

**Pumping Unit Inspection #E234943-20210813155323**

CUSTOMER	SERVICE LOCATION	LEASE	WELL NUMBER
ND Corporation	Ray, ND	ND	Yard

GENERAL INFORMATION

SUBMITTED DATE	08/13/2021
ORDER #	
PUMPER/GAUGER	
LATITUDE	48.345054
LONGITUDE	-103.041099
CUSTOMER REPRESENTATIVE	
UNIT DESIGNATION	1100-500-306
API NUMBER	
UNIT SERIAL NUMBER	02231-320-0836
GEAR REDUCER SERIAL NUMBER	9-785
UNIT NOT IN OPERATION	NO
UNIT NOT IN OPERATION DESCRIPTION	
UNIT NOT INSPECTED	NO
UNIT NOT INSPECTED DESCRIPTION	
PRIMARY JOB TASK / PURPOSE FOR BEING ON-SITE	INSPECTION
MANUFACTURE DATE	
CURRENT INSPECTION DATE	8/13/2021 3:53:23 PM
THIS IS A UNIT TRANSFER	NO
NEXT INSPECTION ON	
BARCODE / ASSET NUMBER	
CUSTOMER SPECIFIC INFORMATION	
UNIT SHUT DOWN UPON ARRIVAL	NO
UNIT SHUT DOWN FOR INSPECTION	NO
THIS IS A NEW UNIT INSTALLATION	NO



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INSTALLATION DATE	
WEATHERFORD INSPECTOR	BROOKS, BRANDON
I HAVE REVIEWED THE ENERGY ISOLATION AND PREVENTATIVE MAINTENANCE TWIS AS APPLICABLE	YES

NOTES

LIST ALL DETAILS OF THE INSPECTION, MAINTENANCE PROCEDURES OF NOTE	MISSING BELT GUARD HARDWARE, WIND GUARD HARDWARE, LADDER CAGE HARDWARE, ROLLBACK WHEEL AND PINS AND GEARBOX HUB. LOAD BELT HAS FRAYED EDGE AND STRESS CRACKS ACROSS INSIDE SURFACE.
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FACILITY SIGNS

FACILITY SIGNS MISSING	REGULATED CONFINED SPACE
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SEALS AND BEARINGS

RIGHT TOP DRUM BEARING	GOOD CONDITION
RIGHT TOP DRUM SEAL	GOOD CONDITION
LEFT TOP DRUM BEARING	GOOD CONDITION
LEFT TOP DRUM SEAL	GOOD CONDITION
TOP SPROCKET BEARINGS	GOOD CONDITION
TOP SPROCKET SEALS	GOOD CONDITION
TRAVERSING MECHANISM BEARINGS	CONDITION REQUIRES UNIT SHUTDOWN
TRAVERSING MECHANISM SEALS	CONDITION REQUIRES UNIT SHUTDOWN

BRAKING SYSTEM

EMERGENCY BRAKE ADJUSTMENTS MADE	GOOD, NO ADJUSTMENTS REQUIRED
MANUAL BRAKE ADJUSTMENTS MADE	GOOD, NO ADJUSTMENTS REQUIRED
BRAKE RODS FUNCTIONING PROPERLY	YES
MANUAL BRAKE PAD THICKNESS	FAIR
EMERGENCY BRAKE PAD THICKNESS	FAIR



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BRAKING SYSTEM

BRAKE ROTOR CONDITION	GOOD CONDITION
EMERGENCY ACTUATOR OPERABLE	NO
MANUAL BRAKE TENSION	GOOD
EMERGENCY BRAKE TENSION	GOOD
PROXIMITY SENSOR AIR GAP	GOOD

GROUND LEVEL

LOAD BELT PINS AND KEEP BARS	GOOD CONDITION
BRIDLE / BANANA BAR	GOOD CONDITION
POLISHED ROD CONDITION	CONDITION REQUIRES UNIT SHUTDOWN
POLISHED ROD LINER CONDITION	
ROD ROTATOR INSTALLED	
ROD ROTATOR FUNCTIONAL	
AMPS ON UPSTROKE (ROD AMPS)	
AMPS ON DOWNSTROKE (WEIGHT AMPS)	
AMP OFFAGE	
UNIT BALANCE	NOT CHECKED
STROKES PER MINUTE	0.0
GAS ENGINE APPEARS TO BE STRAINING	
WEATHERFORD REPRESENTATIVE HAS BEEN CONTACTED	
CUSTOMER HAS BEEN CONTACTED	
ADDED COUNTERWEIGHT	NO
POUNDS OF WEIGHT ADDED	
UNIT OPERATING WITH VSD	NO
VSD MAKE	



