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WORK DONE REPORT

Name of Vessel: MSC GIANNINA

IMO No.: 9141780

Equipment: MacGregor crane 45 T * 2 SET

Project: MacGregor crane maintenance service

Location: Dalian

Issued By: Ken Lee

Date: 20/11/2024

Issued by: Ken Lee

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Overhauling job for CRANE NO.1&2:

Work carried out:

1.1	Hydraulic pumps	Hoisting pump (each crane 2 sets) remove/refit, testing on board.
1.2		Hoisting pump (each crane 2 sets) overhauling in workshop, including disassembling, cleaning, inspection, renew seal kits, assembly, and test by test bench.
1.3		During test by test bench, carried out zero position calibration, differential valve setting, volumetric efficiency testing.
2.1		Luffing pump (each crane 1 set) remove/refit, testing on board.
2.2		Hoisting pump (each crane 1 set) overhauling in workshop, including disassembling, cleaning, inspection, renew seal kits, assembly, and test by test bench.
2.3		During test by test bench, carried out zero position calibration, differential valve setting, volumetric efficiency testing.
3.1		Slewing pump (each crane 1 set) remove/refit, testing on board.
3.2		Slewing pump (each crane 1 set) overhauling in workshop, including disassembling, cleaning, inspection, renew seal kits, assembly, and test by test bench.
3.3		During test by test bench, carried out zero position calibration, differential valve setting, volumetric efficiency testing.
4.1	Hydraulic motors	Hoisting motor (each crane 1 set) remove/refit, testing on board.
4.2		Hoisting motor (each crane 1 set) overhauling in workshop, including disassembling, cleaning, inspection, renew seal kits, assembly, and test by test bench.
4.3		During test by test bench, carried out volumetric efficiency testing.
5.1		Luffing motor (each crane 1 set) remove/refit, testing on board.
5.2		Hoisting motor (each crane 1 set) overhauling in workshop, including disassembling, cleaning, inspection, renew seal kits, assembly, and test by test bench.
5.3		During test by test bench, carried out volumetric efficiency testing.
6.1		Slewing motor (each crane 1 set) remove/refit, testing on board.
6.2		Slewing motor (each crane 1 set) overhauling in workshop, including disassembling, cleaning, inspection, renew seal kits, assembly, and test by test bench.
6.3		During test by test bench, carried out volumetric efficiency testing.
7.1	Brakes	Hoisting brake overhauling on board, including: renew seal kit, check brake disc condition.
7.2		Luffing brake overhauling on board, including: renew seal kit, check brake disc condition.
7.3		Slewing brake overhauling on board, including: renew seal kit, check brake disc condition.



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8	Gear boxes	Slewing gearboxes (each crane 3 sets) overhauling on board, including: renew seal kit, bolts, nuts, check inner parts condition.
9	Rubber hose renewal	All high pressure rubber hose have been renewed.

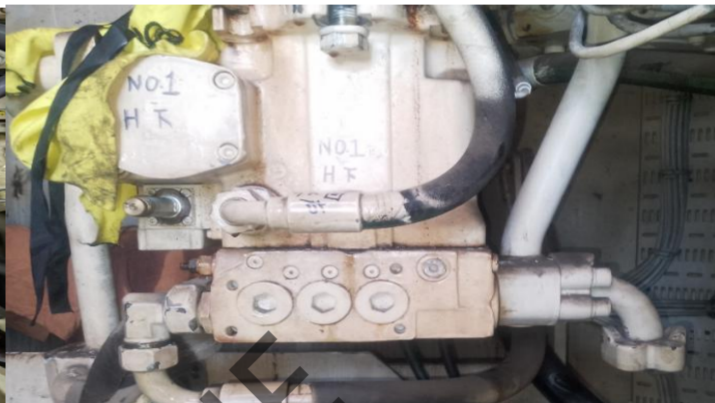
Required part list and spares for both crane NO.1 &2:

1	Hositing hydraulic pump seal kit: 2 sets *2 crane
2	Luffing hydraulic pump seal kit: 1 set *2 crane
3	Slewing hydraulic pump seal kit: 1 set *2 crane
4	Hositing hydraulic motor seal kit: 1 set *2 crane
5	Luffing hydraulic motor seal kit: 1 set *2 crane
6	Slewing hydraulic motor seal kit: 3 sets *2 crane
7	Hositing brake seal kit: 1 set *2 crane
8	Luffing brake seal kit: 1 set *2 crane
9	Slewing brake seal kit: 3 sets *2 crane
10	Slewing gearbox seal kit and bolts & nuts: 3 sets *2 crane
11	Rubber hose (only for high pressure pipeline):1 set *2 crane
12	Rubber hose for whole crane(as spare on boar):1set *2 crane

Working photos:



