## **BUREAU OF INDIAN STANDARDS**

## Program of Work

## **MED 8 : Mining Techniques And Equipment**

Scope: Formulation of Indian Standards relating to basic mining techniques and equipment.

Liaison: ISO TC-82 (P): Mining

### **Published Standards**

S.No	IS No.	TITLE	Reaffirm M-Y	No. of Amds	Eqv.
1	IS 10046 : 1981	Specification for dog spikes for	November, 2018	-	Indigenous
	Reviewed In: 2018	mine haulage tracks			
2	IS 10202 : 1982	Specification for scrapers used in	November, 2018	-	Indigenous
	Reviewed In: 2018	mines			
3	IS 10970 : 1984	Specification for keps for mine	September, 2020	-	Indigenous
	Reviewed In: 2020	cages			
4	IS 11311 : 2011	Technical requirements for loaders	September, 2020	-	Indigenous
	Reviewed In: 2020	for use in underground mines (First			
		Revision)			
5	IS 11862 : 2021	HYDRAULIC LOADCELL -		-	Indigenous
		SPECIFICATION First Revision			
6	` /	Steel headframes for mines: Part 1	November, 2018	-	Indigenous
	1988	principles of load computation and			
	Reviewed In: 2018	applicable factors of safety			
7	IS 12464 : 2024	Roof Bars Used in Mines â€"		-	Indigenous
		Methods of Test (First Revision)			
8	IS 12464 : 1988	Methods of test for roof bars used	September, 2020	-	Indigenous
	Reviewed In: 2020	in mines			
9	IS 12488 : 2023	HAULAGE ROPE CAPPELS		-	Indigenous
		SPECIFICATION (First Revision			
		of IS 12488)			
10	IS 12489 : 2023	RECOMMENDATIONS FOR		-	Indigenous
		FITTING TERMINAL WIRE			
		ROPE SOCKETS BY CONE			
		AND TAIL METHOD			
11	IS 12526 : 2023	Bucket for Shaft Sinking		-	Indigenous
		Operations in Mines �			
		Specification (First Revision)			
12	IS 12527 : 1988	General requirements for riders for	November, 2018	-	Indigenous
	Reviewed In: 2018	buckets used in shaft sinking			
		opeiRations in mines			
13	IS 13202 : 2012	Mine haulage tracks - Code of	February, 2022	-	Indigenous
	Reviewed In: 2022	practice (First Revision)			
14	IS 13219 : 1992	Rock bolts for mines (Cement	November, 2018	-	Indigenous
	Reviewed In: 2018	Grouted) - General requirements			
15	IS 13230 : 1992	Graphical symbols for use on mine	November, 2018	-	Indigenous
	Reviewed In: 2018	plans			
16	IS 13282 : 2024	MINE HAULAGE TRACKS		-	Indigenous
		TRACK SLEEPERS GENERAL			
I		ı		1 1	ı

