

Pareto Diagram

The Buggy Factory



Production Control Report.

The Buggy Factory Inc. is having a problem with the joint casting machine. The constant failure of this equipment is causing downtime and is believed that there is more than one reason for failure. Which one should be the first to be fixed by the maintenance manager?

From the Excel file, extract the major downtime classes. Use the reports from the last 8 days and build a Pareto diagram. Analyze the highest cause of lost time (minutes) and the highest in frequency (failure events).

Identify the 80/20 and conclude which issue should be pointed first and why.

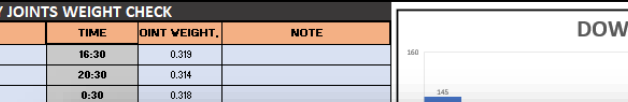
| OEE: | 49.7% | QUALITY: | 98.7% | PERFORMANCE: | 64.0% | AVAILABILITY: | 78.7% |
|---------------------------|--------------|----------|-------|--------------|-------|---------------|--------------|
| DAILY JOINTS WEIGHT CHECK | | | | | | | |
| TIME | JOINT WEIGHT | NOTE | TIME | JOINT WEIGHT | NOTE | TIME | JOINT WEIGHT |
| 6:30 | 0.319 | | 16:30 | 0.317 | | | |
| 10:30 | 0.313 | | 20:30 | 0.314 | | | |
| 14:30 | | | 0:30 | 0.311 | | | |
| AVERAGE, g | 0.315 | | | AVERAGE, g | | | |



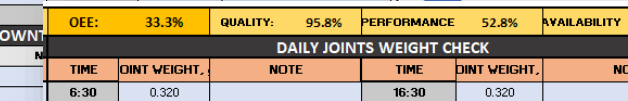
| DOWNTIME CAUSES | | AM | NOTES | TIME | JOINT WEIGHT | NOTE | TIME | JOINT WEIGHT | NOTE | | |
|--------------------------|--|----|---------------|---------------------------|--------------|--------------------------|-------|--------------|------|--|--|
| Lunch | | 30 | | 6:30 | 0.313 | | 16:30 | | | | |
| Breaks | | 30 | | 10:30 | 0.315 | | 20:30 | | | | |
| Planned Stop | | | | 14:30 | 0.315 | | 0:30 | | | | |
| Fire Drill | | | | AVERAGE, g | | | | | | | |
| Start Up | | 20 | | AVERAGE, g | | | | 0.314 | | | |
| Cone Jams | | 17 | | DAILY JOINTS WEIGHT CHECK | | | | | | | |
| Bucket Adjusting | | 20 | | TIME | JOINT WEIGHT | NOTE | TIME | JOINT WEIGHT | NOTE | | |
| Vibrator Issue | | | | 6:30 | 0.316 | | 16:30 | 0.319 | | | |
| Hard Reset | | | | 10:30 | 0.314 | | 20:30 | 0.314 | | | |
| Sensor Issue | | | | 14:30 | 0.309 | | 0:30 | 0.318 | | | |
| Twister | | | | AVERAGE, g | | | | | | | |
| Cylinder Clogs | | 20 | | AVERAGE, g | | | | 0.315 | | | |
| Product ChangeOver | | | | DAILY JOINTS WEIGHT CHECK | | | | | | | |
| Tear Down | | | | TIME | JOINT WEIGHT | NOTE | TIME | JOINT WEIGHT | NOTE | | |
| Other | | 20 | funnel change | 6:30 | 0.320 | | 16:30 | 0.320 | | | |
| TOTAL DOWNTIME (minutes) | | | | 157 | | TOTAL DOWNTIME (minutes) | | | | | |



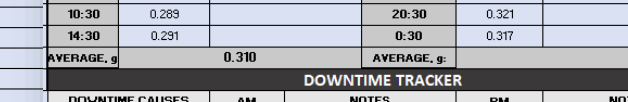
| | | | | | |
|--------------------------|--|-----|-------------------------|-------|-------|
| DOWNTIME CAUSES | | AM | NOTES | PM | NOTES |
| Lunch | | 30 | | 16:30 | 30 |
| Breaks | | 30 | | 20:30 | 30 |
| Planned Stop | | | | | |
| Fire Drill | | | | | |
| Start Up | | 34 | | | |
| Cone Jams | | 67 | | | |
| Bucket Adjusting | | 18 | | | |
| Vibrator Issue | | 4 | | | |
| Hard Reset | | 13 | | | |
| Sensor Issue | | 1 | | | |
| Twister | | | | | |
| Cylinder Clogs | | 13 | | | |
| Product ChangeOver | | | | | |
| Tear Down | | | | | |
| Other | | 110 | Axis Alarm Fault(5.25A) | | |
| TOTAL DOWNTIME (minutes) | | | | 334 | |