Made marks before dismantle the pumps to avoid wrong matching



Made marks before dismantle the pumps to avoid wrong matching



All hydraulic pumps and hydraulic motors well packed and tranfered to workshop



Overhaul the luffing motors in workshop



Overhaul the luffing motors in workshop



Overhauling in workshop



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Slewing motors after overhauling



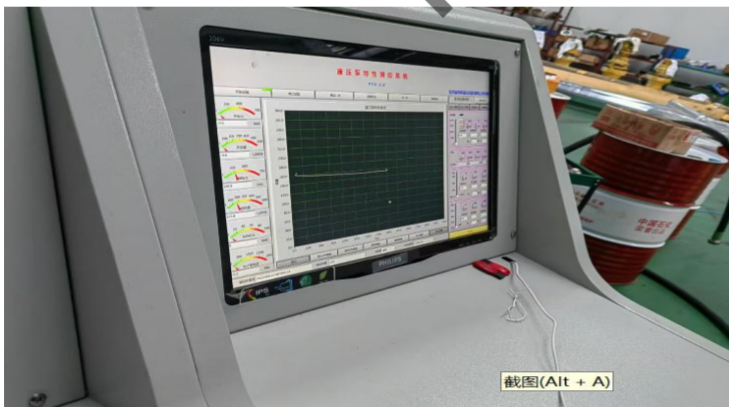
Overhauling in workshop



Overhauling in workshop



During testing



Hydraulic pump performance chart

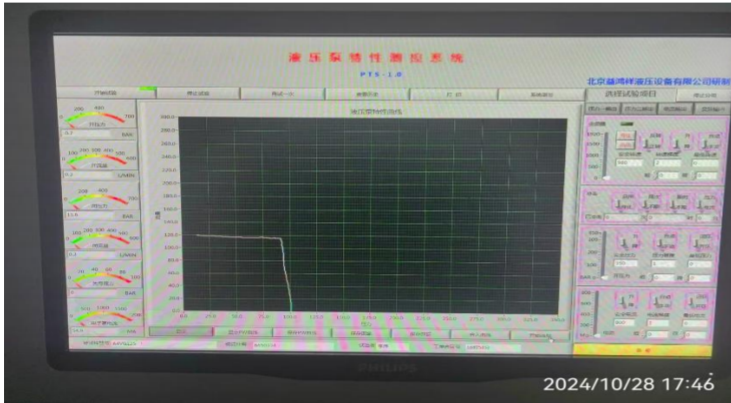


Slewing motors after overhauling



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Slewing hydraulic motor testing



