



**INSTITUTE OF ROAD TRANSPORT
100 FEET ROAD, TARAMANI, CHENNAI – 600 113**

**RATE
CONTRACT
TENDER**



**Tender For Supply of Tyres
Through MSTC Portal with
E-Tender Cum Reverse Auction**

**Tender Ref : 04/TYRES/CP/IRT/2022
Due Date : 03.06.2022**

TENDER DOCUMENT

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SCHEDULE OF TENDER (SOT)

a	NIT NO & Date	DIPR/2097/TENDER/2022
b	Name of Supply	Tyres
c	MODE OF TENDER	E- Tender Cum Reverse Auction
d	E-Tender NO	04/ TYRES / CP/ IRT / 2022
e	Date of NIT(available to parties for download)	04.05.2022 , 10:30 Hrs
f	Date of Pre-bid meeting	16.05.2022 at 11.00 Hrs
g	Validity of Tender	6 month or till finalization of next tender whichever is later
h	Estimated Contract Value	70 Crores approximately
i	i) Tender Document Charges(TDC)	17,700/- inclusive of Tax (non refundable)
	ii) Earnest Money Deposit(EMD) Note: a) Company/units with MSME/NSIC/ Director of Industries of State/ Cottage Industries approved by State authority, are exempted from payment of EMD/ TDC subject to the production of proof of valid certificates pertaining to the class of item/works for which tender is floated.	Rs.10,00,000 /-
	iii) Transaction Fee Note: Vendors registered with IRT for the subject item can get the access to online e-tender only after remitting Transaction fee by NEFT in favour of MSTC Limited, Kolkata.	MSTC shall be entitled to a Service Charge of 0.05% of the Quoted value of the procurement per event excluding taxes subject to a minimum of Rs 1,000/- (Rupees One Thousand only) and maximum of Rs 15,000/- (Rupees Fifteen Thousand only) per event per vendor.. GST on the transaction fees and other statutory charges on the same shall be payable extra by the vendors.
j	Date of Starting of e-Tender for submission of on line Technical bid and Commercial Bid at www.mstcecommerce.com/eprochome/ntcl	04.05.2022 at 10.30 Hrs
k	Date of closing of online e-tender for submission of Technical bid and Commercial bid	03.06.2022 at 15.00 Hrs
l	Date & time of opening of Part-I (i.e. Technical I Bid)	03.06.2022 at 15:30 Hrs
m	Date & time of opening of Part-II (ie Bid)	Intimate Later

E-TENDER NOTICE

E-tenders are invited separately item wise from the Manufacturers of Tyres / Lubricants to all State Transport Undertakings in Tamilnadu under two bid system subject to the conditions prescribed in the tender documents.

Name of the Items	Supply of Tyres	Supply of Lubricant
Pre-Qualification	Manufacturer	Manufacturer
Issue of Tender document from	04.05.2022 at 10.30 hrs onwards	05.05.2022 at 10.30 hrs onwards
Closing date and time to download Tender document from online	02.06.2022 at 16.30 hrs	06.06.2022 at 16.30 hrs
Last date and time for submitting E-tender	03.06.2022 at 15.00 hrs	07.06.2022 at 15.00 hrs
Opening of E-Tender Technical bid on	03.06.2022 at 15.15 hrs	07.06.2022 at 15.15 hrs
Pre- Bid Meeting	16.05.2022 at 11.00 hrs	16.05.2022 at 14.00 hrs
Tender Document Cost	Rs.17,700/- inclusive of Tax	Rs.17,700/- inclusive of Tax
EMD Amount	Rs.10,00,000/-	Rs.10,00,000/-
Complete e-tender document can be viewed and downloaded through website.	Website: www.tenders.tn.gov.in & www.mstcecommerce.com/eproc	
Any other clarification	Contact Phone no: 044-22541723, Extn: 46 E-mail ID: irtcpo@gmail.com & irttaramani@gmail.com	

The bidders have to participate online bidding only with Digital Signature Certificate (DSC) of Class – III

DIRECTOR

Process of E- Tender

Registration: The process involves vendor's registration with MSTC e-procurement portal which is free of cost. Only after registration, the vendor(s) can submit his/their bids electronically. Electronic Bidding for submission of Technical Bid as well as Commercial Bid will be done over the internet. The Vendor should possess Class III signing type digital certificate. Vendors are to make their own arrangement for bidding from a P.C. connected with Internet. MSTC is not responsible for making such arrangement. (Bids will not be recorded without Digital Signature).

SPECIAL NOTE: THE TECHNICAL BID AND THE COMMERCIAL BID HAS TO BE SUBMITTED ON-LINE AT www.mstcecommerce.com/eprochome/ntcl before due date without fail. Otherwise tender will be summarily rejected.

1). Vendors are required to register themselves online with www.mstcecommerce.com → eProcurement → common portal. → Register as Vendor -- Filling up details and creating own user id and password → Submit.

2). Vendors will receive a system generated mail confirming their registration in their email which has been provided during filling the registration form. In case of any clarification, please contact IRT/MSTC, (before the scheduled time of the etender).

Contact person (IRT):-

1. Mr. K.Sivagnanamoorthy – Assistant Director - 9941471644 –
e-mail ksivagnanamoorthy@gmail.com
2. Mr. M.Umamaheswaran– Assistant Director - 9176051472 –
e-mail umamaheswaransrm@gmail.com

Contact person (MSTC Ltd):

1. Mrs E .Babitha rani, CM 9444976359, babitha@mstcindia.co.in
Help desk : 033-35013220, 033-35013221, 033-35013222 helpdesk@hko@mstcindia.in
Google hangout ID- (for text chat)- mstceproc@gmail.com

B) System Requirement:

- i) Windows 7 or above Operating System
- ii) IE-7 and above Internet browser.
- iii) Signing type digital signature
- iv) Latest updated JRE 8 (x86 Offline) software to be downloaded and installed in the system. To disable "Protected Mode" for DSC to appear in The signer box following settings may be applied. Tools => Internet Options => Security => Disable protected Mode If enabled- i.e, Remove the tick from the tick box mentioning "Enable Protected Mode". Other Settings :• Tools => Internet Options => General => Click On Settings under "browsing history/ Delete Browsing History" => Temporary Internet Files => Activate "Every time I Visit the Webpage". To enable ALL active X controls and disable 'use pop up blocker' under Tools Internet Options→ custom level (Please run IE

settings from the page www.mstcecommerce.com once)

3 The Technical bid and Commercial Bid shall have to be submitted online at www.mstcecommerce.com/eprochome/ntcl. Tenders will be opened electronically on specified date and time as given in the Tender.

4 All entries in the tender should be entered in online Technical & Commercial Formats without any ambiguity.

5 Special Note towards Transaction fee: The vendors shall pay the transaction fee using "Transaction Fee Payment" Link under "My Menu" in the vendor login. The vendors have to select the particular tender from the event dropdown box. The vendor shall have the facility of making the payment either through NEFT or Online Payment. On selecting NEFT, the vendor shall generate a challan by filling up a form. The vendor shall remit the transaction fee amount as per the details printed on the challan without making change in the same. On selecting Online Payment, the vendor shall have the provision of making payment using its Credit/ Debit Card/ Net Banking. Once the payment gets credited to MSTC's designated bank account, the transaction fee shall be auto authorized and the vendor shall be receiving a system. Generated mail. Transaction fee is non-refundable. A vendor will not have the access to online e-tender without making the payment towards transaction fee. NOTE Bidders are advised to remit the transaction fee well in advance before the closing time of the event so as to give themselves sufficient time to submit the bid.

6 Information about tenders /corrigendum uploaded shall be sent by email only during the process till finalization of tender. Hence the vendors are required to ensure that their corporate email I.D. provided is valid and updated at the time of registration of vendor with MSTC. Vendors are also requested to ensure validity of their DSC (Digital Signature Certificate).

7 E-tender cannot be accessed after the due date and time mentioned in NIT.

8 Bidding in e-tender :

a) Vendor(s) need to submit necessary EMD, Tender Document Fee , Factory Inspection Fee and Transaction fees (If ANY) to be eligible to bid online in the e-tender. Tender Document fees, Factory Inspection fees and Transaction fees are non refundable. No interest will be paid on EMD. EMD of the unsuccessful vendor(s) will be refunded by the tender inviting authority as detailed in the EMD Clause.

b) The process involves Electronic Bidding for submission of Technical and Commercial Bid.

c) The vendor(s) who have submitted transaction fee can only submit their Technical Bid and Commercial Bid through internet in MSTC website www.mstcecommerce.com → e-procurement → Common Portal → Login → My menu → Auction Floor Manager →

live event → Selection of the live event.

d) The vendor should allow running JAVA application. This exercise has to be done immediately after opening of Bid floor. Then they have to fill up Common terms/Commercial specification and save the same. After that click on the Technical bid. If this application is not run then the vendor will not be able to save/submit his Technical bid.

e) After filling the Technical Bid, vendor should click 'save' for recording their Technical bid. Once the same is done, the Commercial Bid link becomes active and the same has to be filled up and then vendor should click on "save" to record their Commercial bid. Then once both the Technical bid & Commercial bid has been saved, the vendor can click on the "Final submission" button to register their bid

f) Vendors are instructed to use Attach Doc button to upload documents. Multiple documents can be uploaded.

g) In all cases, vendor should use their own ID and Password along with Digital Signature at the time of submission of their bid.

h) During the entire e-tender process, the vendors will remain completely anonymous to one another and also to everybody else.

i) The e-tender floor shall remain open from the pre-announced date & time and for as much duration as mentioned above.

j) All electronic bids submitted during the e-tender process shall be legally binding on the vendor. Any bid will be considered as the valid bid offered by that vendor and acceptance of the same by the Buyer will form a binding contract between Buyer and the Vendor for execution of supply.

k) It is mandatory that all the bids are submitted with digital signature certificate class III .otherwise the same will not be accepted by the system.

l) Buyer reserves the right to cancel or reject or accept or withdraw or extend the tender in full or part as the case may be without assigning any reason thereof.

m) No deviation of the terms and conditions of the tender document is acceptable. Submission of bid in the e-tender floor by any vendor confirms his acceptance of terms & conditions for the tender.

9 Any order resulting from this tender shall be governed by the terms and conditions Mentioned therein.

10 No deviation to the technical and commercial terms & conditions are allowed.

11 The tender inviting authority has the right to cancel this e-tender or extend the due date of receipt of bid(s) without assigning any reason thereof.

12 Vendors are requested to read the vendor guide and see the video in the page www.mstcecommerce.com/eproc to familiarize them with the system before bidding.

Acronyms and Definitions

EMD	Earnest Money Deposit
FOR	Free On Road / Rail
LD	Liquidated Damage
SD	Security Deposit
STU	State Transport Undertakings
GST	Goods and Services Tax
RC	Rate Contract
IRT	Institute of Road Transport
TNSTC	Tamil Nadu State Transport Corporation Ltd
MSTC	Metal Scrap Trade Corporation Ltd

Know Your Rights

1. ALL TENDERS WILL BE OPENED **ONLINE** ONLY IN THE PRESENCE OF THE
BIDDERS.
2. ELIGIBLE PRICE BIDS WILL BE OPENED **ONLINE** IN THE PRESENCE OF THE
BIDDERS.
3. INFORMATION OF THE TENDER FINALIZATION WILL BE INFORMED TO THE UNSUCCESSFUL BIDDERS AFTER THE COMPLETION OF THE ENTIRE TENDER PROCESS.

DIRECTOR
IRT

Letter of Undertaking

To
The Director
Institute of Road Transport
100 Feet Road, Taramani,
Chennai – 600 113

Sir,

Sub: Undertaking for participating in IRT Tender for supply of Tyres through
MSTC Portal with E-tender cum Reverse Auction - Reg.

Ref: **Tender No. 04/Tyre/CP/IRT/2022**

I/We ----- have gone through the Terms and Conditions,
Specification and will abide by them as laid down (Tender Documents, Technical
bid and Commercial Bid)

I/We ----- hereby confirm that our Company was not blacklisted by
any State Government/ Central Government/ Public Sector Undertakings during the last
three years. We also hereby confirm that our EMD/SD was not forfeited by any State
Government / Central Government / Public Sector Undertakings during the last three
years due to our non-performance, non-compliance with the tender conditions etc.

I/We ----- hereby declare that all the
particulars furnished by us in this Tender are true to the best of my/our knowledge and
we understand and accept that if at any stage, the information furnished is found to be
incorrect or false, we are liable for disqualification from this tender and also are liable
for any penal action that may arise due to the above.

I/We ----- certify that no refurbished components are
used in the from the manufacturers for the supply of Tyres, Tubes and Flaps.

I/We _____ certify that we are liable and responsible for any
disputes arising out of Intellectual Property Rights.

**In case of violation of any of the conditions above, I/We -----
understand that I/ We are liable to be blacklisted by IRT for a period of three
years.**

Yours faithfully
for _____
Name, Signature
Designation
Seal

Note:

- 1) The above, Declaration in the company's letter head should be submitted.
- 2) If the bidding firm has been blacklisted by any State Government / Central Government/ Public Sector Undertakings earlier, then the details should be provided.

1. Preamble

The Institute of Road Transport is an autonomous society registered under the Societies Registration Act 1860, and is functioning under the overall control of Transport Department, Government of Tamilnadu.

In order to streamline the purchase of spares and accessories for eight State Transport Corporations in Tamilnadu, the Government vide G.O.No.54, Transport [A1] Department, Dated 21.4.2000 constituted a Tender Award Committee to decide price, terms and conditions of supply of the selected items of purchase by the State Transport Corporations of which Tyre is one among them.

The Government of Tamilnadu designated the Institute of Road Transport as the Nodal Agency to ascertain the requirements of the State Transport Corporations in Tamilnadu, to call for tender and submit to the Tender Award Committee. The Director, Institute of Road Transport has been designated as the Nodal Officer for this purpose.

To ensure uniformity, it has been decided to invite tender under Two Bid System viz. Technical Bid and Financial bid from the Tyre manufacturers for the supply of Tyres through MSTC portal with E-tender cum Reverse Auction to all the STUs in Tamilnadu for a period of **6 months** or till finalization of next tender which ever is later satisfying the given terms and conditions.

The Tender will be evaluated by Tender Scrutiny Committee and approved by Tender Award Committee. IRT will issue Rate contract order to successful bidder and STUs. The STUs will release purchase order, execute agreement and make payment as per terms and conditions.

Short Titles used in the Tender Document:

- 1) **Bidder:** Bidder means the party who makes a formal offer in pursuance of the tender floated.
- 2) **Successful Bidder:** Successful Bidder means the Bidder who becomes successful through the tender process.
- 3) **Purchaser:** Purchaser means the end-user for whom the procurement is indented through the tender.

2. General Instructions

2.1 General

- a) The Bidders are requested to examine the instructions, terms and conditions and specifications given in the Tender. Failure to furnish all required information in every aspect will be at the Bidder's risk and may result in the rejection of bid.
- b) It will be imperative for each Bidder(s) to familiarise itself/ themselves with the prevailing legal situation for the execution of contract. IRT shall not entertain any request for clarification from the Bidder regarding such legal aspects of submission of the Bids.
- c) It will be the responsibility of the Bidder that all factors have been investigated and considered while submitting the Bids and no claim whatsoever including those of financial adjustments to the contract awarded under this tender will be entertained by IRT. **Neither any time schedule nor financial adjustments arising thereof shall be permitted on account of failure by the Bidder to appraise themselves.**
- d) The Bidder shall be deemed to have satisfied itself fully before Bidding as to the correctness and sufficiency of its Bids for the contract and price quoted in the Bid to cover all obligations under this Tender.
- e) It must be clearly understood that the Terms and Conditions and specifications are intended to be strictly enforced. No escalation of cost in the Tender by the Bidder will be permitted throughout the period of Agreement or throughout the period of completion of contract whichever is later on account of any reasons whatsoever.
- f) The Bidder shall make all arrangements as part of the contract to supply commission and train the beneficiaries at various locations at their own cost and transport.
- g) The Bidder should be fully and completely responsible to IRT and STUs for all the deliveries and deliverables.
- h) Any Bidder who is blacklisted in IRT will not be eligible to bid for Tenders in IRT, as per the conditions of blacklisting.

In case show cause notice has been issued by IRT for poor performance, then IRT reserves the right to disqualify the bid submitted by such Bidder.

2.2 Clarifications in the Tender

- a) A prospective Bidder requiring any clarification in the Tender may notify IRT by letter or by E-mail to irtcpo@gmail.com with a copy to irttaramani@gmail.com. We encourage paper free e-mail communication.
- b) The responses to the clarifications will be notified in the website by means of Corrigendum to the Tender Document.

2.3 Amendments to the Tender

- a) Before closing of the Tender, clarifications and amendments if any will be notified in the website mentioned in the Tender Schedule. The Bidders are requested to periodically check for the amendments or corrigendum or information in the website till the closing date of this Tender. IRT will not make any individual communication and will in no way be responsible for any ignorance pleaded by the Bidders.
- b) No clarifications would be offered by IRT within 48 hours prior to the due date and time for opening of the Tender.
- c) IRT is not responsible for any misinterpretation of the provisions of this tender document on account of the Bidders failure to update the Bid documents on changes announced through the website.

2.4 Language of the Bid

- a) The bid prepared by the Bidder as well as all correspondence and documents relating to the bid shall be in English only. The supporting documents and printed literature furnished by the bidder may be in another language provided they are accompanied by an accurate translation in English duly notarised, in which case, for all purposes of the bid, the translation shall govern. Bids received without such translation copy are liable to be rejected.

2.5 Bid Currency

Price should be quoted in Indian Rupees (INR) only and Payment shall be made in Indian Rupees only.

2.6 Contacting Tender Inviting Authority

- a) Bidders shall not make attempts to establish unsolicited and unauthorised contact with the Tender Accepting Authority, Tender Inviting Authority or Tender Scrutiny Committee after the opening of the Tender and prior to the notification of the Award and any attempt by any Bidder to bring to bear extraneous pressures on the Tender Accepting Authority shall be sufficient reason to disqualify the Bidder.
- b) Notwithstanding anything mentioned above, the Tender Inviting Authority or the Tender Accepting Authority may seek bonafide clarifications from Bidders relating to the tenders submitted by them during the evaluation of tenders.

2.7 Force Majeure

Neither the Purchaser / IRT nor the Successful Bidder shall be liable to the other for any delay or failure in the performance of their respective obligations due to causes or contingencies beyond their reasonable control such as:

- Natural phenomena including but not limited to earthquakes, floods and epidemics.
- Acts of any Government authority domestic or foreign including but not limited to war declared or undeclared, priorities and quarantine restrictions.
- Accidents or disruptions including, but not limited to fire, explosions, breakdown of essential machinery or equipment, power and water shortages.
- In such claim of Force Majeure clause, the bidder should submit the written claim, explaining the cause within 10 days of such occurrence and should be accepted by "DIRECTOR IRT/ MANAGING DIRECTORS OF STUs / PURCHASER".

2.8 Arbitration

In case of any dispute, the matter will be referred to a sole Arbitrator to be appointed by the Director of IRT / Managing Director of STUs under the "Arbitration and Conciliation Act 1996". The arbitration shall be held in Chennai, India and the language shall be English only. Subject to the above, the Courts at Chennai alone shall have jurisdiction in the matter.

3. Eligibility Criteria

The Bidders should have the following Eligibility for participating in the Tender. The Bidders should enclose documentary evidence duly self attested for fulfilling the Eligibility in the Technical Bid. If a bidder fails to enclose the documentary proof for eligibility, their bid will be summarily rejected.

Eligibility

Sl. No.	Description	Eligibility	Documentary Proof to be submitted
I	Manufacturer	The tenderer shall attach a Photo copy of Manufacturing License or such other document in proof of manufacture of Tyres along with the tender. Otherwise the tender will be rejected. The Manufacturing License shall be in English	The necessary documentary proof is to be enclosed
II	Turnover	The Bidder should have average Turnover minimum of Rs. 50 Crores per annum and cumulative minimum Rs.150 crores for the year 2018-19, 2019-20 & 2020-2021	The bidders shall enclosed the certificate for the turnover obtained from the auditors separately (or) the annual balance sheet duly attested by the Chartered Accountant Otherwise tender will summarily be rejected
III	GST Payment	The bidders should have paid minimum of Rs.1 crores as GST during last financial year 2020-21	The bidders shall enclose chellan for the same and produce for the original proof for the GST payment. Other wise tender will summarily be rejected
IV	Bidder must conform to the Terms and Conditions and duly signed in each and every page.	Bidder must conform to the Terms and Conditions and duly signed in each and every page. This will imply that the tenderer is accepting the tender condition. Otherwise it will treat as not accepting the tender conditions and shall be summarily rejected. Any counter conditions against our terms and conditions shall be summarily rejected.	The Bidder shall submit entire tender document page duly signed. Otherwise tender will summarily be rejected.

4. SPECIFICATIONS FOR TYRES

4.1 IS:15636:2012 SPECIFICATION FOR TYRE

IS 15636 : 2012

Indian Standard

AUTOMOTIVE VEHICLES — PNEUMATIC TYRES FOR COMMERCIAL VEHICLES — DIAGONAL AND RADIAL PLY — SPECIFICATION

*(First Revision)***1 SCOPE**

This standard specifies the general, dimensional, and performance requirements of new pneumatic tyres designed primarily, but not only, for vehicles in categories M2, M3, N, T3 and T4 as defined in IS 14272 : 2011 'Automotive vehicles — Types terminology (*first revision*)'. However, it does not apply to tyre types identified by speed symbols corresponding to speeds below 80 km/h.

2 REFERENCE

The following standard contains provision, which through reference in this text constitutes provision of this standard. At the time of publication, the edition indicated was valid. All standards are subject to revision and parties to agreements based on this standard is encouraged to investigate the possibility of applying the most recent edition of the standard indicated below:

<i>IS No.</i>	<i>Title</i>
10694 (Part 3) : 1991	Automotive vehicles — Rims — General requirements: Part 3 Commercial vehicle rims (<i>first revision</i>)

3 TERMS, DEFINITIONS AND NOMENCLATURE

For the purpose of this standard, the following terms shall apply.

3.1 Tyre — An annular toroidal shaped inflatable envelope made of elastic materials, natural and/or synthetic rubber or a blend thereof, reinforced with a textile/steel cord fabric casing enclosing multi-coil wire beadings. The tyre is so made that it can be used by mounting and inflating on the appropriate rim.