		REQUIREMENTS First Revision of IS 13282			
17	IS 13282 : 1991 Reviewed In : 2020	Mine haulage tracks - Track sleepers - General requirements	September, 2020	-	Indigenous
18	IS 13517 : 1992 Reviewed In : 2018	Rock bolts - Resin type - Specification	November, 2018	-	Indigenous
19	IS 13618 : 1993 Reviewed In : 2018	Minehaulages - Directrope (50 To 150 KW) - General requirements	November, 2018	-	Indigenous
20	IS 14352 : 1996 Reviewed In : 2022	Miners Safety Goggles	February, 2022	-	Indigenous
21	IS 14480 : 2006 Reviewed In : 2022 Side - Discharge loaders for underground coal mines - Safety requirements, operation and maintenance - Code of practice (First Revision)		Indigenous		
22	IS 14567 : 1998 Reviewed In : 2018	Winding in mines - Design of cages - Guidelines	November, 2018	-	Indigenous
23	IS 14567 : 2024	Winding in Mines â€" Design of Cages â€" Guidelines (First Revision)		-	Indigenous
24	IS 14778 : 2000 Reviewed In : 2020	Ortable methanometer (Interferometer Type) - Specification	September, 2020	-	Indigenous
25	IS 15838 (Part 110) : 2008 Reviewed In : 2018	Mining - Glossary of terms ( Amalgamating of IS 4791 : 1968, IS 4792 : 1968, IS 4863 :1968, IS 5028 1 1969, IS 5307 : 1968, IS 5767 : 1970, IS 5768 : 1970, IS 5814 : 1970, IS 5940 : 1979 AND IS 7580 : 1975)	November, 2018	-	Indigenous
26	IS 16511 : 2017	Management systems for Eco - Friendly Non - Coal mining	September, 2022	-	Indigenous
27	IS 17241 : 2019	System for Transportation of		Indigenous	
28	IS 17242 : 2019	Persons in Mines  IS 17242 : 2019 Man Riding Chair Lift System for Transportation of Persons in Mines  Mines		Indigenous	
29	IS 17678 : 2021	SHORT ENCAPSULATION PULL TEST SEPT PROCEDURE		-	Indigenous
30	IS 4001 : 2017	Mine tubs - specification (Third Revision)	September, 2022	-	Indigenous
31	Reviewed In: 2022 IS 4005: 1967 Reviewed In: 2020	Specification for tungsten carbide for mining tools	September, 2020	-	Indigenous
32	IS 5114 : 1969 Reviewed In : 2020	Specification for reflectorized signs for mines	September, 2020	-	Indigenous
33	IS 7577 : 2020 Reviewed In : 2020	S 7577 : 2020 Gas Testing Flame Safety Lamps Indigenous - Indigenous - Indigenous - Indigenous - Indigenous Indigenous Indigenous - Indigenous - Indigenous Indigenous - Indigenous Indi		Indigenous	
34	IS 7587 (Part 1): 2020	Cage Suspension Gear for Winding in Mines Part 1 General Requirements ( Second Revision )		-	Indigenous
35	IS 7587 (Part 2): 2006 Reviewed In: 2022	Cage suspension gear for winding in mines - Specification: Part 2 cappels (First Revision)	February, 2022	1	Indigenous
36	IS 7587 (Part 3):	Cage suspension gear for winding	February, 2022	1	Indigenous

