BUREAU OF INDIAN STANDARDS

***Draft*MINUTES OF THE MEETING**

22nd Meeting Automotive Prime Movers, Transmission Systems and Internal Combustion Engine Sectional Committee: TED 02 (Hybrid)14.06.2024	Chairperson Dr Devendra Singh, Senior Principal Scientist, IIP, Dehradun	MemberSecretary Mitra Sen VermaScientist-D/JD BISHeadquarters

Item0 WELCOME ANDOPENING REMARKS

0.1 Welcome by Member Secretary (TED 02)

Member secretary welcomed newly appointed chairperson Shri Devendra Singh and all the members present in the 22nd Meeting of TED 02.

0.2 Welcome Remarks by Sc F & Head (TED):

Head, TED Shri Deepak Agarwal, welcomed new chairman Dr Devendra Singh, Senior Principal Scientistand all the members present in the 22nd Meeting of TED 02. He emphasized on the importance of work under "Automotive Prime Movers, Transmission Systems and Internal Combustion Engine Sectional Committee" and appreciated the balanced composition of committee as having representation from R & D organizations, Industry, Associations, Govt departments, regulators etc. He also expressed that the committee will takeup important work under the scope of TED 02.

0.3 Opening Remarks by the Chairperson:

In the 22nd Meeting of TED 02, ChairpersonDr Devendra Singh, Senior Principal Scientist extended a warm welcome to all the attending members and appreciated their active participation. He emphasized on the co-operation and full participation from members in the discussion during meeting to make the meeting fruitful. He also expressed the need to review all the standards sought support from committee members.

Participants in the meeting:

TED 02-Automotive Primemovers, Transmission Systems and Internal Combustion Engine Sectional Committee

			Present= x, Absent= "O"		
S.No.	**Organization**	**Member Name**	**Member Email**	**Member Phone**	**Attendance**
1	CSIR - Indian Institute of Petroleum, Dehradun	Dr. Devendra Singh, Chairperson	devendra@iip.res.in	9897162552	x
2	Ashok Leyland Limited, Chennai	Muthukumar N	muthukumar.n@ashokleyland.com	9094001189	x
3	Ashok Leyland Limited, Chennai	SHRI FAUSTINO V	faustino.v@ashokleyland.com	9042634919	x
4	Ashok Leyland Limited, Chennai	Harish V	harish.v@ashokleyland.com	9894569824	x

5	Association of State Road Transport Undertakings, New Delhi	R R K Kishore	dt.asrtu@gmail.com	43294299	x
6	Association of State Road Transport Undertakings, New Delhi	Praful Math	adtechasrtu@gmail.com	7204303525	x
7	Association of State Road Transport Undertakings, New Delhi	Shri Sachin Motiram Chachare	adtrc1.asrtu@gmail.com	8329974595	o
8	Automotive Component Manufactures Association of India, New Delhi	Seema Babal	seema.babal@acma.in	9873369693	o
9	Automotive Component Manufactures Association of India, New Delhi	Sanjay Tank	sanjay.tank@acma.in	9890979446	x
10	Automotive Research Association of India, Pune	Prasanna G Bhat	bhat.edl@araiindia.com	9766360058	x
11	Automotive Research Association of India, Pune	Dr S SRamdasi	ramdasi.edl@araiindia.com		o
12	Automotive Research Association of India, Pune	N V Pawar	nvpawar.edl@araiindia.com	9922050674	x
13	Bajaj Auto Limited, Pune	Arvind V. Kumbhar	avkumbhar@bajajauto.co.in	9890500558	x
14	Bajaj Auto Limited, Pune	Shri Milind J Pagare	mjpagare@bajajauto.co.in	8237006985	x
15	Bajaj Auto Limited, Pune	Shri. Parmeshwar Mane	pjmane@bajajauto.co.in	8237004945	x
16	CSIR - Indian Institute of Petroleum, Dehradun	Dr Sunil Kumar Pathak	spathak@iip.res.in	9897737724	x
17	Central Institute of Road Transport, Pune	M M Pathak	mpathak@cirtindia.com	9970435909	x
18	Central Institute of Road Transport, Pune	Nilesh Tagad	nileshtagad@cirtindia.com	9284094675	o
19	Central Institute of Road Transport, Pune	Shivraj Dudhe	shivraj@cirtindia.com	7972342323	o

20	Denso International India Private Limited, Gurugram	Shri Alok Kumar	alok.kumar.a4z@ap.denso.com	9999756986	o
21	Denso International India Private Limited, Gurugram	Noel Alexander Peters	peters.noel@suzukimotorcycle.in	9654129409	o
22	Denso International India Private Limited, Gurugram	Ms. Alka Sharma	alka.sharma.a4n@ap.denso.com	9717246477	o
23	Directorate General of Quality Assurance, New Delhi	Brig BK Pokhriyal	cqav-dgqa@nic.in	0241-2956053	o
24	Directorate General of Quality Assurance, New Delhi	Col. OP Bharati	cqav-dgqa@gov.in		o
25	Eaton Industrial System Private Limited, Pune	Hemang Raval	hemangraval@eaton.com	9765401377	o
26	Eaton Industrial System Private Limited, Pune	K V Rao	kvrao@eaton.com	9765401371	o
27	Fleetguard Filters Private Limited, Pune	Dr Ashok Kumar Vaikuntam	a.k.vaikuntam@fleetguardfiltrum.com	9881093323	o
28	Fleetguard Filters Private Limited, Pune	Vikas Salunke	v.d.salunke@fleetguard-filtrum.com	9552589685	x
29	Greaves Cotton Limited (Diesel Engines Unit), Pune	Dr Kaleemuddin Syed	kaleemuddin.syed@greavescotton.com	9158883044	x
30	Greaves Cotton Limited (Diesel Engines Unit), Pune	Kedar A Kanase	kedar.kanase@greavescotton.com	7720091217	o
31	Hero Motocorp Limited, New Delhi	Shri Feroz Ali Khan	Feroz.khan@heromotocorp.com	9560842022	o
32	Hero Motocorp Limited, New Delhi	Shri Rakesh Sharma	rakesh.sharma@heromotocorp.com	9953501297	x
33	Indian Diesel Engine Manufacturers Association, New Delhi	Shri Prashanth Ravi	prashanth_ravi@cat.com	8754579080	o
34	Indian Diesel Engine Manufacturers Association, New Delhi	Arvind Ranganathan	ranganathan_arvind@cat.com	9600075991	o
35	M G Motor India Private	Vaibhav Utpat	vaibhav.utpat@mgmotor.co.in	7065597979	o

	Limited, Gujarat				
36	Mahindra and Mahindra Limited, Mumbai	S Sakthivelan	sakthivelan.s@mahindra.com		O
37	Mahindra and Mahindra Limited, Mumbai	Shashikant Nikam	nikam.shashikant@mahindra.com	9840997140	O
38	Mahindra and Mahindra Limited, Mumbai	Sekar Ganesh	sekar.ganesh@mahindra.com		x
39	Maruti Suzuki India Limited, Gurugram	Mr. Gururaj Ravi	Gururaj.Ravi@maruti.co.in	9643824621	O
40	Maruti Suzuki India Limited, Gurugram	RAJESH KUMAR	rajesh.kumar7@maruti.co.in	9899436279	O
41	Maruti Suzuki India Limited, Gurugram	ARUN KUMAR	arun.k@maruti.co.in	9899776985	O
42	Ministry of Heavy Industries and Public Enterprises, New Delhi	R K Jaiswal	rajeshk.jaiswal@nic.in		O
43	National Small Industries Corporation, Rajkot	Kamal Kant Sahu	ntscraj@nsic.co.in		O
44	National Small Industries Corporation, Rajkot	Upender Kumar Kohli	ukkohli@nsic.co.in	9414086881	O
45	National Small Industries Corporation, Rajkot	Dharmendra Rajput **Attended**: Shri Ravi Prakash	dprajput@nsic.co.in	9687620267	X
46	Rajkot Engineering Association, Rajkot	Mayur N Shah	swatiengine@gmail.com	9426732396	O
47	Rajkot Engineering Association, Rajkot	Abhishek Gondaliya	cfcrajkot@gmail.com	7069728109	O
48	Shri Ram Pistons And Rings Limited, Ghaziabad	Shri Vineet Ahluwalia	vineet.ahluwalia@shrirampistons.com		O
49	Society of Indian Automobile Manufacturers (SIAM), Delhi	Prashant Kumar Banerjee	pkbanerjee@siam.in	9999179876	x
50	Society of Indian Automobile Manufacturers (SIAM), Delhi	Sandeep Garg	sgarg@siam.in	9810291503	x
51	Tractor and Mechanization	PRADEEP SHINDE	shinde.pradeep@mahindra.com	9967711412	O

	Association, New Delhi				
52	Uttar Pradesh Diesel Engine Manufacturers Association, Agra	Shri Rajesh Garg	rajesh@prakashindia.com	9897445544	0
53	Uttar Pradesh Diesel Engine Manufacturers Association, Agra	Manish Doneria	doneria@gmail.com		O
54	international Centre for Automotive Technology, Manesar	Vijayanta Ahuja/ Mr S R Kasyap	vijayanta.ahuja@icat.in	9871228855	x
55	international Centre for Automotive Technology, Manesar	Shri Vaibhav Prashant Yadav	vaibhav.yadav@icat.in	8449931000	x
56	international Centre for Automotive Technology, Manesar	Shri Deepanshu Dwivedi	deepanshu.dwivedi@icat.in		O
57	international Centre for Automotive Technology, Manesar	Sitaram Kashyap	sitaram.kashyap@icat.in	9910390559	O

Committee deliberated on non-participating members and decided to given them one more chance as all are valuable members. Chairperson requested member secretary to contact non-participating organizations/members to understand the reasons for non-participation. If the members are not interested or remain absent in the next SC meeting, chairman requested member secretary to propose for their removal in the next sectional committee meeting of TED 28.

Chairperson requested member secretary to bring concerned Government departments on board for redressal of concerns related to respective Departments.

In addition to the above, following is also discussed:

1. Shri M M Pathak from CIRT Pune informed that Shri Shri Nilesh Tagad (Alternate Member) Shri Shivraj Dudhe (Young Professional) and confirmed to share the updated nomination with BIS.
2. Dr Kaleemuddin Syed from M/s Greaves Cotton Limited (Diesel Engines Unit), Pune informed that the pune office is closed and operating from Aurangabad. Also informed that Shri Kedar A Kanase left the organization and confirmed to share the updated nomination with BIS.
3. It is informed by a member that M/s Maruti Suzuki India Limited is on annual leave and therefore, could not attend the meeting.
4. Shri S R Kashyap from International Centre for Automotive Technology, Manesar informed that there is some change in nomination and confirmed to share the updated nomination with BIS.

ITEM 1 CONFIRMATION OF THE MINUTES OF LAST MEETING

1.1 The committee confirmed the minutes of 21st Meeting of 'Automotive Prime-movers, Transmission Systems and Internal Combustion Engine Sectional Committee, TED-02.

ITEM 2 SCOPE AND COMPOSITION OF THE SECTIONAL COMMITTEE

2.0 Scope of Sectional Committee TED 02 is as follows:

a) Standardization relating to automotive engines and transmission, components, stationary internal combustion engines for agriculture.

b) Co-ordination of work with ISO/ TC 22, ISO/ TC 22/ SC 34, ISO/ TC 70, ISO/ TC 70/ SC 7 and ISO/ TC 70/ SC 8

The Committee noted the information.

2.1 In line with decisions of the last meeting actions were taken.

2.1.1 The committee noted the information given in agenda.

2.1.2 The committee noted the information given in agenda.

2.1.3 As per the discussion held in the last Committee meeting M/s Shri ram Pistons was Co-opted in the Committee Composition and same was updated at BIS portal. Nomination was not received from M/s Cummins.

Shri Kartik Sharma from M/s Cummins joined the meeting and confirmed to share the nomination within a week of time through email. Committee deliberated and decided to co-opt M/s Cummins in the committee composition.

2.1.4 IDEMA was requested to assist in identifying expert organizations in the field of gensets with a specific focus on the electrical aspect. The response is awaited. Shri Manish Doneria from Uttar Pradesh Diesel Engine Manufacturers Association, Agra suggested to contact ERDA, Vadodara. Email sent to ERDA, Vadodara for their nominations. The response of ERDA is awaited.

