

AMT600, AMT622 and AMT626 All Material Transporters

For complete service information also see:

**John Deere K Series Air Cooled
Engines CTM5**

**John Deere Horicon Works
TM1363 (15AUG91)**

LITHO IN U.S.A.
ENGLISH

Introduction

FOREWORD

This manual is written for an experienced technician. Essential tools required in performing certain service work are identified in this manual and are recommended for use.

Live with safety: Read the safety messages in the introduction of this manual and the cautions presented throughout the text of the manual.



This is the safety-alert symbol. When you see this symbol on the machine or in this manual, be alert to the potential for personal injury.

Technical manuals are divided in two parts: repair and diagnostics. Repair sections tell how to repair the components. Diagnostic sections help you identify the majority of routine failures quickly.

Information is organized in groups for the various components requiring service instruction. At the beginning of each group are summary listings of all applicable essential tools, other materials needed to do the job and service parts kits.

Section 10, Group 15—Repair Specifications, consist of all applicable specifications, wear tolerances and specific torque values for various components on each individual machine.

Binders, binder labels, and tab sets can be ordered by John Deere dealers direct from the John Deere Distribution Service Center.

This manual is part of a total product support program.

FOS MANUALS—REFERENCE

TECHNICAL MANUALS—MACHINE SERVICE

COMPONENT MANUALS—COMPONENT SERVICE

Fundamentals of Service (FOS) Manuals cover basic theory of operation, fundamentals of troubleshooting, general maintenance, and basic type of failures and their causes. FOS Manuals are for training new personnel and for reference by experienced technicians.

Technical Manuals are concise guides for specific machines. Technical manuals are on-the-job guides containing only the vital information needed for diagnosis, analysis, testing, and repair.

Component Technical Manuals are concise service guides for specific components. Component technical manuals are written as stand-alone manuals covering multiple machine applications.

JOHN DEERE DEALERS

This is a complete revision for TM1363 AMT600 and AMT622 All Material Transporter.

Discard TM1363 dated (09MAY90) and replace with this manual.

New information added to this manual includes:

1. AMT626 repair and diagnostic information.
2. Fuel pump is no longer serviceable.
3. Steering gear repair information has been revised as a result of a steering ratio change.

4. Rear axle installation procedure was changed to improve brake disk alignment.

5. Long axle extension kit specifications were added to axle installation procedures.

NOTE: For complete engine repair information, CTM5 John Deere K-Series Air Cooled Engines Component Technical Manual is also required. Use the component technical manual in conjunction with this machine manual.

Click on the image link below for the full version of the service manual



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All information, illustrations and specifications in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

TM1363-19-15AUG91

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RECOGNIZE SAFETY INFORMATION

This is the safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.



DX,ALERT -19-04JUN90

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UNDERSTAND SIGNAL WORDS

A signal word—DANGER, WARNING, or CAUTION—is used with the safety-alert symbol. DANGER identifies the most serious hazards.

DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.



DX,SIGNAL -19-04JUN90

-19-30SEP88
TS187

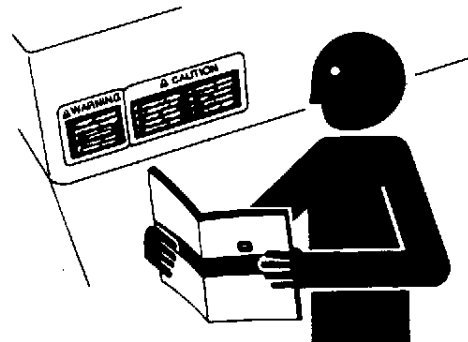
FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from your John Deere dealer.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual and need assistance, contact your John Deere dealer.



DX,READ -19-04JUN90

-UN-23AUG88
TS201

HANDLE FLUIDS SAFELY—AVOID FIRES

When you work around fuel, do not smoke or work near heaters or other fire hazards.

Store flammable fluids away from fire hazards. Do not incinerate or puncture pressurized containers.

Make sure machine is clean of trash, grease, and debris.

Do not store oily rags; they can ignite and burn spontaneously.



DX,FLAME -19-04JUN90

TS227 -UN-23AUG88

PREVENT BATTERY EXPLOSIONS

Keep sparks, lighted matches, and open flame away from the top of battery. Battery gas can explode.

Never check battery charge by placing a metal object across the posts. Use a volt-meter or hydrometer.

Do not charge a frozen battery; it may explode. Warm battery to 16°C (60°F).



