

FIELD SERVICE / HYDRAULICS

TECHNICAL EVALUATION REPORT

PARKER HYDRAULIC PUMP

Model PV063R9K1T1NMFCK0424

CEMENT PLANT CLIENT / MAINTENANCE

Site visit / 9 September

ISO 9001:2015 · ISO 14001 CERTIFIED · ISO 45001 CERTIFIED

PMS / TECHNICAL SERVICES

RECEIVED EQUIPMENT DATA

MANUFACTURER

PARKER HANNIFIN

PMDE — Chemnitz
Made in Germany

TYPE / MODEL

PV063R9K1T1NMFCK0424

SERIES 4545 / CODE LM

RATED PERFORMANCE

53 cm³/U **NOMINAL DISPLACEMENT**	**63** cm³/U **MAXIMUM DISPLACEMENT**
350 bar **P MAX**	**420** bar **p MAX**
2800 U/min **MAXIMUM SPEED**	**SN-SAMPLE-01** **SERIAL NUMBER**

Hydraulic pump — received for technical evaluation

RECEIPT & IDENTIFICATION RECORD

PROJECT / SITE

CEMENT PLANT

Department: Maintenance
Date of visit: 9th of September
Received by: PMS Engineer
Delivery note: N/A
PO number: N/A

ITEM DESCRIPTION

HYDRAULIC PUMP

Service state: Used
Quantity: One pump
Condition: Used, weathered; requires evaluation

NAMEPLATE

Parker Hannifin / PMDE — Chemnitz
Germany

IDENTIFICATION

Model / Type: PV063R9K1T1NMFCK0424
Serial number: SN-SAMPLE-01
Series / Code: 4545 / LM



RECEIVED CONDITION



PUMP BODY

INITIAL INSPECTION CHECKLIST

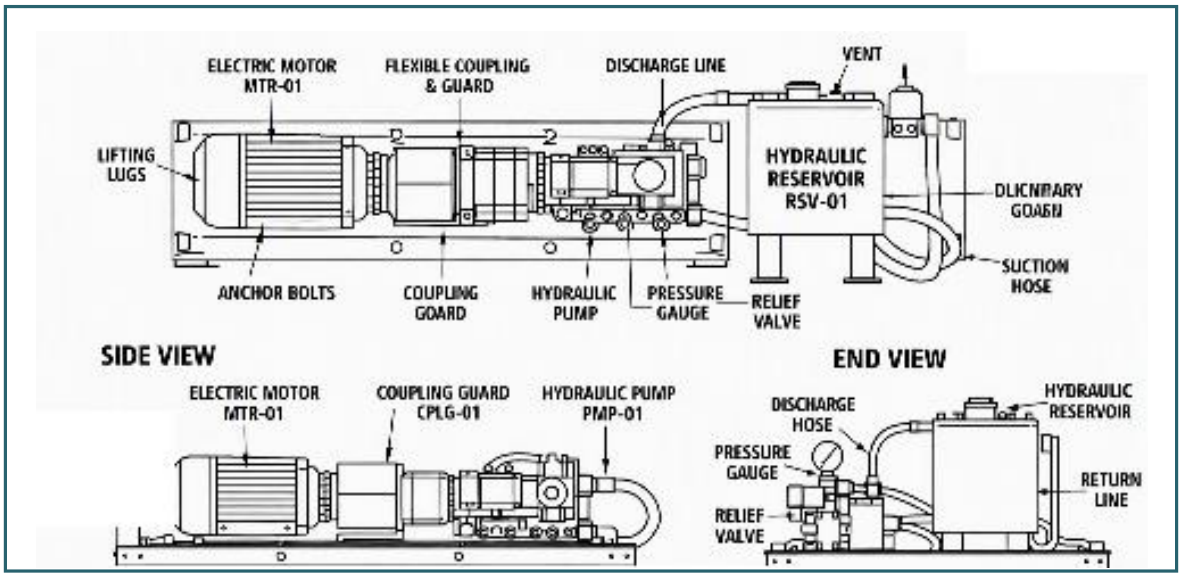
Inspection item	Status	Observation
Packaging intact	NOT INTACT	No packaging; stored openly on pallet.
Correct labeling	PRESENT / DIRTY	Labels remain readable despite dirt.
No cracks / dents	DAMAGE OBSERVED	Multiple dents and scratches.
No corrosion	CORROSION PRESENT	Rust and oxidation on several surfaces.
No missing parts	UNVERIFIED	Missing bolts / fittings; completeness unconfirmed.
Dimensions correct	ACCEPTABLE	Consistent with standard pump geometry.

