

THE  
**BARRETO**  
**MODEL 23CD CONCRETE DUMPER**  
**OPERATOR’S MANUAL – ORIGINAL INSTRUCTIONS**

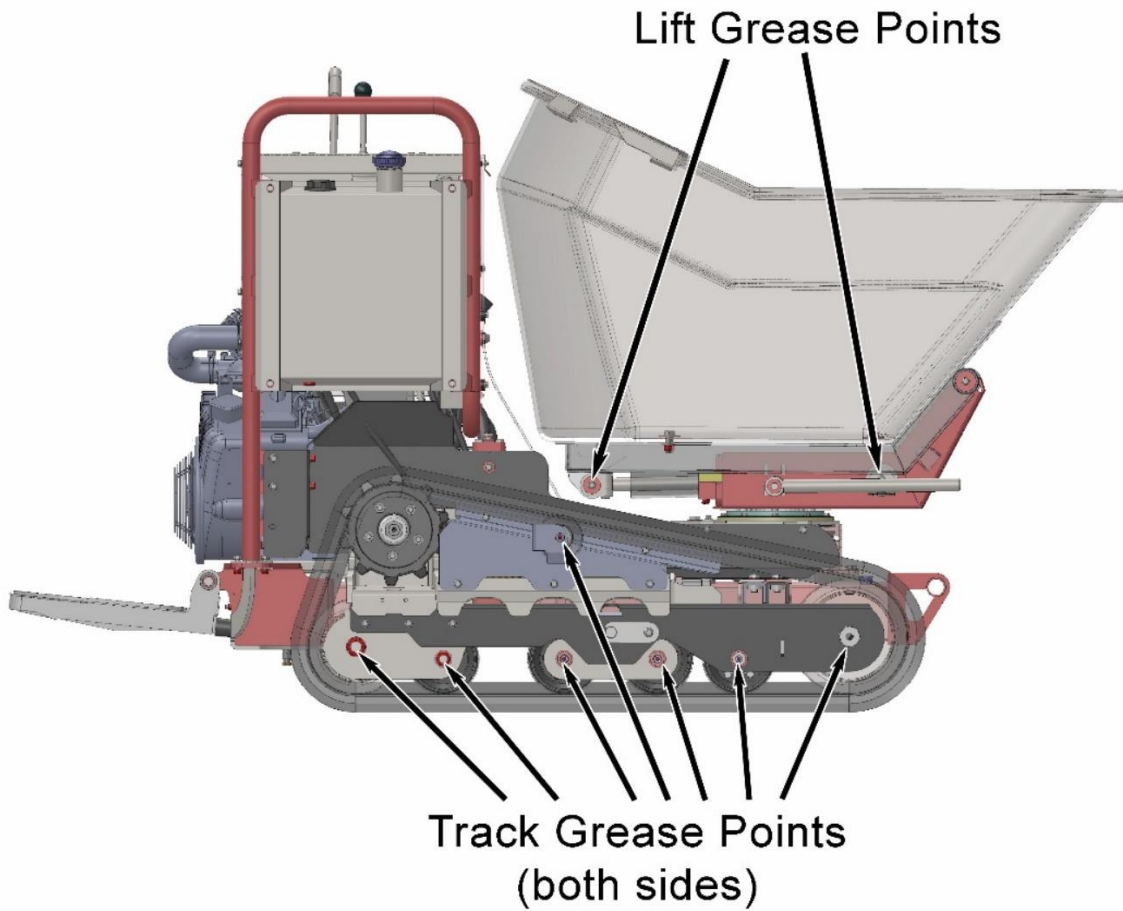
**MACHINE INTENDED USE**

This CONCRETE DUMPER is designed to haul and dump concrete, sand, gravel or dirt. For use in construction and landscaping jobs.