1	2006	in mines Cassification, Bort 2		1	Í
	2006 Reviewed In : 2022	in mines - Specification: Part 3			
37		shackles and pins (First Revision)	Echmiomi 2022		Indiannous
31	IS 7587 (Part 4): 2006	Cage suspension gear for winding in mines - Specification: Part 4	February, 2022	_	Indigenous
	Reviewed In: 2022	bridle chains (First Revision)			
38	IS 7587 (Part 5):	Cage suspension gear for winding	February, 2022	2	Indigenous
36	2006	in mines - Specification: Part 5	1 Columy, 2022	2	margenous
	Reviewed In: 2022	distribution plates (First Revision)			
39	IS 7587 (Part 6):	Cage suspension gear for winding	February, 2022	<u> </u>	Indigenous
	2006	in mines - Specification: Part 6	1 cordary, 2022		margenous
	Reviewed In: 2022	safety detaching hooks (4 Plates			
	iteviewed in : 2022	Type) 80 and 100 kN capacity			
		(First Revision)			
40	IS 7587 (Part 7):	Cage suspension gear for winding	September, 2022	-	Indigenous
	2017	in mines - Specification: Part 7	1 ,		
		safety detaching hook (4 Plate			
	Reviewed In: 2022	Type) 120, 150 and 200 kN			
		capacity (First Revision)			
41	IS 7587 (Part 8):	Winding in mines - Suspension	November, 2018	-	Indigenous
	1993	gear: Part 8 clivey hook suspension			
	Reviewed In: 2018	arrangements			
42	IS 7974 (Part 1):	Graphical symbols for use on	May, 2023	-	Identical under dual
	1976	detailed maps, plans and geological			numbering
	ISO 710-1	cross sections: Part 1 general rules			
	Reviewed In: 2023	of representation			
<u> </u>	ISO 710-1:1974				
43	IS 7974 (Part 2):	Graphical symbols for use on	May, 2023	-	Identical under dual
	1977	detailed maps, plans and geological			numbering
	ISO 710-2	cross sections: Part 2			
	Reviewed In : 2023	representation of sedimentary			
11	ISO 710-2:1974	rocks	May, 2023		Identical under dual
44	IS 7974 (Part 3): 1976	Graphical symbols for use on detailed maps, plans and geological	May, 2023	_	
	ISO 710-3	cross sections: Part 3			numbering
	Reviewed In: 2023	Representation of magnetic rocks			
	ISO 710-3:1974	Representation of magnetic rocks			
45	IS 8003 : 2008	Wheel axle assemblies for mine	November, 2018	_	Indigenous
	Reviewed In: 2018	cars - Specification (First	1101011001, 2010		margenous
	iteviewed in : 2010	Revision)			
46	IS 8066 : 1976	Specification for mine cars	September, 2020	1	Indigenous
	Reviewed In: 2020		1 ,		6
47	IS 8166 : 1988	Specification for rotary drill bits	November, 2018	-	Not Equivalent
	ISO 1717	for drilling principally in coal (First			
	Reviewed In: 2018	Revision)			
	ISO 1717:1974			<u> </u>	
48	IS 8421 : 1977	Specification for hydraulic props	September, 2020	-	Indigenous
	Reviewed In: 2020				
49	IS 8473 : 1988	Specification for roof bars used in	November, 2018	-	Indigenous
	Reviewed In: 2018	mines			
50	IS 8534 (Part 1):	Mine tub couplings and drawbars	September, 2021	-	Indigenous
	2017	for use in mines: Part 1			
	D : 11 000:	specification			
<i>E</i> 1	Reviewed In: 2021	Mine tub countings and during	Contambon 2000	1	Indiana
51	IS 8534 (Part 2):	Mine tub couplings and drawbars: Part 2 C - Link and D - Shackle	September, 2020	1	Indigenous
	1995				
52	Reviewed In : 2020 IS 8534 (Part 3) :	type (First Revision)  Mine tub couplings and drawbars:	September, 2020	_	Indigenous
] 32	18 8534 (Part 3) : 1995	Part 3 R - Shackle and link type	September, 2020	_	Indigenous
	Reviewed In: 2020	(First Revision)			
<b>—</b>	Reviewed III . 2020	(1 115t INCVISIOII)		+	

53	IS 8534 (Part 4):	Mine tub couplings and drawbars:	September, 2020	1 - 1	Indigenous
	1995	Part 4 F - Shackle and link type	September, 2020	_	margenous
	Reviewed In: 2020	(First Revision)			
54	IS 8534 (Part 5):	Mine tub couplings and drawbars:	September, 2020	-	Indigenous
	2005	Part 5 drawbars (First Revision)	•		
	Reviewed In: 2020				
55	IS 8534 (Part 6):	Mine tub couplings and drawbars:	September, 2020	1	Indigenous
	1995	Part 6 hook and D - Shackle type			
- T.C	Reviewed In : 2020		C . 1 2020	1	T 1'
56	IS 9011 : 1978 Reviewed In : 2020	Specification for skip suspension gear for winding in mines	September, 2020	1	Indigenous
57	IS 9123 : 1979	Specification for battery locom -	September, 2020	_	Indigenous
	Reviewed In: 2020	Otives for use in mines	September, 2020		margenous
58	IS 9170 (Part 1):	Endless haulage rope clips -	September, 2020	_	Indigenous
	2005	Specification: Part 1 general	<b>.</b>		<i>G</i>
	Reviewed In: 2020	requirements (First Revision)			
59	IS 9170 (Part 2):	Endless haulage rope clips -	September, 2020	-	Indigenous
	2005	Specification: Part 2 screw clip,			
	Reviewed In: 2020	cam clip, smallman clip and wedge			
	75 04 50 (D + 2)	clip	0 1 2020		T 11
60	IS 9170 (Part 3): 2005	Endless haulage rope clips -	September, 2020	-	Indigenous
	Reviewed In: 2020	Specification: Part 3 lashing chain			
61	IS 9171 : 1979	Code of practice for maintenance	September, 2020	_	Indigenous
01	Reviewed In: 2020	and use of friction and hydraulic	September, 2020		margenous
	neviewed in . 2020	props and link bars			
62	IS 9192 : 2024	FLAMEPROOF HAND-HELD		-	Indigenous
		ROTARY ELECTRIC DRILLING			C
		MACHINE FOR USE IN MINES			
		SPECIFICATION			
63	IS 9192 : 1979	Specification for flameproof hand	September, 2020	-	Indigenous
	Reviewed In: 2020	- Held rotary electric drilling			
64	IS 9203 (Part 1):	machine for use in mines FRICTION ROLLERS FOR			Indiannous
04	2023 (Part 1):	MINE HAULAGE TRACKS		-	Indigenous
	2023	SPECIFICATION PART 1			
		TECHNICAL SUPPLY			
		CONDITIONS First Revision of IS			
		9203 Part 1			
65	IS 9203 (Part 2):	FRICTION ROLLERS FOR		-	Indigenous
	2023	MINE HAULAGE TRACKS			
		SPECIFICATION PART 2			
		PARALLEL ROLLERS First			
66	IS 9203 (Part 3):	Revision of IS 9203 Part 2 FRICTION ROLLERS FOR		_	Indigenous
00	2023 (Part 3):	MINE HAULAGE TRACKS		-	margenous
	2023	SPECIFICATION PART 3			
		TAPERED AND VERTICAL			
		ROLLERS AND HORIZONTAL			
		AND VERTICAL PULLEYS [			
		First Revision of IS 9203 (Part 3) ]			
67	IS 9203 (Part 4):	FRICTION ROLLERS FOR		-	Indigenous
	2023	MINE HAULAGE TRACKS			
		SPECIFICATION PART 4			
		ROLLERS WITH NON- METALLIC ROPE BEARING			
		SURFACES First Revision of IS			
		9203 Part 4			
68	IS 9227 : 2023	FRICTION ROLLER		-	Indigenous
I	l	ı			

