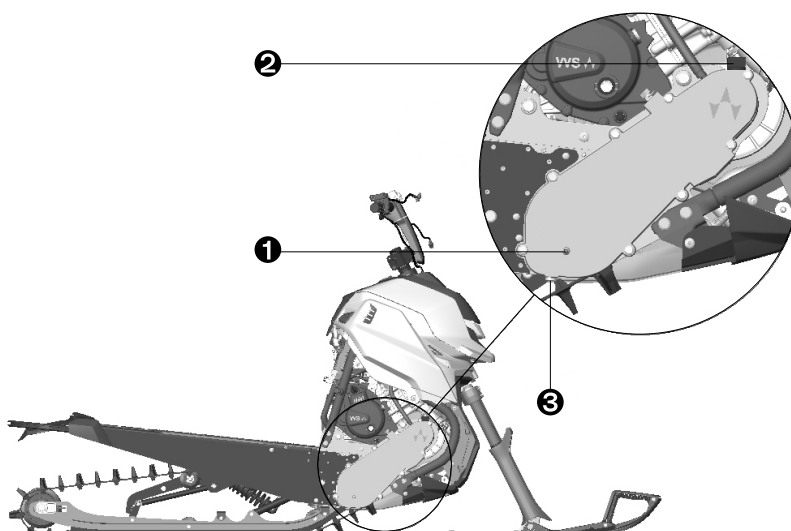


If you need to add engine oil, refer to page [88](#) of this manual.

## 10.8 CHAINCASE OIL LEVEL

- ❶ Oil level screw
- ❷ Oil filler cap
- ❸ Oil drain screw

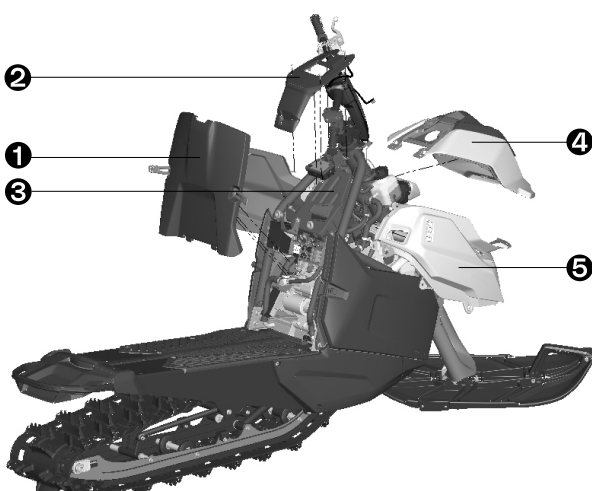
1. Unscrew the oil level screw of the chaincase.
2. If no oil drips, you will need to add more oil.



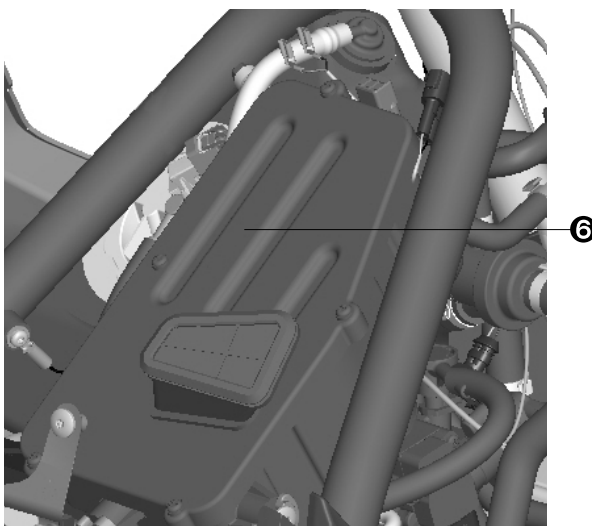


If you need to add chain oil, refer to page [74](#) of this manual.

## 10.9 CHECKING THE AIR FILTER

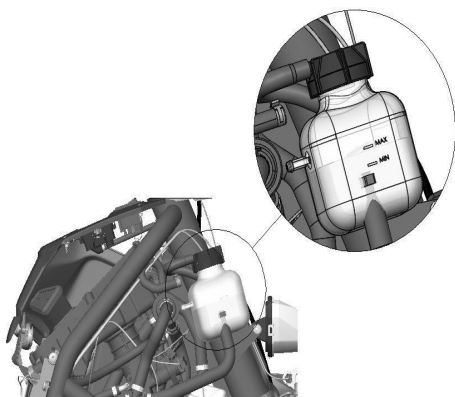


- ❶ Front access panel
- ❷ Console
- ❸ Airbox
- ❹ Top console
- ❺ Right panel
- ❻ Airbox cover



1. Remove the upper plastics **❶ ❷ ❹ ❺** as explained on page [66](#) of this manual.
2. Remove the air box cover **❻** by unscrewing the x5 M4.
3. Inspect the air filter. If it shows signs of advanced wear, you will need to replace it with a new one.

## 10.10 COOLANT LEVEL



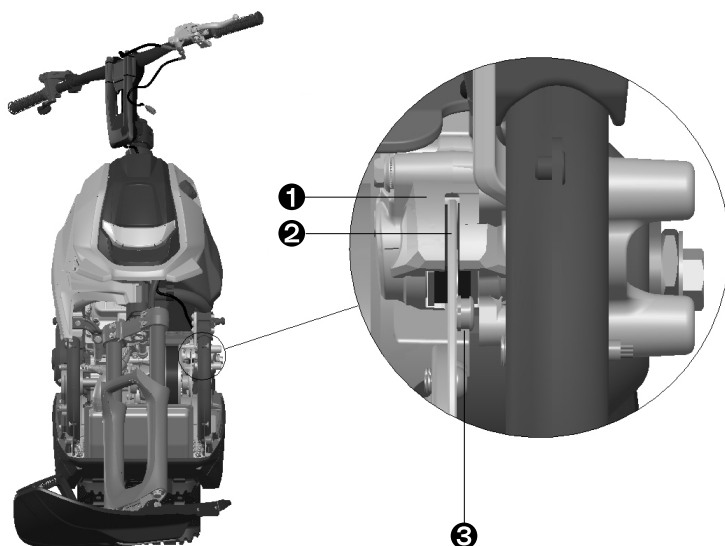
1. Remove the quick access panels.
2. Remove the top plastic as shown on page [66](#).
3. The coolant level should be as close as possible to the top mark on the tank.



If you need to add coolant, refer to page [104](#) of this manual.

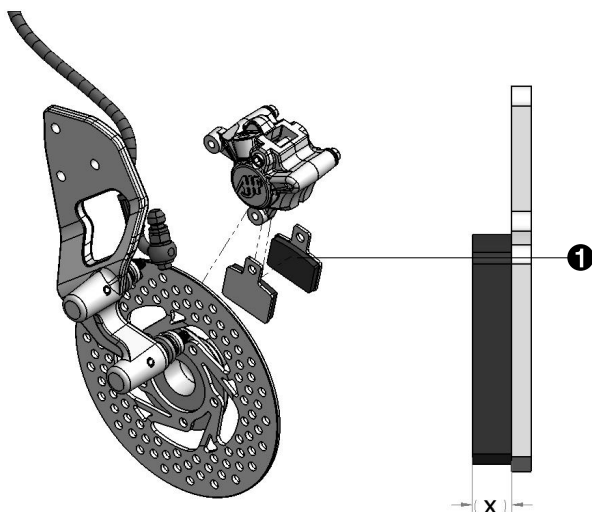
## 10.11 BRAKE SUPPORT INSPECTION

- ❶ Brake Caliper
- ❷ Clearance
- ❸ Brake disc



1. Remove the lower pannels from the vehicle as explained on page [67](#) of this manual.
2. Face your vehicle and check to ensure that the clearance ❷ between the brake caliper ❶ body does not touch the brake disc ❸.
3. Inspect the condition of the brake disc ❸. Change the brake disc if it shows any signs of wear.
4. Inspect the condition of the brake caliper ❶. If the caliper shows any signs of advanced wear (material removal, etc.), you will need to replace it with a new one.

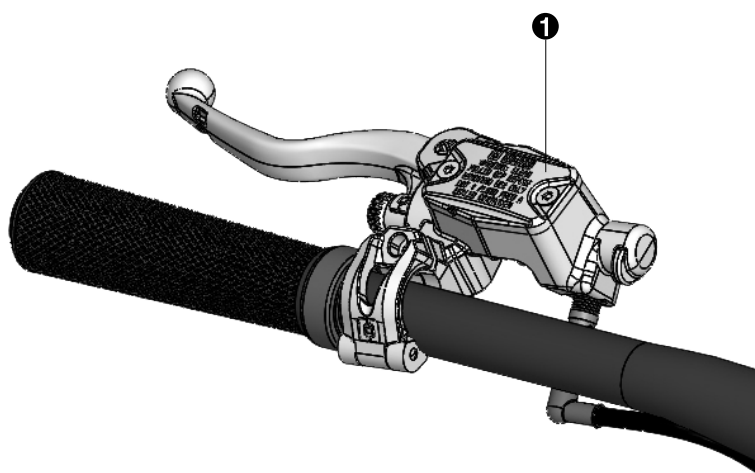
## 10.12 BRAKE PAD INSPECTION



## ① Brake pad

1. Inspect the condition of the brake with a caliper. Replace the brake pads if the dimension (x) measured on the vehicle is less than 1.5 mm. Check on page [106](#) for the brake pad changing procedure.

## 10.13 BRAKE FLUID LEVEL



## ① Master Cylinder Filler Cap

1. Loosen the screws on the brake master brake oil tank cover ①.
2. The tank must be filled to the top with brake fluid.
3. If you need to add brake fluid, refer to page [42](#) of this manual.
4. After inspection, screw the cover ① back on.

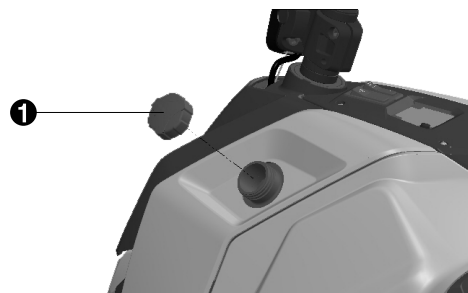


If you need to bleed the brake, refer to page [107](#) of this manual.

## 10.14 FUEL LEVEL

### ① Fuel tank cap

1. Remove the fuel tank cap ①.
2. Validate the level by the neck with an electric flashlight.



WIDESCAPE riders are advised to always make sure the fuel tank of their WS250 is full before going on a ride.

If the low fuel indicator appears on your cluster, it indicates that you have only 500 ml of gasoline left in your tank.

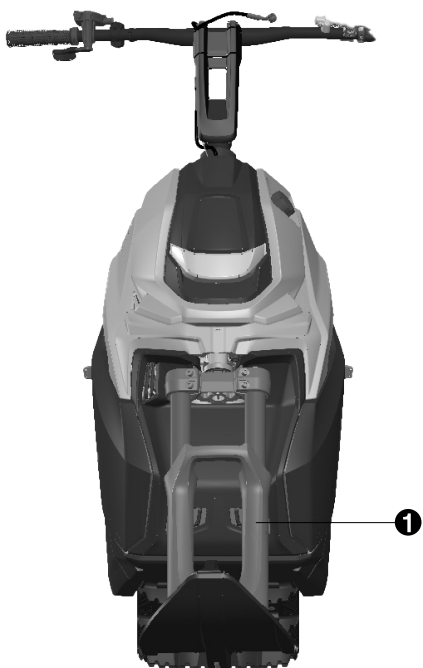
## 10.15 CONDITION OF THE AIR BOX GRID



1. Inspect the condition of the air box grid.
2. If it is worn, you will need to replace it with a new one.



A worn air box grid can cause major failure of the engine and engine parts.