Committee deliberated and decided to send a reminder email to ERDA and if no response is received, may not be considered.

2.2 The committee may review the present composition of the Committee given in Annex 1. The committee may deliberate and decide on further continuation/ deletion of organizations from the committee composition and co-option of new organizations in the committee composition.

Dr Sandeep Garg helped to connect Ordnance Factor, Jabalpur being an important government organization dealing with the vehicles and other IC engines. Shri S K Bhola, CGM joined the meeting and informed that they are having R & D Center, manufacturing of vehicles for defence etc. Committee deliberated and decided to co-opt members from Ordnance factory, Jabalpur and requested to Shri S K Bhola, CGM to share the nomination through email to BIS. Chairman also requested to include Ordinance Factor, Jabalpur in both the Panels.

2.3 An Email has been received from Dr. Ashok Kumar Vaikuntam regarding change in his organization. The Copy of the email has been attached atAnnexure 2.

Committee deliberated and decided to consider the co-opt request of Dr Ashok Kumar Vaikuntam.

2.4 Shri N V Marathe, Chairperson, TED 02 also apprised that he has recently joined Emission Control Manufacturers Association (ECMA India), and the same was informed to Head (TED) through email dt. 11/08/2023. It was agreed to refer this information to TEDC for discussion in its upcoming meeting as the appointment of a chairperson of sectional committees falls within the purview of the Transport Engineering Division Council (TEDC). The concern was discussed in last TEDC meeting. The committee deliberated and appointed Dr Devendra Singh, Senior Principal Scientist as new Chairperson of TED 02.

Committee noted the information.

ITEM 3 PROCESS REFORMS AT BIS

3.1 Discussion of process reforms as indicated in Circular P&C/09/18/2023-PNC-BIS.

The committee noted the information.

ITEM 4 ACTIONS ARISING OUT OF THE PREVIOUS MEETING(S)

4.1 The following Indian Standards and Amendments are published:

1. **IS 11509 (Part 5) : 2023/ ISO 4548-5:2020** - Method of test for full-flow lubricating oil filters for internal combustion engines - Part 5: Test for hydraulic pulse durability
2. **Amendment No- 4 of IS 7347: 1974** - Specification for Performance of Small Size Spark Ignition Engines for Agricultural Water Pumps, Sprayers, Tillers, Reapers and other Similar Applications

The committee noted the information.

4.2A brief summary of actions arising out of minutes of last meeting(s) is given below in Table 1.

Table – 1

Sr. No.	Subject	Decision in Previous Meeting(s)	Decision in 21st Meeting	Present status

1.	**Revision of IS 17458 : 2018** {Adoption of ISO 6826 : 2022}	**Status in 20th Meeting:** National foreword for adoption of ISO 6826 : 2022 has been sent for WC as TED 02 (22709)W. **Decision in 20th Meeting:** The committee noted.	The committee decided to send the document for printing.	The Document TED 02 (22709) is at publication stage. **Decision**: The Committee Noted the information.
2.	**Revision of IS 14599:1999** 'Automotive vehicles - Performance requirements (Measurement Of Power, SFC, Opacity) of positive and compression ignition engines - Method of test'	Doc no TED 2 (16879) P circulated as preliminary draft vide mail dated 26 01 2021 for comments among committee members. **Status in 18th Meeting:** Wide circulation draft is under preparation as per BIS drafting guidelines. **Decision in 18th Meeting:** The committee noted the information. The committee advised member secretary to wide circulate the draft Document for comments for 60 days at the earliest. **Status in 19th Meeting:** Wide circulation draft was prepared and circulated dt.	Doc no TED 2 (16879) W This was reverted back for editorial corrections. It will be sent for WC after said corrections. The committee may please note.	The draft document is under preparation by making necessary correction. The document will be placed in WC shortly. The Committee may please note. **Discussion and Decision:** Shri Faustino V from Ashok Leyland informed that they has sent some comment of the referred document which were editorial in nature. Chairman requested member secretary to re-visit that it is incorporated. Shri Faustino was requested to re-forward the email to BIS.

		21/03/2022 for 60 days through BIS Portal. No Comments Have been received in this regard on BIS Portal. The committee may deliberate and decide. **Decision in 19th Meeting:** The committee decided to send the document again for 30 days on request of members for comments. **Status in 20th Meeting:** The Document has been uploaded on BIS Portal and will be circulated after HoD approval. The committee may please note. **Decision in 20th Meeting:** The committee noted.		
3.	**Revision of IS/ISO 8528-5: 2018** **TED 02 (23613)**	In the 20th Meeting The committee decided to adopt the latest ISO Standard i.e., ISO 8528-5:2022.Member secretarywas requested to circulate National Foreword corresponding to ISO 8528-5:2022 as Wide circulation draft for 60 days to revise	The committee decided to sendthe document for printing.	The Document is at publication stage. The Committee may please note. **Decision**: The Committee Noted the information.

		IS/ISO 8528-5:2018		
4.	**Revision of IS 8422 (Part 1 to 8)**	**In 20th Meeting of SC TED 02**, Member secretary was requested to preparean observation table for tracking the status of Base standards from which assistance was derived while preparing the IS 8422 Series of standards along with latest version of ISO Standards which covers the scope of IS 8422, if any and circulate it along with the minutes	The committee discussed the recommendations. Shri Neeraj Singh from Shri Ram Pistons also informed that several BIS Officers who were allocated these standards as Action Research Project have discussed the matter with him and also have visited his premises. He also informed the committee the IS Standards mentioned in the recommendations are currently being used by the industry. The committee discussed the matter and decided as per Annex-3	The national foreword is being prepared for the following documents: The deliberation is given in Annex-3

5.	**Revision of IS/ISO 8528: PART 10: 1998** (Identical To: ISO 8528-10:2022) **Doc No. TED 02 (23614)**	In the 20th Meeting The committee decided to adopt the latest ISO Standard i.e., ISO 8528-10:2022. The document was discussed in the meeting and it was decided to send National Foreword Corresponding to this ISO Document (i.e. ISO 8528-10: 2022) for wide circulation of 60 days.	The committee decided to send the document for printing.	The Document is sent to publication. The Committee may please note. **Decision**: The Committee Noted the information.
6.	**Revision of IS/ISO 8528 : PART 12: 1997** (Identical To: ISO 8528-12:2022) **Doc No. TED 02 (23615)**	In the 20th Meeting The committee decided to adopt the latest ISO Standard i.e., ISO 8528-12:2022. The document was discussed in the meeting and it was decided to send National Foreword Corresponding to this ISO Document (i.e. ISO 8528-12: 2022) for wide circulation of 60 days.	The committee decided to send the document for printing.	The Document TED02 (23615), accepted by Publication. The Committee may please note. **Decision**: The Committee Noted the information.

ITEM 5 RESEARCH PROJECTS TO BE TAKEN UP

5.1 Guideline for R&D project has been circulated with committee members vide mail dated 17.11.2023.

Committee noted the information.

5.2 As recommended in the previous meeting, the R&D project has been considered for Revision of Performance Requirements Standard for IC Engines i.e. IS 10001 and IS10002.

Committee noted the information.

4.3 Committee may deliberate and suggest R& D project topics, if any.

Decision:

Committee deliberated and decided to constitute a panel to review the IS 10001 and IS 10002 Test Method Standards for IC Engines.

Panel-1

Convener-Shri Kartik Sharma, M/s Cummins

Member: CIRT, ARAI, ICAT, NSIC, SIAM

Convener may hold a panel meeting within 1.5 month and submit the panel recommendation to BIS to take-up with next SC TC 02 Meeting.

ITEM 6: REVIEW of INDIAN STANDARDS

Decision:

Committee deliberated and decided to constitute a panel under convenorship of Shri Sanjay Tank, ACMA (**Panel-2**).

Convener requested for 1 week time to give the composition of panel members to take-up the review work of the standards which are due for review in the current financial year.

Committee also deliberated on the need to review all Indian Standards under TED 02 for assessment of their compatibility with the current practices adopted by Industry. The identified standards will be further taken up for revision if needed. It was also discussed that the standards which are not currently being used to be segregated and archived. If there is a need in future, they can be taken back.

Chairman requested member secretary to prepare the list of standards pre 2000 and post 2000 separately and share with the panel 2 for further action.

1	IS/ISO 8528-4 : 2005 Reviewed In : 2019	Reciprocating internal combustion engine driven alternating current generating sets: Part 4 controlgear and switchgear	September, 2024
2	IS/ISO 8528-10 : 1998 ISO 8528-10 : 1998 Reviewed In : 2019	Reciprocating Internal Combustion Engine Driven Alternating Current Generating Sets: Part 10 Measurement of Airborne Noise by the Enveloping Surface Method	September, 2024
3	IS/ISO 8528-12 : 1997 Reviewed In : 2019	Reciprocating internal combustion engine driven alternating current generating sets: Part 12 emergency power supply to safety services	September, 2024

4	IS/ISO 8528-6 : 2005 Reviewed In : 2019	Reciprocating internal combustion engine driven alternating current generating sets: Part 6 test methods	September, 2024
5	IS 10105 : 1982 Reviewed In : 2019	Specification for fittings for cylinder pressure indicators for internal combustion engines	September, 2024
6	IS 10533 : 1983 Reviewed In : 2019	Specification for valve guides for internal combustion engines	September, 2024
7	IS 12352 : 1988 Reviewed In : 2019	Specification for fuel injection pump mounting bolts	September, 2024
8	IS 12404 : 1988 Reviewed In : 2019	Specification for couplings for driving fuel injection pumps	September, 2024
9	IS 12455 : 1988 Reviewed In : 2019	Performance requirements of aircooled spark ignition automotive engines	September, 2024
10	IS 12460 : 1988 Reviewed In : 2019	Automotive vehicles - Transmission systems - Manual control sequence in automatic transmissions - Recommendations	September, 2024
11	IS 12499 : 1988 Reviewed In : 2019	Specification for two stage, 0.5 litre diesel fuel filters	September, 2024
12	IS 12500 : 1988 Reviewed In : 2019	Specification for 0.2 litre diesel fuel filters	September, 2024
13	IS 12535 (Part 1) : 1988 Reviewed In : 2019	Automotive vehicles - Transmission systems - Glossary: Part 1 general definitions	September, 2024
14	IS 12587 : 1989 Reviewed In : 2019	Automotive vehicles - Transmission system - Gear arrangement - Recommendations	September, 2024
15	IS 12996 : 1990 Reviewed In : 2019	Internal combustion engines radiator pressure caps - Specification	September, 2024
16	IS 13018 : 1990 Reviewed In : 2019	Internal combustion of test for pressure engines - Method charged engines	September, 2024
17	IS 14599 : 1999 Reviewed In : 2019	Automotive vehicles - Performance requirements (Measurement Of Power, SFC, Opacity) of positive and compression ignition engines - Method of test	September, 2024
18	IS 14600 : 1999 Reviewed In : 2019	Automotive vehicles - Exhaust emissions - Gaseous pollutants from vehicles equipped with internal combustion engines - Method of measurement	September, 2024
19	IS 4530 : 2006 Reviewed In : 2020	GeneraL requirements for positioning and routing of engine exhaust pipes in motor vehicles (First Revision)	January, 2025
20	IS 7449 (Part 1) : 1974 Reviewed In : 2019	Glossary of terms for IC engines: Part 1 fuel injection equipment	September, 2024
21	IS 7451 (Part 1) : 2020 ISO 2710-1:2017	Reciprocating Internal Combustion Engines — Vocabulary Part 1 Terms for Engine Design and Operation (Second Revision)	March, 2025
22	IS 8422 (Part 4) : 1977 Reviewed In : 2019	Specification for piston rings for IC engines: Part 4 napier oil scraper rings from 30 up to 200 mm nominal diameter N - Rings	September, 2024
23	IS 8422 (Part 5) : 1977 Reviewed In : 2019	Specification for piston rings for IC engines: Part 5 stepped oil scraper rings from 30 up to 200 mm nominal diameter Z - Rings	September, 2024

