

Company Name:	Equipment/Job Identification: Scoop Operator Type of Equipment: S&S 488 Scoop Make: Model: Year: Use:
Mine Name:	
Date of Analysis:	

Pre-Assessment

- List pre-requisites here

Duty 1: Start-of-Shift Activities

Learner will explain the importance of the start-of-shift activities. The learner will explain each job step, why they are conducted, any associated risk, and how to implement appropriate controls. Start-of-shift activities include the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Check in/tag in		1		
Change clothes		1		
Get CSE SR-100	If it don't work or you don't have one – you could die	3		
<ul style="list-style-type: none"> • Check indicators 	If it don't work or you don't have one – you could die	3		
<ul style="list-style-type: none"> • Conduct visual examination 	If it don't work or you don't have one – you could die	3		Seal and dents
Obtain PPE	Prevent personal injury	2		Metacarpal gloves, safety glasses, hearing protection, metatarsal safety shoes, (leather boots strongly recommended), respirator, reflective material on clothing, hard hat, cap lamp
Get radio	Aids in production; could aid in getting emergency assistance to persons and/or supplies quicker	2		
<ul style="list-style-type: none"> • Conduct function test 	Radio needs to work	2		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Obtain tools	Necessary to have tools to do your job, replace ventilating devices, building stoppings, etc.	2		Hammer, nails and spads, utility knife, channel locs, 6 or 8 inch adjustable wrench
Meet with foreman		1		
<ul style="list-style-type: none"> Discuss section activities 		1		Supplies, condition of section, condition of scoop, maintenance needed on scoop
<ul style="list-style-type: none"> Attend safety talk 		1		Required company policy
<ul style="list-style-type: none"> Discuss roof control plan 		1		Required company policy
Enter the mine				
<ul style="list-style-type: none"> Ensure clearance is granted (track mines only) 	Prevent head on collisions	3		
<ul style="list-style-type: none"> Get on mantrip 		1		Ensure mantrip has been pre-op'd
<ul style="list-style-type: none"> Put on safety glasses 	Prevent eye injuries	2		

Duty 2: Conduct Section Assessment

Learner will demonstrate how to conduct safe and thorough section assessment. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. A safe and thorough section assessment includes the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Walk to feeder	If feeder is plugged up, production could be delayed	2		A workplace exam will be conducted as you travel through the section. Special attention will be given to the feeder, scoop park location, battery charging stations and any area where work is being done

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
<ul style="list-style-type: none"> • Check for excess spillage 	If feeder is plugged up, production could be delayed	2		Priority to keep feeder area clean
<ul style="list-style-type: none"> ○ If Dirty 	If feeder is plugged up, production could be delayed	2		
<ul style="list-style-type: none"> <ul style="list-style-type: none"> • Pre-op scoop 	*	*		Refer to Pre-op
<ul style="list-style-type: none"> <ul style="list-style-type: none"> • Clean feeder 	If feeder is plugged up, production could be delayed	2		
<ul style="list-style-type: none"> ○ If Clean 				
<ul style="list-style-type: none"> <ul style="list-style-type: none"> • Continue on to bolter 		1		
<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> • Check supplies on the bolter 		1		
<ul style="list-style-type: none"> • Look for shuttle cars at feeder 		1		Would indicate which side they are mining on If car on right side is gone, they are mining on the right side – indicates left side is free for cleanup, supplying, etc.
Travel across section to the bolter (non-working bolter)		1		
<ul style="list-style-type: none"> • Note areas that need cleaned 		1		
<ul style="list-style-type: none"> • Check for bolter supplies 		1		
<ul style="list-style-type: none"> • Check ventilation 		1		Curtains, fly pads, stopping line
Note locations of trailing cables		1		

Duty 3: Conduct workplace exam

Learner will demonstrate how to conduct a safe and thorough workplace examination. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. A safe and thorough workplace examination includes the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Observe for mobile equipment		1		
Check for bad top	Prevents personal injury from hazardous roof conditions	2		Check for cracks, loose rock, taking on weight, water
Check for loose ribs	Prevents personal injury from hazardous rib conditions	2		Check for cracks, brows and sloughage
Look for uneven bottom		1		Ledges and potholes Check for slip/trip hazards while walking
Check ventilation	Prevents accumulations of gases; eliminates health hazards of respirable dust	2		Check fly pads and line curtains
Check for damaged bolts	Prevents personal injury from hazardous roof conditions. Damaged bolts create unsupported roof.	2		Health and Safety standard
Note locations of trailing cables	Prevents damage to cables; damaged cables result in a lot of downtime; determines path of travel for scoop operator	2		
Correct and/or report any unsafe conditions	Don't set a trap for somebody else; Make sure that unsafe conditions are corrected	3		

