



# SERVICE MANUAL

## 8x8 MODELS

- P - 750 HDi
- H - Avenger 750
- S - 700 HD, 700 EU
- X - 750 HDi SE
- V - Avenger 700, 700 EU





# Argo Service Manual



## How to use this manual

This manual is divided into general sections which are identified by a 2 letter designation. Find the section you want in the guide on this page, and then turn to the Table of Contents on page 1 of that section.

Each section begins with general information for servicing the assemblies listed in that section. The rest of the section outlines detailed servicing procedures and is accompanied by photographs & diagrams for easier use.



## Service Guide

<b>General Information.....</b>	<b>GI</b>
<b>Engine.....</b>	<b>EN</b>
<b>Electrical System.....</b>	<b>ES</b>
<b>Brake System.....</b>	<b>BR</b>
<b>Clutch System.....</b>	<b>CS</b>
<b>Fuel System.....</b>	<b>FS</b>
<b>Wheels,Axles&amp;Chains.....</b>	<b>WA</b>
<b>Transmission.....</b>	<b>TR</b>

# Argo Service Manual

# SECTION GI

## **General Information**

### **Table of Contents**

<b>Forward.....</b>	<b>GI-2</b>
<b>General Instructions.....</b>	<b>GI-3</b>
<b>Available Service Instruction.....</b>	<b>GI-4</b>
<b>Argo Vehicle Capacity.....</b>	<b>GI-5</b>
<b>Identification and Location of Controls.....</b>	<b>GI-6, 7</b>
<b>Argo Model Specifications.....</b>	<b>GI-8</b>
<b>Information Labels.....</b>	<b>GI-9</b>
<b>Argo Torque Specifications.....</b>	<b>GI-10, 11</b>
<b>Maintenance Chart.....</b>	<b>GI-12</b>
<b>Trouble Shooting Charts.....</b>	<b>GI-13, 14</b>
<b>Special Tools.....</b>	<b>GI-15, 16, 17 &amp; 18</b>

## Foreward

ODG has prepared this Argo Service Manual to assist qualified technicians of authorized ARGO dealers and distributors in providing fast and effective service and maintenance of the following ARGO vehicles

First **AVENGER** from ...V20905 January 29, 2004

First **HDi** from .... P28829 Aug 15, 2009

Proper and regular maintenance is essential to prolonging the life of the ARGO and will result in satisfied ARGO customers. Please refer to this Service Manual before performing any servicing procedure on any of the above vehicles.

This ARGO Service Manual provides information on maintenance procedures, service operations, and on the removal, disassembly, reassembly, and installation of components, parts, and assemblies.

All information contained in this service manual is based on the product specification records of Ontario Drive & Gear Ltd. If the ARGO that you are servicing differs from the specifications contained in this manual, contact Ontario Drive & Gear for information. ODG reserves the right to alter servicing procedures at any time without obligation or prior notification.

**Liability for any personal injury, or damage to property or an ARGO vehicle which is occasioned by the use of this Argo Service Manual, is in no way assumed by Ontario Drive & Gear Ltd.**

**ODG** Dedicated to Quality & Performance

# NOTE

Read your owner/operators manual *before* you operate your ARGO. 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. Ontario Drive & Gear Limited reserves the right to make changes at any time and without obligation.

Reproduction of any part of this publication is prohibited without prior written permission.

© Ontario Drive & Gear Limited, 2011

---

## Other Available Service Manuals

<b>Part number</b>	<b>670-00 -----</b>	<b>Service Manual for Models prior to 1977.</b>
<b>Part Number</b>	<b>673-00-----</b>	<b>Service Manual for Models to 1986</b>
<b>Part Number</b>	<b>673-01-----</b>	<b>Service Manual for 1987 Models</b>
<b>Part Number</b>	<b>673-02-----</b>	<b>Service Manual Supplement for NKB Models (1988)</b>
<b>Part Number</b>	<b>673-04-1 ---</b>	<b>(Paper) Service Manualfor Models from 1992 - 2002</b>
<b>Part Number</b>	<b>673-04CD ---</b>	<b>Service Manual for Models from 1992 - 2002</b>

### A MESSAGE FROM THE PEOPLE WHO BUILD THE ARGO

Ontario Drive & Gear Limited has been building ARGO vehicles since 1967. By listening carefully to our customers and responding to their needs, we have been constantly improving the ARGO and will continue to do so.






## Argo Vehicle Capacity

Vehicle capacity includes occupants, cargo, fuel, and all accessories. Capacity for occupants and cargo is reduced by the weight of accessories as shown in the chart below.