24	IS 8422 (Part 6) : 1977 Reviewed In : 2019	Specification for piston rings for IC engines: Part 6 slotted oil control rings from 50 up to 200 mm nominal diameter S - Rings	September, 2024
25	IS 8422 (Part 7) : 1977 Reviewed In : 2019	Specification for piston rings for IC engines: Part 7 double bevelled slotted oil control rings from 50 up to 200 mm nominal diameter G - Rings	September, 2024
26	IS 8422 (Part 8) : 1977 Reviewed In : 2019	Specification for piston rings for IC engines: Part 8 narrow land slotted oil control rings from 50 up to 200 mm nominal diameter D - Rings	September, 2024
27	IS 9420 (Part 1) : 1988 Reviewed In : 2019	Specification for feed pumps for diesel fuel injection equipment: Part 1 external dimensions(First Revision)	September, 2024
28	IS 9420 (Part 2) : 1988 Reviewed In : 2019	Specification for feed pumps for diesel fuel injection equipment: Part 2 types of drives	September, 2024
29	IS 7657 (Part 1) : 1975 Reviewed In : 2023	Specification for starter ring gears for internal combustion engines: Part 1 gears for inertia and solenoid pre - Engaged starters	September, 2024
30	IS 7657 (Part 2) : 1975 Reviewed In : 2019	Specification for starter ring gears for internal combustion engines: Part 2 gears for axial and coaxial starters	September, 2024
31	IS 8422 (Part 1) : 1977 Reviewed In : 2019	Specification for piston rings for IC engines: Part 1 plain compression rings from 30 up to 200 mm nominal diameter R - Rings	September, 2024
32	IS 8422 (Part 2) : 1977 Reviewed In : 2019	Specification for piston rings for IC engines: Part 2 taper faced compression rings from 30 up to 200 mm nominal diameter M - Rings	September, 2024
33	IS 8422 (Part 3) : 1977 Reviewed In : 2019	Specification for piston rings for IC engines: Part 3 keystone rings from 82 up to 200 mm nominal diameter T - Rings 15	September, 2024
34	IS/ISO 8528-3 : 2020	Reciprocating internal combustion engine driven alternating current generating sets Part 3: Alternating current generators for generating sets	February, 2025
35	IS/ISO 8178-4 : 2020	Reciprocating internal combustion engines Exhaust emission measurement Part 4: Steady-state and transient test cycles for different engine applications	March, 2025

ITEM 7 INTERNATIONAL ACTIVITIES

7.1BIS membership in various ISO Committees related to scope of SC TED 02 is indicated below:

ISO Committee	**Title**	**Membership Status**
ISO TC 22	Road Vehicles	Principle (P)
ISO TC 22 / SC 34	Propulsion, Power-train and Power-train Fluids	Principle (P)
ISO TC 70	Internal Combustion Engines-	Principle (P)
ISO TC 70 / SC 7	Tests for Lubricating Oil Filters	Principle (P)

ISO TC 70 / SC 8	Exhaust Gas Emission Measurement	Principle (P)	

Committee noted the information.

7.2 India is a 'Participating' member on various documents generated by these Sub-committees. Being 'P' member, it is obligatory for India to vote on all the documents. The documents are received from ISO Secretariat time to time are being circulated to members for comments.Accordingly, voting is being done.
Committee noted the information.
7.3 Committee approved the nomination of following members to attend the ISO TC 22 and ISO TC 70 meetings scheduled as per ISO calendar:

a. Dr Devendra Singh,Chairperson, TED02
b. Shri Mitra Sen Verma, Sc-D/JD, Member Secretary TED 02
c. Shri Vikas Salunke, Fleetgaurd

ITEM 8LIST OF PUBLISHEDSTANDARDS UNDER TED 02 GIVEN AT ANNEX 4

ITEM 9 DATE AND PLACE FOR THE NEXT MEETING

Venue Next Meeting: CIRT, Pune
Date: 18 Oct 2024

ITEM 10 ANY OTHER BUSINESS

There being no business, meeting ended with vote of thanks to all the members.

ANNEXURE - 1

(Item 2.3)

COMPOSITION OF AUTOMOTIVE PRIMEMOVERS, TRANSMISSION SYSTEM ANDINTERNAL COMBUSTION ENGINES SECTIONAL COMMITTEE, TED 2

19th Meeting	22nd November 2022	Virtual (Webex)
20th Meeting	26th June 2023	Virtual (Webex)
21st Meeting	30th November 2023	Virtual (Webex)

Sl. No.	Organization	REPRESENTED BY Principal member (P) Alternate member (A) Young Professional (YP)	Attendance			Total	Status
			19th	20th	21st		
1)	CSIR- Indian Institute of Peroleum	Dr. Devendra Singh **(Chairperson)**	-	-	-	3/3	E
2)	Automotive Research Association of India, Pune	Dr. Prasanna G Bhat (P) Dr. S SRamdasi (A) Shri N V Pawar (YP)	Y	Y	Y	3/3	E
3)	Ashok Leyland Limited, Chennai	Shri Muthukumar N (A) SHRI FAUSTINO V (P) Shri Harish V (YP)	Y	Y	Y	3/3	I
4)	Association of State Road Transport Undertakings, New Delhi	Shri R R K Kishore (P) Shri Praful Math (A) Shri Sachin Motiram Chachare (YP)	N	Y	Y	2/3	G
5)	Automotive Components Manufacturers Association,	Ms. Seema Babal (A) Shri Sanjay Tank (P)	Y	Y	Y	3/3	I
6)	Bajaj Auto Ltd,Pune	Shri Arvind V. Kumbhar (P) Shri Adish Aggarwal (A)	Y	Y	Y	3/3	I
~~7)~~	~~BEML Limited, Bengaluru~~	~~Shri M. Sasi Kumar (A)Shri Mahadev Nellur (P)~~	~~N~~	~~N~~	~~N~~	~~0/3~~	~~I~~
~~8)~~	~~Bosch Limited, Bangalore~~	~~Shri K U Ravindra (P) Shri H Shivaprakash (A)~~	~~Y~~	~~N~~	~~N~~	~~1/3~~	~~I~~
9)	Central Institute of Road Transport, Pune	Shri Mangesh M. Pathak (P) Shri Nilesh Tagad (A) Shri Shivraj Dudhe (YP)	Y	Y	Y	3/3	T
~~10)~~	~~Central Pollution Control Board,New Delhi~~	~~Shri Suneel Dave (A)~~ ~~Shri A Sudhakar (P)~~	~~N~~	~~N~~	~~N~~	~~0/3~~	~~G~~

Sl. No.	Organization	REPRESENTED BY Principal member (P) Alternate member (A) Young Professional (YP)	Attendance			Total	Status
			19th	20th	21st		
11)	Directorate General of Quality Assurance, Ministry of Defence, New Delhi	Brig BK Pokhriyal (P) Col. OP Bharati (A)	Y	N	Y	2/3	G
12)	Denso International India Private Limited, Gurugram	Shri Alok Kumar (A) Shri Noel Alexander Peters (P) Ms. Alka Sharma (YP)	N	N	Y	1/3	I
13)	Eaton Industrial System Private Limited, Pune	Shri Hemang Raval (P) Shri K V Rao (A)	N	N	Y	1/3	I
14)	Fleetguard Filters Private Limited, Pune	Dr Ashok Kumar Vaikuntam(P) Shri Vikas Salunke (A)	N	N	Y	1/3	I
15)	Greaves Cotton Limited (Diesel Engines Unit), Pune	Dr Kaleemuddin Syed (P) Shri Kedar A Kanase (A)	Y	Y	Y	3/3	I
16)	Hero Motocorp Limited, New Delhi	Shri Feroz Ali Khan (A) Shri Rakesh Sharma (P)	N	N	Y	1/3	I
17)	Honda India Power Products Limited, UP	Shri Tariq Mahmood (P) Shri Rajinder Khurana (A) Shri Dharmendra Kumar (YP)	N	N	N	0/3	I
18)	~~India Pistons Limited Perambur, Chennai~~	~~Shri Balasubramani K (A)~~	~~N~~	~~N~~	~~N~~	~~0/3~~	~~I~~
19)	Indian Diesel Engine Manufacturers Association, New Delhi	Shri Prashanth Ravi (A) Shri Arvind Ranganathan (P)	N	Y	Y	2/3	I
20)	Indian Institute of Petroleum, Dehradun	Dr Sunil Kumar Pathak (A)	Y	Y	Y	3/3	T
21)	Indian Institute of TechnologyDelhi, New Delhi	Dr Sudipto Mukherjee (A) Dr S. P. Singh (P)	N	N	N	0/3	T
22)	International Centre for Automotive Technology, Manesar	Shri Vaibhav Prashant Yadav(P) Shri Vijayanta Ahuja (A) Shri Deepanshu Dwivedi (A)	Y	N	Y	2/3	L
23)	Mahindra and Mahindra Limited, Mumbai	Shri Shashikant Nikam (P) Shri S Sakthivelan (A) Shri Sekar Ganesh (YP)	Y	Y	Y	3/3	I
24)	Maruti Suzuki India Limited, Gurugram	Shri Gururaj Ravi (P) Shri Rajesh Kumar (YP) Shri Arun Kumar (A)	Y	Y	Y	3/3	I
25)	Ministry of Heavy Industries & Public Enterprises, New Delhi	Shri R K Jaiswal (P)	N	Y	Y	2/3	G
26)	Ministry of Road Transport &Highways, New Delhi	Shri K C Sharma (A)	N	N	N	0/3	G
27)	MG India Motor (P) Ltd	Shri Vaibhav Utpat (P)	N	Y	N	2/3	I
28)	National Small Industries Corporation, Rajkot	Shri U Venkatchalapathi (P) Shri Kamal Kant Sahu (A)	N	Y	Y	2/3	L

Sl. No.	Organization	REPRESENTED BY Principal member (P) Alternate member (A) Young Professional (YP)	Attendance			Total	Status
			19th	20th	21st		
~~29)~~	~~Ordnance Factory Board, Kolata~~	~~Shri S.K. Gund (P)Shri Surender Pati (A)~~	~~N~~	~~N~~	~~N~~	~~0/3~~	~~G~~
30)	Rajkot Engineering Association, Rajkot	Shri Mayur N Shah (P) Shri Abhishek Gondaliya (A)	N	N	Y	1/3	I
	Shri Ram Pistons And Rings Limited, Ghaziabad	Shri Shankar Brahma (P) Shri Vineet Ahluwalia (A)	-	-	Y	1/1	I
31)	Society of Indian Automobile Manufacturers (SIAM), Delhi	Shri Prashant Kumar Banerjee(P) Dr. Sandeep Garg (A)	N	N	Y	1/3	I
32)	Tata Motors Limited, Pune	Shri Gowrishankar P. S. (P) Shri Milind J Pagare (P)	Y	N	Y	2/3	I
33)	~~Tenneco, Bengaluru~~	~~Shri Visesh C Challa (P)~~	~~N~~	~~N~~	~~N~~	~~0/3~~	~~I~~
34)	Tractor Manufacturers Association, New Delhi **Decision**: Reminder	Shri Philip Koshi (P) Shri Pradeep Shinde (A)	Y	N	N	1/3	I
35)	U.P. Diesel Engine Manufacturers Association, Agra **Decision**: Reminder	Shri Rajesh Garg (P) Shri Manish Doneria (A)	N	N	Y	1/3	I
~~36)~~	~~Vehicle Research and Development Establishment, Ahmednagar~~	~~Shri Rupesh Kumar (P) Shri D.M. Vaidya (P)~~	~~N~~	~~N~~	~~N~~	~~0/3~~	~~G~~

Consumer (C)	Govt / Regulator (G)	Industry (I)	Technical / Scientific bodies (T)	Testing Lab (L)	Expert (E)
1	7	24	3	2	1

Technical Committee Composition

1) The composition shall be categorized into Consumer(C), Govt/ Regulator (G), Industry (I), Tech/Scientific bodies (T), Testing Lab (L) and fixed number of members in eachcategory shall be assigned.
2) The balance of representation shall be maintained such that consumer interest shall prevail.
3) Definition of categories of members to be considered for classifying members are as given below:

i) CONSUMERS

Organized Buyers (OB) – Includes government organizations, PSUs andother large industries who buy the product for their use as raw material.
Consumer Organizations (CO) – Includes consumer bodies predominantly composed of citizens.
Individual Consumers (IC) – Includes consumers not included in above categories of consumers.

ii) **GOVERNMENT & REGULATORY BODIES (G)**- To include Govt departments/Ministries/Regulators/Local bodies

iii) **INDUSTRY(I)**-Includes manufacturers (including Government organizations andPSUs into manufacturing business), relevant raw material manufacturers and industry/manufacturer associations, service industry, consultancy firms, etc.

iv) **TECHNICAL/SCIENTIFIC BODIES(T)** – Includes Scientist, technologists, R&D organizations, academic & technical institutions, concerned officer of the Bureau.

v) **TESTING LABORATORIES(L)** – Testing Laboratories/ Organizations.

vi) **EXPERTS (E)**– All persons not included in any of the other categories.

