

HW300

Start Up Agenda

A Safe, Productive Option for Unique Digging Applications



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Startup Agenda

Task		Responsibility
1	Review schedule training	
2	Establish machine transportation and routing	
3	Review site where HWM will be assembled	
3	Schedule 165 ton crane	
5	Schedule and staff assembly shifts	
6	Set up mechanics – truck and tool package	
7	Arrange diesel fuel, hydraulic oil, gear lube antifreeze and grease supply	
8	Determine cutting bits to be used by supplier	
9	HWM insurance in place prior to mining	
10	Review shift report, preventative maintenance and tonnage chart programs	
11	Discuss faxing SHM shift reports and oil samples FAX #304-253-0513	
12	Establish spare parts package and set up inventory site	
13	Establish phone communication in cab	
14	Review parts book, electric and hydraulic schematics	
15	Secure mine maps of areas to be mined	
16	Establish baseline and initial machine alignment	
17	Ensure all personnel and suppliers have exact direction to HWM work site	
18	Arrange for all HWM to be steam cleaned on bi-weekly basis	
19	Make arrangements with local vendor on hose supplies	
20	Assure loader on site for beam unloading	
21	Review parts inventory-customer to confirm and sign off	
22	Review warranty procedures	
23	Discuss any safety requirements	
24	Review inventory amount	
25	Review SHM employee phone list	

Tool Inventory List

Tool	Tool
Oxygen and Acetylene set up	Lifting Straps
Tip cleaners	Rope (1/2 or 3/4 in) -100 ft
Torch tips	Mechanic wire
400-amp Portable Diesel Welder and 110 volt generator	4 in disc grinder and grinding blades
Welding gloves	7 in disc grinder and blades
Welding helmet with extra glass –clear	Drills, electric and battery
Shades and #6 shades	Emery cloth
Air Compressor & Air Tools	Roll of electric wire #14 single cond.
Socket Set 1/2 & 3/4 metric	Electrical splices -1/0; 2/0; #6, #10, #12
Socket set US up to 1-3/4 in	Easy outs
Vice	Socket Allen Wrenches -US & Metric - Allens to 7/8 and up to 19 mm
Pry bars	Wire brushes
Tap set	Vice grips
Eye protection	(2) 6 in C-Clamps
Rain suits	(2) 5 ft –1/4 in chains with hooks
Set of files	Crimper (manual)
25 ft Tape measure	5-ft slate bars
2 ft Square	Rose gun
2 ft Level	Grease gun
100 ft steel tape measure	Gear pullers
Assorted tape	Shovels-coal, dirt, track
Silicone	Channel Locks
Lock tight and anti seize	Spot light
2 ton Come-a-long	Extension cords – 50 ft
3-way striker	Mine lights and charger
Wrenches -box/open	Specialty Tools
Snap ring pliers (assortment)	Multimeter-Fluke model 87 III
Hammers Ball peen/sledge/etc.	Temperature Gun
Chipping Hammer	Tachometer Gun
Striker	Megger for motor/ground field check (Biddle Model 250260) battery operated
3/4 to 1/2 adapter for socket sets	Amp Probe-up to 1000 amp
1/2 to 3/8 adapter for socket sets	Portapower-30 ton
3/4-in Impact wrench and sockets	Wheel/bearing puller-12 in
Assortment of pry bars	Kerosene Heater
Chisels	Miscellaneous Tarps
Long punches	Tool Truck Recommendations
Chain wrench	2-Ton, 2-wheel drive (diesel)
Hacksaw	3 -Ton Crane with 15 to 18 ft reach
Pipe wrenches	Miscellaneous items required for machine assembly
24 in/16 in/12 in/8 in crescent wrenches	28-8 x 8 x 30 in crib blocks
Cable crimpers	
Screwdrivers	
Scrapers (putty knife)	
Chains (1/4 in and 3/8 x 10 ft)	

SHM System Staffing Requirement

Two operators (or trainees), preferably at least one with experience.