FUNCTIONAL CONDITION REMAINS UNCONFIRMED

The pump shows significant wear: corrosion, dents, missing or unverified components, and no preservation or protective packaging. It appears to have been stored outdoors and exposed to environmental conditions. Labeling is present but contaminated; functional testing is required.

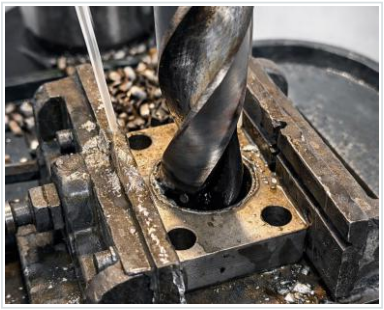
NEXT STEP / COMPLETE FUNCTIONAL TESTING

CUSTOM-BUILT HYDRAULIC PUMP TEST SKID



FABRICATION / TEST

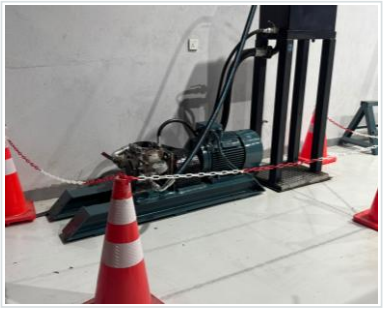








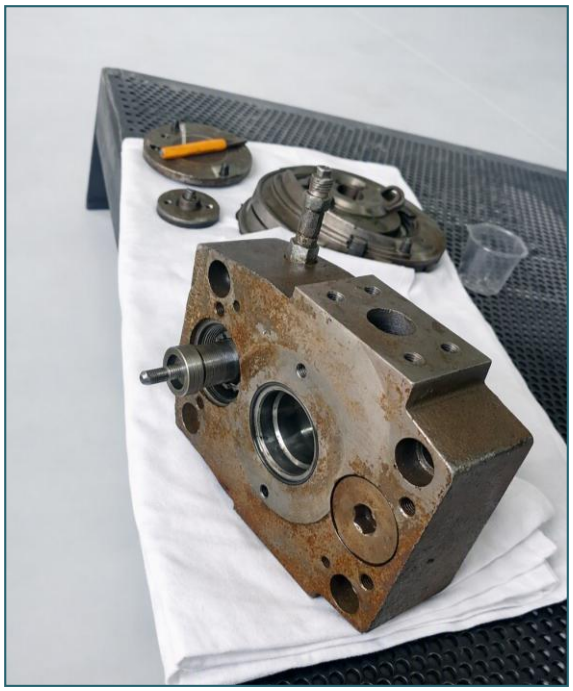




NEXT STEP COMPLETE FUNCTIONAL TESTING

CLEANING

The pump was dismantled for internal technical assessment and evaluation.