3.1.1 Type of Pneumatic Tyre — A category of pneumatic tyres which do not differ in such essential respects such as:

- Manufacturers name and brand name;
- Tyre-size designation;
- Category of use;

- 1) *Normal* — Normal-road-use tyres;
- 2) *Special* — Special-use tyre, for example tyre for mixed use (both on and off the road) and/or restricted speed;
- 3) *Snow* tyre;
- d) *Structure* [diagonal (bias-ply), radial];
- e) *Speed category*;
- f) *Load indices or maximum load and ply rating*; and
- g) *Nominal cross-section* — Dimension when fitted to a specified rim.

3.1.2 The nomenclature used is given in Fig. 1.

3.2 Snow Tyre — Tyre whose tread pattern and whose structure are primarily designed to ensure, in mud and fresh or melting snow, a performance better than of an ordinary (road-type) tyre. The tread pattern of a snow tyre generally consists of groove (rib) and/or solid block elements more widely spaced than on an ordinary (road type) tyre.

3.3 Structure — Tyre technical characteristics of the carcass of a tyre. A distinction is made between the following structures in particular.

3.3.1 Diagonal or Bias-ply — Structure in which the ply cords extend to the beads and are laid at alternate angles substantially less than 90° to the centreline of the tread.

3.3.2 Radial — Structure in which the ply cords extend to the beads and are laid substantially at 90° to the centreline of the tread, the carcass being stabilized by an essentially inextensible circumferential belt.

3.4 Bead — Part of a pneumatic tyre which is of such a shape and structure so as to fit the rim and to hold the tyre on it (see Fig. 1).

3.5 Cord — Strands forming the fabric of the plies in the pneumatic tyre.

3.6 Ply — Layer of rubber-coated parallel cords.

3.7 Carcass — Part of a pneumatic tyre other than the tread and the rubber sidewalls which, when inflated, bears the load.

3.8 Tread — Part of a pneumatic tyre which comes into contact with the ground, protects the carcass against mechanical damage and contributes to ground adhesion.

3.9 Sidewall — Part of a pneumatic tyre between the tread and the area designed to be covered by the rim flange.

3.10 Lower Sidewall — Area included between the line of maximum section width of the tyre and the area designed to be covered by the rim flange.

3.11 Tread Groove — Space between two adjacent ribs and/or blocks in the tread pattern (see Fig. 1).

3.12 Section Width (S) — Linear distance between the outsides of the sidewalls of an inflated pneumatic tyre, excluding elevations due to labelling (marking), decoration or protective bands or ribs.

3.13 Overall Width — Linear distance between the outsides of the sidewalls of an inflated pneumatic tyre, including labelling (marking), decoration and protective bands or ribs.

3.14 Section Height (H) — Distance equal to half the difference between the outer diameter of the tyre and the nominal rim diameter.

3.15 Nominal Aspect Ratio (R_a) — Hundred times the number obtained by dividing the number expressing the section height (H) by the number expressing the nominal section width (S_1), both dimensions expressed in the same units.

3.16 Outer Diameter (D) — Overall diameter of an inflated new pneumatic tyre.

3.17 Tyre — Size Designation — The description containing the following:

- Nominal tyre section width code (S_1);
- Nominal aspect ratio (where applicable); and
- Nominal rim diameter code (d) — A conventional number denoting the nominal rim diameter corresponding to its diameter expressed by codes (numbers below 100) or in millimetres (numbers above 100).

The values of the ' d ' symbols expressed in millimetres are shown in Table 1.

3.18 Nominal Rim Diameter — Diameter of the rim on which a tyre is designed to be mounted.

3.19 Rim — Support for a tyre-and-tube assembly, or for a tubeless tyre, on which support the tyre beads are seated [see IS 10694 (Part 3)].

3.20 Measuring Rim — Rim on which a tyre shall be fitted for dimensional measurements.

Table 1 Rim Diameter Codes
(Clause 3.17)

Sl No. (1)	Nominal Rim Diameter Code ' d ' (2)	Value of ' d ' mm (3)
i)	8	203
ii)	9	229
iii)	10	254
iv)	11	279
v)	12	305
vi)	13	330
vii)	14	356
viii)	15	381
ix)	16	406
x)	17	432
xi)	18	457
xii)	19	482
xiii)	20	508
xiv)	21	533
xv)	22	559
xvi)	24	610
xvii)	25	635
xviii)	14.5	368
xix)	16.5	419
xx)	17.5	445
xxi)	19.5	495
xxii)	20.5	521
xxiii)	22.5	572
xxiv)	24.5	622
xxv)	26	660
xxvi)	28	711
xxvii)	30	762

3.21 Test Rim — Rim on which a tyre shall be fitted for load/speed, endurance, plunger testing.

3.22 Chunking — Breaking away of pieces of rubber from the tread.

3.23 Cord Separation — Parting of the cords from their coating.

3.24 Ply Separation — Parting of adjacent plies.

3.25 Tread Separation — Pulling away of the tread from the carcass.

3.26 Load Index — One or two numbers (higher number is for single application and lower number for dual) which indicate the load the tyre can carry in single or in single and dual operation at the speed corresponding to the associated speed symbol and when operated in conformity with the requirements governing utilization specified by the manufacturer. The list of these indices and their corresponding loads are given in Table 2.

3.27 Ply Rating — Term used to identify given tyre with its maximum recommended load when used in specified type of service. It is an index of tyre strength and does not necessarily represent the number of cord plies in the tyre.

3.28 Speed Symbol — Speed, indicated by a symbol, at which the tyre can carry the load indicated by the

associated load-index or maximum rated load. The maximum speed which the tyre can sustain is expressed by speed symbol given in Table 3.

3.29 Table Load-Capacity Variation with Speed — Tables 4 and 5, showing as a function of the load indices and nominal-speed symbols, the load variations which a pneumatic tyre can withstand, when used at speeds different from that conforming to its nominal speed symbol.

3.30 Theoretical Rim — An imaginary rim the width of which would be X times the nominal section width of a tyre. The value of X shall be specified by the tyre manufacturer.

4 TEST REQUIREMENTS

4.1 Tyre Dimensions

4.1.1 Tyre dimensions, namely section width and outer diameter and profiles shall be compatible with the appropriate rims. The method of measurement of tyre dimensions is given in Annex A.

4.1.1.1 Section width of tyre

For the existing types of tyres whose designations are given in col 2 of Tables 6 to 25, the actual measured section width shall be within the minimum section width and maximum overall width values specified in those tables.

NOTE — Adjustment to tyre section width/overall width — Within the parameters of specified permissibility of a wider or narrower rim than the recommended rim size, the guidelines for the necessary adjustment are — Sectional width or overall width: 5 mm increase or reduction (as applicable) for every 0.50 difference in nominal rim width.

4.1.1.2 Tyre outer diameter

For the existing types of tyres whose designations are given in col 2 of Tables 6 to 25, the actual measured outer diameter shall be within the minimum and maximum diameter values specified in those tables.

4.1.1.3 For the tyre sizes listed in Tables 6 to 25, but ply rating/and or speed symbol and load-inflation details are other than those given corresponding to tyre sizes in the tables, the section width and outer diameter shall be determined as follows:

- Actual measured section width shall be within the minimum section width and maximum overall width values specified in Tables 6 to 25.
- Actual measured outer diameter shall be within the minimum and maximum diameter values specified in Tables 6 to 25.

4.1.2 For code designated (diagonal or radial) sizes which are not listed in Tables 6 to 25, the section width

and outer diameter shall be verified against the specification declared by the manufacturer.

4.1.3 For metric designated tyres (diagonal or radial) which are not listed in Tables 6 to 25, the section width and outer diameter shall be calculated using the following formulae:

- Section width of tyre*

$$S = S_1 + K(A - A_1)$$

where

S = section width measured on measuring rim, in mm;

S_1 = nominal section width, as set out on the tyre sidewall in the tyre size designation, in mm;

A = width of the measuring rim, as shown by the manufacturer in the technical specification, in mm;

A_1 = theoretical rim width, in mm.

NOTES

1 A_1 shall be taken to equal S_1 multiplied by the factor X as specified by the manufacturer, and K shall be taken equal to 0.4.

2 The actual measured overall width of the tyre may be less than the section width determined as detailed in this clause.

3 The actual measured overall width may also exceed the section width determined as detailed in this clause by value of 4 percent in case of radial ply tyre and by 8 percent in case of diagonal (bias-ply) tyres.

However, for tyres with normal section width exceeding 305 mm intended for dual mounting (twinning), the value determined as detailed in this clause shall not be exceeded by more than 2 percent for radial ply tyres with nominal aspect ratio higher than 60, or 4 percent for diagonal (bias-ply) tyres.

- Outer diameter of the tyre*

$$D = d + 2H$$

where

D = outer diameter expressed, in mm;

d = conventional number denoting the nominal rim diameter expressed in mm (see 3.18). When the conventional number is given by codes, the value in mm is obtained by multiplying such number by 25.4;

H = nominal section height, in mm
= $0.01 \times R_x \times S_1$

where

R_x = nominal aspect ratio; and

S_1 = nominal section width, in mm.

NOTE — R_x and S_1 are as shown on the sidewall of the tyre in the tyre-size designation in conformity with the requirements of 3.17.

The outer tyre diameter shall not be outside the minimum and maximum diameter values obtained from the following formula:

$$D_{\text{Min}} = d + (2H \times a)$$

$$D_{\text{Max}} = d + (2H \times b)$$

NOTES

1 H and d are as defined in 4.1.3.

2 Coefficients a and b are respectively:

a	0.97		
b		Radial	Diagonal
	For normal use tyres	1.04	1.07
	For special use tyres	1.06	1.09

4.2 Endurance Test

4.2.1 Each type of pneumatic tyres, other than the types mentioned in 4.3.1 shall undergo the endurance test. The sample shall conform to the requirements given in 4.2.2 and 4.2.3 when tested as per the method given in Annex B.

4.2.2 After undergoing the endurance test, the tyre shall not exhibit any tread separation, ply separation, cord separation, chunking or broken cords.

4.2.3 The outer diameter of the tyre, measured 6 h after the endurance test, shall not differ by more than ± 3.5 percent from the outer diameter as measured before the test.

4.3 Load/Speed Performance Test

4.3.1 Each type of pneumatic tyres having a speed symbol Q and above and marked with,

- load index in single 121 or less; or
- load index in single 122 and above and with the additional marking C, or LT, included in the tyre size designation shall undergo load/speed performance test.

The sample shall conform to the requirements given in 4.3.2, when tested as per the method given in Annex C.

4.3.2 After undergoing the load/speed performance test, the tyre shall not exhibit any tread separation, ply separation, cord separation, chunking or broken cords.

4.4 Tread-Wear Indicators

4.4.1 The pneumatic tyre shall include not less than six transverse rows of tread-wear indicators, approximately equally spaced and situated in the principal grooves of the tread. The tread-wear indicators shall be such that these cannot be confused with the rubber ridges between the ribs or blocks of the tread.

4.4.2 However, in the case of tyres dimensions appropriate for mounting on rims of a nominal diameter code ≤ 12 , minimum four number of tread-wear indicators shall be accepted.

4.4.3 The tread-wear indicators shall provide a means of indicating with a tolerance of $^{+0.60}_{-0.00}$ mm when the tread grooves are no longer more than 1.6 mm deep.

4.4.4 Height of tread-wear indicators is determined by measuring the difference between the depth, from the tread's surface to the bottom of the tread groove close to the slope at the base of the tread-wear indicator and to the top of the tread-wear indicator.

NOTE — The tyre shall be considered unsafe for service on road when remaining worn skid depth reaches minimum value of 1.6 mm at any part of the tread circumference.

4.5 Tyre Strength Test (Plunger Test)

The tyre shall conform to the requirements given in Tables 27 and 28 when tested as per the method given in Annex D. When both Load Index and PR are marked on the tyre, the test values as given in Table 28 shall be adopted.

5 MARKINGS

5.1 Tyre shall be permanently and legibly marked, on both sidewalls in the case of symmetrical tyre and at least on the outer sidewall in the case of asymmetrical tyre with the following markings:

- Manufacturer's name or trade-name;
- Tyre size designation as given in 3.17;
- An indication of the structure as follows:
 - On diagonal (bias-ply) tyre: The character '-' or the letter 'D' placed in front of the rim-diameter marking;
 - On radial-ply tyres: The letter 'R' placed in front of the rim-diameter marking and, optionally, the word 'RADIAL';
- Speed symbol (or symbols) — An indication of the tyre's nominal speed symbol in the form of the symbol given in 3.28;
- Ply rating and maximum load in kg (corresponding to ply rating) and/or load index and maximum load in kg (corresponding to load index) as applicable;
- Maximum cold inflation pressure, in kPa;
- The word 'TUBELESS' if the tyre is designed for use without an inner tube;
- Week and Year code (Code only in the form of '2510' which indicates 25th week of year 2010); or

Month and Year code of manufacture (Code

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only in the form of 'MAR 10' which indicates March month of year 2010) (may be placed on one sidewall);

- j) In the case of tyres which can be regrooved, symbol 'U' at least 20 mm in diameter, or the word 'REGROOVABLE';
- k) Tread wear indicators marking shall be provided at minimum six/four (as applicable) places along the circumference to give indication to the user for location of tread wear indicator; and
- m) The inscription M+S or M.S or M&S in the case of a snow tyre.

5.2 An example of tyre markings is given in Annex E.

5.3 Markings given in 5.1 shall be moulded into or on the tyres. These shall be clearly legible and situated in the lower area of the tyre on at least one of its sidewalls.

5.4 Examples of tyre size designations are given in Annex F.

6 CRITERIA FOR TYPE APPROVAL/TYPE TEST

6.1 Tyre(s) shall meet the test requirements when tested as per schedule given in Table 31.

6.2 Type Approval Procedure

6.2.1 Application for type approval to be submitted by the manufacturer.

6.2.2 The application for type approval shall contain at least the technical information as specified in Annex G.

NOTE — For type approval of tyre belonging to one family of tyre, brand of the tyre to be selected for type approval shall be left to certifying authority. Worst case selection shall be made at the discretion of the certifying authority based on the family of tyres specified in 6.2.5.2.

6.2.3 Changes in the Technical Specification of Already Type Approved Tyres

6.2.3.1 Every functional modification in technical specification declared in accordance with 6.2.1 shall be intimated to the certifying authority.

6.2.3.2 The certifying authority may then consider, whether,

- a) tyre with modification complies with specified requirement, or;
- b) any further verification is required.

For considering whether any further verification is required or not, criteria for extension of type approval specified in 6.2.5 shall be used.

6.2.3.3 In case of 6.2.3.2(b), checks for those parameters which are affected by the modifications, only need to be carried out.

6.2.4 In the event of 6.2.3.2(a) or in the case of 6.2.3.2(b) after successful compliance to the requirements, a certificate of compliance shall be validated for the modified version, as applicable.

6.2.5 Criteria for Extension of Type Approval

6.2.5.1 In case the changes cause the tyre to be outside the approved family/range of tyres, the verification shall be carried out for establishing compliance of the changed parameters to the requirements specified in this standard.

6.2.5.2 Family/Range of tyres would mean tyres, which do not differ in the aspects listed below, but having different brand names/trade name/trade descriptions or trade-marks:

- a) Registered name of company;
- b) Country of origin;
- c) Location of manufacturing facility;
- d) Application category (road or off road or snow);
- e) Construction type (standard or reinforced);
- f) Structure (diagonal or radial or bias belted);
- g) Tyre size designation;
- h) Speed category;
- j) Tube or tubeless (worst case is tubeless);
- k) Load index (or load capacity);
- m) Ply rating of diagonal ply tyres; and
- n) Carcass material — Nylon/Polyester/Steel (as applicable).

6.3 Type Approval Procedure for Tyres not Listed in Tables 6 to 25

6.3.1 Tyre section width and tyre overall diameter shall be verified as per 4.1.1.3, 4.1.2, 4.1.3.1 and 4.1.4 against the specification declared by the manufacturer.

6.3.2 For carrying out the tests of these tyres, the load and inflation pressures specified by the manufacturer and marked on the tyre shall be used.

7 CONFORMITY OF PRODUCTION TESTS/ ACCEPTANCE TESTS

7.1 Periodic testing of each type of tyre as per the approved family of tyres given in 6.2.5.2 shall be carried out. The approved marking shall be made only on the tyres of that approved family and the same shall not get extended to other families of tyres, unless tyres from out of that have undergone the same testing and type approval for that family of tyre. If a tubeless tyre version is approved its tube version shall also deemed to be approved.

7.2 The tyres approved under this standard shall be so

Table 2 Load Indices
(Clause 3.26)

Sl No.	Load Index	Corresponding Maximum Load to be Carried kg	Sl No.	Load Index	Corresponding Maximum Load to be Carried kg	Sl No.	Load Index	Corresponding Maximum Load to be Carried kg
(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
i)	60	250	xlvi)	106	950	xcv)	154	3 750
ii)	61	257	xlvi)	107	975	xcvi)	155	3 875
iii)	62	265	xlvi)	108	1 000	xcvii)	156	4 000
iv)	63	272	xlvi)	109	1 030	xcviii)	157	4 125
v)	64	280	xlvi)	110	1 060	xcix)	158	4 250
vi)	65	290	xlvi)	111	1 090	c)	159	4 375
vii)	66	300	xlvi)	112	1 120	ci)	160	4 500
viii)	67	307	xlvi)	113	1 150	cii)	161	4 625
ix)	68	315	xlvi)	114	1 180	ciii)	162	4 750
x)	69	325	xlvi)	115	1 215	civ)	163	4 875
xi)	70	335	xlvi)	116	1 250	cv)	164	5 000
xii)	71	345	xlvi)	117	1 285	cvi)	165	5 150
xiii)	72	355	xlvi)	118	1 320	cvi)	166	5 300
xiv)	73	365	xlvi)	119	1 360	cvi)	167	5 450
xv)	74	375	xlvi)	120	1 400	cvi)	168	5 600
xvi)	75	387	xlvi)	121	1 450	cvi)	169	5 800
xvii)	76	400	xlvi)	122	1 500	cvi)	170	6 000
xviii)	77	412	xlvi)	123	1 550	cvi)	171	6 150
xix)	78	425	xlvi)	124	1 600	cvi)	172	6 300
xx)	79	437	xlvi)	125	1 650	cvi)	173	6 500
xxi)	80	450	xlvi)	126	1 700	cvi)	174	6 700
xxii)	81	462	xlvi)	127	1 750	cvi)	175	6 900
xxiii)	82	475	xlvi)	128	1 800	cvi)	176	7 100
xxiv)	83	487	xlvi)	129	1 850	cvi)	177	7 300
xxv)	84	500	xlvi)	130	1 900	cvi)	178	7 500
xxvi)	85	515	xlvi)	131	1 950	cvi)	179	7 750
xxvii)	86	530	xlvi)	132	2 000	cvi)	180	8 000
xxviii)	87	545	xlvi)	133	2 060	cvi)	181	8 250
xxix)	88	560	xlvi)	134	2 120	cvi)	182	8 500
xxx)	89	580	xlvi)	135	2 180	cvi)	183	8 750
xxxi)	90	600	xlvi)	136	2 240	cvi)	184	9 000
xxxii)	91	615	xlvi)	137	2 300	cvi)	185	9 250
xxxiii)	92	630	xlvi)	138	2 360	cvi)	186	9 500
xxxiv)	93	650	xlvi)	139	2 430	cvi)	187	9 750
xxxv)	94	670	xlvi)	140	2 500	cvi)	188	10 000
xxxvi)	95	690	xlvi)	141	2 575	cvi)	189	10 300
xxxvii)	96	710	xlvi)	142	2 650	cvi)	190	10 600
xxxviii)	97	730	xlvi)	143	2 725	cvi)	191	10 900
xxxix)	98	750	xlvi)	144	2 800	cvi)	192	11 200
xl)	99	775	xlvi)	145	2 900	cvi)	193	11 500
xli)	100	800	xlvi)	146	3 000	cvi)	194	11 800
xlii)	101	825	xlvi)	147	3 075	cvi)	195	12 150
xliii)	102	850	xlvi)	148	3 150	cvi)	196	12 500
xliv)	103	875	xlvi)	149	3 250	cvi)	197	12 850
xlvi)	104	900	xlvi)	150	3 350	cvi)	198	13 200
xlvi)	105	925	xlvi)	151	3 450	cvi)	199	13 600
xlvi)	106	950	xlvi)	152	3 550	cvi)	200	14 000
			xciv)	153	3 650			

manufactured as to conform to requirements set forth in Table 32.

7.3 The production and quality assurance system shall meet all the requirements laid out by the certifying authority.

8 BIS CERTIFICATION MARKING

Each tyre may also be marked with the Standard Mark.

8.1 The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act, 1986* and the Rules and Regulations made thereunder. The details of conditions under which the license for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

Table 3 Speed Symbol and Maximum Speed
(Clause 3.28)

Sl No.	Speed Symbol	Corresponding Speed km/h
(1)	(2)	(3)
i)	F	80
ii)	G	90
iii)	J	100
iv)	K	110
v)	L	120
vi)	M	130
vii)	N	140
viii)	P	150
ix)	Q	160
x)	R	170
xi)	S	180
xii)	T	190
xiii)	U	200
xiv)	H	210

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Table 4 Variation of Load Capacity with Speed and Inflation Pressure Compensation Commercial Vehicles Tyres — Radial and Diagonal Ply
(Clause 3.29)

Sl No.	Speed km/h	Variation of Load Capacity (Percent)						Inflation Pressure Compensation (Percent)
		Load Indices $\geq 122^{11}$						
		Speed symbol						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		F	G	J	K	L	M	
i)	0	+150	+150	+150	+150	+150	+150	+40
ii)	5	+110	+110	+110	+110	+110	+110	+40
iii)	10	+80	+80	+80	+80	+80	+80	+30
iv)	15	+65	+65	+65	+65	+65	+65	+25
v)	20	+50	+50	+50	+50	+50	+50	+21
vi)	25	+35	+35	+35	+35	+35	+35	+17
vii)	30	+25	+25	+25	+25	+25	+25	+13
viii)	35	+19	+19	+19	+19	+19	+19	+11
ix)	40	+15	+15	+15	+15	+15	+15	+10
x)	45	+13	+13	+13	+13	+13	+13	+9
xi)	50	+12	+12	+12	+12	+12	+12	+8
xii)	55	+11	+11	+11	+11	+11	+11	+7
xiii)	60	+10	+10	+10	+10	+10	+10	+6
xiv)	65	+7.5	+8.5	+8.5	+8.5	+8.5	+8.5	+4
xv)	70	+5.0	+7.0	+7.0	+7.0	+7.0	+7.0	+2
xvi)	75	+2.5	+5.5	+5.5	+5.5	+5.5	+5.5	+1
xvii)	80	0	+4.0	+4.0	+4.0	+4.0	+4.0	0
xviii)	85		+2.0	+3.0	+3.0	+3.0	+3.0	0
xix)	90		0	+2.0	+2.0	+2.0	+2.0	0
xx)	95			+1.0	+1.0	+1.0	+1.0	0
xxi)	100			0	0	0	0	0
xxii)	105				0	0	0	0
xxiii)	110				0	0	0	0
xxiv)	115					0	0	0
xxv)	120					0	0	0
xxvi)	125						0	0
xxvii)	130						0	0

NOTE — It is imperative to consult rim/wheel manufacturers for the choice of rims and wheels suitable for the load carrying capacities and the inflation pressure required for applications at speed of 40 km/h and below.

