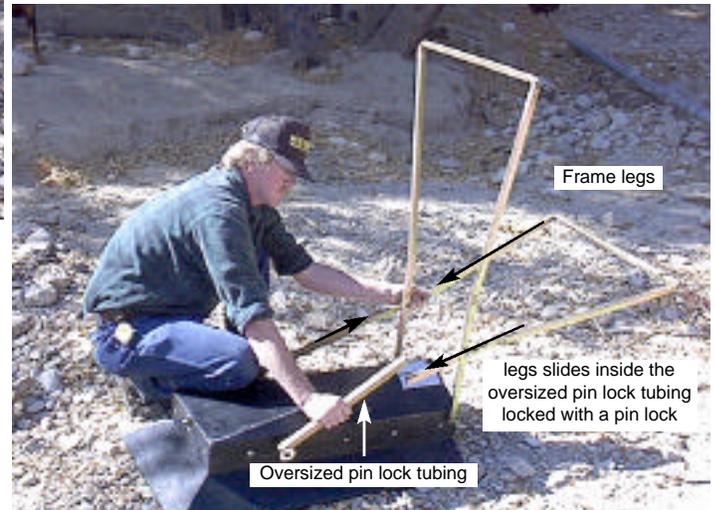


General assembly instruction for the Model 140 & 151 dry washer

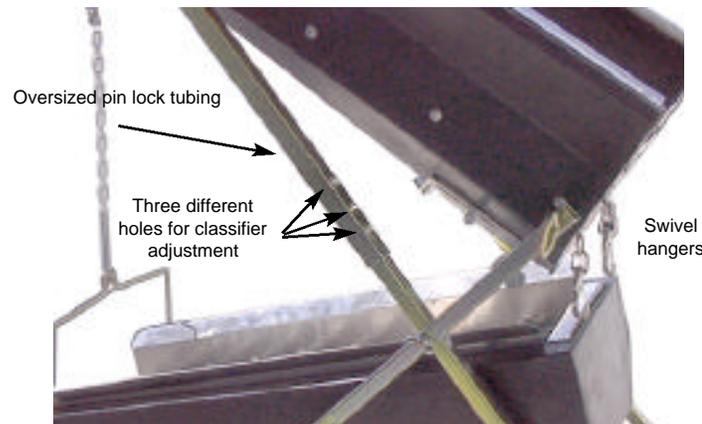
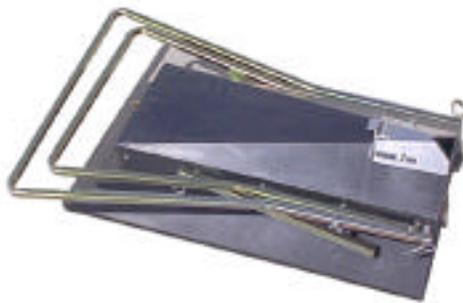


Shown above is the 151 and 140 as it is shipped. This is also the position that is used for packing, transporting and ready for quick assembly. The 140 does not come with the 3" air duct hose.



Lift the leg and frame assembly into place as per picture above. It helps to slide both sides of the legs in at the same time into the oversized pin lock tubing. Take caution not to allow the leg to fall on you.

First remove the recovery box assembly and place the classifier hopper face down. Make sure that all the 4 locking pins are in place.



Flip the dry washer back over on the legs and attach the recovery box assembly. First attach the swivel hangers to the classifier hopper then attach the chain to the the classifier hopper. The angle of the hopper can be adjusted by utilizing the different holes in the oversized pin lock tubing.



Secure the air duct hose to the bottom of the recovery box assembly and engine and blower assembly with hose clamps. Check oil and fuel, start engine. Start shoveling material and adjust the flow control valve so that a smooth even flow of material passes over the riffles. See written instruction for more detail on general operation.

MODEL 151 & 140 VIBROSTATIC CONCENTRATOR ASSEMBLY AND OPERATING INSTRUCTIONS

FEATURING

1. **ELECTROSTATIC CONCENTRATION:** As the material passes through the recovery system it becomes charged with an electrostatic charge that attracts gold and other metaliferous values.
5. **ADJUSTABLE OSCILLATING VIBRATION:** The adjustable vibrator keeps all the material from packing in the riffle and aids in the separation of fine gold.
3. **AIR SEPARATION:** Material is held in suspension on a cushion of air allowing the heavier values to drop out of suspension and the excess lighter material to be carried away.
4. **HOT AIR DUCTING:** The hot air from the engine is ducted into the blower providing an important drying effect to the material and assists the electrostatic charge.
6. **ADJUSTABLE FLOW VALVE:** This feature provides an even flow of material through the recovery system.