The above defines PSUs and other industries as user in a Technical Committee wherethey are represented as consumer of a particular raw material/intermediate product. Manufacturer of the raw material has been included as industry.

Committee noted the information.

Annexure – 2

Extract of Email Received from Dr. Ashok Kumar Vaikuntam dt. 23/11/2023

“

Dear Sir,
Many thanks for answering my call. I have been a member of the TED2 committee for the past 7 years representing Fleetguard Filters Pvt. Ltd. Now I have left the organization July 2022 and I am a Consultant to various filtration industries. I have been offered a position Professor of Practice at IIT and NIT, which I will be taking this opportunity from January 2024. I would like to continue my contribution to the filtration committee bothi within the BIS and ISO level In this regard, I request you to consider my continuation as a member of this committee. Also, I would appreciate it if you may send the link for the committee meeting for 30th November as I would like to attend the same

thank you

with warm regards
Dr. Ashok Kumar Vaikuntam (9881093323)

“

Annexure – 3

Status of Base Documents for IS 8422 Series of Standards along with Corresponding ISODocuments

IS Number	Title	Base Document/ Assistance Taken	Status of Base document	Remarks	Status
IS 8422 (Part 1) : 1977	Specification for piston rings for IC engines: Part 1 - plain compression rings from 30 up to 200 mm nominal diameter **R - Rings**	**DIN 70910** 'Piston rings for automotive engineering, R-rings, plain compression rings from 30 up to 200 mm nominal diameter'	As per the Information Available on the website of 'Beuth Verlag' which is a subsidiary of DIN, the German Institute for Standardization, DIN 70910 has been withdrawn and has been replaced by adopting **ISO 6622-1** as DIN Standard. { https://www.beuth.de/en/standard/din-70910/1970320 }	Latest version of ISO 6622-1 is ISO 6622-1:2021 - "*Internal combustion engines — Piston rings — Part 1: Rectangular rings made of cast iron*". **Scope of ISO 6622-1 : 2021** *"This part of ISO 6622 specifies the essential dimensional features of rectangular rings made of **cast iron**, Types **R, B, BA and M**, having diameters up to and including 200 mm, used in reciprocating internal combustion piston engines. It is also applicable to piston rings of compressors working under similar conditions."* Apart from this For Rectangular Rings Made of **Steel,** Part 2 of ISO 6622 exists. Latest version of ISO 6622-2 is ISO 6622-2:2013 - "*Internal combustion engines — Piston rings — Part 2: Rectangular rings made of steel".* **Scope of ISO 6622-2:2013** *"This part of ISO 6622 specifies the essential dimensional features of **rectangular rings** made of **steel**, types **R, B, BA, and M** having nominal diameters from 30 mm up to and*	**Decision in 21st Meeting:** **As Scope of ISO 6622-1 and ISO 6622-2 includes R Rings along with B, BA and M Types of Rings, IS 8422-1 may be superseded by adopting ISO 6622-1 and ISO 6622-2.** **Present Status:** -TED/02/24548 IS 8422 : Part 1: 1977 IS 8422 : Part 2: 1977 (Identical To: ISO 6622-1: 2021) completed WC. - TED/02/24549 IS 8422 : Part 1: 1977 IS 8422 : Part 2: 1977 (Identical To: ISO 6622-2: 2013) WC completed and no comment received. Committee may please deliberate. **Decision:** Committee decided to process the document for printing and authorized Member Secretary to carry out editorial corrections, if any

IS Number	Title	Base Document/ Assistance Taken	Status of Base document	Remarks	Status
				including 160 mm, used in reciprocating internal combustion piston engines for road vehicles and other applications."	
IS 8422 (Part 2) : 1977	Specification for piston rings for IC engines: Part 2 taper faced compression rings from 30 up to 200 mm nominal diameter **M - Rings**	**DIN 70911** 'Piston rings for automotive engineering, M-rings, taper faced compression rings from 30 up to 200 mm nominal diameter'	As per the Information Available on the website of 'Beuth Verlag' which is a subsidiary of DIN, the German Institute for Standardization, DIN 70911 has been withdrawn and has been replaced with **ISO 6622-1**. {https://www.beuth.de/en/standard/din-70911/1970377}	Latest version of ISO 6622-1 is ISO 6622-1:2021 - "*Internal combustion engines — Piston rings — Part 1: Rectangular rings made of cast iron*". **Scope of ISO 6622-1 : 2021** *"This part of ISO 6622 specifies the essential dimensional features of rectangular rings made of **cast iron**, Types **R, B, BA and M**, having diameters up to and including 200 mm, used in reciprocating internal combustion piston engines. It is also applicable to piston rings of compressors working under similar conditions."* Apart from this For Rectangular Rings Made of **Steel,** Part 2 of ISO 6622 exists. Latest version of ISO 6622-2 is ISO 6622-2:2013 - "*Internal combustion engines — Piston rings — Part 2: Rectangular rings made of steel".* **Scope of ISO 6622-2:2013** *"This part of ISO 6622 specifies the essential dimensional features of **rectangular rings** made of **steel**, types **R, B, BA, and M** having nominal diameters from 30 mm up to and including 160 mm, used in reciprocating internal combustion piston engines*	**Decision in 21st Meeting:** **As Scope of ISO 6622-1 and ISO 6622-2 includes M Rings along with R, B and BA Types of Rings, IS 8422-2 may be superseded by adopting ISO 6622-1 and ISO 6622-2.** **Present Status:** -TED/02/24548 IS 8422 : Part 1: 1977 IS 8422 : Part 2: 1977 (Identical To: ISO 6622-1: 2021) completed WC. - TED/02/24549 IS 8422 : Part 1: 1977 IS 8422 : Part 2: 1977 (Identical To: ISO 6622-2: 2013) WC completed and no comment received. Committee may please deliberate. **Decision:** Committee decided to process the document for printing and authorized Member Secretary to carry out editorial corrections, if any

IS Number	Title	Base Document/ Assistance Taken	Status of Base document	Remarks	Recommendations
				for road vehicles and other applications."	
IS 8422 (Part 3) : 1977	Specification for piston rings for IC engines: Part 3 keystone rings from 82 up to 200 mm nominal diameter **T - Rings 15°"**	**DIN 70914** ' Piston rings for automotive engineering, T-rings 15", keystone rings 15" from 82 up to 200 mm nominal diameter '	As per the Information Available on the website of 'Beuth Verlag' which is a subsidiary of DIN, the German Institute for Standardization, DIN 70914 has been withdrawn and has been replaced by adopting **ISO 6624-1**. {https://www.beuth.de/en/standard/din-70914/1970420}	Latest version of ISO 6624-1 is ISO 6624-1:2017 - "*Internal combustion engines — Piston rings — Part 1: Keystone rings made of **Cast iron***". **Scope of ISO 6624-1 : 2017** *"This part of ISO 6624 specifies the essential dimensional features of **keystone rings** made of **cast iron**, types **T, TB, TBA, TM, K, KB, KBA and KM,** having diameters from 70 mm up to and including 200 mm, used in reciprocating internal combustion piston engines."* Apart from this For *Keystone rings made of **Steel,*** Part 3 of ISO 6624 exists. Latest version of **ISO 6624-3** is ISO 6624-3:2017 – "*Internal combustion engines — Piston rings — Part 3: Keystone rings made of **steel** "* **Scope of ISO 6624-3:2017** *"This part of ISO 6624 specifies the essential dimensional features of **keystone rings** made of **steel**, types **T, TB, TBA, TM, K, KB, KBA and KM,** having diameters from 70 mm up to and including 160 mm, used in reciprocating internal combustion piston engines."* Along with this, Part 2 and Part 4 of ISO 6624 also exists for **Half keystone rings made**	**Decision in 21st Meeting:** As Scope of ISO 6624-1 and ISO 6624-3 includes T Rings along with TB, TBA, TM, K, KB, KBA and KM Types of Rings, IS 8422-3 may be superseded by adopting ISO 6624-1 and ISO 6624-3. ISO 6624-2 and ISO 6624-3 may also be considered for adoption for Half Keystone Rings. **Present Status:** -ED/02/24551 IS 8422 : Part 3: 1977 (Identical To: ISO 6624-1: 2017) -TED/02/24622 (Identical To: ISO 6624-2) - TED/02/24550 IS 8422 : Part 3: 1977 (Identical To: ISO 6624-3: 2017) WC completed and no comment received. Committee may please deliberate **Decision:** Committee decided to process the document for printing and authorized Member Secretary to carry out editorial corrections, if any. Chairman requested member secretary to send email to M/s Shri Ram piston for their comments in the field they are working.

IS Number	Title	Base Document/ Assistance Taken	Status of Base document	Remarks	Status
				of cast iron and Steel respectively. **Scope of ISO 6624-2 : 2016** *"This part of ISO 6624 specifies the essential dimensional features of **half keystone rings** made of **cast iron**, types **HK, HKB and HKBA**, having nominal diameters from 38 mm up to, and including, 160 mm, used in reciprocating internal combustion piston engines for road vehicles and other applications."* **Scope of ISO 6624-4 : 2016** *"This part of ISO 6624 specifies the essential dimensional features of **half keystone rings** made of **steel**, types **HK, HKB and HKBA**, having nominal diameters from 50 mm up to, and including, 160 mm, used in reciprocating internal combustion piston engines for road vehicles and other applications."*	
IS 8422 (Part 4) : 1977	Napier Oil Scraper Rings From 30 Up To 200 mm Nominal Diameter **N-Rings**	**DIN 70930** 'Piston rings for automotive engineering, N-rings, oil-scraper rings from 30 up to 200 mm nominal diameter',	As per the Information Available on the website of 'Beuth Verlag' which is a subsidiary of DIN, the German Institute for Standardization, DIN 70930 has been withdrawn and has been replaced byadopting **ISO 6623**. {https://www.beuth.de/en/standard/din-70930/1970585}	Latest version of ISO 6623 is ISO 6623 : 2013 - "*Internal combustion engines — Piston rings — Scraper rings made of cast iron'* **Scope of ISO 6623 : 2013** This International Standard specifies the essential dimensional features of **scraper rings** made of **cast iron**, types **N, NM, E, and EM**, having diameters from 30 mm up to and including 200 mm, used in reciprocating internal combustion engines for road vehicles and other applications.	**Decision in 21st Meeting:** As Scope of ISO 6623 includes N Rings along with NM, E and EM Types of Rings, IS 8422-4 may be superseded by adopting ISO 6623. **Present Status:** TED/02/24552 IS 8422 : Part 4: 1977 (Identical To: ISO 6623: 2013). WC completed and no comment received. Committee may please deliberate **Decision:** Committee decided to process the document for printing and authorized Member Secretary to carry out editorial corrections, if any Chairman requested member secretary to send email to M/s Shri Ram piston for their comments in the field they are working.

