



## INVITATION FOR SEALED BID

**Bid 01-312**

**Description: FLATBED, UTILITY, and EQUIPMENT TRAILERS**

**Department: PARKS AND REC. DEPT. & PUBLIC WORKS DEPT.**

**NIGP Commodity Code(s): 070-66-00-000-0**

**Total pages including this page is 20**

**NOTE: FAXED BIDS WILL NOT BE ACCEPTED**

**Important Instruction – Read Carefully:**

If you have obtained these bid specifications from either of:  
City of Tulsa's Fax-on-Demand (918-596-1171) or  
City of Tulsa's Web-site : [www.cityoftulsapurchasing.org](http://www.cityoftulsapurchasing.org)

You must notify the buyer Larry Hood of your intent to bid by e-mail [lhood@ci.tulsa.ok.us](mailto:lhood@ci.tulsa.ok.us) in order to receive addenda. The buyer will always acknowledge your e-mail for your records. All addenda will be posted on fax-on-demand and the web-site.

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**Pay special attention to those pages with a reference to the following notes:**

**Note #1: Signature of an authorized agent required**

**Note #2: Signature of an authorized agent and notary required**

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**Your bid response should follow the same format listed above plus any additional information requested in the body of the bid invitation.**

**INVITATION FOR SEALED BIDS  
TO  
City of Tulsa**

200 CIVIC CENTER, ROOM 109, TULSA, OKLAHOMA 74103

Bid number and date of bid opening must appear on the lower  
left outside corner of bid envelopes and all related containers.

**DATE OF OPENING:** December 20, 2001

**BID NUMBER:** 01-312

**BID MUST BE IN THE CITY CLERK'S OFFICE AT THE ABOVE ADDRESS BY 5:00 P.M. THE DAY PRECEDING THE "DATE OF OPENING" SHOWN ABOVE.**

**BIDS WILL BE OPENED AT 8:30 A.M. IN THE CITY COUNCIL ROOM ON THE DAY SPECIFIED UNDER "DATE OF OPENING."**

**PUBLISHED IN THE TULSA DAILY COMMERCE AND LEGAL NEWS:** December 4, 5, 6, 7, & 10, 2001

Bid must be accompanied by bidder's bond, cashier's check or certified check in the amount of: NONE

PLEASE READ TERMS AND CONDITIONS ON THE NEXT PAGE BEFORE COMPLETING BID DOCUMENTS

\*\*\*\*\*

**THE FOLLOWING SECTION MUST BE COMPLETED BY BIDDER**

\*\*\*\*\*

Delivery will be made in not more than \_\_\_\_\_ days after receipt of order.

Payment terms \_\_\_\_\_ % \_\_\_\_\_ days.

City of Tulsa may increase quantity of order at the unit price bid for \_\_\_\_\_ days. (Bidder to Specify Days) I have examined the terms and specifications and the instructions to bidders herein and agree, provided I am awarded a contract, to provide the above described items for the sum shown in accordance with the terms and specifications stated herein. All deviations are in writing and attached hereto.

Enclosed is a [  ] BID BOND ; [  ] CASHIER'S CHECK; [  ] Certified Check in the amount of \$ \_\_\_\_\_, which I agree the City of Tulsa may retain as liquidated damages in the event of my failure to comply with the terms of this bid.

**MUST BE SIGNED BY AUTHORIZED AGENT TO BE VALID**

FIRM NAME \_\_\_\_\_ by \_\_\_\_\_  
(Signature)

STREET \_\_\_\_\_ TITLE \_\_\_\_\_

CITY STATE \_\_\_\_\_ ZIP CODE \_\_\_\_\_ PHONE NUMBER \_\_\_\_\_ DATE \_\_\_\_\_

## GENERAL TERMS AND CONDITIONS OF BIDS

THESE ITEMS APPLY TO AND BECOME A PART OF THE BID.