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GROUND LEVEL

PEAK LOAD SHOWN ON VFD	NOT SELECTED
UNIT OPERATING IN RACE TRACK MODE/TRIM SPEED ENABLED	NA
REVERSAL TOP OF STROKE SPM	
REVERSAL BOTTOM OF STROKE SPM	
UPSTROKE SPM	
DOWNSTROKE SPM	
MURPHY VIBRATION SENSOR	GOOD CONDITION
SPEED SENTRY MODEL	P2.2
OVERSPEED SET POINT	0.0
UNDERSPEED SET POINT	0.0
SPEED SENTRY MEMORY RECORDING	NO
OVERSPEED SHUTDOWN	NOT WORKING
UNDERSPEED SHUTDOWN	NOT WORKING
CUSTOMER SPECIFIC SPEED SENTRY SHUTDOWN	NOT WORKING
TOWER BASE TO SKID BOLTS	REPLACEMENT REQUIRED
ELECTRIC MOTOR GREASED	NA
RUBBER BOOT	REPAIR/REPLACE
ROTAFLEX TOWER CONDITION	GOOD CONDITION
OIL LEAKS	NONE
OIL LEAKS OTHER DESCRIPTION	
CONFIRMED SET BACK DISTANCE(MEASURED FROM THE CENTER OF THE WELLBORE TO FRONT OF CONCRETE BASE WITH STRING LINE)	NOT CHECKED
UNIT ALIGNMENT	IN ALIGNMENT
UNIT LEVEL	LEVEL

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GROUND LEVEL

UPPER LADDER & CAGE CONDITION	GOOD CONDITION
LOWER LADDER & CAGE CONDITION	GOOD CONDITION
CARRIER BAR CONDITION	GOOD CONDITION
TIE-DOWNS CONDITION	GOOD CONDITION
CONCRETE BASE CONDITION	GOOD CONDITION
NOSE PAD CONDITION	NA
PIER CONDITION	NA
I-BEAM CONDITION	NA
LOAD BELT CONDITION (VISUAL VIEW FROM OUTSIDE OF UNIT)	REPLACEMENT REQUIRED

STRUCTURAL CRACKS

ARE THERE STRUCTURAL CRACKS PRESENT?	NO
IF PRESENT, HAVE STRUCTURAL CRACKS BEEN IDENTIFIED BY PAINT?	
DESCRIBE SPECIFIC LOCATION OF STRUCTURAL CRACK(S) (ADD IMAGES OF STRUCTURAL CRACKS PRESENT TO LAST PAGE OF INSPECTION)	

GEAR REDUCER BEARINGS/BUSHINGS

LOW SPEED CONDITION	NEEDS FURTHER INSPECTION
INTERMEDIATE SPEED CONDITION	NEEDS FURTHER INSPECTION
HIGH SPEED CONDITION	NEEDS FURTHER INSPECTION

GEAR REDUCER SEALS/GASKETS

LOW SPEED CONDITION	NEEDS FURTHER INSPECTION
INTERMEDIATE SPEED CONDITION	NEEDS FURTHER INSPECTION
HIGH SPEED CONDITION	NEEDS FURTHER INSPECTION



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GEAR CONDITION

LOW SPEED GEAR	NEEDS FURTHER INSPECTION
LOW SPEED PINION	NEEDS FURTHER INSPECTION
HIGH SPEED GEAR	NEEDS FURTHER INSPECTION
HIGH SPEED PINION	NEEDS FURTHER INSPECTION

OIL CONDITION

OIL LEVEL	LOW
OIL CONDITION	REQUIRES REPLACEMENT OF ALL OIL

PRIME MOVER

TYPE (GAS/ELECTRIC)	ELECTRIC
BRAND	
MODEL	NORTH AMERICAN
SERIAL NUMBER	219814050409-DZ
FRAME NUMBER	445T
RPM	1125
HORSEPOWER	100
SHEAVE DIAMETER (INCHES)	10
BELT CONDITION	SHOWING SIGNS OF WEAR
SHAFT CONDITION	GOOD CONDITION
SHAFT SIZE (INCHES)	3 3/8
GEAR REDUCER SHEAVE CONDITION	GOOD CONDITION
GEAR REDUCER SHEAVE DIAMETER (INCHES)	20
GAS ENGINE OIL USED (GALLONS)	
GAS ENGINE OIL REQUIRED FILTERING	
OIL SAMPLE TAKEN	



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INSIDE (FRONT) COUNTERWEIGHT DOORS