IS Number	Title	Base Document/ Assistance Taken	Status of Base document	Remarks	Status
IS 8422 (Part 5) : 1977	Specification for piston rings for IC engines: Part 5 stepped oil scraper rings from 30 up to 200 mm nominal diameter **Z - Rings**	Draft British Standard Specification of piston rings up to 200 mm diameter for internal combustion engines : Part I Single piece designs, dimensions, materials and designations ',	Status of Base Standard could not be traced due to unavailability of Document Number of Draft British Standard.	-	**Decision in 21st Meeting:** Inputs are requested from Committee members for Revision of this standard. **Present Status:** TED/02/20906 IS 8422 : Part 5: 1977. P-Draft Circulated and no comment received. Committee may please deliberate **Decision**: Committee deliberated and decided to place the document in WC and if not comment is received, process the document for printing. Committee authorized Member Secretary to carry out editorial corrections, if any

IS 8422 (Part 6) : 1977	Specification for piston rings for IC engines: Part 6 slotted oil control rings from 50 up to 200 mm nominal diameter **S - Rings**	**DIN 70946** 'Piston rings for automotive engineering, S-rings, slotted oil control rings from 50 up to 200 mm nominal diameter',	As per the Information Available on the website of 'Beuth Verlag' which is a subsidiary of DIN, the German Institute for Standardization, DIN 70946 has been withdrawn and has been replaced by adopting **ISO 6625.** {https://www.beuth.de/en/standard/din-70946/1970633}	Latest version of ISO 6625 is ISO 6625 : 1986 - "*Internal combustion engines — Piston rings — Oil control rings"* **<u>Scope of ISO 6625 : 1986</u>** *"This International Standard specifies the essential dimensional features of **S-, G-, D- and DV-oil control piston ring types**. The normal range for the axial width of oil control rings (2,5 to 8 mm inclusive) is divided into 0,5 or 1,0 mm increments. In table 7, dimensions in inch units are given for oil control rings with axial width 4,75 mm (equal to 3/16 in) for existing applications. The requirements of this International Standard apply to oil control rings for reciprocating internal*	**Decision in 21st Meeting:** The Scope of ISO 6625 includes S Rings along with G, D and DV types of oil control piston rings. Hence IS 8422-6 may be superseded by adopting ISO 6625. **Present Status:** TED/02/24621 IS 8422 : Part 6: 1977 IS 8422 : Part 7: 1977 IS 8422 : Part 8: 1977 (Identical To: ISO 6625). WC completed and no comment received. Committee may please deliberate **Decision:** Committee decided to process the document for printing and authorized Member Secretary to carry out editorial corrections, if any

IS Number	Title	Base Document/ Assistance Taken	Status of Base document	Remarks	Recommendations
				combustion piston engines, up to and including 200 mm diameter. It may also be used for piston rings of compressors working under similar conditions."	
IS 8422 (Part 7) : 1977	Specification for piston rings for IC engines: Part 7 double bevelled slotted oil control rings from 50 up to 200 mm nominal diameter **G - Rings**	**DIN 70948** 'Piston rings for automotive engineering, G-rings, double bevelled slotted oil control rings from 50 up to 200 mm nominal diameter'.	As per the Information Available on the website of 'Beuth Verlag' which is a subsidiary of DIN, the German Institute for Standardization, DIN 70948 has been withdrawn and has been replaced by adopting **ISO 6625.** {https://www.beuth.de/en/standard/din-70948/1970748}	Latest version of ISO 6625 is ISO 6625 : 1986 - "*Internal combustion engines — Piston rings — Oil control rings"* **<u>Scope of ISO 6625 : 1986</u>** *"This International Standard specifies the essential dimensional features of **S-, G-, D- and DV-oil control piston ring types**. The normal range for the axial width of oil control rings (2,5 to 8 mm inclusive) is divided into 0,5 or 1,0 mm increments. In table 7, dimensions in inch units are given for oil control rings with axial width 4,75 mm (equal to 3/16 in) for existing applications. The requirements of this International Standard apply to oil control rings for reciprocating internal combustion piston engines, up to and including 200 mm diameter. It may also be used for piston rings of compressors working under similar conditions."*	**Decision in 21st Meeting:** The Scope of ISO 6625 includes G Rings along with S, D and DV types of oil control piston rings. Hence IS 8422-7 may be superseded by adopting ISO 6625. **Present Status:** TED/02/24621 IS 8422 : Part 6: 1977 IS 8422 : Part 7: 1977 IS 8422 : Part 8: 1977 (Identical To: ISO 6625). WC completed and no comment received. Committee may please deliberate **Decision:** Committee decided to process the document for printing and authorized Member Secretary to carry out editorial corrections, if any

IS 8422 (Part 8) : 1977	Specification for piston rings for IC engines: Part 8 narrow land slotted oil control rings	**DIN 70947** 'Piston rings for automotive engineering, D-rings, narrow land drain oil control rings, 50 up to 200 mm	As per the Information Available on the website of 'Beuth Verlag' which is a subsidiary of DIN, the German Institute for Standardization, DIN 70948 has been	Latest version of ISO 6625 is ISO 6625 : 1986 - "*Internal combustion engines — Piston rings — Oil control rings"* **<u>Scope of ISO 6625 : 1986</u>** *"This International Standard specifies the essential dimensional features of **S-, G-, D- and DV-oil control piston ring types**. The normal range for*	**Decision in 21st Meeting:** The Scope of ISO 6625 includes D Rings along with S, G and DV types of oil control piston rings. Hence IS 8422-8 may be superseded by

IS Number	Title	Base Document/ Assistance Taken	Status of Base document	Remarks	Recommendations
	from 50 up to 200 mm nominal diameter **D - Rings**	nominal diameter,	withdrawn and has been replaced by adopting **ISO 6625.** {https://www.beuth.de/en/standard/din-70947/1970671}	*the axial width of oil control rings (2,5 to 8 mm inclusive) is divided into 0,5 or 1,0 mm increments. In table 7, dimensions in inch units are given for oil control rings with axial width 4,75 mm (equal to 3/16 in) for existing applications. The requirements of this International Standard apply to oil control rings for reciprocating internal combustion piston engines, up to and including 200 mm diameter. It may also be used for piston rings of compressors working under similar conditions."*	adopting ISO 6625. **Present Status:** TED/02/24621 IS 8422 : Part 6: 1977 IS 8422 : Part 7: 1977 IS 8422 : Part 8: 1977 (Identical To: ISO 6625). WC completed and no comment received. Committee may please deliberate **Decision:** Committee decided to process the document for printing and authorized Member Secretary to carry out editorial corrections, if any

Other ISO Standards on Piston Rings

ISO Standards	Title of the Standard	Scope of the Standard	If Corresponding Indian Standards Exists	Present Status
ISO 6621-3 :2021	Internal combustion engines — Piston rings — Part 3: Material specifications	This document classifies materials intended for the manufacture of piston rings, based on their mechanical properties and the stresses the materials are capable of withstanding. This document is applicable to piston rings for reciprocating internal combustion engines up to and including those of 200 mm in diameter. It is also applicable to piston rings of compressors working under similar conditions.	Yes {IS 5791 : 2006, Adoption of ISO 6621-3 : 2000}	The of ISO 6621-3: 2000 has been revised to ISO 6621-3: 2021. The latest version of ISO may be adopted. **Decision**: Recommended for adoption. Committee authorize member secretary to prepare the National Forward and circulate for 60 days
ISO 6621-4 :2015	Internal combustion engines — Piston rings — Part 4: General specifications	This part of ISO 6621 specifies the general characteristics of piston rings for reciprocating internal combustion engines for road vehicles and other applications (the individual dimensional criteria for these rings are given in the relevant International Standards). It also provides a system for ring coding, designation, and marking. It is applicable to all such rings of a nominal diameter from 30 mm up to and including 200 mm.	No	The documents No (TED/02/24507) completed WC and no comment received. Committee may deliberate please. **Decision**: Committee deliberated and decided to process the document for Printing andauthorized Member Secretary to carry out editorial corrections, if any
ISO 6621-5 :2020	Internal combustion engines — Piston rings — Part 5: Quality requirements	This document specifies quality aspects that can be defined but that are not normally found on a drawing specification. It covers the following: — single- piece piston rings of grey cast iron or steel; — multi- piece piston rings (oil control rings) consisting of cast iron parts and spring components; and — single- piece and multi- piece oil control rings of steel, i.e. oil control rings in the form of strip steel components or steel segments (rails) with spring expander components. In addition to specifying some of the limits of acceptance relating to inspection measuring principles (covered by ISO 6621-2), this document also covers those features for which no recognized quantitative measurement procedures exist and which are only checked visually with normal eyesight (glasses if worn	No	The documents No (TED/02/24508) completed WC and no comment received. Committee may deliberate please. **Decision**: Committee deliberated and decided to process the document for Printing and authorized Member Secretary to carry out editorial corrections, if any

		normally) and without magnification. Such features (superficial defects) are additional to the standard tolerances of ring width, radial wall thickness and closed gap. This document does not establish acceptable quality levels (AQL), it being left to manufacturer and customer to decide the appropriate levels jointly. In this case, the recommendations of ISO 2859-1 are followed. This document specifies the quality requirements of piston rings for reciprocating internal combustion engines for road vehicles and other applications. It is applicable to all such rings of a nominal diameter from 30 mm up to and including 200 mm.		
ISO 6626-1 (Publication Stage) {As per the information available on ISO Portal, It Will Supersede ISO 6626:1989}	Internal combustion engines — Piston rings — Part 1: Coil spring loaded oil control rings made of cast iron	-	-	ISO6626:1989 is in publication stage at ISO. Committee may deliberate please. **Decision**: Committee decided to process the National Forward in WC for 60 days after adoption by ISO
ISO 6626-2 :2013	Internal combustion engines — Piston rings — Part 2: Coil-spring-loaded oil control rings of narrow width made of cast iron	This part of ISO 6626 specifies the essential dimensional features of coil-spring-loaded oil control rings made of cast iron, types DSF-C, SSF, GSF, DSF, SSF-L, DSF-NG and DSF-CNP. It is applicable to those piston rings in sizes 60 mm to 110 mm, inclusive, for reciprocating internal combustion engines for road vehicles and other applications.	No	The documents No (TED/02/24509) completed WC and no comment received. Committee may deliberate please. **Decision**: Committee deliberated and decided to process the document for Printing and authorized Member Secretary to carry out editorial corrections, if any
ISO 6626-3 :2019	Internal combustion engines — Piston rings — Part 3: Coil-spring-loaded oil control rings made of steel	This document specifies the essential dimensions of coil-spring-loaded oil control rings made of steel, of piston ring types SOR (with R-shaped groove) and SOV (with V-shaped groove). This document applies to coil-spring-loaded oil control rings made of steel with a diameter from 60 mm up to and including 160 mm for reciprocating internal combustion engines. It can also be used for piston rings in compressors working under analogous conditions.	No	The documents No (TED/02/24510) completed WC and no comment received. Committee may deliberate please. **Decision**: Committee deliberated and decided to process the document for Printing and authorized Member Secretary to carry out editorial corrections, if any

ISO 6627 :2022	Internal combustion engines — Piston rings — Expander/rail oil-control rings	This document specifies the essential dimensional features of expander/rail oil-control rings, without providing a complete product description (because expander- rail designs vary from piston-ring manufacturer to piston-ring manufacturer, the interaction between the manufacturer and the client will determine specific design details). This document applies to expander/rail oil-control rings of nominal diameters ranging from 40 mm to 140 mm for reciprocating internal combustion engines for road vehicles and other applications. It also applies to piston rings for compressors working under analogous conditions.	No	The documents No (TED/02/24511) completed WC and no comment received. Committee may deliberate please **Decision**: Committee deliberated and decided to process the document for Printing and authorized Member Secretary to carry out editorial corrections, if any

Status of adopted ISO Standards:

SL NO	IS Number	IS Title	Aspect	Degree of Equivalence	Present Status
1.	IS/ISO 8528-4 : 2005	Reciprocating internal combustion engine driven alternating current generating sets: Part 4 controlgear and switchgear	Product Specification	Identical under single numbering	Under development stage at ISO Committee may please deliberate **Decision**: Once the ISO standard is published, committee authorize member secretary to prepare the National Forward and circulate for 60 days
2.	IS/ISO 8528-5 : 2018	Reciprocating Internal Combustion Engine Driven Alternating Current Generating Sets Part 5 Generating Sets (First Revision)	Product Specification	Identical under single numbering	Doc TED/02/23613 Under publication stage Committee may please note **Decision**: Committee noted the information.
3.	IS/ISO 8528-10 : 1998	Reciprocating Internal Combustion Engine Driven Alternating Current Generating Sets: Part 10 Measurement of Airborne Noise by the Enveloping Surface Method	Methods of tests	Identical under dual numbering	Doc TED/02/23614 Under publication stage Committee may please note **Decision**: Committee noted the information.
4.	IS/ISO 8528-12 : 1997	Reciprocating internal combustion engine driven alternating current	Product Specification	Identical under single	Doc TED/02/23615

		generating sets: Part 12 emergency power supply to safety services		numbering	Under publication stage **Decision**: Committee noted the information.
5.	IS/ISO 8528-6 : 2005	Reciprocating internal combustion engine driven alternating current generating sets: Part 6 test methods	Methods of tests	Identical under single numbering	ISO 8528-6 : 2005Withdrawn and Revised to ISO 8528-6:2023 Committee may deliberate please. **Decision**: Once the ISO standard is published, committee authorize member secretary to prepare the National Forward and circulate for 60 days
6.	IS/ISO 8178-4 : 2020	Reciprocating internal combustion engines Exhaust emission measurement Part 4: Steady-state and transient test cycles for different engine applications	Methods of tests	Identical under single numbering	ISO 8178-4 : 2020Under Development stage (ISO/WD 8178-4) at ISO. Committee may deliberate please **Decision**: Once the ISO standard is published, committee authorize member secretary to prepare the National Forward and circulate for 60 days
	IS/ISO 6621-1 : 2018	Internal Combustion Engines — Piston Rings Part 1 Vocabulary (First Revision)	Terminology	Identical under single numbering	ISO 6621-1 : 2018Under Development (stage:ISO/CD 6621-1) at ISO. Committee may deliberate please **Decision**: Once the ISO standard is published, committee authorize member secretary to prepare the National Forward and circulate for 60 days
7.	IS/ISO 8178-1 : 2020	Reciprocating internal combustion engines Exhaust emission measurement Part 1: Test bed measurement systems of gaseous and particulate emissions	Methods of tests	Identical under single numbering	ISO 8178-1:2020Under Development (stage: ISO/AWI 8178-1) at ISO. Committee may deliberate please **Decision**: Once the ISO standard is published, committee authorize member secretary to prepare the National Forward and circulate for 60 days

ANNEX-4

LIST OF PUBLISHED STANDARDS IN TED 02

SL NO (A)	IS Number (B)	IS Title (C)	Aspect (D)	Degree of Equivalence (E)
1	IS 3175 : 2013	Internal combustion engine -	Product	Indigenous

SL NO (A)	IS Number (B)	IS Title (C)	Aspect (D)	Degree of Equivalence (E)
	Reviewed In : 2018	Sealing washers for pipe unions - Specification (Second Revision)	Specification	
2	IS 16057 : 2013 Reviewed In : 2018	Lpg operated internal combustion engines - Safety and performance requirements - Specification	Product Specification	Indigenous
3	IS/ISO 8528-1 : 2018	Reciprocating Internal Combustion Engine Driven Alternating Current Generating Sets Part 1 Application, Ratings and Performance (First Revision)	Product Specification	Identical under single numbering
4	IS/ISO 8528-2 : 2018 ISO 8528-2:2018	Reciprocating internal combustion engine driven alternating current generating sets - Part 2: Engines	Product Specification	Identical under single numbering
5	IS/ISO 8528-3 : 2020 ISO 8528-3:2020	Reciprocating internal combustion engine driven alternating current generating sets Part 3: Alternating current generators for generating sets	Others	Identical under single numbering
6	IS/ISO 8528-4 : 2005 Reviewed In : 2019	Reciprocating internal combustion engine driven alternating current generating sets: Part 4 controlgear and switchgear	Product Specification	Identical under single numbering
7	IS/ISO 8528-5 : 2018 ISO 8528-5 : 2018	Reciprocating Internal Combustion Engine Driven Alternating Current Generating Sets Part 5 Generating Sets (First Revision)	Product Specification	Identical under single numbering
8	IS/ISO 8528-10 : 1998 ISO 8528-10 : 1998 Reviewed In : 2019	Reciprocating Internal Combustion Engine Driven Alternating Current Generating Sets: Part 10 Measurement of Airborne Noise by the Enveloping Surface Method	Methods of tests	Identical under dual numbering
9	IS/ISO 8528-12 : 1997	Reciprocating internal combustion engine driven alternating current	Product Specification	Identical under single numbering

SL NO (A)	IS Number (B)	IS Title (C)	Aspect (D)	Degree of Equivalence (E)
	ISO 8528-12 : 1997 Reviewed In : 2019	generating sets: Part 12 emergency power supply to safety services		
10	IS/ISO 8528-6 : 2005 Reviewed In : 2019	Reciprocating internal combustion engine driven alternating current generating sets: Part 6 test methods	Methods of tests	Identical under single numbering
11	IS/ISO 8528-7 : 2017 ISO 8528-7 : 2017	Reciprocating Internal Combustion Engine Driven Alternating Current Generating Sets Part 7 Technical Declarations for Specification and Design (First Revision)	Product Specification	Identical under single numbering
12	IS/ISO 8528-8 : 2016 ISO 8528-8 : 2016	Reciprocating internal combustion engine driven alternating current generating sets: Part 8 requirements and tests for low - Power generating sets (First Revision)	Product Specification	Identical under single numbering
13	IS/ISO 8528-9 : 2017 ISO 8528-9 : 2017	Reciprocating Internal Combustion Engine Driven Alternating Current Generating Sets Part 9 Measurement and Evaluation of Mechanical Vibrations (First Revision)	Methods of tests	Identical under single numbering
14	IS 10000 (Part 10) : 1980 Reviewed In : 2020	Methods of tests for internal combustion engines: Part 10 tests for smoke levels, limits and corrections for smoke levels for variable ,speed compression ignition engines	Methods of tests	Indigenous
15	IS 10000 (Part 1) : 1980 Reviewed In : 2020	Methods of tests for internal combustion engines: Part 1 glossary of terms relating to test methods	Methods of tests	Indigenous

SL NO (A)	IS Number (B)	IS Title (C)	Aspect (D)	Degree of Equivalence (E)
16	IS 10000 (Part 11) : 1980 Reviewed In : 2020	Methqds of tests for internal combustion engines: Part 11 information to be supplied by the purchaser to the manufacturer and information to be supplied by the manufacturer along with the engine	Methods of tests	Indigenous
17	IS 10000 (Part 13) : 2002 Reviewed In : 2018	Methods of tests for internal combustion engines: Part 13 recommendations on nature of tests required for functional changes in critical components	Methods of tests	Indigenous
18	IS 10000 (Part 2) : 1980 Reviewed In : 2020	Methods of tests for internal combustion engines Part 2 standar d reference conditions	Methods of tests	Indigenous
19	IS 10000 (Part 3) : 1980 Reviewed In : 2020	Methods of tests for internal combustion engines: Part 3 measurements for testing - Units and limits of accuracy	Methods of tests	Indigenous
20	IS 10000 (Part 5) : 1980 Reviewed In : 2020	Methods of tests for internal combustion engines: Part 5 preparation for tests and measurements for wear	Methods of tests	Indigenous
21	IS 10000 (Part 6) : 1980 Reviewed In : 2020	Methods of tests for internal combustion engines: Part 6 recording of test results	Methods of tests	Indigenous
22	IS 10000 (Part 7) : 1980 Reviewed In : 2020	Methods of tests for internal combustion, engines: Part 7 governing tests for constant speed engines and selection of engines for use with electrical generators	Methods of tests	Indigenous
23	IS 10000 (Part 8) : 1980	Methods of tests for internal combustion engines Part 8	Methods of tests	Indigenous

SL NO (A)	IS Number (B)	IS Title (C)	Aspect (D)	Degree of Equivalence (E)
	Reviewed In : 2020	performance tests		
24	IS 10000 (Part 9) : 1980 Reviewed In : 2020	Methods of tests for internal combustion engines: Part 9 endurance tests	Methods of tests	Indigenous
25	IS 10001 : 1981 ISO 3046 Reviewed In : 2021	Performance Requirements for Constant Speed Compression ignition (diesel) engines for general purposes (up to 20 kW)	Product Specification	Modified/Technically Equivalent
26	IS 10002 : 1981 ISO 3046 Reviewed In : 2021	Specification for performance requirements for constant speed compression ignition (Diesel) engines for general purposes (Above 20 KW)	Product Specification	Modified/Technically Equivalent
27	IS 10105 : 1982 Reviewed In : 2019	Specification for fittings for cylinder pressure indicators for internal combustion engines	Product Specification	Indigenous
28	IS 10323 : 2019	Crank and chain wheel for moped - Specification (First Revision)	Product Specification	Indigenous
29	IS 10478 : 2018 ISO 6519 : 2015	Diesel engines - Fuel injection pumps - Tapers for shaft ends and hubs (Second Revision)	Dimensions	Identical under dual numbering
30	IS 10533 : 1983 Reviewed In : 2019	Specification for valve guides for internal combustion engines	Product Specification	Indigenous
31	IS 10651 : 2019	Hub axle, front for moped - Specification (First Revision)	Product Specification	Indigenous
32	IS 10652 : 2019	Pedal assembly for moped - Specification (First Revision)	Product Specification	Indigenous
33	IS 10653 : 2019	Hub axle, rear, for moped - Specification (First Revision)	Product Specification	Indigenous

SL NO (A)	IS Number (B)	IS Title (C)	Aspect (D)	Degree of Equivalence (E)
34	IS 11139 : 2019	Adjusters for control cables for moped - Specification (First Revision)	Product Specification	Indigenous
35	IS 11170 : 1985 ISO 3046 Reviewed In : 2021	Specification for 1 performance requirements for constant speed compression ignition (Diesel) engines for agricultural purposes (Up To 20 KW)	Product Specification	Modified/Technically Equivalent
36	IS 11509 (Part 1) : 2012 ISO 4548-1 : 1997 Reviewed In : 2017	Methods of test for full - Flow lubricating oil filters for internal combustion engines: Part 1 differential pressure/flow characteristics (First Revision)	Methods of tests	Identical under dual numbering
37	IS 11509 (Part 2) : 2012 ISO 4548-2 : 1997 Reviewed In : 2017	Methods of test for full - Flow lubricating oil filters for internal combustion engines: Part 2 element by - Pass valve characteristics (First Revision)	Methods of tests	Identical under dual numbering
38	IS 11509 (Part 3) : 2012 ISO 4548-3 : 1997 Reviewed In : 2017	Methods of test for full - Flow lubricating oil filters for internal combustion engines: Part 3 resistance to high differential pressure and to elevated temperature (First Revision)	Methods of tests	Identical under dual numbering
39	IS 11838 : 1986 Reviewed In : 2021	Recommendations for measurement of quality characteristics of gudgeon pins	Methods of tests	Indigenous
40	IS 12025 : 1987 Reviewed In : 2017	Recommendations for measurement of quality characteristics for pistons	Methods of tests	Indigenous
41	IS 12352 : 1988 Reviewed In : 2019	Specification for fuel injection pump mounting bolts	Product Specification	Indigenous
42	IS 12404 : 1988 Reviewed In :	Specification for couplings for driving fuel injection pumps	Product Specification	Indigenous

SL NO (A)	IS Number (B)	IS Title (C)	Aspect (D)	Degree of Equivalence (E)
	2019			
43	IS 12455 : 1988 Reviewed In : 2019	Performance requirements of aircooled spark ignition automotive engines	Product Specification	Indigenous
44	IS 12460 : 1988 Reviewed In : 2019	Automotive vehicles - Transmission systems - Manual control sequence in automatic transmissions - Recommendations	Product Specification	Indigenous
45	IS 12499 : 1988 Reviewed In : 2019	Specification for two stage, 0.5 litre diesel fuel filters	Product Specification	Indigenous
46	IS 12500 : 1988 Reviewed In : 2019	Specification for 0.2 litre diesel fuel filters	Product Specification	Indigenous
47	IS 12535 (Part 1) : 1988 Reviewed In : 2019	Automotive vehicles - Transmission systems - Glossary: Part 1 general definitions	Terminology	Indigenous
48	IS 12535 (Part 2) : 1991 Reviewed In : 2021	Automotive vehicles - Transmission systems - Glonssary: Part 2 universal joints and driveshafts	Product Specification	Indigenous
49	IS 12535 (Part 3) : 1991 Reviewed In : 2021	Automotive vehicles - Transmission systems - Glossary: Part 3 drive axles definitions	Terminology	Indigenous
50	IS 12587 : 1989 Reviewed In : 2019	Automotive vehicles - Transmission system - Gear arrangement - Recommendations	Code of Practice	Indigenous
51	IS 12902 : 1990 ISO 7646 Reviewed In : 2021	Commercial vehicles and buses - Gearbox flanges - Type A	Product Specification	Identical under dual numbering