Two certified electricians

Two ground men (any experience)

Two Loader operators

Assembly and startup shifts – two 12-hour shifts

HW300

Job Descriptions

Project Manager

(Note: Project managers can also be technicians)

HWM manager responsible for complete HWM operation, including safety, personnel, mining and planning.

Technician

Federal and State Certified electrician with the ability to troubleshoot PLC, control circuits, low, medium, and high voltage electrical circuits.

A good understanding of mechanical and hydraulics functions of the machine is required.

Must be able to operate HWM and understand functions.

Must have welding and cutting torch experience.

Capable of performing mechanical repairs.

Capable of performing preventative maintenance schedules and tasks on all HW300 related equipment.

Must be able to perform repairman's duties, aligning pushbeams and setting up machine on bench prior to start of entry.

Must have ability to interface with the HW300 operator to set the machine up for mining.

Must have ability to operate any mobile support equipment associated with the Highwall, including but not limited to: coal stacker, cross conveyor, water truck, mechanic's truck, etc.

HW300

Job Descriptions

HW300 Operator

Machine operator responsible for all mining functions. Must be able to operate the equipment in a safe and productive manner.

Capable of assisting mechanic with repairs.

Capable of performing preventative maintenance schedules and tasks.

Must be able to perform repairman's duties, aligning push beams and setting up machine on bench prior to start of entry.

Must be able to pass OEM certification training.

Must have ability to set the machine up for mining.

Must have ability to operate any mobile support equipment associated with the Highwall, including but not limited to: coal stacker, cross conveyor, water truck, mechanic's truck, etc.

Repairman

Individual with welding experience and a good understanding of preventative maintenance.

The ability to interface with the HWM operator to set the machine up for mining and moving.

Capable of assisting mechanic with repairs.

Capable of performing preventative maintenance schedules and tasks.

Must be able to perform repairman's duties, aligning pushbeams and setting up machine on bench prior to start of entry.

Must have ability to interface with the HWM operator to set the machine up for mining.

Must have ability to operate any mobile support equipment associated with the Highwall, including but not limited to: coal stacker, cross conveyor, water truck, mechanic's truck, etc.

HW300

Job Descriptions

Loader Operator

Individual with wheel loader experience for loading and unloading pushbeams, cleaning up around miner and padding up the CHM to launch.

The ability to interface with the HWM operator to set the machine up for mining.

Capable of assisting mechanic with all repairs.

Capable of performing preventative maintenance schedules and tasks on all HWM related equipment.

Must be able to perform repairman's duties, aligning pushbeams and setting up machine on bench prior to start of entry.

Must have ability to operate any mobile support equipment associated with the Highwall, including but not limited to: coal stacker, cross conveyor, water truck, mechanic's truck, etc.

Training Class Agenda

Hydraulics

Review schematics on entire miner.
Set pressures on a complete set of pumps.
Discuss dial indicator on the pumps.
Safety discussion about the potential dangers of hydraulics.
Take questions on specific problems and discuss.

Electrical

Discuss different power sources.
Discussion about different transformers and their purpose.
Discussion about instantaneous settings and the NEC.
Discuss ground fault testing.
Review different ways to get the resistance down on ground fields.
The difference between C power and O power
Review the schematics on the entire miner.
Take questions on specific problems and discuss.

Electronics

Demonstrate the “save” function on the PLC program.
Demonstrate the “restart” function on the PLC.
Demonstrate the “load” function on the PLC.
Discuss X, Y, WX, and WY.
Discuss C and V.
Review fault pages and discuss address.
Open Tisoft and do a “Find” on a fault address.
Discussion about the difference between a coil and contacts in ladder logic.
Discuss NO and NC contacts.
Discuss different function boxes and what they do.
Review force pages and discuss.
Review setup page and go over calibrations.
Discuss Time Management program and discuss necessary operator entries.
Review service scheduling pages.
Review parts book section of the touch screen.