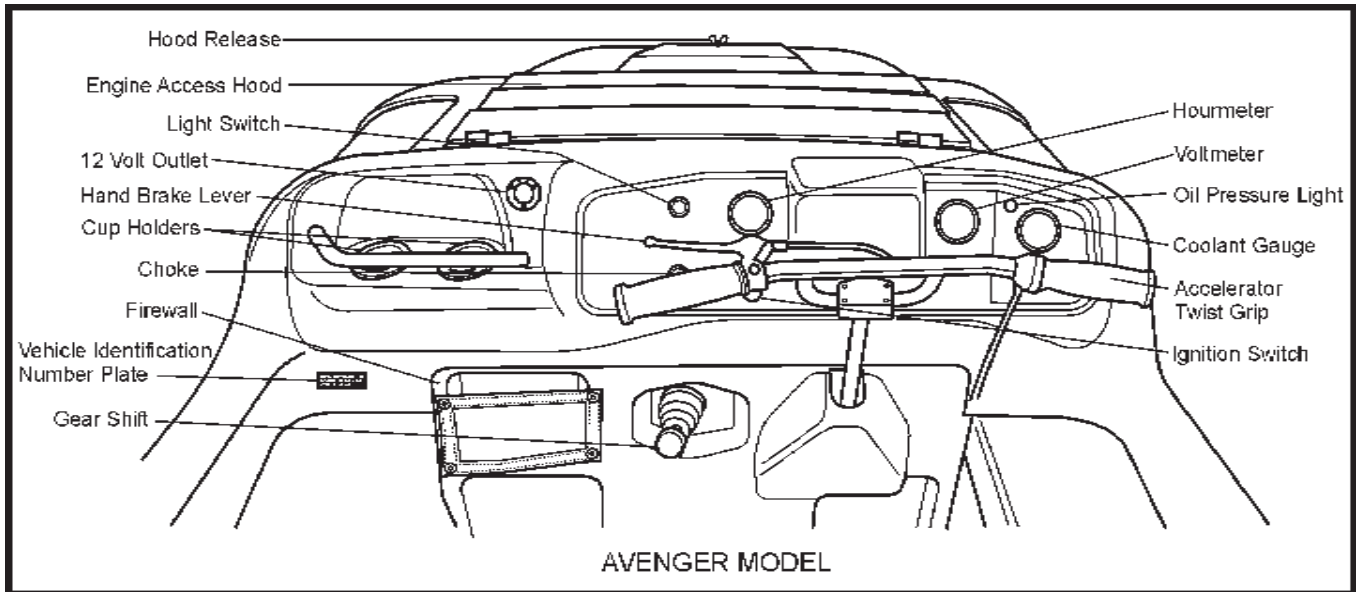
Available vehicle capacity must be reduced if your vehicle is equipped with any accessories. Reduce the available capacity by the total weight of accessories fitted to your vehicle.

<b>Accessory On Vehicle</b>	<b>Reduce By</b>			
	<b>On Land</b>		<b>On Water</b>	
Regular Tracks 6x6	135 lbs. (60 kg)		85 lbs. (40 kg)	
Regular Tracks 8x8	175 (80)		110 (50)	
Supertracks 6x6	145 (65)		90 (40)	
Supertracks 8x8	210 (95)		135 (60)	
Rubber Track Kit	240 (110)		(150) (68)	
Winch Kit	50 (23)		50 (23)	
Brush Guard	11 (5)		11 (5)	
Windshield	33 (15)		33 (15)	
Roll Bar 6x6	50 (23)		50 (23)	
ROPS 6x6	130 (60)		<b>SEE WARNING</b>	
ROPS 8x8	140 (64)		140 (64)	
ROPS Avenger	155 (70)		155 (70)	
Half Top	16 (7)		16 (7)	
Full Top 8x8	27 (12)		27 (12)	
Full Top 6x6	22 (10)		22 (10)	
Snow Plow	190 (85)		<b>SEE WARNING</b>	
Dump Box	100 (45)		500 (225)	
Suspension Seats	110 (50)		110 (50)	
Rear Bench Seat	34 (15)		34 (15)	

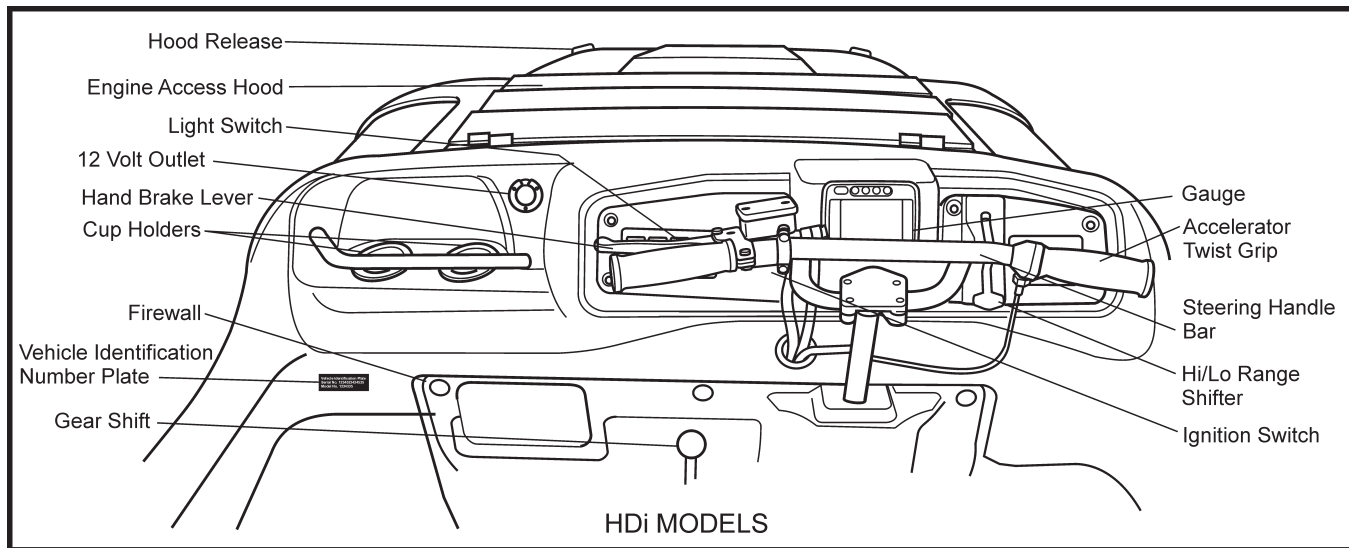
** WARNING**

*Do NOT use an Argo on water when equipped with a snow plow. Do NOT use an Argo 6x6 in water when equipped with a ROPS. The increased weight of the snow plow out front or the top-heavy weight of the ROPS on the 6x6 will make the Argo unstable and could cause the vehicle to capsize, causing injury or drowning to the driver and passengers.*