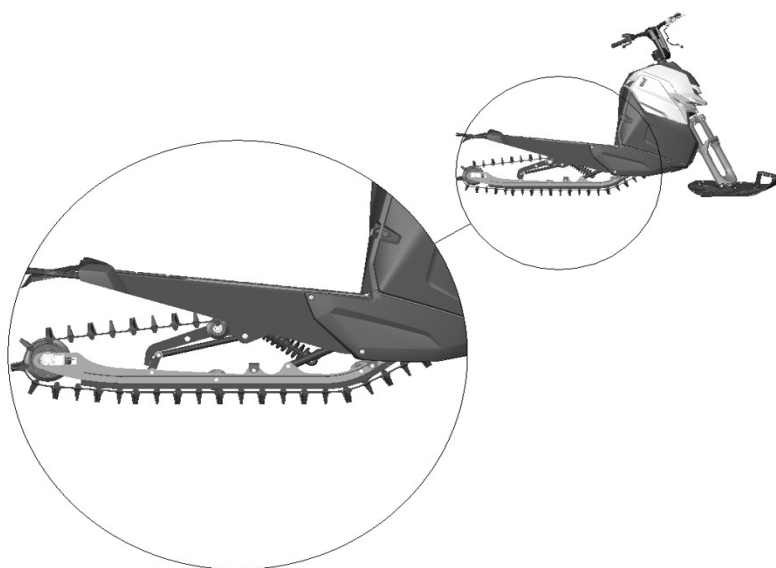
**10.16 CONDITION OF THE FRONT SUSPENSION****1 Front suspension**

1. To check the condition of the suspension **1**, position yourself on the vehicle as if you were riding it.
2. Apply pressure to the handlebars several times to make sure the suspension is reactive.
3. Make sure the fork's damping is optimal.
4. Proceed to a visual inspection of the components to ensure that there are no oil leaks.



If you have any doubt about the operation of the fork, take the vehicle to a WIDESCAPE dealer for evaluation. Never drive the vehicle if in doubt.

## 10.17 REAR SUSPENSION CONDITION



1. Check the vehicle's rear suspension strap. If the strap shows any signs of wear, such as unraveling, tearing, or even a hole, it should be replaced with a new one.
2. To check the condition of the rear suspension, position yourself on the vehicle as if you were riding it.
3. Make the vehicle's rear suspension react by bouncing cyclically.
4. Make sure the rear shock absorbers respond optimally.



If the rear suspension does not respond optimally, refer to page [98](#) of this manual.

### 10.17.1 CHECKING REAR SUSPENSION BUSHINGS PLAY

1. With the rear tunnel lifted, loosen the adjustment block lock nuts, screw the M5 track tensioner bolts and loosen the rear wheel axle nuts to remove tension from the track
2. Grab the suspension runners and move them sideways repeatedly
3. If play is detected in the suspension bushings, tighten each M6 bolt to  $5 \pm 1$  Nm
4. Repeat step 2. If play is still noticeable, replace worn bushings with new ones.

### 10.17.2 CHECKING SUSPENSION RUNNER FOR WEAR

1. With the vehicle level on a flat surface.
2. Replace the runners if it presents any sign of advanced wear.



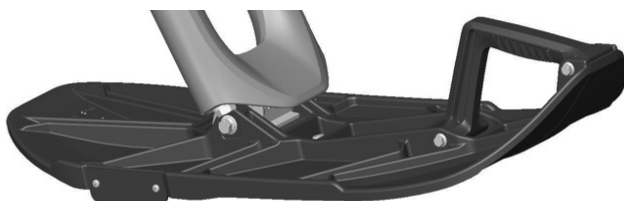
## 10.18 CONDITION OF THE STEERING COLUMN

1. Lock the vehicle's ski.
2. Push the handlebar left and right. If it rotates, the stem support bolts are not tight enough.



To adjust the vehicle's steering, refer to page [93](#) of this manual.

## 10.19 CONDITION OF THE SKI



1. Measure the thickness of the ski with a ruler or caliper.
2. Replace if the tallest section of the runner is below 30.00 mm.

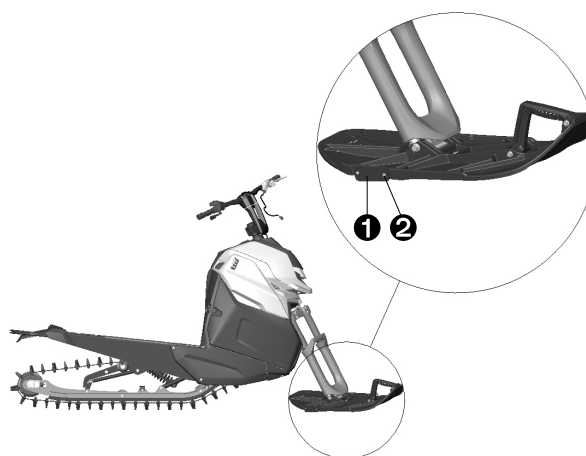


If you need to change the ski, refer to page [94](#) of this manual.

## 10.20 CONDITION OF THE SKI'S SIDE RUNNERS

- ❶ Side runner
- ❷ M4 Screw

1. Measure the height of the side runners ❶.
2. If the tallest measured height is less than 10.00 mm, you will have to replace them with new ones.

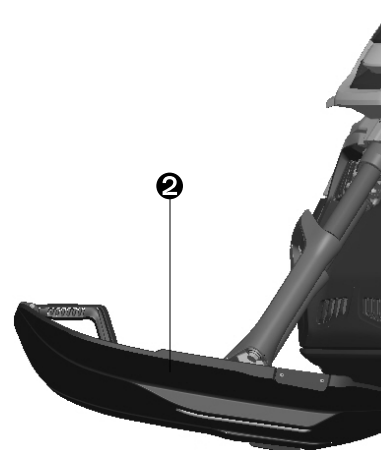


To change the side runners, refer to page [95](#) of this manual.

## 10.21 CONDITION OF THE SKI'S MAIN RUNNER (CENTRAL CARBIDE)

- ❷ Main runner

1. Measure the height of the main runner ❷.
2. If the measured height is less than 1.50 mm, you will have to replace them with a new one.



To change the main runner, refer to page [95](#) of this manual.

## 10.22 CONDITION OF THE TRACK

To check the condition of the track, it is advisable to raise the rear of the vehicle so that the track can be turned without difficulty.

1. Inspect the track to see if there are any tears, punctured holes, missing inner or exterior lugs, missing tack guides, or delamination in the rubber. If any of the previous elements are noted, replace the track.
2. Measure the thickness of the studs with a ruler or caliper.
3. Replace the track if the spike height is less than 30 mm.
4. Check the track tension as shown. If the profile of the upper part of the track is bent, you will need to re-tension the track. To do this, refer to page [100](#) of this manual.

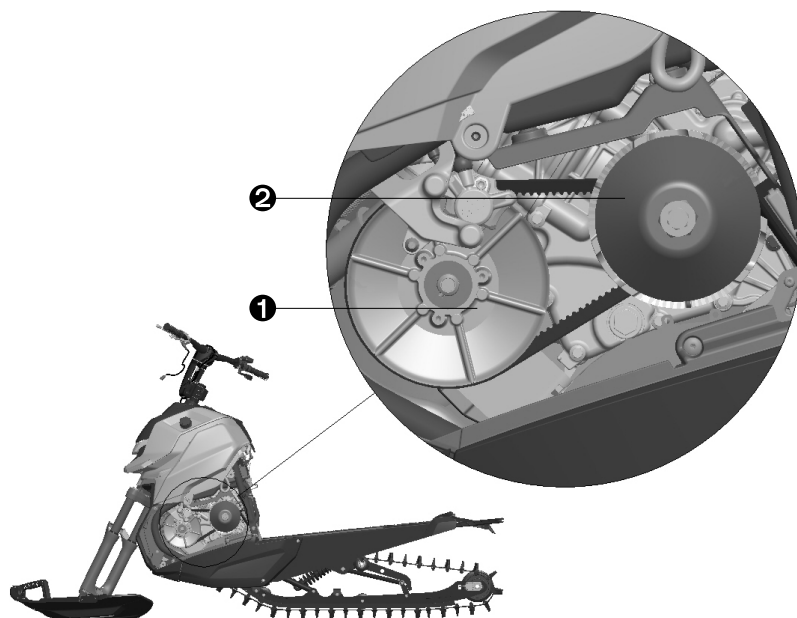
## 10.23 CHECKING DRIVETRAIN FOR WEAR

Remove the chaincase cover by unscrewing the 8x M6 bolts. There are 3x alignment pins between the cover and the chaincase; make sure not to lose them.

1. Remove the tensioning bolt's R-clip and unscrew the bolt to remove any tension on the chain.
2. Remove the 46-tooth sprocket's retaining clip and remove the sprocket from the shaft
3. Remove the chain.
4. Remove the 15 teeth sprocket by unscrewing the retaining bolt.
5. Inspect and replace the 2x sprockets and the chain if any of these 3 components is worn.
6. Follow the steps in reverse order to put the chaincase and sprocket back in place.

## 10.24 CONDITION OF THE CVT TRANSMISSION

- ❶ Driven pulley
- ❷ Driving pulley



1. Remove the left quick access panel as explained on page [65](#) of this manual.
2. Remove the drive belt as explained on page [103](#) of this manual.
3. Clean the 2 pulleys ❶ ❷ and all other components around the transmission system to remove rubber particles stemming from the wear of the transmission belt.
4. Check the condition of the driving pulley ❷ and the driven pulley ❶ for any sign of wear (removal of material, abnormal friction marks, beginning of cracks...).
5. If the transmission shows any of these symptoms, you will need to replace it.

## 10.25 INSPECTION OF THE LIGHTS

When you start your vehicle, make sure the lights are working properly.

## 10.26 INSPECTION OF THE VEHICLE'S CONTROLS

Before you set out on your ride, make sure that all your vehicle's controls respond optimally.

### THROTTLE CONTROL

The throttle control's movement should be smooth when pushed. If you notice anything abnormal in the throttle control's movement, do not ride your vehicle.



If you need to perform any maintenance on the throttle, refer to page [108](#) of this manual.

### STARTER

The starter should operate smoothly when pushed. If you notice anything abnormal in the starter's movement, do not ride your vehicle.

### BRAKE LEVER

The action of the brake lever must be perfectly fluid. You should feel resistance before the brake lever reaches the end of its movement, indicating that the brake caliper is properly clamping the brake disk. If there is no resistance, or if you notice anything suspicious with the brake lever, do not ride your vehicle.



If you ever need to service the vehicle's braking system, refer to page [105](#) of this manual.

### LIGHT SWITCH

Pressing the light switch button should be smooth and seamless. If you notice anything abnormal with the vehicle's light switch, do not ride your vehicle.

### CLUSTER NAVIGATION BUTTON

Please refer to page [50](#) of this manual for instructions on how to operate the WS250's cluster navigation button.

## 11. MAINTENANCE WORK

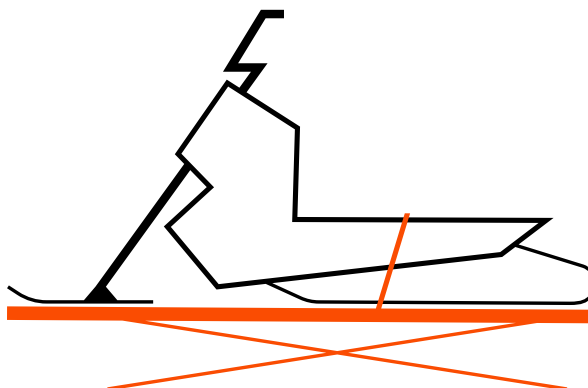
**DAMAGE RISK**—Work on the vehicle only when it is on a solid, level surface to eliminate the risk of tipping over and damaging the vehicle.



- Place the vehicle on a solid, level surface
- Secure the vehicle with two tie-down straps
- Ensure that no one rides on the vehicle while it is being repaired or serviced

WIDESCAPE recommends using a lift table designed for light vehicle mechanics to work on the vehicle.

1. Place the vehicle on the table.
2. Pass a tie-down strap over the tunnel so that the strap can be attached to both sides of the vehicle.
3. Press the vehicle tunnel so that the suspension is compressed by about 10-15 mm, and tighten the strap.
4. Check that the vehicle cannot tilt; if the vehicle can still move sideways, repeat steps 3 and 4 by compressing the suspension a little more until the vehicle no longer moves.



## 11.1 ENGINE

### 11.1.1 THROTTLE BODY AND CABLE ADJUSTMENT

1. Remove the cover panels as explained on page 65 of this manual.
2. Adjust the nuts on the throttle body to have 1—1.5 mm free play on the throttle cable. Make sure the butterfly valve of the throttle body rests on the idle adjustment bolt.