¹¹ Load index indices refer to a single operation.

Table 5 Variation of Load Capacity with Speed and Inflation Pressure Compensation
Commercial Vehicles Tyres — Radial and Diagonal Ply
(Clause 3.29)

Sl No.	Speed km/h	Variation of Load Capacity (Percent)									Inflation Pressure Compensation (Percent)
		Load Indices ≤ 121 ¹⁾									
		Speed symbol									
		L	M	N	P	Q	R	S	T	H	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
i)	0	+110	+110	+110	+110	+110	+110	+110	+110	+110	+40
ii)	5	+90	+90	+90	+90	+90	+90	+90	+90	+90	+35
iii)	10	+75	+75	+75	+75	+75	+75	+75	+75	+75	+35
iv)	15	+60	+60	+60	+60	+60	+60	+60	+60	+60	+30
v)	20	+50	+50	+50	+50	+50	+50	+50	+50	+50	+30
vi)	25	+42	+42	+42	+42	+42	+42	+42	+42	+42	+30
vii)	30	+35	+35	+35	+35	+35	+35	+35	+35	+35	+30
viii)	35	+29	+29	+29	+29	+29	+29	+29	+29	+29	+30
ix)	40	+25	+25	+25	+25	+25	+25	+25	+25	+25	+30
x)	45	+22	+22	+22	+22	+22	+22	+22	+22	+22	+28
xi)	50	+20	+20	+20	+20	+20	+20	+20	+20	+20	+25
xii)	55	+17.5	+17.5	+17.5	+17.5	+17.5	+17.5	+17.5	+17.5	+17.5	+22
xiii)	60	+15.0	+15.0	+15.0	+15.0	+15.0	+15.0	+15.0	+15.0	+15.0	+18
xiv)	65	+13.5	+13.5	+13.5	+13.5	+13.5	+13.5	+13.5	+13.5	+13.5	+15
xv)	70	+12.5	+12.5	+12.5	+12.5	+12.5	+12.5	+12.5	+12.5	+12.5	+15
xvi)	75	+11.0	+11.0	+11.0	+11.0	+11.0	+11.0	+11.0	+11.0	+11.0	+14
xvii)	80	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0	+12
xviii)	85	+8.5	+8.5	+8.5	+8.5	+8.5	+8.5	+8.5	+8.5	+8.5	+10
xix)	90	+7.5	+7.5	+7.5	+7.5	+7.5	+7.5	+7.5	+7.5	+7.5	+9
xx)	95	+6.5	+6.5	+6.5	+6.5	+6.5	+6.5	+6.5	+6.5	+6.5	+8
xxi)	100	+5.0	+5.0	+5.0	+5.0	+5.0	+5.0	+5.0	+5.0	+5.0	+6
xxii)	105	+3.75	+3.75	+3.75	+3.75	+3.75	+3.75	+3.75	+3.75	+3.75	+4
xxiii)	110	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2
xxiv)	115	+1.25	+1.25	+1.25	+1.25	+1.25	+1.25	+1.25	+1.25	+1.25	+1
xxv)	120	0	0	0	0	0	0	0	0	0	0
xxvi)	130		0	0	0	0	0	0	0	0	0
xxvii)	140			0	0	0	0	0	0	0	0
xxviii)	150				0	0	0	0	0	0	0
xxix)	160					0	0	0	0	0	0
xxx)	170						0	0	0	0	0
xxxi)	180							0	0	0	0
xxxii)	190								0	0	0
xxxiii)	200									0	0
xxxiv)	210									0	0

NOTES

1 It is imperative to consult rim/wheel manufacturers for the choice of rims and wheels suitable for the load carrying capacities and the inflation pressure required for applications at speed of 40 km/h and below.

2 For load carrying capacities at speeds J and K and corresponding inflation pressure compensation, consult the tyre manufacturer.

¹⁾ Load indices refer to a single operation.

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Table 6 Truck, Bus and Trailer Tyres for Use in Highway Service
(Code Designated Diagonal Ply)
(Clauses 4.1.1.1, 4.1.1.2, 4.1.1.3, 4.1.2, 4.1.3 and 6.3)

Sl No.	Tyre Size Designation	Rim Rec. Alt.	New Tyre — Inflated										
			Width, mm			Overall Diameter, mm			Ply Rating	Maximum Load (Corresponding to Ply Rating) kg Single/Dual	Load Index Single/Dual	Maximum Load (Corresponding to Load Index) kg Single/Dual	Maximum Cold I. P kPa Single/Dual
			Design section width	Minimum section width	Maximum over-all width	Design Std/ premium	Minimum Std/ premium	Maximum Std/ premium					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
i)	7.00-20	<u>5.5</u> 5.0	<u>199</u> 194	<u>193</u> 188	<u>209</u> 204	904/ —	892/ —	924/ —	10	1 430/1 250	121/117	1 450/1 285	620/550
ii)	7.50-20	<u>6.0</u> 5.5	<u>215</u> 210	<u>209</u> 204	<u>226</u> 221	935/952	922/939	956/974	10	1 600/1 405	124/120	1 600/1 400	620/550
									12	1 775/1 555	128/124	1 800/1 600	725/655
									14	1 900/1 650	130/125	1 900/1 650	795/725
iii)	8.25-20	<u>6.5</u> 6.0	<u>236</u> 231	<u>229</u> 224	<u>248</u> 243	974/992	960/977	997/1 016	12	2 040/1 790	133/128	2 060/1 800	690/620
									14	2 230/1 960	136/131	2 240/1 950	795/725
									16	2 300/2 000	137/132	2 300/2 000	825/760
iv)	9.00-20	<u>7.0</u> 6.5	<u>259</u> 254	<u>251</u> 246	<u>272</u> 267	1 019/1 038	1 004/1 022	1 045/1 065	12	2 335/2 050	138/133	2 360/2 060	655/585
									14	2 570/2 255	141/136	2 575/2 240	760/690
									16	2 650/2 325	142/138	2 650/2 360	795/725
v)	10.00-20	<u>7.5</u> 7.0	<u>278</u> 273	<u>270</u> 265	<u>292</u> 287	1 054/1 073	1 038/1 056	1 081/1 101	14	2 740/2 405	143/139	2 725/2 430	690/620
									16	3 000/2 630	146/142	3 000/2 650	795/725
									18	3 080/2 700	147/143	3 075/2 725	825/760
vi)	11.00-20	<u>8.0</u> 7.5	<u>293</u> 288	<u>284</u> 279	<u>308</u> 303	1 085/1 104	1 068/1 086	1 114/1 134	14	2 990/2 620	146/142	3 000/2 650	690/620
									16	3 265/2 865	149/145	3 250/2 900	795/725
									18	3 355/2 945	150/146	3 350/3 000	825/760
vii)	12.00-20	<u>8.5</u> 8.0	<u>315</u> 310	<u>306</u> 301	<u>331</u> 326	1 125/1 146	1 106/1 127	1 156/1 178	14	3 175/2 785	148/144	3 150/2 800	620/550
									16	3 510/3 080	152/148	3 550/3 150	725/655
									18	3 725/3 265	154/150	3 750/3 350	795/725
viii)	11.00-22	<u>8.0</u> 7.5	<u>293</u> 288	<u>284</u> 279	<u>308</u> 303	1 135/1 155	1 118/1 137	1 152/1 173	12	2 900/2 575	145/141	2 900/2 575	590/520
									14	3 250/2 800	149/144	3 250/2 800	690/620
									16	3 550/3 075	152/147	3 550/3 075	790/720
ix)	10-22.5	7.50	254	246	267	1 019/1 038	1 004/1 022	1 045/1 065	10	2 120/1 850	134/129	2 120/1 850	550/480
									12	2 360/2 060	138/133	2 360/2 060	660/590
									14	2 575/2 300	141/137	2 575/2 300	760/690
x)	11-22.5	8.25	279	271	293	1 054/1 073	1 038/1 056	1 081/1 101	12	2 500/2 180	140/135	2 500/2 180	590/520
									14	2 800/2 430	144/139	2 800/2 430	690/620
									16	3 000/2 650	146/142	3 000/2 650	790/720
xi)	12-22.5	9.00	300	291	315	1 085/1 104	1 068/1 086	1 114/1 134	12	2 725/2 360	143/138	2 725/2 360	590/520
									14	3 000/2 650	146/142	3 000/2 650	690/620
									16	3 350/2 900	150/145	3 350/2 900	790/720
xii)	11.00-24	<u>8.0</u> 7.5	<u>293</u> 288	<u>284</u> 279	<u>308</u> 303	1 186/ —	1 169/ —	1 215/ —	14	3 370/2 960	150/145	3 350/2 900	690/620
xiii)	12.00-24	<u>8.5</u> 9.0	<u>315</u> 320	<u>306</u> 311	<u>331</u> 336	1 226/1 247	1 211/1 225	1 262/1 284	14	3 650/3 150	153/148	3 650/3 150	620/550
									16	4 000/3 550	156/152	4 000/3 550	725/655
									18	4 250/3 750	158/154	4 250/3 750	795/725
									20	4 500/3 875	160/155	4 500/3 875	860/795
xiv)	11-24.5	8.25	279	271	293	1 104/1 123	1 090/1 108	1 118/1 138	12	2 650/2 300	142/137	2 650/2 300	590/520
									14	3 000/2 575	146/141	3 000/2 575	690/620
									16	3 250/2 800	149/144	3 250/2 800	790/720

NOTES

1 Recommended shown underlined.

2 Rims: Sizes not underlined above are permitted, but one and the same tyre may not be suitable for more than two rim widths or flange profiles. Before deciding a rim size/type, the tyre manufacturer should be consulted regarding suitability of the size/type intended to be used with a permitted rim. SDC rims provide ease of tyre mounting/demounting, particularly important for the high PR tyres.

Table 7 Light Truck Tyres (Code Designated Diagonal Ply)
(Clauses 4.1.1.1, 4.1.1.2, 4.1.1.3, 4.1.2, 4.1.3 and 6.3)

Sl No.	Tyre Size Designation	Rim DC SDC	New Tyre — Inflated										
			Width, mm			Overall Diameter, mm			Ply Rating	Maximum Load (Corresponding to Ply Rating) kg Single/Dual	Load Index Single/Dual	Maximum Load (Corresponding to Load Index) kg Single/Dual	Maximum Cold 1. P ¹⁾ kPa Single/ Dual
			Design section width	Minimum section width	Maximum overall width	Design Std/ premium	Minimum Std/ premium	Maximum Std/ premium					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
i)	6.00-16	<u>4.50E</u> 4.50E	166	161	174	737/748	727/738	754/765	6	650/570	93/89	650/580	310/310
									8	765/670	99/95	775/690	415/415
									10	870/765	103/99	875/775	515/515
ii)	6.40-15	4.50E	168	163	176	698/706	688/696	714/722	6	600/530	90/86	600/530	310/310
									8	710/625	96/92	710/630	415/415
iii)	6.50-16	<u>4.50E</u> 4.50E 5K	175 180	170 175	184 189	760/771	749/760	778/789	6	730/645	97/93	730/650	310/310
									8	860/755	102/98	850/750	415/415
iv)	6.70-15	5K <u>5.50F</u>	180 185	175 180	189 194	715/724	705/714	732/741	6	695/615	95/91	690/615	310/310
									8	820/725	101/97	825/730	415/415
v)	7.00-15	<u>5.50F</u> <u>5.50F</u> 5K	199 194	193 188	209 204	758/769	747/758	777/788	6	780/690	99/95	775/690	310/310
									8	925/815	105/101	925/825	415/415
									10	1 050/925	110/105	1 060/925	515/515
									12	1 175/1 030	114/109	1 180/1 030	620/620
vi)	7.00-16	<u>5.50F</u> <u>5.50F</u> <u>6.00G</u>	199 204	193 198	209 214	784/795	773/783	803/814	6	815/715	101/97	825/730	310/310
									8	965/850	107/102	975/850	415/415
									10	1 100/965	111/107	1 090/975	515/515
									12	1 215/1 065	115/110	1 215/1 060	620/620
vii)	7.50-16	<u>5.50F</u> <u>6.00G</u> <u>5.50F</u>	211 206	205 200	222 217	813/824	801/811	833/845	8	1 105/970	112/107	1 120/975	415/415
									10	1 260/1 105	116/111	1 250/1 090	515/515
									12	1 405/1 240	120/116	1 400/1 250	620/620
									14	1 495/1 315	122/118	1 500/1 320	690/690
									16	1 580/1 390	124/120	1 600/1 400	760/760
									18	1 650/1 450	125/121	1 650/1 450	795/795
viii)	8.25-16	<u>6.50H</u> <u>6.00G</u>	234 229	227 222	241 236	854/863	845/ 854	863/872	16	1 850/1 750	129/127	1 850/1 750	760/760
									18	1 900/1 800	130/128	1 900/1 800	795/795
ix)	9.00-16	<u>6.50H</u> <u>6.00G</u>	257 252	249 244	270 265	891/903	877/888	915/928	16	2 130/1 875	134/130	2 120/1 900	725/725

NOTES

1 Recommended shown underlined.

2 Rims: Sizes not underlined above are permitted, but one and the same tyre may not be suitable for more than two rim widths or flange profiles. Before deciding a rim size/type, the tyre manufacturer should be consulted regarding suitability of the size/type intended to be used with a permitted rim. SDC rims provide ease of tyre mounting/demounting, particularly important for the high PR tyres.

3 Drop centre wheels strength — The load and inflation pressure imposed on a rim or wheel shall not exceed the rim manufacturer's recommendation. Whenever a high ply rating size is decided for original equipment or replacement of a lower PR for OE, the rim manufacturer shall be consulted. To ensure that the rim/wheel is of sufficient strength for the load, inflation and service intended. This applies particularly to 6.00-16 8PR, 6.50-16 8PR, 7.00-15 10 PR and 12 PR 7.00-16 10 PR, 12PR and 14 PR, 7.50-16 10 PR, 12 PR, 14PR, 16 PR and 18 PR tyres and 8.25-16 16PR and 18 PR tyres on DC rims.

¹⁾ Inflation pressure.

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Table 8 Light Truck Tyres (Code Designated Diagonal Ply)

(Clauses 4.1.1.1, 4.1.1.2, 4.1.1.3, 4.1.2, 4.1.3 and 6.3)

Sl No.	Tyre Size Designation	Rim DC SDC	New Tyre — Inflated										
			Width, mm			Overall Diameter, mm			Ply Rating	Maximum Load (Corresponding to Ply Rating) kg Single	Load Index Single	Maximum Load (Corresponding to Load Index) kg Single	Maximum Cold I. P ¹⁾ Single
			Design section width	Minimum section width	Maximum overall width	Design Std/ premium	Minimum Std/ premium	Maximum Std/ premium					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
i)	4.50-10	<u>3.50B</u> 3.00B	<u>125</u> 120	<u>121</u> 116	<u>131</u> 126	490	483	502	8	500	84	500	500

¹⁾ Inflation pressure.**Table 9 Mining and Logging Tyres for Use in Intermittent Highway Service (Code Designated Diagonal Ply)**

(Clauses 4.1.1.1, 4.1.1.2, 4.1.1.3, 4.1.2, 4.1.3 and 6.3)

Sl No.	Tyre Size Designation	Rim Rec. Alt.	Width, mm			Overall Diameter, mm			Ply Rating	Maximum Load (Corresponding to Ply Rating) kg	Load Index	Maximum Load (Corresponding to Load Index) kg	Maximum Cold I. P ¹⁾ kPa
			Design Section Width	Minimum Section Width	Maximum Overall Width	Design	Minimum	Maximum					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Maximum speed: 90 km /h Distance shall not exceed 90 km in any 1 h 30 min period of run													
i)	8.25-20	<u>6.5</u> 6.0	<u>236</u> 231	<u>229</u> 224	<u>248</u> 243	992	977	1 016	10	1 610	124	1 600	515
									12	1 790	128	1 800	620
ii)	9.00-20	<u>7.0</u> 6.5	<u>259</u> 254	<u>251</u> 246	<u>272</u> 267	1 038	1 022	1 065	12	2 050	133	2 060	585
									14	2 255	136	2 240	690
									16	2 325	137	2 300	725
iii)	10.00-20	<u>7.5</u> 7.0	<u>278</u> 273	<u>270</u> 265	<u>292</u> 287	1 073	1 056	1 101	12	2 160	135	2 180	515
									14	2 405	139	2 430	620
									16	2 690	143	2 725	725
									18	2 800	144	2 800	760
iv)	11.00-20	<u>8.0</u> 7.5	<u>293</u> 288	<u>284</u> 279	<u>308</u> 303	1 104	1 086	1 134	12	2 355	138	2 360	515
									14	2 620	142	2 650	620
									16	2 865	145	2 900	725
									18	2 945	146	3 000	760
v)	12.00-20	<u>8.5</u> 8.0	<u>315</u> 310	<u>306</u> 301	<u>331</u> 326	1 146	1 127	1 165	14	2 800	144	2 800	550
									16	3 150	148	3 150	660
									18	3 350	150	3 350	720
Maximum speed: 80 km /h Distance shall not exceed 80 km in any 1 h 30 min period of run													
vi)	12.00-24	<u>8.5</u> 8.0	<u>315</u> 310	<u>306</u> 301	<u>331</u> 326	1 247	1 228	1 279	18	3 750	154	3 750	760
									20	3 875	155	3 875	790
vii)	14.00-20	10.00	375	364	394	1 266	1 243	1 304	18	4 375	159	4 375	690

NOTE — Mining and logging tyres are not intended for sustained highway service. For restricted duration of run stipulated below, the load limits applicable are given in Table 10.

¹⁾ Inflation pressure.

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Table 10 Load Limits for Mining and Logging Tyres Used at Reduced Speeds
(Clauses 4.1.1.1, 4.1.1.2, 4.1.1.3, 4.1.2, 4.1.3 and 6.3)

Speed Range (km/h)	Percent Increase (+) Or Decrease (-) in Load	Increase (+) Or Decrease (-) in LP ¹⁾	Maximum Travel Time	Minimum Stopping Time to Permit Cooling
(1)	(2)	(3)	(4)	(5)
65-90 ¹⁾	No change	No change	1 h ²⁾	30 min
50-64	+ 9%	No change	1h 30 min	30 min
33-49	+ 18 %	No change	2 h	30 min
18-32	+ 32 %	No change	3 h	30 min
10-17	+ 60 %	+ 70 kPa	3 h	30 min

NOTE — This table does not apply to rims and wheels. For rims and wheels, contact rim/wheel manufacturers.

¹⁾ 80 km/h for sizes 12.00-24 and 14.00-20.

²⁾ Inflation pressure.

Table 11 Ultra Light Truck Tyres
(Code Designated Diagonal Ply)
(Clauses 4.1.1.1, 4.1.1.2, 4.1.1.3, 4.1.2, 4.1.3 and 6.3)

Sl No.	Tyre Size Designation	Rim Rec. Alt.	New Tyre — Inflated										
			Width, mm			Overall Diameter mm			Ply Rating	Maximum Load (Corresponding to Ply Rating) kg Single/Dual	Load Index Single/Dual	Maximum Load (Corresponding to Load Index) kg Single/Dual	Maximum Cold I. P ¹⁾ kPa Single/Dual
			Design section width	Minimum section width	Maximum overall width	Design	Minimum	Maximum					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
i)	4.50-10 ULT	<u>3.50B</u> 3.00B	<u>125</u> 120	<u>121</u> 116	<u>134</u> 129	490	483	497	8	500/ —	84/ —	500/ —	500/ —
ii)	5.00-10 ULT	<u>3.50</u> 3.50B 3.00B	<u>134</u> 129	<u>130</u> 125	<u>143</u> 138	516	508	524	8	545/ —	87/ —	545/ —	500/ —
iii)	4.50-12 ULT	<u>3.50</u> 4J	<u>128</u> 133	<u>124</u> 129	<u>136</u> 141	545	537	553	6 8	355/340 415/395	72/70 77/76	355/335 412/400	300/300 400/400
iv)	5.00-12 ULT	<u>3.50B</u> 3.00B 4.00B	<u>137</u> 132,142	<u>133</u> 128,138	<u>147</u> 142,152	568	560	576	4 6 8	365/345 412/400 487/462	73/71 77/76 83/81	365/345 412/400 487/462	240/240 300/300 400/400

NOTES

1 Recommended shown underlined.

2 Rims: Sizes not underlined above are permitted, but one and the same tyre may not be suitable for more than two rim widths or flange profiles. Before deciding a rim size/type, the tyre manufacturer should be consulted regarding suitability of the size/type intended to be used with a permitted rim. SDC rims provide ease of tyre mounting/demounting, particularly important for the high ply rating tyres.

¹⁾ Inflation pressure.

Table 12 Light Truck Tyres (Alpha Numeric Diagonal Ply)
(Clauses 4.1.1.1, 4.1.1.2, 4.1.1.3, 4.1.2, 4.1.3 and 6.3)

Sl No.	Tyre Size Designation	Rim Rec. Alt.	New Tyre — Inflated										
			Width, mm			Overall Diameter, mm			Ply Rating	Maximum Load (Corresponding to Ply Rating) kg	Load Index	Maximum Load (Corresponding to Load Index) kg	Maximum Cold I. P ¹⁾ kPa
			Design section width	Minimum section width	Maximum overall width	Design	Minimum	Maximum					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
i)	F78 — 15 LT	5.50	202	196	212	698	689	714	6 8	705 835	96 101	710 825	310 415

¹⁾ Inflation pressure.