Duty 4: Control Functions

Learner will demonstrate how to safely operate the S&S Scoop controls in a non-production setting. Learner will also explain the controls, what they operate and how they function. Safe operation of the S&S Scoop controls includes the following:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Stay in deck at all times while testing deck controls	Prevents crushing injuries due to unexpected movement	3		Give trainee adequate time to learn and practice these controls Use picture or diagram of deck controls to train
Demonstrate the pump motor directional switch		1		Flip down one click to "run", two down for "forward" and three down for "reverse" Must stop at "run" position first for pump motor to stop (time delay on pump) Tram pedal must be fully released for pump to start
Demonstrate light switch function		1		On/off switch Lights change direction in conjunction with tram lever
Demonstrate foot brake function	Prevent personal injury from unexpected movement	2		Depress to stop
Demonstrate park brake function	Failure to release could result in damage to equipment. The scoop is capable of pulling through the park brake, it could fill the section with smoke.	2		Push park brake lever forward (smallest lever) Pump hand/manual release lever to release brakes in emergency situation (larger lever)
Demonstrate panic bar	Most important safety device on machine; stops all functions and sets park brake	3		Push to shut the machine down Kicks breaker to battery Activates park brake if powered on
Demonstrate audible alarm function		1		Manual bell
Demonstrate the tram pedal function		1		Depress to tram May have to raise pedal with your foot if it sticks/spring breaks

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Demonstrate steering function		1		Self-centering valve Push lever forward to go left Pull lever to go right
Demonstrate bucket function		1		Self-centering valve with lock position for float Pull back to raise bucket Push forward to lower bucket Push forward to a second position to put bucket in float
Demonstrate ram control		1		Push lever forward to go out Pull lever to pull back in Self-centering valve Ram should always be pulled completely back in to prevent buildup of materials behind ram
Demonstrate PTO lever		1		Used for drills, saws, during pillaring, running hydraulics off Directional flow valve Should be self-centering
Demonstrate battery control function		1		Self-centering Push to raise battery Pull to lower battery Used to change batteries
Explain fire suppression system activation	Out-of-control fire in remote location could endanger whole crew	3		Pull pin, push plunger (Two) one located in operator's compartment and one near the electrical panel – only one has to be pushed to activate system

Duty 5: Pre-op Scoop

Learner will demonstrate how to conduct a safe and thorough pre-operational examination of the S&S Scoop. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. A safe and thorough pre-operational examination includes the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Power off				A workplace exam will be conducted as you travel through the section. Special attention will be given to the feeder, scoop park location, battery charging stations and any area where work is being done
<ul style="list-style-type: none"> • Visually inspect <ul style="list-style-type: none"> ○ Check for and remove excess rock dust bags garbage, etc. <ul style="list-style-type: none"> • Remove and centrally locate waste ○ Check canopy condition ○ Check tires/wheels ○ Check battery lid locks/straps ○ Check plugs and plug locks ○ Check battery indicator ○ Check rub rail ○ Check fire suppression system 	Prevent possible fire hazard	2		
		1		
	Falling canopy could result in personal injury	2		Support cracks, bolts
	Easier to tighten lug nuts than to replace wheel; wheel falling off could result in personal injury	2		Lug nuts
	Prevent personal injury from exploding battery; could introduce an ignition source for gas in the mine	2		If battery explodes, lid will fly
	Could introduce an ignition source for gas in the mine	2		
		1		
		1		Main panel box
	If you need it, it has to work	3		Located at operators compartment and near the panel on offside