		MOUNTINGS FOR MINE			
		HAULAGE TRACKS			
		SPECIFICATION First Revision			
		of IS 9227			
69	IS 9239 : 1999	Winding in mines - Sheaves - Cast	September, 2020	1	Indigenous
	Reviewed In: 2020	- Specification (First Revision)			
70	IS 9494 : 2023	9494 : 2023 Man � Riding Cars used in -		Indigenous	
		Mines � Specification (First			
		Revision )			
71	IS 9910 : 1981	S 9910: 1981 Method for braze strength testing September, 2020 - Indiger		Indigenous	
	Reviewed In: 2020	of coal and rock cutting tools with			
		laid - On tungsten - Carbide tips			
72	IS 9999 : 1981	IS 9999: 1981 Specification for diesel November, 2018 1 Indigenous		Indigenous	
	Reviewed In: 2018	locomotives for use in mines			

# **Standards under Development**

	Projects Approved				
SI. No.	SI. No. Doc No. Title				
No Records Found					

	Preliminary Draft Standards				
SI. No.	SI. No. Doc No. Title				
No Records Found					

	Drafts Standards in WC Stage				
SI. No.	SI. No. Doc No. Title				
No Records Found					

	Draft Standards Completed WC Stage				
SI. No.	Doc No.	Title			
1	MED 8 (19661)	WINDING IN MINES SHEAVES CAST SPECIFICATION Second Revision of IS 9239			
2	MED 8 (20453)	MINE CARS SPECIFICATION			
3	MED 8 (20456)	CODE OF PRACTICE FOR MAINTENANCE AND USE OF FRICTION AND HYDRAULIC			
		PROPS AND LINK BARS			
4	MED 8 (20457)	METHOD FOR BRAZE STRENGTH TESTING OF COAL AND ROCK CUTTING TOOLS			
		WITH LAID-ON TUNGSTEN-CARBIDE TIPS			
5	MED 8 (20458)	DOG SPIKES FOR MINE HAULAGE TRACKS SPECIFICATION			
6	MED 8 (20461)	STEEL HEADFRAMES FOR MINES PART 1 PRINCIPLES OF LOAD COMPUTATION			
		AND APPLICABLE FACTORS OF SAFETY			
7	MED 8 (20462)	GENERAL REQUIREMENTS FOR RIDERS FOR BUCKETS USED IN SHAFT SINKING			
		OPERATIONS IN MINES			
8	MED 8 (20463)	MINERS SAFETY GOGGLES SPECIFICATION			
9	MED 8 (20643)	KEPS FOR MINE CAGES SPECIFICATION			
10	MED 8 (20644)	ROOF BARS USED IN MINES SPECIFICATION			
11	MED 8 (21522)	SCRAPERS USED IN MINES SPECIFICATION			
12	MED 8 (22862)	TUNGSTEN CARBIDE FOR MINING TOOLS - SPECIFICATION			
13	MED 8 (22869)	SAFETY REQUIREMENTS FOR DIESEL LOCOMOTIVES USED IN MINES - SPECIFICATION			