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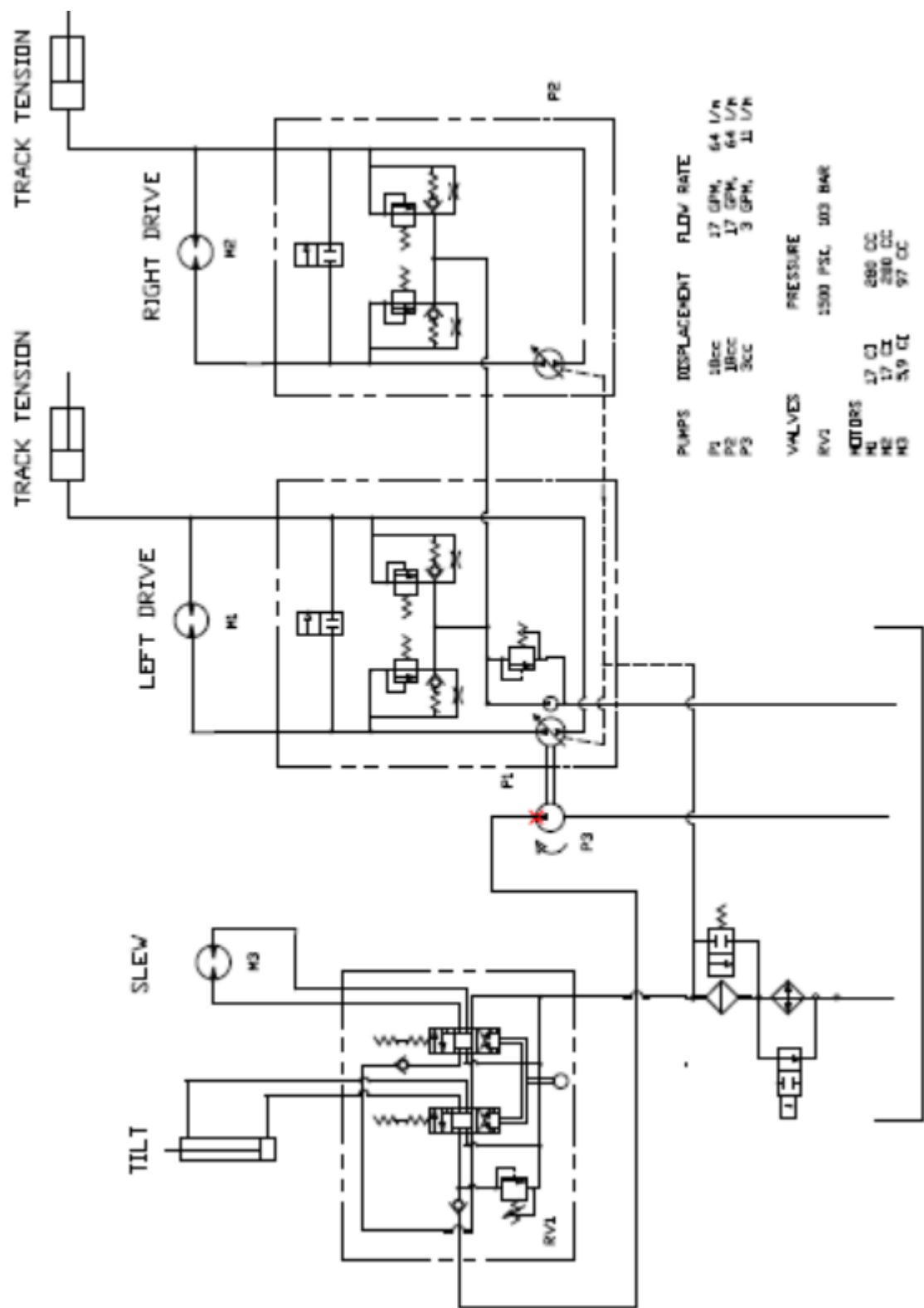
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## GREASE POINTS



**NOTE: All grease points should be greased after 10 hours of use.**

HYDRAULIC SCHEMATIC



## SAFETY MESSAGES

General safety messages are listed in this Safety Messages section. Specific safety messages appear as appropriate in this manual where a potential hazard may occur if procedures or instructions are not followed correctly and completely.

### SAFETY SYMBOL



This is the international safety alert symbol. This symbol is used in combination with a signal word and written message to warn you of a potential for bodily injury or death.

A signal word "DANGER", "WARNING", or "CAUTION" is used with the safety alert symbol.



**DANGER:** Imminent hazards, that if not avoided, will result in serious personal injury or death.



**WARNING:** Potential hazards or unsafe practices, that if not avoided, could result in serious personal injury or death:



**CAUTION:** Potential hazards or unsafe practices, that if not avoided, could result in minor personal injury, product damage, or property damage.

Safety decals with a signal word "DANGER", "WARNING", or "CAUTION" are affixed to the 23CD near specific hazards.

This machine is intended for the operator to stand on. If at any time it becomes unsafe, the operator must step off immediately.

Read this manual and study ALL decals on the machine before operating the 23CD.



# SAFETY INSTRUCTIONS OVERVIEW

READ SAFETY AND OPERATING INSTRUCTIONS BEFORE OPERATING!

USE COMMON SENSE AND PLENTY OF IT!



**DANGER:** CONCRETE DUMPER moving parts can cut off arms, legs, or fingers. Contact with the Concrete Dumper while in operation will cause severe injury or even death.



Wear safety goggles and a hard hat while operating or observing!

Wear adequate hearing protection while operating or observing.



**WARNING:** Exposure to loud noise is cumulative and may permanently damage your hearing.

Wear safety boots and gloves. Wear close-fitting clothing. Contain long hair. Do not wear jewelry. Wear reflective clothing if working near traffic.



Only operate outdoors and avoid breathing engine exhaust and fumes.



**WARNING:** Engine exhaust contains carbon monoxide gas that is toxic. Breathing it can cause unconsciousness and death.

Adequate lighting is required, daylight or artificial, for the safe operation of the 23CD.

Allow adequate side and overhead clearances between the 23CD and buildings, fences, and trees.

Avoid inclines, if at all possible.



**WARNING:** Navigating on any incline increases the danger of the 23CD losing traction or rolling over, especially if the surface is wet. If you lose control, step off immediately to avoid personal injury. Navigation on inclines should be especially slow and turns very gradual. Refer to the incline diagram in the section, “GROUND TRANSPORT.”

Avoid operating adjacent to drop-offs or embankments.

Keep away from tracks to avoid getting crushed.



**WARNING:** Getting run over by the CONCRETE DUMPER will cause injury.

Always leave the 23CD parked on a level surface.

Do not operate the 23CD near any source of flammable dust or vapors.



**WARNING:** Sparks from the engine exhaust can cause an explosion or fire in a flammable or explosive atmosphere. Fuel fumes can catch fire or explode.

Do not leave 23CD unattended with the engine running.

## SAFETY INSTRUCTIONS OVERVIEW (continued)

Do not operate the 23CD near flames or sparks.



**WARNING:** Fuel fumes can catch fire or explode.

Shut off engine and allow it to cool before refueling.