DX,SPARKS -19-04JUN90

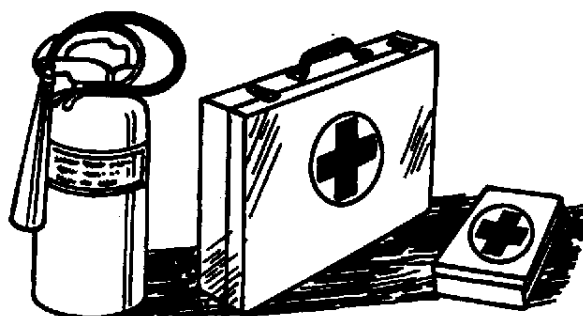
TS204 -UN-23AUG88

PREPARE FOR EMERGENCIES

Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.



DX,FIRE2 -19-04JUN90

TS291 -UN-23AUG88

PREVENT ACID BURNS

Sulfuric acid in battery electrolyte is poisonous. It is strong enough to burn skin, eat holes in clothing, and cause blindness if splashed into eyes.

Avoid the hazard by:

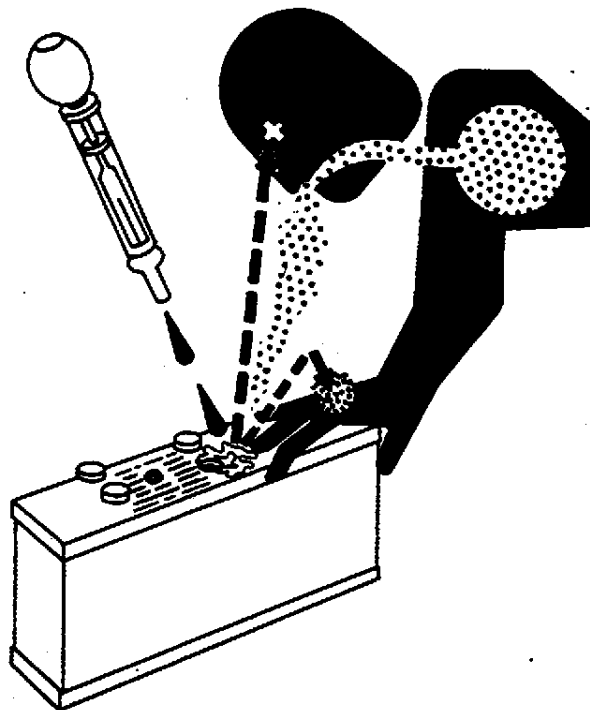
1. Filling batteries in a well-ventilated area.
2. Wearing eye protection and rubber gloves.
3. Avoiding breathing fumes when electrolyte is added.
4. Avoiding spilling or dripping electrolyte.
5. Use proper jump start procedure.

If you spill acid on yourself:

1. Flush your skin with water.
2. Apply baking soda or lime to help neutralize the acid.
3. Flush your eyes with water for 10—15 minutes. Get medical attention immediately.

If acid is swallowed:

1. Drink large amounts of water or milk.
2. Then drink milk of magnesia, beaten eggs, or vegetable oil.
3. Get medical attention immediately.



DX,POISON -19-04JUN90

TS203 -UN-23AUG88

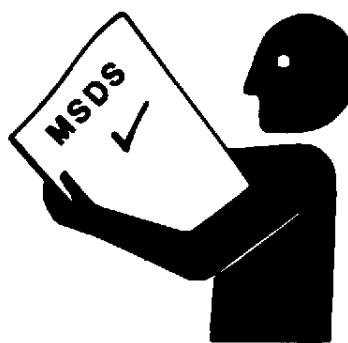
HANDLE CHEMICAL PRODUCTS SAFELY

Direct exposure to hazardous chemicals can cause serious injury. Potentially hazardous chemicals used with John Deere equipment include such items as lubricants, coolants, paints, and adhesives.

A Material Safety Data Sheet (MSDS) provides specific details on chemical products: physical and health hazards, safety procedures, and emergency response techniques.

Check the MSDS before you start any job using a hazardous chemical. That way you will know exactly what the risks are and how to do the job safely. Then follow procedures and recommended equipment.

(See your John Deere dealer for MSDS's on chemical products used with John Deere equipment.)



