

CASE STUDY

NOV TDX-1250 Traveling Block Dolly

CAT IV Inspection, Structural Overhaul & Repair

Performed by: Loadmaster Industries, LLC | Broussard, Louisiana

Reference: FDR# 22165-001 through 22165-006

EXECUTIVE SUMMARY

Loadmaster Industries, LLC (LMI) was contracted to perform a comprehensive CAT IV inspection, structural repair, and complete overhaul of a NOV TDX-1250 Traveling Block Dolly that sustained significant operational damage. The dolly was transported to LMI's Broussard, Louisiana facility where LMI's engineering and fabrication teams executed a full disassembly, dimensional inspection, NDE testing, structural repair, and final reassembly — returning the equipment to full operational specification under a documented Findings and Disposition Report (FDR) process.

This case study demonstrates LMI's proven capability to manage complex heavy equipment overhauls involving structural fabrication, precision machining, line boring, hydraulic systems, NDE testing, and protective coating — all within compressed project timelines.

PROJECT OVERVIEW

Equipment	NOV TDX-1250 Traveling Block Dolly
Service Type	CAT IV Inspection, Structural Overhaul & Repair
Facility	LMI Broussard Facility — Broussard, Louisiana
FDR References	22165-001 through 22165-006
Final Coating	3-Coat Marine Paint System — Topcoat 6666 Yellow

SCOPE OF CAT IV INSPECTION SERVICES

Upon receipt at the LMI Broussard facility, the following baseline inspection services were performed prior to any repair activity:

- Unloading at LMI Broussard Facility
- Complete Disassembly of the Dolly Assembly
- Degrease, Power Wash, and Disposal of Waste Products
- Sandblasting of All Critical Welds
- Dimensional Checks performed across all major structural members
- Mechanical Inspection of all Bores and Pin Holes
- NDE (Non-Destructive Examination) Testing of All Critical Welds
- Documentation of All Findings for Client Review

FINDINGS & DISPOSITION REPORT (FDR) SUMMARY

Upon completion of the CAT IV inspection, LMI documented the following six (6) findings requiring corrective action. Each finding was assigned a formal FDR number and includes the identified deficiency, cause, and the repair action executed by LMI.

FDR #	Component	Finding / Deficiency	LMI Corrective Action
22165-001	Main Dolly Arm Pins	Pins found bent — (4) total affected	Replaced all four (4) machined pins with new
22165-002	Lower Arm Connection Padeyes	Padeyes bent; cracked welds identified. Internal damage found upon opening frame (gussets, 3" padeye connections)	Removed (4) damaged padeye plates; replaced with new. Repaired internal gussets & connections. Engineering/Drafting, Line Boring included
22165-003	Main Dolly Rest / Support	Rest tube bent and damaged	Removed and replaced (1) damaged rest/support tube; new material supplied
22165-004	Main Dolly Grease Manifold	Manifold found bent	Applied heat and repositioned manifold to correct geometry — labor only
22165-005	Hydraulic Valve Carrier Bracket	Carrier bracket bent	Applied heat and repositioned carrier bracket — labor only
22165-006	Upper Dolly Arm	Impact gouge identified on upper arm surface	Filled impacted area with weld deposit; ground flush to parent material — labor only

ADDITIONAL SCOPE OF SUPPLY

In addition to the six FDR repair items, the following materials, services, and inspections were incorporated into the overhaul to return the dolly to full operational specification:

- New replacement fasteners throughout
- New hydraulic and grease lines with stainless steel fittings
- Replacement of all carbon steel fittings with stainless steel fittings
- Cylinder function testing and evaluation
- Replacement of broken control valve section (new valve section supplied by client)
- Transducer evaluation — rig spares identified as contingency
- 3-Coat Marine Paint System — Topcoat 6666 Yellow applied to full assembly
- Final assembly and quality review
- Complete final documentation package
- Load-out onto client-supplied trucks at LMI Broussard Facility

PROJECT PHOTOGRAPHS

The following photographs were taken during the overhaul at the LMI Broussard facility, documenting the assembly, inspection, and repair process.

- Load-out onto client-supplied trucks at LMI Broussard Facility

Project Photographs

The following photographs were taken during the overhaul at the LMI Broussard facility, documenting the assembly, inspection, and repair process.



Figure 1 — Front view of the TDY-1250 Block Dolly following disassembly, inspection, structural repairs, and 3-coat marine paint application



Figure 2 — Side elevation view showing hydraulic cylinder, arm linkage assembly, and lower arm connection points during final assembly verification



Figure 2 — Side elevation view showing hydraulic cylinder, arm linkage assembly, and lower arm connection points during final assembly verification

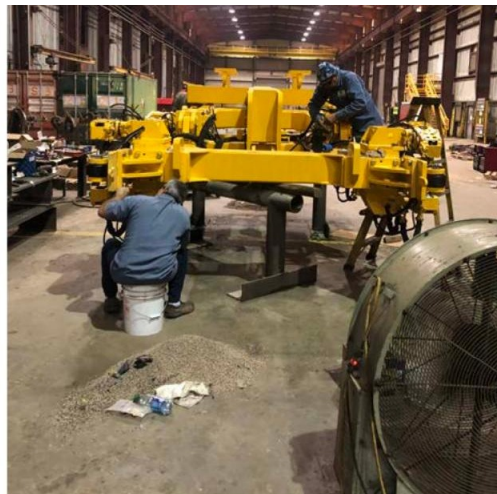


Figure 3 — LMI technicians performing final assembly and component integration at the Broussard facility prior to load-out

Figure 3 — LMI technicians performing final assembly and component integration at the Broussard facility prior to load-out

LMI CAPABILITIES DEMONSTRATED

This project highlights the breadth of Loadmaster Industries' in-house capabilities, including:

- Heavy equipment receiving, unloading, and transport management
- Full CAT IV inspection services including NDE, dimensional, and mechanical inspection
- Structural fabrication and repair — including complex internal frame repairs
- Precision machining and line boring
- Engineering and drafting services for repair documentation
- Hydraulic system service, testing, and new line fabrication
- 3-coat marine paint system application
- Complete documentation and FDR package delivery
- Coordination of client-supplied components (valves, transducers)
- Expedited load-out logistics on client-supplied transport

LOADMASTER INDUSTRIES, LLC

Broussard, Louisiana | Full-Service Heavy Equipment Overhaul & Inspection

For more information about our capabilities, please contact your LMI representative.