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
<ul style="list-style-type: none"> • Check red button 	If you need it, it has to work	3		
<ul style="list-style-type: none"> • Check pin 	If you need it, it has to work	3		
<ul style="list-style-type: none"> • Check seal 	If you need it, it has to work	3		
<ul style="list-style-type: none"> ○ Check for slate bar 		1		
<ul style="list-style-type: none"> ○ Check operators compartment for material build-up 	Material buildup could cause operator to loose control of the machine due to pedal sticking, feet slipping off pedals an result in injury	2		
<ul style="list-style-type: none"> ○ Check lights 		1		Missing or damaged
Power On				
<ul style="list-style-type: none"> • Check brakes 	No brakes, no stop	3		
<ul style="list-style-type: none"> ○ Park brake 	Prevents run-a-way; could result in crushing injuries or fatal accidents	3		
<ul style="list-style-type: none"> • Check park brake hydraulic release 	Failure to release this could destroy park brake and fill section with smoke	2		
<ul style="list-style-type: none"> ○ Foot brake 	No brakes, no stop	3		
<ul style="list-style-type: none"> ○ Check pedals for sticking 		1		
<ul style="list-style-type: none"> • Check lights 		1		
<ul style="list-style-type: none"> • Check light switch 		1		Manual on/off switch
<ul style="list-style-type: none"> ○ Automatic 		1		The lights on this scoop change direction with the tram forward and reverse tram switch
<ul style="list-style-type: none"> • Check forward/reverse switch 	Machine won't work if switch is malfunctioning	2		
<ul style="list-style-type: none"> • Check manual bell 		1		
<ul style="list-style-type: none"> • Check hydraulics 	Prevent damage to equipment; effect on production	3		
<ul style="list-style-type: none"> ○ Hydraulic oil level 	Could burn pump motor up	3		Site glass or gauge
<ul style="list-style-type: none"> ○ Ram 		1		
<ul style="list-style-type: none"> ○ Steering 		1		
<ul style="list-style-type: none"> ○ Battery raise 		1		
<ul style="list-style-type: none"> ○ Bucket control up/down/float 		1		
<ul style="list-style-type: none"> ○ PTO 		1		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
○ Ram and PTO hoses		1		
• Check panic switch	Most important safety device on machine; stops all functions and sets park brake	3		
• Check breaker system	Could be second option to cutting power if panic switch failed	2		Handle in deck-push/pull This will also lock park brake
• Check tram pedal		1		
○ Check for sticking	Prevent injury if scoop was stuck in high tram	2		Could possibly use the panic
• Check forward/reverse tram		1		

Duty 6: Tramming

Learner will demonstrate how to safely and productively tram the S&S Scoop. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. Safe and productive tramming of the S&S Scoop includes the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Keep all body parts within the deck compartment	Could result in crushing injury or fatal injuries	3		
Clear persons out of scoop car Red Zone	Could result in crushing injury or fatal injuries	3		
Sound audible alarm before tramming (voice or bell)	Prevent personal injury; You do not want to run over or crush anyone	3		Serves as a warning to persons in area
Start pump		1		
Set directional switch		1		Lights should change direction in conjunction with this switch