Hoisting pump test by test bench



Test slewing hydraulic motor



New supplied SAE flanges, only split type



Hydraulic parts and rubber hoses well prepared



overhaul the gearboxes



overhaul the gearboxes



Transfer rubber hoses to crane housing



Transfer rubber hoses to crane housing



overhaul the gearboxes



overhaul the gearboxes



overhaul the gearboxes



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overhaul the gearboxes



Gearbox oil seal



overhaul the gearboxes



overhaul the gearboxes



Install slewing brake



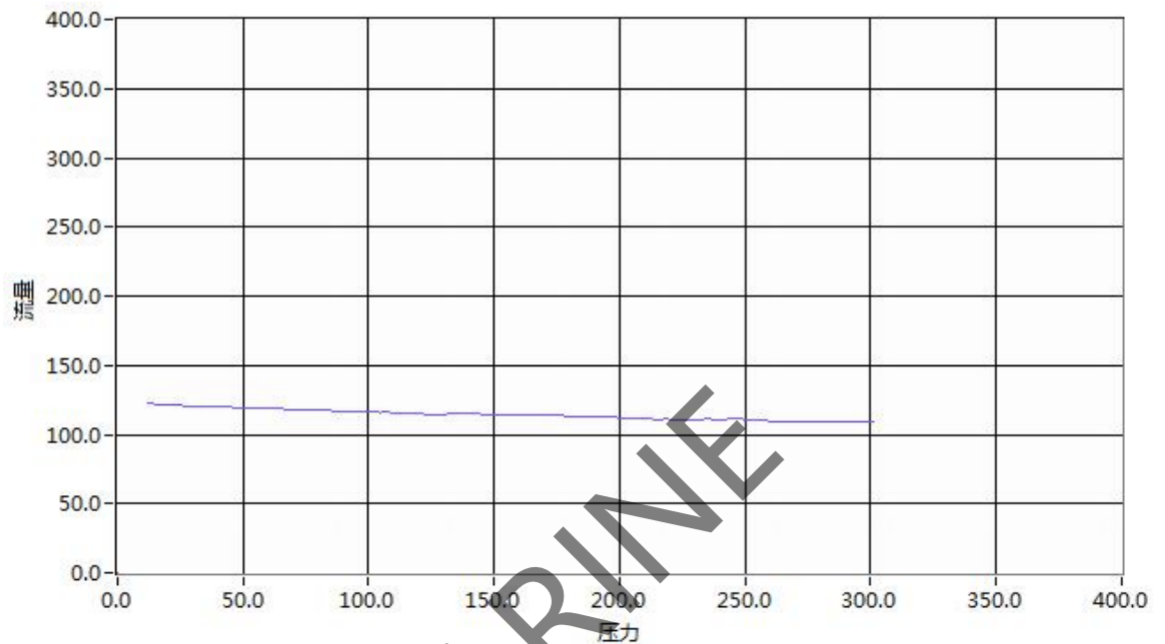
Renew the slewing unit rubber hoses



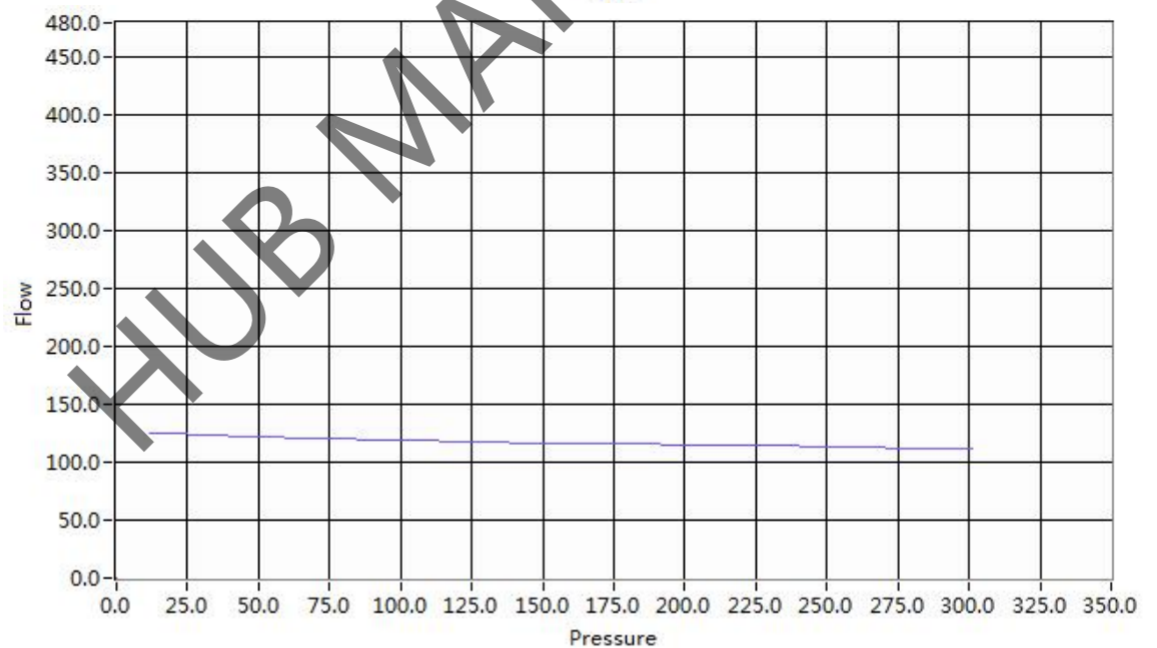
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NO. 1 HOSITING HYDRAULIC
PUMP (UPPER) PERFORMANCE
CHART



