

**ENHANCING EXECUTION READINESS AND ACHIEVING LEADTIME  
TARGETS IN KOMATSU HD785-7 HEAVY EQUIPMENT GENERAL  
OVERHAUL THROUGH DASHBOARD PREPARATION USING POWER BI**

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### STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.



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## ABSTRACT

### ENHANCING EXECUTION READINESS AND ACHIEVING LEAD TIME TARGETS IN KOMATSU HD785-7 HEAVY EQUIPMENT GENERAL OVERHAUL THROUGH DASHBOARD PREPARATION USING POWER BI

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This study aims to develop a monitoring dashboard for the General Overhaul (GOH) readiness of Komatsu HD785-7 units to achieve the execution lead time target of 14 days. The main issue addressed is the lack of integration in tracking the readiness of parts, major component, tools and manpower, resulting in frequent delays in GOH execution. Using the Waterfall system development model and Microsoft Power BI, the research designed a data visualization solution integrated with manual input from SharePoint. The implementation result show that readiness monitoring time was reduce from 7 days to just 2 days, significantly contributing to the achievement readiness of GOH. The system evaluation was conducted through a User Acceptance Test (UAT), with a conformity level above 63% based on user requirements, and through a User Experience Questionnaire (UEQ), which yielded a score greater than 1, indicating that the dashboard is considered effective and helpful in supporting users work. This system enhance efficiency, reporting accuracy and interdepartmental transparency.

*Keywords: General Overhaul, Power BI, Monitoring Dashboard, Lead Time, Execution Readiness*

## ABSTRAK

### ENHANCING EXECUTION READINESS AND ACHIEVING LEAD TIME TARGETS IN KOMATSU HD785-7 HEAVY EQUIPMENT GENERAL OVERHAUL THROUGH DASHBOARD PREPARATION USING POWER BI

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Penelitian ini bertujuan untuk mengembangkan dashboard monitoring kesiapan General Overhaul (GOH) pada unit Komatsu HD785-7 guna mencapai target lead time eksekusi maksimal 14 hari. Permasalahan utama yang dihadapi adalah tidak terintegrasinya proses pemantauan kesiapan part, komponen, tool, dan manpower, yang mengakibatkan keterlambatan pelaksanaan GOH. Dengan menerapkan pendekatan pengembangan sistem berbasis model Waterfall dan memanfaatkan Microsoft Power BI, penelitian ini merancang solusi visualisasi data yang terhubung dengan cara input manual pada SharePoint. Hasil implementasi menunjukkan bahwa proses monitoring readiness dapat dipangkas dari 7 hari menjadi hanya 2 hari, yang berdampak langsung terhadap keberhasilan pencapaian target lead time kesiapan GOH. Evaluasi sistem dilakukan melalui User Acceptance Test (UAT) dengan tingkat kesesuaian diatas 63% dari permintaan User, dan evaluasi melalui User Experience Questionnaire (UEQ) yang menunjukkan dengan nilai > 1 dan menunjukkan bahwa dashboard dianggap efektif dan membantu pekerjaan pengguna. Sistem ini juga mendukung peningkatan efisiensi, akurasi pelaporan, serta transparansi antar divisi.

*Keywords: General Overhaul, Power BI, Dashboard Monitoring, Lead Time, Kesiapan Eksekusi*



## LEMBAR PERSEMBAHAN

Saya mendedikasikan penelitian ini untuk perusahaan tercinta: PT. United Tractors,  
Tbk.



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