

## **DUAL HOSE REEL UNIT**TRAILER / SKID MOUNTED

NBF220

- Hydraulically Driven Chain Drive System for Deployment & Retrieval
- Capacity for 3936 ft. (1200 m) of 12" Super Aquaduct hose
- Tethered Control Box for Remote Operations
- Can Be Configured for Ramp Up/Down Speed Control
- Configurations: Trailer or Skid Mounted
- DOT Compliant



#### Description

The Hose Reel Unit shall be capable of storing, deploying and retrieving lay-flat hose in an efficient, safe and controlled manner. The system is offered in two types of transportation configurations:

- Skid type framework for flatbed truck or trailer transport.
- Self contained mobile trailer for conventional hitch transport.

The dual hose reel unit shall consist of (2) hose reels mounted front / back on a common supporting skid or mobile trailer arrangement. Each reel shall contain an individual hydraulic motor, powered by a single diesel driven hydraulic pump. A tethered control box (for remote operations) and local control panel shall be provided with the following controls:

- Reel Selection (front /rear)
- Directional Control (deploy/retrieve)
- · Panel Tether Selector
- Kill

The capacity of each individual reel shall be 1968 ft. (600 m) of 12" Super Aquaduct hose thus providing a Dual Hose Reel Unit capacity of 3936 ft. (1200 m) of 12" Super Aquaduct hose.

The maximum deployment rate of hose shall be approximately 2.5 mph (4200 m/hr). Deployment and retrieval speed variables shall be adjustable via

control module adjustment (minimum, maximum, ramp up speed).

The design of the skid configuration provides for hoisting by crane or lifting by forklift onto a mobile trailer for transportation purposes.

The Trailer configuration is equipped with LED brake and marker lighting. The Trailer shall be supplied with a Tool Box. Trailer Hitch shall be pintle or ball type per customer specification. This configuration is DOT compliant.

Finish paint for the trailer and components shall be Industrial Epoxy Gloss Red RAL3000. All walking surfaces shall be coated with a rubberized non slip material.

### **Technical Specification**

## Supporting Skid-Trailer-Frame:

- Welded structural steel (ASTM A36) design, properly sized & constructed to prevent flexure during fully loaded lift operation.
- Lifting points positioned & properly sized to provide for safe, balanced lift operation.
- Rubberized non-slip coating to cover skid top surface areas. Both front / rear end & middle sections. Bottom surfaces at hose reel locations shall be covered with smooth low fricion polypropylene sheet to protect hose.
- Yellow safety chains supplied at the edges of all walking surfaces.

- All metal-to-metal contact between dissimilar metals to be insulated against inter-galvanic corrosion.
- All non painted fasteners to be type stainless steel, non-corrosive & equipped with non-loosening device or compound (i.e. thread locking compound, lock washers or locknuts).

Trailer type construction to follow minimum specifications:

- Axles, axles supports & suspension components to be structural carbon steel and sized in accordance to the required capacity of the trailer and be DOT compliant.
- Wiring standard (7) wire connector pigtail for brake, signal, running & marker lights to meet local D.O.T.
  / FMVSS requirements. All wiring to be contained in protective loom or conduit for intended use or environment.
- Towing connection 2" Ball coupler or Pintle ring sized for proper trailer capacity. (Both supplied)
- Tires suitable for highway service & rated for trailer load. Mud flaps and chocks shall be provided.
- An integral battery charging system (120 VAC – trickle / plug type).
- Trailer to be provided to USDOT Safety requirements.
- Trailer brakes to be electric type with breakaway lockup feature.

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#### Hose Reel Unit:

The reel system shall consist of the following minimum specifications:

- Reel to be approx. 84 in. dia. Reels w/ capacity of (1968 ft / 600M) of 12" Super Aquaduct flexible layflat hose.
- Round, spoked and welded end plates made of steel. (Dividers)
- Solid round, welded end plates made of (ASTM A36) steel plate. (Endplates)
- Center drum shall be a structural member design and allow for internal nesting of first coupling in each section.
- Reel to be supported on pillow block heavy duty bearings complete with grease fittings for maintenance.
- Hose reel frames to be constructed of structural steel tubing and gusseted for lateral and longitudinal shock.
- Deployment & retrieval to be accomplished by a hydraulically driven chain drive system controlled by a programmable drive controller.
- System to lock exposed coupling to the reel or deck appropriate to the end fitting on hose shall be provided.
- Reels shall be equipped with integral travel lock pins used to lock reels in position when not in use or when travelling.
- All exposed non painted fasters to be stainless steel, non-corrosive & equipped with non-loosening device or compound (i.e. thread locking compound, lock washers or locknuts).
- Controls shall be via a 30 ft tethered remote control or locally at the operators position on the unit base.