**WARNING:** Fuel fumes can catch fire or explode. Do not smoke when refueling. Do not refuel near a source flames or sparks.

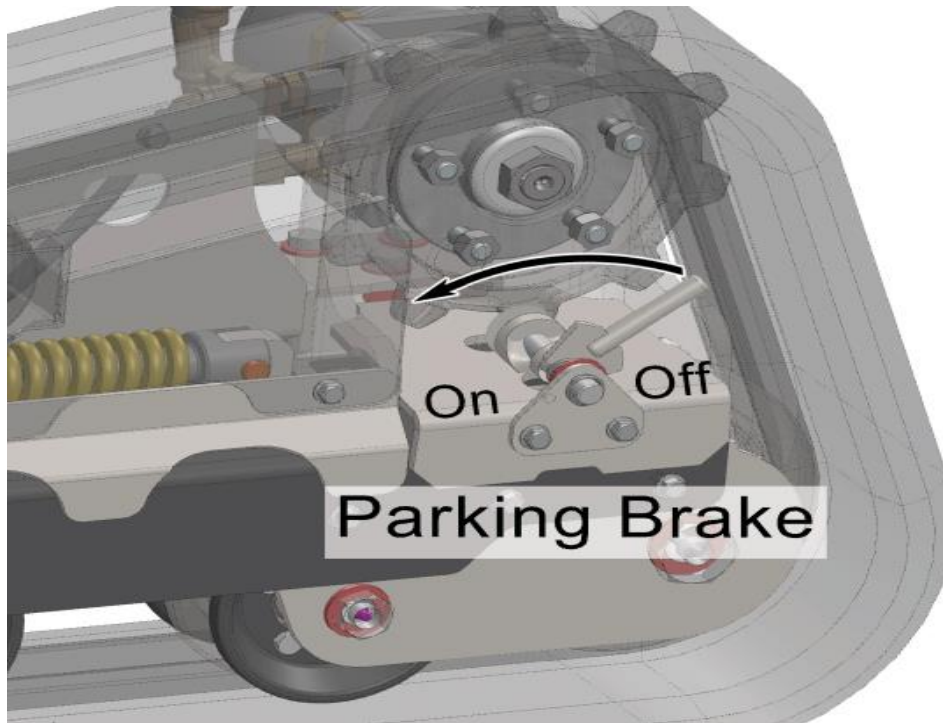
Do not touch the engine, muffler, or any of the hydraulic components until cool.



**WARNING:** Muffler and engine get hot enough to cause serious burns. For the safety of yourself and others, allow enough time for the engine, muffler, and the hydraulic fluid to cool completely before performing any cleaning or maintenance.



**WARNING:** Do not park on an incline. Move the 23CD to a level surface and set the parking brake located near the left track sprocket. Move the handle down to engage the brake, see the illustration below.



## SAFETY INSTRUCTIONS OVERVIEW (continued)

Avoid contact with hydraulic fluid.



**WARNING:** When the machine is operating, hydraulic fluid is under extreme pressure and can get under skin and burn or poison.

Keep others away. If the job site is near a road or pedestrian path, warn and divert both motorized traffic and pedestrians. As appropriate, use traffic flag personnel, signs, cones, and lighting devices to ensure safety.

Only the operator is allowed to stand on the 23CD.

Never lift the 23CD over any person at any time.



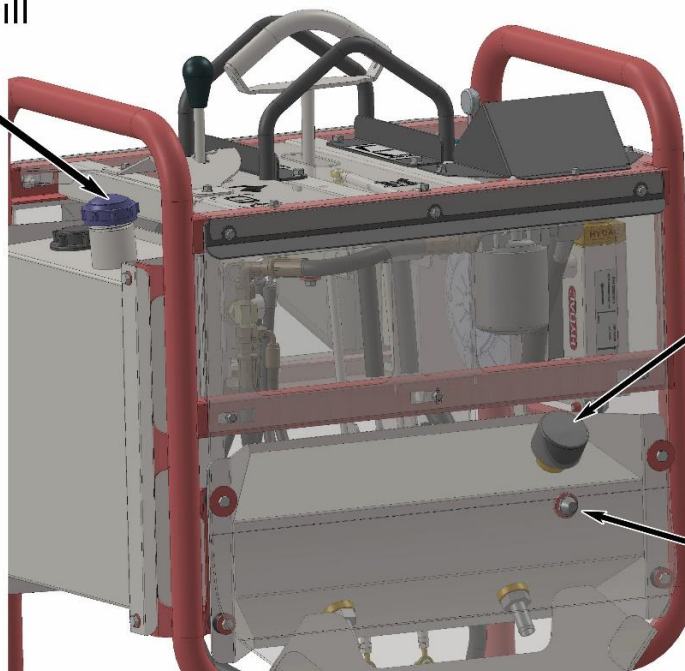
**WARNING:** If unit should fall it would crush anybody under it.

We recommend having a fire extinguisher suitable for petrol fires in the operating area.

Attachments can change the center of mass and machine operations.

## HYDRAULIC OIL FILL AND SIGHT GLASS

Fuel Tank Fill



Hydraulic Oil Fill

Hydraulic Oil Level

**NOTE:** Rubber splash flap not shown.

## BATTERY & ELECTRIC STARTER SAFETY INSTRUCTIONS

Shield your entire face, especially your eyes, and wear rubber gloves to avoid acid burns whenever doing anything with the battery. Battery caps must be tightly in place if the battery has removable caps.



