Glossary of

Mining terms —

Section 8: Winning and working

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Co-operating organizations

The Mining and Quarrying Requisites Industry Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government department and scientific and industrial organizations:

Association of Mining Electrical and Mechanical Engineers*

British Electrical and Allied Manufacturers' Association

British Steel Industry

Council of Underground Machinery Manufacturers

Department of Trade and Industry*

Engineering Equipment Users' Association

Institute of Quarrying

Institution of Mechanical Engineers

Institution of Mining Engineers*

Mechanical Handling Engineers' Association

National Coal Board*

The Government department and industrial organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this British Standard:

Institution of Mining and Metallurgy University of Birmingham University of London University of Nottingham

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Foreword

This glossary has been prepared, under the authority of the Mining and Quarrying Requisites Industry Standards Committee, in order to standardize and to co-ordinate the technical terms in current use in mining in the United Kingdom. Although the majority of the terms defined in the original edition of this glossary were primarily concerned with coal mining, account has been taken of terms used in other forms of mining and of quarrying.

The need for this glossary arose from the widely varying interpretation of terms used within the industry, and the prevalent use of more than one synonym, some purely local in origin, to indicate specific meanings.

The glossary has been issued in a number of sections, according to subject matter, as follows:

- Section 1: Planning and surveying;
- Section 2: Ventilation;
- Section 3: Boring and exploration;
- Section 4: Drainage;
- Section 5: Geology;
- Section 6: Drilling and blasting;
- Section 7: Electrical engineering and lighting;
- Section 8: Winning and working;
- Section 9: Shafts and associated equipment;
- Section 10: Transport;
- Section 11: Strata control.

In the normal process of periodical review of the BS 3618 publications it was seen that a number of modifications and additions were desirable to Section 8 "Winning and working"; therefore, since the edition was dated 1967, it was decided to publish a revision incorporating these changes.

In compiling the glossary account has been taken of the fact that terms primarily associated with coal are separately defined in BS 3323 "Glossary of coal terms", and terms relating to coal preparation are defined in BS 3552 "Glossary of terms used in coal preparation". The following factors also have applied in the statement, selection and definition of terms:

- 1) Where two or more terms are grouped together, the term which is favoured is printed first and in heavy type. It is hoped that such preferred terms will gradually displace the non-preferred terms. The non-preferred terms of a group are printed in smaller type. Where the use of any term is considered to be undesirable it is marked *deprecated*.
- 2) Generally, only terms which have a specific meaning in this field have been included. Where a technical term has an accepted meaning in other fields of engineering it has been omitted; the few exceptions are terms which are of particular importance in mining.
- 3) Purely local terms are not defined, but those of sufficient importance are included as non-preferred terms.
- 4) Obsolete terms are excluded.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 19 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

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Section 8. Winning and working

Term

Definition abandoned workings Workings from which the extraction of mineral has permanently

ceased and which are closed or sealed off so that the roadways have ceased to form part of the transport, travelling, or ventilating

system of the mine (cf. discontinued workings).

A coal getting plough having power operated cutting blades to which activated plough a vibratory or oscillating motion is imparted, to improve the cutting

action.

dynamic plough

impact plough percussive plough

activated ramp plates See shuttle plough.

adit A rising road affording an entrance to a mine, driven from the

surface and primarily intended to facilitate dewatering of the

A roadway in the seam, driven ahead of productive workings.

workings.

advance heading

advancing longwall face A long face with the access gate roads lengthening with the advance

of the face.

A system of mining in which roads and faces are driven advancing system

armoured conveyor.

See shearer loader.

simultaneously, in the coal seam, normally to predetermined

A coal plough, the independent drive of which is attached to an

boundaries (cf. retreating system).

anbauhobel

attachment plough, deprecated insertion plough, deprecated

anchor station A device (usually hydraulic) which prevents uncontrolled movement

of the delivery or return end units of a conveyor.

Anderton shearer loader

angle of attack

The angle (lead or lag) which the horizontal axis of the cutting

element of a machine makes with the line of face.

angle station The place at which the horizontal direction of travel of a conveyor is

changed.

arc-shearer

universal arc-shearer

at any horizon and at any angle.

arc-wall cutter

A mobile cutter, used principally for driving headings, having a long arc-waller, deprecated cutting jib which can be moved through an arc to make a horizontal

cut across the face of the heading.

arc-waller

armoured flexible conveyor

(a.f.c.)

heavy armoured conveyor panzer conveyor, deprecated A heavy duty chain conveyor designed to carry a coalcutter or power loader on the framework and capable of being continually snaked forward, section by section, as the face advances.

A mobile cutter, used in driving headings, having a jib that can cut

attachment plough

auger (coal)

See anbauhobel.

See arc-wall cutter.

A machine which wins coal by the drilling of large diameter holes in

the seam, and discharges the coal by way of a scroll.

