TECHNICAL MANUAL

OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS LIST

FOR

SHEARING MACHINE, METAL-SQUARING MODEL NOS. 132, 137, 142 and 152 (PECK, STOW, AND WILCOX CO., INC) (NSN 3445-00-239-0706)

HEADQUARTERS, DEPARTMENT OF THE ARMY

WARNING

Before operating, machine must be leveled and securely lagged to floor.

TM 9-3445-102-14&P

TECHNICAL MANUAL

No. 9-3445-102-14&P

HEADQUARTERS DEPARTMENT OF THE ARMY WASHINGTON, DC, 25 April 1980

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REPORTING OF ERRORS

You can improve this manual by recommending improvements using DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual. Mail your form direct to: Commander, US Army Armament Materiel Readiness Command, ATTN: DRSAR-MAS, Rock Island, IL 61299. A reply will be furnished direct to you.

NOTE

This manual is published for the purpose of identifying an authorized commercial manual for the use of the personnel to whom the shearing machine is issued.

Manufactured by: Roper Whitney, Inc. 2833 Huffman Blvd Rockford, IL 61101

Procured under Contract No. DAAA09-76-C-6234

This technical manual is an authentication of the manufacturer's commercial literature and does not conform with the format and content specified in AR 310-3, Military Publications. This technical manual does, however, contain available information that is essential to the operation and maintenance of the equipment.

INSTRUCTIONS FOR REQUISITIONING PARTS NOT IDENTIFIED BY NSN

When requisitioning parts not identified by National Stock Number, it is mandatory that the following information be furnished the supply officer.

- 1- Manufacturer's Federal Supply Code Number-
- 2- Manufacturer's Part Number exactly as listed herein.
- 3- Nomenclature exactly as listed herein, including dimensions, if necessary.
- 4- Manufacturer's Model Number-
- 5- Manufacturer's Serial Number (End Item)
- 6- Any other information such as Type, Frame Number, and Electrical Characteristics, if applicable.
- 7- If DD Form 1348 is used, fill in all blocks except 4, 5, 6, and Remarks field in accordance with AR 725-50.

Complete Form as Follows:

- (a) In blocks 4, 5, 6, list manufacturer's Federal Supply Code Number followed by a colon and manufacturer's Part Number for the repair part.
- (b) Complete Remarks field as follows:

Noun: (nomenclature of repair part) For: NSN: Manufacturer:

Model: Serial:

Any other pertinent information such as frame number, type, dimensions, etc.

INSTRUCTIONS AND PARTS IDENTIFICATION

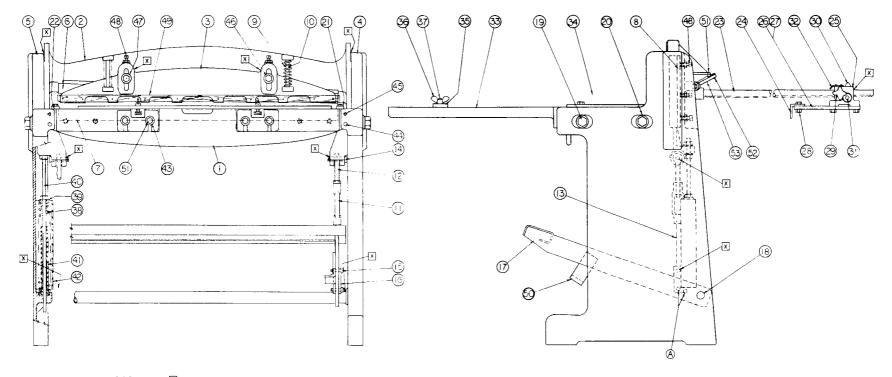
132-137-142-152 FOOT SQUARING SHEAR

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KEEP THIS INSTRUCTION SHEET WITH SHEAR