ASSEMBLY (SEE MODEL 151 ASSEMBLY SHEET) OPERATING INSTRUCTIONS

CAUTION: Engines are not shipped with oil in crankcase.

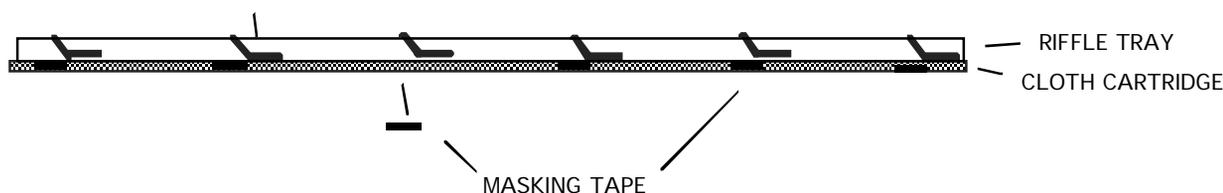
1. Read engine manual completely before attempting to start engine. Fill the engine with the required amount and proper type of oil.
2. Place Engine Blower Assembly on a small mat or a clean area to prevent any particles from being sucked into blower fan. Start engine, run at low rpm and allow it to warm up for a few minutes. Refer to engine manual for starting procedure.
3. Adjust the tilt of the concentrator box approximately 15 degrees, (4 inch drop). This is only a general starting point. Different type of surface ground conditions will require slightly different angles. For example: if the material is extremely light or sandy, the box may require less angle if the material is large or heavy, it may require more angle. If high moisture content exists, it is recommended to operate with less angle and slower speed, to allow the material to dry. It also may be necessary to make a second pass through the machine.
4. Set adjustable flow valve to a one third open position. The adjustable flow valve should be set to provide an even flow of material over the concentrator. When the flow is appropriate, the riffles in the concentrator will be covered with material and will appear to flow as in a waving motion between the riffles. If the riffles are overloaded, the material will appear to flow in a flat motion across the riffle board. If the recovery tray is underfed, sections of the carpet will appear visible between the riffles.
5. The average operating speeds of the engine are between 1/2 and 3/4 throttle. As a general rule, it is recommended to operate the engine at a sufficient speed to enable the material to become lightly suspended over the riffle section. This can be checked by placing your fingers between the riffle sections and checking for any of heavily impacted material.
6. Caution must be exercised not to over feed the machine. This may result in potential loss of values. Overloading the concentrator can be prevented by proper adjustment of the flow control valve.
7. Collection or clean up of concentrates should be performed hourly, or at such time the concentrator seems to become packed with heavy material. This is easily accomplished with the use of a five gallon bucket or a container large enough to hold the riffle tray. Turn the engine off and release the lever holding the riffle tray in place. Lift the riffle tray up at about a 45 degree angle and pull it out, being careful not to damage the foam seal on the concentrator box. Lower the riffle tray into a container with the riffles facing downward. Gently tap on the backside of the riffle tray to release the concentrates. This will allow the concentrates to fall into the container. While the riffle tray is removed, we recommend that you strike the bottom of the riffle board with the palm of your hand to remove any dust or debris that may have entered from the blower.

ADJUSTING THE OSCILLATING VIBRATOR

To make an adjustment to the vibrator, remove the riffle tray, exposing the mechanism. The vibrator can then be adjusted by loosening the two nuts on the vibrator shaft and screwing the counterbalance weight in an inward or outward position. If extremely damp material is prevalent it may be necessary to adjust the weight inward to achieve a faster oscillation, in order to assist in breaking up moist material particles.

MODIFICATIONS

DIAGRAM OF RIFFLE TRAY



INSTALL 1/2" STRIPS OF MASKING TAPE UNDER
BLACK CLOTH CARTRIDGE. TRY TAPING EVERY
OTHER RIFFLE

MODIFICATIONS

It may be necessary to make a slight modification to the concentrator box by creating a dead air space between a riffle. This could improve fine gold recovery in areas where extremely fine gold and a low concentration of black sand occurs. This is accomplished by placing a narrow strip of masking tape under the cloth cartridge, just before the riffle approximately 1/2 inch wide as per the above diagram.