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Release park brake	Could damage park brake, smoke section up	2		The scoop is capable of pulling through the park brake, it could fill the section with smoke
<ul style="list-style-type: none"> • Push lever on brake tender valve 		1		
<ul style="list-style-type: none"> • Check brake pressure 		1		Should read aprx. 1600 psi
<ul style="list-style-type: none"> • Listen for change in sound of pump motor 		1		
<ul style="list-style-type: none"> • Check steering 	Prevent personal injury; equipment damage	2		Swivel machine left/right
Depress tram pedal		1		
Keep scoop centered in roadway (if possible)		1		Scoop may not always centered in roadway – must consider obstructions along roadway, i.e. miner cable, bolter cable, supplies, debris
<ul style="list-style-type: none"> • Battery end first 		1		
<ul style="list-style-type: none"> ○ Use existing tire tracks to judge position of scoop 		1		You may also stay closer to the rib with out obstructions
<ul style="list-style-type: none"> • Bucket end first 		1		
<ul style="list-style-type: none"> ○ Use existing tire tracks to judge position of scoop 		1		
<ul style="list-style-type: none"> • Use ribs to judge scoop positioning while avoiding cables 	Prevent damage to equipment; loss of production	2		Try to stay 6" to 1 foot away from rib to avoid damaging canopy, when possible
Make a left turn				Steering is controlled by a hydraulic valve. As long as valve is open, the wheels will make a maximum turn Use sketches/diagrams to assist in training
<ul style="list-style-type: none"> • Bucket-end first 				
<ul style="list-style-type: none"> ○ Once bucket reaches corner, slowly begin the turn 		1		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
○ As soon as front tire reaches the corner, swivel to complete turn		1		The wheels on a scoop do not turn, the entire machine articulates
○ As soon as front tire passes the corner, begin straightening out your turn in line with left rib		1		
○ Observe right hand corner of bucket as you make the turn		1		
○ Keep machine bucket 6-12" off the right rib		1		
• Battery-end first				
○ Keep scoop off the left rib (aprx. 4-5') to keep from getting deck into the rib (swing it wide)	Prevent material from coming into deck and causing personal injury, i.e. hand injuries, arm injuries	2		
○ As soon as tire reaches the corner, begin your turn		1		
○ Watch offside of battery and keep scoop battery 6-12" off the right rib		1		
○ Continue making turn until you can center scoop in the entry		1		
Make a right turn				Use sketches/diagrams to assist in training
• Bucket-end first				
○ Make sure you let front wheel go just past right hand rib corner	Prevent material from coming into deck and causing personal injury, i.e. hand injuries, arm injuries	2		If you turn too soon, you will jam the operator's compartment into the rib
○ Swivel scoop to the right		1		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
○ Observe left hand corner of bucket		1		
○ Keep machine bucket 6-12" off the rib		1		
• Battery-end first				
○ Let battery end tire come to corner		1		
○ Swivel scoop hard to the right		1		
○ Observe left hand corner of battery end		1		
○ Keep battery end 6-12" off the rib		1		
Observe for persons and obstructions in travel ways	Need to be alert to persons getting into Red Zone; You do not want to run over or crush anyone	2		Refer to scoop Red Zone Policy
• Ring bell or flash lights	Need to be alert to persons getting into Red Zone	2		Refer to scoop Red Zone Policy
• Stop (if necessary)	Need to be alert to persons getting into Red Zone	2		Refer to scoop Red Zone Policy
• Stop scoop for persons on offside of machine	Prevent crushing injuries, possible fatality; You do not want to run over or crush anyone	3		Refer to scoop Red Zone Policy
Traveling through ventilation controls/fly pads/curtains				
• Slow down	Prevent personal injury to persons; damage to equipment; You do not want to run over or crush anyone or hit parked equipment	3		
• Sound audible alarm		1		This alarm should be given well in advance of traveling through controls/fly pads/curtains
• Flash lights		1		
• Replace any damaged ventilation controls	Prevent possible explosions; prevent health hazards from respirable dust	3		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Operate at speed under which you can maintain control of the scoop	Not having machine under control could result in personal injury due to jostling around, back injuries, neck injuries, arm and elbow injuries, injuries to others and damage to equipment	3		Consider road conditions (water, mud) Experience
Be aware of other equipment and cables in travel ways	Prevent equipment damage and unnecessary delays; You do not want to collide with other equipment	2		Switch out points, shuttle car movement, roof bolter cable in low coal, miner cable, water line

Duty 7: General Scooping/Cleaning

Learner will demonstrate how to safely and productively conduct scooping and cleaning activities using the S&S Scoop. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. Safe and productive scooping and cleaning activities using the S&S Scoop include the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Take note of any cables in area	Prevent equipment damage and unnecessary delays; possibly prevent shock hazards to people that must handle cables	2		Use crossovers or hang cable Do not run over cables
Take note of any unsupported roof in area	Prevent personal injury due to hazardous roof conditions; Roof falls leading cause of fatal accidents in UG mining	3		Do not tram in by last two rows of permanent supports Do not tram past unbolted crosscuts
<ul style="list-style-type: none"> Look for red reflectors to indicate unsupported top 	Prevent personal injury due to hazardous roof conditions; Roof falls leading cause of fatal accidents in UG mining	3		
Be aware of production activities on the section	Aids in production	2		SLAM stop look analyze and manage both safety and production needs

