BARTELL GLOBAL

OWNER'S MANUAL

POWER BUGGY

DB17, DB21

Doc. # OI-B19034
Orig. Rel – 00/2016
Curr Rev. – 04

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200 Commerce Drive, Unit A
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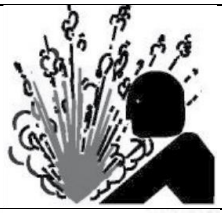
ORIGINAL LANGUAGE OPERATING MANUAL FOR BARTELL RIDE-ON TROWELS

ADDRESS INQUIRIES OR REFERENCE PERMISSIONS CARE OF:
Bartell Global, 170 Traders Blvd E., Mississauga, Ontario, Canada, L4Z 1W7

REV.	DATE	DESCRIPTION	APPROVED BY:
01	13/02/17	Oil Level Changed to 3" in Maintenance Section	B. Murray
02	04/06/2018	Minor updates for Track Buggy use and maintenance	A.N
03	05/2022	Added track tension spec	A.N
04	08/2023	Removed DBT9	A.N

SAFETY PRECAUTIONS

	**DANGER** **EXPLOSION HAZARD** Never operate the machine in an explosive atmosphere, near combustible materials, or where ventilation does not clear exhaust fumes.
	**WARNING** **BURN HAZARD** Never come into contact with the engine or muffler when engine is operating or shortly after it is turned off. Serious burns may occur.
	**CAUTION** **MOVING PARTS** Before starting the machine, ensure that all guards and safety devices are in place and functioning properly.
	**ATTENTION** **READ OWNER'S MANUAL** Read and understand owner's manual before using this machine. Failure to follow operating instructions could result in serious injury or death.

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QUALITY ASSURANCE/ MACHINE BREAK IN

The Power Buggy is the product of extensive engineering development designed to give long life and unmatched performance. You can help ensure that your Power Buggy will perform at top levels by observing a simple routing on first use. Consider that your new Power Buggy is like a new car. Just as you would break in a new car to the road or any new machine to the job, you should start gradually and build up to full use. Learn what your machine can do and how it will respond. Refer to the engine manufacturer's manual for run-in times. Full throttle and control may be used after this time period, as allowed by material. This will serve to further break in the machine on your specific application, as well as provide you with additional practice using the machine.

We thank you for the confidence you have placed in us by purchasing a Power Buggy and wish you many years of satisfied use.

WARRANTY INFORMATION

Bartell Morrison Inc. agrees to furnish without charge, F.O.B. our plant, a replacement for any part or portion thereof, comprising the drive train of the Bartell Power Buggy, consisting of the hydrostatic transmission, pump, hydraulic system, save and except for power units and/or bearings which prove upon our examination, to be defective in either material or workmanship within a period of twelve (12) months from date of purchase, provided that notice of such defective part or portion thereof is given to Bartell Morrison Inc. within the twelve month warranty period. No further or other guarantee or warranty expressed or implied in connection with the sale of the Power Buggy is given and our sole liability consists in replacing defective parts or portions thereof. We shall not be responsible for any special, indirect or consequential damages arising in any manner whatsoever.

This guarantee is for the sole benefit of the original purchaser as end user. Our responsibility under this guarantee ends in the case the original purchaser transfers ownership of the Power Buggy, makes any changes or adds any parts or devices not of our manufacture to the Power Buggy.

SPECIFICATIONS

		Wheeled	
		DB17	**DB21**
Engine		Honda 11.7 HP (GX390) (8.7 kW)	Vanguard 18 HP (13.4 kW)
Wheelbase		44 in (111.8 cm)	44 in (111.8 cm)
Drive Tires		5.7 x 8 x 19	5.7 x 8 x 19
Steering Tires		4.8 x 8 x 16	4.8 x 8 x 16
Overall Length		97 in (261.6 cm)	101.5 in (257.8 cm)
Overall Width	**Single Wheels**	35.5 in (90.2 cm)	N/A
	Double Wheels	43.5 in (110.5 cm)	43.5 in (110.5 cm)
Overall Height		53 in (134.6 cm)	53 in (134.6 cm)
Maximum Load		2,500 lbs (1,136 kg)	3,200 lbs (1,451 kg)
Capacity		17 ft^3 (481 L)	21 ft^3 (595 L)
Discharge Height		6 in (15.2 cm)	6 in (15.2 cm)
Hyraulic Oil – Exxon Nuto #H68		11.5 qt (11.0 L)	11.5 qt (11.0 L)
Speed		7.25 mph (11.7 km/h) at 3600 rpm	7.25 mph (11.7 km/h) at 3600 rpm
Drive		Hydrostatic	Hydrostatic
Brakes		Hydraulically controlled	Hydraulically controlled
Parking Brake		Mechanical	Mechanical
Dump		Variable hydraulic	Variable hydraulic
Operating Weight		1,260 lbs (571.5 kg)	1,375 lbs (623.7 kg)
Shipping Weight		1,360 lbs (616.9 kg)	1,475 lbs (669 kg)
Ground Clearance		6”	6”
Turning Radius		73.5”	73.5”