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Table 13 Truck, Bus and Trailers Tyres in Highway Service:
(Code Designated Radial Ply)
(Clauses 4.1.1.1, 4.1.1.2, 4.1.1.3, 4.1.2, 4.1.3 and 6.3)

Sl No.	Tyre Size Designation	Rim Rec. Alt.	New Tyre — Inflated										
			Width, mm			Overall Diameter, mm			Ply Rating	Maximum Load (Corresponding to Ply Rating) kg Single/Dual	Load Index Single/ Dual	Maximum Load (Corresponding to Load Index) kg	Maximum Cold I. P ¹⁾ kPa Single/ Dual
			Design section width	Minimum section width	Maximum overall width	Design HW/HT/ TR	Minimum HW/HT/ TR	Maximum HW/HT/ TR					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
i)	8.25R20	6.50	236	229	248	974/980/986	960/966/972	988/994/1 000	10	1 850/1 750	129/127	1 850/1 750	620/620
									12	2 060/1 950	133/131	2 060/1 950	720/720
									14	2 240/2 120	136/134	2 240/2 120	830/830
ii)	9.00R20	7.00	259	251	272	1 019/1 024/1 030	1 004/1 009/1 014	1 034/1 039/1 046	8	1 850/1 750	129/127	1 850/1 750	480/480
									10	2 120/2 000	134/132	2 120/2 000	590/590
									12	2 360/2 240	138/136	2 360/2 240	690/690
									14	2 575/2 430	141/139	2 575/2 430	790/790
									16	2 650/2 500	144/142	2 650/2 500	830/830
iii)	10.00R20	7.50	278	270	292	1 054/1 059/1 065	1 038/1 042/1 048	1 070/1 076/1 082	12	2 500/2 360	140/138	2 500/2 360	620/620
									14	2 800/2 650	144/142	2 800/2 650	720/720
									16	3 000/2 725	146/143	3 000/2 725	830/830
iv)	11.00R20	8.00	293	284	308	1 085/1 090/1 096	1 068/1 073/1 078	1 102/1 107/1 114	12	2 725/2 575	143/141	2 725/2 575	620/620
									14	3 000/2 725	146/143	3 000/2 725	720/720
									16	3 350/3 075	150/147	3 350/3 075	830/830
v)	12.00R20	8.50	315	306	331	1 125/—/1 136	1 106/—/1 117	1 144/—/1 155	14	3 250/3 000	149/146	3 250/3 000	660/660
									16	3 550/3 250	152/149	3 550/3 250	760/760
									18	3 750/3 450	154/151	3 750/3 450	830/830
vi)	11.00R22	8.00	293	284	308	1 135/1 141/1 147	1 118/1 124/1 129	1 152/1 158/1 165	12	2 900/2 650	145/142	2 900/2 650	620/620
									14	3 250/3 000	149/146	3 250/3 000	720/720
									16	3 550/3 250	152/149	3 550/3 250	830/830
vii)	10R22.5	7.50	254	246	267	1 019/1 024/1 030	1 004/1 009/1 014	1 034/1 039/1 046	10	2 120/2 000	134/132	2 120/2 000	590/590
									12	2 360/2 240	138/136	2 360/2 240	690/690
									14	2 575/2 430	141/139	2 575/2 430	790/790
viii)	11R22.5	8.25	279	271	293	1 054/1 059/1 065	1 040/1 044/1 050	1 068/1 074/1 080	12	2 500/2 360	140/138	2 500/2 360	620/620
									14	2 800/2 650	144/142	2 800/2 650	720/720
									16	3 000/2 725	146/143	3 000/2 725	830/830
ix)	12R22.5	9.00	300	291	315	1 085/1 090/1 096	1 068/1 073/1 078	1 102/1 107/1 114	12	2 725/2 575	143/141	2 725/2 575	620/620
									14	3 000/2 725	146/143	3 000/2 725	720/720
									16	3 350/3 075	150/147	3 350/3 075	830/830
x)	12.00R24	8.50	315	306	331	1 226/—/1 238	1 208/—/1 219	1 244/—/1 257	14	3 650/3 350	153/150	3 650/3 350	660/660
									16	4 000/3 650	156/153	4 000/3 650	760/760
									18	4 250/3 875	158/155	4 250/3 875	830/830
xi)	11R24.5	8.25	279	271	293	1 104/1 110/1 116	1 086/1 092/1 098	1 122/1 128/1 134	12	2 650/2 500	142/140	2 650/2 500	620/620
									14	3 000/2 725	146/143	3 000/2 725	720/720
									16	3 250/3 000	149/146	3 250/3 000	830/830

NOTE — HW — Highway, HT — Heavy Tread, TR — Traction.

¹⁾ Inflation pressure.

Table 14 Light Truck Tyres (Code Designated Radial Ply)
(Clauses 4.1.1.1, 4.1.1.2, 4.1.1.3, 4.1.2, 4.1.3 and 6.3)

Sl No.	Tyre Size Designation	Rim		New Tyre — Inflated										
		DC	SDC	Width, mm			Overall Diameter, mm			Ply Rating	Maximum Load (Corresponding to Ply Rating) kg Single/Dual	Load Index Single/Dual	Maximum Load (Corresponding to Load Index) kg Single/Dual	Maximum Cold I. P ¹⁾ kPa Single/Dual
				Design section width	Minimum section width	Maximum overall width	Design Std/ prem	Minimum Std/ prem	Maximum Std/ prem					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
i)	7.00R15LT	<u>5.50F</u> 5K	<u>5.50F</u>	202 197	192 187	216 211	752/760	741/749	763/771	6	780/690	99/95	775/690	345/345
										8	925/815	105/101	925/825	450/450
										10	1 050/925	110/105	1060/925	550/550
										12	1 175/1 030	114/109	1180/1030	655/655
ii)	7.00R16LT	<u>5.50F</u>	<u>5.50F</u> 6.00G	202 207	192 197	216 221	778/785	767/774	789/796	6	815/715	101/97	825/730	345/345
										8	965/850	107/102	975/850	450/450
										10	1 100/965	111/107	1 090/975	550/550
										12	1 215/1 060	115/110	1 215/1 060	655/655
iii)	7.50R16LT	<u>5.50F</u>	<u>6.00</u> <u>5.50F</u>	211 206	200 195	226 221	808/815	796/803	820/827	6	935/825	105/101	935/825	345/345
										8	1 105/970	112/107	1 120/975	450/450
										10	1 260/1 105	116/111	1 250/1 090	550/550
										12	1 405/1 240	120/116	1 400/1 250	655/655
										14	1 495/1 315	122/118	1 500/1 320	725/725
iv)	8.25R16LT	—	<u>6.50H</u> 6.00G	234 229	222 217	250 245	841/849	828/836	854/862	10	1 500/1 400	122/120	1 500/1 400	550/550
										12	1 650/1 550	125/123	1 650/1 550	655/655
										14	1 750/1 650	127/125	1 750/1 650	725/725
										16	1 850/1 750	129/127	1 850/1 750	795/795

NOTES

1 Recommended shown underlined.

2 Rims: Sizes not underlined above are permitted, but one and the same tyre may not be suitable for more than two rim widths or flange profiles. Before deciding a rim size/type, the tyre manufacturer should be consulted regarding suitability of the size/type intended to be used with a permitted rim. Semi Drop Centre (SDC) rims provide ease of tyre mounting/demounting, particularly important for the high ply rating tyres.

¹⁾ Inflation pressure.

Table 15 '65' to '85' Series Light Truck Tyres Metric Designated Radial Ply
(Clauses 4.1.1.1, 4.1.1.2, 4.1.1.3, 4.1.2, 4.1.3 and 6.3)

Sl No.	Tyre Size Designation	Rim Rec. Alt	New Tyre — Inflated								
			Width, mm			Overall Diameter, mm			Load Index Single/ Dual	Maximum Load (Corresponding to Load Index) kg Single/Dual	Maximum Cold I. P ¹⁾ kPa Single/ Dual
			Design section width	Minimum section width	Maximum overall width	Design	Minimum	Maximum			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
*65' Series											
i)	175/65R14LT	$\frac{5J}{4\frac{1}{2}J, 5\frac{1}{2}J}$	$\frac{177}{172, 182}$	$\frac{170}{165, 175}$	$\frac{182}{177, 187}$	584	577	591	90/88	600/560	375/375
ii)	195/65R16LT	$\frac{6J}{5\frac{1}{2}J, 6\frac{1}{2}J}$	$\frac{201}{196, 206}$	$\frac{193}{188, 198}$	$\frac{207}{202, 212}$	660	652	668	100/98	800/750	375/375
iii)	205/65R16LT	$\frac{6J}{5\frac{1}{2}J, 6\frac{1}{2}J}$	$\frac{209}{204, 214}$	$\frac{201}{196, 206}$	$\frac{215}{210, 220}$	672	664	680	99/97	775/730	325/325
iv)	215/65R16LT	$\frac{6\frac{1}{2}J}{6J, 7J}$	$\frac{221}{216, 226}$	$\frac{212}{207, 217}$	$\frac{228}{223, 233}$	686	678	694	102/100	850/800	325/325
*70' Series											
v)	215/70R15LT	$\frac{6\frac{1}{2}J}{7J}$	$\frac{221}{226}$	$\frac{214}{219}$	$\frac{228}{233}$	683	674	692	107/105	975/925	450/450
vi)	255/70R15LT	$\frac{7\frac{1}{2}J}{7J, 8J}$	$\frac{260}{255, 265}$	$\frac{250}{245, 255}$	$\frac{268}{263, 273}$	739	728	750	112/110	1 120/1060	375/375
*75' Series											
vii)	215/75R15LT	$\frac{6J}{6\frac{1}{2}J}$	$\frac{216}{221}$	$\frac{210}{215}$	$\frac{222}{227}$	703	693	713	115/113	1215/1150	600/600
viii)	225/75R15LT	$\frac{6J}{6\frac{1}{2}J}$	$\frac{223}{228}$	$\frac{216}{221}$	$\frac{230}{235}$	719	709	729	108/104	1 000/900	450/450
ix)	235/75R15LT	$\frac{6\frac{1}{2}J}{6J, 7J}$	$\frac{235}{230, 240}$	$\frac{226}{221, 231}$	$\frac{242}{237, 247}$	733	722	744	110/107	1 060/975	450/450
									116/113	1 250/1 150	550/550
x)	205/75R16LT	$\frac{5\frac{1}{2}J}{6J}$	$\frac{203}{208}$	$\frac{197}{202}$	$\frac{209}{214}$	714	705	723	113/111	1 150/1 090	600/600
xi)	215/75R16LT	$\frac{6J}{5\frac{1}{2}J}$	$\frac{215}{210}$	$\frac{207}{201}$	$\frac{221}{216}$	728	718	738	113/111	1 150/1 090	475/475
									116/114	1 250/1 180	525/525
*80' Series											
xii)	145/80R12LT	$\frac{4J}{3\frac{1}{2}J}$	$\frac{145}{140}$	$\frac{141}{136}$	$\frac{148}{143}$	537	530	544	86/84	530/500	450/450
xiii)	215/80R14LT	$\frac{6J}{6\frac{1}{2}J}$	$\frac{216}{221}$	$\frac{210}{215}$	$\frac{222}{227}$	700	690	710	112/110	1 120/ 1 060	450/450
xiv)	195/80 R15LT	$\frac{5\frac{1}{2}J}{6J}$	$\frac{196}{201}$	$\frac{190}{195}$	$\frac{202}{207}$	693	684	702	107/105	975/925	450/450
xv)	205/80R16LT	$\frac{5\frac{1}{2}J}{6J}$	$\frac{203}{208}$	$\frac{195}{200}$	$\frac{209}{214}$	734	724	744	106/104	950/900	350/350
									110/108	1 060/1 000	450/450
*85' Series											
xvi)	185/85 R16LT	$\frac{5J}{5\frac{1}{2}J}$	$\frac{184}{189}$	$\frac{178}{183}$	$\frac{190}{195}$	720	711	729	105/103	925/875	450/450
xvii)	235/85R16LT	$\frac{6\frac{1}{2}J}{6J, 7J}$	$\frac{235}{230, 240}$	$\frac{226}{221, 231}$	$\frac{242}{237, 247}$	806	794	818	112/110	1 120/1 060	375/375

¹⁾ Inflation pressure.

Table 16 Light Truck Tyres
(Metric Designated Radial Ply)
(Clauses 4.1.1.1, 4.1.1.2, 4.1.1.3, 4.1.2, 4.1.3 and 6.3)

Sl No.	Tyre Size Designation	Rim Rec. Alt.	New Tyre — Inflated										
			Width mm			Overall Diameter mm			Ply Rating	Maximum Load (Corresponding to Ply Rating) kg Single/Dual	Load Index Single/ Dual	Maximum Load (Corresponding to Load Index) kg Single/Dual	Maximum Cold I. P ¹⁾ kPa Single/ Dual
			Design section width	Minimum section width	Maximum overall width	Design	Minimum	Maximum					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
i)	145R12 LT	<u>4J</u> 3½J	145 140	141 136	149 144	543	535	550	6	450/425	80/78	450/425	350/350
									8	530/500	86/84	530/500	450/450
ii)	155R13 LT	<u>4½J</u> 5J	152 162	152 157	165 170	582	574	590	6	515/487	85/83	515/487	350/350
									8	600/580	90/89	600/580	450/450
iii)	165R13 LT	<u>4½J</u> 4J, 5J	167 162, 172	160 155, 165	172 167, 177	596	588	604	6	615/580	91/89	615/580	375/375
									8	670/630	94/92	670/630	450/450
iv)	175R13 LT	<u>5J</u> 4½J, 5½J	178 173, 183	171 166, 176	183 178, 188	612	605	619	6	630/600	92/90	630/600	350/350
									8	730/690	97/95	730/690	450/450
v)	165R14LT	<u>4½J</u> 5J	162 172	160 165	172 177	622	614	630	6	650/615	93/91	650/615	375/375
									8	730/690	97/95	730/690	450/450
vi)	175R14LT	<u>5J</u> 5½J	178 183	173 178	187 192	638	630	646	6	710/670	96/94	710/670	375/375
									8	775/750	99/98	775/750	450/450
vii)	185R14 LT	<u>5½J</u> 6J	188 193	182 187	197 202	653	643	662	6	775/730	99/97	775/730	375/375
									8	850/800	102/100	850/800	450/450
									10	975/925	107/105	975/925	575/575
viii)	195R14LT	<u>5½J</u> 6J	198 203	190 195	204 209	666	657	675	6	850/800	102/100	850/800	375/375
									8	950/900	106/104	950/900	450/450
ix)	215R14 LT	<u>6J</u> 6½J	216 221	210 215	227 232	704	694	715	8	1120/1060	112/110	1120/1060	450/450
x)	195R15 LT	<u>5½J</u> 5J, 6J	196 191, 201	188 183, 193	202 197, 207	693	684	702	6	875/825	103/101	875/825	350/350
									8	975/925	107/105	975/925	450/450
xi)	205R16LT	<u>5½J</u> 6J	203 208	197 202	209 214	734	724	744	8	1 060/1 000	110/108	1 060/1 000	450/450

NOTES

1 Recommended shown underlined

2 Rims: Sizes not underlined above are permitted, but one and the same tyre may not be suitable for more than two rim widths or flange profiles. Before deciding a rim size/type, the tyre manufacturer should be consulted regarding suitability of the size/type intended to be used with a Permitted Rim. SDC rims provide ease of tyre mounting/demounting, particularly important for the high ply rating tyres.

¹⁾ Inflation pressure.

Table 17 Truck, Bus and Trailer Tyres ('80' Series Metric Designated Radial Ply)
(Clauses 4.1.1.1, 4.1.1.2, 4.1.1.3, 4.1.2, 4.1.3 and 6.3)

Sl No.	Tyre Size Designation	Rim Rec.	New Tyre — Inflated								
			Width, mm			Overall Diameter, mm			Load Index Single/Dual	Maximum Load kg Single/Dual	Maximum Cold I. P ⁽¹⁾ kPa Single/Dual
			Design section width	Minimum section width	Maximum overall width	Design normal service/ special service	Minimum normal service/ special service	Maximum normal service/ special service			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
i)	295/80R22.5	9.00	298	286	307	1 035/ 1 044	1 016/ 1 025	1 054/ 1 062	152/148	3 550/3 150	850
ii)	315/80R22.5	9.00	312	300	315	1 066/ 1 076	1 046/ 1 056	1 081/ 1 091	156/150	4 000/3 350	850

¹⁾ Inflation pressure.

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Table 18 Light Truck Tyres ('80' Series Metric Designated Diagonal Ply)
(Clauses 4.1.1.1, 4.1.1.2, 4.1.1.3, 4.1.2, 4.1.3 and 6.3)

Sl No.	Tyre Size Designation	Rim Rec. Alt.	New Tyre — Inflated										
			Width mm			Overall Diameter mm			Ply Rating	Maximum Load (Corresponding to Ply Rating) kg Single/Dual	Load Index Single/Dual	Maximum Load (Corresponding to Load Index) kg Single/Dual	Maximum Cold I. P ⁽¹⁾ kPa Single/Dual
			Design section width	Minimum section width	Maximum overall width	Design	Minimum	Maximum					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
i)	145/80D12LT	4.00B 3.50B	145	139	152	537	530	549	6	450/425	80/78	450/425	350/350
			140	134	147				8	515/500	85/84	515/500	450/450
ii)	155/80D12LT	4½J 4J,5J	157	151	165	553	546	560	6	480/455	82/80	475/450	345/345
			152,162	146,156	160,170				8	560/535	88/86	560/530	450/450
iii)	165/80D12LT	4.50E	165	158	173	569	561	577	6	487/437	83/79	487/437	350/350
									8	580/530	89/86	580/530	450/450
iv)	165/80D13LT	4½J 4J,5J	167	160	175	596	588	609	6	615/580	91/89	615/580	375/375
			162,172	155,165	170,180				8	670/630	94/92	670/630	450/450
v)	165/80D14LT	4½J 4J,5J	167	162	175	624	612	632	6	650/615	93/91	650/615	375/375
			162,172	157,167	170,180				8	730/690	97/95	730/690	450/450
vi)	195/80D15LT	5½J 5J,6J	196	190	206	693	684	709	6	710/650	96/93	710/650	310
			191,201	185,195	201,211				8	850/775	102/99	850/775	415
vii)	215/80D14LT	6J 5½J,6½J	216	210	227	700	690	717	6	800/730	100/97	800/730	310
			211,221	205,215	222,232				8	950/875	106/103	950/875	415
									10	1 090/1000	111/108	1 090/1 000	515

¹⁾ Inflation pressure.

Table 19 Light Truck Tyres (Metric Designated Diagonal Ply)
(Clauses 4.1.1.1, 4.1.1.2, 4.1.1.3, 4.1.2, 4.1.3 and 6.3)

Sl No.	Tyre Size Designation	Rim Rec. Alt.	New Tyre — Inflated										
			Width, mm			Overall Diameter, mm			Ply Rating	Maximum Load (Corresponding to Ply Rating) kg Single/Dual	Load Index Single/Dual	Maximum Load (Corresponding to Load Index) kg Single/Dual	Maximum Cold I. P ¹⁾ kPa Single/Dual
			Design section width	Minimum section width	Maximum overall width	Design	Minimum	Maximum					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
i)	165D12LT	4½J	167	160	175	573	565	586	6	487/437	83/79	487/437	350/350
		4J,5J	162,172	155,165	170,180				8	580/530	89/86	580/530	450/450
ii)	165D13LT	4½J	167	160	175	596	588	609	6	615/580	91/89	615/580	375/375
		4J,5J	162,172	155,165	170,180				8	670/630	94/92	670/630	450/450
iii)	165D14LT	4½J	167	160	175	622	613	637	6	650/615	93/91	650/615	375/375
		4J,5J	162,172	155,165	170,180				8	730/690	97/95	730/690	450/450

¹⁾ Inflation pressure.

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Table 20 Light Truck and Truck Tyres for Military Applications (Code Designated Diagonal Ply)
(Clauses 4.1.1.1, 4.1.1.2, 4.1.1.3, 4.1.2, 4.1.3 and 6.3)

Sl No.	Tyre Size Designation Tread Pattern Type	Rims Rec. Alt.	New Tyre — Inflated								
			Width, mm			Overall Diameter, mm			Ply Rating	Maximum Load kg	Maximum Cold I. P ¹⁾ kPa
			Design section width	Minimum section width	Maximum overall width	Design	Minimum	Maximum			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
i)	7.00-15 MS	5.50F	197	191	213	755	744	774	6 8	780 925	275 380
ii)	6.00-16 MS	4.50E	166	161	179	731	721	747	6	650	275
iii)	7.00-16 MS	5.50F	197	191	213	781	770	800	6 8	815 965	275 380
iv)	9.00-16 CC	6.00T	246	239	266	903	888	928	10	1 530	415
	9.00-16/5° CC	6.50H	251	243	271				12	1 740	515
		6.00G	246	238	266				14	1 940	620
									16	2 120	725
v)	10.50-16 CC	6.00T	268	260	289	962	945	990	12	2 030	585
vi)	8.25-19 CC	5.00	225	218	243	925	912	947	10	1 610	515
vii)	7.50-20 CC	6.0 5.5	213 208	207 202	230 225	940	927	962	10	1 405	550
viii)	8.25-20 CC	6.5	234	227	253	970	956	993	10	1 610	515
		6.0	229	222	248				12	1 790	620
ix)	9.00-20 CC	7.0 6.5	257 252	249 244	278 273	1 029	1 013	1 055	12	2 050	585
x)	10.00-20 CC	7.5	275	267	297	1 054	1 038	1 081	12	2 160	515
		7.0	270	262	292				14	2 405	620
xi)	11.00-20 CC	8.0	291	282	314	1 093	1 075	1 122	12	2 355	515
		7.5	286	277	309				14	2 620	620
									16	2 865	725
									18	2 945	760
xii)	12.00-20 CC	8.5	312	303	337	1 131	1 112	1 162	16	3 080	655
		8.0	307	298	332				18	3 265	725
xiii)	14.00-20 CC	10.00V	375	364	405	1 257	1 235	1 294	18	3 965	585
		10.00W							20	4 360	690
									22	4 730	790

¹⁾ Inflation pressure.

