

**BHARAT HEAVY ELECTRICALS LIMITED  
TIRUCHIRAPPALLI 14  
(HUMAN RESOURCE MANAGEMENT)**

**No TP : HR : IR : Gents Cycle 22"**

**Date: 11.10.2025**

**DGM (MM/Services)**

**Sub : PQC and Specification-Gents Cycle -Reg**

**SPECIFICATION - GENTS BICYCLE – 22"**

<b>Parameters</b>	<b>Accepted Values / Limits</b>
Bicycle category	Roadster Bicycles (frame size 22 inch)
Type of bicycle	Standard
Maximum saddle height of bicycle	Not less than 855 millimeter
Type of steel tubes used / Tube designation (as per IS 2039) for frame and front fork (Frame as per IS 623 & Front Fork as per IS 2061)	Electric resistance welded and induction welded tubes (ERW C1)
Outside diameter of tube used for frame	Not less than 25 millimeter
Thickness of tube used for frame	Not less than 1.2 millimeter
Fork column and fork blades material	Fork column and fork blades shall be made from tubes conforming to grade designation ERW-C1 of IS 2039 (Parts 1 to 3)
Outside diameter of tube used for front fork	Not less than 25 millimeter
Thickness of tube used for front fork	Not less than 1.1 millimeter
Type of steel tubes used / Tube designation (as per IS 2039) for Handlebar	Electric resistance welded and induction welded tubes (ERW C1)
Outside diameter of tube used for handlebar	22.22 millimeter
Thickness of tube used for handlebar	Not less than 1 millimeter
Overall width of handlebar	Not less than 465 millimeter
Shape of handlebar (Handlebar as per IS 625)	Flat or Upright type
Handle bar assembling formation	Brake lever combined type
Type of steering head assembly (Steering head assembly as per IS 2973)	PH type
Type of seat pillar (seat pillar as per IS 626)	Straight seat pillar

Parameters	Accepted Values / Limits
Type of hub (Front wheel) (Hub assembly as per IS 629)	Thick barrel front hub
Type of hub (Rear wheel) (Hub assembly as per IS 629)	Thick barrel front hub
Number of chain wheels	Single
Classification of chain wheels and cranks (Cranks and Chain Wheels as per IS 1281)	Single cotter type
Length of crank	Not less than 165 millimeter
Chain Structure (Cycle chain as per IS 15511)	081 C / Type I
Type of bottom bracket axle (Bottom bracket axle as per IS 1131, Bottom bracket ball cups as per IS 1132, Bottom bracket lock rings as per IS 1134)	Cottered bottom bracket axle
Type of pedal assembly as per IS 628	Block Type
Nominal size of freewheel threads (Freewheel as per IS 1283)	34.8*24 TPI
Cotter pins, washers and nuts as per IS 1282	Yes
Rim profile type (Rim as per IS 624)	Beaded edge (BE)
Material of rim	Cold-rolled carbon steel
Tyre size designation	Not less than 40-584
Classification of bicycle rubber tubes	Class D - Natural rubber and the equivalent
Types of tube valve as per IS 532	Metal base valve with plug (MBP/MBFP/MBGP)
Material of nipples for spokes	Steel conforming to IS 8564
Spokes wire diameter ( $\pm 0.03$ ) (Spokes as per IS 630)	2 millimeter
Rim tapes material (Rim tapes and buckles as per IS 960)	Plastic
Brake lever type as per IS 10613	Type B
Maximum corrected braking distance, (m) (Both brake in use)	7 meter
Type of brake	Rim Brake
Mudguard	Yes (as per IS 6218)
Bicycle Stand	Full Stand
Bicycle lock	Bicycle lock (shall conform to IS 6799)
Bell	Yes
Warranty	1 year
Safety and performance requirements conforming to IS 10613	Yes
ISI Marked Pneumatic tyres conforming to IS 2414	Yes

Parameters	Accepted Values / Limits
ISI Marked Rubber tubes conforming to IS 2415	Yes
ISI Marked Retro-reflective device conforming to IS/ISO 6742-2	Yes
Test Report from Central Govt/NABL/ILAC/BIS accredited lab to prove conformity to specification will be provided to buyer on demand	Yes

