



**BID 02-523
CHIPPER-SHREDDER
PUBLIC WORKS DEPARTMENT**

ADDENDUM NO. 1

This Addendum No. 1, consisting of the following information, shall be made a part of the bid specifications for subject bid.

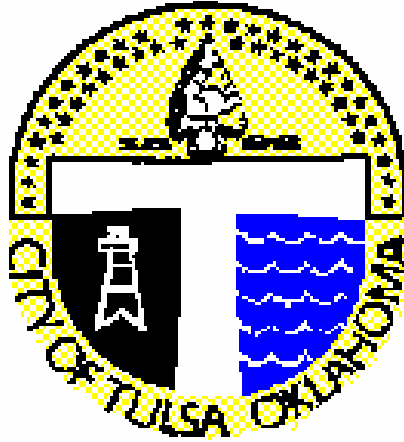
- 1. Under the heading “ENGINE”: Item #3 Should read 84 hp instead of 76 hp**
- 2. Under the heading “ENGINE”: Item #6 should read 950CCA instead of 725 CCA**
- 3. Under the heading “FEED ROLLER”: Item #1 should Read two 16.5” feed rollers mounted on vertical axis. Assembly to be hydraulically drive, no chain or sprockets allowed.**
- 4. Under the heading “TRAILER”: Item #1 should read 11 gauge fenders instead of 18 ga.**
- 5. Under the heading “TRAILER”: Item #4 should read Minimum of 6,000 lb. Leaf suspension.**
- 6. Under the heading “TRAILER”: Item #5 should read 7.50 x 16 tires or manufacturers standard to meet the GVW of suspension.**

All other provisions remain the same.

Please include this addendum with your bid submittal.

Signature

Company Name



INVITATION FOR SEALED BID

BID 02-523

Description: CHIPPER-SHREDDER

Department: PUBLIC WORKS

NIGP Commodity Code(s): 020-04-00-000-0

Total pages including this page is 19

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 Website : www.cityoftulsapurchasing.org

you must notify the buyer Darlene Donica of your intent to bid by e-mail ddonica@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 website.

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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: January 23, 2003

BID NUMBER: 02-523

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: January 9, 2003

Bid must be accompanied by bidder's bond, cashier's check or certified check in the amount of: NOT REQUIRED

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 SEALED 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, Oklahoma Charter and 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 is exempt from Federal Excise Tax and Oklahoma Sales Tax. In such cases the bidder shall quote prices that 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

My Commission # _____

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.) _____

Person Authorized to Sign Contracts _____

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 02-523

BIDDER AGREES TO FURNISH CHIPPERS-LIMB SHREDDERS IN ACCORDANCE WITH BID SPECIFICATIONS AT THIS PRICE:

ONE (1) or more CHIPPER-SHREDDER \$ _____ EACH*

MANUFACTURER AND MODEL OF ITEM QUOTED:

EXPECTED DELIVERY TIME: _____

NOTE: BIDDERS MUST SUBMIT ONE (1) ORIGINAL BID AND TWO (2) COPIES, EACH WITH ATTACHMENTS AS NECESSARY TO SHOW COMPLIANCE WITH BID SPECIFICATIONS.

Note: Delivered Cost

For further information please contact: Jim LaCourse @ 918-591-4068

BID 02-523
CHIPPER-LIMB SHREDDER
NIGP CODE 020-04-00-000-0
FOR THE
CITY OF TULSA
PUBLIC WORKS DEPARTMENT

INTENT

THE INTENT OF THESE SPECIFICATIONS IS TO SET MINIMUM REQUIREMENTS, NOT TO OTHERWISE LIMIT BIDDING, FOR THE SUPPLY OF CHIPPERS-LIMB SHREDDERS FOR THE CITY OF TULSA.

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 A DEVIATION WHICH DOES NOT: (A) MATERIALLY AFFECT THE ABILITY OF THE PRODUCT TO ACHIEVE OR ACCOMPLISH A NECESSARY FUNCTION OR TASK IN THE MANNER REQUIRED BY THE SPECIFICATIONS; (B) COMPROMISE THE SAFETY OF THE USER THEREOF; AND, (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 FINAL JUDGMENT CONCERNING WHAT IS OR IS NOT A MINOR DEVIATION AND TO AWARD THE BIDDER(S) WHOSE BID(S) BEST SUIT THE CITY'S NEED FOR THE PRODUCT BEING PURCHASED.