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Push materials toward feeder/ face/rounded corner of rib		1		
Use float position of bucket control for general cleaning		1		This lets the bucket follow the bottom and picks up more material
Put tram in forward position		1		
Push material towards load point		1		
Clean middle of the entry first, then right rib (where cables usually are), then left rib, re-scoop middle once more		1		
Cleaning right rib		1		
<ul style="list-style-type: none"> Position scoop at 45 degree angle to the right rib 		1		This allows the bucket to push along rib and pick up loose material
<ul style="list-style-type: none"> Align front corner of bucket with rib to help keep the operator's compartment from ribbing 		1		
<ul style="list-style-type: none"> Allow the bucket corner to slide along the right rib while tramping forward 		1		
<ul style="list-style-type: none"> Push material to the load point 		1		
<ul style="list-style-type: none"> Observe front right corner bottom of bucket and surface of area you are cleaning to be sure you are picking up loose material 		1		If the bucket tries to ride up the right rib, stop, back off and reposition/re-angle your machine
Cleaning left rib		1		
<ul style="list-style-type: none"> Position scoop to maintain straighter alignment (22 degree angle) 		1		Left rib is harder to clean, usually jagged and may take more than one pass Once you back out of pass, you can see remaining material better Sometimes it is necessary to turn machine around and push material to the center of a break-through, etc. where it can be picked up
<ul style="list-style-type: none"> Allow the bucket corner to slide along the left rib while tramping forward 		1		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
• Push material to the load point		1		
Cleaning break-through		1		
• Push material into center of the entry intersection to be picked up				
Discharge load		1		
Retract ram		1		

Duty 8: Scooping/Cleaning Feeder

Learner will demonstrate how to safely and productively scoop and clean the feeder area using the S&S Scoop. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. Safe and productive scooping and cleaning of the feeder area using the S&S Scoop includes the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Determine when to clean feeder	Crucial to production activities	2		On occasion, you may take materials on up to face from the feeder to dump if cars are coming in to dump If mining cycle is on left side, you can clean middle and right hand dump without hindering haulage by coordinating scooping activities with dumping car Cannot stockpile coal at face – can place at face to be loaded out during next cycle (usually a one load deal) If mining cycle is right side, you can clean the left dump without hindering dumping shuttle cars If car is loading up the middle, you may just have to have car stop until you clean up Cars run same pattern – familiarize yourself with the pattern Try to keep at least one car hauling at all times
Avoid hitting feeder and knocking it out of alignment	Prevents downtime, un-necessary work Feeder can move and come out of alignment causing coal spills	2		
Avoid cables	Prevent downtime due to mobile equipment damage; possibly prevent shock hazards to people that must handle cables	2		
Clean the rib without cables		1		Refer to general cleaning procedures
Slow down when nearing feeder	Prevents downtime, un-necessary work	2		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Ease up to the feeder until you feel the bucket bump it	Prevents downtime, un-necessary work	2		
Back up about 6"	Prevent personal injury; jostling in machine	2		
Raise bucket		1		
Pull forward until bucket is ovetop of feeder		1		
Discharge load		1		
Retract ram		1		

Duty 9: Scooping/Cleaning Face

Learner will demonstrate how to safely and productively scoop and clean the face using the S&S Scoop. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. Safe and productive scooping and cleaning of the face using the S&S Scoop includes the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Ensure gas check has been made or have one made	Prevents explosions; build up of methane	3		
Take note of any unsupported roof in area	Prevent personal injury due to hazardous roof conditions; Roof falls leading cause of fatal accidents in UG mining	3		Do not tram inby last two rows of permanent supports Do not tram past unbolted crosscuts See roof control plan
<ul style="list-style-type: none"> Look for red reflectors to indicate unsupported top 	Prevent personal injury due to hazardous roof conditions; Roof falls leading cause of fatal accidents in UG mining	3		
Roll and pin up curtain		1		If area is too low, curtain may have to be taken down

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Back up approximately 80' from where last cut was taken		1		As a general rule
Scoop center first		1		Refer to general scooping procedures
Scoop right rib		1		Where cables usually are located Refer to general scooping procedures
Scoop left rib		1		Refer to general scooping procedures
Re-scoop center		1		Refer to general scooping procedures
Push materials to face		1		
Discharge load		1		
Retract ram		1		
Back scoop up		1		
Lower bucket to ground	Prevent personal injury from runaway equipment	2		Anytime scoop is parked, bucket should be angled to the rib and lowered to the ground Ensure park brake is set if scoop is being parked
Turn pump off	Prevent personal injury from runaway equipment	2		
Rock dust roof and ribs by hand	Prevent explosions	2		
Lower or re-hang curtain	Prevent accumulations of explosive gas; eliminate respirable dust hazards	2		