**WARNING:** The battery contains sulfuric acid that can cause blindness and severe burns. Avoid contact with eyes, skin, and clothing. If acid contacts eyes, call 911 immediately and flush eyes with water for 15 minutes or until emergency medical help arrives. If acid contacts skin, flush area with plenty of water. If acid is ingested, drink large quantities of water or milk then follow with milk of magnesia, beaten egg, or vegetable oil, and get medical attention immediately.

Avoid contact with battery components. Wear rubber gloves and wash hands after handling any battery components.



**WARNING:** Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to cause cancer and reproductive harm. Acid can cause blindness and severe burns if leaked from the battery.

Do not charge or jump-start the battery near flames or sparks, or while smoking.



**WARNING:** Battery fumes are flammable and explosive. Avoid explosion hazard that could blind and burn. Tools and jumper cable clamps can make sparks, so use them with care. Shield eyes and face, and wear rubber gloves.

BATTERY MAINTENANCE is in the OWNER'S MANUAL.



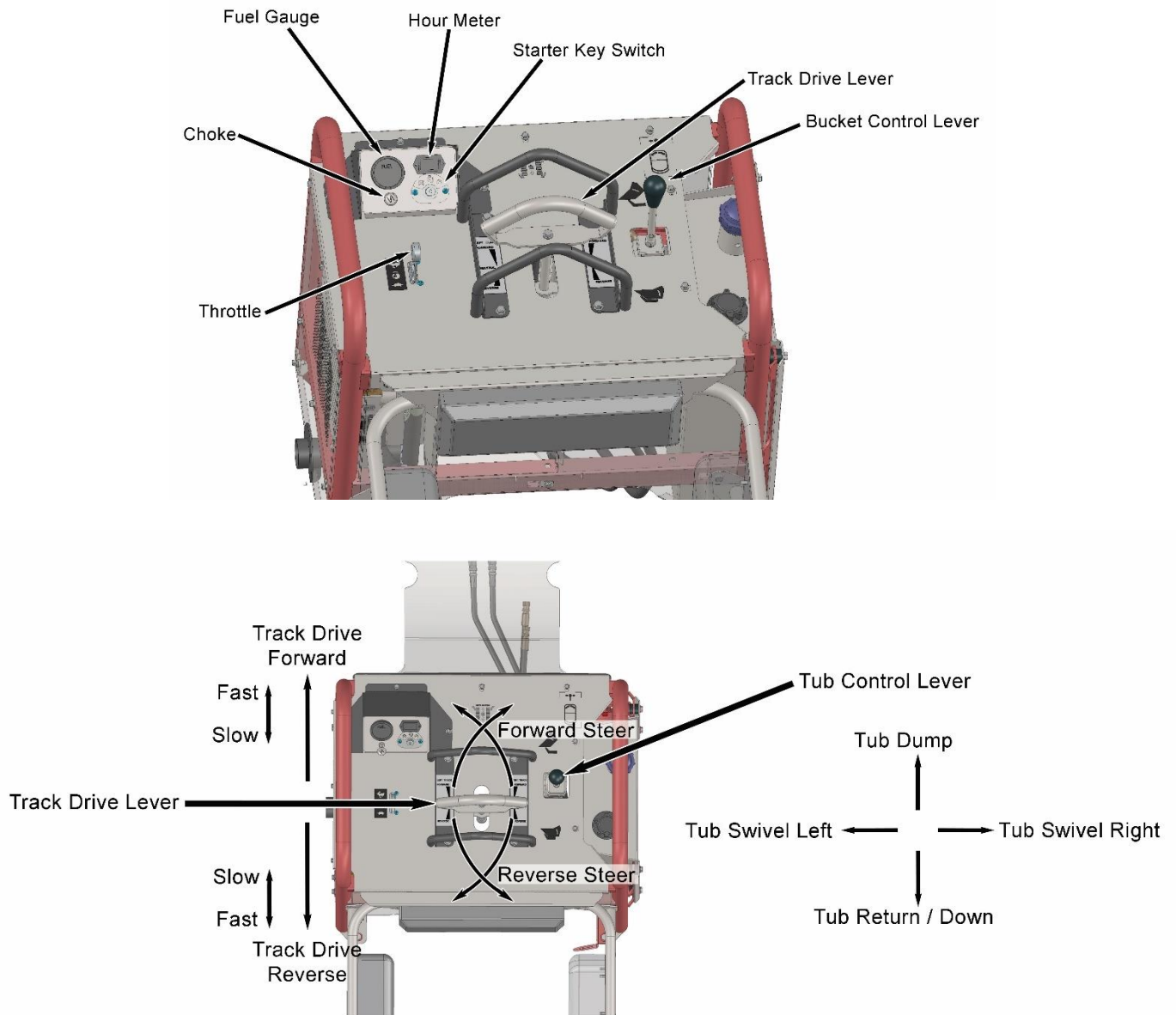
## 23CD OPERATING INSTRUCTIONS

READ SAFETY INSTRUCTIONS BEFORE OPERATING! Both the SAFETY INSTRUCTIONS and OPERATING INSTRUCTIONS are in this manual.

Be sure that the engine oil and fuel, and the machine hydraulic fluid are all at proper levels before starting the engine.

STUDY AND UNDERSTAND CONTROLS BEFORE BEGINNING OPERATION.