Table 21 Special Purpose Tyres for Military Applications (Sand-cum-Highway)
Code Designated Diagonal Ply
(Clauses 4.1.1.1, 4.1.1.2, 4.1.1.3, 4.1.2, 4.1.3 and 6.3)

Sl No.	Tyre Size Designation Tread Pattern Type	Rims Rec. Alt.	New Tyres — Inflated									
			Width, mm			Overall Diameter, mm			Highway km/h	Ply Rating	Maximum Load kg	Maximum Cold I. P ¹⁾ kPa
			Design section width	Minimum section width	Maximum overall width	Design	Minimum	Maximum				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
i)	7.50-16 SCH	5.50F	215	209	232	815	803	835	120	8	1 120	415
ii)	9.00-13 SCH	5.50F DC or Div.	235	228	254	790	776	813	120	6	1 030	380
iii)	11.00-20 SCH	8.0	295	286	319	1 093	1 075	1 122	80	12	2 360	515
iv)	12.00-20 SCH	8.0	310	301	335	1 146	1 127	1 178	80	18 20	3 350 3 550	725 825
v)	13.00-18 SCH	9.0	336	326	363	1 129	1 109	1 163	96	10	2 240	345
vi)	14.00-20 SCH	10.00W 10.00V	385	373	416	1 257	1 235	1 294	90	18 20 22	4 000 4 375 4 750	585 690 795
vii)	15.00-21 SCH	11.25	412	400	445	1 328	1 304	1 368	80	12 16	4 000 4 625	450 585
viii)	1 300 × 530-533 SCH	440	525	509	551	1 288	1 265	1 326	80	12	4 125	345

¹⁾ Inflation pressure.

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Table 22 Truck Tyres for Military Applications (Metric Designated Diagonal Ply)
(Clauses 4.1.1.1, 4.1.1.2, 4.1.1.3, 4.1.2, 4.1.3 and 6.3)

Sl No.	Tyre Size Designation Tread Pattern Type	Rim Rec./Alt.	New Tyre — Inflated										
			Design Section Width mm	Minimum Section Width Mm	Maximum Overall Width mm	Design Overall Dia mm		Minimum Overall Dia mm		Maximum Overall Dia mm		PR	Maximum Load/Cold I.P ¹⁾ kg/kPa
						Normal service	Special service	Normal service	Special service	Normal service	Special service		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
80 Series — Metric Designation													
i)	325D20 CC	<u>B9.00</u> B8.0, B8.5	<u>323</u> 313,318	<u>313</u> 303,308	<u>349</u> 339,344	1 154	—	1 135	—	1 186	—	18	4 125/ 795
85 Series — Metric Designation													
ii)	365/85D20 CC	<u>10.00 W</u> 10.0 V 5°	364	349	375	1 128	1 140	1 109	1 121	1 159	1172	18	4 000 / 620
												20	5 000 / 760
90 Series — Metric Designation													
iii)	355/90-20 CC	<u>B9.5</u> B9.0, 10.00W	<u>355</u> 350, 360	<u>344</u> 339, 349	<u>383</u> 378, 388	1 160	—	1 140	—	1 193	—	18	4 350 / 725

¹⁾ Inflation pressure.

Table 23 Truck Tyres for Military Applications (Code Designated Diagonal Ply)
(Clauses 4.1.1.1, 4.1.1.2, 4.1.1.3, 4.1.2, 4.1.3 and 6.3)

Sl No.	Tyre Size Designation/ Tread Pattern	Rim	New Tyre — Inflated								
			Design Section Width mm	Minimum Section Width mm	Maximum Overall Width mm	Design Overall Diameter mm	Minimum Overall Diameter mm	Maximum Overall Diameter mm	Ply Rating	Maximum Load kg	Maximum Cold I. P ¹⁾ kPa
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
i)	11.00-20 Sand	8.0	295	286	319	1 085	1 068	1 114	12	2 355	515

¹⁾ Inflation pressure.

Table 24 Truck Tyres for Military Applications (Metric Designated Diagonal Ply)
(Clauses 4.1.1.1, 4.1.1.2, 4.1.1.3, 4.1.2, 4.1.3 and 6.3)

Sl No.	Tyre Size Designation/ Tread Pattern	Rims Rec. Alt.	New Tyre — Inflated								
			Design Section Width mm	Minimum Section Width mm	Maximum Overall Width mm	Design Overall Diameter mm	Minimum Overall Diameter mm	Maximum Overall Diameter mm	Ply Rating	Maximum Load kg	Maximum Cold I. P ¹⁾ kPa
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
i)	365/90-20 Sand	10.00 W 10.0 V 5°	365	354	394	1 166	1 146	1 199	18	4 500	725

¹⁾ Inflation pressure.

Table 25 Low Platform Trailer Tyres (Free-Rolling Sizes)
(Code Designated Diagonal Ply)
(Clauses 4.1.1.1, 4.1.1.2, 4.1.1.3, 4.1.2, 4.1.3 and 6.3)

Sl No.	Tyre Size Designation	Rims Rec.	New Tyre — Inflated										
			Design Section Width mm	Minimum Section Width mm	Maximum Overall Width mm	Design Overall Diameter mm	Minimum Overall Diameter mm	Maximum Overall Diameter mm	Ply Rating	Maximum Load (Corresponding to Ply Rating) Single/Dual kg	Load Index Single/Dual	Maximum Load (Corresponding to Load Index) Single/Dual kg	Maximum Cold I. P ¹⁾ Single/Dual kPa
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
i)	7.50-15	6.0 6.5	212 217	206 211	223 228	772	760	784	12	2 180/2 060	135/133	2 180/2 060	850/850
ii)	8.25-15	6.5 6.0/7.0	234 229,239	227 222,232	246 241,251	836	822	850	14 18	1 900/1 800 2 650/2 575	130/128 142/141	1 900/1 800 2 650/2 575	800/800 850/850

¹⁾ Inflation pressure.

Table 26 Endurance Test Programme
(Clause 4.2)

Sl No.	Load Index	Tyre Speed Category	Test-Drum Speed rpm		Load Placed on the Wheel as a Percentage of the Load Corresponding to the Load Index		
			Radial-Ply	Diagonal (Bias-Ply)	7 h	16 h	24 h
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
i)	122 or more	F	100	100	66 percent	84 percent	101 percent
		G	125	100			
		J	150	125			
		K	175	150			
		L	200	—			
ii)	121 or less	M	225	—	70 percent 4 h	88 percent 6 h	106 percent 24 h
		F	100	100			
		G	125	125			
		J	150	150			
		K	175	175			
		L	200	175			
		M	250	200	75 percent	97 percent	114 percent
		N	275	—	75 percent	97 percent	114 percent
		P	300	—	75 percent	97 percent	114 percent

NOTES

1 'Special-use' tyres should be tested at a speed equal to 85 percent of the speed prescribed for equivalent normal tyres.

2 Tyres with load index 122 or more, speed categories N or P and the additional marking 'LT' or 'C' included in the tyre size designation shall be tested with the same programme as specified in this table for tyres with load index 121 or less.

Table 27 Tyre Strength — Light Truck and Truck and Bus Tyres (for which the Load Index is Shown)
(Clause 4.5)

Sl No.	Air Pressure Corresponding to the Maximum Load Capability kPa	Load Index (Single Wheel) 121 Maximum		Load Index (Single Wheel) 122 or More Joules (kgf.cm)
		Nominal Rim Diameter Under 13 Joules (kgf.cm)	Nominal Rim Diameter 13 or More Joules (kgf.cm)	
(1)	(2)	(3)	(4)	(5)
i)	250 or less	136 (1 385)	294 (3 000)	—
ii)	251 to 350	203 (2 072)	362 (3 690)	—
iii)	351 to 450	271 (2 765)	514 (5 240)	—
iv)	451 to 550	—	576 (5 875)	972 (9 910)
v)	551 to 650	—	644 (6 565)	1 412 (14 400)
vi)	651 to 750	—	712 (7 260)	1 695 (17 285)
vii)	751 to 850	—	—	2 090 (21 310)
viii)	851 or more	—	—	2 203 (22 465)

NOTE — Inflate to the pressure corresponding to the maximum load, or maximum dual load where there is both single and dual load marked on the tyre.

Table 28 Tyre Strength — Ultra Light Truck, Light Truck and Truck and Bus Tyres
(for which Ply Rating and/or Both Ply Rating and Load Index is Shown)
(Clause 4.5)

Sl No.	Ply Rating	Ultra Light Truck Tyre, Light Truck Tyre			Truck and Bus	
		Nominal Rim Diameter Under 13 Joules (kgf. cm)	Nominal Rim Diameter 13 to 14 Joules (kgf. cm)	Nominal Rim Diameter 14.5 or More Joules (kgf. cm)	Tubeless Joules (kgf. cm)	With Tube Joules (kgf. cm)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
i)	4	136 (1 385)	192 (1 960)	294 (3000)	—	—
ii)	6	203 (2 072)	271 (2 765)	362 (3690)	576 (5 875)	768 (7 830)
iii)	8	271 (2 765)	384 (3 915)	514 (5240)	734 (7 485)	893 (9 105)
iv)	10	—	—	576 (5875)	972 (9 910)	1 412 (14400)
v)	12	—	—	644 (6565)	1 412 (14 400)	1 785 (18200)
vi)	14	—	—	712 (7260)	1 695 (17 285)	2 282 (23 270)
vii)	16	—	—	768 (7830)	2 090 (21 310)	2 599 (26 500)
viii)	18	—	—	—	2 203 (22 465)	2 825 (28 805)
ix)	20	—	—	—	—	3 051 (31 100)
x)	22	—	—	—	—	3 220 (32 835)
xi)	24	—	—	—	—	3 390 (34 560)

NOTE — Inflate to the pressure corresponding to the maximum load, or maximum dual load where there is both single and dual load marked on the tyre.

Table 29 Diameter of Plunger (for the Tyres of which the Load Index is Shown)
(Clause 4.5.1)

Sl No.	Load Index for Ultra Light Truck, Light Truck, and Truck and Bus Tyres (Single Wheel)	Diameter of Plunger mm
(1)	(2)	(3)
i)	121 or less	19 ± 0.2
ii)	122 to 134	32 ± 0.3
iii)	135 or more	38 ± 0.3

Table 31 Type Test Schedule
(Clause 6.1)

Sl No.	Tests	Tyre 1	Tyre 2	Tyre 3
(1)	(2)	(3)	(4)	(5)
i)	Tyre marking	√	—	—
ii)	Tyre dimensions	√	—	—
iii)	Tread wear indicator	√	—	—
iv)	Tyre strength test	√	—	—
v)	Endurance test	—	√	—
vi)	Load/Speed performance test	—	—	√

Table 30 Diameter of Plunger (for the Tyre of which the Load Capability Index is not Shown)
(Clause 4.5)

Sl No.	Ultra Light Truck and Light Truck Tyres		Truck and Bus Tyres	
	12 Ply Rating or Under	14 Ply Rating or Above	12 Ply Rating or Under	14 Ply Rating or Above
(1)	(2)	(3)	(4)	(5)
i)	19 ± 0.2 mm		32 ± 0.3 mm	38 ± 0.3 mm

Table 32 Conformity of Production Tests
(Clause 7.2)

Sl No.	Tests	Tyre 1	Tyre 2	Tyre 3
(1)	(2)	(3)	(4)	(5)
i)	Tyre marking	√	—	—
ii)	Tyre dimensions	√	—	—
iii)	Tread wear indicator	√	—	—
iv)	Tyre strength test	√	—	—
v)	Endurance test	—	√	—
vi)	Load/Speed performance test	—	—	√

ANNEX A

(Clause 4.1.1)

METHOD OF MEASURING PNEUMATIC TYRES

A-1 The tyre shall be mounted on the measuring rim and inflated to a pressure specified by the manufacturer.

A-2 The tyre fitted on its rim shall be conditioned to the ambient temperature of the laboratory for at least 24 h.

A-3 The pressure shall be readjusted to the pressure specified by the manufacturer.

A-4 The overall width shall be callipered at six equally-spaced points, account being taken of the thickness of the protective ribs or bands. The highest measurement so obtained is taken as the overall width.

A-5 Determine the outer diameter by measuring the maximum circumference and dividing the figure so obtained by π (3.141 6). The tyre overall diameter shall be calculated by using the following formula:

$$D_o = \frac{C}{\pi}$$

where

D_o = tyre overall diameter, in mm; and

C = circumference of tyre tread in mm.

ANNEX B

(Clause 4.2.1)

PROCEDURE FOR ENDURANCE TEST

B-1 PREPARATION OF TYRE FOR TEST

B-1.1 Mount a new tyre on the test rim specified by the manufacturer in pursuant to Annex G.

B-1.2 Use a new inner tube or combination of inner tube, valve and flap (as required) when testing tyres with inner tubes.

B-1.3 Inflate the tyre to the pressure corresponding to the pressure specified by the manufacturer.

B-1.4 Condition the tyre-and-wheel assembly at test room temperature for not less than 3 h.

B-1.5 Readjust the tyre pressure to that specified in B-1.3.

B-2 TEST PROCEDURE

B-2.1 Mount the tyre-and-wheel assembly on the test axle and press it against the outer face of a smooth power-driven test drum 1.7 m \pm 1 percent or

2.0 m \pm 1 percent in diameter having a surface at least as wide as the tyre tread.

B-2.2 Apply to the test axle a series of test loads expressed in percent of the load indicated in Table 2, opposite the load index or maximum load engraved on the sidewall of the tyre, in accordance with the test programme given in Table 26. Where the tyre has load-capacity indices for both single and twinned utilization, the reference load for single utilization shall be taken as the basis for the test loads.

B-2.3 The tyre pressure shall not be corrected throughout the test and the test load shall be kept constant throughout each of the three test stages.

B-2.4 During the test the temperature in the test room shall be maintained at between 20°C and 40°C or at a higher temperature, if the manufacturer so agrees.

B-2.5 The endurance test shall be carried out without interruption.

ANNEX C

(Clause 4.3.1)

PROCEDURE FOR LOAD/SPEED PERFORMANCE TEST

C-1 PREPARATION OF TYRE FOR TEST

C-1.1 A new tyre shall be fitted to the rim specified by the manufacturer.

C-1.2 Use a new inner tube or combination of inner tube, valve and flap (as required) when testing tyres with inner tubes.

C-1.3 Inflate the tyre to the pressure corresponding to the pressure specified by the manufacturer.

C-1.4 Condition the tyre-and-wheel assembly at test-room temperature for not less than 3 h.

C-1.5 Readjust the tyre pressure to that specified in **C-1.3**.

C-2 TEST PROCEDURE

C-2.1 Load placed on the wheel as a percentage of the load corresponding to the load index.

- a) 90 percent when tested on a test drum 1.70 m \pm 1 percent in diameter.
- b) 92 percent when tested on a test drum 2.0 m \pm 1 percent in diameter.

C-2.2 Initial test speed: Speed corresponding to the speed symbol less 20 km/h;

- a) Time to reach the initial test speed for 10 min.
- b) Duration of the first step for 10 min.

C-2.3 Second test speed: speed corresponding to the speed symbols less by 10 km/h.

Duration of the second step for 10 min.

C-2.4 Final test speed: Speed corresponding to the speed symbol (rated speed).

- a) Duration of the final step for 30 min.
- b) Total test duration for 1 h.

ANNEX D

(Clause 4.5)

TYRE STRENGTH TEST (PLUNGER TEST)

D-1 APPARATUS

The equipment consists of a cylindrical steel plunger, having a hemispherical end of a diameter specified in Tables 29 and 30 as applicable for type of tyre and a device to force the plunger rod into a tyre at the rate of 50 \pm 1.5 mm/min.

D-1.1 Preparation of Tyre for the Test

The tyre with a tube shall be mounted and inflated on a test rim of the recommended size and shall be conditioned at the temperature of the room in which the test is to be conducted for at least 3 h after which the pressure shall be adjusted, if necessary, to the test inflation pressure.

D-1.2 Test Procedure

The plunger rod shall be forced into the tread of the tyre/wheel assembly mounted as described in **D-1.1** perpendicularly over a tread element at the centreline of the tread, or as near as possible to avoiding penetration into a tread groove. The rate of travel of the plunger; shall be 50 \pm 1.5 mm/min until the tyre breaks or the plunger is stopped by the rim (bottoming

of the plunger against the rim), in which case the tyre shall be deemed to have passed the test regardless of energy value. Measurement of force and penetration at break (or bottoming against the rim) shall be made at 5 points nearly equally spaced around the tyre circumference. The arithmetic mean energy absorbed shall be calculated from the energy values obtained at the break, using the formula given in **D-1.2.1**.

D-1.2.1 Formula for calculating the breaking energy:

$$W = \frac{F \times P}{2} \times 10^{-3}$$

where

- W = energy at break (or bottoming), in J (Joule);
- F = force at break (or bottoming), in N; and
- P = penetration at break (or bottoming), in mm.

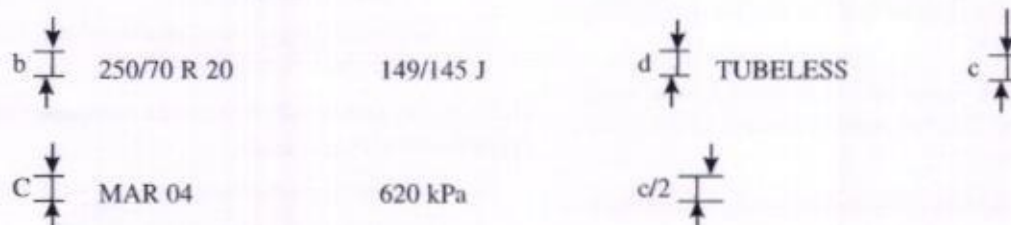
D-1.3 As an option, for purpose of conformity, if the plunger energy measurements meet or exceed the minimum value specified, it is not necessary to continue penetration of the plunger to break the tyre.

ANNEX E

(Clause 5.2)

ARRANGEMENT OF TYRE MARKINGS

E-1 TYRE MARKINGS



Minimum Heights of Markings, mm	
Tyres of Rim Diameter < 20" or < 508 mm or of Section Width ≤ 235 mm or ≤ 9"	Tyres of Rim Diameter ≥ 20" or ≥ 508 mm or of Section Width > 235 mm or > 9"
b	6
c	4
d	6

E-2 MARKINGS DEFINING A PNEUMATIC TYRE

- Nominal section width of 250;
- Nominal aspect ratio of 70;
- Radial-ply structure (R);
- Nominal rim diameter of 508 mm, for which the symbol is 20;
- Load capacities of 3 250 kg when single and 2 900 kg when twinned (dual), corresponding respectively to the load indices 149 and 145 shown in Annex A;

- Speed symbol J (reference speed 100 km/h);
- Capable of being fitted without an inner tube ('TUBELESS');
- Manufactured during the month MARCH of year 2004; and
- Maximum pressure of 620 kPa or 6.2 bars or 6.32 kg/cm².

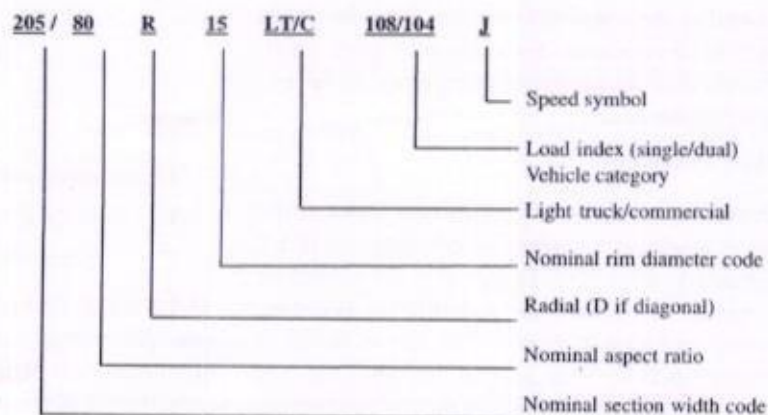
NOTE — Arrangement of tyre markings relates only to the tyre designation. Other markings location will be left to the discretion of the tyre manufacturer.