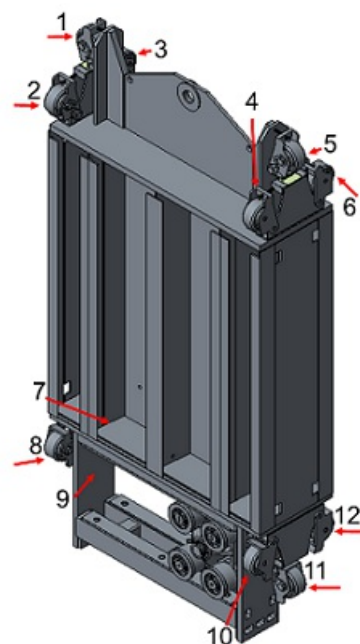
FRONT COUNTERWEIGHT ROTAFLEX DOORS CONDITION	GOOD CONDITION
FRONT UPPER COUNTERWEIGHT ROTAFLEX DOORS CONDITION	GOOD CONDITION
REMOVED SHIPPING BLOCKS BETWEEN TOWER BEAM AND COUNTERWEIGHT BOX DURING INSTALLATION	NA
OIL SUMP RESERVOIR	CLEANING AND NEW OIL REQUIRED
PROPER OIL LEVEL OF SUMP	ADDITIONAL OIL REQUIRED
SUMP OILING SYSTEM FREE OF OBSTRUCTIONS AND PROPERLY OILING	REPAIR REQUIRED
INTERNAL LOAD BELT CONDITION AND CONNECTION TO WEIGHT BOX, LOAD BELT PINS	GOOD CONDITION
BELT AND METAL SHAVINGS PRESENT INSIDE OF TOWER	NO

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GUIDE WHEELS

GUIDE WHEEL #1	GOOD CONDITION
GUIDE WHEEL #2	GOOD CONDITION
GUIDE WHEEL #3	GOOD CONDITION
GUIDE WHEEL #4	GOOD CONDITION
GUIDE WHEEL #5	GOOD CONDITION
GUIDE WHEEL #6	GOOD CONDITION
GUIDE WHEEL #7	CONDITION REQUIRES UNIT SHUTDOWN
GUIDE WHEEL #8	CONDITION REQUIRES UNIT SHUTDOWN
GUIDE WHEEL #9	CONDITION REQUIRES UNIT SHUTDOWN
GUIDE WHEEL #10	CONDITION REQUIRES UNIT SHUTDOWN
GUIDE WHEEL #11	CONDITION REQUIRES UNIT SHUTDOWN
GUIDE WHEEL #12	CONDITION REQUIRES UNIT SHUTDOWN



COUNTERWEIGHT BOX

COUNTERWEIGHT BOX IS PROPERLY ALIGNED INSIDE OF THE TOWER	NO
SWIVEL SHAFT (INCHES)	
DRIVE SPROCKET (INCHES)	
DRIVE SPROCKET CONDITION	CONDITION REQUIRES UNIT SHUTDOWN
LOAD BELT PIN AND SNAP RINGS CHECKED	YES
DRIVE CHAIN TENSION CHECKED	NO
DRIVE CHAIN TENSION ADJUSTED	NOT REQUIRED



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COUNTERWEIGHT BOX

DRIVE CHAIN SIDE TO SIDE DEFLECTION (IN INCHES)	<1"
DRIVE CHAIN CONDITION	CONDITION REQUIRES UNIT SHUTDOWN
SWIVEL SHAFT CONDITION	CONDITION REQUIRES UNIT SHUTDOWN
CARRIAGE ASSEMBLY CONDITION	CONDITION REQUIRES UNIT SHUTDOWN
FRONT CARRIAGE WHEELS CONDITION	CONDITION REQUIRES UNIT SHUTDOWN
FRONT CARRIAGE WHEEL BEARINGS CONDITION	NOT CHECKED
VERIFY CARRIAGE FRAME BOLTS ARE TORQUED TO 250 FT. LBS. (8 EACH)	CONDITION REQUIRES UNIT SHUTDOWN
CARRIAGE FRAME BOLTS CONDITION	NOT CHECKED
ALL DOORS PROPERLY SECURED AFTER PM COMPLETION	YES
ALL DOORS NOT PROPERLY SECURED AFTER PM COMPLETION EXPLANATION	
DOORS SECURED WITH ZIP-TIE, LOCK, OR NUMBERED SEAL (IF REQUIRED BY CUSTOMER OR REGION)	NA