**DELIVERY SCHEDULE:** within 30 days from PO

**PQC**

Vendor should have a proof of supplying bicycle during the past five years starting from 2020

*H. S. Prasad*  
**DGM (HR-IR & Rectt.)**

**BHARAT HEAVY ELECTRICALS LIMITED****TIRUCHIRAPPALLI 14****(DTG)****No TP : DTG : ADMIN : Gents cycle 22"****Date: 19.12.2025****DGM (MM/Services)****Sub: PQC and Specification-Gents Cycle –Reg****SPECIFICATION - GENTS BICYCLE - 22"**

Parameters	Accepted Values I Limits
Bicycle category	Roadster Bicycles (frame size 22 inch)
Type of bicycle	Standard
Maximum saddle height of bicycle	Not less than 855 millimeter
Type of steel tubes used / Tube designation (as per IS 2039) for frame and front fork (Frame as per IS 623 & Front Fork as per IS 2061)	Electric resistance welded and induction welded tubes (ERW CI)
Outside diameter of tube used for frame	Not less than 25 millimeter
Thickness of tube used for frame	Not less than 1.2 millimeter
Fork column and fork blades material	Fork column and fork blades shall be made from tubes conforming to grade designation ERW-CI of IS 2039 (Parts 1 to 3)
Outside diameter of tube used for front fork	Not less than 25 millimeter
Thickness of tube used for front fork	Not less than 1.1 millimeter
Type of steel tubes used / Tube designation (as per IS 2039) for Handlebar	Electric resistance welded and induction welded tubes (ERW CI)
Outside diameter of tube used for handlebar	22.22 millimeter
Thickness of tube used for handlebar	Not less than 1 millimeter
Overall width of handlebar	Not less than 465 millimeter
Shape of handlebar (Handlebar as per IS 625)	Flat or Upright type
Handle bar assembling formation	Brake lever combined type
Type of steering head assembly (Steering head assembly as per IS 2973)	PH type
Type of seat pillar (seat pillar as per IS 626)	Straight seat pillar

Parameters	Accepted Values / Limits
Type of hub (Front wheel) (Hub assembly as per IS 629)	Thick barrel front hub
Type of hub (Rear wheel) (Hub assembly as per IS 629)	Thick barrel front hub
Number of chain wheels	Single
Classification of chain wheels and cranks (Crank and Chain Wheels as per IS 1281)	Single cotter type
Length of crank	Not less than 165 millimetre
Chain Structure (Cycle chain as per IS 15511)	081 C/ Type I
Type of bottom bracket axle (Bottom bracket axle as per IS 1 131, Bottom bracket ball cups as per IS 1132, Bottom bracket lock rings as per IS 1 134)	Cottered bottom bracket axle
Type of pedal assembly as per IS 628	Block Type
Nominal size of freewheel threads (Freewheel as per IS 1283)	34.8*24 TPI
Cotter pins, washers and nuts as per IS 1282	Yes
Rim profile type (Rim as per IS 624)	Beaded edge (BE)
Material of rim	Cold-rolled carbon steel
Tyre size designation	Not less than 40-584
Classification of bicycle rubber tubes	Class D - Natural rubber and the equivalent
Types of tube valve as per IS 532	Metal base valve with plug (MBP/MBFP/MBGP)
Material of nipples for spokes	Steel conforming to IS 8564
Spokes wire diameter ( $\pm 0.03$ ) (Spokes as per IS 630)	2 millimetre
Rim tapes material (Rim tapes and buckles as per IS 960)	Plastic
Brake lever type as per IS 10613	Type B
Maximum corrected braking distance, (m) (Both brake in use)	7 meter
Type of brake	Rim Brake
Mudguard	Yes (as per IS 6218)
Bicycle Stand	Full Stand
Bicycle lock	Bicycle lock (shall conform to IS 6799)