### NO EXCEPTIONS TO THESE TERMS & CONDITIONS WILL BE CONSIDERED.

1. **BIDS MUST BE SUBMITTED ON THIS FORM ONLY INCLUDING A SIGNATURE OF AN AUTHORIZED AGENT.** Each bid shall be placed in a separate envelope. Be sure envelope is completely and properly identified and sealed, showing the bid number and date in the lower left hand corner. Bids must be time stamped in the office of the City Clerk by 5:00 P.M. on the day before date of opening.
2. No bidder may withdraw his proposal for a period of thirty (30) days after the date and hour set for the opening of bids.
3. All prices shall be quoted F.O.B. Tulsa, Oklahoma, and delivery to City of Tulsa location shall be without additional charge.
4. The bidder shall attach the manufacturer's name of the equipment or material to be furnished, type, model numbers, manufacturer's descriptive bulletins and specifications. All guarantees and warranties should be clearly stated. This data shall be in sufficient detail to describe accurately the equipment or material to be furnished. Manufacturer's specifications, in respect to the successful bidder, shall be considered as part of his contract with the City of Tulsa.
5. The bidder shall show in the proposal both the unit prices and total amount, where required, of each item listed. In the event of error or discrepancy in the mathematics, the unit prices shall prevail.
6. Any exceptions or deviations from written specifications shall be shown in writing and attached to the bid form.
7. Each bidder agrees to comply with the terms of Title 5, Chapter 1, of Tulsa Revised Ordinances relating to equal employment opportunity.
8. **THE ENCLOSED FORMS REGARDING NON-COLLUSION AND FINANCIAL INTEREST MUST BE SIGNED, NOTARIZED, AND RETURNED WITH THE BID.**
9. The City of Tulsa reserves the right to reject any and all bids, to waive any technicalities in the bidding, and to award each item to different bidders or all items to a single bidder.
10. All bids must be accompanied by bidders bond, cash, certified or cashier's check in the amount shown on the face of the bid form. This amount shall be retained by the City of Tulsa as liquidated damages in the event the successful bidder (or bidders) fails to execute a contract, if required. The bidder agrees that said amount is presumed to be the damages sustained by the City due to the impracticability and extreme difficulty in fixing the actual damages. The office of the City Clerk will return the bid deposits to the unsuccessful bidders, after a contract has been awarded or all bids have been rejected.
11. In the event cash discounts are offered by the bidder, the discount date shall begin with the date of invoice, the date of receipt of all material covered by the purchase order, or the date of receipt by the City of Tulsa of the original copy of the purchase order with properly executed Affidavit of Claimant, whichever is the later date.
12. Direct purchase of certain items of equipment or material by the City of Tulsa are exempt from Federal Excise Tax and Oklahoma Sales Tax. In such cases the bidder shall quote prices which do not include Federal Excise Tax and Oklahoma Sales Tax. The City of Tulsa will furnish executed exemption certificates upon presentation by the bidder at the time of purchase.
13. Bid must show number of days required for delivery under normal conditions. Failure to state delivery time obligates bidder to complete delivery in fourteen (14) calendar days. Unrealistically short or long delivery promises may cause bid to be disregarded. Contractor must keep Purchasing Department advised at all times of status of order. Default in promised delivery or failure to meet specifications authorizes the Purchasing Agent to purchase supplies elsewhere and charge full increase of cost and handling to defaulting contractor. Consistent failure to meet delivery promises without valid reason may cause removal from bid list.
14. Bidder agrees to defend and save City of Tulsa from and against all demands, claims, suits, costs, expenses, damages and judgments based upon infringement of any patent relating to goods specified in this order or the ordinary use or operation of such goods by City or use or operation of such goods in accordance with bidders direction.
15. If the bid requires a written contract, the successful bidder shall execute a written contract with the City of Tulsa and return the required bonds and insurance certificates within ten (10) days after submission of contracts to said bidder by the City.



# BIDDER AFFIDAVIT - TITLE 74 O.S. (1974 SUPP.) 85.22-85.25

STATE OF \_\_\_\_\_ COUNTY OF \_\_\_\_\_

\_\_\_\_\_, of lawful age, being first duly sworn on oath says  
**Authorized Agent**

1. (s)he is the duly authorized agent of \_\_\_\_\_, the bidder submitting the competitive bid which is attached to this statement, for the purpose of certifying the facts pertaining to the existence of collusion among bidders and between bidders and municipal officials or employees, as well as facts pertaining to the giving or offering of things of value to government personnel in return for special consideration in the letting of any contract pursuant to the bid to which this statement is attached.
2. (s)he is fully aware of the facts and circumstances surrounding the making of the bid to which this statement is attached and has been personally and directly involved in the proceedings leading to the submission of such bid; and
3. neither the bidder nor anyone subject to the bidder's direction or control has been a party;
  - a. to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding,
  - b. to any collusion with any municipal official or employee as to quantity, quality or price in the prospective contract, or as to any other terms of such prospective contract, nor
  - c. in any discussions between bidders and any municipal official concerning exchange of money or other thing of value for special consideration in the letting of a contract.