ASSESSMENT VIEW 01



ASSESSMENT VIEW 02



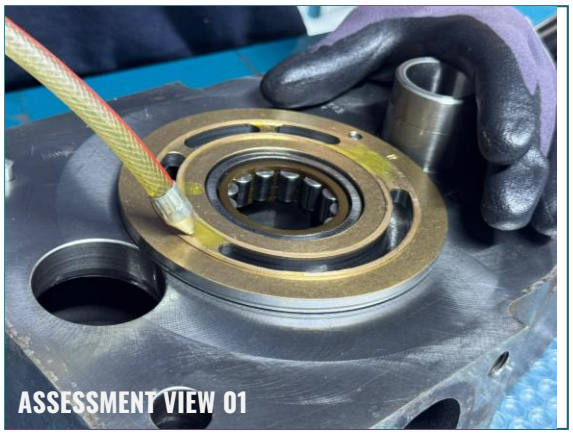
ASSESSMENT VIEW 03



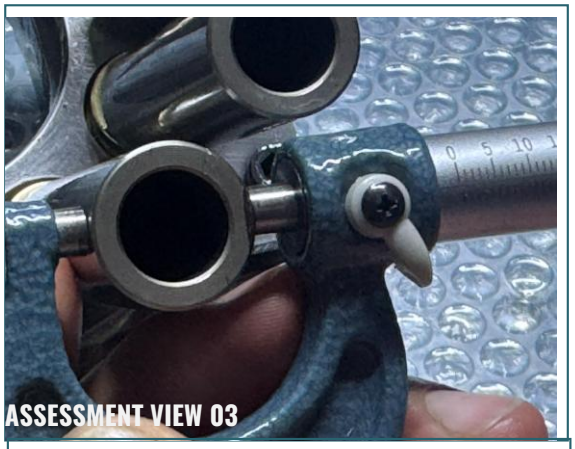
ASSESSMENT VIEW 04

TECHNICAL ASSESSMENT

The pump was dismantled for internal technical assessment and evaluation.

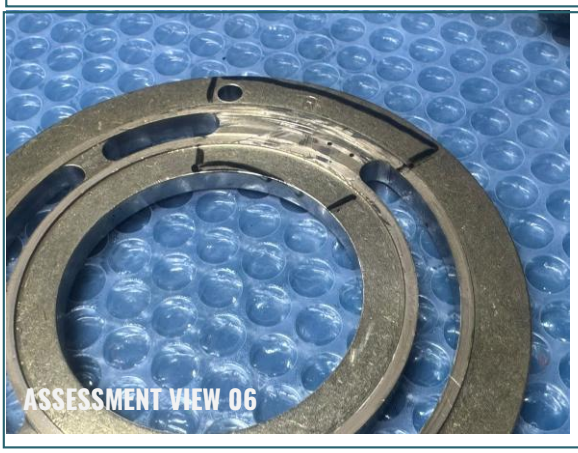

ASSESSMENT VIEW 01


ASSESSMENT VIEW 02


ASSESSMENT VIEW 03


ASSESSMENT VIEW 04


ASSESSMENT VIEW 05

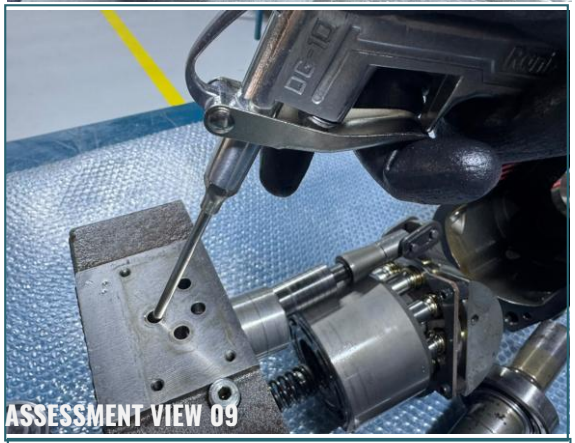

ASSESSMENT VIEW 06

TECHNICAL ASSESSMENT

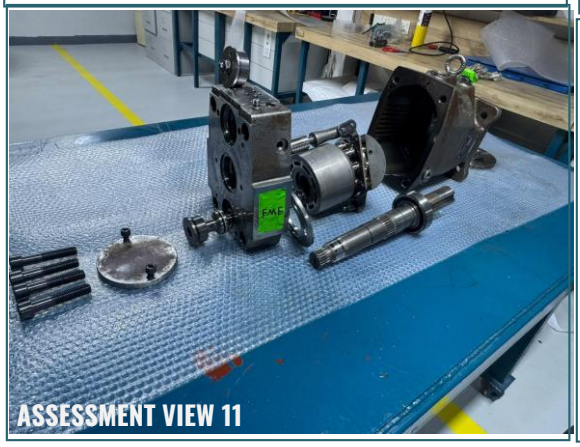
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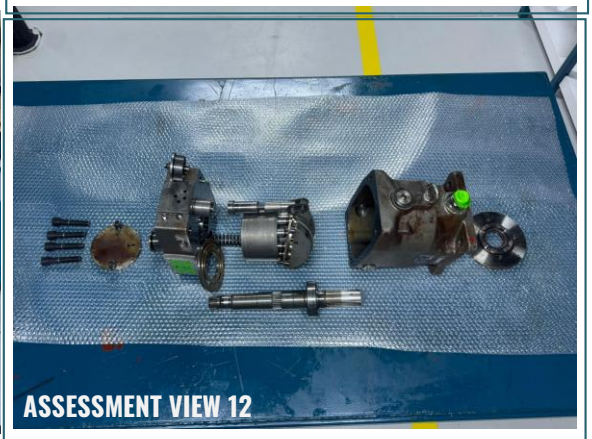