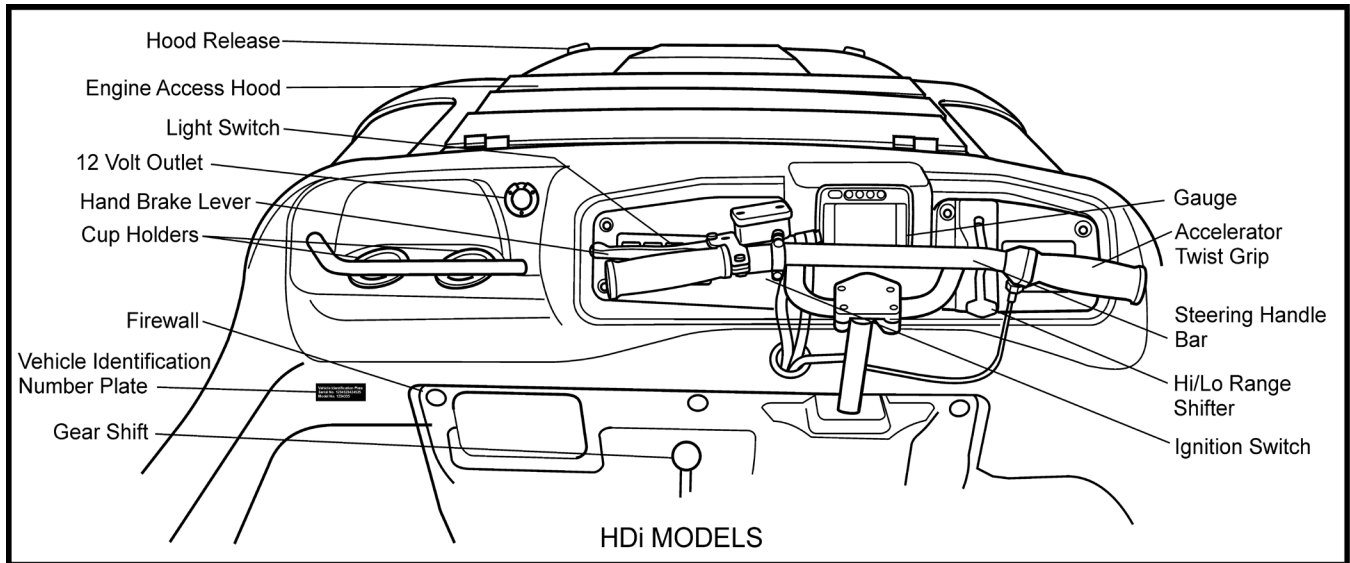
## 1.6 IDENTIFICATION AND LOCATION OF CONTROLS (Mechanical Guages)



## 1.6 IDENTIFICATION AND LOCATION OF CONTROLS (Digital Guage Pkg.)



## 1.6 IDENTIFICATION AND LOCATION OF CONTROLS (Avenger HDi Model)



## AVENGER Model Specifications

### AVENGER (V)

**Engine:** Kohler 685 cc (25 h.p.) or Kohler 690cc (26 h.p)  
 V-twin 4 cycle, liquid cooled  
**Transmission:** 2 forward speeds, neutral and reverse  
**Clutch:** Variable speed torque converter  
**Fuel Capacity:** 29 Litre (6.3 Imp. Ga., 7.6 U.S Gal.)  
**Steering/Brakes:** Hydraulic Caliper, 10.25" with holding brake system  
**Drive Chains:** Double RC-50 roller chains & Single RC 60 Roller chain  
**Electrical:** 12 volt D.C. battery, 495 cranking amps at 0 F;  
 25 Amp charging system, electronic ignition  
**Speed:** Land - 32 km/hr (20mph)  
 Water - 3 km/h (2 mph)  
**Load Capacity:** Land - 6 persons or 522kg (1150lbs)  
**SEE SECT.1.4.1** Water - 4 adults or 317kg (700lbs)  
**Tires:** 25x11.5-9NHS, 2 ply  
**Dry Weight:** 542kg (1195lbs)

### AVENGER (H)

**Engine:** Kohler 685 cc (25 h.p.) or Kohler 690cc (26 h.p)  
 V-twin 4 cycle, liquid cooled  
**Transmission:** 2 forward speeds, neutral and reverse  
**Clutch:** Variable speed torque converter  
**Fuel Capacity:** 29 Litre (6.3 Imp. Ga., 7.6 U.S Gal.)  
**Steering/Brakes:** Hydraulic Caliper, 10.25" with holding brake system  
**Drive Chains:** Double RC-50 roller chains & Single RC 60 Roller chain  
**Electrical:** 12 volt D.C. battery, 495 cranking amps at 0 F;  
 25 Amp charging system, electronic ignition  
**Speed:** Land - 32 km/hr (20mph)  
 Water - 3 km/h (2 mph)  
**Load Capacity:** Land - 6 persons or 522kg (1150lbs)  
**SEE SECT.1.4.1** Water - 4 adults or 317kg (700lbs)  
**Tires:** 25x11.5-9NHS, 2 ply

### AVENGER (HDi)

**Engine:** Kohler 685 cc (25 h.p.) or Kohler 690cc (26 h.p)  
 V-twin 4 cycle, liquid cooled  
**Transmission:** 2 forward speeds, neutral and reverse  
**Clutch:** Variable speed torque converter  
**Fuel Capacity:** 29 Litre (6.3 Imp. Ga., 7.6 U.S Gal.)  
**Steering/Brakes:** Hydraulic Caliper, 10.25" with holding brake system  
**Drive Chains:** Double RC-50 roller chains & Single RC 60 Roller chain  
**Electrical:** 12 volt D.C. battery, 495 cranking amps at 0 F;  
 25 Amp charging system, electronic ignition  
**Speed:** Land - 32 km/hr (20mph)  
 Water - 3 km/h (2 mph)  
**Load Capacity:** Land - 6 persons or 522kg (1150lbs)  
**SEE SECT.1.4.1** Water - 4 adults or 317kg (700lbs)  
**Tires:** 25x11.5-9NHS, 2 ply

## INFORMATION LABELS


There are labels on all models which indicate operating hazards and provide special operating instructions. Information about the use of the holding brake system, the use of the vehicle in water, correct fueling procedures and placement of the floorpans has been provided on distinctive coloured labels fastened to the various locations on the Argo.