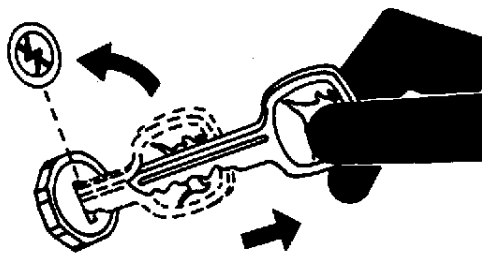
DX,MSDS,NA -19-15MAR91

TS1132 -UN-26NOV90

PARK MACHINE SAFELY

Before working on the machine:

- Stop the engine and remove the key.
- Disconnect the battery ground strap.
- Hang a "DO NOT OPERATE" tag on handlebar or steering wheel.



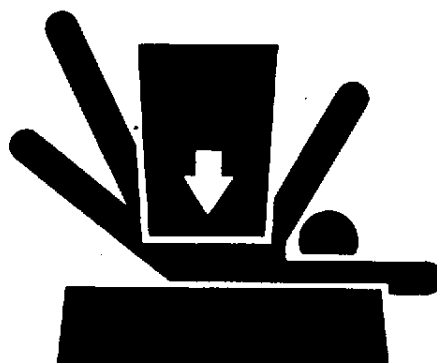
WX,622,TMSY,A -19-09MAY90

TS230
-UN-24MAY89

SUPPORT MACHINE PROPERLY

If you must work on a raised machine be sure it is supported properly.

Do not support the machine on cinder blocks, hollow tiles, or props that may crumble under continuous load. Do not work under a machine that is supported solely by a jack, use safety stands.



WX,622,TMSY,B -19-09MAY90

TS229
-UN-23AUG88

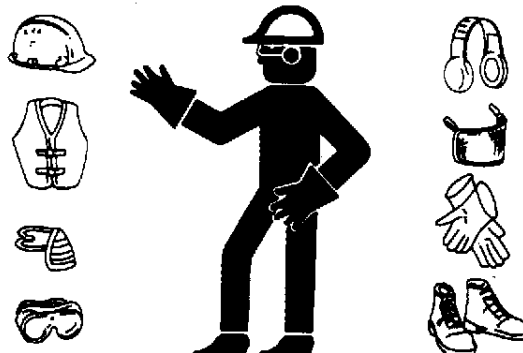
WEAR PROTECTIVE CLOTHING

Wear close fitting clothing and safety equipment appropriate to the job.

Prolonged exposure to loud noise can cause impairment or loss of hearing.

Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.

Operating equipment safely requires the full attention of the operator. Do not wear radio or music headphones while operating machine.



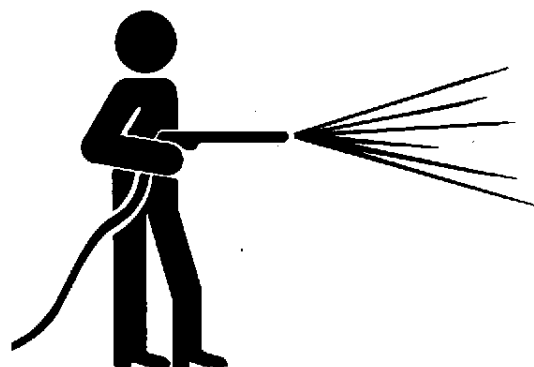
DX,WEAR -19-10SEP90

TS206
-UN-23AUG88

WORK IN CLEAN AREA

Before starting a job:

- Clean work area and machine.
- Make sure you have all necessary tools to do your job.
- Have the right parts on hand.
- Read all instructions thoroughly; do not attempt shortcuts.



DX,CLEAN -19-04JUN90

T6642EJ -UN-18OCT88

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SERVICE TRANSPORTER SAFELY

Before you make repairs or adjustments—stop the engine, shift to neutral, and lock parking brake.

If service requires, lift and secure cargo box.

Do not change engine governor settings or overspeed engine.

Before you work on any part of engine, let it cool. Hot engine parts can burn skin on contact.

Do not run engine for any type of service work, unless park brake is locked.



W14979 -UN-28JUN89

WX,622,TMSY,C -19-09MAY90

AVOID ENTANGLEMENT IN DRIVES

Do not start engine by shorting across starter terminals. Machine will start in gear if normal circuitry is by passed.

NEVER start engine while standing on ground. Start engine only from operator's seat, with transaxle in neutral with park brake engaged.

Tie long hair behind your head. Do not wear a necktie, scarf, loose clothing, or necklace when you work near machine tools or moving parts. If these items were to get caught, severe injury could result.