A type of activated plough, having moving blades which are set in auto-percussive plough

motion automatically when resistance to the thrust they exert on

the coal exceeds a predetermined value. Work done outbye the working face.

backbye work

backwork

oncost work, deprecated

A back shift overman.

back overman, deprecated

back ripping

A place outbye the face at which a roadway is enlarged, usually by

taking down the roof.

Term backs

back shift back shear

backwork bank a)

bank b), deprecated benk, deprecated

bank to bank

bannock, deprecated

bar

bare, deprecated

barrier

barrier pillars

bate bench

benk bi directions

bi-directional shearer (or bi-di shearer)

bing

blast, deprecated
boom ripper

bord

bord, working on bord and pillar

pillar and stall room and pillar

stoop and room, deprecated

bord face

bordways bottom canch bottom coal

bottoms floor coal Definition

a) Coal projecting from the line of face after cutting and/or loading has been completed (*obsolescent*).

b) See Section 5. Geology.

Normally, the afternoon shift.

A vertical cut made in the seam in advance of and parallel to the face line.

See backbye work.

The area immediately surrounding the mouth of a shaft (the colliery surface).

The coal face.

The period between the time a miner goes underground and the time he returns to the surface.

To hole by hand at the top of a seam.

A support set parallel to and in contact with the roof, or occasionally the floor.

To strip or cut by the side of a fault or boundary.

Strip of coal or other mineral left unworked in a mine either:

a) for protection against flooding, explosion, fire, flammable or noxious gases, or any other danger; or

b) along the boundary of a mineral royalty, between two mineral fields or between two mines.

Pillars or strips of coal or other mineral, suitably dimensioned and disposed, left unworked for the purpose of dividing a seam or mine into separate working panels or districts.

See dint.

To work coal or mineral in layers from the top downward.

See bank b).

A shearer loader arranged for cutting and loading coal in either direction of machine travel.

See spoil heap.

Common term for compressed air.

A machine for cutting down a ripping by means of a rotating cutting head mounted on a fixed or telescopic hydraulically operated boom.

A roadway driven in bord and pillar working, substantially at right angles to the main cleat of a coal seam.

See on bord.

A system of mining in which roadways are driven in the solid coal (the first working) leaving pillars between them. The pillars may be left to support the roof, or later extracted in part or whole (the second working).

A longwall face advancing in a direction substantially at right angles to the line of main cleat.

See on bord. See dint a).

The lowest part of a seam, which may or may not be extracted.

Term Definition

bottoms See bottom coal.

boundary pillar A pillar of coal or of mineral left to mark the limit of working of a

mine.

brae See incline.

break in To advance part of the working face on a narrow front.

broken working See second working.

brush a) See dint.

b) See rip.

c) See Section 2. Ventilation.

bucket loader A self-propelled mechanical shovel for loading mineral or rock.

bump A sudden and heavy release of strain energy in the major body of rock surrounding a mine working, resulting in displacement of the crump

strata.

buttock In some longwall faces, a short step in the line of face, and

substantially at right angles to it, from which coal can be more

conveniently worked.

bye work See deadwork. cable carrier See cable handler.

cable handler Equipment fitted to a longwall face conveyor, and used with certain

power loaders for handling moving cables and hoses. cable carrier

That part of the roof of an underground roadway which has to be canch caunch

taken down (top canch), or of the floor to be taken up (bottom canch), in order to make height or grade the road.

canopy a) A prefabricated structure used temporarily to give protection

from falling rock.

b) The roof member of a chock type powered support.

a) See canch. caunch

b) See dint.

caving The controlled collapsing of roof strata behind the supports of a

working face.

chap See sound. chargehand See chargeman.

chargeman In coal mining, a working foreman or team leader who is not an

official. chargehand

chock A support which offers a high resistance to an area of roof which is

usually substantially greater than that supported by a prop.

clean coal a) A coal seam free from dirt partings.

b) Coal from which impurities have been separated.

Any machine designed to cut coal, but more particularly the type coalcutter

which has a flat jib fitted with a chain and cutter picks.

Fine coal which will pass through a British Standard test sieve coal dust

of 250 µm aperture size.

coal face See face. coal getter See collier.

cutter

coal head The working place in a coal heading.

coal plough A robust steel device, substantially of wedge shape, which is hauled plough

along the face shearing a thin strip of coal from the seam and

deflecting the strip on to the face conveyor.

Definition Term

collier A person engaged in getting and filling coal on to a conveyor or into tubs and, where required, setting the necessary roof supports. coal getter

filler

A coal mine. (See *mine*.)

colliery consumption The part of the output of a colliery which is used on the colliery premises.

A machine used mainly for the continuous cutting and loading of

coal or other mineral in mine entries or narrow places.

The uninterrupted performance of mineral getting on consecutive shifts, so arranged that each shift carries on the work of the previous shift irrespective of the point in the operations at which the previous shift ceased work.

In mechanized coal winning, a method in which the getter-loader is provided with continuity in clearance and support behind the machine.

Generally, smoking materials and the means of igniting them, which are prohibited in safety-lamp mines.