Other items

Cummins Engine Overview

All crews involved in shop work during disassembly (2-3 days), reassembly at the mine site (2-3 days).
WITH OPTIONAL Joy Cutter head, Maintenance, training to be planned into schedule.

Transport Schedule

Delivery Schedule will be submitted two weeks before delivery.

MUST FOLLOW LOAD SEQUENCE

The System will be shipped to the mine site following the completion of disassembling.
The following equipment needs to be available upon arrival of the System:

- 165 ton Crane needed
- Fork Lift
- Boom Truck needs to be available
- Mechanic's truck needs to be on site

Startup Agenda

Description by Section	Weight	Trailer Type	Notes
Basic Power Module (BPM)	24,869 lbs	Step Deck	19.8 ft L X 7.9 ft W X 8.5 ft W
28 ft Container/spares	23,100 lbs	Flat	Standard Container
Base Frame Assy (w/o PH)	81,450 lbs	Flat	10 conveyor return line plates can be removed at 16, 000 lbs total
Power head Assembly	52,000 lbs	Flat	
Front Track/Super Beam	52,000 lbs	26 ft Well Low boy	12 ft 10 in high
Rear Track/Super Beam	52,000 lbs	26 ft Well Low boy	12 ft 10 in high
Hose Reel	35,000 lbs	Step Deck	16 ft
Cutterhead: SHM Low profile Joy 14CM15	43,000 lbs 90,000 lbs	Step deck	9 ft 6 in wide 11 ft 6 in wide
Generator	77,000 lbs	Rail	13 ft high
Control Cabin and Catwalk	8,080 lbs	Step Deck	19.8 ft L X 6.8 ft W 1.6 ft H
44 Pushbeams	12,450 lbs ea	Flat	19.6 ft L X 10.2 ft W 1.6 ft H
Rear Discharge Boom (1)	10,000 lbs	Flat	15.7 ft L X 10.2 ft W X 7 ft H
Radial Discharge Frame (1)	10,000 lbs	Flat	18.3 ft L X 12.2 ft W X 10.2 ft H
RD Belt and Pushbeam Stagger Skid (3)	6,000 lbs	Flat	24.6 ft L x 8.5 ft W x 3.2 ft H
Pushbeam and Transfer Mechanism (PTM)	5,500 lbs	Flat	12.3 ft wide
Pushbeam Transfer FS	84,750	Flat	11 ft wide
Pushbeam Transfer Rs	84,750	Flat	11 ft wide

Employee Contact Information

Title	Name
Director of HW300 Operations	Stewart Myers
Director Material Management	Bobby Johnson
Sales Director	JD Fairchild
Sales Director	Jim Argabrite
Warehouse Manager	Pam Gilliam
Director of Service	Frank Nett
Purchasing Agent	Les Lilly
Part Sales	Ronnie Adkins
Part Sales	Gary Hurd
Warehouse	Jerry Killen
Service Manager	Doug Meador
Startup Contact	Larry Rice

All service calls must go through the service department (304-253-0206).

Coolant Chart

Component	Recommended Coolant	Capacities	Glycol/Freezepoint (F°)	Service Life
995V Generator	50/50 Glycol	According to radiator size	-34°	Check at every oil change (250 hr)
480V Generator	50/50 Glycol	4.5 Gal	-34°	Check at every oil change (250 hr)
Cutter Motors	50/50 Glycol	100 Gal Tank in BPM	-34°	Check at every oil change (250 hr)
Horizontal Motors	50/50 Glycol	100 Gal Tank in BPM	-34°	Check at every oil change (250 hr)

