

**Specification & functional application requirement**

<u>Specification</u>		<u>Compliance</u>		
Module 1 : Asset Register		Comply	Not comply	Customization
1.1	General information to any asset and its sub asset and parts should be able to be blown up for searching the detail assy of the asset	Yes		
1.2	Parent-child relationship capability	Yes		
1.3	Asset transfer capability inclusive of history transfer	Yes		
1.4	Attachment of spare part to any individual asset	Yes		
1.5	Grouping sub-asset categories	Yes		
1.6	individual reporting to each sub-asset	Yes		
1.7	Asset display in treeview/listview	Yes		
1.8	Information tagging to asset	Yes		
1.9	Dynamic reading & status of asset lifespan	Yes		
1.10	Advice of asset reliability after consideration of dynamic parameter reading			Yes, but require more info. On advice or alert info.
1.11	Easy retrieval of asset history	Yes		
1.12	History search to any individual asset	Yes		
1.13	Notification of asset transfer information (notification delegation)			Yes, notification via email is available
1.14	Privilage of registering asset, maintaining asset information to dedicated personnel	Yes		
1.15	Incorporation of asset information including maintenance manual, maintenance interval, related drawing etc	Yes		
1.16	Tagging (in checklist format) of maintenance compliance of area done	Yes		
1.17	Prevention of wrong selection of parts during maintenance planning (parts ordering process)	Yes		
1.18	Ability to develop a guideline of troubleshooting method	Yes		
1.19	Notification of failure rate, failure symptom etc	Yes		
1.20	Update status of any asset for writing off process	Yes		
1.21	Privilage of modification of part specification,reorder level, update of tagged asset	Yes		
1.22	Privilage of registering new part to any individual asset	Yes		
1.23	Different authorization level based on roles	Yes		
<b>Module 2 : Requisition (Parts/RN and Jobs/EJO)</b>				
2.1	Ability to channel the requisition process to related authorized person	Yes		
2.2	Pre approving of requisition based on part interval, usage, tagged with correct asset & workorder, logic algorithm on asset utilization	Yes		
2.3	Quick reference of same part ordering to any other asset	Yes		
2.4	Parts due for replacement shall be automatically triggered for ordering with capability to accept or reject the process	Yes		

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2.5	Periodic parts ordering shall be made in template form with ability to accept/reject			Yes, our template form based in PR format
2.6	Parts ordering history with similar workorder shall be made as a template with notification of non-similar of qty ordering for fault confirmation			Yes, our template form based in PR format
2.7	For parts with periodic replacement type, notification for due shall be made with status tagged (high, medium, low) for alerting purpose	Yes		
2.8	Parts status shall be made live with related information be made easily accessible of ordering info, supplier info, delivery info etc	Yes		
2.9	Manual overriding of part requisition based on jurisdiction and condition	Yes		
2.1	Logic calculation for determining the parts' appropriate life expetency			Yes, but require the logic for calculation of life expetency like based on meter based or time based.
2.11	Limiting the wrong part ordering based on asset's parts tagging	Yes		
2.12	Balance of approved fund shall be made live viewable	Yes		
2.13	Ability to indicate failure symptoms, failure effect and individual failure rate for all parts with option to suggest remedial action to prevent same failure from happening again	Yes		
2.14	Force escalation of parts ordering process to higher approving authority when deemed necessary	Yes		
2.15	Each parts ordering must be tallied with correct asset and correct workorder	Yes		
2.16	Higher approving authority can counter check with his subordinate of the need of more information required in approving the related order within the system itself	Yes		
2.17	Parts warranty checking incorporation	Yes		
2.18	Each ordering shall be uniquely numbered	Yes		
2.19	Data mining process of searching parts ordering history and status tallied with related workorder must be made in easy way	Yes		
2.2	Draft template prior to submission of ordering for approval	Yes		
2.21	Printing capabilities at every page & process	Yes		
2.22	General Microsoft Office application's functions must be made possible for use such as COPY, PASTE, UNDO, etc	Yes		