PARTS IDENTIFICATION CHART - 132-137-142-152 FOOT SQUARING SHEAR



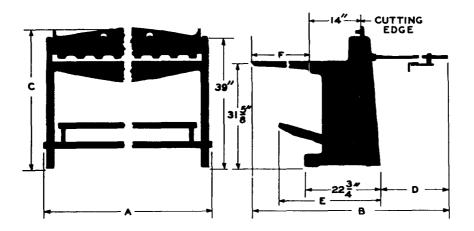
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| 1 | Bed | 11411 | 11369 |
| 2 | Crosshead | Spec 2472 | Spec 2474 |
| 3 | Holddown | B/M 6528 | 15083 |
| 4 | R.H. Leg | 15084 | 15084 |
| 5 | L.H. Leg | 15085 | 15085 |
| 6 | Upper Blade | 10484 | 11381 |
| 7 | Lower Blade | 10485 | 11381 |
| 8 | Gib | 10478 | 10478 |
| 9 | Holddown Spring | 14966 | 15086 |
| 10 | Holddown Stud | 15720 | 15087 |
| 11 | Turnbuckles | A 63190 | A 63190 |
| 12 | Upper Treadle Rod | A 63178 | A 63178 |
| 13 | Lower Treadle Rod | A 63179 | A 63179 |
| 14 | Crosshead Pin | A 63176 | A 63176 |
| 15 | Connecting Link Pin | A 63177 | A 63177 |
| 16 | Connecting Link | 12235 | 12235 |
| 17 | Treadle Assembly | B/M 14839 | B/M 15092 |
| 18 | Treadle Hinge Pin | 11819 | 11819 |
| 19 | Bed to Leg Bolts | 5/8 X 4 hex cap scr | 5/8 X 4 hex cap s |
| 20 | Special Washers | 10483 | 10483 |
| 21 | R.H. Side Gauge | 15294 | 15294 |
| 22 | L.H. Side Gauge | 15295 | 15295 |
| 23 | Back Ga. Arm | 10480 | 10480 |
| 24 | Back Gauge Bar | 14777 | 11394 |
| 25 | Back Gauge Holder | 10481 | 10481 |
| 26 | R.H. Link | 10499 | 10499 |
| 27 | L.H. Link | 10500 | 10500 |
| 28 | Pivot Stud | A 5330 | A 5330 |
| 29 | Hand Knob | 10514 | 10514 |
| 30 | Handwheel | 10497 | 10497 |
| 31 | Pinion | 10502 | 10502 |
| 32 | Pointer | 10492 | 10492 |
| 33 | Front Arm | 10489 | 10489 |
| 34 | Bevel Gauge | 10479 | 10479 |
| 35 | Front Gauge | 10493 | 11389 |
| 36 | Wing Nut | 10491 | 10491 |
| 37 | Tee Bolt | 10475 | 10475 |
| 38 | Treadle Spring | 14967 | 15088 |
| 39 | Spring Collar | 10388 | 10388 |
| 40 | Spring Rod | 15717 | 15717 |
| 41 | Spring Guide | 15718 | 15091 |
| 42 | Spring Cover | 15719 | 15555 |
| 43 | Special Washers | 10473 | 10473 |
| 44 | "Bed Out" Adj. Screw | A 643 | |
| 45 | "Bed In" Adj. Screw | A 643 | |
| | R.H. Holddown to Crosshead Bolt | A 5659 | |
| 47 | L.H. Holddown to Crosshead Bolt | 1/2 X 1-3/4 hex cap scr | |
| 48 | Gib & Holddown Adj. Screws | D (()) | . |
| 49 | Finger Guard | B 669 | B 6611 |
| 50 | Treadle Stop | on treadle | on treadle |
| 51 | Front Arm Bolts | 7/16 X 1–1/4 hex cap scr | |