PREVENTATIVE MAINTENANCE AND ROUTINE SERVICE PLAN

This Bartell Power Buggy has been assembled with care and will provide years of service. Preventative maintenance and routine service are essential to the long life of your Power Buggy. Your dealer is interested in your new machine and has the desire to help you get the most value from it. After reading through this manual thoroughly, you will find that you can do some of the regular maintenance yourself. However, when in need of parts or major service be sure to see your Bartell dealer. For your convenience we have provided this space to record relevant data about your Power Buggy. When in need of parts or service be prepared to provide your Power Buggy serial number. Locate the serial number now and record in the space below.

Date Purchased:		Type of Machine:	
Dealer Name:		Model:	
Dealer Phone:		Serial Number:	

Replacement Parts Used				Maintenance Log:	
Part No.	Quantity	Cost	Date	Date	Operation

Routine Service Schedule

Routine Service Intervals		Each Use	After 1.5 months or 50 hrs	Each 3 months or 100 hrs	Each 6 months or 200 hrs	Each 9 months or 300 hrs	Each 12 months or 400 hrs
General Inspection							
Guards	Check	O	O	O	O	O	O
Warning Stickers	Check		O	O	O	O	O
Test Run	Check - Operation		O	O	O	O	O
Engine							
Engine Oil	Check level	O	O	O	O	O	O
	Change		O		O		O
Air Cleaner	Check - Clean	O	O				
	Replace			O			
Sediment Cup	Clean			O	O	O	O
Spark Plug	Check - adjust			O	O		O
	Replace					O	
Idle Speed	Check - adjust					O	O
Valve Clearance	Check - adjust					O	
Combustion Chamber	Clean	After every 500 Hrs.					
Fuel Tank + Filter	Clean	Every 6 months or 100 Hrs.					
Fuel Tube	Check	Every 2 years (Replace if necessary)					
Hydraulic System							
Oil Filter	Check				O		O
	Replace				O		O
Oil Level	Check	O	O	O	O	O	O
	Replace				O		O
Hoses/Fittings	Check	O	O	O	O	O	O
	Replace	Replace when leaks are found					
Pump Control Arm	Check - adjust	Check before every use, Adjust if buggy creeps.					
Buggy							
Drive Wheels Control	Check - Operation			O	O	O	O
Parking Brake	Check - Operation	O	O	O	O	O	O
Wheels	Check - Operation	O	O	O	O	O	O
Bucket	Check - Clean	O	O	O	O	O	O
Coupler	Check				O		O

Information for Owners, Users and Operators

Owners, Users, and Operators:

Bartell Morrison appreciates your choice of our machine for your application. Our number one priority is user safety, which is best achieved by our joint efforts. We feel that you make a major contribution to safety if you, as the equipment users and operators:

1. Comply with OSHA, Federal, State and Local Regulations

2. Read, understand and follow the instructions in this and other manuals supplied with this machine.

3. Use Good Safe Work Practices in a common-sense way.

4. Only have trained/certified operators – directed by informed and knowledgeable supervision – running the machine.

NOTE: OSHA prohibits the alteration or modification of this machine without written approval of the manufacturer. Use only factory approved parts to service or repair this machine.
If there is anything in this manual that is not clear to you, or which you believe should be added, please send your comments to Engineering, Bartell Morrison Inc. 1-866-501-1683.

