



Enabling Your Ideas

# Certificate of Inspection

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## PSG 612 Personal Surface Grinder

Serial Number:

**Made in China**

Tormach Inc.  
1071 Uniek Drive, Waunakee, WI 53597  
Phone: 608.849.8381 / Fax: 209.885.4534

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Specifications subject to change without notice.  
TD10220\_PSG612\_CertInspect\_0615A



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## Part A: Certification

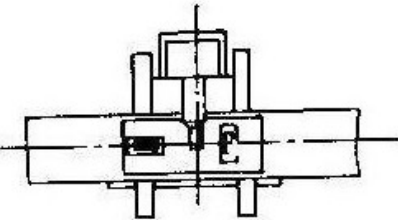
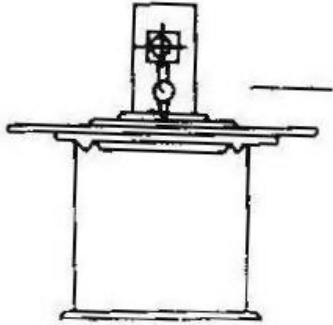
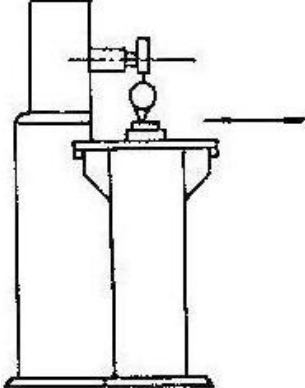
### Machinery Certification

| Title                     | Seal or Signature <sup>1</sup> | Date |
|---------------------------|--------------------------------|------|
| Inspection Director       |                                |      |
| Inspector                 |                                |      |
| Tormach QA Representative |                                |      |

<sup>1</sup>The above signatures certify this machine has passed all precision-inspection requirements and is approved for delivery. See attached inspection documentation.

## Part B: Quality Detail

### QA I: Precision Inspection

| No. | Inspection Sketch   | Inspection Item                                     | Allowable Error (mm)                       | Actual (mm) |
|-----|---|---|--|-------------|
| G1  |    | Flatness of table surface                           | <b>X-axis: 0.02</b><br><b>Y-axis: 0.02</b> |             |
| G2  |   | Parallelism of X-axis motion of table to wheel head | 0.015                                      |             |
| G3  |  | Parallelism of Y-axis motion of table to wheel head | 0.015                                      |             |



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## QA I: Precision Inspection

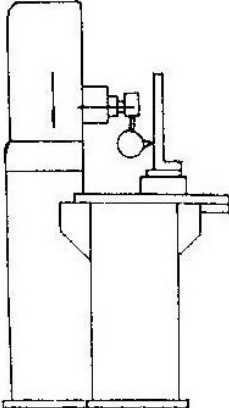
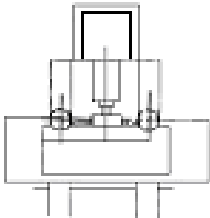
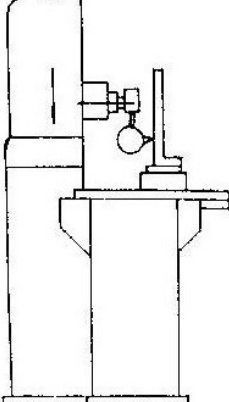
| No. | Inspection Sketch | Inspection Item                                       | Allowable Error (mm) | Actual (mm) |
|-----|-------------------|---|----------------------|-------------|
| G4  |                   | Parallelism of center T-slot to X-axis motion         | 0.03                 |             |
| G5  |                   | Perpendicularity of X-axis motion to Y-axis motion    | 0.04                 |             |
| G6  |                   | Wheelhead spindle runout, measured on tapered surface | 0.015                |             |
| G7  |                   | Axial movement of wheel spindle (i.e., end play)      | 0.015                |             |



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## QA I: Precision Inspection

| No. | Inspection Sketch   | Inspection Item  | Allowable Error (mm) | Actual (mm) |
|-----|---|--|----------------------|-------------|
| G8  |    | Parallelism of spindle rotational axis to table surface (6 o'clock and 12 o'clock positions) | 0.04/150             |             |
| G9  |   | Parallelism of spindle rotational axis to table surface (3 o'clock and 9 o'clock positions)  | 0.025/150            |             |
| G10 |  | Perpendicularity of Z-axis motion of wheel head to surface of the table in Y-axis direction  | 0.05/100             |             |



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## QA 2: Function/Appearance

| No. | Test Name            | Description   | Completed |
|-----|----------------------|---|-----------|
| T1  | E-stop Switch        | Check for function  |           |
| T2  | Wheel On Switch      | Spindle drive contactor opens when spindle access door is opened            |           |
| T3  | Spindle Direction    | Wheel spins in clockwise rotation   |           |
| T4  | Wheel Off Switch     | Spindle drive contactor opens when spindle lockout key switch is operated   |           |
| T5  | Start/Stop Switch    | Check for function  |           |
| T6  | X Proximity Switch   | Check for function  |           |
| T7  | Y Proximity Switch   | Check for function  |           |
| T8  | Mode Select Switch   | Check each mode for function  |           |
| T9  | Speed ↔ Switch       | Check for function  |           |
| T10 | Feed ↕ Switch        | Check for function  |           |
| T11 | Smooth Operation     | X, Y, Z and spindle operate smoothly and without unusual noise or vibration |           |
| T12 | T-slot of Work Table | Width of T-slot   |           |
| T13 | Safety Signs         | Safety sign 33061 has been installed  |           |
| T14 | Information Signs    | Decals are in correct positions   |           |
| T15 | Paint Quality        | Paint meets minimum quality requirements                                    |           |



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## QA 3: Packing List – Standard Accessories

| No. | Name <sup>1</sup>           | Quantity | PN    |
|-----|-----------------------------|----------|-------|
| 1   | Cabinet Key                 | 1        | —     |
| 2   | Balancing Arbor             | 1        | 35514 |
| 3   | Machine Foot Threaded Studs | 4        | 35561 |
| 4   | Diamond Dresser             | 1        | 35563 |
| 5   | Diamond Dresser Base        | 1        | 35564 |
| 6   | Machine Foot Pads           | 4        | 35562 |
| 7   | Grinder Wheel Hubs          | 1        | 33279 |
| 8   | T-slot Clamps               | 2        | 35558 |
| 9   | Adjustable Crescent Wrench  | 1        | —     |
| 10  | Open Ended Box Wrench       | 1        | 31838 |
| 11  | Spindle Wrench              | 1        | 35559 |
| 12  | Hex Wrenches                | 4        | —     |
| 13  | Adjustable Spanner Wrench   | 1        | 35560 |
| 14  | Screwdriver                 | 2        | —     |
| 15  | Hex Nuts                    | 4        | 35283 |
| 16  | Spindle Nut                 | 1        | 34049 |
| 17  | Touch-up Paint              | 2        | —     |

<sup>1</sup>These items are stored in the metal toolbox, located on the right side of the shipping pallet.

## QA 4: Packing List – Additional Items (only if purchased)

| No. | Name <sup>1</sup>        | Quantity | PN    |
|-----|--------------------------|----------|-------|
| 18  | Fine Pole Magnetic Chuck | 1        | 33210 |
| 19  | Chuck Wrench             | 1        | —     |

<sup>1</sup>These items are stored in the wooden box, located on the right side of the shipping pallet.