Bell	Yes
Warranty	1 year
Safety and performance requirements conforming to IS 10613	Yes
ISI Marked Pneumatic tyres conforming to IS 2414	Yes
Parameters	Accepted Values I Limits
ISI Marked Rubber tubes conforming to IS 2415	
ISI Marked Retro-reflective device conforming to IS/ISO 6742-2	Yes
Test Report from Central Govt/NABL/ILAC/BIS accredited lab to prove conformity to specification will be provided to buyer on demand	Yes

DELIVERY SCHEDULE: within 30 days from PO



**A. ANAND** ME., MBA.,  
Senior Manager / DTG  
Digital Transformation Group  
BHEL, TIRUCHY - 620 014

**MM STORES  
BHEL, TRICHY**

Ref: MMS\_013 BIC

**Sub: PQC and Specifications for GENTS BI-CYCLE 22 INCH**

Parameters	Accepted Values/Limits
Bicycle category	Roadster Bicycles (frame size 22 inch)
Type of bicycle	Standard
Maximum saddle height of bicycle	Not less than 855 mm
Type of steel tubes used / Tube designation (as per IS 2039) for frame and front fork (Frame as per IS 623 & Front Fork as per IS 2061)	Electric resistance welded and induction welded tubes (ERW CI)
Outside diameter of tube used for frame	Not less than 25 mm
Thickness of tube used for frame	Not less than 1.2 mm
Fork column and fork blades material	Fork column and fork blades shall be made from tubes conforming to grade designation ERW-CI of IS 2039 (Parts 1 to 3)
Outside diameter of tube used for front fork	Not less than 25 mm
Thickness of tube used for front fork	Not less than 1.1 mm
Type of steel tubes used / Tube designation (as per IS 2039) for Handlebar	Electric resistance welded and induction welded tubes (ERW CI)
Outside diameter of tube used for handlebar	22.22 mm
Thickness of tube used for handlebar	Not less than 1 mm
Overall width of handlebar	Not less than 465 mm
Shape of handlebar (Handlebar as per IS 625)	Flat or Upright type
Handle bar assembling formation	Brake lever combined type
Type of steering head assembly (Steering head assembly as per IS 2973)	PH type
Type of seat pillar (seat pillar as per IS 626)	Straight seat pillar

Parameters	Accepted Values / Limits
Type of hub (Front wheel) (Hub assembly as per IS 629)	Thick barrel front hub
Type of hub (Rear wheel) (Hub assembly as per IS 629)	Thick barrel front hub
Number of chain wheels	Single
Classification of chain wheels and cranks (Crank and Chain Wheels as per IS 1281)	Single cotter type
Length of crank	Not less than 165 mm
Chain Structure (Cycle chain as per IS 15511)	081 C/ Type I
Type of bottom bracket axle (Bottom bracket axle as per IS 1 131, Bottom bracket ball cups as per IS 1132, Bottom bracket lock rings as per IS 1 134)	Cottered bottom bracket axle
Type of pedal assembly as per IS 628	Block Type
Nominal size of freewheel threads (Freewheel as per IS 1283)	34.8*24 TPI
Cotter pins, washers and nuts as per IS 1282	Yes
Rim profile type (Rim as per IS 624)	Beaded edge (BE)
Material of rim	Cold-rolled carbon steel
Tyre size designation	Not less than 40-584
Classification of bicycle rubber tubes	Class D - Natural rubber and the equivalent
Types of tube valve as per IS 532	Metal base valve with plug (MBP/MBFP/MBGP)
Material of nipples for spokes	Steel conforming to IS 8564
Spokes wire diameter ( $\pm 0.03$ ) (Spokes as per IS 630)	2 mm
Rim tapes material (Rim tapes and buckles as per IS 960)	Plastic
Brake lever type as per IS 10613	Type B
Maximum corrected braking distance, (m) (Both brake in use)	7 meter
Type of brake	Rim Brake
Mudguard	Yes (as per IS 6218)
Bicycle Stand	Full Stand
Bicycle lock	Bicycle lock (shall conform to IS 6799)
Bell	Yes
Warranty	1 year
Safety and performance requirements conforming to IS 10613	Yes