The undesirable longitudinal movement of conveyor structure. That part of a longwall face occupied by the face conveyor.

See swan-neck jib.

A cutter pick so designed that its head or blade is out of line with the

shank.

See outcrop (Section 5. Geology).

Bottom coal inadvertently left between the undercut and the intended floor, and subsequently removed to maintain the true floor

a) A short connection between adjacent roadways.

b) In horizon mining, a road driven at right angles to the laterals.

An underground roadway driven at an angle to the bedding planes

of the strata.

See bump.

See stone drift.

See Section 2. Ventilation.

A cutter jib which is curved to give both a horizontal and a shear

a) To hew or to get mineral from the working face.

b) To hole a seam by hand or by means of a cutting machine, to provide a free face.

c) The holing made by hand or by the jib of a cutter.

d) See Section 6. Drilling and blasting.

See coalcutter.

A heavy chain made up of a series of hinged links (holding

detachable picks) which travels around the jib of a cutting machine.

A heavy rigid steel frame having a channel in which a cutter chain is

constrained to travel.

colliery

hewer stripper

continuous miner

continuous mining

contraband

conveyor creep conveyor track cranked jib cranked pick

crop crop coal

crosscut

cross measures drift

crump crut cundy

curved jib

cut

cutter cutter chain

cutting chain cutter jib

iib

Term Definition

cutter loader A machine which cuts mineral from the face and loads it on to a

getter loader convevor.

A replaceable cutting tool in a machine used for the getting of coal or cutter pick other mineral, or for ripping. cutting tool

See cutter track. cutter run

That part of a longwall face along which a coalcutter travels. cutter track

cutting run, deprecated cutter run, deprecated

pick

cutting chain See cutter chain.

cutting horizon A level (usually predetermined) at which a cut is made in coal or

other strata.

cutting run See cutter track. cutting tool See cutter pick. cuttings See gummings.

cyclic mining Mineral getting by the repetition of a series of operations, usually

> extending over three shifts, and so arranged that each shift completes its part of the sequence before the succeeding shift can

begin operations.

cycle of operations A series of several separate operations in a system of mining carried

out in a predetermined order.

Coal which is difficult to break down from the face, there being no dead coal

natural forces assisting the process (cf. live coal).

deadwork Work that is not directly productive of mineral.

bye work, deprecated

debris See dirt.

degradation Inadvertent breakage of mineral in mining, handling,

transportation or storage.

depth of cut The distance by which the holing made by a coalcutter jib extends

into the seam from the face of the coal. With power loaders the

thickness of web (q.v.).

deputy A qualified underground official in a mine of coal, stratified

ironstone, shale or fireclay, with statutory responsibility for the safe

and proper working of a district of the mine.

That part of a mine specified by the manager to be in the charge of a deputy's district

deputy.

development Work done in a mine to obtain access to the mineral or to facilitate

the opening out of new working areas.

a) The place where material is removed from the floor of a roadway

to increase height.

b) To cut away the floor to make height.

A mobile heading machine in which the cutting element consists of a wide boom carrying a series of cutting chains, or a continuous deck

of hinged plates incorporating multiple pick holders.

a) An underground roadway driven downhill, usually following the

5

inclination of the strata.

b) The gradient of a dipping roadway.

c) See Section 5. Geology.

dip

dint

brush

bate, deprecated

bottom canch [See a)] dintheader

dook [See a)]

Term

dip face

dip workings

dirt debris

gangue

muck

redd

refuse

rubbish

spoil steriles

dirt flinger

dirt tip

bing

pit heap tip

discontinued workings

district

dook

double ended machine double shift working

double unit (face)

dress

drift

drift mine

drivage

duckbill (loader)

duff

dummy gate
dummy road, deprecated

dummy road

dynamic plough

 ${\it e.b.g.}$ (elsewhere below

ground) end face

headways face

face
coal face
working face

Definition

A coal face advancing downhill.

Workings lying to the dip of any designated point in a seam.

Any waste material, such as rock or clay, etc., associated with the mineral and extracted during mining operations.

See gum flinger. See spoil heap.

Workings from which the extraction of mineral has permanently or temporarily ceased, but in which the roadways are still ventilated (cf. *abandoned workings*).

One of the parts into which mine workings are divided for the purpose of supervision or ventilation.

See dip.

A longwall power loader having a cutting unit at each end.

Mineral getting on two shifts per day.

Two adjacent longwall faces normally moving in line together and served by three roads, the centre road generally containing the main transport system.

To trim loose material from the face.

- a) A roadway driven from the surface (cf. cross measures drift).
- b) To make a roadway; to drive.
- c) See Section 5. Geology.

A mine to which access is obtained by a drift driven from the surface.

A roadway driven in the solid coal or stone.

A self loading shaker conveyor with a wide shovel head operating at floor level.

Fine coal.

A road which is formed but not maintained behind a longwall face, to provide material for building intermediate packs.

See dummy gate.

See activated plough.

A statistical term applied to all personnel working below ground other than at the face.