**⚠ WARNING**


**IMPROPER USE OF THIS VEHICLE CAN RESULT IN SERIOUS INJURY OR DEATH. LOCATE AND READ OPERATOR'S MANUAL. FOLLOW ALL INSTRUCTIONS AND WARNINGS.**



**ALWAYS USE APPROVED HELMET AND EYE PROTECTION**



**ALWAYS WEAR AN APPROVED PERSONAL FLOTATION DEVICE (PFD) AND CARRY A PADDLE**



**NEVER DRIVE ON PUBLIC ROADS**



**NEVER USE WITH DRUGS OR ALCOHOL**

**NEVER OPERATE:**

- If you are under age 16
- Without proper training and instruction
- At speeds too fast for your skills or the conditions
- On public roads - a collision can occur with another vehicle
- Without all guards, shields, floor pans and hood in place
- Without checking throttle twist grip for proper operation/return

**ON LAND, ALWAYS:**

- Use proper driving techniques to avoid vehicle overruns on hills, rough terrain and in turns
- Avoid paved surfaces - pavement may seriously affect handling and control

**IN WATER, ALWAYS:**

- Use vehicle in calm water only as vehicle may sink if it fills with water
- Secure drain plugs and keep convertible top doors free for unrestricted exit
- Observe capacity limitations and keep load low and evenly distributed
- Enter and exit water on gradual terrain slope

Argo Operator's Manual posted on website [www.argoatv.com](http://www.argoatv.com)  
For replacement manual call 1-800-ARGOATV

**⚠ CAUTION**

- Start engine in neutral only.
- Shift gear only when at a full stop and engine is idling.

Ignition Label (HDi and HD)

**⚠ CAUTION**


**DO NOT shift when moving to avoid SEVERE transmission damage!**

Shifter Label (HDi and HD)

**⚠ CAUTION**

- Start engine in neutral only.
- Shift gear only when at a full stop and engine is idling.
- Hand brake lever lock is for temporary use only (must be properly adjusted; see Operator's Manual).

Off
Run



Ignition Plate (Avenger & Frontier)

**⚠ WARNING**

**HOT**

Hot Muffler - Warning

**⚠ WARNING**

VEHICLE	VEHICLE LOAD CAPACITY ON LAND		UNLADEN VEHICLE WEIGHT
	ON LAND	IN WATER*	
8x8 750 HDi	522 kg (1150 lbs)	454 kg (1000 lbs)	573 kg (1260 lbs)
8x8 700 HD	522 (1150)	454 (1000)	568 (1250)
6x6 650 HD	317 (700)	227 (500)	408 (900)
8x8 750 HDi SE	454 (1000)	386 (850)	641 (1410)
8x8 700 HD EU	454 (1000)	386 (850)	641 (1410)
8x8 700 EU	454 (1000)	386 (850)	637 (1400)

\*Suspension seat accessory reduces load capacity on land and in water by 50 kg (110 lbs) and increases unladen vehicle weight by the same amount.  
\*Capacity includes occupants, cargo, outboard motor and fuel, and all installed accessories. Maximum outboard motor size 7.4 kW (9.9 hp).

HITCH CAPACITY		TIRE INFLATION
Draw bar pull:	Vertical tongue load:	17 kPa (2.5 psi) minimum -
6x8 - 3110 N (700 lbs)	6x8 - 445 N (100 lbs)	48 kPa (7.0 psi) maximum
6x8 - 4450 N (1000 lbs)	6x8 - 445 N (100 lbs)	

Capacity Plate (HDi and HD)

**⚠ WARNING**

VEHICLE LOAD CAPACITY ON LAND:		VEHICLE LOAD CAPACITY IN WATER:	
6x6 - 317 kg (700 lbs)	6x6 - 227 kg (500 lbs)	8x8 Frontier - 454 kg (1000 lbs)	8x8 Avenger - 454 kg (1000 lbs)
8x8 Frontier - 454 kg (1000 lbs)	8x8 Frontier - 454 kg (1000 lbs)	Capacity includes occupants, cargo, outboard motor and fuel, and all installed accessories. Maximum outboard motor size 7.4 kW (9.9 hp)	
8x8 Avenger - 522 kg (1150 lbs)		<b>UNLADEN VEHICLE WEIGHT:</b>	
		6x6 Frontier 480/580 - 386 kg (850 lbs)	6x6 Frontier 650 - 404 kg (890 lbs)
		6x8 Frontier 650 - 476 kg (1050 lbs)	8x8 Avenger 700/750E1 - 567 kg (1250 lbs)

**TIRE INFLATION:** 17 kPa (2.5 psi) minimum - 48 kPa (7.0 psi) maximum

Capacity Plate (Avenger and Frontier)

ENGINE AIR INDEX (California only)

1 2 3 4 5 6 7 8 9 10

MOST CLEAN      LEAST CLEAN

SEEK THE LOWER THE AIR INDEX, THE LESS THE POLLUTION THIS ENGINE IS CAPABLE OF BEING OPERATED FOR THE FOLLOWING USE:

CHRONIC      INTERMEDIATE      EXTENDED

SEE OPERATOR'S MANUAL FOR FURTHER DETAILS

THIS LABEL TO BE REMOVED BY THE ULTIMATE PURCHASER ONLY!

CAUTION! CHECK OIL LEVEL BEFORE STARTING ENGINE.