Lube Oil Chart

Component	Recommended Type	Capacities	Viscosity	Viscosity	Service Life
995V Generator Engine	Mobil 15W40	40 Gal to high 32 Gal to low	Viscosity cSt at 40°C 117	Viscosity cSt at 100°C 15.7	Sample every 250 hrs
480V Generator Engine	Mobil 15W40	11.6 qt	Viscosity cSt at 40°C 117	Viscosity cSt at 100°C 15.7	Sample every 250 hrs
Horizontal Auger Gearbox	Fuch's Gearpro 6/S	7.5 Gal	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Vertical Auger Gearbox	Fuch's Gearpro 6/S	2.8 Gal	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Chain Conveyor Gearbox	Fuch's Gearpro 6/S	5 Gal	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Track Planetary	Fuch's Gearpro 6/S	7.5 Liters	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Cutter Gearbox Low Profile	Fuch's Gearpro 6/S	9 Gal each side	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Gathering Pots Low Profile	Fuch's Gearpro 6/S	3 Gal each side	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs

Coolant Chart

Component	Recommended Coolant	Capacities	Viscosity	Viscosity	Service Life
Cutter Drum Low Profile	Fuch's Gearpro 6/S	6 Gal Total	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Cutter Gearbox 14CM-15	Fuch's Gearpro 6/S	22 Gal Total Both Sides	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Gathering Pots 14CM-15	Fuch's Gearpro 6/S	3 Gal Total Each Side	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Gathering Speed Reducer 14CM-15	Fuch's Gearpro 6/S	2.5 Gal Each Side	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Cutter Drum 14CM-15	Fuch's Gearpro 6/S	3 Gal Each Side 6 Gal Total	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Cutter Gearbox 14CM-10A	Fuch's Gearpro 6/S	22 Gal Total Both Sides	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Gathering Pots 14CM-10A	Fuch's Gearpro 6/S	3 Gal Each Side	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Gathering Speed Reducer 14CM-10A	Fuch's Gearpro 6/S	2.5 Gal Each Side	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Cutter Drum 14CM-10A	Fuch's Gearpro 6/S	3 Gal Each Side 6 Gal Total	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Cutter Gearbox 14CM-10AA	Fuch's Gearpro 6/S	20 Gal Total Both Sides	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Gathering Pots 14CM-10AA	Fuch's Gearpro 6/S	3 Gal Each Side	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Gathering Speed Reducer 14CM-10AA	Fuch's Gearpro 6/S	2.5 Gal Each Side	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Cutter Drum 14CM-10AA	Fuch's Gearpro 6/S	Keep drum 1/2 full according To drum size	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs

Coolant Chart

Component	Recommended Coolant	Capacities	Viscosity	Viscosity	Service Life
Cutter Gearbox 12CM-12	Fuch's Gearpro 6/S	4 Gal Each Side 8 Gal Total	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Gathering Pots 12CM-12	Fuch's Gearpro 6/S	3 Gal Each Side	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Gathering Speed Reducer 12CM-12	Fuch's Gearpro 6/S	2.5 Gal Each Side	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Cutter Drum 12CM-12	Fuch's Gearpro 6/S	5.75 Gal Each Side	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Cutter Gearbox 14CM-9	Fuch's Gearpro 6/S	22 Gal Total Both Sides	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Gathering Pots 14CM-9	Fuch's Gearpro 6/S	3 Gal Each Side	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Gathering Speed Reducer 14CM-9	Fuch's Gearpro 6/S	2.5 Gal Each Side	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Cutter Drum 14CM-9	Fuch's Gearpro 6/S	3 Gal Each Side 6 Gal Total	Viscosity SUS/cSt at 100°F 1485/320	Viscosity cSt at 100°C 33.9	Sample every 250 hrs
Cutter Gearbox Eimco Dash 1	Multi Tran	6 Gal Each Side	Viscosity cSt at 40°C 54	Viscosity cSt at 100°C 9.7	Sample every 250 hrs
Gathering Pots Eimco Dash 1	ISO 320	3.5 Gal	Viscosity cSt at 40°C 40	Viscosity cSt at 100°C 5.3	Sample every 250 hrs
Cutter Drum Eimco Dash 1	ISO 320	8 Gal	Viscosity cSt at 40°C 40	Viscosity cSt at 100°C 5.3	Sample every 250 hrs
Hydraulic Oil in 995V Generator	AWG 68	159 US Gal	Viscosity cSt at 20°C 99.5	Viscosity cSt at 40°C 44.5	Sample every 250 hrs
Hydraulic Oil for Miner	AWG 68	100 US Gal	Viscosity cSt at 20°C 99.5	Viscosity cSt at 40°C 44.5	Sample every 250 hrs