### CONTROLS



## ENGINE START UP PROCEDURE

1. Insert key into ignition.
2. Set throttle at low idle.
3. Turn key to “START” position to engage starter. Engine should fire within a few seconds. Do not run the starter more than 20 seconds at a time. This may damage the starter motor.
4. Warm up the engine at a medium idle without load

## ENGINE SHUT DOWN PROCEDURE

1. Return the speed control lever to idle.
2. Turn the key off.

Allow engine to cool before refueling.



**WARNING:** Fuel fumes can catch fire or explode. Do not smoke or allow flames or sparks in the area.

Do not touch the engine, muffler, or any of the hydraulic components until cool.



**WARNING:** Muffler and engine get hot enough to cause serious burns. For the safety of yourself and others, allow enough time for the engine, muffler, and the hydraulic fluid to cool completely before performing any cleaning or maintenance.



See the Engine Manual from Briggs & Stratton included with the machine for more engine instructions.

Only operate the 23CD outdoors and avoid breathing engine exhaust and fumes.

**COLD WEATHER OPERATIONS:** Before operating in cold weather, refer to the Engine Owner's Manual for recommended engine oil. Do not spray starting fluid into the air cleaner as engine damage could result. If the machine is operated at temperatures below +32°F (0°C) then changing the hydraulic fluid to ISO 46 is recommended. If you do not want to change the hydraulic fluid but want to operate the machine at temperatures below +32°F (0°C), then do the following:

- Warm up engine at a low speed.
- Gradually increase engine speed, allowing **30 minutes for the hydraulic fluid to warm up.**

Reduce the engine speed if the hydraulic pump whines. Pump noise may indicate a lack of hydraulic fluid flow that could damage the pump.

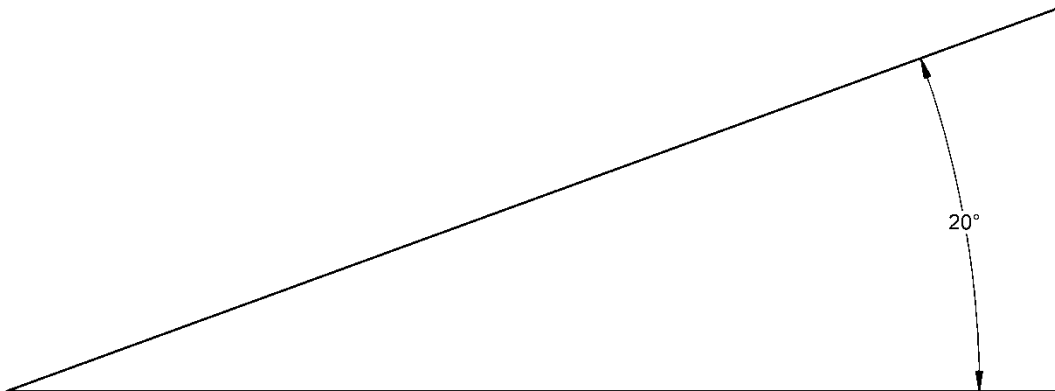
For frequent starts below 18°F consult your Barreto Manufacturing, Inc. dealer.

## DRIVING PROCEDURE

1. Follow engine start up procedure.
2. Securely grasp the handle surrounding the control levers.
3. Increasing the lever movement forward or backwards will increase the speed of the unit.
4. Turning the lever left or right will drive the tracks in that direction.
5. The right lever controls the lift and swivel of the tub. Pulling the lever back will lower the tub, pushing forward will raise the tub. Moving the lever left will rotate the tub to the left, moving it to the right will rotate the tub to the right.

## OPERATIONAL INCLINES

Do not operate the 23CD on a side hill greater than 20°. Doing so may cause the unit to tip over and cause damage to the operator and machine.



## JUMP STARTING ENGINE WITH ELECTRIC STARTER

Shield your entire face, especially your eyes, and wear rubber gloves to avoid acid burns whenever doing anything with the battery. Battery caps must be tightly in place if the battery has removable caps.



**WARNING:** The battery contains sulfuric acid that can cause blindness and severe burns. Avoid contact with eyes, skin, and clothing. If acid contacts eyes, call 911 immediately and flush eyes with water for 15 minutes or until emergency medical help arrives. If acid contacts skin, flush area with plenty of water. If acid is ingested, drink large quantities of water or milk then follow with milk of magnesia, beaten egg, or vegetable oil, and get medical attention immediately.

Avoid contact with battery components. Wear rubber gloves and wash hands after handling any battery components.



**WARNING:** Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to cause cancer and reproductive harm. Acid can cause blindness and severe burns if leaked from the battery.

Do not jump start the battery near flames or sparks, or while smoking.



**WARNING:** Battery fumes are flammable and explosive. Avoid explosion hazard that could blind and burn. Tools and jumper cable clamps can make sparks, so use them with care. Shield eyes and face, and wear rubber gloves.

