



## Job Estimating Tables

| Sample Fixed Provision Table |                        | Simple                                             | Average                            | Complex                                              |
|------------------------------|------------------------|----------------------------------------------------|------------------------------------|------------------------------------------------------|
| Task                         | Job paperwork          | normal work order, total downtime cost (TDC), etc. | PM checklist, etc.                 | Failure codes                                        |
|                              | Instructions           | up to 3 minutes                                    | approximately 5 minutes            | approximately 10 minutes                             |
|                              | Tools                  | normal - carried on belt                           | requires 3-4 from personal toolbox | special: ladder, drill, motor, torque wrench, etc.   |
|                              | Safety                 | normal                                             | permits                            | special precautions: rope off area, respirator, etc. |
|                              | Parts                  | none                                               | 1-5 different items                | 6 or more different items                            |
|                              | Sketches               | none                                               | simple                             | blueprints, electrical, schematics, etc.             |
|                              | Allowed time per craft | 5 minutes                                          | 15 minutes                         | 20 minutes                                           |

| Sample Travel Time Table |             | Round-Trip Travel Time |
|--------------------------|-------------|------------------------|
| Job Location             | Area A      | 0.25                   |
|                          | Area B      | 0.50                   |
|                          | Area C      | 0.75                   |
|                          | Area D      | 1.00                   |
|                          | Other Areas | 1.50                   |

| LABOR/MATERIALS/TOOLS LIBRARY |                           |                 |                        |                 |                |                 |     |
|-------------------------------|---------------------------|-----------------|------------------------|-----------------|----------------|-----------------|-----|
| Class 08 type 01              |                           |                 | GROTNES RIM ROLL 600   |                 |                |                 |     |
| Work Order                    | Division                  | Line            | Type of Work           |                 |                | Status          |     |
| Job:                          |                           |                 |                        |                 |                |                 |     |
| Number                        | Task                      | Labor Estimates |                        |                 |                |                 |     |
|                               |                           | Craft #1 (M/Hr) |                        | Craft #2 (M/Hr) |                | Craft #3 (M/Hr) |     |
| 10                            | Remove top hydrometer     | 2               | 2.00                   |                 |                |                 |     |
| 20                            | Remove top roll shaft     | 2               | 5.00                   | 1               | 0.5            |                 |     |
| 30                            | Remove top front trunion  | 2               | 2.00                   |                 |                | 1               | 0.5 |
| 290                           | Replace top front trunion | 2               | 2.00                   |                 |                |                 |     |
| 300                           | Replace top roll shaft    | 2               | 5.00                   | 1               | 0.5            |                 |     |
| 310                           | Replace top hydrometer    | 2               | 2.00                   |                 |                | 1               | 0.5 |
| Seq                           | Stk #                     | Qty             | Material Library       |                 | P/N            |                 |     |
| 1001                          |                           | 1               | Vickers Hydrometer     |                 | 45M110A-11C-10 |                 |     |
| 2001                          | 334663                    | 1               | G4-44 Roll Shaft       |                 | Same           |                 |     |
| 2002                          | 509055                    | 2               | T Roller Bearing       |                 | HJ-12415448    |                 |     |
| 2003                          | 334616                    | 2               | Grotnes Race           |                 | A-3058-107     |                 |     |
| 2004                          | 508604                    | 2               | Timken Cone            |                 | HM-926747      |                 |     |
| 2005                          | 508602                    | 2               | Timken Cap             |                 | HM-926710      |                 |     |
| Tools Library                 |                           |                 |                        |                 |                |                 |     |
| 2001                          |                           | 1               | 12 inch bearing puller |                 |                |                 |     |

| <b>Other Allowances Table</b> | <b>%</b>     | <b>Minutes</b> | <b>Simple</b> | <b>Average</b> | <b>Complex</b> |
|-------------------------------|--------------|----------------|---------------|----------------|----------------|
| Personal Time and Breaks      | 5            | 30             | 30            | 30             | 30             |
| Fatigue                       | 5-10         |                | 10            | 20             | 30             |
| Unavoidable Delay             | 5            | 20             | 20            | 20             | 20             |
| <b>Total</b>                  | <b>15-20</b> |                | 60            | 70             | 80             |
| Percent of Shift (8 hr)       |              |                | 15%           | 17%            | 20%            |