\_\_\_\_\_  
SIGNATURE OF AUTHORIZED AGENT

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
Signature of Notary Public

\_\_\_\_\_  
MY COMMISSION EXPIRES

**The Bidder Affidavit must be completed, signed by an authorized agent, and notarized.**

**CONTRACTOR/BIDDER INFORMATION SHEET**

**To be completed by all Bidders  
For Contracts with the City of Tulsa  
(Please print or type)**

Project No. or Description \_\_\_\_\_  
\_\_\_\_\_

Full Name of Bidder \_\_\_\_\_

Legal Identity  
(Corporation, Partnership,  
Individual, etc.) \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Telephone No. \_\_\_\_\_

FAX No. \_\_\_\_\_

Taxpayer Identification Number \_\_\_\_\_

Contact Person \_\_\_\_\_

Phone No. \_\_\_\_\_

Fax No. \_\_\_\_\_

E-mail address \_\_\_\_\_

Webpage Address \_\_\_\_\_

# Price Sheet Summary

Vendor Name: \_\_\_\_\_ Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

**You will be able to obtain a copy of the Bid Summary on the City of Tulsa's Purchase-Net Fax-on-Demand and Website shortly after bid opening.**

## BID 01-312

| <u>Quantity</u> | <u>Description</u>   | <u>Cost(Ea.)</u> |
|-----------------|--|------------------|
| 7 or more       | <u>ITEM 1</u><br>12 ft. FLATBED TRAILER*<br>Per attached specifications<br>Make and Model Quoted _____                         | \$ _____         |
| 1 or more       | <u>ITEM 2</u><br>UTILITY TRAILER (for Ditch Witch model 3500)*<br>Per attached specifications<br>Make and Model Quoted _____   | \$ _____         |
| 1 or more       | <u>ITEM 3</u><br>16 ft. UTILITY TRAILER (for Skid-Steer Loader)*<br>Per attached specifications<br>Make and Model Quoted _____ | \$ _____         |
| 1 or more       | <u>ITEM 4</u><br>9,000 lb GVW TRAILER (for Skid Loader)**<br>Per attached specifications<br>Make and Model Quoted _____        | \$ _____         |
|                 | <b>TOTAL COST (10 UNITS)</b>   | <b>\$ _____</b>  |

\* Delivered to Parks & Rec., Turf Management, 5669 S. Garnett Rd.

\*\* Delivered to Public Works Inventory Control, 4122 E. Mohawk Blvd.

**BID 01-312**  
**FLATBED, UTILITY, and EQUIPMENT TRAILERS**

**INTENT:**

It is the intent of this bid to secure, on a competitive basis, a source of supply for furnishing ten(10), or more, **Flatbed, Utility, and Equipment Trailers** for the City of Tulsa, Parks and Recreation Department and Public Works Department.

Inasmuch as some designs of equipment vary among different manufacturers, the City may accept bids on equipment with minor deviations to the written specifications. Generally, a minor deviation is defined as one which does not: (a) materially affect the ability of the product to perform a necessary function or task in the manner required by the specification; (b) compromise the safety of the user thereof; or (c) produce higher latent or patent costs to the City in any of a multiplicity of ways. The City of Tulsa specifically reserves the right to make the judgement concerning what is or is not a minor deviation and to award the bidder(s) whose bid(s) best suits the City's needs for the product being purchased.

