

XF1F1 LOW HARDNESS

Action Plan

CONDITIONS FOR OCCURRENCE

● **Phenomenon:** LOW HARDNESS

- **Supplier:** Endurance Technologies Ltd.
- **Model:** XF1F1
- **Parts name:** Front Fork
- **Part No.:**
- **Date of Occurrence:** 06.09.2024
- **Qty NG:** 40 Nos

● Parts Stock check results


Action

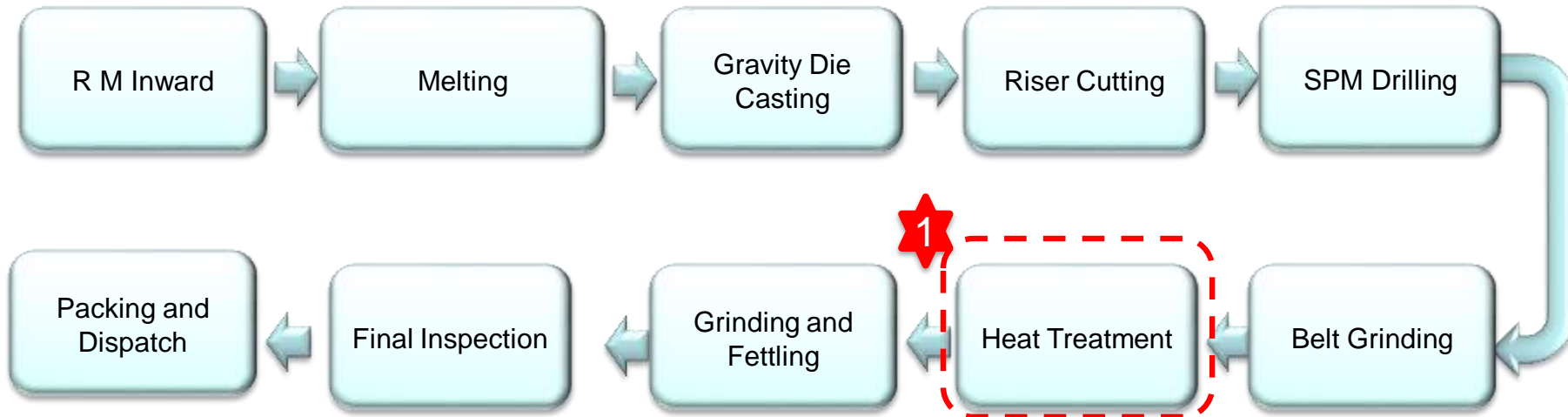
Trouble content



Area	Total Stock	Checked	Checking Method	NG Qty	Status
Dekson Casting Ltd	50	50	By Hardness Tester	0	All available stock qty. verified & found NG
ETL	40	40	By Hardness Tester	240	

