## K3590-1 - RANGER UNDERCARRIAGE (ALL TERRAIN)

## REQUIRED TOOLS

- 9/16" Wrench and Socket
- $1 / 2^{\prime \prime}$ Wrench and Socket
- TORX T-30 Bit or Driver
- Grease Gun
- Hammer or Mallet
- Crane or Hoist



## © WARNING

FALLING EQUIPMENT can cause injury.

- Lift only with equipment of adequate lifting capacity.
- Be sure machine is stable when lifting.


## MOVING PARTS can injure.

- Stop engine before installation.
- Assemble on level ground.

- Push only from the front using the Undercarriage handle.


## $\triangle$ CAUTION

- Wear safety glasses in work area at all times.



## PARTS INCLUDED

| 1 | L17286 | SIDE RAIL | 1 |
| :---: | :---: | :---: | :---: |
|  | T8833-86 | 3/8-16 X 1.25" HHCS | 2 |
|  | CF000067 | 3/8-16 HEX NUT | 2 |
|  | S9262-120 | 3/8" PLAIN WASHER | 4 |
|  | E106A-16 | 3/8" LOCKWASHER | 2 |
| 2 | L17287 | SIDE RAIL | 1 |
|  | T8833-86 | 3/8-16 X 1.25" HHCS | 2 |
|  | CF000067 | 3/8-16 HEX NUT | 2 |
|  | S9262-120 | 3/8" PLAIN WASHER | 4 |
|  | E106A-16 | 3/8" LOCKWASHER | 2 |
| 3 | L17288 | FRONT CROSSMEMBER | 1 |
|  | S24739-43 | 5/16-18 X .75" HHCS | 4 |
|  | S9262-121 | 5/16" PLAIN WASHER | 4 |
|  | CF000029 | 5/16-18 HEX NUT | 4 |
|  | E106A-14 | 5/16" LOCKWASHER | 4 |
| 4 | L17289 | REAR CROSSMEMBER | 1 |
|  | S24739-43 | 5/16-18 X . 75 " HHCS | 4 |
|  | S9262-121 | 5/16" PLAIN WASHER | 4 |
|  | CF000029 | 5/16-18 HEX NUT | 4 |
|  | E106A-14 | 5/16" LOCKWASHER | 4 |
| 5 | M26317 | AXLE SHAFT | 2 |
| 6 | S32770 | PNEUMATIC WHEEL | 4 |
|  | S32843 | E-CLIP | 4 |
|  | S9262-24 | 1.00" PLAIN WASHER | 4 |
| 7 | G9190 | HANDLE ASSEMBLY | 1 |
|  | S24739-43 | 5/16-18 X .75" HHCS | 4 |
|  | S9262-121 | 5/16" PLAIN WASHER | 4 |
|  | CF000029 | 5/16-18 HEX NUT | 4 |
|  | E106A-14 | 5/16" LOCKWASHER | 4 |
| 8 | S33350 | LIMITER BRACKET | 2 |
|  | T8833-86 | 3/8-16 X 1.25" HHCS | 4 |
|  | CF000067 | 3/8-16 HEX NUT | 4 |
|  | S9262-120 | 3/8" PLAIN WASHER | 8 |
|  | E106A-16 | 3/8" LOCKWASHER | 4 |

## Step 1: Limiter Brackets

Install the two limiter brackets to the front crossmember as shown. Using a $9 / 16$ " wrench and socket, attach with (4) $3 / 8$ "-16 x 1.25 " hex head cap screw, (4) $3 / 8-16$ hex head nuts, (8) $3 / 8^{\prime \prime}$ plain washers, (4) $3 / 8$ " lock washers. Torque the $3 / 8-16$ bolts to 15 ft lb .

Figure A-1


## Step 2: Front Crossmember

Using a $1 / 2$ " wrench and socket, install the front crossmember (L17288) to the two side rails (L17286 \& L17287). Use (4) 5/16-18 x 1.00 hex head cap screw, (4) $5 / 16-18$ hex nuts, (4) $5 / 16$ " plain washers, and (4) $5 / 16$ " lock washers. Leave bolted connections finger tight.

Figure A-2


## Step 3: Rear Crossmember

a. Using a $1 / 2$ " wrench and socket, install the rear crossmember (L17289) to the two side rails (L17286 \& L17287). Use (4) 5/16-18 x 1.00 hex head cap screw, (4) 5/16-18 hex nuts, (4) 5/16" plain washers, and (4) $5 / 16^{\prime \prime}$ lock washers. Tighten all bolts on the front and rear crossmembers now. Torque all $5 / 16$ " hardware to $8 \mathrm{ft}-\mathrm{lbs}$.


## Step 4: Axles and Wheels

a. Slide each axle shaft (M26317) through the side rail holes.
b. Push a wheel onto each end of the axle shaft with the longer hub oriented toward the side rail and the Air Valve hub side facing out.
c. Place a 1" washer on the axle and then attach an E-Clip to each end of the axle shaft to hold the wheels in place.
d. Grease each wheel hub with grease gun.

Figure A-4


## Step 5: Bolting Machine to Undercarriage

a. Place the machine on the undercarriage with a crane or hoist, aligning the (4) holes on the bottom of the machine with the (4) holes on the cart. The side doors will need to be removed to see the front (2) holes on the machine.
b. Using a $9 / 16$ " wrench and socket, assemble the undercarriage to the machine using the (2) holes on each side rail. Use (4) 3/8-16 x 1.25 " hex head cap screw, (4) 3/8-16 hex nuts, (8) $3 / 8$ " plain washers, and (4) $3 / 8$ " lock washers. Torque $3 / 8-16$ bolts to $15 \mathrm{ft}-\mathrm{lb}$.

Figure A-5


Figure A-6


Figure A-7

## Step 6: Installing the Handle

a. Remove (2) $1 / 4-20 \times .50$ " Pan Head screws using a T30 bit from the front left and front right sides of the welder. (Figure A-7)
b. Using a $1 / 2^{\prime \prime}$ wrench and socket, install the handle assembly (G9190) to the two side rails (L17286 \& L17287). Use (4) 5/16-18 x 1.00" hex head cap screw, (4) 5/16-18 Hex nuts, (4) $5 / 16$ " plain washers, and (4) $5 / 16$ " Lock washers inserted into the bottom two holes. Leave loose until after step c.
c. Insert and tighten the (2) $1 / 4-20 \times .50$ " pan head screws (from Step 6a) using a T30 bit through the remaining $1 / 4$ " hole on each side of the undercarriage handle mount. Torque $1 / 4$-20 panhead screw to 50 in-lbs and 5/1618 bolts to $8 \mathrm{ft}-\mathrm{lbs}$.


Figure A-8