ANNEX F

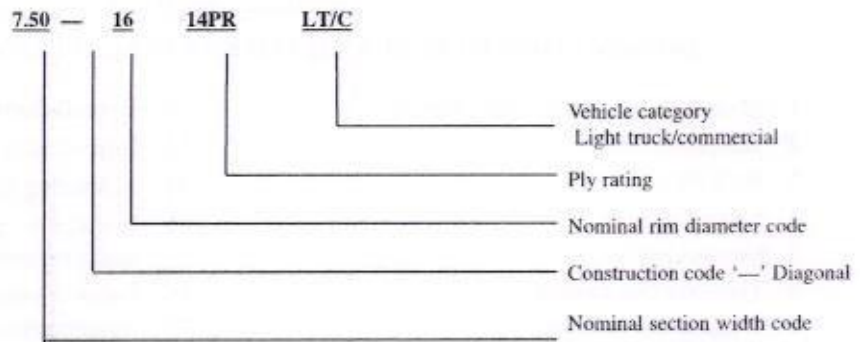
(Clause 5.4)

EXAMPLES OF TYRE SIZE DESIGNATIONS

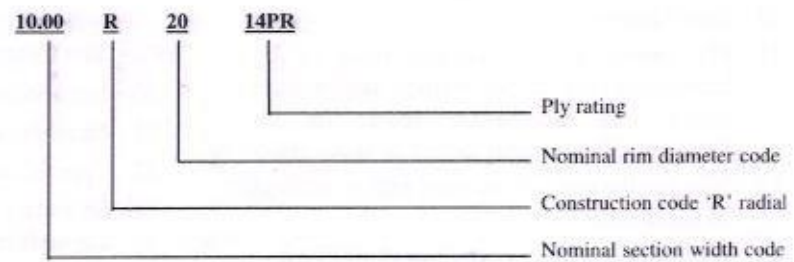
F-1 METRIC DESIGNATED (DIAGONAL AND RADIAL)



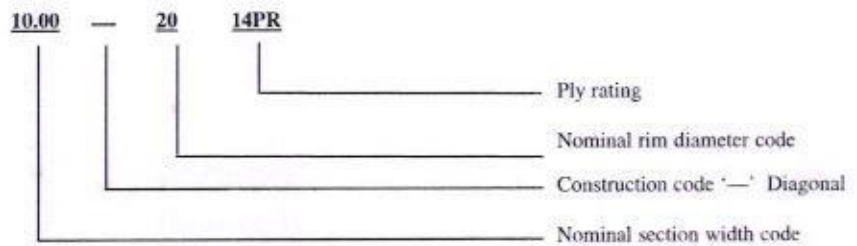
**F-2 CODE DESIGNATED
(DIAGONAL)**



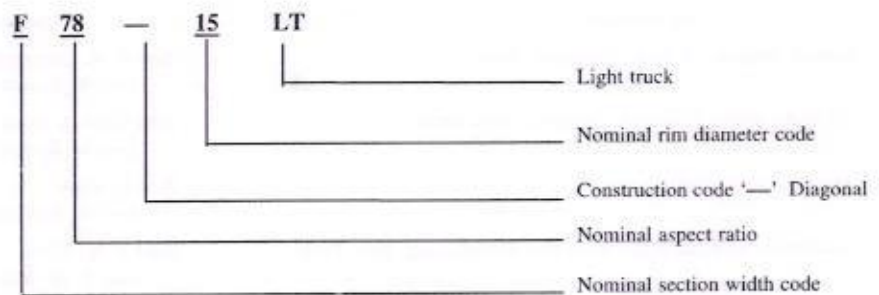
**F-3 CODE DESIGNATED
(RADIAL)**



**F-4 CODE DESIGNATED
(DIAGONAL)**



**F-5 ALPHA NUMERIC
(DIAGONAL)**



ANNEX G

(Clauses 6.2.2 and B-1.1)

INFORMATION TO BE SUBMITTED FOR TYPE APPROVAL OF TYRES

- | | |
|--|--|
| <ol style="list-style-type: none"> 1 Manufacturer's name and address; 2 Telephone No.; 3 FAX No.; 4 E-mail address; 5 Contact person; 6 Tyre-size designation; 7 Trade-name or mark; 8 Category of use (normal/special/snow); 9 Structure: diagonal (bias ply/bias belted)/radial; 10 Speed category; 11 Ply rating and maximum load in kg (corresponding to ply rating) and/or load index and maximum load, in kg (corresponding to load index) as applicable; 12 Whether the tyre is to be used with or without an inner tube; 13 Whether the tyre is normal or reinforced; 14 Overall width (mm); | <ol style="list-style-type: none"> 15 Overall diameter (mm); 16 Rim on which tyre can be mounted; 17 Measuring rim and test rim; 18 Inflation pressure for dimensional measurements, kPa; 19 Factor X referred in 3.30 in case of theoretical (imaginary) rim, if applicable; 19.1 Maximum cold inflation pressure, in kPa, corresponding to maximum load carrying capacity; 19.2 Test inflation pressure, kPa; 20 Intended for use on (type of vehicle); 21 Numbers and height of tread wear indicator ; 22 Type of tread pattern (Lug or rib); and 23 Drawing or Photograph in triplicate identifying tyre tread pattern side wall marking and relevant dimensions of inflated tyre mounted on the measuring rim. |
|--|--|

ANNEX H

(Foreword)

COMMITTEE COMPOSITION

Automotive Tyres, Tubes and Rims Sectional Committee, TED 7

<i>Organization</i>	<i>Representative(s)</i>
Central Institute of Road Transport, Pune	SHRI S. A. SELVAKUMAR (<i>Chairman</i>) SHRI R. BALASUBRAMANIAM (<i>Alternate</i>)
All India Motor Transport Congress, New Delhi	SHRI CHARAN SINGH SHRI M. MURALI (<i>Alternate</i>)
Ashok Leyland Ltd, Chennai	SHRI S. ARUN SHRI N. MUTHUKUMAR (<i>Alternate</i>)
Association of State Road Transport Undertaking, New Delhi	SHRI S. K. PATRA SHRI P. M. PHATE (<i>Alternate</i>)
Automotive Research Association of India, Pune	SHRI S. S. SANDHU SHRI A. AKBAR BADUSHA (<i>Alternate</i>)
Automotive Tyre Manufacturers Association (ATMA), New Delhi	SHRI T. C. KAMATH SHRI R. BUDHRAJA (<i>Alternate</i>)
Bajaj Auto Ltd, Pune	SHRI V. M. MANEL SHRI A. V. KUMBHAR (<i>Alternate</i>)
Controllerate of Quality Assurance (Vehicles), Ahmednagar	SHRI P. V. HARKARE SHRI ASHOKA KUMARAN (<i>Alternate</i>)
Department of Heavy Industry, New Delhi	SHRI SUSHIL KUMAR SHRI S. LAKRA (<i>Alternate</i>)

<i>Organization</i>	<i>Representative(s)</i>
Department of Industry Policy & Promotion, New Delhi	SHRI SHAISH KUMAR SHRI N. C. TIWARI (<i>Alternate</i>)
Directorate General of Supplies & Disposals, New Delhi	SHRI M. A. KHAN SHRI P. K. MAHANA (<i>Alternate</i>)
Fiat India Pvt Ltd, Mumbai	SHRI V. MURUGAN
Hero Honda Motors Ltd, Dharuhera	SHRI SUMIT BANSAL SHRI ANURAG DUREJA (<i>Alternate</i>)
Hyundai Motor India Ltd, Chennai	SHRI A. P. GANDHI
Indian Rubber Manufacturers Research Association, Thane	DR. T. THAVAMANI SHRI K. R. KRISHNAN (<i>Alternate</i>)
Indian Tyre Technical Advisory Committee, New Delhi	SHRI T. CHAKRAVARTY SHRI M. P. KANJOLIA (<i>Alternate</i>)
Kum Rajshree Parmar Memorial Foundation, Pune	SHRI C. M. PARMAR
Mahindra & Mahindra Ltd, Nasik	SHRI K. BASAVA RAJU SHRI KAILASH JAT (<i>Alternate</i>)
Maruti Udyog Ltd, Gurgaon	SHRI SANGEET OSWAL SHRI RAJNEESH KUMAR (<i>Alternate</i>)
Ministry of Road Transport & Highways, New Delhi	DIRECTOR (TECHNICAL)
National Automotive Testing and R&D Infrastructure Project (NATRIP), New Delhi	SHRI P. P. CHATTARAJ
Ordnance Factory Board, Kolkata	SHRI K. N. ARYA SHRI D. K. BANGOTRA (<i>Alternate</i>)
Reliance Industries Ltd, Vadodara	SHRI S. SURYANARAYAN
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BIS Directorate General	SHRI T. V. SINGH, Scientist 'F' and Head (TED) [Representing Director General (<i>Ex-officio</i>)]

Member Secretary
SHRI R. R. SINGH
Scientist 'D' (TED), BIS

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This Indian Standard has been developed from Doc No.: TED 7 (759).

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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NAGPUR. PARWANOO. PATNA. PUNE. RAJKOT. THIRUVANANTHAPURAM.
VISAKHAPATNAM.

5. Bid Preparation and Submission

5.1 Tender Procedure

- a) The Director, IRT on behalf of STUs in Tamil Nadu invite under Two Bid System viz. Technical Bid and Financial bid from the Tyre manufacturers for the supply of Tyres through MSTC portal with E-tender cum Reverse Auction to all the STUs in Tamilnadu for a period of **6 months** or till finalization of next tender which ever is later satisfying the given terms and conditions. The approximate value of Tender is Rs.70 Crores.
- b) The bidder can download the Bid Document from 04.05.2022, 10.30 hrs to 02.06.2022, 16.30 hrs from the website www.tenders.tn.gov.in & www.mstcecommerce.com/eproc.
- c) The tender along with the necessary documents of Two bid systems i.e (a) Technical bid and (ii) Commercial bid should be submitted online before 03.06.2022, 15.00 hrs at www.mstcecommerce.com/eprochome/ntcl .The Electronic bid system would not allow any late submission of bids after due date and time as per server time.
- d) The bidders shall furnish the Technical Bid along with tender document cost, Factory inspection fee and EMD by physical submission duly superscribed on the respective cover, sealed properly and lodge them in one outer cover It shall be addressed to the Director, Institute of Road Transport, 100 Feet Road, Taramani, Chennai-600113 duly superscribed as “E- Tender cum reverse auction for the supply of Tyres to the STUs in Tamilnadu with Tender reference number ” and dropped in the tender box kept in the office of the Director, Institute of Road Transport, Taramani, Chennai-600113 on or before **03.06.2022 (i.e. upto 15.00 Hours).** **Otherwise tender will be summarily rejected.**
- e) In view of the nature of tender, the technical bid is opened first and the technical bid shall be shortlisted to ascertain the eligible tenderers and then the offer containing the commercial bid in respect of successful technical bidders shall be opened for further process on the date notified for this purpose. **Failure to submit the two bids in online shall result in rejection of the tender summarily. Further** The Technically Qualified Bidders shall be ranked on the basis of the descending initial price offer submitted by them. On the basis of such ranking the Technically Qualified Bidders, holding first fifty per cent of the ranks (with any fraction rounded off to higher integer) or the top five Technically Qualified Bidders, whichever is higher, shall be considered to be qualified for participating in the second round of online electronic auction (the “**Qualified Bidders**”). Intimation shall be restricted only to the Qualified Bidders.
- f) MSTC shall be entitled to a Service Charge of 0.05% of the Quoted value of the procurement per event excluding taxes subject to a minimum of Rs 1,000/- (Rupees One Thousand only) and maximum of Rs 15,000/- (Rupees Fifteen Thousand only) per event per vendor.. GST on the transaction fees and other statutory charges on the same shall be payable extra by the vendors.

5.2 Electronic Submission of Bid

- b) The bidder shall submit online the requirements under qualification criteria and Technical document required and commercial bid as prescribed in the tender document. All the documents are required to be signed digitally by the bidder. After electronic online bid submission, the system generates a unique bid reference number which is time stamped. This shall be treated as acknowledgement of bid submission.
- c) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- d) The bidder has to digitally sign and upload the required bid document one by one as indicated in the tender document.
- c) Bidder has to select the payment option as “offline” to pay the Tender document cost, Factory inspection fee and EMD amount through RTGS/ NEFT.
- d) The Scanned copy of payment made through RTGS/NEFT or Demand Draft for Tender document cost , Factory inspection fee and EMD amount has to be uploaded. IRT shall not be responsible for any delay in uploading the proof for the payment of Tender document cost, Factory inspection fee and EMD amount. Failing which their tender will be summarily rejected.
- e) Format for the commercial bid is provided with the tender document. Bidders are requested to note that they should necessarily submit their commercial bids in the file, open it and completed the coloured (Unprotected) cells with their respective price quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the file name. If the file is found to be modified by the bidder, the bid will be rejected.
- f) The Server time (which is displayed on the bidders dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- g) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data Storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using buyers/ bid openers public keys.

- h) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- i) Upon the Successful and timely submission of bids (i.e. after clicking “ Freeze Bid submission “ in the portal) the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with other relevant details.
- j) IRT or MSTC (Service provider) is not responsible for any failure such as a bad internet connection or power failure outside of their control. The bidder is responsible to ensure they have sufficient time to submit an electronic bid prior to closing date and time including the payment of any fees and getting e-receipt. In case of failure in the system within the control of the service provider that may affect a bidding process, the contracting authority on his sole discretion will postpone the closing time atleast 24 hours from the time of system recovery to allow bidders sufficient time to submit their bids.
- k) IRT may, as its discretion , extend the deadline for the submission of bids by amending the bidding document, In which case all rights and obligations of IRT and bidders subject to the previous deadline shall thereafter be subject to the deadline extended.
- l) The technical bid documents should be self attested by the bidder in all pages. Otherwise tender will summarily rejected.
- o) Technical bid documents with self attestation in all pages uploaded in the online only be submitted in physical submission. If found any difference in the technical bid submitted online and physical submission. The tender will be summarily rejected.

5.3 Modification and Withdrawl of Bid

- a) Bidders may modify their bids online before the deadline for submission of bids.
- b) In case a bidder intends to modify is bid online before the deadline, the bidder need not make any additional payment towards the cost of bid processing. For bid modification and consequential re-submission, the bidder is not required to withdraw his bid submitted earlier. Modification and consequential re-submission of bids is allowed any number of times. The last modified bid submitted by the bidder within the bid submission time shall be considered as the bid. For this purpose , modification / withdrawl by other means will not be accepted. The bidder may withdraw his bid by uploading his request before the deadline of submission of bids, however, if the bid is withdrawn, the re-submission of the bid is not allowed.
- c) No bid may be modified after the deadline for submission of Bids.

5.4 Assistance to Bidders

- a) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender as indicated in the tender notice.
- b) Any queries relating to the process of online bid submission or queries in general may be directed to MSTC portal who is a service provider for conducting the online bidding process against this tender and they shall not be a party to any contract between IRT and the successful bidder (s) subsequent to the bidding process.

5.5 Tender Document Fee

- a) The tender document directly can be purchased from IRT on payment of fees of Rs.17,700/- (inclusive of GST) (non refundable) in the form of Demand Draft from a Scheduled Bank/ Nationalised Bank drawn in favour of “The Director, Institute of Road Transport, Taramani, Chennai” payable at Chennai (or) Cash.
- b) The bidders who have downloaded the tender document from the website should enclose the tender cost of Rs.17,700/- (inclusive of GST) along with the Technical Bid, in the form of Demand Draft from a Scheduled Bank/ Nationalised Bank drawn in favour of “The Director, Institute of Road Transport, Taramani, Chennai” payable at Chennai or as Real Time Gross settlement RTGS / NEFT, Net –Banking on or before the due date of submission of bids. In the case of RTGS / NEFT, Net-Banking , the amount has to be sent to following bank account on or before the due date of submission of bids. Failing which the **tender will be summarily rejected**.

For making Payment through RTGS / NEFT , Net – Banking	
Name of the Account Holder	Institute of Road Transport
Bank Name	Canara Bank
Branch Name	Thiruvanmaiur Branch
Account Number	2649101000360
IFSC Code	CNRB0002649

5.6 Earnest Money Deposit (EMD)

Each Technical Bid shall be accompanied by an EMD amount of **Rs.10,00,000/- (Rupees Ten Lakhs only)** along with the Technical Bid, in the form of Demand Draft from a Scheduled Bank/ Nationalised Bank drawn in favour of “The Director, Institute of Road Transport, Taramani, Chennai” payable at Chennai or as Real Time Gross settlement RTGS / NEFT, Net –Banking on or before the due date of submission of bids. In the case of RTGS / NEFT, Net-Banking, the amount has to be sent to following bank account on or before the due date of submission of bids. Failing which the **tender will be summarily rejected**.

For making Payment through RTGS / NEFT , Net – Banking	
Name of the Account Holder	Institute of Road Transport
Bank Name	Canara Bank
Branch Name	Thiruvananthapuram Branch
Account Number	2649101000360
IFSC Code	CNRB0002649

- a. Any tender not accompanied by EMD or accompanied by EMD for a lesser amount shall be summarily rejected.

Provided any category of tenderers specifically exempted by the Government from the payment of EMD will not be required to make such a deposit. However they will be required to execute proper agreement as stipulated in G.O.No.387, Finance (BPE) Department, dated 03.08.1998 along with the Technical Bid as per the specimen given in Tender.

- b) No interest shall be payable on the EMD.

5.7 Factory Inspection Fee

a) The IRT reserve the right to conduct Factory Inspection of the tenderers at any time to ensure that the firm is having required infrastructure facility to execute the orders and disqualify the firm, if found the tenderer is not having required infrastructure facility.

b) Each Technical Bid shall be accompanied by Non refundable Factory Inspection fee amount of **Rs.20,000/- (Rupees Twenty thousand only)** (non refundable) along with the Technical Bid, in the form of Demand Draft from a Scheduled Bank/ Nationalised Bank drawn in favour of “The Director, Institute of Road Transport, Taramani, Chennai” payable at Chennai or as Real Time Gross settlement RTGS / NEFT, Net –Banking on or before the due date of submission of bids. In the case of RTGS / NEFT, Net-Banking , the amount has to be sent to following bank account on or before the due date of submission of bids. Failing which the **tender will be summarily rejected**.

For making Payment through RTGS / NEFT , Net – Banking	
Name of the Account Holder	Institute of Road Transport
Bank Name	Canara Bank
Branch Name	Thiruvananthapuram Branch
Account Number	2649101000360
IFSC Code	CNRB0002649

5.8 EVALUATION CRITERIA:

a.	The evaluation of tender shall be made as per the clause No- 3 Eligibility criteria.									
b.	The selection of bidder shall be made based on the Vendor Rating System.									
c.	The Vendor Rating System shall be made based on the price quoted by the bidder with last three financial years supplier performance rating system to all STUs.									
d.	The tenderers offer for the line of activity indicated specifically in the Tyre Manufacturing License will alone be taken into account for evaluation. Otherwise tender will not be considered.									
e.	The tenderers past experience in supplying Tyres to Tamilnadu STUs will be taken into account while evaluating the tender.									
f.	The supply performance i.e., timely supply to STUs and adherence to the schedules will be taken into account while evaluating the tender..									
g.	Details of supplies made to the neighbouring states such as APSRTC, Karnataka State Road Transport Corporation, Kerala State Road Transport Corporation, MSRTC, GSRTC etc., shall be furnished by the tenderer.									
h.	The tender must conform to the IRT Terms and Conditions by submitting their tender document and duly signed in each and every page. Any counter hedging conditions against the terms and conditions shall be summarily rejected.									
i.	<p>Evaluation of tender shall be made based on the cost per KM computed on the total life (including the RT life) of respective Make and Model and the tendered price of particular make and model tyre as given below-</p> <p>Cost per KM. = $\frac{\text{Tendered price for a particular Make and Model tyre}}{\text{Total Tyre Life in km of particular Make \& Model}}$</p> <p>The Tyre life (in KM) of the various makes of tyres by using the above formula based on the figures furnished by the Chairman Office for the past one year shall be followed. Minimum sample size required for consideration for various types of tyres are as follows:-</p> <table><tr><td>1. 10.00 X 20 – 16 PR Radial</td><td>-</td><td>1000 Nos.</td></tr><tr><td>2. 295/80 R22.5 16 PR Tubeless Radial Tyre</td><td>-</td><td>100 Nos</td></tr><tr><td>3. 7.50 x16 14 PR Radial Tyre</td><td>-</td><td>100 Nos</td></tr></table>	1. 10.00 X 20 – 16 PR Radial	-	1000 Nos.	2. 295/80 R22.5 16 PR Tubeless Radial Tyre	-	100 Nos	3. 7.50 x16 14 PR Radial Tyre	-	100 Nos
1. 10.00 X 20 – 16 PR Radial	-	1000 Nos.								
2. 295/80 R22.5 16 PR Tubeless Radial Tyre	-	100 Nos								
3. 7.50 x16 14 PR Radial Tyre	-	100 Nos								
j.	Copy of the Latest Test Certificate as per specification from CIRT / Government National Test House / Other Government Test Houses duly self attested. The tenderer shall produce the original if required. Otherwise tender will be rejected.									

k.	Decision on individual tender is in nature of collective responsibility of the Tender Award Committee and any tenderer attempting to influence any member of the committee will be liable for disqualification or blacklisting as the committee may deem fit.
l.	The tenders received without above documents will not be considered for further evaluation.
m.	For evaluation of tender, the provisions contained in the Tamilnadu Transparency in Tenders Act, 1998 and the Tamilnadu Transparency in Tenders Rules, 2000 will be followed.
n.	Bidder must conform to the Terms and Conditions and duly signed in each and every page. Any counter conditions against our terms and conditions shall be summarily rejected.
o.	The detailed Tyres specifications are furnished in Chapter - 4 and the Tyres offered by the tenderer shall meet the specification.
p.	The bidder fails to meet out any one of the conditions the tender will not be considered for further evaluation.
q.	After opening of commercial bid, the reverse auction will be conducted online Note : The Technically Qualified Bidders shall be ranked on the basis of the descending price offered in the Tender submitted by them. On the basis of such ranking the Technically Qualified Bidders, holding first fifty per cent of the ranks (with any fraction rounded off to higher integer) or the top five Technically Qualified Bidders, whichever is higher, shall be considered to be qualified for participating in the second round of online electronic auction (the " Qualified Bidders "). Intimation shall be restricted only to the Qualified Bidders.

5.9 Supply and Delivery

a) The supply of Tyres shall be as per the schedule given in the Purchase Order placed by the respective STUs in Tamilnadu. The supply quantity for the month is to be spread equally every week and positively completed before the end of the month.

The delivery of Tyres shall be made at the respective stores of the STUs as specified by them in the Purchase Order.

b) Tyres manufactured within three months of production shall only be supplied.

c) The minimum weight of a Tyres with a variation as given below only will be considered

- | | | |
|---|-----------------------------------|------------------|
| 1 | 10.00 x 20.00 16 PR Radial Tyre | – 59 Kg \pm 2% |
| 2 | 295/80 R22.5 Radial Tubeless Tyre | – 64 Kg \pm 2% |
| 3 | 7.50 x 16-14 PR Radial Tyre | – 26 Kg \pm 2% |
- d) Tyres rejected by one STU should not be supplied to other STU.
- e) All the tenderers who are awarded rate contract shall supply 100% of ordered quantity or the quoted quantity whichever is lower.
- f) The STUs shall ensure minimum supply of atleast 60% of the ordered quantity. The liquidated damages shall be imposed for the difference quantity as prescribed in the tender,
- g) The tenderer who supplies less than 60% of the ordered quantity shall be blacklisted for one year besides imposing liquidated damages as per tender condition prescribed in the tender.

5.10 PAYMENT OF SECRETARIAL ADMINISTRATIVE CHARGES

The successful bidder shall pay 2.25% plus GST on the value of invoice Basic Rate, as the Secretarial Administrative Charges to IRT, on all supplies made to the STUs.

5.11 Penalty for delay in the payment of Secretarial Administrative Charges

- a) The successful bidder shall make payment of Secretarial Administrative Charges in 30 days on receipt of the debit note invoice from IRT.
- b) The payment of Secretarial Administrative Charges shall be made by way of **DEMAND DRAFT ONLY** drawn in favour of “**The Director, IRT, Chennai**” payable at “**Chennai**” and the payment by cheque will not be accepted under any circumstances.
- c) If the successful bidder fails to make the rebate payment within one month, a formal circular shall be sent to clear the outstanding amount of Secretarial Administrative Charges with simple interest @ 12% effective from the first day after completion of the one month period.
- d) Still if the amount is not received by IRT, IRT will communicate the amount to be deducted to the STUs, who in turn will settle the bills for supply of Tyres after deducting the

Secretarial administrative Charges due.

- e) IRT will not accept any reason such as dues from STUs etc for delay in settling Secretarial Administrative Charges.
- f) The payment for the last month supply shall be released by the TNSTUs only after receipt of Certificate from IRT regarding settlement of Secretarial Administrative Charges by the respective Supplier.

5.12 Bid closing date and time

a)The bidders shall submit the technical bid through on-line at MSTC Portal before 03.06.2022 at 15.00 hrs.

b)The bidder shall submit the technical bid through physical submission by superscribe tender document cover as “Tender for the supply of Tyres to the STUs in Tamilnadu through MSTC Portal with E-tender cum Reverse Auction” and dropped in the tender box kept in the office of the Director, Institute of Road Transport, Taramani, Chennai-600113 on or before **03.06.2022 at 15.00 hrs.**

c)The tender shall not be accepted after closing date and time fixed for receipt of tenders in both mode on-line and physical submission. Fax/Telegraphic tenders will not be accepted under any circumstances.

d)If the bidder not submitted their technical bid in online will not be considered for technical bid evaluation.

e)The technical bid documents received in physical submission but not uploaded in online will not be considered and will be treated as non responsive and not considered for further evaluation.

f)Due to unforeseen events, if the tender opening date happens to be a holiday, the tender shall be opened on the next working day at the same time.