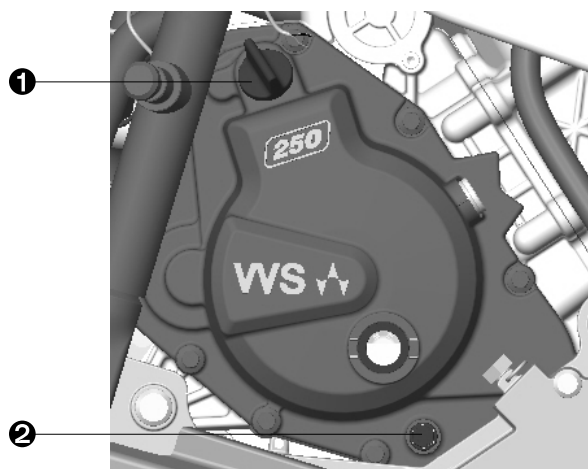


Never adjust the idle speed of the engine with the throttle body idle adjustment bolt. The idle speed of the engine needs to be adjusted by a WIDESCAPE authorized dealer.

### 11.1.2 ADDING ENGINE OIL

- ❶ Engine oil filler cap
- ❷ Engine oil drain screw

1. Remove the right quick access panel as explained on page 65 of this manual.
2. Remove the engine oil filler cap ❶.
3. Add engine oil until the oil level is between the 2 sights.
4. Reinstall the engine oil cap.

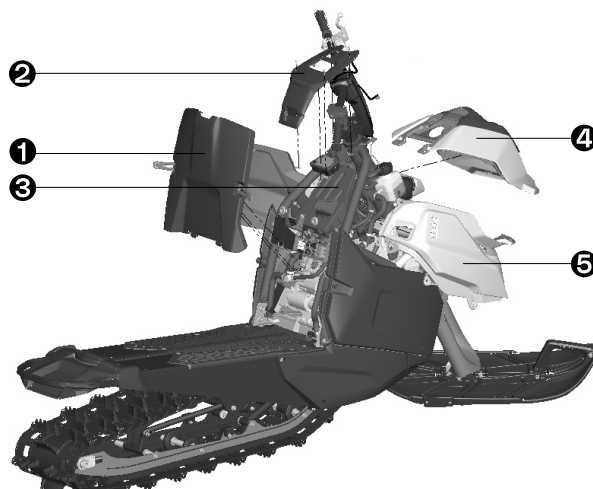


Use the same grade and brand of oil as the one in the engine.

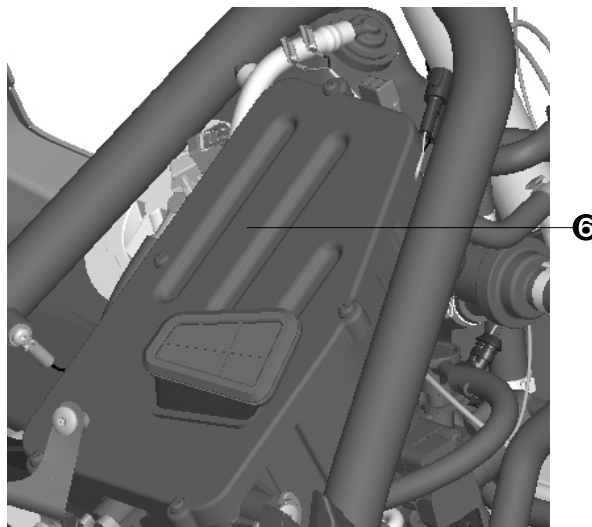
When using it for the first time, after adjusting the oil level, run the vehicle at low speed for a few minutes. Recheck the oil level and readjust it if necessary.

### 11.1.3 CLEANING THE AIR FILTER

- ❶ Rear access panel
- ❷ Console
- ❸ Airbox
- ❹ Top console
- ❺ Right panel
- ❻ Airbox cover



1. Remove the access panels, console and top console **❶ ❷ ❹ ❺** as explained on page [66](#) of this manual.
2. Remove the air box cover **❻** by unscrewing the x5 M4.
3. Clean the air filter with a mix of soft soap and water.

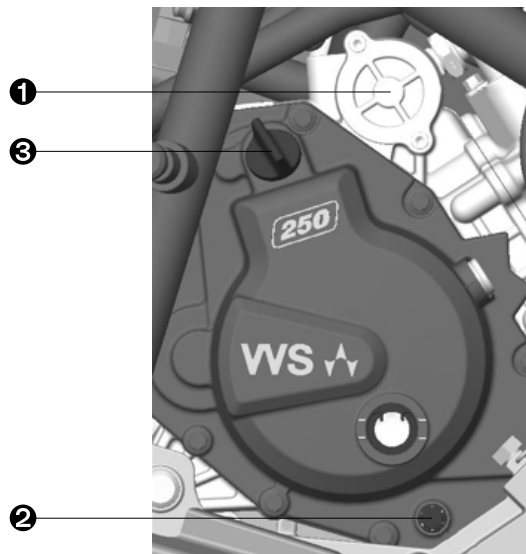




#### 11.1.4 CHANGING THE OIL FILTER AND ENGINE OIL

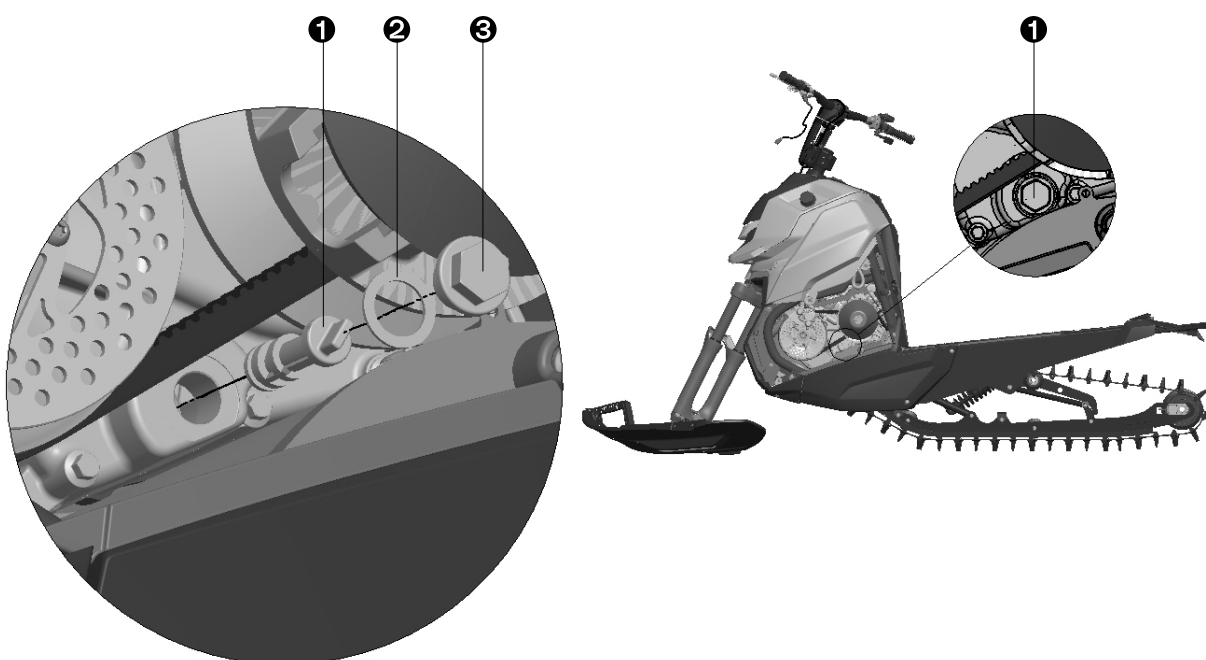
1. After the vehicle has come to rest on a flat surface, remove the right quick access panel as explained on page [65](#) of this manual.
2. On the right side of the engine, you will find the drain plug **2** and the engine oil filter cover **1**.
3. Remove the drain plug **2**. Draining the engine takes between 30 seconds and 1 minute.
4. When the oil is completely drained, you can remove the oil filter cover **1** and then the filter.
5. Unscrew the 2 M5 screws that secure the oil filter housing. Remove the cover and the seal
6. Replace the copper gasket and drain plug **2** with new ones, if necessary. Torque the screw to 12 Nm.
7. Replace the oil filter with a new one, then replace the seal and replace the oil filter cover **1** with the 2 M5 screws. Tighten the screws to 6 Nm.
8. Unscrew the oil filler cap and add 0W40 synthetic motor oil until the level indicates 900-1100 ml.

- 1** Oil filter cover
- 2** Drain plug
- 3** Oil filler cap



### 11.1.5 CLEANING THE STRAINER

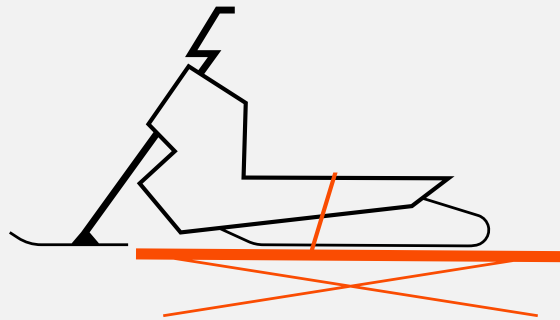
- ❶ Strainer
- ❷ Brass washer
- ❸ Strainer plug bolt



1. Remove the quick access panels as explained on page 65 of this manual.
2. Make sure there is no oil inside the engine before doing the following steps. If you have to remove the engine oil, refer to page 88 of this manual.
3. You will find the strainer plug bolt ❸ between the engine driving and the driven pulley.
4. Unscrew the strainer plug bolt ❸.
5. Pay attention to the brass washer ❷. We suggest changing the brass washer every time you clean the strainer.
6. Pull out the strainer ❶ from the engine.
7. Clean the strainer ❶ with a good brake cleaner.
8. Clean the plug ❸ with a good brake cleaner and dry it with pressurized air before reinstallation.
9. Remount all the components.
10. Torque the bolt plug at 15 Nm.

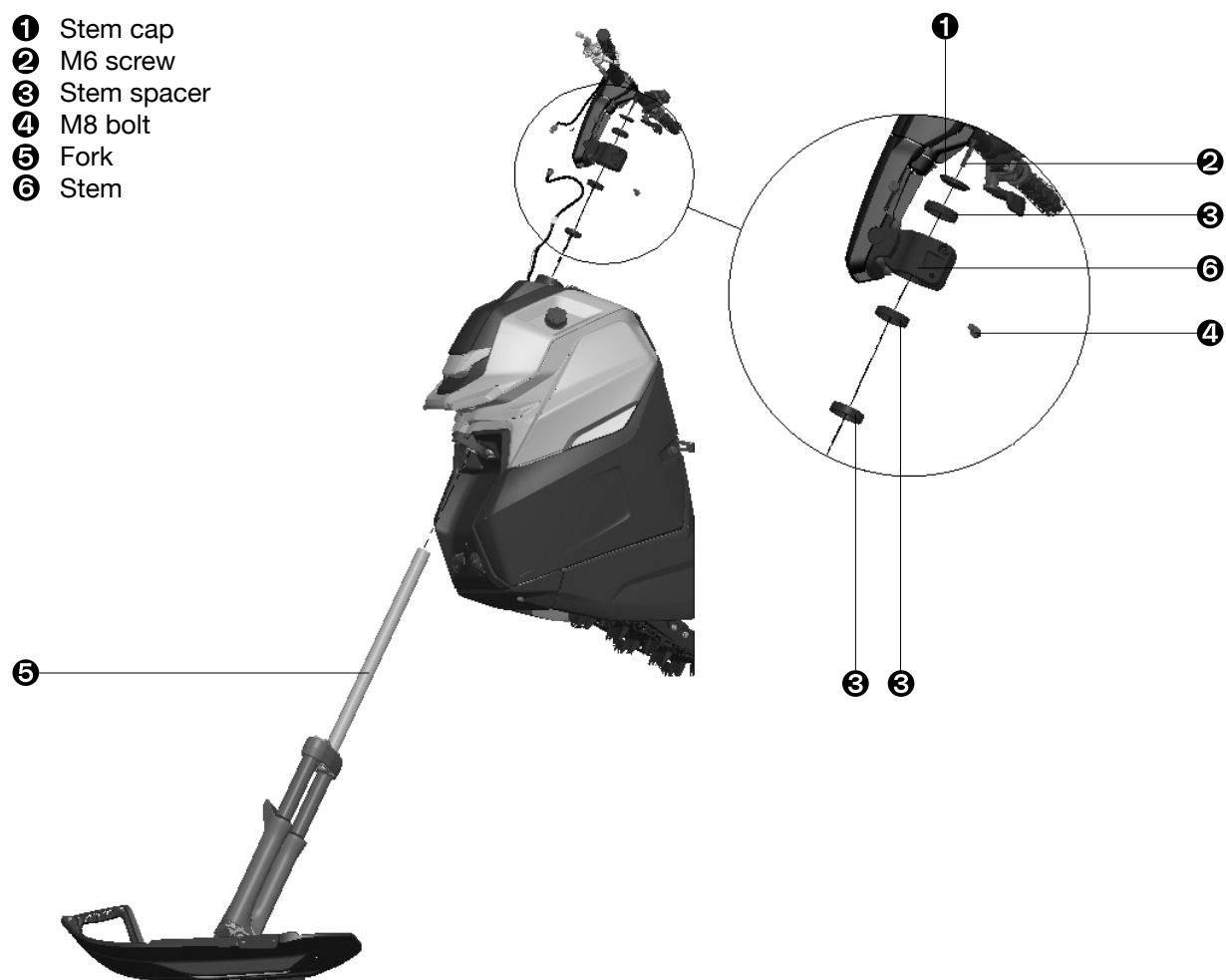
**11.2 FORK**

Make sure the vehicle is strapped to the table when working on the fork. Position the vehicle so that the ski remains in the void.