SL NO (A)	IS Number (B)	IS Title (C)	Aspect (D)	Degree of Equivalence (E)
52	IS 12903 : 1990 ISO 7647 Reviewed In : 2021	Commercial vehicles and buses - Gearbox flanges - Type S	Product Specification	Identical under dual numbering
53	IS 12904 : 1990 ISO 7648 Reviewed In : 2021	Flywheel housings for reciprocating internal combustion engines - Nominal dimensions and tolerances	Dimensions	Identical under dual numbering
54	IS 12905 : 1990 ISO 7653 Reviewed In : 2021	Commercial Vehicles-couplings Between Power Take-offs (PTO's) and Ancillary Driven Units	Product Specification	Identical under dual numbering
55	IS 12972 : 1990 ISO 7707 Reviewed In : 2021	Commercial road vehicles - Connections for rear - Mounted power take - Offs (PTO)	Product Specification	Identical under dual numbering
56	IS 12973 : 1990 ISO 7804 Reviewed In : 2021	Commercial road vehicles - Side openings for truck power take - Offs (PTO)	Product Specification	Identical under dual numbering
57	IS 12978 : 2006 ISO 8667 Reviewed In : 2020	Commercial vehicles and buses - Cross - Tooth gearbox flanges, type T (First Revision)	Product Specification	Identical under dual numbering
58	IS 12996 : 1990 Reviewed In : 2019	Internal combustion engines radiator pressure caps - Specification	Product Specification	Indigenous
59	IS 13016 : 1991 Reviewed In : 2020	Internal combustion engines - Radiator drain cocks - Specification	Product Specification	Indigenous
60	IS 13018 : 1990 Reviewed In : 2019	Internal combustion of test for pressure engines - Method charged engines	Methods of tests	Indigenous
61	IS 13029 : 1991	Internal combustionengines -	Code of Practice	Indigenous

SL NO (A)	IS Number (B)	IS Title (C)	Aspect (D)	Degree of Equivalence (E)
	Reviewed In : 2020	setting ignition timing in spark ignition engines - Code of practice		
62	IS 13050 : 1991 Reviewed In : 2020	Internal combustion engines - Valve seat inserts - Specification	Product Specification	Indigenous
63	IS 13051 : 1991 Reviewed In : 2020	Internal combustion engines radiator fans - Specification	Product Specification	Indigenous
64	IS 13052 : 1991 Reviewed In : 2020	Internal combustion engines - Cylinder liners - Quality characteristics	Product Specification	Indigenous
65	IS 13090 : 2018 ISO 7649	Automotive vehicles - Commercial vehicles - Clutch housings - Dimensions (First Revision)	Dimensions	Modified/Technically Equivalent
66	IS 13686 : 1993 Reviewed In : 2019	Internal combustion engines radiators - Methods of test	Methods of tests	Indigenous
67	IS 13687 : 1993 Reviewed In : 2019	Internal combustion engines - Radiators - Heat dissipation performance - Method of test	Methods of tests	Indigenous
68	IS 13824 : 1993 Reviewed In : 2019	Internal combustion engines - Method of verification of emission of crankcase gases for vehicles powered with four stroke spark ignition engines	Methods of tests	Indigenous
69	IS 14273 : 1999 Reviewed In : 2019	Automotive vehicles - Exhaust emissions - Gaseous pollutants from vehicles fitted with compression ignition engines - Method of measurement	Methods of tests	Indigenous
70	IS 14511 (Part 1) : 2007 ISO 8984-1	Diesel engines - Testing of fuel injectors: Part 1 hand - Lever - Operated testing and setting	Methods of tests	Identical under dual numbering

SL NO (A)	IS Number (B)	IS Title (C)	Aspect (D)	Degree of Equivalence (E)
	Reviewed In : 2017	apparatus (First Revision)		
71	IS 14511 (Part 2) : 2007 ISO 8984-2 Reviewed In : 2017	Diesel engines - Testing of fuel injectors: Part 2 test methods (First Revision)	Methods of tests	Identical under dual numbering
72	IS 14553 : 2008 Reviewed In : 2019	Automotive vehicles - Apparatus for the measurement of opacity (Smoke) of exhaust gas from vehicles equipped with compression ignition engines - Specification (First Revision)	Methods of tests	Indigenous
73	IS 14599 : 1999 Reviewed In : 2019	Automotive vehicles - Performance requirements (Measurement Of Power, SFC, Opacity) of positive and compression ignition engines - Method of test	Methods of tests	Indigenous
74	IS 14600 : 1999 Reviewed In : 2019	Automotive vehicles - Exhaust emissions - Gaseous pollutants from vehicles equipped with internal combustion engines - Method of measurement	Methods of tests	Indigenous
75	IS 1543 : 1964 Reviewed In : 2023	Specification for single cylinder fuel injection pumps (Revised)	Product Specification	Indigenous
76	IS 15653 : 2021 ISO 2710-2:2019	Reciprocating internal combustion engine - Vocabulary - Terms for engine maintenance	Terminology	Identical under dual numbering
77	IS 2765 : 1982 Reviewed In : 2020	Specification for radiator hose (First Revision)	Product Specification	Indigenous
78	IS 3169 : 1991 Reviewed In :	Internal combustion engines - Two stage, one litre, diesel fuel	Product Specification	Indigenous

SL NO (A)	IS Number (B)	IS Title (C)	Aspect (D)	Degree of Equivalence (E)
	2020	filters (First Revision)		
79	IS 3170 (Part 1) : 2006 ISO 2697 Reviewed In : 2020	Internal Combustion Engines - Fuel Injection Nozzles Part 1 Injection Nozzles - Size `S'	Product Specification	Identical under dual numbering
80	IS 3170 (Part 2) : 2006 ISO 4010 Reviewed In : 2020	Internal combustion engines - Fuel injection nozzles: Part 2 calibrating nozzle, delay pintle type (First Revision)	Product Specification	Identical under dual numbering
81	IS 3171 (Part 1) : 1997 ISO 2699 Reviewed In : 2021	Internal Combustion Engines - Fuel Injection Nozzle Holders - Part 1 : Flange Mounted Fuel Injectors Size `S' Types 2, 3, 4, 5 and 6	Product Specification	Identical under dual numbering
82	IS 3171 (Part 2) : 2006 ISO 7026 Reviewed In : 2021	Internal Combustion Engines - Fuel Injection Nozzle Holders - Part 2 : Screw-in Injection Nozzle Holders, Types 20, 21, 21.1 and 27 for Pintle Nozzle Size `S', Type B	Product Specification	Identical under dual numbering
83	IS 3171 (Part 3) : 1997 ISO 7030 Reviewed In : 2021	Internal combustion engines - Fuel injection nozzle holders: Part 3 screw mounted injection nozzle holders, types 12,13,14,15,16,17,18 and 19	Product Specification	Identical under dual numbering
84	IS 3172 : 1997 Reviewed In : 2021	Internal combustion engines - Fuel injection equipment - Single and double ended pipe unions (Single And Double Ended Banjo) - Specification (Second Revision)	Product Specification	Indigenous
85	IS 3173 : 1965 Reviewed In : 2022	Specification for high pressure connections for fuel injection equipment for diesel engines	Product Specification	Indigenous
86	IS 3174 : 1974	Specification for pipe union bolt	Product	Indigenous

SL NO (A)	IS Number (B)	IS Title (C)	Aspect (D)	Degree of Equivalence (E)
	Reviewed In : 2023	(First Revision)	Specification	
87	IS 3351 : 2006 4020 Reviewed In : 2020	Road vehicles - Fuel filters for diesel . engines - Test methods (Second Revision)	Methods of tests	Identical under dual numbering
88	IS 3649 : 2018	Automotive vehicles - Clutch facing for automotive transmission - Specification (First Revision)	Product Specification	Indigenous
89	IS 4530 : 2006 Reviewed In : 2020	GeneraL requirements for positioning and routing of engine exhaust pipes in motor vehicles (First Revision)	Product Specification	Indigenous
90	IS 5791 : 2006 ISO 6621-3 Reviewed In : 2020	Internal combustion engines - Piston rings - Material specifications (Third Revision)	Product Specification	Identical under dual numbering
91	IS 6740 : 1985 Reviewed In : 2020	Specification for gudgeon pins for internal combustion engines (First Revision)	Product Specification	Indigenous
92	IS 6750 : 1985 Reviewed In : 2020	Specification for cylinder liners for internal combustion engines (First Revision)	Product Specification	Indigenous
93	IS 7347 : 1974 Reviewed In : 2021	SPECIFICATION FOR PERFORMANCE OF SMALL SIZE SPARK IGNITION ENGINES FOR AGRICULTURAL WATER PUMPS, SPRAYERS, TILLERS, REAPERS AND OTHER SIMILAR APPLICATIONS	Product Specification	Indigenous
94	IS 7449 (Part 1) : 1974 Reviewed In : 2019	Glossary of terms for IC engines: Part 1 fuel injection equipment	Terminology	Indigenous

SL NO (A)	IS Number (B)	IS Title (C)	Aspect (D)	Degree of Equivalence (E)
95	IS 7451 (Part 1) : 2020 ISO 2710-1 : 2017	Reciprocating Internal Combustion Engines — Vocabulary Part 1 Terms for Engine Design and Operation (Second Revision)	Terminology	Identical under dual numbering
96	IS 7451 (Part 2) : 2006 ISO 1204 Reviewed In : 2021	Reciprocating internal combustion engines: Part 2 designation of the direction of rotation and of cylinders and valves in cylinder heads, and definition of right - Hand and left - Hand in - Line engines and locations on an engine (First Revision)	Terminology	Identical under dual numbering
97	IS 7611 : 1993 Reviewed In : 2019	Internal combustion engines radiators - Specification (First Revision)	Product Specification	Indigenous
98	IS 810 : 1991 Reviewed In : 2020	Internal combustion engines - Engine valves - Specification (Second Revision)	Product Specification	Indigenous
99	IS 8118 : 2008 Reviewed In : 2019	Automotive vehicles - Opacity (Smoke) of exhuast gas from vehicles equipped with compression ignition engines operating under free acceleration - Method of measurement (Third Revision)	Methods of tests	Indigenous
100	IS 8422 (Part 4) : 1977 Reviewed In : 2019	Specification for piston rings for IC engines: Part 4 napier oil scraper rings from 30 up to 200 mm nominal diameter N - Rings	Product Specification	Indigenous
101	IS 8422 (Part 5) : 1977 Reviewed In : 2019	Specification for piston rings for IC engines: Part 5 stepped oil scraper rings from 30 up to 200 mm nominal diameter Z - Rings	Product Specification	Indigenous
102	IS 8422 (Part 6) : 1977	Specification for piston rings for IC engines: Part 6 slotted oil	Product Specification	Indigenous

SL NO (A)	IS Number (B)	IS Title (C)	Aspect (D)	Degree of Equivalence (E)
	Reviewed In : 2019	control rings from 50 up to 200 mm nominal diameter S - Rings		
103	IS 8422 (Part 7) : 1977 Reviewed In : 2019	Specification for piston rings for IC engines: Part 7 double bevelled slotted oil control rings from 50 up to 200 mm nominal diameter G - Rings	Product Specification	Indigenous
104	IS 8422 (Part 8) : 1977 Reviewed In : 2019	Specification for piston rings for IC engines: Part 8 narrow land slotted oil control rings from 50 up to 200 mm nominal diameter D - Rings	Product Specification	Indigenous
105	IS 8503 : 1986 Reviewed In : 2020	Technical supply conditions for aluminium alloy pistons for internal combustion engines (First Revision)	Code of Practice	Indigenous
106	IS 9262 : 1979 Reviewed In : 2020	Recommendations for gear positions for road vehicles	Code of Practice	Indigenous
107	IS 9418 : 1980 Reviewed In : 2020	Dimensions for mounting flanges for in - Line fuel injection pumps for multi - Cylinder compressiom ignition engines	Dimensions	Indigenous
108	IS 9420 (Part 1) : 1988 Reviewed In : 2019	Specification for feed pumps for diesel fuel injection equipment: Part 1 external dimensions(First Revision)	Dimensions	Indigenous
109	IS 9420 (Part 2) : 1988 Reviewed In : 2019	Specification for feed pumps for diesel fuel injection equipment: Part 2 types of drives	Product Specification	Indigenous
110	IS 9465 : 1980 Reviewed In : 2020	Mounting dimensions for in - Line injection pump assemblies for fuel injection equipment for multi - Cylinder compression ignition	Dimensions	Indigenous