A face advancing in approximately the same direction as the line of the main cleat.

- a) Strictly, any surface exposed by excavation for development or for the getting of mineral.
- b) More generally, the supported area in the vicinity of the place at which mineral is worked.

Term Definition

face line

a) See *line of face*.
b) A mark drawn along the roof of a face to facilitate alignment.

face room The total length or productive capacity of all faces available in a

mine, from which coal can be won.

face width The distance between the line of coal face and the waste edge.

fast end a) The dead end of a roadway.

b) That part of a rib side adjacent to a coal face (cf. *loose end*).

fast side See rib side.

fender A very narrow pillar of coal left between adjacent workings.

fill To load mineral by hand.
filler One who loads coal by hand.

collier loader

filling shift The shift on which mineral is loaded at the face.

first working a) The driving of headings to extract coal and form pillars.

solid working
b) The first extraction in a seam which is worked in more than one whole working

layer.

fixed cut ploughing See incremental ploughing.

flit To move a coalface machine from one position of use to another

when it is not operating as a producing unit.

floor

a) The stratum immediately below a seam of coal or stratified

mineral deposit.

b) The base of any excavation.

floor coal, deprecated See bottom coal.

flushing a) The displacement of loose material from the waste into the

supported area.

b) The crumbling of the roof or sides around the supports in an

excavation.

footwall The rock immediately underlying a mineral deposit (cf. hanging

wall).

foreshift The first morning shift.

frame cutter loader A coal winning machine whose cutter chain travels around a guide

frame arranged in the vertical plane.

free face A surface of rock which is free to move when a force, usually that of

an explosive, is applied to it.

gallerySee roadway.gangueSee dirt.gateSee gate road.

gate-end The inbye end of a gate road.

gate road A roadway connecting with a longwall face.

gate

gateside pack A pack built to support the gate road.

gathering-arm loader A loading machine having two moving arms which sweep broken

material on to an integral conveyor.

get To break coal from the seam preparatory to loading.

getter loader See cutter loader.

Term

gleithobel

goaf

gob waste

goaf edge

gob

gob road goaf road grade

grade control gum flinger

dirt flinger gum stower **gummer**

gummer bar

gummings

cuttings

kirvings, deprecated scuftings, deprecated

gum stower

gunite

half course

half face heading system half heading system

half face heading system

hanging coal hanging wall hard heading

Definition

A heavy duty high speed plough having articulated cutting assemblies at each end, and travelling along special ramp plates.

Broadly, any part of a mine, excluding working places and roads, from which coal has been worked; more specifically that area behind a longwall face bounded by the last maintained line of supports and the gate road packs.

The leading edge of the area from which the supports have been withdrawn, behind the face.

- a) See goaf.
- b) To stow, in the goaf, material which has been removed from the face but which has little economic value.
- c) To stow or pack a road with dirt.

See scouring.

See scouring.

- a) Inclination.
- b) To bring to a predetermined gradient.
- c) Quality of mineral.

The blending of mineral to give a product a predetermined quality.

A gummer which throws the cuttings into the goaf.

- a) A device, attached to a coalcutter, which deposits behind the machine the cuttings ejected from the cut.
- b) A device attached to and driven by an a.f.c. drive head which removes fine material deposited under the delivery sprockets.

A metal bar attached to a coalcutter and extending into the cut behind the cutter jib to remove gummings from the cut.

The material produced by holing with a coalcutter.

See gum flinger.

- a) Mortar applied by a cement gun to the roof and sides of a working or to the face of a stopping.
- b) To spray with a cement gun.

A road driven in the seam at an angle of about 45° to the full dip.

See half heading system.

A method of ripping at the end of a longwall advancing face in which the line of the rib side of the face working coincides with the centre line of the gate being driven, following the face. Half of the cross sectional area at the ripping position adjacent to the face working resembles a normal ripping while the other half resembles a solid heading.

Undercut coal which fails to fall.

The rock immediately overlying a mineral deposit (cf. footwall).

See stone drift.

Term Definition

harmonic extraction The working of one or more coal seams by means of a special layout

and time sequence of extraction, the aim being to lower the overlying surface with a minimum of flexure, causing thereby a

minimum of damage to the surface amenity.

head To excavate a road or narrow passage.

heading a) A roadway driven in the solid.

b) The operation of driving a roadway in the solid.

headways face See end face.

heapstead The surface works about a colliery shaft.

heave a) See Section 5. Geology.

lift b) Upward movement of the floor. heavy armoured conveyor See armoured flexible conveyor.

hew To get coal by hand.

hewer See collier.