**ALTERING BIDS:**

**Bids cannot be altered or amended after submission deadline. Any interlineation, alteration, or erasure made before opening time and date must be initialed by the signer of the bid, guaranteeing authenticity. Bids must be submitted in ink or typewritten. Penciling will not be accepted.**

**PRICING:**

**Bid prices, unless otherwise specified, must be net, including transportation and handling charges fully prepaid by vendor to destination and subject only to cash discount for prompt payment of invoice.**

**DESCRIPTIVE LITERATURE, BROCHURES, SPECIFICATIONS SHEETS:**

Bidders must provide descriptive literature, brochures and or specification sheets on products bid. Where specific brands/manufacturers may be included in the City's specifications, other brands/manufacturers that are "equal to or better than" will be considered, as long as documentation is supplied to support compliance. This information is to be part of your bid and included with your bid package. Failure to comply will result in rejection of your bid.

## **BIDDER AFFIDAVITS:**

**Each bidder shall accompany his bid with a fully executed and notarized copy of the attached Non-Collusion Affidavit and the Interest Affidavit. Failure to do so shall be cause for rejection of the bid.**

## **ADDENDA AND INTERPRETATIONS:**

If it becomes necessary to revise any part of this bid, a written addendum will be provided to all the bidders. The City of Tulsa is not bound by any oral representations, clarifications, or changes made in the written specifications by City of Tulsa employees unless such clarification or change is provided to bidders in written addendum form from the Purchasing Division.

## **AWARD OF BID:**

The bid shall be awarded to the firm whose proposal is responsive to the bid and is most advantageous to the City, considering the factors identified in the bid and Section 406E of Title 6, The Purchasing Ordinance set forth below. The City reserves the right to award each item in the bid to a different bidder, or all items to a single bidder.

### 406E. AWARD OF CONTRACT

1. **Authority in the Mayor.** The Mayor shall have the authority to award Contracts within the purview of this chapter.
2. **Lowest Secure Bidder.** Contracts shall be awarded to the lowest secure bidder meeting specifications. Bid Specifications may include a point system for evaluating the lowest secure bid. In determining “lowest secure bidder”, in addition to price, the following factors shall be considered:
  - a. the ability, capacity and skill of the bidder to perform the contract or provide the service required;
  - b. whether the bidder can perform the contract or provide the service promptly or within the time specified, without delay or interference;
  - c. the character, integrity, reputation, judgment, experience and efficiency of the bidder;
  - d. the quality of performance of previous contracts or services;
  - e. the previous and existing compliance by the bidder with laws and ordinances relating to the contract or service;
  - f. the sufficiency of the financial resources and ability of the

**bidder to perform the contract or provide the service;**

- g. the quality, availability and adaptability of the supplies or contractual services to the particular use required;**
- h. the ability of the bidder to provide future maintenance and service for the use of the subject of the contract;**
- i. where an earlier delivery date would be of great benefit to the requisitioning agency, the date and terms of delivery may be considered in the bid award, and**
- j. the number and scope of conditions attached to the bid.**
- k. If a point system has been utilized in the bid specifications, the number of points earned by the bidder.**

# **SPECIFICATIONS**

## **BID 01-312**

### **FLATBED, UTILITY, and EQUIPMENT TRAILERS**

#### **ITEM 1**

#### **12 ft. Flatbed Trailer Specifications**

- General Description:** 12,000 LB. Capacity tag along trailer with beavertail & three fold up ramps
- Load Capacity:** 12,000 lbs. @ 55 MPH (G.V.W.R. 16,575 lbs.)
- Overall length:** 22 ft. 9 in.
- Deck length:** 12 ft. 0 in. + 3 ft. 6 in. beavertail
- Deck width:** 96 in.
- Deck height:** 32 1/2 in. unloaded
- Frame construction:** Main beams: W-12" X 16 lbs. Per ft. grade 50, 50,000 lb.+ yield  
Cross-members: 6" Jr. I-beam run between main rails on 22" centers, 50,000 lb. Yield
- Decking:** 2" nominal oak between main rails secured to cross-members with 5/16" torque screws, 3/16" Diamond plate from main rails to perimeter frame.
- Suspension:** Dexter multi-point spring with equalizer
- Axles:** (2) Dexter 6,000 lb. Capacity
- Brakes:** 12" X 2" electric with integral break-away system
- Wheels:** 8 hole steel disc.
- Tires:** (4) 245 / 75R16, (E)
- Ramps:** 55" X 21 1/2" with inverted angle iron traction aids.
- Parking jack:** 5,000 lb. Top crank.
- Hitch:** Four position cast steel pintle eye, 1-5/8" stock, 2-5/8" I.D.
- Tie downs:** Heavy duty D-rings, Three (3) per side.
- Safety Chains:** (2) 3/8" plated Hi-test with grab hooks
- Lights:** 12 volt DOT & ICC approved. All lights are sealed beam type & flush mounted in rubber grommets. Wiring is run in flexible neoprene jacket and modular in design for ease of maintenance. 6 way plug
- Options:** Spare tire & wheel