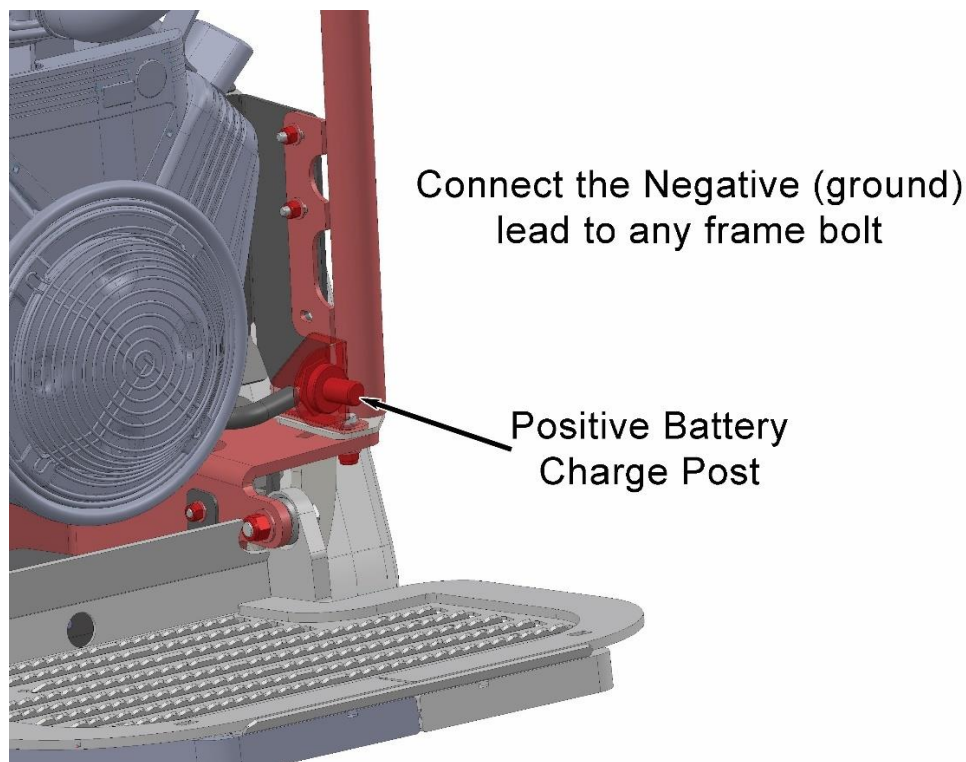
Do not jump-start or charge a battery that is frozen or low on electrolyte.

**IMPORTANT:** Use only a 12-volt system for jump-starting. Never allow the vehicle used to jump-start to contact the disabled machine. If the vehicles contact, a spark may occur when the positive jumper cable is connected or disconnected. If equipped with battery caps, they must be in place and tight to reduce the risk of battery explosion.

## JUMP STARTING ENGINE WITH ELECTRIC STARTER(continued)

### JUMP STARTING PROCEDURE:

1. Turn ignition switch to OFF.
2. Connect jumper cables in the following order:
  - a) Clamp one RED cable end to the discharged battery POSITIVE (+) post.
  - b) Clamp the other end of the RED cable to the booster battery POSITIVE (+) terminal.
  - c) Clamp one BLACK cable end to the booster battery NEGATIVE (-) terminal.
  - d) Clamp the other end of the BLACK cable to the frame of machine with the discharged battery, away from battery.
3. Start the engine.
4. Disconnect the cables in reverse order of connection and cover each jumper cable terminal. To avoid sparks near the battery, never disconnect the red jumper cable without first disconnecting the black jumper.



## EMERGENCY TOWING

In case of engine failure there is a provision that allows the 23CD to be towed a short distance.

The 23CD tracks are driven by a set of tandem hydrostatic pumps. The front pump drives right track, and the other pump drives left track. The drive pump bypass valves may be opened to allow the machine to be towed.

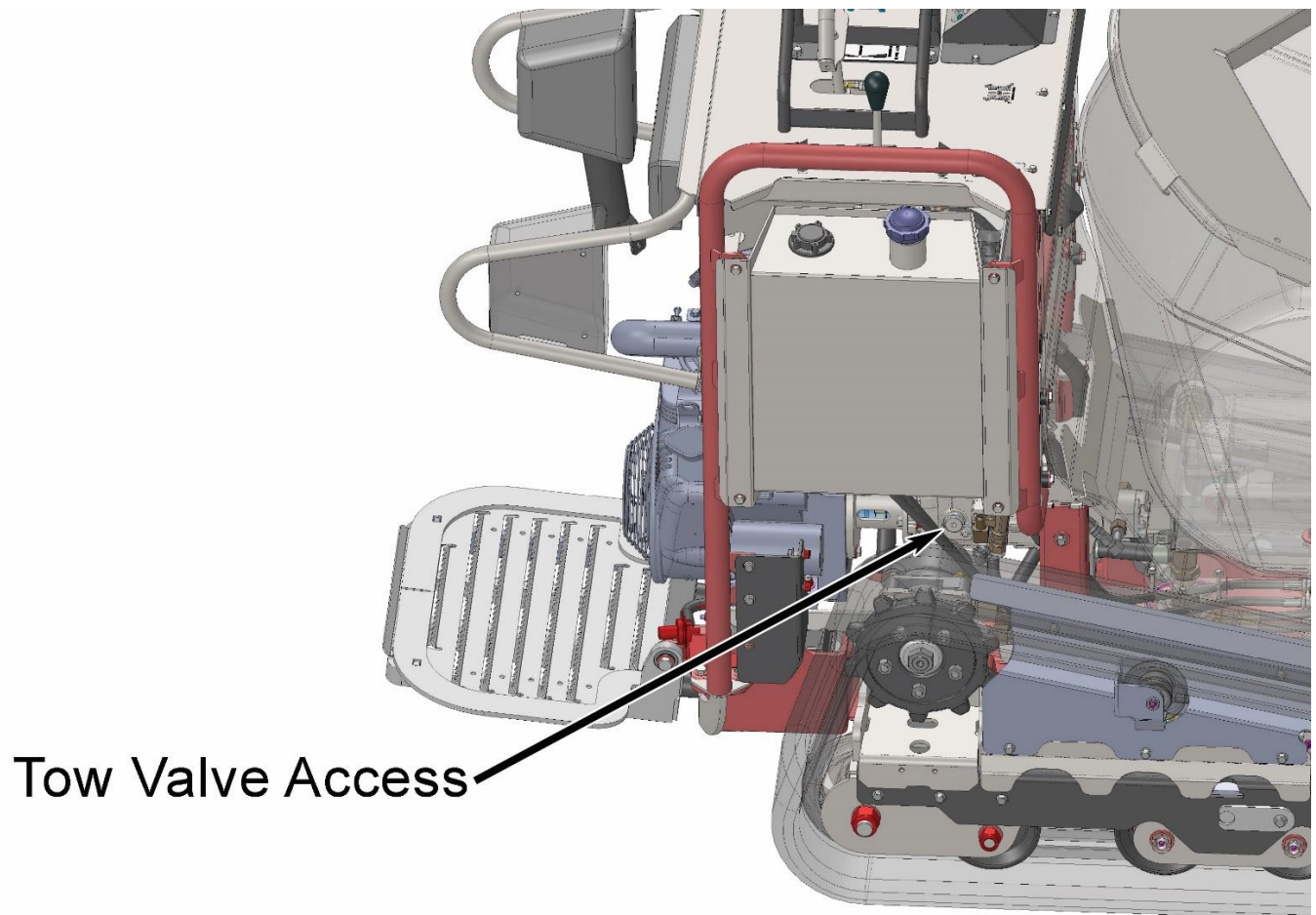
## EMERGENCY TOWING(continued)