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2.23	Capability to export the data at every process in WORD & EXCEL format	Yes		
2.24	List of requisition waiting to be approved shall be made option of list view and cost related and can be counter-checked with the requisition page related.	Yes		
2.25	Every part's requisition shall be with related job order and asset related for ease of verification. However, the ordering may not be tallied to any job order as to cater for advance ordering purposes. This feature shall be made available with related approval.	Yes		
2.26	Related invoice for verification shall have the following information (but limited and may be top-up with other user requirement): a. Job ID related b. Summary of cost c. Particulars of parts invoiced d. Supplier's particulars e. Warranty information f. Others	Yes		
2.27	For EJO page, every job shall have adequate information for future reference such as: a. Asset / sub asset ID related b. Work scope related c. Appointed party to execute the job d. Payment details e. Conditional job verification f. Requestor of the EJO	Yes		
2.28	All parts (RN) or job (EJO) that ordered on advance (without any specific job order yet) shall be manually transferred to any specific job order as to tied up the advance order for compilation	Yes		
2.29	Update pf actual balance of fund shall be made possible	Yes		
2.3	Auto generation of ordering to pre-registered parts whenever user selected of "template type" work order with manual intervention	Yes		
2.31	Assistance in providing annual usage of parts for budgetting purpose	Yes		
2.32	Ordering of parts shall be tagged with status or urgency (high, intermediate, low, etc)	Yes		
2.33	Invoice verification shall be tallied up with related workorder	Yes		
<b>Module 3: Manpower</b>				
3.1	Status of staff shall be made possible with integration from main HR system	Yes		
3.2	Auto calculation of staff's work load with weekly summary of work done	Yes		
3.3	Work order planning must be made in ease with list of available workforce	Yes		

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3.4	Assignment of work to staff shall be in auto mode using mobile functionality (sms)			<b>Yes, but done in email functionality to save customer cost of sms</b>
3.5	Staff's overtime claim shall be validated with proper work order	<b>Yes</b>		
3.6	Table of daily workload shall be easy viewable for click & drop to related workorder	<b>Yes</b>		
3.7	Summary of workload (including contractor's workload) shall be made easy for viewable	<b>Yes</b>		
<b>Module 4: Work order</b>				
4.1	Act as the main page			<b>Yes, but require more info of meaning act as main page</b>
4.2	Desktop view shall be configured based on roles	<b>Yes</b>		
4.3	History of repair shall be made in most easy way for retrieval for every asset and sub asset	<b>Yes</b>		
4.4	Only registered asset shall be validated for any maintenance work	<b>Yes</b>		
4.5	Work order can be manually registered or can be auto generated from planning or tasklist	<b>Yes</b>		
4.6	Other data validation from other module of other department's system or internal system shall be validated through this module	<b>Yes</b>		
4.7	Combination of data shall be viewed through this module	<b>Yes</b>		
4.8	Information tab for any enquiry of requisition, manpower, planning or others shall be made easy with single click of page opening	<b>Yes</b>		
4.9	Summary of workorder should be made available for easy viewing	<b>Yes</b>		
4.1	Individual history or particular of update unique to any asset should be made possible	<b>Yes</b>		
4.11	Validation of activation of workorder shall be made possible when each requirement of triggering the workorder is fulfilled (manpower, parts, services, machine availability etc)	<b>Yes</b>		
4.12	Downtime calculation shall be auto generated with manual intervention	<b>Yes</b>		
4.13	Statistic generation shall have all detail particulars and should be able to be retrieved in most easy way	<b>Yes</b>		
4.14	Counter checking to other information shall be made easy	<b>Yes</b>		
4.15	Information related to machine's condition shall be traced and analysed for calculation of any parts replacement requirement	<b>Yes</b>		

