

WAP/M/SPECN 1/014/1987			
ALT	DATE	JOB No	SIGN
(a)	25-5-95	2580	<i>[Signature]</i>
(b)	25.7.95	2629	<i>[Signature]</i>

**SPECIFICATION FOR GRINDING WHEELS**

1.0 **SCOPE :**  
 The Specification covers the manufacture, supply and putting into beneficial use of Grinding Wheels for the Portable High Cycle Straight Grinders for the removal of Riser Stubs of approximately 75 mm dia and 6 mm thickness at the Wheel and Axle Plant, Yelahanka, Bangalore. The Specification shall be read in conjunction with the instructions and conditions of Contract and Tender Papers.

**GOVERNMENT OF INDIA  
 MINISTRY OF RAILWAYS**

2.0 **DESCRIPTION:**  
 Grinding wheels suitable for running at 6100 rpm.  
 (\*) SIZE 150 x 25 x 15.88 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 thickness. The wheels shall be free from surface defects such as inclusions, discontinuities etc., in the grinding surface of Steel Wheels. No coolant shall be used.

**SPECIFICATION FOR  
 GRINDING WHEEL FOR PORTABLE  
 HIGH CYCLE STRAIGHT GRINDERS**

3.1 The following physical properties are given for the grinding wheel to be used:

Carborundum	100%
Hardness	to 0.8%
Phosphorous	to 0.85%
Sulphur	max.
Silicon	max.
Hardness	255 - 341 BHN.
Tensile	70 - 120 Kge/mm <sup>2</sup>
Elongation	7 - 13%

MODEL No. 0602 217 104  
(SPINDLE  $\phi$  : 15.88 mm)

PL No. 7298 1696

3.2 The Grinding Wheels will be used in portable high cycle straight grinders to the following Specification.

(*) Spindle diameter :	15.88 mm.
Length :	500 mm approx.
Weight :	7 Kgs (approx.)
R.P.M. :	6100

4.0 **TECHNICAL DATA OF GRINDING WHEEL:**  
 ISSUED BY  
MECHANICAL DRAWING OFFICE  
WHEEL AND AXLE PLANT YELAHANKA  
BANGALORE

5.0 The Manufacturer/Supplier should indicate the expiry date for usage on every Grinding Wheel at prominent location on the Grinding Wheel.

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Dy.CME/WII	WM/MELT	SUPDT/DES
APPD. BY	CHD. BY	PREPD. BY

**SPECIFICATION FOR GRINDING WHEEL FOR PORTABLE HIGH CYCLE  
STRAIGHT GRINDERS.**

**1.0 SCOPE :**

The 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 and Axle Plant, Yelahanka, Bangalore, Karnataka State, India as per instructions and conditions of Contract and Tender Papers.

**2.0 DESCRIPTION:**

Grinding wheels suitable for running at 6100 rpm.

(\*) Size 150 x 25 x 15.88 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 defects such as inclusions, discontinuities etc., in the Cast Steel 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 0.8%
Manganese	:	0.6% to 0.85%
Phosphorous	:	0.05% max.
Sulphur	:	0.05% max.
Silicon	:	0.15% min.
Hardness	:	255 - 341 BHN.
Tensile	:	70 - 120 Kgs/mm <sup>2</sup>
Elongation	:	7 - 13%

**3.2 The Grinding Wheels will be used in portable high cycle straight grinders to the following Specification.**

(*) Spindle diameter	:	15.88 mm.
Length	:	500 mm approx.
Weight	:	7 Kgs (approx.)
R.P.M.	:	6100

**4.0 TECHNICAL DATA OF GRINDING WHEELS:**

Outside dia	:	150 mm.
(*) Bore	:	15.88 mm.
Thickness	:	25 mm
R.P.M.	:	6100

**5.0 The Manufacturer/Supplier should indicate the expiry date for usage on every Grinding Wheel at prominent location on the Grinding Wheel.**

<i>G. Dabhiwal</i>	<i>J. J. J.</i>	<i>K. K. K.</i>
BY, CME/W-II	WM/MELT	SUPDT/DES
APPD. BY	CHD. BY	PREP. BY

**6.0 INSPECTION:**

- (a) Sampling Plan for Dimensions as per I.S. 2500 Part-I to its latest revision, GIL-II.
- (b) Acceptance level A.Q.L. 10.
- (c) Sampling Norm for Performance Test.

Lot Size	Samples
$\leq 100$	2
$\geq 100 \leq 500$	4
$> 500 < 1000$	8

**Acceptance Criteria on Practical Test:**

- 1) The Samples as drawn as per the above Table are fitted to the high cycle Grinding Machines upto 25 Nos. of BOX 'N' Wheels should be ground for each Wheel to a maximum depth of 35 mm.

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<i>(Signature)</i>	<i>(Signature)</i>	<i>(Signature)</i>
DY. CME/V-II	W.M./MELT.	SUPDT./DES.
APPROVED BY	CHECKED BY	PREPARED BY

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