NO. 1 HOSITING HYDRAULIC
PUMP (LOWER) PERFORMANCE
CHART

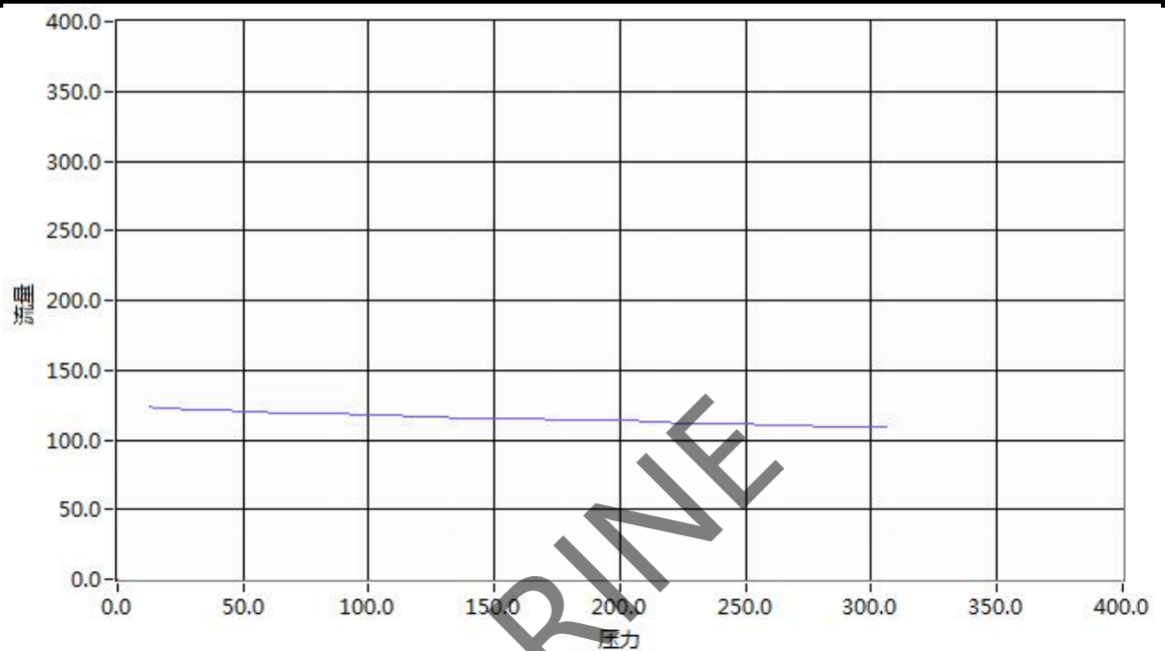




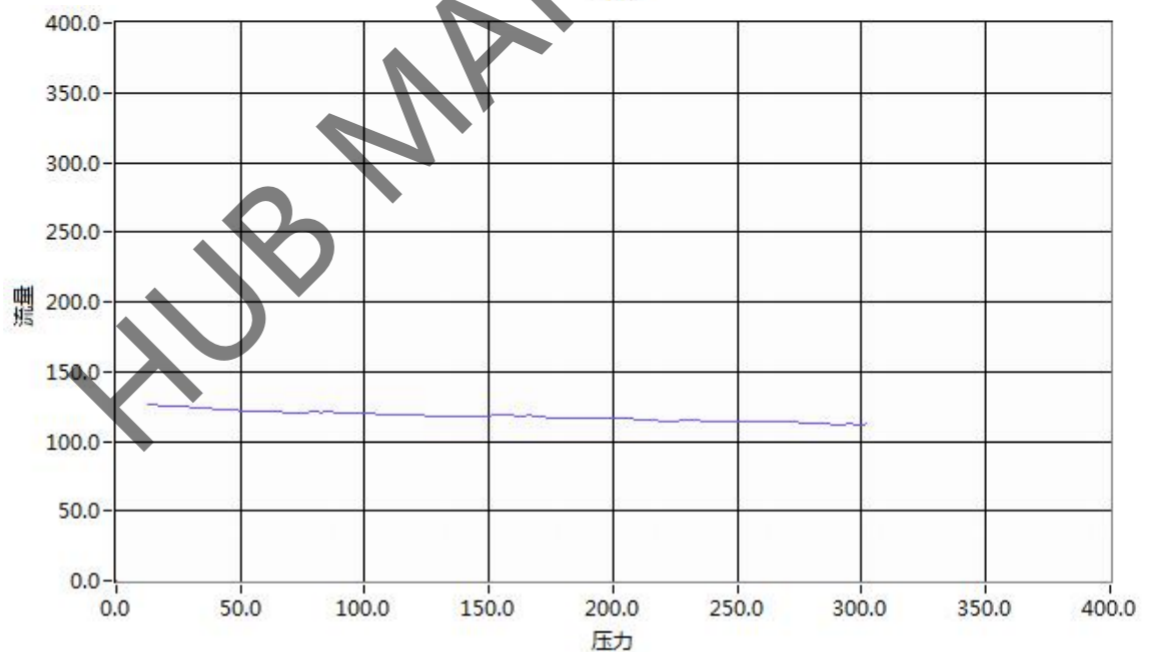
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NO. 1 LUFFING HYDRAULIC
PUMP PERFORMANCE CHART



