

DI-ACRO #12 HAND SHEAR INSTRUCTION MANUAL



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SAFETY INFORMATION



Before Shear is set up for operation, mount on work bench or stand*.

*IF SHEAR IS MOUNTED ON ITS OWN STAND, SECURE STAND TO FLOOR.

SET-UP PROCEDURE

Insert Handle in Holder and tighten in place.

MAINTENANCE

Lubricate as needed.

TECHNICAL DATA

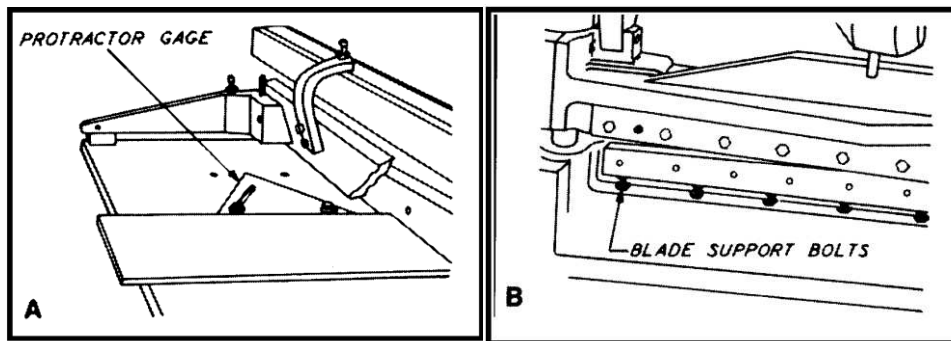
SPECIFICATIONS

| Model #12 Hand Shear | in. | mm |
|-----------------------------|------------|-----------|
| Max. Shearing Width | 12 | 304.8 |
| Max. Capacity, m.s. | 16 ga. | 1.5 |
| Range of Back Gauge | 12 | 304.5 |
| Shipping Weight | 168 lbs. | 76 kg. |

OPERATING PROCEDURES

When setting up for a production run:

1. Mount the Ruled Squaring Gauge or the Protractor Gauge in the most practical position on the work table and adjust it to the desired angle. (See Illustration A)
2. Mount and position Material Gauge as described on the following page.
- 3.



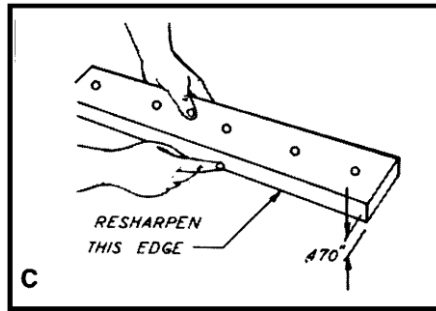
Adjusting and Grinding Blades:

The precision standards to which Di-Acro Shears are built eliminate the necessity of adjusting the shear blades after they have been bolted into position against the base and top blade casting.

When shipped from the factory, these machines are adjusted to accurately shear 16 gauge steel and the thinnest of sheet materials.

The bottom shear blade should at all times be located so that its upper edge is flush with the top of the base casting and the shear table.

Vertical adjustment of the bottom shear blade is obtained by use of Blade Support bolts which are located in the base casting directly below the bottom blade. (See Illustration B)



Di-Acro shear blades are made from high quality oil hardened tool steel properly heat treated and precision ground. They are easily resharpened on an ordinary surface grinder by grinding the narrow edge of the blade which measures 0.470". (See Illustration C)

NOTE: Grinding the wide edge of the blade reduces its size and necessitates shimming to obtain proper adjustment.

INSTALLING QUIK-SET MICROMETER GAUGES

Installation Steps:

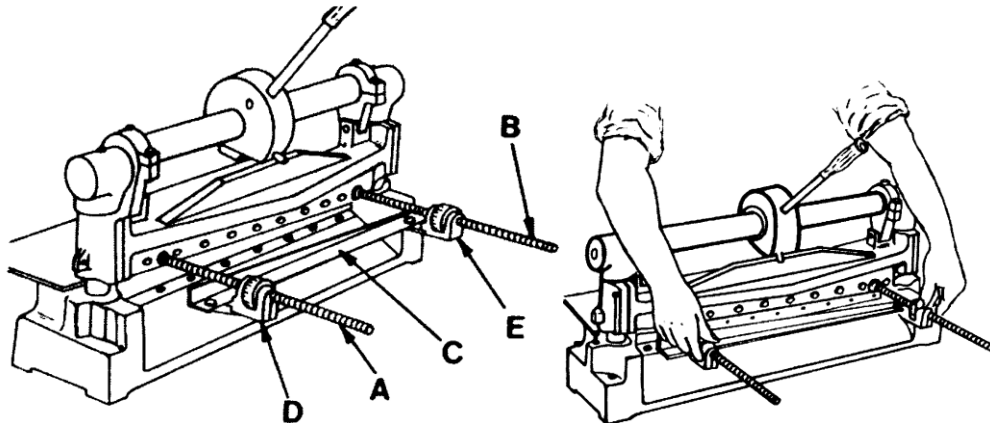
1. Mount material stop (C) on micrometer gauges (D) and (E).
2. Screw in threaded rods (A) and (B) by hand until they stop. Make sure lock nuts are loose.
3. Synchronize gauges.