ISI Marked Pneumatic tyres conforming to IS 2414	Yes
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Parameters	Accepted Values /Limits
ISI Marked Rubber tubes conforming to IS 2415	Yes
ISI Marked Retro-reflective device conforming to IS/ISO 6742-2	Yes
Test Report from Central Govt/NABL/ILAC/BIS accredited lab to prove conformity to specification will be provided to buyer on demand	Yes

**Delivery:** 30 days from the date of PO

**PQC:** The vendor should have proof of supplying bicycles for the past years starting from 2020

*(Handwritten Signature)*  
**K. ANANDA BABU**  
**MANAGER**  
**MMI STORES**  
**BHEL / TRICHY - 14**

**BHARAT HEAVY ELECTRICALS LIMITED**  
**TIRUCHIRAPPALLI -14**  
**(MATERIAL MANAGEMENT)**

No TP : MM/MPLG 01 : Gents Bi-Cycle 22"

Date: 19.12.2025

DGM (MM/Services)

**Sub : Specification for Gents Bi-Cycle –Reg**

**SPECIFICATION - GENTS BICYCLE - 22"**

<b>Parameters</b>	<b>Accepted Values /Limits</b>
Bicycle category	Roadster Bicycles (frame size 22 inch)
Type of bicycle	Standard
Maximum saddle height of bicycle	Not less than 855 millimeter
Type of steel tubes used / Tube designation (as per IS 2039) for frame and front fork (Frame as per IS 623 & Front Fork as per IS 2061)	Electric resistance welded and induction welded tubes (ERW C1 )
Outside diameter of tube used for frame	Not less than 25 millimeter
Thickness of tube used for frame	Not less than 1.2 millimeter
Fork column and fork blades material	Fork column and fork blades shall be made from tubes conforming to grade designation ERW-C1 of IS 2039 (Parts 1 to 3)
Outside diameter of tube used for front fork	Not less than 25 millimeter
Thickness of tube used for front fork	Not less than 1.1 millimeter
Type of steel tubes used / Tube designation (as per IS 2039) for Handlebar	Electric resistance welded and induction welded tubes (ERW C1)
Outside diameter of tube used for handlebar	22.22 millimeter
Thickness of tube used for handlebar	Not less than 1 millimeter
Overall width of handlebar	Not less than 465 millimeter
Shape of handlebar (Handlebar as per IS 625)	Flat or Upright type
Handle bar assembling formation	Brake lever combined type
Type of steering head assembly (Steering head assembly as per IS 2973)	PH type
Type of seat pillar (seat pillar as per IS 626)	Straight seat pillar

<b>Parameters</b>	<b>Accepted Values /Limits</b>
Type of hub (Front wheel) (Hub assembly as per IS 629)	Thick barrel front hub
Type of hub (Rear wheel) (Hub assembly as per IS 629)	Thick barrel front hub
Number of chain wheels	Single
Classification of chain wheels and cranks (Cranks and Chain Wheels as per IS 1281)	Single cotter type
Length of crank	Not less than 165 millimeter
Chain Structure (Cycle chain as per IS 15511)	081 C / Type I
Type of bottom bracket axle (Bottom bracket axle as per IS 1131, Bottom bracket ball cups as per IS 1132, Bottom bracket lock rings as per IS 1134)	Cottered bottom bracket axle
Type of pedal assembly as per IS 628	Block Type
Nominal size of freewheel threads (Freewheel as per IS 1283)	34.8*24 TPI
Cotter pins, washers and nuts as per IS 1282	Yes
Rim profile type (Rim as per IS 624)	Beaded edge (BE)
Material of rim	Cold-rolled carbon steel
Tyre size designation	Not less than 40-584
Classification of bicycle rubber tubes	Class D - Natural rubber and the equivalent
Types of tube valve as per IS 532	Metal base valve with plug (MBP/MBFP/MBGP)
Material of nipples for spokes	Steel conforming to IS 8564
Spokes wire diameter ( $\pm 0.03$ ) (Spokes as per IS 630)	2 millimeter
Rim tapes material (Rim tapes and buckles as per IS 960)	Plastic
Brake lever type as per IS 10613	Type B
Maximum corrected braking distance, (m) (Both brake in use)	7 meter
Type of brake	Rim Brake
Mudguard	Yes (as per IS 6218)
Bicycle Stand	Full Stand
Bicycle lock	Bicycle lock (shall conform to IS 6799)
Bell	Yes
Warranty	1 year
Safety and performance requirements conforming to IS 10613	Yes

