

WAP/M/SPECN-1/043/1992, Alt 'd'

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**GOVERNMENT OF INDIA
(Ministry of Railways)**

**SPECIFICATION FOR
GRINDING WHEEL FOR PORTABLE
HIGH CYCLE STRAIGHT GRINDER
(SPINDLE DIA = 20mm)
PL No. 72983048**

Issued by

**MECHANICAL DRAWING OFFICE
WHEEL & AXLE PLANT
YELAHANKA, BANGALORE-560 064
INDIA**

<i>[Signature]</i> 26/8/02	<i>[Signature]</i> 30-08-02	<i>[Signature]</i> 30.8.02	<i>[Signature]</i> 30/8/02
CME	CME/W	Dy.CME/W II	SSE/D
APPROVED	REVIEWED	VERIFIED	PREPARED

**Specification for Grinding Wheel for Portable
High Cycle straight Grinders**

1.0 Scope:

This specification covers the manufacture, supply and putting into beneficial use of grinding wheels for the portable high cycle straight grinders, which will be supplied at wheel & Axle Plant, Yelahanka, Bangalore - 560064 as per the instructions and conditions of contract and tender papers.

2.0 Description:

Grinding wheels suitable for running at 6100 rpm.
Size 150 x 25 x 20 mm.

3.0 Job Requirements:


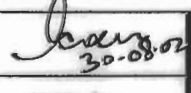
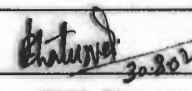

The Grinding Wheels are to be used in portable high cycle straight grinders for the fast removal of riser stubs of approximately 75 mm dia. and 6 mm height and slight sub surface wheels. No coolant is used while grinding.

3.1 The Chemistry of the Cast Steel wheel and Physical properties are given below:

Carbon	:	0.57% to 0.80%
Manganese	:	0.60% to 0.85%
Phosphorus	:	0.05% Max.
Sulphur	:	0.05% Max.
Silicon	:	0.15% Min.
Hardness	:	255 - 341 BHN
Tensile	:	70 - 120 kg/mm ²
Elongation	:	7 - 13%

3.2 The Grinding wheels will be used in portable high cycle straight grinders to the following specification:

Spindle diameter	:	20 mm
Length	:	500 mm (approx.)
Weight	:	7 kg (approx.)
RPM	:	6100

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4.0 Technical Data of Grinding Wheel:

Outside dia. : 150 mm
 Bore : 20 mm
 Thickness : 25 mm
 RPM : 6100

5.0 Product Marking:

5.1 The manufacturer/supplier should indicate product marking as per IS:551 on every grinding wheel at appropriate location.

5.2 The manufacturer/supplier should indicate the expiry date for usage on every grinding wheel at prominent location.

6.0 Inspection:

6.1 **Sampling Plan** for dimensions : As per IS:2500 Pt.I to its latest revision, GIL-II

6.2 Acceptance level: AQL-10

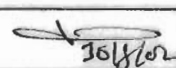
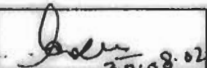
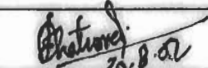
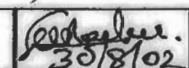
6.3 **Sampling norm** for performance test:

Lot Size	Sample
2<100	2
>/=100 </=500	4
>500 </=1000	8

7.0 Acceptance Criteria on practical test:

(1) The samples as drawn as per Clause 6.3, are fitted to high cycle grinding machines.

(2) The firm shall specify the number of Box-N wheels which can be ground by each grinding wheel during its service upto 35mm reduction in radius. The grinding wheels should be capable of grinding a minimum of 15 (fifteen) Box-N wheels to a maximum of 25 (twenty five) Box-N wheels per grinding wheel.

			
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