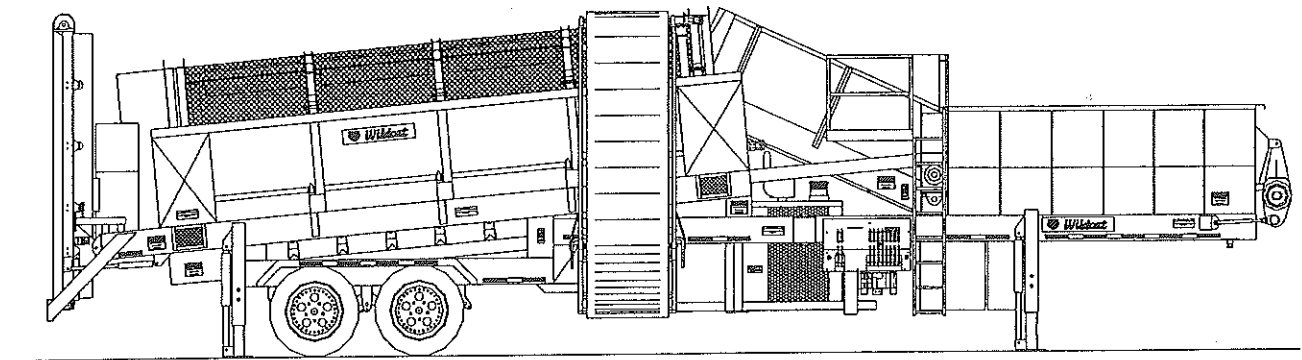


# TECHNICAL SPECIFICATIONS FOR A WILDCAT TROMMEL SCREENING PLANT MODEL RHC 6-230



## GENERAL:

This screening plant is completely self-contained and includes attached fines and overs stacking conveyors that fold down hydraulically. This screening plant can be set up and ready to operate in approximately 15 minutes.

This machine is manufactured to be legal for highway transporting in most states.

## CAPACITY:

This trommel screen is capable of producing 200 cubic yards per hour with  $\frac{1}{2}$ " screens installed, screening material with a moisture content of less than 40%. Capacities will vary with different materials.

## DIMENSIONS:

102" wide (8' - 6")  
13' - 4" high  
49' long

## WEIGHT:

47,500 lbs. total weight (Weight will vary with options.)

## ENGINE:

This machine is powered by a 4-cylinder John Deere 4045T PowerTech Diesel Engine rated, per S.A.E. standards, at 125 HP at 2,400 RPM, with 276 cubic inch (4.5 Liters) displacement. This diesel engine operates a complete hydraulic system.

This machine is equipped with a 78 AMP Delco Alternator.

Engine is water-cooled.

Turbo II pre-cleaner with two stage air cleaner.

Battery is 60 month, 1,000 cold cranking amp, 12-volt.

Engine compartment is constructed of 12-gauge sheet metal.

Radiator fan is the blower (pusher) type and draws cool air through the side panels of the engine compartment.

Engine compartment side panels are perforated with staggered 1/16" openings giving the panel a minimum total open area of 41%.

Perforated panels cover 3,728.5 square inches for total open area of 1,528.7 square inches at 41%.

Engine compartment is designed to limit the particle size of contaminants entering the engine compartment and passing through the radiator minimizing radiator plugging.

Engine compartment can be serviced from ground level without the aid of ladders.

Engine compartment side panels allow easy access for servicing.

Engine has lockable "T" handles to discourage theft and vandalism.

Engine compartment is located under inclined feeder conveyor allowing easy access for servicing.

#### **FUEL TANK:**

Trommel screen is equipped with a D.O.T. approved fuel tank with a capacity of 100 gallons. Fuel tank is pickled and oiled to guard against corrosion and mill scale contamination.

#### **CONTROL BOX:**

To include the following:

- Throttle Control
- Ignition Switch
- Murphy Switch
- Tachometer/Hour Meter
- Amp Meter Gauge
- Water Temperature Gauge
- Oil Pressure Gauge
- Fuel Level Gauge

Control box is weather resistant with a lockable cover and is back lit for night operation.

#### **HYDRAULICS:**

Hydraulic system is a state of the art pressure compensated, load sensing system, with a peak operating pressures preset at 2,700 PSI.

Hydraulic pumps are Hydura Oilgear piston type.

The first pump operates the apron feed conveyor and trommel drum and is rated at 6 cubic inches of displacement with an available flow of 62.3 GPM at 2,400 RPM with a constant load of 80%.

The second pump operates all set-up functions and out-feed conveyors and is rated at 4.67 cubic inches of displacement with an available flow of 48.5 GPM at 2,400 RPM with a constant load of 80%.

The hydraulic fluid is filtered through a 10-micron filter before returning to the tank.

Hydraulic tank has a capacity of 150 gallons.