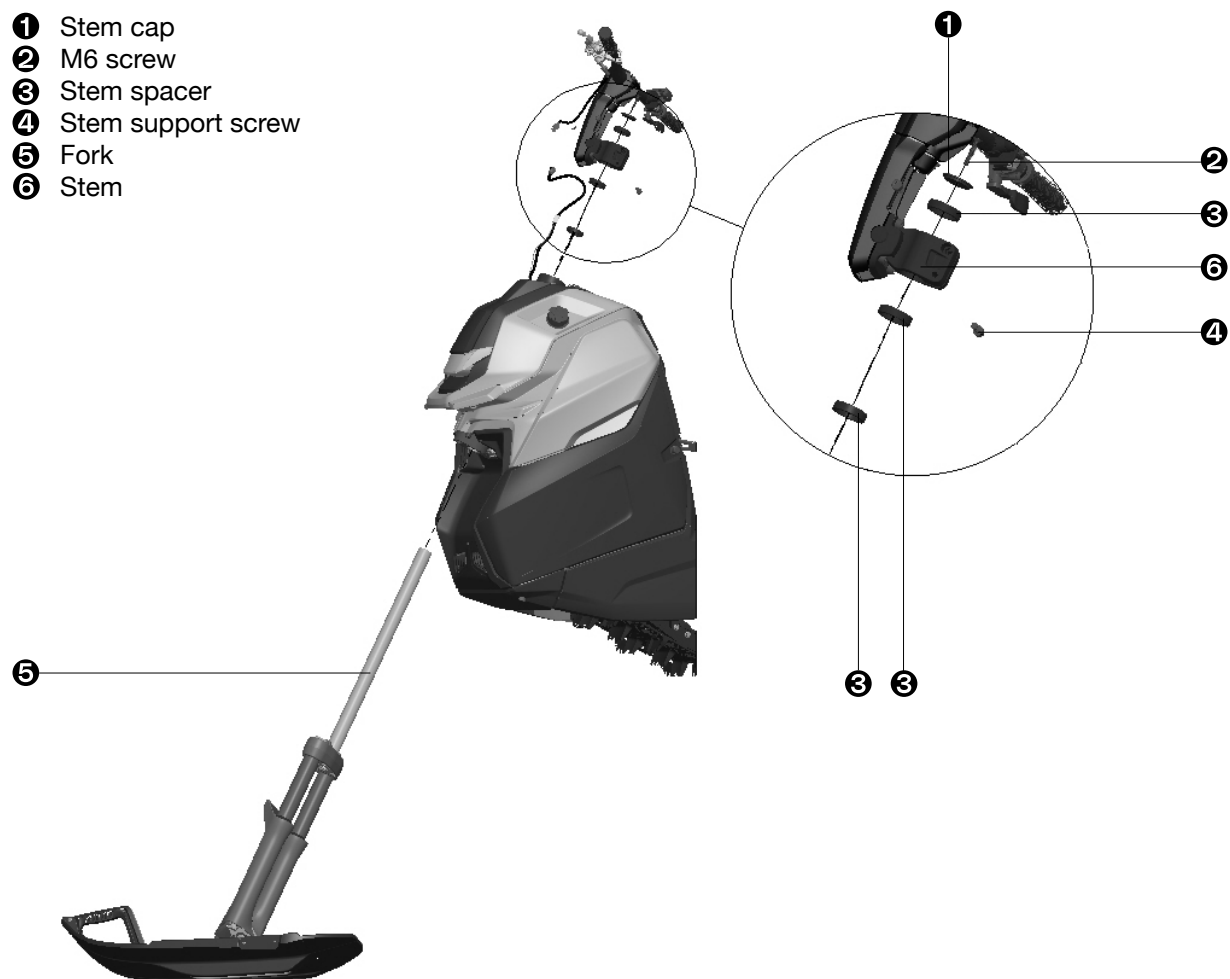
## 11.2.1 REMOVING THE FORK

- ❶ Stem cap
- ❷ M6 screw
- ❸ Stem spacer
- ❹ M8 bolt
- ❺ Fork
- ❻ Stem



1. Unscrew the countersunk bolt ❷ and remove the stem cap ❶.
2. Unscrew the 2x bolt ❹ holding the stem to the steerer tube and remove the stem ❻ while holding the fork ❺ in, you may use a soft flat prying tool to open the stem split opening gently.
3. Remove the stem spacers ❸ and bearing seal.
4. Remove the skate and ski assembly ❺ from the frame while holding the top steering bearing cone and bearing dust seal in place.

## 11.2.2 INSTALLING THE FORK



1. Slide the fork **5** in the headtube until the bottom steering bearing cone sits in the bearing cup.
2. Slide the top steering bearing cone in place, along with the dust seal and proper spacers.
3. Slide the stem **6** firmly in place and torque its 2x M8 bolts **4** to  $25 \pm 1$  Nm. You may use a soft flat prying tool to open the stem split opening gently.
4. Put the stem cap **1** in place and torque its M6 bolt **2** to  $15 \pm 1$  Nm.

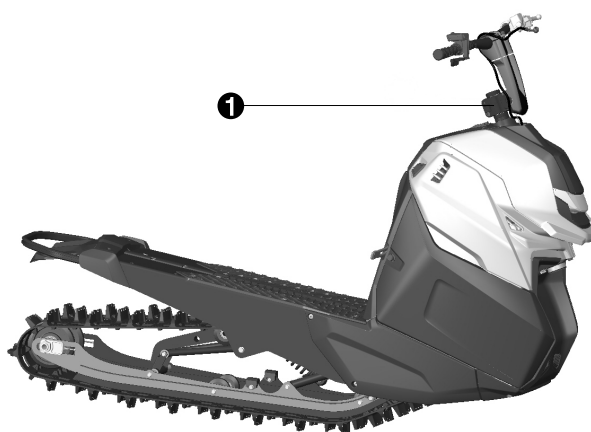
### 11.3 SKI, STEERING AND HANDLEBARS

To perform the following work, secure the vehicle to a table with the front end out of the way so that you can work on the steering system without strain.

#### 11.3.1 TIGHTENING THE STEERING COLUMN BEARINGS

##### ❶ Steering column

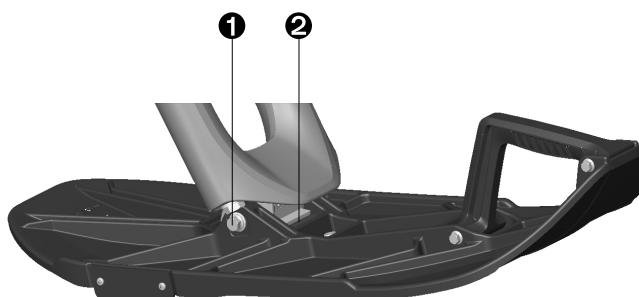
1. The steering angle should be neutral.
2. Stand in front of the vehicle. Grab the fork and apply forward and backward force.
3. If you notice any play in the previous step, retighten the steerer cap with the compression bolt.
4. Repeat step 2.
5. If you still see any play, you will need to change the steering column bearings.



## 11.3.2 REMOVING THE SKI

- ❶ Axle screw
- ❷ Rubber

1. Unscrew the axle screw ❶ of the ski
2. Remove the ski.
3. Take care not to lose the fork bushings

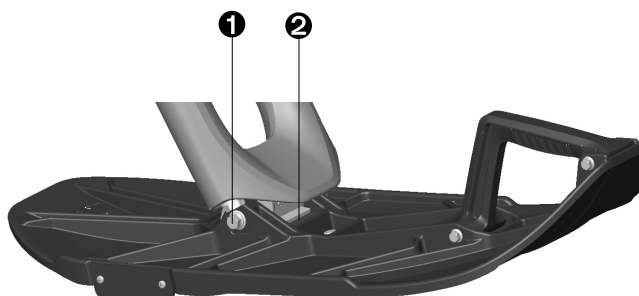


During the operation, be careful not to lose the rubber.

## 11.3.3 INSTALLING THE SKI

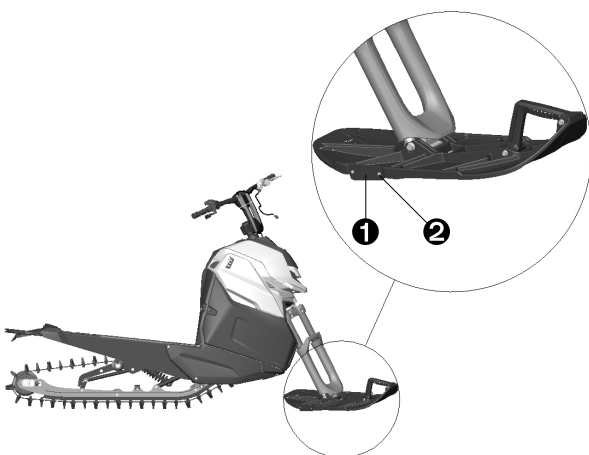
- ❶ Axle screw
- ❷ Rubber

1. Install the rubber on the ski.
2. Position the assembly on the fork.
3. Grease the axle screw ❶ and insert it through the fork and ski.
4. Torque the axle screw to  $30 \pm 1 \text{ Nm}$ .



During the operation, be careful not to lose the rubber.

## 11.3.4 REPLACING THE SIDE RUNNERS

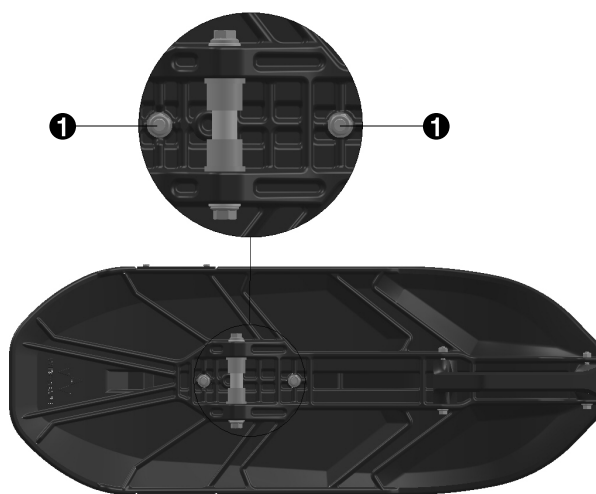
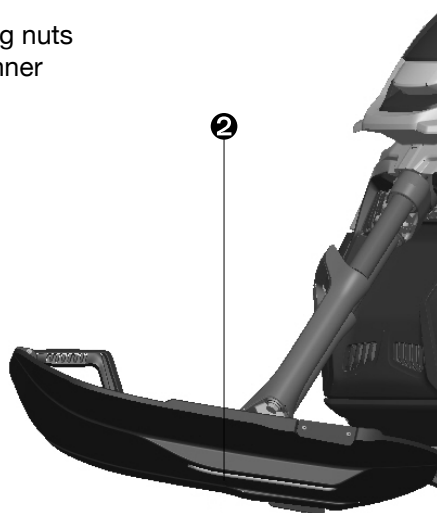