Component Warranties

Product	Length	Company
Electrical Components (ECM)	1 year	Mining Controls, Inc.
Siemens Electrical Components	1 year	RECO
PLC Siemens	1 year	RECO
Operating Touchscreen	1 year	RECO
High Voltage Slip Ring	1 year	Cavotec
P.A. System	1 year	State Electric
3516 Cat Engine	1 year	Caterpillar
995 Alternator	1 year	Marelli
80 kW Generator Set	1 year	Caterpillar
Cab Air Conditioner	1 year	Carrier
Electric Fan Motors	1 year	Lincoln
Electrical Motors	6 months *	Normal Supplier
Pumps	6 months	Rexroth Hydraulics
Hydraulic Valves	6 months	Rexroth Hydraulics
ECM Air Conditioner	6 months	Westinghouse
Grease Pump	6 months	Alamite
Air Compressor	6 months	Kellogg
Sump Cylinders	6 months	SHM
Positioning Encoders (Tracks)	6 months	Celesco
Positioning Encoders (Powerhead)	6 months	Celesco
Cutterhead Shear Transducer	6 months	MTS
Horizontal Auger Gear Cases	6 months	SHM
Track Planetaries	6 months	Lohman
SHM Low Seam Cutterhead	6 months	SHM

**Materials and workmanship only –*

**Not against overload conditions on all components*

Rockland HW Pushbeam Grapples

Handle Mining Beams with ease!

Rockland HW Pushbeam Grapples were designed specifically to transport highwall mining beams. Much safer than using standard forks, Rockland Pushbeam Grapples give operators the ability to transport mining beams quickly and safely. In some cases, larger category machines can handle two beams per load. Please call Rockland at 800-458-3773 for more information about handling two beams per load.

All Rockland Pushbeam Grapples feature

- Tapered forks for easy loading and unloading
- Rubber-tipped clamps that prevent slipping
- High-strength, lightweight, steel construction throughout
- A Rockland no-nonsense warranty of 1 year or 2,000 hours
- Guaranteed delivery
- Free product color matching



Pushbeam grapple equipped with coupler brackets

Machine Category	40	50	60	70	80	90
Tine size	3.5 in x 9 in x 76 in (89 mm x 229 mm x 1930 mm)	3.5 in x 9 in x 76 in (89 mm x 229 mm x 1930 mm)	3.5 in x 9 in x 76 in (89 mm x 229 mm x 1930 mm)	4 in x 9 in x 76 in (102 mm x 229 mm x 1930 mm)	4 in x 9 in x 76 in (102 mm x 229 mm x 1930 mm)	4 in x 9 in x 76 in (102 mm x 229 mm x 1930 mm)
Width over tines	80 in (2032 mm)	80 in (2032 mm)	80 in (2032 mm)	80 in (2032 mm)	80 in (2032 mm)	93 in (2362 mm)
Overall width	102 in (2591 mm)	102 in (2591 mm)	102 in (2591 mm)	110 in (2794 mm)	110 in (2794 mm)	116 in (2946 mm)
Overall height	38 in (965 mm)	38 in (965 mm)	38 in (965 mm)	40 in (1016 mm)	40 in (1016 mm)	40 in (1016 mm)
Weight	3915 lbs (1776 kg)	4215 lbs (1912 kg)	5740 lbs (2604 kg)	7275 lbs (3300 kg)	8800 lbs (3992 kg)	9035 lbs (4098 kg)

Specifications subject to change without notice

Mounting Information

All Rockland HW Pushbeam Grapples come complete with jumper hoses ready to mount in place of the standard bucket using factory pins or specified coupler brackets. A three-spool valve and lift arm piping are required to complete the installation.