PARTS LIST - 132-137-142-152 FOOT SQUARING SHEAR

ENGINEERING DATA



SPECIFICATIONS

| SHEAR | A | В | С | D | E | F | BLADE LENGTHS | APPROX. Shipping Weight |
|-------|-----------------|--------|--------|---------------------|--------|--------|------------------|-------------------------------|
| 132* | 3 9³/ 8″ | 69¼″ | 39%" | 29 ¹ ⁄2″ | 27¼″ | 195⁄8″ | 311⁄2″ | 540 |
| 137 | 45½″ | 75%" | 40¼″ | 291⁄2″ | 271/4″ | 26¼″ | 37″ | 650 |
| 142 | 50″ | 761/4″ | 413/8″ | 29¼″ | 30¾″ | 26¼″ | 43″ | 785 |
| 152 | 60″ | 75%" | 42¼″ | 29 ¹ /4″ | 34¼″ | 26¼″ | 53″ | 952 |

*No. 132 Shear furnished without holddown.

INSTRUCTIONS

FOR

ADJUSTING

FOOT SHEARS

WARNING

BEFORE OPERATING

Machine must be leveled

lagged

and securely

floor.

BEFORE OPERATING

Remove Shear From Skids and Lag in Place

- 1. This shear has been tested to capacity at factory. Do not exceed rated capacity on nameplate.
- 2. To set up shear, remove from skids and place on level foundation. Back off all leg-tobed bolts (19 & 20) and loosen adjusting screws (44) and (45). Bed must rest squarely on right and left hand leg ledges at all four corners when bolts are loose. If necessary, shim legs at the floor, to level bed on ledges. LAG SHEAR SECURE LY TO FLOOR.
- 3. To adjust blade for cutting, (after setting up or changing blades), first make sure leg to-bed bolts (19 & 20) are tight. CAUTION: Move bed toward crosshead blade by means of adjusting screws (44) and (45), screw (44) moves bed "out", increasing clearance between upper and lower blade (45) moves bed "in", decreasing clearance. Position lower blade within a few thousandths of the upper blade, being careful that lower blade does not overlap the upper. Place a sheet of heavy paper (approx.005") the full length of cut, between the blades and slowly depress the treadle. If sh e a r does not cut paper, move bed blade in toward upper blade as necessary, by carefully readjusting screws (44 & 45) at either or both sides. If shear cuts paper on ends but not in center, it will be necessary to turn crosshead tie rod adjusting nut (51) clockwise until paper cuts full length of blade. If shear cuts in center but not on ends, reverse direction of turn on crosshead tie rod adjusting nut (51).

NOTE: This adjustment is carefully made at the factory and should not be necessary on a new shear.

- 4. When blades are properly adjusted, tighten leg-to-bed bolts (19 & 20) securely before cutting stock.
- 5. Always keep blades sharp. Wiping blades occasionally with oil will increase blade life.
- 6. Lubrication should be maintained between crosshead and leg bearing surfaces. Lubricate all points (X) daily.
- 7. Front, back and side gauges are provided for use as required. Side and back gauges are graduated in sixteenths and adjustment is provided to keep graduations aligned with blade cutting edges.
- Crosshead adjustment use gib screws (48) to adjust gib setting. This setting should hold crosshead (1) snugly against ways in legs (3 & 4), yet not bind the crosshead movement. This adjustment should not be necessary in new shear.
- 9. It is suggested that an extra pair of blades be available for use when blades are removed for sharpening. Blades should be returned to factory for regrinding.
- 10. Two leverage holes (A) are provided in each treadle lever arm for the lower connecting link pins. The treadle as shipped will give ample leverage for cutting soft steel within the rated capacity of the machine, but greater leverage can be obtained for cutting maximum capacity stock by moving the lower connecting link pins to the holes nearest the hinge pins.
- To adjust shear after blades have been changed, back off the leg-to-bed bolts (19 & 20) and following instruction #3 above. CAUTION: Use heavy gloves when handling shear blades.
- 12. When ordering replacement parts from the factory, be sure to give machine number, serial letter and part name.
- 13. Holddown adjustment set holddown to engage sheet before blades.

By Order of the Secretary of the Army:

E. C. MEYER General, United States Army Chief of Staff

Official:

J. C. PENNINGTON Major General, United States Army The Adjutant General

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