INSIDE (BACK) PANELS ABOVE GEAR REDUCER

CHAIN PINS CONDITION	CONDITION REQUIRES UNIT SHUTDOWN
PIN BOLTS AND RETAINING BAR CONDITION	CONDITION REQUIRES UNIT SHUTDOWN
SWIVEL SHAFT (KNUCKLE) CONDITION	CONDITION REQUIRES UNIT SHUTDOWN
BACK CARRIAGE WHEELS CONDITION	CONDITION REQUIRES UNIT SHUTDOWN
BACK CARRIAGE WHEEL BEARINGS CONDITION	NOT CHECKED

INSIDE MID-TOWER

MID-TOWER DOORS AND ENCLOSURE CONDITION	GOOD CONDITION
TOP SPROCKET LUBRICATED	NO
TOP SPROCKET ASSEMBLY CONDITION	GOOD CONDITION
GREASE ADDED TO TOP SPROCKET	NO
BEARING NUTS AND LOCKER WASHERS CONDITION	GOOD CONDITION



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INSIDE MID-TOWER

TOP SPROCKET ASSEMBLY CHECKED FOR CRACKS AND BENDS IN TUBING	NONE PRESENT
ADJUSTMENT BOLTS AND JAM NUTS CONDITION	GOOD CONDITION
DRIVE CHAIN RETAINING PINS CONDITION	GOOD CONDITION
MEASUREMENT FROM CENTER OF THE TOP SPROCKET TO THE OUTSIDE EDGE OF THE TOWER BEAM FLANGE (SHOULD BE 3")	3 INCHES

TOP TOWER

HINGE PINS CHECKED BEFORE OPENING THE CROWN HOOD	YES
CROWN HOOD HINGE PINS CONDITION (HINGE PINS ON THE TOP COVER INSPECTED BEFORE OPENING THE CROWN HOOD)	GOOD-SAFE TO OPEN CROWN HOOD
ROLLER DRUM SIDE PLATE CONDITION	GOOD CONDITION
PILLOW BLOCK BEARING SEALS CONDITION	GOOD CONDITION
ROLLER DRUM GREASED	NO
TOP DRUM LEAKING GREASE	NO
TOP DRUM BEARINGS CONDITION	GOOD CONDITION
METAL SHAVINGS FOUND ON PILLOW BLOCK HOUSING	NO

ROLLBACK SYSTEM

TYPE OF ROLLBACK SYSTEM	NA
ROLLBACK SYSTEM CONDITION	
HYDRAULIC FLUID LEVEL	
BUMP CHECK MOTOR TO CONFIRM PROPER ELECTRIC WIRING OF ROLLBACK SYSTEM	

RUST

EXCESSIVE RUST PRESENT	NO
RUST PRESENCE LOCATION	



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COMPLETION CONFIRMATION

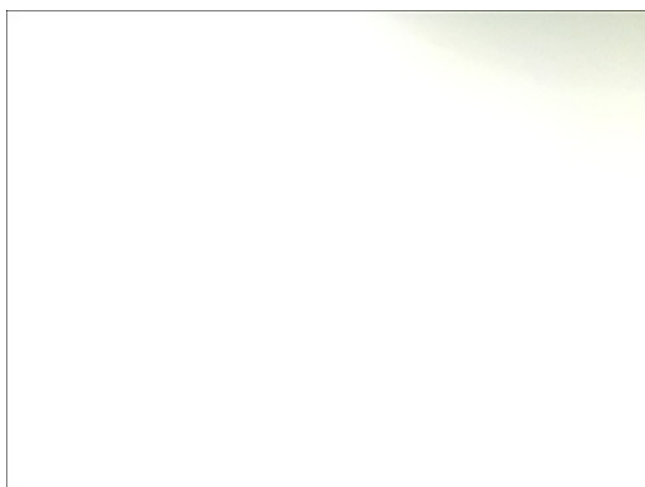
MAINTENANCE STICKER WITH CREW AND DATE INSTALLED ON THE TOWER	NO
MAINTENANCE STICKER INSTALLED DURING INSPECTION	NO
ADDITIONAL ITEMS FOUND REQUIRING ATTENTION	NO
SPECIFICS OF ADDITIONAL ITEMS FOUND	
UNIT CONDITIONS WARRANT CONTINUED SHUTDOWN. CUSTOMER HAS BEEN NOTIFIED.	YES

IMAGES

TOTAL NUMBER OF IMAGES

5

IMAGES



LEASE SIGN



UNIT SERIAL NUMBER

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IMAGES



GEAR REDUCER SERIAL NUMBER



UPPER LADDER & CAGE

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IMAGES



PRIME MOVER SERIAL NUMBER