Tank is constructed of 10-gauge sheet metal that has been pickled and oiled to guard against corrosion and mill scale contamination.

The tank has a sight gauge to check the oil level, and also incorporates a thermometer for easy reading of the oil temperature.

The oil is cooled by the use of an oil cooler mounted in front of the diesel engine's radiator.

Individual control valves are included for each function and have the ability to be varied individually.

Control valves are labeled according to their function and are numbered in reference to the desired starting sequence.

Two extra control valves are included to operate two additional stacking conveyors up to 40 feet in length. These valves have an available flow of 7 GPM and are set at 2,700 PSI.

Hydraulic hoses are Parker 451TC with a black synthetic rubber cover. Outside cover of the hydraulic lines are oil, weather and abrasion resistant.

Permanent crimp Parker Hanifin fittings have a 4 to 1 safety ratio and are constructed of high strength steel. Fittings have a base plating consisting of zinc and a final plating of gold chromate and are weather and shock resistant.

Pressure lines are rated at minimum bursting pressure of 14,000 PSI and minimum rated working pressure of 3,500 PSI.

#### **HOPPER APRON & FEEDER:**

Hopper apron and feeder chain are incorporated into one integral system to feed material into the trommel.

Hopper apron and feeder chain consist of WH9103HD heat treated conveyor chain, one on each side of hopper with crossbars welded approximately every 12". Crossbars are constructed of 1" x 3" flat.

Apron is driven by dual hydraulic motors and is variable in speed from 0 – 9 RPM.

All drive, return and idler sprockets are heat-treated.

Idler shaft is 2-7/16" diameter supporting top and intermediate idler sprockets.

Hopper is constructed of ¼" plate and reinforced with ½" plate ribs around the sides.

Hopper size is approximately a 12-yard capacity with both sides folded up.

Bottom opening of hopper is 51" wide to avoid material bridging.

Feed opening is 51" wide and 40" high.

Either side of hopper can be folded down to accommodate smaller loaders.

Top edge of hopper is no more than 9' – 6" from ground level, with sides down, to eliminate the need for ramps, with most loaders.

Top edge of hopper with sides up is no more than 11' - 7" from ground level.

Hopper incorporates an adjustable striker bar to eliminate material riding over the trommel drum and also ensure a consistent feed rate free of large clumps of material suddenly entering the trommel drum.

#### **SCREEN DRUM:**

Screen drum, nominal diameter 6' x 23' long.

Trommel drum is constructed from two pairs of 4 x 4 x ½ structural steel rolled angles located at each end of the drum with three rolled 4 x 5.4 structural channels along the length of the drum, forming three individual rings. These rings are tied together by six 5 x 5 x 3/8 steel angles evenly spaced around the drum at 60 degree intervals. These angles run the length of the trommel drum lifting and agitating the material within the drum. Twelve rolled ½ x 1¼ flat bars (three per section) provide additional strength to the trommel drum.

Trommel drum has 377 square feet of available screening area and 256.5 square feet of open screening area with ½" screens installed.

End ring of trommel drum is constructed of 3/8" rolled steel plate.

Drum supported and driven by four, 21" x 7" solid rubber tires, two each, at feed and discharge end of drum.

Thrust wheels contact the ring at discharge end of the drum and are made of hard poly outer wear surface with two 1" tapered roller bearings.

Screen drum is powered by dual hydraulic motors; which can vary in speed up to 24 RPM.

One set of standard screen panels size to be customer choice. On one end screens are tensioned by clamp bars. **NOTE:** Screen sizes with less than 3/8" openings will have an extra charge.

Screen panels are attached and tensioned with stainless steel threaded rods to guard against corrosion.

Screen drum incorporates six accelerator blades to assist in initial mixing and flow of material.

Skirting, 10-gauge both sides of screen drum to deflect material onto collecting conveyor.

Trommel drum angle is adjustable from 3 to a maximum of 5 degrees by adjusting hydraulic leveling jacks.

There are 8 screen panels, each encompassing 1/2 of the circumference of the drum.

#### **SCREEN BRUSHES:**

Four brushes cover full length of screen panels.

12" diameter polyethylene bristles.

Each brush assembly supported by two 1-15/16" sealed ball bearings.

Turnbuckles allow penetration of brushes into screen panels to be adjusted according to material. Turnbuckles allow brushes to be lifted off trommel drum when brushes aren't needed.

Spring rake teeth groom and rake foreign material from brushes assuring that the brush assembly remains clean at all times.

#### **COLLECTING CONVEYOR:**

Collecting conveyor is 36" wide by 16' - 0" long.

Construction is from 6" channel and is crossbraced with tubing and supported by the trommel frame.

Troughing idlers are 20 degrees 4" diameter CEMA "B" with permanently sealed ball bearings. Troughing idlers are spaced on approximately 24" centers.