	Finalized Draft Indian Standard				
SI. No.	Doc No.	Title			
		ROTARY DRILL BITS FOR DRILLING PRINCIPALLY IN COAL SPECIFICATION			

1	MED 8 (21735) Revision	
	of: IS 8166:1988	
2	MED 8 (21737) Revision	HYDRAULIC PROPS SPECIFICATION First Revision of IS 8421
	of: IS 8421:1977	

	Finalized Draft Indian Standards under Print					
SI. No.	Doc No.	Title				
1	MED 8 (18003) Revision	MINE TUB COUPLINGS AND DRAWBARS FOR USE IN MINES				
	of: IS 8534:2017					
2	MED 8 (20507) Revision	MINE HAULAGES DIRECT ROPE 50 TO 150 kW GENERAL REQUIREMENTS First				
	of: IS 13618:1993	Revision of IS 13618				

Total Published Standards:68 Total Standards Under development:17

#### **Aspect Wise Report**

Product: 52
Code of Practices: 4
Methods of Test: 4
Terminology: 5
Dimensions: 0
System Standard: 2
Safety Standard: 0
Others: 0
Service Specification: 0

Process Specification: 1 Unclassified: 0

### Annexure-I :List of Indian Standards Withdrawn/Superseded

SI. No.	IS No. & Year	Title
1	IS 11922 : 1986	Portable Mine Hoist
2	IS 13163 : 1991	Mine haulage tracks - Laying - Code of practice
	Reviewed In: 2010	
3	IS 13201 : 1991	Mine Haulage Tracks - Rails and Fish Plates - General Requirements
	Reviewed In: 2010	
4	IS 13210 : 1991	Mine haulage tracks - Switches and crossings - General requirements
	Reviewed In: 2010	
5	IS 13220 : 1991	Friction Props - Hydraulic Setting Device - General Requirements
6	IS 3819 : 1967	Solid Forged Coal Cutting Picks
	Reviewed In: 1995	
7	IS 3820 : 1982	Carbide Tipped Coal Cutting Tools
8	IS 3869 (Part 1): 1966	Shortwall coal cutting machine Part 1 General requirement for skid mounted shortwall coal cutting
	Reviewed In: 1995	machines
9	IS 3869 (Part 2): 1966	Shortwall coal cutting machine Part 2 Recommendations on selection of the basic parameters of
	Reviewed In: 1995	the cutting system and the calculation of power consumption
10	IS 3970 : 1967	Safety Detaching Hooks Used In Mines
11	IS 4791 : 1968	Specification for metal paper trays First Revision
12	IS 4792 : 1968	Guide for heat insulation of non - Industrial buildings
13	IS 4863 : 1968	Glossary of mining terms drilling and blasting
		Glossary Of Mining Terms planning And Surveying

14	IS 5028 : 1969	
15	IS 5307 : 1969	Glossary of mining terms boring and exploration
16	IS 5767 : 1970	Glossary of mining terms strata control
17	IS 5768 : 1970	Glossary of Mining Terms Winning and Working
18	IS 5771 : 1981	Coal Cutting Tools Point Attack Tungsten Carbide Tipped
19	IS 5814 : 1970	Glossary Of Mining Terms shaft And Associated Equipment
20	IS 5940 : 1970	Glossary Of Mining Terms geology
21	IS 7578 : 1975	Wedge and Slot type Roof Bolt
22	IS 7580 : 1975	Glossary Of Mining Terms transport
23	IS 7586 : 1975 Reviewed In : 2004	Friction Props for Mines
24	IS 8266 : 1976	Expansion Shell Type Roof Bolts