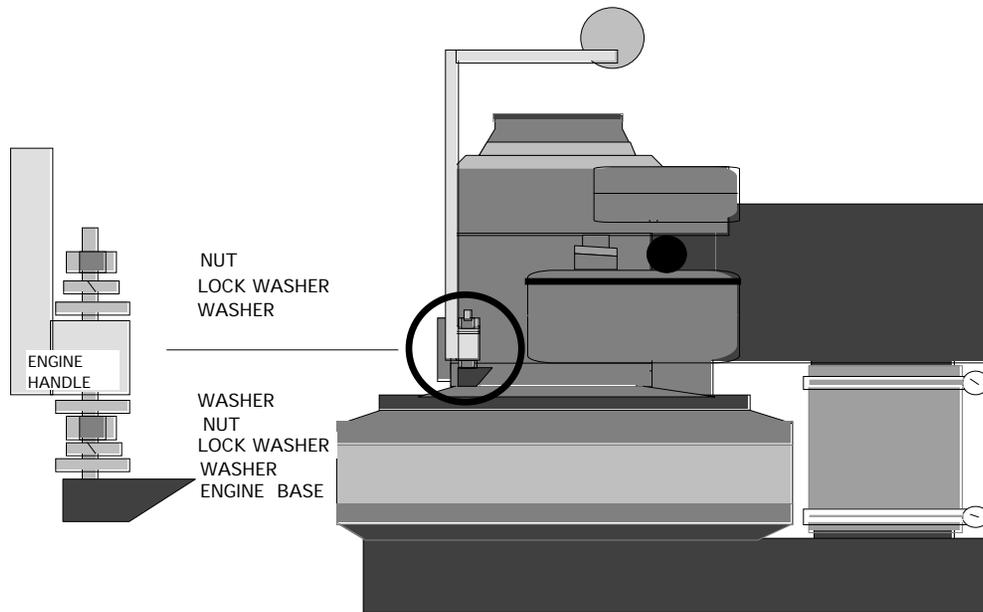
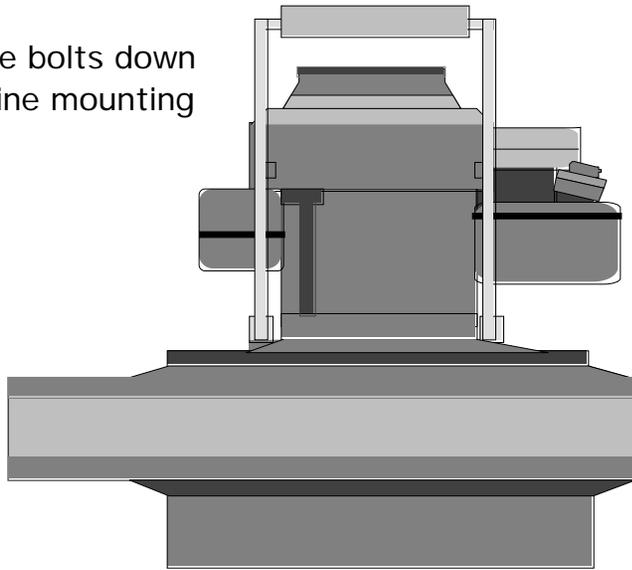
IF AIR FLOW OR VIBRATION DECLINES OR STOPS

If vibration decreases, or stops and the machine appears to not be working properly: **#1**. Check the riffle system for the any obstructions in the airflow. This may be caused by particles being sucked into the blower, causing the riffle board to become plugged. To remedy this situation, firmly strike the bottom of the riffle board with the palm of your hand to remove any dust or debris that has caused this problem. **#2** Stop the engine and turn the vibrator slowly by hand, checking for any resistance in the bearing. If the bearing is showing signs of wear it may require replacing.

Note: DUE TO THE WIDE VARIETY OF CONDITIONS THAT OCCUR IN THE FIELD, SPECIAL ADJUSTMENTS AND MODIFICATIONS MAY BE NECESSARY TO ACHIEVE THE BEST RECOVERY POSSIBLE

151 Engine handle mounting for the Briggs and Stratton and the economy Honda engine.

Engine Handle bolts down to lower engine mounting studs.



The model 151H does not use a engine handle.



The Honda engine mounts similar to the Briggs and Stratton engine. The Honda requires two extra supports.



The engine does not come with oil in the crank case. Be sure to add oil.