Parameters	Accepted Values / Limits
ISI Marked Pneumatic tyres conforming to IS 2414	Yes
ISI Marked Rubber tubes conforming to IS 2415	Yes
ISI Marked Retro-reflective device conforming to IS/ISO 6742-2	Yes
Test Report from Central Govt/NABL/ILAC/BIS accredited lab to prove conformity to specification will be provided to buyer on demand	Yes

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**BHARAT HEAVY ELECTRICALS LIMITED**  
**TIRUCHIRAPPALLI 14**  
**(QUALITY DEPARTMENT)**

No TP : QBE : IR : Gents cycle 22"

Date: 23.12.2025

DGM (MM/Services)

Sub : Technical Specification-Gents Cycle –Reg.

**TECHNICAL SPECIFICATION - GENTS BICYCLE - 22"**

<b>Parameters</b>	<b>Accepted Values I Limits</b>
Bicycle category	Roadster Bicycles (frame size 22 inch)
Type of bicycle	Standard
Maximum saddle height of bicycle	Not less than 855 millimeter
Type of steel tubes used / Tube designation (as per IS 2039) for frame and front fork (Frame as per IS 623 & Front Fork as per IS 2061)	Electric resistance welded and induction welded tubes (ERW CI)
Outside diameter of tube used for frame	Not less than 25 millimeter
Thickness of tube used for frame	Not less than 1.2 millimeter
Fork column and fork blades material	Fork column and fork blades shall be made from tubes conforming to grade designation ERW-CI of IS 2039 (Parts 1 to 3)
Outside diameter of tube used for front fork	Not less than 25 millimeter
Thickness of tube used for front fork	Not less than 1.1 millimeter
Type of steel tubes used / Tube designation (as per IS 2039) for Handlebar	Electric resistance welded and induction welded tubes (ERW CI)
Outside diameter of tube used for handlebar	22.22 millimeter
Thickness of tube used for handlebar	Not less than 1 millimeter
Overall width of handlebar	Not less than 465 millimeter
Shape of handlebar (Handlebar as per IS 625)	Flat or Upright type
Handle bar assembling formation	Brake lever combined type
Type of steering head assembly (Steering head assembly as per IS 2973)	PH type
Type of seat pillar (seat pillar as per IS 626)	Straight seat pillar

<b>Parameters</b>	<b>Accepted Values I Limits</b>
Type of hub (Front wheel) (Hub assembly as per IS 629)	Thick barrel front hub
Type of hub (Rear wheel) (Hub assembly as per IS 629)	Thick barrel front hub
Number of chain wheels	Single
Classification of chain wheels and cranks (Cranks and Chain Wheels as per IS 1281)	Single cotter type
Length of crank	Not less than 165 millimeter
Chain Structure (Cycle chain as per IS 15511)	081 C/ Type I
Type of bottom bracket axle (Bottom bracket axle as per IS 1 131, Bottom bracket ball cups as per IS 1132, Bottom bracket lock rings as per IS 1 134)	Cottered bottom bracket axle
Type of pedal assembly as per IS 628	Block Type
Nominal size of freewheel threads (Freewheel as per IS 1283)	34.8*24 TPI
Cotter pins, washers and nuts as per IS 1282	Yes
Rim profile type (Rim as per IS 624)	Beaded edge (BE)
Material of rim	Cold-rolled carbon steel
Tyre size designation	Not less than 40-584
Classification of bicycle rubber tubes	Class D - Natural rubber and the equivalent
Types of tube valve as per IS 532	Metal base valve with plug (MBP/MBFP/MBGP)
Material of nipples for spokes	Steel conforming to IS 8564
Spokes wire diameter ( $\pm 0.03$ ) (Spokes as per IS 630)	2 millimeter
Rim tapes material (Rim tapes and buckles as per IS 960)	Plastic
Brake lever type as per IS 10613	Type B
Maximum corrected braking distance, (m) (Both brake in use)	7 meter
Type of brake	Rim Brake
Mudguard	Yes (as per IS 6218)
Bicycle Stand	Full Stand