- ❶ Side runner
- ❷ M4 Screw

1. Unscrew x2 M4 ❷.
2. Replace the side runners ❶.
3. Screw x2 M4 ❷, torque to 3Nm.

## 11.3.5 REPLACING THE MAIN RUNNER

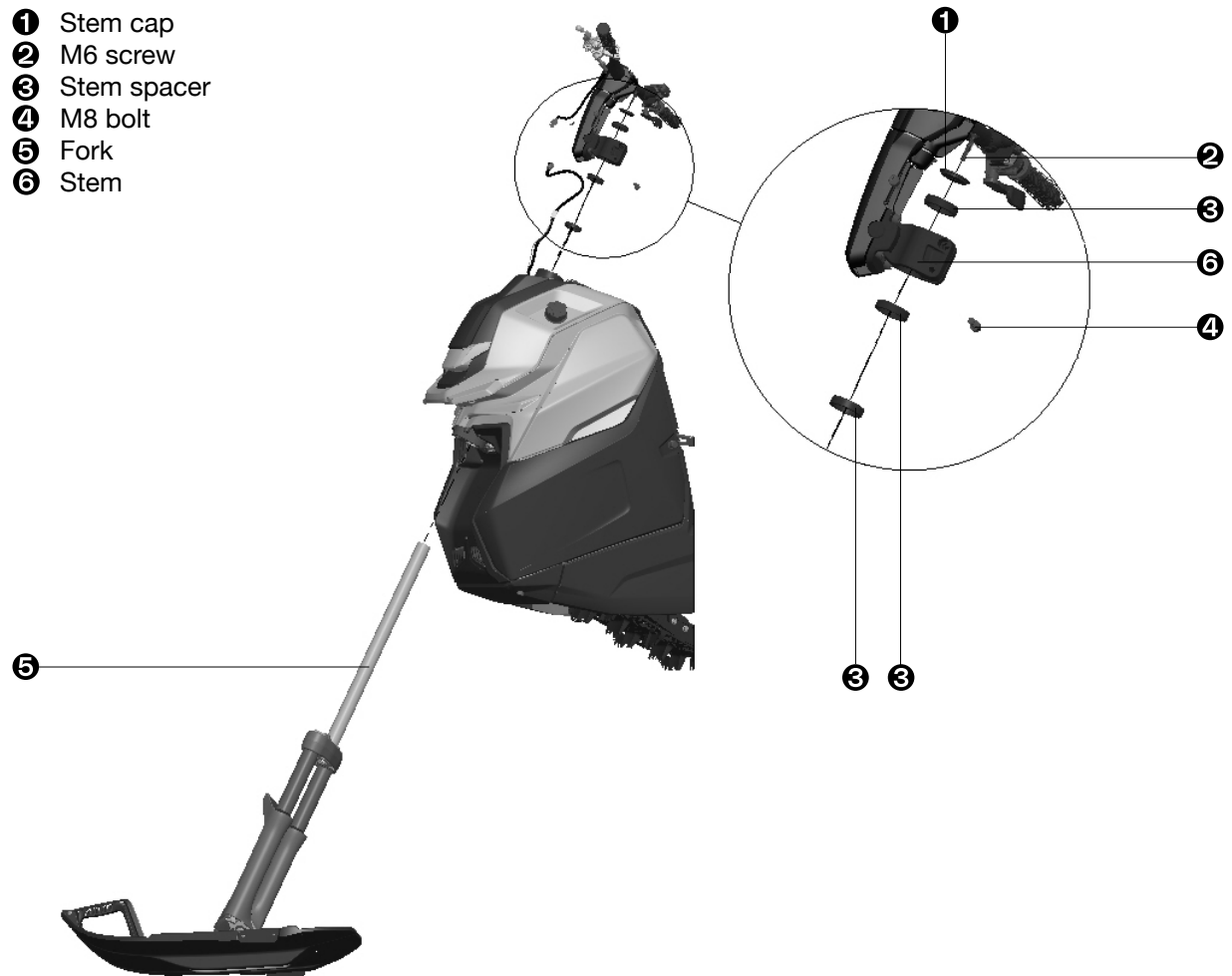
- ❶ Clamping nuts
- ❷ Main runner



1. Remove the ski from the fork as explained on page 94 of this manual.
2. Unscrew the two clamping nuts ❶ of the main runner ❷.
3. Replace the main runner with a new one.
4. Tighten the main runner clamping nuts (Torque 8 Nm)
5. Reinstall the ski.



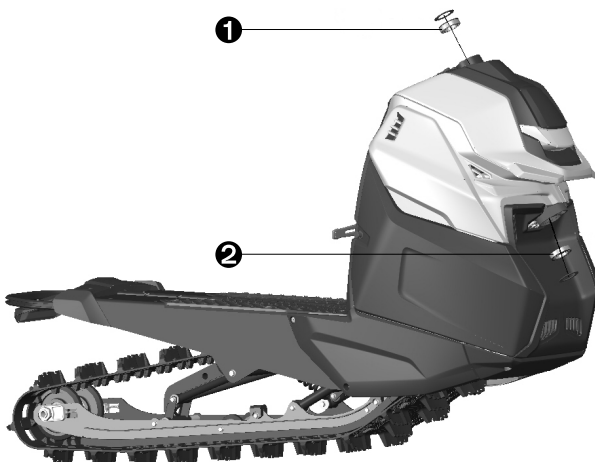
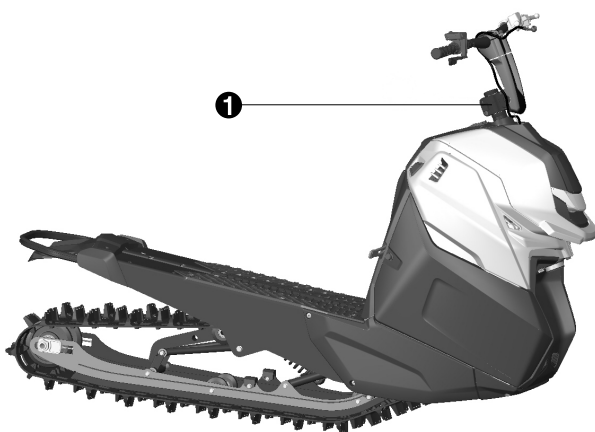
### 11.3.6 TIGHTENING THE HANDLEBAR STEM CLAMP TO THE STEERING COLUMN



1. Tighten x2 stem support screws 4. Torque to 30 Nm.

### 11.3.7 LUBRICATING THE STEERING HEAD BEARINGS

- ❶ Stem
- ❷ Bearing cone

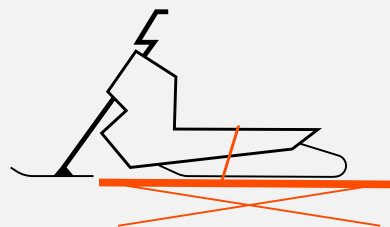


1. Remove the fork following the instructions on page [91](#) of the present manual.
2. Remove the top bearing cone ❷ from its cup
3. Clean each cup and cone and apply a small amount of Bel-ray® waterproof grease with a brush to the cone before reinstalling them.
4. Reinstall the fork following page [92](#) of the present manual.

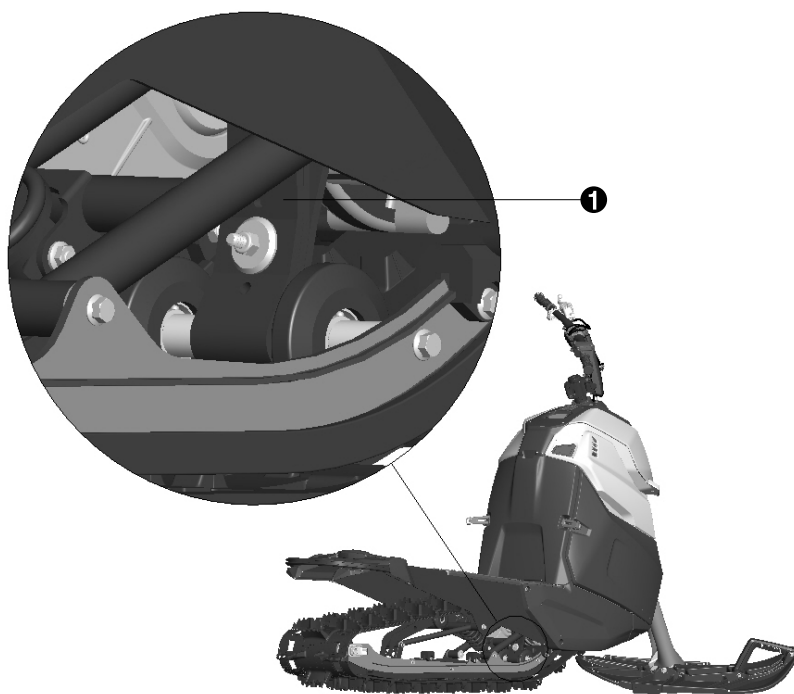
## 11.4 REAR SUSPENSION



The best way to operate on the rear suspension is to raise the tunnel so that the track no longer has contact to the ground. You can also lay the vehicle down and operate one side at a time. In this case, make sure that the surface on which the vehicle rests does not present a risk of damaging it



### 11.4.1 REMOVING THE REAR SUSPENSION STRAP

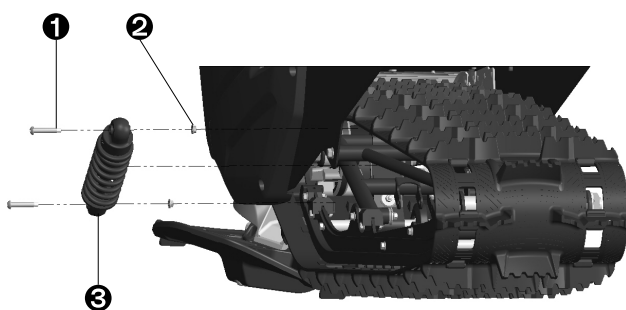


**1** Suspension strap

1. Unscrew the screw holding the strap **1**.

### 11.4.2 REMOVING THE REAR SHOCK ABSORBER

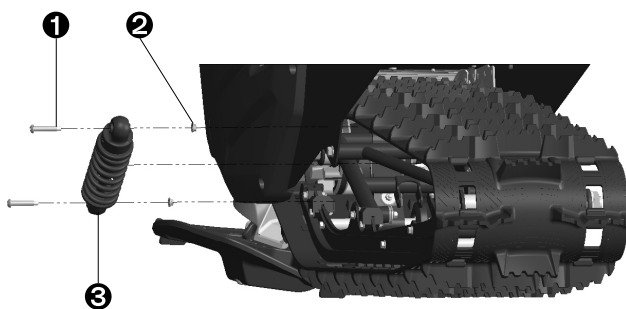
- ❶ Shock mounting bolt
- ❷ Shock mounting nut
- ❸ Rear shock absorber



1. Start by removing the suspension strap. Refer to page [98](#).
2. Unscrew the x2 shock mounting bolts ❶ and nuts ❷ and remove the rear shock absorber ❸.

### 11.4.3 INSTALLING THE REAR SHOCK ABSORBER

- ❶ Shock mounting bolt
- ❷ Shock mounting nut
- ❸ Rear shock absorber

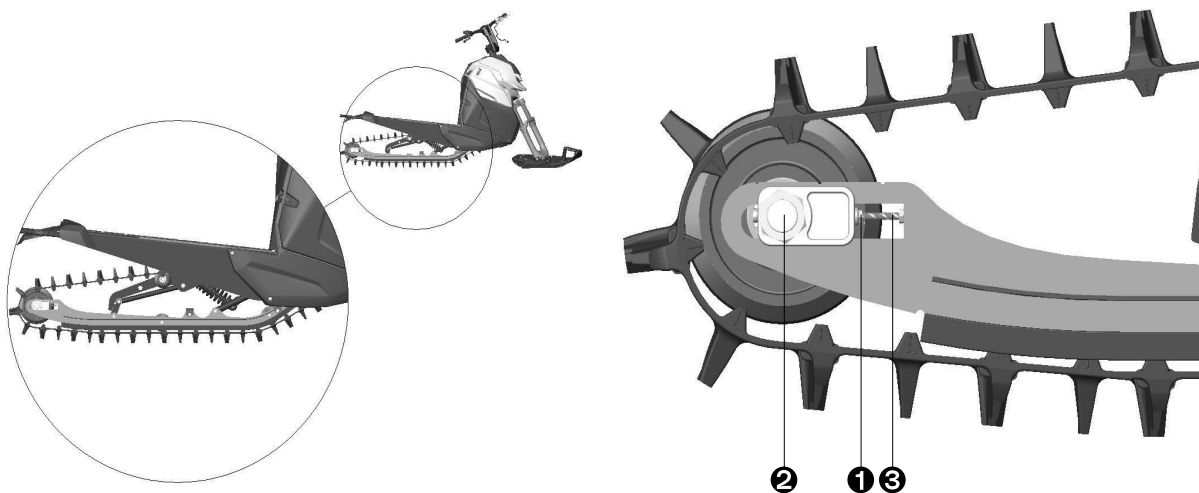


1. With the vehicle in position, slide the suspension system from the front to the back of the tunnel.
2. Slide the shock mounting bolts ❶ and nuts ❷ into the suspension arms.
3. Reinstall the suspension strap. Align the suspension arm top tube and axle with their mounting holes in the tunnel.
4. Torque x2 M8 to 25±1Nm.