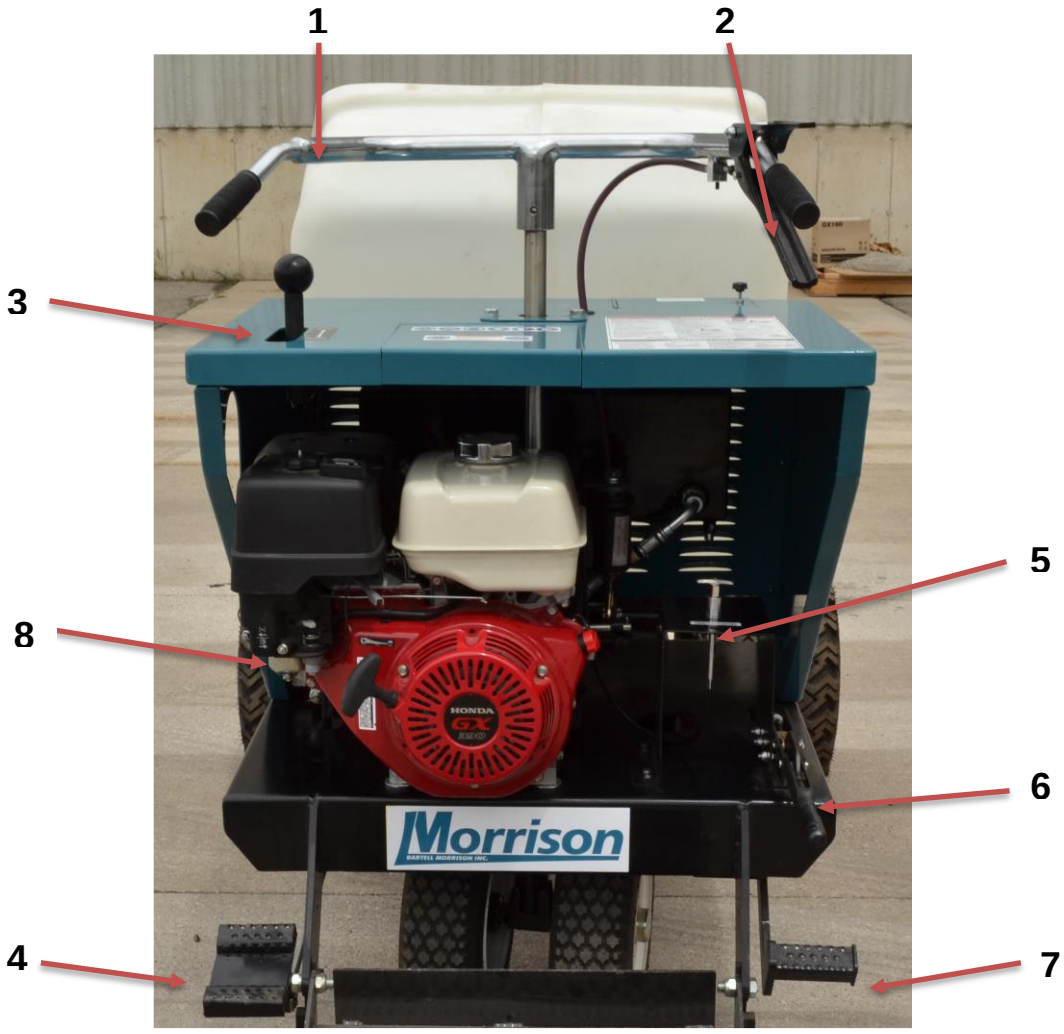
Standards

Many aspects of power buggy operation and testing are discussed in standards published by the American National Standards Institute. These Standards are updated on a regular basis with addenda. Bartell Morrison recommends that you purchase and refer to the following standard.

ANSI B56.8 – Personnel and Burden Carriers

This Standard can be purchased from:
American National Standards Institute
25 West 43rd Street, 4th Fl.
New York, New York, 10036
Tel: 212-642-4900
Fax: 212-398-0023

DESCRIPTION OF CONTROLS (DB17/21)

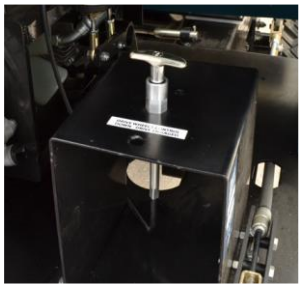


1. **Steering Handle Bar** – The steering handlebar is attached to the rear wheels of the unit. Rotating the handle bar clockwise steers the unit to the left. Rotating the handle bar counterclockwise steers the unit to the right.