Warranty

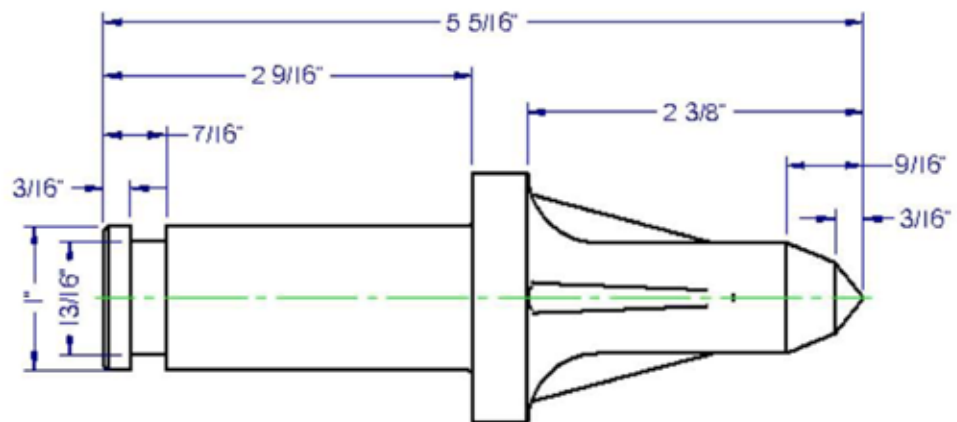
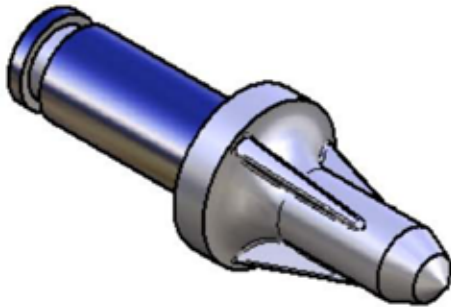
Rockland guarantees all Pushbeam Grapples against failure due to defective design, workmanship, or materials for a period of one year or 2000 hours.

Distribution

Distributed by:

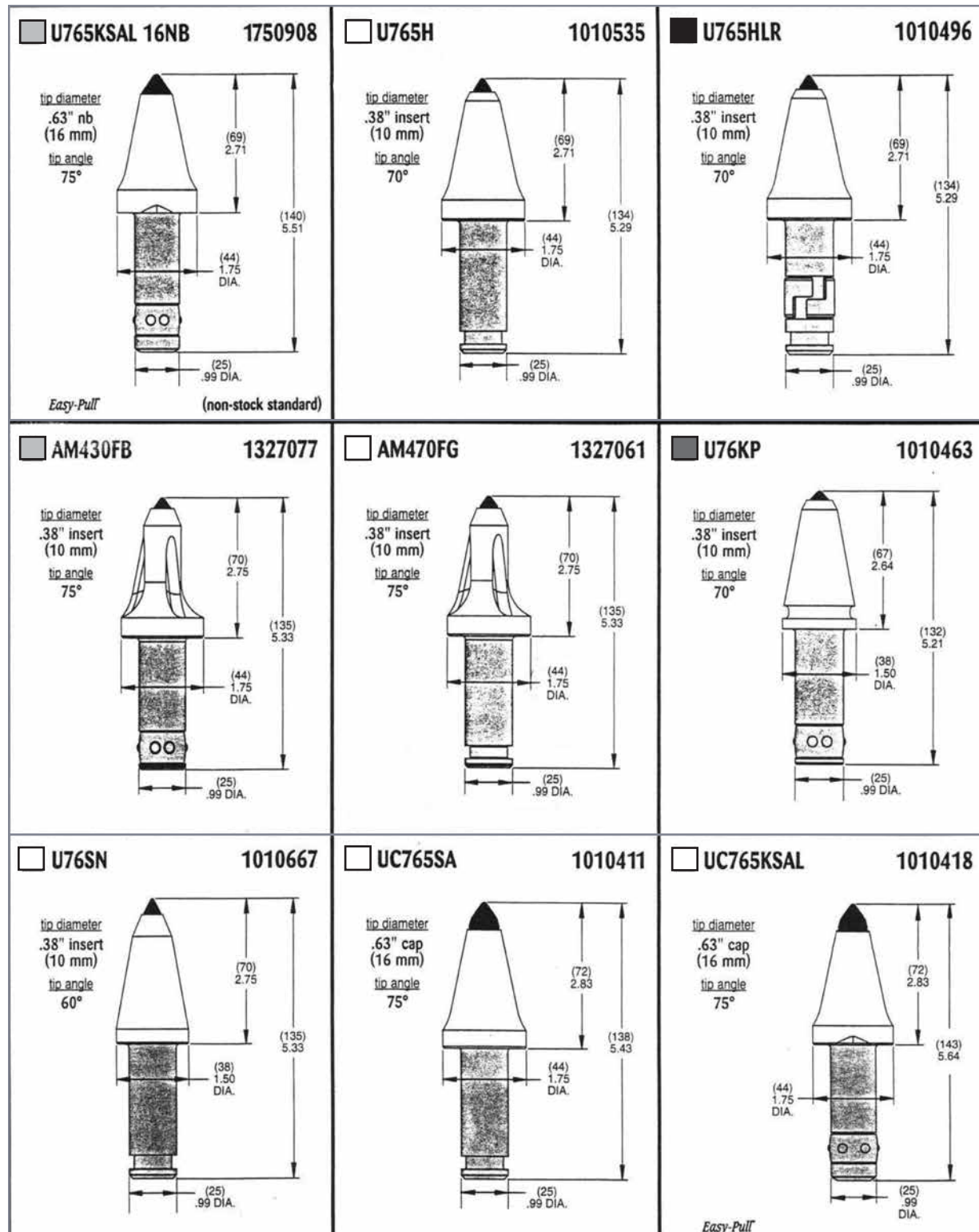
Rockland Manufacturing Company
PO Box 5, Bedford, PA 15522
(800) 458-3773 rocklandmfg.com

Conical Tools



Conical Tools

1" (25 mm) Shank Tools



Cutting Conditions:



U70 puller - 1012104, U70 HP P1 puller - 1012111, U70 HP puller - 1012108 — Use the U70, U70HP P1, and U70 HP pullers for the 1 in (25 mm) conical tools listed in this section. See page 48 for a complete line of pullers.

Preventative Maintenance Checklists

Low Profile Cutterhead

Please initial item as it is completed.
Turn checklist into foreman at the end of each 24 hour period.



Preventative Maintenance Checklist - Monday

Monday, Date _____

Please initial item as it is completed.

Turn checklist into foreman at the end of each 24-hour period.

Description	Initial
Check powerhead cylinders mounting bolts (baseframe and powerhead)	
Check cutterhead transmissions (every entry) type oil: Fuch's Gearpro 6/S	
Check cutterhead drum (every entry) type oil: Fuch's Gearpro 6/S	
Grease front and rear cutterhead auger bearings	
Grease shear boom pins	
Lube: Powerhead, PTM, hose reel - grease points EP2	
Lube: Top of PRM arm, grease points EP2	
Check BPM motor coupling	
Check horizontal auger motor coupling	
Drainsediment trap on antifreeze filters (two filters - silver containers on rear baseframe)	
Grease loader, check all lubricants & fluid levels	
Check hydraulic oil level in BPM (AW46)	
Check antifreeze level in tank (BPM) 50/50	
Go over all electrical connections - tighten	
Drain water from settlement tank (bottom of hydraulic tank) prior to startup	
Grease conveyor mainfold	
Check water in batteries	
Grease hose reel brakes	

Preventative Maintenance Checklist - Tuesday

Tuesday, Date _____

Please initial item as it is completed.