Bicycle lock	Bicycle lock (shall conform to IS 6799)
Bell	Yes
Warranty	1 year
Safety and performance requirements conforming to IS 10613	Yes
<b>Parameters</b>	<b>Accepted Values I Limits</b>
ISI Marked Pneumatic tyres conforming to IS 2414	Yes
ISI Marked Rubber tubes conforming to IS 2415	Yes
ISI Marked Retro-reflective device conforming to IS/ISO 6742-2	Yes
Test Report from Central Govt/NABL/ILAC/BIS accredited lab to prove conformity to specification will be provided to buyer on demand	Yes

 24.12.2025

V. SHANKAR  
 Dy. General Manager  
 Quality Control  
 BHEL, Trichy - 620 014

## Pre- qualification criteria

### Material: Bi-cycle

The Bidder should submit the following documents along with the Quotation, in order to consider the offer. Offer without the following documents will be rejected.

Sl.No	DESCRIPTION	Vendor to confirm	Vendor's Reply (To be filled)
	The vendor should enclose a purchase order copy from 1st Jan 2017 (01.01.2017) against their experience for the supply of the Bi-cycle	Yes/No	
<b>Delivery Period</b>			
Sl.No	DESCRIPTION	Vendor to confirm	Vendor's Reply (To be filled)
1	Delivery Schedule- Quantity shall be delivered within 30 days from the date of PO.	Yes/No	



**A. ANAND** ME., MBA.,  
Senior Manager / DTG  
Digital Transformation Group  
DHFL, TIRUCHY - 620 014

**Pre-qualification criteria**

**Material: Bi-cycle**

The Bidder should submit the following documents along with the Quotation, in order to consider the offer. Offer without the following documents will be rejected.

Sl.No	DESCRIPTION	Vendor to confirm	Vendor's Reply (To be filled)
	The vendor should enclose a purchase order copy from 1st Jan 2017 (01.01.2017) against their experience for the supply of the Bi-cycle	Yes/No	
<b>Delivery Period</b>			
Sl.No	DESCRIPTION	Vendor to confirm	Vendor's Reply (To be filled)
1	Delivery Schedule- Quantity shall be delivered within 30 days from the date of PO.	Yes/No	

  
**K. ANANDA BABU**  
**MANAGER**  
**MM STORES**  
**BHEL / TRICHY - 14**

## Pre - Qualification Criteria

Material : Bi-Cycle

The bidder should submit the following documents along with the quotation, in order to consider the offer. Offer without the following documents will be rejected.

Sl.No	Description	Vendor's to confirm	Vendor's reply (To be filled)
01	The Vendor should enclose the purchase order copy from 1 <sup>st</sup> Jan 2017(01.01.2017) against their experience for the supply of the Bi-cycle.	YES / NO	
<b>Delivery period</b>			
Sl.No	Description	Vendor's to confirm	Vendor's reply (To be filled)
01	Delivery Schedule: Quantity shall be delivered within 30 days from the date of PO.	YES / NO	

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## Pre- qualification criteria

**Material: Bi-cycle**

The Bidder should submit the following documents along with the Quotation, in order to consider the offer. Offer without the following documents will be rejected.

SINO	DESCRIPTION	Vendor to confirm	Vendor's Reply (To be filled)
	The vendor should enclose a purchase order copy from 1 st Jan 2017 (01.01.2017) against their experience for the supply of the Bi-cycle	Yes/No	
<b>Delivery Period</b>			
Sl.NO	DESCRIPTION	Vendor to confirm	Vendor's Reply (To be filled)
1	Delivery Schedule- Quantity shall be delivered within 30 days from the date of PO.	Yes/No	

  
 24.12.2025  
 DGM / Quality Control  
 HPBP Trichy

**V. SHANKAR NAIK**  
 Dy. General Manager  
 Quality Control  
 BHEL, Trichy - 620 014