To Synchronize Gauges:

1. Set micrometer gauges (D) and (E) on zero.
2. Push down or depress spring loaded micrometer gauges to release them from the threaded rods and slide material stop assembly forward until it touches lower shear blade.
3. Turn micrometer gauges (D) and (E) to engage threaded rods.
4. Turn threaded rods (A) and (B) counterclockwise and micrometer gauges (D) and (E) clockwise until material stop (C) touches lower shear blade and micrometer gauges read zero.
5. Tighten lock nut on each threaded rod.

Adjusting Quik-Set Micrometer Gauges

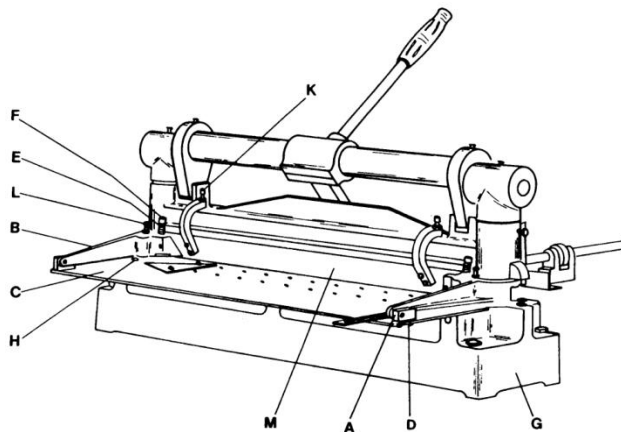
Operator can easily and quickly adjust Gauge while standing either in front or in back of shear. Set both Micrometer Nut Assemblies on zero and push down or depress. This releases the Material Stop Assembly from the Threaded Rods. Move Material Stop to approximate desired location (complete assembly can be freely moved back and forth on Threaded Rods when Micrometer Nut Assemblies are depressed) and adjust micrometer Gauges to accurately position Material Stop.



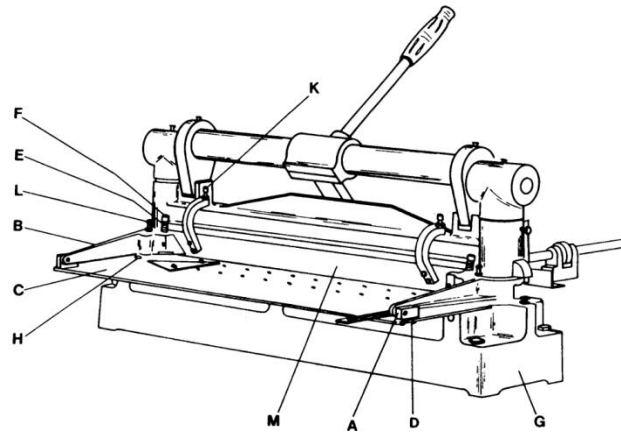
Installing Holddown Bar

Shear ships with hold down bar assembled. If assembly is required follow the procedure described below:

1. Mount Shear Table C on Casting with Screws H.

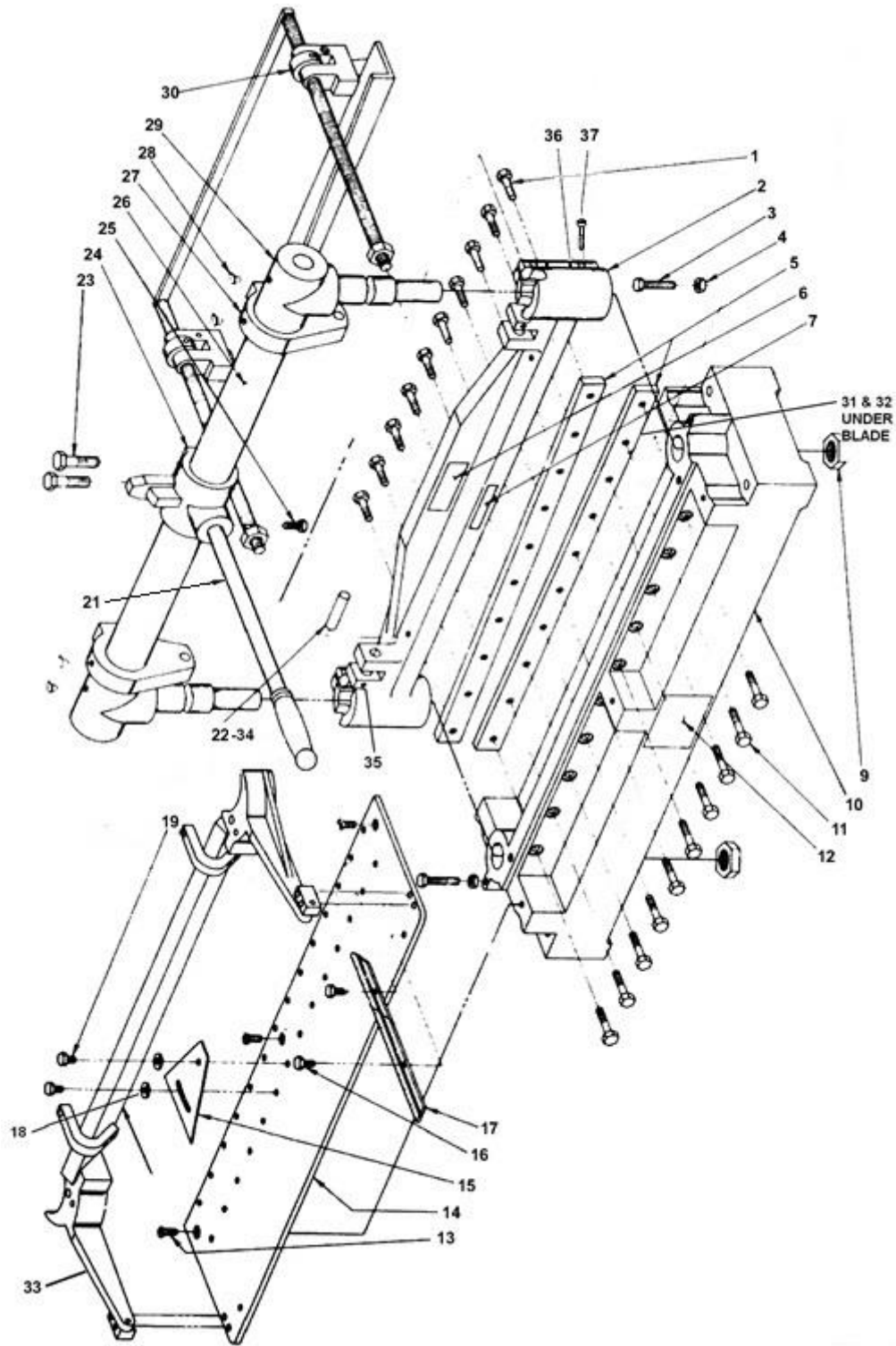


2. To mount basic Holddown Bar Assembly, screw Holddown Bar M to Holddown Arms B using socket head cap screws.
3. Place Holddown Bar Assembly on Shear Table centering Bolts D in oversize holes.



4. Mount Holddown Bar Assembly on Shear Table locating Springs E on Screws F and starting them into tapped holes in Base Casting.
5. Locate front edge of Holddown Bar M at edge of lower shear blade so it may be used as gauge when shearing to a scribed line. Horizontal adjustment of the Holddown Bar is provided for by the oversize mounting holes for Holddown Trunnions A.
6. Adjust vertical clearance of Holddown Bar on Screws K. For accuracy, when shearing to a scribed line, it is important that both vertical and horizontal adjustments of the bar be made so that the bar is very close to the material being sheared.
7. Regulate tension of Holddown Bar by adjusting Holddown Spring Screws F. Adjust to minimum tension required to securely hold material while shearing. When shearing narrow strips of material on one end of the shear, two ways assuring even hold down pressure across the material are:
8. Place a piece of the material between the Hold Down Bar and the table on the opposite end.
9. Adjust Screw L on the opposite end to a point where a material thickness is the distance between the Hold Down Bar and the Table.

