

ARGO J5

MAINTENANCE MANUAL

Safety!
...always in Season!

Do not remove this manual from this vehicle.

MANUAL NO. ????????

NOTE

Read this manual *before* you operate your ARGO J5. It contains safe operating instructions and warns the user about potential hazards that can result in personal injury.

Warnings are identified in the text by the following symbol:



Warning text warns the user about potential hazards that can result in personal injury or death.

Cautions are identified in the text by the following symbol:



Caution text contains cautions that can prevent damage to the vehicle.

This manual is based on the latest product information available at the time of printing. ARGO XTV Limited reserves the right to make changes at any time and without obligation.

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PREFACE

This manual describes maintenance that may be required to keep your **ARGO J5** in good, running condition—from date of manufacture. Please take the time to read this manual carefully, for your safety and that of others. By following these instructions, you will ensure extended, trouble-free operation of your vehicle.

For operating and safety measures, please refer to the Owner's Manual.

Before you operate your J5, make sure you understand how to use all controls, particularly the remote brake and steering system. Learn how to operate your vehicle in an open level area, away from buildings, trees and other obstacles, until you are completely familiar with its operating characteristics. Drive very slowly until your driving skills improve, and drive with caution and consideration at all times. The risk of accident or injury is greatest during the first weeks of use. Take special care during this period. ALWAYS RESPECT OUR ENVIRONMENT. TREAD LIGHTLY.

CAUTION TO THE J5 OWNER/OPERATOR

- Make sure everyone who operates this vehicle receives proper operating instructions and reads the appropriate manuals.
- No one under the age of 16 should be allowed to operate the J5. Children under the age of 16 may not have the skills, abilities or judgement needed to operate the J5 safely and may be involved in an accident causing severe injury or death.
- Never allow anyone under the influence of alcohol or any other intoxicating substance to drive or ride on the vehicle.
- Special operating and safety procedures described in this manual must be observed before and during water operation as outlined in the Owner's Manual.
- Equip your vehicle with basic tools for emergency repairs.
- Never overload your J5. Overloading your vehicle can cause costly damage to drive chains, axles or bearings. Follow the
 recommended load capacity for your vehicle listed in the Owner's Manual.
- Do not drive the vehicle at high speeds over unfamiliar or rough terrain. Personal injury or vehicle damage may result.
- Certain terrain and steep hills cannot be traversed safely with the J5. Do not attempt to drive over terrain that is questionable.
- Operate with caution and always be fully aware of your own and the J5's surroundings during operation..

IMPORTANT

Operate this vehicle with safety constantly in mind. Off-road vehicles face unpredictable and often hazardous terrain conditions. It is ultimately the operator's responsibility to handle the vehicle safely within its limitations and to decide when and where to travel.

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Storing the Vehicle

After using the J5, water and/or moisture may build up in the vehicle. Ensure that any excess water/moisture is removed prior to storing the vehicle. When the J5 is not in use, it is important to store the vehicle in a dry, indoor location.

Drain Plugs

The J5 is equipped with two drain plugs—one on each side of the drive units (see figure 1-1 for location).

To remove any water located inside the J5 (prior to storage):

- 1. Place the J5 on slight side-slope, so that one side of the vehicle (e.g., the wheels) are facing 'uphill'.
- 2. Locate the drain plugs—which are on each of the drive units (e.g., side of the vehicle; Figure 1-1). Twist drain plugs counterclockwise; drain plugs should remain in each drain hole using a tether-like system to help prevent misplacing them.
- 3. Prior to using the J5, ensure that both drain plugs are in place and properly tightened clockwise.

NOTE

Prior to using the J5, ensure that both drain plugs are in place and properly tightened; when in storage, the drain plugs shall be removed.

Checking the Lower Body

Periodically inspect the lower body of the vehicle for any cuts, punctures, and/or holes. Water may also enter through the outer bearing flange and gasket of each axle (Figure 1-2). Repair as needed to prevent water infiltration.