## ITEM 2

## DITCH WITCH TRAILER SPEC'S

### T9B Trailer

#### Dimensions:

Bed length -156in.

Clearance at jack footpad – 10.25 in.

Adj. Coupler heights – 10-24 in.

Width between fenders - 76 in.

Width outside fenders – 96 in.

Width of loading ramp - 16 in.

Ramp angle - 12.5 degrees

Bed height at full load – 17.5 in.

#### General:

Number of Axles – 2

G.V.W. – 9500 lbs.

Type of coupler – Pintle

Type of brakes – Electric (on both axles)

Electrical System – 12 volt D.C.

Trencher ramp & Fender kit to be included

#### Tires:

St225/75R15 load range C

#### Options

Spare tire and wheel

**MUST BE ABLE TO ACCOMODATE A DITCH WITCH MODEL NUMBER  
3500.**

### **ITEM 3**

## **16 Foot Utility Trailer Specifications**

#### CAPACITIES

GVWR (MAX): 12,000 lbs  
Trailer Weight (MIN): 3,100 lbs.

#### **DIMENSIONS:**

Between fender width 80.5"  
Overall Width 101"  
Deck Height 21" level  
Fender Height 12.5" from deck  
Tongue Length 68.5" to hitch plate  
Deck Length 16'  
Ramp Length 6'  
Overall Length 23' from hitch plate to extreme rear

#### RUNNING GEAR

Axle Capacity 6,000 lbs. x 2 each w/grease lube  
Brakes 12' X 2" electric  
Suspension 6-leaf 2' wide slipper spring  
Wheels 16" x 6"- 8 bolt on 6.5" circle  
Tires 235-85R 16" radial 10-ply load range E

#### FRAME MATERIAL

Outer Rails 3.5" x 6" x .375 angle A-36  
Cross Members 4" x 5.4 lb. Channel A-36  
Tongue 8" x 11.5 lb. Channel A-36  
Fenders 10 gauge formed

#### FEATURES

Coupling 2.5" lunette eye, adjustable in height  
Safety Chains .375 grade 70 w/grab hooks  
Jack 5,000 lbs. Screw Adj.  
Flooring 2' x 8" nominal treated wolmanized lumber  
Ramp 6' x 13.5" spring assisted; fold up w/knife edge, adjustable in Width from 27.5"  
Tie Downs 4 each D-rings  
Lighting 12-volt sealed beam, rubber mounted lights, meets D.O.T. specs  
Breakaway System 12-volt w/battery, battery box, tow charger & switch, meets D.O.T. specs.  
Light connector 6 prong connector  
Paint Manufacturer's standard yellow enamel & primer  
Warranty 1-year against defects in workmanship & materials

#### OPTIONS

Spare tire & wheel

**ITEM 4 – 9,000 lb. GVW Trailer - SPECIFICATIONS FOLLOW ON PAGES 16-20.**

## UTILITY TRAILER

Bidder shall complete every space in Section 2 (bidder's proposal column). The bidder shall give a complete description of item being bid, such as sizes, capacities, dimensions, etc.