#12 HAND SHEAR PARTS BREAKDOWN 82318000-080

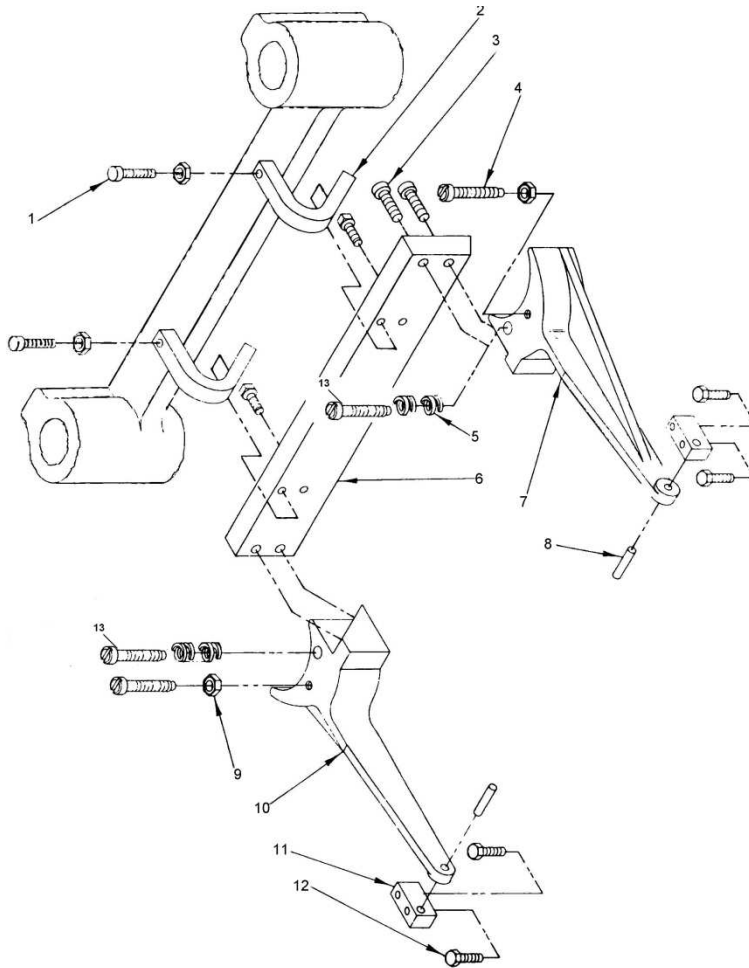


PARTS LIST

8231800-080

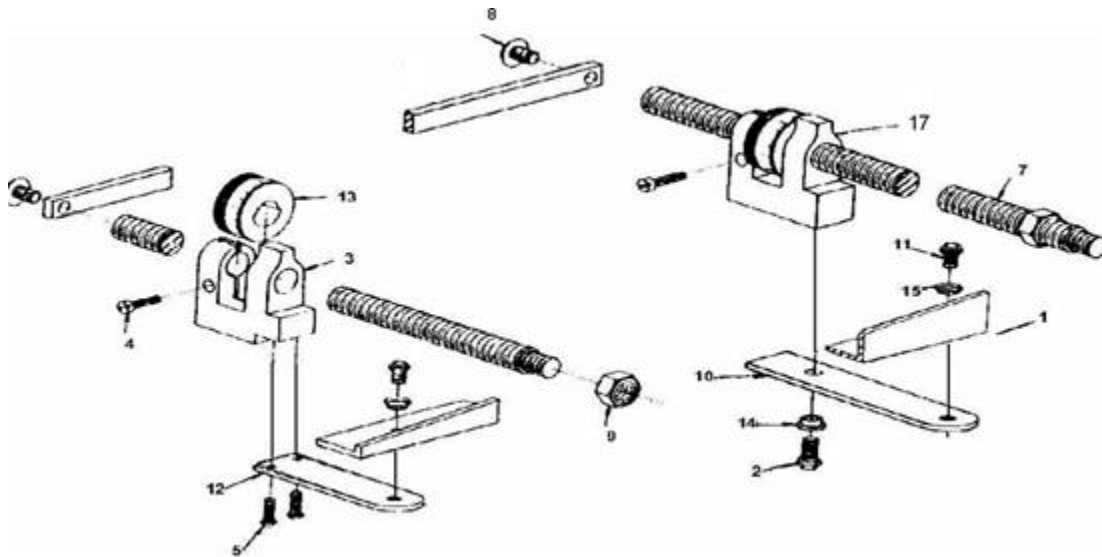
| ITEM | PART NUMBER | DESCRIPTION | QTY |
|------|--------------|--------------------------------------|-----|
| 1 | 21A0516C1102 | SCREW-HHCS 5/16-18X1-1/2 | 5 |
| 1A | 61X0516 | WASHER-FLAT 5/16 | 5 |
| 2 | 8230121-300 | UPPER CASTING | 1 |
| 3 | 21A0516C1104 | SCREW-HHCS 5/16-18X1-1/4 | 2 |
| 4 | 31X0516C | NUT-JAM 5/16 | 2 |
| 5 | 8230120-900 | BLADE | 2 |
| 6 | 8150650-110 | NAMEPLATE | 1 |
| 7 | 8030650-301 | LABEL-PINCH POINT | 1 |
| 9 | 31X1000F | NUT-JAM 1 | 2 |
| 10 | 8230110-100 | BASE | 1 |
| 11 | 21A0516C1304 | SCREW-HHCS 5/16-18X1-3/4 | 5 |
| 11A | 61X0516 | WASHER-FLAT 5/16 | 5 |
| 12 | 030-6503001 | CAUTION PLATE | 1 |
| 13 | 20C0104C0508 | SCREW-FHSCS 1/4-20X5/8 | 2 |
| 14 | 8250110-501 | TABLE | 1 |
| 15 | 8230143-502 | PROTRACTOR GAUGE | 1 |
| 16 | 20B0104C0308 | SCREW-BHSCS 1/4-20X3/8 | 2 |
| 17 | 8250160-108 | SQUARING GAUGE | 1 |
| 18 | 61X0104 | WASHER-FLAT 1/4 | 2 |
| 19 | 20B0104C0308 | SCREW-BHSCS 1/4-20X3/8 | 2 |
| 21 | 8991120-800 | HANDLE | 1 |
| 21A | 100-0142-M | HANDLE GRIP | 1 |
| 22 | 8230120-300 | PIN | 2 |
| 23 | 20A0102C1304 | SCREW-SHCS 1/2-13X1-3/4 | 1 |
| 24 | 8230120-801 | HANDLE HOLDER | 1 |
| 25 | 23A0104C0102 | SCREW-SSS 1/4-20X1/2 | 1 |
| 26 | 8230121-100 | SHAFT | 1 |
