



WHY - WHY ANALYSIS SHEET

Breakdown, physical phenomenon					
What is your final action?					
<input type="checkbox"/> In case of spare-part replacement	Describe Countermeasure				
<input type="checkbox"/> In case of spare-part no replacement					
	Why did you take above action	Due to			
Why 1					
Why 2					
Why 3					
Why 4					
Why 5					
* Root cause is one of the following 5 items		JH	PM	Design	E&T Skill
(1)	<input type="checkbox"/> Poor basic Condition				
(2)	<input type="checkbox"/> Poor operating Condition				
(3)	<input type="checkbox"/> Deterioration				
(4)	<input type="checkbox"/> Weak Design				
(5)	<input type="checkbox"/> Poor Skill				
(Note : Please fill up this form in pencil immediately after m/c is started)					
Kaizen Idea and schedule					





BREAKDOWN MAINTENANCE REPORT

Department				Report No.		
Section				Date		
Line				Section Manager	Cell Leader	Prepared By
Equipment						
Occurance	Repeat <input type="checkbox"/>	First Time	<input type="checkbox"/>			
Date & Time B/D Occurred				Date & Time of Equipment Started		
Production Code	01 Production Stopped <input type="checkbox"/>	02 Production not Stopped <input type="checkbox"/>	Production Stoppage time	HRS	Min	
Phenomenon / Condition	(Where and what condition ? illustrate if possible)					
Cause, action. Countermeasure	(How repaired, why it occurred and what has to be done in future, Describe as much as possible)					
Maintenance Cost	Replacement Part Cost (Rs.)	In-House Man-days	Hrs Min	Subcontractor Cost (Rs.)		
Opportunity Loss	(Ton, Kg, Pcs)					
Area Code and Failure Code	<u>Area Code</u>	<u>Failure Code</u>	<u>Failure Code</u>			
	A01 Mechanical A02 Electrical A03 Electronic A04 Hydraulic A05 Pneumatic A06 Lubrication A07 Coolant A08 Refrigeration A09 Instrumentation A10 Heating	F09 Crack F10 Bend F11 Damaged F12 Tight/Rusty/Jam F13 Disengaged F14 Entangled F15 Deterioration F16 Dry Solder F17 PCB Failure F18 Burnt F19 Setting Error F20 Operating Error F21 Misalignment F22 Accident F23 Short Circuit F24 Open Circuit F25 Pressure Drop F26 Blw Off	F29 Poor contact F30 Poor Insulation F31 Tripped F32 Power Failure F33 Wire broken F34 Air Lock F35 Poor Adjustment F36 Noisy F37 Low level F38 Wrong Wiring F39 Slip F40 Earthing F41 M/C Level F42 F43 F44 F45 ---			
	<u>Failure Code</u> F01 Clogged F02 Broken F03 Leak F04 Lack of lubrication F05 Abnormal Condition F06 Irregular Temp					

F06 Irregular Temp.
F07 Loose
F08 Wear

F26 Blw Off
F28 Program Corrupt

F45
F46
F47



WHY - WHY ANALYSIS

Example 1		
Cylinder Does Not Operate Smoothly		
Question	Answer	
What is Your Final Action	Cleaning Strainer	
After Cleaning Strainer, Is it OK	Yes	
WHY	ANSWER	ACTION
Why did you clean strainer	Strainer was clogged	Clean Strainer
Why Strainer was Clogged	Oil was Dirty	Drain Oil and Clean
Why Oil was Dirty	Dirt entered the tank	Prevent Scattering of chips and cutting fluid
Why does dirt get in	Upper plate of tank has hole and gap	Plug hole and gap
Why was hole made	Repair error during maintenance work	Standardise repairs
Example 2		
Oil leaks from cylinder rod each time it operates		
Question	Answer	
What is Your Final Action	Replacing the o-ring	
After replacing the o-ring is it OK? (no more leak/)	Yes	
WHY	ANSWER	ACTION
Why did you replace o-ring	o-ring cut	o-ring changed
Why o-ring out?	rod has scratch	scratch removed
why rod has scratch	chips were scattered and attached to rod	measures taken to prevent chips from scattering
Why chips were attached on rod	Cylinder located within scattering range of chips and rod cover is not plaed	cylinders position changed and cover fixed

Why cylinder located within scatterign range of chips and rod cover not replaced	defective design and installation	standard design and installation
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