NO. 1 SLEWING HYDRAULIC
PUMP PERFORMANCE CHART

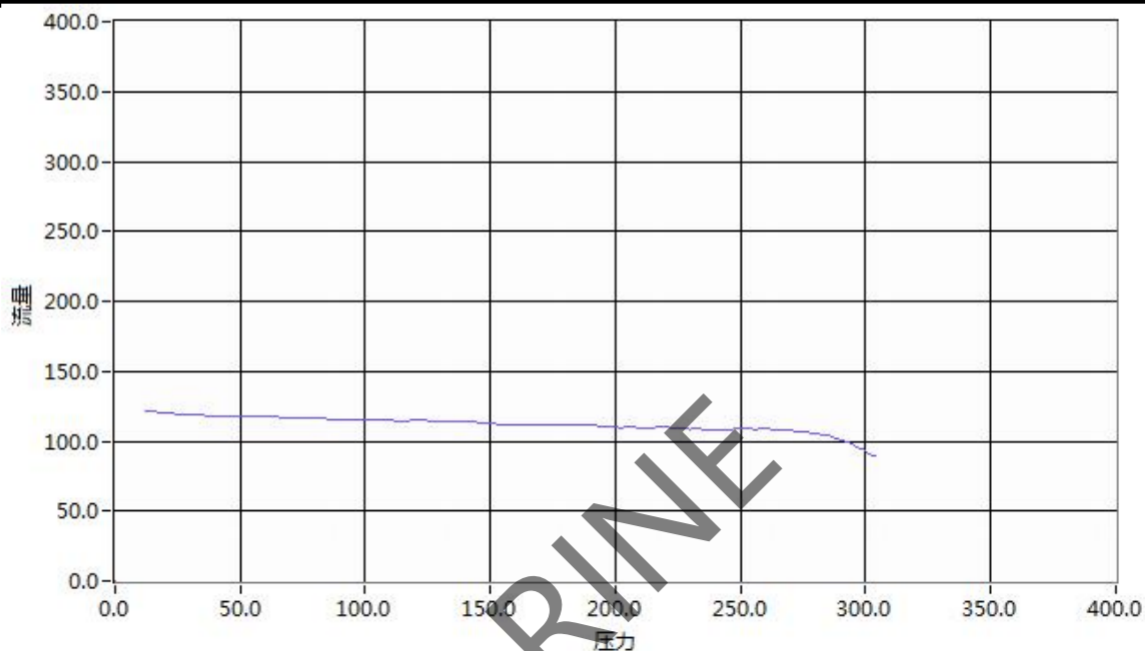




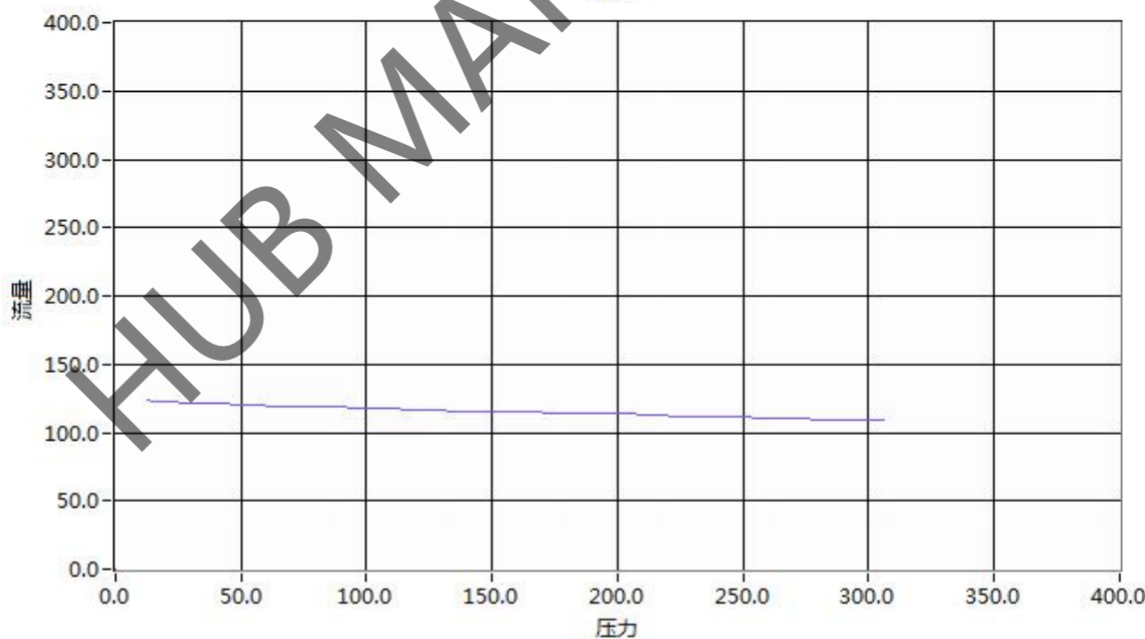
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NO. 2 HOSITING HYDRAULIC
PUMP (UPPER) PERFORMANCE
CHART