2. **Travel Speed Control** – The travel speed control adjusts the speed at which the buggy travels. Squeeze the handle to increase speed. Release of the handle will stop the machine. The lower handle is forward while the upper is reverse.

3. **Dump Hand Control** – The dump hand control activates the hydraulic dumping mechanism. Push forward to dump bucket. Pull back to return bucket to travel position.

4. **Dump Foot Control** – The dump foot control activates the dumping mechanism. Rock the foot pedal forward to dump the bucket. Rock the pedal back to return the bucket to the travel position.



5. **Drive Wheels Control** – The control must always be engaged. If the engine cannot be started for the buggy to be moved, the drive wheels can then be disengaged. To unlock, turn control counterclockwise, lift and lock back the control in the upper position. In case of slope, use the hand parking or foot brake!

6. **Hand Parking Brake** – The hand parking brake activates the parking brake on the front axle. Position the lever in the horizontal position to engage the brake. Position the lever to the vertical position to disengage the brake.

7. **Foot Brake** – The foot brake activates the brake on the front axle. Push the pedal down to activate the brake. Release the pedal to release the brake.

8. **Engine Start**

Electric Start - The engine control is a three-position key switch. The first position (key vertical) is the stop position. The second position is the run position. The third position is the engine start position.

Pull Start - Switch to ON and pull cord to start. Switch to OFF to stop engine.

RESPONSIBILITIES OF THE OWNER

Responsibilities of the Owner

Only operate this buggy if you are a qualified and authorized operator. To be qualified, you must read and understand the operating instructions, all safety signs on the buggy, have training including actual operation of the buggy and know the safety rules and regulations for the job site. Only operate the buggy if it is in proper operating condition. Do not remove or modify any part of the buggy. Perform Daily inspection and lubrication of buggy as outlined in the daily inspection and lubrication sections of the Operator's Manual. Report any problems immediately.

DO NOT OPERATE THE BUGGY IF THE INSPECTION REVEALS ANY PROBLEMS.
Wear all personal protective clothing required for the operations being performed.

Mounting and Dismounting

- Ensure the buggy is stopped before mounting or dismounting.
- Prior to dismounting, ensure that all controls are in neutral position and parking brake is set.
- Always use "three-point contact" and face the buggy. ("Three-point contact" means that three out of four arms and legs are always in contact with the buggy during mount and dismount).
- Clean your shoes and wipe your hands before mounting.
- Be sure to have secure footing when and wherever you step off the machine. Never use control levers as a handhold when climbing on or off.
- Never step on foot controls when climbing on or off.

Pre-Operation Inspections

Each day ensure that the Buggy is clean, and all systems are functioning properly. Report any problems immediately.
DO NOT OPERATE THE BUGGY IF THE INSPECTION REVEALS ANY PROBLEMS.

Before operation each day ensure the following:

- All guards, side screens and panels are in place.
- All safety and information signs are in place and legible.
- Engine and hydraulic oil levels are correct.
- Check for hydraulic leaks.
- Check all operating controls for proper operation and adjustment.
- The fuel tank is full.
- Check speed control operation before and after starting the engine for proper operation.
- Confirm brake-holding capacity of buggy using the procedure outlined in the Function Test section.
- Check Tires for damage, proper inflation, and security of lug nuts. (Recommended Tire Pressure: 50 psi)

HAZARD: SKIN INJECTION HAZARD! Use a piece of cardboard to check for hydraulic hose leaks. DO NOT USE YOUR HAND. If fluid is injected under the skin, it can cause gangrene. GET MEDICAL HELP IMMEDIATELY.

HAZARD: EXPLOSION AND BURN HAZARD! Will cause death, burns or blindness due to ignition of explosive gases or corrosive acid. Keep all open flames and sparks away. Wear personal protective equipment, including face shield, gloves, and long sleeve shirt.