SL NO (A)	IS Number (B)	IS Title (C)	Aspect (D)	Degree of Equivalence (E)
		engines		
111	IS 10000 (Part 12) : 1980 Reviewed In : 2020	Methods of tests for internal combustion engines: Part 12 specimen test certificates	Methods of tests	Indigenous
112	IS 10000 (Part 4) : 1980 Reviewed In : 2020	Methods of tests for internal combustion engines: Part 4 declaration of power, efficiency, fuel consumption and lubricating oil consumption	Methods of tests	Indigenous
113	IS 7451 (Part 6) : 2007 ISO 2261 Reviewed In : 2017	Reciprocating internal combustion engines: Part 6 hand - Operated control devices - Standard direction of motion (First Revision)	Product Specification	Identical under dual numbering
114	IS 7657 (Part 1) : 1975 Reviewed In : 2023	Specification for starter ring gears for internal combustion engines: Part 1 gears for inertia and solenoid pre - Engaged starters	Product Specification	Indigenous
115	IS 7657 (Part 2) : 1975 Reviewed In : 2019	Specification for starter ring gears for internal combustion engines: Part 2 gears for axial and coaxial starters	Product Specification	Indigenous
116	IS 8422 (Part 1) : 1977 Reviewed In : 2019	Specification for piston rings for IC engines: Part 1 plain compression rings from 30 up to 200 mm nominal diameter R - Rings	Product Specification	Indigenous
117	IS 8422 (Part 2) : 1977 Reviewed In : 2019	Specification for piston rings for IC engines: Part 2 taper faced compression rings from 30 up to 200 mm nominal diameter M - Rings	Product Specification	Indigenous
118	IS 8422 (Part 3) : 1977	Specification for piston rings for IC engines: Part 3 keystone rings	Product Specification	Indigenous

SL NO (A)	IS Number (B)	IS Title (C)	Aspect (D)	Degree of Equivalence (E)
	Reviewed In : 2019	from 82 up to 200 mm nominal diameter T - Rings 15		
119	IS H10001 : 1981 ISO 3046 Reviewed In : 2021	Specification for performance requirements for constant speed compression ignition (Diesel) engines for general purposes (Up To 20 Kw)	Product Specification	Modified/Technically Equivalent
120	IS/ISO 8178-4 : 2020 ISO 8178-4:2020	Reciprocating internal combustion engines Exhaust emission measurement Part 4: Steady-state and transient test cycles for different engine applications	Methods of tests	Identical under single numbering
121	IS/ISO 6621-2 : 2020 ISO 6621-2:2020	Internal combustion engines - Piston rings - Part 2: Inspection measuring principles	Code of Practice	Identical under single numbering
122	IS/ISO 8178-7 : 2015 ISO 8178 : Part 7 : 2015 Reviewed In : 2020	Reciprocating internal combustion engine - Exhaust emission measurement: Part 7 engine family determination (First Revision)	Methods of tests	Identical under single numbering
123	IS/ISO 6621-1 : 2018 ISO 6621 : Part 1	Internal Combustion Engines — Piston Rings Part 1 Vocabulary (First Revision)	Terminology	Identical under single numbering
124	IS/ISO 8178-3 : 2019 ISO 8178-3:2019	Reciprocating internal combustion engines - Exhaust emission measurement - Part 3: Test procedures for measurement of exhaust gas smoke emissions from compression ignition engines using a filter type smoke meter	Methods of tests	Identical under single numbering
125	IS/ISO 8178-9 : 2019 ISO 8178-9:2019	Reciprocating internal combustion engines - Exhaust emission measurement - Part 9: Test cycles and test procedures for	Methods of tests	Identical under single numbering

SL NO (A)	IS Number (B)	IS Title (C)	Aspect (D)	Degree of Equivalence (E)
		measurement of exhaust gas smoke emissions from compression ignition engines using an opacimeter		
126	IS 17458 : 2018 ISO 6826 : 1997	Reciprocating internal combustion engine - Fire protection	Safety Standard	Identical under dual numbering
127	IS 17019 : 2018	Gear / gerotor oil pump for motorcycle / scooter / moped - Specification	Product Specification	Indigenous
128	IS 17042 (Part 4) : 2018 ISO 22241-4 : 2009	Diesel Engines â€" NOX Reduction Agent AUS 32 Part 4 Refilling Interface	Code of Practice	Identical under dual numbering
129	IS 11509 (Part 5) : 2023 ISO 4548-5:2020	Method of test for full-flow lubricating oil filters for internal combustion engines - Part 5: Test for hydraulic pulse durability	Methods of tests	Identical under dual numbering
130	IS 17042 (Part 5) : 2018 ISO 22241-5 : 2012	Diesel engines - Nox reduction agent aus 32: Part 5 refilling interface for passenger cars	Code of Practice	Identical under dual numbering
131	IS/ISO 8178-8 : 2015 ISO 8178-8 : 2015 Reviewed In : 2020	Reciprocating internal combustion engines - Exhaust emission measurement: Part 8 engine group determination	Dimensions	Identical under single numbering
132	IS/ISO 8178-1 : 2023 ISO 8178-1:2020	Reciprocating internal combustion engines Exhaust emission measurement Part 1: Test bed measurement systems of gaseous and particulate emissions	Methods of tests	Identical under single numbering

Standards Under Development

Projects Approved

SI. No.	Doc No	TITLE
1	TED 2 (24458)	SMALL SIZE SPARK IGNITION ENGINES FOR AGRICULTURAL WATER PUMPS SPRAYERS TILLERS REAPERS AND OTHER SIMILAR APPLICATIONS PERFORMANCE SPECIFICATION First Revision
	Decision	**The committee deliberated and noted the document is approved as NWIP to be taken up for formulation of Standard. Committee decided to develop the P-Draft and take-up in the next SC TC 02 committee meeting.**
Preliminary Draft Standards		
SI. No.	**Doc No**	**TITLE**
1	TED 2 (20797)	RECOMMENDATIONS FOR MEASUREMENT OF QUALITY CHARACTERISTICS FOR PISTONS
2	TED 2 (23099)	INTERNAL COMBUSTION ENGINES RADIATORS SPECIFICATION
3	TED 2 (23100)	Internal Combustion Engines Radiators Methods of Test
4	TED 2 (23120)	Internal Combustion Engines Radiators Heat Dissipation Performance Method Of Test
5	TED 2 (23237)	AUTOMOTIVE VEHICLES - EXHAUST EMISSIONS - GASEOUS POLLUTANTS FROM VEHICLES FITTED WITH COMPRESSION IGNITION ENGINES - METHOD OF MEASUREMENT First Revision
6	TED 2 (24347)	INTERNAL COMBUSTION ENGINES RADIATOR FANS SPECIFICATION First Revision
7	TED 2 (24442)	INTERNAL COMBUSTION ENGINES RADIATOR PRESSURE CAPS SPECIFICATION First Revision
8	TED 2 (24454)	INTERNAL COMBUSTION ENGINES SETTING IGNITION TIMING IN SPARK IGNITION ENGINES CODE OF PRACTICE First Revision
9	TED 2 (24461)	AUTOMOTIVE VEHICLES-TRANSMISSION SYSTEMS - MANUAL CONTROL SEQUENCE IN AUTOMATIC TRANSMISSIONS RECOMMENDATIONS First Revision
	Decision	**Committee deliberated and decided to put the above 09 documents in circulation for 60 days**
Drafts Standards in WC Stage		
	Decision	
SI. No.	**Doc No**	**TITLE**
1	TED 2 (20896)	GLOSSARY OF TERMS FOR IC ENGINES PART 1 FUEL INJECTION EQUIPMENT
	Decision:	**Committee deliberated and decided to process the document for printing if no comment is received during circulation period and authorized Member Secretary to carry out editorial corrections, if any**
Draft Standards Completed WC Stage		
SI. No.	**Doc No**	**TITLE**
1	TED 2 (16879)	Automotive power - Performance requirements Measurement of power sfc opacity of positive and compression ignition engine - Method of test
2	TED 2 (20894)	SINGLE CYLINDER FUEL INJECTION PUMPS SPECIFICATION Second Revision

3	TED 2 (20895)	PIPE UNION BOLT SPECIFICATION Second Revision
4	TED 2 (20898)	STARTER RING GEARS FOR INTERNAL COMBUSTION ENGINES PART 2 GEARS FOR AXIAL AND COAXIAL STARTERS SPECIFICATION First Revision
5	TED 2 (20900)	STARTER RING GEARS FOR INTERNAL COMBUSTION ENGINES PART 1 GEARS FOR INERTIA AND SOLENOID PRE-ENGAGED STARTERS SPECIFICATION First Revision
6	TED 2 (21508)	GEAR POSITIONS FOR ROAD VEHCILES RECOMMENDATIONS First Revision
7	TED 2 (24507) (ISO 6621-4:2015)	INTERNAL COMBUSTION ENGINES PISTON RINGS PART 4 GENERAL SPECIFICATIONS
8	TED 2 (24508) (ISO 6621-5:2020)	INTERNAL COMBUSTION ENGINES PISTON RINGS PART 5 QUALITY REQUIREMENTS
9	TED 2 (24509) (ISO 6626-2:2013)	INTERNAL COMBUSTION ENGINES - PISTON RINGS PART 2 COIL-SPRING-LOADED OIL CONTROL RINGS OF NARROW WIDTH MADE OF CAST IRON
10	TED 2 (24510) (ISO 6626-3:2019)	INTERNAL COMBUSTION ENGINES - PISTON RINGS - PART 3 COIL-SPRING-LOADED OIL CONTROL RINGS MADE OF STEEL
11	TED 2 (24511) (ISO 6627:2022)	INTERNAL COMBUSTION ENGINES PISTON RINGS EXPANDER RAIL OIL-CONTROL RINGS
12	TED 2 (24548) (ISO 6622-1: 2021)	Internal Combustion Engines Piston Rings Part 1 Rectangular Rings Made of Cast Iron
13	TED 2 (24549) (ISO 6622-2: 2013)	Internal Combustion Engines Piston Rings Part 2 Rectangular Rings Made of Steel
14	TED 2 (24550) (ISO 6624-3: 2017)	Internal Combustion Engines Piston Rings Part 3 Keystone Rings Made of Steel
15	TED 2 (24551) (ISO 6624-1: 2017)	Internal Combustion Engines Piston Rings Part 1 Keystone Rings Made of Cast Iron
16	TED 2 (24552) (ISO 6623: 2013)	Internal Combustion Engines - Piston Rings - Scraper Rings Made of Cast Iron
17	TED 2 (24621) (ISO 6625)	Internal Combustion Engines - Piston Rings - Oil Control Rings
18	TED 2 (24622) (ISO 6624-2)	Internal Combustion Engines Piston Rings Part 2 Half Keystone Rings Made of Cast Iron
19	TED 2 (24623) (ISO 6624-4)	Internal Combustion Engines - Piston Rings - Part 4 Half Keystone Rings Made of Steel
	Decision	**The above 19 documents already completed WC and no comments are received. Committee deliberated and decided to process these documents for printing and authorized Member Secretary to carry out editorial corrections, if any**
Finalized Draft Indian Standards under Print		
	Decision	**Committee noted the information**
SI. No.	**Doc No**	**TITLE**
1	TED 2 (22709) (ISO 6826: 2022)	Reciprocating Internal Combustion Engines Fire Protection (First Revision)
2	TED 2 (23613) (ISO 8528-5:2022)	RECIPROCATING INTERNAL COMBUSTION ENGINE DRIVEN ALTERNATING CURRENT GENERATING SETS PART 5: GENERATING SETS (Second Revision)

3	TED 2 (23614) (ISO 8528-10:2022)	Reciprocating Internal Combustion Engine Driven Alternating Current Generating Sets Part 10: Measurement of Airborne Noise (First Revision)
4	TED 2 (23615) (ISO 8528-12:2022)	RECIPROCATING INTERNAL COMBUSTION ENGINE DRIVEN ALTERNATING CURRENT GENERATING SETS PART 12: EMERGENCY POWER SUPPLY TO SAFETY SERVICES (First Revision)