DESCRIPTIVE LITERATURE

EACH BIDDER IS REQUIRED TO FURNISH WITH THEIR BID, CATALOG CUTS AND/OR DESCRIPTIVE LITERATURE, PROPERLY LABELED WITH THE BID NUMBER AND BIDDER'S NAME, WITH FULL ILLUSTRATIONS AND DETAILED SPECIFICATIONS FOR EACH ITEM OFFERED AS EQUAL TO THE BRAND NAME SPECIFIED. IN ADDITION, **ALL DIFFERENCES IN SPECIFICATIONS FROM THE SPECIFICATIONS STATED HEREIN MUST BE SO MARKED.** DESCRIPTIVE LITERATURE IS REQUIRED TO ESTABLISH, FOR THE PURPOSE OF BID EVALUATION AND AWARD, DETAILS OF THE PRODUCT(S) THE BIDDER PROPOSES TO FURNISH AS TO DESIGN, MATERIALS, METHOD OF MANUFACTURE, CONSTRUCTION, ASSEMBLY OR OPERATION, AS APPROPRIATE. **FAILURE TO SUBMIT THE DESCRIPTIVE LITERATURE WILL BE CAUSE FOR REJECTION OF YOUR BID.**

PRICES

PRICES BID SHALL BE BASED ON NEW, UNUSED MATERIAL IN STRICT ACCORDANCE WITH THE SPECIFICATIONS INCLUDED IN THIS BID, DELIVERED TO THE JOB SITE.

DELIVERY AND SPECIAL INSTRUCTIONS

THE SUCCESSFUL BIDDER(S) SHALL DELIVER ALL MATERIAL, AT THEIR EXPENSE, TO THE LOCATION(S) SPECIFIED BY THE CITY.

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 REPRESENTATION, 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.

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.

EMPLOYMENT DISCRIMINATION BY CONTRACTOR PROHIBITED

A. DURING THE PERFORMANCE OF THIS CONTRACT, THE CONTRACTOR AGREES AS FOLLOWS:

(1) THE CONTRACTOR WILL NOT DISCRIMINATE AGAINST ANY EMPLOYEE OR APPLICANT FOR EMPLOYMENT BECAUSE OF RACE, RELIGION, COLOR, SEX OR NATIONAL ORIGIN, EXCEPT WHERE RELIGION, SEX OR NATIONAL ORIGIN IS A BONA FIDE OCCUPATIONAL QUALIFICATION REASONABLY NECESSARY TO THE NORMAL OPERATION OF THE CONTRACTOR. THE CONTRACTOR AGREES TO POST IN CONSPICUOUS PLACES, AVAILABLE TO EMPLOYEES AND APPLICANTS FOR EMPLOYMENT, NOTICES SETTING FORTH THE PROVISION OF THIS NON-DISCRIMINATION CLAUSE.

(2) THE CONTRACTOR, IN ALL SOLICITATIONS OR ADVERTISEMENTS FOR EMPLOYMENT PLACED BY OR ON BEHALF OF THE CONTRACTOR, WILL STATE THAT SUCH CONTRACTOR IS AN EQUAL OPPORTUNITY EMPLOYER.

(3) NOTICES, ADVERTISEMENTS AND SOLICITATIONS PLACED IN ACCORDANCE WITH FEDERAL LAW, RULE OR REGULATION SHALL BE DEEMED SUFFICIENT FOR THE PURPOSE OF MEETING THE REQUIREMENTS OF THIS SECTION.

B. THE CONTRACTOR WILL INCLUDE THE PROVISION OF THE FOREGOING PARAGRAPHS OF THIS SECTION IN EVERY SUBCONTRACT OR PURCHASE ORDER OF OVER \$10,000, SO THAT THE PROVISIONS WILL BE BINDING UPON EACH SUBCONTRACTOR OR VENDOR.

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:

E. AWARD OF CONTRACT.

1. AUTHORITY OF 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. 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, AND;
- 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.

BID DOCUMENTS

BIDDER SHALL RETURN ALL BID DOCUMENTS (18 PAGES) EXACTLY AS FURNISHED IN THEIR ORIGINAL FORM. ALL BID DOCUMENTS REQUIRING SIGNATURES MUST BE SIGNED BY AN AUTHORIZED AGENT OF THE COMPANY BIDDING. PRINTING YOUR NAME IN LIEU OF A SIGNATURE WILL NOT BE ALLOWED. **FAILURE TO COMPLY WILL RESULT IN REJECTION OF YOUR BID.**

BIDDER'S PROPOSAL COLUMN

BIDDER SHALL COMPLETE EVERY SPACE IN SECTION 2, BIDDER'S PROPOSAL COLUMN. THE BIDDER SHALL GIVE A COMPLETE DESCRIPTION OF THE ITEM BEING BID SUCH AS, SIZES, CAPACITIES, DIMENSIONS, ETC. MARKINGS SUCH AS CHECKS AND BLANK SPACES WILL BE CONSIDERED AS NON-RESPONSIVE AND REASON FOR REJECTION. THE WORD **COMPLY** WILL BE INTERPRETED AS MEANING THE **SAME** AS SPECIFIED. **FAILURE TO COMPLY WILL RESULT IN REJECTION OF YOUR BID.**

SPECIFICATIONS FOR TRAILER SAFETY CHAINS

CITY OF TULSA STANDARD #000085

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
- (2) 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
- (2) 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
- (2) 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.