Remove rings and other jewelry to prevent electrical shorts and entanglement in moving parts.



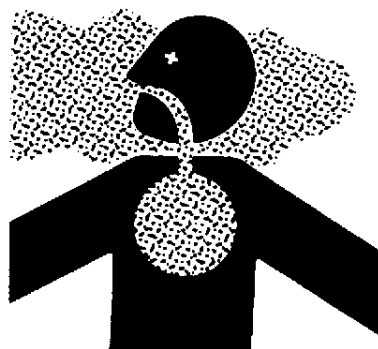
W14661 -UN-12OCT88

WX,622,TMSY,D -19-09MAY90

WORK IN VENTILATED AREA

Engine exhaust fumes can cause sickness or death. If it is necessary to run an engine in an enclosed area, remove the exhaust fumes from the area with an exhaust pipe extension.

If you do not have an exhaust pipe extension, open the doors and get outside air into the area.



DX,AIR -19-04JUN90

TS220
-UN-23AUG88

ILLUMINATE WORK AREA SAFELY

Illuminate your work area adequately but safely. Use a portable safety light for working inside or under the machine. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.

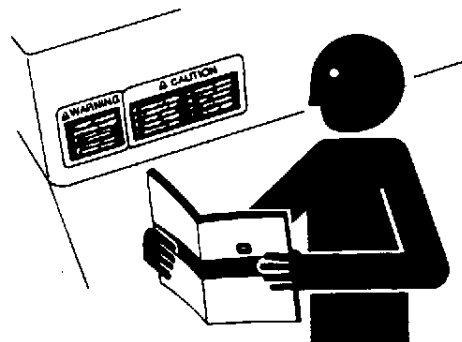


DX,LIGHT -19-04JUN90

TS223
-UN-23AUG88

REPLACE SAFETY SIGNS

Replace missing or damaged safety signs. See the machine operator's manual for correct safety sign placement.



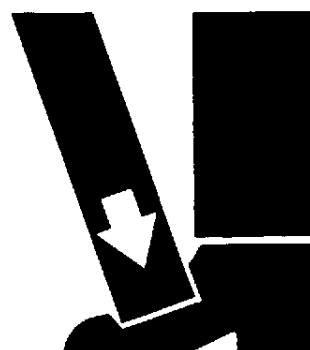
DX,SIGNS1 -19-04JUN90

TS201
-UN-23AUG88

USE PROPER LIFTING EQUIPMENT

Lifting heavy components incorrectly can cause severe injury or machine damage.

Follow recommended procedure for removal and installation of components in the manual.



DX,LIFT -19-04JUN90

TS226
-UN-23AUG88

SERVICE TIRES SAFELY

Explosive separation of a tire and rim parts can cause serious injury or death.

Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job.

Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure. Never weld or heat a wheel and tire assembly. The heat can cause an increase in air pressure resulting in a tire explosion. Welding can structurally weaken or deform the wheel.

When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available.

Check wheels for low pressure, cuts, bubbles, damaged rims or missing lug bolts and nuts.



DX,TIRECP -19-24AUG90

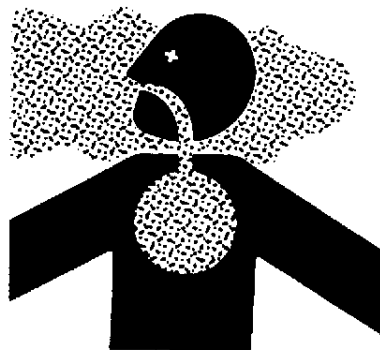
AVOID HARMFUL ASBESTOS DUST

Avoid breathing dust that may be generated when handling components containing asbestos fibers. Inhaled asbestos fibers may cause lung cancer.

Components in products that may contain asbestos fibers are brake pads, brake band and lining assemblies, clutch plates, and some gaskets. The asbestos used in these components is usually found in a resin or sealed in some way. Normal handling is not hazardous as long as airborne dust containing asbestos is not generated.

Avoid creating dust. Never use compressed air for cleaning. Avoid brushing or grinding material containing asbestos. When servicing, wear an approved respirator. A special vacuum cleaner is recommended to clean asbestos. If not available, apply a mist of oil or water on the material containing asbestos.

Keep bystanders away from the area.