| 27 | 8230121-200 | SHAFT LINK | 2 |
| 28 | 8690100-100 | OIL HOLE COVER | 4 |
| 29 | 8230110-371 | SHAFT BEARING ASSY | 2 |
| | 8230110-300 | SHAFT BEARING | 2 |
| | 8230110-301 | POST | 2 |
| 30 | 8230143-179 | QUIKSET BACK GAUGE ASSY(SEE PAGE 10) | 1 |
| 31 | 21A0104C0708 | SCREW-HHCS 1/4-20X7/8(NOT SHOWN) | 5 |
| 32 | 31X0104C | NUT-JAM 1/4-20 (NOT SHOWN) | 5 |
| 33 | 8251121-971 | HOLDDOWN ASSY (SEE PAGE 9) | 1 |
| 34 | 22D0104C0308 | SCREW-THMS 1/4-20X3/8 | 2 |
| 35 | 23A0X10C0308 | SCREW-SSS #10-24X3/8 | 2 |
| 36 | 23A0104C0102 | SCREW-SSS 1/4-20X1/2 | 4 |
| 37 | 20A0516C1104 | SCREW-SHCS 5/16-18X1-1/4 | 4 |

HOLDDOWN ASSEMBLY 8251121-971



| ITEM | PART NUMBER | DESCRIPTION | QTY |
|------|--------------|--------------------------|-----|
| 1 | 20A0516C1104 | SCREW-SHCS 5/16-18X1-1/4 | 2 |
| 1A | 31X0516C | NUT-JAM 5/16-18 | 2 |
| 2 | 8051121-901 | HOLDDOWN BRACKET | 2 |
| 3 | 20A0516C1000 | SCREW-SHCS 5/16-18X1 | 4 |
| 4 | 8251470-101 | ARM ADJ BOLT | 2 |
| 5 | 8510211-700 | SPRING | 2 |
| 6 | 8051121-900 | HOLDDOWN BAR | 1 |
| 7 | 8251121-900 | HOLDDOWN ARM "R" | 1 |
| 8 | 19A0104X1000 | PIN-DOWEL 1/4X1 | 2 |
| 9 | 31X0516C | NUT-JAM 5/16-18 | 2 |
| 10 | 8251121-901 | HOLDDOWN ARM "L" | 1 |
| 11 | 8000121-901 | HOLDDOWN TRUNNION | 2 |
| 12 | 20A0104C1000 | SCREW-SHCS 1/4-20X1 | 8 |
| 13 | 20A0308C3000 | SCREW-3/8-16X3 | 2 |