## 11.5 TRACK

### 11.5.1 ADJUSTING TRACK TENSION

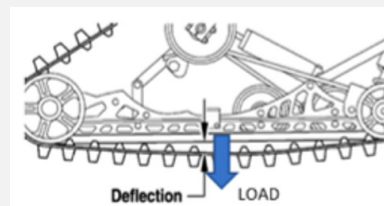
- ❶ Locknut
- ❷ Locking nut
- ❸ Adjustment screw



1. Partially loosen the lock nut so that it can interact with the track tension adjustment screw.
2. Loosen the adjustment block locknut.
3. Interact with the tension adjustment screw until the profile of the upper part of the track is straight.
4. Then screw the locking nut back on.
5. Torque the rear axle nut (22 mm) nut to 45Nm



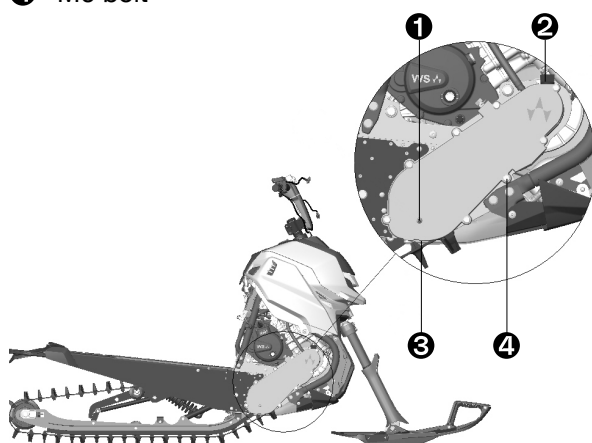
The operation must be performed on both sides of the track. Load the center of the track with 72 N force. With the adjustment bolt, turn clockwise to adjust the deflection to 38-43 mm.



## 11.6 DRIVE SYSTEM

### 11.6.1 ADDING CHAINCASE OIL

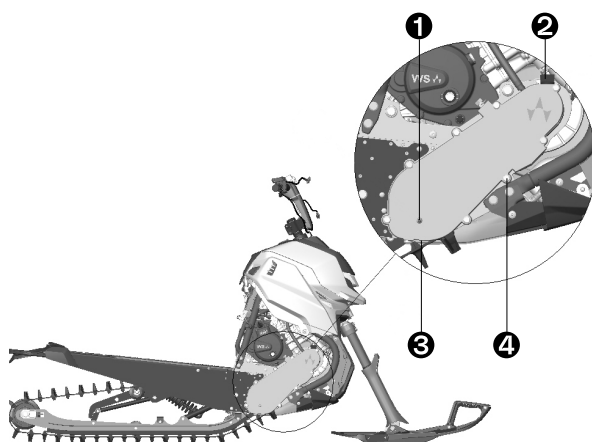
- ❶ Oil level screw
- ❷ Oil filler cap
- ❸ Oil drain screw
- ❹ M6 bolt



1. Remove the chaincase oil filling plug ❷.
2. Remove the level bolt ❶.
3. Add oil slowly until it begins to pour out of the hole of the level bolt ❶.
4. Wipe off excess oil and screw back the level bolt along with a new sealing washer on it.
5. Inspect the filling plug seal and replace it if damaged. Screw the filling plug ❷ back into the chaincase.

### 11.6.2 REPLACING CHAINCASE OIL

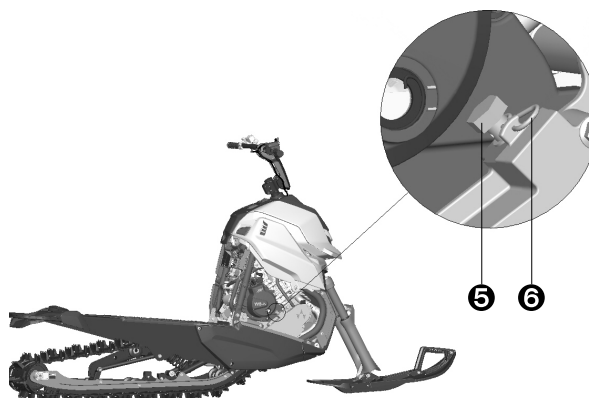
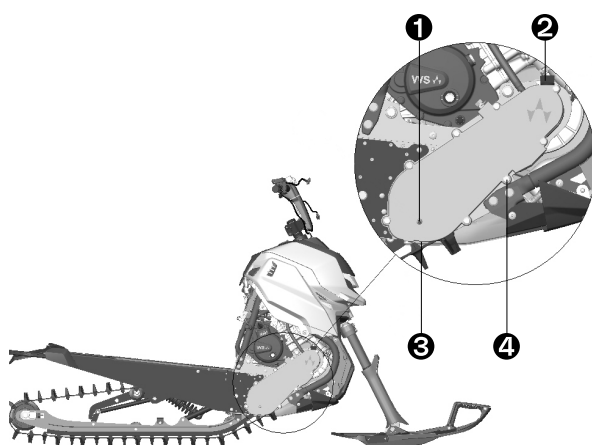
- ❶ Oil level screw
- ❷ Oil filler cap
- ❸ Oil drain screw
- ❹ M6 bolt



1. Remove the chaincase oil filling plug ❷.
2. Place an oil collection pan under the chaincase to collect the oil from the chaincase.
3. Remove the chaincase drain plug ❸ situated at the bottom of the chaincase and wait for the oil to stop dripping from the chaincase.
4. Screw the drain plug ❸ and a new sealing washer in the chain case.
5. Add chaincase oil as described on page [101](#) of the present manual.

### 11.6.3 TIGHTENING THE CHAIN

- ❶ Oil level screw
- ❷ Oil filler cap
- ❸ Oil drain screw
- ❹ M6 bolt
- ❺ Tensioning bolt
- ❻ R-clip



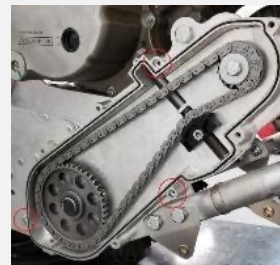
1. Remove the lower side plastics as explained page [67](#) of the present manual.
2. Remove the chaincase cover by unscrewing the 8x M6 bolts ❹.
3. Remove the tensioning bolt's R-clip ❻. Turn the 15 mm hexagonal head of the tensioner clockwise to add tension to the chain. Turn the 15 mm hexagonal bolt clockwise with your hand until you reach the maximal force you can apply without a tool. Use an open

15 mm key wrench to align the tensioner and chaincase hole together (always turn clockwise to align both holes together).

4. Reinsert the R-clip ❻. If the holes in the bolt head and chaincase are not aligned, screw the bolt until the holes are aligned and insert the R-clip. They should have a 3-4 mm free play on them.
5. Screw back the chain case cover with the x8 M6 bolt ❹. Torque at 12 Nm.

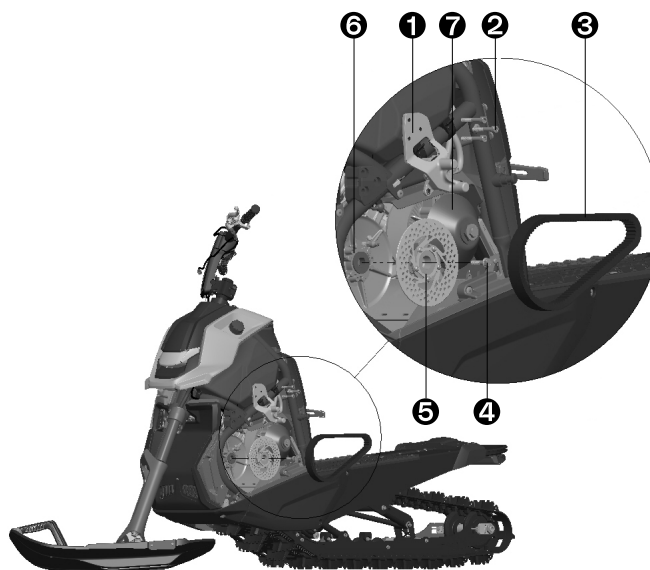


There are 3 alignment pins between the cover and the compartment. Carefully remove the cover so as not to misplace them. Also pay attention to the gasket that follows the contour of the lid.



#### 11.6.4 CHANGING THE TRANSMISSION BELT

- ❶ Brake bracket
- ❷ M8 bolt
- ❸ Transmission belt
- ❹ Brake disc axle screw
- ❺ Brake disc
- ❻ Driven pulley
- ❼ Driving pulley



It is strongly recommended to use an impact wrench to remove the 30mm nut from the drive pulley (step 2)

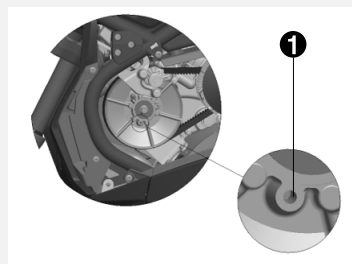
1. Make sure that the rear of the vehicle is hanging so the track can be moved freely by hand.
2. Remove the driving pulley ❷ by unscrewing the clutch bolt. Unscrew the 30 mm hexagonal nut. Remove the plate and make sure not to lose the weight blocks.
3. Remove the 3 clutch blocks and pull on the external plate of the clutch to remove it. It is supposed to slide easily by hand.
4. Remove the brake caliper as explained on page [105](#) of this manual.
5. Unscrew the M8 bolt ❹ and remove the brake disc ❺.
6. Insert an M6X55 mm screw in the driven pulley to open it and loosen the transmission belt (Refer to the information below).
7. Gently extract the belt and replace it with a new one.
8. After the new belt is in place, remove the M10 screw.
9. Put the brake disc ❺ in place. Torque x1 M8 at 35 Nm.
10. Put the brake caliper and the brake bracket ❶ back.
11. Put the driving pulley ❷ back by following back the instructions to remove it.
12. Activate the drivetrain by hand to tighten back the transmission belt.





To open the driven clutch, insert an M6x55 in one of the 3 threaded openings on the face of the casting.

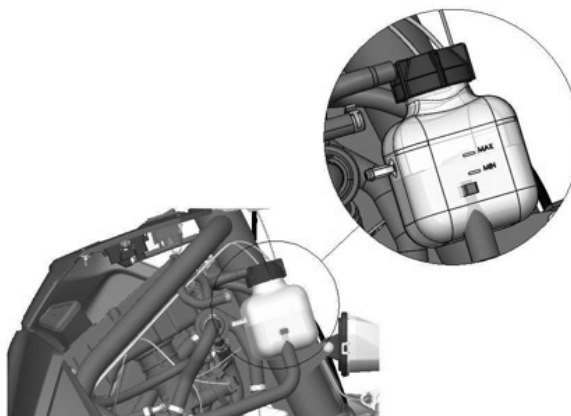
**1** Threaded opening



## 11.7 COOLING SYSTEM

### 11.7.1 ADDING COOLANT

1. Remove the superior plastic as explained on page [66](#) of the present manual.
2. Remove the coolant tank cap.
3. Add coolant until you reach the correct level. The coolant level needs to be between the MIN and MAX indication lines.
4. Close the tank.