HM Inspector A Crown official with statutory powers of inspection, investigation,

inquiry and enforcement at mines and quarries.

hole

To undercut a seam of coal by hand or machine.

holing

a) A connection between two adjacent excavations.

b) See cut c).

horizon a) A nearly level tunnel driven out from the shaft in horizon mining.

b) Any system of crosscuts and laterals in horizon mining at an

identified level.

horizon mining A system of working inclined seams from nearly level crosscuts and

laterals repeated at certain vertical intervals or horizons.

hydraulic mining A method of winning mineral by washing it out with high-pressure

jets of water, and subsequently transporting it in flumes or pipes.

impact plough See activated plough.

impact ripper A ripping machine using a boom mounted impact unit to deliver

repeated high energy blows at the ripping face by means of a

reciprocating pick.

in the solid In unbroken rock or mineral which is in situ.

inbye A direction underground away from the main shaft or surface outlet.

incline A roadway driven on a gradient.

brae, deprecated slant, deprecated slope, deprecated

incremental ploughing A system of ploughing whereby, after the passage of the plough

along the coal face, the face conveyor is advanced by a fixed amount, thus ensuring that the depth of cut taken by the plough is constant.

insertion plough See anbauhobel.

inset An opening or entry from a shaft to an underground roadway or

chamber.

inspector See *HM Inspector*.

jet stower A pneumatic stowing device, comprising a feeder conveyor and small

hopper, the base of which is scoured by a compressed air jet.

jib See cutter jib. jib in See sump in.

A tip consisting of refuse which is accumulated or deposited wholly or mainly in solution or suspension.

a) A shaft inset, at which cages or skips are loaded.

b) The top, bottom, or any intermediate junction with an inclined plane.

Coal above an agreed size, usually 50 mm.

A roadway, in horizon mining, of nearly flat gradient driven in the direction of strike of the coal measures.

a) An approximately horizontal mine roadway.

b) A specific horizon in a mine shaft. A direction along the line of strike.

A rubber tyred articulated vehicle capable of loading, hauling and dumping operations.

The line, direction, or bearing as of a vein or lode. A slice taken off a pillar during pillar extraction.

See bench. See heave.

See pick lacing.

The position of a longwall face in relation to such features as the direction of roadways, cleat, dip of strata, etc.

The main hydraulic distribution hose between a power pack and the equipment it serves.

A unit of armoured flexible conveyor structure, normally 1.5 m long. A roof bar capable of being joined to a similar roof bar by a coupling and locking arrangement.

a) The face and edge of a ripping in a roadway.

b) Any step in the floor or roof of a working.

Coal which can easily be won from the face because of a distribution of rock stresses within the strata caused by mining operations, or by virtue of gas emission from the seam (cf. *dead coal*).

a) See *filler*.

b) See bucket loader, gathering arm loader and power loader.

c) The attendant at a loading station.

The roadway in which coal is conveyed from a longwall face. A vein or body of mineral, usually metallic ore, which differs from the country rock.

A system of working coal in which the seam is extracted on a broad front or long face.

That end of a longwall face which abuts previous workings.

A break in the strata, having a slickensided face.

The principal road from a longwall face along which coal is usually transported.

lacing lagoon

landing

large coal
round coal
lateral

1000100

level

level course l.h.d. vehicle

lie lift a) lift b) lift c)

line of face face line, deprecated

line hose

line pan link bar

lip

live coal

loader

loader gate lode

longwall

loose end lype

main gate mothergate

Term Definition

main road A principal underground road in a mine along which mineral is

transported.

The person, having statutory qualifications, appointed to be in manager

charge of a mine.

manhole See refuge hole.

A small passage used as a travelling way. manway

mechanical stower A machine for throwing stone to pack the waste, using fast moving

belts or paddles.

mine An excavation or system of excavations for the purpose of working

> minerals involving the employment of persons below ground; it includes surface works, buildings and machinery used in the work of a mine, the treatment of the mineral and the removal of refuse.

miner Any person engaged in work in or about a mine.

minidozer A small hydraulically powered remotely operated bulldozer

generally used to push into the packhole area dirt produced at a face

ripping.

mining The extraction of minerals from the earth's crust, either from

underground excavations or opencast workings.

mining engineer A person having professional qualifications in mining.

mining engineering The search for mineral deposits; the planning and development of

mine workings; and the extraction of mineral.

monitor (hydraulic) A device for directing a jet of water at high pressure to break down

mineral deposits.

mothergate See main gate.

mouth The surface opening of a shaft, adit or drift.

mouthing The entrance to an inset.

Abbreviation for man-shifts per 1 000 tonnes. m.s.t.

muck See dirt.

mucker A machine for loading dirt.

mucking out The operation of loading out broken material in roadways,

shafts, etc.

multi jibs Three or more jibs arranged to cut out substantially the full section

of the seam.

mushroom jib A horizontal jib at the end of which a vertical cutting bollard is

mounted to provide a shear cut.

narrow work Driving roadways or rooms in coal.

nucleonic steering Automatic horizon control of a power loader by means of a

radioactive sensor reacting against floor or roof of seam.

Abbreviation for *output per man-shift*. o.m.s. o.m.y. Abbreviation for *output per man-year*.

on bord Advancing at right angles to the line of main cleat.

bordways

bord, working on

See backbye work. oncost work

Advancing in the same direction as the line of main cleat. on end opencast

A working in which the mineral is exposed by removing the

overburden.

ore A mineral-bearing rock of economic value.