Turn checklist into foreman at the end of each 24-hour period.

Description	Initial
Check all fire extinguishers	
Check cutterhead transmissions	
Check cutterhead drum	
Grease front and rear cutterhead auger gearings	
Grease shear boom pins	
Check horizontal auger gearbox (left and right) type oil: Fuch's Gearpro 6/S	
Check track planetaries; type oil: Fuch's Gearpro 6/S	
Lube: Powerhead, PTM, hose reel - grease points	
Check grease in hose reel planetary; EP2	
Check tension of cutter chains (5 inch slack)	
Check hydraulic oil level in BPM	
Check antifreeze level in BPM	
Check vertical auger gearbox coupling	
Check vertical auger gearbox fluid level type oil: Fuch's Gearpro 6/S	
Grease track turning cylinders	

Preventative Maintenance Checklist - Wednesday

Wednesday, Date _____

Please initial item as it is completed.

Turn checklist into foreman at the end of each 24-hour period.

Description	Initial
Check water in batteries	
Check cutterhead transmissions	
Check cutterhead drum	
Tighten steering collar bolts	
Tighten hose reel mount bolts	
Lube: Powerhead, PTM, hose reel - grease points	
Check horizontal auger couplings	
Check powerhead brass condition and wear Installed thickness 1.5 in, minimum thickness 1 in	
Check PTM mounting bolts	
Inspect PTM for cracks/wear	
Tighten powerhead horizontal auger pillow block bearings	
Ensure powerhead horizontal auger pillow block bearings are greasing	
Check and tighten vertical wreath	
Check hydraulic oil level in BPM	
Check antifreeze level in tank (BPM)	
Grease front and rear cutterhead auger bearings	
Clean out area in and around shear cylinders	
Grease shear boom pins	
Grease all electrical motors (bi-weekly) on all but cutterhead-cutterhead weekly Poly UREA Grease	
Make sure bottom vertical bearing is getting grease	
Grease plow bushings	
Grease vertical wreath	

Preventative Maintenance Checklist - Thursday

Thursday, Date _____

Please initial item as it is completed.

Turn checklist into foreman at the end of each 24-hour period.

Description	Initial
Check oilers on powerhead rails	
Check cutterhead transmission	
Check cutterhead drum	
Check H.V. slip ring/brushes	
Check L.V. slip ring connections/mounting	
Lube powerhead, PTM, hose reel - grease points	
Tighten and grease lifting cylinder key busings (bi-weekly)	
Check tightness of cutterhead transmission mounting bolts	
Check hydraulic oil level in BPM	
Check antifreeze level in tank	
Grease front and rear cutterhead auger bearings	
Grease shear boom pins	
Check cutterhead motor to transmission coupling	
Calibrate methane monitor (monthly)	
Check front and rear cutterhead pedestal mount bolts for tightness	

Preventative Maintenance Checklist - Friday

Friday, Date _____

Please initial item as it is completed.

Turn checklist into foreman at the end of each 24-hour period.

Description	Initial
Check cutterhead transmission	
Check cutterhead drum	
Tighten track planetary sprockets (bi-weekly)	
Lube: Powerhead, PTM, hose reel - grease points	
Grease front and rear tracks key bushings (monthly)	
Check hydraulic oil level in BPM	
Check antifreeze level in tank	
Grease front and rear cutterhead auger bearings	
Grease shear boom pins	
Perform weekly generator and engine service checks	
Check air compressor oil level; type oil: SAE 30 non detergent	
Check air compressor air filter; type filter: Kellogg 76701\87374	
Check and clean cable condition of powerhead position encoder	
Grease air compressor motor	

HW300 Start Up Agenda

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at mining.cat.com and www.cat.com

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