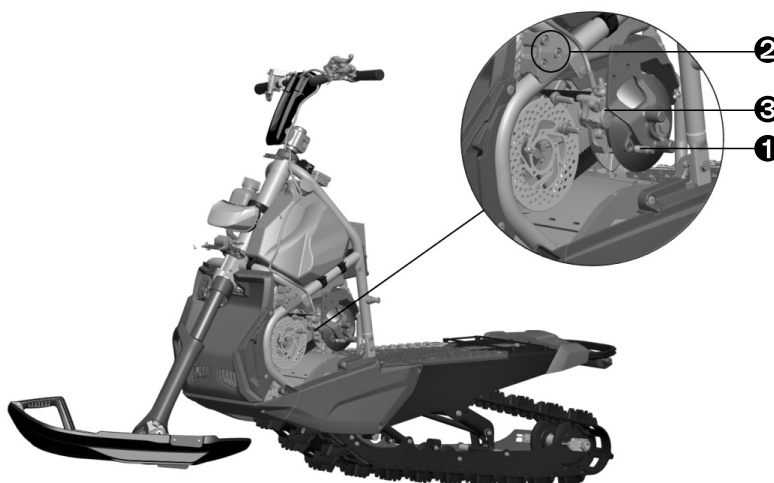


## 11.8 BRAKES

### 11.8.1 REMOVING THE BRAKE CALIPER

- ❶ Speed sensor
- ❷ x3 M5 screw
- ❸ Brake caliper

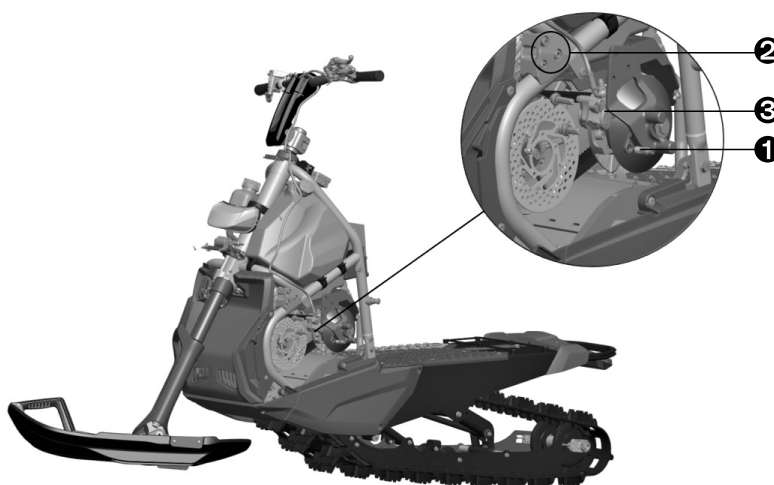
1. Remove the quick access panels and the top panels as explained on page [65](#).
2. Disconnect and remove the speed sensor.
3. Remove the bracket by unscrewing the x3 M5.
4. Remove the brake caliper by hand. Be careful not to damage the brake cable.



### 11.8.2 INSTALLING THE BRAKE CALIPER

- ❶ Speed sensor
- ❷ x3 M5 screw
- ❸ Brake caliper

1. Put back the brake on the brake disc.
2. Screw the x3 M5. Torque at 17Nm.
3. Make sure that the brake system is correctly aligned to the brake disc.

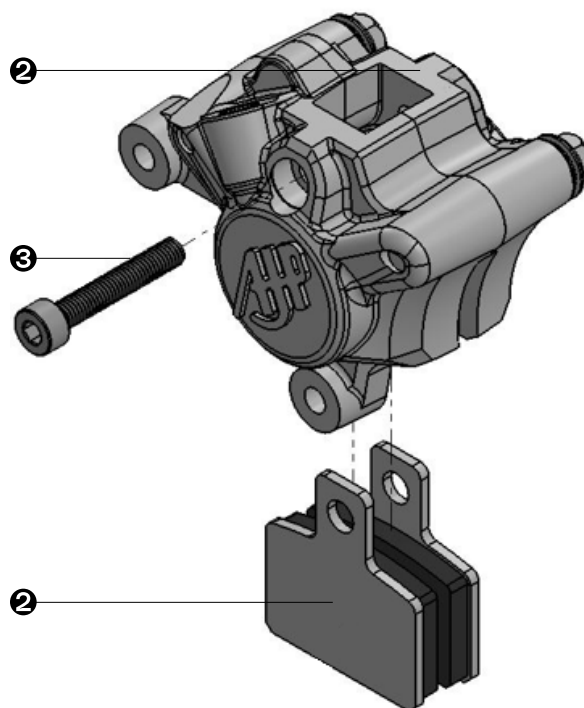


### 11.8.3 CHANGING BRAKE PADS

After removing the brake as explained on page [105](#), you can easily access the brake pad.

- ❶ Brake pads
- ❷ Caliper
- ❸ Brake pad bolt

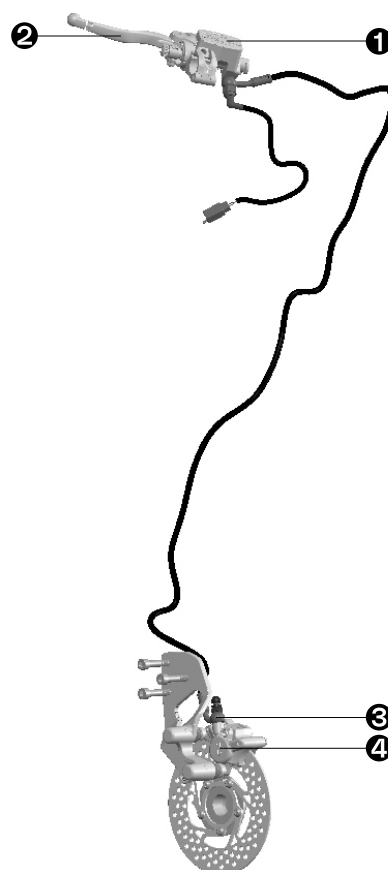
1. Unscrew the brake pad bolt ❸ with a 4 mm Allen key.
2. When the bolt is removed, you can pull out the brake pads ❶ from the caliper ❷.
3. Replace the old brake pads with a genuine Widescape brake pad ❶. Push them directly through the caliper until you align the brake pads ❶ and caliper ❷. Make sure the braking material of the 2 brake pads ❶ faces each other.
4. Screw the brake pad bolt back in place and torque it at 14 Nm.
5. Now you can install the brake caliper ❷ back as per the procedure on page [105](#).



#### 11.8.4 BLEEDING THE BRAKE SYSTEM

- ❶ Master brake fluid reservoir
- ❷ Brake lever
- ❸ Bleeder
- ❹ Brake

1. Remove the quick access panels as explained on page [65](#) of this manual.
2. Open the master brake fluid reservoir ❶ by unscrewing the cap.
3. Start by pulling the brake lever slowly while the reservoir is open.
4. Put the syringe on the bleeder ❸.
5. Open the bleeder cap ❸ and unlock the bleeder.
6. Pull on the syringe slowly. The fluid level in master cylinder will decrease. Make sure to add same quantity of fluid in master cylinder reservoir as you pull on the syringe.
7. Repeat the process 3 times.
8. Lock the bleeder ❸, put its cap on and put the master cylinder brake fluid reservoir cap ❶ back in place with the x2 screws.
9. Pump the brake lever ❷. If the movement is smooth and firm, the brake system is ready to go.



## **11.9 THROTTLE CONTROL**

### **11.9.1 ADJUSTING THE THROTTLE CABLE AT THE THROTTLE CONTROL**

1. Unscrew the locking nut.
2. Screw or unscrew the cable holder according to the desired setting.



You must have 1-1,5 mm free play on the throttle cable.

### **11.9.2 GREASING THE THROTTLE CABLE**

1. Remove the throttle cover.
2. Grease the end of the cable.
3. Reinstall the cover.



Pay particular attention to the seal.

**11.10 ELECTRICAL SYSTEM****11.10.1 FUSES**

1. Use a multimeter on the resistance function to check the continuity between the two fuse leads.
2. If no resistance is detected, the fuse needs to be replaced.

FUSE IDENTIFICATION	FUSE RATING
Main relay fuse (Fuse box)	10 Amp
Main fuse (Fuse box)	05 Amp
Accessory fuse (Fuse box)	10 Amp
Battery fuse (Solenoid)	20 Amp



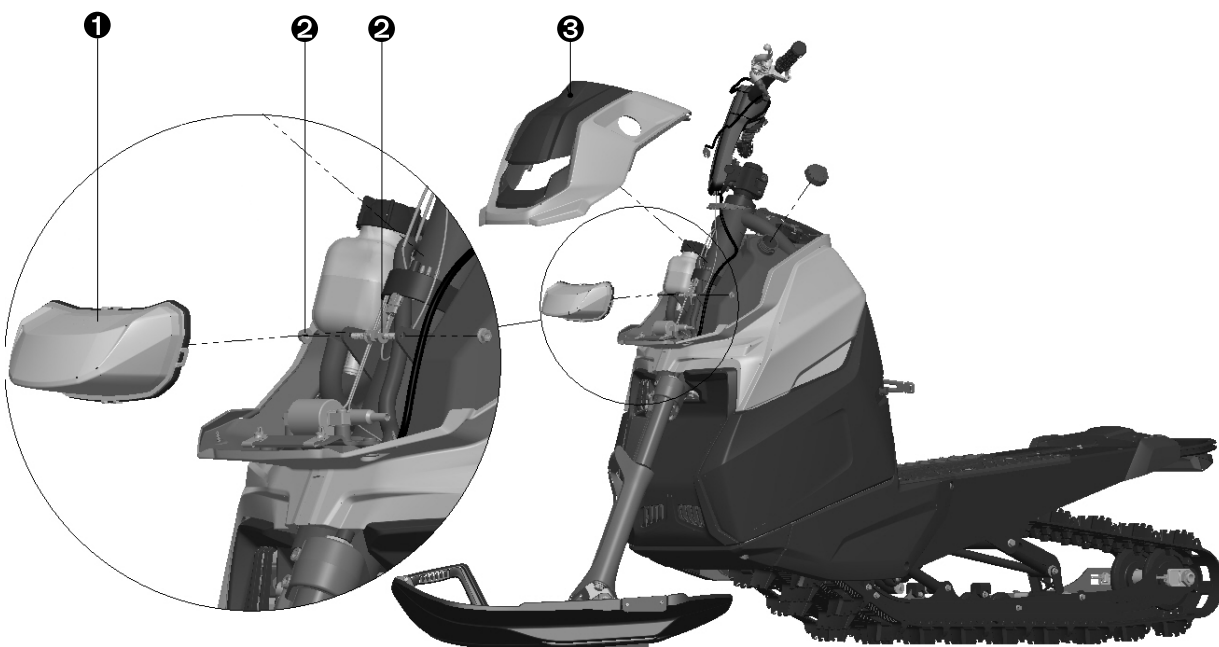
**FIRE HAZARD**— If a fuse repeatedly catches fire, the source of the problem must be determined and corrected before restarting the vehicle.

## 12. SERVICES

### 12.1 CHANGING FRONT LIGHT

#### 12.1.1 REPLACING THE HEADLIGHT

- ❶ Headlight
- ❷ M6 bolt
- ❸ Console

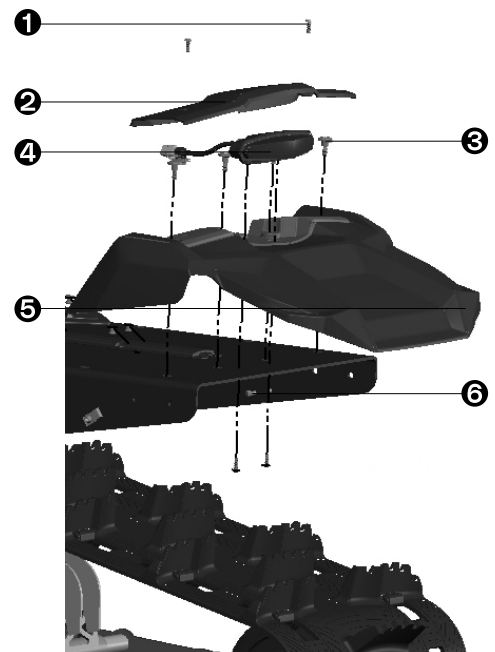


1. Remove the top plastics, as explained on page [66](#) of this manual, to access the headlight.
2. Unscrew the x2 M6 ❷.
3. Disconnect the headlight ❶.
4. Replace it with a new one and follow back the instructions to put everything back in place.
5. Torque the x2 M6 ❷ at 14 Nm.