Emissions Labels

**KOHLER**

IMPORTANT ENGINE INFORMATION  
THIS ENGINE MEETS U.S. EPA 13.6 kW (18 HP) and later and is a 4-stroke, 4-cylinder, liquid-cooled, air-cooled, overhead-valve, 4-cylinder engine.  
FAMILY:      MODEL:      PART NUMBER:      SERIAL NUMBER:  
DATE:      YEAR:      SERIAL NUMBER:      SERIAL NUMBER:  
SERIAL NO.      SERIAL NO.      SERIAL NO.      SERIAL NO.  
BUILD DATE      BUILD DATE      BUILD DATE      BUILD DATE

KOHLER ENGINE GROUP, INC.  
KOHLER ENGINE GROUP, INC.      1400 S. 24TH AVENUE  
PO BOX 1470      P.O. BOX 1470      P.O. BOX 1470      P.O. BOX 1470  
MILWAUKEE, WI 53214      MILWAUKEE, WI 53214      MILWAUKEE, WI 53214      MILWAUKEE, WI 53214  
KOHLER CO.      KOHLER CO.      KOHLER CO.      KOHLER CO.

**⚠ WARNING**

**GASOLINE:**

- Shut engine off when refueling
- Keep open flame away when refueling
- Check for and clean up spilled fuel immediately
- Tighten fuel cap securely
- See Operator's Manual for recommended fuel stabilizer

**⚠ WARNING**

**Keep floor pans securely in place. Moving chains can cause severe personal injury.**

Figure 1-1 Location of Information Labels - All Models

**ARGO Torque Specifications**

**Transmission**

Side Cover Bolts .....	216 IN. LBS.	24.3 Nm
Differential Bolts .....	35 FT. LBS.	47.5 Nm
Shifter Plate Bolts (Avenger) .....	75 IN. LBS.	8.5 Nm

**Intake & Exhaust**

Kohler Exhaust Man. to Engine (Avenger).....	204 IN. LBS.	23.2 Nm
--	--------------	---------

**Clutch System**

Driver Clutch Nut on Clutch.....	100 FT. LBS.	135.6 Nm
Driver Clutch Bolt to Engine .....	40 FT. LBS.	54.3 Nm
Driven Clutch Bolt to Input Shaft.....	15 FT. LBS.	20.3 Nm
Spring Cover Cap Screws .....	85IN. LBS.	9.6 Nm

**Powerpack Assembly**

Engine to Powerpack Frame .....	35 FT. LBS	47.5 Nm
Transmission to Powerpack Frame .....	75 FT. LBS.	101.7 Nm
Transmission to Powerpack Frame (HDi) .....	80 FT.LBS.	101.7 Nm
Brake Cooling Air Duct to Frame .....	35 IN.LBS.	4.0 Nm
Master Cylinder Mounting Bolts .....	96 IN. LBS.	10.7 Nm
Brake Bracket Mounting Bolts .....	240 IN. LBS.	27.1 Nm
Power Pack Bolts to Main Vehicle Frame .....	80 FT. LBS.	108.4 Nm

**Brake System - Hydraulic**

Brake Caliper to Transmission.....	45 FT. LBS.	61.0 Nm
Brake Caliper Assembly Bolts (M10) (Gremica) ...	33 FT. LBS.	44.8 Nm
Brake Caliper Assembly Bolts (M8) (Gremica) .....	17 FT. LBS.	23.2 Nm
Knott Brake Caliper Assembly Bolts.....	218 IN. LBS.	24.6 Nm
Service Brake Caliper Shoulder Bolts .....	30 FT. LBS	40.7Nm
Hydraulic Hose Bolts.....	180 IN. LBS.	20.3 Nm

## Argo Torque Specifications

Parking Brake/Band Brake Mounting Bolts (HDi).....	22FT.LBS.	30.0Nm
Service Brake Caliper Bolts (HDi).....	25 FT.LBS.	20.3Nm
Brake Disc to Output Shaft.....	30FT.LBS.	40.7Nm
Brake Sprocket to Disc (Avenger earlier models).....	15 FT. LBS	20.3Nm
Master Cylinder Lid Screws.....	Snug By Hand	
Upper Handle Bar Clamp Bolts .....	12 Ft. LBS	16.3Nm
Steering Shaft Nut.....	Tighten snug. Back off until lower washer can be turned by hand. Ensure shaft can be turned with minimal end play	

### Vehicle Body and Firewall

Hood Hinge Mounting Bolts.....	Snug By Hand	
Rear Seat Mounting Bolts.....	Snug By Hand	
Trailer Hitch Mounting Bolts.....	35 FT. LBS.	47.5Nm

### Frame and Drive System

Wheel Nuts.....	45 FT. LBS.	61.0Nm
Bearing Extensions.....	30 FT. LBS.	40.7Nm
Bearing Extension C/Bolts.....	240 IN. LBS.	27.1Nm
Bearing Extension Flange Nuts .....	30 FT. LBS.	40.7Nm
Bearing Extension Flange Bolts (2010 +).....	30 FT. LBS.	40.7Nm
Axle Flange Bolts.....	30 FT. LBS.	40.7Nm
Axle Sprocket Retaining Screws.....	144 IN. LBS.	16.4Nm
Axle Bearing Set Screws.....	10-15 IN. LBS.	11.1-Nm
Idler Shaft Bearing Set Screws (outer).....	10-15 IN.LBS.	11.1-Nm
Axle Retaining Bolt.....	35 FT. LBS.	47.5Nm
Wheel Stud Extensions.....	45 FT. LBS.	61.0Nm
Idler Shaft Coupler Bolts (HDi).....	22 FT.LBS.	30.0Nm