5.13 Pre-Bid Meeting date and time

The Pre-Bid meeting is to be held on 16.05.2022 at 11.00 hrs at Institute of Road Transport, Taramani, Chennai – 600 113.

6. Tender Opening and Evaluation

6.1 Technical Bid Opening

TENDER OPENING:

Part – A : The Technical bid will be opened bid will be opened electronically on specified date and time as given in the NIT.

Part – B : Commercial bid will be opened electronically of only

those bidder(s) whose technical bid found acceptable.

E-REVERSE AUCTION :

Schedule of e-reverse auction will be communicated separately . The Technically Qualified Bidders shall be ranked on the basis of the descending initial price offer submitted by them. On the basis of such ranking the Technically Qualified Bidders, holding first fifty per cent of the ranks (with any fraction rounded off to higher integer) or the top five Technically Qualified Bidders, whichever is higher, shall be considered to be qualified for participating in the second round of online electronic auction (the “**Qualified Bidders**”). Intimation shall be restricted only to the Qualified Bidders.

a)The technical bid submitted by the bidders through on-line at MSTC Portal will open on **03.06.2022 at 15.15 hrs.**

b)The tenders for technical bid submitted physically at IRT and online simultaneously shall be opened by a Tender scrutiny committee constituted for this purpose by the Director or his authorized representatives in the presence of the bidders who choose to be present at the Institute of Road Transport, 100 Feet Road, Taramani, Chennai – 600 113 on **03.06.2022 at 15.15 Hours.**

c)Based on the evaluation of technical bid, the short listed commercial bids shall be opened. The date and time of opening of the commercial bid will be intimated to the eligible tenderers later.

6.2 Tender Validity

The offered submitted by the bidders should be firm and valid for a minimum period of 120 days from the date of opening of the commercial bid or Contract period whichever is later.

6.3 Initial Scrutiny

Initial Bid scrutiny will be conducted and incomplete details as mentioned in the condition clause no 5.1, 5.2,5.3,5.4, and 5.5 will be treated as non-responsive.

Bidders are submitted the tender document with subjective and conditional offers will be treated non – responsive.

All responsive Bids will be considered for further evaluation.

The decision of IRT will be final in this regard.

6.4 Clarifications by IRT

When deemed necessary, IRT may seek bonafide clarifications on any aspect from the Bidder. However, that would not entitle the Bidder to change or cause any change in the substance of the Bid or price quoted. During the course of Technical Bid evaluation, IRT may seek additional information or historical documents for verification to facilitate

decision making. In case the Bidder failed to comply with the requirements of IRT as stated above, such Bids may at the discretion of IRT, shall be rejected as technically non-responsive.

6.5 Tender Evaluation

6.5.1 Suppression of Facts and Misleading Information

- a. During the Bid evaluation, if any suppression of facts and misleading information or misrepresentation is brought to the notice of IRT. IRT shall have the right to reject the Bid and if after selection, IRT would terminate the contract, as the case may be, will be without any compensation to the Bidder and the EMD / SD, as the case may be, shall be forfeited.
- b. Bidders should note that any figures in the proof documents submitted by the Bidders for proving their eligibility is found suppressed or erased, IRT shall have the right to seek the correct facts and figures or reject such Bids.
- c. It is up to the Bidders to submit the full copies of the proof documents to meet out the criteria duly self attested, in which the name of the attesting officer, designation office seal should in the language of English and visible, as otherwise the tender will not be considered for further evaluation.
- d. The bidder shall produce the original for the Photo copies enclosed by them in the tender document if required, failing which the tender will be rejected.

6.5.2 Technical Bid Evaluation

A Tender Scrutiny Committee will examine the Technical Bids against the Eligibility Criteria and Evaluation Criteria given in the Tender document. The evaluation will be conducted based on the support documents submitted by the Bidders. The documents which did not meet the eligibility criteria in the first stage of scrutiny will be rejected in that stage itself and further evaluation will not be carried out for such bidders. The eligible Bidders alone will be considered for further evaluation.

6.5.3 Commercial Bid Evaluation

- a) The Commercial Bids of the Technically Qualified Bidders alone will be opened and evaluated. The Commercial Bid should include all expenses towards this Tender.
- b) Commercial Bid evaluation will be done as per the Tamil Nadu Transparency in Tender Rules 2000 with latest amendments.

- c) The following method of price evaluation will be adopted.
- The Commercial Bid Evaluation shall include GST and other cost mention in the price bid such as delivery charges, transportation charges and installation charge etc.,
 - In evaluation of the price of an imported item, the price shall be determined inclusive of the Customs duty with Counter Veiling Duty (CVD) as applicable.
- d) The prices will be evaluated as follows and the decision of IRT will be the final.
- e) After opening of commercial bid, the reverse auction will be conducted online among L1,L2, L3 bidders and the final offered negotiation price offered by the bidder at the closure of reverse auction will be taken in to account as a final negotiated L1 rate.

f)The Technically Qualified Bidders shall be ranked on the basis of the descending price offered in the Tender submitted by them. On the basis of such ranking the Technically Qualified Bidders, holding first fifty per cent of the ranks (with any fraction rounded off to higher integer) or the top five Technically Qualified Bidders, whichever is higher, shall be considered to be qualified for participating in the second round of online electronic auction (the “**Qualified Bidders**”). Intimation shall be restricted only to the Qualified Bidders.

6.6 Negotiations

Negotiations will be conducted by reverse auction through online.

The Technically Qualified Bidders shall be ranked on the basis of the descending price offered in the Tender submitted by them. On the basis of such ranking the Technically Qualified Bidders, holding first fifty per cent of the ranks (with any fraction rounded off to higher integer) or the top five Technically Qualified Bidders, whichever is higher, shall be considered to be qualified for participating in the second round of online electronic auction (the “**Qualified Bidders**”). Intimation shall be restricted only to the Qualified Bidders.

6.7 BUSINESS RULES FOR e- REVERSE AUCTION

GENERAL TERMS AND CONDITIONS

- 1) Against this Enquiry for the subject item/system with detailed scope of supply as per our specification, IRT, hereinafter referred to as IRT, may resort to “REVERSE AUCTION PROCEDURE” i.e. e-REVERSE AUCTION on INTERNET.
- 2) For the proposed e-reverse auction, technically and commercially acceptable Top five bidders or 50% of the bidders only shall be eligible to participate.
- 3) e-Reverse auction will be conducted on schedule date & time.
- 4) At the end of reverse auction event, the lowest bidder value will be known on the network.
- 5) The Technically Qualified Bidders shall be ranked on the basis of the descending price submitted by them. On the basis of such ranking the Technically Qualified

Bidders, holding first fifty per cent of the ranks (with any fraction rounded off to higher integer) or the top five Technically Qualified Bidders, whichever is higher, shall be considered to be qualified for participating in the second round of online electronic auction (the “**Qualified Bidders**”). Intimation shall be restricted only to the Qualified Bidders.

BUSINESS RULE FOR FINALIZATION IN REVERSE AUCTION:

IRT shall finalize the procurement of the item against this tender through e-tender cum reverse auction mode. IRT has made arrangement with M/s. MSTC Ltd who shall be IRT's authorized service provider for the same. Please go through the guidelines given below and submit your acceptance to the same along with your Techno-Commercial Bid.

- 1) Computerized e-reverse auction shall be conducted by IRT, on pre-specified date, while the vendors shall be quoting from their own offices/ place of their choice. Internet connectivity shall have to be ensured by vendors themselves. Failure of power at the premises of vendors during the Reverse auction cannot be the cause for not participating in the reverse auction. On account of this, the time for the auction cannot be extended and neither IRT nor M/s. MSTC is responsible for such eventualities.
- 2) No deviation in the tender will be accepted.
- 3) UNIT OF MEASUREMENT as per UOM and BIDDING CURRENCY: **Indian Rupees.**
- 4) BID PRICE:, IRT Basis excluding Taxes and Duties.
- 5) The technical & commercial terms are as per IRT
- 6) VALIDITY OF BIDS: The Bid price shall be firm specified in the tender document and shall not be subjected any change whatsoever.
- 7) **The detailed process for e-reverse auction is explained below:**

The computer screen will display Start Bid Price(Lowest quoted in the tender) and which shall be visible to the all eligible vendors. You will be required to start bidding after announcement of Start Bid Price and decrement amount. Also, please note that the start price of an item in e-reverse auction is open to all the participating bidders. Any bidder can start bidding, in the e-reverse auction, from the start bid price itself. If the start bid price is your own price, you still need to bid in the e- reverse auction. Also, please note that the first online bid that comes in the system during the e-reverse auction should be lesser than the auction's start bid price by one decrement or should be lesser than the auction's start bid price by multiples of decrement and so on.

- a) e-Reverse (no ties) Auction shall be for a period of one hour. If a bidder places a bid in the last 10 minutes of closing of the e-Reverse Auction and if that bid gets accepted, then the auction's duration shall get extended automatically for 5 minutes, for the particular Event/Lot. Please note that the auto-extension will take place only if a bid comes in those last 5 minutes and if that bid gets accepted. If the bid does not get accepted, the auto-extension will not take place even if that bid might

have come in the last 5 minutes. In case, there is no bid in the last 5 minutes of closing of e-Reverse Auction, the auction shall get closed automatically without any extension. However, the bidders are advised not to wait till the last minute or last few seconds to enter their bid during the auto-extension period to avoid complications related with internet connectivity, network problems, system crash down, power failure, etc.

- b) The bidder can bid lower than the start bid price in e-reverse auction by a bid decrement or multiple of Bid decrement.
- c) The start price bid price for the e-reverse auction is L1 price arrived based on the evaluation and comparison of bids as mentioned above.
- d) Bidder will be able to view the following on your screen along with the necessary fields in the English Reverse (no ties) {Reverse Auction}:

Leading Bid in the Auction

Bid Placed by you

Start Bid Price & Bid Decrement value.

- e) After the completion of e- Reverse (no ties), the Closing Price (CP) shall be available.
- f) Final price received from bidder will be taken as an offer to supply as per terms and conditions of tender document. Bids once made by the bidders, cannot be cancelled / withdrawn.
- g) During the e-reverse auction, if no bid is received in the auction system/website within the specified time duration, then IRT, at its discretion, may scrap the e-reverse auction process and considered sealed price bids of all technically and commercially acceptable bidders submitted earlier along with techno-commercial bids.
- h) IRT's decision on award of Contract shall be final and binding on all the Bidders. IRT shall be at liberty to cancel the reverse auction process / tender at any time, before ordering, without assigning any reason. IRT shall not have any liability to bidders for any interruption or delay in access to the site irrespective of the cause. Other terms and conditions shall be as per your techno-commercial offers and other correspondences till date.

6.7 Award of Contract

- a) Total quantity will be given to L1 Bidder as per the provisions of Tamil Nadu Transparency in Tenders Act, 1998 and the Tamil Nadu Transparency in Tenders Rules, 2000 and Terms and Conditions of the Tender.
- b) No dispute can be raised by any Bidder who's Bid has been rejected and no claims will be entertained or paid on this account.

6.8 IRT reserves the right to:

- Negotiate with the Bidder whose offer is the lowest evaluated price for further reduction of prices.
- Insist on quality / specification of materials to be supplied.
- Modify, reduce or increase the quantity requirements to an extent of the tendered quantity as per the provisions of Tamil Nadu Transparency in Tenders Act 1998 and Tamil Nadu Transparency in Tenders Rules, 2000.
- Change the list of areas of supply locations from time to time based upon the requirement of the purchase.
- If delivery performance of the Bidder is not as per the Schedule, then IRT reserves the right to reallocate the quantity to other Bidder.
- IRT reserves its right to inspect the bidder's factory before or after placement of orders and based on the inspection, IRT reserves a right to modify the quantity ordered.
- IRT reserves its right to withhold any amount for the deficiency in the service aspect of the ordered items supplied to the Purchasers.

7 Execution of Work

7.1 Acceptance of Tender and Withdrawals

The final acceptance of the tender is entirely vested with IRT who reserves the right to accept or reject any or all of the tenders in full or in parts without assigning any reason whatsoever. The Tender Accepting Authority may also reject all the tenders for reasons such as change in Scope, Specification, lack of anticipated financial resources, court orders, calamities or any other unforeseen circumstances. After acceptance of the Tender by IRT, the Successful Bidder shall have no right to withdraw their tender or claim higher price.

7.2 Rate Contract (RC)

After acceptance of the Tender by IRT, Rate Contract (RC) Order will be issued to the Successful Bidder by IRT.

7.3 Payment of Security Deposit (SD)

The successful Bidder will be required to remit a Security Deposit (SD) equivalent to two percent of the value of the order, inclusive of GST by way of Demand Draft

payable at Chennai or in the form of unconditional irrevocable Bank Guarantee valid for a period equivalent to the delivery period from the date of acceptance of the tender on receipt of confirmation from IRT / STUs.

7.4 Execution of Contract

- a) The Successful Bidder should execute a Contract in the INR 100 non-judicial Stamp Paper bought in Tamil Nadu only in the name of the Bidder within one week from the date of Letter of Acceptance issued by IRT with such changes/modifications as may be indicated by IRT at the time of execution on receipt of confirmation from IRT.
- b) The Successful Bidder shall not assign or make over the contract, the benefit or burden thereof to any other person or persons or body corporate for the execution of the contract or any part thereof without the prior written consent of IRT. IRT reserves its right to cancel the purchase order either in part or full, if this condition is violated. If the Successful Bidder fails to execute the agreement, the SD of the Successful Bidder will be forfeited and their tender will be held as non-responsive
- c) The expenses incidental to the execution of the agreement should be borne by the Successful Bidder.
- d) The conditions stipulated in the agreement should be strictly adhered to and violation of any of the conditions will entail termination of the contract without prejudice to the rights of IRT and IRT also have the right to recover any consequential losses from the Successful Bidder.

7.5 Release of Purchase Order

After execution of the Contract and payment of Security Deposit, “**Firm Purchase Order**” for the supply and commissioning of Tendered items will be issued to the Successful Bidder by IRT / STUs. The supply and payment will be based on the Purchase Order.

7.6 Refund of EMD

The EMD amount paid by the Successful Bidder(s) will be refunded after completion of the entire supply. The EMD amount of the Unsuccessful Bidder will be refunded after finalisation and issue of Firm Purchase Order to the Successful Bidder.

7.7 Release of SD

The Security Deposit will be refunded to the Successful Bidder on completion of entire supply subject to satisfaction of IRT / STUs. Such completion would be arrived at when the entire quantity is supplied by the Bidder as per the Contract Agreement and as per the LOA or order including Purchase Order(s) issued by IRT / STUs from time to time.

7.8 Forfeiture of EMD and SD

- a) If the successful Bidder fails to act according to the tender conditions or backs out, after the tender has been accepted, the EMD will be forfeited by IRT.
- b) If the Successful Bidder fails to remit the SD, the EMD remitted by him will be forfeited by IRT and the tender will be held void. If the successful bidder fails to sign the contract within the stipulated time, then the SD remitted will be forfeited and the tender will be held void.
- c) If the Successful Bidder fails to act upon to the tender conditions or backs out from the contract, the SD mentioned above will also be forfeited by IRT / STUs.

7.9 Termination of Contract**7.9.1 Termination for default**

- a) IRT may without prejudice to any other remedy for breach of contract, by written notice of default with a notice period of 7 days, sent to the Successful Bidder, terminate the contract in whole or part, (i) if the Successful Bidder fails to deliver any or all of the goods within the time period(s) specified in the Contract, or fails to supply the items as per the Delivery Schedule or within any extension thereof granted by IRT / STUs ; or (ii) if the Successful Bidder fails to perform any of the obligation(s) under the contract; or (iii) if the Successful Bidder, in the judgement of IRT / STUs, has engaged in fraudulent and corrupt practices in competing for or in executing the Contract or (iv) supplies the items inferior to the ordered / accepted / specifications.
- b) In the event IRT terminates the Contract in whole or in part, IRT may procure, upon terms and in such manner as it deems appropriate, the goods and services similar to those and delivered and the Successful Bidder shall be liable to IRT for any additional costs for such similar goods. However, the Successful Bidder shall continue the performance of the contract to the extent not terminated.

7.9.2 Termination for Convenience

IRT may by written notice, with a notice period of seven days sent to the Successful Bidder, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for IRT convenience, the extent to which performance of work under the Contract is terminated, and the date upon which such termination becomes effective. On termination, the successful Bidder is not entitled to any compensation whatsoever.

7.10 Assigning of Tender whole or in part

The successful Bidder shall not assign or make over the contract, the benefit or burden thereof to any other person or persons or body corporate. The Bidder should not under-let or sublet to any person(s) or body corporate for the execution of the contract or any part thereof without the written consent of IRT.

7.11 Liquidated Damages (LD)

Liquidated damage will be levied at the rate of 0.25 % per day (Saturday, Sunday and Government holidays excluded) on the un-delivered portion of the material, if the delivery has not been completed in full within the stipulated period. The delivery period will effect from the date of receipt of confirmed consignee address. If the Successful Bidder fails to supply even after the lapse of one month after the stipulated date of delivery, then the orders/contracts are liable for cancellation and the EMD/ Security Deposit will be forfeited in addition to IRT reserving the right to blacklist the successful bidder for a period of three years from participating in IRT tenders. This alone will not relieve the Bidder and the difference in cost of the items purchased through other technically qualified Bidders or any other alternative sources will be recovered from the successful Bidder.

7.12 Penalty for Non-Fulfilment of Tender

A Penalty will be levied at 5% of the total value of the Purchase Order, for non-fulfilment or non-observance of any of the conditions stipulated in the Agreement, Terms and Conditions and Rate Contract Order.

7.13 Other Conditions

- a) The final decision would be based on the technical capacity and pricing of the Bidder. IRT does not bind itself in selecting the bidder offering lowest prices.

- b) IRT reserves the right not to accept lowest price, to reject any or all the tenders without assigning any reason, to relax or waive any of the conditions stipulated in the terms and conditions of tender as deemed necessary in the best interest of IRT for good and sufficient reasons.

8. Requirement for Six Months

8.1 Six Months Approximate Requirement of Tyres

Sl. No.	Name of the STUs	10.00 x 20.00 16 PR- Radial Rib Pattern Tyre (Nos)	295/80 R 22.5 16 PR Tubeless Radial Rib pattern Tyre (Nos)	7.50 x 16 14 PR Radial Rib pattern Tyre for Small Bus (Nos)
1	MTC	3428	72	232
2	SETC	720	1920	-
3	TNSTC-VILLUPURAM	6120	492	24
4	TNSTC-SALEM	3918	120	-
5	TNSTC-COIMBATORE	4869	120	-
6	TNSTC-KUMBAKONAM	5358	132	6
7	TNSTC-MADURAI	3900	240	-
8	TNSTC-TIRUNELVELI	3318	144	-
	TOTAL	31631	3240	262

SIGNATURE OF THE TENDERER

8.2 Lead Time

Minimum lead time required to commence the first supply from the date of receipt of purchase order should be quoted by the tenderer in relation to the date of order. Where specific lead time is not mentioned, it will be construed that supply can commence immediately as per schedule given in the purchase order.

8.3 Quality of Supply

- a) The Tyres supplied shall strictly conform to the specifications given in **Chapter - 4** of the tender.
- b) In the event of repeated failure of random samples for the period from supplies made to the corporations and tested at CIRT/IRT or any other laboratory, the Tender Award Committee shall have the right to take the following action.
- i) suspend or terminate or reject the tender forthwith the contract, **or**
 - ii) any other remedial action as it may deem fit.
- c) The successful tenderer should ensure quality of tyres, tubes and flaps at the time of delivery as per supply schedule. Rejection of more than 1% of tyres, tubes and flaps supplied will entail termination of contract and cancellation of purchase order.
- d) Rejected New Tyres have to be replaced immediately at free of cost.

8.4 Warranty Claim

Warranty claim for prematurely failed original Tyres due to manufacturing defects shall be settled within a reasonable period not exceeding two months.

8.5 Testing of Random Samples

Firm / bidder has to supply the ordered quantity to various stores (as per supply order). The random samples from the supply received against one delivery schedule are liable to be got tested at CIRT, Pune or any other NABL accredited test house / laboratory as per specification mentioned in the tender.

In case the random samples, drawn from the supplied stores found meeting the prescribed specifications, then test charges and cost of samples etc., will be borne by the corporation otherwise if any sample from the lot was not found meeting the prescribed specification in testing, then complete lot supplied against the schedule to all the stores as per above will be rejected and firm / bidder will have to replace the failed materials within 15 days from the date of issuing of letter of rejection, failing which STUs, have right to make the purchase of rejected stores from the alternate sources available without issuing any further notice, Moreover, recovery of testing charges along with cost of sample, postage charges and administrative charges etc. as per ASRTU criteria will be imposed on the firm / bidder and firm / bidder will be cautioned to improve the quality strictly as per specifications for future supplies. The penalty as per ASRTU weightage

chart will be imposed on the firm / bidder for the material that had been consumed by the time the report of testing is received by the STUs. On receipt of consecutive two failed test reports of testing of random samples for the same item, the pending order of the firm / bidder will be cancelled and the firm / bidder will be debarred for participation in future tenders for period as decided by the Managing Director (STUS) / Director (IRT), in addition to replacement of the rejected store and imposition of additional penalty of 1% of total lot value as mentioned above.

8.6 Price Fall Clause

The firm shall inform STU / IRT in writing within 30 days positively from date of submitting lower rate (s) and / or any better terms & conditions offered of any of member STUs or any Govt. / Semi Govt. owned organization directly or by any of its Sole Selling Agent/ Distributor for which this contract is established.

STU/ IRT shall have the right to take any action as stipulated under Fall clause of tender documents in the event of firm not informing the lower rate (s) and / or any better terms & conditions within 30 days positively.

The bidders should submit the affidavit in this regard along with the tender. Failing to submit the affidavit will lead to rejection of bid.

The purchasing STU shall ensure that the details of lower rates and / or better terms than those agreed in this contract if offered by the firm are duly communicated to IRT without delay.

During the period of contract, the supplier should show no discrimination to the Corporation by supplying at lower rates and better terms and conditions to any STU's in India in similar conditions. If any supply is made by the supplier at the lower rates and better terms and conditions in similar conditions, in that case, lower rates and better terms and conditions would be applicable on supplies to the IRT / STUs with effect from the date of such supplies at lower rates to other STU's.

9. Payment Clause

The payment will be made by 45 days post dated cheque from the date of acceptance of the supplies made.