Duty 10: Supplying

Learner will demonstrate how to safely and productively provide supplies necessary to bolt roof and build ventilation using the S&S Scoop. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. Safe and productive providing of supplies using the S&S Scoop includes the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Supplying bolter				
<ul style="list-style-type: none"> Communicate with roof bolter 		1		
<ul style="list-style-type: none"> Visually inspect bolter and determine if supplies are needed 		1		Bolter operator may request certain items Special bolts/glue due to roof conditions
<ul style="list-style-type: none"> Locate and obtain supply insert 		1		Approximately 1000 per insert Contains bolts and plates Should be located along intake stopping line on neutral side Usually two inserts available on section
<ul style="list-style-type: none"> Scoop up insert 		1		
<ul style="list-style-type: none"> Hook safety chain from insert to hook on scoop bucket 	Could lose whole load of materials	2		When traveling on steep grades, bucket should be pointed upgrade
<ul style="list-style-type: none"> Stop and get glue and place in insert 		1		Should be located along intake stopping line on neutral side
<ul style="list-style-type: none"> Stop and get boards and place on top of scoop 		1		Should be located along intake stopping line on neutral side
<ul style="list-style-type: none"> Tram to bolter 		1		See tramping procedures
<ul style="list-style-type: none"> Contact bolter operator and have him set up to load supplies 		1		Based on seam height, where they are working

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
<ul style="list-style-type: none"> Place supplies on bolter (4' bolts) 	Bolters have a hard time keeping up with mining; not having the correct supplies could put them behind and slow down production. Handling materials is the number one cause of lost time injuries in the mining industry. Supply bands can snap violently and causes sever cuts	2		<p>Try to keep enough for two shifts</p> <p>Try to keep enough for two shifts</p> <p>Approximately 200 bolts and plates on each side (400 per machine)</p> <p>Approximately same amount of sticks of glue (10 bundles) – per machine- place on back of bolter</p> <p>Approximately 2-3 fly boards on each machine down middle of machine</p> <p>Use good lifting techniques - do not twist with a load in your hands. Use cutters to un-band supplies stand back away from bands being cut</p>
<ul style="list-style-type: none"> Gather trash and load into empty side of insert 		1		
<ul style="list-style-type: none"> Return supply insert back to general location 		1		
<ul style="list-style-type: none"> Unhook safety chain 		1		
<ul style="list-style-type: none"> Push off with ram 		1		
<ul style="list-style-type: none"> Retract ram 		1		
<ul style="list-style-type: none"> Park scoop to load/unload <ul style="list-style-type: none"> Lower bucket to ground 	Prevent equipment runaway; Zero potential for unexpected machine movement	2		<p>Anytime scoop is parked, bucket should be angled away from you to the rib and lowered to the ground</p> <p>Ensure park brake is set if scoop is being parked</p>
Obtain materials for stoppings				
<ul style="list-style-type: none"> Determine what supplies are needed and where they should be place 		1		Contact boss
<ul style="list-style-type: none"> Scoop up two pallets of blocks 		1		<p>Located generally along intake stopping line down neutral</p> <p>When traveling on steep grades, bucket should be pointed upgrade</p>
<ul style="list-style-type: none"> Stop and obtain plaster and any wedges/half-headers needed 		1		<p>At least 5 buckets per stopping</p> <p>Half-headers and wedges are usually with the blocks, but may not be</p>

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
<ul style="list-style-type: none"> Visually inspect area to determine best location for placing supplies 	Correct placing of stopping materials eliminates unnecessary hand work – reduces potential for handling material injuries	2		Roof and rib conditions Straight/smooth rib area Height Entry width Convenient to brattice man Location of stoppings to be build
<ul style="list-style-type: none"> Push supplies off with ram 		1		
<ul style="list-style-type: none"> Retract ram 		1		