| Section 1  |   | Section 2   |
|------------|---|---|
| Item       | Specifications (minimum)  | Bidder's Proposal   |
| Equipment  | Current year model 9,000 lb. payload capacity equipment trailer.  | <hr/> <hr/>   |
| Capacity   | 9,000 lb. payload   | <hr/>   |
| Platform   | Platform to be 16 ft. overall length<br><br>Width 6 ft.<br><br>Treadplate steel deck<br><br>Four (4) d-ring tie downs, two (2) to be mounted 2 ft. from the front and two (2) to be mounted 2 ft. from the rear of the trailer on each side. 5 stake pockets to be included on each side. | <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> |
| Ramps      | Ramp width 24 inches<br><br>Must be adjustable and capable of sliding together for various equipment sizes.<br><br>Fold-up type, hinge pinned, spring loaded, cleated or non skid type material.<br><br>Self-supporting and self-cleaning.  | <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> |
| Suspension | Tandem 4" deep axles as required for payload.<br><br>Grease axle lubrication.   | <hr/> <hr/> <hr/>   |
| Brakes     | Electric on axle.   | <hr/> <hr/>   |

## UTILITY TRAILER

Bidder shall complete every space in Section 2 (bidder's proposal column). The bidder shall give a complete description of item being bid, such as sizes, capacities, dimensions, etc.

| Section 1        |  | Section 2                                       |
|------------------|--|---|
| Item             | Specifications (minimum)   | Bidder's Proposal                               |
| Electrical       | 12 volt standard trailer lights meeting DOT requirements for 24 hour highway operation shall be provided. Furnish and install a 6 way light connection, Cole Hershee or equal. Electrical wiring shall be in a weatherproof housing. Taillights shall be completely sealed and of the weatherproof type. | <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> |
| Tires and Wheels | Tires to be sized as required to meet GVWR ratings.<br><br>Must include spare tire and wheel mounted to trailer.<br><br>Hubcaps to be included<br><br>Teardrop fenders with guards.  | <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> |
| Jack             | 5,000 lb. top crank  | <hr/> <hr/>                                     |
| Color            | Manufacturer's standard white. All metal shall be cleaned of all mill scale and slag. Primer paint shall be applied prior to applying two coats of paint.  | <hr/> <hr/> <hr/> <hr/>                         |
| Tongue           | Adjustable pintle hitch.<br><br>Manufacturer's standard length.<br><br>Trailer shall have standard break-a-way system utilizing two class V safety chains with hooks as per the attached specification standard 000085.  | <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> |
| Safety           | Trailer shall be equipped with all reflectors, lights and equipment as required by state of Oklahoma and Federal laws governing highway safety.  | <hr/> <hr/> <hr/> <hr/>                         |

## UTILITY TRAILER

Bidder shall complete every space in Section 2 (bidder's proposal column). The bidder shall give a complete description of item being bid, such as sizes, capacities, dimensions, etc.

| Section 1           | Section 2                                   |                   |
|---------------------|---|-------------------|
| Item                | Specifications (minimum)                    | Bidder's Proposal |
| Additional<br>Items | Fully undercoated.                          | _____             |
|                     | 2 sets of parts manuals.                    | _____             |
|                     | 2 sets of service manuals                   | _____             |
|                     | Oklahoma application for title              | _____             |
|                     | Manufacturer's statement of origin.         | _____             |
|                     | Four(4) ratchet type boomers for 3/8" chain | _____             |

SPECIFICATIONS FOR TRAILER SAFETY CHAINS

CLASS I, II, and III (not to exceed 5,000 lbs)

|                                    |                               |
|------------------------------------|-------------------------------|
| (2) 314A 1/4" HOOK )1225021)       | WLL=4,500 LBS - UL=18,000 LBS |
| (6) 1/4" CHAIN (ALLOY)             | WLL=3,500 LBS - UL=14,000 LBS |
| (2) 337 1/4" CONN. LINK            | WLL=3,500 LBS - UL=14,000 LBS |
| (4) S341 1/2" WELDLESS SLING LINKS | WLL=2,900 LBS - UL=17,400 LBS |

CLASS IV (not to exceed 10,000 lbs)

|                                    |                               |
|------------------------------------|-------------------------------|
| (2) 314A 3/8" HOOK                 | WLL=7,100 LBS - UL=28,400 LBS |
| (6) 3/8" CHAIN (ALLOY)             | WLL=7,100 LBS - UL=28,400 LBS |
| (2) 337 3/8" CONN. LINK            | WLL=6,600 LBS - UL=26,400 LBS |
| (4) S341 3/4" WELDLESS SLING LINKS | WLL=6,000 LBS - UL=36,000 LBS |