NO. 2 HOSITING HYDRAULIC
PUMP (LOWER) PERFORMANCE
CHART

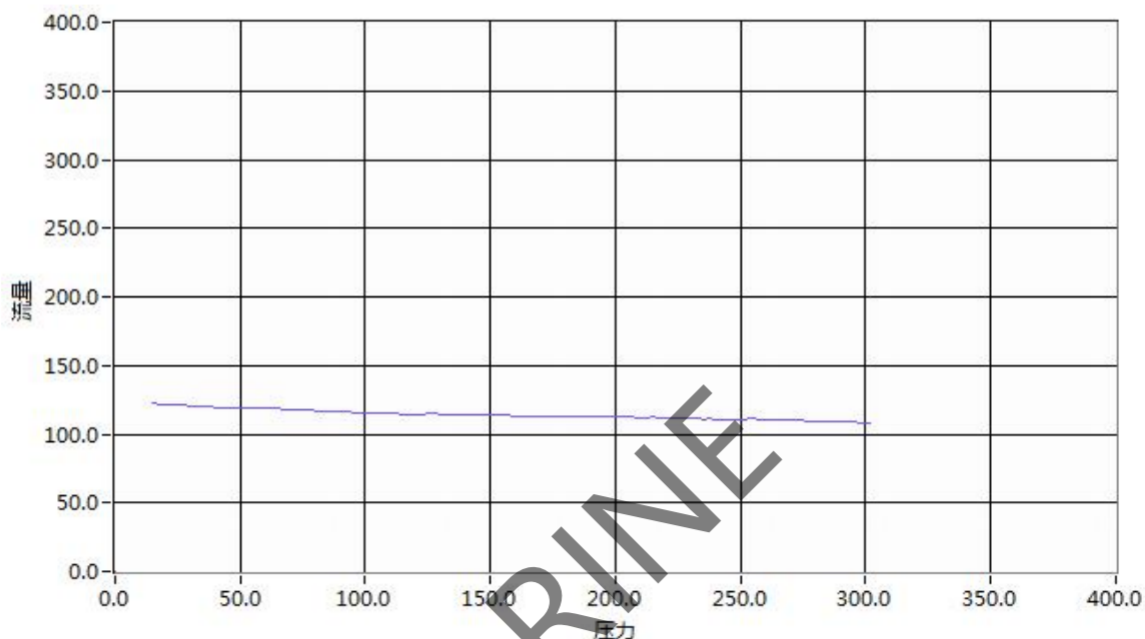




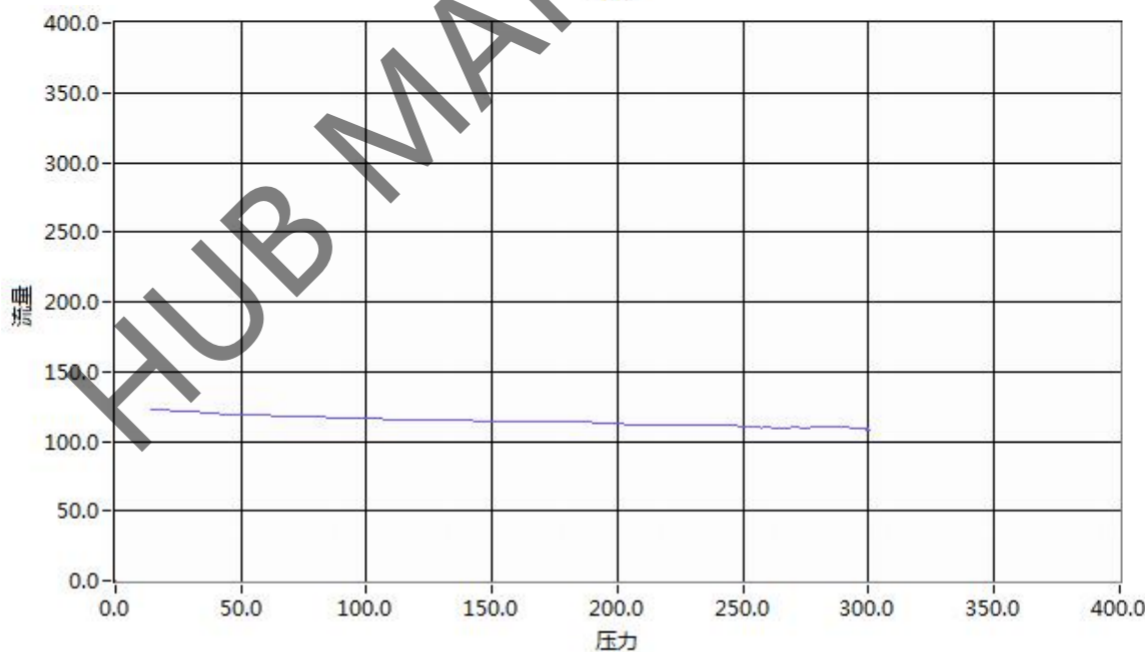
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NO. 2 LUFFING HYDRAULIC
PUMP PERFORMANCE CHART