Function Test

After engine has warmed to operating temperature make the following checks:

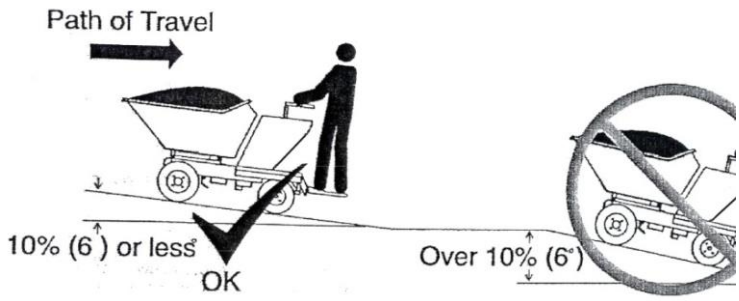
1. In a level, open area, with the Parking Brake engaged, check for free speed control operation. If the operation of Speed Control is not free, do not attempt to operate buggy until corrected.

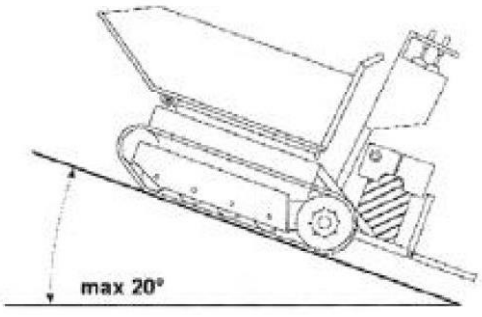
2. Set engine to idle, with Parking Brake engaged, slowly activate speed control slightly, for a short period of time to test the Brake holding capacity. If the Power Buggy moves, adjust the brake in accordance with the maintenance and adjustment instructions. If the Power Buggy does not move, release the speed control, and disengage the Parking Brake. If Buggy tends to creep, adjust the pump control lever until the creeping is eliminated.

3. At a slow speed, operate Buggy and become familiar with its Speed Control operation, Brake operation, and Steering.

Worksite Inspections

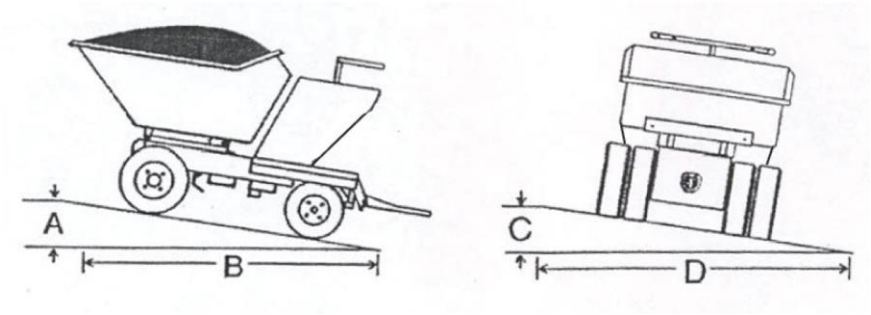
Check the Entire Area. Inspect the entire surface over which you will travel. Look for holes, drop offs and obstacles. Look for rough spots. On docks, ramps or floors look for weak spots. Look for oil spills, wet spots, and slippery surfaces. Look for soft soil, deep mud and standing water. On rough terrain or slopes, watch for anything that might make you lose control or cause the buggy to tip over. Inspect the grade of the path you will travel. The maximum permissible grade upon which the Power Buggy may be used is 10% (6°), The track Buggy may be used up to 20%. See the next page on how to determine the grade.





Maximum Permissible Grades for Travel

	Wheeled Buggy
Fore and Aft	10% (6°)
Side to Side	10% (6°)



To calculate Grade, divide the vertical rise by the horizontal run and multiply by 100.

% Grade = (A Divided by B) X 100 % Grade = (C Divided by D) X 100

Example Calculation: Determine if a slope that is 2 feet high and runs 21 feet horizontally is safe to travel. Calculate % grade by executing the following.
Dimension A = 2 feet
Dimension B = 21 feet
% Grade = (A Divided by B) X 100
= (2 feet Divided by 21 feet) X 100
= 9.5%

According to the calculation, this slope is safe to travel because the % grade did not exceed the maximum allowable grade of 10%. 9.5% is less than 10%.

Clear away trash and debris along travel route. Pick up anything that might puncture a tire. Make sure aisles, ramps, doorways, and passages are clear. Plan your work. Make sure you know where you will make your pickups, dumps and turns. Before you pick up a load, first know your path of travel and where you will place it.