Duty 11: Changing Batteries/Scoop Maintenance

Learner will demonstrate how to safely and productively change batteries using the S&S Scoop and conduct scoop maintenance on the S&S Scoop. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. Safe and productive charging of batteries and scoop maintenance includes the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Changing Batteries				Turn scoop off and lower bucket to ground when scoop is parked Ensure park brake is set if scoop is being parked Use pictures/visuals to train Entire area needs to be kept clean (free of trash, etc.), well rock dusted, and vented
<ul style="list-style-type: none"> Determine the need to change batteries 		1		Look at indicator (will tell you how low batteries are)
<ul style="list-style-type: none"> Tram to battery station 		1		Set up at belt head
<ul style="list-style-type: none"> Back into the station observing location of fresh set of batteries 	Damaging batteries on scoop under load could cause an explosion	2		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
• Drop off dead batteries on the opposite side of new batteries		1		Keep dead batteries at least 4-5' away from charger
• Lower battery jacks		1		
• Lower bucket to ground	Prevent personal injury from runaway equipment; Zero potential for unexpected machine movement	2		Anytime scoop is parked, bucket should be angled to the rib and lowered to the ground Ensure park brake is set if scoop is being parked
• Turn pump off	Prevent personal injury from runaway equipment	2		
• Exit scoop and remove safety chain from batteries	Prevent damage to batteries	2		
• Put safety chains on back side of the fork arms		1		
• Place operator's side chain in position to use as a guide		1		On back of jack, flip chain down to align you with the fork arm
• Unplug batteries	Could prevent arcing; downtime and flash burn injuries	2		
• Get jumper cables		1		
• Conduct visual inspection of jumper cables		1		Cuts, nicks, abrasions, plugs
• Plug jumper cables into scoop and one set of the batteries		1		May need to hang cables to reach batteries
• If fresh batteries are on charge, unplug	Damaging batteries on scoop under load could cause an explosion, flash burn injuries	2		Be sure and turn charger off prior to removing the plugs from the batteries
• Remove external grounds		1		
• Get back in scoop		1		
• Reset breaker		1		
• Tram forward to pull out from under batteries		1		
• Line up with fresh batteries		1		
• Tram back towards fresh batteries and observe fork from scoop entering the slot on fresh batteries		1		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
<ul style="list-style-type: none"> While backing into batteries, attempt to get scoop forks square with batteries 		1		
<ul style="list-style-type: none"> Exit scoop, shut scoop off and ensure both forks are aligned with battery slots 	Prevent persona injury and damage to batteries; Zero potential for unexpected machine movement	2		
<ul style="list-style-type: none"> Unplug jumper from batteries on scoop 		1		
<ul style="list-style-type: none"> Place on left rib (canopy side) in a safe location 	Prevents damage to jumper cables (visibility issue); possibly prevent shock hazards to people that must handle cables	2		
<ul style="list-style-type: none"> Plug scoop back into batteries 		1		
<ul style="list-style-type: none"> Re-hook safety chains on fresh batteries 	Could lose load of batteries, cause personal injury	2		
<ul style="list-style-type: none"> Hook external grounds to the dead battery casings 		1		
<ul style="list-style-type: none"> Place dead batteries on charge 	Could result in loss of production; If the scoop is not available to supply and clean, the section could go down	2		
<ul style="list-style-type: none"> o Raise battery lids 	Allow gases to escape; keeps batteries cool	2		Charging and discharging batteries can give off hydrogen gas -very explosive
<ul style="list-style-type: none"> o Check to make sure charger kicks on 	Could result in loss of production; If the scoop is not available to supply and clean, the section could go down	2		Listen for hum Check gauge
<ul style="list-style-type: none"> Check water level in fresh set of batteries 	Not maintaining batteries could result in damage	2		
<ul style="list-style-type: none"> Lock lids in place 	Prevent personal injury from exploding battery or injury from loose lid	3		
<ul style="list-style-type: none"> Reenter scoop 		1		
<ul style="list-style-type: none"> Reset breaker 		1		
<ul style="list-style-type: none"> Use scoop to raise fresh batteries to proper position 	Prevent damage to batteries from low roof, electrical shorts	2		Push battery jack lever
Scoop maintenance				