NO. 2 SLEWING HYDRAULIC
PUMP PERFORMANCE CHART

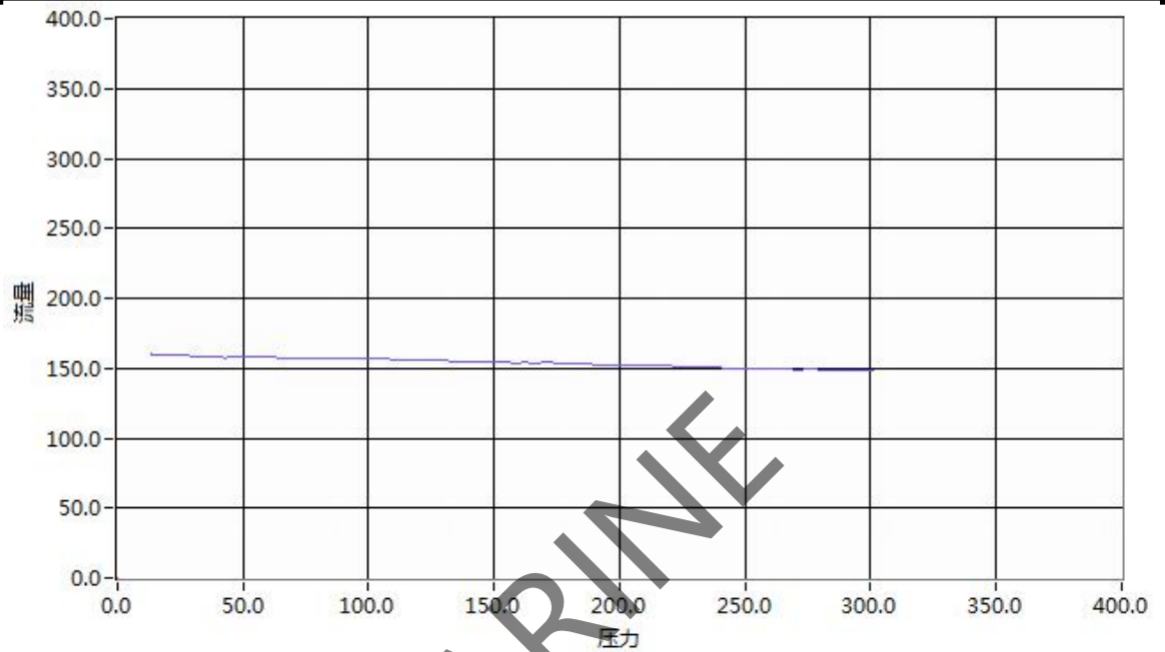




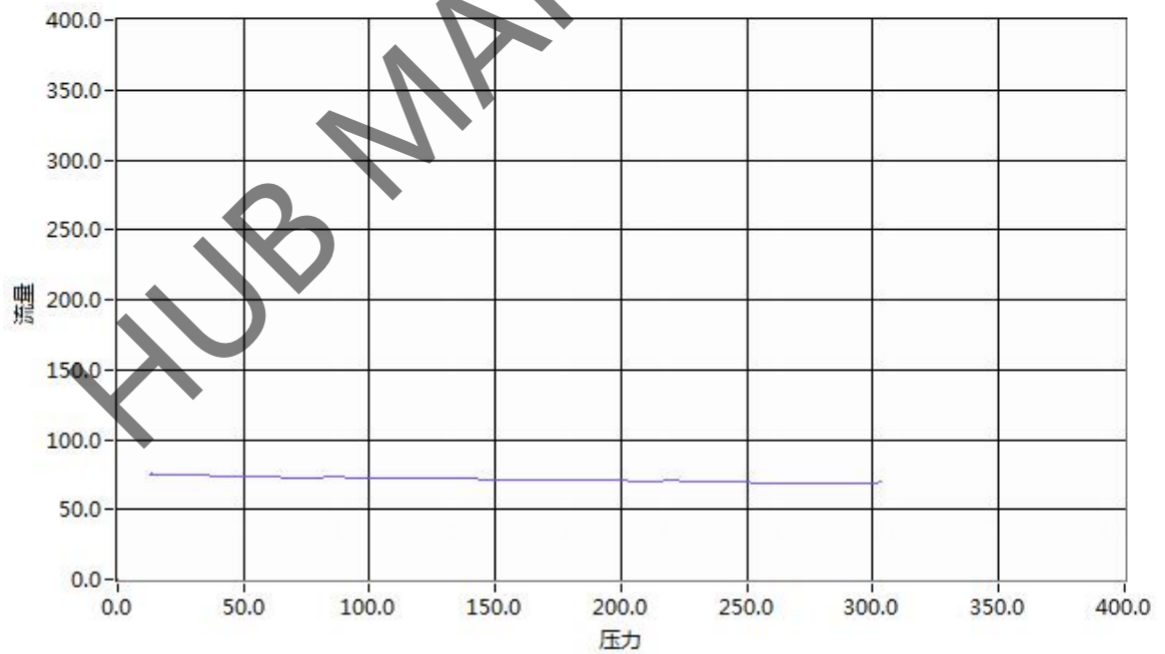
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NO. 1 HOSITING HYDRAULIC
MOTOR PERFORMANCE CHART