# **Annexure-II :List of Indian Product Standards**

1		Title
1	IS 10046 : 1981	Specification for dog spikes for mine haulage tracks
	Reviewed In: 2018	
2	IS 10202 : 1982	Specification for scrapers used in mines
	Reviewed In: 2018	
3	IS 10970 : 1984	Specification for keps for mine cages
	Reviewed In: 2020	
4	IS 11311 : 2011	Technical requirements for loaders for use in underground mines First Revision
	Reviewed In: 2020	
5	IS 11862 : 2021	HYDRAULIC LOADCELL - SPECIFICATION First Revision
	ISO 21387:2020	
6	IS 12450 (Part 1): 1988	Steel headframes for mines Part 1 principles of load computation and applicable factors of safety
	Reviewed In: 2018	
7	IS 12488 : 2023	HAULAGE ROPE CAPPELS SPECIFICATION First Revision of IS 12488
	×0.10.70.5.00.00	
8	IS 12526 : 2023	Bucket for Shaft Sinking Operations in Mines Specification First Revision
9	IS 12527 : 1988	General requirements for riders for buckets used in shaft sinking opeiRations in mines
	Reviewed In: 2018	
10	IS 13219 : 1992	Rock bolts for mines Cement Grouted - General requirements
	Reviewed In: 2018	
11	IS 13282 : 2024	MINE HAULAGE TRACKS TRACK SLEEPERS GENERAL REQUIREMENTS First Revision of IS 13282
12	IS 13517 : 1992	Rock bolts - Resin type - Specification
	Reviewed In: 2018	71 1
13	IS 13618 : 1993	Minehaulages - Directrope 50 To 150 KW - General requirements
	Reviewed In: 2018	
14	IS 14352 : 1996	Miners Safety Goggles
	Reviewed In: 2022	,
15	IS 14778 : 2000	Ortable methanometer Interferometer Type - Specification
	Reviewed In: 2020	
16	IS 17241 : 2019	Man Riding Car by Rope Haulage System for Transportation of Persons in Mines