CLASS V (not to exceed 30,000 lbs)

|                                 |                                |
|---------------------------------|--------------------------------|
| (2) 314A 1/2" HOOK              | WLL=12,000 LBS - UL=48,000 LBS |
| (6) 1/2" CHAIN (ALLOY)          | WLL=12,000 LBS - UL=48,000 LBS |
| (2) 337 1/2" CONN. LINK         | WLL=11,250 LBS - UL=45,000 LBS |
| (4) S341 1" WELDLESS SLING LINK | WLL=10,800 LBS - UL=64,800 LBS |

**Hook Detail**

All hooks will be Crosby Grade 8 Alloy Steel Latching Clevis Hooks, (heat treated), which meets the new NACM and proposed ASTM and Euronorm Standards for Grade 8 Chain fittings. The hooks are anti-fouling due to carefully designed contours and are individually tested at 2 1/2 times the working load limit, with certification packed with each hook. These hooks are also fatigue rated. (Domestic Only, Crosby or Equal and Certificate of Compliance Required).

**Chain Detail**

All chain will be equal to Crosby Spectrum 8 Alloy Chain. Proof loaded at 2 1/2 times the Working Load Limit, and a minimum Ultimate Load of 4 times the Working Load Limit. Purchasing information, (Domestic Only, Crosby or Equal and Certificate of Compliance Required).

**Connecting Link Detail**

Crosby Lok-A-Loy Alloy Connecting Link. Quenched and Tempered are individually Proof Tested Forged Alloy Steel. The Ultimate Load is 4 times the Working Load Limit. Purchasing information, (Domestic Only, Crosby or Equal and Certificate of Compliance Required).

**Weldless Sling Links**

Crosby Forged Carbon Steel, Quenched and Tempered (If painted the paint must be removed before welding to trucks and trailers). Links are to be attached by means of a 2 1/2" wide by 12" long by 3/8" A36 steel strap welded to rear of vehicle. The Ultimate Load is 6 times the Working Load Limit. These links must be equal to the Crosby S341. Purchasing information (Domestic Only, Crosby or Equal and Certificate of Compliance Required).

Trailer Safety Chain Specifications by Part

Hook Detail

All hooks will be Crosby Grade 8 Alloy Steel Latching Clevis Hooks, (heat treated), which meets the new NACM and proposed ASTM and Euronorm Standards for Grade 8 Chain fittings. The hooks are anti-fouling due to carefully designed contours and are individually Proof Tested at 2 1/2 times the Working Load Limit, with certification, packed with each hook. These hooks are also fatigue rated. The Ultimate Load is 4 times the Working Load Limit. Crosby Part #S314A. (Domestic Only, Crosby or Equal and Certificate of Compliance Required).

Chain Detail

All Chain will be equal to Crosby Spectrum 8 Alloy Chain. Proof loaded a 2 1/2 times Working Load Limit, and a minimum Ultimate Load of 4 times the Working Load Limit. Purchasing information, (Domestic Only, Crosby or Equal and Certificate of Compliance Required).

Connecting Link Detail

Crosby Lok-A-Loy Alloy Connecting Link, Quenched and Tempered are individually Proof Tested Forged Alloy Steel. The Ultimate Load is 4 times the Working Load Limit. Purchasing information, (Domestic Only, Crosby or Equal and Certificate of Compliance Required).

Weldless Sling Links

Crosby Forged Carbon Steel, Quenched and Tempered. The Ultimate Load is 6 times the Working Load Limit. These links must be equal to the Crosby S341. Purchasing information (Domestic Only, Crosby or Equal and Certificate of Compliance Required).

Containment Unit for Weldless Links

The steel strips which will be made in accordance with Attachment "I" will contain the Weldless Sling Links to the trailer and pulling vehicle.

Weldless Link Holding Device

The weldless link is 1 inch in diameter. A steel strip will be heated and formed over a 1-1/4 inch round bar. The steel strip will then be placed over weldless link and welded on all three sides up to where the steel strip fits over weldless link. The weld strength should be a minimum of 60,000 pounds per square inch. The steel strip dimensions will be : 3/8 inch thick, 8 inches long and 2-1/2 inches wide and should be Grade: A36 material.