NO. 2 HOSITING HYDRAULIC
MOTOR PERFORMANCE CHART

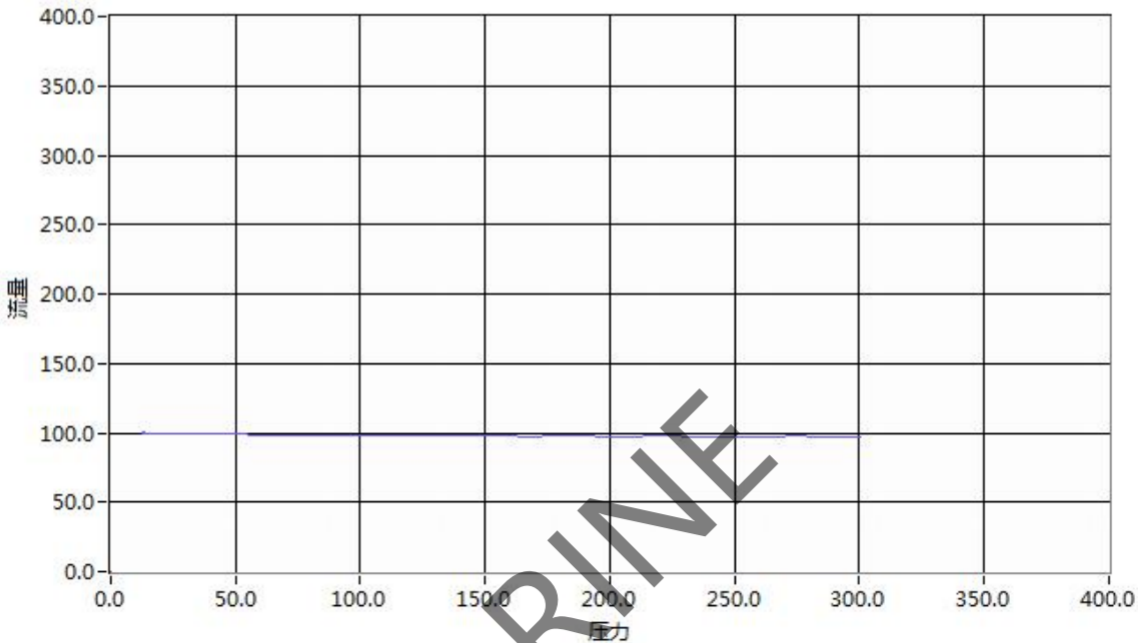




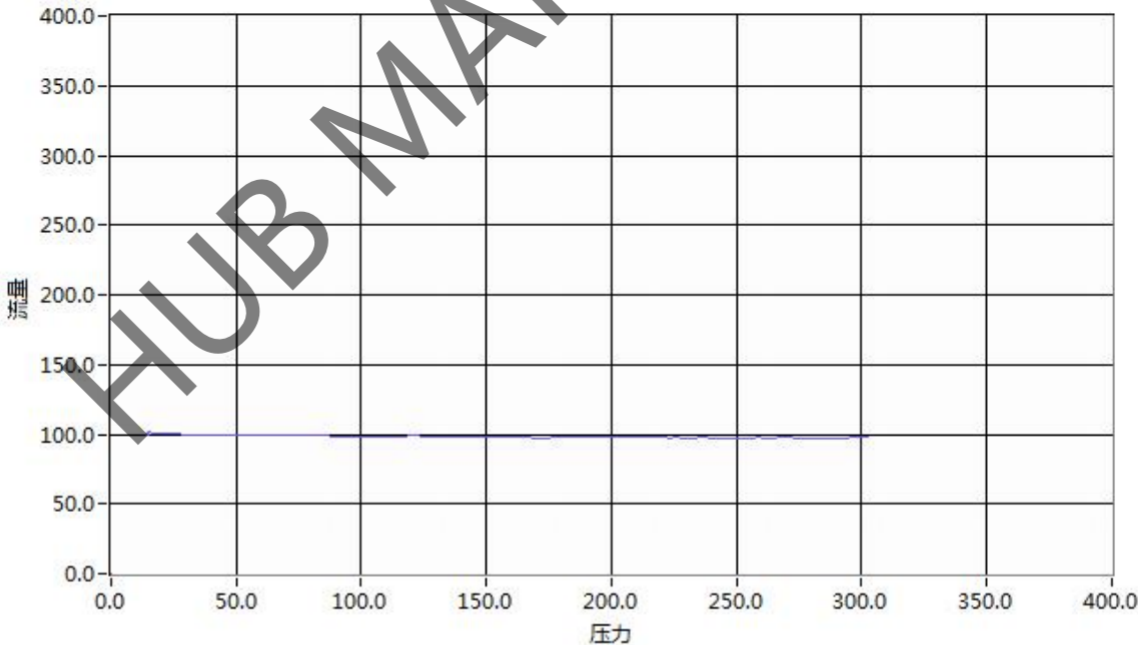
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NO.1 LUFFING HYDRAULIC
MOTOR PERFORMANCE CHART



NO.2 LUFFING HYDRAULIC
MOTOR PERFORMANCE CHART



Hoisting pump overhauling in workshop

Luffing pump overhauling in workshop

Slewing pump overhauling in workshop

Hoisting motor overhauling in workshop

Luffing motor overhauling in workshop

Slewing motoroverhauling in workshop

Hoisting brake overhauling

Luffing brake overhauling

Slewing brake overhauling

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