### 12.1.2 REPLACING THE TAILLIGHT

- ❶ M4 Screw
- ❷ Taillight cover
- ❸ M5 Screw
- ❹ Taillight
- ❺ Snow flap
- ❻ M4 Screw

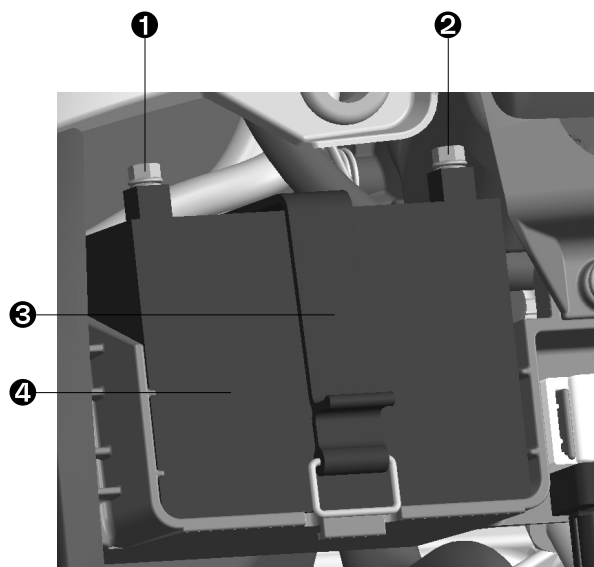
1. Remove the taillight cover ❷ by unscrewing the x2 M4 ❶
2. Remove the taillight ❹ by unscrewing x2 M4.
3. Disconnect the taillight and replace it with a new one.
4. Follow the previous steps in reverse to put everything back in place.





### 12.1.3 CHANGING THE BATTERY

- ❶ Negative terminal
- ❷ Positive terminal
- ❸ Battery retainer strap
- ❹ Battery



1. Remove the front access panel as explained on page [67](#) of this manual.
2. Detach the battery retainer rubber strap ❸.
3. Disconnect the negative connection ❶ (Black) first and then the positive connection ❷ (Red) last.
4. Remove the old battery and place the new one.
5. Connect the positive cable first and the negative cable last.
6. Secure the battery with the retainer strap ❸.
7. Re-install the front access panel.



The battery must be installed upright as shown in the above picture.

### 13. FAILURE DIAGNOSTIC

PROBLEM	POSSIBLE CAUSE	ACTION
The engine does not turn when the starter button is pressed	Operating error	Repeat the start procedure
	Battery is discharged	Charge the battery Check the charging voltage Check the open-circuit current Check the stator winding of the alternator
	Blown fuse	Check every fuse and replace the blown ones
	Starter motor defective	Check the starter motor
	Starter relay defective	Check the starter relay
Engine turns but does not start	Fuel line is not connected to the fuel tank	Connect the fuel line to the fuel tank
	Spark plug is fouled, oily or wet	Clean and dry the spark plug and replace is necessary
	Wrong spark plug gap	Adjust spark plug gap
	Idle speed is not set correctly	Adjust idle speed
	Fuel screen in the fuel pump is clogged	Replace the fuel pump screen
	Wire harness, lean over sensor or killswitch is defective	Check electrical circuit Check the wiring harness
	Error in the fuel injection	Plug on NIKKI software
Engine does not speed up	Error in the fuel injection	Plug on NIKKI software
Lack of power in the engine	Intake port is restricted	Check the air filter and the air box
	Fuel filter is clogged	Check the fuel filter
	Error in the fuel injection	Diagnostic tool
	Valve clearance is too little	Adjust valve clearance
	Exhaust port is restricted	Check the exhaust system for damage  Change the glass fiber yarn filling of the main silencer
	Piston or cylinder worn	Measure the piston/cylinder mounting clearance

Engine dies during use	Lack of fuel	Refuel
Engine overheats	Lack of coolant	Check cooling system for leaks Check the coolant level
	Intake air vents are restricted	Check the intake air vent filter
	Foam formation in the cooling system	Drain the coolant Refill the coolant
	Kink in the cooling system hose	Change the radiator hose
	Lack of snow on the heat exchanger	Add ice scratcher on ski or/ and track runner
Malfunction or indicator light on or flashing	Engine parameters problem	Plug on NIKKI software
Malfunction or indicator light on or flashing	Engine oil level too high	Check the engine oil level
	Engine oil viscosity is too low	Change the engine oil and filter
	Piston or cylinder worn	Measure the piston/cylinder mounting clearance
	Engine beather hole is restricted	Check the breather hole
Battery is discharged	Battery is not charging	Check the charging voltage Check the stator winding and rectifier
	Unwanted power consumption	Check the open-circuit current

## 14. ECU VOLTAGE PARAMETER

ECU PIN NUMBER	PIN CONFIGURATION	NOMINAL
1	CAN(H)	0,65
2	CAN(L)	0,1
3	E-Temp	3,8
4	TVO	0,6 3,75
5	O2 Signal	2,57
6	MAP Signal	4,06
7	CPS Signal	1,61
8	CPS GND	1,61
9	Sensor Voltage Ref.	5,05
10	O2 Heater	2,55
11	Injector	Battery Voltage
12	PIN INACTIVE	—
13	ISC-A	2,6
14	ISC-D	2,6
15	ISC-B	2,6
16	ISC-C	2,6
17	PIN INACTIVE	—
18	Ignition	Battery Voltage
19	Oil Pressure s/w	4,65
20	Mode s/w	4,7
21	Sensor Gnd.	0
22	IAT	3
23	O2 GND	0,18
24	PIN INACTIVE	—
25	PIN INACTIVE	—
26	Lean angle voltage	0,66
27	Speed sensor input	4,5
28	PIN INACTIVE	—
29	Fuel Pump Rly.	Battery Voltage
30	Main Rly.	1,1
31	Light Rly.	Battery Voltage
32	PIN INACTIVE	—
33	PIN INACTIVE	—
34	Key s/w	Battery Voltage
35	ECU GND.	Ground
36	ECU Voltage Supply	Battery Voltage

## 15. TECHNICAL DATA

### 15.1 ENGINE

Type	Liquid-cooled, single-cylinder, 4-stroke gasoline engine
Displacement	242 cc
Stroke	61.00 mm
Bore	71.00 mm
Compression	10.5:1
Idle	1800 - 1900 Rpm
Command	2 valves controlled by rocker arm, driven by chain drive
Intake valve diameter	35.50 mm
Exhaust valve diameter	30.50 mm
Intake valve clearance	0.1 - 0.12 mm (controlled at 20° C / 68° F)
Exhaust valve clearance	0.1 - 0.15 mm (controlled at 20° C / 68° F)
Crankshaft bearing	Babbitt
Connecting rod bearing	Babbitt
Piston	Lightweight alloy, forged
Piston ring	2 compression segments, 1 scraper segment
Engine lubrication	Pressure lubrication with trochoidal pump
Transmission ratio	01:01
Alternator	12V, 120W
Ignition system	DC-CDI with digital feed
Spark plug	RER8YC
Distance between spark plug electrode	0.80 - 0.90 mm
Cooling system	Water pump liquid cooling
Starting system	Electric starter

**15.2 MOTOR TIGHTENING TORQUES**

DESCRIPTION	SIZE	TORQUE
Balancer bearing retaining plate bolt	M6	8 Nm
Connecting rod bolt	M8	20 Nm
Strainer plug	M20	15 Nm
Crankcase bolts	M6	12 Nm
Balancer driven bolt	M8	20 Nm
Crankshaft special locknut	M24	60 Nm
Oil pump bolts	M6	10 Nm
Oil pressure switch	M10	12 Nm
Cylinder head bolts	M6	15 Nm
Cylinder head bolts	M10	40 Nm
Chain tension guide bolts	M5	8 Nm
Camshaft bolt	M8	20 Nm
Cam cap bolts	M6	10 Nm
Chain tensioner bolts	M6	10 Nm
Valve adjustment nut	M6	14.7 Nm
Flywheel hex bolt	M6	10 Nm
Flywheel assembly nut	M14	90 Nm
Oil drain plug	M10	12 Nm
Stator assembly bolt	M5	6 Nm
Magneto cover plug	M14	12 Nm
Oil filler cap	M16	6 Nm
Magneto cover bolts	M6	12 Nm
Oil filter cap bolts	M5	6 Nm
Breather plate hex bolts	M5	6 Nm
Head cover bolts	M6	12 Nm
Water pump bolt	M6	10 Nm
Water pump impeller nut	M6	10 Nm
Coolant drain bolt	M6	8 Nm
Starter motor bolts	M6	10 Nm
Spark plug	M12	20-25 Nm
Throttle body mounting bolts & nut	M6	10 Nm

### 15.3 QUANTITY OF FLUIDS

VEHICLE		
Gasoline	Gasoline with an octane rating of at least 86. 91 if more than 10% ethanol	7200 ml
Crankcase oil	75W140 synthetic snowmobile crankcase oil	67 ml
Brake oil	Dot4	26 ml
ENGINE		
Coolant	50/50 mixture of water and ethylene glycol	2000ml
Engine oil	0W40 synthetic motor oil	900 to 1100 ml
SHOCK ABSORBER		
Fork lower part	5WT Synthetic Suspension Oil	15 ml each side
Cartridge fork	5WT Synthetic Suspension Oil	100-150 ml
Rear shock absorber	5WT Synthetic Suspension Oil	50-70 ml

## 15.4 CYCLE PARTS

DIMENSIONS	
Overall vehicle length	2,200 mm (86.4 in)
Overall vehicle width	800 mm (31.44 in)
Overall vehicle height	1,300 mm (51.12 in)
Ski stance	305 mm (12 in)
Track (length X Width X Profile)	2,667 mm x 305 mm x 38 mm (105 in x 12 in x 1.5 in)
DRY WEIGHT	
Dry weight	91 kg (200 lb)
SUSPENSION	
Front	140 mm Widescape® Design
Rear	110 mm Widescape® Design
DRIVETRAIN	
Drive clutch	CVTech®
Drive sprocket ratio	0.326
FEATURE	
Frame	Aluminum
Bodywork	HDPE and LDPE materials; optimized integration with aluminum framing parts
Ski	UHMW material with single keel and dual-side metal lips
Handlebar	Aluminum material Width : 780 mm (30.70 in) Diameter : 35 mm (1.37 in) Rise : 15 mm (0.59 in)
Riser block height	30 mm (1.18 in) height adjustment
Starter	Electric
Brake system	J.Juan® floating caliper system
Fuel capacity	7.2 L (1.90 US gal)



## 15.5 TIGHTENING TORQUES OF THE CYCLE PARTS

DESCRIPTION	SIZE	TORQUE
Subframe engine bracket	M6	12Nm
Rear suspension arms bolts	M6	14Nm
Rear shock bolts	M6	12Nm
Rear suspension axle nut	M22	45Nm
Thread forming screw ski side slide	M4.55	3Nm
Shoulder screw for stem bushing	M10	28Nm
Stem and riser hex bolts	M8	18Nm
Brake lever bolt	M6	5Nm
Tensioner block bolt	M6	10Nm
Brake disc bolts	M6	8Nm
Fuel pump bolts	M5	5Nm
Clutch guard special plastic screw	M5	5Nm
Y brace bottom special plastic screw	M5	5Nm
Fuel tank fixation special plastic screw	M5	5Nm
Special plastic screw all body parts	M5	7Nm
Cluster thread forming screw	M3.63	1.5Nm
Bearing block nut	M8	25Nm
Bearing alignment screw	M5	3Nm
Rear suspension to frame bolts	M8	12Nm
Suspension strap nut	M6	8Nm
15T sprocket bolt	M8	25Nm
Chaincase cover bolts	M6	12Nm
Chaincase level screw	M6	8Nm
Chaincase oil drain plug	M12	10Nm
Chaincase oil filler cap	M16	6Nm
Engine mount nut	M10	60Nm
Plastic vent hose adaptor on frame	M8	2Nm
Top frame mounting nut	M8	25Nm
Top frame engine mount	M6	14Nm
Top frame engine mount	M8	55Nm
Stem cam bolt	M6	6Nm

Lambda O2 sensor		30Nm
Rectifier bolts	M6	4Nm
Plastic and coil support bolts	M5	2Nm
Coil bolts	M5	4Nm
Front light nuts	M6	14Nm
Driven pulley bolt	M8	35Nm
Driving pulley bolt	M10	35Nm
Speed sensor	M10	14Nm
Brake bracket hex bolt	M8	17Nm
Caliper pin	M6	12Nm
Frame ground	M5	4Nm
Airbox special plastic bolts	M5	2Nm
Snow flap cover screw	M5	2Nm
Skid plate pan head bolts	M5	7Nm
Top console screw	M4	4Nm