Term

outboard arm

outbye overburden overcut overcutter overman

oversman, deprecated

oversman pack

pan shifter pan turner

panel

pan turner

panzer conveyor percussive plough

pick

pick box pick lacing

lacing **pillar**

pillar and stall pilot heading

pit

pit bank

pit brow

pit bottom shaft bottom

pit brow pit head pit top pit heap

pit top planer

plough

Definition

An arm fitted to a shearer, capable of allowing the drum to cut beyond the end of the armoured flexible conveyor.

A direction underground towards the main shaft or surface outlet.

Surface material overlying a mineral deposit.

To cut by machine at or near roof level in a seam.

A cutter which has all elevated jib to cut at or near roof level. An official of a mine, in rank between the undermanager and the deputy.

See overman.

In a longwall face, a stone support built in the goaf or at a roadside to resist strata movement.

One employed in dismantling and advancing a face conveyor.

An area of coal worked within predetermined boundaries.

See pan shifter.

See armoured flexible conveyor.

See activated plough.

- a) A pointed hand tool for the breaking down of minerals.
- b) See cutter pick.
- c) See pneumatic pick.

A component of a cutting unit which holds the cutter pick. The arrangements of picks in the cutting unit of a coal getting machine.

A block of coal or mass of ore left unworked.

See bord and pillar.

- a) An exploratory roadway.
- b) A small preliminary driveage, subsequently enlarged.
- a) A colliery.
- b) A mine shaft.

The decking level at the surface.

- a) The lowest shaft inset to which access can be gained by winding.
- b) The roadway network in the vicinity of an inset from which men or minerals are normally wound.

See pit bank.

The colliery surface.

See spoil heap. See pit head.

A shearer loader fitted with a vertical, triangular cutter jib in place of a drum and used for longwall face end working.

- a) See coal plough.
- b) A wedge shaped component of a longwall power loader, used to load loose coal on to a conveyor.
- c) A deflector plate placed at an angle across a conveyor to remove the material being carried.

Term Definition

plough packer A packing device used on a longwall advancing face, in which a

moving blade ploughs dirt from a static platform and forms it into a

gate-side pack.

pneumatic pick A compressed-air operated percussive hand tool for breaking

pick mineral or rock.

pounce An early symptom of weighting (q.v.). See Section 11. Strata control.

power loader Strictly, a machine for loading mineral. More commonly, any

longwall cutter loader.

power pack A motor-pump combination for producing power for hydraulic

equipment.

powered support A roof support which is set, released and advanced by

hydraulic/mechanical energy.

pre-cutting The operation of mechanically holing the coal seam in advance of the

web about to be stripped.

propAn individual straight support member set between the roof and

floor.

prop-free front face A longwall face in which props are not normally set between the

conveyor and the coal.

pusher A pneumatic or hydraulic ram used to move forward an armoured

face conveyor.

raise A vertical or steeply inclined shaft which has been driven upwards.

ram packer A packing device situated at the face ripping of an advanced

longwall face which employs a hydraulically driven ram to move and

compact ripping dirt into a gate-side pack.

ramp plate a) An inclined plate fixed to the face side of an armoured flexible

conveyor.

b) Any inclined plate used to assist loading operations.

A mounting arm for a shearer cutting drum, arranged in line with

the machine and pivoted so as to permit vertical movement of the

drum.

ranging drum shearer A shearer loader with cutting drum mounted on a pivoted arm

enabling the cutting horizon to be varied during machine travel.

ranging jib An overcutter jib mounted on an adjustable turret (cf. turret jib).

A mounting arm for a shearer cutting drum offset from and parallel to the body of the machine, and pivoted so as to permit vertical

movement of the drum.

rapid plough A plough which is hauled quickly along the face, taking off a thin

slice of coal.

recover To restore to a working condition a mine or a part of a mine that has

been damaged by explosion, fire, water, or other cause.

redd See dirt.

ranging arm

ranging outboard arm

refuge hole An excavation at the side of a roadway in which persons can shelter

manhole while vehicles are passing.

refuse See dirt.

reisshakenhobel A slow speed plough having an arm projecting under the a.f.c. to

which haulage chains, passing through special spillplates on the

goaf side of the conveyor, are attached.

remote haulage A haulage unit which does not form an integral part of a power

loader and is usually situated at one end of the face.

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Term Definition

repair To restore, by enlarging its cross-section and replacing damaged

supports, an excavation which has been distorted by strata

movement.

retreating longwall face A face which advances in a direction opposite to that followed by the

previously driven access roads.

retreating system A system of mining in which roads are driven in the coal seam to

predetermined boundaries and panels or pillars are extracted in the

contrary direction.

rib The solid coal exposed at the ends of an advancing face.

rib side

fast side, deprecated rib side See rib.