DX,DUST -19-15MAR91

REMOVE PAINT BEFORE WELDING OR HEATING

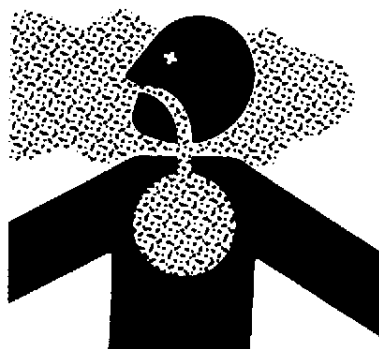
Avoid potentially toxic fumes and dust.

Hazardous fumes can be generated when paint is heated by welding, soldering, or using a torch.

Do all work outside or in a well ventilated area. Dispose of paint and solvent properly.

Remove paint before welding or heating:

- If you sand or grind paint, avoid breathing the dust. Wear an approved respirator.
- If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from area. Allow fumes to disperse at least 15 minutes before welding or heating.



DX,PAINT -19-04JUN90

TS220 -UN-23AUG88

USE PROPER TOOLS

Use tools appropriate to the work. Makeshift tools and procedures can create safety hazards.

Use power tools only to loosen threaded parts and fasteners.

For loosening and tightening hardware, use the correct size tools. DO NOT use U.S. measurement tools on metric fasteners. Avoid bodily injury caused by slipping wrenches.

Use only service parts meeting John Deere specifications.



DX,REPAIR -19-04JUN90

TS779 -UN-08NOV89

DISPOSE OF WASTE PROPERLY

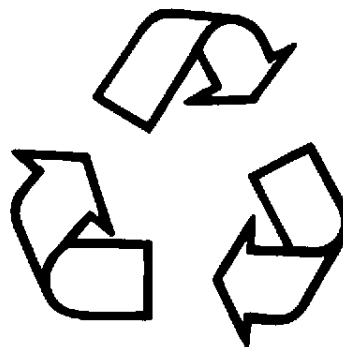
Improperly disposing of waste can threaten the environment and ecology. Potentially harmful waste used with John Deere equipment include such items as oil, fuel, coolant, brake fluid, filters, and batteries.

Use leakproof containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.

Do not pour waste onto the ground, down a drain, or into any water source.

Air conditioning refrigerants escaping into the air can damage the Earth's atmosphere. Government regulations may require a certified air conditioning service center to recover and recycle used air conditioning refrigerants.

Inquire on the proper way to recycle or dispose of waste from your local environmental or recycling center, or from your John Deere dealer.



DX,DRAIN -19-09AUG91

LIVE WITH SAFETY

Before returning machine to customer, make sure machine is functioning properly, especially the safety systems. Install all guards and shields.



DX,LIVE -19-04JUN90

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TS1133 -UN-26NOV90

TS231 -19-07OCT88

MACHINE SPECIFICATIONS - AMT622**ENGINE**

Horsepower	7.5 kW (10 hp)
Manufacturer	Kawasaki
Cylinders	1
Strokes/Cycle	4
Cooling	Air
Air Cleaner	Dry
Displacement	290 cc (17.7 cu in)
Compression Ratio	8.4 : 1

ENGINE SPEEDS

Slow Idle (no load)	1300 rpm
Fast Idle (no load)	4000 rpm

CAPACITIES

Fuel Tank	18 L (4.75 gal)
Crankcase	1.1 L (1.2 qt)
Transaxle	2.3 L (2.5 qt)

ELECTRICAL SYSTEM

Alternator	13 amps
Battery Cold Capacity at 0°F (-18°C)	255 amps
Battery	BCI-U-1 12 V
Regulator	Solid State

TRANSMISSION

Type	Belt-Driven Torque Converter With Gear-Driven Transaxle
Speeds	Forward—Neutral—Reverse

TRAVEL SPEEDS

Forward	26 km/h (16 mph)
Reverse	26 km/h (16 mph)

BRAKE Mechanically Operated Disc

DIMENSIONS

Width Overall	1372mm (54 in)
Height Overall	1245mm (49 in)
Length Overall	2690mm (106 in)
Ground Clearance	250mm (10 in)

TIRES

Front	22.5 x 10.00—8
Rear	25 x 12.00—9

INFLATION PRESSURE

Front/Rear	34—41 kPa (5—6 psi) (0.34—0.41 bar)
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NET WEIGHT (approx.) 390 kg (860 lb)

PAYLOAD CAPACITY 272 kg (600 lb)

TOWING CAPACITY 454 kg (1000 lb)

Specifications and design subject to change without notice.