Power buggies cannot be operated in areas with flammable or explosive atmospheres.

EXPLOSION HAZARD: Use of these buggies in explosive atmospheres areas can results in fires and/or explosions, which could cause serious death or injury.

CHECK OVERHEAD: Check the clearances of doorways, canopies, and overheads. Never approach power lines or any part of your buggy unless all local, states/ provincial, and federal (OSHA) required safety precautions have been taken. Use extreme caution.

STARTING INSTRUCTIONS

Before starting engine, refer to engine manufacturer's manual, and follow the steps below.

1. Engage Park Brake.
2. Set Engine operating speed control to the idle position.
3. Check Speed Control linage located on right handlebar. Speed Control should work freely and return to closed position when released. If operation of Speed Control is not free, do not attempt to start engine until corrected.
4. Turn on fuel control valve if your engine is so equipped.
5. Set Choke as recommended in the Engine Manufacturers Manual.
6. Pull Rope Starter or engage Electric Starter if so equipped.
7. When engine has started, allow to warm at an idle until operating temperature is reached before transporting or moving loads.

General Travel

Keep personnel clear of the buggy during travel.

Do not allow anyone to stand/pass in front of the buggy during travel.

Do not approach personnel standing in front of fixed objects. Do not allow others to ride on the buggy.

Test the controls for proper operation. Be certain you can control both speed and direction before moving.
Keep both hands on the steering handle during travel.

Avoid sudden starts, stops and direction changes.

Do not operate on surfaces containing holes, drop offs, or obstacles or slopes which exceed 10% (6°) grade.

Ensure that all surfaces can support the buggy and load.

Look for and avoid oil spills, wet or slippery surfaces that may cause loss of control.

Maintain clearances from obstacles.

Make sure aisle, ramps, doorways, and passages are clear.

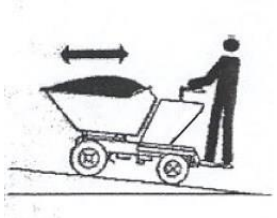
Clear away trash and debris. Pick up anything that may puncture a tire. If buggy is to travel on slops, refer to the "Travel on Slopes" section. If buggy is to travel on uneven/rough terrain, refer to the "Travel on Uneven/Rough Terrain" section.

Creep Speed
Buggy should be operated at full speed only when traveling on a flat and level surface. When traveling on surfaces that are not flat and level, DO NOT exceed a creep speed of 10 feet in 5 seconds (120 feet per minute or 1.36 miles per hour), because the buggy does not have a speedometer, always apply good judgment when determining a safe and proper creep speed.

Travel on Uneven/Rough Terrain
Do not ride the buggy if the buggy is to travel on uneven/rough terrain. Instead, raise and secure the platform and walk behind the buggy. Check to make certain that the mounting bolts are sufficiently tight to retain it in that position. Do not exceed creep speed.

Travel on Slopes
Do not travel on slopes with a loaded bucket facing downhill.

Traveling with a loaded bucket
When traveling on slopes with a loaded bucket – ensure the bucket is positioned on the uphill end of the unit, and the operator is on the downhill end of the unit.



Traveling with an unloaded bucket
When traveling on slopes with an unloaded bucket – ensure the bucket is positioned on the downhill end of the unit.

Determine if any slopes on your travel route exceed the maximum permissible grade of 10%.

Do not use buggy on any slope that exceeds 10% grade.

FILLING/ DUMPING

Know the rated load capacity of the buggy. Do not exceed the capacity of the buggy, and account for conditions that can reduce the load that should be carried such as, ground conditions, slopes, etc.

- If there is any question of overloading, separate the load into two or more loads.
- Always use a signal person if you cannot see the placement point.
- Ensure buggy is stopped and parking brake is set before filling or dumping. Do not dump buggy when facing downhill on slope.
- Do not stand in front of or alongside the buggy where you intend to unload.

- Do not dump buggy towards other personnel.
- Do not touch, lean on, or reach through the dump mechanisms.

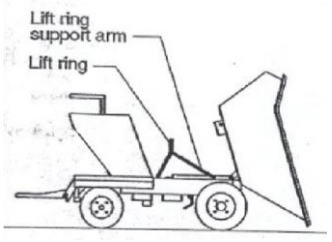
SHUTDOWN INSTRUCTIONS

Correct shutdown is important; follow these steps for safe operation.