17	IS 17242 : 2019	Man Riding Chair Lift System for Transportation of Persons in Mines
18	IS 4001 : 2017	Mine tubs - specification Third Revision
	Reviewed In: 2022	
19	IS 4005 : 1967	Specification for tungsten carbide for mining tools
17	Reviewed In: 2020	Specification for tangeton carolide for imming tools
20	IS 7587 (Part 1): 2020	Cage Suspension Gear for Winding in Mines Part 1 General Requirements Second Revision
21	IS 7587 (Part 2) : 2006	Cage suspension gear for winding in mines - Specification Part 2 cappels First Revision
	Reviewed In: 2022	
22	IS 7587 (Part 3) : 2006	Cage suspension gear for winding in mines - Specification Part 3 shackles and pins First Revision
23	Reviewed In : 2022 IS 7587 (Part 4) : 2006	Cage suspension gear for winding in mines - Specification Part 4 bridle chains First Revision
2.5	Reviewed In : 2022	Cage suspension gear for winding in fillines - Specification Fart 4 offdie chains Filst Revision
24	IS 7587 (Part 5): 2006	Cage suspension gear for winding in mines - Specification Part 5 distribution plates First Revision
	Reviewed In: 2022	
25	IS 7587 (Part 6): 2006	Cage suspension gear for winding in mines - Specification Part 6 safety detaching hooks 4 Plates
26	Reviewed In : 2022 IS 7587 (Part 7) : 2017	Type 80 and 100 kN capacity First Revision  Cage suspension gear for winding in mines - Specification Part 7 safety detaching hook 4 Plate
20	15 7507 (1 411 7) . 2017	Type 120 150 and 200 kN capacity First Revision
	Reviewed In: 2022	
27	IS 7587 (Part 8) : 1993	Winding in mines - Suspension gear Part 8 clivey hook suspension arrangements
28	Reviewed In : 2018  IS 8003 : 2008	Wheel axle assemblies for mine cars - Specification First Revision
20	Reviewed In : 2018	wheel axie assemblies for filme cars - Specification Pilst Revision
29	IS 8066 : 1976	Specification for mine cars
	Reviewed In: 2020	
30	IS 8166 : 1988 ISO 1717	Specification for rotary drill bits for drilling principally in coal First Revision
	Reviewed In : 2018 ISO	
	1717:1974	
31	IS 8421 : 1977	Specification for hydraulic props
22	Reviewed In : 2020 IS 8473 : 1988	
32	Reviewed In : 2018	Specification for roof bars used in mines
33	IS 8534 (Part 1) : 2017	Mine tub couplings and drawbars for use in mines Part 1 specification
24	Reviewed In : 2021	Mineral conditions and develop Device of Development Device of Dev
34	IS 8534 (Part 2) : 1995 Reviewed In : 2020	Mine tub couplings and drawbars Part 2 C - Link and D - Shackle type First Revision
35	IS 8534 (Part 3): 1995	Mine tub couplings and drawbars Part 3 R - Shackle and link type First Revision
	Reviewed In: 2020	
36	IS 8534 (Part 4): 1995	Mine tub couplings and drawbars Part 4 F - Shackle and link type First Revision
37	Reviewed In : 2020 IS 8534 (Part 5) : 2005	Mine tub couplings and drawbars Part 5 drawbars First Revision
37	Reviewed In : 2020	while tub couplings and drawbars I art 3 drawbars I list Revision
38	IS 8534 (Part 6): 1995	Mine tub couplings and drawbars Part 6 hook and D - Shackle type
	Reviewed In: 2020	
39	IS 9011 : 1978 Reviewed In : 2020	Specification for skip suspension gear for winding in mines
40	IS 9123 : 1979	Specification for battery locom - Otives for use in mines
	Reviewed In: 2020	1
41	IS 9170 (Part 1): 2005	Endless haulage rope clips - Specification Part 1 general requirements First Revision
42	Reviewed In : 2020	Endless havings rape aline. Specification Dout 2 serous alinears alinears alinear alinear alinears.
42	IS 9170 (Part 2) : 2005 Reviewed In : 2020	Endless haulage rope clips - Specification Part 2 screw clip cam clip smallman clip and wedge clip
	Reviewed III . 2020	

43	IS 9170 (Part 3): 2005	Endless haulage rope clips - Specification Part 3 lashing chain
	Reviewed In: 2020	
44	IS 9192 : 2024	FLAMEPROOF HAND-HELD ROTARY ELECTRIC DRILLING MACHINE FOR USE IN
		MINES SPECIFICATION
45	IS 9203 (Part 1): 2023	FRICTION ROLLERS FOR MINE HAULAGE TRACKS SPECIFICATION PART 1
		TECHNICAL SUPPLY CONDITIONS First Revision of IS 9203 Part 1
46	IS 9203 (Part 2): 2023	FRICTION ROLLERS FOR MINE HAULAGE TRACKS SPECIFICATION PART 2
		PARALLEL ROLLERS First Revision of IS 9203 Part 2
47	IS 9203 (Part 3): 2023	FRICTION ROLLERS FOR MINE HAULAGE TRACKS SPECIFICATION PART 3
		TAPERED AND VERTICAL ROLLERS AND HORIZONTAL AND VERTICAL PULLEYS
		First Revision of IS 9203 Part 3
48	IS 9203 (Part 4): 2023	FRICTION ROLLERS FOR MINE HAULAGE TRACKS SPECIFICATION PART 4
		ROLLERS WITH NON-METALLIC ROPE BEARING SURFACES First Revision of IS 9203
		Part 4
49	IS 9227 : 2023	FRICTION ROLLER MOUNTINGS FOR MINE HAULAGE TRACKS SPECIFICATION First
		Revision of IS 9227
50	IS 9239 : 1999	Winding in mines - Sheaves - Cast - Specification First Revision
	Reviewed In: 2020	
51	IS 9494 : 2023	Man Riding Cars used in Mines Specification First Revision
52	IS 9999 : 1981	Specification for diesel locomotives for use in mines
	Reviewed In: 2018	