- If on a slope, chock the tracks to prevent rolling.



**WARNING:** Navigating on any slope increases the danger of the 23CD losing traction or rolling over, especially if the surface is wet. Stay out of the way to avoid personal injury.

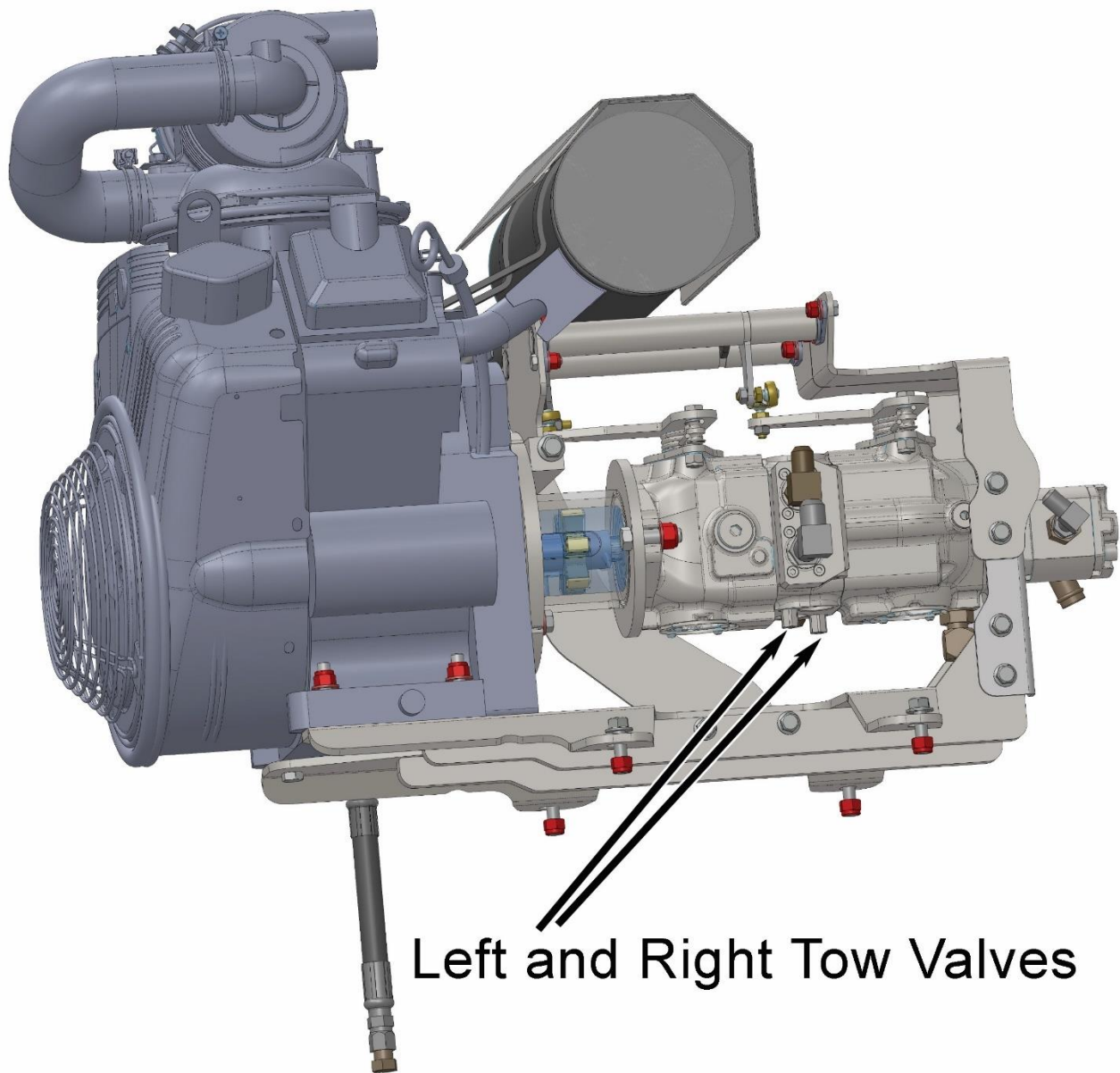
- Move the parking brake lever on left drive sprocket to the off position, see the parking brake illustration earlier in this manual.
- Loosen bypass screws 2 turns (do not remove).
- The machine may be towed a short distance (1/8-mile, 1/4 km max) at slow speed, 2 mph or 200 feet per minute max (3 kph or 60 meters per minute)
- Use a trailer or truck for transport.
- After towing, tighten both bypass screws 10 ft-lb (13 Nm)