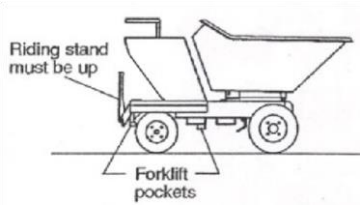
1. Come to a full stop.
2. Set parking brake.
3. Idle engine for gradual cooling.
4. Shut off engine.
5. Cycle hydraulic controls to eliminate residual pressure.
6. Remove ignition key on electric start models.
7. Block wheels if on a slope or incline.

If the buggy will be exposed to wet freezing weather for a period, the concrete tub should be placed in the dump position so that water does not collect with the possibility of freezing and breaking the tub.

LIFTING



Single Point Lifting:
When lifting buggy with the single point lift ring, the bucket must be in the dumped position and both lift ring support arms must be attached with retaining rings as shown.



Forklift Loading:
The buggy can be loaded from either side or from the rider end using the forklift pockets provided.

TRANSPORT

When transporting the buggy on a truck or trailer, know the overall height to avoid contacting overhead obstructions such as bridges, power lines, etc. Make sure all tie-downs and blocks are in place and bucket is completely lowered and securely latched. If our buggy is to be hauled by truck, check truck and ramp capacities.

MAINTENANCE, LUBRICATION AND ALIGNMENT

Engine
Check oil in your engine after every 10 hours of operation and maintain proper levels. Drain oil after every 50 hours of operation and refill with grade of oil recommended below:

- API service category SJ or later (or equivalent) 10W 30.

DB17/21 Power Train
Check the Hydraulic Oil level in the tank is 3" (75mm) below the top of the filler neck. Keep filled to the proper level with EXXON Nuto #H68 Hydraulic oil or equivalent. Replace after every 200 hours. The Hydraulic Oil Filter should be changed each time the Hydraulic Oil is changed. The Hydraulic drive motors are extremely reliable and ordinarily will not need maintenance or repair. Should trouble develop in the Hydraulic drive motors, it is suggested that the dealer's service department be called. If such service is not available, from your dealer, please call Bartell Global for further instructions. Bartell Global will direct you to the proper place for repairs. In the event a vibration is experienced when the engine is running, check the coupler between the engine and the Hydraulic Pump. DO NOT make this check while the engine is running, and it will be necessary to remove the fan shroud. After adjusting and tightening the coupler, REPLACE the fan shroud and then start engine to see if the problem has been corrected. DO NOT run the engine or operate the Buggy with the fan shroud removed or not firmly attached.

COLD WEATHER NOTE: In climates where temperatures are below 35° hard starting may occur. In these cases the oil should be switched to a thinner 15 weight hydraulic fluid.

Chassis Lubrication
Lubricate your buggy each day of operation with a good grade of chassis lubricant at all of the lubrication points listed below. (2)
Fittings – Dump Cylinder Pivots
(4) Fittings – Tub Bearing Pivot Blocks (Underside of Tub)
(1) Fitting – Steering Bearing Flange (Front side of Handle Bar) Remove rear wheel hubs and repack bearings after every 400 hours of operation.

Brake Adjustment – Wheeled Buggy
Place the Parking Brake Lever in the engaged position. The parking brake should then be adjusted so that the Buggy will not move. Adjustment is provided by a knob on the end of the Parking Brake Lever and the adjustment may be tightened by turning the knob clockwise. Adjust sufficiently tight so that when Parking Brake Lever is actuated, considerable pressure is required to place it in the over-center or "On" position.
With the Parking Brake engaged, you should not be able to move the Buggy.

Tires

In the event you experience a puncture of the tire and tub, certain precautions must be observed in its repair, as follows:

1. Securely block and support the Buggy, remove lug nuts.
2. Repair or replace tire.
3. Place Wheel and Tire assembly in a suitable cage or restraint to keep it captive, then inflate tire to no more than 50 lbs air pressure.
4. Reinstall on Buggy, tighten lug nuts (torque to 74ft-lbs)

CONTRACTOR PROVEN EQUIPMENT SINCE 1946

BARTELL GLOBAL

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