To cut or blast down the roof to make height. rip

brush top caunch

rolley way man

gallery, deprecated

round coal

The place at which the roof is brought down to make height. ripping

ripper A man who rips.

rise face A face advancing uphill.

rise workings Workings lying to the rise of any designated point in a seam.

r.o.l.f. Abbreviation for remotely operated longwall face.

r.o.m. See run of mine. road See roadway.

roadhead That part of a face which forms or is in line with a roadway and

which lies between the last permanent support in that roadway and

the face.

roadheader A mobile cutting and loading machine with fixed or telescopic boom

carrying a rotary cutting head which excavates the full cross-section

of the roadway.

roadman One who maintains the track and generally ensures the efficiency of

the haulage system.

roadway Any underground passage driven and maintained to provide access road

to the mineral deposit or for haulage or ventilation purposes, or for

men to travel in the mine.

robbing pillars Reducing the size of pillars by extracting mineral from one or more

sides.

rolleyway man See roadman.

roof a) The rock immediately above a seam of coal or mineral deposit.

b) The ceiling of any underground excavation.

roof coal That part of a seam of coal which may be left to form a roof under

which supports can be set.

A roadway driven in coal in bord and pillar mining when forming room

pillars.

room and pillar See bord and pillar.

See large coal.

rubbish See dirt.

running ground Incohesive ground through which an excavation can be maintained

only by complete peripheral support.

The product of a mine before sorting or cleaning. run of mine (r.o.m.)

safety pillar See shaft pillar.

Term Definition

scalings Pieces of rock which break and fall from the roof or sides of an

excavation.

A roadway driven through goaf. scouring

goaf road gob road

broken working

shearer disc

scraper box loading A method of transporting coal along a coalface in which a series of box-like structures is constrained to move to and fro along the face,

> gathering the coal and conveying it to the gate-end; (cutting knives may or may not be fitted to the boxes to scrape off a few inches of

coal at each pass).

scraper loader A mechanical device for loading or packing broken material by

which an open ended bucket is drawn to and fro through the pile with main and tail ropes.

scuftings See gummings.

second working The partial or total extraction of coal pillars in bord and pillar

mining.

self advancing support See powered support.

service road Usually a materials' supply road.

shaft A vertical or steeply inclined excavation of limited width in relation

to its depth, made to provide access to underground workings.

shaft bottom See pit bottom.

shaft pillar Mineral left unworked around a shaft, to protect it against damage safety pillar caused by strata movement and to protect surface structures around

the shaft against damage due to subsidence.

shear a) To make vertical or inclined cuts in a mineral deposit, to facilitate

extraction.

b) To remove a web of coal with a shearer loader.

c) The slice of coal removed by a longwall power loader.

d) See strip.

shear jib A cutter jib usually mounted so that the plane of the cut is normal to

the seam.

shearer disc See shearer drum.

shearer drum The drum (or connected discs) fitted with picks which form the

cutting element of a shearer loader.

shearer loader A mining machine which cuts the coal by means of rotating discs or Anderton shearer loader, deprecated

a drum mounted on a horizontal shaft, and loads the coal on to a

conveyor.

short face miner See stable hole machine.

short face ranger A coal cutting and loading machine with ranging head or heads,

suitable for excavating in headings or short faces.

A short coalface. shortwall

shortwall cutter A coalcutter designed for use on a shortwall face.

shortwaller See shortwall cutter.

> A chain hauled gathering plough which operates over successive short sections of a longwall face, positioned on the face side of an a.f.c. and used behind the main power loader to load small coal and

spillage.

activated ramp plates, deprecated

shortwaller, deprecated

shuttle plough

knock

slack

slant

incline

slope

Term

side The exposed surface of an underground excavation between the roof

and the floor. (The term embraces the working face only in accident

classification.)

single ended machine A power loader on which the cutting unit is located at one end of the

machine (cf. double ended machine).

sinker a) One engaged in shaft sinking.

b) A heavy rock drill used in shaft sinking.

Small coal.

a) An inclined roadway driven in the seam.

b) An inclined cross measures drift.

A small connecting roadway. slit

slope See incline.

slush To scrape and move mineral or dirt with a rope-hauled bucket or

scraper box.

slusher See scraper loader.

snake To move an armoured conveyor forward, section by section, without

dismantling, by the use of power operated rams.

See in the solid. solid, in the

solid, working off the Extraction of coal in a place having only one free face (q.v.).

solid working See first working.

To tap on the strata to ascertain its degree of stability, or to estimate sound

the thickness of strata between two excavations. chap

spiling The driving of supports ahead of the face when mining through

running ground.

spoil See dirt.

spoil bank An accumulation of material progressively deposited in the void left

by opencast mining.

A tip consisting of refuse which is accumulated or deposited wholly spoil heap

bing, deprecated or mainly in a solid state.

dirt tip, deprecated

pit heap, deprecated

tip, deprecated

short face miner

stable The space excavated to form a buttock on a longwall face from which stable hole

a coalcutter or power loader can start its run.

stable hole See stable.

stable elimination, deprecated Any system of working at the end of a longwall face which obviates

the need for the stables.

stable hole machine An integral power loader and conveyor which is designed for

operation on a short length of face, usually stable holes.

staker See stell prop.

stall A road or working place in a coal seam.