- Control Functionality shall provide the following:
  - Direction of rotation
  - Reel selection
  - Reel actuation
  - Emergency Stop
- Control Storage Box shall be provided for (30 ft.) tethered remote control and shore power cord.
- All hydraulic lines shall be routed to protect & anchored securely.
- All electrical lines shall be routed & protected using loom and / or conduit.
- All hydraulic & electrical lines shall not interfere with walking surfaces.

#### **Hydraulic Power Unit:**

The hydraulic power unit will consist of the following components:

- Diesel engine with electric start & fuel tank.
- Hydraulic Pump and Hydraulic motor sized to provide adequate HP to deploy two (2) lines simultaneously at a rate = 4200 m/hr (2.5 mph). System shall provide adequate torque to rotate and retrieve 1968 ft. (600 M) length of 12" Super Aquaduct hose @ (3.5 lbs / ft) = approx. 6888 lbs. per reel @ full capacity.
- Forward / reverse & variable speed PLC hydraulic control provides for reliable operation and control.

- Safety feature Programmable speed control (minimum, maximum, ramp up rate). This feature tailors reel speed to operator's comfort level.
- All controls are weatherproof and suitable for harsh environments.
- Safety feature Operator position isolation logic provided to allow only one control station to operate at any time based on control selection. This feature prevents operator from accidentally activating remote controls when operating from the local operators position.
- Twenty (20) gallon hydraulic fluid reservoir. Filters & side level gage to be included.
- Five(5) gallon fuel tank with level gauge.
- Unit shall be equipped with safety guards over chains and gears.
- Engine & hydraulic components to be supplied with an integral cover to shield machinery from sun and rain.
- An integral battery charging system (110 VAC – trickle / plug-in type) is to be included with the skid / trailer assembly.
- All hydraulic lines shall be routed to protect & anchored securely using (clamp-loop) type mechanical fasteners.
- · Satin Black Epoxy Finish.

#### Hose Roller Guides/Surfaces:

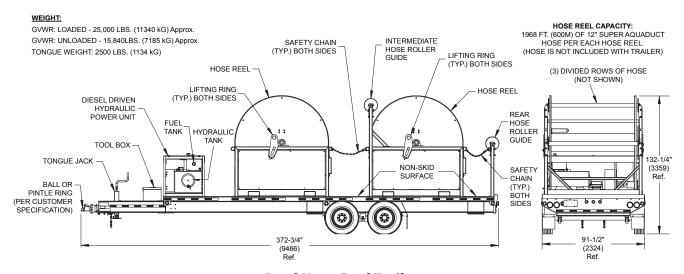
- Dual skid / trailer unit to be furnished with two (2) - Horizontal hose roller guides located at the rear of each hose reel to facilitate hose deployment and loading.
- Under Reel Loading Feature: Dual skid / trailer unit to be furnished with poly slip surfaces under each reel to allow hose loading through the bottom of the reels.

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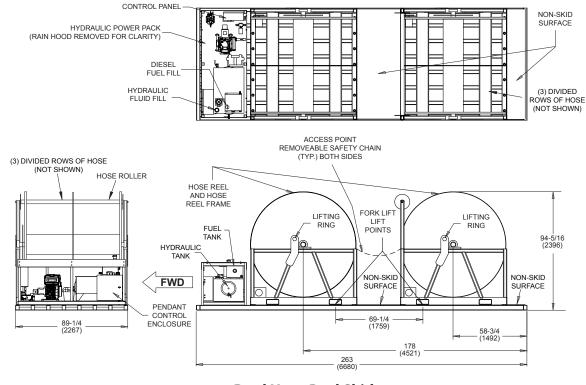


# **DUAL HOSE REEL UNIT**SKID/TRAILER MOUNTED

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## **Dual Hose Reel Trailer**



**Dual Hose Reel Skid** 

**NOTE:** All data subject to change based on most current design.

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**Dual Hose Reel Trailer** 



**Dual Hose Reel Skid** 

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