### Fuel System and Seat Assembly

Handrail Assembly to Upperbody Hand Tight Approx..	48 IN. LBS	5.4Nm
Backpad to Handrail Assembly.....	72 IN.LBS	8.1Nm
Seat Frame Assembly to Body.....	Snug By Hand	

	BEFORE EACH USE	AFTER INITIAL			EVERY				
		2hrs.	8hrs.	20hrs.	10hrs.	25hrs.	50hrs.	100hrs.	250hrs.
Check coolant level (Avenger)	X								
Check fan belt tension (Avenger)	X								
Check fuel level	X								
Check tire inflation	X								
Check twist grip throttle operation	X								
Check handlebar travel	X								
Check engine intake/exhaust for obstructions	X								
Check that drain plugs are in place	X								
Check engine oil level	X								
Change engine oil & oil filter									
- Kohler			X			X			
- Briggs & Stratton		X				X			
Check transmission oil level	X					X			
Change transmission oil			X				X		
Clean air pre-cleaner (Briggs only)					X				
Check clean/replace air filter							X		
Replace fuel filter (Kohler high pressure every 1000 hrs.)									X
Service driver & driven clutch									X
Lubricate drive chains				X					
Remove, clean & lube drive chains							X		
Lubricate idler chains (if equipped)				X					
Remove, clean & lube idler chains (if equipped)							X		
Lubricate axle flange - outer cavity					X				
Lubricate axle flange - inner cavity					X				
Lubricate outer axle bearings (if required)					X				
Lubricate inner axle bearings (if required)						X			
Lubricate output shafts					X				
Lubricate idler bearings						X			
Check battery fluid level & caps						X			
Clean battery terminals & connections							X		
Clean battery								X	
Clean, adjust/replace spark plugs							X		
Check the drive belt					X				
Check nylon sliders - driven clutch						X			
Check sliders - chain take-up system				X		X			
Check & adjust idler chains						X			
Inspect brake pads					X				
Inspect/adjust emergency/parking brake					X				
Check hydraulic brake fluid level/condition						X			
Check fuel tank connections/lines							X		
Inspect wiring harness							X		
Tighten bearing extension bolts		X					X		
Clean out spark arrester						X			

The intervals shown on the schedule are based on average operating conditions. Vehicles which are subjected to severe use and wet or dusty conditions will require more frequent servicing. Use only Argo replacement parts to ensure safe operation of the vehicle and to comply with the warranty coverage.

**We strongly recommend that an Argo Dealer perform a complete check-over of your vehicle after the initial 20 hours of operation, then once each year. This will reduce maintenance costs over the life of your vehicle.**