WX,622,SPEC.B -19-09MAY90

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HAUL TRANSPORTER SAFELY

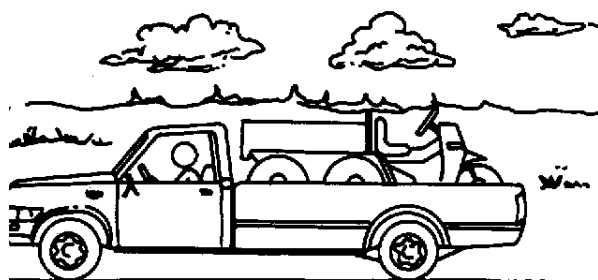
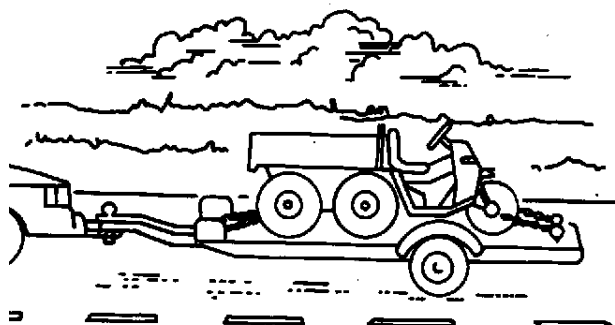
Do not tow transporter behind any other vehicle.

Use a heavy-duty trailer or truck box to haul your transporter.

Lock park brake.

Fasten transporter securely to trailer or full size pick up or larger truck with straps, chains, or cables.

Be sure trailer or truck has all the necessary lights and signs required by local, state, provincial, or federal laws.



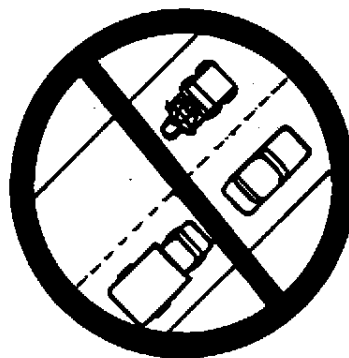
W14667 -UN-12OCT88

WX,622,4SY,K -19-12JUN89

KEEP OFF ROADWAYS

This machine intended for off road use only.

Do not operate transporter on a roadway.



RW12184 -UN-21NOV88

WX,622,TMSY,E -19-09MAY90

OPERATE TRANSPORTER SAFELY

Sit on center of seat and keep both feet on foot platform at all times. Never operate transporter while standing.

Always use both hands for steering.

Before leaving the operator's station:

- Come to complete halt.
- Stop engine.
- Shift to neutral.
- Set parking brake.
- Remove key.

WX,622,TMSY,F -19-09MAY90

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MACHINE SPECIFICATIONS - AMT600

ENGINE

Horsepower	6.3 kW (8.5 hp)
Manufacturer	Kawasaki
Cylinders	1
Strokes/Cycle	4
Cooling	Air
Air Cleaner	Semi-Wet
Displacement	341 cc (20.9 cu in)
Compression Ratio	6.0 : 1

ENGINE SPEEDS

Slow Idle (no load)	1300 rpm
Fast Idle (no load)	4000 rpm

CAPACITIES

Fuel Tank	18 L (4.75 gal)
Crankcase	1.2 L (1.3 qt)
Transaxle	2.3 L (2.5 qt)

ELECTRICAL SYSTEM

Alternator	11 amps
Battery Cold Capacity at 0°F (-18°C)	255 amps
Battery	BCI-U-1 12 V
Regulator	Solid State

TRANSMISSION

Type	Belt-Driven Torque Converter With Gear-Driven Transaxle
Speeds	Forward—Neutral—Reverse

TRAVEL SPEEDS

Forward	26 km/h (16 mph)
Reverse	26 km/h (16 mph)

BRAKE **Mechanically Operated Disc**

DIMENSIONS

Width Overall	1300 mm (51 in)
Height Overall	1040 mm (41 in)
Length Overall	2590 mm (102 in)
Ground Clearance	250 mm (10 in)

TIRES

Front	22.5 x 10.00—8
Rear	25 x 12.00—9

INFLATION PRESSURE

Front/Rear	34—41 kPa (5—6 psi) (0.34—0.41 bar)
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NET WEIGHT (approx.) **363 kg (800 lb)**

PAYLOAD CAPACITY **272 kg (600 lb)**

TOWING CAPACITY **454 kg (1000 lb)**

Specifications and design subject to change without notice.

WX,622,SPEC.A -19-09MAY90