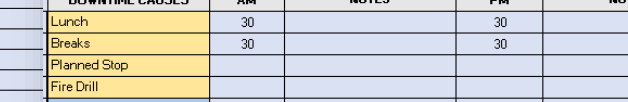
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|--------------------------|--|----|------------------------|-----|-----------------------|
| DOWNTIME CAUSES | | AM | NOTES | PM | NOTES |
| Lunch | | 45 | Installed White Blocks | 10 | |
| Cone Jams | | 26 | | 8 | |
| Bucket Adjusting | | 17 | | | |
| Vibrator Issue | | 8 | Lane 6 & 7 turned off | 5 | Swapped lane 1 funnel |
| Hard Reset | | 6 | | | |
| Sensor Issue | | 2 | | 12 | |
| Twister | | | | | |
| Cylinder Clogs | | 1 | | | |
| Product ChangeOver | | | | | |
| Tear Down | | 13 | | | |
| Other | | 85 | Converter b | | |
| TOTAL DOWNTIME (minutes) | | | | 300 | |



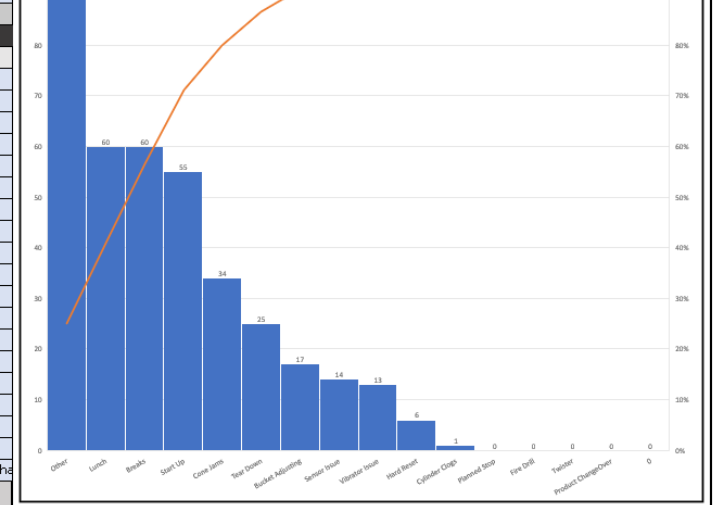
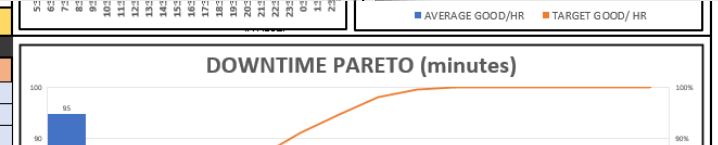
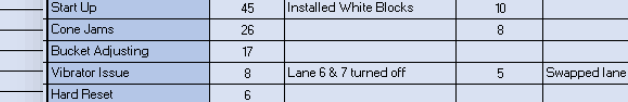
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|--------------------------|--|----|------------------------|-----|-------------------------------|
| DOWNTIME CAUSES | | AM | NOTES | PM | NOTES |
| Lunch | | 30 | | 30 | |
| Breaks | | 30 | | 30 | |
| Planned Stop | | | | | |
| Fire Drill | | | | | |
| Start Up | | 45 | Installed White Blocks | 10 | |
| Cone Jams | | 26 | | 8 | |
| Bucket Adjusting | | 17 | | | |
| Vibrator Issue | | 8 | Lane 6 & 7 turned off | 5 | Swapped lane 1 funnel |
| Hard Reset | | 6 | | | |
| Sensor Issue | | 2 | | 12 | |
| Twister | | | | | |
| Cylinder Clogs | | 1 | | | |
| Product ChangeOver | | | | | |
| Tear Down | | | | 25 | |
| Other | | 10 | | 85 | pressure error 19:30-20:30 Ch |
| TOTAL DOWNTIME (minutes) | | | | 175 | |



| | | | | | |
|--------------------------|--|----|------------------------|-----|-------------------------------|
| DOWNTIME CAUSES | | AM | NOTES | PM | NOTES |
| Lunch | | 30 | | 30 | |
| Breaks | | 30 | | 30 | |
| Planned Stop | | | | | |
| Fire Drill | | | | | |
| Start Up | | 45 | Installed White Blocks | 10 | |
| Cone Jams | | 26 | | 8 | |
| Bucket Adjusting | | 17 | | | |
| Vibrator Issue | | 8 | Lane 6 & 7 turned off | 5 | Swapped lane 1 funnel |
| Hard Reset | | 6 | | | |
| Sensor Issue | | 2 | | 12 | |
| Twister | | | | | |
| Cylinder Clogs | | 1 | | | |
| Product ChangeOver | | | | | |
| Tear Down | | | | 25 | |
| Other | | 10 | | 85 | pressure error 19:30-20:30 Ch |
| TOTAL DOWNTIME (minutes) | | | | 175 | |



| ATTENDANCE | | ATTENDANCE | |
|------------|-----------|------------|-----------|
| NAME (AM) | ID NUMBER | NAME (PM) | ID NUMBER |
| | | | |



SHIFT REPORT NOTES
Multiple loose buckets and saddles. Lost connection to lane 5. Lane 6 was shut off due to inconsistent vibrations.