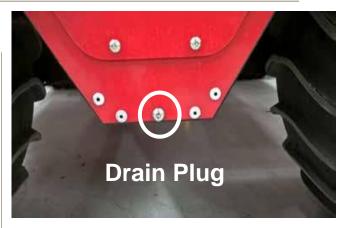


Figure 1-1. Location of 'side' drain plugs, located on the lower portion of each drive unit. To remove, simply unscrew the drain plug; be sure to replace drain plug before operation of the J5.



Figure 1-2. Outer bearing flange sealing area

Tires and Wheels

The tires of the J5 enable the vehicle to maneuver on the land and in the water. Without adequate tire pressure, loose lug nuts, or even improper tire direction, the operation of your J5 will be impeded. Tires should be inspected **every 6 months**—depending on the operating conditions as well as the type and frequency of use.

Tires should be inspected for:

- Even treadwear (e.g. tread should be worn out evenly)
- No slick or smooth spots
- No cracks, chips, or cuts in the tires
- No foreign objects in the tires
- General wear and tear signs of the tires Should your tires need replacing, please contact your Argo representative to place an order. Checking Lug Bolts

During the assembly process of the J5, tires and wheels are placed on the vehicle using five lug bolts per tire/wheel. Should a lug bolt come loose, use a #17 socket and torque tires to 35 ft. lbs. (e.g. see Figure 2-1).

To ensure each tire is going on even and straight, perform a 5-point approach to torquing the lug bolt (refer to Figure 2-2): using the given diagram, tighten you lug bolt in the correct order (e.g. 1 through 5), creating a 'star pattern'; complete the same sequence again to double-check that the bolt is torqued accordingly.



Figure 2-1. Air tool with #17 socket, torquing lug bolt to 35 ft. lbs..

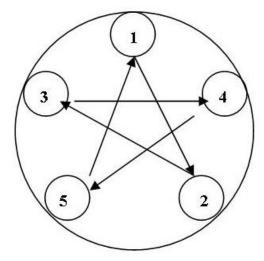


Figure 2-2. With a 5 lug bolt configuration, torque each nut to 35 ft. lbs.—following the pattern above.

Tire Repair & Maintenance

Improperly inflated tires can cause the vehicle to pull to one side, requiring constant steering correction. The recommended tire pressure for the J5 ARGO 24x10-8 tire **3 to 5 psi**.

Changing Tire Pressure for Different Terrain Conditions

The tire pressure should be adjusted between 3-5 psi—according to differences in terrain and loading conditions (e.g. higher pressure for harder surfaces). Observance of these guidelines will lead to less wear & tear on both vehicle and tires.

Tire Repair and Replacement

- 1. Completely remove tire from the rim by removing the lug bolts; locate lug bolts on tire and remove with air tool—with #17 socket.
- 2. Deflate tire fully, if applicable.
- 3. Mount new tire on the rim using a bead lubricant; spoon the tire onto the rim to prevent tire bead area damage. Ensure that the direction of the treads are pointing down in a 'V' shape—as indicated in Figure 3.2.
- Once tires are seated on rim, inflate between
 psi (24 kpa) and 5 psi (34kpa), with a maximum of 7 psi (48 kpa).
- 5. Mount the first tire on to the hub—ensuring that the treads are pointing in a 'V' direction (as seen in Figure 3.2) and install lug bolts—torquing tires to 35 ft. lbs.

NOTE

If the tire is in rough/worn shape (e.g. badly worn or damaged tires), replace with Argo tires.



Figure 3-1. Locate lug bolt—as circled in image above.



Figure 3-2. View from front of the J5: proper installation of tires should have direction of tread pointing in a 'V'.

Lubrication

Drive Chain Lubrication

The heart of your vehicle is based around the drive chain: your J5 vehicle is equipped with two endless chains—which do require some maintenance: chains in a clean environment can operate for extended periods; chains exposed to wet, high-dust, or extreme conditions, chains should be lubricated **every 20-50 hours of operation** with Argo Chain Lube —or more frequently in dirty or wet conditions. To lubricate chain:

- 1. Gather grease pump: ensure grease type is **\$2 V220 00** (Figure 4-1).
- 2. There are two grease nipples—which are located near the arm of the articulating suspension (see Figure 4-2)—on each side of the drive unit; use grease nipples to pump grease into the drive chain.
- 3. Pump about 8oz of grease into each hole; clean the area, removing all grease left on the drive unit bracket.
- 4. Re-install all four grease nipples into the holes and tighten with a 5/16 ratchet/socket wrench.
- 5. Run the drive motor until the chains have completed 3-4 full revolutions to fully coat the chains with oil.