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4.16	Utilization shall be calculated from this module	Yes		
4.17	any essential data that need to be keyed in must be mandatory and alert of non compliance to the system's requirement shall be made available	Yes		
4.18	Verification of any event shall be way of securing the data from any modification or alteration of record as to ensure data security. Verification shall be from selected user only and can be manually unlocked via special grant from immediate supervisor. However, verification of job shall only be done if these conditions (not limited and may be expanded depending to administrator selection) are fulfilled: a. Correct hourmeter reading b. Correct input of work done c. Correct asset/sub asset related d. All parts have been verified for received e. All EJO have been verified to be completed	Yes		
4.19	Sub asset related to any event can be selective depending to area of work. The selected area of sub-asset shall be tallied with screened parts requisition (if any). Sub asset selection shall be made ease with treeview type selection or listdown selection.	Yes		
4.2	History of work may be tallied with capability of time prediction (keyed from planning module) and may be equipped with alarm capabilities reminding user of time lapse.	Yes		
4.21	Customised alarm type for any type of reminder, such as periodic unclosed job, periodic parts requisited, etc	Yes		
4.22	Security function such as auto lock shall be made possible	Yes		
4.23	Navigation window for past activities to all assets/individual related asset shall be viewable in most easy way for reference	Yes		
4.24	Intelligent notification of similar event of work to any individual asset triggered in predetermined period shall be made possible	Yes		
4.25	Search options shall be made available whereas history check on each particular asset/sub asset can be made with search of key word and area in detail with the extended ability to search similar job to other asset/sub asset.	Yes		
4.26	In order to search similar repair history to any individual asset/sub-asset, search capabilities to seek similar work must be made available with range of all asset/sub-asset.	Yes		
4.27	List of information view shall be privilaged depending to JPB structural hierarchy and roles	Yes		
4.28	Correspondence to other system/department shall through this module	Yes		
<b>Module 5: Planning</b>				

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5.1	Tasklist shall be in list view	Yes		
5.2	Auto generated of tasklist based on periodic and condition of asset with manual intervention	Yes		
5.3	Click & drop function of tasklist for selection into workorder	Yes		
5.4	Daily notification of unsettled works	Yes		
5.5	Auto generated parts due for replacement with option for auto generation of ordering	Yes		
5.6	Assistance in predicting periodic parts usage/ordering	Yes		
5.7	Assistance in predicting cost incurred for pre-registered workorder	Yes		
5.8	Incorporation of the need of work based on asset's condition & failure symptoms	Yes		
5.9	Notification of requirement of machine release	Yes		
5.10	Forwarding of unsettled works to future tasklists			Yes, but require more info on this
5.11	Reconfiguration of tasklist for arrangement in maintenance calendar	Yes		
5.12	Maintenance calendar configuration as required in weekly, monthly, yearly format	Yes		
5.13	Prediction of asset downtime for compilation of workorders	Yes		
5.14	Assistance of preparing annual/monthly budget with predetermined period of time in term of cost, downtime and workforce	Yes		
<b>Module 6: Budget</b>				
6.1	Ability to predict cost incurred for general maintenance including parts replacement, labour supply others within given period of time	Yes		
6.2	Online monitoring of expenses incurred	Yes		
6.3	Differential of cost centres with online actual usage	Yes		
6.4	To provide timely cost forecast based by planning module and opt for previous cost incurred trend	Yes		
6.5	Prediction of crane unavailability for operation and advice of such results	Yes		
<b>Module 7: Report</b>				
7.1	Reports may be in the form of generated data or acquired data	Yes		
7.2	Ability to automatically generate maintenance performance report (KPI) on real time basis (cost, downtime, maintenance, breakdown, reliability, availability, utilization, mean time between repairs, mean time to repair) by sub-asset, main asset, group, etc.	Yes		
7.3	To provide specific & typical reports for each module with a view to improve performance.	Yes		
7.4	Ability to present the generated report in chart/graph form	Yes		
7.5	Ability to provide customizable report to adapt current demand.	Yes		

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7.6	Ability to manipulate the data for trending and forecasting purposes	Yes		
7.7	Ability to export the report in common Microsoft Office application (Word, Excel, Excess etc) and pdf form	Yes		
7.8	Single click of information details in mining the basis of data reported	Yes		
7.9	Manual intervention of additional data required during report generation	Yes		
7.10	Report generation shall be made ease with click & drop function	Yes		
<b>Module 8: Administration</b>				
8.1	Data entered shall be secured	Yes		
8.2	Page refresh rate shall be adequate for the data entry process	Yes		
8.3	Auto lock mechanism shall be made available	Yes		
8.4	Ability to select database source for reference	Yes		
8.5	Every verification of any work shows sign of locking mechanism of the work and no such modification of the record are allowed. However if any need to unlock the record, permission from the administrator is needed	Yes		
8.6	Computer to scan the system and suggest actions to be taken	Yes		
8.7	Prevention of wrong data input	Yes		
8.8	Mandatory data key-in (essential information)	Yes		
8.9	Pop-up message function	Yes		
8.10	Ability for mobile approval via email/SMS etc			Yes, but require more info on what mobile devices they used
8.11	Computerized conditional approval with manual configuration	Yes		
8.12	M&R can be managed via remote access	Yes		