To make a hole in the strata for setting a support or anchor. stamp

staple shaft See staple pit.

staple pit A shaft connecting two or more levels and having no direct outlet to

staple shaft the surface (see also raise and winze).

static haulage chain A stationary chain situated on a longwall face along which a power

loader hauls itself.

Term Definition

stell prop A strut used for anchoring a ram or piece of machinery.

staker

sticky coal Coal adhering strongly to the roof.

sticky tops

sticky tops See sticky coal.

stint A collier's task; usually defined in terms of length of face.

stent

stone drift A roadway driven in rock other than coal.

crut, deprecated hard heading tunnel

stoopTo extract a coal pillar.stoop and roomSee bord and pillar.

stope A main extractive working in an ore body.

stoper A light percussive drill incorporating a pneumatic cylinder to

provide support and thrust while drilling steeply inclined holes.

stowbord An old roadway used for stowage of waste material or dirt.

stowing The filling of the goaf other than by caving.

strike face A face advancing in the direction of the line of strike.

strip

a) To work off a web or portion of coal along the face.

b) To mine coal alongside a fault, barrier or goaf edge.c) The slice of coal removed by a longwall power loader.

strip pack A pack of limited width in the waste behind a longwall face.

stripper See collier.

sump See Section 4. Drainage.

sump inTo break into the solid coal with a cutter jib prior to cutting along

jib in the face.

sumping drum A shearer drum fitted with additional picks on its face side, to

enable it to be advanced into the coal to the required depth of web.

supply gateA roadway generally used When taking materials to the face.swan-neck jibA jib used with a coal cutter mounted on an armoured flexible

cranked jib conveyor and shaped to permit a horizontal cut to be made at or

near floor level.

swelly See swilly.

swilly A trough in a coal seam or roadway.

swelly

sylvester A hand operated rack-and-lever pulling device mainly used for

withdrawing supports.

tail gate A gate road at the opposite end of a longwall face to the main gate.

take The extent or area of a mine property.

thirling A cut through from one excavation into another.

tip An accumulation of deposit or refuse, whether in a solid state or in

solution or suspension, at the surface of a mine or quarry. The term

encompasses both spoil heaps and lagoons (q.v.).

top See roof.

trepan shearer

steering type)

turret iib

ranging jib

turnover

web

Definition top caunch See rip.

The upper part of a coal seam, separated from the rest of the seam

by a natural parting and sometimes left to form a roof.

A mechanized mining system using mobile equipment which does trackless mining

not require rail tracks.

travelling road An underground roadway along which workmen go to and from their

working places.

treble shift working Mineral getting on three shifts per day.

trepanner A longwall power loader, usually double ended, the main cutting

element of which is a trepanning wheel equipped with cutting tools.

A longwall power loader which combines the features of a trepanner

and a shearer loader.

tunnel See stone drift. turnover See unit advance.

turret coalcutter A coalcutter on which the height of the cutter jib may be varied.

An overcutting jib so mounted that the height of the cut above floor

level can be varied.

twin jibs Two cutter jibs, the chains of which are driven by sprockets mounted

on the same shaft. The jibs are mounted adjacent to each other to

give a kerf of twice the normal thickness.

undercut To undermine a seam by making a narrow cut at or near floor level. underframe

A base structure for a power loader which enables it to ride along an

armoured flexible conveyor.

underframe (pitch A shearer underframe having means for tilting the power loader steering type)

about a transverse axis.

underframe (roll A shearer underframe having means for tilting the power loader

about a longitudinal axis.

underframe (sliding type) An underframe designed to permit a shearer to slide on to the

conveyor head frame.

The distance which a roadway or a working face moves forward in unit advance

one cycle of operations.

universal arc shearer See arc shearer.

The saleable mineral product from a mine. vend

virgin Unworked and undeveloped.

volley firing The firing of a large number of simultaneous shots in strata liable to

outbursts, for the purpose of reducing the possibility of danger from

this hazard.

waffler An arc wall cutter which uses the chain for both cutting and loading.

a) The goaf. waste

> b) Any unsupported area behind a longwall face which is behind the last maintained line of supports and which lies between the packs.

> The width of a cut or slice of coal removed from the face (normally by

a power loader) in one cycle of operations.

whole working See first working.

a) The several operations involved in breaking the coal from the winning

solid and loading it for transport underground.

b) Excavations made during development.

winze A vertical or steeply inclined staple pit which has been driven

downwards.

Term Definition

workable Economically worth working.

worked out area An area from which the workable mineral has been extracted.

working face See face.

working place Any place in which men are engaged in a regular activity.

working thickness The height of the working face.

workings Any underground excavation; usually restricted in mining to apply

to the vicinity of the working face but sometimes used in a broader

sense to mean all developments below ground.

workmen's inspection An inspection of mine workings provided for by statute and carried

out by or on behalf of the workmen.

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