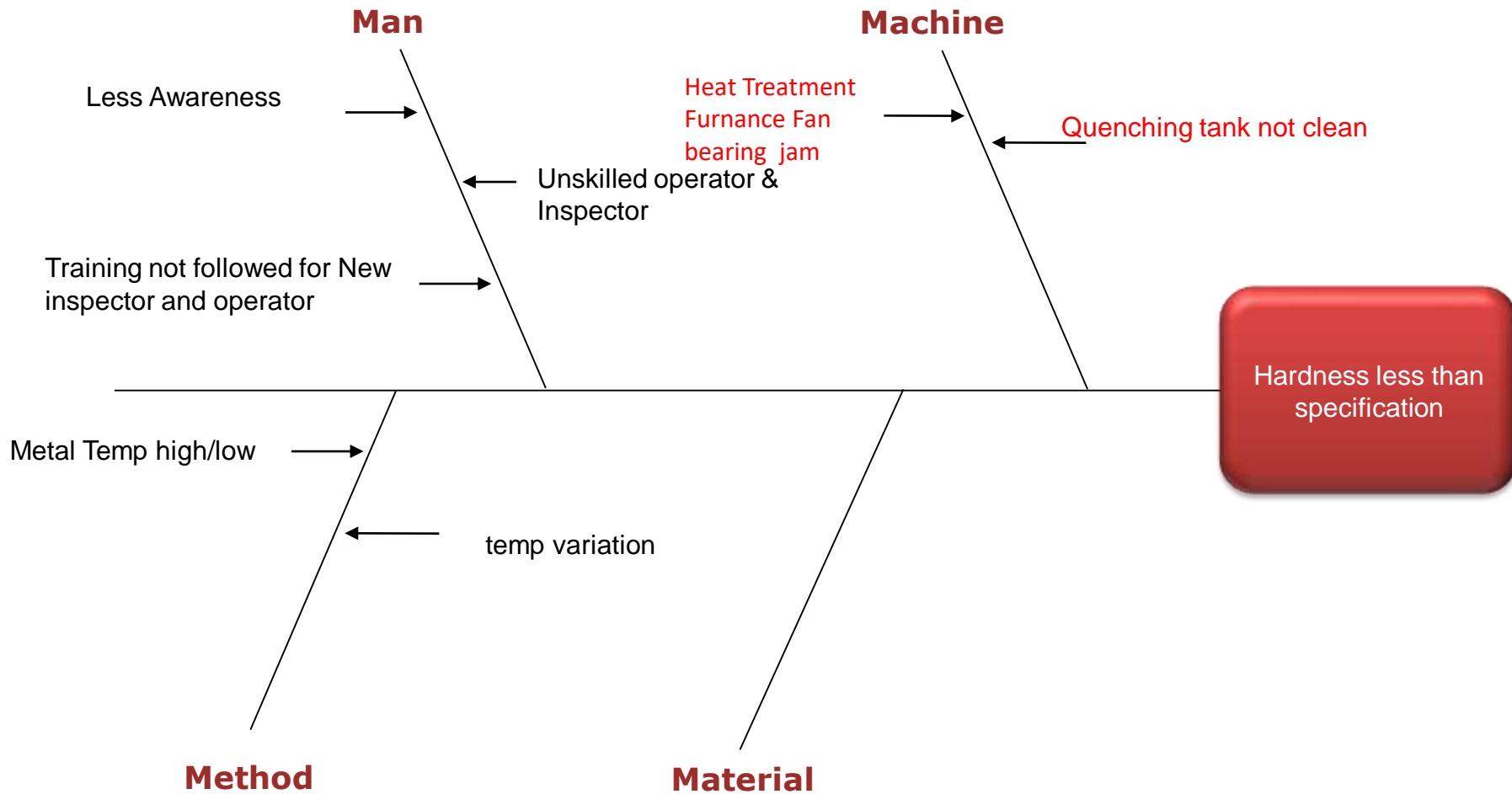
Process Flow

 Possible defect occurrence area.



UNDERSTANDING OF ACTUAL CONDITION

• Understanding the actual cause – (Factor analysis)



FACTS VERIFICATION



SR NO	4M	PROBABLE CAUSES	FACTS VERIFICATION	Judgment
1	MAN	Less Awareness	verify Awareness of operator and found Not Ok	○
		Unskilled operator & Inspector	Verified skill level of Inspector & found Ok as per the skill matrix	○
		Training not followed for New inspector and operator	Verified training record and work procedure for inadequacy while appointing new inspector and found Ok.	○
2	MACHINE	Fan bearing not ok Quenching tank not clean	Heat Treatment Furnance Fan bearing jam & Also Monthly cleaning tank frequency.	X
3	METHOD	temp High/low	temp check found ok	○
		Die temp variation	Die temp check found ok	○






ROOT CAUSE ESTABLISHMENT

(WHY-WHY ANALYSIS)

- **Root cause establishment (Why-Why Analysis)**

	WHY – 1	WHY- 2	WHY -3	WHY-4	Why-5
Occurrence	Hardness less than specification	Heat Treatment Furnance Fan suddenly Off & Quenching tank not clean,	Furnance Fan bearing jam	air circulation not proper	
Outflow	Hardness less than specification	Not detected in Inspection	Inspection done on sampling basis	-	-

COUNTERMEASURES

	Cause	Countermeasure	Tgt. Dt.	Status
Supplier End	<Occurrence >	<ul style="list-style-type: none"> 1.Fan Bearing changed & its Life monitoring started. 2. Fan check point added in heat Treatment WI. 3. Water tank cleaning frequency changed to weakly. 4. Tank cleaning check point added in heat Treatment WI.  	15.09.2024	Completed 
Supplier End	<Outflow>	Checking Hardness in every Lot after Heat Treatment.	15.09.2024	Completed 
ETL End	<Outflow>	Start inspection in every lot.	15.09.2024	Completed 

Shop: GDC

Operation: Pouring

Implementation Date: 15.09.2024

BEFORE



AFTER



Low Hardness
85 BHN

Hardness OK
105 BHN