ASSESSMENT VIEW 07


ASSESSMENT VIEW 08


ASSESSMENT VIEW 09

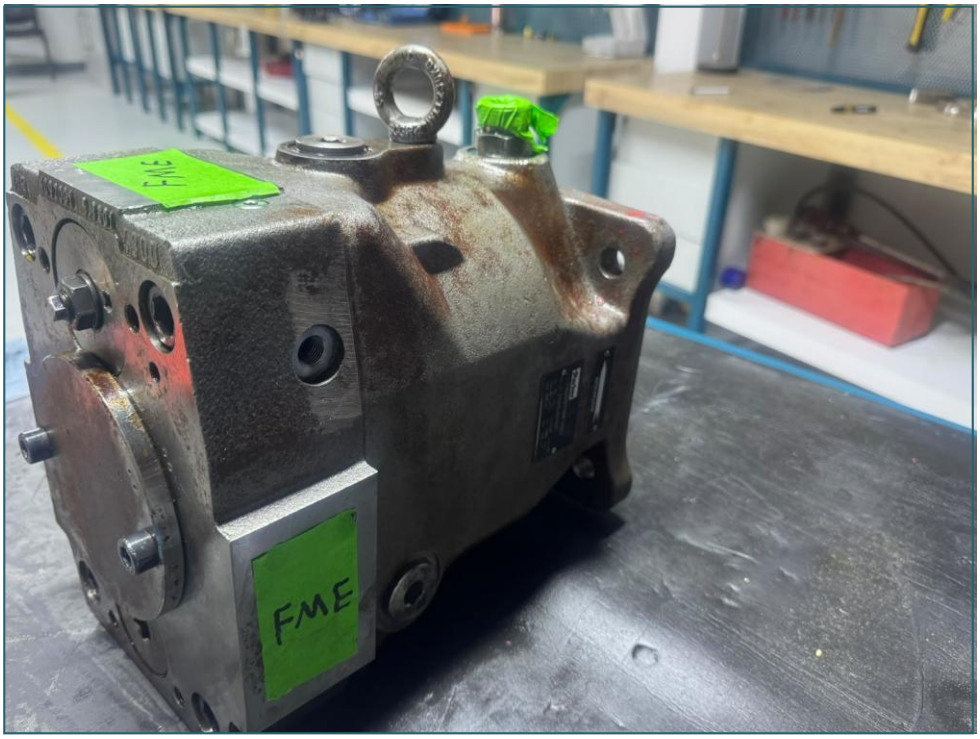

ASSESSMENT VIEW 10


ASSESSMENT VIEW 11


ASSESSMENT VIEW 12

ASSEMBLY





PRESSURE PERFORMANCE

AS RECEIVED

30 bar

LOW PRESSURE OUTPUT

AFTER SERVICE

>300 bar

PRESSURE CAPABILITY

ROOT CAUSE

Internal leakage in the rotating group—including piston–barrel wear, valve-plate scoring, and restricted control passages—combined with a malfunctioning regulator valve that prematurely destroked the unit.

RESTORATION & CONFIGURATION

Full dismantling, cleaning, and restoration of internal surfaces recovered sealing and mechanical efficiency. The regulator was temporarily repaired, eliminating the compensator's pressure-limiting function.

RESULT

The pump operated effectively and built pressure above 300 bar.

TECHNICAL CONCLUSION

The initial low-pressure condition was caused by internal wear, regulator malfunction, and a blocked port. Post-service performance resulted from restored internal sealing and repair of the pressure-control mechanism.

RECOMMENDATIONS

IMMEDIATE ACTION

01

Replace the compensator and regulator assembly

NEXT MAINTENANCE INTERVAL

01 BEARINGS

02 VALVE PLATE

Replace these components during the next planned maintenance interval.

QUALITY THAT SPEAKS

FIELD SERVICE / HYDRAULICS / TECHNICAL SERVICES



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