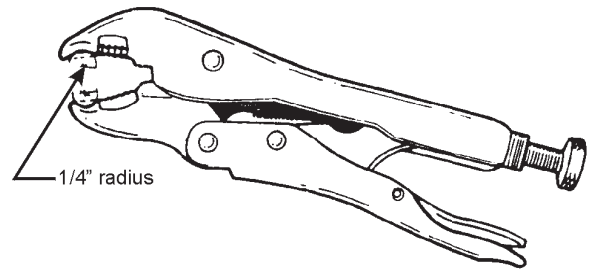


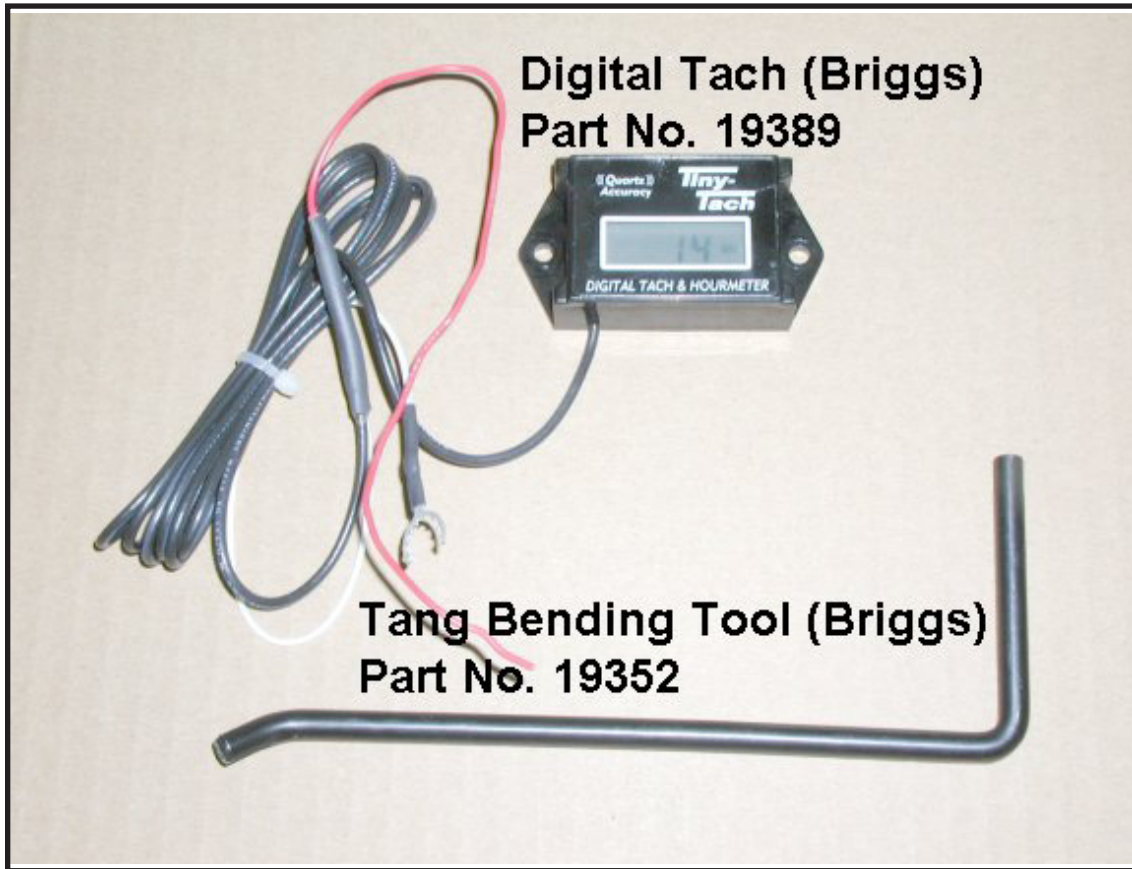
MALFUNCTION (SYMPTOM)	PROBABLE CAUSE	CORRECTIVE ACTION
<b>Electric starter inoperative</b>	<ol style="list-style-type: none"> <li>1. Loose electrical connections connections</li> <li>2. Battery charge low or dead</li> <li>3. Faulty starter motor dealer for servicing</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean and re-tighten electrical</li> <li>2. Recharge battery or replace as necessary</li> <li>3. Return the vehicle to an Argo</li> </ol>
<b>Engine turns over but won't start</b>	<ol style="list-style-type: none"> <li>1. Engine is cold and choke is not pulled</li> <li>2. Fuel tank is empty</li> <li>3. Blocked fuel or air filter filter as necessary</li> <li>4. Carburetor adjustment too lean manufacturer's manual</li> <li>5. Spark plugs defective or fouled</li> <li>6. Ignition system inoperative trained and equipped mechanic</li> <li>7. Insufficient compression authorized engine repair outlet</li> </ol>	<ol style="list-style-type: none"> <li>1. Pull out the choke and try to start out again</li> <li>2. Refill tank</li> <li>3. Remove obstruction or replace</li> <li>4. Adjust as detailed in the engine</li> <li>5. Clean and re-gap or replace</li> <li>6. Have unit serviced by a properly</li> <li>7. Take the vehicle to a factory</li> </ol>
<b>Engine will not run</b>		<ol style="list-style-type: none"> <li>1. Refer to engine manual</li> </ol>
<b>Vehicle will not move or turn</b>	<ol style="list-style-type: none"> <li>1. Transmission in neutral or not properly engaged in gear</li> <li>2. Drive belt worn (see Section 7.2.1)</li> <li>3. Clutch not engaging dealer for servicing</li> <li>4. Transmission failure</li> <li>5. Brakes not functioning pads</li> <li>6. Idler chain broken</li> <li>7. Idler sprocket weld broken dealer</li> </ol>	<ol style="list-style-type: none"> <li>1. Place gear shift properly in gear</li> <li>2. Replace belt if worn excessively</li> <li>3. Return the vehicle to an Argo</li> <li>4. Same as 3. above</li> <li>5. Adjust caliper or replace brake</li> <li>6. Repair or replace</li> <li>7. Have vehicle serviced by an Argo</li> </ol>
<b>Vehicle pulls to right</b>	<ol style="list-style-type: none"> <li>1. Right tire pressure too low</li> <li>2. Left tire pressure too high</li> <li>3. Right brake engaged</li> <li>4. Right side drive chain broken</li> </ol>	<ol style="list-style-type: none"> <li>1. Inflate all tires to the correct pressure</li> <li>2. Same as above</li> <li>3. Make sure the handlebar is held parallel to the dash. Adjust brake assembly if required.</li> <li>4. Repair or replace</li> </ol>
<b>Vehicle pulls to left</b>	<ol style="list-style-type: none"> <li>1. See "Vehicle pulls to right" - substitute right with left</li> </ol>	
<b>HDi - Vehicle does not shift into Hi from Low or Low from Hi</b>	<ol style="list-style-type: none"> <li>1. Hi/Low shift cable adjustment</li> </ol>	<ol style="list-style-type: none"> <li>1. Take the vehicle to an Argo dealer for servicing</li> </ol>
<b>Handbrake failure - Avenger and Frontier - HDi</b>	<ol style="list-style-type: none"> <li>1. Worn brake pads, brake cable adjustment</li> <li>2. Worn brake pads</li> <li>3. Leaking caliper or brake lines or air in system</li> </ol>	<ol style="list-style-type: none"> <li>1. Change pads or adjust brake cable</li> <li>2. Change pads</li> <li>3. Take the vehicle to an Argo dealer for servicing</li> </ol>