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
<ul style="list-style-type: none"> • Check oil level for hydraulics 	Could burn pump/motor up This is a time consuming job to replace a pump	3		
<ul style="list-style-type: none"> ○ Remove cap and visually check oil tank with ram fully 		1		Site glass is another method of check Do not allow dirt to enter the fill port Dirt destroys hydraulic systems
<ul style="list-style-type: none"> ○ Ensure oil is in the screen 		1		
<ul style="list-style-type: none"> ○ Add hydraulic fluid as necessary 		1		Keep hydraulic fluid clean
<ul style="list-style-type: none"> • Grease scoop 				See lube diagram
<ul style="list-style-type: none"> ○ Bottom and top bearing 	Failure could cause long-term loss of scoop	3		
<ul style="list-style-type: none"> ○ Middle section (2-3 fittings) 	Failure could cause long-term loss of scoop	3		
<ul style="list-style-type: none"> ○ Jacks (all brackets) 		1		
<ul style="list-style-type: none"> ○ Drive shafts 		1		Remove some panels
<ul style="list-style-type: none"> • Battery maintenance 				Do not use battery lids as cargo area
<ul style="list-style-type: none"> ○ Wear PPE 	Prevent personal injury due to eye injuries, burns	3		Goggles/safety glasses with shields, rubber gloves
<ul style="list-style-type: none"> ○ Unplug batteries from scoop or scoop charger prior to servicing 	Failure to unplug is violation of lock-out, tag-out policy; could cause electrical shock	2		
<ul style="list-style-type: none"> ○ Wash (from time to time) to remove material buildup 	Prevent damage to batteries	2		Baking soda available for neutralizing acid buildup. Acid will appear as white powder on cable and terminals on battery
<ul style="list-style-type: none"> ○ Remove battery caps to check water level 		1		
<ul style="list-style-type: none"> ○ Randomly check water level in several cells with battery fully charged 		1		If majority is low, then you need to go ahead and check all cells When adding water, fill to ¼ inch above the lead plates Using distilled water only
<ul style="list-style-type: none"> ○ Check battery posts for insulating covers 	Prevent electrical shorts; possible fire	2		Replace as needed

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
o Replace strap/lid locks	Prevent injury from battery explosion; injuries from loose lids	2		
o Plug in batteries	Prevent downtime	2		
o Ensure battery plugs and lids are locked and secure	Prevent injury from battery explosion; injuries from loose lids	2		
• Scoop housekeeping				
o Remove trash		1		
o Remove rock dust buildup		1		
o Clean material buildup from behind ram		1		Material behind the ram can cause damage to the ram cylinder Retracting the ram completely prevents build up behind ram
o Clean spilled oil and excess grease from machine	Prevent fire hazard	2		

Duty 12: End-of-shift activities

Learner will demonstrate how to conduct safe and thorough end-of-shift activities. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. Safe and thorough end-of-shift activities include the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Recheck feeder and clean if necessary/possible	Loss of production for next shift coming on	2		If feeder needs cleaned, park scoop as close as possible
Recheck bolter supplies		1		
Recheck scoop supplies		1		Check rock dust, nails, spads, etc.

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Leave scoop charged or leave extra set of fresh batteries for next scoop operator	Loss of production for next shift coming on; if the scoop is not available to supply and clean, the section could go down;	2		Very important for planned belt moves and power moves to have fully charged batteries – plan ahead
Park scoop in a location where it cannot be damaged by other mobile equipment	Prevent equipment damage, downtime looking for scoop	2		Park scoop in feeder area if feeder area needs cleaned Try to park in less traveled break-thru (intake side easier to find)
Shut off		1		
Lower bucket to ground	Prevent injury; equipment damage; Zero potential for unexpected machine movement	2		Anytime scoop is parked, bucket should be angled away from you to the rib and lowered to the ground Ensure park brake is set if scoop is being parked

Duty 13: Unusual Situations, Emergencies, Non-routine duties

Learner will discuss, explain and demonstrate when necessary, proper procedures for dealing with non-routine tasks or unusual or emergency situations associated with the operation of the S&S Scoop. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. Procedures for dealing with non-routine tasks, unusual or emergency situations include the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Fire	Prevent personal injury, damage to equipment, loss of production	3		Refer to fire-fighting and emergency evacuation plan
<ul style="list-style-type: none"> Gather fire fighting equipment 				Rock dust, water hose, fire extinguisher
<ul style="list-style-type: none"> Assist miner men in fire suppression activities 				

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Loss of brakes	Prevent personal injury, injury to others and damage to equipment	3		
• Stay in your seat				
• Steer into rib				
• Hit panic bar				
Show escapeways	Everyone is responsible to know their escapeways and evacuation procedures	3		
Assist with mechanical repairs	Prevent personal injury and injury to others Many fatalities and injuries occur during maintenance and non-routine tasks	3		Communications are key to safety in non-routine and/or unusual situations Repeat commands to make sure they are clear SLAM (Stop, Look, Analyze and Manage) the task