Outboard Bearing Lubrication

Output shaft spline couplers are equipped with a grease fitting (Figure 4-3) to allow lubrication to the spline of the shaft and coupling connector. Lubricate every 100 hrs of operation with a lithium based, NLGI #2 or 3 mineral oil based grease; wipe off excess.



Figure 4-1. S2 V220 00 is used to grease the drive chain of t=J5 vehicles.



Figure 4-2. Location of the grease nipple—highlighted by the green circle.



Figure 4-3. Low-temperature grease gun applying grease to nipple located on the spline coupler

Bilge Pump

The bilge pump—like any other piece of equipment—may become obstructed, disconnected, or may stop working. There are a few maintenance measures to perform regularly to keep your bilge pumps in good, working order:

- Ensure that the outlet (Figure 5.1, item #6—
 hull fitting) is free and clear of any obstruction,
 and is not damaged (e.g. any trauma directed
 to the outlet/hull fitting);
- Inspect the hose (Figure 5.1, item #5—flex hose) for possible damage and/or visible obstruction in the line;
- Inspect float and float switch—free of debris and operable; and,
- Ensure intake screen stays clear and free of debris.

Having working bilge pumps is vital to remove any water that happens to get inside the vehicle. Perform the following inspections to troubleshoot the problem:

- Ensure power is being supplied to the pump;
- Check the electrical system—such as the fuse, relay, wiring, etc.—for any issues (e.g. frayed wiring, disconnected series, blown fuse, etc.);
- Ensure bilge pump termination (Figure 5.1, item #2—bilge pump 24V termination) is connected properly/plugged in;
- Inspect the float (Figure 5.2, item # 1—float switch) to make sure it is clear of debris and is operable; and,
- Check flex hose (Figure 5.1, item #5—flex hose) for possible damage and/or visible obstruction in the line.

If bilge pump is not working, contact Argo support staff to order—and any relevant accessories.

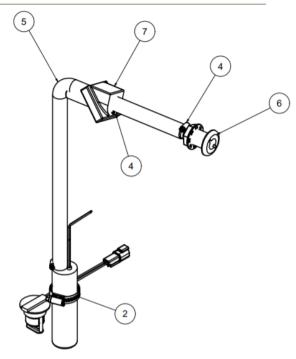


Figure 5.1. Right isometric view of the bilge pump assembly, which shows the 1.25" clamp (2), 5/8" clamp (4), flex hose (5), and hull fitting (6).

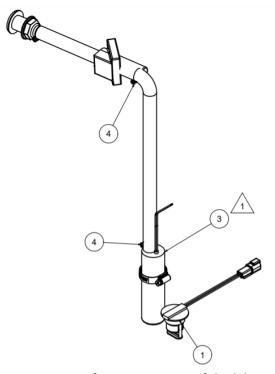


Figure 5.2. Left isometric view of the bilge pump assembly, which shows float switch (1), bilge pump 24V termination (3), and 5/8" clamp (4).

Maintenance Schedule		Things to check		
	Lubricate the chains every 20-50 hrs ; date and km at last chain lubrication: / / km		Are batteries holding a charge? Do they still last as long as intended?	
	Lubricate the outboard bearings every 20-40 hrs; date and km at last inner bearing lubrication:// km		Is the controller holding a charge? Does it last as long as intended?	
			Have you completed a full perimeter walk/inspection of the vehicle to make sure that the vehicle is in working order and/or does not need any repairs/maintenance?	
			Have you disconnected/removed both drain plugs from the unit?	
			Are tires inflated to appropriate psi (i.e. tires should be inflated between 3.0 and 5.0 psi—according to the terrain and load condition	
			Verify neutral function works.	
			Is there any damage to the wires harnesses and/or cables?	
			Have you checked the outer bearing flange for proper seal?	
			Inspect drive units and body for punctures and deep scratches that could cause leaking in water.	