MALFUNCTION (SYMPTOM)	PROBABLE CAUSE	CORRECTIVE ACTION
<b>Severe vibration when vehicle is operated</b>	<ol style="list-style-type: none"> <li>1. Engine loose on mounts</li> <li>2. Driver or driven clutch or engine defective</li> <li>3. Axle bent</li> <li>4. Wheel rim bent</li> <li>5. Worn or damaged drive belt</li> </ol>	<ol style="list-style-type: none"> <li>1. Take vehicle to an Argo dealer for service.</li> <li>2. Same as above.</li> <li>3. Remove and straighten or replace.</li> <li>4. Replace.</li> <li>5. Replace. Clutch service may be required.</li> </ol>
<b>Water leaks into lower body</b>	<ol style="list-style-type: none"> <li>1. Leak has developed at the axle bearing flange</li> <li>2. Bearing flange seal has been damaged</li> <li>3. Water is leaking in around the outer bearing flange bolts</li> <li>4. Lower body is cut or punctured</li> <li>5. Drain plugs not in place</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace the bearing flange gaskets.</li> <li>2. Replace the bearing flange seal.</li> <li>3. Caulk under 103-81 bolt heads with silicone sealer.</li> <li>4. Repair or replace vehicle lower body</li> <li>5. Secure drain plugs.</li> </ol>
<b>Tire leaks air</b>	<ol style="list-style-type: none"> <li>1. Tire is punctured</li> <li>2. Tire is not properly seated on bead</li> <li>3. Position of air leak is not obvious</li> <li>4. Defective valve</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove tire from rim and repair the hole with a radial tire patch or install a tube in the tire.</li> <li>2. Deflate tire and carefully push tire bead off the rim. Clean the rim bead area to remove dirt and foreign matter. Re-inflate tire.</li> <li>3. Submerge tire and rim in a water tank. Air may be escaping through the rim halves or the valve stem. Repair as required.</li> <li>4. Replace defective valve.</li> </ol>
<b>Hydraulic brakes are spongy, or there is excessive handle bar travel</b>	<ol style="list-style-type: none"> <li>1. Air in hydraulic system</li> <li>2. Leak in system</li> <li>3. Loose brakes</li> </ol>	<ol style="list-style-type: none"> <li>1. Have an Argo dealer bleed the brake</li> <li>2. Have an Argo dealer check all fittings, hoses, calipers and seals for loose connections or leakage. Refill as needed.</li> <li>3. Adjust or tighten.</li> </ol>
<b>Brakes ineffective</b>	<ol style="list-style-type: none"> <li>1. Pads have overheated and glazed</li> <li>2. Pads worn beyond 0.10"</li> <li>3. Pads are contaminated with lubricant</li> </ol>	<ol style="list-style-type: none"> <li>1. Have the pads cleaned by an Argo dealer or replace pads.</li> <li>2. Replace.</li> <li>3. Have the pads cleaned by an Argo dealer or replace pads.</li> </ol>
<b>There is a loud bang when the vehicle is turned right or left</b>	<ol style="list-style-type: none"> <li>1. Idler chains worn/loose</li> <li>2. Drive chains worn/loose</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust/replace idler chains as required.</li> <li>2. Adjust/replace drive chains as required.</li> </ol>
<b>Vehicle does not steer left or right</b>	<ol style="list-style-type: none"> <li>1. Worn or contaminated brake pads</li> <li>2. Leaking caliper or brake lines or air in system</li> </ol>	<ol style="list-style-type: none"> <li>1. Change pads</li> <li>2. Take the vehicle to an Argo dealer for servicing</li> </ol>

## 7R VICE GRIP MODIFICATION

A pair of modified 7R Vice Grips is required to hold the ends of the drive chain together while inserting the connecting link. This tool can also be used to hold the ends of the idler chain together while inserting the connecting link. Grind the undercut and sides of the vice grip jaw to fit over 2 chain rollers. The undercut is approximately 1/4" radius as shown.





**Digital Tach (Briggs)  
Part No. 19389**

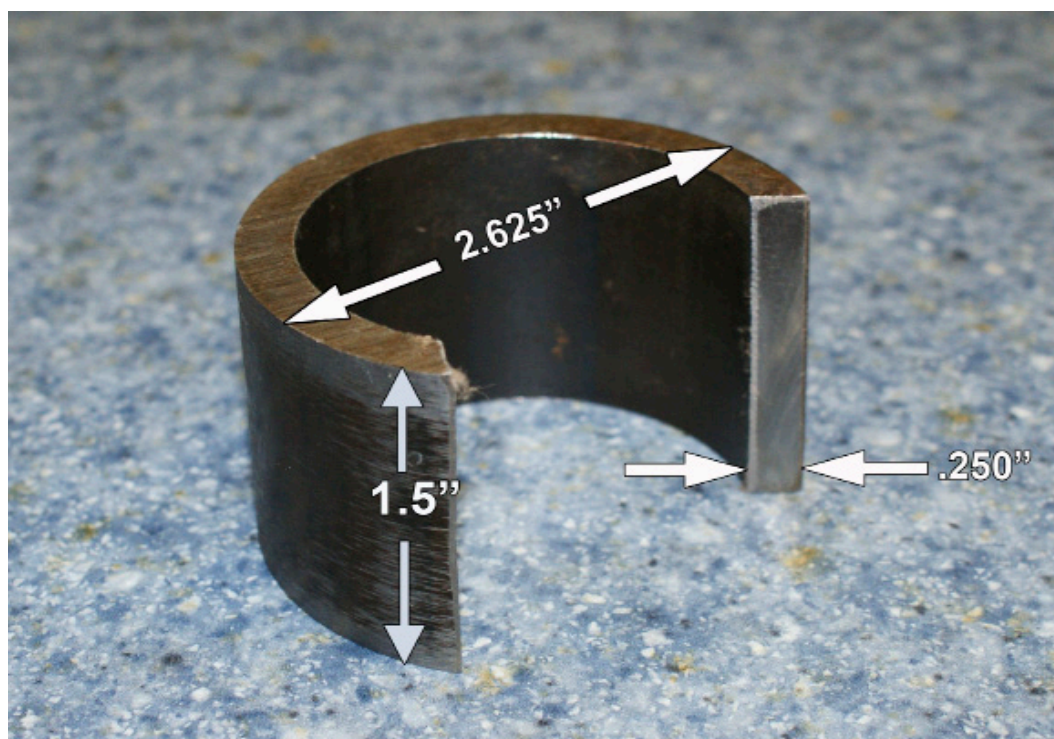
**Tang Bending Tool (Briggs)  
Part No. 19352**



**Leak down tester- Briggs & Stratton Part No. 19545**  
(can be used for all small engines)



**Driven Clutch Assembly/Disassembly Tool  
Part No. 5055-0002 Available from....**



**Extension Spacer Required for Invince Driven Clutch Dis-assembly/Reassembly. Used in conjunction with 5055-0002 Clutch Tool. Make according to dimensions.**



**Kohler EFI Service Kit**

**Part No. 24 761 01**



**Sold Separately**

FZ 128 Cooling System Adapter  
Available through your local  
automotive store

**Cooling System Pressure Tester Kit - ST 270 12270**

Available at your local automotive parts store