36" wide 220# 2-ply smooth conveyor belt with 3/16" x 1/16" covers.

One adjustable 1/2" x 4" x 36" rubber belt cleaner that is reversible.

12" diameter x 38" wide head pulley with 1-15/16" diameter cold drawn shafts, two pillow block sealed ball bearings.

10" x 38" wide steel tail pulley with 1-15/16" diameter shafts with two pillow block sealed ball bearings.

12" take up frame allows for adjusting of conveyor belt up to 12".

A hydraulic motor that is powered by the hydraulic pumps on the screening plant drives the collecting conveyor. The speed of this conveyor can be varied in conjunction with the fines stacker to suit a variety of materials.

#### **FINES STACKING CONVEYOR:**

The fines stacking conveyor is attached to the trommel screening plant and is hydraulically lowered for operation by use of two hydraulic cylinders.

The fines stacking conveyor is 36" wide x 14' long.

Fines stacking conveyor is set at 26 degrees.

Conveyor frame is constructed of 5" channel braced with structural square tubing.

Conveyor is driven hydraulically. The speed of this conveyor can be varied to suit a variety of materials.

Troughing idlers are 20 degrees x 4" diameter CEMA "B" with permanently sealed ball bearings. Troughing idlers are spaced approximately 33".

36" wide 220# 2-ply smooth conveyor belt with 3/16" x 1/16" covers.

10" diameter x 38" wide head pulley with 1-15/16" diameter shaft with 2 bolt pillow block sealed ball bearings.

8" diameter x 38" wide steel tail pulley with 1-15/16" diameter cold drawn shafts with two pillow block sealed ball bearings.

Take up frame allows adjusting of conveyor belt to 6".

Loading hopper at bottom of conveyor.

Shields are provided for conveyor troughing idlers.

Fines conveyor will stack material 7' - 0" high.

Two adjustable  $\frac{1}{2}$ " x 4 x 36" rubber belt cleaners are reversible.

#### **REJECT CONVEYOR:**

The reject conveyor is attached to the trommel screening plant and is hydraulically lowered for operation by two hydraulic cylinders.

The reject conveyor is 36" wide by 11' long.

Conveyor frame is constructed by 5" channel cross-braced with tubing and is driven hydraulically. The speed of this conveyor can vary to suit a variety of materials.

Troughing idlers are 20 degrees by 4" diameter CEMA "B" with permanently sealed ball bearings. Troughing idlers are spaced approximately 29".

36" wide 220# 2-ply smooth belt with  $\frac{3}{16}$ " x  $\frac{1}{16}$ " covers.

10" diameter by 38" wide head pulley with  $\frac{1-15}{16}$ " diameter with cold drawn shafts with two pillow block sealed ball bearings.

8" diameter by 38" wide steel tail pulley with  $\frac{1-15}{16}$ " diameter shaft with 2 pillow block sealed ball bearings.

6" take up frame for adjusting of conveyor belt up to 6".

Necessary shielding is provided for conveyor covering troughing idlers.

Reject conveyor stacking height is 7' - 0" high.

One adjustable  $\frac{1}{2}$ " x 4" x 36" rubber belt cleaner that is reversible.

#### **UNDERCARRIAGE:**

Main frame rails are 6" x 12" x  $\frac{3}{8}$ " rectangular tubing. Frame is cross-braced with pipe and tubing as required for maximum frame strength.

Standard 2" fifth-wheel king pin, brake and clearance lights.

Tandem axle with hutch suspension equipped with air brakes.

425 65R 22.5 T 839 Radial 20 ply super single pneumatic tires with polished aluminum wheels.

Two sets of hydraulically operated landing gears. Landing gear have the ability to be operated independently of each other, for leveling of machine and have a maximum stroke of 24 inches. Landing gear use a manual pin to ensure that main frame remains at the desired height.

Undercarriage uses tubing on the main frame to help eliminate areas where material can build up, causing corrosion, no "I" beams are used.

Trailer and lighting system meet all state and federal regulations. To meet NHTSA mandate reflective tape is installed on the unit.

**LADDER:**

Ladder is located adjacent to the hopper and incorporates OSHA approved steps.

Cat walk uses a safety railing with a safety chain gate.

**WARRANTY:**

One year parts and labor.

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**OPTIONAL EQUIPMENT**

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- Grizzly (manually operated)
- Grizzly (operated by remote control)
- Additional Fines and/or Overs Stacking Conveyors
- Attached Double Folding Fines Stacking Conveyor – capable of stacking 13' tall (this unit will be over width)
- Attached Double Folding Reject Stacking Conveyor – capable of stacking 13' tall
- Magnetic head pulleys
- Rotary Brush Belt Cleaner for Crescent Belting
- Electric Motor in place of diesel engine to power hydraulic system, no additional charge

**NOTE:** Wildcat reserves the right to change the above specifications at it's own discretion.