Appendix-1 Model Form of Contract

(To be executed on a Rs. 100/- Non-Judicial Stamp Paper bought in Tamil Nadu by the Successful Bidder for the supply and commissioning of High End Servers and Related items)

(NO FIGURES IN NUMERALS OR WORDS SHALL BE FILLED UP IN THIS SAMPLE FORM AT THE TIME OF SUBMISSION OF TENDER)

AGREEMENT FOR SUPPLY OF RADIAL TYRES

THIS AGREEMENT made this (.....) between the MANAGING DIRECTOR, (name of purchaser) (City of Purchaser) hereinafter "the Purchaser" of one part and M/s (Name of Supplier) having its registered office at hereinafter "the Supplier" of the other part.

WHEREAS the Purchaser is desirous to buy. nos. Radial Tyres (as detailed in **Annexure I & II**) and has accepted this bid submitted by the supplier for the supply of Tyres for a sum of Rs...../-(Rupees only) (Contract price in words and figures) hereinafter referred to as Contract price.

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meaning as are respectively assigned to them in the Conditions of Contract referred to
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.,
 - a) The Tender Document, including corrigendum's
 - b) Detailed final offer of the successful bidder
 - c) Rate Contract Order / Purchase orders issued by IRT / STUs from time to time
 - d) The Technical Specifications,
3. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the tyres and to remedy defects therein in conformity with all aspects of the provisions of this Contract.
4. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Tyres and the remedying of defects therein, the Contract price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed in the contract.
5. The Tyres supplied under this contract shall strictly conform to the specifications given in the tender.
6. The supply of Tyres shall be as per the schedule given in the Purchase Order placed by the purchaser.

7. The delivery of Tyres shall be made at the respective stores of the Purchaser as specified by the Purchaser in the Purchase Order.
8. The supplier should settle warranty claim for prematurely failed Tyres due to manufacturing defects within a period not exceeding one months.
9. If supplies are not made as per the delivery schedule prescribed or the revised delivery schedule intimated by the Purchaser, if any, the Purchaser reserves the right to purchase such requirements from any available source and any extra expenditure incurred thereof will be recovered from the supplier's bills due for payment or from the Security Deposit. Further the supplier has to reimburse all the liquidated damages / losses arising due to non-fulfilment of contractual obligations.
10. If the supplier violates any of the conditions stipulated in the agreement, the Purchaser shall be at liberty to cancel the agreement and entrust the order with some other supplier, in which case, the purchaser shall pay the additional expenses incurred for the order diversion or action will be taken to recover the same from their security deposit.
11. Upon receipt of the Tyres at the respective destination and after inspection of Tyres supplied, the Purchaser or his nominee will issue an acceptance certificate specifying the date of acceptance. The Tyres found defective due to defective packing or otherwise inconformity with the requirement, the contract shall be withheld until such time the defects are corrected.
12. The issuance of the acceptance certificate shall be without prejudice to the results of testing and action thereafter and shall no way relieve the supplier of his responsibility for the quality and specification of the Tyres.
13. The Purchaser reserves the right to terminate the contract If the supplier fails to deliver Tyre, Tube and Flap within the time specified in the contract or within the period for which extension has been granted or if the supplier fails to comply with any other provisions of this contract.
14. If the supplier becomes bankrupt or has a receiver order made against him or compound with his creditors, or the supplier being Corporation commences to be wound up not being a voluntary winding up for the purpose only of amalgamation or reconstitution, or carries on its business under a receiver for the benefit of its creditors or any of them, the Purchaser shall be at liberty to terminate the contract forthwith by notice in writing to the supplier or to the liquidator or receiver or to any person in whom the contract may become vested or to give such liquidator, receiver or other person to the option of carrying out the contract subject to his providing a guarantee for the due and faithful performance of the contract upto an amount to be determined by the Purchaser.
15. If the delay or difficulty so caused cannot be expected to cease or become avoidable or if operation cannot be resumed within three months, then either party shall have the right to terminate the contract by giving thirty days, written notice to the other, in the event of such termination of the contract, payment to the supplier will be made as follows:
 - i) The supplier shall be paid for all Tyres approved by the Purchaser or his nominee and for any other legitimate expenses due to him.

- ii) If the Purchaser terminates the contract owing to force majeure or due to any cause beyond the control, the supplier shall additionally be paid for supply made during the said three (3) months period including any financial commitment made for the proper performance of the contract and which are not reasonably defrayed by payments under (i) above.
 - iii) The Purchaser shall release all bonds and guarantees at his disposal except in cases where the total amount of payments to the supplier exceeds the final amount due to him in which case the supplier shall refund the excess amount within sixty (60) days after termination and the Purchaser thereafter shall release all bonds and guarantees. If the supplier fails to refund the amounts received in excess within the said period, such amounts shall be deducted from the bonds or guarantees provided.
- 16. On termination of the contract for any cause, the supplier shall see to the orderly suspension and termination of operations, with due considerations to the interests of the Purchaser with respect to completion, safe-guarding or storing of Tyres produced for the performance of the contract and the salvage and resale thereof.
- 17. The supplier shall not be liable for any liquidated damages for delay or failure to perform the contract for reasons of force majeure such as acts of God, acts of public enemy, acts of Governments, fires, floods, epidemics, strikes, affecting production over duration of more than seven consecutive days and provided that the contractor shall within ten (10) days from the beginning of such delay notify the purchaser in writing of the cause of delay. The purchaser shall verify the facts and grant such extension if the same is justifiable.
- 18. The supplier shall insure the Tyres proposed to be supplied during transit.
- 19. If the Tyres or any portion thereof are damaged or lost during transit, the Purchaser shall give notice to the supplier / insurance company and the supplier setting forth particulars of such Tyres damaged or lost. The replacement of such Tyres shall be effected by the supplier within a reasonable time to avoid unnecessary delay. The price of the replacement items shall be recovered from the insurance coverage provided for this purpose.
- 20. The supplier shall replace the Tyres damaged during transit at free of cost.
- 21. In the event of Tyres supplied by the supplier is found defective or otherwise not in conformity with the contract specifications, the purchaser shall reject the Tyres and request the supplier in writing to replace the same. The supplier on receipt of such notification shall replace the defective Tyres at free of cost within two weeks. If the supplier fails to do so, the Purchaser may
 - i) at his option replace or rectify such defective Tyres and recover the extra cost so involved from the contract price plus fifteen percent to cover the overhead expenses; or
 - ii) terminate the contract for default.
- 22. If the delivery of Tyres is delayed due to reasons beyond the control of the supplier, the supplier shall without delay give notice to the Purchaser in writing of his request for an extension of time. The purchaser on receipt of such notice may agree to extend the delivery date specified in the schedule as may be reasonable but without prejudice to other terms and conditions of the contract.
- 23. If the supplier fails to deliver Tyres within the time specified in the contract agreement or

- any extension thereof, the Purchaser shall be at liberty to recover from the supplier, as liquidated damages, a sum of quarter of percent (0.25 percent) of the contract price of the undelivered Tyres for each day of delay. The total liquidated damages shall not exceed ten percent (10%) of the contract price of Tyres so delayed.
24. The supplier shall not assign or transfer the contract or any part thereof without the prior approval of the Purchaser.
 25. Except as otherwise specifically provided in the contract, all disputes concerning question of fact arising under the contract shall be decided by the Director, IRT subject to a written appeal by the supplier to the Director, IRT whose decision shall be final to the parties hereto.
 26. The contract shall be construed according to and subject to the laws of India and jurisdiction of courts of Chennai only.
 27. Whenever any claim for the payment of a sum to or the recovery of an advance by the Purchaser arises out of or under this contract against the supplier the same may be deducted by the Purchaser from any sum then due or which at any time thereafter may become due to the supplier under this contract and failing that under any contract with the Purchaser or from any other sum due to the supplier from the Purchaser.
 28. Where the supplier is an individual or business concern or a Hindu Undivided Family business concern or a partnership firm or a private limited company or a public limited company, the prior approval in writing of the Director, IRT shall be obtained before any change is made in the constitution of such business concern.
 29. The supplier agrees to make payment of Secretarial Administrative charges @ 2.25% plus GST on invoice Basic Rate to IRT within the period stipulated in the Tender schedule by mean of Demand Draft drawn in favour of "The Director, IRT" Payable at Chennai.
 30. The supplier further agrees to pay penalty for delay in payment of Special Administrative Charges as per Tender Condition.
 31. Any dispute or differences including those considered as such by only one of the parties arising out of or in connection with this contract shall be to the extent possible settled amicably between the parties. If amicable settlement cannot be reached, then all disputed issues shall be settled by Arbitration.
 32. Tyres manufactured within three months of production only shall be supplied to the Purchaser.
 33. The nominal weight of a Tyres shall not vary with the weight as given below :-

1	10.00 x 20.00 16 PR Radial Tyre	-	59 Kg \pm 2%
2	295/80 R22.5 Radial Tubeless Tyre	-	64 Kg \pm 2%
3	7.50 x 16-14 PR Radial Tyre	-	26 Kg \pm 2%
 34. Rejection of more than 1% of Tyres supplied will entail termination of contract and cancellation of purchase order and rejected New Tyres have to be replaced immediately.
 35. Firm / bidder has to supply the ordered quantity to various stores (as per supply order). The random samples from the supply received against one delivery schedule are liable to be got tested at CIRT, Pune or any other NABL accredited test house / laboratory as per specification

mentioned in the tender.

In case the random samples, drawn from the supplied stores found meeting the prescribed specifications, then test charges and cost of samples etc., will be borne by the corporation otherwise if any sample from the lot was not found meeting the prescribed specification in testing, then complete lot supplied against the schedule to all the stores as per above will be rejected and firm / bidder will have to replace the failed materials within 15 days from the date of issuing of letter of rejection, failing which STUs, have right to make the purchase of rejected stores from the alternate sources available without issuing any further notice, Moreover, recovery of testing charges along with cost of sample, postage charges and administrative charges etc. as per ASRTU criteria will be imposed on the firm / bidder and firm / bidder will be cautioned to improve the quality strictly as per specifications for future supplies. The penalty as per ASRTU weightage chart will be imposed on the firm / bidder for the material that had been consumed by the time the report of testing is received by the STUs. On receipt of consecutive two failed test reports of testing of random samples for the same item, the pending order of the firm / bidder will be cancelled and the firm / bidder will be debarred for participation in future tenders for period as decided by the Managing Director (STUS) / Director (IRT), in addition to replacement of the rejected store and imposition of additional penalty of 1% of total lot value as mentioned above.

- 36.** The firm shall inform STU / IRT in writing within 30 days positively from date of submitting lower rate (s) and / or any better terms & conditions offered of any of member STUs or any Govt. / Semi Govt. owned organization directly or by any of its Sole Selling Agent/ Distributor for which this contract is established.

STU/ IRT shall have the right to take any action as stipulated under Fall clause of tender documents in the event of firm not informing the lower rate (s) and / or any better terms & conditions within 30 days positively.

The bidders should submit the affidavit in this regard along with the tender. Failing to submit the affidavit will lead to rejection of bid.

The purchasing STU shall ensure that the details of lower rates and / or better terms than those agreed in this contract if offered by the firm are duly communicated to IRT without delay.

During the period of contract, the supplier should show no discrimination to the Corporation by supplying at lower rates and better terms and conditions to any STU's in similar conditions. If any supply is made by the supplier at the lower rates and better terms and conditions in similar conditions, in that case, lower rates and better terms and conditions would be applicable on supplies to the IRT / STUs with effect from the date of such supplies at lower rates to other STU's.

- 37.** All disputes, differences, questions and claims either by way of specific performance or damages or in respect of the performance or breach of the obligations on the part of the parties to this contract in connection with or in relation to or in any way arising out of or under the terms and provisions of this contract shall be referred to arbitration, determinable at Chennai consisting of two arbitrators, one to be appointed by each party. The arbitration proceedings shall be held at such place or places as the arbitrators may decide from time to time in accordance with and under the provisions of the Arbitration Act, 10 of 1996 or any statutory modifications thereof, for the time being in force and the arbitrators shall have the power to make an interim award or awards and the such award shall be a condition precedent to the obtaining of any relief in any court of law. In the event of disagreement between the two arbitrators, such disputes or differences shall be determined by an Umpire who shall appointed by the arbitrators as provided in the said Act. The language of arbitrations shall be in English

IN WITNESS whereof the parties hereto have caused this agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, Sealed and Delivered by the said

MANAGING DIRECTOR..... (For the Purchaser)

In the presence of

Signed, Sealed and Delivered by the said

M/s. (For the Supplier)

In the presence of

Appendix - 2 Bank Guarantee Format

(To be executed in Rs.100/- Stamp Paper – with reference to clause 7.3)

To
The Managing Director

Bank Guarantee No:
Amount of Guarantee:
Guarantee covers from:
Last date for lodgement of claim:

This Deed of Guarantee executed by (Banker's Name & Address) having our Head Office at(address) (hereinafter referred to as "the Bank") in favour of The Managing Director,(hereinafter referred to as "the Beneficiary") for an amount not exceeding Rs._____-/- (Rupees _____ Only) as per the request of M/s. _____ having its office address at _____ (hereinafter referred to as "Supplier") against Letter of Acceptance reference _____ dated ____/____/____ of M/s..... This guarantee is issued subject to the condition that the liability of the Bank under this guarantee is limited to a maximum Rs._____-/- (Rupees _____ Only) and the guarantee shall remain in full force up to ____ months from the date of Bank Guarantee and cannot be invoked otherwise by a written demand or claim by the beneficiary under the Guarantee served on the Bank before ____ months from the date of Bank Guarantee.

AND WHEREAS it has been stipulated by you in the said ORDER that the Supplier shall furnish you with a Bank Guarantee by a Scheduled/Nationalised Bank for the sum specified therein as security for compliance with the Contractor's performance obligations for a period in accordance with the contract.

AND WHEREAS we have agreed to give the Supplier a Guarantee.

THEREFORE, we (Bankers address)....., hereby affirm that we are Guarantors and responsible to you on behalf of the Supplier up to a total of Rs._____-/- (Rupees _____ Only) and we undertake to pay you, upon your first written demand declaring the Supplier to be in default under the contract and without any demur, cavil or argument, any sum or sums within the limit of Rs._____-/- (Rupees _____ Only) as aforesaid, without your needing to prove or show grounds or reasons for your demand or the sum specified therein. We will pay the guaranteed amount notwithstanding any objection or dispute whatsoever raised by the Supplier.

This Guarantee is valid until _____ months from the date of Bank Guarantee.

Notwithstanding, anything contained herein

Our liability under this guarantee shall not be exceed Rs._____/ - (Rupees _____ Only). This bank guarantee shall be valid up to __ months from the date of Bank Guarantee and we are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before _____

In witness whereof the Bank, through its authorised Officer, has set its, hand and stamp on this at _____.

Witness:

(Signature)

(Name in Block Letters)

Annexure-1 Technical Bid

A1.1 Check-list for Enclosures

Documents to be submitted online and physical submission		Fill (YES or NO)
Filled Tender Technical Bid Form duly signed by the bidder in each and every page of the tender document along with required proof document as specified in the tender clause should be uploaded online and physical submission. Otherwise tender will be summarily rejected.		
Payment of EMD amount		
Payment of Factory Inspection Fee		
Payment for Tender document fees		
Two Bid submission		
Letter of Authorisation for signing the Tender document		
Eligibility Criteria		
1.	Manufacturing License for Tyre should be submitted	
2.	Turnover	
3.	Copies of the Chellan for the payment of GST.	
4.	Previous Supplies to TNSTUs / Other STUs in India	
5.	Latest Test Certificate for Tyres should be submitted.	
5.	Language of the supporting documents only in English	

A.1.2 Profile of the Bidder**TECHNICAL BID****(To be submitted in a separate sealed cover superscribed)****I. INFORMATION ABOUT MANUFACTURER:**

i) a)	Name of the Tenderer	..	
b)	Address of the Registered Office.	..	
c)	Telephone No.	..	
d)	E-Mail ID	..	
ii) a)	Factory / Work Address	..	
b)	Telephone No.	..	
c)	E-Mail ID	..	
iii)	Weekly off day of the factory	..	
iv)	Capital employed in Rupees	..	
v)	No. of employees	..	
vi)	Turn over during the past three financial year in Rupees.(Please enclose copy of Annual Accounts) (2018-2019, 2019-2020 & 2020-2021)	..	
vii)	Whether Audited Annual Report and Balance Sheet for the year (2018-2019, 2019-2020 & 2020-2021) enclosed.	..	a) Yes
			b) No
ix)	Manufacturers constitution	..	(a) Proprietor (b) Partnership (c) Pvt.Ltd. (d) Public Ltd. (e) Undertaking (f) Co-Operative society
II i)	Status of the manufacturer	..	(a) Small Scale (b) Medium Scale (c) Large Scale
ii) a)	In case of Small Scale Units whether registered as Small Scale Industry with Director of Industries & Commerce	..	a) Yes
			b) No
b)	If registered, Registration No. & Date	..	
c)	Whether SSI Registration Certificate enclosed.	..	a) Yes
			b) No

SIGNATURE OF THE TENDERER.

iii) a)	Whether on Trial / Regular Rate Contract with ASRTU	..	a) Yes	
		..	b) No	
b)	If Yes Contract Number and validity period.	..		
c)	Whether copy of the rate contract enclosed	..	a) Yes	
		..	b) No	
iv) a)	Whether the product offered has been tested and certified	..	a) Yes	
		..	b) No	
b)	If yes whether the product conforms to the prescribed specifications	..	a) Yes	
		..	b) No	
c)	Whether copy of the Test Certificate enclosed.	..	a) Yes	
		..	b) No	
v) a)	Whether supply made to STUs in Tamilnadu during the year 2020-2021 & 2021 - 2022	..	a) Yes	
		..	b) No	
b)	If Yes, the rate, ordered quantity by STUs and supply made details shall be enclosed.	..	a) Enclosed	
		..	b) Not Enclosed	
c)	Whether supply made to other STUs during the year 2020–2021 & 2021-2022	..	a) Yes b) No	
d)	If yes the rate, quantity ordered by respective STUs and supply details along with the proof depicting rates shall be enclosed	..	a) Enclosed b) Not Enclosed	
vi)	Details of Machineries available in the factory	..		
	Sl.No.	Name of the Machineries	Capacity	Year of Purchase
	1)			
	2)			
	3)			
	4)			

vii) a)	Manufacturing capacity in quantity per annum.	..	
b)	Maximum quantity that can be supplied to the STUs in Tamilnadu / Month.	..	
viii)	Time required to Deliver (from the date of Purchase Order if executed.)	..	
b)	Are you agreeable for free replacement against defective Tyres, Tubes and Flaps?	..	a) Yes
		..	b) No
<u>IV.</u>	EMD Remitted Details a) Amount of EMD Rs.10,00,000/- b) Bank, DD/Pay Order No. & Date	..	
V	Details of Remittance of Factory Inspection Fee. a) Amount of Factory Inspection Fee Rs.20000/- b) Bank, DD / Pay Order No & Date	..	
VI	Details of Remittance of Tender Document Cost if downloaded a) Tender Document Fee Rs.17700/- b) Bank, DD / Pay Order No & Date		

SIGNATURE OF THE TENDERER
SEAL:
DATE:

A 1.3 Declaration

To

The Director,
The Institute of Road Transport,
100 Feet Road, Taramani,
Chennai 600 113.

Sir,

I/We hereby offer to supply Tyres to the State Transport Corporations in Tamilnadu upon and in accordance with the General Conditions of tender hereto annexed apart from the conditions as may be agreed to between the Corporation and the successful tenderers, at the price given by me/us as per the terms in the schedule attached to the tender, only those items as you may specify in the acceptance of the tender and within the Delivery Period set forth in the said schedule. I / We enclose the Demand Draft/Pay Order for **Rs.10,00,000/- (Rupees Ten lakhs only)** towards the Earnest Money Deposit. I/We have carefully read and understood the terms and conditions and the specifications of the tyres and other details/set out in the Schedule and Annexures. I am/We are fully aware of the nature and specifications of the stores in accordance with your requirements. I/We agree to hold this offer for a period of 120 days from the date of opening of Commercial Bid or Contract period whichever is later. I/We agree to declare that no other party will have any interest in the contract if this tender is accepted. I/We agree that the Corporation shall not be bound to recognize any person or persons other than me/us as having any interest in the contract and will be at liberty to terminate the contract at any time if it appears that this declaration is not true. I/We further agree that acceptance by the Tender Award Committee of this tender within the prescribed time shall constitute a valid contract for the supply of the goods and stores according to the terms and conditions and in accordance with the specifications and details referred to above. I/We further agree to comply with the terms and conditions of the rate contract that may be awarded to me/us on the basis of this offer and in the event of failing to do so during the period of the Rate Contract, I/We agree to the forfeiture of the Earnest Money Deposit of **Rs. 10,00,000/-(Rupees Ten lakhs only)** besides Liquidated Damages set out in the Tender Document. I/We further agree to remit Special Administrative Charges to IRT as per the Tender Conditions and is /are also aware of the fact that delay in Special Administrative Charges payment would entail penalty besides suspension of Contract and would abide by the same.

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Signature of the Tenderer

Date:

Name:

Place:.....

Designation

Encl:

Demand Draft/Order bearing No. Dated drawn in favour of the Director, The Institute of Road Transport, Taramani, Chennai-600 113

ANNEXURE – 2**COMMERCIAL BID – Tyres****"RATE CONTRACT TENDER REF NO": 04/Tyres /CP/IRT/2022****COMMERCIAL BID****(a) SCHEDULE OF RATES****(To be submitted on-line)**

SI No	Description	Pattern Model and Name	U O M	Basic Price in Rs	GST in % Rs	Total landed cost FOR Destination Rs	Maximum quantity that can be supplied per month
1.	295/80 R22.5 16 PR Radial Tubeless Tyre as per specifications enclosed in the tender document		No.				
2.	10.00 X 20 16 PR Radial tyre as per specifications enclosed in the tender document						
3.	7.50 x 16 - 14 PR Radial tyre as per specifications enclosed in the tender document						

** Pattern model and name for each type should be specified without fail.

*** **Note : All Taxes, TCS and Statutory Levies as applicable to Government Undertakings / Public Sector Undertakings as on date of invoice shall be in force.**

(b) DISCOUNT STRUCTURE

The tenderer is requested to furnish their offer for the following volume and cash discount.

1. **VOLUME DISCOUNT**2. **CASH DISCOUNT.**

- a) 100% Payment against delivery
- b) 100% Payment in 15 days
- c) 100% Payment in 30 days

SIGNATURE OF THE TENDERER**SEAL:****DATE:**