BACKGAUGE ASSEMBLY 8230143-179



| ITEM | PART NUMBER | DESCRIPTION | QTY |
|------|--------------|------------------------|-----|
| 1 | 8030143-103 | QUIK SET STOP | 1 |
| 2 | 21A0104C0102 | SCREW-HHCS 1/4-20X1/2 | 1 |
| 3 | 8000143-103 | QUIK SET BRACKET "L" | 1 |
| 4 | 22B0104C0708 | SCREW-FLHMS 1/4-20X7/8 | 2 |
| 5 | 22A0X10F0308 | SCREW-RHMS #10-32X3/8 | 2 |
| 7 | 8230143-103 | QUIK SET ROD | 2 |
| 8 | 22D0516C0102 | SCREW-THMS 5/16-18X1/2 | 2 |
| 9 | 8690470-404 | NUT | 2 |
| 10 | 8220143-104 | QUIK SET ARM LONG | 1 |
| 11 | 21A0104C0308 | SCREW-HHCS 1/4-20X3/8 | 2 |
| 12 | 8100143-104 | QUIK SET ARM SHORT | 1 |
| 13 | 8210143-172 | DIAL NUT ASSEMBLY | 2 |
| | 8210510-204 | SPRING | 2 |
| | 8000143-104 | DIAL NUT SHOE | 2 |
| | 8210143-104 | DIAL NUT | 2 |
| 14 | 8200143-104 | PIVOT SLEEVE | 1 |
| 15 | 8010143-104 | SPACER SLEEVE | 2 |
| 17 | 8130143-103 | QUIK SET BRACKET "R" | 1 |

OPTIONAL STAND

PART NUMBER IS 8230110-900

STAND DIMENSIONS ARE: 20" WIDE, 15" DEEP, 33-1/4" HIGH

CALL DI-ACRO FOR PRICE AND AVAILABILITY



Fasteners needed to attach Shear the stand are the following:

(Fasteners to attach stand to floor are not included.)

| PART NUMBER | DESCRIPTION | QTY |
|--------------|-------------------------|-----|
| 21A0308C3102 | SCREW-HHCS 3/8-16X3-1/2 | 4 |
| 61X0308 | WASHER-FLAT 3/8 | 4 |
| 30X0308C | NUT-FULL 3/8-16 | 4 |

Warranty & Limitation of Liability

Defective parts, of a product manufactured by DI-ACRO, will be replaced or repaired at no charge for twelve (12) months following delivery to the original purchaser. Labor is included for the first 90 days. This warranty becomes void when products have not been used according to instructions furnished by DI-ACRO, nor does it cover any altered parts or unauthorized repairs. We cannot be responsible for the cost of repairs made or attempted outside of our factory. All other warranty claims are made FOB our plant, providing such items(s) is returned freight prepaid to our plant for examination.

This warranty does not apply to parts, components or systems not manufactured by DI-ACRO. These products are covered instead by the existing warranties, if any, of their manufacturers. Normal service items with a reasonable life expectancy of less than one year are warranted only to the extent of the reasonable life under normal use and service.

Authorization must be obtained from DI-ACRO before returning parts or equipment to the factory. DI-ACRO will satisfy this warranty by replacing the product or refunding the purchase price upon receipt, inspection and defect identification.

DI-ACRO's liability under this warranty shall not exceed the amount paid for the product.

THIS IS DI-ACRO'S SOLE WARRANTY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, WHICH ARE HEREBY EXCLUDED, INCLUDING IN PARTICULAR ALL WARRANTIES OF MERCHANTABILITY, FITNESS OR ANY LOSS, DAMAGE OR EXPENSES DIRECTLY OR INDIRECTLY RELATED TO THE USE OF ITS PRODUCT OR FROM ANY OTHER CAUSE OR FOR CONSEQUENTIAL DAMAGES INCLUDING, WITHOUT LIMITATION, LOSS OF TIME AND LOSS OF PRODUCTION.

IT IS EXPRESSLY UNDERSTOOD THAT DI-ACRO IS NOT RESPONSIBLE FOR DAMAGE OR INJURY CAUSED TO OTHER PRODUCTS, MACHINERY, PROPERTY OR PERSONS BY REASON OF THE USE OF ITS PRODUCTS.



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