**NOTE:** Body covers not shown



## EMERGENCY TOWING(continued)



Left and Right Tow Valves

## ROAD TRANSPORT OF THE 23CD

**The 23CD must be transported on a trailer with a minimum weight rating of 2200lbs.**

Refer to the following checklist before towing:

- Towing vehicles should have the correct size ball. Be sure it is in good repair and securely fastened to the vehicle.
- Securely fasten the hitch to the ball by tightening the hitch nut.
- Thread the safety chain through the loop in the hitch nut handle to prevent it from vibrating loose while towing.
- Attach the safety chain to the towing vehicle in such a way that it cannot come off accidentally.
- Check the hitch-to-ball connection after driving a few blocks and re-tighten if necessary.

Always exercise extreme caution and allow extra clearance while towing a trailer. **DRIVE SAFELY!**

### **LOADING PROCEDURE:**

1. The trailer and vehicle should be located on level ground before loading the 23CD.
2. Drive the machine onto the trailer and position the machine to provide adequate tongue weight on the towing vehicle (tongue weight should be 10-20% of total towing weight).
3. Loop a chain through the front tie down point and secure the chain with a quick-link or chain binder.
4. Loop a second chain through **both** rear tie down points and secure with a chain binder.
5. Shut down machine following the shutdown procedure.

### **UNLOADING PROCEDURE:**

1. Position the tow vehicle and attached trailer on level ground.
2. Remove all chains or straps connecting the 23CD to the trailer D-rings.
3. Start the engine using the ENGINE START UP PROCEDURE.
4. Keep the bucket or attachment low to the ground to prevent the unit from tipping forward while unloading.
5. Drive the 23CD slowly down the trailer or trailer ramps. Continue backward until tracks are completely on the ground.

## OPERATOR PREPARATION

Each operator must:

- Become familiar with the controls and operation of the 23CD, preferably under the supervision of an experienced operator.
- Be at least 21 yrs. of age and be mentally and physically capable of operating the 23CD safely.
- Have studied the SAFETY AND OPERATING INSTRUCTIONS in this manual.

**PERSONAL PROTECTION:** For safety, 23CD operator should wear personal protection equipment. Keep observers at a safe distance.

## OPERATOR PREPARATION(continued)

Wear safety eye goggles and a hard hat while operating or observing!

Wear safety boots and gloves. Wear close-fitting clothing. Contain long hair. Do not wear jewelry. Wear reflective clothing if working near traffic.

Wear adequate hearing (ear) protection while operating or observing.



**WARNING:** Exposure to loud noise is cumulative and may permanently damage your hearing.



## WORK SITE ASSESSMENT

Examine the work area for any conditions or obstructions that may inhibit operation or create a safety hazard for the operator or others. Use the information in this manual combined with good judgment to identify any hazards to avoid.

Only operate 23CD outdoors and do not breathe engine exhaust and fumes.



**WARNING:** Engine exhaust contains carbon monoxide gas that is toxic. Breathing it can cause unconsciousness and death.

Do not operate 23CD near any source of flammable dust or vapors.



**WARNING:** Sparks from the engine exhaust can cause an explosion or fire in a flammable or explosive atmosphere. Fuel fumes can catch fire or explode.

Allow adequate side and overhead clearances between 23CD and any objects such as buildings, fences, and trees.

Adequate lighting is required, daylight or artificial, for the safe operation of the 23CD.

Keep others away. If the job site is near a road or pedestrian path, warn and divert both motorized traffic and pedestrians. As appropriate, erect barriers, use traffic flag personnel, signs, cones, and lighting devices to ensure safety.



## SPECIFICATIONS

<b>SPECIFICATIONS: 23CD</b>		
<b>Dimensions:</b>	<b>U.S.</b>	<b>Metric:</b>
Weight	2,060 lbs	934.4 kg
Height	55.75"	1.42 m
Length	95.4"	2.42 m
Width, 9" tracks	35"	89 cm
Ground contact area	760 sq in	.49 sq m
Payload capacity	2,200 lbs	997.9 kg
Tub volume	14 cu ft	.40 cu m
Dump angle	90°	90°
Pivot angle	180°	180°
<b>Engine Options:</b>		
Briggs Vanguard (HP: 23)	23hp V-Twin	23hp V-Twin
Fuel	Gasoline	Gasoline
Fuel Tank Capacity	4.7 gal	17.9 ltr
<b>Additional Specs:</b>		
Hydraulic Fluid	11 gal	41 ltr
<b>Ground Drive Speed</b>		
Forward	5.5 mph	8.9 kph
Reverse	3.5 mph	5.6 kph